

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 1 of 101

**Applicant** : Shenzhen UniStrong Science & Technology Co.,Ltd.  
**Address of Applicant** : B,4-4Factory, Zhengcheng Road, Fuyong Baoan District, Shenzhen, China

**Product Name** : Rugged Smart Tablet  
**Model No.** : UT30P  
**Sample No.** : E19020010-05#01  
E19020010-06#03  
**FCC ID** : 2AOPD-UT30P  
**ISED Number** : 11546A-UT30P

**Standards** : FCC CFR47 Part 2  
(Others refer to chapter 1.4)

**Date of Receipt** : 2020-2-10  
**Date of Test** : 2020-2-10 ~ 2020-5-15  
**Date of Issue** : 2020-5-15

**Remark:**

*This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.*

Prepared by: Jennifer Zhou  
(Jennifer Zhou)

Reviewed by: Jesse  
(Jesse)

Approved by: Guoyou Chi  
(Authorized signatory: Guoyou Chi)

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 2 of 101

| Revision Record |            |           |            |
|-----------------|------------|-----------|------------|
| Version         | Date       | Revisions | Revised By |
| 1.0             | 2020-04-18 | Original  | --         |
|                 |            |           |            |
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|                 |            |           |            |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 3 of 101

## Contents

|          |                                              |           |
|----------|----------------------------------------------|-----------|
| <b>1</b> | <b>GENERAL INFORMATION .....</b>             | <b>5</b>  |
| 1.1      | TESTING LABORATORY .....                     | 5         |
| 1.2      | DETAILS OF APPLICATION .....                 | 5         |
| 1.3      | DETAILS OF EUT .....                         | 5         |
| 1.4      | TEST METHODOLOGY .....                       | 6         |
| 1.5      | TEST VERDICT .....                           | 7         |
| <b>2</b> | <b>TEST CONDITION .....</b>                  | <b>9</b>  |
| 2.1      | ENVIRONMENTAL CONDITIONS .....               | 9         |
| 2.2      | TEST ENVIRONMENTS .....                      | 9         |
| 2.3      | EQUIPMENT LIST .....                         | 9         |
| <b>3</b> | <b>TEST SET-UP AND OPERATION MODES .....</b> | <b>10</b> |
| 3.1      | DETAILS OF TEST MODE .....                   | 10        |
| 3.2      | TEST SETUP DIAGRAM .....                     | 14        |
| <b>4</b> | <b>TEST ITEMS.....</b>                       | <b>17</b> |
| 4.1      | TRANSMITTER RADIATED POWER (EIRP/ERP) .....  | 17        |
| 4.1.1    | Limit.....                                   | 17        |
| 4.1.2    | Test Procedures.....                         | 17        |
| 4.1.3    | Test Result.....                             | 18        |
| 4.2      | PEAK-TO-AVERAGE RATIO .....                  | 19        |
| 4.2.1    | Limit.....                                   | 19        |
| 4.2.2    | Test Procedures.....                         | 19        |
| 4.2.3    | Test Result.....                             | 19        |
| 4.3      | OCCUPIED BANDWIDTH.....                      | 20        |
| 4.3.1    | Limit.....                                   | 20        |
| 4.3.2    | Test Procedures.....                         | 20        |
| 4.3.3    | Test Result.....                             | 20        |
| 4.4      | FREQUENCY STABILITY .....                    | 21        |
| 4.4.1    | Limit.....                                   | 21        |
| 4.4.2    | Test Procedures.....                         | 22        |
| 4.4.3    | Test Result.....                             | 22        |
| 4.5      | SPURIOUS EMISSION AT ANTENNA TERMINALS.....  | 23        |
| 4.5.1    | Limit.....                                   | 23        |
| 4.5.2    | Test Procedures.....                         | 24        |
| 4.5.3    | Test Result.....                             | 25        |
| 4.6      | BAND EDGE .....                              | 26        |
| 4.6.1    | Limit.....                                   | 26        |
| 4.6.2    | Test Procedures.....                         | 27        |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 4 of 101

|       |                                              |    |
|-------|----------------------------------------------|----|
| 4.6.3 | Test Result.....                             | 28 |
| 4.7   | FIELD STRENGTH OF SPURIOUS RADIATION.....    | 29 |
| 4.7.1 | Limit.....                                   | 29 |
| 4.7.2 | Test Procedures.....                         | 30 |
| 4.7.3 | Test Result.....                             | 31 |
| 5     | APPENDIXES .....                             | 32 |
| 5.1   | TEST RESULT .....                            | 32 |
| 5.1.1 | Transmitter Radiated Power (EIRP/ERP) .....  | 32 |
| 5.1.2 | Peak to Average Ratio .....                  | 59 |
| 5.1.3 | Occupied Bandwidth.....                      | 63 |
| 5.1.4 | Frequency Stability .....                    | 71 |
| 5.1.5 | Spurious Emission at Antenna Terminals ..... | 81 |
| 5.1.6 | Band Edge .....                              | 89 |
| 5.1.7 | Field Strength of Spurious Radiation .....   | 99 |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 5 of 101

## 1 General Information

### 1.1 Testing Laboratory

|              |                                                       |
|--------------|-------------------------------------------------------|
| Company Name | ICAS Testing Technology Services (Shanghai) Co., Ltd. |
| Address      | 155 Pingbei Rd, Minhang District, Shanghai, China     |
| Telephone    | 0086 21-51682999                                      |
| Fax          | 0086 21-54711112                                      |
| Homepage     | www.icasiso.com                                       |

### 1.2 Details of Application

|                |                                                                       |
|----------------|-----------------------------------------------------------------------|
| Company Name   | Shenzhen UniStrong Science & Technology Co.,Ltd                       |
| Address        | B,4-4Factory, Zhengcheng Road, Fuyong Baoan District, Shenzhen, China |
| Contact Person | Lily Zheng                                                            |
| Telephone      | +86-21-54467182                                                       |
| Email          | ll.zheng@unistrong.com                                                |

### 1.3 Details of EUT

|                   |                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name      | Rugged Smart Tablet                                                                                                                                                                                                                                                                                               |
| Brand Name        | Unistrong                                                                                                                                                                                                                                                                                                         |
| Model No.         | UT30P                                                                                                                                                                                                                                                                                                             |
| FCC ID            | 2AOPD-UT30P                                                                                                                                                                                                                                                                                                       |
| Mode of Operation | GSM/GPRS/EDGE 850/1900; WCDMA/HSDPA/HSUPA Band II/V;<br>CDMA2000 1xRTT/1xEv-Do BC0; LTE FDD Band 2/4/5/7/12/13/17/25;<br>LTE TDD Band 41;                                                                                                                                                                         |
| Modulation Type   | GMSK for GSM/GPRS and 8PSK for EGPRS; QPSK for WCDMA/CDMA 1x;<br>QPSK/8PSK/16QAM for EvDo; QPSK/16QAM for HSDPA/HSUPA/LTE;                                                                                                                                                                                        |
| Power Class       | GSM/GPRS 850: 4<br>GSM/GPRS 1900: 1<br>EDGE 850/1900: E2<br>WCDMA/HSDPA/HSUPA Band II: 3<br>WCDMA/HSDPA/HSUPA Band V: 3<br>CDMA2000 1xRTT/1xEv-Do BC0: 3<br>LTE FDD Band 2: 3<br>LTE FDD Band 4: 3<br>LTE FDD Band 5: 3<br>LTE FDD Band 7: 3<br>LTE FDD Band 17: 3<br>LTE TDD Band 41: 3<br>LTE band 12/13/25 : 1 |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 6 of 101

|                           |                  |
|---------------------------|------------------|
| Multislot Class           | GPRS/EDGE: 12    |
| Antenna Type              | Internal Antenna |
| Antenna Gain              | Peak gain 2.5dBi |
| Extreme Temperature Range | -20°C~ +55°C     |

## 1.4 Test Methodology

|                          |                                                                                                   |
|--------------------------|---------------------------------------------------------------------------------------------------|
| 47 CFR Part 2            | Frequency Allocations and Radio Treaty Matters; General Rules and Regulations                     |
| 47 CFR Part 22 Subpart H | Public Mobile Services                                                                            |
| 47 CFR Part 24 Subpart E | Personal Communications Services                                                                  |
| 47 CFR Part 27           | Miscellaneous Wireless Communications Services                                                    |
| ANSI/TIA-603-E<br>2016   | March<br>Land Mobile FM or PM Communications Equipment Measurement and Performance Standards      |
| ANSI C63.26:2015         | American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services |
| KDB 971168 D01 v03r01    | Measurement Guidance for Certification of Licensed Digital Transmitters                           |

### Note(s):

All test items were verified and recorded according to the standards and without any addition/deviation/exclusion during the test.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 7 of 101

## 1.5 Test Verdict

| No. | FCC Part No.                        | ISED Part No.                                                                           | Description                            | Test Result                    | Verdict |
|-----|-------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------|--------------------------------|---------|
| 1   | 2.1046                              | RSS-Gen 6.12<br>RSS-130 4.4<br>RSS-132 5.4<br>RSS-133 6.4<br>RSS-139 6.5<br>RSS-199 4.4 | Conducted RF Output Power              | Reporting Only<br>Clause 5.1.1 | PASS    |
| 2   | 2.1046<br>22.913<br>24.232<br>27.50 | RSS-Gen 6.12<br>RSS-130 4.4<br>RSS-132 5.4<br>RSS-133 6.4<br>RSS-139 6.5<br>RSS-199 4.4 | Effective (Isotropic) Radiated Power   | Clause 5.1.1                   | PASS    |
| 3   | 2.1046<br>24.232(d)<br>27.50(d)     | RSS-130 4.4<br>RSS-132 5.4<br>RSS-133 6.4<br>RSS-139 6.5<br>RSS-199 4.4                 | Peak to Average Ratio                  | Clause 5.1.2                   | PASS    |
| 4   | 2.1049<br>22.917<br>24.238<br>27.53 | RSS-Gen 6.6                                                                             | Occupied Bandwidth                     | Clause 5.1.3                   | PASS    |
| 5   | 2.1055<br>22.355<br>24.235<br>27.54 | RSS-Gen 6.11<br>RSS-130 4.3<br>RSS-132 5.3<br>RSS-133 6.3<br>RSS-139 6.4<br>RSS-199 4.3 | Frequency Stability                    | Clause 5.1.4                   | PASS    |
| 6   | 2.1051<br>22.917<br>24.238<br>27.53 | RSS-Gen 6.13<br>RSS-130 4.6<br>RSS-132 5.5<br>RSS-133 6.5<br>RSS-139 6.6<br>RSS-199 4.5 | Spurious Emission at Antenna Terminals | Clause 5.1.5                   | PASS    |
| 7   | 2.1051<br>22.917<br>24.238<br>27.53 | RSS-130 4.6<br>RSS-132 5.5<br>RSS-133 6.5<br>RSS-139 6.6<br>RSS-199 4.5                 | Band Edge                              | Clause 5.1.6                   | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 8 of 101

|   |                                     |                                                                                         |                                      |              |      |
|---|-------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------|--------------|------|
| 8 | 2.1051<br>22.917<br>24.238<br>27.53 | RSS-Gen 6.13<br>RSS-130 4.6<br>RSS-132 5.5<br>RSS-133 6.5<br>RSS-139 6.6<br>RSS-199 4.5 | Field Strength of Spurious Radiation | Clause 5.1.7 | PASS |
| 9 | N/A                                 | RSS-Gen 7.1<br>RSS-132 5.6<br>RSS-133 6.6                                               | Receiver Spurious Emissions          | Clause 5.1.8 | PASS |



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 9 of 101

## 2 Test Condition

### 2.1 Environmental conditions

|                            |          |
|----------------------------|----------|
| Temperature (°C)           | 18-25    |
| Humidity (%RH)             | 40-65    |
| Barometric Pressure (mbar) | 960-1060 |

### 2.2 Test Environments

During the measurement, the environmental conditions were within the listed ranges:

|                  |                         |        |
|------------------|-------------------------|--------|
| Test Voltage     | NV (Normal Voltage)     | 3.80 V |
|                  | LV (Low Voltage)        | 2.8 V  |
|                  | HV (High Voltage)       | 4.35 V |
| Test Temperature | NT (Normal Temperature) | +23 °C |
|                  | LT (Low Temperature)    | -20 °C |
|                  | HT (High Temperature)   | +55 °C |

### 2.3 Equipment List

| Name of Equipment                   | Manufacturer    | Model          | Serial No.  | Cal. Due Date |
|-------------------------------------|-----------------|----------------|-------------|---------------|
| Spectrum Analyzer                   | Keysight        | N9020B         | MY59260184  | 2020-07-28    |
| Spectrum Analyzer                   | Rohde & Schwarz | FSV40N         | 101450      | 2020-06-24    |
| EMI Test Receiver                   | Rohde & Schwarz | ESPI3          | 100173      | 2020-06-19    |
| EMI Test Receiver                   | Rohde & Schwarz | ESR 7          | 101911      | 2020-06-19    |
| V-network                           | SCHWARZBECK     | NSLK 8127      | 8127-902    | 2021-02-20    |
| Wideband Radio Communication Tester | Rohde & Schwarz | CMW 500        | 100687      | 2020-08-22    |
| DC Power Supply                     | ACPOWER         | ADC-0800025-15 | D215010003  | 2021-03-19    |
| Temperature Chamber                 | Muni            | M/THP400L      | M/161227-01 | 2020-05-08    |
| Broadband Antenna                   | SCHWARZBECK     | VULB9163       | 9163-1037   | 2020-06-06    |
| Horn Antenna-18G                    | SCHWARZBECK     | BBHA9120D      | 9120D-1775  | 2020-06-06    |
| Loop Antenna                        | SCHWARZBECK     | FMZB 1513      | N/A         | 2021-03-19    |
| Horn Antenna-40G                    | YINGLIAN        | LB-180400-KF   | N/A         | 2020-07-26    |
| EMC chamber 9*6*6 (L*W*H)           | CHANGNING       | 966            | N/A         | 2020-06-26    |
| Shielded Enclosure 8*5*4 (L*W*H)    | CHANGNING       | 854            | N/A         | 2020-08-28    |
| Test Software                       | BL              | BL410_E        | N/A         | N/A           |
| Test Software                       | BL              | BL410_R        | N/A         | N/A           |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 10 of 101

## 3 Test Set-up and Operation Modes

### 3.1 Details of Test Mode

| Test Item                            | Test Mode     | Test Channel |     |     |
|--------------------------------------|---------------|--------------|-----|-----|
|                                      |               | LCH          | MCH | HCH |
| Effective (Isotropic) Radiated Power | GSM 850       | v            | v   | v   |
|                                      | GSM 1900      | v            | v   | v   |
|                                      | GPRS 850      | v            | v   | v   |
|                                      | GPRS 1900     | v            | v   | v   |
|                                      | EDGE 850      | v            | v   | v   |
|                                      | EDGE 1900     | v            | v   | v   |
|                                      | WCDMA Band II | v            | v   | v   |
|                                      | WCDMA Band V  | v            | v   | v   |
|                                      | HSDPA Band II | v            | v   | v   |
|                                      | HSDPA Band V  | v            | v   | v   |
|                                      | HSUPA Band II | v            | v   | v   |
|                                      | HSUPA Band V  | v            | v   | v   |
|                                      | CDMA BC0      | v            | v   | v   |
|                                      | EVDO BC0      | v            | v   | v   |
| Peak to Average Ratio                | WCDMA Band II | v            | v   | v   |
| Occupied Bandwidth                   | GSM 850       | v            | v   | v   |
|                                      | GSM 1900      | v            | v   | v   |
|                                      | EDGE 850      | v            | v   | v   |
|                                      | EDGE 1900     | v            | v   | v   |
|                                      | WCDMA Band II | v            | v   | v   |
|                                      | WCDMA Band V  | v            | v   | v   |
|                                      | CDMA BC0      | v            | v   | v   |
|                                      | EVDO BC0      | v            | v   | v   |
| Frequency Stability                  | GSM 850       | v            | v   | v   |
|                                      | GSM 1900      | v            | v   | v   |
|                                      | GPRS 850      | v            | v   | v   |
|                                      | GPRS 1900     | v            | v   | v   |
|                                      | EDGE 850      | v            | v   | v   |
|                                      | EDGE 1900     | v            | v   | v   |
|                                      | WCDMA Band II | v            | v   | v   |
|                                      | WCDMA Band V  | v            | v   | v   |
|                                      | CDMA BC0      | v            | v   | v   |
|                                      | EVDO BC0      | v            | v   | v   |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 11 of 101

|                                           |               |    |    |    |
|-------------------------------------------|---------------|----|----|----|
| Spurious Emission at Antenna<br>Terminals | GSM 850       | v  | v  | v  |
|                                           | GSM 1900      | v  | v  | v  |
|                                           | EDGE 850      | v  | v  | v  |
|                                           | EDGE 1900     | v  | v  | v  |
|                                           | WCDMA Band II | v  | v  | v  |
|                                           | WCDMA Band V  | v  | v  | v  |
|                                           | CDMA BC0      | v  | v  | v  |
|                                           | EVDO BC0      | v  | v  | v  |
| Band Edge                                 | GSM 850       | v  | v  | v  |
|                                           | GSM 1900      | v  | v  | v  |
|                                           | EDGE 850      | v  | v  | v  |
|                                           | EDGE 1900     | v  | v  | v  |
|                                           | WCDMA Band II | v  | v  | v  |
|                                           | WCDMA Band V  | v  | v  | v  |
|                                           | CDMA BC0      | v  | v  | v  |
|                                           | EVDO BC0      | v  | v  | v  |
| Field Strength of Spurious<br>Radiation   | GSM 850       | v  | v  | v  |
|                                           | GSM 1900      | v  | v  | v  |
|                                           | EDGE 850      | v  | v  | v  |
|                                           | EDGE 1900     | v  | v  | v  |
|                                           | WCDMA Band II | v  | v  | v  |
|                                           | WCDMA Band V  | v  | v  | v  |
|                                           | CDMA BC0      | v  | v  | v  |
|                                           | EVDO BC0      | v  | v  | v  |
| Receiver Spurious Emissions               | GSM 850       | v  | v  | v  |
|                                           | GSM 1900      | -- | -- | -- |
|                                           | EDGE 850      | -- | -- | -- |
|                                           | EDGE 1900     | -- | -- | -- |
|                                           | WCDMA Band II | -- | -- | -- |
|                                           | WCDMA Band V  | -- | -- | -- |
|                                           | CDMA BC0      | -- | -- | -- |
|                                           | EVDO BC0      | -- | -- | -- |

## Note(s):

The mark 'v' means that this configuration is chosen for testing.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 12 of 101

| Test Item                            | LTE Band | Bandwidth (MHz) |    |    |    |    |    | Modulation Type |       | RB# |      |      | Test Channel |     |     |
|--------------------------------------|----------|-----------------|----|----|----|----|----|-----------------|-------|-----|------|------|--------------|-----|-----|
|                                      |          | 1.4             | 3  | 5  | 10 | 15 | 20 | QPSK            | 16QAM | 1   | Half | Full | LCH          | MCH | HCH |
| Effective (Isotropic) Radiated Power | 2        | v               | v  | v  | v  | v  | v  | v               | v     | v   | v    | v    | v            | v   | v   |
|                                      | 4        | v               | v  | v  | v  | v  | v  | v               | v     | v   | v    | v    | v            | v   | v   |
|                                      | 5        | v               | v  | v  | v  | n  | n  | v               | v     | v   | v    | v    | v            | v   | v   |
|                                      | 7        | n               | n  | v  | v  | v  | v  | v               | v     | v   | v    | v    | v            | v   | v   |
|                                      | 12       | v               | v  | v  | v  | n  | n  | v               | v     | v   | v    | v    | v            | v   | v   |
|                                      | 13       | n               | n  | v  | v  | n  | n  | v               | v     | v   | v    | v    | v            | v   | v   |
|                                      | 17       | n               | n  | v  | v  | n  | n  | v               | v     | v   | v    | v    | v            | v   | v   |
|                                      | 25       | v               | v  | v  | v  | v  | v  | v               | v     | v   | v    | v    | v            | v   | v   |
|                                      | 41       | v               | v  | v  | v  | v  | v  | v               | v     | v   | v    | v    | v            | v   | v   |
| Peak to Average Radio                | 2        | --              | -- | -- | -- | -- | v  | v               | v     | v   | --   | v    | v            | v   | v   |
|                                      | 4        | --              | -- | -- | -- | -- | v  | v               | v     | v   | --   | v    | v            | v   | v   |
|                                      | 5        | --              | -- | -- | v  | n  | n  | v               | v     | v   | --   | v    | v            | v   | v   |
|                                      | 7        | n               | n  | -- | -- | -- | v  | v               | v     | v   | --   | v    | v            | v   | v   |
|                                      | 12       | n               | n  | -- | v  | n  | n  | v               | v     | v   | --   | v    | v            | v   | v   |
|                                      | 13       | n               | n  | -- | v  | n  | n  | v               | v     | v   | --   | v    | v            | v   | v   |
|                                      | 17       | n               | n  | -- | v  | n  | n  | v               | v     | v   | --   | v    | v            | v   | v   |
|                                      | 25       | --              | -- | -- | -- | -- | v  | v               | v     | v   | --   | v    | v            | v   | v   |
|                                      | 41       | --              | -- | -- | -- | -- | v  | v               | v     | v   | --   | v    | v            | v   | v   |
| Occupied Bandwidth                   | 2        | v               | v  | v  | v  | v  | v  | v               | v     | --  | --   | v    | v            | v   | v   |
|                                      | 4        | v               | v  | v  | v  | v  | v  | v               | v     | --  | --   | v    | v            | v   | v   |
|                                      | 5        | v               | v  | v  | v  | n  | n  | v               | v     | --  | --   | v    | v            | v   | v   |
|                                      | 7        | n               | n  | v  | v  | v  | v  | v               | v     | --  | --   | v    | v            | v   | v   |
|                                      | 12       | v               | v  | v  | v  | n  | n  | v               | v     | --  | --   | v    | v            | v   | v   |
|                                      | 13       | n               | n  | v  | v  | n  | n  | v               | v     | --  | --   | v    | v            | v   | v   |
|                                      | 17       | n               | n  | v  | v  | n  | n  | v               | v     | --  | --   | v    | v            | v   | v   |
|                                      | 25       | v               | v  | v  | v  | v  | v  | v               | v     | --  | --   | v    | v            | v   | v   |
|                                      | 41       | v               | v  | v  | v  | v  | v  | v               | v     | --  | --   | v    | v            | v   | v   |
| Frequency Stability                  | 2        | --              | -- | -- | v  | -- | -- | v               | v     | --  | --   | v    | --           | v   | --  |
|                                      | 4        | --              | -- | -- | v  | -- | -- | v               | v     | --  | --   | v    | --           | v   | --  |
|                                      | 5        | --              | -- | -- | v  | n  | n  | v               | v     | --  | --   | v    | --           | v   | --  |
|                                      | 7        | n               | n  | -- | v  | -- | -- | v               | v     | --  | --   | v    | --           | v   | --  |
|                                      | 12       | n               | n  | -- | v  | n  | n  | v               | v     | --  | --   | v    | --           | v   | --  |
|                                      | 13       | n               | n  | -- | v  | n  | n  | v               | v     | --  | --   | v    | --           | v   | --  |
|                                      | 17       | n               | n  | -- | v  | n  | n  | v               | v     | --  | --   | v    | --           | v   | --  |
|                                      | 25       | --              | -- | -- | v  | -- | -- | v               | v     | --  | --   | v    | --           | v   | --  |
|                                      | 41       | --              | -- | -- | v  | -- | -- | v               | v     | --  | --   | v    | --           | v   | --  |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 13 of 101

|                                        |    |   |   |   |   |   |   |   |    |   |    |    |    |    |    |
|----------------------------------------|----|---|---|---|---|---|---|---|----|---|----|----|----|----|----|
| Spurious Emission at Antenna Terminals | 2  | v | v | v | v | v | v | v | v  | v | -- | -- | v  | v  | v  |
|                                        | 4  | v | v | v | v | v | v | v | v  | v | -- | -- | v  | v  | v  |
|                                        | 5  | v | v | v | v | n | n | v | v  | v | -- | -- | v  | v  | v  |
|                                        | 7  | n | n | v | v | v | v | v | v  | v | -- | -- | v  | v  | v  |
|                                        | 12 | v | v | v | v | n | n | v | v  | v | -- | -- | v  | v  | v  |
|                                        | 12 | n | n | v | v | n | n | v | v  | v | -- | -- | v  | v  | v  |
|                                        | 17 | n | n | v | v | n | n | v | v  | v | -- | -- | v  | v  | v  |
|                                        | 25 | v | v | v | v | v | v | v | v  | v | -- | -- | v  | v  | v  |
|                                        | 41 | v | v | v | v | v | v | v | v  | v | -- | -- | v  | v  | v  |
| Band Edge                              | 2  | v | v | v | v | v | v | v | v  | v | -- | v  | v  | -- | v  |
|                                        | 4  | v | v | v | v | v | v | v | v  | v | -- | v  | v  | -- | v  |
|                                        | 5  | v | v | v | v | n | n | v | v  | v | -- | v  | v  | -- | v  |
|                                        | 7  | n | n | v | v | v | v | v | v  | v | -- | v  | v  | -- | v  |
|                                        | 12 | v | v | v | v | n | n | v | v  | v | -- | v  | v  | -- | v  |
|                                        | 13 | n | n | v | v | n | n | v | v  | v | -- | v  | v  | -- | v  |
|                                        | 17 | n | n | v | v | n | n | v | v  | v | -- | v  | v  | -- | v  |
|                                        | 25 | v | v | v | v | v | v | v | v  | v | -- | v  | v  | -- | v  |
|                                        | 41 | v | v | v | v | v | v | v | v  | v | -- | v  | v  | -- | v  |
| Field Strength of Spurious Radiation   | 2  | v | v | v | v | v | v | v | -- | v | -- | -- | -- | v  | -- |
|                                        | 4  | v | v | v | v | v | v | v | -- | v | -- | -- | -- | v  | -- |
|                                        | 5  | v | v | v | v | n | n | v | -- | v | -- | -- | -- | v  | -- |
|                                        | 7  | n | n | v | v | v | v | v | -- | v | -- | -- | -- | v  | -- |
|                                        | 12 | v | v | v | v | n | n | v | -- | v | -- | -- | -- | v  | -- |
|                                        | 12 | n | n | v | v | n | n | v | -- | v | -- | -- | -- | v  | -- |
|                                        | 17 | n | n | v | v | n | n | v | -- | v | -- | -- | -- | v  | -- |
|                                        | 25 | v | v | v | v | v | v | v | -- | v | -- | -- | -- | v  | -- |
|                                        | 41 | v | v | v | v | v | v | v | -- | v | -- | -- | -- | v  | -- |

## Note(s):

1. The mark 'v' means that this configuration is chosen for testing.
2. The mark 'n' means that this bandwidth is not supported.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 14 of 101

