



## SAR EVALUATION REPORT

### Applicant Name:

LG Electronics MobileComm U.S.A., Inc.  
1000 Sylvan Avenue  
Englewood Cliffs, NJ 07632  
United States

### Date of Testing:

07/24/17 - 08/22/17

### Test Site/Location:

PCTEST Lab, Columbia, MD, USA

### Document Serial No.:

1M1707240228-07-R1.ZNF

### FCC ID:

**ZNFLK460**

### APPLICANT:

**LG ELECTRONICS MOBILECOMM U.S.A., INC.**

### DUT Type:

Portable Tablet

### Application Type:

Certification

### FCC Rule Part(s):

CFR §2.1093

### Model:

LG-LK460

### Additional Model(s):

LGLK460, LK460

| Equipment Class                            | Band & Mode           | Tx Frequency          | SAR            |
|--------------------------------------------|-----------------------|-----------------------|----------------|
|                                            |                       |                       | 1 gm Body W/kg |
| PCB                                        | CDMA/EVDO BC10 (§90S) | 817.90 - 823.10 MHz   | 0.43           |
| PCB                                        | CDMA/EVDO BC0 (§22H)  | 824.70 - 848.31 MHz   | 0.43           |
| PCB                                        | PCS CDMA/EVDO         | 1851.25 - 1908.75 MHz | 0.70           |
| PCB                                        | LTE Band 12           | 699.7 - 715.3 MHz     | 0.30           |
| PCB                                        | LTE Band 26 (Cell)    | 814.7 - 848.3 MHz     | 0.39           |
| PCB                                        | LTE Band 5 (Cell)     | 824.7 - 848.3 MHz     | N/A            |
| PCB                                        | LTE Band 4 (AWS)      | 1710.7 - 1754.3 MHz   | 0.70           |
| PCB                                        | LTE Band 25 (PCS)     | 1850.7 - 1914.3 MHz   | 0.59           |
| PCB                                        | LTE Band 2 (PCS)      | 1850.7 - 1909.3 MHz   | N/A            |
| PCB                                        | LTE Band 41           | 2498.5 - 2687.5 MHz   | 0.48           |
| DTS                                        | 2.4 GHz WLAN          | 2412 - 2462 MHz       | 0.44           |
| DSS/DTS                                    | Bluetooth             | 2402 - 2480 MHz       | 0.34           |
| Simultaneous SAR per KDB 690783 D01v01r03: |                       |                       | 1.14           |

Note: This revised Test Report (S/N: 1M1707240228-07-R1.ZNF) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE C95.1-1992 and has been tested in accordance with the measurement procedures specified in Section 1.8 of this report; for North American frequency bands only.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them. Test results reported herein relate only to the item(s) tested.

  
Randy Ortanez  
President



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|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 1 of 64                                                                          |                                 |

# T A B L E   O F   C O N T E N T S

|                                                              |                                                  |    |
|--------------------------------------------------------------|--------------------------------------------------|----|
| 1                                                            | DEVICE UNDER TEST .....                          | 3  |
| 2                                                            | LTE INFORMATION .....                            | 9  |
| 3                                                            | INTRODUCTION .....                               | 10 |
| 4                                                            | DOSIMETRIC ASSESSMENT .....                      | 11 |
| 5                                                            | TEST CONFIGURATION POSITIONS.....                | 12 |
| 6                                                            | RF EXPOSURE LIMITS .....                         | 13 |
| 7                                                            | FCC MEASUREMENT PROCEDURES.....                  | 14 |
| 8                                                            | RF CONDUCTED POWERS.....                         | 19 |
| 9                                                            | SYSTEM VERIFICATION.....                         | 49 |
| 10                                                           | SAR DATA SUMMARY .....                           | 51 |
| 11                                                           | FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS..... | 57 |
| 12                                                           | SAR MEASUREMENT VARIABILITY .....                | 59 |
| 13                                                           | EQUIPMENT LIST.....                              | 60 |
| 14                                                           | MEASUREMENT UNCERTAINTIES.....                   | 61 |
| 15                                                           | CONCLUSION.....                                  | 62 |
| 16                                                           | REFERENCES .....                                 | 63 |
| APPENDIX A: SAR TEST PLOTS                                   |                                                  |    |
| APPENDIX B: SAR DIPOLE VERIFICATION PLOTS                    |                                                  |    |
| APPENDIX C: PROBE AND DIPOLE CALIBRATION CERTIFICATES        |                                                  |    |
| APPENDIX D: SAR TISSUE SPECIFICATIONS                        |                                                  |    |
| APPENDIX E: SAR SYSTEM VALIDATION                            |                                                  |    |
| APPENDIX F: DUT ANTENNA DIAGRAM & SAR TEST SETUP PHOTOGRAPHS |                                                  |    |
| APPENDIX G: SENSOR TRIGGERING DATA SUMMARY                   |                                                  |    |

|                                                |                                                                                                                                   |                                     |                                                                                                 |                                        |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: ZNFLK460                               |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b>        |  <b>LG</b> | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1M1707240228-07-R1.ZNF | <b>Test Dates:</b><br>07/24/17 - 08/22/17                                                                                         | <b>DUT Type:</b><br>Portable Tablet | Page 2 of 64                                                                                    |                                        |

# 1 DEVICE UNDER TEST

## 1.1 Device Overview

| Band & Mode           | Operating Modes | Tx Frequency          |
|-----------------------|-----------------|-----------------------|
| CDMA/EVDO BC10 (§90S) | Data            | 817.90 - 823.10 MHz   |
| CDMA/EVDO BC0 (§22H)  | Data            | 824.70 - 848.31 MHz   |
| PCS CDMA/EVDO         | Data            | 1851.25 - 1908.75 MHz |
| LTE Band 12           | Data            | 699.7 - 715.3 MHz     |
| LTE Band 26 (Cell)    | Data            | 814.7 - 848.3 MHz     |
| LTE Band 5 (Cell)     | Data            | 824.7 - 848.3 MHz     |
| LTE Band 4 (AWS)      | Data            | 1710.7 - 1754.3 MHz   |
| LTE Band 25 (PCS)     | Data            | 1850.7 - 1914.3 MHz   |
| LTE Band 2 (PCS)      | Data            | 1850.7 - 1909.3 MHz   |
| LTE Band 41           | Data            | 2498.5 - 2687.5 MHz   |
| 2.4 GHz WLAN          | Data            | 2412 - 2462 MHz       |
| Bluetooth             | Data            | 2402 - 2480 MHz       |

## 1.2 Power Reduction for SAR

This device uses a power reduction mechanism for SAR compliance. The power reduction mechanism is activated when the device is used in close proximity to the user's body. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device. Detailed descriptions of the power reduction mechanism are included in the operational description.

## 1.3 Nominal and Maximum Output Power Specifications

This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D01v06.

### 1.3.1 Maximum Output Powers

| Mode / Band           |         | Modulated Average (dBm) |
|-----------------------|---------|-------------------------|
| CDMA/EVDO BC10 (§90S) | Maximum | 25.0                    |
|                       | Nominal | 24.5                    |
| CDMA/EVDO BC0 (§22H)  | Maximum | 25.0                    |
|                       | Nominal | 24.5                    |
| PCS CDMA/EVDO         | Maximum | 25.0                    |
|                       | Nominal | 24.5                    |

|                                         |                                                                                                                                                                                                        |                              |                                 |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  <b>SAR EVALUATION REPORT</b>  |                              | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                                                                                                                                     | DUT Type:<br>Portable Tablet | Page 3 of 64                    |

| Mode / Band        |         | Modulated Average (dBm) |
|--------------------|---------|-------------------------|
| LTE Band 12        | Maximum | 24.7                    |
|                    | Nominal | 24.2                    |
| LTE Band 26 (Cell) | Maximum | 24.7                    |
|                    | Nominal | 24.2                    |
| LTE Band 5 (Cell)  | Maximum | 24.2                    |
|                    | Nominal | 23.7                    |
| LTE Band 4 (AWS)   | Maximum | 24.2                    |
|                    | Nominal | 23.7                    |
| LTE Band 25 (PCS)  | Maximum | 24.2                    |
|                    | Nominal | 23.7                    |
| LTE Band 2 (PCS)   | Maximum | 24.2                    |
|                    | Nominal | 23.7                    |
| LTE Band 41        | Maximum | 24.2                    |
|                    | Nominal | 23.7                    |

| Mode / Band            |         | Modulated Average (dBm) |          |        |
|------------------------|---------|-------------------------|----------|--------|
|                        |         | Ch. 1                   | Ch. 2-10 | Ch. 11 |
| IEEE 802.11b (2.4 GHz) | Maximum | 18.0                    |          |        |
|                        | Nominal | 17.0                    |          |        |
| IEEE 802.11g (2.4 GHz) | Maximum | 16.0                    | 18.0     | 16.0   |
|                        | Nominal | 15.0                    | 17.0     | 15.0   |
| IEEE 802.11n (2.4 GHz) | Maximum | 16.0                    | 18.0     | 16.0   |
|                        | Nominal | 15.0                    | 17.0     | 15.0   |

| Mode / Band        |         | Modulated Average (dBm) |
|--------------------|---------|-------------------------|
| Bluetooth (1 Mbps) | Maximum | 11.5                    |
|                    | Nominal | 10.5                    |
| Bluetooth (2 Mbps) | Maximum | 9.0                     |
|                    | Nominal | 8.0                     |
| Bluetooth (3 Mbps) | Maximum | 9.0                     |
|                    | Nominal | 8.0                     |
| Bluetooth LE       | Maximum | 2.0                     |

|                                         |                                                                                                                                                                                                        |                              |                                 |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|
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| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                                                                                                                                     | DUT Type:<br>Portable Tablet | Page 4 of 64                    |

### 1.3.2 Reduced Output Powers

| Mode / Band            |         | Modulated Average (dBm) |
|------------------------|---------|-------------------------|
| CDMA/EVDO BC10 (\$90S) | Maximum | 19.0                    |
|                        | Nominal | 18.5                    |
| CDMA/EVDO BC0 (\$22H)  | Maximum | 19.0                    |
|                        | Nominal | 18.5                    |
| PCS CDMA/EVDO          | Maximum | 14.0                    |
|                        | Nominal | 13.5                    |

| Mode / Band        |         | Modulated Average (dBm) |
|--------------------|---------|-------------------------|
| LTE Band 12        | Maximum | 18.7                    |
|                    | Nominal | 18.2                    |
| LTE Band 26 (Cell) | Maximum | 18.7                    |
|                    | Nominal | 18.2                    |
| LTE Band 5 (Cell)  | Maximum | 18.2                    |
|                    | Nominal | 17.7                    |
| LTE Band 4 (AWS)   | Maximum | 13.2                    |
|                    | Nominal | 12.7                    |
| LTE Band 25 (PCS)  | Maximum | 13.2                    |
|                    | Nominal | 12.7                    |
| LTE Band 2 (PCS)   | Maximum | 13.2                    |
|                    | Nominal | 12.7                    |
| LTE Band 41        | Maximum | 14.2                    |
|                    | Nominal | 13.7                    |

| Mode / Band            |         | Modulated Average (dBm) |
|------------------------|---------|-------------------------|
| IEEE 802.11b (2.4 GHz) | Maximum | 8.0                     |
|                        | Nominal | 7.0                     |
| IEEE 802.11g (2.4 GHz) | Maximum | 8.0                     |
|                        | Nominal | 7.0                     |
| IEEE 802.11n (2.4 GHz) | Maximum | 8.0                     |
|                        | Nominal | 7.0                     |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
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## 1.4 DUT Antenna Locations

The overall dimensions of this device are > 200 mm. A diagram showing the location of the device antennas can be found in Appendix F. Exact antenna dimensions and separation distances are shown in the Technical Descriptions in the FCC filing.

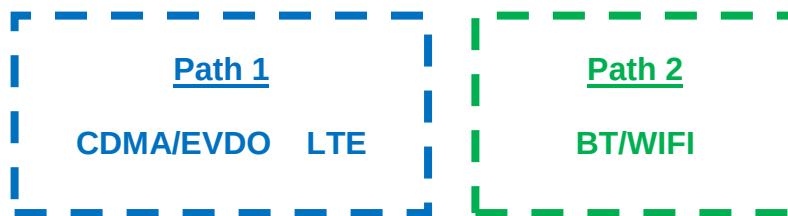
**Table 1-1**  
**Device Edges/Sides for SAR Testing**

| Mode               | Back | Top | Bottom | Right | Left |
|--------------------|------|-----|--------|-------|------|
| EVDO BC10 (§90S)   | Yes  | No  | Yes    | Yes   | No   |
| EVDO BC0 (§22H)    | Yes  | No  | Yes    | Yes   | No   |
| PCS EVDO           | Yes  | No  | Yes    | Yes   | No   |
| LTE Band 12        | Yes  | No  | Yes    | Yes   | No   |
| LTE Band 26 (Cell) | Yes  | No  | Yes    | Yes   | No   |
| LTE Band 4 (AWS)   | Yes  | No  | Yes    | Yes   | No   |
| LTE Band 25 (PCS)  | Yes  | No  | Yes    | Yes   | No   |
| LTE Band 41        | Yes  | No  | Yes    | Yes   | No   |
| 2.4 GHz WLAN       | Yes  | Yes | No     | No    | No   |
| Bluetooth          | Yes  | Yes | No     | No    | No   |

Note: Per FCC KDB 616217 D04v01r01, particular DUT edges were not required to be evaluated for SAR based on the SAR exclusion threshold in KDB 447498 D01v06.

## 1.5 Simultaneous Transmission Capabilities

According to FCC KDB Publication 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. Possible transmission paths for the DUT are shown in Figure 1-1 and are color-coded to indicate communication modes which share the same path. Modes which share the same transmission path cannot transmit simultaneously with one another.



**Figure 1-1**  
**Simultaneous Transmission Paths**

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D01v06 4.3.2 procedures.

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
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**Table 1-2**  
**Simultaneous Transmission Scenarios**

| No. | Capable Transmit Configuration     | Body |
|-----|------------------------------------|------|
| 1   | LTE + 2.4 GHz WI-FI                | Yes  |
| 2   | LTE + 2.4 GHz Bluetooth            | Yes  |
| 3   | CDMA/EVDO data + 2.4 GHz WI-FI     | Yes  |
| 4   | CDMA/EVDO data + 2.4 GHz Bluetooth | Yes  |

1. 2.4 GHz WLAN and 2.4 GHz Bluetooth share the same antenna path and cannot transmit simultaneously.
2. All licensed modes share the same antenna path and cannot transmit simultaneously.

## 1.6 Miscellaneous SAR Test Considerations

### (A) Licensed Transmitter(s)

LTE SAR for the higher modulations and lower bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth; and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r04.

This device supports both LTE Band 5 and LTE Band 26. Since the supported frequency span for LTE Band 5 falls completely within the supported frequency span for LTE Band 26, LTE Band 5 target power is lower than LTE Band 26 target power, and both LTE bands share the same transmission path, SAR was only assessed for LTE Band 26.

This device supports both LTE Band 2 and LTE Band 25. Since the supported frequency span for LTE Band 2 falls completely within the supported frequency span for LTE Band 25, both LTE bands have the same target power, and both LTE bands share the same transmission path, SAR was only assessed for LTE Band 25.

This device supports LTE Carrier Aggregation (CA) in the downlink only. All uplink communications are identical to Release 8 specifications. Per FCC KDB Publication 941225 D05A v01r02, SAR for LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.

## 1.7 Sound Pack Accessory

This DUT may be used with an optional sound pack attached to the device. Per FCC KDB Publication 648474 D03v01r04, SAR was measured with the sound pack for the worst-case test configurations for each wireless technology, frequency band, and operating mode. Since reported SAR did not exceed 1.2 W/kg, additional testing with the sound pack accessory was not required.

## 1.8 Guidance Applied

- IEEE 1528-2013
- FCC KDB Publication 941225 D01v03r01, D05v02r04, D05Av01r02 (3G/4G)
- FCC KDB Publication 248227 D01v02r02 (SAR Considerations for 802.11 Devices)
- FCC KDB Publication 447498 D01v06 (General SAR Guidance)
- FCC KDB Publication 865664 D01v01r04, D02v01r02 (SAR Measurements up to 6 GHz)
- FCC KDB Publication 616217 D04v01r02 (Tablet SAR Considerations)
- FCC KDB Publication 648474 D03v01r04 (Accessory Guidance)

|                                         |                                                                                     |                              |                                                                                       |                                 |
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## 1.9 Device Serial Numbers

Several samples with identical hardware were used to support SAR testing. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.

|                       | Maximum<br>Serial Number | Reduced<br>Serial Number |
|-----------------------|--------------------------|--------------------------|
| CDMA/EVDO BC10 (§90S) | 01979                    | 01961                    |
| CDMA/EVDO BC0 (§22H)  | 01979                    | 01961                    |
| PCS CDMA/EVDO         | 01979                    | 01961                    |
| LTE Band 12           | 01979                    | 01961                    |
| LTE Band 26 (Cell)    | 01979                    | 01972                    |
| LTE Band 4 (AWS)      | 01981                    | 01972                    |
| LTE Band 25 (PCS)     | 01979                    | 01961                    |
| LTE Band 41           | 01979                    | 01961                    |
| 2.4 GHz WLAN          | 01976                    | 01980                    |
| Bluetooth             | 01976                    | -                        |

|                                                |                                                                                                                                   |                                     |                                                                                                 |                                        |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------|
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## 2

## LTE INFORMATION

| LTE Information                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                |                |              |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|--------------|
| FCC ID                                                                                                            | ZNFLK460                                                                                                                                                                                                                                                                                                                                                                                                          |                |                |                |              |
| Form Factor                                                                                                       | Portable Tablet                                                                                                                                                                                                                                                                                                                                                                                                   |                |                |                |              |
| Frequency Range of each LTE transmission band                                                                     | LTE Band 12 (699.7 - 715.3 MHz)                                                                                                                                                                                                                                                                                                                                                                                   |                |                |                |              |
|                                                                                                                   | LTE Band 26 (Cell) (814.7 - 848.3 MHz)                                                                                                                                                                                                                                                                                                                                                                            |                |                |                |              |
|                                                                                                                   | LTE Band 5 (Cell) (824.7 - 848.3 MHz)                                                                                                                                                                                                                                                                                                                                                                             |                |                |                |              |
|                                                                                                                   | LTE Band 4 (AWS) (1710.7 - 1754.3 MHz)                                                                                                                                                                                                                                                                                                                                                                            |                |                |                |              |
|                                                                                                                   | LTE Band 25 (PCS) (1850.7 - 1914.3 MHz)                                                                                                                                                                                                                                                                                                                                                                           |                |                |                |              |
|                                                                                                                   | LTE Band 2 (PCS) (1850.7 - 1909.3 MHz)                                                                                                                                                                                                                                                                                                                                                                            |                |                |                |              |
|                                                                                                                   | LTE Band 41 (2498.5 - 2687.5 MHz)                                                                                                                                                                                                                                                                                                                                                                                 |                |                |                |              |
| Channel Bandwidths                                                                                                | LTE Band 12: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz                                                                                                                                                                                                                                                                                                                                                                        |                |                |                |              |
|                                                                                                                   | LTE Band 26 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz                                                                                                                                                                                                                                                                                                                                                         |                |                |                |              |
|                                                                                                                   | LTE Band 5 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz                                                                                                                                                                                                                                                                                                                                                                  |                |                |                |              |
|                                                                                                                   | LTE Band 4 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz                                                                                                                                                                                                                                                                                                                                                   |                |                |                |              |
|                                                                                                                   | LTE Band 25 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz                                                                                                                                                                                                                                                                                                                                                  |                |                |                |              |
|                                                                                                                   | LTE Band 2 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz                                                                                                                                                                                                                                                                                                                                                   |                |                |                |              |
|                                                                                                                   | LTE Band 41: 5 MHz, 10 MHz, 15 MHz, 20 MHz                                                                                                                                                                                                                                                                                                                                                                        |                |                |                |              |
| Channel Numbers and Frequencies (MHz)                                                                             | Low                                                                                                                                                                                                                                                                                                                                                                                                               | Low-Mid        | Mid            | Mid-High       | High         |
| LTE Band 12: 1.4 MHz                                                                                              | 699.7 (23017)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 707.5 (23095)  | 715.3 (23173)  |              |
| LTE Band 12: 3 MHz                                                                                                | 700.5 (23025)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 707.5 (23095)  | 714.5 (23165)  |              |
| LTE Band 12: 5 MHz                                                                                                | 701.5 (23035)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 707.5 (23095)  | 713.5 (23155)  |              |
| LTE Band 12: 10 MHz                                                                                               | 704 (23060)                                                                                                                                                                                                                                                                                                                                                                                                       |                | 707.5 (23095)  | 711 (23130)    |              |
| LTE Band 26 (Cell): 1.4 MHz                                                                                       | 814.7 (26697)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 831.5 (26865)  | 848.3 (27033)  |              |
| LTE Band 26 (Cell): 3 MHz                                                                                         | 815.5 (26705)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 831.5 (26865)  | 847.5 (27025)  |              |
| LTE Band 26 (Cell): 5 MHz                                                                                         | 816.5 (26715)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 831.5 (26865)  | 846.5 (27015)  |              |
| LTE Band 26 (Cell): 10 MHz                                                                                        | 819 (26740)                                                                                                                                                                                                                                                                                                                                                                                                       |                | 831.5 (26865)  | 844 (26990)    |              |
| LTE Band 26 (Cell): 15 MHz                                                                                        | 821.5 (26765)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 831.5 (26865)  | 841.5 (26965)  |              |
| LTE Band 5 (Cell): 1.4 MHz                                                                                        | 824.7 (20407)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 836.5 (20525)  | 848.3 (20643)  |              |
| LTE Band 5 (Cell): 3 MHz                                                                                          | 825.5 (20415)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 836.5 (20525)  | 847.5 (20635)  |              |
| LTE Band 5 (Cell): 5 MHz                                                                                          | 826.5 (20425)                                                                                                                                                                                                                                                                                                                                                                                                     |                | 836.5 (20525)  | 846.5 (20625)  |              |
| LTE Band 5 (Cell): 10 MHz                                                                                         | 829 (20450)                                                                                                                                                                                                                                                                                                                                                                                                       |                | 836.5 (20525)  | 844 (20600)    |              |
| LTE Band 4 (AWS): 1.4 MHz                                                                                         | 1710.7 (19957)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1732.5 (20175) | 1754.3 (20393) |              |
| LTE Band 4 (AWS): 3 MHz                                                                                           | 1711.5 (19965)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1732.5 (20175) | 1753.5 (20385) |              |
| LTE Band 4 (AWS): 5 MHz                                                                                           | 1712.5 (19975)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1732.5 (20175) | 1752.5 (20375) |              |
| LTE Band 4 (AWS): 10 MHz                                                                                          | 1715 (20000)                                                                                                                                                                                                                                                                                                                                                                                                      |                | 1732.5 (20175) | 1750 (20350)   |              |
| LTE Band 4 (AWS): 15 MHz                                                                                          | 1717.5 (20025)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1732.5 (20175) | 1747.5 (20325) |              |
| LTE Band 4 (AWS): 20 MHz                                                                                          | 1720 (20050)                                                                                                                                                                                                                                                                                                                                                                                                      |                | 1732.5 (20175) | 1745 (20300)   |              |
| LTE Band 25 (PCS): 1.4 MHz                                                                                        | 1850.7 (26047)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1882.5 (26365) | 1914.3 (26683) |              |
| LTE Band 25 (PCS): 3 MHz                                                                                          | 1851.5 (26055)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1882.5 (26365) | 1913.5 (26675) |              |
| LTE Band 25 (PCS): 5 MHz                                                                                          | 1852.5 (26065)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1882.5 (26365) | 1912.5 (26665) |              |
| LTE Band 25 (PCS): 10 MHz                                                                                         | 1855 (26090)                                                                                                                                                                                                                                                                                                                                                                                                      |                | 1882.5 (26365) | 1910 (26640)   |              |
| LTE Band 25 (PCS): 15 MHz                                                                                         | 1857.5 (26115)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1882.5 (26365) | 1907.5 (26615) |              |
| LTE Band 25 (PCS): 20 MHz                                                                                         | 1860 (26140)                                                                                                                                                                                                                                                                                                                                                                                                      |                | 1882.5 (26365) | 1905 (26590)   |              |
| LTE Band 2 (PCS): 1.4 MHz                                                                                         | 1850.7 (18607)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1880 (18900)   | 1909.3 (19193) |              |
| LTE Band 2 (PCS): 3 MHz                                                                                           | 1851.5 (18615)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1880 (18900)   | 1908.5 (19185) |              |
| LTE Band 2 (PCS): 5 MHz                                                                                           | 1852.5 (18625)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1880 (18900)   | 1907.5 (19175) |              |
| LTE Band 2 (PCS): 10 MHz                                                                                          | 1855 (18650)                                                                                                                                                                                                                                                                                                                                                                                                      |                | 1880 (18900)   | 1905 (19150)   |              |
| LTE Band 2 (PCS): 15 MHz                                                                                          | 1857.5 (18675)                                                                                                                                                                                                                                                                                                                                                                                                    |                | 1880 (18900)   | 1902.5 (19125) |              |
| LTE Band 2 (PCS): 20 MHz                                                                                          | 1860 (18700)                                                                                                                                                                                                                                                                                                                                                                                                      |                | 1880 (18900)   | 1900 (19100)   |              |
| LTE Band 41: 5 MHz                                                                                                | 2506 (39750)                                                                                                                                                                                                                                                                                                                                                                                                      | 2549.5 (40185) | 2593 (40620)   | 2636.5 (41055) | 2680 (41490) |
| LTE Band 41: 10 MHz                                                                                               | 2506 (39750)                                                                                                                                                                                                                                                                                                                                                                                                      | 2549.5 (40185) | 2593 (40620)   | 2636.5 (41055) | 2680 (41490) |
| LTE Band 41: 15 MHz                                                                                               | 2506 (39750)                                                                                                                                                                                                                                                                                                                                                                                                      | 2549.5 (40185) | 2593 (40620)   | 2636.5 (41055) | 2680 (41490) |
| LTE Band 41: 20 MHz                                                                                               | 2506 (39750)                                                                                                                                                                                                                                                                                                                                                                                                      | 2549.5 (40185) | 2593 (40620)   | 2636.5 (41055) | 2680 (41490) |
| UE Category                                                                                                       | 6                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                |                |              |
| Modulations Supported in UL                                                                                       | QPSK, 16QAM                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |              |
| LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3-6.2.5? (manufacturer attestation to be provided) | YES                                                                                                                                                                                                                                                                                                                                                                                                               |                |                |                |              |
| A-MPR (Additional MPR) disabled for SAR Testing?                                                                  | YES                                                                                                                                                                                                                                                                                                                                                                                                               |                |                |                |              |
| LTE Carrier Aggregation Possible Combinations                                                                     | The technical description includes all the possible carrier aggregation combinations                                                                                                                                                                                                                                                                                                                              |                |                |                |              |
| LTE Release 11 Additional Information                                                                             | This device does not support full CA features on 3GPP Release 11. It supports a maximum of 2 carriers in the downlink. All uplink communications are identical to the Release 8 Specifications. Uplink communications are done on the PCC. The following LTE Release 11 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, WIFI Offloading, MDH, eMBMS, Cross-Carrier Scheduling, Enhanced SC-FDMA. |                |                |                |              |

|                                         |                                                                                     |                              |                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  |                              | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 9 of 64          |                                                                                       |                                 |

## 3 INTRODUCTION

The FCC and Innovation, Science, and Economic Development Canada have adopted the guidelines for evaluating the environmental effects of radio frequency (RF) radiation in ET Docket 93-62 on Aug. 6, 1996 and Health Canada Safety Code 6 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices. [1]

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz [3] and Health Canada RF Exposure Guidelines Safety Code 6 [22]. The measurement procedure described in IEEE/ANSI C95.3-2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave [4] is used for guidance in measuring the Specific Absorption Rate (SAR) due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the International Committee for Non-Ionizing Radiation Protection (ICNIRP) in Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” Report No. Vol 74. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

### 3.1 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density ( $\rho$ ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Equation 3-1).

Equation 3-1  
SAR Mathematical Equation

$$SAR = \frac{d}{dt} \left( \frac{dU}{dm} \right) = \frac{d}{dt} \left( \frac{dU}{\rho dv} \right)$$

SAR is expressed in units of Watts per Kilogram (W/kg).

$$SAR = \frac{\sigma \cdot E^2}{\rho}$$

where:

- $\sigma$  = conductivity of the tissue-simulating material (S/m)
- $\rho$  = mass density of the tissue-simulating material (kg/m<sup>3</sup>)
- E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relation to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[6]

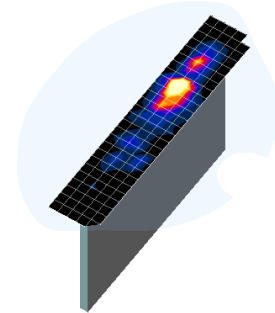
|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 10 of 64                   |

## 4 DOSIMETRIC ASSESSMENT

### 4.1 Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013:

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013.
2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.
3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):
  - a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 4-1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).
  - b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.
  - c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.



**Figure 4-1**  
**Sample SAR Area Scan**

**Table 4-1**  
**Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04\***

| Frequency | Maximum Area Scan Resolution (mm)<br>( $\Delta x_{\text{area}}, \Delta y_{\text{area}}$ ) | Maximum Zoom Scan Resolution (mm)<br>( $\Delta x_{\text{zoom}}, \Delta y_{\text{zoom}}$ ) | Maximum Zoom Scan Spatial Resolution (mm) |                             |                                     | Minimum Zoom Scan Volume (mm)<br>(x,y,z) |
|-----------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------|-------------------------------------|------------------------------------------|
|           |                                                                                           |                                                                                           | Uniform Grid                              | Graded Grid                 |                                     |                                          |
|           |                                                                                           |                                                                                           |                                           | $\Delta z_{\text{zoom}}(n)$ | $\Delta z_{\text{zoom}}(1)^*$       |                                          |
| ≤2 GHz    | ≤15                                                                                       | ≤8                                                                                        | ≤5                                        | ≤4                          | ≤1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥30                                      |
| 2-3 GHz   | ≤12                                                                                       | ≤5                                                                                        | ≤5                                        | ≤4                          | ≤1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥30                                      |
| 3-4 GHz   | ≤12                                                                                       | ≤5                                                                                        | ≤4                                        | ≤3                          | ≤1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥28                                      |
| 4-5 GHz   | ≤10                                                                                       | ≤4                                                                                        | ≤3                                        | ≤2.5                        | ≤1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥25                                      |
| 5-6 GHz   | ≤10                                                                                       | ≤4                                                                                        | ≤2                                        | ≤2                          | ≤1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥22                                      |

\*Also compliant to IEEE 1528-2013 Table 6

|                                         |                                                                                                                                                                                                        |                              |  |                                 |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--|---------------------------------|
| FCC ID: ZNFLK460                        |  <b>SAR EVALUATION REPORT</b>  |                              |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                                                                                                                                     | DUT Type:<br>Portable Tablet |  | Page 11 of 64                   |

## 5 TEST CONFIGURATION POSITIONS

### 5.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity  $\epsilon = 3$  and loss tangent  $\delta = 0.02$ .

### 5.2 SAR Testing for Tablet per KDB Publication 616217 D04v01r02

Per FCC KDB Publication 616217 D04v01r02, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR Exclusion Threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

### 5.3 Proximity Sensor Considerations

This device uses a power reduction mechanism to reduce output powers in certain use conditions when the device is used close the user's body.

When the device's antenna is within a certain distance of the user, the sensor activates and reduces the maximum allowed output power. However, the sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, additional evaluation is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a non-reduced output power level. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device at these additional test positions. Sensor triggering distance summary data is included in Appendix G.

The sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the sensor entirely covers the antennas.