## 3.2 Test Setup Diagram

Diagram of Measurement Equipment Configuration for Antenna Port Test

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 15 of 101

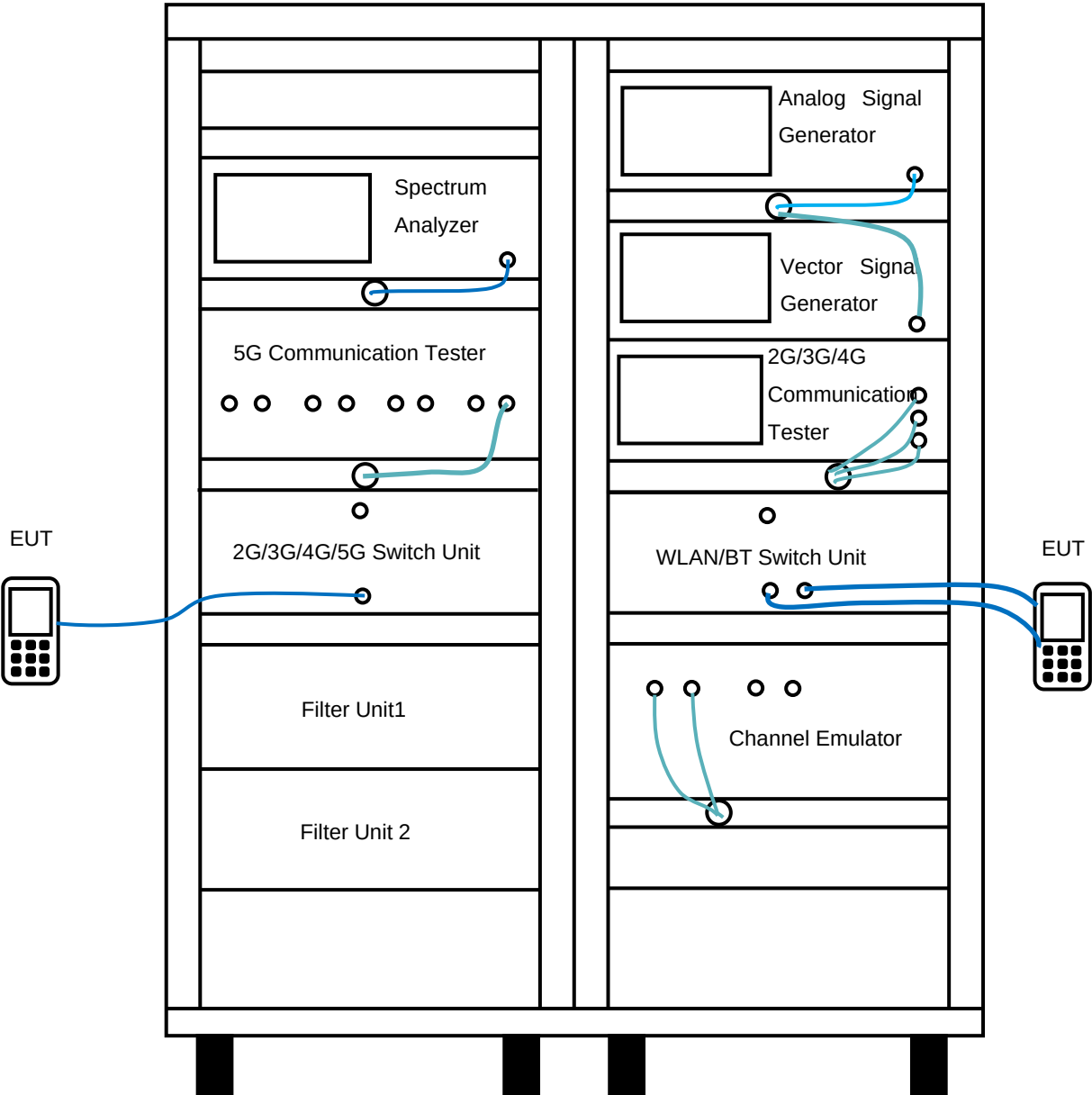


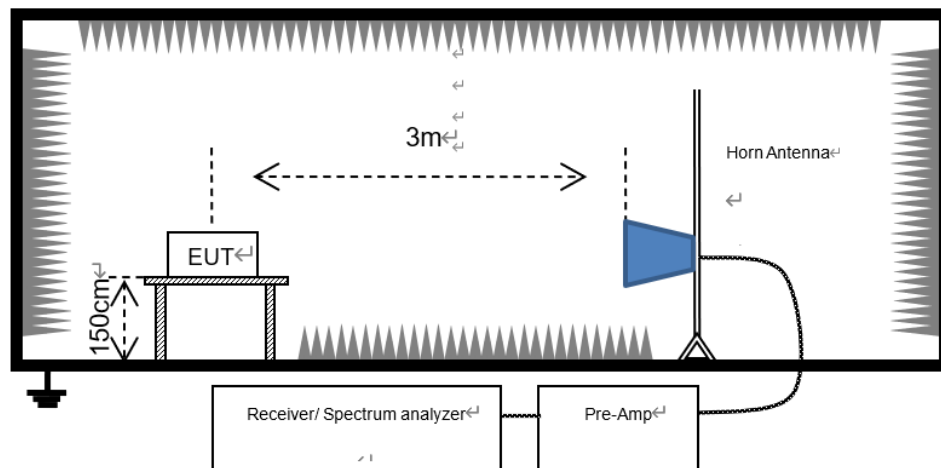
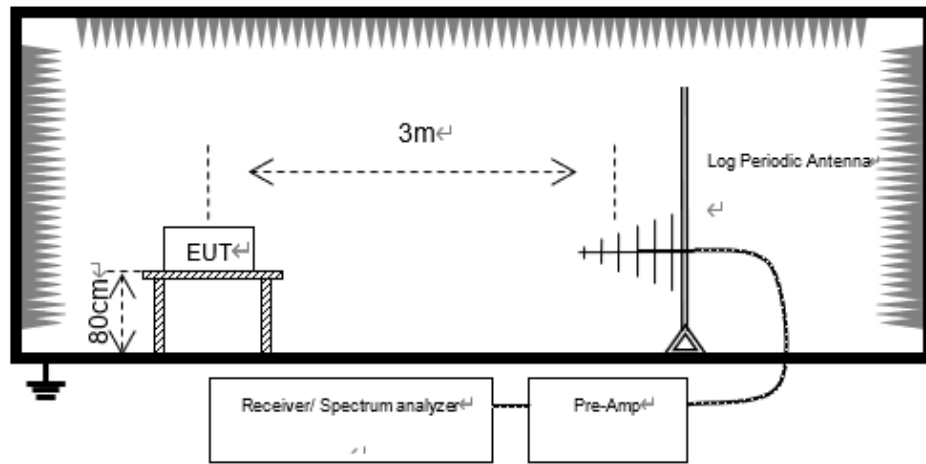
Diagram of Measurement Configuration for Radiation Test

# TEST REPORT

Report No.: SHE19020010-03AE

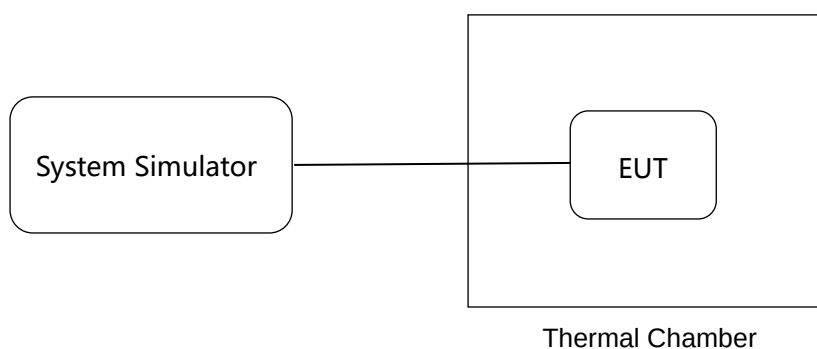
Date: 2020-05-15

Page 16 of 101



Note: Measurements below 1GHz are done with a table height of 0.8m and above 1GHz are done with a table height of 1.5m. In addition, there is RF absorbing material on the floor of the test site for above 1GHz measurement.

## Diagram of Measurement Configuration for Frequency Stability





# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 17 of 101

## 4 Test Items

### 4.1 Transmitter Radiated Power (EIRP/ERP)

#### 4.1.1 Limit

##### **FCC § 2.1046(a) & 22.913(a) & 24.232(c) & 27.50(b) & 27.50(c) & 27.50(d) & 27.50(h)**

According to FCC section 22.913(a) (2), the Effective Radiated Power (ERP) of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 24.232(c), Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to FCC section 27.50(b) (10), portable stations (hand-held devices) transmitting in the 746-757MHz, 776-788MHz, and 805-806MHz bands are limited to 3 watts ERP.

FCC section 27.50(c) (10), portable stations (hand-held devices) in the 698-746MHz band are limited to 3 watts ERP.

FCC section 27.50(d) (4), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

Fixed, mobile, and portable (hand-held) stations operating in the 2000-2020 MHz band are limited to 2 watts EIRP.

And FCC section 27.50(h) (2), for mobile and other user stations, mobile stations are limited to 2 watts EIRP. All user stations are limited to 2 watts transmitter output power.

##### **RSS-132 § 5.4 & RSS-133 § 6.4 & RSS-139 § 6.5 & RSS-199 § 4.4**

According to RSS-132 § 5.4, the Effective Radiated Power (ERP) for mobile equipment shall not exceed 11.5 watts.

According to RSS-133 § 6.4 (SRSP 510), mobile stations and hand-held portables are limited to 2 watts maximum EIRP.

According to RSS-139 § 6.5, the EIRP for mobile and portable transmitters shall not exceed 1 watt.

According to RSS-199 § 4.4, for mobile subscriber equipment, the EIRP shall not exceed 2 watts.

#### 4.1.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 18 of 101

The relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{EIRP} = P_T + G_T - L_C$$

$$\text{ERP} = \text{EIRP} - 2.15$$

Where:

$P_T$  = transmitter output power in dBm

$G_T$  = gain of the transmitting antenna in dBi

$L_C$  = signal attenuation in the connecting cable between the transmitter and antenna in dB

The relevant equation for determining the ERP/EIRP from the radiated RF output power is:

$$\text{ERP/EIRP} = \text{SA Read Value} + \text{Correction Factor}$$

where:

ERP/EIRP = effective or equivalent radiated power in dBm

SA Read Value = measured transmitter power received by EMI receiver or spectrum analyzer in dBm

Correction Factor = total correction factor including cable loss in dB

During the test, the data of Correction Factor (dB) is added in the EMI receiver or spectrum analyzer, so SA Read Value (dBm) is the final values which contains the data of Correction Factor (dB).

## 4.1.3 Test Result

Please refer to 5.1.1.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 19 of 101

## 4.2 Peak-to-Average Ratio

### 4.2.1 Limit

**FCC § 2.1046 & 24.232(d) & 27.50(d)**

**RSS-132 § 5.4 & RSS-133 § 6.4 & RSS-139 § 6.5 & RSS-199 § 4.4**

In addition, when the transmitter power is measured in terms of average value, the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time using a signal corresponding to the highest PAPR during periods of continuous transmission.

According to FCC section 24.232(d), power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with 24.232 (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of § 24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

For FCC section 24.232(e), peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an RMS equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

According to FCC section 27.50(d), in measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

### 4.2.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

### 4.2.3 Test Result

Please refer to 5.1.2.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 20 of 101

## 4.3 Occupied Bandwidth

### 4.3.1 Limit

FCC § 2.1049

RSS-Gen § 6.6

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Many of the individual rule parts specify a relative OBW in lieu of the 99% OBW. In such cases, the OBW is defined as the width of the signal between two points, one below the carrier center frequency and on above the carrier center frequency, outside of which all emissions are attenuated by at least X dB below the transmitter power, where the value of X is typically specified as 26.

### 4.3.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.4
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace. (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

### 4.3.3 Test Result

Please refer to 5.1.3.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 21 of 101

## 4.4 Frequency Stability

### 4.4.1 Limit

FCC § 2.1055 & 22.355 & 24.235 & 27.54

RSS-Gen § 6.11 & RSS-132 § 5.3 & RSS-133 § 6.3 & RSS-139 § 6.4 & RSS-199 § 4.3

FCC § 2.1055

The frequency stability shall be measured with variation of ambient temperature as follows:

(1) The temperature is varied from -30°C to +50°C.

(2) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10°C through the range. The frequency stability shall be measured with variation of primary supply voltage as follows:

(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than carried battery equipment.

(2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating and point which shall be specified by the manufacture.

(3) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

FCC § 22.355

Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in table as below.

| Frequency range<br>(MHz) | Base, fixed<br>(ppm) | Mobile >3 watts<br>(ppm) | Mobile ≤3 watts<br>(ppm) |
|--------------------------|----------------------|--------------------------|--------------------------|
| 25 to 50                 | 20.0                 | 20.0                     | 50.0                     |
| 50 to 450                | 5.0                  | 5.0                      | 50.0                     |
| 450 to 512               | 2.5                  | 5.0                      | 5.0                      |
| 821 to 896               | 1.5                  | 2.5                      | 2.5                      |
| 928 to 929               | 5.0                  | n/a                      | n/a                      |
| 929 to 960               | 1.5                  | n/a                      | n/a                      |
| 2110 to 2220             | 10.0                 | n/a                      | n/a                      |

FCC § 24.235

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

FCC § 27.54

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 22 of 101

## 4.4.2 Test Procedures

### For Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

### For Voltage Variation

1. The testing follows ANSI C63.26 section 5.6.5
2. The EUT was placed in a temperature chamber at 20±5°C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

## 4.4.3 Test Result

Please refer to 5.1.4.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 23 of 101

## 4.5 Spurious Emission at Antenna Terminals

### 4.5.1 Limit

FCC § 2.1051 & 22.917(a) & 24.238(a) & 27.53(c) & 27.53(g) & 27.53(h) & 27.53(m)

RSS-Gen § 6.13 & RSS-132 § 5.5 & RSS-133 § 6.5 & RSS-139 § 6.6

In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

FCC § 22.917(a) & 24.238(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. This is calculated to be -13 dBm.

FCC § 27.53(c)

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

- (1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (4) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater.

However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

- (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

FCC § 27.53(g)

For operations in the 600MHz band and the 698-746MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB.

FCC § 27.53(h) (1)

Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 24 of 101

power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

## FCC § 27.53(m) (4)

For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log(P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## RSS-199 § 4.5

For mobile digital stations (BRS and EBS stations), the attenuation factor shall be not less than:

$40 + 10 \log P$  dB ( $-10$  dBm, 100 nW) on all frequencies between the channel edge and 5 MHz from the channel edge.

$43 + 10 \log P$  dB ( $-13$  dBm, 50 nW) on all frequencies between 5 MHz and X MHz from the channel edge,

$55 + 10 \log P$  dB ( $-25$  dBm, 3 nW) on all frequencies more than X MHz from the channel edge, where X is the greater of 6 MHz or the actual emission bandwidth (26 dB).

In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## 4.5.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. CMW500 is used to establish communication with the EUT, and its parameters are set to force the EUT transmitting at maximum output power.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from  $43 + 10 \log(P)$  dB below the transmitter power P(Watts)  
=  $P(W) - [43 + 10 \log(P)]$  (dB)  
=  $[30 + 10 \log(P)]$  (dBm) -  $[43 + 10 \log(P)]$  (dB)  
= -13dBm.



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 25 of 101

11. For Band 7/41

The limit line is derived from  $55 + 10\log(P)$  dB below the transmitter power  $P$  (Watts)

$= P(W) - [55 + 10\log(P)]$  (dB)

$= [30 + 10\log(P)]$  (dBm) -  $[55 + 10\log(P)]$  (dB)

$= -25$  dBm.

## 4.5.3 Test Result

Please refer to 5.1.5.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 26 of 101

## 4.6 Band Edge

### 4.6.1 Limit

**FCC § 2.1051 & 22.917(a) & 24.238(a) & 27.53(c) & 27.53(g) & 27.53(h) & 27.53(m)**

**RSS-132 § 5.5 & RSS-133 § 6.5 & RSS-139 § 6.6**

In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

FCC § 22.917(a) & 24.238(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. This is calculated to be -13 dBm.

FCC § 27.53(c)

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

- (1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (4) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater.

However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

- (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

FCC § 27.53(g)

For operations in the 600MHz band and the 698-746MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB.

FCC § 27.53(h) (1)

Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 27 of 101

power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

## FCC § 27.53(m) (4)

For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log(P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## RSS-199 § 4.5

For mobile digital stations (BRS and EBS stations), the attenuation factor shall be not less than:

$40 + 10 \log P$  dB ( $-10$  dBm, 100 nW) on all frequencies between the channel edge and 5 MHz from the channel edge.

$43 + 10 \log P$  dB ( $-13$  dBm, 50 nW) on all frequencies between 5 MHz and X MHz from the channel edge,

$55 + 10 \log P$  dB ( $-25$  dBm, 3 nW) on all frequencies more than X MHz from the channel edge, where X is the greater of 6 MHz or the actual emission bandwidth (26 dB).

In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## 4.6.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW  $\geq 1\%$  EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.

Example:

The limit line is derived from  $43 + 10 \log(P)$  dB below the transmitter power P(Watts)

$$= P(W) - [43 + 10 \log(P)] \text{ (dB)}$$

$$= [30 + 10 \log(P)] \text{ (dBm)} - [43 + 10 \log(P)] \text{ (dB)} = -13 \text{ dBm.}$$

9. For LTE Band 7/41, the other 40 dB, and 55 dB have additionally applied same calculation above.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 28 of 101

## 4.6.3 Test Result

Please refer to 5.1.6.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 29 of 101

## 4.7 Field Strength of Spurious Radiation

### 4.7.1 Limit

**FCC § 2.1051 & 22.917(a) & 24.238(a) & 27.53(c) & 27.53(g) & 27.53(h) & 27.53(m)**

**RSS-Gen § 6.13 & RSS-132 § 5.5 & RSS-133 § 6.5 & RSS-139 § 6.6**

FCC § 22.917(a) & 24.238(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. This is calculated to be -13 dBm.

FCC § 27.53(c)

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;

(2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;

(4) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater.

However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

FCC § 27.53(g)

For operations in the 600MHz band and the 698-746MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB.

FCC § 27.53(h) (1)

Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

FCC § 27.53(m) (4)

For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 30 of 101

and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## RSS-199 § 4.5

For mobile digital stations (BRS and EBS stations), the attenuation factor shall be not less than:

$40 + 10 \log P$  dB ( $-10$  dBm, 100 nW) on all frequencies between the channel edge and 5 MHz from the channel edge.

$43 + 10 \log P$  dB ( $-13$  dBm, 50 nW) on all frequencies between 5 MHz and X MHz from the channel edge,

$55 + 10 \log P$  dB ( $-25$  dBm, 3 nW) on all frequencies more than X MHz from the channel edge, where X is the greater of 6 MHz or the actual emission bandwidth (26 dB).

In addition, the attenuation factor shall not be less than  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## 4.7.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10.  $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11.  $ERP \text{ (dBm)} = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.  
The limit line is derived from  $43 + 10 \log(P)$  dB below the transmitter power  $P$  (Watts)  
 $= P(W) - [43 + 10 \log(P)] \text{ (dB)}$   
 $= [30 + 10 \log(P)] \text{ (dBm)} - [43 + 10 \log(P)] \text{ (dB)}$   
 $= -13 \text{ dBm}.$
13. For Band 7/41: The limit line is derived from  $55 + 10 \log(P)$  dB below the transmitter power  $P$  (Watts)  
 $= P(W) - [55 + 10 \log(P)] \text{ (dB)}$

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 31 of 101

$$\begin{aligned} &= [30 + 10\log(P)] \text{ (dBm)} - [55 + 10\log(P)] \text{ (dB)} \\ &= -25\text{dBm}. \end{aligned}$$

## 4.7.3 Test Result

Please refer to 5.1.7.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 32 of 101

## 5 Appendixes

### 5.1 Test Result

#### 5.1.1 Transmitter Radiated Power (EIRP/ERP)

##### Conducted Power Measurement Results for GSM/GPRS/EDGE

| Conducted Power (dBm) |           |         |              |       |          |       |              |
|-----------------------|-----------|---------|--------------|-------|----------|-------|--------------|
| Band                  |           | GSM 850 |              |       | GSM 1900 |       |              |
| Channel               |           | 128     | 190          | 251   | 512      | 661   | 810          |
| GSM                   |           | 31.95   | <b>32.05</b> | 31.92 | 28.53    | 28.62 | <b>28.84</b> |
| GPRS                  | 1 TX slot | 28.31   | 28.39        | 24.52 | 24.30    | 24.34 | 26.96        |
|                       | 2 TX slot | 28.25   | 28.35        | 24.45 | 24.23    | 24.27 | 26.46        |
|                       | 3 TX slot | 28.21   | 28.31        | 24.39 | 24.17    | 24.21 | 26.35        |
|                       | 4 TX slot | 28.17   | 28.27        | 24.34 | 24.13    | 24.16 | 26.30        |
| EDGE                  | 1 TX slot | 22.36   | 21.43        | 20.33 | 19.04    | 18.99 | 21.49        |
|                       | 2 TX slot | 21.04   | 21.23        | 19.12 | 19.12    | 19.00 | 21.21        |
|                       | 3 TX slot | 21.02   | 21.29        | 19.13 | 18.91    | 19.04 | 21.16        |
|                       | 4 TX slot | 21.00   | 21.32        | 19.03 | 19.00    | 19.01 | 20.96        |

##### Conducted Power Measurement Results for WCDMA/HSDPA/HSPUA

| Conducted Power (dBm) |              |               |              |       |              |              |       |
|-----------------------|--------------|---------------|--------------|-------|--------------|--------------|-------|
| Band                  |              | WCDMA Band II |              |       | WCDMA Band V |              |       |
| Channel               |              | 9262          | 9400         | 9538  | 4132         | 4182         | 4233  |
| RMC                   | 12.2 kbps    | 22.05         | <b>22.49</b> | 22.38 | 22.00        | <b>22.05</b> | 21.91 |
| HSDPA                 | Sub - Test 1 | 21.13         | 21.46        | 21.38 | 20.92        | 20.84        | 20.84 |
|                       | Sub - Test 2 | 21.20         | 21.52        | 21.41 | 21.10        | 20.91        | 20.89 |
|                       | Sub - Test 3 | 20.82         | 20.94        | 20.95 | 20.62        | 20.44        | 20.32 |
|                       | Sub - Test 4 | 20.81         | 20.94        | 20.96 | 20.52        | 20.45        | 20.33 |
| HSPUA                 | Sub - Test 1 | 21.19         | 21.33        | 21.29 | 21.00        | 20.89        | 20.90 |
|                       | Sub - Test 2 | 19.10         | 19.32        | 19.33 | 19.04        | 19.02        | 18.97 |
|                       | Sub - Test 3 | 20.21         | 20.37        | 20.34 | 20.08        | 19.95        | 19.99 |
|                       | Sub - Test 4 | 19.23         | 19.44        | 19.34 | 19.17        | 19.04        | 18.99 |
|                       | Sub - Test 5 | 20.99         | 21.43        | 21.15 | 20.92        | 20.88        | 20.72 |



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 33 of 101

## Conducted Power Measurement Results for CDMA/EVDO

| Conducted Power (dBm) |            |       |       |       |    |    |    |
|-----------------------|------------|-------|-------|-------|----|----|----|
| Band                  |            | BC0   |       |       | -- |    |    |
| Channel               |            | 1013  | 384   | 777   | -- | -- | -- |
| CDMA                  | F1R1       | 24.02 | 24.05 | 24.01 | -- | -- | -- |
|                       | F3R3       | 23.96 | 24.02 | 24.02 | -- | -- | -- |
| EVDO                  | Release 0  | 23.25 | 23.65 | 23.35 | -- | -- | -- |
|                       | Revision A | 23.09 | 23.25 | 23.17 | -- | -- | -- |

## Conducted power measurement results for LTE

| FDD LTE Band 2     |                |             |       |       |       |       |       |
|--------------------|----------------|-------------|-------|-------|-------|-------|-------|
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |       |       |       |       |
|                    |                | QPSK        |       |       | 16QAM |       |       |
|                    | Channel        | 18700       | 18900 | 19100 | 18700 | 18900 | 19100 |
| 20MHz              | 1 (RB_Pos:0)   | 22.22       | 21.38 | 20.86 | 21.34 | 20.82 | 20.26 |
|                    | 1 (RB_Pos:49)  | 22.01       | 22.81 | 21.76 | 21.55 | 21.29 | 21.23 |
|                    | 1 (RB_Pos:99)  | 21.27       | 21.85 | 21.76 | 20.80 | 20.98 | 21.19 |
|                    | 50 (RB_Pos:0)  | 21.51       | 21.57 | 21.17 | 20.35 | 20.46 | 20.20 |
|                    | 50 (RB_Pos:24) | 21.56       | 21.50 | 21.51 | 20.44 | 20.36 | 20.45 |
|                    | 50 (RB_Pos:49) | 21.53       | 21.42 | 21.48 | 20.42 | 20.35 | 20.40 |
|                    | 1 (RB_Pos:0)   | 21.42       | 21.48 | 21.56 | 20.32 | 20.41 | 20.51 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |       |       |       |       |
|                    |                | QPSK        |       |       | 16QAM |       |       |
|                    | Channel        | 18675       | 18900 | 19125 | 18675 | 18900 | 19125 |
| 15MHz              | 1 (RB_Pos:0)   | 22.41       | 21.95 | 20.89 | 21.32 | 21.37 | 19.63 |
|                    | 1 (RB_Pos:37)  | 22.20       | 22.61 | 22.41 | 21.13 | 21.37 | 21.35 |
|                    | 1 (RB_Pos:74)  | 20.75       | 22.40 | 21.57 | 19.69 | 21.04 | 20.94 |
|                    | 36 (RB_Pos:0)  | 21.45       | 21.68 | 21.36 | 20.39 | 20.83 | 20.40 |
|                    | 36 (RB_Pos:18) | 21.53       | 21.57 | 21.55 | 20.41 | 20.77 | 20.58 |
|                    | 36 (RB_Pos:37) | 21.62       | 21.47 | 21.63 | 20.47 | 20.49 | 20.35 |
|                    | 75 (RB_Pos:0)  | 21.42       | 21.49 | 21.49 | 20.31 | 20.36 | 20.48 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |       |       |       |       |
|                    |                | QPSK        |       |       | 16QAM |       |       |
|                    | Channel        | 18650       | 18900 | 19150 | 18650 | 18900 | 19150 |
| 10MHz              | 1 (RB_Pos:0)   | 22.36       | 22.63 | 21.22 | 21.28 | 21.36 | 20.30 |
|                    | 1 (RB_Pos:24)  | 22.52       | 22.68 | 22.86 | 21.52 | 21.30 | 21.61 |
|                    | 1 (RB_Pos:49)  | 21.35       | 22.46 | 21.76 | 20.28 | 20.84 | 20.79 |
|                    | 25 (RB_Pos:0)  | 21.38       | 21.56 | 21.70 | 20.33 | 20.51 | 20.88 |
|                    | 25 (RB_Pos:12) | 21.53       | 21.57 | 21.68 | 20.38 | 20.54 | 20.76 |
|                    | 25 (RB_Pos:24) | 21.44       | 21.56 | 21.62 | 20.38 | 20.54 | 20.54 |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 34 of 101