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 12 of 64                                                                         |                                 |

## 6 RF EXPOSURE LIMITS

### 6.1 Uncontrolled Environment

UNCONTROLLED ENVIRONMENTS are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

### 6.2 Controlled Environment

CONTROLLED ENVIRONMENTS are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

**Table 6-1**  
**SAR Human Exposure Specified in ANSI/IEEE C95.1-1992 and Health Canada Safety Code 6**

| HUMAN EXPOSURE LIMITS                                               |                                                                           |                                                                   |
|---------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------|
|                                                                     | UNCONTROLLED ENVIRONMENT<br><i>General Population</i><br>(W/kg) or (mW/g) | CONTROLLED ENVIRONMENT<br><i>Occupational</i><br>(W/kg) or (mW/g) |
| <b>Peak Spatial Average SAR</b><br>Head                             | 1.6                                                                       | 8.0                                                               |
| <b>Whole Body SAR</b>                                               | 0.08                                                                      | 0.4                                                               |
| <b>Peak Spatial Average SAR</b><br>Hands, Feet, Ankle, Wrists, etc. | 4.0                                                                       | 20                                                                |

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 13 of 64                   |

## 7 FCC MEASUREMENT PROCEDURES

Power measurements for licensed transmitters are performed using a base station simulator under digital average power.

### 7.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as reported SAR. The highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

### 7.2 3G SAR Test Reduction Procedure

In FCC KDB Publication 941225 D01v03r01, certain transmission modes within a frequency band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is  $\leq 0.25$  dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is  $\leq 1.2$  W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.

### 7.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

The device is placed into a simulated call using a base station simulator in a RF shielded chamber. Establishing connections in this manner ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. Devices under test are evaluated prior to testing, with a fully charged battery and were configured to operate at maximum output power. In order to verify that the device is tested throughout the SAR test at maximum output power, the SAR measurement system measures a “point SAR” at an arbitrary reference point at the start and end of the 1 gram SAR evaluation, to assess for any power drifts during the evaluation. If the power drift deviates by more than 5%, the SAR test and drift measurements are repeated.

### 7.4 SAR Measurement Conditions for CDMA2000

The following procedures were performed according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

#### 7.4.1 Output Power Verification

See 3GPP2 C.S0011/TIA-98-E as recommended by FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.” Maximum output power is verified on the High, Middle and Low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. SO55 tests were measured with power control bits in the “All Up” condition.

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 14 of 64                   |



## 7.4.2 Body SAR Measurements for EVDO

Body SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0. The 3G SAR test reduction procedure is applied to Rev. A, Subtype 2 Physical layer configuration, with Rev. 0 as the primary mode; otherwise, SAR is measured for Rev. A using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0. The AT is tested with a Reverse Data Channel rate of 153.6 kbps in Subtype 0/1 Physical Layer configurations; and a Reverse Data Channel payload size of 4096 bits and Termination Target of 16 slots in Subtype 2 Physical Layer configurations.

For Ev-Do data devices that also support 1x RTT voice and/or data operations, the 3G SAR test reduction procedure is applied to 1x RTT RC3 and RC1 with Ev-Do Rev. 0 and Rev. A as the respective primary modes. Otherwise, the 'Body-Worn Accessory SAR' procedures in the '3GPP2 CDMA 2000 1x Handsets' section are applied.

## 7.5 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r04 publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

### 7.5.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

### 7.5.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

### 7.5.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

### 7.5.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r04:

- a. Per Section 5.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
  - i. The required channel and offset combination with the highest maximum output power is required for SAR.
  - ii. When the reported SAR is  $\leq 0.8$  W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
  - iii. When the reported SAR for a required test channel is  $> 1.45$  W/kg, SAR is required for all RB offset configurations for that channel.
- b. Per Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.

|                                                |                                                                                                                                   |                                     |                                                                                                 |                                        |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: ZNFLK460                               |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b>        |  <b>LG</b> | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1M1707240228-07-R1.ZNF | <b>Test Dates:</b><br>07/24/17 - 08/22/17                                                                                         | <b>DUT Type:</b><br>Portable Tablet | Page 15 of 64                                                                                   |                                        |

- c. Per Section 5.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.
- d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to ½ dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is <1.45 W/kg.

Per FCC KDB Publication 447498 D01v06, when the reported (scaled) for LTE Band 41 SAR measured at the highest output power channel in a given a test configuration was  $\leq 0.6$  W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.

### 7.5.5 TDD

LTE TDD testing is performed using the SAR test guidance provided in FCC KDB 941225 D05v02r04. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05v02r04. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211 Section 4.

### 7.5.6 Downlink Only Carrier Aggregation

Conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. For every supported combination of downlink only carrier aggregation, additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.

## 7.6 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

### 7.6.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 16 of 64                   |



A periodic duty factor is required for current generation SAR systems to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

## 7.6.2 2.4 GHz SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

- 1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is  $\leq 0.8$  W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
- 2) When the reported SAR is  $> 0.8$  W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is  $> 1.2$  W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is  $> 1.2$  W/kg. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test Configuration Procedures should be followed.

## 7.6.3 OFDM Transmission Mode and SAR Test Channel Selection

When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11g then 802.11n, is used for SAR measurement. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

## 7.6.4 Initial Test Configuration Procedure

For OFDM, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order IEEE 802.11 mode. The channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is  $\leq 0.8$  W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is  $\leq 1.2$  W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements (See Section 7.6.3).

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 17 of 64                   |

### 7.6.5 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is  $\leq 1.2$  W/kg, no additional SAR tests for the subsequent test configurations are required.

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 18 of 64                   |

## 8 RF CONDUCTED POWERS

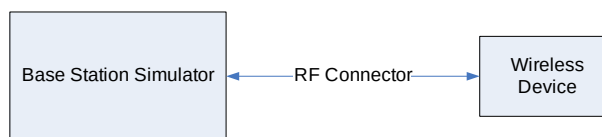
### 8.1 CDMA Conducted Powers

#### 8.1.1 Maximum Conducted Powers

| Band     | Channel | Rule Part | Frequency | TDSO SO32 [dBm] | TDSO SO32 [dBm] | 1x EvDO Rev. 0 [dBm] | 1x EvDO Rev. A [dBm] |
|----------|---------|-----------|-----------|-----------------|-----------------|----------------------|----------------------|
|          | F-RC    |           | MHz       | FCH+SCH         | FCH             | (RTAP)               | (RETAP)              |
| Cellular | 564     | 90S       | 820.1     | 24.83           | 24.84           | 24.65                | 24.68                |
| Cellular | 1013    | 22H       | 824.7     | 24.86           | 24.83           | 24.65                | 24.62                |
|          | 384     | 22H       | 836.52    | 24.84           | 24.83           | 24.64                | 24.62                |
|          | 777     | 22H       | 848.31    | 24.85           | 24.85           | 24.67                | 24.64                |
| PCS      | 25      | 24E       | 1851.25   | 24.84           | 24.84           | 24.62                | 24.66                |
|          | 600     | 24E       | 1880      | 24.86           | 24.83           | 24.73                | 24.63                |
|          | 1175    | 24E       | 1908.75   | 24.84           | 24.85           | 24.63                | 24.63                |

#### 8.1.2 Reduced Conducted Powers

| Band     | Channel | Rule Part | Frequency | TDSO SO32 [dBm] | TDSO SO32 [dBm] | 1x EvDO Rev. 0 [dBm] | 1x EvDO Rev. A [dBm] |
|----------|---------|-----------|-----------|-----------------|-----------------|----------------------|----------------------|
|          | F-RC    |           | MHz       | FCH+SCH         | FCH             | (RTAP)               | (RETAP)              |
| Cellular | 564     | 90S       | 820.1     | 18.84           | 18.86           | 18.62                | 18.65                |
| Cellular | 1013    | 22H       | 824.7     | 18.99           | 18.88           | 18.69                | 18.64                |
|          | 384     | 22H       | 836.52    | 18.95           | 18.94           | 18.70                | 18.66                |
|          | 777     | 22H       | 848.31    | 18.95           | 18.92           | 18.65                | 18.64                |
| PCS      | 25      | 24E       | 1851.25   | 13.89           | 13.94           | 13.66                | 13.69                |
|          | 600     | 24E       | 1880      | 13.91           | 13.92           | 13.70                | 13.64                |
|          | 1175    | 24E       | 1908.75   | 13.88           | 13.83           | 13.74                | 13.70                |



**Figure 8-1**  
**Power Measurement Setup**

Note: For FCC Rule Part 90S, Per FCC KDB Publication 447498 D01v06 4.1.g), only one channel is required since the device operates within the transmission range of 817.90 – 823.10 MHz.

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 19 of 64                   |

## 8.2 LTE Conducted Powers

### 8.2.1

### LTE Band 12

**Table 8-1**  
**LTE Band 12 Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 12<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 23095<br>(707.5 MHz)     |                              |          |
|                                 |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                            | 1       | 0         | 24.59                    | 0                            | 0        |
|                                 | 1       | 25        | 24.59                    |                              | 0        |
|                                 | 1       | 49        | 24.59                    |                              | 0        |
|                                 | 25      | 0         | 23.66                    | 0-1                          | 1        |
|                                 | 25      | 12        | 23.66                    |                              | 1        |
|                                 | 25      | 25        | 23.67                    |                              | 1        |
|                                 | 50      | 0         | 23.66                    |                              | 1        |
| 16QAM                           | 1       | 0         | 23.44                    | 0-1                          | 1        |
|                                 | 1       | 25        | 23.44                    |                              | 1        |
|                                 | 1       | 49        | 23.45                    |                              | 1        |
|                                 | 25      | 0         | 22.67                    | 0-2                          | 2        |
|                                 | 25      | 12        | 22.67                    |                              | 2        |
|                                 | 25      | 25        | 22.66                    |                              | 2        |
|                                 | 50      | 0         | 22.67                    |                              | 2        |

Note: LTE Band 12 at 10 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-2**  
**LTE Band 12 Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 12<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23035<br>(701.5 MHz)  | 23095<br>(707.5 MHz) | 23155<br>(713.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                           | 1       | 0         | 24.53                 | 24.40                | 24.47                | 0                            | 0        |
|                                | 1       | 12        | 24.53                 | 24.40                | 24.47                |                              | 0        |
|                                | 1       | 24        | 24.53                 | 24.40                | 24.47                |                              | 0        |
|                                | 12      | 0         | 23.54                 | 23.61                | 23.54                | 0-1                          | 1        |
|                                | 12      | 6         | 23.54                 | 23.60                | 23.54                |                              | 1        |
|                                | 12      | 13        | 23.54                 | 23.59                | 23.53                |                              | 1        |
|                                | 25      | 0         | 23.59                 | 23.58                | 23.55                |                              | 1        |
| 16QAM                          | 1       | 0         | 23.68                 | 23.69                | 23.69                | 0-1                          | 1        |
|                                | 1       | 12        | 23.68                 | 23.69                | 23.68                |                              | 1        |
|                                | 1       | 24        | 23.68                 | 23.69                | 23.69                |                              | 1        |
|                                | 12      | 0         | 22.49                 | 22.65                | 22.52                | 0-2                          | 2        |
|                                | 12      | 6         | 22.48                 | 22.64                | 22.51                |                              | 2        |
|                                | 12      | 13        | 22.48                 | 22.66                | 22.51                |                              | 2        |
|                                | 25      | 0         | 22.53                 | 22.61                | 22.56                |                              | 2        |

|                                         |                                                                                     |                              |                       |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  |                              | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
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**Table 8-3**  
**LTE Band 12 Maximum Conducted Powers - 3 MHz Bandwidth**

| LTE Band 12<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23025<br>(700.5 MHz)  | 23095<br>(707.5 MHz) | 23165<br>(714.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                           | 1       | 0         | 24.56                 | 24.54                | 24.51                | 0                            | 0        |
|                                | 1       | 7         | 24.56                 | 24.54                | 24.51                |                              | 0        |
|                                | 1       | 14        | 24.56                 | 24.53                | 24.51                |                              | 0        |
|                                | 8       | 0         | 23.69                 | 23.61                | 23.67                | 0-1                          | 1        |
|                                | 8       | 4         | 23.68                 | 23.61                | 23.67                |                              | 1        |
|                                | 8       | 7         | 23.68                 | 23.62                | 23.67                |                              | 1        |
|                                | 15      | 0         | 23.69                 | 23.62                | 23.68                |                              | 1        |
| 16QAM                          | 1       | 0         | 23.68                 | 23.45                | 23.69                | 0-1                          | 1        |
|                                | 1       | 7         | 23.68                 | 23.45                | 23.68                |                              | 1        |
|                                | 1       | 14        | 23.69                 | 23.45                | 23.69                |                              | 1        |
|                                | 8       | 0         | 22.68                 | 22.63                | 22.63                | 0-2                          | 2        |
|                                | 8       | 4         | 22.68                 | 22.63                | 22.63                |                              | 2        |
|                                | 8       | 7         | 22.69                 | 22.63                | 22.63                |                              | 2        |
|                                | 15      | 0         | 22.60                 | 22.65                | 22.61                |                              | 2        |

**Table 8-4**  
**LTE Band 12 Maximum Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 12<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|----------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                       | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                  |         |           | 23017<br>(699.7 MHz)  | 23095<br>(707.5 MHz) | 23173<br>(715.3 MHz) |                              |          |
|                                  |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                             | 1       | 0         | 24.61                 | 24.44                | 24.56                | 0                            | 0        |
|                                  | 1       | 2         | 24.61                 | 24.43                | 24.56                |                              | 0        |
|                                  | 1       | 5         | 24.61                 | 24.44                | 24.57                |                              | 0        |
|                                  | 3       | 0         | 24.65                 | 24.51                | 24.55                |                              | 0        |
|                                  | 3       | 2         | 24.65                 | 24.51                | 24.55                |                              | 0        |
|                                  | 3       | 3         | 24.65                 | 24.51                | 24.55                |                              | 0        |
|                                  | 6       | 0         | 23.61                 | 23.50                | 23.60                | 0-1                          | 1        |
| 16QAM                            | 1       | 0         | 23.63                 | 23.62                | 23.50                | 0-1                          | 1        |
|                                  | 1       | 2         | 23.63                 | 23.64                | 23.50                |                              | 1        |
|                                  | 1       | 5         | 23.64                 | 23.63                | 23.50                |                              | 1        |
|                                  | 3       | 0         | 23.69                 | 23.57                | 23.54                |                              | 1        |
|                                  | 3       | 2         | 23.69                 | 23.58                | 23.54                |                              | 1        |
|                                  | 3       | 3         | 23.68                 | 23.57                | 23.54                |                              | 1        |
|                                  | 6       | 0         | 22.64                 | 22.49                | 22.60                | 0-2                          | 2        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 21 of 64                                                                         |                                 |

**Table 8-5**  
**LTE Band 12 Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 12<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 23095<br>(707.5 MHz)     |                              |          |
|                                 |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                            | 1       | 0         | 18.56                    | 0                            | 0        |
|                                 | 1       | 25        | 18.21                    |                              | 0        |
|                                 | 1       | 49        | <b>18.58</b>             |                              | 0        |
|                                 | 25      | 0         | <b>18.68</b>             | 0-1                          | 0        |
|                                 | 25      | 12        | 18.33                    |                              | 0        |
|                                 | 25      | 25        | 18.45                    |                              | 0        |
|                                 | 50      | 0         | 18.29                    |                              | 0        |
| 16QAM                           | 1       | 0         | 18.54                    | 0-1                          | 0        |
|                                 | 1       | 25        | 18.31                    |                              | 0        |
|                                 | 1       | 49        | 18.60                    |                              | 0        |
|                                 | 25      | 0         | 18.68                    | 0-2                          | 0        |
|                                 | 25      | 12        | 18.40                    |                              | 0        |
|                                 | 25      | 25        | 18.34                    |                              | 0        |
|                                 | 50      | 0         | 18.28                    |                              | 0        |

Note: LTE Band 12 at 10 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-6**  
**LTE Band 12 Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 12<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23035<br>(701.5 MHz)  | 23095<br>(707.5 MHz) | 23155<br>(713.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                           | 1       | 0         | 18.47                 | 18.29                | 18.58                | 0                            | 0        |
|                                | 1       | 12        | 18.25                 | 18.42                | 18.62                |                              | 0        |
|                                | 1       | 24        | 18.45                 | 18.55                | 18.53                |                              | 0        |
|                                | 12      | 0         | 18.61                 | 18.29                | 18.45                | 0-1                          | 0        |
|                                | 12      | 6         | 18.69                 | 18.55                | 18.65                |                              | 0        |
|                                | 12      | 13        | 18.69                 | 18.27                | 18.29                |                              | 0        |
|                                | 25      | 0         | 18.65                 | 18.41                | 18.51                |                              | 0        |
| 16QAM                          | 1       | 0         | 18.28                 | 18.29                | 18.22                | 0-1                          | 0        |
|                                | 1       | 12        | 18.29                 | 18.39                | 18.60                |                              | 0        |
|                                | 1       | 24        | 18.40                 | 18.65                | 18.55                |                              | 0        |
|                                | 12      | 0         | 18.57                 | 18.28                | 18.21                | 0-2                          | 0        |
|                                | 12      | 6         | 18.26                 | 18.35                | 18.34                |                              | 0        |
|                                | 12      | 13        | 18.56                 | 18.58                | 18.50                |                              | 0        |
|                                | 25      | 0         | 18.38                 | 18.47                | 18.34                |                              | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 22 of 64                                                                         |                                 |

**Table 8-7**  
**LTE Band 12 Reduced Conducted Powers - 3 MHz Bandwidth**

| LTE Band 12<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23025<br>(700.5 MHz)  | 23095<br>(707.5 MHz) | 23165<br>(714.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                           | 1       | 0         | 18.41                 | 18.33                | 18.61                | 0                            | 0        |
|                                | 1       | 7         | 18.25                 | 18.68                | 18.55                |                              | 0        |
|                                | 1       | 14        | 18.57                 | 18.21                | 18.59                |                              | 0        |
|                                | 8       | 0         | 18.24                 | 18.57                | 18.52                | 0-1                          | 0        |
|                                | 8       | 4         | 18.42                 | 18.24                | 18.41                |                              | 0        |
|                                | 8       | 7         | 18.31                 | 18.48                | 18.52                |                              | 0        |
|                                | 15      | 0         | 18.70                 | 18.29                | 18.63                |                              | 0        |
| 16QAM                          | 1       | 0         | 18.61                 | 18.31                | 18.68                | 0-1                          | 0        |
|                                | 1       | 7         | 18.30                 | 18.52                | 18.24                |                              | 0        |
|                                | 1       | 14        | 18.26                 | 18.54                | 18.30                |                              | 0        |
|                                | 8       | 0         | 18.67                 | 18.48                | 18.56                | 0-2                          | 0        |
|                                | 8       | 4         | 18.27                 | 18.61                | 18.67                |                              | 0        |
|                                | 8       | 7         | 18.43                 | 18.53                | 18.26                |                              | 0        |
|                                | 15      | 0         | 18.36                 | 18.66                | 18.58                |                              | 0        |

**Table 8-8**  
**LTE Band 12 Reduced Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 12<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|----------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                       | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                  |         |           | 23017<br>(699.7 MHz)  | 23095<br>(707.5 MHz) | 23173<br>(715.3 MHz) |                              |          |
|                                  |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                             | 1       | 0         | 18.53                 | 18.63                | 18.39                | 0                            | 0        |
|                                  | 1       | 2         | 18.54                 | 18.27                | 18.28                |                              | 0        |
|                                  | 1       | 5         | 18.68                 | 18.43                | 18.67                |                              | 0        |
|                                  | 3       | 0         | 18.36                 | 18.63                | 18.21                |                              | 0        |
|                                  | 3       | 2         | 18.30                 | 18.53                | 18.63                |                              | 0        |
|                                  | 3       | 3         | 18.32                 | 18.48                | 18.39                |                              | 0        |
|                                  | 6       | 0         | 18.60                 | 18.43                | 18.34                | 0-1                          | 0        |
| 16QAM                            | 1       | 0         | 18.45                 | 18.45                | 18.66                | 0-1                          | 0        |
|                                  | 1       | 2         | 18.29                 | 18.56                | 18.26                |                              | 0        |
|                                  | 1       | 5         | 18.49                 | 18.51                | 18.26                |                              | 0        |
|                                  | 3       | 0         | 18.52                 | 18.24                | 18.51                |                              | 0        |
|                                  | 3       | 2         | 18.32                 | 18.49                | 18.45                |                              | 0        |
|                                  | 3       | 3         | 18.55                 | 18.34                | 18.34                |                              | 0        |
|                                  | 6       | 0         | 18.56                 | 18.22                | 18.65                | 0-2                          | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 23 of 64                                                                         |                                 |



## 8.2.2

## LTE Band 26 (Cell)

**Table 8-9**  
**LTE Band 26 (Cell) Maximum Conducted Powers - 15 MHz Bandwidth**

| LTE Band 26 (Cell)<br>15 MHz Bandwidth |         |           |                          |                              |          |
|----------------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26865<br>(831.5 MHz)     |                              |          |
|                                        |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                                   | 1       | 0         | 24.50                    | 0                            | 0        |
|                                        | 1       | 36        | 24.51                    |                              | 0        |
|                                        | 1       | 74        | 24.52                    |                              | 0        |
|                                        | 36      | 0         | 23.52                    | 0-1                          | 1        |
|                                        | 36      | 18        | 23.52                    |                              | 1        |
|                                        | 36      | 37        | 23.52                    |                              | 1        |
|                                        | 75      | 0         | 23.51                    |                              | 1        |
| 16QAM                                  | 1       | 0         | 23.67                    | 0-1                          | 1        |
|                                        | 1       | 36        | 23.67                    |                              | 1        |
|                                        | 1       | 74        | 23.67                    |                              | 1        |
|                                        | 36      | 0         | 22.56                    | 0-2                          | 2        |
|                                        | 36      | 18        | 22.55                    |                              | 2        |
|                                        | 36      | 37        | 22.55                    |                              | 2        |
|                                        | 75      | 0         | 22.53                    |                              | 2        |

Note: LTE Band 26 (Cell) at 15 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-10**  
**LTE Band 26 (Cell) Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 26 (Cell)<br>10 MHz Bandwidth |         |           |                      |                      |                      |                              |          |
|----------------------------------------|---------|-----------|----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel          | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26740<br>(819.0 MHz) | 26865<br>(831.5 MHz) | 26990<br>(844.0 MHz) |                              |          |
|                                        |         |           |                      |                      |                      |                              |          |
| QPSK                                   | 1       | 0         | 24.56                | 24.51                | 24.51                | 0                            | 0        |
|                                        | 1       | 25        | 24.56                | 24.51                | 24.50                |                              | 0        |
|                                        | 1       | 49        | 24.56                | 24.51                | 24.50                |                              | 0        |
|                                        | 25      | 0         | 23.49                | 23.49                | 23.50                | 0-1                          | 1        |
|                                        | 25      | 12        | 23.50                | 23.49                | 23.50                |                              | 1        |
|                                        | 25      | 25        | 23.51                | 23.49                | 23.50                |                              | 1        |
|                                        | 50      | 0         | 23.49                | 23.46                | 23.47                |                              | 1        |
| 16QAM                                  | 1       | 0         | 23.68                | 23.64                | 23.51                | 0-1                          | 1        |
|                                        | 1       | 25        | 23.68                | 23.64                | 23.50                |                              | 1        |
|                                        | 1       | 49        | 23.68                | 23.65                | 23.51                |                              | 1        |
|                                        | 25      | 0         | 22.58                | 22.56                | 22.67                | 0-2                          | 2        |
|                                        | 25      | 12        | 22.57                | 22.56                | 22.66                |                              | 2        |
|                                        | 25      | 25        | 22.57                | 22.56                | 22.66                |                              | 2        |
|                                        | 50      | 0         | 22.57                | 22.52                | 22.56                |                              | 2        |

|                                         |                                                                                     |                              |                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
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| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                       |                                                                                       | Page 24 of 64                   |

**Table 8-11**  
**LTE Band 26 (Cell) Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 26 (Cell)<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|---------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26715<br>(816.5 MHz)  | 26865<br>(831.5 MHz) | 27015<br>(846.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                  | 1       | 0         | 24.39                 | 24.44                | 24.37                | 0                            | 0        |
|                                       | 1       | 12        | 24.39                 | 24.45                | 24.36                |                              | 0        |
|                                       | 1       | 24        | 24.39                 | 24.44                | 24.36                |                              | 0        |
|                                       | 12      | 0         | 23.44                 | 23.45                | 23.52                | 0-1                          | 1        |
|                                       | 12      | 6         | 23.44                 | 23.46                | 23.53                |                              | 1        |
|                                       | 12      | 13        | 23.44                 | 23.45                | 23.52                |                              | 1        |
| 16QAM                                 | 25      | 0         | 23.41                 | 23.43                | 23.47                | 0-1                          | 1        |
|                                       | 1       | 0         | 23.20                 | 23.65                | 23.41                |                              | 1        |
|                                       | 1       | 12        | 23.20                 | 23.66                | 23.41                |                              | 1        |
|                                       | 1       | 24        | 23.20                 | 23.66                | 23.40                | 0-2                          | 1        |
|                                       | 12      | 0         | 22.43                 | 22.53                | 22.51                |                              | 2        |
|                                       | 12      | 6         | 22.44                 | 22.52                | 22.50                |                              | 2        |
|                                       | 12      | 13        | 22.43                 | 22.53                | 22.51                |                              | 2        |
| 25                                    | 0       | 22.49     | 22.45                 | 22.52                | 2                    |                              |          |

**Table 8-12**  
**LTE Band 26 (Cell) Maximum Conducted Powers - 3 MHz Bandwidth**

| LTE Band 26 (Cell)<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|---------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26705<br>(815.5 MHz)  | 26865<br>(831.5 MHz) | 27025<br>(847.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                  | 1       | 0         | 24.47                 | 24.47                | 24.53                | 0                            | 0        |
|                                       | 1       | 7         | 24.46                 | 24.47                | 24.53                |                              | 0        |
|                                       | 1       | 14        | 24.45                 | 24.47                | 24.52                |                              | 0        |
|                                       | 8       | 0         | 23.53                 | 23.53                | 23.58                | 0-1                          | 1        |
|                                       | 8       | 4         | 23.53                 | 23.53                | 23.58                |                              | 1        |
|                                       | 8       | 7         | 23.53                 | 23.53                | 23.57                |                              | 1        |
|                                       | 15      | 0         | 23.51                 | 23.52                | 23.56                |                              | 1        |
| 16QAM                                 | 1       | 0         | 23.69                 | 23.57                | 23.47                | 0-1                          | 1        |
|                                       | 1       | 7         | 23.69                 | 23.57                | 23.47                |                              | 1        |
|                                       | 1       | 14        | 23.69                 | 23.57                | 23.47                |                              | 1        |
|                                       | 8       | 0         | 22.67                 | 22.53                | 22.59                | 0-2                          | 2        |
|                                       | 8       | 4         | 22.67                 | 22.53                | 22.59                |                              | 2        |
|                                       | 8       | 7         | 22.66                 | 22.53                | 22.59                |                              | 2        |
|                                       | 15      | 0         | 22.57                 | 22.50                | 22.59                |                              | 2        |

|                                         |                                                                                     |                              |  |  |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  |  |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |  |  | Page 25 of 64                                                                         |                                 |

**Table 8-13**  
**LTE Band 26 (Cell) Maximum Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 26 (Cell)<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|-----------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                              | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                         |         |           | 26697<br>(814.7 MHz)  | 26865<br>(831.5 MHz) | 27033<br>(848.3 MHz) |                              |          |
|                                         |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                    | 1       | 0         | 24.43                 | 24.46                | 24.52                | 0                            | 0        |
|                                         | 1       | 2         | 24.41                 | 24.45                | 24.52                |                              | 0        |
|                                         | 1       | 5         | 24.42                 | 24.45                | 24.52                |                              | 0        |
|                                         | 3       | 0         | 24.41                 | 24.51                | 24.54                |                              | 0        |
|                                         | 3       | 2         | 24.41                 | 24.51                | 24.54                |                              | 0        |
|                                         | 3       | 3         | 24.42                 | 24.51                | 24.54                |                              | 0        |
|                                         | 6       | 0         | 23.45                 | 23.45                | 23.48                | 0-1                          | 1        |
| 16QAM                                   | 1       | 0         | 23.37                 | 23.52                | 23.45                | 0-1                          | 1        |
|                                         | 1       | 2         | 23.38                 | 23.52                | 23.45                |                              | 1        |
|                                         | 1       | 5         | 23.37                 | 23.52                | 23.46                |                              | 1        |
|                                         | 3       | 0         | 23.59                 | 23.43                | 23.55                |                              | 1        |
|                                         | 3       | 2         | 23.58                 | 23.44                | 23.55                |                              | 1        |
|                                         | 3       | 3         | 23.58                 | 23.43                | 23.55                |                              | 1        |
|                                         | 6       | 0         | 22.42                 | 22.51                | 22.38                | 0-2                          | 2        |

**Table 8-14**  
**LTE Band 26 (Cell) Reduced Conducted Powers - 15 MHz Bandwidth**

| LTE Band 26 (Cell)<br>15 MHz Bandwidth |         |           |                          |                              |          |
|----------------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26865<br>(831.5 MHz)     |                              |          |
|                                        |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                                   | 1       | 0         | 18.55                    | 0                            | 0        |
|                                        | 1       | 36        | 18.69                    |                              | 0        |
|                                        | 1       | 74        | 18.66                    |                              | 0        |
|                                        | 36      | 0         | 18.60                    | 0-1                          | 0        |
|                                        | 36      | 18        | 18.29                    |                              | 0        |
|                                        | 36      | 37        | 18.22                    |                              | 0        |
|                                        | 75      | 0         | 18.58                    |                              | 0        |
| 16QAM                                  | 1       | 0         | 18.65                    | 0-1                          | 0        |
|                                        | 1       | 36        | 18.22                    |                              | 0        |
|                                        | 1       | 74        | 18.45                    |                              | 0        |
|                                        | 36      | 0         | 18.65                    | 0-2                          | 0        |
|                                        | 36      | 18        | 18.23                    |                              | 0        |
|                                        | 36      | 37        | 18.65                    |                              | 0        |
|                                        | 75      | 0         | 18.45                    |                              | 0        |

Note: LTE Band 26 (Cell) at 15 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

|                                                |                                                                                     |                                     |                                                                                       |                                        |
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| <b>Document S/N:</b><br>1M1707240228-07-R1.ZNF | <b>Test Dates:</b><br>07/24/17 - 08/22/17                                           | <b>DUT Type:</b><br>Portable Tablet | Page 26 of 64                                                                         |                                        |

**Table 8-15**  
**LTE Band 26 (Cell) Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 26 (Cell)<br>10 MHz Bandwidth |         |           |                      |                      |                      |                              |          |
|----------------------------------------|---------|-----------|----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel          | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26740<br>(819.0 MHz) | 26865<br>(831.5 MHz) | 26990<br>(844.0 MHz) |                              |          |
|                                        |         |           |                      |                      |                      |                              |          |
| QPSK                                   | 1       | 0         | 18.52                | 18.33                | 18.43                | 0                            | 0        |
|                                        | 1       | 25        | 18.38                | 18.37                | 18.43                |                              | 0        |
|                                        | 1       | 49        | 18.52                | 18.68                | 18.62                |                              | 0        |
|                                        | 25      | 0         | 18.28                | 18.49                | 18.33                | 0-1                          | 0        |
|                                        | 25      | 12        | 18.48                | 18.39                | 18.47                |                              | 0        |
|                                        | 25      | 25        | 18.68                | 18.56                | 18.66                |                              | 0        |
|                                        | 50      | 0         | 18.50                | 18.45                | 18.38                |                              | 0        |
| 16QAM                                  | 1       | 0         | 18.62                | 18.63                | 18.36                | 0-1                          | 0        |
|                                        | 1       | 25        | 18.43                | 18.28                | 18.67                |                              | 0        |
|                                        | 1       | 49        | 18.50                | 18.26                | 18.68                |                              | 0        |
|                                        | 25      | 0         | 18.25                | 18.47                | 18.33                | 0-2                          | 0        |
|                                        | 25      | 12        | 18.51                | 18.34                | 18.67                |                              | 0        |
|                                        | 25      | 25        | 18.42                | 18.23                | 18.29                |                              | 0        |
|                                        | 50      | 0         | 18.55                | 18.53                | 18.22                |                              | 0        |