|                    | 50 (RB_Pos:0)  | 21.47       | 21.58 | 21.59        | 20.51 | 20.52 | 20.59 |
|--------------------|----------------|-------------|-------|--------------|-------|-------|-------|
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |              |       |       |       |
|                    |                | QPSK        |       |              | 16QAM |       |       |
|                    | Channel        | 18625       | 18900 | 19175        | 18625 | 18900 | 19175 |
| 5MHz               | 1 (RB_Pos:0)   | 22.31       | 22.49 | 22.32        | 20.96 | 21.47 | 21.02 |
|                    | 1 (RB_Pos:12)  | 22.17       | 22.60 | 22.63        | 20.92 | 21.35 | 21.24 |
|                    | 1 (RB_Pos:24)  | 22.16       | 22.32 | 21.89        | 20.96 | 21.14 | 20.99 |
|                    | 12 (RB_Pos:0)  | 21.31       | 21.57 | 21.71        | 20.20 | 20.33 | 20.65 |
|                    | 12 (RB_Pos:6)  | 21.32       | 21.60 | 21.60        | 20.32 | 20.36 | 20.42 |
|                    | 12 (RB_Pos:11) | 21.31       | 21.53 | 21.64        | 20.32 | 20.60 | 20.43 |
|                    | 25 (RB_Pos:0)  | 21.37       | 21.47 | 21.68        | 20.49 | 20.57 | 20.73 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |              |       |       |       |
|                    |                | QPSK        |       |              | 16QAM |       |       |
|                    | Channel        | 18615       | 18900 | 19185        | 18615 | 18900 | 19185 |
| 3MHz               | 1 (RB_Pos:0)   | 22.37       | 22.71 | 22.68        | 21.26 | 21.31 | 21.55 |
|                    | 1 (RB_Pos:7)   | 22.37       | 22.49 | 22.52        | 21.21 | 21.38 | 21.51 |
|                    | 1 (RB_Pos:14)  | 22.37       | 22.47 | 22.14        | 21.30 | 21.39 | 21.10 |
|                    | 8 (RB_Pos:0)   | 21.52       | 21.65 | 21.62        | 20.39 | 20.45 | 20.73 |
|                    | 8 (RB_Pos:4)   | 21.37       | 21.55 | 21.63        | 20.49 | 20.36 | 20.47 |
|                    | 8 (RB_Pos:7)   | 21.46       | 21.57 | 21.66        | 20.41 | 20.57 | 20.37 |
|                    | 15 (RB_Pos:0)  | 21.50       | 21.56 | 21.63        | 20.35 | 20.61 | 20.52 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |              |       |       |       |
|                    |                | QPSK        |       |              | 16QAM |       |       |
|                    | Channel        | 18607       | 18900 | 19193        | 18607 | 18900 | 19193 |
| 1.4MHz             | 1 (RB_Pos:0)   | 22.53       | 22.35 | 22.64        | 21.68 | 21.34 | 21.57 |
|                    | 1 (RB_Pos:3)   | 22.56       | 22.58 | 22.68        | 21.64 | 21.29 | 21.71 |
|                    | 1 (RB_Pos:5)   | 22.44       | 22.38 | 22.33        | 21.27 | 21.18 | 21.31 |
|                    | 3 (RB_Pos:0)   | 22.54       | 22.53 | <b>22.87</b> | 20.60 | 20.08 | 20.60 |
|                    | 3 (RB_Pos:2)   | 22.52       | 22.74 | 22.65        | 20.58 | 20.55 | 20.88 |
|                    | 3 (RB_Pos:3)   | 22.52       | 22.72 | 22.47        | 20.60 | 20.46 | 20.69 |
|                    | 6 (RB_Pos:0)   | 21.49       | 21.63 | 21.84        | 20.67 | 20.25 | 20.66 |

| FDD LTE Band 4     |               |              |       |              |              |       |       |
|--------------------|---------------|--------------|-------|--------------|--------------|-------|-------|
| Bandwidth<br>(MHz) | RB Set        | Power (dBm)  |       |              |              |       |       |
|                    |               | QPSK         |       |              | 16QAM        |       |       |
|                    | Channel       | 20050        | 20175 | 20300        | 20050        | 20175 | 20300 |
| 20MHz              | 1 (RB_Pos:0)  | 22.64        | 22.72 | 22.56        | 21.51        | 21.45 | 21.78 |
|                    | 1 (RB_Pos:49) | <b>22.84</b> | 22.62 | 22.72        | <b>21.84</b> | 21.52 | 21.43 |
|                    | 1 (RB_Pos:99) | 22.19        | 22.81 | 22.32        | 21.03        | 21.45 | 21.20 |
|                    | 50 (RB_Pos:0) | 21.63        | 21.61 | <b>21.69</b> | 20.59        | 20.35 | 20.60 |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 35 of 101

|                    | 50 (RB_Pos:24) | 21.58        | 21.47 | 21.54 | 20.51 | 20.31 | 20.45        |
|--------------------|----------------|--------------|-------|-------|-------|-------|--------------|
|                    | 50 (RB_Pos:49) | 21.59        | 21.57 | 21.50 | 20.49 | 20.52 | 20.38        |
|                    | 100 (RB_Pos:0) | <b>21.62</b> | 21.56 | 21.53 | 20.66 | 20.48 | 20.47        |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |       |       |       |              |
|                    |                | QPSK         |       |       | 16QAM |       |              |
|                    | Channel        | 20025        | 20175 | 20325 | 20025 | 20175 | 20325        |
| 15MHz              | 1 (RB_Pos:0)   | 22.58        | 22.33 | 22.29 | 21.31 | 21.32 | <b>22.28</b> |
|                    | 1 (RB_Pos:37)  | 22.78        | 22.24 | 22.55 | 21.49 | 21.25 | 22.14        |
|                    | 1 (RB_Pos:74)  | 22.56        | 22.43 | 22.40 | 21.45 | 21.18 | 21.69        |
|                    | 36 (RB_Pos:0)  | 21.51        | 21.52 | 21.51 | 20.70 | 20.59 | 20.40        |
|                    | 36 (RB_Pos:18) | 21.60        | 21.49 | 21.45 | 20.49 | 20.56 | 20.56        |
|                    | 36 (RB_Pos:37) | 21.55        | 21.56 | 21.46 | 20.50 | 20.52 | 20.36        |
|                    | 75 (RB_Pos:0)  | 21.52        | 21.55 | 21.49 | 20.54 | 20.36 | 20.57        |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |       |       |       |              |
|                    |                | QPSK         |       |       | 16QAM |       |              |
|                    | Channel        | 20000        | 20175 | 20350 | 20000 | 20175 | 20350        |
| 10MHz              | 1 (RB_Pos:0)   | 22.49        | 22.48 | 22.89 | 21.49 | 21.10 | 21.61        |
|                    | 1 (RB_Pos:24)  | 22.52        | 22.49 | 22.84 | 21.57 | 21.22 | 21.33        |
|                    | 1 (RB_Pos:49)  | 22.50        | 22.30 | 22.56 | 21.35 | 21.23 | 21.42        |
|                    | 25 (RB_Pos:0)  | 21.57        | 21.57 | 21.53 | 20.48 | 20.52 | 20.76        |
|                    | 25 (RB_Pos:12) | 21.71        | 21.52 | 21.55 | 20.52 | 20.48 | 20.79        |
|                    | 25 (RB_Pos:24) | 21.57        | 21.45 | 21.50 | 20.56 | 20.49 | 20.54        |
|                    | 50 (RB_Pos:0)  | 21.63        | 21.52 | 21.46 | 20.49 | 20.45 | 20.42        |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |       |       |       |              |
|                    |                | QPSK         |       |       | 16QAM |       |              |
|                    | Channel        | 19975        | 20175 | 20375 | 19975 | 20175 | 20375        |
| 5MHz               | 1 (RB_Pos:0)   | 22.65        | 22.47 | 22.38 | 21.56 | 21.49 | 21.28        |
|                    | 1 (RB_Pos:12)  | 22.59        | 22.38 | 22.54 | 21.21 | 21.59 | 21.24        |
|                    | 1 (RB_Pos:24)  | 22.56        | 22.36 | 22.53 | 21.13 | 21.47 | 20.95        |
|                    | 12 (RB_Pos:0)  | 21.53        | 21.55 | 21.47 | 20.51 | 20.52 | 20.46        |
|                    | 12 (RB_Pos:6)  | 21.75        | 21.60 | 21.54 | 20.50 | 20.52 | 20.71        |
|                    | 12 (RB_Pos:11) | 21.60        | 21.49 | 21.58 | 20.57 | 20.46 | 20.46        |
|                    | 25 (RB_Pos:0)  | 21.64        | 21.54 | 21.38 | 20.67 | 20.60 | 20.37        |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |       |       |       |              |
|                    |                | QPSK         |       |       | 16QAM |       |              |
|                    | Channel        | 19965        | 20175 | 20385 | 19965 | 20175 | 20385        |
| 3MHz               | 1 (RB_Pos:0)   | 22.69        | 22.82 | 22.40 | 22.00 | 21.45 | 21.38        |
|                    | 1 (RB_Pos:7)   | 22.76        | 22.75 | 22.31 | 22.16 | 21.47 | 21.38        |
|                    | 1 (RB_Pos:14)  | 22.72        | 22.82 | 22.31 | 21.94 | 21.43 | 21.51        |
|                    | 8 (RB_Pos:0)   | 21.90        | 21.76 | 21.59 | 20.58 | 20.71 | 20.47        |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 36 of 101

|                    | 8 (RB_Pos:4)  | 21.79        | 21.75 | 21.49 | 20.56 | 20.63 | 20.32 |
|--------------------|---------------|--------------|-------|-------|-------|-------|-------|
|                    | 8 (RB_Pos:7)  | 21.86        | 21.62 | 21.50 | 20.61 | 20.71 | 20.46 |
|                    | 15 (RB_Pos:0) | 21.70        | 21.77 | 21.49 | 20.81 | 20.82 | 20.10 |
| Bandwidth<br>(MHz) | RB Set        | Power (dBm)  |       |       |       |       |       |
|                    |               | QPSK         |       |       | 16QAM |       |       |
|                    | Channel       | 19957        | 20175 | 20393 | 19957 | 20175 | 20393 |
| 1.4MHz             | 1 (RB_Pos:0)  | <b>23.10</b> | 22.71 | 22.70 | 21.58 | 21.60 | 21.64 |
|                    | 1 (RB_Pos:3)  | 23.05        | 22.80 | 22.74 | 21.57 | 21.58 | 21.61 |
|                    | 1 (RB_Pos:5)  | 23.00        | 22.87 | 22.61 | 21.52 | 21.49 | 21.51 |
|                    | 3 (RB_Pos:0)  | 22.86        | 22.74 | 22.70 | 21.59 | 21.59 | 21.90 |
|                    | 3 (RB_Pos:2)  | 22.92        | 22.84 | 22.61 | 21.56 | 21.58 | 21.69 |
|                    | 3 (RB_Pos:3)  | 22.69        | 22.77 | 22.60 | 21.53 | 21.60 | 21.77 |
|                    | 6 (RB_Pos:0)  | 21.94        | 21.86 | 21.58 | 20.46 | 20.46 | 20.71 |

| FDD LTE Band 5     |                |              |              |       |              |       |       |
|--------------------|----------------|--------------|--------------|-------|--------------|-------|-------|
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |              |       |              |       |       |
|                    |                | QPSK         |              |       | 16QAM        |       |       |
|                    | Channel        | 20450        | 20525        | 20600 | 20450        | 20525 | 20600 |
| 10MHz              | 1 (RB_Pos:0)   | 22.35        | <b>22.66</b> | 22.45 | 21.37        | 21.31 | 21.44 |
|                    | 1 (RB_Pos:24)  | 22.37        | 22.51        | 22.41 | 21.49        | 21.25 | 21.15 |
|                    | 1 (RB_Pos:49)  | 22.31        | 22.29        | 22.31 | <b>21.83</b> | 21.35 | 21.32 |
|                    | 25 (RB_Pos:0)  | 21.39        | <b>21.46</b> | 21.29 | 20.40        | 20.36 | 20.40 |
|                    | 25 (RB_Pos:12) | 21.40        | 21.42        | 21.39 | 20.43        | 20.39 | 20.30 |
|                    | 25 (RB_Pos:24) | 21.37        | 21.46        | 21.36 | 20.41        | 20.51 | 20.33 |
|                    | 50 (RB_Pos:0)  | <b>21.46</b> | 21.37        | 21.40 | 20.44        | 20.60 | 20.38 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |              |       |              |       |       |
|                    |                | QPSK         |              |       | 16QAM        |       |       |
|                    | Channel        | 20425        | 20525        | 20625 | 20425        | 20525 | 20625 |
| 5MHz               | 1 (RB_Pos:0)   | 22.45        | 22.30        | 22.25 | 21.04        | 21.13 | 21.25 |
|                    | 1 (RB_Pos:12)  | 22.31        | 22.48        | 22.42 | 20.91        | 20.93 | 21.31 |
|                    | 1 (RB_Pos:24)  | 22.19        | 22.33        | 22.31 | 20.94        | 20.93 | 20.58 |
|                    | 12 (RB_Pos:0)  | 21.43        | 21.40        | 21.33 | 20.43        | 20.36 | 20.24 |
|                    | 12 (RB_Pos:6)  | 21.35        | 21.35        | 21.39 | 20.27        | 20.34 | 20.26 |
|                    | 12 (RB_Pos:11) | 21.41        | 21.36        | 21.27 | 20.40        | 20.26 | 20.30 |
|                    | 25 (RB_Pos:0)  | 21.46        | 21.34        | 21.36 | 20.52        | 20.35 | 20.36 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |              |       |              |       |       |
|                    |                | QPSK         |              |       | 16QAM        |       |       |
|                    | Channel        | 20415        | 20525        | 20635 | 20415        | 20525 | 20635 |
| 3MHz               | 1 (RB_Pos:0)   | 22.48        | 22.38        | 22.37 | 21.26        | 21.09 | 21.39 |
|                    | 1 (RB_Pos:7)   | 22.52        | 22.44        | 22.26 | 20.99        | 21.13 | 21.21 |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 37 of 101

|                    | 1 (RB_Pos:14) | 22.37        | 22.31 | 22.33 | 21.55 | 20.93 | 21.53 |
|--------------------|---------------|--------------|-------|-------|-------|-------|-------|
|                    | 8 (RB_Pos:0)  | 21.50        | 21.43 | 21.41 | 20.26 | 20.43 | 20.51 |
|                    | 8 (RB_Pos:4)  | 21.35        | 21.38 | 21.29 | 20.21 | 20.47 | 20.47 |
|                    | 8 (RB_Pos:7)  | 21.41        | 21.37 | 21.30 | 20.10 | 20.46 | 20.49 |
|                    | 15 (RB_Pos:0) | 21.45        | 21.31 | 21.35 | 20.43 | 20.37 | 20.43 |
| Bandwidth<br>(MHz) | RB Set        | Power (dBm)  |       |       |       |       |       |
|                    |               | QPSK         |       |       | 16QAM |       |       |
|                    | Channel       | 20407        | 20525 | 20643 | 20407 | 20525 | 20643 |
| 1.4MHz             | 1 (RB_Pos:0)  | 22.61        | 22.37 | 22.25 | 21.64 | 21.25 | 21.32 |
|                    | 1 (RB_Pos:3)  | <b>22.69</b> | 22.54 | 22.31 | 21.21 | 21.19 | 21.40 |
|                    | 1 (RB_Pos:5)  | 22.69        | 22.45 | 22.19 | 21.71 | 21.11 | 21.33 |
|                    | 3 (RB_Pos:0)  | 21.75        | 21.81 | 21.83 | 20.68 | 21.05 | 20.51 |
|                    | 3 (RB_Pos:2)  | 21.62        | 21.73 | 21.77 | 20.71 | 20.78 | 20.55 |
|                    | 3 (RB_Pos:3)  | 21.79        | 21.82 | 21.65 | 20.45 | 20.83 | 20.63 |
|                    | 6 (RB_Pos:0)  | 21.45        | 21.26 | 21.36 | 20.36 | 20.02 | 20.42 |

| FDD LTE Band 7     |                |              |       |       |              |       |       |
|--------------------|----------------|--------------|-------|-------|--------------|-------|-------|
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |       |              |       |       |
|                    |                | QPSK         |       |       | 16QAM        |       |       |
|                    | Channel        | 20850        | 21100 | 21350 | 20850        | 21100 | 21350 |
| 20MHz              | 1 (RB_Pos:0)   | 21.98        | 22.40 | 21.95 | 21.46        | 21.23 | 20.84 |
|                    | 1 (RB_Pos:49)  | <b>22.61</b> | 22.49 | 22.16 | <b>21.59</b> | 21.14 | 20.86 |
|                    | 1 (RB_Pos:99)  | 22.05        | 22.10 | 21.55 | 20.90        | 20.78 | 20.53 |
|                    | 50 (RB_Pos:0)  | 21.50        | 21.42 | 21.17 | 20.39        | 20.30 | 20.13 |
|                    | 50 (RB_Pos:24) | <b>21.50</b> | 21.31 | 20.99 | 20.63        | 20.36 | 20.01 |
|                    | 50 (RB_Pos:49) | 21.49        | 21.24 | 20.96 | 20.66        | 20.21 | 19.63 |
|                    | 100 (RB_Pos:0) | <b>21.51</b> | 21.33 | 21.01 | 20.51        | 20.25 | 20.08 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |       |              |       |       |
|                    |                | QPSK         |       |       | 16QAM        |       |       |
|                    | Channel        | 20825        | 21100 | 21375 | 20825        | 21100 | 21375 |
| 15MHz              | 1 (RB_Pos:0)   | 22.30        | 22.38 | 22.08 | 21.25        | 21.36 | 21.59 |
|                    | 1 (RB_Pos:37)  | 22.32        | 22.31 | 21.96 | <b>22.07</b> | 21.19 | 21.50 |
|                    | 1 (RB_Pos:74)  | 22.33        | 22.08 | 21.79 | 21.65        | 20.91 | 21.28 |
|                    | 36 (RB_Pos:0)  | 21.37        | 21.37 | 21.10 | 20.42        | 20.42 | 20.05 |
|                    | 36 (RB_Pos:18) | 21.46        | 21.32 | 21.06 | 20.52        | 20.54 | 20.01 |
|                    | 36 (RB_Pos:37) | 21.42        | 21.26 | 20.96 | 20.49        | 20.40 | 19.92 |
|                    | 75 (RB_Pos:0)  | 21.39        | 21.30 | 21.06 | 20.47        | 20.41 | 20.13 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |       |              |       |       |
|                    |                | QPSK         |       |       | 16QAM        |       |       |
|                    | Channel        | 20800        | 21100 | 21400 | 20800        | 21100 | 21400 |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 38 of 101

| 10MHz              | 1 (RB_Pos:0)   | 22.27       | 22.21        | 22.07 | 21.22 | 21.15 | 20.95 |
|--------------------|----------------|-------------|--------------|-------|-------|-------|-------|
|                    | 1 (RB_Pos:24)  | 22.45       | <b>22.76</b> | 22.23 | 21.87 | 21.10 | 21.10 |
|                    | 1 (RB_Pos:49)  | 22.27       | 22.26        | 21.77 | 21.29 | 20.95 | 20.82 |
|                    | 25 (RB_Pos:0)  | 21.44       | 21.37        | 21.08 | 20.49 | 20.40 | 20.37 |
|                    | 25 (RB_Pos:12) | 21.42       | 21.33        | 21.02 | 20.58 | 20.39 | 20.31 |
|                    | 25 (RB_Pos:24) | 21.46       | 21.34        | 20.97 | 20.44 | 20.33 | 20.29 |
|                    | 50 (RB_Pos:0)  | 21.48       | 21.30        | 21.05 | 20.52 | 20.29 | 20.01 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |              |       |       |       |       |
|                    |                | QPSK        |              |       | 16QAM |       |       |
|                    | Channel        | 20775       | 21100        | 21425 | 20775 | 21100 | 21425 |
| 5MHz               | 1 (RB_Pos:0)   | 22.14       | 22.12        | 21.89 | 21.03 | 21.21 | 20.69 |
|                    | 1 (RB_Pos:12)  | 22.20       | 22.45        | 21.82 | 20.72 | 21.25 | 20.68 |
|                    | 1 (RB_Pos:24)  | 22.30       | 22.12        | 21.59 | 20.72 | 20.64 | 20.36 |
|                    | 12 (RB_Pos:0)  | 21.45       | 21.22        | 20.90 | 20.19 | 20.15 | 20.01 |
|                    | 12 (RB_Pos:6)  | 21.49       | 21.30        | 20.87 | 20.43 | 20.23 | 20.07 |
|                    | 12 (RB_Pos:11) | 21.43       | 21.30        | 20.82 | 20.39 | 20.12 | 20.03 |
|                    | 25 (RB_Pos:0)  | 21.49       | 21.31        | 20.88 | 20.58 | 20.44 | 19.79 |

| FDD LTE Band 12    |                |             |              |              |       |       |              |
|--------------------|----------------|-------------|--------------|--------------|-------|-------|--------------|
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |              |              |       |       |              |
|                    |                | QPSK        |              |              | 16QAM |       |              |
|                    | Channel        | 23060       | 23095        | 23130        | 23060 | 23095 | 23130        |
| 10MHz              | 1 (RB_Pos:0)   | 22.62       | 22.57        | 22.61        | 21.40 | 21.33 | 21.53        |
|                    | 1 (RB_Pos:24)  | 22.62       | <b>23.06</b> | 23.00        | 21.70 | 21.27 | <b>21.76</b> |
|                    | 1 (RB_Pos:49)  | 22.31       | 22.54        | 22.43        | 21.13 | 20.90 | 21.40        |
|                    | 25 (RB_Pos:0)  | 21.63       | 21.60        | 21.62        | 20.60 | 20.56 | 20.60        |
|                    | 25 (RB_Pos:12) | 21.58       | 21.55        | 21.61        | 20.56 | 20.70 | 20.62        |
|                    | 25 (RB_Pos:24) | 21.59       | 21.54        | <b>21.69</b> | 20.48 | 20.64 | 20.53        |
|                    | 50 (RB_Pos:0)  | 21.61       | 21.59        | <b>21.62</b> | 20.58 | 20.51 | 20.53        |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |              |              |       |       |              |
|                    |                | QPSK        |              |              | 16QAM |       |              |
|                    | Channel        | 23035       | 23095        | 23155        | 23035 | 23095 | 23155        |
| 5MHz               | 1 (RB_Pos:0)   | 22.42       | 22.64        | 22.64        | 21.25 | 21.70 | 21.49        |
|                    | 1 (RB_Pos:12)  | 22.48       | 22.47        | 22.71        | 21.23 | 21.55 | 21.42        |
|                    | 1 (RB_Pos:24)  | 22.56       | 22.52        | 22.44        | 20.99 | 21.12 | 20.70        |
|                    | 12 (RB_Pos:0)  | 21.69       | 21.67        | 21.69        | 20.63 | 20.44 | 20.43        |
|                    | 12 (RB_Pos:6)  | 21.61       | 21.57        | 21.71        | 20.54 | 20.52 | 20.46        |
|                    | 12 (RB_Pos:11) | 21.68       | 21.57        | 21.64        | 20.35 | 20.52 | 20.58        |
|                    | 25 (RB_Pos:0)  | 21.65       | 21.54        | 21.64        | 20.75 | 20.49 | 20.51        |
| Bandwidth          | RB Set         | Power (dBm) |              |              |       |       |              |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 39 of 101

| (MHz)              |               | QPSK        |       |       | 16QAM |       |       |
|--------------------|---------------|-------------|-------|-------|-------|-------|-------|
|                    | Channel       | 23025       | 23095 | 23165 | 23025 | 23095 | 23165 |
| 3MHz               | 1 (RB_Pos:0)  | 22.51       | 22.61 | 22.62 | 21.37 | 21.60 | 21.62 |
|                    | 1 (RB_Pos:7)  | 22.73       | 22.53 | 22.78 | 21.55 | 21.19 | 21.60 |
|                    | 1 (RB_Pos:14) | 22.63       | 22.44 | 22.61 | 21.32 | 21.11 | 21.41 |
|                    | 8 (RB_Pos:0)  | 21.80       | 21.64 | 21.72 | 20.67 | 20.60 | 20.68 |
|                    | 8 (RB_Pos:4)  | 21.82       | 21.59 | 21.69 | 20.47 | 20.67 | 20.57 |
|                    | 8 (RB_Pos:7)  | 21.62       | 21.61 | 21.65 | 20.38 | 20.58 | 20.40 |
|                    | 15 (RB_Pos:0) | 21.74       | 21.52 | 21.68 | 20.67 | 20.45 | 20.21 |
| Bandwidth<br>(MHz) | RB Set        | Power (dBm) |       |       |       |       |       |
|                    |               | QPSK        |       |       | 16QAM |       |       |
|                    | Channel       | 23017       | 23095 | 23173 | 23017 | 23095 | 23173 |
| 1.4MHz             | 1 (RB_Pos:0)  | 22.71       | 22.36 | 22.65 | 21.36 | 21.49 | 21.71 |
|                    | 1 (RB_Pos: 2) | 22.88       | 22.51 | 22.66 | 21.51 | 21.35 | 21.64 |
|                    | 1 (RB_Pos:5)  | 22.81       | 22.50 | 22.61 | 21.50 | 21.16 | 21.63 |
|                    | 3 (RB_Pos:0)  | 21.66       | 21.42 | 21.54 | 20.42 | 20.34 | 20.88 |
|                    | 3 (RB_Pos:1)  | 21.69       | 21.54 | 21.73 | 20.54 | 20.39 | 20.80 |
|                    | 3 (RB_Pos:2)  | 21.72       | 21.61 | 21.69 | 20.61 | 20.82 | 20.72 |
|                    | 6 (RB_Pos:0)  | 20.68       | 20.44 | 20.69 | 20.44 | 20.75 | 20.70 |

| FDD LTE Band 13    |                |             |              |              |       |              |       |
|--------------------|----------------|-------------|--------------|--------------|-------|--------------|-------|
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |              |              |       |              |       |
|                    |                | QPSK        |              |              | 16QAM |              |       |
|                    | Channel        | --          | 23230        | --           | --    | 23230        | --    |
| 10MHz              | 1 (RB_Pos:0)   | --          | 22.40        | --           | --    | 21.29        | --    |
|                    | 1 (RB_Pos:24)  | --          | <b>22.66</b> | --           | --    | <b>22.01</b> | --    |
|                    | 1 (RB_Pos:49)  | --          | 22.39        | --           | --    | 21.30        | --    |
|                    | 25 (RB_Pos:0)  | --          | <b>21.58</b> | --           | --    | 20.58        | --    |
|                    | 25 (RB_Pos:12) | --          | 21.57        | --           | --    | 20.55        | --    |
|                    | 25 (RB_Pos:24) | --          | 21.54        | --           | --    | 20.41        | --    |
|                    | 50 (RB_Pos:0)  | --          | <b>21.57</b> | --           | --    | 20.54        | --    |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |              |              |       |              |       |
|                    |                | QPSK        |              |              | 16QAM |              |       |
|                    | Channel        | 23205       | 23230        | 23255        | 23205 | 23230        | 23255 |
| 5MHz               | 1 (RB_Pos:0)   | 22.32       | 22.49        | 22.51        | 21.10 | 21.37        | 21.36 |
|                    | 1 (RB_Pos:12)  | 22.39       | 22.46        | <b>22.74</b> | 21.59 | 21.57        | 21.45 |
|                    | 1 (RB_Pos:24)  | 22.44       | 22.46        | 22.45        | 20.95 | 21.21        | 20.73 |
|                    | 12 (RB_Pos:0)  | 21.52       | 21.57        | 21.60        | 20.46 | 20.39        | 20.43 |
|                    | 12 (RB_Pos:6)  | 21.63       | 21.61        | 21.63        | 20.57 | 20.53        | 20.55 |
|                    | 12 (RB_Pos:11) | 21.59       | 21.63        | 21.51        | 20.52 | 20.63        | 20.36 |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 40 of 101

|  |               |       |       |       |       |       |       |
|--|---------------|-------|-------|-------|-------|-------|-------|
|  | 25 (RB_Pos:0) | 21.61 | 21.59 | 21.62 | 20.39 | 20.54 | 20.55 |
|--|---------------|-------|-------|-------|-------|-------|-------|

| FDD LTE Band 17    |                |              |              |       |              |       |       |
|--------------------|----------------|--------------|--------------|-------|--------------|-------|-------|
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |              |       |              |       |       |
|                    |                | QPSK         |              |       | 16QAM        |       |       |
|                    | Channel        | 23780        | 23790        | 23800 | 23780        | 23790 | 23800 |
| 10MHz              | 1 (RB_Pos:0)   | 22.71        | 22.52        | 22.57 | 21.59        | 21.39 | 21.59 |
|                    | 1 (RB_Pos:24)  | 22.64        | <b>22.96</b> | 22.81 | <b>22.01</b> | 21.30 | 21.43 |
|                    | 1 (RB_Pos:49)  | 22.47        | 22.34        | 22.11 | 21.45        | 20.70 | 21.26 |
|                    | 25 (RB_Pos:0)  | <b>21.77</b> | 21.55        | 21.58 | 20.77        | 20.59 | 20.54 |
|                    | 25 (RB_Pos:12) | 21.67        | 21.56        | 21.60 | 20.57        | 20.83 | 20.75 |
|                    | 25 (RB_Pos:24) | 21.59        | 21.57        | 21.64 | 20.50        | 20.73 | 20.67 |
|                    | 50 (RB_Pos:0)  | <b>21.65</b> | 21.57        | 21.57 | 20.53        | 20.49 | 20.54 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |              |       |              |       |       |
|                    |                | QPSK         |              |       | 16QAM        |       |       |
|                    | Channel        | 23755        | 23790        | 23825 | 23755        | 23790 | 23825 |
| 5MHz               | 1 (RB_Pos:0)   | 22.62        | 22.44        | 22.40 | 21.95        | 21.22 | 21.65 |
|                    | 1 (RB_Pos:12)  | 22.69        | 22.41        | 22.77 | 21.18        | 21.19 | 21.65 |
|                    | 1 (RB_Pos:24)  | 22.41        | 22.37        | 22.14 | 21.02        | 21.00 | 20.87 |
|                    | 12 (RB_Pos:0)  | 21.61        | 21.49        | 21.57 | 20.50        | 20.27 | 20.51 |
|                    | 12 (RB_Pos:6)  | 21.56        | 21.53        | 21.58 | 20.60        | 20.54 | 20.52 |
|                    | 12 (RB_Pos:11) | 21.59        | 21.53        | 21.31 | 20.57        | 20.48 | 20.35 |
|                    | 25 (RB_Pos:0)  | 21.64        | 21.53        | 21.50 | 20.68        | 20.64 | 20.49 |

| FDD LTE Band 25    |                |             |              |              |              |       |              |
|--------------------|----------------|-------------|--------------|--------------|--------------|-------|--------------|
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |              |              |              |       |              |
|                    |                | QPSK        |              |              | 16QAM        |       |              |
|                    | Channel        | 26140       | 26365        | 26590        | 26140        | 26365 | 26590        |
| 20MHz              | 1 (RB_Pos:0)   | 22.00       | 22.28        | 21.55        | 21.17        | 21.19 | 21.00        |
|                    | 1 (RB_Pos:49)  | 22.22       | <b>22.56</b> | 22.50        | <b>21.47</b> | 21.09 | 20.97        |
|                    | 1 (RB_Pos:99)  | 21.82       | 22.10        | 21.78        | 21.19        | 20.80 | 20.74        |
|                    | 50 (RB_Pos:0)  | 21.13       | 21.28        | <b>21.37</b> | 20.11        | 20.30 | 20.43        |
|                    | 50 (RB_Pos:24) | 21.14       | 21.30        | 21.34        | 20.25        | 20.20 | 20.39        |
|                    | 50 (RB_Pos:49) | 21.07       | 21.28        | 21.36        | 20.23        | 20.16 | 20.26        |
|                    | 100 (RB_Pos:0) | 21.11       | 21.32        | <b>21.35</b> | 20.14        | 20.25 | 20.39        |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |              |              |              |       |              |
|                    |                | QPSK        |              |              | 16QAM        |       |              |
|                    | Channel        | 26115       | 26365        | 26615        | 26115        | 26365 | 26615        |
| 15MHz              | 1 (RB_Pos:0)   | 21.92       | 22.15        | 22.10        | 21.14        | 20.92 | <b>21.92</b> |
|                    | 1 (RB_Pos:37)  | 21.83       | 22.29        | 22.10        | 21.10        | 21.09 | 21.73        |



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 41 of 101

|                    | 1 (RB_Pos:74)  | 21.89       | 22.05 | 21.22 | 21.07 | 20.62 | 20.91 |
|--------------------|----------------|-------------|-------|-------|-------|-------|-------|
|                    | 36 (RB_Pos:0)  | 21.15       | 21.23 | 21.43 | 20.13 | 20.34 | 20.19 |
|                    | 36 (RB_Pos:18) | 21.11       | 21.25 | 21.42 | 20.04 | 20.28 | 20.23 |
|                    | 36 (RB_Pos:37) | 21.01       | 21.27 | 21.33 | 19.98 | 20.17 | 20.38 |
|                    | 75 (RB_Pos:0)  | 21.12       | 21.24 | 21.48 | 20.05 | 20.22 | 20.37 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |       |       |       |       |
|                    |                | QPSK        |       |       | 16QAM |       |       |
|                    | Channel        | 26090       | 26365 | 26640 | 26090 | 26365 | 26640 |
| 10MHz              | 1 (RB_Pos:0)   | 22.20       | 22.25 | 22.34 | 21.01 | 21.02 | 21.53 |
|                    | 1 (RB_Pos:24)  | 22.16       | 22.28 | 22.26 | 21.23 | 21.07 | 20.78 |
|                    | 1 (RB_Pos:49)  | 22.07       | 22.09 | 21.66 | 20.89 | 21.13 | 20.76 |
|                    | 25 (RB_Pos:0)  | 21.20       | 21.23 | 21.40 | 20.21 | 20.53 | 20.35 |
|                    | 25 (RB_Pos:12) | 21.20       | 21.29 | 21.30 | 20.20 | 20.47 | 20.35 |
|                    | 25 (RB_Pos:24) | 21.07       | 21.29 | 21.41 | 20.07 | 20.37 | 20.53 |
|                    | 50 (RB_Pos:0)  | 21.06       | 21.26 | 21.38 | 20.06 | 20.25 | 20.24 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |       |       |       |       |
|                    |                | QPSK        |       |       | 16QAM |       |       |
|                    | Channel        | 26065       | 26365 | 26665 | 26065 | 26365 | 26665 |
| 5MHz               | 1 (RB_Pos:0)   | 21.92       | 22.38 | 22.20 | 20.79 | 21.72 | 21.17 |
|                    | 1 (RB_Pos:12)  | 21.95       | 22.45 | 21.74 | 20.85 | 21.19 | 20.92 |
|                    | 1 (RB_Pos:24)  | 21.89       | 21.99 | 21.04 | 20.72 | 21.61 | 20.74 |
|                    | 12 (RB_Pos:0)  | 21.06       | 21.20 | 21.36 | 19.94 | 20.22 | 20.33 |
|                    | 12 (RB_Pos:6)  | 21.16       | 21.21 | 21.34 | 19.97 | 20.23 | 20.29 |
|                    | 12 (RB_Pos:11) | 21.13       | 21.19 | 21.34 | 19.91 | 20.11 | 20.41 |
|                    | 25 (RB_Pos:0)  | 21.20       | 21.20 | 21.46 | 20.30 | 20.25 | 20.26 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |       |       |       |       |
|                    |                | QPSK        |       |       | 16QAM |       |       |
|                    | Channel        | 26055       | 26365 | 26675 | 26055 | 26365 | 26675 |
| 3MHz               | 1 (RB_Pos:0)   | 21.94       | 22.22 | 21.78 | 20.98 | 21.61 | 20.82 |
|                    | 1 (RB_Pos:7)   | 21.95       | 22.19 | 21.53 | 20.93 | 21.69 | 20.60 |
|                    | 1 (RB_Pos:14)  | 22.01       | 22.34 | 21.56 | 20.99 | 21.67 | 20.56 |
|                    | 8 (RB_Pos:0)   | 21.24       | 21.31 | 21.57 | 20.49 | 20.30 | 20.74 |
|                    | 8 (RB_Pos:4)   | 21.06       | 21.18 | 21.49 | 20.49 | 20.13 | 20.65 |
|                    | 8 (RB_Pos:7)   | 21.15       | 21.24 | 21.40 | 19.87 | 20.46 | 20.56 |
|                    | 15 (RB_Pos:0)  | 21.12       | 21.20 | 21.50 | 20.02 | 20.22 | 20.58 |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm) |       |       |       |       |       |
|                    |                | QPSK        |       |       | 16QAM |       |       |
|                    | Channel        | 26047       | 26365 | 26683 | 26047 | 26365 | 26683 |
| 1.4MHz             | 1 (RB_Pos:0)   | 21.98       | 22.10 | 21.49 | 20.82 | 21.06 | 20.55 |
|                    | 1 (RB_Pos: 2)  | 22.24       | 22.12 | 21.57 | 20.84 | 20.97 | 20.66 |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 42 of 101

|  |              |       |       |       |       |       |       |
|--|--------------|-------|-------|-------|-------|-------|-------|
|  | 1 (RB_Pos:5) | 21.94 | 21.93 | 21.58 | 20.84 | 20.98 | 20.71 |
|  | 3 (RB_Pos:0) | 21.67 | 21.60 | 21.45 | 20.65 | 20.71 | 20.70 |
|  | 3 (RB_Pos:1) | 21.50 | 21.30 | 21.54 | 20.73 | 20.72 | 20.79 |
|  | 3 (RB_Pos:2) | 21.70 | 21.50 | 21.53 | 20.29 | 20.64 | 20.77 |
|  | 6 (RB_Pos:0) | 21.05 | 21.26 | 21.45 | 20.07 | 19.87 | 20.63 |

| FDD LTE Band 41    |                |              |       |              |       |       |              |
|--------------------|----------------|--------------|-------|--------------|-------|-------|--------------|
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |              |       |       |              |
|                    |                | QPSK         |       |              | 16QAM |       |              |
|                    | Channel        | 40340        | 40740 | 41140        | 40340 | 40740 | 41140        |
| 20MHz              | 1 (RB_Pos:0)   | 21.93        | 21.94 | 22.01        | 21.15 | 20.94 | 21.06        |
|                    | 1 (RB_Pos:49)  | 21.97        | 21.93 | 22.14        | 21.46 | 20.95 | <b>21.67</b> |
|                    | 1 (RB_Pos:99)  | 21.85        | 21.44 | <b>22.42</b> | 20.84 | 20.74 | 21.34        |
|                    | 50 (RB_Pos:0)  | <b>21.17</b> | 20.85 | 20.96        | 20.21 | 19.78 | 19.94        |
|                    | 50 (RB_Pos:24) | 21.08        | 20.81 | 21.05        | 20.07 | 19.74 | 20.04        |
|                    | 50 (RB_Pos:49) | 21.15        | 20.73 | 21.05        | 20.10 | 19.66 | 19.99        |
|                    | 100 (RB_Pos:0) | <b>21.13</b> | 20.84 | 21.01        | 20.32 | 19.80 | 19.96        |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |              |       |       |              |
|                    |                | QPSK         |       |              | 16QAM |       |              |
|                    | Channel        | 40315        | 40740 | 41165        | 40315 | 40740 | 41165        |
| 15MHz              | 1 (RB_Pos:0)   | 22.34        | 22.05 | 21.79        | 21.56 | 20.44 | 20.89        |
|                    | 1 (RB_Pos:37)  | 22.04        | 21.98 | 21.16        | 21.48 | 20.29 | 21.16        |
|                    | 1 (RB_Pos:74)  | 22.02        | 21.98 | 22.06        | 21.50 | 20.25 | 20.96        |
|                    | 36 (RB_Pos:0)  | 21.22        | 20.99 | 20.73        | 19.95 | 19.78 | 19.73        |
|                    | 36 (RB_Pos:18) | 21.15        | 20.89 | 20.94        | 20.06 | 19.75 | 19.94        |
|                    | 36 (RB_Pos:37) | 21.16        | 20.77 | 20.67        | 19.84 | 19.72 | 20.05        |
|                    | 75 (RB_Pos:0)  | 21.15        | 20.84 | 20.68        | 20.28 | 19.78 | 19.98        |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |              |       |       |              |
|                    |                | QPSK         |       |              | 16QAM |       |              |
|                    | Channel        | 40290        | 40740 | 41190        | 40290 | 40740 | 41190        |
| 10MHz              | 1 (RB_Pos:0)   | 22.24        | 22.00 | 21.88        | 21.47 | 20.09 | 21.34        |
|                    | 1 (RB_Pos:24)  | 22.18        | 22.12 | 22.21        | 21.62 | 20.24 | 21.18        |
|                    | 1 (RB_Pos:49)  | 22.05        | 21.92 | 22.03        | 21.42 | 20.20 | 21.45        |
|                    | 25 (RB_Pos:0)  | 21.22        | 20.83 | 21.08        | 20.32 | 19.58 | 19.87        |
|                    | 25 (RB_Pos:12) | 21.20        | 20.83 | 21.10        | 20.31 | 19.57 | 20.10        |
|                    | 25 (RB_Pos:24) | 21.21        | 20.81 | 21.15        | 20.24 | 19.56 | 20.07        |
|                    | 50 (RB_Pos:0)  | 21.26        | 20.82 | 21.11        | 19.93 | 19.69 | 20.12        |
| Bandwidth<br>(MHz) | RB Set         | Power (dBm)  |       |              |       |       |              |
|                    |                | QPSK         |       |              | 16QAM |       |              |
|                    | Channel        | 40265        | 40740 | 41215        | 40265 | 40740 | 41215        |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 43 of 101

|      |                |       |       |       |       |       |       |
|------|----------------|-------|-------|-------|-------|-------|-------|
| 5MHz | 1 (RB_Pos:0)   | 21.87 | 21.73 | 21.99 | 21.01 | 20.39 | 20.58 |
|      | 1 (RB_Pos:12)  | 21.95 | 21.75 | 22.10 | 21.02 | 20.32 | 20.60 |
|      | 1 (RB_Pos:24)  | 21.96 | 21.72 | 22.08 | 20.54 | 20.52 | 20.49 |
|      | 12 (RB_Pos:0)  | 21.25 | 20.84 | 21.12 | 19.96 | 19.83 | 20.24 |
|      | 12 (RB_Pos:6)  | 21.22 | 20.81 | 21.18 | 19.98 | 19.76 | 20.21 |
|      | 12 (RB_Pos:11) | 21.17 | 20.80 | 21.12 | 19.96 | 19.66 | 20.13 |
|      | 25 (RB_Pos:0)  | 21.21 | 20.81 | 21.07 | 20.10 | 19.78 | 20.16 |

## Effective (Isotropic) Radiated Power Measurement Results for GSM/GPRS/EDGE

| Test Band | Channel | Measured ERP        |                        |           |         | Limit (W) | Verdict |
|-----------|---------|---------------------|------------------------|-----------|---------|-----------|---------|
|           |         | SA Read Value (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (W) |           |         |
| GSM 850   | Low     | 16.62               | 9.83                   | 26.45     | 0.44    | 7         | PASS    |
|           | Middle  | 16.67               | 9.83                   | 26.50     | 0.45    |           | PASS    |
|           | High    | 16.89               | 9.83                   | 26.72     | 0.47    |           | PASS    |
| GPRS 850  | Low     | 15.01               | 9.83                   | 24.84     | 0.30    |           | PASS    |
|           | Middle  | 15.38               | 9.83                   | 25.21     | 0.33    |           | PASS    |
|           | High    | 15.65               | 9.83                   | 25.48     | 0.35    |           | PASS    |
| EDGE 850  | Low     | 14.83               | 9.83                   | 24.66     | 0.29    |           | PASS    |
|           | Middle  | 15.93               | 9.83                   | 25.76     | 0.38    |           | PASS    |
|           | High    | 15.05               | 9.83                   | 24.88     | 0.31    |           | PASS    |

| Test Band | Channel | Measured EIRP       |                        |            |          | Limit (W) | Verdict |
|-----------|---------|---------------------|------------------------|------------|----------|-----------|---------|
|           |         | SA Read Value (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (W) |           |         |
| GSM 1900  | Low     | 12.07               | 17.8                   | 29.87      | 0.97     | 2         | PASS    |
|           | Middle  | 11.85               | 17.8                   | 29.65      | 0.92     |           | PASS    |
|           | High    | 11.85               | 17.8                   | 29.65      | 0.92     |           | PASS    |
| GPRS 1900 | Low     | 11.94               | 17.8                   | 29.74      | 0.94     |           | PASS    |
|           | Middle  | 11.63               | 17.8                   | 29.43      | 0.88     |           | PASS    |
|           | High    | 12.27               | 17.8                   | 30.07      | 1.02     |           | PASS    |
| EDGE 1900 | Low     | 11.76               | 17.8                   | 29.56      | 0.90     |           | PASS    |
|           | Middle  | 12.09               | 17.8                   | 29.89      | 0.97     |           | PASS    |
|           | High    | 11.42               | 17.8                   | 29.22      | 0.84     |           | PASS    |

**Note(s):**For GPRS and EGPRS mode, all the slots were tested and just the worst data were recorded in this table

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 44 of 101

## Effective (Isotropic) Radiated Power Measurement Results for WCDMA/HSDPA/HSUPA

| Test Band     | Channel | Measured EIRP       |                        |            |          | Limit (W) | Verdict |
|---------------|---------|---------------------|------------------------|------------|----------|-----------|---------|
|               |         | SA Read Value (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (W) |           |         |
| WCDMA Band II | Low     | 0.96                | 17.8                   | 18.76      | 0.08     | 2         | PASS    |
|               | Middle  | 0.69                | 17.8                   | 18.49      | 0.07     |           | PASS    |
|               | High    | 0.91                | 17.8                   | 18.71      | 0.07     |           | PASS    |
| HSDPA Band II | Low     | 1.17                | 17.8                   | 18.97      | 0.08     |           | PASS    |
|               | Middle  | 0.99                | 17.8                   | 18.79      | 0.08     |           | PASS    |
|               | High    | 1.06                | 17.8                   | 18.86      | 0.08     |           | PASS    |
| HSUPA Band II | Low     | 0.8                 | 17.8                   | 18.60      | 0.07     |           | PASS    |
|               | Middle  | 0.58                | 17.8                   | 18.38      | 0.07     |           | PASS    |
|               | High    | 1                   | 17.8                   | 18.80      | 0.08     |           | PASS    |

| Test Band    | Channel | Measured ERP        |                        |           |         | Limit (W) | Verdict |
|--------------|---------|---------------------|------------------------|-----------|---------|-----------|---------|
|              |         | SA Read Value (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (W) |           |         |
| WCDMA Band V | Low     | 9.37                | 9.83                   | 19.20     | 0.08    | 7         | PASS    |
|              | Middle  | 9.65                | 9.83                   | 19.48     | 0.09    |           | PASS    |
|              | High    | 9.5                 | 9.83                   | 19.33     | 0.09    |           | PASS    |
| HSDPA Band V | Low     | 8.53                | 9.83                   | 18.36     | 0.07    |           | PASS    |
|              | Middle  | 8.18                | 9.83                   | 18.01     | 0.06    |           | PASS    |
|              | High    | 8.46                | 9.83                   | 18.29     | 0.07    |           | PASS    |
| HSUPA Band V | Low     | 7.15                | 9.83                   | 16.98     | 0.05    |           | PASS    |
|              | Middle  | 7.42                | 9.83                   | 17.25     | 0.05    |           | PASS    |
|              | High    | 7.67                | 9.83                   | 17.50     | 0.06    |           | PASS    |

### Note(s):

For the HSDPA and HSUPA mode, all the subtests were tested and just the worst data were recorded in this table.

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 45 of 101

## Effective (Isotropic) Radiated Power Measurement Results for CDMA/EVDO

| Test Band       | Channel | Measured ERP        |                        |           |         | Limit (W) | Verdict |
|-----------------|---------|---------------------|------------------------|-----------|---------|-----------|---------|
|                 |         | SA Read Value (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (W) |           |         |
| CDMA BC0 F1R1   | Low     | 8.43                | 9.83                   | 18.26     | 0.07    | 7         | PASS    |
|                 | Middle  | 8.57                | 9.83                   | 18.40     | 0.07    |           | PASS    |
|                 | High    | 8.51                | 9.83                   | 18.34     | 0.07    |           | PASS    |
| CDMA BC0 F3R3   | Low     | 8.38                | 9.83                   | 18.21     | 0.07    |           | PASS    |
|                 | Middle  | 8.25                | 9.83                   | 18.08     | 0.06    |           | PASS    |
|                 | High    | 8.49                | 9.83                   | 18.32     | 0.07    |           | PASS    |
| EVDO BC0 Rel. 0 | Low     | 8.65                | 9.83                   | 18.48     | 0.07    |           | PASS    |
|                 | Middle  | 8.57                | 9.83                   | 18.40     | 0.07    |           | PASS    |
|                 | High    | 8.63                | 9.83                   | 18.46     | 0.07    |           | PASS    |
| EVDO BC0 Rev. A | Low     | 8.71                | 9.83                   | 18.54     | 0.07    |           | PASS    |
|                 | Middle  | 8.19                | 9.83                   | 18.02     | 0.06    |           | PASS    |
|                 | High    | 8.22                | 9.83                   | 18.05     | 0.06    |           | PASS    |

## Effective (Isotropic) Radiated Power Measurement Results for LTE

| FDD LTE Band 2 |        |        |                      |                     |                        |            |          |           |         |
|----------------|--------|--------|----------------------|---------------------|------------------------|------------|----------|-----------|---------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | Measured EIRP       |                        |            |          | Limit (W) | Verdict |
|                |        |        |                      | SA Read Value (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (W) |           |         |
| 1.4 MHz        | Low    | QPSK   | RB1#0                | 1.26                | 17.8                   | 19.06      | 0.08     | 2         | PASS    |
|                |        |        | RB6#0                | 0.3                 | 17.8                   | 18.10      | 0.06     | 2         | PASS    |
|                |        | 16QAM  | RB1#0                | 0.94                | 17.8                   | 18.74      | 0.07     | 2         | PASS    |
|                |        |        | RB6#0                | 0.31                | 17.8                   | 18.11      | 0.06     | 2         | PASS    |
|                | Middle | QPSK   | RB1#0                | 0.8                 | 17.8                   | 18.60      | 0.07     | 2         | PASS    |
|                |        |        | RB6#0                | 0.14                | 17.8                   | 17.94      | 0.06     | 2         | PASS    |
|                |        | 16QAM  | RB1#0                | 0.12                | 17.8                   | 17.92      | 0.06     | 2         | PASS    |
|                |        |        | RB6#0                | -0.24               | 17.8                   | 17.56      | 0.06     | 2         | PASS    |
|                | High   | QPSK   | RB1#0                | 1                   | 17.8                   | 18.80      | 0.08     | 2         | PASS    |
|                |        |        | RB6#0                | 0.26                | 17.8                   | 18.06      | 0.06     | 2         | PASS    |
|                |        | 16QAM  | RB1#0                | 1.08                | 17.8                   | 18.88      | 0.08     | 2         | PASS    |
|                |        |        | RB6#0                | 0.64                | 17.8                   | 18.44      | 0.07     | 2         | PASS    |
| 3 MHz          | Low    | QPSK   | RB1#0                | 1.76                | 17.8                   | 19.56      | 0.09     | 2         | PASS    |
|                |        |        | RB15#0               | 0.22                | 17.8                   | 18.02      | 0.06     | 2         | PASS    |
|                |        | 16QAM  | RB1#0                | 1.06                | 17.8                   | 18.86      | 0.08     | 2         | PASS    |
|                |        |        | RB15#0               | 0.45                | 17.8                   | 18.25      | 0.07     | 2         | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 46 of 101

|        |        |       |        |       |      |       |      |   |      |
|--------|--------|-------|--------|-------|------|-------|------|---|------|
|        | Middle | QPSK  | RB1#0  | 1.12  | 17.8 | 18.92 | 0.08 | 2 | PASS |
|        |        |       | RB15#0 | 0.63  | 17.8 | 18.43 | 0.07 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 0.82  | 17.8 | 18.62 | 0.07 | 2 | PASS |
|        |        |       | RB15#0 | 0.11  | 17.8 | 17.91 | 0.06 | 2 | PASS |
|        | High   | QPSK  | RB1#0  | 1.18  | 17.8 | 18.98 | 0.08 | 2 | PASS |
|        |        |       | RB15#0 | 0.28  | 17.8 | 18.08 | 0.06 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 0.7   | 17.8 | 18.50 | 0.07 | 2 | PASS |
|        |        |       | RB15#0 | 0.76  | 17.8 | 18.56 | 0.07 | 2 | PASS |
| 5 MHz  | Low    | QPSK  | RB1#0  | 1.61  | 17.8 | 19.41 | 0.09 | 2 | PASS |
|        |        |       | RB25#0 | 0.42  | 17.8 | 18.22 | 0.07 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 0.97  | 17.8 | 18.77 | 0.08 | 2 | PASS |
|        |        |       | RB25#0 | 0.16  | 17.8 | 17.96 | 0.06 | 2 | PASS |
|        | Middle | QPSK  | RB1#0  | 1.33  | 17.8 | 19.13 | 0.08 | 2 | PASS |
|        |        |       | RB25#0 | 0.39  | 17.8 | 18.19 | 0.07 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 0.43  | 17.8 | 18.23 | 0.07 | 2 | PASS |
|        |        |       | RB25#0 | 0.04  | 17.8 | 17.84 | 0.06 | 2 | PASS |
|        | High   | QPSK  | RB1#0  | 1.26  | 17.8 | 19.06 | 0.08 | 2 | PASS |
|        |        |       | RB25#0 | 0.54  | 17.8 | 18.34 | 0.07 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 1.56  | 17.8 | 19.36 | 0.09 | 2 | PASS |
|        |        |       | RB25#0 | 0.52  | 17.8 | 18.32 | 0.07 | 2 | PASS |
| 10 MHz | Low    | QPSK  | RB1#0  | 1.72  | 17.8 | 19.52 | 0.09 | 2 | PASS |
|        |        |       | RB50#0 | 0.61  | 17.8 | 18.41 | 0.07 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 0.69  | 17.8 | 18.49 | 0.07 | 2 | PASS |
|        |        |       | RB50#0 | 0.67  | 17.8 | 18.47 | 0.07 | 2 | PASS |
|        | Middle | QPSK  | RB1#0  | 1.14  | 17.8 | 18.94 | 0.08 | 2 | PASS |
|        |        |       | RB50#0 | 0.71  | 17.8 | 18.51 | 0.07 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 0.7   | 17.8 | 18.50 | 0.07 | 2 | PASS |
|        |        |       | RB50#0 | -0.27 | 17.8 | 17.53 | 0.06 | 2 | PASS |
|        | High   | QPSK  | RB1#0  | 1.35  | 17.8 | 19.15 | 0.08 | 2 | PASS |
|        |        |       | RB50#0 | 0.59  | 17.8 | 18.39 | 0.07 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 1.26  | 17.8 | 19.06 | 0.08 | 2 | PASS |
|        |        |       | RB50#0 | 1.11  | 17.8 | 18.91 | 0.08 | 2 | PASS |
| 15 MHz | Low    | QPSK  | RB1#0  | 1.38  | 17.8 | 19.18 | 0.08 | 2 | PASS |
|        |        |       | RB75#0 | 0.31  | 17.8 | 18.11 | 0.06 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 0.91  | 17.8 | 18.71 | 0.07 | 2 | PASS |
|        |        |       | RB75#0 | 0.27  | 17.8 | 18.07 | 0.06 | 2 | PASS |
|        | Middle | QPSK  | RB1#0  | 1.29  | 17.8 | 19.09 | 0.08 | 2 | PASS |
|        |        |       | RB75#0 | 0.81  | 17.8 | 18.61 | 0.07 | 2 | PASS |
|        |        | 16QAM | RB1#0  | 0.79  | 17.8 | 18.59 | 0.07 | 2 | PASS |
|        |        |       | RB75#0 | -0.24 | 17.8 | 17.56 | 0.06 | 2 | PASS |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 47 of 101

|       |        |       |         |       |      |       |      |   |      |
|-------|--------|-------|---------|-------|------|-------|------|---|------|
| 20MHz | High   | QPSK  | RB1#0   | 0.76  | 17.8 | 18.56 | 0.07 | 2 | PASS |
|       |        |       | RB75#0  | 0.63  | 17.8 | 18.43 | 0.07 | 2 | PASS |
|       |        | 16QAM | RB1#0   | 1.21  | 17.8 | 19.01 | 0.08 | 2 | PASS |
|       |        |       | RB75#0  | 0.87  | 17.8 | 18.67 | 0.07 | 2 | PASS |
|       | Low    | QPSK  | RB1#0   | 1.38  | 17.8 | 19.18 | 0.08 | 2 | PASS |
|       |        |       | RB100#0 | 0.05  | 17.8 | 17.85 | 0.06 | 2 | PASS |
|       |        | 16QAM | RB1#0   | 0.91  | 17.8 | 18.71 | 0.07 | 2 | PASS |
|       |        |       | RB100#0 | -0.27 | 17.8 | 17.53 | 0.06 | 2 | PASS |
|       | Middle | QPSK  | RB1#0   | 1.36  | 17.8 | 19.16 | 0.08 | 2 | PASS |
|       |        |       | RB100#0 | 0.66  | 17.8 | 18.46 | 0.07 | 2 | PASS |
|       |        | 16QAM | RB1#0   | 0.8   | 17.8 | 18.60 | 0.07 | 2 | PASS |
|       |        |       | RB100#0 | -0.15 | 17.8 | 17.65 | 0.06 | 2 | PASS |
|       | High   | QPSK  | RB1#0   | 1.28  | 17.8 | 19.08 | 0.08 | 2 | PASS |
|       |        |       | RB100#0 | 0.89  | 17.8 | 18.69 | 0.07 | 2 | PASS |
|       |        | 16QAM | RB1#0   | 1.3   | 17.8 | 19.10 | 0.08 | 2 | PASS |
|       |        |       | RB100#0 | 0.8   | 17.8 | 18.60 | 0.07 | 2 | PASS |