**Table 8-16**  
**LTE Band 26 (Cell) Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 26 (Cell)<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|---------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26715<br>(816.5 MHz)  | 26865<br>(831.5 MHz) | 27015<br>(846.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                  | 1       | 0         | 18.44                 | 18.49                | 18.63                | 0                            | 0        |
|                                       | 1       | 12        | 18.68                 | 18.51                | 18.47                |                              | 0        |
|                                       | 1       | 24        | 18.53                 | 18.47                | 18.40                |                              | 0        |
|                                       | 12      | 0         | 18.65                 | 18.40                | 18.48                | 0-1                          | 0        |
|                                       | 12      | 6         | 18.45                 | 18.50                | 18.62                |                              | 0        |
|                                       | 12      | 13        | 18.44                 | 18.51                | 18.51                |                              | 0        |
|                                       | 25      | 0         | 18.48                 | 18.38                | 18.43                |                              | 0        |
| 16QAM                                 | 1       | 0         | 18.51                 | 18.29                | 18.45                | 0-1                          | 0        |
|                                       | 1       | 12        | 18.56                 | 18.34                | 18.20                |                              | 0        |
|                                       | 1       | 24        | 18.62                 | 18.64                | 18.42                |                              | 0        |
|                                       | 12      | 0         | 18.44                 | 18.32                | 18.66                | 0-2                          | 0        |
|                                       | 12      | 6         | 18.53                 | 18.58                | 18.40                |                              | 0        |
|                                       | 12      | 13        | 18.37                 | 18.67                | 18.28                |                              | 0        |
|                                       | 25      | 0         | 18.50                 | 18.60                | 18.23                |                              | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 27 of 64                                                                         |                                 |

**Table 8-17**  
**LTE Band 26 (Cell) Reduced Conducted Powers - 3 MHz Bandwidth**

| LTE Band 26 (Cell)<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|---------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26705<br>(815.5 MHz)  | 26865<br>(831.5 MHz) | 27025<br>(847.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                  | 1       | 0         | 18.31                 | 18.26                | 18.70                | 0                            | 0        |
|                                       | 1       | 7         | 18.48                 | 18.54                | 18.58                |                              | 0        |
|                                       | 1       | 14        | 18.21                 | 18.25                | 18.44                |                              | 0        |
|                                       | 8       | 0         | 18.37                 | 18.24                | 18.53                | 0-1                          | 0        |
|                                       | 8       | 4         | 18.42                 | 18.41                | 18.45                |                              | 0        |
|                                       | 8       | 7         | 18.45                 | 18.47                | 18.49                |                              | 0        |
|                                       | 15      | 0         | 18.45                 | 18.41                | 18.57                |                              | 0        |
| 16QAM                                 | 1       | 0         | 18.33                 | 18.61                | 18.43                | 0-1                          | 0        |
|                                       | 1       | 7         | 18.55                 | 18.57                | 18.42                |                              | 0        |
|                                       | 1       | 14        | 18.45                 | 18.33                | 18.67                |                              | 0        |
|                                       | 8       | 0         | 18.69                 | 18.44                | 18.34                | 0-2                          | 0        |
|                                       | 8       | 4         | 18.23                 | 18.32                | 18.42                |                              | 0        |
|                                       | 8       | 7         | 18.62                 | 18.22                | 18.63                |                              | 0        |
|                                       | 15      | 0         | 18.23                 | 18.55                | 18.65                |                              | 0        |

**Table 8-18**  
**LTE Band 26 (Cell) Reduced Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 26 (Cell)<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|-----------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                              | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                         |         |           | 26697<br>(814.7 MHz)  | 26865<br>(831.5 MHz) | 27033<br>(848.3 MHz) |                              |          |
|                                         |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                    | 1       | 0         | 18.29                 | 18.44                | 18.26                | 0                            | 0        |
|                                         | 1       | 2         | 18.44                 | 18.51                | 18.21                |                              | 0        |
|                                         | 1       | 5         | 18.39                 | 18.70                | 18.47                |                              | 0        |
|                                         | 3       | 0         | 18.49                 | 18.59                | 18.22                |                              | 0        |
|                                         | 3       | 2         | 18.40                 | 18.54                | 18.57                |                              | 0        |
|                                         | 3       | 3         | 18.28                 | 18.28                | 18.66                |                              | 0        |
|                                         | 6       | 0         | 18.69                 | 18.66                | 18.43                | 0-1                          | 0        |
| 16QAM                                   | 1       | 0         | 18.41                 | 18.69                | 18.42                | 0-1                          | 0        |
|                                         | 1       | 2         | 18.53                 | 18.54                | 18.32                |                              | 0        |
|                                         | 1       | 5         | 18.32                 | 18.59                | 18.52                |                              | 0        |
|                                         | 3       | 0         | 18.52                 | 18.33                | 18.43                |                              | 0        |
|                                         | 3       | 2         | 18.47                 | 18.56                | 18.45                |                              | 0        |
|                                         | 3       | 3         | 18.37                 | 18.32                | 18.64                |                              | 0        |
|                                         | 6       | 0         | 18.29                 | 18.59                | 18.47                | 0-2                          | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 28 of 64                                                                         |                                 |

## 8.2.3

## LTE Band 4 (AWS)

**Table 8-19**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 20 MHz Bandwidth**

| LTE Band 4 (AWS)<br>20 MHz Bandwidth |         |           |                          |                              |          |
|--------------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20175<br>(1732.5 MHz)    |                              |          |
|                                      |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                                 | 1       | 0         | 24.18                    | 0                            | 0        |
|                                      | 1       | 50        | 24.17                    |                              | 0        |
|                                      | 1       | 99        | 24.17                    |                              | 0        |
|                                      | 50      | 0         | 23.10                    | 0-1                          | 1        |
|                                      | 50      | 25        | 23.11                    |                              | 1        |
|                                      | 50      | 50        | 23.11                    |                              | 1        |
|                                      | 100     | 0         | 23.04                    |                              | 1        |
| 16QAM                                | 1       | 0         | 23.16                    | 0-1                          | 1        |
|                                      | 1       | 50        | 23.16                    |                              | 1        |
|                                      | 1       | 99        | 23.12                    |                              | 1        |
|                                      | 50      | 0         | 22.09                    | 0-2                          | 2        |
|                                      | 50      | 25        | 22.09                    |                              | 2        |
|                                      | 50      | 50        | 22.09                    |                              | 2        |
|                                      | 100     | 0         | 22.01                    |                              | 2        |

Note: LTE Band 4 (AWS) at 20 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-20**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 15 MHz Bandwidth**

| LTE Band 4 (AWS)<br>15 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                          | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                     |         |           | 20025<br>(1717.5 MHz) | 20175<br>(1732.5 MHz) | 20325<br>(1747.5 MHz) |                              |          |
|                                     |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                | 1       | 0         | 23.85                 | 24.19                 | 24.14                 | 0                            | 0        |
|                                     | 1       | 36        | 23.85                 | 24.19                 | 24.14                 |                              | 0        |
|                                     | 1       | 74        | 23.85                 | 24.19                 | 24.14                 |                              | 0        |
|                                     | 36      | 0         | 23.00                 | 23.13                 | 23.11                 | 0-1                          | 1        |
|                                     | 36      | 18        | 23.00                 | 23.13                 | 23.11                 |                              | 1        |
|                                     | 36      | 37        | 23.00                 | 23.13                 | 23.11                 |                              | 1        |
|                                     | 75      | 0         | 23.06                 | 23.14                 | 23.02                 |                              | 1        |
| 16QAM                               | 1       | 0         | 22.88                 | 23.13                 | 23.09                 | 0-1                          | 1        |
|                                     | 1       | 36        | 22.88                 | 23.13                 | 23.08                 |                              | 1        |
|                                     | 1       | 74        | 22.88                 | 23.13                 | 23.09                 |                              | 1        |
|                                     | 36      | 0         | 21.87                 | 22.07                 | 21.95                 | 0-2                          | 2        |
|                                     | 36      | 18        | 21.87                 | 22.06                 | 21.94                 |                              | 2        |
|                                     | 36      | 37        | 21.87                 | 22.06                 | 21.95                 |                              | 2        |
|                                     | 75      | 0         | 21.95                 | 22.05                 | 21.90                 |                              | 2        |

|                                         |                                                                                     |                              |                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  |                              | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                       |                                                                                       | Page 29 of 64                   |

**Table 8-21**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 4 (AWS)<br>10 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                          | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                     |         |           | 20000<br>(1715.0 MHz) | 20175<br>(1732.5 MHz) | 20350<br>(1750.0 MHz) |                              |          |
|                                     |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                | 1       | 0         | 23.77                 | 24.13                 | 24.04                 | 0                            | 0        |
|                                     | 1       | 25        | 23.78                 | 24.13                 | 24.04                 |                              | 0        |
|                                     | 1       | 49        | 23.78                 | 24.13                 | 24.04                 |                              | 0        |
|                                     | 25      | 0         | 22.67                 | 22.99                 | 22.88                 | 0-1                          | 1        |
|                                     | 25      | 12        | 22.68                 | 22.99                 | 22.88                 |                              | 1        |
|                                     | 25      | 25        | 22.68                 | 22.99                 | 22.88                 |                              | 1        |
|                                     | 50      | 0         | 22.83                 | 22.97                 | 22.83                 |                              | 1        |
| 16QAM                               | 1       | 0         | 22.83                 | 22.91                 | 23.01                 | 0-1                          | 1        |
|                                     | 1       | 25        | 22.83                 | 22.91                 | 23.01                 |                              | 1        |
|                                     | 1       | 49        | 22.83                 | 22.92                 | 23.01                 |                              | 1        |
|                                     | 25      | 0         | 21.63                 | 21.97                 | 21.85                 | 0-2                          | 2        |
|                                     | 25      | 12        | 21.63                 | 21.96                 | 21.86                 |                              | 2        |
|                                     | 25      | 25        | 21.63                 | 21.97                 | 21.85                 |                              | 2        |
|                                     | 50      | 0         | 21.77                 | 21.95                 | 21.78                 |                              | 2        |

**Table 8-22**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 4 (AWS)<br>5 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                         | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                    |         |           | 19975<br>(1712.5 MHz) | 20175<br>(1732.5 MHz) | 20375<br>(1752.5 MHz) |                              |          |
|                                    |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                               | 1       | 0         | 23.76                 | 23.91                 | 23.91                 | 0                            | 0        |
|                                    | 1       | 12        | 23.75                 | 23.91                 | 23.91                 |                              | 0        |
|                                    | 1       | 24        | 23.76                 | 23.91                 | 23.91                 |                              | 0        |
|                                    | 12      | 0         | 22.69                 | 22.98                 | 22.94                 | 0-1                          | 1        |
|                                    | 12      | 6         | 22.69                 | 22.98                 | 22.93                 |                              | 1        |
|                                    | 12      | 13        | 22.69                 | 22.98                 | 22.94                 |                              | 1        |
|                                    | 25      | 0         | 22.68                 | 22.95                 | 22.87                 |                              | 1        |
| 16QAM                              | 1       | 0         | 22.73                 | 23.13                 | 23.03                 | 0-1                          | 1        |
|                                    | 1       | 12        | 22.74                 | 23.13                 | 23.02                 |                              | 1        |
|                                    | 1       | 24        | 22.74                 | 23.13                 | 23.03                 |                              | 1        |
|                                    | 12      | 0         | 21.57                 | 21.99                 | 21.83                 | 0-2                          | 2        |
|                                    | 12      | 6         | 21.56                 | 21.99                 | 21.82                 |                              | 2        |
|                                    | 12      | 13        | 21.57                 | 21.99                 | 21.81                 |                              | 2        |
|                                    | 25      | 0         | 21.58                 | 21.94                 | 21.84                 |                              | 2        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 30 of 64                                                                         |                                 |

**Table 8-23**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 3 MHz Bandwidth**

| LTE Band 4 (AWS)<br>3 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                         | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                    |         |           | 19965<br>(1711.5 MHz) | 20175<br>(1732.5 MHz) | 20385<br>(1753.5 MHz) |                              |          |
|                                    |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                               | 1       | 0         | 23.71                 | 24.06                 | 23.91                 | 0                            | 0        |
|                                    | 1       | 7         | 23.71                 | 24.06                 | 23.91                 |                              | 0        |
|                                    | 1       | 14        | 23.71                 | 24.07                 | 23.91                 |                              | 0        |
|                                    | 8       | 0         | 22.82                 | 23.07                 | 23.01                 | 0-1                          | 1        |
|                                    | 8       | 4         | 22.83                 | 23.07                 | 23.01                 |                              | 1        |
|                                    | 8       | 7         | 22.83                 | 23.07                 | 23.02                 |                              | 1        |
|                                    | 15      | 0         | 22.77                 | 23.05                 | 22.97                 |                              | 1        |
| 16QAM                              | 1       | 0         | 22.80                 | 22.85                 | 23.05                 | 0-1                          | 1        |
|                                    | 1       | 7         | 22.80                 | 22.87                 | 23.05                 |                              | 1        |
|                                    | 1       | 14        | 22.79                 | 22.87                 | 23.06                 |                              | 1        |
|                                    | 8       | 0         | 21.71                 | 22.04                 | 21.94                 | 0-2                          | 2        |
|                                    | 8       | 4         | 21.71                 | 22.04                 | 21.94                 |                              | 2        |
|                                    | 8       | 7         | 21.72                 | 22.04                 | 21.93                 |                              | 2        |
|                                    | 15      | 0         | 21.59                 | 22.02                 | 21.88                 |                              | 2        |

**Table 8-24**  
**LTE Band 4 (AWS) Maximum Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 4 (AWS)<br>1.4 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 19957<br>(1710.7 MHz) | 20175<br>(1732.5 MHz) | 20393<br>(1754.3 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 23.69                 | 23.97                 | 24.00                 | 0                            | 0        |
|                                      | 1       | 2         | 23.68                 | 23.98                 | 23.99                 |                              | 0        |
|                                      | 1       | 5         | 23.68                 | 23.98                 | 23.99                 |                              | 0        |
|                                      | 3       | 0         | 23.61                 | 23.95                 | 23.88                 |                              | 0        |
|                                      | 3       | 2         | 23.61                 | 23.94                 | 23.89                 |                              | 0        |
|                                      | 3       | 3         | 23.62                 | 23.95                 | 23.89                 |                              | 0        |
|                                      | 6       | 0         | 22.78                 | 22.99                 | 22.99                 | 0-1                          | 1        |
| 16QAM                                | 1       | 0         | 22.73                 | 22.86                 | 22.84                 | 0-1                          | 1        |
|                                      | 1       | 2         | 22.73                 | 22.85                 | 22.83                 |                              | 1        |
|                                      | 1       | 5         | 22.73                 | 22.85                 | 22.84                 |                              | 1        |
|                                      | 3       | 0         | 22.55                 | 22.89                 | 22.99                 |                              | 1        |
|                                      | 3       | 2         | 22.55                 | 22.89                 | 23.00                 |                              | 1        |
|                                      | 3       | 3         | 22.55                 | 22.90                 | 22.99                 |                              | 1        |
|                                      | 6       | 0         | 21.61                 | 21.97                 | 21.91                 | 0-2                          | 2        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 31 of 64                                                                         |                                 |



**Table 8-25**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 20 MHz Bandwidth**

| LTE Band 4 (AWS)<br>20 MHz Bandwidth |         |           |                          |                              |          |
|--------------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20175<br>(1732.5 MHz)    |                              |          |
|                                      |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                                 | 1       | 0         | 13.13                    | 0                            | 0        |
|                                      | 1       | 50        | 13.09                    |                              | 0        |
|                                      | 1       | 99        | 13.12                    |                              | 0        |
|                                      | 50      | 0         | 12.80                    | 0-1                          | 0        |
|                                      | 50      | 25        | 12.76                    |                              | 0        |
|                                      | 50      | 50        | 12.76                    |                              | 0        |
|                                      | 100     | 0         | 12.79                    |                              | 0        |
| 16QAM                                | 1       | 0         | 13.14                    | 0-1                          | 0        |
|                                      | 1       | 50        | 13.11                    |                              | 0        |
|                                      | 1       | 99        | 13.15                    |                              | 0        |
|                                      | 50      | 0         | 12.71                    | 0-2                          | 0        |
|                                      | 50      | 25        | 12.83                    |                              | 0        |
|                                      | 50      | 50        | 12.77                    |                              | 0        |
|                                      | 100     | 0         | 12.96                    |                              | 0        |

Note: LTE Band 4 (AWS) at 20 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-26**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 15 MHz Bandwidth**

| LTE Band 4 (AWS)<br>15 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                          | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                     |         |           | 20025<br>(1717.5 MHz) | 20175<br>(1732.5 MHz) | 20325<br>(1747.5 MHz) |                              |          |
|                                     |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                | 1       | 0         | 12.94                 | 12.87                 | 13.03                 | 0                            | 0        |
|                                     | 1       | 36        | 13.05                 | 12.79                 | 12.86                 |                              | 0        |
|                                     | 1       | 74        | 13.07                 | 13.02                 | 13.14                 |                              | 0        |
|                                     | 36      | 0         | 13.17                 | 12.85                 | 13.02                 | 0-1                          | 0        |
|                                     | 36      | 18        | 12.70                 | 12.77                 | 12.98                 |                              | 0        |
|                                     | 36      | 37        | 12.77                 | 13.05                 | 13.16                 |                              | 0        |
|                                     | 75      | 0         | 13.17                 | 13.01                 | 12.90                 |                              | 0        |
| 16QAM                               | 1       | 0         | 12.89                 | 12.84                 | 12.82                 | 0-1                          | 0        |
|                                     | 1       | 36        | 12.82                 | 13.09                 | 13.16                 |                              | 0        |
|                                     | 1       | 74        | 13.01                 | 13.02                 | 12.76                 |                              | 0        |
|                                     | 36      | 0         | 13.19                 | 12.96                 | 12.91                 | 0-2                          | 0        |
|                                     | 36      | 18        | 12.94                 | 12.81                 | 13.01                 |                              | 0        |
|                                     | 36      | 37        | 12.71                 | 12.76                 | 13.00                 |                              | 0        |
|                                     | 75      | 0         | 12.78                 | 12.97                 | 12.89                 |                              | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 32 of 64                                                                         |                                 |

**Table 8-27**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 4 (AWS)<br>10 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                          | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                     |         |           | 20000<br>(1715.0 MHz) | 20175<br>(1732.5 MHz) | 20350<br>(1750.0 MHz) |                              |          |
|                                     |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                | 1       | 0         | 12.96                 | 12.89                 | 12.80                 | 0                            | 0        |
|                                     | 1       | 25        | 13.06                 | 13.15                 | 12.85                 |                              | 0        |
|                                     | 1       | 49        | 12.83                 | 12.80                 | 12.88                 |                              | 0        |
|                                     | 25      | 0         | 13.05                 | 12.77                 | 12.78                 | 0-1                          | 0        |
|                                     | 25      | 12        | 12.86                 | 13.10                 | 12.94                 |                              | 0        |
|                                     | 25      | 25        | 13.20                 | 12.93                 | 12.99                 |                              | 0        |
|                                     | 50      | 0         | 13.19                 | 12.96                 | 12.77                 |                              | 0        |
| 16QAM                               | 1       | 0         | 12.81                 | 12.96                 | 12.77                 | 0-1                          | 0        |
|                                     | 1       | 25        | 12.93                 | 12.75                 | 12.86                 |                              | 0        |
|                                     | 1       | 49        | 13.05                 | 12.88                 | 13.10                 |                              | 0        |
|                                     | 25      | 0         | 13.17                 | 12.72                 | 12.80                 | 0-2                          | 0        |
|                                     | 25      | 12        | 12.95                 | 13.16                 | 12.71                 |                              | 0        |
|                                     | 25      | 25        | 12.97                 | 12.79                 | 13.11                 |                              | 0        |
|                                     | 50      | 0         | 12.86                 | 12.99                 | 13.09                 |                              | 0        |

**Table 8-28**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 4 (AWS)<br>5 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                         | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                    |         |           | 19975<br>(1712.5 MHz) | 20175<br>(1732.5 MHz) | 20375<br>(1752.5 MHz) |                              |          |
|                                    |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                               | 1       | 0         | 12.70                 | 12.96                 | 12.72                 | 0                            | 0        |
|                                    | 1       | 12        | 12.78                 | 12.97                 | 12.94                 |                              | 0        |
|                                    | 1       | 24        | 12.73                 | 12.82                 | 12.98                 |                              | 0        |
|                                    | 12      | 0         | 12.73                 | 12.76                 | 13.12                 | 0-1                          | 0        |
|                                    | 12      | 6         | 12.83                 | 13.00                 | 12.89                 |                              | 0        |
|                                    | 12      | 13        | 13.11                 | 13.15                 | 12.72                 |                              | 0        |
|                                    | 25      | 0         | 12.71                 | 13.16                 | 13.08                 |                              | 0        |
| 16QAM                              | 1       | 0         | 12.94                 | 12.87                 | 13.18                 | 0-1                          | 0        |
|                                    | 1       | 12        | 12.75                 | 12.85                 | 12.77                 |                              | 0        |
|                                    | 1       | 24        | 13.15                 | 12.85                 | 13.08                 |                              | 0        |
|                                    | 12      | 0         | 13.14                 | 13.11                 | 13.09                 | 0-2                          | 0        |
|                                    | 12      | 6         | 13.01                 | 13.17                 | 13.19                 |                              | 0        |
|                                    | 12      | 13        | 12.98                 | 12.92                 | 13.16                 |                              | 0        |
|                                    | 25      | 0         | 12.97                 | 12.94                 | 12.86                 |                              | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 33 of 64                                                                         |                                 |

**Table 8-29**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 3 MHz Bandwidth**

| LTE Band 4 (AWS)<br>3 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                         | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                    |         |           | 19965<br>(1711.5 MHz) | 20175<br>(1732.5 MHz) | 20385<br>(1753.5 MHz) |                              |          |
|                                    |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                               | 1       | 0         | 13.19                 | 12.79                 | 12.70                 | 0                            | 0        |
|                                    | 1       | 7         | 13.12                 | 12.75                 | 13.00                 |                              | 0        |
|                                    | 1       | 14        | 12.88                 | 12.81                 | 13.13                 |                              | 0        |
|                                    | 8       | 0         | 12.83                 | 12.71                 | 13.06                 | 0-1                          | 0        |
|                                    | 8       | 4         | 13.15                 | 12.88                 | 12.73                 |                              | 0        |
|                                    | 8       | 7         | 12.71                 | 12.88                 | 12.82                 |                              | 0        |
|                                    | 15      | 0         | 13.10                 | 13.02                 | 12.97                 |                              | 0        |
| 16QAM                              | 1       | 0         | 12.92                 | 13.00                 | 12.83                 | 0-1                          | 0        |
|                                    | 1       | 7         | 12.85                 | 12.80                 | 13.00                 |                              | 0        |
|                                    | 1       | 14        | 12.87                 | 12.95                 | 13.04                 |                              | 0        |
|                                    | 8       | 0         | 12.78                 | 13.03                 | 12.75                 | 0-2                          | 0        |
|                                    | 8       | 4         | 12.77                 | 13.07                 | 12.86                 |                              | 0        |
|                                    | 8       | 7         | 13.11                 | 12.81                 | 12.85                 |                              | 0        |
|                                    | 15      | 0         | 13.20                 | 12.80                 | 13.11                 |                              | 0        |

**Table 8-30**  
**LTE Band 4 (AWS) Reduced Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 4 (AWS)<br>1.4 MHzBandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 19957<br>(1710.7 MHz) | 20175<br>(1732.5 MHz) | 20393<br>(1754.3 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 12.90                 | 13.05                 | 12.84                 | 0                            | 0        |
|                                      | 1       | 2         | 13.06                 | 12.98                 | 13.09                 |                              | 0        |
|                                      | 1       | 5         | 13.02                 | 12.93                 | 12.85                 |                              | 0        |
|                                      | 3       | 0         | 13.15                 | 13.05                 | 12.82                 |                              | 0        |
|                                      | 3       | 2         | 12.82                 | 12.87                 | 12.90                 |                              | 0        |
|                                      | 3       | 3         | 12.85                 | 12.83                 | 12.99                 |                              | 0        |
|                                      | 6       | 0         | 13.01                 | 13.07                 | 12.82                 | 0-1                          | 0        |
| 16QAM                                | 1       | 0         | 13.11                 | 12.71                 | 12.72                 | 0-1                          | 0        |
|                                      | 1       | 2         | 12.98                 | 13.06                 | 12.95                 |                              | 0        |
|                                      | 1       | 5         | 12.82                 | 12.84                 | 12.90                 |                              | 0        |
|                                      | 3       | 0         | 13.06                 | 12.98                 | 13.16                 |                              | 0        |
|                                      | 3       | 2         | 13.14                 | 13.20                 | 12.71                 |                              | 0        |
|                                      | 3       | 3         | 13.17                 | 12.76                 | 13.03                 |                              | 0        |
|                                      | 6       | 0         | 13.19                 | 13.02                 | 12.71                 | 0-2                          | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 34 of 64                                                                         |                                 |

## 8.2.4

## LTE Band 25 (PCS)

**Table 8-31**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 20 MHz Bandwidth**

| LTE Band 25 (PCS)<br>20 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26140<br>(1860.0 MHz) | 26365<br>(1882.5 MHz) | 26590<br>(1905.0 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 24.02                 | 24.16                 | 24.13                 | 0                            | 0        |
|                                       | 1       | 50        | 24.01                 | 24.15                 | 24.14                 |                              | 0        |
|                                       | 1       | 99        | 24.01                 | 24.16                 | 24.14                 |                              | 0        |
|                                       | 50      | 0         | 23.08                 | 22.90                 | 22.91                 | 0-1                          | 1        |
|                                       | 50      | 25        | 23.00                 | 22.91                 | 22.91                 |                              | 1        |
|                                       | 50      | 50        | 23.00                 | 22.90                 | 22.91                 |                              | 1        |
|                                       | 100     | 0         | 23.05                 | 22.90                 | 22.97                 |                              | 1        |
| 16QAM                                 | 1       | 0         | 23.16                 | 23.02                 | 22.95                 | 0-1                          | 1        |
|                                       | 1       | 50        | 23.16                 | 23.01                 | 22.95                 |                              | 1        |
|                                       | 1       | 99        | 23.17                 | 23.02                 | 22.95                 |                              | 1        |
|                                       | 50      | 0         | 21.94                 | 21.82                 | 21.93                 | 0-2                          | 2        |
|                                       | 50      | 25        | 21.94                 | 21.82                 | 21.93                 |                              | 2        |
|                                       | 50      | 50        | 21.93                 | 21.82                 | 21.93                 |                              | 2        |
|                                       | 100     | 0         | 22.00                 | 21.84                 | 21.96                 |                              | 2        |

**Table 8-32**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 15 MHz Bandwidth**

| LTE Band 25 (PCS)<br>15 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26115<br>(1857.5 MHz) | 26365<br>(1882.5 MHz) | 26615<br>(1907.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 23.96                 | 24.04                 | 24.10                 | 0                            | 0        |
|                                       | 1       | 36        | 23.96                 | 24.05                 | 24.09                 |                              | 0        |
|                                       | 1       | 74        | 23.95                 | 24.04                 | 24.10                 |                              | 0        |
|                                       | 36      | 0         | 22.98                 | 22.99                 | 23.05                 | 0-1                          | 1        |
|                                       | 36      | 18        | 22.97                 | 22.96                 | 23.04                 |                              | 1        |
|                                       | 36      | 37        | 22.97                 | 22.97                 | 23.04                 |                              | 1        |
|                                       | 75      | 0         | 22.96                 | 22.96                 | 23.07                 |                              | 1        |
| 16QAM                                 | 1       | 0         | 23.19                 | 23.18                 | 23.16                 | 0-1                          | 1        |
|                                       | 1       | 36        | 23.19                 | 23.17                 | 23.15                 |                              | 1        |
|                                       | 1       | 74        | 23.19                 | 23.19                 | 23.15                 |                              | 1        |
|                                       | 36      | 0         | 21.92                 | 21.93                 | 22.01                 | 0-2                          | 2        |
|                                       | 36      | 18        | 21.92                 | 21.92                 | 21.99                 |                              | 2        |
|                                       | 36      | 37        | 21.92                 | 21.91                 | 22.00                 |                              | 2        |
|                                       | 75      | 0         | 21.90                 | 21.90                 | 22.04                 |                              | 2        |

|                                         |                                                                                     |                              |                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  |                              | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                       |                                                                                       | Page 35 of 64                   |

**Table 8-33**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 25 (PCS)<br>10 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26090<br>(1855.0 MHz) | 26365<br>(1882.5 MHz) | 26640<br>(1910.0 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 23.90                 | 23.95                 | 24.05                 | 0                            | 0        |
|                                       | 1       | 25        | 23.90                 | 23.95                 | 24.04                 |                              | 0        |
|                                       | 1       | 49        | 23.90                 | 23.94                 | 24.03                 |                              | 0        |
|                                       | 25      | 0         | 22.83                 | 22.94                 | 23.14                 | 0-1                          | 1        |
|                                       | 25      | 12        | 22.83                 | 22.95                 | 23.15                 |                              | 1        |
|                                       | 25      | 25        | 22.83                 | 22.95                 | 23.14                 |                              | 1        |
|                                       | 50      | 0         | 22.86                 | 22.92                 | 23.16                 |                              | 1        |
| 16QAM                                 | 1       | 0         | 23.14                 | 23.17                 | 22.92                 | 0-1                          | 1        |
|                                       | 1       | 25        | 23.14                 | 23.17                 | 22.92                 |                              | 1        |
|                                       | 1       | 49        | 23.14                 | 23.16                 | 22.93                 |                              | 1        |
|                                       | 25      | 0         | 21.82                 | 21.90                 | 22.14                 | 0-2                          | 2        |
|                                       | 25      | 12        | 21.83                 | 21.90                 | 22.14                 |                              | 2        |
|                                       | 25      | 25        | 21.83                 | 21.89                 | 22.14                 |                              | 2        |
|                                       | 50      | 0         | 21.79                 | 21.83                 | 22.16                 |                              | 2        |

**Table 8-34**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 25 (PCS)<br>5 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 26065<br>(1852.5 MHz) | 26365<br>(1882.5 MHz) | 26665<br>(1912.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 23.87                 | 23.93                 | 23.89                 | 0                            | 0        |
|                                      | 1       | 12        | 23.87                 | 23.93                 | 23.90                 |                              | 0        |
|                                      | 1       | 24        | 23.86                 | 23.93                 | 23.89                 |                              | 0        |
|                                      | 12      | 0         | 22.87                 | 23.03                 | 23.06                 | 0-1                          | 1        |
|                                      | 12      | 6         | 22.87                 | 23.03                 | 23.06                 |                              | 1        |
|                                      | 12      | 13        | 22.86                 | 23.02                 | 23.05                 |                              | 1        |
|                                      | 25      | 0         | 22.89                 | 22.98                 | 23.13                 |                              | 1        |
| 16QAM                                | 1       | 0         | 23.13                 | 23.10                 | 23.19                 | 0-1                          | 1        |
|                                      | 1       | 12        | 23.13                 | 23.10                 | 23.19                 |                              | 1        |
|                                      | 1       | 24        | 23.13                 | 23.10                 | 23.19                 |                              | 1        |
|                                      | 12      | 0         | 21.80                 | 21.91                 | 22.10                 | 0-2                          | 2        |
|                                      | 12      | 6         | 21.80                 | 21.91                 | 22.10                 |                              | 2        |
|                                      | 12      | 13        | 21.80                 | 21.91                 | 22.10                 |                              | 2        |
|                                      | 25      | 0         | 21.86                 | 21.86                 | 22.15                 |                              | 2        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 36 of 64                                                                         |                                 |

**Table 8-35**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 3 MHz Bandwidth**

| LTE Band 25 (PCS)<br>3 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 26055<br>(1851.5 MHz) | 26365<br>(1882.5 MHz) | 26675<br>(1913.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 23.88                 | 23.96                 | 24.03                 | 0                            | 0        |
|                                      | 1       | 7         | 23.88                 | 23.96                 | 24.05                 |                              | 0        |
|                                      | 1       | 14        | 23.88                 | 23.95                 | 24.05                 |                              | 0        |
|                                      | 8       | 0         | 22.98                 | 23.09                 | 23.10                 | 0-1                          | 1        |
|                                      | 8       | 4         | 22.98                 | 23.09                 | 23.10                 |                              | 1        |
|                                      | 8       | 7         | 22.98                 | 23.10                 | 23.10                 |                              | 1        |
|                                      | 15      | 0         | 23.01                 | 23.06                 | 23.15                 |                              | 1        |
| 16QAM                                | 1       | 0         | 23.16                 | 23.15                 | 22.97                 | 0-1                          | 1        |
|                                      | 1       | 7         | 23.16                 | 23.15                 | 22.97                 |                              | 1        |
|                                      | 1       | 14        | 23.16                 | 23.15                 | 22.96                 |                              | 1        |
|                                      | 8       | 0         | 21.94                 | 22.02                 | 22.11                 | 0-2                          | 2        |
|                                      | 8       | 4         | 21.95                 | 22.03                 | 22.12                 |                              | 2        |
|                                      | 8       | 7         | 21.94                 | 22.04                 | 22.12                 |                              | 2        |
|                                      | 15      | 0         | 21.94                 | 21.90                 | 22.17                 |                              | 2        |