| FDD LTE Band 4 |        |        |                      |                     |                        |            |          |           |         |
|----------------|--------|--------|----------------------|---------------------|------------------------|------------|----------|-----------|---------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | Measured EIRP       |                        |            |          | Limit (W) | Verdict |
|                |        |        |                      | SA Read Value (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (W) |           |         |
| 1.4 MHz        | Low    | QPSK   | RB1#0                | 5.37                | 14.4                   | 19.77      | 0.09     | 1         | PASS    |
|                |        |        | RB6#0                | 4.99                | 14.4                   | 19.39      | 0.09     | 1         | PASS    |
|                |        | 16QAM  | RB1#0                | 5.19                | 14.4                   | 19.59      | 0.09     | 1         | PASS    |
|                |        |        | RB6#0                | 4.68                | 14.4                   | 19.08      | 0.08     | 1         | PASS    |
|                | Middle | QPSK   | RB1#0                | 5.77                | 14.4                   | 20.17      | 0.10     | 1         | PASS    |
|                |        |        | RB6#0                | 5.09                | 14.4                   | 19.49      | 0.09     | 1         | PASS    |
|                |        | 16QAM  | RB1#0                | 5.54                | 14.4                   | 19.94      | 0.10     | 1         | PASS    |
|                |        |        | RB6#0                | 4.17                | 14.4                   | 18.57      | 0.07     | 1         | PASS    |
|                | High   | QPSK   | RB1#0                | 5.47                | 14.4                   | 19.87      | 0.10     | 1         | PASS    |
|                |        |        | RB6#0                | 4.19                | 14.4                   | 18.59      | 0.07     | 1         | PASS    |
|                |        | 16QAM  | RB1#0                | 5.61                | 14.4                   | 20.01      | 0.10     | 1         | PASS    |
|                |        |        | RB6#0                | 4.46                | 14.4                   | 18.86      | 0.08     | 1         | PASS    |
| 3 MHz          | Low    | QPSK   | RB1#0                | 5.7                 | 14.4                   | 20.10      | 0.10     | 1         | PASS    |
|                |        |        | RB15#0               | 4.53                | 14.4                   | 18.93      | 0.08     | 1         | PASS    |
|                |        | 16QAM  | RB1#0                | 5.32                | 14.4                   | 19.72      | 0.09     | 1         | PASS    |
|                |        |        | RB15#0               | 4.63                | 14.4                   | 19.03      | 0.08     | 1         | PASS    |
|                | Middle | QPSK   | RB1#0                | 5.69                | 14.4                   | 20.09      | 0.10     | 1         | PASS    |
|                |        |        | RB15#0               | 5.38                | 14.4                   | 19.78      | 0.10     | 1         | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 48 of 101

|        |        |       |        |      |      |       |      |   |      |
|--------|--------|-------|--------|------|------|-------|------|---|------|
|        |        | 16QAM | RB1#0  | 5.14 | 14.4 | 19.54 | 0.09 | 1 | PASS |
|        |        |       | RB15#0 | 4.22 | 14.4 | 18.62 | 0.07 | 1 | PASS |
|        | High   | QPSK  | RB1#0  | 5.91 | 14.4 | 20.31 | 0.11 | 1 | PASS |
|        |        |       | RB15#0 | 4.35 | 14.4 | 18.75 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0  | 5.41 | 14.4 | 19.81 | 0.10 | 1 | PASS |
|        |        |       | RB15#0 | 4.18 | 14.4 | 18.58 | 0.07 | 1 | PASS |
| 5 MHz  | Low    | QPSK  | RB1#0  | 5.99 | 14.4 | 20.39 | 0.11 | 1 | PASS |
|        |        |       | RB25#0 | 5.1  | 14.4 | 19.50 | 0.09 | 1 | PASS |
|        |        | 16QAM | RB1#0  | 5.81 | 14.4 | 20.21 | 0.10 | 1 | PASS |
|        |        |       | RB25#0 | 4.2  | 14.4 | 18.60 | 0.07 | 1 | PASS |
|        | Middle | QPSK  | RB1#0  | 5.56 | 14.4 | 19.96 | 0.10 | 1 | PASS |
|        |        |       | RB25#0 | 5.19 | 14.4 | 19.59 | 0.09 | 1 | PASS |
|        |        | 16QAM | RB1#0  | 5.85 | 14.4 | 20.25 | 0.11 | 1 | PASS |
|        |        |       | RB25#0 | 4.86 | 14.4 | 19.26 | 0.08 | 1 | PASS |
|        | High   | QPSK  | RB1#0  | 5.5  | 14.4 | 19.90 | 0.10 | 1 | PASS |
|        |        |       | RB25#0 | 4.29 | 14.4 | 18.69 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0  | 5.53 | 14.4 | 19.93 | 0.10 | 1 | PASS |
|        |        |       | RB25#0 | 4.7  | 14.4 | 19.10 | 0.08 | 1 | PASS |
| 10 MHz | Low    | QPSK  | RB1#0  | 5.63 | 14.4 | 20.03 | 0.10 | 1 | PASS |
|        |        |       | RB50#0 | 4.98 | 14.4 | 19.38 | 0.09 | 1 | PASS |
|        |        | 16QAM | RB1#0  | 5.93 | 14.4 | 20.33 | 0.11 | 1 | PASS |
|        |        |       | RB50#0 | 4.52 | 14.4 | 18.92 | 0.08 | 1 | PASS |
|        | Middle | QPSK  | RB1#0  | 5.96 | 14.4 | 20.36 | 0.11 | 1 | PASS |
|        |        |       | RB50#0 | 4.93 | 14.4 | 19.33 | 0.09 | 1 | PASS |
|        |        | 16QAM | RB1#0  | 5.27 | 14.4 | 19.67 | 0.09 | 1 | PASS |
|        |        |       | RB50#0 | 4.77 | 14.4 | 19.17 | 0.08 | 1 | PASS |
|        | High   | QPSK  | RB1#0  | 5.72 | 14.4 | 20.12 | 0.10 | 1 | PASS |
|        |        |       | RB50#0 | 4.89 | 14.4 | 19.29 | 0.08 | 1 | PASS |
|        |        | 16QAM | RB1#0  | 5.91 | 14.4 | 20.31 | 0.11 | 1 | PASS |
|        |        |       | RB50#0 | 4.24 | 14.4 | 18.64 | 0.07 | 1 | PASS |
| 15 MHz | Low    | QPSK  | RB1#0  | 5.45 | 14.4 | 19.85 | 0.10 | 1 | PASS |
|        |        |       | RB75#0 | 5.17 | 14.4 | 19.57 | 0.09 | 1 | PASS |
|        |        | 16QAM | RB1#0  | 5.37 | 14.4 | 19.77 | 0.09 | 1 | PASS |
|        |        |       | RB75#0 | 4.75 | 14.4 | 19.15 | 0.08 | 1 | PASS |
|        | Middle | QPSK  | RB1#0  | 5.96 | 14.4 | 20.36 | 0.11 | 1 | PASS |
|        |        |       | RB75#0 | 5.16 | 14.4 | 19.56 | 0.09 | 1 | PASS |
|        |        | 16QAM | RB1#0  | 5.4  | 14.4 | 19.80 | 0.10 | 1 | PASS |
|        |        |       | RB75#0 | 4.27 | 14.4 | 18.67 | 0.07 | 1 | PASS |
|        | High   | QPSK  | RB1#0  | 5.49 | 14.4 | 19.89 | 0.10 | 1 | PASS |
|        |        |       | RB75#0 | 4.93 | 14.4 | 19.33 | 0.09 | 1 | PASS |



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 49 of 101

|       |        |       |         |      |      |       |      |   |      |
|-------|--------|-------|---------|------|------|-------|------|---|------|
|       |        | 16QAM | RB1#0   | 5.52 | 14.4 | 19.92 | 0.10 | 1 | PASS |
|       |        |       | RB75#0  | 4.5  | 14.4 | 18.90 | 0.08 | 1 | PASS |
| 20MHz | Low    | QPSK  | RB1#0   | 5.97 | 14.4 | 20.37 | 0.11 | 1 | PASS |
|       |        |       | RB100#0 | 4.79 | 14.4 | 19.19 | 0.08 | 1 | PASS |
|       |        | 16QAM | RB1#0   | 5.73 | 14.4 | 20.13 | 0.10 | 1 | PASS |
|       |        |       | RB100#0 | 4.75 | 14.4 | 19.15 | 0.08 | 1 | PASS |
|       | Middle | QPSK  | RB1#0   | 5.55 | 14.4 | 19.95 | 0.10 | 1 | PASS |
|       |        |       | RB100#0 | 4.71 | 14.4 | 19.11 | 0.08 | 1 | PASS |
|       |        | 16QAM | RB1#0   | 5.38 | 14.4 | 19.78 | 0.10 | 1 | PASS |
|       |        |       | RB100#0 | 4.38 | 14.4 | 18.78 | 0.08 | 1 | PASS |
|       | High   | QPSK  | RB1#0   | 5.77 | 14.4 | 20.17 | 0.10 | 1 | PASS |
|       |        |       | RB100#0 | 4.34 | 14.4 | 18.74 | 0.07 | 1 | PASS |
|       |        | 16QAM | RB1#0   | 5.74 | 14.4 | 20.14 | 0.10 | 1 | PASS |
|       |        |       | RB100#0 | 4.56 | 14.4 | 18.96 | 0.08 | 1 | PASS |

| FDD LTE Band 5 |        |        |                      |                     |                        |           |         |           |         |
|----------------|--------|--------|----------------------|---------------------|------------------------|-----------|---------|-----------|---------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | Measured ERP        |                        |           |         | Limit (W) | Verdict |
|                |        |        |                      | SA Read Value (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (W) |           |         |
| 1.4 MHz        | Low    | QPSK   | RB1#0                | 8.34                | 9.83                   | 18.17     | 0.07    | 7         | PASS    |
|                |        |        | RB6#0                | 7.44                | 9.83                   | 17.27     | 0.05    | 7         | PASS    |
|                |        | 16QAM  | RB1#0                | 8.01                | 9.83                   | 17.84     | 0.06    | 7         | PASS    |
|                |        |        | RB6#0                | 7.67                | 9.83                   | 17.50     | 0.06    | 7         | PASS    |
|                | Middle | QPSK   | RB1#0                | 7.92                | 9.83                   | 17.75     | 0.06    | 7         | PASS    |
|                |        |        | RB6#0                | 7.14                | 9.83                   | 16.97     | 0.05    | 7         | PASS    |
|                |        | 16QAM  | RB1#0                | 7.16                | 9.83                   | 16.99     | 0.05    | 7         | PASS    |
|                |        |        | RB6#0                | 8.31                | 9.83                   | 18.14     | 0.07    | 7         | PASS    |
|                | High   | QPSK   | RB1#0                | 8.44                | 9.83                   | 18.27     | 0.07    | 7         | PASS    |
|                |        |        | RB6#0                | 7.68                | 9.83                   | 17.51     | 0.06    | 7         | PASS    |
|                |        | 16QAM  | RB1#0                | 8.1                 | 9.83                   | 17.93     | 0.06    | 7         | PASS    |
|                |        |        | RB6#0                | 7.93                | 9.83                   | 17.76     | 0.06    | 7         | PASS    |
| 3 MHz          | Low    | QPSK   | RB1#0                | 8.6                 | 9.83                   | 18.43     | 0.07    | 7         | PASS    |
|                |        |        | RB15#0               | 7.71                | 9.83                   | 17.54     | 0.06    | 7         | PASS    |
|                |        | 16QAM  | RB1#0                | 7.88                | 9.83                   | 17.71     | 0.06    | 7         | PASS    |
|                |        |        | RB15#0               | 7.81                | 9.83                   | 17.64     | 0.06    | 7         | PASS    |
|                | Middle | QPSK   | RB1#0                | 8.31                | 9.83                   | 18.14     | 0.07    | 7         | PASS    |
|                |        |        | RB15#0               | 7.16                | 9.83                   | 16.99     | 0.05    | 7         | PASS    |
|                |        | 16QAM  | RB1#0                | 7.65                | 9.83                   | 17.48     | 0.06    | 7         | PASS    |
|                |        |        | RB15#0               | 8.16                | 9.83                   | 17.99     | 0.06    | 7         | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 50 of 101

|        |        |       |        |      |      |       |      |   |      |
|--------|--------|-------|--------|------|------|-------|------|---|------|
| 5 MHz  | High   | QPSK  | RB1#0  | 7.95 | 9.83 | 17.78 | 0.06 | 7 | PASS |
|        |        |       | RB15#0 | 7.32 | 9.83 | 17.15 | 0.05 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 8.34 | 9.83 | 18.17 | 0.07 | 7 | PASS |
|        |        |       | RB15#0 | 7.92 | 9.83 | 17.75 | 0.06 | 7 | PASS |
|        | Low    | QPSK  | RB1#0  | 8.12 | 9.83 | 17.95 | 0.06 | 7 | PASS |
|        |        |       | RB25#0 | 7.27 | 9.83 | 17.10 | 0.05 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 7.79 | 9.83 | 17.62 | 0.06 | 7 | PASS |
|        |        |       | RB25#0 | 7.64 | 9.83 | 17.47 | 0.06 | 7 | PASS |
| 5 MHz  | Middle | QPSK  | RB1#0  | 7.78 | 9.83 | 17.61 | 0.06 | 7 | PASS |
|        |        |       | RB25#0 | 7.67 | 9.83 | 17.50 | 0.06 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 7.75 | 9.83 | 17.58 | 0.06 | 7 | PASS |
|        |        |       | RB25#0 | 7.43 | 9.83 | 17.26 | 0.05 | 7 | PASS |
|        | High   | QPSK  | RB1#0  | 7.89 | 9.83 | 17.72 | 0.06 | 7 | PASS |
|        |        |       | RB25#0 | 8.1  | 9.83 | 17.93 | 0.06 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 8.16 | 9.83 | 17.99 | 0.06 | 7 | PASS |
|        |        |       | RB25#0 | 7.72 | 9.83 | 17.55 | 0.06 | 7 | PASS |
| 10 MHz | Low    | QPSK  | RB1#0  | 8.24 | 9.83 | 18.07 | 0.06 | 7 | PASS |
|        |        |       | RB50#0 | 7.37 | 9.83 | 17.20 | 0.05 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 8.06 | 9.83 | 17.89 | 0.06 | 7 | PASS |
|        |        |       | RB50#0 | 7.82 | 9.83 | 17.65 | 0.06 | 7 | PASS |
|        | Middle | QPSK  | RB1#0  | 8.27 | 9.83 | 18.10 | 0.06 | 7 | PASS |
|        |        |       | RB50#0 | 7.79 | 9.83 | 17.62 | 0.06 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 7.57 | 9.83 | 17.40 | 0.05 | 7 | PASS |
|        |        |       | RB50#0 | 8.15 | 9.83 | 17.98 | 0.06 | 7 | PASS |
|        | High   | QPSK  | RB1#0  | 8.32 | 9.83 | 18.15 | 0.07 | 7 | PASS |
|        |        |       | RB50#0 | 7.56 | 9.83 | 17.39 | 0.05 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 7.8  | 9.83 | 17.63 | 0.06 | 7 | PASS |
|        |        |       | RB50#0 | 7.56 | 9.83 | 17.39 | 0.05 | 7 | PASS |

| FDD LTE Band 7 |        |        |                      |                     |                        |            |          |           |         |
|----------------|--------|--------|----------------------|---------------------|------------------------|------------|----------|-----------|---------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | Measured EIRP       |                        |            |          | Limit (W) | Verdict |
|                |        |        |                      | SA Read Value (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (W) |           |         |
| 5 MHz          | Low    | QPSK   | RB1#0                | 1.38                | 19.5                   | 20.88      | 0.12     | 2         | PASS    |
|                |        |        | RB25#0               | 0.27                | 19.5                   | 19.77      | 0.09     | 2         | PASS    |
|                |        | 16QAM  | RB1#0                | 1.12                | 19.5                   | 20.62      | 0.12     | 2         | PASS    |
|                |        |        | RB25#0               | -0.11               | 19.5                   | 19.39      | 0.09     | 2         | PASS    |
|                | Middle | QPSK   | RB1#0                | 1.15                | 19.5                   | 20.65      | 0.12     | 2         | PASS    |
|                |        |        | RB25#0               | 0.24                | 19.5                   | 19.74      | 0.09     | 2         | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 51 of 101

|        |        |       |         |       |      |       |      |   |      |
|--------|--------|-------|---------|-------|------|-------|------|---|------|
|        |        | 16QAM | RB1#0   | 0.86  | 19.5 | 20.36 | 0.11 | 2 | PASS |
|        |        |       | RB25#0  | -0.39 | 19.5 | 19.11 | 0.08 | 2 | PASS |
|        | High   | QPSK  | RB1#0   | 1.03  | 19.5 | 20.53 | 0.11 | 2 | PASS |
|        |        |       | RB25#0  | 0.65  | 19.5 | 20.15 | 0.10 | 2 | PASS |
|        |        | 16QAM | RB1#0   | 1.22  | 19.5 | 20.72 | 0.12 | 2 | PASS |
|        |        |       | RB25#0  | 0.83  | 19.5 | 20.33 | 0.11 | 2 | PASS |
| 10 MHz | Low    | QPSK  | RB1#0   | 1.09  | 19.5 | 20.59 | 0.11 | 2 | PASS |
|        |        |       | RB50#0  | 0.21  | 19.5 | 19.71 | 0.09 | 2 | PASS |
|        |        | 16QAM | RB1#0   | 1.05  | 19.5 | 20.55 | 0.11 | 2 | PASS |
|        |        |       | RB50#0  | 0.4   | 19.5 | 19.90 | 0.10 | 2 | PASS |
|        | Middle | QPSK  | RB1#0   | 0.83  | 19.5 | 20.33 | 0.11 | 2 | PASS |
|        |        |       | RB50#0  | 0.57  | 19.5 | 20.07 | 0.10 | 2 | PASS |
|        |        | 16QAM | RB1#0   | 0.19  | 19.5 | 19.69 | 0.09 | 2 | PASS |
|        |        |       | RB50#0  | -0.26 | 19.5 | 19.24 | 0.08 | 2 | PASS |
|        | High   | QPSK  | RB1#0   | 1.26  | 19.5 | 20.76 | 0.12 | 2 | PASS |
|        |        |       | RB50#0  | 0.68  | 19.5 | 20.18 | 0.10 | 2 | PASS |
|        |        | 16QAM | RB1#0   | 1.44  | 19.5 | 20.94 | 0.12 | 2 | PASS |
|        |        |       | RB50#0  | 0.61  | 19.5 | 20.11 | 0.10 | 2 | PASS |
| 15 MHz | Low    | QPSK  | RB1#0   | 1.46  | 19.5 | 20.96 | 0.12 | 2 | PASS |
|        |        |       | RB75#0  | 0.58  | 19.5 | 20.08 | 0.10 | 2 | PASS |
|        |        | 16QAM | RB1#0   | 0.69  | 19.5 | 20.19 | 0.10 | 2 | PASS |
|        |        |       | RB75#0  | 0.34  | 19.5 | 19.84 | 0.10 | 2 | PASS |
|        | Middle | QPSK  | RB1#0   | 1.1   | 19.5 | 20.60 | 0.11 | 2 | PASS |
|        |        |       | RB75#0  | 0.29  | 19.5 | 19.79 | 0.10 | 2 | PASS |
|        |        | 16QAM | RB1#0   | 0.47  | 19.5 | 19.97 | 0.10 | 2 | PASS |
|        |        |       | RB75#0  | -0.23 | 19.5 | 19.27 | 0.08 | 2 | PASS |
|        | High   | QPSK  | RB1#0   | 1.68  | 19.5 | 21.18 | 0.13 | 2 | PASS |
|        |        |       | RB75#0  | 0.92  | 19.5 | 20.42 | 0.11 | 2 | PASS |
|        |        | 16QAM | RB1#0   | 1.19  | 19.5 | 20.69 | 0.12 | 2 | PASS |
|        |        |       | RB75#0  | 0.93  | 19.5 | 20.43 | 0.11 | 2 | PASS |
| 20MHz  | Low    | QPSK  | RB1#0   | 1.31  | 19.5 | 20.81 | 0.12 | 2 | PASS |
|        |        |       | RB100#0 | 0.39  | 19.5 | 19.89 | 0.10 | 2 | PASS |
|        |        | 16QAM | RB1#0   | 0.95  | 19.5 | 20.45 | 0.11 | 2 | PASS |
|        |        |       | RB100#0 | 0.07  | 19.5 | 19.57 | 0.09 | 2 | PASS |
|        | Middle | QPSK  | RB1#0   | 1.47  | 19.5 | 20.97 | 0.13 | 2 | PASS |
|        |        |       | RB100#0 | 0.47  | 19.5 | 19.97 | 0.10 | 2 | PASS |
|        |        | 16QAM | RB1#0   | 0.3   | 19.5 | 19.80 | 0.10 | 2 | PASS |
|        |        |       | RB100#0 | 0.04  | 19.5 | 19.54 | 0.09 | 2 | PASS |
|        | High   | QPSK  | RB1#0   | 0.98  | 19.5 | 20.48 | 0.11 | 2 | PASS |
|        |        |       | RB100#0 | 0.37  | 19.5 | 19.87 | 0.10 | 2 | PASS |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 52 of 101

|  |  |       |         |      |      |       |      |   |      |
|--|--|-------|---------|------|------|-------|------|---|------|
|  |  | 16QAM | RB1#0   | 1.23 | 19.5 | 20.73 | 0.12 | 2 | PASS |
|  |  |       | RB100#0 | 0.58 | 19.5 | 20.08 | 0.10 | 2 | PASS |

| FDD LTE Band 12 |        |        |                      |                     |                        |           |         |           |         |
|-----------------|--------|--------|----------------------|---------------------|------------------------|-----------|---------|-----------|---------|
| Test BW         | CH     | Modul. | RB Set (Size#Offset) | Measured ERP        |                        |           |         | Limit (W) | Verdict |
|                 |        |        |                      | SA Read Value (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (W) |           |         |
| 1.4 MHz         | Low    | QPSK   | RB1#0                | 10.44               | 8.1                    | 18.54     | 0.07    | 7         | PASS    |
|                 |        |        | RB6#0                | 9.59                | 8.1                    | 17.69     | 0.06    | 7         | PASS    |
|                 |        | 16QAM  | RB1#0                | 9.26                | 8.1                    | 17.36     | 0.05    | 7         | PASS    |
|                 |        |        | RB6#0                | 8.8                 | 8.1                    | 16.90     | 0.05    | 7         | PASS    |
|                 | Middle | QPSK   | RB1#0                | 10.04               | 8.1                    | 18.14     | 0.07    | 7         | PASS    |
|                 |        |        | RB6#0                | 9.89                | 8.1                    | 17.99     | 0.06    | 7         | PASS    |
|                 |        | 16QAM  | RB1#0                | 8.65                | 8.1                    | 16.75     | 0.05    | 7         | PASS    |
|                 |        |        | RB6#0                | 8.91                | 8.1                    | 17.01     | 0.05    | 7         | PASS    |
|                 | High   | QPSK   | RB1#0                | 10.04               | 8.1                    | 18.14     | 0.07    | 7         | PASS    |
|                 |        |        | RB6#0                | 9.54                | 8.1                    | 17.64     | 0.06    | 7         | PASS    |
|                 |        | 16QAM  | RB1#0                | 9.22                | 8.1                    | 17.32     | 0.05    | 7         | PASS    |
|                 |        |        | RB6#0                | 8.82                | 8.1                    | 16.92     | 0.05    | 7         | PASS    |
| 3 MHz           | Low    | QPSK   | RB1#0                | 10.02               | 8.1                    | 18.12     | 0.06    | 7         | PASS    |
|                 |        |        | RB15#0               | 9.26                | 8.1                    | 17.36     | 0.05    | 7         | PASS    |
|                 |        | 16QAM  | RB1#0                | 8.75                | 8.1                    | 16.85     | 0.05    | 7         | PASS    |
|                 |        |        | RB15#0               | 8.72                | 8.1                    | 16.82     | 0.05    | 7         | PASS    |
|                 | Middle | QPSK   | RB1#0                | 10.4                | 8.1                    | 18.50     | 0.07    | 7         | PASS    |
|                 |        |        | RB15#0               | 9.02                | 8.1                    | 17.12     | 0.05    | 7         | PASS    |
|                 |        | 16QAM  | RB1#0                | 8.64                | 8.1                    | 16.74     | 0.05    | 7         | PASS    |
|                 |        |        | RB15#0               | 8.87                | 8.1                    | 16.97     | 0.05    | 7         | PASS    |
|                 | High   | QPSK   | RB1#0                | 10.01               | 8.1                    | 18.11     | 0.06    | 7         | PASS    |
|                 |        |        | RB15#0               | 9.45                | 8.1                    | 17.55     | 0.06    | 7         | PASS    |
|                 |        | 16QAM  | RB1#0                | 9.19                | 8.1                    | 17.29     | 0.05    | 7         | PASS    |
|                 |        |        | RB15#0               | 9.08                | 8.1                    | 17.18     | 0.05    | 7         | PASS    |
| 5 MHz           | Low    | QPSK   | RB1#0                | 10.41               | 8.1                    | 18.51     | 0.07    | 7         | PASS    |
|                 |        |        | RB25#0               | 9.7                 | 8.1                    | 17.80     | 0.06    | 7         | PASS    |
|                 |        | 16QAM  | RB1#0                | 9.49                | 8.1                    | 17.59     | 0.06    | 7         | PASS    |
|                 |        |        | RB25#0               | 8.55                | 8.1                    | 16.65     | 0.05    | 7         | PASS    |
|                 | Middle | QPSK   | RB1#0                | 9.69                | 8.1                    | 17.79     | 0.06    | 7         | PASS    |
|                 |        |        | RB25#0               | 9.81                | 8.1                    | 17.91     | 0.06    | 7         | PASS    |
|                 |        | 16QAM  | RB1#0                | 8.34                | 8.1                    | 16.44     | 0.04    | 7         | PASS    |
|                 |        |        | RB25#0               | 8.7                 | 8.1                    | 16.80     | 0.05    | 7         | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 53 of 101

|        |        |       |        |       |     |       |      |   |      |
|--------|--------|-------|--------|-------|-----|-------|------|---|------|
|        | High   | QPSK  | RB1#0  | 9.88  | 8.1 | 17.98 | 0.06 | 7 | PASS |
|        |        |       | RB25#0 | 9.95  | 8.1 | 18.05 | 0.06 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 9.59  | 8.1 | 17.69 | 0.06 | 7 | PASS |
|        |        |       | RB25#0 | 8.71  | 8.1 | 16.81 | 0.05 | 7 | PASS |
| 10 MHz | Low    | QPSK  | RB1#0  | 10.06 | 8.1 | 18.16 | 0.07 | 7 | PASS |
|        |        |       | RB50#0 | 9.55  | 8.1 | 17.65 | 0.06 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 8.82  | 8.1 | 16.92 | 0.05 | 7 | PASS |
|        |        |       | RB50#0 | 8.44  | 8.1 | 16.54 | 0.05 | 7 | PASS |
|        | Middle | QPSK  | RB1#0  | 10    | 8.1 | 18.10 | 0.06 | 7 | PASS |
|        |        |       | RB50#0 | 9.31  | 8.1 | 17.41 | 0.06 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 8.55  | 8.1 | 16.65 | 0.05 | 7 | PASS |
|        |        |       | RB50#0 | 8.77  | 8.1 | 16.87 | 0.05 | 7 | PASS |
|        | High   | QPSK  | RB1#0  | 10.41 | 8.1 | 18.51 | 0.07 | 7 | PASS |
|        |        |       | RB50#0 | 9.58  | 8.1 | 17.68 | 0.06 | 7 | PASS |
|        |        | 16QAM | RB1#0  | 9.29  | 8.1 | 17.39 | 0.05 | 7 | PASS |
|        |        |       | RB50#0 | 8.96  | 8.1 | 17.06 | 0.05 | 7 | PASS |