**Table 8-36**  
**LTE Band 25 (PCS) Maximum Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 25 (PCS)<br>1.4 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|----------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26047<br>(1850.7 MHz) | 26365<br>(1882.5 MHz) | 26683<br>(1914.3 MHz) |                              |          |
|                                        |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                   | 1       | 0         | 23.95                 | 23.92                 | 23.97                 | 0                            | 0        |
|                                        | 1       | 2         | 23.95                 | 23.92                 | 23.95                 |                              | 0        |
|                                        | 1       | 5         | 23.95                 | 23.92                 | 23.96                 |                              | 0        |
|                                        | 3       | 0         | 23.93                 | 23.90                 | 24.02                 |                              | 0        |
|                                        | 3       | 2         | 23.92                 | 23.90                 | 24.02                 |                              | 0        |
|                                        | 3       | 3         | 23.93                 | 23.90                 | 24.01                 |                              | 0        |
|                                        | 6       | 0         | 22.92                 | 23.04                 | 23.03                 | 0-1                          | 1        |
| 16QAM                                  | 1       | 0         | 22.93                 | 23.08                 | 22.96                 | 0-1                          | 1        |
|                                        | 1       | 2         | 22.92                 | 23.08                 | 22.97                 |                              | 1        |
|                                        | 1       | 5         | 22.92                 | 23.08                 | 22.98                 |                              | 1        |
|                                        | 3       | 0         | 23.07                 | 22.92                 | 23.05                 |                              | 1        |
|                                        | 3       | 2         | 23.07                 | 22.92                 | 23.04                 |                              | 1        |
|                                        | 3       | 3         | 23.07                 | 22.92                 | 23.04                 |                              | 1        |
|                                        | 6       | 0         | 21.94                 | 21.94                 | 22.10                 | 0-2                          | 2        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 37 of 64                                                                         |                                 |

**Table 8-37**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 20 MHz Bandwidth**

| LTE Band 25 (PCS)<br>20 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26140<br>(1860.0 MHz) | 26365<br>(1882.5 MHz) | 26590<br>(1905.0 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 13.12                 | 12.99                 | 12.85                 | 0                            | 0        |
|                                       | 1       | 50        | 13.05                 | 13.19                 | 13.10                 |                              | 0        |
|                                       | 1       | 99        | 13.00                 | 13.13                 | 12.91                 |                              | 0        |
|                                       | 50      | 0         | 12.80                 | 12.93                 | 12.89                 | 0-1                          | 0        |
|                                       | 50      | 25        | 12.77                 | 12.87                 | 13.17                 |                              | 0        |
|                                       | 50      | 50        | 12.77                 | 12.88                 | 12.79                 |                              | 0        |
|                                       | 100     | 0         | 13.13                 | 13.14                 | 13.12                 |                              | 0        |
| 16QAM                                 | 1       | 0         | 12.98                 | 13.09                 | 13.04                 | 0-1                          | 0        |
|                                       | 1       | 50        | 12.74                 | 13.07                 | 12.75                 |                              | 0        |
|                                       | 1       | 99        | 12.96                 | 13.18                 | 13.14                 |                              | 0        |
|                                       | 50      | 0         | 12.92                 | 13.00                 | 12.81                 | 0-2                          | 0        |
|                                       | 50      | 25        | 12.84                 | 13.15                 | 13.13                 |                              | 0        |
|                                       | 50      | 50        | 12.83                 | 12.83                 | 13.18                 |                              | 0        |
|                                       | 100     | 0         | 12.86                 | 13.00                 | 12.87                 |                              | 0        |

**Table 8-38**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 15 MHz Bandwidth**

| LTE Band 25 (PCS)<br>15 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26115<br>(1857.5 MHz) | 26365<br>(1882.5 MHz) | 26615<br>(1907.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 12.96                 | 12.73                 | 13.02                 | 0                            | 0        |
|                                       | 1       | 36        | 13.08                 | 12.75                 | 13.11                 |                              | 0        |
|                                       | 1       | 74        | 13.06                 | 12.88                 | 13.00                 |                              | 0        |
|                                       | 36      | 0         | 12.93                 | 12.90                 | 13.09                 | 0-1                          | 0        |
|                                       | 36      | 18        | 13.06                 | 13.10                 | 12.74                 |                              | 0        |
|                                       | 36      | 37        | 12.86                 | 13.06                 | 12.89                 |                              | 0        |
|                                       | 75      | 0         | 12.92                 | 13.17                 | 12.74                 |                              | 0        |
| 16QAM                                 | 1       | 0         | 12.88                 | 12.78                 | 12.95                 | 0-1                          | 0        |
|                                       | 1       | 36        | 13.19                 | 13.00                 | 13.02                 |                              | 0        |
|                                       | 1       | 74        | 13.10                 | 12.94                 | 13.18                 |                              | 0        |
|                                       | 36      | 0         | 12.81                 | 12.93                 | 12.82                 | 0-2                          | 0        |
|                                       | 36      | 18        | 13.00                 | 13.16                 | 13.09                 |                              | 0        |
|                                       | 36      | 37        | 12.94                 | 13.18                 | 13.17                 |                              | 0        |
|                                       | 75      | 0         | 13.13                 | 13.19                 | 13.14                 |                              | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 38 of 64                                                                         |                                 |

**Table 8-39**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 25 (PCS)<br>10 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26090<br>(1855.0 MHz) | 26365<br>(1882.5 MHz) | 26640<br>(1910.0 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 12.79                 | 13.10                 | 13.13                 | 0                            | 0        |
|                                       | 1       | 25        | 13.09                 | 12.79                 | 13.00                 |                              | 0        |
|                                       | 1       | 49        | 12.96                 | 12.78                 | 12.75                 |                              | 0        |
|                                       | 25      | 0         | 12.99                 | 13.08                 | 12.89                 | 0-1                          | 0        |
|                                       | 25      | 12        | 13.01                 | 12.99                 | 12.70                 |                              | 0        |
|                                       | 25      | 25        | 12.79                 | 12.93                 | 12.93                 |                              | 0        |
|                                       | 50      | 0         | 12.98                 | 12.89                 | 13.02                 |                              | 0        |
| 16QAM                                 | 1       | 0         | 13.19                 | 12.88                 | 12.95                 | 0-1                          | 0        |
|                                       | 1       | 25        | 12.98                 | 12.82                 | 12.90                 |                              | 0        |
|                                       | 1       | 49        | 12.81                 | 13.06                 | 12.78                 |                              | 0        |
|                                       | 25      | 0         | 12.89                 | 12.80                 | 12.81                 | 0-2                          | 0        |
|                                       | 25      | 12        | 13.19                 | 12.85                 | 12.88                 |                              | 0        |
|                                       | 25      | 25        | 13.05                 | 12.88                 | 12.76                 |                              | 0        |
|                                       | 50      | 0         | 12.72                 | 12.88                 | 12.70                 |                              | 0        |

**Table 8-40**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 25 (PCS)<br>5 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 26065<br>(1852.5 MHz) | 26365<br>(1882.5 MHz) | 26665<br>(1912.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 13.19                 | 13.04                 | 13.16                 | 0                            | 0        |
|                                      | 1       | 12        | 12.71                 | 12.92                 | 12.90                 |                              | 0        |
|                                      | 1       | 24        | 12.76                 | 13.12                 | 12.99                 |                              | 0        |
|                                      | 12      | 0         | 13.07                 | 12.87                 | 13.19                 | 0-1                          | 0        |
|                                      | 12      | 6         | 12.79                 | 12.94                 | 12.85                 |                              | 0        |
|                                      | 12      | 13        | 13.04                 | 13.14                 | 12.80                 |                              | 0        |
|                                      | 25      | 0         | 12.93                 | 12.73                 | 13.19                 |                              | 0        |
| 16QAM                                | 1       | 0         | 13.19                 | 13.13                 | 12.79                 | 0-1                          | 0        |
|                                      | 1       | 12        | 13.11                 | 13.19                 | 12.71                 |                              | 0        |
|                                      | 1       | 24        | 13.10                 | 12.72                 | 13.06                 |                              | 0        |
|                                      | 12      | 0         | 12.86                 | 12.80                 | 12.98                 | 0-2                          | 0        |
|                                      | 12      | 6         | 12.95                 | 12.85                 | 13.17                 |                              | 0        |
|                                      | 12      | 13        | 13.10                 | 12.81                 | 12.72                 |                              | 0        |
|                                      | 25      | 0         | 12.79                 | 12.71                 | 12.92                 |                              | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 39 of 64                                                                         |                                 |



**Table 8-41**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 3 MHz Bandwidth**

| LTE Band 25 (PCS)<br>3 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 26055<br>(1851.5 MHz) | 26365<br>(1882.5 MHz) | 26675<br>(1913.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 13.05                 | 13.07                 | 12.83                 | 0                            | 0        |
|                                      | 1       | 7         | 12.99                 | 13.11                 | 12.72                 |                              | 0        |
|                                      | 1       | 14        | 13.14                 | 13.08                 | 12.99                 |                              | 0        |
|                                      | 8       | 0         | 12.89                 | 12.75                 | 13.06                 | 0-1                          | 0        |
|                                      | 8       | 4         | 13.16                 | 12.70                 | 13.18                 |                              | 0        |
|                                      | 8       | 7         | 13.07                 | 12.90                 | 13.13                 |                              | 0        |
|                                      | 15      | 0         | 12.97                 | 12.88                 | 12.80                 |                              | 0        |
| 16QAM                                | 1       | 0         | 12.97                 | 13.07                 | 13.15                 | 0-1                          | 0        |
|                                      | 1       | 7         | 12.95                 | 12.90                 | 13.10                 |                              | 0        |
|                                      | 1       | 14        | 12.72                 | 12.99                 | 13.11                 |                              | 0        |
|                                      | 8       | 0         | 12.83                 | 12.87                 | 13.16                 | 0-2                          | 0        |
|                                      | 8       | 4         | 12.87                 | 12.88                 | 12.93                 |                              | 0        |
|                                      | 8       | 7         | 12.73                 | 13.02                 | 12.94                 |                              | 0        |
|                                      | 15      | 0         | 12.71                 | 13.00                 | 13.15                 |                              | 0        |

**Table 8-42**  
**LTE Band 25 (PCS) Reduced Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 25 (PCS)<br>1.4 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|----------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26047<br>(1850.7 MHz) | 26365<br>(1882.5 MHz) | 26683<br>(1914.3 MHz) |                              |          |
|                                        |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                   | 1       | 0         | 13.05                 | 13.03                 | 13.15                 | 0                            | 0        |
|                                        | 1       | 2         | 12.99                 | 13.03                 | 13.03                 |                              | 0        |
|                                        | 1       | 5         | 13.01                 | 12.71                 | 13.02                 |                              | 0        |
|                                        | 3       | 0         | 12.77                 | 12.94                 | 12.95                 |                              | 0        |
|                                        | 3       | 2         | 12.98                 | 12.88                 | 12.77                 |                              | 0        |
|                                        | 3       | 3         | 12.88                 | 12.86                 | 13.12                 |                              | 0        |
|                                        | 6       | 0         | 13.16                 | 13.15                 | 13.08                 | 0-1                          | 0        |
| 16QAM                                  | 1       | 0         | 12.89                 | 12.81                 | 12.80                 | 0-1                          | 0        |
|                                        | 1       | 2         | 13.00                 | 12.93                 | 12.94                 |                              | 0        |
|                                        | 1       | 5         | 13.15                 | 13.03                 | 12.82                 |                              | 0        |
|                                        | 3       | 0         | 12.80                 | 13.07                 | 12.98                 |                              | 0        |
|                                        | 3       | 2         | 12.96                 | 12.83                 | 12.85                 |                              | 0        |
|                                        | 3       | 3         | 13.05                 | 13.02                 | 12.84                 |                              | 0        |
|                                        | 6       | 0         | 13.02                 | 12.91                 | 12.78                 | 0-2                          | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 40 of 64                                                                         |                                 |

## 8.2.5

## LTE Band 41

**Table 8-43**  
**LTE Band 41 Maximum Conducted Powers - 20 MHz Bandwidth**

| LTE Band 41<br>20 MHzBandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 24.18                 | 24.09                 | 24.09                 | 24.05                 | 24.10                 | 0                            | 0        |
|                                | 1       | 50        | 24.16                 | 24.12                 | 24.11                 | 24.06                 | 24.09                 |                              | 0        |
|                                | 1       | 99        | 24.15                 | 24.12                 | 24.10                 | 24.17                 | 24.10                 |                              | 0        |
|                                | 50      | 0         | 22.94                 | 23.05                 | 23.04                 | 23.06                 | 22.90                 | 0-1                          | 1        |
|                                | 50      | 25        | 22.94                 | 23.08                 | 23.04                 | 23.01                 | 22.90                 |                              | 1        |
|                                | 50      | 50        | 23.09                 | 22.97                 | 23.04                 | 23.03                 | 22.90                 |                              | 1        |
|                                | 100     | 0         | 22.95                 | 22.98                 | 22.98                 | 22.98                 | 22.73                 |                              | 1        |
| 16QAM                          | 1       | 0         | 23.12                 | 22.98                 | 22.92                 | 22.95                 | 22.62                 | 0-1                          | 1        |
|                                | 1       | 50        | 23.12                 | 22.90                 | 22.92                 | 22.97                 | 22.62                 |                              | 1        |
|                                | 1       | 99        | 23.13                 | 22.94                 | 22.92                 | 22.84                 | 22.62                 |                              | 1        |
|                                | 50      | 0         | 21.91                 | 22.03                 | 22.03                 | 22.07                 | 21.93                 | 0-2                          | 2        |
|                                | 50      | 25        | 21.91                 | 22.03                 | 22.03                 | 22.04                 | 21.93                 |                              | 2        |
|                                | 50      | 50        | 21.91                 | 21.98                 | 22.03                 | 21.98                 | 21.93                 |                              | 2        |
|                                | 100     | 0         | 21.90                 | 22.01                 | 22.03                 | 21.99                 | 21.71                 |                              | 2        |

**Table 8-44**  
**LTE Band 41 Maximum Conducted Powers - 15 MHz Bandwidth**

| LTE Band 41<br>15 MHzBandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 24.08                 | 24.08                 | 24.05                 | 24.02                 | 24.04                 | 0                            | 0        |
|                                | 1       | 36        | 24.07                 | 23.95                 | 24.04                 | 23.98                 | 24.04                 |                              | 0        |
|                                | 1       | 74        | 24.07                 | 23.98                 | 24.05                 | 24.04                 | 24.05                 |                              | 0        |
|                                | 36      | 0         | 23.03                 | 23.03                 | 23.03                 | 22.99                 | 22.84                 | 0-1                          | 1        |
|                                | 36      | 18        | 23.03                 | 23.08                 | 23.03                 | 22.99                 | 22.84                 |                              | 1        |
|                                | 36      | 37        | 23.03                 | 23.06                 | 23.03                 | 23.00                 | 22.84                 |                              | 1        |
|                                | 75      | 0         | 23.03                 | 23.11                 | 23.03                 | 23.12                 | 22.74                 |                              | 1        |
| 16QAM                          | 1       | 0         | 23.19                 | 23.00                 | 23.00                 | 23.00                 | 22.89                 | 0-1                          | 1        |
|                                | 1       | 36        | 23.19                 | 23.06                 | 23.01                 | 23.04                 | 22.89                 |                              | 1        |
|                                | 1       | 74        | 23.18                 | 23.03                 | 23.00                 | 23.04                 | 22.89                 |                              | 1        |
|                                | 36      | 0         | 21.96                 | 22.05                 | 22.02                 | 22.06                 | 21.77                 | 0-2                          | 2        |
|                                | 36      | 18        | 21.95                 | 21.96                 | 22.01                 | 21.98                 | 21.78                 |                              | 2        |
|                                | 36      | 37        | 21.95                 | 21.99                 | 22.01                 | 22.07                 | 21.78                 |                              | 2        |
|                                | 75      | 0         | 21.97                 | 22.00                 | 22.00                 | 22.01                 | 21.69                 |                              | 2        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 41 of 64                   |

**Table 8-45**  
**LTE Band 41 Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 41<br>10 MHzBandwidth |         |           |                       |                       |                       |                       |                       |                              |          |   |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|---|
| Modulation                     | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |   |
|                                |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |   |
|                                |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |   |
| QPSK                           | 1       | 0         | 23.98                 | 24.02                 | 23.97                 | 23.96                 | 23.73                 | 0                            | 0        |   |
|                                | 1       | 25        | 23.97                 | 23.97                 | 23.97                 | 23.98                 | 23.73                 |                              | 0        |   |
|                                | 1       | 49        | 23.96                 | 24.01                 | 23.97                 | 23.96                 | 23.74                 |                              | 0        |   |
|                                | 25      | 0         | 22.90                 | 22.94                 | 22.95                 | 22.90                 | 22.63                 | 0-1                          | 1        |   |
|                                | 25      | 12        | 22.91                 | 22.97                 | 22.95                 | 22.92                 | 22.63                 |                              | 1        |   |
|                                | 25      | 25        | 22.90                 | 22.89                 | 22.95                 | 23.03                 | 22.63                 |                              | 1        |   |
| 16QAM                          | 50      | 0         | 22.91                 | 22.95                 | 22.95                 | 22.92                 | 22.55                 | 0-1                          | 1        |   |
|                                | 1       | 0         | 23.14                 | 22.95                 | 22.95                 | 22.90                 | 22.55                 |                              | 0-2      | 1 |
|                                | 1       | 25        | 23.14                 | 22.94                 | 22.95                 | 22.97                 | 22.54                 |                              |          | 1 |
|                                | 1       | 49        | 23.14                 | 22.96                 | 22.95                 | 22.98                 | 22.54                 | 0-2                          |          | 1 |
|                                | 25      | 0         | 21.89                 | 22.00                 | 21.98                 | 21.94                 | 21.61                 |                              | 2        |   |
|                                | 25      | 12        | 21.89                 | 22.02                 | 21.99                 | 21.94                 | 21.61                 |                              | 2        |   |
|                                | 25      | 25        | 21.89                 | 21.92                 | 21.99                 | 21.96                 | 21.62                 |                              | 2        |   |
|                                | 50      | 0         | 21.83                 | 21.90                 | 21.95                 | 21.93                 | 21.55                 |                              | 2        |   |

**Table 8-46**  
**LTE Band 41 Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 41<br>5 MHzBandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|-------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                    | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                               |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                               |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                          | 1       | 0         | 23.99                 | 24.01                 | 23.95                 | 23.90                 | 23.42                 | 0                            | 0        |
|                               | 1       | 12        | 24.00                 | 23.97                 | 23.95                 | 23.95                 | 23.42                 |                              | 0        |
|                               | 1       | 24        | 24.00                 | 23.91                 | 23.96                 | 23.94                 | 23.42                 |                              | 0        |
|                               | 12      | 0         | 22.95                 | 22.99                 | 22.91                 | 22.91                 | 22.42                 | 0-1                          | 1        |
|                               | 12      | 6         | 22.95                 | 22.93                 | 22.91                 | 22.98                 | 22.42                 |                              | 1        |
|                               | 12      | 13        | 22.95                 | 22.89                 | 22.91                 | 22.85                 | 22.42                 |                              | 1        |
| 16QAM                         | 25      | 0         | 22.93                 | 22.91                 | 22.94                 | 23.03                 | 22.49                 | 0-1                          | 1        |
|                               | 1       | 0         | 23.18                 | 22.96                 | 23.01                 | 23.03                 | 22.65                 |                              | 1        |
|                               | 1       | 12        | 23.19                 | 22.96                 | 23.02                 | 23.02                 | 22.65                 |                              | 1        |
|                               | 1       | 24        | 23.19                 | 23.00                 | 23.02                 | 23.01                 | 22.65                 | 0-2                          | 2        |
|                               | 12      | 0         | 21.86                 | 21.80                 | 21.88                 | 21.89                 | 21.47                 |                              | 2        |
|                               | 12      | 6         | 21.86                 | 21.94                 | 21.86                 | 21.79                 | 21.48                 |                              | 2        |
|                               | 12      | 13        | 21.86                 | 21.92                 | 21.87                 | 21.89                 | 21.49                 |                              | 2        |
|                               |         | 25        | 0                     | 21.87                 | 21.91                 | 21.93                 | 21.93                 | 21.52                        |          |

|                                         |                                                                                                                                   |                              |                                                                                                 |                                 |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b> |  <b>LG</b> | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                                                                | DUT Type:<br>Portable Tablet | Page 42 of 64                                                                                   |                                 |

**Table 8-47**  
**LTE Band 41 Reduced Conducted Powers - 20 MHz Bandwidth**

| LTE Band 41<br>20 MHzBandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 13.80                 | 13.75                 | 13.86                 | 14.05                 | 14.20                 | 0                            | 0        |
|                                | 1       | 50        | 13.96                 | 14.09                 | 13.88                 | 13.83                 | 13.75                 |                              | 0        |
|                                | 1       | 99        | 13.90                 | 13.76                 | 13.95                 | 13.73                 | 13.78                 |                              | 0        |
|                                | 50      | 0         | 13.74                 | 13.72                 | 13.99                 | 13.95                 | 14.06                 | 0-1                          | 0        |
|                                | 50      | 25        | 13.73                 | 14.02                 | 13.78                 | 13.88                 | 13.90                 |                              | 0        |
|                                | 50      | 50        | 14.00                 | 14.06                 | 14.18                 | 14.08                 | 14.04                 |                              | 0        |
|                                | 100     | 0         | 13.83                 | 14.10                 | 14.14                 | 13.81                 | 13.72                 |                              | 0        |
| 16QAM                          | 1       | 0         | 13.85                 | 14.14                 | 13.70                 | 14.16                 | 13.96                 | 0-1                          | 0        |
|                                | 1       | 50        | 13.93                 | 13.87                 | 13.90                 | 14.01                 | 13.93                 |                              | 0        |
|                                | 1       | 99        | 14.11                 | 14.14                 | 13.84                 | 13.76                 | 14.02                 |                              | 0        |
|                                | 50      | 0         | 13.82                 | 13.91                 | 14.01                 | 13.84                 | 14.03                 | 0-2                          | 0        |
|                                | 50      | 25        | 13.87                 | 13.72                 | 14.15                 | 13.94                 | 13.93                 |                              | 0        |
|                                | 50      | 50        | 13.79                 | 14.00                 | 14.15                 | 13.75                 | 14.13                 |                              | 0        |
|                                | 100     | 0         | 14.10                 | 14.10                 | 13.71                 | 14.13                 | 13.88                 |                              | 0        |

**Table 8-48**  
**LTE Band 41 Reduced Conducted Powers - 15 MHz Bandwidth**

| LTE Band 41<br>15 MHzBandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 13.76                 | 13.75                 | 13.97                 | 14.06                 | 14.16                 | 0                            | 0        |
|                                | 1       | 36        | 13.89                 | 13.86                 | 13.92                 | 13.78                 | 13.74                 |                              | 0        |
|                                | 1       | 74        | 14.15                 | 14.08                 | 13.91                 | 13.74                 | 14.09                 |                              | 0        |
|                                | 36      | 0         | 13.93                 | 14.12                 | 13.74                 | 14.06                 | 13.91                 | 0-1                          | 0        |
|                                | 36      | 18        | 13.71                 | 13.82                 | 13.93                 | 13.92                 | 13.91                 |                              | 0        |
|                                | 36      | 37        | 13.89                 | 14.12                 | 13.98                 | 14.05                 | 13.77                 |                              | 0        |
|                                | 75      | 0         | 13.74                 | 13.93                 | 13.97                 | 14.13                 | 14.00                 |                              | 0        |
| 16QAM                          | 1       | 0         | 14.06                 | 13.79                 | 14.03                 | 13.72                 | 13.71                 | 0-1                          | 0        |
|                                | 1       | 36        | 13.77                 | 13.98                 | 13.90                 | 14.19                 | 13.84                 |                              | 0        |
|                                | 1       | 74        | 13.71                 | 14.06                 | 14.19                 | 13.83                 | 14.10                 |                              | 0        |
|                                | 36      | 0         | 13.77                 | 13.90                 | 13.98                 | 14.01                 | 13.92                 | 0-2                          | 0        |
|                                | 36      | 18        | 13.72                 | 14.07                 | 13.76                 | 13.98                 | 13.72                 |                              | 0        |
|                                | 36      | 37        | 13.71                 | 14.06                 | 13.71                 | 13.92                 | 14.05                 |                              | 0        |
|                                | 75      | 0         | 13.88                 | 14.07                 | 13.93                 | 13.92                 | 13.71                 |                              | 0        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 43 of 64                                                                         |                                 |

**Table 8-49**  
**LTE Band 41 Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 41<br>10 MHzBandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 14.10                 | 13.86                 | 13.73                 | 13.92                 | 14.12                 | 0                            | 0        |
|                                | 1       | 25        | 14.12                 | 14.19                 | 13.98                 | 13.91                 | 14.19                 |                              | 0        |
|                                | 1       | 49        | 13.99                 | 13.93                 | 13.79                 | 13.72                 | 13.77                 |                              | 0        |
|                                | 25      | 0         | 14.07                 | 13.80                 | 13.93                 | 14.09                 | 14.07                 | 0-1                          | 0        |
|                                | 25      | 12        | 13.74                 | 14.07                 | 14.02                 | 13.72                 | 13.94                 |                              | 0        |
|                                | 25      | 25        | 14.05                 | 14.06                 | 13.89                 | 14.19                 | 14.18                 |                              | 0        |
|                                | 50      | 0         | 14.14                 | 13.84                 | 14.01                 | 13.81                 | 14.04                 |                              | 0        |
| 16QAM                          | 1       | 0         | 14.15                 | 13.74                 | 13.89                 | 13.77                 | 13.84                 | 0-1                          | 0        |
|                                | 1       | 25        | 13.77                 | 14.08                 | 13.89                 | 13.81                 | 13.70                 |                              | 0        |
|                                | 1       | 49        | 13.80                 | 13.86                 | 14.09                 | 13.94                 | 14.00                 |                              | 0        |
|                                | 25      | 0         | 13.83                 | 14.18                 | 13.78                 | 14.02                 | 13.77                 | 0-2                          | 0        |
|                                | 25      | 12        | 14.08                 | 13.71                 | 13.95                 | 13.70                 | 13.98                 |                              | 0        |
|                                | 25      | 25        | 13.90                 | 13.76                 | 13.83                 | 13.94                 | 13.92                 |                              | 0        |
|                                | 50      | 0         | 14.09                 | 13.87                 | 14.07                 | 13.93                 | 14.18                 |                              | 0        |

**Table 8-50**  
**LTE Band 41 Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 41<br>5 MHzBandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|-------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                    | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                               |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                               |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                          | 1       | 0         | 13.76                 | 14.03                 | 13.95                 | 14.05                 | 13.99                 | 0                            | 0        |
|                               | 1       | 12        | 14.14                 | 14.18                 | 13.92                 | 13.94                 | 13.88                 |                              | 0        |
|                               | 1       | 24        | 14.04                 | 13.95                 | 13.75                 | 13.84                 | 13.75                 |                              | 0        |
|                               | 12      | 0         | 14.16                 | 13.89                 | 13.86                 | 14.02                 | 13.76                 | 0-1                          | 0        |
|                               | 12      | 6         | 13.93                 | 14.02                 | 13.93                 | 14.00                 | 13.99                 |                              | 0        |
|                               | 12      | 13        | 13.84                 | 14.07                 | 13.93                 | 13.71                 | 14.13                 |                              | 0        |
|                               | 25      | 0         | 14.11                 | 14.07                 | 13.92                 | 14.15                 | 14.07                 |                              | 0        |
| 16QAM                         | 1       | 0         | 13.84                 | 13.75                 | 13.93                 | 14.02                 | 13.97                 | 0-1                          | 0        |
|                               | 1       | 12        | 14.01                 | 14.13                 | 14.13                 | 13.83                 | 14.17                 |                              | 0        |
|                               | 1       | 24        | 14.04                 | 13.86                 | 14.12                 | 13.97                 | 14.19                 |                              | 0        |
|                               | 12      | 0         | 13.88                 | 14.09                 | 14.14                 | 14.13                 | 14.06                 | 0-2                          | 0        |
|                               | 12      | 6         | 14.01                 | 13.75                 | 14.11                 | 14.00                 | 14.13                 |                              | 0        |
|                               | 12      | 13        | 14.17                 | 13.77                 | 14.14                 | 13.87                 | 14.02                 |                              | 0        |
|                               | 25      | 0         | 14.12                 | 13.85                 | 13.95                 | 14.06                 | 14.18                 |                              | 0        |

|                                         |                                                                                                                                   |                              |                                                                                                 |                                 |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b> |  <b>LG</b> | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                                                                | DUT Type:<br>Portable Tablet | Page 44 of 64                                                                                   |                                 |

## 8.2.6 LTE Carrier Aggregation Conducted Powers

Table 8-51

Two Component Carrier LTE Carrier Aggregation Maximum Conducted Powers

|             | PCC      |                     |                  |                          |            |            |                  |                  |                          | SCC      |                     |                  |                          | Power                                 |                                   |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA_41A-41A  | LTE B41  | 20                  | 39750            | 2506                     | QPSK       | 1          | 0                | 39750            | 2506                     | LTE B41  | 5                   | 41565            | 2687.5                   | 24.05                                 | 24.18                             |
| CA_41C (1)  | LTE B41  | 20                  | 39750            | 2506                     | QPSK       | 1          | 0                | 39750            | 2506                     | LTE B41  | 20                  | 39948            | 2525.8                   | 24.07                                 | 24.18                             |

Table 8-52

Two Component Carrier LTE Carrier Aggregation Reduced Conducted Powers

|             | PCC      |                     |                  |                          |            |            |                  |                  |                          | SCC      |                     |                  |                          | Power                                 |                                   |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA_41A-41A  | LTE B41  | 20                  | 41490            | 2680                     | QPSK       | 1          | 0                | 41490            | 2680                     | LTE B41  | 5                   | 39675            | 2498.5                   | 14.20                                 | 14.20                             |
| CA_41C (1)  | LTE B41  | 20                  | 41490            | 2680                     | QPSK       | 1          | 0                | 41490            | 2680                     | LTE B41  | 20                  | 41292            | 2660.2                   | 14.18                                 | 14.20                             |

### Notes:

1. The device only supports downlink Carrier Aggregation. Uplink Carrier Aggregation is not supported. For every supported combination of downlink carrier aggregation, power measurements were performed with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.
2. All control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
3. For downlink carrier aggregation combinations, PCC uplink channel was selected based on section C)3)b)ii) of KBD 941225 D05 V01r02. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers. All selected downlink channels remained fully within the downlink transmission band of the respective component carrier.

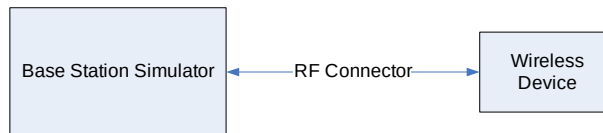


Figure 8-2  
Power Measurement Setup

|                                         |                                    |                              |  |                                 |
|-----------------------------------------|------------------------------------|------------------------------|--|---------------------------------|
| FCC ID: ZNFLK460                        |                                    | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17 | DUT Type:<br>Portable Tablet |  | Page 45 of 64                   |

### 8.3 WLAN Conducted Powers

**Table 8-53**  
**2.4 GHz WLAN Maximum Average RF Power**

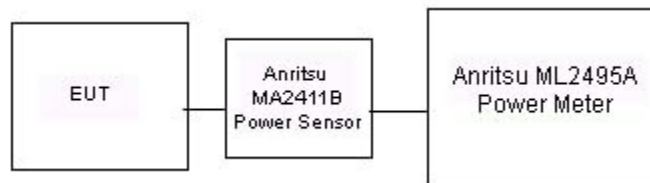
| 2.4GHz Conducted Power [dBm] |          |                        |         |         |
|------------------------------|----------|------------------------|---------|---------|
| Freq [MHz]                   | Channel  | IEEE Transmission Mode |         |         |
|                              |          | 802.11b                | 802.11g | 802.11n |
| 2412                         | 1        | 17.56                  | 15.41   | 15.42   |
| 2437                         | <b>6</b> | <b>17.90</b>           | 17.69   | 17.66   |
| 2462                         | 11       | 17.75                  | 15.78   | 15.81   |

**Table 8-54**  
**2.4 GHz WLAN Reduced Average RF Power**

| 2.4GHz Conducted Power [dBm] |          |                        |         |         |
|------------------------------|----------|------------------------|---------|---------|
| Freq [MHz]                   | Channel  | IEEE Transmission Mode |         |         |
|                              |          | 802.11b                | 802.11g | 802.11n |
| 2412                         | 1        | 6.69                   | 6.81    | 6.85    |
| 2437                         | <b>6</b> | <b>7.21</b>            | 7.33    | 7.29    |
| 2462                         | 11       | 7.04                   | 6.99    | 6.99    |

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission modes with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.
- The bolded data rate and channel above were tested for SAR.