| FDD LTE Band 13 |        |        |                      |                     |                        |           |         |           |         |
|-----------------|--------|--------|----------------------|---------------------|------------------------|-----------|---------|-----------|---------|
| Test BW         | CH     | Modul. | RB Set (Size#Offset) | Measured ERP        |                        |           |         | Limit (W) | Verdict |
|                 |        |        |                      | SA Read Value (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (W) |           |         |
| 5 MHz           | Low    | QPSK   | RB1#0                | 8.4                 | 9.83                   | 18.23     | 0.07    | 3         | PASS    |
|                 |        |        | RB25#0               | 7.31                | 9.83                   | 17.14     | 0.05    | 3         | PASS    |
|                 |        | 16QAM  | RB1#0                | 8.1                 | 9.83                   | 17.93     | 0.06    | 3         | PASS    |
|                 |        |        | RB25#0               | 7.45                | 9.83                   | 17.28     | 0.05    | 3         | PASS    |
|                 | Middle | QPSK   | RB1#0                | 7.73                | 9.83                   | 17.56     | 0.06    | 3         | PASS    |
|                 |        |        | RB25#0               | 7.29                | 9.83                   | 17.12     | 0.05    | 3         | PASS    |
|                 |        | 16QAM  | RB1#0                | 7.52                | 9.83                   | 17.35     | 0.05    | 3         | PASS    |
|                 |        |        | RB25#0               | 8.21                | 9.83                   | 18.04     | 0.06    | 3         | PASS    |
|                 | High   | QPSK   | RB1#0                | 8.56                | 9.83                   | 18.39     | 0.07    | 3         | PASS    |
|                 |        |        | RB25#0               | 7.73                | 9.83                   | 17.56     | 0.06    | 3         | PASS    |
|                 |        | 16QAM  | RB1#0                | 8.28                | 9.83                   | 18.11     | 0.06    | 3         | PASS    |
|                 |        |        | RB25#0               | 7.95                | 9.83                   | 17.78     | 0.06    | 3         | PASS    |
| 10 MHz          | Low    | QPSK   | RB1#0                | 8.41                | 9.83                   | 18.24     | 0.07    | 3         | PASS    |
|                 |        |        | RB50#0               | 7.38                | 9.83                   | 17.21     | 0.05    | 3         | PASS    |
|                 |        | 16QAM  | RB1#0                | 8.1                 | 9.83                   | 17.93     | 0.06    | 3         | PASS    |
|                 |        |        | RB50#0               | 7.91                | 9.83                   | 17.74     | 0.06    | 3         | PASS    |
|                 | Middle | QPSK   | RB1#0                | 8.28                | 9.83                   | 18.11     | 0.06    | 3         | PASS    |
|                 |        |        | RB50#0               | 7.17                | 9.83                   | 17.00     | 0.05    | 3         | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 54 of 101

|  |      |       |        |      |      |       |      |   |      |
|--|------|-------|--------|------|------|-------|------|---|------|
|  |      | 16QAM | RB1#0  | 7.52 | 9.83 | 17.35 | 0.05 | 3 | PASS |
|  |      |       | RB50#0 | 8.29 | 9.83 | 18.12 | 0.06 | 3 | PASS |
|  | High | QPSK  | RB1#0  | 7.79 | 9.83 | 17.62 | 0.06 | 3 | PASS |
|  |      |       | RB50#0 | 7.42 | 9.83 | 17.25 | 0.05 | 3 | PASS |
|  |      | 16QAM | RB1#0  | 8.52 | 9.83 | 18.35 | 0.07 | 3 | PASS |
|  |      |       | RB50#0 | 7.71 | 9.83 | 17.54 | 0.06 | 3 | PASS |

## FDD LTE Band 17

| Test BW | CH     | Modul. | RB Set (Size#Offset) | Measured ERP        |                        |           |         | Limit (W) | Verdict |
|---------|--------|--------|----------------------|---------------------|------------------------|-----------|---------|-----------|---------|
|         |        |        |                      | SA Read Value (dBm) | Correction Factor (dB) | ERP (dBm) | ERP (W) |           |         |
| 5 MHz   | Low    | QPSK   | RB1#0                | 10.3                | 8.1                    | 18.40     | 0.07    | 3         | PASS    |
|         |        |        | RB25#0               | 9.57                | 8.1                    | 17.67     | 0.06    | 3         | PASS    |
|         |        | 16QAM  | RB1#0                | 9.09                | 8.1                    | 17.19     | 0.05    | 3         | PASS    |
|         |        |        | RB25#0               | 8.87                | 8.1                    | 16.97     | 0.05    | 3         | PASS    |
|         | Middle | QPSK   | RB1#0                | 9.71                | 8.1                    | 17.81     | 0.06    | 3         | PASS    |
|         |        |        | RB25#0               | 9.51                | 8.1                    | 17.61     | 0.06    | 3         | PASS    |
|         |        | 16QAM  | RB1#0                | 8.36                | 8.1                    | 16.46     | 0.04    | 3         | PASS    |
|         |        |        | RB25#0               | 8.55                | 8.1                    | 16.65     | 0.05    | 3         | PASS    |
|         | High   | QPSK   | RB1#0                | 10.1                | 8.1                    | 18.20     | 0.07    | 3         | PASS    |
|         |        |        | RB25#0               | 9.81                | 8.1                    | 17.91     | 0.06    | 3         | PASS    |
|         |        | 16QAM  | RB1#0                | 9.18                | 8.1                    | 17.28     | 0.05    | 3         | PASS    |
|         |        |        | RB25#0               | 8.98                | 8.1                    | 17.08     | 0.05    | 3         | PASS    |
| 10 MHz  | Low    | QPSK   | RB1#0                | 10.35               | 8.1                    | 18.45     | 0.07    | 3         | PASS    |
|         |        |        | RB50#0               | 9.28                | 8.1                    | 17.38     | 0.05    | 3         | PASS    |
|         |        | 16QAM  | RB1#0                | 8.98                | 8.1                    | 17.08     | 0.05    | 3         | PASS    |
|         |        |        | RB50#0               | 8.44                | 8.1                    | 16.54     | 0.05    | 3         | PASS    |
|         | Middle | QPSK   | RB1#0                | 10.41               | 8.1                    | 18.51     | 0.07    | 3         | PASS    |
|         |        |        | RB50#0               | 9.21                | 8.1                    | 17.31     | 0.05    | 3         | PASS    |
|         |        | 16QAM  | RB1#0                | 8.43                | 8.1                    | 16.53     | 0.04    | 3         | PASS    |
|         |        |        | RB50#0               | 8.72                | 8.1                    | 16.82     | 0.05    | 3         | PASS    |
|         | High   | QPSK   | RB1#0                | 10.31               | 8.1                    | 18.41     | 0.07    | 3         | PASS    |
|         |        |        | RB50#0               | 9.47                | 8.1                    | 17.57     | 0.06    | 3         | PASS    |
|         |        | 16QAM  | RB1#0                | 9.2                 | 8.1                    | 17.30     | 0.05    | 3         | PASS    |
|         |        |        | RB50#0               | 8.92                | 8.1                    | 17.02     | 0.05    | 3         | PASS    |

## FDD LTE Band 25

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 55 of 101

| Test BW | CH     | Modul. | RB Set (Size#Offset) | Measured EIRP       |                        |            |          | Limit (W) | Verdict |
|---------|--------|--------|----------------------|---------------------|------------------------|------------|----------|-----------|---------|
|         |        |        |                      | SA Read Value (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (W) |           |         |
| 1.4 MHz | Low    | QPSK   | RB1#0                | 0.92                | 17.8                   | 18.72      | 0.07     | 1         | PASS    |
|         |        |        | RB6#0                | 0.43                | 17.8                   | 18.23      | 0.07     | 1         | PASS    |
|         |        | 16QAM  | RB1#0                | 0.84                | 17.8                   | 18.64      | 0.07     | 1         | PASS    |
|         |        |        | RB6#0                | 0.06                | 17.8                   | 17.86      | 0.06     | 1         | PASS    |
|         | Middle | QPSK   | RB1#0                | 0.98                | 17.8                   | 18.78      | 0.08     | 1         | PASS    |
|         |        |        | RB6#0                | 0.55                | 17.8                   | 18.35      | 0.07     | 1         | PASS    |
|         |        | 16QAM  | RB1#0                | 0.31                | 17.8                   | 18.11      | 0.06     | 1         | PASS    |
|         |        |        | RB6#0                | -0.21               | 17.8                   | 17.59      | 0.06     | 1         | PASS    |
|         | High   | QPSK   | RB1#0                | 0.98                | 17.8                   | 18.78      | 0.08     | 1         | PASS    |
|         |        |        | RB6#0                | 0.59                | 17.8                   | 18.39      | 0.07     | 1         | PASS    |
|         |        | 16QAM  | RB1#0                | 1.23                | 17.8                   | 19.03      | 0.08     | 1         | PASS    |
|         |        |        | RB6#0                | 0.75                | 17.8                   | 18.55      | 0.07     | 1         | PASS    |
| 3 MHz   | Low    | QPSK   | RB1#0                | 1.63                | 17.8                   | 19.43      | 0.09     | 1         | PASS    |
|         |        |        | RB15#0               | 0.49                | 17.8                   | 18.29      | 0.07     | 1         | PASS    |
|         |        | 16QAM  | RB1#0                | 1.51                | 17.8                   | 19.31      | 0.09     | 1         | PASS    |
|         |        |        | RB15#0               | 0.48                | 17.8                   | 18.28      | 0.07     | 1         | PASS    |
|         | Middle | QPSK   | RB1#0                | 0.96                | 17.8                   | 18.76      | 0.08     | 1         | PASS    |
|         |        |        | RB15#0               | 0.37                | 17.8                   | 18.17      | 0.07     | 1         | PASS    |
|         |        | 16QAM  | RB1#0                | 0.47                | 17.8                   | 18.27      | 0.07     | 1         | PASS    |
|         |        |        | RB15#0               | -0.14               | 17.8                   | 17.66      | 0.06     | 1         | PASS    |
|         | High   | QPSK   | RB1#0                | 1.38                | 17.8                   | 19.18      | 0.08     | 1         | PASS    |
|         |        |        | RB15#0               | 0.23                | 17.8                   | 18.03      | 0.06     | 1         | PASS    |
|         |        | 16QAM  | RB1#0                | 0.83                | 17.8                   | 18.63      | 0.07     | 1         | PASS    |
|         |        |        | RB15#0               | 0.67                | 17.8                   | 18.47      | 0.07     | 1         | PASS    |
| 5 MHz   | Low    | QPSK   | RB1#0                | 1.51                | 17.8                   | 19.31      | 0.09     | 1         | PASS    |
|         |        |        | RB25#0               | 0.68                | 17.8                   | 18.48      | 0.07     | 1         | PASS    |
|         |        | 16QAM  | RB1#0                | 1.03                | 17.8                   | 18.83      | 0.08     | 1         | PASS    |
|         |        |        | RB25#0               | 0.04                | 17.8                   | 17.84      | 0.06     | 1         | PASS    |
|         | Middle | QPSK   | RB1#0                | 1.6                 | 17.8                   | 19.40      | 0.09     | 1         | PASS    |
|         |        |        | RB25#0               | 0.67                | 17.8                   | 18.47      | 0.07     | 1         | PASS    |
|         |        | 16QAM  | RB1#0                | 0.34                | 17.8                   | 18.14      | 0.07     | 1         | PASS    |
|         |        |        | RB25#0               | 0.01                | 17.8                   | 17.81      | 0.06     | 1         | PASS    |
|         | High   | QPSK   | RB1#0                | 1.09                | 17.8                   | 18.89      | 0.08     | 1         | PASS    |
|         |        |        | RB25#0               | 0.23                | 17.8                   | 18.03      | 0.06     | 1         | PASS    |
|         |        | 16QAM  | RB1#0                | 1.67                | 17.8                   | 19.47      | 0.09     | 1         | PASS    |
|         |        |        | RB25#0               | 0.73                | 17.8                   | 18.53      | 0.07     | 1         | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 56 of 101

|        |        |       |         |       |      |       |      |   |      |
|--------|--------|-------|---------|-------|------|-------|------|---|------|
| 10 MHz | Low    | QPSK  | RB1#0   | 1.58  | 17.8 | 19.38 | 0.09 | 1 | PASS |
|        |        |       | RB50#0  | 0.87  | 17.8 | 18.67 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0   | 0.74  | 17.8 | 18.54 | 0.07 | 1 | PASS |
|        |        |       | RB50#0  | 0.53  | 17.8 | 18.33 | 0.07 | 1 | PASS |
|        | Middle | QPSK  | RB1#0   | 1.15  | 17.8 | 18.95 | 0.08 | 1 | PASS |
|        |        |       | RB50#0  | 0.56  | 17.8 | 18.36 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0   | 0.54  | 17.8 | 18.34 | 0.07 | 1 | PASS |
|        |        |       | RB50#0  | -0.3  | 17.8 | 17.50 | 0.06 | 1 | PASS |
|        | High   | QPSK  | RB1#0   | 1.13  | 17.8 | 18.93 | 0.08 | 1 | PASS |
|        |        |       | RB50#0  | 0.43  | 17.8 | 18.23 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0   | 1.41  | 17.8 | 19.21 | 0.08 | 1 | PASS |
|        |        |       | RB50#0  | 1.16  | 17.8 | 18.96 | 0.08 | 1 | PASS |
| 15 MHz | Low    | QPSK  | RB1#0   | 1.15  | 17.8 | 18.95 | 0.08 | 1 | PASS |
|        |        |       | RB75#0  | 0.43  | 17.8 | 18.23 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0   | 1.28  | 17.8 | 19.08 | 0.08 | 1 | PASS |
|        |        |       | RB75#0  | 0.12  | 17.8 | 17.92 | 0.06 | 1 | PASS |
|        | Middle | QPSK  | RB1#0   | 1.61  | 17.8 | 19.41 | 0.09 | 1 | PASS |
|        |        |       | RB75#0  | 0.61  | 17.8 | 18.41 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0   | 0.73  | 17.8 | 18.53 | 0.07 | 1 | PASS |
|        |        |       | RB75#0  | -0.42 | 17.8 | 17.38 | 0.05 | 1 | PASS |
|        | High   | QPSK  | RB1#0   | 0.84  | 17.8 | 18.64 | 0.07 | 1 | PASS |
|        |        |       | RB75#0  | 0.75  | 17.8 | 18.55 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0   | 1.54  | 17.8 | 19.34 | 0.09 | 1 | PASS |
|        |        |       | RB75#0  | 1.16  | 17.8 | 18.96 | 0.08 | 1 | PASS |
| 20MHz  | Low    | QPSK  | RB1#0   | 1.52  | 17.8 | 19.32 | 0.09 | 1 | PASS |
|        |        |       | RB100#0 | 0.44  | 17.8 | 18.24 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0   | 0.55  | 17.8 | 18.35 | 0.07 | 1 | PASS |
|        |        |       | RB100#0 | -0.13 | 17.8 | 17.67 | 0.06 | 1 | PASS |
|        | Middle | QPSK  | RB1#0   | 1.39  | 17.8 | 19.19 | 0.08 | 1 | PASS |
|        |        |       | RB100#0 | 0.9   | 17.8 | 18.70 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0   | 0.84  | 17.8 | 18.64 | 0.07 | 1 | PASS |
|        |        |       | RB100#0 | -0.42 | 17.8 | 17.38 | 0.05 | 1 | PASS |
|        | High   | QPSK  | RB1#0   | 0.97  | 17.8 | 18.77 | 0.08 | 1 | PASS |
|        |        |       | RB100#0 | 0.65  | 17.8 | 18.45 | 0.07 | 1 | PASS |
|        |        | 16QAM | RB1#0   | 1.2   | 17.8 | 19.00 | 0.08 | 1 | PASS |
|        |        |       | RB100#0 | 0.53  | 17.8 | 18.33 | 0.07 | 1 | PASS |

## FDD LTE Band 41

| Test | CH | Modul. | RB Set | Measured EIRP | Limit | Verdict |
|------|----|--------|--------|---------------|-------|---------|
|------|----|--------|--------|---------------|-------|---------|



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 57 of 101

| BW     |        |       | (Size#Offset) | SA Read Value (dBm) | Correction Factor (dB) | EIRP (dBm) | EIRP (W) | (W) |      |
|--------|--------|-------|---------------|---------------------|------------------------|------------|----------|-----|------|
| 5 MHz  | Low    | QPSK  | RB1#0         | 1.5                 | 19.5                   | 21.00      | 0.13     | 2   | PASS |
|        |        |       | RB25#0        | 0.65                | 19.5                   | 20.15      | 0.10     | 2   | PASS |
|        |        | 16QAM | RB1#0         | 1.23                | 19.5                   | 20.73      | 0.12     | 2   | PASS |
|        |        |       | RB25#0        | 0.26                | 19.5                   | 19.76      | 0.09     | 2   | PASS |
|        | Middle | QPSK  | RB1#0         | 0.97                | 19.5                   | 20.47      | 0.11     | 2   | PASS |
|        |        |       | RB25#0        | 0.53                | 19.5                   | 20.03      | 0.10     | 2   | PASS |
|        |        | 16QAM | RB1#0         | 0.57                | 19.5                   | 20.07      | 0.10     | 2   | PASS |
|        |        |       | RB25#0        | -0.27               | 19.5                   | 19.23      | 0.08     | 2   | PASS |
|        | High   | QPSK  | RB1#0         | 1                   | 19.5                   | 20.50      | 0.11     | 2   | PASS |
|        |        |       | RB25#0        | 0.39                | 19.5                   | 19.89      | 0.10     | 2   | PASS |
|        |        | 16QAM | RB1#0         | 1.11                | 19.5                   | 20.61      | 0.12     | 2   | PASS |
|        |        |       | RB25#0        | 1.21                | 19.5                   | 20.71      | 0.12     | 2   | PASS |
| 10 MHz | Low    | QPSK  | RB1#0         | 1.24                | 19.5                   | 20.74      | 0.12     | 2   | PASS |
|        |        |       | RB50#0        | 0.75                | 19.5                   | 20.25      | 0.11     | 2   | PASS |
|        |        | 16QAM | RB1#0         | 1.41                | 19.5                   | 20.91      | 0.12     | 2   | PASS |
|        |        |       | RB50#0        | 0.4                 | 19.5                   | 19.90      | 0.10     | 2   | PASS |
|        | Middle | QPSK  | RB1#0         | 0.88                | 19.5                   | 20.38      | 0.11     | 2   | PASS |
|        |        |       | RB50#0        | 0.85                | 19.5                   | 20.35      | 0.11     | 2   | PASS |
|        |        | 16QAM | RB1#0         | 0.59                | 19.5                   | 20.09      | 0.10     | 2   | PASS |
|        |        |       | RB50#0        | -0.37               | 19.5                   | 19.13      | 0.08     | 2   | PASS |
|        | High   | QPSK  | RB1#0         | 1.36                | 19.5                   | 20.86      | 0.12     | 2   | PASS |
|        |        |       | RB50#0        | 0.58                | 19.5                   | 20.08      | 0.10     | 2   | PASS |
|        |        | 16QAM | RB1#0         | 1.03                | 19.5                   | 20.53      | 0.11     | 2   | PASS |
|        |        |       | RB50#0        | 0.68                | 19.5                   | 20.18      | 0.10     | 2   | PASS |
| 15 MHz | Low    | QPSK  | RB1#0         | 1.06                | 19.5                   | 20.56      | 0.11     | 2   | PASS |
|        |        |       | RB75#0        | 0.47                | 19.5                   | 19.97      | 0.10     | 2   | PASS |
|        |        | 16QAM | RB1#0         | 1.09                | 19.5                   | 20.59      | 0.11     | 2   | PASS |
|        |        |       | RB75#0        | 0.11                | 19.5                   | 19.61      | 0.09     | 2   | PASS |
|        | Middle | QPSK  | RB1#0         | 1.15                | 19.5                   | 20.65      | 0.12     | 2   | PASS |
|        |        |       | RB75#0        | 0.25                | 19.5                   | 19.75      | 0.09     | 2   | PASS |
|        |        | 16QAM | RB1#0         | 0.55                | 19.5                   | 20.05      | 0.10     | 2   | PASS |
|        |        |       | RB75#0        | -0.32               | 19.5                   | 19.18      | 0.08     | 2   | PASS |
|        | High   | QPSK  | RB1#0         | 1.23                | 19.5                   | 20.73      | 0.12     | 2   | PASS |
|        |        |       | RB75#0        | 0.95                | 19.5                   | 20.45      | 0.11     | 2   | PASS |
|        |        | 16QAM | RB1#0         | 0.89                | 19.5                   | 20.39      | 0.11     | 2   | PASS |
|        |        |       | RB75#0        | 0.42                | 19.5                   | 19.92      | 0.10     | 2   | PASS |
| 20MHz  | Low    | QPSK  | RB1#0         | 1.42                | 19.5                   | 20.92      | 0.12     | 2   | PASS |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 58 of 101

|  |        |       |         |       |      |       |      |   |      |
|--|--------|-------|---------|-------|------|-------|------|---|------|
|  |        | 16QAM | RB100#0 | 0.59  | 19.5 | 20.09 | 0.10 | 2 | PASS |
|  |        |       | RB1#0   | 0.73  | 19.5 | 20.23 | 0.11 | 2 | PASS |
|  |        |       | RB100#0 | 0.48  | 19.5 | 19.98 | 0.10 | 2 | PASS |
|  | Middle | QPSK  | RB1#0   | 1.07  | 19.5 | 20.57 | 0.11 | 2 | PASS |
|  |        |       | RB100#0 | 0.48  | 19.5 | 19.98 | 0.10 | 2 | PASS |
|  |        | 16QAM | RB1#0   | 0.48  | 19.5 | 19.98 | 0.10 | 2 | PASS |
|  |        |       | RB100#0 | -0.22 | 19.5 | 19.28 | 0.08 | 2 | PASS |
|  | High   | QPSK  | RB1#0   | 0.78  | 19.5 | 20.28 | 0.11 | 2 | PASS |
|  |        |       | RB100#0 | 0.74  | 19.5 | 20.24 | 0.11 | 2 | PASS |
|  |        | 16QAM | RB1#0   | 1.27  | 19.5 | 20.77 | 0.12 | 2 | PASS |
|  |        |       | RB100#0 | 0.46  | 19.5 | 19.96 | 0.10 | 2 | PASS |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 59 of 101

## 5.1.2 Peak to Average Ratio

### Note(s):

1. For GSM, GPRS and EGPRS, there are peak power to demonstrate compliance, PAR measurements are not required.
2. Test plots please refer to the document "Annex No: EXHIBIT A of SHE19020010-03AE.pdf".

### Peak to Average Ratio Measurement Results for WCDMA

| Test Band     | Channel | Peak to Average Ratio (dB) | Limit (W) | Refer to Plot <sup>Note 2</sup> | Verdict |
|---------------|---------|----------------------------|-----------|---------------------------------|---------|
| WCDMA Band II | Low     | 2.88                       | 13        | 1.1                             | PASS    |
|               | Middle  | 3.13                       | 13        | 1.2                             | PASS    |
|               | High    | 3.09                       | 13        | 1.3                             | PASS    |

### Peak to Average Ratio Measurement Results for LTE

| FDD LTE Band 2 |         |        |                      |                            |            |                                 |         |
|----------------|---------|--------|----------------------|----------------------------|------------|---------------------------------|---------|
| Test BW        | Channel | Modul. | RB Set (Size#Offset) | Peak to Average Ratio (dB) | Limit (dB) | Refer to Plot <sup>Note 2</sup> | Verdict |
| 20 MHz         | Low     | QPSK   | RB1#0                | 3.59                       | 13         | 2.1                             | PASS    |
|                |         |        | RB100#0              | 4.77                       | 13         | 2.2                             | PASS    |
|                |         | 16QAM  | RB1#0                | 4.53                       | 13         | 2.3                             | PASS    |
|                |         |        | RB100#0              | 5.64                       | 13         | 2.4                             | PASS    |
|                | Middle  | QPSK   | RB1#0                | 4.67                       | 13         | 2.5                             | PASS    |
|                |         |        | RB100#0              | 4.85                       | 13         | 2.6                             | PASS    |
|                |         | 16QAM  | RB1#0                | 5.51                       | 13         | 2.7                             | PASS    |
|                |         |        | RB100#0              | 5.88                       | 13         | 2.8                             | PASS    |
|                | High    | QPSK   | RB1#0                | 4.07                       | 13         | 2.9                             | PASS    |
|                |         |        | RB100#0              | 5.16                       | 13         | 2.10                            | PASS    |
|                |         | 16QAM  | RB1#0                | 4.96                       | 13         | 2.11                            | PASS    |
|                |         |        | RB100#0              | 6.08                       | 13         | 2.12                            | PASS    |

| FDD LTE Band 4 |         |        |                      |                            |            |                                 |         |
|----------------|---------|--------|----------------------|----------------------------|------------|---------------------------------|---------|
| Test BW        | Channel | Modul. | RB Set (Size#Offset) | Peak to Average Ratio (dB) | Limit (dB) | Refer to Plot <sup>Note 2</sup> | Verdict |
| 20 MHz         | Low     | QPSK   | RB1#0                | 4.49                       | 13         | 3.1                             | PASS    |
|                |         |        | RB100#0              | 5.17                       | 13         | 3.2                             | PASS    |
|                |         | 16QAM  | RB1#0                | 5.32                       | 13         | 3.3                             | PASS    |
|                |         |        | RB100#0              | 6.13                       | 13         | 3.4                             | PASS    |
|                | Middle  | QPSK   | RB1#0                | 4.25                       | 13         | 3.5                             | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 60 of 101

|  |      |       |         |      |    |      |      |
|--|------|-------|---------|------|----|------|------|
|  |      | 16QAM | RB100#0 | 5.13 | 13 | 3.6  | PASS |
|  |      |       | RB1#0   | 5.22 | 13 | 3.7  | PASS |
|  |      |       | RB100#0 | 6.03 | 13 | 3.8  | PASS |
|  | High | QPSK  | RB1#0   | 3.87 | 13 | 3.9  | PASS |
|  |      |       | RB100#0 | 5.31 | 13 | 3.10 | PASS |
|  |      | 16QAM | RB1#0   | 4.91 | 13 | 3.11 | PASS |
|  |      |       | RB100#0 | 6.22 | 13 | 3.12 | PASS |
|  |      |       |         |      |    |      |      |

## FDD LTE Band 5

| Test BW | Channel | Modul. | RB Set (Size#Offset) | Peak to Average Ratio (dB) | Limit (dB) | Refer to Plot <sup>Note 2</sup> | Verdict |
|---------|---------|--------|----------------------|----------------------------|------------|---------------------------------|---------|
| 10 MHz  | Low     | QPSK   | RB1#0                | 3.59                       | 13         | 4.1                             | PASS    |
|         |         |        | RB50#0               | 5.02                       | 13         | 4.2                             | PASS    |
|         |         | 16QAM  | RB1#0                | 4.39                       | 13         | 4.3                             | PASS    |
|         |         |        | RB50#0               | 5.77                       | 13         | 4.4                             | PASS    |
|         | Middle  | QPSK   | RB1#0                | 3.49                       | 13         | 4.5                             | PASS    |
|         |         |        | RB50#0               | 4.92                       | 13         | 4.6                             | PASS    |
|         |         | 16QAM  | RB1#0                | 4.42                       | 13         | 4.7                             | PASS    |
|         |         |        | RB50#0               | 5.68                       | 13         | 4.8                             | PASS    |
|         | High    | QPSK   | RB1#0                | 3.46                       | 13         | 4.9                             | PASS    |
|         |         |        | RB50#0               | 4.90                       | 13         | 4.10                            | PASS    |
|         |         | 16QAM  | RB1#0                | 4.31                       | 13         | 4.11                            | PASS    |
|         |         |        | RB50#0               | 5.66                       | 13         | 4.12                            | PASS    |