**Figure 8-3**  
**Power Measurement Setup**

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet | Page 46 of 64                                                                         |                                 |

## 8.4 Bluetooth Conducted Powers

| Frequency [MHz] | Data Rate [Mbps] | Channel No. | Avg Conducted Power |        |
|-----------------|------------------|-------------|---------------------|--------|
|                 |                  |             | [dBm]               | [mW]   |
| 2402            | 1.0              | 0           | 9.09                | 8.111  |
| 2441            | 1.0              | 39          | 10.49               | 11.183 |
| 2480            | 1.0              | 78          | <b>10.75</b>        | 11.895 |
| 2402            | 2.0              | 0           | 6.44                | 4.407  |
| 2441            | 2.0              | 39          | 7.99                | 6.296  |
| 2480            | 2.0              | 78          | 8.26                | 6.692  |
| 2402            | 3.0              | 0           | 6.52                | 4.483  |
| 2441            | 3.0              | 39          | 8.06                | 6.404  |
| 2480            | 3.0              | 78          | 8.35                | 6.838  |

The bolded data rate and channel above were tested for SAR.

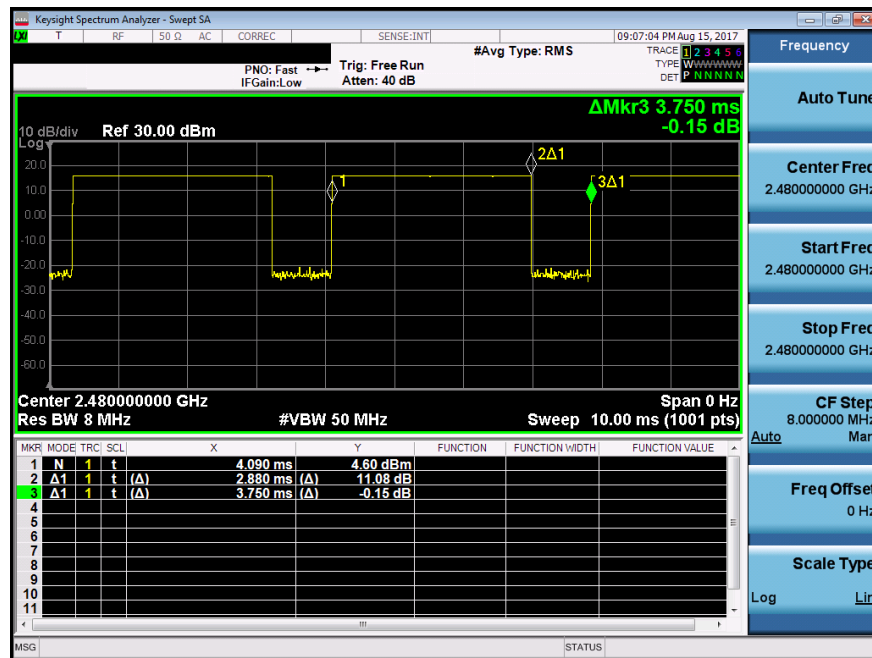


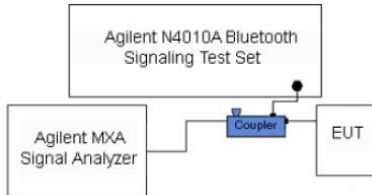
Figure 8-4  
Bluetooth Transmission Plot

|                                         |                                    |                              |  |                                 |
|-----------------------------------------|------------------------------------|------------------------------|--|---------------------------------|
| FCC ID: ZNFLK460                        |                                    | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17 | DUT Type:<br>Portable Tablet |  | Page 47 of 64                   |



**Equation 8-1**  
**Bluetooth Duty Cycle Calculation**

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.880\ ms}{3.750\ ms} * 100\% = 76.8\%$$



**Figure 8-5**  
**Power Measurement Setup**

|                                         |                                                                                                                                                                                                        |                              |                                 |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  <b>SAR EVALUATION REPORT</b>  |                              | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                                                                                                                                     | DUT Type:<br>Portable Tablet | Page 48 of 64                   |

## 9 SYSTEM VERIFICATION

### 9.1 Tissue Verification

**Table 9-1**  
**Measured Tissue Properties**

| Calibrated for Tests Performed on: | Tissue Type | Tissue Temp During Calibration (°C) | Measured Frequency (MHz) | Measured Conductivity, $\sigma$ (S/m) | Measured Dielectric Constant, $\epsilon$ | TARGET Conductivity, $\sigma$ (S/m) | TARGET Dielectric Constant, $\epsilon$ | % dev $\sigma$ | % dev $\epsilon$ |
|------------------------------------|-------------|-------------------------------------|--------------------------|---------------------------------------|------------------------------------------|-------------------------------------|----------------------------------------|----------------|------------------|
| 7/24/2017                          | 750B        | 23.5                                | 700                      | 0.912                                 | 55.492                                   | 0.959                               | 55.726                                 | -4.90%         | -0.42%           |
|                                    |             |                                     | 710                      | 0.921                                 | 55.402                                   | 0.960                               | 55.687                                 | -4.06%         | -0.51%           |
|                                    |             |                                     | 720                      | 0.930                                 | 55.303                                   | 0.961                               | 55.648                                 | -3.23%         | -0.62%           |
|                                    |             |                                     | 725                      | 0.935                                 | 55.256                                   | 0.961                               | 55.629                                 | -2.71%         | -0.67%           |
|                                    |             |                                     | 740                      | 0.949                                 | 55.110                                   | 0.963                               | 55.570                                 | -1.45%         | -0.83%           |
| 7/31/2017                          | 835B        | 21.5                                | 755                      | 0.963                                 | 54.956                                   | 0.964                               | 55.512                                 | -0.10%         | -1.00%           |
|                                    |             |                                     | 820                      | 0.989                                 | 54.642                                   | 0.969                               | 55.258                                 | 2.06%          | -1.11%           |
|                                    |             |                                     | 835                      | 1.005                                 | 54.424                                   | 0.970                               | 55.200                                 | 3.61%          | -1.41%           |
| 8/7/2017                           | 835B        | 21.1                                | 850                      | 1.020                                 | 54.264                                   | 0.988                               | 55.154                                 | 3.24%          | -1.61%           |
|                                    |             |                                     | 820                      | 0.978                                 | 54.147                                   | 0.969                               | 55.258                                 | 0.93%          | -2.01%           |
|                                    |             |                                     | 835                      | 0.996                                 | 54.058                                   | 0.970                               | 55.200                                 | 2.68%          | -2.07%           |
| 7/27/2017                          | 1750B       | 21.5                                | 850                      | 1.008                                 | 53.842                                   | 0.988                               | 55.154                                 | 2.02%          | -2.38%           |
|                                    |             |                                     | 1710                     | 1.463                                 | 51.569                                   | 1.463                               | 53.537                                 | 0.00%          | -3.68%           |
|                                    |             |                                     | 1750                     | 1.505                                 | 51.397                                   | 1.488                               | 53.432                                 | 1.14%          | -3.81%           |
| 7/27/2017                          | 1900B       | 22.5                                | 1790                     | 1.550                                 | 51.246                                   | 1.514                               | 53.326                                 | 2.38%          | -3.90%           |
|                                    |             |                                     | 1850                     | 1.518                                 | 53.418                                   | 1.520                               | 53.300                                 | -0.13%         | 0.22%            |
|                                    |             |                                     | 1880                     | 1.557                                 | 53.357                                   | 1.520                               | 53.300                                 | 2.43%          | 0.11%            |
| 8/11/2017                          | 1900B       | 22.2                                | 1910                     | 1.584                                 | 53.221                                   | 1.520                               | 53.300                                 | 4.21%          | -0.15%           |
|                                    |             |                                     | 1850                     | 1.526                                 | 52.921                                   | 1.520                               | 53.300                                 | 0.39%          | -0.71%           |
|                                    |             |                                     | 1880                     | 1.560                                 | 52.900                                   | 1.520                               | 53.300                                 | 2.63%          | -0.75%           |
| 8/5/2017                           | 2450B       | 22.6                                | 1910                     | 1.585                                 | 52.828                                   | 1.520                               | 53.300                                 | 4.28%          | -0.89%           |
|                                    |             |                                     | 2400                     | 1.964                                 | 51.575                                   | 1.902                               | 52.767                                 | 3.26%          | -2.26%           |
|                                    |             |                                     | 2450                     | 2.022                                 | 51.484                                   | 1.950                               | 52.700                                 | 3.69%          | -2.31%           |
| 8/22/2017                          | 2450B       | 22.4                                | 2500                     | 2.106                                 | 51.230                                   | 2.021                               | 52.636                                 | 4.21%          | -2.67%           |
|                                    |             |                                     | 2400                     | 1.938                                 | 50.942                                   | 1.902                               | 52.767                                 | 1.89%          | -3.46%           |
|                                    |             |                                     | 2450                     | 1.990                                 | 50.740                                   | 1.950                               | 52.700                                 | 2.05%          | -3.72%           |
| 8/5/2017                           | 2600B       | 22.6                                | 2500                     | 2.067                                 | 50.522                                   | 2.021                               | 52.636                                 | 2.28%          | -4.02%           |
|                                    |             |                                     | 2550                     | 2.166                                 | 51.043                                   | 2.092                               | 52.573                                 | 3.54%          | -2.91%           |
|                                    |             |                                     | 2600                     | 2.244                                 | 50.786                                   | 2.163                               | 52.509                                 | 3.74%          | -3.28%           |
|                                    |             |                                     | 2650                     | 2.312                                 | 50.653                                   | 2.234                               | 52.445                                 | 3.49%          | -3.42%           |
|                                    |             |                                     | 2700                     | 2.378                                 | 50.436                                   | 2.305                               | 52.382                                 | 3.17%          | -3.72%           |

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB Publication 865664 D01v01r04 and IEEE 1528-2013 6.6.1.2). The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software.

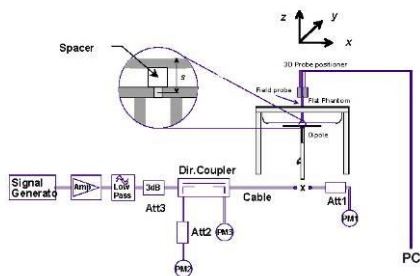
|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 49 of 64                   |

## 9.2 Test System Verification

Prior to SAR assessment, the system is verified to  $\pm 10\%$  of the SAR measurement on the reference dipole at the time of calibration by the calibration facility. Full system validation status and result summary can be found in Appendix E.

**Table 9-2**  
**System Verification Results**

| System Verification<br>TARGET & MEASURED |                        |             |            |                |                  |                 |           |          |                                   |                                     |                                         |                             |
|------------------------------------------|------------------------|-------------|------------|----------------|------------------|-----------------|-----------|----------|-----------------------------------|-------------------------------------|-----------------------------------------|-----------------------------|
| SAR System #                             | Tissue Frequency (MHz) | Tissue Type | Date:      | Amb. Temp (°C) | Liquid Temp (°C) | Input Power (W) | Source SN | Probe SN | Measured SAR <sub>1g</sub> (W/kg) | 1 W Target SAR <sub>1g</sub> (W/kg) | 1 W Normalized SAR <sub>1g</sub> (W/kg) | Deviation <sub>1g</sub> (%) |
| K                                        | 750                    | BODY        | 07/24/2017 | 21.7           | 22.0             | 0.200           | 1054      | 7406     | 1.750                             | 8.610                               | 8.750                                   | 1.63%                       |
| E                                        | 835                    | BODY        | 07/31/2017 | 22.7           | 21.5             | 0.200           | 4d180     | 3319     | 1.980                             | 9.610                               | 9.900                                   | 3.02%                       |
| J                                        | 835                    | BODY        | 08/07/2017 | 22.3           | 21.1             | 0.200           | 4d180     | 3209     | 2.090                             | 9.610                               | 10.450                                  | 8.74%                       |
| K                                        | 1750                   | BODY        | 07/27/2017 | 22.4           | 21.5             | 0.100           | 1092      | 7406     | 3.880                             | 37.000                              | 38.800                                  | 4.86%                       |
| J                                        | 1900                   | BODY        | 07/27/2017 | 20.6           | 21.8             | 0.100           | 5d026     | 3209     | 4.040                             | 40.300                              | 40.400                                  | 0.25%                       |
| K                                        | 1900                   | BODY        | 08/11/2017 | 21.7           | 20.5             | 0.100           | 5d026     | 7406     | 4.000                             | 40.300                              | 40.000                                  | -0.74%                      |
| G                                        | 2450                   | BODY        | 08/05/2017 | 22.9           | 22.5             | 0.100           | 797       | 3287     | 5.490                             | 50.700                              | 54.900                                  | 8.28%                       |
| E                                        | 2450                   | BODY        | 08/22/2017 | 23.1           | 20.9             | 0.100           | 945       | 3319     | 5.150                             | 50.200                              | 51.500                                  | 2.59%                       |
| G                                        | 2600                   | BODY        | 08/05/2017 | 23.3           | 23.0             | 0.100           | 1071      | 3287     | 5.860                             | 54.200                              | 58.600                                  | 8.12%                       |



**Figure 9-1**  
**System Verification Setup Diagram**



**Figure 9-2**  
**System Verification Setup Photo**

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 50 of 64                   |

# 10 SAR DATA SUMMARY

## 10.1 Standalone Body SAR Data

**Table 10-1**  
**CDMA Body SAR Data**

| MEASUREMENT RESULTS                                                                               |     |                  |             |                             |                       |                  |                                                 |            |                      |            |        |          |                |                   |        |
|---------------------------------------------------------------------------------------------------|-----|------------------|-------------|-----------------------------|-----------------------|------------------|-------------------------------------------------|------------|----------------------|------------|--------|----------|----------------|-------------------|--------|
| FREQUENCY                                                                                         |     | Mode             | Service     | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing                                         | Accessory  | Device Serial Number | Duty Cycle | Side   | SAR (1g) | Scaling Factor | Reported SAR (1g) | Plot # |
| MHz                                                                                               | Ch. |                  |             |                             |                       |                  |                                                 |            |                      |            |        | (W/kg)   |                | (W/kg)            |        |
| 820.10                                                                                            | 564 | CDMA BC10 (§90S) | EVDO Rev. 0 | 25.0                        | 24.65                 | 0.04             | 31 mm                                           | N/A        | 01979                | 1:1        | back   | 0.150    | 1.084          | 0.163             |        |
| 820.10                                                                                            | 564 | CDMA BC10 (§90S) | EVDO Rev. 0 | 25.0                        | 24.65                 | -0.02            | 21 mm                                           | N/A        | 01979                | 1:1        | bottom | 0.135    | 1.084          | 0.146             |        |
| 820.10                                                                                            | 564 | CDMA BC10 (§90S) | EVDO Rev. 0 | 25.0                        | 24.65                 | 0.01             | 8 mm                                            | N/A        | 01979                | 1:1        | right  | 0.147    | 1.084          | 0.159             |        |
| 820.10                                                                                            | 564 | CDMA BC10 (§90S) | EVDO Rev. 0 | 19.0                        | 18.62                 | 0.06             | 0 mm                                            | N/A        | 01961                | 1:1        | back   | 0.398    | 1.091          | 0.434             | A1     |
| 820.10                                                                                            | 564 | CDMA BC10 (§90S) | EVDO Rev. 0 | 19.0                        | 18.62                 | 0.03             | 0 mm                                            | Sound Pack | 01961                | 1:1        | back   | 0.165    | 1.091          | 0.180             |        |
| 820.10                                                                                            | 564 | CDMA BC10 (§90S) | EVDO Rev. 0 | 19.0                        | 18.62                 | -0.02            | 0 mm                                            | N/A        | 01961                | 1:1        | bottom | 0.191    | 1.091          | 0.208             |        |
| 820.10                                                                                            | 564 | CDMA BC10 (§90S) | EVDO Rev. 0 | 19.0                        | 18.62                 | -0.03            | 0 mm                                            | Sound Pack | 01961                | 1:1        | bottom | 0.192    | 1.091          | 0.209             |        |
| 820.10                                                                                            | 564 | CDMA BC10 (§90S) | EVDO Rev. 0 | 19.0                        | 18.62                 | 0.01             | 0 mm                                            | N/A        | 01961                | 1:1        | right  | 0.100    | 1.091          | 0.109             |        |
| 836.52                                                                                            | 384 | CDMA BC0 (§22H)  | EVDO Rev. 0 | 25.0                        | 24.64                 | 0.02             | 31 mm                                           | N/A        | 01979                | 1:1        | back   | 0.156    | 1.086          | 0.169             |        |
| 836.52                                                                                            | 384 | CDMA BC0 (§22H)  | EVDO Rev. 0 | 25.0                        | 24.64                 | 0.01             | 21 mm                                           | N/A        | 01979                | 1:1        | bottom | 0.140    | 1.086          | 0.152             |        |
| 836.52                                                                                            | 384 | CDMA BC0 (§22H)  | EVDO Rev. 0 | 25.0                        | 24.64                 | -0.01            | 8 mm                                            | N/A        | 01979                | 1:1        | right  | 0.164    | 1.086          | 0.178             |        |
| 836.52                                                                                            | 384 | CDMA BC0 (§22H)  | EVDO Rev. 0 | 19.0                        | 18.70                 | -0.15            | 0 mm                                            | N/A        | 01961                | 1:1        | back   | 0.400    | 1.072          | 0.429             | A2     |
| 836.52                                                                                            | 384 | CDMA BC0 (§22H)  | EVDO Rev. 0 | 19.0                        | 18.70                 | 0.03             | 0 mm                                            | Sound Pack | 01961                | 1:1        | back   | 0.164    | 1.072          | 0.176             |        |
| 836.52                                                                                            | 384 | CDMA BC0 (§22H)  | EVDO Rev. 0 | 19.0                        | 18.70                 | 0.06             | 0 mm                                            | N/A        | 01961                | 1:1        | bottom | 0.205    | 1.072          | 0.220             |        |
| 836.52                                                                                            | 384 | CDMA BC0 (§22H)  | EVDO Rev. 0 | 19.0                        | 18.70                 | -0.04            | 0 mm                                            | Sound Pack | 01961                | 1:1        | bottom | 0.203    | 1.072          | 0.218             |        |
| 836.52                                                                                            | 384 | CDMA BC0 (§22H)  | EVDO Rev. 0 | 19.0                        | 18.70                 | 0.01             | 0 mm                                            | N/A        | 01961                | 1:1        | right  | 0.117    | 1.072          | 0.125             |        |
| 1880.00                                                                                           | 600 | PCS CDMA         | EVDO Rev. 0 | 25.0                        | 24.73                 | -0.01            | 31 mm                                           | N/A        | 01979                | 1:1        | back   | 0.197    | 1.064          | 0.210             |        |
| 1880.00                                                                                           | 600 | PCS CDMA         | EVDO Rev. 0 | 25.0                        | 24.73                 | -0.05            | 21 mm                                           | N/A        | 01979                | 1:1        | bottom | 0.409    | 1.064          | 0.435             |        |
| 1880.00                                                                                           | 600 | PCS CDMA         | EVDO Rev. 0 | 25.0                        | 24.73                 | -0.02            | 8 mm                                            | N/A        | 01979                | 1:1        | right  | 0.654    | 1.064          | 0.696             | A3     |
| 1880.00                                                                                           | 600 | PCS CDMA         | EVDO Rev. 0 | 25.0                        | 24.73                 | 0.00             | 8 mm                                            | Sound Pack | 01979                | 1:1        | right  | 0.603    | 1.064          | 0.642             |        |
| 1880.00                                                                                           | 600 | PCS CDMA         | EVDO Rev. 0 | 14.0                        | 13.70                 | -0.05            | 0 mm                                            | N/A        | 01961                | 1:1        | back   | 0.636    | 1.072          | 0.682             |        |
| 1880.00                                                                                           | 600 | PCS CDMA         | EVDO Rev. 0 | 14.0                        | 13.70                 | -0.10            | 0 mm                                            | N/A        | 01961                | 1:1        | bottom | 0.460    | 1.072          | 0.493             |        |
| 1880.00                                                                                           | 600 | PCS CDMA         | EVDO Rev. 0 | 14.0                        | 13.70                 | -0.06            | 0 mm                                            | N/A        | 01961                | 1:1        | right  | 0.174    | 1.072          | 0.187             |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population |     |                  |             |                             |                       |                  | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |            |                      |            |        |          |                |                   |        |

|                                         |                                                                                     |                              |                       |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  |                              | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                       | Page 51 of 64                                                                         |                                 |

**Table 10-2**  
**LTE Band 12 Body SAR**

| MEASUREMENT RESULTS                      |       |      |                 |                             |                       |                  |          |                      |                      |            |         |           |         |       |            |          |                |                   |        |
|------------------------------------------|-------|------|-----------------|-----------------------------|-----------------------|------------------|----------|----------------------|----------------------|------------|---------|-----------|---------|-------|------------|----------|----------------|-------------------|--------|
| FREQUENCY                                |       | Mode | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Accessory            | Device Serial Number | Modulation | RB Size | RB Offset | Spacing | Side  | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | Plot # |
| MHz                                      | Ch.   |      |                 |                             |                       |                  |          |                      |                      |            |         |           |         |       |            | (W/kg)   |                | (W/kg)            |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 24.7                  | 24.59            | 0.02     | 0                    | N/A                  | 01979      | QPSK    | 1         | 0       | 31 mm | back       | 1:1      | 1.026          | 0.107             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 23.7                  | 23.67            | -0.10    | 1                    | N/A                  | 01979      | QPSK    | 25        | 25      | 31 mm | back       | 1:1      | 1.007          | 0.093             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 24.7                  | 24.59            | -0.15    | 0                    | N/A                  | 01979      | QPSK    | 1         | 0       | 21 mm | bottom     | 1:1      | 1.026          | 0.091             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 23.7                  | 23.67            | 0.05     | 1                    | N/A                  | 01979      | QPSK    | 25        | 25      | 21 mm | bottom     | 1:1      | 1.007          | 0.073             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 24.7                  | 24.59            | -0.03    | 0                    | N/A                  | 01979      | QPSK    | 1         | 0       | 8 mm  | right      | 1:1      | 1.026          | 0.089             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 23.7                  | 23.67            | 0.04     | 1                    | N/A                  | 01979      | QPSK    | 25        | 25      | 8 mm  | right      | 1:1      | 1.007          | 0.084             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 18.7                  | 18.58            | 0.10     | 0                    | N/A                  | 01961      | QPSK    | 1         | 49      | 0 mm  | back       | 1:1      | 1.028          | 0.297             | A4     |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 18.7                  | 18.58            | 0.06     | 0                    | Sound Pack           | 01961      | QPSK    | 1         | 49      | 0 mm  | back       | 1:1      | 1.028          | 0.077             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 18.7                  | 18.68            | 0.03     | 0                    | N/A                  | 01961      | QPSK    | 25        | 0       | 0 mm  | back       | 1:1      | 1.005          | 0.200             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 18.7                  | 18.58            | 0.01     | 0                    | N/A                  | 01961      | QPSK    | 1         | 49      | 0 mm  | bottom     | 1:1      | 1.028          | 0.207             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 18.7                  | 18.58            | -0.06    | 0                    | Sound Pack           | 01961      | QPSK    | 1         | 49      | 0 mm  | bottom     | 1:1      | 1.028          | 0.209             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 18.7                  | 18.68            | 0.02     | 0                    | N/A                  | 01961      | QPSK    | 25        | 0       | 0 mm  | bottom     | 1:1      | 1.005          | 0.147             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 18.7                  | 18.58            | 0.00     | 0                    | N/A                  | 01961      | QPSK    | 1         | 49      | 0 mm  | right      | 1:1      | 1.028          | 0.066             |        |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 18.7                  | 18.68            | -0.05    | 0                    | N/A                  | 01961      | QPSK    | 25        | 0       | 0 mm  | right      | 1:1      | 1.005          | 0.047             |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |       |      |                 |                             |                       |                  |          | Body                 |                      |            |         |           |         |       |            |          |                |                   |        |
| Spatial Peak                             |       |      |                 |                             |                       |                  |          | 1.6 W/kg (mW/g)      |                      |            |         |           |         |       |            |          |                |                   |        |
| Uncontrolled Exposure/General Population |       |      |                 |                             |                       |                  |          | averaged over 1 gram |                      |            |         |           |         |       |            |          |                |                   |        |

**Table 10-3**  
**LTE Band 26 (Cell) Body SAR**

| MEASUREMENT RESULTS                      |       |      |                    |                             |                       |                  |          |                      |                      |            |         |           |         |       |            |          |                |                   |        |
|------------------------------------------|-------|------|--------------------|-----------------------------|-----------------------|------------------|----------|----------------------|----------------------|------------|---------|-----------|---------|-------|------------|----------|----------------|-------------------|--------|
| FREQUENCY                                |       | Mode | Bandwidth [MHz]    | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Accessory            | Device Serial Number | Modulation | RB Size | RB Offset | Spacing | Side  | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | Plot # |
| MHz                                      | Ch.   |      |                    |                             |                       |                  |          |                      |                      |            |         |           |         |       |            | (W/kg)   |                | (W/kg)            |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 24.7                  | 24.52            | 0.03     | 0                    | N/A                  | 01979      | QPSK    | 1         | 74      | 31 mm | back       | 1:1      | 1.042          | 0.180             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 23.7                  | 23.52            | 0.02     | 1                    | N/A                  | 01979      | QPSK    | 36        | 0       | 31 mm | back       | 1:1      | 1.042          | 0.151             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 24.7                  | 24.52            | -0.04    | 0                    | N/A                  | 01979      | QPSK    | 1         | 74      | 21 mm | bottom     | 1:1      | 1.042          | 0.150             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 23.7                  | 23.52            | 0.01     | 1                    | N/A                  | 01979      | QPSK    | 36        | 0       | 21 mm | bottom     | 1:1      | 1.042          | 0.117             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 24.7                  | 24.52            | 0.03     | 0                    | N/A                  | 01979      | QPSK    | 1         | 74      | 8 mm  | right      | 1:1      | 1.042          | 0.169             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 23.7                  | 23.52            | 0.02     | 1                    | N/A                  | 01979      | QPSK    | 36        | 0       | 8 mm  | right      | 1:1      | 1.042          | 0.119             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 18.7                  | 18.69            | -0.16    | 0                    | N/A                  | 01972      | QPSK    | 1         | 36      | 0 mm  | back       | 1:1      | 1.002          | 0.390             | A5     |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 18.7                  | 18.69            | 0.05     | 0                    | Sound Pack           | 01972      | QPSK    | 1         | 36      | 0 mm  | back       | 1:1      | 1.002          | 0.151             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 18.7                  | 18.60            | -0.17    | 0                    | N/A                  | 01972      | QPSK    | 36        | 0       | 0 mm  | back       | 1:1      | 1.023          | 0.313             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 18.7                  | 18.69            | -0.02    | 0                    | N/A                  | 01972      | QPSK    | 1         | 36      | 0 mm  | bottom     | 1:1      | 1.002          | 0.188             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 18.7                  | 18.69            | 0.03     | 0                    | Sound Pack           | 01972      | QPSK    | 1         | 36      | 0 mm  | bottom     | 1:1      | 1.002          | 0.184             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 18.7                  | 18.60            | -0.03    | 0                    | N/A                  | 01972      | QPSK    | 36        | 0       | 0 mm  | bottom     | 1:1      | 1.023          | 0.148             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 18.7                  | 18.69            | -0.05    | 0                    | N/A                  | 01972      | QPSK    | 1         | 36      | 0 mm  | right      | 1:1      | 1.002          | 0.101             |        |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 15                          | 18.7                  | 18.60            | -0.01    | 0                    | N/A                  | 01972      | QPSK    | 36        | 0       | 0 mm  | right      | 1:1      | 1.023          | 0.076             |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |       |      |                    |                             |                       |                  |          | Body                 |                      |            |         |           |         |       |            |          |                |                   |        |
| Spatial Peak                             |       |      |                    |                             |                       |                  |          | 1.6 W/kg (mW/g)      |                      |            |         |           |         |       |            |          |                |                   |        |
| Uncontrolled Exposure/General Population |       |      |                    |                             |                       |                  |          | averaged over 1 gram |                      |            |         |           |         |       |            |          |                |                   |        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 52 of 64                   |

**Table 10-4**  
**LTE Band 4 (AWS) Body SAR**

| MEASUREMENT RESULTS                                                                               |       |      |                  |                             |                       |                  |          |                                                 |                      |            |         |           |         |       |            |          |                |                   |        |    |
|---------------------------------------------------------------------------------------------------|-------|------|------------------|-----------------------------|-----------------------|------------------|----------|-------------------------------------------------|----------------------|------------|---------|-----------|---------|-------|------------|----------|----------------|-------------------|--------|----|
| FREQUENCY                                                                                         |       | Mode | Bandwidth [MHz]  | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Accessory                                       | Device Serial Number | Modulation | RB Size | RB Offset | Spacing | Side  | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | Plot # |    |
| MHz                                                                                               | Ch.   |      |                  |                             |                       |                  |          |                                                 |                      |            |         |           |         |       |            | (W/kg)   |                | (W/kg)            |        |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 24.2                  | 24.18            | -0.09    | 0                                               | N/A                  | 01981      | QPSK    | 1         | 0       | 31 mm | back       | 1:1      | 0.124          | 1.005             | 0.125  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 23.2                  | 23.11            | 0.02     | 1                                               | N/A                  | 01981      | QPSK    | 50        | 50      | 31 mm | back       | 1:1      | 0.093          | 1.021             | 0.095  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 24.2                  | 24.18            | 0.01     | 0                                               | N/A                  | 01981      | QPSK    | 1         | 0       | 21 mm | bottom     | 1:1      | 0.241          | 1.005             | 0.242  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 23.2                  | 23.11            | -0.02    | 1                                               | N/A                  | 01981      | QPSK    | 50        | 50      | 21 mm | bottom     | 1:1      | 0.188          | 1.021             | 0.192  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 24.2                  | 24.18            | -0.02    | 0                                               | N/A                  | 01981      | QPSK    | 1         | 0       | 8 mm  | right      | 1:1      | 0.242          | 1.005             | 0.243  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 23.2                  | 23.11            | -0.03    | 1                                               | N/A                  | 01981      | QPSK    | 50        | 50      | 8 mm  | right      | 1:1      | 0.217          | 1.021             | 0.222  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 13.2                  | 13.13            | -0.01    | 0                                               | N/A                  | 01972      | QPSK    | 1         | 0       | 0 mm  | back       | 1:1      | 0.686          | 1.016             | 0.697  | A6 |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 13.2                  | 13.13            | 0.01     | 0                                               | Sound Pack           | 01972      | QPSK    | 1         | 0       | 0 mm  | back       | 1:1      | 0.027          | 1.016             | 0.027  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 13.2                  | 12.80            | 0.00     | 0                                               | N/A                  | 01972      | QPSK    | 50        | 0       | 0 mm  | back       | 1:1      | 0.548          | 1.096             | 0.601  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 13.2                  | 13.13            | -0.07    | 0                                               | N/A                  | 01972      | QPSK    | 1         | 0       | 0 mm  | bottom     | 1:1      | 0.434          | 1.016             | 0.441  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 13.2                  | 13.13            | -0.21    | 0                                               | Sound Pack           | 01972      | QPSK    | 1         | 0       | 0 mm  | bottom     | 1:1      | 0.435          | 1.016             | 0.442  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 13.2                  | 12.80            | -0.08    | 0                                               | N/A                  | 01972      | QPSK    | 50        | 0       | 0 mm  | bottom     | 1:1      | 0.342          | 1.096             | 0.375  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 13.2                  | 13.13            | -0.08    | 0                                               | N/A                  | 01972      | QPSK    | 1         | 0       | 0 mm  | right      | 1:1      | 0.075          | 1.016             | 0.076  |    |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 13.2                  | 12.80            | 0.01     | 0                                               | N/A                  | 01972      | QPSK    | 50        | 0       | 0 mm  | right      | 1:1      | 0.062          | 1.096             | 0.068  |    |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population |       |      |                  |                             |                       |                  |          | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |                      |            |         |           |         |       |            |          |                |                   |        |    |