## FDD LTE Band 7

| Test BW | Channel | Modul. | RB Set (Size#Offset) | Peak to Average Ratio (dB) | Limit (dB) | Refer to Plot <sup>Note 2</sup> | Verdict |
|---------|---------|--------|----------------------|----------------------------|------------|---------------------------------|---------|
| 20 MHz  | Low     | QPSK   | RB1#0                | 4.24                       | 13         | 5.1                             | PASS    |
|         |         |        | RB100#0              | 5.09                       | 13         | 5.2                             | PASS    |
|         |         | 16QAM  | RB1#0                | 4.91                       | 13         | 5.3                             | PASS    |
|         |         |        | RB100#0              | 5.91                       | 13         | 5.4                             | PASS    |
|         | Middle  | QPSK   | RB1#0                | 4.40                       | 13         | 5.5                             | PASS    |
|         |         |        | RB100#0              | 5.22                       | 13         | 5.6                             | PASS    |
|         |         | 16QAM  | RB1#0                | 5.43                       | 13         | 5.7                             | PASS    |
|         |         |        | RB100#0              | 6.04                       | 13         | 5.8                             | PASS    |
|         | High    | QPSK   | RB1#0                | 4.38                       | 13         | 5.9                             | PASS    |
|         |         |        | RB100#0              | 5.08                       | 13         | 5.10                            | PASS    |
|         |         | 16QAM  | RB1#0                | 5.21                       | 13         | 5.11                            | PASS    |
|         |         |        |                      |                            |            |                                 |         |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 61 of 101

|  |  |  |         |      |    |      |      |
|--|--|--|---------|------|----|------|------|
|  |  |  | RB100#0 | 5.94 | 13 | 5.12 | PASS |
|--|--|--|---------|------|----|------|------|

| FDD LTE Band 12 |         |        |                      |                            |            |                                 |         |
|-----------------|---------|--------|----------------------|----------------------------|------------|---------------------------------|---------|
| Test BW         | Channel | Modul. | RB Set (Size#Offset) | Peak to Average Ratio (dB) | Limit (dB) | Refer to Plot <sup>Note 2</sup> | Verdict |
| 10 MHz          | Low     | QPSK   | RB1#0                | 4.30                       | 13         | 6.1                             | PASS    |
|                 |         |        | RB50#0               | 5.20                       | 13         | 6.2                             | PASS    |
|                 |         | 16QAM  | RB1#0                | 5.14                       | 13         | 6.3                             | PASS    |
|                 |         |        | RB50#0               | 6.05                       | 13         | 6.4                             | PASS    |
|                 | Middle  | QPSK   | RB1#0                | 4.29                       | 13         | 6.5                             | PASS    |
|                 |         |        | RB50#0               | 5.32                       | 13         | 6.6                             | PASS    |
|                 |         | 16QAM  | RB1#0                | 5.09                       | 13         | 6.7                             | PASS    |
|                 |         |        | RB50#0               | 6.15                       | 13         | 6.8                             | PASS    |
|                 | High    | QPSK   | RB1#0                | 4.42                       | 13         | 6.9                             | PASS    |
|                 |         |        | RB50#0               | 5.10                       | 13         | 6.10                            | PASS    |
|                 |         | 16QAM  | RB1#0                | 5.29                       | 13         | 6.11                            | PASS    |
|                 |         |        | RB50#0               | 6.00                       | 13         | 6.12                            | PASS    |

| FDD LTE Band 13 |         |        |                      |                            |            |                                 |         |
|-----------------|---------|--------|----------------------|----------------------------|------------|---------------------------------|---------|
| Test BW         | Channel | Modul. | RB Set (Size#Offset) | Peak to Average Ratio (dB) | Limit (dB) | Refer to Plot <sup>Note 2</sup> | Verdict |
| 10 MHz          | Low     | QPSK   | RB1#0                | --                         | --         | --                              | --      |
|                 |         |        | RB50#0               | --                         | --         | --                              | --      |
|                 |         | 16QAM  | RB1#0                | --                         | --         | --                              | --      |
|                 |         |        | RB50#0               | --                         | --         | --                              | --      |
|                 | Middle  | QPSK   | RB1#0                | 4.41                       | 13         | 7.1                             | PASS    |
|                 |         |        | RB50#0               | 5.13                       | 13         | 7.2                             | PASS    |
|                 |         | 16QAM  | RB1#0                | 5.20                       | 13         | 7.3                             | PASS    |
|                 |         |        | RB50#0               | 5.94                       | 13         | 7.4                             | PASS    |
|                 | High    | QPSK   | RB1#0                | --                         | --         | --                              | --      |
|                 |         |        | RB50#0               | --                         | --         | --                              | --      |
|                 |         | 16QAM  | RB1#0                | --                         | --         | --                              | --      |
|                 |         |        | RB50#0               | --                         | --         | --                              | --      |

| FDD LTE Band 17 |         |        |                      |                            |            |                                 |         |
|-----------------|---------|--------|----------------------|----------------------------|------------|---------------------------------|---------|
| Test BW         | Channel | Modul. | RB Set (Size#Offset) | Peak to Average Ratio (dB) | Limit (dB) | Refer to Plot <sup>Note 2</sup> | Verdict |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 62 of 101

|        |        |       |        |      |    |      |      |
|--------|--------|-------|--------|------|----|------|------|
| 10 MHz | Low    | QPSK  | RB1#0  | 4.16 | 13 | 8.1  | PASS |
|        |        |       | RB50#0 | 5.08 | 13 | 8.2  | PASS |
|        |        | 16QAM | RB1#0  | 4.95 | 13 | 8.3  | PASS |
|        |        |       | RB50#0 | 5.86 | 13 | 8.4  | PASS |
|        | Middle | QPSK  | RB1#0  | 4.19 | 13 | 8.5  | PASS |
|        |        |       | RB50#0 | 5.04 | 13 | 8.6  | PASS |
|        |        | 16QAM | RB1#0  | 5.05 | 13 | 8.7  | PASS |
|        |        |       | RB50#0 | 5.89 | 13 | 8.8  | PASS |
|        | High   | QPSK  | RB1#0  | 4.27 | 13 | 8.9  | PASS |
|        |        |       | RB50#0 | 4.97 | 13 | 8.10 | PASS |
|        |        | 16QAM | RB1#0  | 5.26 | 13 | 8.11 | PASS |
|        |        |       | RB50#0 | 5.82 | 13 | 8.12 | PASS |

FDD LTE Band 25

| Test BW | Channel | Modul. | RB Set (Size#Offset) | Peak to Average Ratio (dB) | Limit (dB) | Refer to Plot <sup>Note 2</sup> | Verdict |
|---------|---------|--------|----------------------|----------------------------|------------|---------------------------------|---------|
| 20 MHz  | Low     | QPSK   | RB1#0                | 3.67                       | 13         | 9.1                             | PASS    |
|         |         |        | RB100#0              | 4.84                       | 13         | 9.2                             | PASS    |
|         |         | 16QAM  | RB1#0                | 4.16                       | 13         | 9.3                             | PASS    |
|         |         |        | RB100#0              | 5.61                       | 13         | 9.4                             | PASS    |
|         | Middle  | QPSK   | RB1#0                | 4.47                       | 13         | 9.5                             | PASS    |
|         |         |        | RB100#0              | 4.71                       | 13         | 9.6                             | PASS    |
|         |         | 16QAM  | RB1#0                | 5.34                       | 13         | 9.7                             | PASS    |
|         |         |        | RB100#0              | 5.85                       | 13         | 9.8                             | PASS    |
|         | High    | QPSK   | RB1#0                | 4.18                       | 13         | 9.9                             | PASS    |
|         |         |        | RB100#0              | 4.69                       | 13         | 9.10                            | PASS    |
|         |         | 16QAM  | RB1#0                | 5.08                       | 13         | 9.11                            | PASS    |
|         |         |        | RB100#0              | 5.70                       | 13         | 9.12                            | PASS    |

FDD LTE Band 41

| Test BW | Channel | Modul. | RB Set (Size#Offset) | Peak to Average Ratio (dB) | Limit (dB) | Refer to Plot <sup>Note 2</sup> | Verdict |
|---------|---------|--------|----------------------|----------------------------|------------|---------------------------------|---------|
| 20 MHz  | Low     | QPSK   | RB1#0                | 7.80                       | 13         | 10.1                            | PASS    |
|         |         |        | RB100#0              | 8.33                       | 13         | 10.2                            | PASS    |
|         |         | 16QAM  | RB1#0                | 8.52                       | 13         | 10.3                            | PASS    |
|         |         |        | RB100#0              | 9.96                       | 13         | 10.4                            | PASS    |
|         | Middle  | QPSK   | RB1#0                | 12.28                      | 13         | 10.5                            | PASS    |
|         |         |        | RB100#0              | 8.63                       | 13         | 10.6                            | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 63 of 101

|  |      |       |         |       |    |       |      |
|--|------|-------|---------|-------|----|-------|------|
|  |      | 16QAM | RB1#0   | 10.27 | 13 | 10.7  | PASS |
|  |      |       | RB100#0 | 11.30 | 13 | 10.8  | PASS |
|  | High | QPSK  | RB1#0   | 6.23  | 13 | 10.9  | PASS |
|  |      |       | RB100#0 | 8.21  | 13 | 10.10 | PASS |
|  |      | 16QAM | RB1#0   | 9.07  | 13 | 10.11 | PASS |
|  |      |       | RB100#0 | 9.80  | 13 | 10.12 | PASS |

## 5.1.3 Occupied Bandwidth

Note(s):

1. All modes were tested, but only the typical data were reported in this report.
2. Test plots please refer to the document "Annex No: EXHIBIT B of SHE19020010-03AE.pdf".

### Occupied Bandwidth Measurement Results for GSM/WCDMA/CDMA

| Test Band     | Channel | Measured 99%<br>Occupied Bandwidth (MHz) | Measured -26 dB<br>Occupied Bandwidth (MHz) | Refer to<br>Plot <sup>Note 2</sup> |
|---------------|---------|------------------------------------------|---------------------------------------------|------------------------------------|
| GSM 850       | Low     | 0.24                                     | 0.31                                        | 1.1                                |
|               | Middle  | 0.24                                     | 0.31                                        | 1.2                                |
|               | High    | 0.24                                     | 0.31                                        | 1.3                                |
| GSM 1900      | Low     | 0.24                                     | 0.30                                        | 2.1                                |
|               | Middle  | 0.24                                     | 0.31                                        | 2.2                                |
|               | High    | 0.25                                     | 0.31                                        | 2.3                                |
| EDGE 850      | Low     | 0.24                                     | 0.31                                        | 3.1                                |
|               | Middle  | 0.24                                     | 0.31                                        | 3.2                                |
|               | High    | 0.24                                     | 0.31                                        | 3.3                                |
| EDGE 1900     | Low     | 0.24                                     | 0.31                                        | 4.1                                |
|               | Middle  | 0.25                                     | 0.31                                        | 4.2                                |
|               | High    | 0.25                                     | 0.31                                        | 4.3                                |
| WCDMA Band II | Low     | 4.11                                     | 4.69                                        | 5.1                                |
|               | Middle  | 4.10                                     | 4.69                                        | 5.2                                |
|               | High    | 4.09                                     | 4.68                                        | 5.3                                |
| WCDMA Band V  | Low     | 4.10                                     | 4.69                                        | 6.1                                |
|               | Middle  | 4.11                                     | 4.68                                        | 6.2                                |
|               | High    | 4.11                                     | 4.70                                        | 6.3                                |
| CDMA BC0      | Low     | 1.48                                     | 1.28                                        | 7.1                                |
|               | Middle  | 1.48                                     | 1.28                                        | 7.2                                |
|               | High    | 1.48                                     | 1.28                                        | 7.3                                |
| EVDO BC0      | Low     | 1.48                                     | 1.28                                        | 8.1                                |
|               | Middle  | 1.48                                     | 1.27                                        | 8.2                                |
|               | High    | 1.48                                     | 1.28                                        | 8.3                                |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 64 of 101

## Occupied Bandwidth Measurement Results for LTE

| FDD LTE Band 2 |        |        |                      |                              |                        |                                 |
|----------------|--------|--------|----------------------|------------------------------|------------------------|---------------------------------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | 99% Occupied Bandwidth (MHz) | -26 dB Bandwidth (MHz) | Refer to Plot <sup>Note 2</sup> |
| 1.4 MHz        | Low    | QPSK   | RB6#0                | 1.09                         | 1.30                   | 9.1                             |
|                |        | 16QAM  | RB6#0                | 1.08                         | 1.28                   | 9.2                             |
|                | Middle | QPSK   | RB6#0                | 1.09                         | 1.31                   | 9.3                             |
|                |        | 16QAM  | RB6#0                | 1.10                         | 1.30                   | 9.4                             |
|                | High   | QPSK   | RB6#0                | 1.09                         | 1.35                   | 9.5                             |
|                |        | 16QAM  | RB6#0                | 1.09                         | 1.33                   | 9.6                             |
| 3 MHz          | Low    | QPSK   | RB15#0               | 2.70                         | 2.99                   | 9.7                             |
|                |        | 16QAM  | RB15#0               | 2.70                         | 3.00                   | 9.8                             |
|                | Middle | QPSK   | RB15#0               | 2.70                         | 2.99                   | 9.9                             |
|                |        | 16QAM  | RB15#0               | 2.70                         | 2.99                   | 9.10                            |
|                | High   | QPSK   | RB15#0               | 2.71                         | 3.00                   | 9.11                            |
|                |        | 16QAM  | RB15#0               | 2.70                         | 2.98                   | 9.12                            |
| 5 MHz          | Low    | QPSK   | RB25#0               | 4.50                         | 4.97                   | 9.13                            |
|                |        | 16QAM  | RB25#0               | 4.51                         | 5.03                   | 9.14                            |
|                | Middle | QPSK   | RB25#0               | 4.51                         | 4.98                   | 9.15                            |
|                |        | 16QAM  | RB25#0               | 4.49                         | 4.97                   | 9.16                            |
|                | High   | QPSK   | RB25#0               | 4.49                         | 5.00                   | 9.17                            |
|                |        | 16QAM  | RB25#0               | 4.49                         | 4.95                   | 9.18                            |
| 10 MHz         | Low    | QPSK   | RB50#0               | 8.96                         | 9.81                   | 9.19                            |
|                |        | 16QAM  | RB50#0               | 8.96                         | 9.86                   | 9.20                            |
|                | Middle | QPSK   | RB50#0               | 8.95                         | 9.90                   | 9.21                            |
|                |        | 16QAM  | RB50#0               | 8.94                         | 9.81                   | 9.22                            |
|                | High   | QPSK   | RB50#0               | 8.90                         | 9.74                   | 9.23                            |
|                |        | 16QAM  | RB50#0               | 8.90                         | 9.74                   | 9.24                            |
| 15 MHz         | Low    | QPSK   | RB75#0               | 13.41                        | 14.62                  | 9.25                            |
|                |        | 16QAM  | RB75#0               | 13.45                        | 14.61                  | 9.26                            |
|                | Middle | QPSK   | RB75#0               | 13.37                        | 14.75                  | 9.27                            |
|                |        | 16QAM  | RB75#0               | 13.35                        | 14.49                  | 9.28                            |
|                | High   | QPSK   | RB75#0               | 13.36                        | 14.51                  | 9.29                            |
|                |        | 16QAM  | RB75#0               | 13.38                        | 14.60                  | 9.30                            |



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 65 of 101

|        |        |       |         |       |       |      |
|--------|--------|-------|---------|-------|-------|------|
| 20 MHz | Low    | QPSK  | RB100#0 | 17.92 | 19.47 | 9.31 |
|        |        | 16QAM | RB100#0 | 17.93 | 19.35 | 9.32 |
|        | Middle | QPSK  | RB100#0 | 17.79 | 19.13 | 9.33 |
|        |        | 16QAM | RB100#0 | 17.80 | 19.27 | 9.34 |
|        | High   | QPSK  | RB100#0 | 17.92 | 19.27 | 9.35 |
|        |        | 16QAM | RB100#0 | 17.95 | 19.44 | 9.36 |

| FDD LTE Band 4 |        |        |                      |                              |                        |                                 |
|----------------|--------|--------|----------------------|------------------------------|------------------------|---------------------------------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | 99% Occupied Bandwidth (MHz) | -26 dB Bandwidth (MHz) | Refer to Plot <sup>Note 2</sup> |
| 1.4 MHz        | Low    | QPSK   | RB6#0                | 1.09                         | 1.30                   | 10.1                            |
|                |        | 16QAM  | RB6#0                | 1.10                         | 1.31                   | 10.2                            |
|                | Middle | QPSK   | RB6#0                | 1.09                         | 1.28                   | 10.3                            |
|                |        | 16QAM  | RB6#0                | 1.09                         | 1.27                   | 10.4                            |
|                | High   | QPSK   | RB6#0                | 1.10                         | 1.27                   | 10.5                            |
|                |        | 16QAM  | RB6#0                | 1.09                         | 1.29                   | 10.6                            |
| 3 MHz          | Low    | QPSK   | RB15#0               | 2.70                         | 2.97                   | 10.7                            |
|                |        | 16QAM  | RB15#0               | 2.70                         | 2.98                   | 10.8                            |
|                | Middle | QPSK   | RB15#0               | 2.71                         | 3.01                   | 10.9                            |
|                |        | 16QAM  | RB15#0               | 2.70                         | 3.00                   | 10.10                           |
|                | High   | QPSK   | RB15#0               | 2.70                         | 3.00                   | 10.11                           |
|                |        | 16QAM  | RB15#0               | 2.70                         | 2.98                   | 10.12                           |
| 5 MHz          | Low    | QPSK   | RB25#0               | 4.51                         | 5.00                   | 10.13                           |
|                |        | 16QAM  | RB25#0               | 4.50                         | 4.98                   | 10.14                           |
|                | Middle | QPSK   | RB25#0               | 4.50                         | 5.00                   | 10.15                           |
|                |        | 16QAM  | RB25#0               | 4.51                         | 5.01                   | 10.16                           |
|                | High   | QPSK   | RB25#0               | 4.50                         | 4.99                   | 10.17                           |
|                |        | 16QAM  | RB25#0               | 4.51                         | 5.02                   | 10.18                           |
| 10 MHz         | Low    | QPSK   | RB50#0               | 8.98                         | 9.91                   | 10.19                           |
|                |        | 16QAM  | RB50#0               | 8.95                         | 9.88                   | 10.20                           |
|                | Middle | QPSK   | RB50#0               | 8.94                         | 9.83                   | 10.21                           |
|                |        | 16QAM  | RB50#0               | 8.95                         | 9.77                   | 10.22                           |
|                | High   | QPSK   | RB50#0               | 8.97                         | 9.89                   | 10.23                           |
|                |        | 16QAM  | RB50#0               | 8.98                         | 9.91                   | 10.24                           |
| 15 MHz         | Low    | QPSK   | RB75#0               | 13.43                        | 14.65                  | 10.25                           |
|                |        | 16QAM  | RB75#0               | 13.40                        | 14.67                  | 10.26                           |
|                | Middle | QPSK   | RB75#0               | 13.38                        | 14.56                  | 10.27                           |
|                |        | 16QAM  | RB75#0               | 13.40                        | 14.61                  | 10.28                           |
|                | High   | QPSK   | RB75#0               | 13.43                        | 14.73                  | 10.29                           |
|                |        | 16QAM  | RB75#0               | 13.46                        | 14.73                  | 10.30                           |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 66 of 101

|        |        |       |         |       |       |       |
|--------|--------|-------|---------|-------|-------|-------|
| 20 MHz | Low    | QPSK  | RB100#0 | 17.88 | 19.40 | 10.31 |
|        |        | 16QAM | RB100#0 | 17.88 | 19.34 | 10.32 |
|        | Middle | QPSK  | RB100#0 | 17.85 | 19.29 | 10.33 |
|        |        | 16QAM | RB100#0 | 17.88 | 19.31 | 10.34 |
|        | High   | QPSK  | RB100#0 | 17.96 | 19.74 | 10.35 |
|        |        | 16QAM | RB100#0 | 17.94 | 19.52 | 10.36 |

| FDD LTE Band 5 |        |        |                      |                              |                        |                                 |
|----------------|--------|--------|----------------------|------------------------------|------------------------|---------------------------------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | 99% Occupied Bandwidth (MHz) | -26 dB Bandwidth (MHz) | Refer to Plot <sup>Note 2</sup> |
| 1.4 MHz        | Low    | QPSK   | RB6#0                | 1.09                         | 1.29                   | 11.1                            |
|                |        | 16QAM  | RB6#0                | 1.09                         | 1.30                   | 11.2                            |
|                | Middle | QPSK   | RB6#0                | 1.09                         | 1.29                   | 11.3                            |
|                |        | 16QAM  | RB6#0                | 1.09                         | 1.28                   | 11.4                            |
|                | High   | QPSK   | RB6#0                | 1.09                         | 1.28                   | 11.5                            |
|                |        | 16QAM  | RB6#0                | 1.09                         | 1.29                   | 11.6                            |
| 3 MHz          | Low    | QPSK   | RB15#0               | 2.70                         | 2.99                   | 11.7                            |
|                |        | 16QAM  | RB15#0               | 2.70                         | 2.96                   | 11.8                            |
|                | Middle | QPSK   | RB15#0               | 2.71                         | 2.99                   | 11.9                            |
|                |        | 16QAM  | RB15#0               | 2.70                         | 2.98                   | 11.10                           |
|                | High   | QPSK   | RB15#0               | 2.70                         | 2.98                   | 11.11                           |
|                |        | 16QAM  | RB15#0               | 2.70                         | 3.00                   | 11.12                           |
| 5 MHz          | Low    | QPSK   | RB25#0               | 4.51                         | 5.01                   | 11.13                           |
|                |        | 16QAM  | RB25#0               | 4.50                         | 4.97                   | 11.14                           |
|                | Middle | QPSK   | RB25#0               | 4.49                         | 4.98                   | 11.15                           |
|                |        | 16QAM  | RB25#0               | 4.50                         | 5.01                   | 11.16                           |
|                | High   | QPSK   | RB25#0               | 4.49                         | 4.98                   | 11.17                           |
|                |        | 16QAM  | RB25#0               | 4.49                         | 5.00                   | 11.18                           |
| 10 MHz         | Low    | QPSK   | RB50#0               | 8.98                         | 9.93                   | 11.19                           |
|                |        | 16QAM  | RB50#0               | 8.96                         | 9.81                   | 11.20                           |
|                | Middle | QPSK   | RB50#0               | 8.94                         | 9.83                   | 11.21                           |
|                |        | 16QAM  | RB50#0               | 8.95                         | 9.92                   | 11.22                           |
|                | High   | QPSK   | RB50#0               | 8.96                         | 9.91                   | 11.23                           |
|                |        | 16QAM  | RB50#0               | 8.95                         | 9.86                   | 11.24                           |

| FDD LTE Band 7 |     |        |                      |                              |                        |                                 |
|----------------|-----|--------|----------------------|------------------------------|------------------------|---------------------------------|
| Test BW        | CH  | Modul. | RB Set (Size#Offset) | 99% Occupied Bandwidth (MHz) | -26 dB Bandwidth (MHz) | Refer to Plot <sup>Note 2</sup> |
| 5 MHz          | Low | QPSK   | RB25#0               | 4.51                         | 5.01                   | 12.1                            |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 67 of 101

|        |        |       |         |       |       |       |
|--------|--------|-------|---------|-------|-------|-------|
|        | Middle | 16QAM | RB25#0  | 4.49  | 5.00  | 12.2  |
|        |        | QPSK  | RB25#0  | 4.50  | 5.02  | 12.3  |
|        |        | 16QAM | RB25#0  | 4.52  | 5.03  | 12.4  |
|        | High   | QPSK  | RB25#0  | 4.49  | 5.00  | 12.5  |
|        |        | 16QAM | RB25#0  | 2.80  | 3.06  | 12.6  |
| 10 MHz | Low    | QPSK  | RB50#0  | 8.95  | 9.90  | 12.7  |
|        |        | 16QAM | RB50#0  | 8.97  | 9.90  | 12.8  |
|        | Middle | QPSK  | RB50#0  | 8.96  | 9.91  | 12.9  |
|        |        | 16QAM | RB50#0  | 8.95  | 9.94  | 12.10 |
|        | High   | QPSK  | RB50#0  | 8.98  | 10.01 | 12.11 |
|        |        | 16QAM | RB50#0  | 8.97  | 9.88  | 12.12 |
| 15 MHz | Low    | QPSK  | RB75#0  | 13.45 | 14.87 | 12.13 |
|        |        | 16QAM | RB75#0  | 13.46 | 14.75 | 12.14 |
|        | Middle | QPSK  | RB75#0  | 13.39 | 14.72 | 12.15 |
|        |        | 16QAM | RB75#0  | 8.45  | 10.07 | 12.16 |
|        | High   | QPSK  | RB75#0  | 13.40 | 14.73 | 12.17 |
|        |        | 16QAM | RB75#0  | 13.43 | 14.71 | 12.18 |
| 20 MHz | Low    | QPSK  | RB100#0 | 17.88 | 19.41 | 12.19 |
|        |        | 16QAM | RB100#0 | 17.93 | 19.54 | 12.20 |
|        | Middle | QPSK  | RB100#0 | 17.90 | 19.46 | 12.21 |
|        |        | 16QAM | RB100#0 | 17.90 | 19.60 | 12.22 |
|        | High   | QPSK  | RB100#0 | 17.91 | 19.64 | 12.23 |
|        |        | 16QAM | RB100#0 | 17.90 | 19.47 | 12.24 |

| FDD LTE Band 12 |        |        |                      |                              |                        |                                 |
|-----------------|--------|--------|----------------------|------------------------------|------------------------|---------------------------------|
| Test BW         | CH     | Modul. | RB Set (Size#Offset) | 99% Occupied Bandwidth (MHz) | -26 dB Bandwidth (MHz) | Refer to Plot <sup>Note 2</sup> |
| 1.4 MHz         | Low    | QPSK   | RB6#0                | 1.09                         | 1.27                   | 13.1                            |
|                 |        | 16QAM  | RB6#0                | 1.09                         | 1.30                   | 13.2                            |
|                 | Middle | QPSK   | RB6#0                | 1.09                         | 1.29                   | 13.3                            |
|                 |        | 16QAM  | RB6#0                | 1.09                         | 1.28                   | 13.4                            |
|                 | High   | QPSK   | RB6#0                | 1.09                         | 1.28                   | 13.5                            |
|                 |        | 16QAM  | RB6#0                | 1.09                         | 1.29                   | 13.6                            |
| 3 MHz           | Low    | QPSK   | RB15#0               | 2.70                         | 2.98                   | 13.7                            |
|                 |        | 16QAM  | RB15#0               | 2.70                         | 2.96                   | 13.8                            |
|                 | Middle | QPSK   | RB15#0               | 2.70                         | 2.96                   | 13.9                            |
|                 |        | 16QAM  | RB15#0               | 2.70                         | 3.00                   | 13.10                           |
|                 | High   | QPSK   | RB15#0               | 2.71                         | 3.00                   | 13.11                           |
|                 |        | 16QAM  | RB15#0               | 2.70                         | 2.99                   | 13.12                           |
| 5 MHz           | Low    | QPSK   | RB25#0               | 4.50                         | 4.97                   | 13.13                           |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 68 of 101

|        |        |       |        |      |      |       |
|--------|--------|-------|--------|------|------|-------|
|        | Middle | 16QAM | RB25#0 | 4.49 | 4.95 | 13.14 |
|        |        | QPSK  | RB25#0 | 4.50 | 5.00 | 13.15 |
|        |        | 16QAM | RB25#0 | 4.51 | 4.99 | 13.16 |
|        | High   | QPSK  | RB25#0 | 4.49 | 4.96 | 13.17 |
|        |        | 16QAM | RB25#0 | 4.50 | 5.03 | 13.18 |
| 10 MHz | Low    | QPSK  | RB50#0 | 8.97 | 9.86 | 13.19 |
|        |        | 16QAM | RB50#0 | 8.95 | 9.85 | 13.20 |
|        | Middle | QPSK  | RB50#0 | 8.97 | 9.92 | 13.21 |
|        |        | 16QAM | RB50#0 | 8.97 | 9.90 | 13.22 |
|        | High   | QPSK  | RB50#0 | 8.95 | 9.88 | 13.23 |
|        |        | 16QAM | RB50#0 | 8.95 | 9.86 | 13.24 |