**Table 10-5**  
**LTE Band 25 (PCS) Body SAR**

| MEASUREMENT RESULTS                                                                               |       |      |                   |                             |                       |                  |          |                                                 |                      |            |         |           |         |       |            |          |                |                   |        |    |
|---------------------------------------------------------------------------------------------------|-------|------|-------------------|-----------------------------|-----------------------|------------------|----------|-------------------------------------------------|----------------------|------------|---------|-----------|---------|-------|------------|----------|----------------|-------------------|--------|----|
| FREQUENCY                                                                                         |       | Mode | Bandwidth [MHz]   | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Accessory                                       | Device Serial Number | Modulation | RB Size | RB Offset | Spacing | Side  | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | Plot # |    |
| MHz                                                                                               | Ch.   |      |                   |                             |                       |                  |          |                                                 |                      |            |         |           |         |       |            | (W/kg)   |                | (W/kg)            |        |    |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 24.2                  | 24.16            | 0.03     | 0                                               | N/A                  | 01979      | QPSK    | 1         | 0       | 31 mm | back       | 1:1      | 0.201          | 1.009             | 0.203  |    |
| 1860.00                                                                                           | 26140 | Low  | LTE Band 25 (PCS) | 20                          | 23.2                  | 23.08            | -0.01    | 1                                               | N/A                  | 01979      | QPSK    | 50        | 0       | 31 mm | back       | 1:1      | 0.135          | 1.028             | 0.139  |    |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 24.2                  | 24.16            | 0.02     | 0                                               | N/A                  | 01979      | QPSK    | 1         | 0       | 21 mm | bottom     | 1:1      | 0.393          | 1.009             | 0.397  |    |
| 1860.00                                                                                           | 26140 | Low  | LTE Band 25 (PCS) | 20                          | 23.2                  | 23.08            | -0.03    | 1                                               | N/A                  | 01979      | QPSK    | 50        | 0       | 21 mm | bottom     | 1:1      | 0.293          | 1.028             | 0.301  |    |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 24.2                  | 24.16            | -0.01    | 0                                               | N/A                  | 01979      | QPSK    | 1         | 0       | 8 mm  | right      | 1:1      | 0.585          | 1.009             | 0.590  | A7 |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 24.2                  | 24.16            | -0.09    | 0                                               | Sound Pack           | 01979      | QPSK    | 1         | 0       | 8 mm  | right      | 1:1      | 0.504          | 1.009             | 0.509  |    |
| 1860.00                                                                                           | 26140 | Low  | LTE Band 25 (PCS) | 20                          | 23.2                  | 23.08            | 0.02     | 1                                               | N/A                  | 01979      | QPSK    | 50        | 0       | 8 mm  | right      | 1:1      | 0.455          | 1.028             | 0.468  |    |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.2                  | 13.19            | -0.01    | 0                                               | N/A                  | 01961      | QPSK    | 1         | 50      | 0 mm  | back       | 1:1      | 0.471          | 1.002             | 0.472  |    |
| 1905.00                                                                                           | 26590 | High | LTE Band 25 (PCS) | 20                          | 13.2                  | 13.17            | 0.03     | 0                                               | N/A                  | 01961      | QPSK    | 50        | 25      | 0 mm  | back       | 1:1      | 0.374          | 1.007             | 0.377  |    |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.2                  | 13.19            | -0.01    | 0                                               | N/A                  | 01961      | QPSK    | 1         | 50      | 0 mm  | bottom     | 1:1      | 0.345          | 1.002             | 0.346  |    |
| 1905.00                                                                                           | 26590 | High | LTE Band 25 (PCS) | 20                          | 13.2                  | 13.17            | -0.01    | 0                                               | N/A                  | 01961      | QPSK    | 50        | 25      | 0 mm  | bottom     | 1:1      | 0.273          | 1.007             | 0.275  |    |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.2                  | 13.19            | -0.06    | 0                                               | N/A                  | 01961      | QPSK    | 1         | 50      | 0 mm  | right      | 1:1      | 0.124          | 1.002             | 0.124  |    |
| 1905.00                                                                                           | 26590 | High | LTE Band 25 (PCS) | 20                          | 13.2                  | 13.17            | -0.09    | 0                                               | N/A                  | 01961      | QPSK    | 50        | 25      | 0 mm  | right      | 1:1      | 0.100          | 1.007             | 0.101  |    |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population |       |      |                   |                             |                       |                  |          | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |                      |            |         |           |         |       |            |          |                |                   |        |    |

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 53 of 64                   |

**Table 10-6**  
**LTE Band 41 Body SAR**

| MEASUREMENT RESULTS                      |       |      |                 |                             |                       |                  |          |                      |                      |            |         |           |         |       |            |          |                |                   |        |    |
|------------------------------------------|-------|------|-----------------|-----------------------------|-----------------------|------------------|----------|----------------------|----------------------|------------|---------|-----------|---------|-------|------------|----------|----------------|-------------------|--------|----|
| FREQUENCY                                |       | Mode | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Accessory            | Device Serial Number | Modulation | RB Size | RB Offset | Spacing | Side  | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | Plot # |    |
| MHz                                      | Ch.   |      |                 |                             |                       |                  |          |                      |                      |            |         |           |         |       |            | (W/kg)   |                | (W/kg)            |        |    |
| 2506.00                                  | 39750 | Low  | LTE Band 41     | 20                          | 24.2                  | 24.18            | 0.00     | 0                    | N/A                  | 01979      | QPSK    | 1         | 0       | 31 mm | back       | 1:1.58   | 0.146          | 1.005             | 0.147  |    |
| 2506.00                                  | 39750 | Low  | LTE Band 41     | 20                          | 23.2                  | 23.09            | 0.06     | 1                    | N/A                  | 01979      | QPSK    | 50        | 50      | 31 mm | back       | 1:1.58   | 0.108          | 1.026             | 0.111  |    |
| 2506.00                                  | 39750 | Low  | LTE Band 41     | 20                          | 24.2                  | 24.18            | 0.01     | 0                    | N/A                  | 01979      | QPSK    | 1         | 0       | 21 mm | bottom     | 1:1.58   | 0.258          | 1.005             | 0.259  |    |
| 2506.00                                  | 39750 | Low  | LTE Band 41     | 20                          | 23.2                  | 23.09            | -0.04    | 1                    | N/A                  | 01979      | QPSK    | 50        | 50      | 21 mm | bottom     | 1:1.58   | 0.195          | 1.026             | 0.200  |    |
| 2506.00                                  | 39750 | Low  | LTE Band 41     | 20                          | 24.2                  | 24.18            | -0.07    | 0                    | N/A                  | 01979      | QPSK    | 1         | 0       | 8 mm  | right      | 1:1.58   | 0.275          | 1.005             | 0.276  |    |
| 2506.00                                  | 39750 | Low  | LTE Band 41     | 20                          | 23.2                  | 23.09            | 0.02     | 1                    | N/A                  | 01979      | QPSK    | 50        | 50      | 8 mm  | right      | 1:1.58   | 0.191          | 1.026             | 0.196  |    |
| 2680.00                                  | 41490 | High | LTE Band 41     | 20                          | 14.2                  | 14.20            | 0.10     | 0                    | N/A                  | 01961      | QPSK    | 1         | 0       | 0 mm  | back       | 1:1.58   | 0.475          | 1.000             | 0.475  | A8 |
| 2680.00                                  | 41490 | High | LTE Band 41     | 20                          | 14.2                  | 14.20            | 0.14     | 0                    | Sound Pack           | 01961      | QPSK    | 1         | 0       | 0 mm  | back       | 1:1.58   | 0.061          | 1.000             | 0.061  |    |
| 2593.00                                  | 40620 | Mid  | LTE Band 41     | 20                          | 14.2                  | 14.18            | 0.02     | 0                    | N/A                  | 01961      | QPSK    | 50        | 50      | 0 mm  | back       | 1:1.58   | 0.340          | 1.005             | 0.342  |    |
| 2680.00                                  | 41490 | High | LTE Band 41     | 20                          | 14.2                  | 14.20            | -0.01    | 0                    | N/A                  | 01961      | QPSK    | 1         | 0       | 0 mm  | bottom     | 1:1.58   | 0.304          | 1.000             | 0.304  |    |
| 2680.00                                  | 41490 | High | LTE Band 41     | 20                          | 14.2                  | 14.20            | 0.05     | 0                    | Sound Pack           | 01961      | QPSK    | 1         | 0       | 0 mm  | bottom     | 1:1.58   | 0.307          | 1.000             | 0.307  |    |
| 2593.00                                  | 40620 | Mid  | LTE Band 41     | 20                          | 14.2                  | 14.18            | -0.05    | 0                    | N/A                  | 01961      | QPSK    | 50        | 50      | 0 mm  | bottom     | 1:1.58   | 0.180          | 1.005             | 0.181  |    |
| 2680.00                                  | 41490 | High | LTE Band 41     | 20                          | 14.2                  | 14.20            | 0.02     | 0                    | N/A                  | 01961      | QPSK    | 1         | 0       | 0 mm  | right      | 1:1.58   | 0.025          | 1.000             | 0.025  |    |
| 2593.00                                  | 40620 | Mid  | LTE Band 41     | 20                          | 14.2                  | 14.18            | 0.11     | 0                    | N/A                  | 01961      | QPSK    | 50        | 50      | 0 mm  | right      | 1:1.58   | 0.021          | 1.005             | 0.021  |    |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |       |      |                 |                             |                       |                  |          | Body                 |                      |            |         |           |         |       |            |          |                |                   |        |    |
| Spatial Peak                             |       |      |                 |                             |                       |                  |          | 1.6 W/kg (mW/g)      |                      |            |         |           |         |       |            |          |                |                   |        |    |
| Uncontrolled Exposure/General Population |       |      |                 |                             |                       |                  |          | averaged over 1 gram |                      |            |         |           |         |       |            |          |                |                   |        |    |

**Table 10-7**  
**WLAN Body SAR**

| MEASUREMENT RESULTS                      |     |         |         |                 |                             |                       |                  |         |                      |                      |                  |      |                |          |                        |                             |                          |        |
|------------------------------------------|-----|---------|---------|-----------------|-----------------------------|-----------------------|------------------|---------|----------------------|----------------------|------------------|------|----------------|----------|------------------------|-----------------------------|--------------------------|--------|
| FREQUENCY                                |     | Mode    | Service | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing | Accessory            | Device Serial Number | Data Rate (Mbps) | Side | Duty Cycle (%) | SAR (1g) | Scaling Factor (Power) | Scaling Factor (Duty Cycle) | Reported SAR (1g) (W/kg) | Plot # |
| MHz                                      | Ch. |         |         |                 |                             |                       |                  |         |                      |                      |                  |      |                | (W/kg)   |                        |                             |                          |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 18.0                        | 17.90                 | -0.02            | 12 mm   | N/A                  | 01976                | 1                | back | 99.8           | 0.259    | 1.023                  | 1.002                       | 0.265                    |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 18.0                        | 17.90                 | -0.03            | 9 mm    | N/A                  | 01976                | 1                | top  | 99.8           | 0.273    | 1.023                  | 1.002                       | 0.280                    |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 18.0                        | 17.90                 | -0.01            | 9 mm    | Sound Pack           | 01976                | 1                | top  | 99.8           | 0.250    | 1.023                  | 1.002                       | 0.256                    |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 8.0                         | 7.21                  | -0.11            | 0 mm    | N/A                  | 01980                | 1                | back | 99.8           | 0.366    | 1.199                  | 1.002                       | 0.440                    | A9     |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 8.0                         | 7.21                  | 0.18             | 0 mm    | Sound Pack           | 01980                | 1                | back | 99.8           | 0.012    | 1.199                  | 1.002                       | 0.014                    |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 8.0                         | 7.21                  | 0.06             | 0 mm    | N/A                  | 01980                | 1                | top  | 99.8           | 0.159    | 1.199                  | 1.002                       | 0.191                    |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |     |         |         |                 |                             |                       |                  |         | Body                 |                      |                  |      |                |          |                        |                             |                          |        |
| Spatial Peak                             |     |         |         |                 |                             |                       |                  |         | 1.6 W/kg (mW/g)      |                      |                  |      |                |          |                        |                             |                          |        |
| Uncontrolled Exposure/General Population |     |         |         |                 |                             |                       |                  |         | averaged over 1 gram |                      |                  |      |                |          |                        |                             |                          |        |

**Table 10-8**  
**Bluetooth Body SAR**

| MEASUREMENT RESULTS                      |     |           |         |                             |                       |                  |                      |            |                      |                  |      |                |          |                        |                             |                   |        |
|------------------------------------------|-----|-----------|---------|-----------------------------|-----------------------|------------------|----------------------|------------|----------------------|------------------|------|----------------|----------|------------------------|-----------------------------|-------------------|--------|
| FREQUENCY                                |     | Mode      | Service | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing              | Accessory  | Device Serial Number | Data Rate (Mbps) | Side | Duty Cycle (%) | SAR (1g) | Scaling Factor (Power) | Scaling Factor (Duty Cycle) | Reported SAR (1g) | Plot # |
| MHz                                      | Ch. |           |         |                             |                       |                  |                      |            |                      |                  |      |                | (W/kg)   |                        |                             | (W/kg)            |        |
| 2480                                     | 78  | Bluetooth | FHSS    | 11.5                        | 10.75                 | 0.11             | 0 mm                 | N/A        | 01976                | 1                | back | 76.8           | 0.220    | 1.189                  | 1.302                       | 0.341             | A10    |
| 2480                                     | 78  | Bluetooth | FHSS    | 11.5                        | 10.75                 | 0.17             | 0 mm                 | Sound Pack | 01976                | 1                | back | 76.8           | 0.006    | 1.189                  | 1.302                       | 0.009             |        |
| 2480                                     | 78  | Bluetooth | FHSS    | 11.5                        | 10.75                 | 0.07             | 0 mm                 | N/A        | 01976                | 1                | top  | 76.8           | 0.047    | 1.189                  | 1.302                       | 0.073             |        |
| 2480                                     | 78  | Bluetooth | FHSS    | 11.5                        | 10.75                 | 0.16             | 0 mm                 | Sound Pack | 01976                | 1                | top  | 76.8           | 0.069    | 1.189                  | 1.302                       | 0.107             |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |     |           |         |                             |                       |                  | Body                 |            |                      |                  |      |                |          |                        |                             |                   |        |
| Spatial Peak                             |     |           |         |                             |                       |                  | 1.6 W/kg (mW/g)      |            |                      |                  |      |                |          |                        |                             |                   |        |
| Uncontrolled Exposure/General Population |     |           |         |                             |                       |                  | averaged over 1 gram |            |                      |                  |      |                |          |                        |                             |                   |        |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 54 of 64                   |

## 10.2 SAR Test Notes

### General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in FCC KDB Publication 616217 D04v01r02 and FCC KDB Publication 447498 D01v06.
2. Batteries are fully charged at the beginning of the SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
6. Per FCC KDB Publication 865664 D01v01r04, variability SAR tests were not required since measured SAR results for all frequency bands were less than 0.8 W/kg.
7. FCC KDB Publication 616217 D04v01r02 Section 4.3, SAR tests are required for the back surface and edges of the tablet with the tablet touching the phantom. The SAR Exclusion Threshold in FCC KDB 447498 D01v06 was applied to determine SAR test exclusion for adjacent edge configurations.

### CDMA Notes:

1. CDMA SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0 according to KDB 941225 D01v03r01 procedures for data devices. SAR tests for Subtype 2 of Rev.A and 1x RTT configurations were not required per the 3G SAR Test Reduction Policy in KDB Publication 941225 D01v03r01..
2. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is  $> \frac{1}{2}$  dB, instead of the middle channel, the highest output power channel was used.

### LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r04. The general test procedures used for testing can be found in Section 7.5.4.
2. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
3. A-MPR was disabled for all SAR tests by setting NS=01 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
4. Per FCC KDB Publication 447498 D01v06, when the reported (scaled) for LTE Band 41 SAR measured at the highest output power channel in a given a test configuration was  $> 0.6$  W/kg, testing at the other channels was required for such test configurations.
5. TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r04. Testing was performed using UL-DL configuration 0 with 6 UL subframes and 2 S subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Section 4, the duty factor for special subframe configuration 6 using extended cyclic prefix is 0.633.
6. Per KDB Publication 941225 D05Av01r02, SAR for LTE CA operations was not needed since the maximum average output power in LTE CA mode was not  $> 0.25$  dB higher than the maximum output power when downlink carrier aggregation was inactive.

|                                         |                                                                                     |                              |                                                                                       |                                 |
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| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 55 of 64                   |



**WLAN Notes:**

1. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR. See Section 7.6.2 for more information. When the maximum reported 1g averaged SAR is  $\leq 0.8$  W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was  $\leq 1.20$  W/kg or all test channels were measured.
2. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated EMC test reports.

**Bluetooth Notes:**

1. Bluetooth Body SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests test mode type. Per October 2016 TCB Workshop Notes, the reported SAR was scaled to the 100% transmission duty factor to determine compliance. See Section 8.4 for the time-domain plot and calculation for the duty factor of the device.

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 56 of 64                   |

# 11 FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS

## 11.1 Introduction

The following procedures adopted from FCC KDB Publication 447498 D01v06 are applicable to devices with built-in unlicensed transmitters such as 802.11 and Bluetooth devices which may simultaneously transmit with the licensed transmitter.

## 11.2 Simultaneous Transmission Procedures

This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per FCC KDB Publication 447498 D01v06 4.3.2 and IEEE 1528-2013 Section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the simultaneous transmitting antennas in a specific physical test configuration is  $\leq 1.6$  W/kg. The different test positions in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1-g SAR.

## 11.3 Body SAR Simultaneous Transmission Analysis

**Table 11-1**  
**Simultaneous Transmission Scenario with 2.4 GHz WLAN**

| Exposure Condition | Mode               | EVDO/LTE SAR (W/kg) | 2.4 GHz WLAN SAR (W/kg) | $\Sigma$ SAR (W/kg) |
|--------------------|--------------------|---------------------|-------------------------|---------------------|
| Body SAR           | EVDO BC10 (§90S)   | 0.434               | 0.440                   | 0.874               |
|                    | EVDO BC0 (§22H)    | 0.429               | 0.440                   | 0.869               |
|                    | PCS EVDO           | 0.696               | 0.440                   | 1.136               |
|                    | LTE Band 12        | 0.297               | 0.440                   | 0.737               |
|                    | LTE Band 26 (Cell) | 0.390               | 0.440                   | 0.830               |
|                    | LTE Band 4 (AWS)   | 0.697               | 0.440                   | <b>1.137</b>        |
|                    | LTE Band 25 (PCS)  | 0.590               | 0.440                   | 1.030               |
|                    | LTE Band 41        | 0.475               | 0.440                   | 0.915               |

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 57 of 64                   |

**Table 11-2**  
**Simultaneous Transmission Scenario with Bluetooth**

| Exposure Condition | Mode               | EVDO/LTE SAR (W/kg) | Bluetooth SAR (W/kg) | $\Sigma$ SAR (W/kg) |
|--------------------|--------------------|---------------------|----------------------|---------------------|
| Body SAR           | EVDO BC10 (§90S)   | 0.434               | 0.341                | 0.775               |
|                    | EVDO BC0 (§22H)    | 0.429               | 0.341                | 0.770               |
|                    | PCS EVDO           | 0.696               | 0.341                | 1.037               |
|                    | LTE Band 12        | 0.297               | 0.341                | 0.638               |
|                    | LTE Band 26 (Cell) | 0.390               | 0.341                | 0.731               |
|                    | LTE Band 4 (AWS)   | 0.697               | 0.341                | <b>1.038</b>        |
|                    | LTE Band 25 (PCS)  | 0.590               | 0.341                | 0.931               |
|                    | LTE Band 41        | 0.475               | 0.341                | 0.816               |

#### 11.4 Simultaneous Transmission Conclusion

The above numerical summed SAR results for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528-2013 Section 6.3.4.1.2.

|                                                |                                                                                     |                                     |                                                                                       |                                        |
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| FCC ID: ZNFLK460                               |  | <b>SAR EVALUATION REPORT</b>        |  | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1M1707240228-07-R1.ZNF | <b>Test Dates:</b><br>07/24/17 - 08/22/17                                           | <b>DUT Type:</b><br>Portable Tablet | Page 58 of 64                                                                         |                                        |

## 12 SAR MEASUREMENT VARIABILITY

### 12.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01, SAR measurement variability was not assessed for each frequency band since all measured SAR values are  $< 0.80$  W/kg for 1g SAR.

### 12.2 Measurement Uncertainty

The measured SAR was  $< 1.5$  W/kg for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 59 of 64                   |

## 13

## EQUIPMENT LIST

| Manufacturer       | Model     | Description                                     | Cal Date   | Cal Interval | Cal Due    | Serial Number |
|--------------------|-----------|-------------------------------------------------|------------|--------------|------------|---------------|
| Agilent            | 8594A     | (9kHz-2.9GHz) Spectrum Analyzer                 | N/A        | N/A          | N/A        | 3051A00187    |
| Agilent            | E4432B    | ESG-D Series Signal Generator                   | 3/24/2017  | Annual       | 3/24/2018  | US40053896    |
| Agilent            | E8257D    | (250kHz-20GHz) Signal Generator                 | 3/22/2017  | Annual       | 3/22/2018  | MY45470194    |
| Agilent            | N9020A    | MXA Signal Analyzer                             | 10/28/2016 | Annual       | 10/28/2017 | US46470561    |
| Agilent            | N4010A    | Wireless Connectivity Test Set                  | N/A        | N/A          | N/A        | GB46170464    |
| Pasternack         | PE2209-10 | Bidirectional Coupler                           | CBT        | N/A          | CBT        | N/A           |
| Agilent            | E5515C    | Wireless Communications Test Set                | 1/8/2015   | Triennial    | 1/8/2018   | GB43163447    |
| Agilent            | N5182A    | MXG Vector Signal Generator                     | 2/28/2017  | Annual       | 2/28/2018  | MY47420800    |
| Agilent            | N5182A    | MXG Vector Signal Generator                     | 10/27/2016 | Annual       | 10/27/2017 | MY47420603    |
| Agilent            | E4438C    | ESG Vector Signal Generator                     | 3/24/2017  | Biennial     | 3/24/2019  | MY42082385    |
| Agilent            | 8753ES    | S-Parameter Vector Network Analyzer             | 8/19/2016  | Annual       | 8/19/2017  | MY40003841    |
| Agilent            | 8753ES    | S-Parameter Network Analyzer                    | 10/26/2016 | Annual       | 10/26/2017 | US39170118    |
| Agilent            | E5515C    | 8960 Series 10 Wireless Communications Test Set | 10/5/2016  | Annual       | 10/5/2017  | GB42230325    |
| Agilent            | E5515C    | Wireless Communications Test Set                | 12/12/2016 | Annual       | 12/12/2017 | GB44400860    |
| Agilent            | E5515C    | Wireless Communications Test Set                | 5/31/2017  | Annual       | 5/31/2018  | GB43304278    |
| Amplifier Research | 15S1G6    | Amplifier                                       | CBT        | N/A          | CBT        | 433971        |
| Amplifier Research | 15S1G6    | Amplifier                                       | CBT        | N/A          | CBT        | 433972        |
| Anritsu            | ML2495A   | Power Meter                                     | 10/16/2015 | Biennial     | 10/16/2017 | 941001        |
| Anritsu            | MT8820C   | Radio Communication Analyzer                    | 5/23/2017  | Annual       | 5/23/2018  | 6201240328    |
| Anritsu            | MT8820C   | Radio Communication Analyzer                    | 12/8/2016  | Annual       | 12/8/2017  | 6201300731    |
| Anritsu            | ML2496A   | Power Meter                                     | 3/28/2017  | Annual       | 3/28/2018  | 1351001       |
| Anritsu            | MA24106A  | USB Power Sensor                                | 3/20/2017  | Annual       | 3/20/2018  | 1349501       |
| Anritsu            | MA24106A  | USB Power Sensor                                | 10/27/2016 | Annual       | 10/27/2017 | 1349503       |
| Anritsu            | MA2411B   | Pulse Power Sensor                              | 2/10/2017  | Annual       | 2/10/2018  | 1339018       |
| COMTech            | AR85729-5 | Solid State Amplifier                           | CBT        | N/A          | CBT        | M155A00-009   |
| Control Company    | 4352      | Ultra Long Stem Thermometer                     | 5/2/2017   | Biennial     | 5/2/2019   | 170330144     |
| Control Company    | 4352      | Ultra Long Stem Thermometer                     | 5/2/2017   | Biennial     | 5/2/2019   | 170330174     |
| Control Company    | 4040      | Therm./Clock/Humidity Monitor                   | 3/31/2017  | Biennial     | 3/31/2019  | 170232394     |
| Keysight           | 772D      | Dual Directional Coupler                        | CBT        | N/A          | CBT        | MY52180215    |
| MCL                | BW-N6W5+  | 6dB Attenuator                                  | CBT        | N/A          | CBT        | 1139          |
| MiniCircuits       | SLP-2400+ | Low Pass Filter                                 | CBT        | N/A          | CBT        | R8979500903   |
| Mini-Circuits      | NLP-2950+ | Low Pass Filter DC to 2700 MHz                  | CBT        | N/A          | CBT        | N/A           |
| Mini-Circuits      | NLP-1200+ | Low Pass Filter DC to 1000 MHz                  | CBT        | N/A          | CBT        | N/A           |
| Mini-Circuits      | BW-N20W5  | Power Attenuator                                | CBT        | N/A          | CBT        | 1226          |
| Mitutoyo           | CD-6"CSX  | Digital Caliper                                 | 3/2/2016   | Biennial     | 3/2/2018   | 13264162      |
| Mitutoyo           | CD-6"CSX  | Digital Caliper                                 | 3/2/2016   | Biennial     | 3/2/2018   | 13264165      |
| Narda              | 4772-3    | Attenuator (3dB)                                | CBT        | N/A          | CBT        | 9406          |
| Narda              | BW-53W2   | Attenuator (3dB)                                | CBT        | N/A          | CBT        | 120           |
| Pasternack         | PE2208-6  | Bidirectional Coupler                           | CBT        | N/A          | CBT        | N/A           |
| Pasternack         | PE2209-10 | Bidirectional Coupler                           | CBT        | N/A          | CBT        | N/A           |
| Pasternack         | NC-100    | Torque Wrench                                   | 11/6/2015  | Biennial     | 11/6/2017  | N/A           |
| Pasternack         | NC-100    | Torque Wrench                                   | 11/6/2015  | Biennial     | 11/6/2017  | N/A           |
| Rohde & Schwarz    | CMU200    | Base Station Simulator                          | 4/11/2017  | Annual       | 4/11/2018  | 836371/0079   |
| Rohde & Schwarz    | CMW500    | Radio Communication Tester                      | 10/20/2016 | Annual       | 10/20/2017 | 100976        |
| Rohde & Schwarz    | CMW500    | Radio Communication Tester                      | 5/4/2017   | Annual       | 5/4/2018   | 112347        |
| Seekonk            | NC-100    | Torque Wrench (8" lb)                           | 9/1/2016   | Biennial     | 9/1/2018   | 21053         |
| Seekonk            | NC-100    | Torque Wrench                                   | 11/6/2015  | Biennial     | 11/6/2017  | N/A           |
| SPEAG              | DAK-3.5   | Dielectric Assessment Kit                       | 9/13/2016  | Annual       | 9/13/2017  | 1091          |
| SPEAG              | D750V3    | 750 MHz Dipole                                  | 3/7/2017   | Annual       | 3/7/2018   | 1054          |
| SPEAG              | D835V2    | 850 MHz SAR Dipole                              | 5/11/2017  | Annual       | 5/11/2018  | 4d180         |
| SPEAG              | D1750V2   | 1750 MHz SAR Dipole                             | 5/9/2017   | Annual       | 5/9/2018   | 1092          |
| SPEAG              | D1900V2   | 1900 MHz SAR Dipole                             | 5/10/2017  | Annual       | 5/10/2018  | 5d026         |
| SPEAG              | D2450V2   | 2450 MHz SAR Dipole                             | 5/9/2017   | Annual       | 5/9/2018   | 945           |
| SPEAG              | D2450V2   | 2450 MHz SAR Dipole                             | 9/13/2016  | Annual       | 9/13/2017  | 797           |
| SPEAG              | D2600V2   | 2600 MHz SAR Dipole                             | 9/13/2016  | Annual       | 9/13/2017  | 1071          |
| SPEAG              | EX3DV4    | SAR Probe                                       | 4/18/2017  | Annual       | 4/18/2018  | 7406          |
| SPEAG              | ES3DV3    | SAR Probe                                       | 3/14/2017  | Annual       | 3/14/2018  | 3319          |
| SPEAG              | ES3DV3    | SAR Probe                                       | 3/14/2017  | Annual       | 3/14/2018  | 3209          |
| SPEAG              | ES3DV3    | SAR Probe                                       | 9/19/2016  | Annual       | 9/19/2017  | 3287          |
| SPEAG              | DAE4      | Dasy Data Acquisition Electronics               | 4/11/2017  | Annual       | 4/11/2018  | 1407          |
| SPEAG              | DAE4      | Dasy Data Acquisition Electronics               | 3/8/2017   | Annual       | 3/8/2018   | 1368          |
| SPEAG              | DAE4      | Dasy Data Acquisition Electronics               | 3/13/2017  | Annual       | 3/13/2018  | 1415          |
| SPEAG              | DAE4      | Dasy Data Acquisition Electronics               | 9/14/2016  | Annual       | 9/14/2017  | 1408          |

Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  | SAR EVALUATION REPORT        |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 60 of 64                   |

# 14 MEASUREMENT UNCERTAINTIES

| a                                                                             | c             | d              | e=<br>f(d,k) | f                     | g                        | h =<br>c x f/e                 | i =<br>c x g/e                   | k              |
|-------------------------------------------------------------------------------|---------------|----------------|--------------|-----------------------|--------------------------|--------------------------------|----------------------------------|----------------|
| Uncertainty Component                                                         | Tol.<br>(± %) | Prob.<br>Dist. | Div.         | c <sub>i</sub><br>1gm | c <sub>i</sub><br>10 gms | 1gm<br>u <sub>i</sub><br>(± %) | 10gms<br>u <sub>i</sub><br>(± %) | v <sub>i</sub> |
| <b>Measurement System</b>                                                     |               |                |              |                       |                          |                                |                                  |                |
| Probe Calibration                                                             | 6.55          | N              | 1            | 1.0                   | 1.0                      | 6.6                            | 6.6                              | ∞              |
| Axial Isotropy                                                                | 0.25          | N              | 1            | 0.7                   | 0.7                      | 0.2                            | 0.2                              | ∞              |
| Hemishperical Isotropy                                                        | 1.3           | N              | 1            | 0.7                   | 0.7                      | 0.9                            | 0.9                              | ∞              |
| Boundary Effect                                                               | 2.0           | R              | 1.73         | 1.0                   | 1.0                      | 1.2                            | 1.2                              | ∞              |
| Linearity                                                                     | 0.3           | N              | 1            | 1.0                   | 1.0                      | 0.3                            | 0.3                              | ∞              |
| System Detection Limits                                                       | 0.25          | R              | 1.73         | 1.0                   | 1.0                      | 0.1                            | 0.1                              | ∞              |
| Readout Electronics                                                           | 0.3           | N              | 1            | 1.0                   | 1.0                      | 0.3                            | 0.3                              | ∞              |
| Response Time                                                                 | 0.8           | R              | 1.73         | 1.0                   | 1.0                      | 0.5                            | 0.5                              | ∞              |
| Integration Time                                                              | 2.6           | R              | 1.73         | 1.0                   | 1.0                      | 1.5                            | 1.5                              | ∞              |
| RF Ambient Conditions - Noise                                                 | 3.0           | R              | 1.73         | 1.0                   | 1.0                      | 1.7                            | 1.7                              | ∞              |
| RF Ambient Conditions - Reflections                                           | 3.0           | R              | 1.73         | 1.0                   | 1.0                      | 1.7                            | 1.7                              | ∞              |
| Probe Positioner Mechanical Tolerance                                         | 0.4           | R              | 1.73         | 1.0                   | 1.0                      | 0.2                            | 0.2                              | ∞              |
| Probe Positioning w/ respect to Phantom                                       | 6.7           | R              | 1.73         | 1.0                   | 1.0                      | 3.9                            | 3.9                              | ∞              |
| Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation | 4.0           | R              | 1.73         | 1.0                   | 1.0                      | 2.3                            | 2.3                              | ∞              |
| <b>Test Sample Related</b>                                                    |               |                |              |                       |                          |                                |                                  |                |
| Test Sample Positioning                                                       | 2.7           | N              | 1            | 1.0                   | 1.0                      | 2.7                            | 2.7                              | 35             |
| Device Holder Uncertainty                                                     | 1.67          | N              | 1            | 1.0                   | 1.0                      | 1.7                            | 1.7                              | 5              |
| Output Power Variation - SAR drift measurement                                | 5.0           | R              | 1.73         | 1.0                   | 1.0                      | 2.9                            | 2.9                              | ∞              |
| SAR Scaling                                                                   | 0.0           | R              | 1.73         | 1.0                   | 1.0                      | 0.0                            | 0.0                              | ∞              |
| <b>Phantom &amp; Tissue Parameters</b>                                        |               |                |              |                       |                          |                                |                                  |                |
| Phantom Uncertainty (Shape & Thickness tolerances)                            | 7.6           | R              | 1.73         | 1.0                   | 1.0                      | 4.4                            | 4.4                              | ∞              |
| Liquid Conductivity - measurement uncertainty                                 | 4.2           | N              | 1            | 0.78                  | 0.71                     | 3.3                            | 3.0                              | 10             |
| Liquid Permittivity - measurement uncertainty                                 | 4.1           | N              | 1            | 0.23                  | 0.26                     | 1.0                            | 1.1                              | 10             |
| Liquid Conductivity - Temperature Uncertainty                                 | 3.4           | R              | 1.73         | 0.78                  | 0.71                     | 1.5                            | 1.4                              | ∞              |
| Liquid Permittivity - Temperature Uncertainty                                 | 0.6           | R              | 1.73         | 0.23                  | 0.26                     | 0.1                            | 0.1                              | ∞              |
| Liquid Conductivity - deviation from target values                            | 5.0           | R              | 1.73         | 0.64                  | 0.43                     | 1.8                            | 1.2                              | ∞              |
| Liquid Permittivity - deviation from target values                            | 5.0           | R              | 1.73         | 0.60                  | 0.49                     | 1.7                            | 1.4                              | ∞              |
| Combined Standard Uncertainty (k=1)                                           | RSS           |                |              |                       |                          | 11.5                           | 11.3                             | 60             |
| Expanded Uncertainty<br>(95% CONFIDENCE LEVEL)                                | k=2           |                |              |                       |                          | 23.0                           | 22.6                             |                |

|                                         |                                                                                                                                                                                                        |                              |                                 |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  <b>SAR EVALUATION REPORT</b>  |                              | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                                                                                                                                     | DUT Type:<br>Portable Tablet | Page 61 of 64                   |

## 15 CONCLUSION

### 15.1 Measurement Conclusion

The SAR evaluation indicates that the EUT complies with the RF radiation exposure limits of the FCC and Innovation, Science, and Economic Development Canada, with respect to all parameters subject to this test. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables. [3]

|                                         |                                                                                     |                              |                                                                                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
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| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                  | DUT Type:<br>Portable Tablet |                                                                                       | Page 62 of 64                   |

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|                                         |                                                                                                                                                                                                        |                              |                                 |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  <b>SAR EVALUATION REPORT</b>  |                              | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                                                                                                                                     | DUT Type:<br>Portable Tablet | Page 63 of 64                   |



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|                                         |                                                                                                                                                                                                        |                              |                                 |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| FCC ID: ZNFLK460                        |  <b>SAR EVALUATION REPORT</b>  |                              | Approved by:<br>Quality Manager |
| Document S/N:<br>1M1707240228-07-R1.ZNF | Test Dates:<br>07/24/17 - 08/22/17                                                                                                                                                                     | DUT Type:<br>Portable Tablet | Page 64 of 64                   |

## APPENDIX A: SAR TEST DATA

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01961**

Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 820.1 \text{ MHz}$ ;  $\sigma = 0.978 \text{ S/m}$ ;  $\epsilon_r = 54.146$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-07-2017; Ambient Temp: 22.3°C; Tissue Temp: 21.1°C

Probe: ES3DV3 - SN3209; ConvF(6.36, 6.36, 6.36); Calibrated: 3/14/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1415; Calibrated: 3/13/2017

Phantom: SAM with CRP v4.0 Left; Type: QD000P40CD; Serial: TP:1692

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: Cell. BC10 EVDO Rev. 0, Body SAR, Back side, Mid.ch**

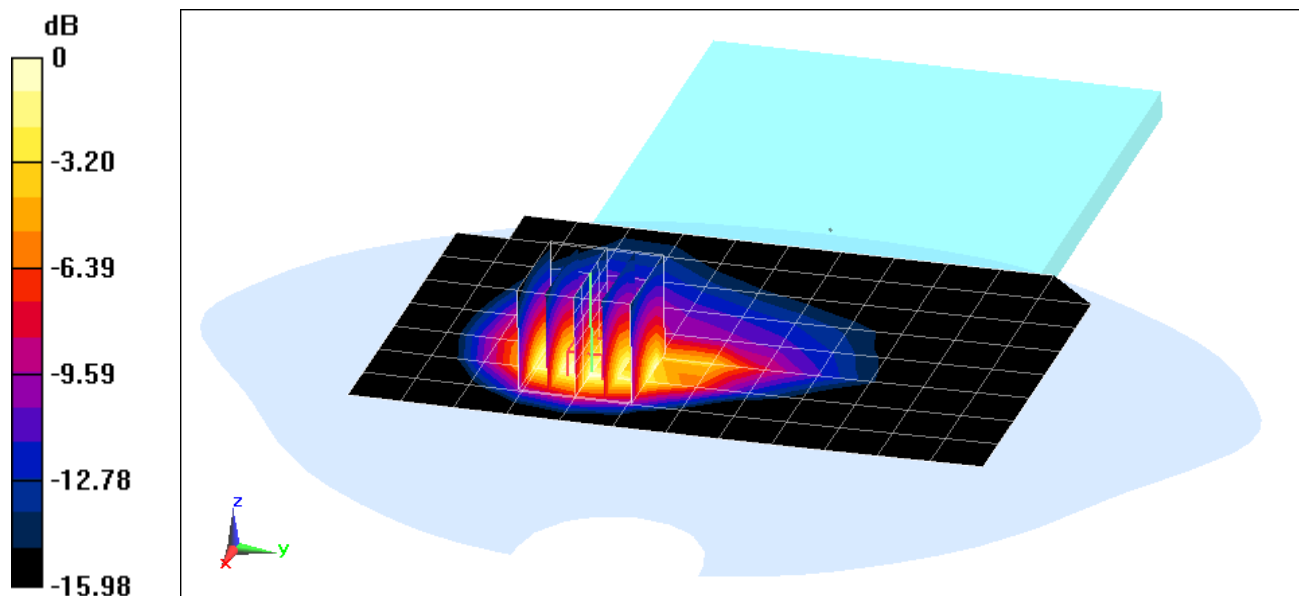
**Area Scan (9x13x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 21.81 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.957 W/kg

**SAR(1 g) = 0.398 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01961**

Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 836.52 \text{ MHz}$ ;  $\sigma = 0.997 \text{ S/m}$ ;  $\epsilon_r = 54.036$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-07-2017; Ambient Temp: 22.3°C; Tissue Temp: 21.1°C

Probe: ES3DV3 - SN3209; ConvF(6.36, 6.36, 6.36); Calibrated: 3/14/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1415; Calibrated: 3/13/2017

Phantom: SAM with CRP v4.0 Left; Type: QD000P40CD; Serial: TP:1692

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: Cell. EVDO Rev. 0, Body SAR, Back side, Mid.ch**

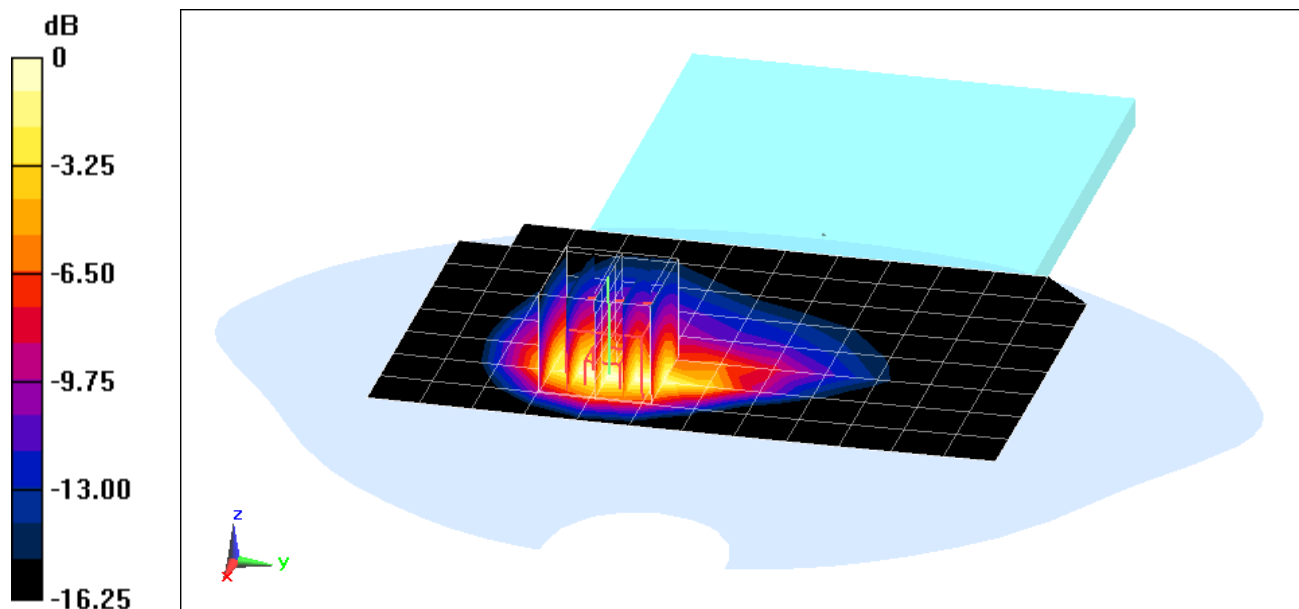
**Area Scan (9x13x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 21.32 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.864 W/kg

**SAR(1 g) = 0.400 W/kg**



0 dB = 0.524 W/kg = -2.81 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01979**

Communication System: UID 0, CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used:

$f = 1880 \text{ MHz}$ ;  $\sigma = 1.56 \text{ S/m}$ ;  $\epsilon_r = 52.9$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.8 cm

Test Date: 08-11-2017; Ambient Temp: 21.7°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7406; ConvF(7.81, 7.81, 7.81); Calibrated: 4/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1407; Calibrated: 4/11/2017

Phantom: SAM Right; Type: QD000P40CD; Serial: TP:7535

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: PCS EVDO Rev. 0, Body SAR, Right Edge, Mid.ch**

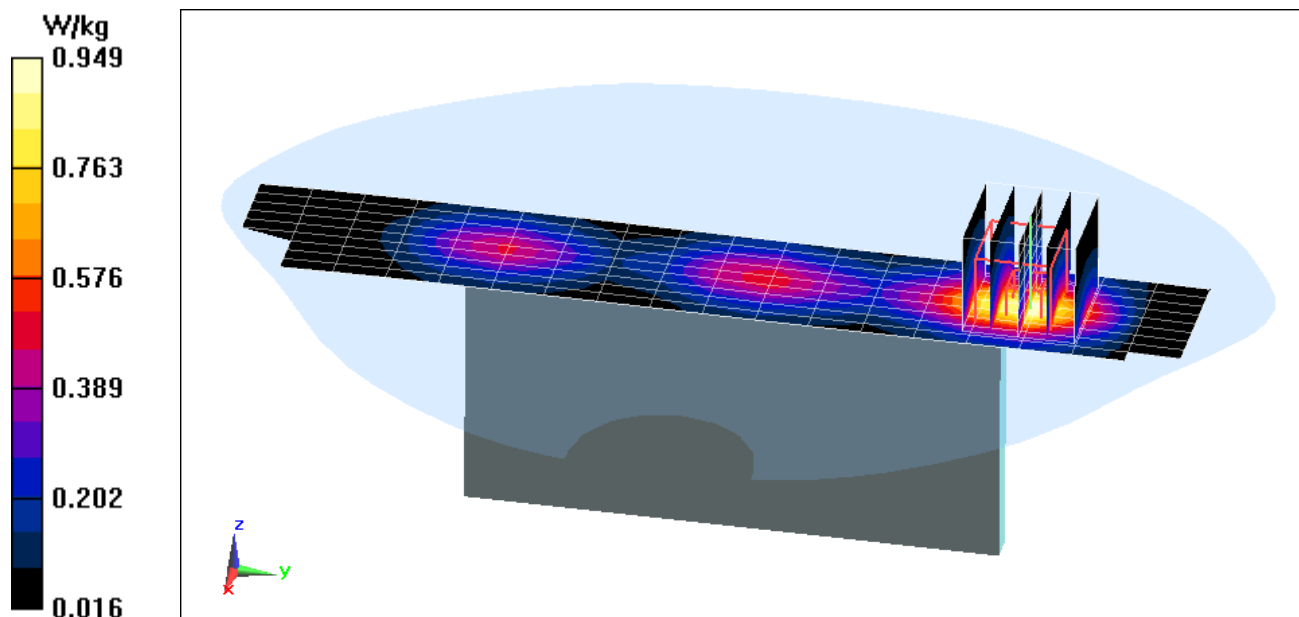
**Area Scan (10x19x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 21.44 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.11 W/kg

**SAR(1 g) = 0.654 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01961**

Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 707.5$  MHz;  $\sigma = 0.919$  S/m;  $\epsilon_r = 55.425$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 07-24-2017; Ambient Temp: 21.7°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7406; ConvF(9.9, 9.9, 9.9); Calibrated: 4/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1407; Calibrated: 4/11/2017

Phantom: SAM Right; Type: QD000P40CD; Serial: TP:7535

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 12, Body SAR, Back side, Mid.ch, 10 MHz Bandwidth,  
QPSK, 1 RB, 49 RB Offset**

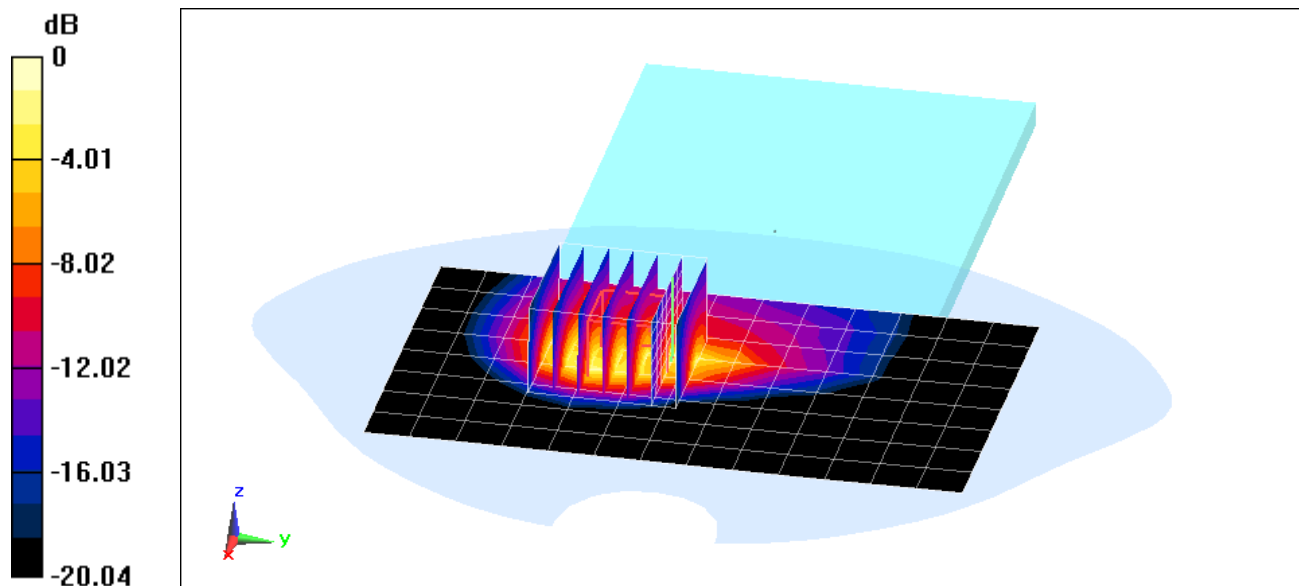
**Area Scan (9x14x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 0.8540 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 0.848 W/kg

**SAR(1 g) = 0.289 W/kg**



0 dB = 0.586 W/kg = -2.32 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01972**

Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 831.5$  MHz;  $\sigma = 1.001$  S/m;  $\epsilon_r = 54.475$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 07-31-2017; Ambient Temp: 22.7°C; Tissue Temp: 21.5°C

Probe: ES3DV3 - SN3319; ConvF(6.29, 6.29, 6.29); Calibrated: 3/14/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1368; Calibrated: 3/8/2017

Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: TP:-1648

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch, 15 MHz Bandwidth,  
QPSK, 1 RB, 36 RB Offset**

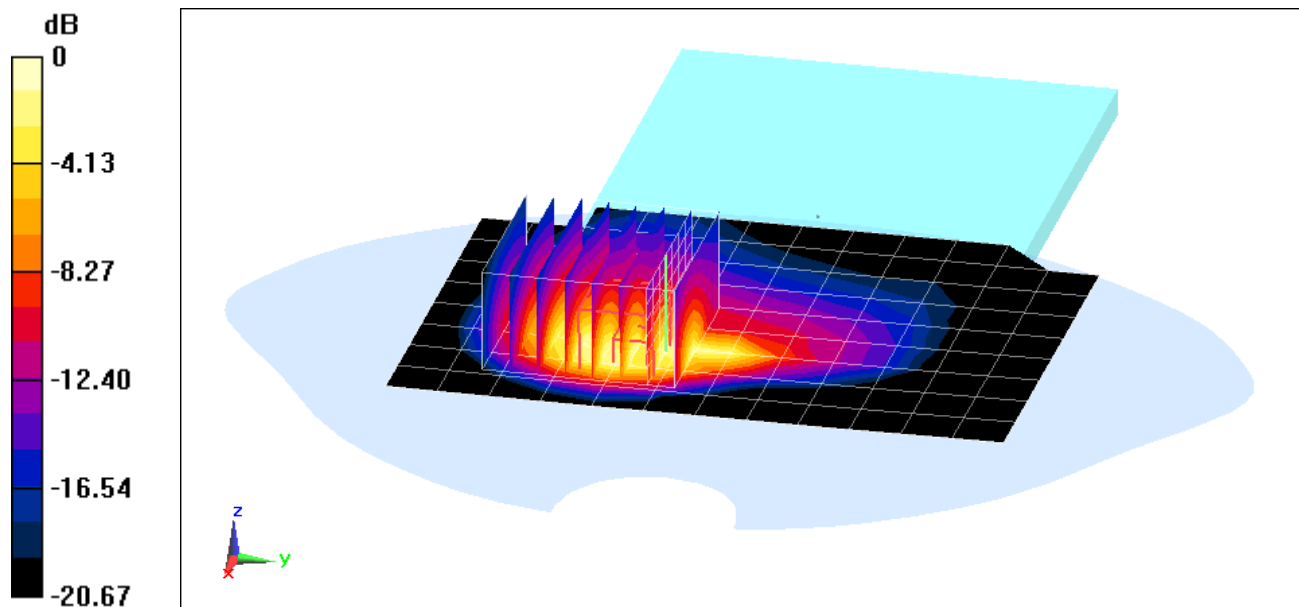
**Area Scan (11x13x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.97 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 0.892 W/kg

**SAR(1 g) = 0.389 W/kg**



0 dB = 0.516 W/kg = -2.87 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01972**

Communication System: UID 0, LTE Band 4 (AWS); Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used (interpolated):

$f = 1732.5 \text{ MHz}$ ;  $\sigma = 1.487 \text{ S/m}$ ;  $\epsilon_r = 51.472$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 07-27-2017; Ambient Temp: 22.4°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7406; ConvF(8.08, 8.08, 8.08); Calibrated: 4/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1407; Calibrated: 4/11/2017

Phantom: SAM Left; Type: QD000P40CD; Serial: TP:7535

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 4 (AWS), Body SAR, Back side, Mid.ch, 20 MHz Bandwidth,  
QPSK, 1 RB, 0 RB Offset**

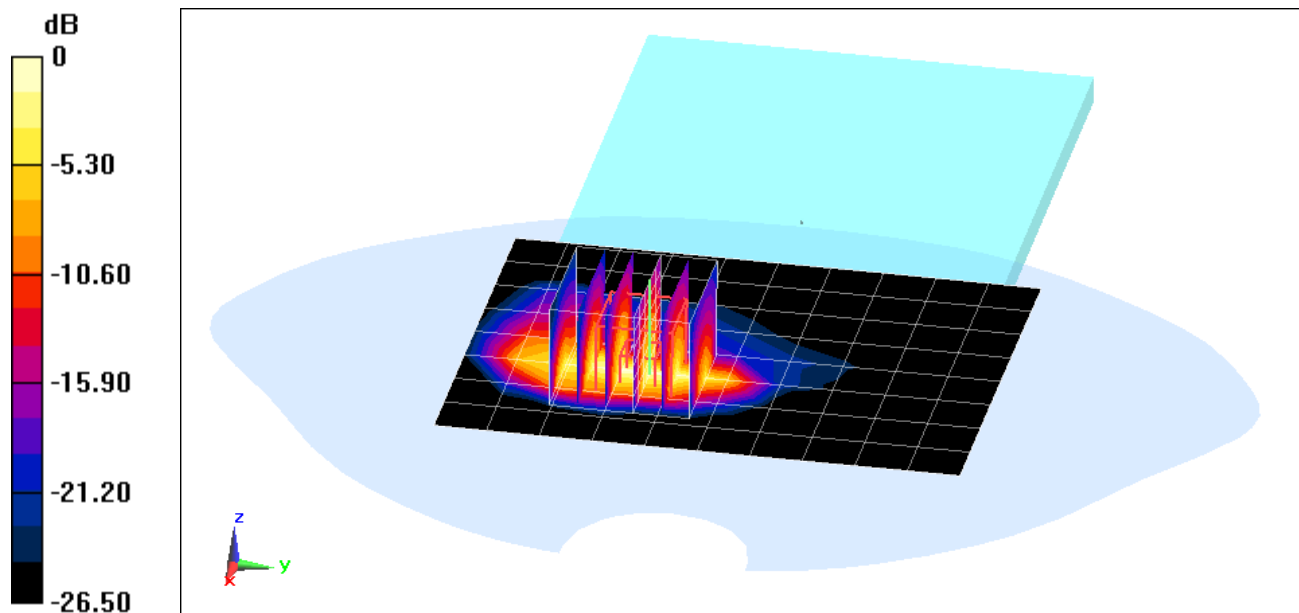
**Area Scan (9x11x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.82 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.55 W/kg

**SAR(1 g) = 0.686 W/kg**



0 dB = 1.27 W/kg = 1.04 dBW/kg



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01979**

Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1882.5 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1882.5 \text{ MHz}$ ;  $\sigma = 1.559 \text{ S/m}$ ;  $\epsilon_r = 53.346$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.8 cm

Test Date: 07-27-2017; Ambient Temp: 20.6°C; Tissue Temp: 21.8°C

Probe: ES3DV3 - SN3209; ConvF(4.93, 4.93, 4.93); Calibrated: 3/14/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1415; Calibrated: 3/13/2017

Phantom: SAM with CRP v4.0 Left; Type: QD000P40CD; Serial: TP:1692

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 25 (PCS), Body SAR, Right Edge, Mid.ch, 20 MHz Bandwidth,  
QPSK, 1 RB, 0 RB Offset**

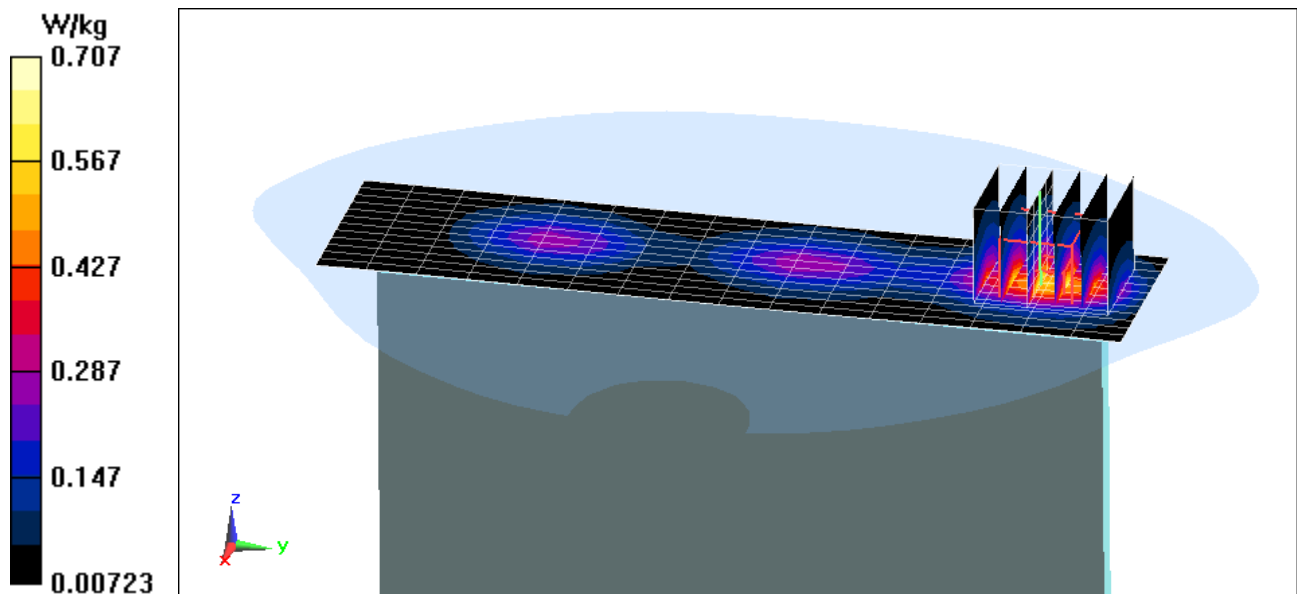
**Area Scan (13x17x1):** Measurement grid: dx=5mm, dy=15mm

**Zoom Scan (5x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 20.42 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.965 W/kg

**SAR(1 g) = 0.585 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01961**

Communication System: UID 0, LTE Band 41; Frequency: 2680 MHz; Duty Cycle: 1:1.58

Medium: 2600 Body Medium parameters used (interpolated):

$f = 2680 \text{ MHz}$ ;  $\sigma = 2.352 \text{ S/m}$ ;  $\epsilon_r = 50.523$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-05-2017; Ambient Temp: 23.3°C; Tissue Temp: 23.0°C

Probe: ES3DV3 - SN3287; ConvF(4.12, 4.12, 4.12); Calibrated: 9/19/2016;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/14/2016

Phantom: SAM Left; Type: QD000P40CA; Serial: TP:82355

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 41, Body SAR, Back side, High.ch, 20 MHz Bandwidth,  
QPSK, 1 RB, 0 RB Offset**

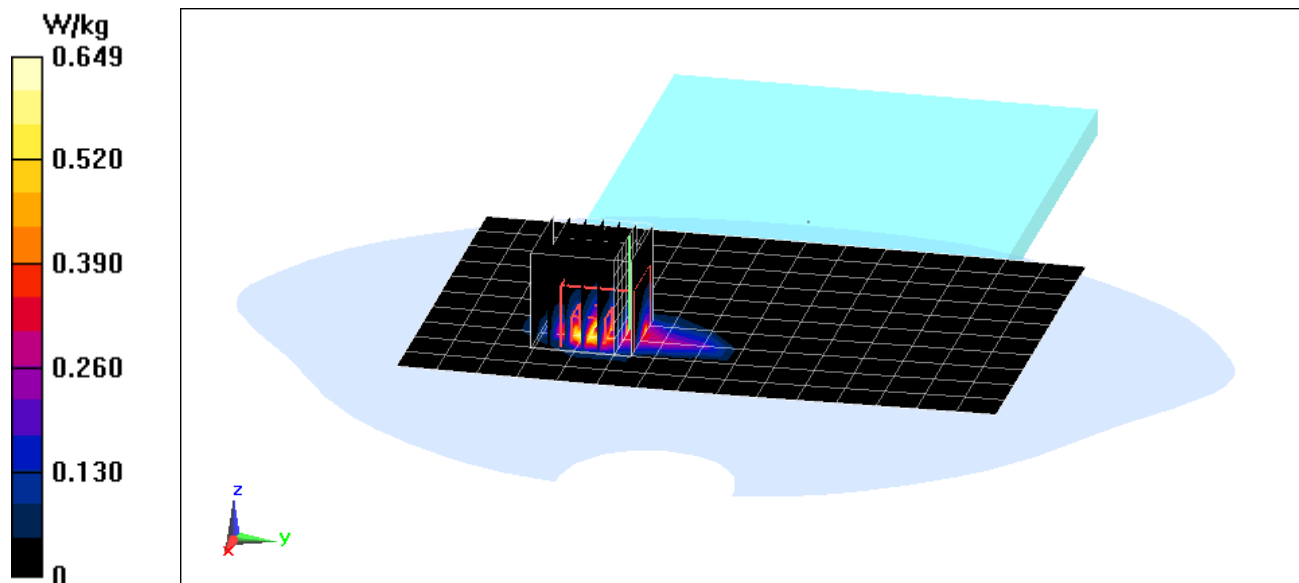
**Area Scan (11x16x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 14.89 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.39 W/kg

**SAR(1 g) = 0.475 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01980**

Communication System: UID 0, IEEE 802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used (interpolated):

$f = 2437 \text{ MHz}$ ;  $\sigma = 2.007 \text{ S/m}$ ;  $\epsilon_r = 51.508$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-05-2017; Ambient Temp: 22.9°C; Tissue Temp: 22.5°C

Probe: ES3DV3 - SN3287; ConvF(4.35, 4.35, 4.35); Calibrated: 9/19/2016;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/14/2016

Phantom: SAM Left; Type: QD000P40CA; Serial: TP:82355

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: IEEE 802.11b, 22 MHz Bandwidth, Body SAR, Ch 06, 1 Mbps, Back Side**

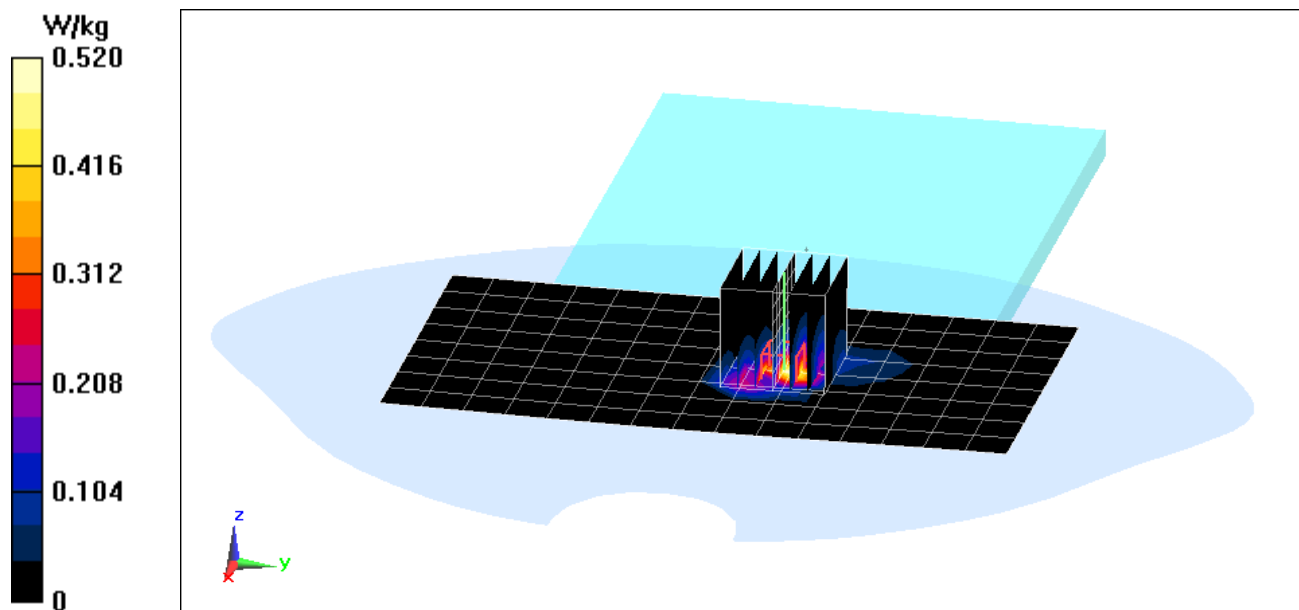
**Area Scan (9x16x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 14.87 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 1.09 W/kg

**SAR(1 g) = 0.366 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: ZNFLK460; Type: Portable Tablet; Serial: 01976**

Communication System: UID 0, Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1.302

Medium: 2450 Body Medium parameters used (interpolated):

$f = 2480 \text{ MHz}$ ;  $\sigma = 2.036 \text{ S/m}$ ;  $\epsilon_r = 50.609$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 08-22-2017; Ambient Temp: 23.1°C; Tissue Temp: 20.9°C

Probe: ES3DV3 - SN3319; ConvF(4.42, 4.42, 4.42); Calibrated: 3/14/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1368; Calibrated: 3/8/2017

Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: Bluetooth, Body SAR, Ch 78, 1 Mbps, Back Side**

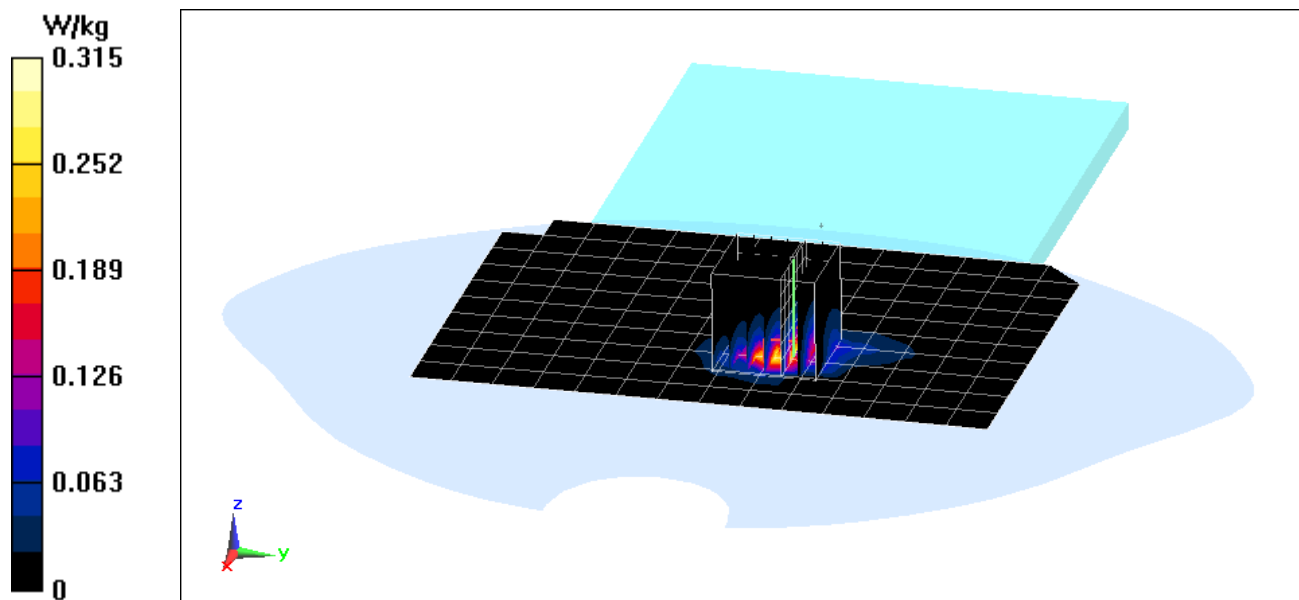
**Area Scan (11x15x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 10.78 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.608 W/kg

**SAR(1 g) = 0.220 W/kg**



## APPENDIX B: SYSTEM VERIFICATION

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 750 MHz; Type: D750V3; Serial: 1054**

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 750 \text{ MHz}$ ;  $\sigma = 0.958 \text{ S/m}$ ;  $\epsilon_r = 55.007$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 07-24-2017; Ambient Temp: 21.7°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7406; ConvF(9.9, 9.9, 9.9); Calibrated: 4/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1407; Calibrated: 4/11/2017

Phantom: SAM Right; Type: QD000P40CD; Serial: TP:7535

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 750 MHz System Verification at 23.0 dBm (200 mW)

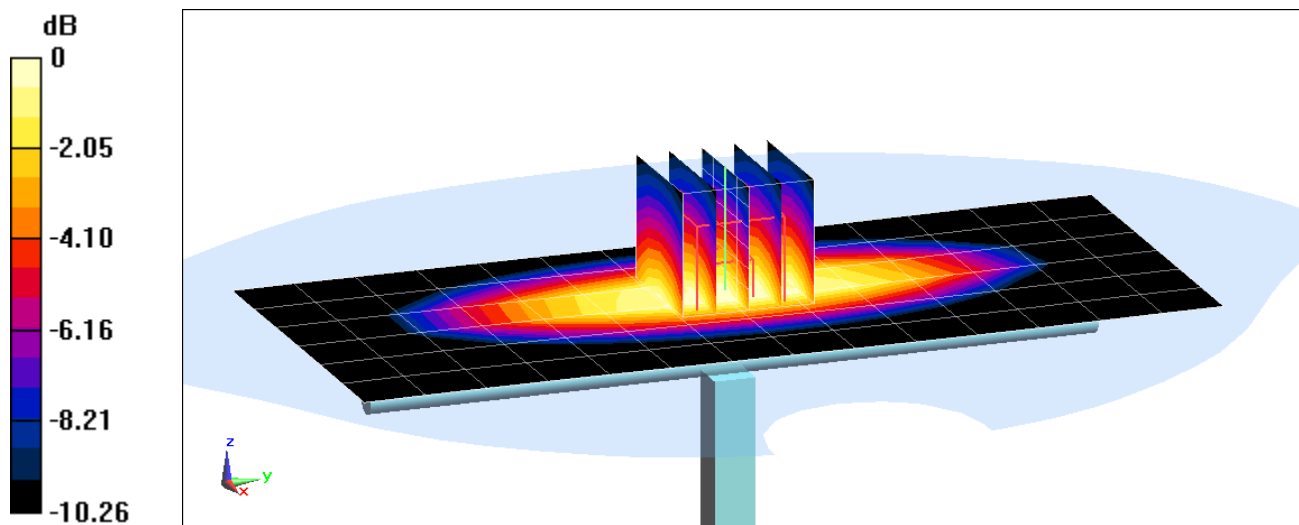
**Area Scan (7x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 2.70 W/kg

**SAR(1 g) = 1.75 W/kg**

Deviation(1 g) = 1.63%



0 dB = 2.36 W/kg = 3.73 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d180**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used:

$f = 835 \text{ MHz}$ ;  $\sigma = 1.005 \text{ S/m}$ ;  $\epsilon_r = 54.424$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 07-31-2017; Ambient Temp: 22.7°C; Tissue Temp: 21.5°C

Probe: ES3DV3 - SN3319; ConvF(6.29, 6.29, 6.29); Calibrated: 03/14/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1368; Calibrated: 03/08/2017

Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: TP:-1648

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## **835 MHz System Verification at 23.0 dBm (200 mW)**

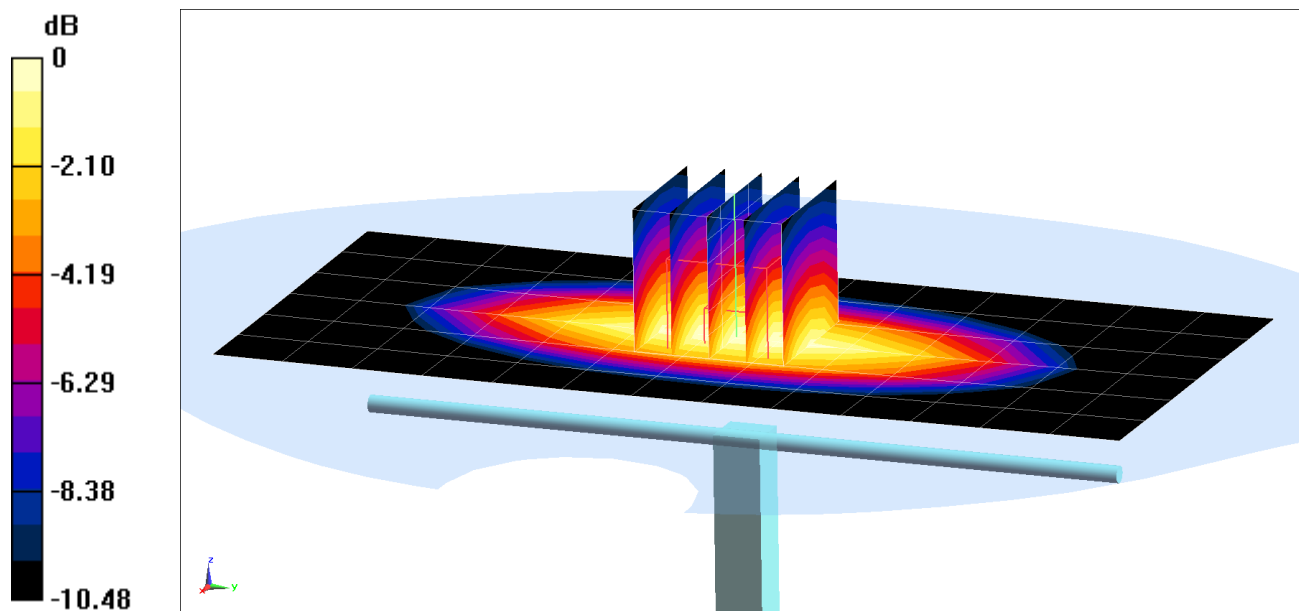
**Area Scan (7x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 2.92 W/kg

**SAR(1 g) = 1.98 W/kg**

Deviation(1 g) = 3.02%



0 dB = 2.31 W/kg = 3.64 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d180**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used:

$f = 835 \text{ MHz}$ ;  $\sigma = 0.996 \text{ S/m}$ ;  $\epsilon_r = 54.058$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 08-07-2017; Ambient Temp: 22.3°C; Tissue Temp: 21.1°C

Probe: ES3DV3 - SN3209; ConvF(6.36, 6.36, 6.36); Calibrated: 3/14/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1415; Calibrated: 3/13/2017

Phantom: SAM with CRP v4.0 Left; Type: QD000P40CD; Serial: TP:1692

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## **835 MHz System Verification at 23.0 dBm (200 mW)**

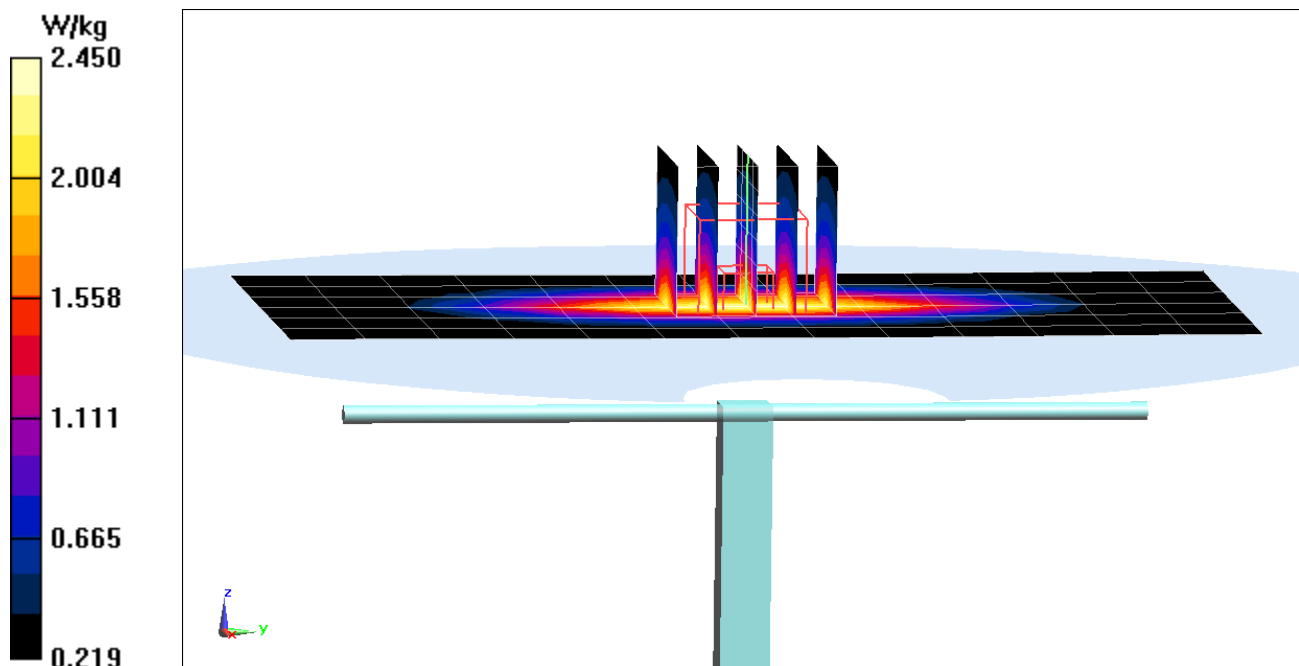
**Area Scan (7x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 3.07 W/kg

**SAR(1 g) = 2.09 W/kg**

Deviation(1 g) = 8.74%





# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1092**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.505 \text{ S/m}$ ;  $\epsilon_r = 51.397$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 07-27-2017; Ambient Temp: 22.4°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7406; ConvF(8.08, 8.08, 8.08); Calibrated: 4/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1407; Calibrated: 4/11/2017

Phantom: SAM Left; Type: QD000P40CD; Serial: TP:7535

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 1750 MHz System Verification at 20.0 dBm (100 mW)

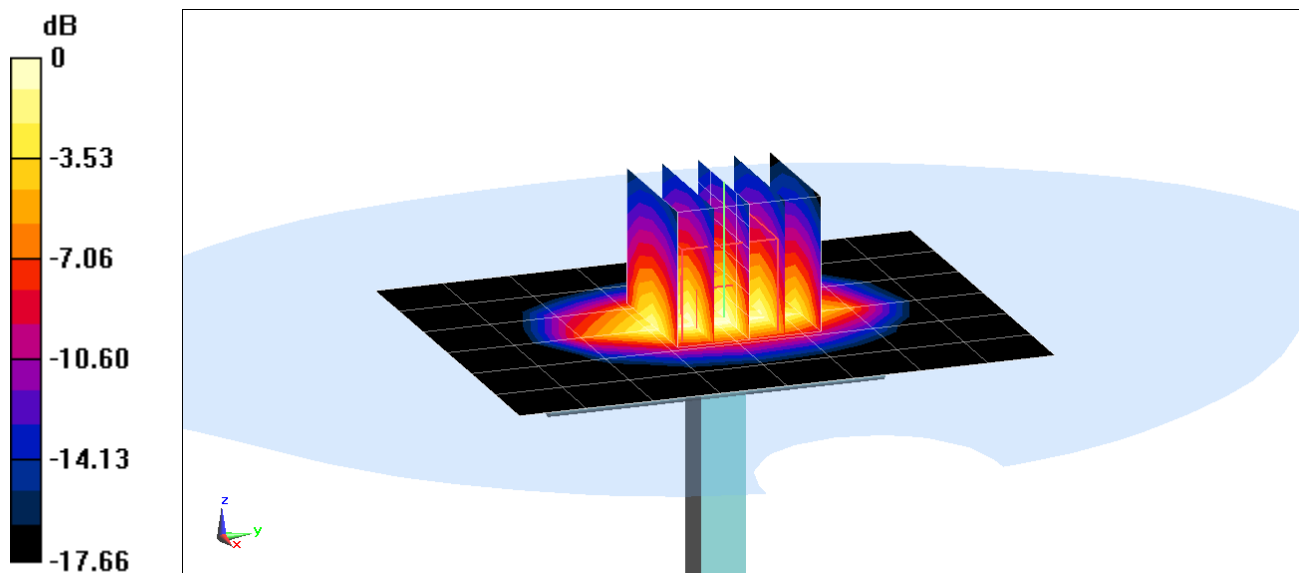
**Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 7.06 W/kg

**SAR(1 g) = 3.88 W/kg**

Deviation(1 g) = 4.86%



0 dB = 5.93 W/kg = 7.73 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d026**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.575 \text{ S/m}$ ;  $\epsilon_r = 53.266$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 07-27-2017; Ambient Temp: 20.6°C; Tissue Temp: 21.8°C

Probe: ES3DV3 - SN3209; ConvF(4.93, 4.93, 4.93); Calibrated: 3/14/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1415; Calibrated: 3/13/2017

Phantom: SAM with CRP v4.0 Left; Type: QD000P40CD; Serial: TP:1692

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 1900 MHz System Verification at 20.0 dBm (100 mW)

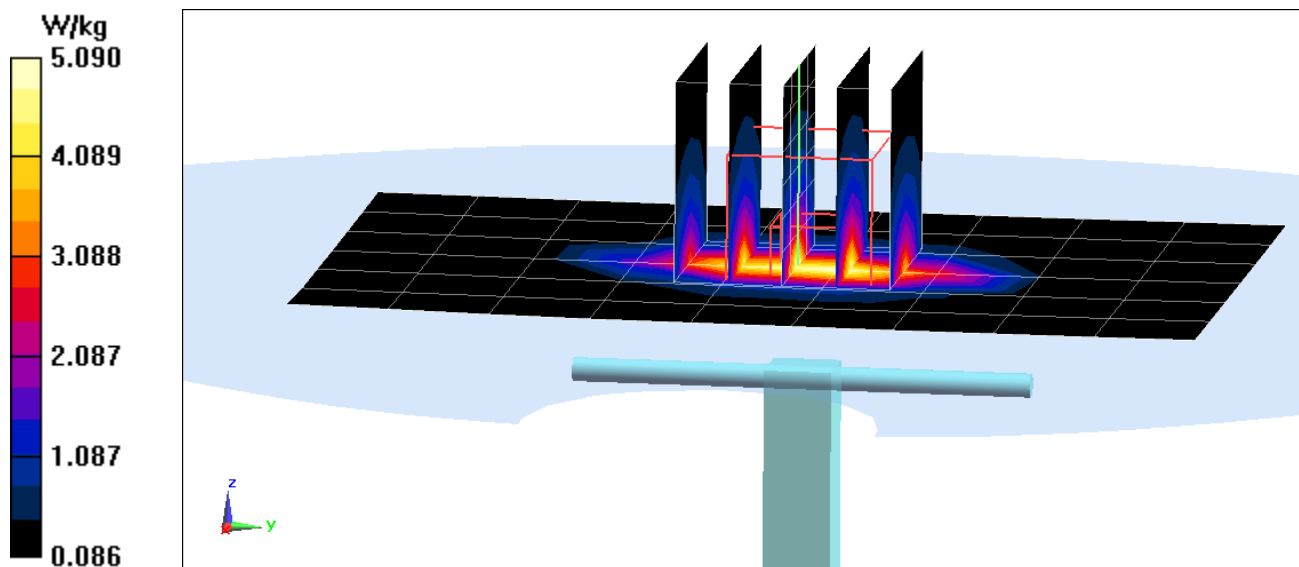
**Area Scan (7x10x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 7.14 W/kg

**SAR(1 g) = 4.04 W/kg**

Deviation(1 g) = 0.25%



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d026**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.577 \text{ S/m}$ ;  $\epsilon_r = 52.852$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 08-11-2017; Ambient Temp: 21.7°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7406; ConvF(7.81, 7.81, 7.81); Calibrated: 4/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1407; Calibrated: 4/11/2017

Phantom: SAM Right; Type: QD000P40CD; Serial: TP:7535

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## **1900 MHz System Verification at 20.0 dBm (100 mW)**

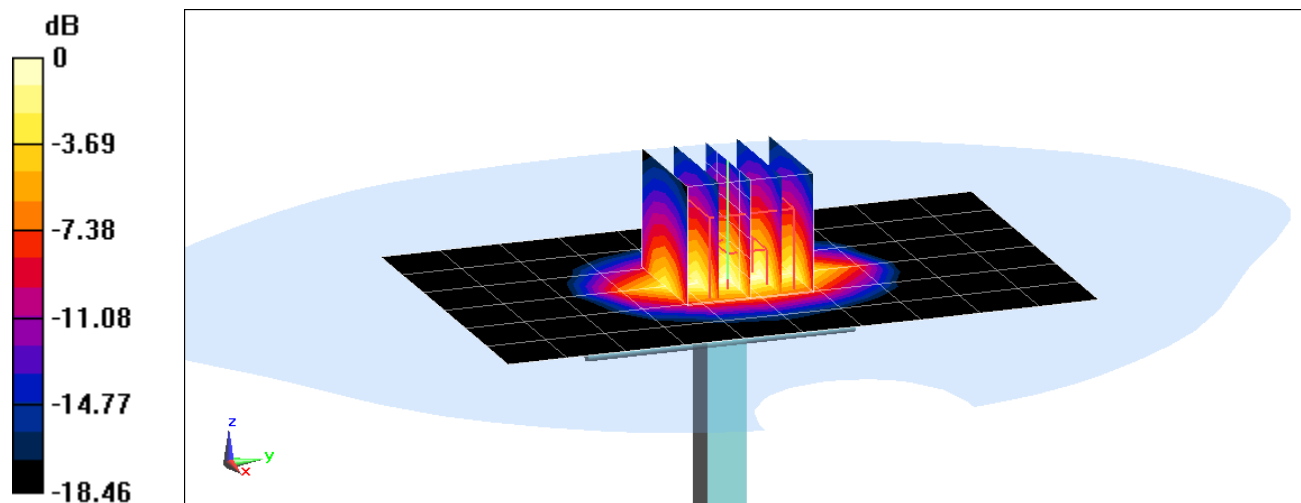
**Area Scan (7x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.51 W/kg

**SAR(1 g) = 4.00 W/kg**

Deviation(1 g) = -0.74%



0 dB = 6.22 W/kg = 7.94 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 797**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.022 \text{ S/m}$ ;  $\epsilon_r = 51.484$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 08-05-2017; Ambient Temp: 22.9°C; Tissue Temp: 22.5°C

Probe: ES3DV3 - SN3287; ConvF(4.35, 4.35, 4.35); Calibrated: 9/19/2016;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/14/2016

Phantom: SAM Left; Type: QD000P40CA; Serial: TP:82355

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 2450 MHz System Verification at 20.0 dBm (100 mW)

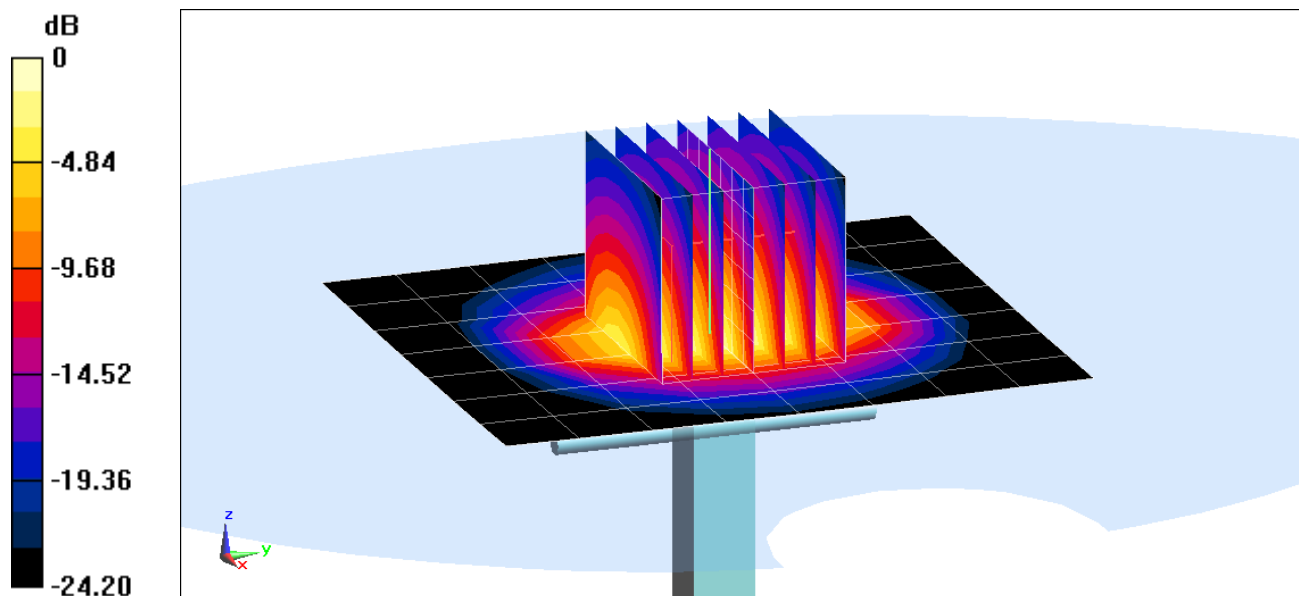
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (8x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 11.5 W/kg

**SAR(1 g) = 5.49 W/kg**

Deviation(1 g) = 8.28%



0 dB = 7.26 W/kg = 8.61 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 945**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used:

$f = 2450 \text{ MHz}$ ;  $\sigma = 1.99 \text{ S/m}$ ;  $\epsilon_r = 50.74$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 08-22-2017; Ambient Temp: 23.1°C; Tissue Temp: 20.9°C

Probe: ES3DV3 - SN3319; ConvF(4.42, 4.42, 4.42); Calibrated: 3/14/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1368; Calibrated: 3/8/2017

Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 2450 MHz System Verification at 20.0 dBm (100 mW)

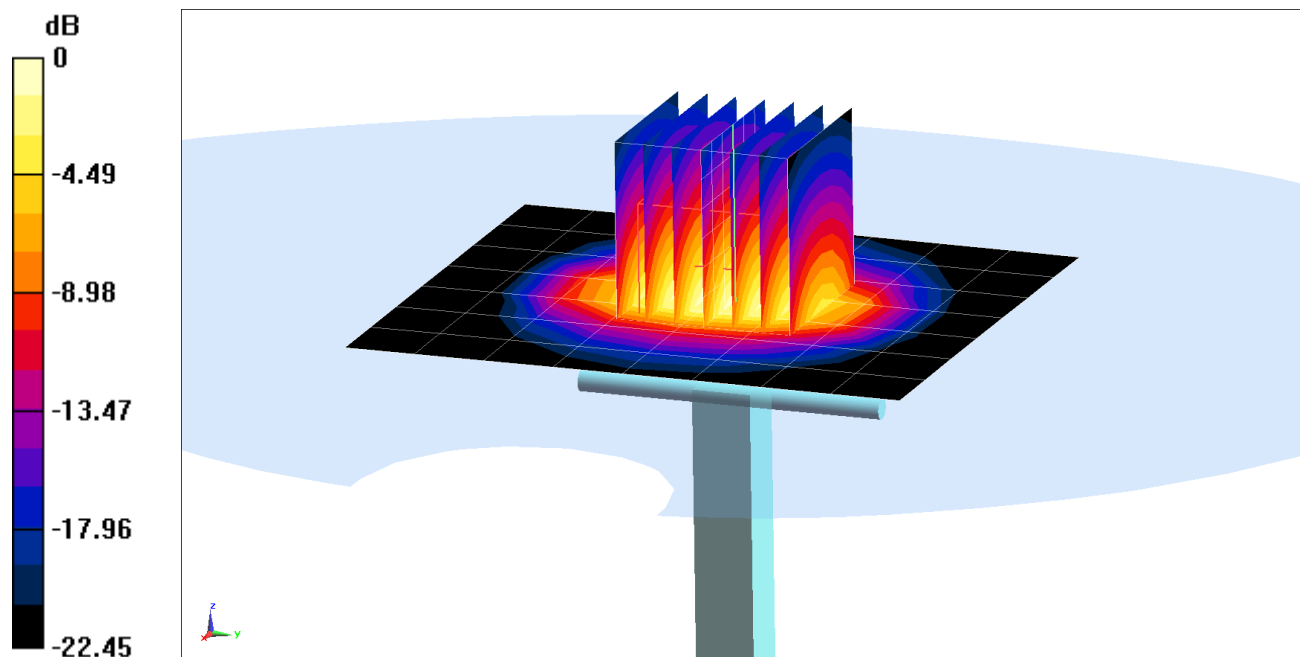
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) =  $10.6 \text{ W/kg}$

**SAR(1 g) =  $5.15 \text{ W/kg}$**

Deviation(1 g) = 2.59%



0 dB =  $6.74 \text{ W/kg}$  =  $8.29 \text{ dBW/kg}$

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1071**

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: 2600 Body Medium parameters used:

$f = 2600 \text{ MHz}$ ;  $\sigma = 2.244 \text{ S/m}$ ;  $\epsilon_r = 50.786$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 08-05-2017; Ambient Temp: 23.3°C; Tissue Temp: 23.0°C

Probe: ES3DV3 - SN3287; ConvF(4.12, 4.12, 4.12); Calibrated: 9/19/2016;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/14/2016

Phantom: SAM Left; Type: QD000P40CA; Serial: TP:82355

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 2600 MHz System Verification at 20.0 dBm (100 mW)

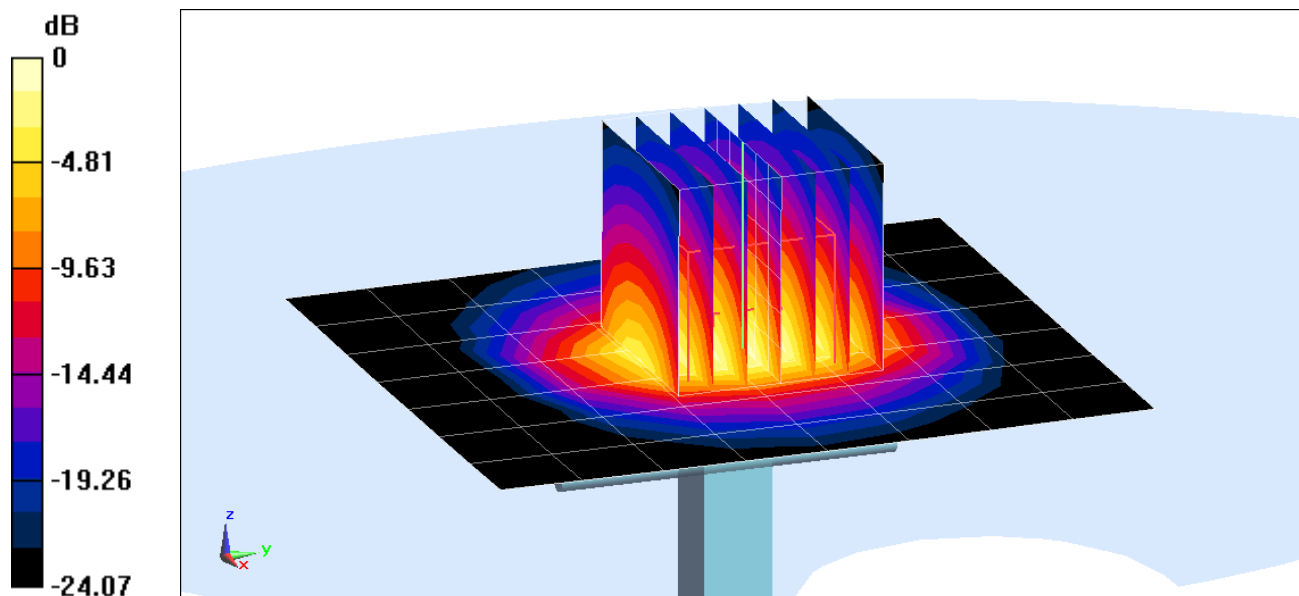
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 13.0 W/kg

**SAR(1 g) = 5.86 W/kg**

Deviation(1 g) = 8.12%



0 dB = 7.88 W/kg = 8.97 dBW/kg