FDD LTE Band 13

| Test BW | CH     | Modul. | RB Set (Size#Offset) | 99% Occupied Bandwidth (MHz) | -26 dB Bandwidth (MHz) | Refer to Plot <sup>Note 2</sup> |
|---------|--------|--------|----------------------|------------------------------|------------------------|---------------------------------|
| 5 MHz   | Low    | QPSK   | RB25#0               | 4.45                         | 5.01                   | 14.1                            |
|         |        | 16QAM  | RB25#0               | 4.49                         | 4.97                   | 14.2                            |
|         | Middle | QPSK   | RB25#0               | 4.50                         | 4.96                   | 14.3                            |
|         |        | 16QAM  | RB25#0               | 4.50                         | 5.01                   | 14.4                            |
|         | High   | QPSK   | RB25#0               | 4.49                         | 4.98                   | 14.5                            |
|         |        | 16QAM  | RB25#0               | 4.50                         | 5.01                   | 14.6                            |
| 10 MHz  | Low    | QPSK   | RB50#0               | --                           | --                     | --                              |
|         |        | 16QAM  | RB50#0               | --                           | --                     | --                              |
|         | Middle | QPSK   | RB50#0               | 8.97                         | 9.91                   | 14.7                            |
|         |        | 16QAM  | RB50#0               | 8.97                         | 9.80                   | 14.8                            |
|         | High   | QPSK   | RB50#0               | --                           | --                     | --                              |
|         |        | 16QAM  | RB50#0               | --                           | --                     | --                              |

FDD LTE Band 17

| Test BW | CH     | Modul. | RB Set (Size#Offset) | 99% Occupied Bandwidth (MHz) | -26 dB Bandwidth (MHz) | Refer to Plot <sup>Note 2</sup> |
|---------|--------|--------|----------------------|------------------------------|------------------------|---------------------------------|
| 5 MHz   | Low    | QPSK   | RB25#0               | 4.50                         | 5.03                   | 15.1                            |
|         |        | 16QAM  | RB25#0               | 4.50                         | 4.99                   | 15.2                            |
|         | Middle | QPSK   | RB25#0               | 4.49                         | 4.99                   | 15.3                            |
|         |        | 16QAM  | RB25#0               | 4.51                         | 4.98                   | 15.4                            |
|         | High   | QPSK   | RB25#0               | 4.49                         | 4.94                   | 15.5                            |
|         |        | 16QAM  | RB25#0               | 4.50                         | 5.01                   | 15.6                            |
| 10 MHz  | Low    | QPSK   | RB50#0               | 8.97                         | 10.01                  | 15.7                            |
|         |        | 16QAM  | RB50#0               | 8.96                         | 9.84                   | 15.8                            |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 69 of 101

|  |        |       |        |      |      |       |
|--|--------|-------|--------|------|------|-------|
|  | Middle | QPSK  | RB50#0 | 8.94 | 9.86 | 15.9  |
|  |        | 16QAM | RB50#0 | 8.95 | 9.84 | 15.10 |
|  | High   | QPSK  | RB50#0 | 8.95 | 9.82 | 15.11 |
|  |        | 16QAM | RB50#0 | 8.94 | 9.86 | 15.12 |

| FDD LTE Band 25 |        |        |                      |                              |                        |                                 |
|-----------------|--------|--------|----------------------|------------------------------|------------------------|---------------------------------|
| Test BW         | CH     | Modul. | RB Set (Size#Offset) | 99% Occupied Bandwidth (MHz) | -26 dB Bandwidth (MHz) | Refer to Plot <sup>Note 2</sup> |
| 1.4 MHz         | Low    | QPSK   | RB6#0                | 1.09                         | 1.30                   | 16.1                            |
|                 |        | 16QAM  | RB6#0                | 1.09                         | 1.32                   | 16.2                            |
|                 | Middle | QPSK   | RB6#0                | 1.09                         | 1.34                   | 16.3                            |
|                 |        | 16QAM  | RB6#0                | 1.09                         | 1.28                   | 16.4                            |
|                 | High   | QPSK   | RB6#0                | 1.09                         | 1.29                   | 16.5                            |
|                 |        | 16QAM  | RB6#0                | 1.09                         | 1.30                   | 16.6                            |
| 3 MHz           | Low    | QPSK   | RB15#0               | 2.70                         | 2.98                   | 16.7                            |
|                 |        | 16QAM  | RB15#0               | 2.70                         | 3.01                   | 16.8                            |
|                 | Middle | QPSK   | RB15#0               | 2.70                         | 2.98                   | 16.9                            |
|                 |        | 16QAM  | RB15#0               | 2.70                         | 3.00                   | 16.10                           |
|                 | High   | QPSK   | RB15#0               | 2.71                         | 2.98                   | 16.11                           |
|                 |        | 16QAM  | RB15#0               | 2.70                         | 2.99                   | 16.12                           |
| 5 MHz           | Low    | QPSK   | RB25#0               | 4.50                         | 5.02                   | 16.13                           |
|                 |        | 16QAM  | RB25#0               | 4.50                         | 4.97                   | 16.14                           |
|                 | Middle | QPSK   | RB25#0               | 4.49                         | 4.99                   | 10.15                           |
|                 |        | 16QAM  | RB25#0               | 4.50                         | 5.00                   | 16.16                           |
|                 | High   | QPSK   | RB25#0               | 4.51                         | 5.00                   | 16.17                           |
|                 |        | 16QAM  | RB25#0               | 4.51                         | 5.04                   | 16.18                           |
| 10 MHz          | Low    | QPSK   | RB50#0               | 8.98                         | 9.94                   | 16.19                           |
|                 |        | 16QAM  | RB50#0               | 8.98                         | 9.81                   | 16.20                           |
|                 | Middle | QPSK   | RB50#0               | 8.90                         | 9.80                   | 16.21                           |
|                 |        | 16QAM  | RB50#0               | 8.93                         | 9.82                   | 16.22                           |
|                 | High   | QPSK   | RB50#0               | 8.94                         | 9.80                   | 16.23                           |
|                 |        | 16QAM  | RB50#0               | 8.94                         | 9.78                   | 16.24                           |
| 15 MHz          | Low    | QPSK   | RB75#0               | 13.45                        | 14.73                  | 16.25                           |
|                 |        | 16QAM  | RB75#0               | 13.43                        | 14.70                  | 16.26                           |
|                 | Middle | QPSK   | RB75#0               | 13.32                        | 14.50                  | 16.27                           |
|                 |        | 16QAM  | RB75#0               | 13.36                        | 14.56                  | 16.28                           |
|                 | High   | QPSK   | RB75#0               | 13.27                        | 14.54                  | 16.29                           |
|                 |        | 16QAM  | RB75#0               | 13.28                        | 14.39                  | 16.30                           |
| 20 MHz          | Low    | QPSK   | RB100#0              | 17.92                        | 19.50                  | 16.31                           |
|                 |        | 16QAM  | RB100#0              | 17.93                        | 19.34                  | 16.32                           |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 70 of 101

|  |        |       |         |       |       |       |
|--|--------|-------|---------|-------|-------|-------|
|  | Middle | QPSK  | RB100#0 | 17.78 | 19.25 | 16.33 |
|  |        | 16QAM | RB100#0 | 17.76 | 19.27 | 16.34 |
|  | High   | QPSK  | RB100#0 | 17.72 | 19.42 | 16.35 |
|  |        | 16QAM | RB100#0 | 17.69 | 19.14 | 16.36 |

| FDD LTE Band 41 |        |        |                      |                              |                        |                                 |
|-----------------|--------|--------|----------------------|------------------------------|------------------------|---------------------------------|
| Test BW         | CH     | Modul. | RB Set (Size#Offset) | 99% Occupied Bandwidth (MHz) | -26 dB Bandwidth (MHz) | Refer to Plot <sup>Note 2</sup> |
| 5 MHz           | Low    | QPSK   | RB25#0               | 4.51                         | 5.03                   | 17.1                            |
|                 |        | 16QAM  | RB25#0               | 4.51                         | 5.50                   | 17.2                            |
|                 | Middle | QPSK   | RB25#0               | 4.50                         | 4.96                   | 17.3                            |
|                 |        | 16QAM  | RB25#0               | 4.50                         | 5.41                   | 17.4                            |
|                 | High   | QPSK   | RB25#0               | 4.49                         | 5.00                   | 17.5                            |
|                 |        | 16QAM  | RB25#0               | 4.49                         | 5.02                   | 17.6                            |
| 10 MHz          | Low    | QPSK   | RB50#0               | 9.01                         | 11.31                  | 17.7                            |
|                 |        | 16QAM  | RB50#0               | 9.00                         | 10.29                  | 17.8                            |
|                 | Middle | QPSK   | RB50#0               | 9.00                         | 10.53                  | 17.9                            |
|                 |        | 16QAM  | RB50#0               | 8.96                         | 11.16                  | 17.10                           |
|                 | High   | QPSK   | RB50#0               | 8.99                         | 10.53                  | 17.11                           |
|                 |        | 16QAM  | RB50#0               | 8.98                         | 9.89                   | 17.12                           |
| 15 MHz          | Low    | QPSK   | RB75#0               | 13.52                        | 16.56                  | 17.13                           |
|                 |        | 16QAM  | RB75#0               | 13.59                        | 19.57                  | 17.14                           |
|                 | Middle | QPSK   | RB75#0               | 13.48                        | 23.14                  | 17.15                           |
|                 |        | 16QAM  | RB75#0               | 13.52                        | 19.42                  | 17.16                           |
|                 | High   | QPSK   | RB75#0               | 13.46                        | 16.72                  | 17.17                           |
|                 |        | 16QAM  | RB75#0               | 13.52                        | 19.75                  | 17.18                           |
| 20 MHz          | Low    | QPSK   | RB100#0              | 17.95                        | 19.57                  | 17.19                           |
|                 |        | 16QAM  | RB100#0              | 17.91                        | 19.76                  | 17.20                           |
|                 | Middle | QPSK   | RB100#0              | 17.94                        | 21.13                  | 17.21                           |
|                 |        | 16QAM  | RB100#0              | 17.95                        | 21.78                  | 17.22                           |
|                 | High   | QPSK   | RB100#0              | 17.90                        | 19.98                  | 17.23                           |
|                 |        | 16QAM  | RB100#0              | 17.88                        | 19.92                  | 17.24                           |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 71 of 101

## 5.1.4 Frequency Stability

### Frequency Stability Measurement Results for GSM/GPRS/EDGE

| GSM 850         |                  |                          |             |                             |             |                           |             |         |
|-----------------|------------------|--------------------------|-------------|-----------------------------|-------------|---------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation      |             |                             |             |                           |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel<br>824.2 MHz |             | Middle channel<br>836.6 MHz |             | High channel<br>848.8 MHz |             |         |
|                 |                  | Value (Hz)               | Limits (Hz) | Value (Hz)                  | Limits (Hz) | Value (Hz)                | Limits (Hz) |         |
| 3.8 V           | -20              | --                       | ±2060.5     | --                          | ±2091.5     | --                        | ±2122       | PASS    |
|                 | -15              | --                       |             | --                          |             |                           |             |         |
|                 | -10              | --                       |             | --                          |             |                           |             |         |
|                 | 0                | 20.56                    |             | -14.77                      |             | 3.25                      |             |         |
|                 | 10               | 15.89                    |             | 27.25                       |             | 9.25                      |             |         |
|                 | 20               | 20.89                    |             | -17.23                      |             | 1.11                      |             |         |
|                 | 25               | -10.89                   |             | 14.58                       |             | 8.52                      |             |         |
|                 | 30               | -20.97                   |             | 3.89                        |             | 3.29                      |             |         |
|                 | 40               | -16.58                   |             | 8.91                        |             | -23.56                    |             |         |
|                 | 50               | --                       |             | --                          |             | --                        |             |         |
| 2.8 V           | 25               | -14.11                   | ±2060.5     | 8.9                         | ±2091.5     | -7.58                     | ±2122       | PASS    |
| 4.35V           | 25               | -10.78                   |             | 23.33                       |             | -23.4                     |             |         |

| GSM 1900        |                  |                           |             |                            |             |                            |             |         |
|-----------------|------------------|---------------------------|-------------|----------------------------|-------------|----------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation       |             |                            |             |                            |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel<br>1850.2 MHz |             | Middle channel<br>1880 MHz |             | High channel<br>1909.8 MHz |             |         |
|                 |                  | Value (Hz)                | Limits (Hz) | Value (Hz)                 | Limits (Hz) | Value (Hz)                 | Limits (Hz) |         |
| 3.8 V           | -20              | --                        | ±4625.5     | --                         | ±4700.0     | --                         | ±4774.5     | PASS    |
|                 | -15              | --                        |             | --                         |             |                            |             |         |
|                 | -10              | --                        |             | --                         |             |                            |             |         |
|                 | 0                | 11.92                     |             | 4.10                       |             | -1.22                      |             |         |
|                 | 10               | -12.17                    |             | -13.98                     |             | -8.36                      |             |         |
|                 | 20               | 10.85                     |             | -5.30                      |             | 30.03                      |             |         |
|                 | 25               | 3.44                      |             | -0.61                      |             | -6.80                      |             |         |
|                 | 30               | 7.92                      |             | 11.41                      |             | 10.92                      |             |         |
|                 | 40               | 5.73                      |             | 21.43                      |             | 14.30                      |             |         |
|                 | 50               | -                         |             | --                         |             | --                         |             |         |
| 2.8 V           | 25               | 0.52                      |             | -8.15                      |             | 14.27                      |             |         |
| 4.35 V          | 25               | 24.51                     |             | -2.03                      |             | 20.77                      |             |         |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 72 of 101

## GPRS 850

| GPRS 850        |                  |                       |             |                          |             |                        |             |         |
|-----------------|------------------|-----------------------|-------------|--------------------------|-------------|------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation   |             |                          |             |                        |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel 824.2 MHz |             | Middle channel 836.6 MHz |             | High channel 848.8 MHz |             |         |
|                 |                  | Value (Hz)            | Limits (Hz) | Value (Hz)               | Limits (Hz) | Value (Hz)             | Limits (Hz) |         |
| 3.8 V           | -20              | --                    | ±2060.5     | --                       | ±2091.5     | --                     | ±2122       | PASS    |
|                 | -15              | --                    |             | --                       |             | --                     |             |         |
|                 | -10              | --                    |             | --                       |             | --                     |             |         |
|                 | 0                | 6.68                  |             | 7.66                     |             | 10.61                  |             |         |
|                 | 10               | -8.41                 |             | -9.52                    |             | -3.21                  |             |         |
|                 | 20               | 5.49                  |             | 9.81                     |             | 8.17                   |             |         |
|                 | 25               | 31.01                 |             | 31.92                    |             | 32.39                  |             |         |
|                 | 30               | 22.78                 |             | 21.74                    |             | 22.23                  |             |         |
|                 | 40               | 10.07                 |             | 9.07                     |             | 18.47                  |             |         |
|                 | 50               |                       |             | --                       |             | --                     |             |         |
| 2.8 V           | 25               | 27.74                 |             | 27.76                    |             | 3.80                   |             |         |
| 4.35V           | 25               | -8.69                 |             | -7.66                    |             | 6.53                   |             |         |

## GPRS 1900

| GPRS 1900       |                  |                        |             |                         |             |                         |             |         |
|-----------------|------------------|------------------------|-------------|-------------------------|-------------|-------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation    |             |                         |             |                         |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel 1850.2 MHz |             | Middle channel 1880 MHz |             | High channel 1909.8 MHz |             |         |
|                 |                  | Value (Hz)             | Limits (Hz) | Value (Hz)              | Limits (Hz) | Value (Hz)              | Limits (Hz) |         |
| 3.8 V           | -20              | --                     | ±4625.5     | --                      | ±4700.0     | --                      | ±4774.5     | PASS    |
|                 | -15              | --                     |             | --                      |             |                         |             |         |
|                 | -10              | --                     |             | --                      |             |                         |             |         |
|                 | 0                | 21.46                  |             | 5.50                    |             | 17.30                   |             |         |
|                 | 10               | 9.88                   |             | 2.39                    |             | 19.05                   |             |         |
|                 | 20               | 19.72                  |             | 5.63                    |             | 3.24                    |             |         |
|                 | 25               | 20.70                  |             | 22.00                   |             | 1.45                    |             |         |
|                 | 30               | 26.08                  |             | 11.65                   |             | -5.99                   |             |         |
|                 | 40               | -8.00                  |             | -9.29                   |             | 23.40                   |             |         |
|                 | 50               |                        |             | --                      |             | --                      |             |         |
| 2.8 V           | 25               | 22.41                  |             | -7.33                   |             | 15.18                   |             |         |
| 4.35V           | 25               | 18.36                  |             | 17.05                   |             | 20.60                   |             |         |



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 73 of 101

## EDGE 850

| EDGE 850        |                  |                          |             |                             |             |                           |             |         |
|-----------------|------------------|--------------------------|-------------|-----------------------------|-------------|---------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation      |             |                             |             |                           |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel<br>824.2 MHz |             | Middle channel<br>836.6 MHz |             | High channel<br>848.8 MHz |             |         |
|                 |                  | Value (Hz)               | Limits (Hz) | Value (Hz)                  | Limits (Hz) | Value (Hz)                | Limits (Hz) |         |
| 3.8 V           | -20              | --                       | ±2060.5     | --                          | ±2091.5     | --                        | ±2122       | PASS    |
|                 | -15              | --                       |             | --                          |             |                           |             |         |
|                 | -10              | --                       |             | --                          |             |                           |             |         |
|                 | 0                | 20.98                    |             | 12.64                       |             | -2.29                     |             |         |
|                 | 10               | -4.01                    |             | -5.24                       |             | -2.53                     |             |         |
|                 | 20               | 29.18                    |             | 2.34                        |             | 3.60                      |             |         |
|                 | 25               | 35.42                    |             | 34.79                       |             | 33.41                     |             |         |
|                 | 30               | -2.32                    |             | -4.60                       |             | 19.68                     |             |         |
|                 | 40               | 2.59                     |             | 17.96                       |             | 0.45                      |             |         |
|                 | 50               |                          |             | --                          |             | --                        |             |         |
| 2.8 V           | 25               | 18.71                    |             | 29.75                       |             | -6.54                     |             |         |
| 4.35V           | 25               | 23.22                    |             | 7.22                        |             | 13.36                     |             |         |

## EDGE 1900

| EDGE 1900       |                  |                           |             |                            |             |                            |             |         |
|-----------------|------------------|---------------------------|-------------|----------------------------|-------------|----------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation       |             |                            |             |                            |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel<br>1850.2 MHz |             | Middle channel<br>1880 MHz |             | High channel<br>1909.8 MHz |             |         |
|                 |                  | Value (Hz)                | Limits (Hz) | Value (Hz)                 | Limits (Hz) | Value (Hz)                 | Limits (Hz) |         |
| 3.8 V           | -20              | --                        | ±4625.5     | --                         | ±4700.0     | --                         | ±4774.5     | PASS    |
|                 | -15              | --                        |             | --                         |             |                            |             |         |
|                 | -10              | --                        |             | --                         |             |                            |             |         |
|                 | 0                | 10.49                     |             | 1.05                       |             | -5.55                      |             |         |
|                 | 10               | -8.92                     |             | 10.85                      |             | -6.24                      |             |         |
|                 | 20               | 11.94                     |             | 10.22                      |             | 26.88                      |             |         |
|                 | 25               | 22.87                     |             | -4.05                      |             | -6.49                      |             |         |
|                 | 30               | -0.15                     |             | 22.92                      |             | 18.77                      |             |         |
|                 | 40               | 9.14                      |             | 19.22                      |             | 12.78                      |             |         |
|                 | 50               |                           |             | --                         |             | --                         |             |         |
| 2.8 V           | 25               | 2.05                      |             | 6.86                       |             | 31.11                      |             |         |
| 4.35V           | 25               | 19.52                     |             | -4.50                      |             | 16.51                      |             |         |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 74 of 101

## Frequency Stability Measurement Results for WCDMA

| WCDMA Band II   |                  |                           |             |                            |             |                            |             |         |
|-----------------|------------------|---------------------------|-------------|----------------------------|-------------|----------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation       |             |                            |             |                            |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel<br>1852.4 MHz |             | Middle channel<br>1880 MHz |             | High channel<br>1907.6 MHz |             |         |
|                 |                  | Value (Hz)                | Limits (Hz) | Value (Hz)                 | Limits (Hz) | Value (Hz)                 | Limits (Hz) |         |
| 3.8 V           | -20              | --                        | ±4631       | --                         | ±4700       | --                         | ±4769       | PASS    |
|                 | -15              | --                        |             | --                         |             |                            |             |         |
|                 | -10              | --                        |             | --                         |             |                            |             |         |
|                 | 0                | -2                        |             | -0.04                      |             | 0.16                       |             |         |
|                 | 10               | -15.27                    |             | 3.62                       |             | 3.45                       |             |         |
|                 | 20               | -18.31                    |             | -13.46                     |             | 6.14                       |             |         |
|                 | 25               | 1.39                      |             | -5.75                      |             | -8.35                      |             |         |
|                 | 30               | -12.19                    |             | 18.75                      |             | -0.77                      |             |         |
|                 | 40               | -0.85                     |             | 3.25                       |             | 17.00                      |             |         |
|                 | 50               | --                        |             | --                         |             | --                         |             |         |
| 2.8 V           | 25               | 0.06                      | ±4631       | -10.27                     | ±4700       | 17.75                      | ±4769       | PASS    |
| 4.35V           | 25               | -9.94                     |             | 0.26                       |             | 2.81                       |             |         |

| WCDMA Band V    |                  |                          |             |                             |             |                           |             |         |
|-----------------|------------------|--------------------------|-------------|-----------------------------|-------------|---------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation      |             |                             |             |                           |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel<br>826.4 MHz |             | Middle channel<br>836.4 MHz |             | High channel<br>846.6 MHz |             |         |
|                 |                  | Value (Hz)               | Limits (Hz) | Value (Hz)                  | Limits (Hz) | Value (Hz)                | Limits (Hz) |         |
| 3.8 V           | -20              | --                       | ±2066       | --                          | ±2091       | --                        | ±2116.5     | PASS    |
|                 | -15              | --                       |             | --                          |             |                           |             |         |
|                 | -10              | --                       |             | --                          |             |                           |             |         |
|                 | 0                | -0.8                     |             | 0.49                        |             | 0.77                      |             |         |
|                 | 10               | 15.48                    |             | 1.38                        |             | 21.68                     |             |         |
|                 | 20               | 10.73                    |             | 28.60                       |             | 19.53                     |             |         |
|                 | 25               | 11.98                    |             | 8.27                        |             | 6.82                      |             |         |
|                 | 30               | 3.73                     |             | 18.44                       |             | 9.45                      |             |         |
|                 | 40               | 26.39                    |             | -4.88                       |             | 10.84                     |             |         |
|                 | 50               | --                       |             | --                          |             | --                        |             |         |
| 2.8 V           | 25               | -2.02                    |             | 3.03                        |             | 24.47                     |             |         |
| 4.35V           | 25               | 30.17                    |             | -5.92                       |             | 19.00                     |             |         |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 75 of 101

## Frequency Stability Measurement Results for CDMA/EVDO

| CDMA BC0        |                  |                       |             |                           |             |                         |             |         |
|-----------------|------------------|-----------------------|-------------|---------------------------|-------------|-------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation   |             |                           |             |                         |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel 824.7 MHz |             | Middle channel 836.52 MHz |             | High channel 848.31 MHz |             |         |
|                 |                  | Value (Hz)            | Limits (Hz) | Value (Hz)                | Limits (Hz) | Value (Hz)              | Limits (Hz) |         |
| 3.8 V           | -20              | --                    | ±2061.75    | --                        | ±2091.5     | --                      | ±2120.775   | PASS    |
|                 | -15              | --                    |             | --                        |             |                         |             |         |
|                 | -10              | --                    |             | --                        |             |                         |             |         |
|                 | 0                | -5.73                 |             | 14.20                     |             | -2.45                   |             |         |
|                 | 10               | 16.05                 |             | 6.07                      |             | 14.60                   |             |         |
|                 | 20               | 12.54                 |             | 6.73                      |             | 26.84                   |             |         |
|                 | 25               | 10.29                 |             | 9.96                      |             | 11.46                   |             |         |
|                 | 30               | 19.72                 |             | 17.04                     |             | -7.17                   |             |         |
|                 | 40               | -1.45                 |             | 14.11                     |             | 0.36                    |             |         |
|                 | 50               | --                    |             | --                        |             | --                      |             |         |
| 2.8 V           | 25               | 7.79                  |             | -1.09                     |             | 28.15                   |             |         |
| 4.35V           | 25               | 10.03                 |             | 24.12                     |             | -1.45                   |             |         |

| EVDO BC0        |                  |                       |             |                           |             |                         |             |         |
|-----------------|------------------|-----------------------|-------------|---------------------------|-------------|-------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation   |             |                           |             |                         |             | Verdict |
| Power (V)       | Temperature (°C) | Low channel 824.7 MHz |             | Middle channel 836.52 MHz |             | High channel 848.31 MHz |             |         |
|                 |                  | Value (Hz)            | Limits (Hz) | Value (Hz)                | Limits (Hz) | Value (Hz)              | Limits (Hz) |         |
| 3.8 V           | -20              | --                    | ±2061.75    | --                        | ±2091.5     | --                      | ±2120.775   | PASS    |
|                 | -15              | --                    |             | --                        |             |                         |             |         |
|                 | -10              | --                    |             | --                        |             |                         |             |         |
|                 | 0                | 21.43                 |             | 18.26                     |             | 31.10                   |             |         |
|                 | 10               | 24.96                 |             | 23.64                     |             | -1.01                   |             |         |
|                 | 20               | 11.04                 |             | 1.42                      |             | 0.60                    |             |         |
|                 | 25               | 12.03                 |             | 10.90                     |             | 11.84                   |             |         |
|                 | 30               | 22.01                 |             | 27.31                     |             | 2.71                    |             |         |
|                 | 40               | -4.84                 |             | 27.89                     |             | 28.70                   |             |         |
|                 | 50               | --                    |             | --                        |             | --                      |             |         |
| 2.8 V           | 25               | 18.74                 |             | 23.75                     |             | 10.84                   |             |         |
| 4.35V           | 25               | 19.20                 |             | 19.62                     |             | 29.25                   |             |         |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 76 of 101

## Frequency Stability Measurement Results for LTE

| FDD LTE Band 2  |                  |                         |             |                         |             |         |
|-----------------|------------------|-------------------------|-------------|-------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation     |             |                         |             | Verdict |
| Power (V)       | Temperature (°C) | QPSK 10MHz              |             | 16QAM 10MHz             |             |         |
|                 |                  | Middle channel 1880 MHz |             | Middle channel 1880 MHz |             |         |
|                 |                  | Value (Hz)              | Limits (Hz) | Value (Hz)              | Limits (Hz) |         |
| 3.8 V           | -20              | --                      | ±4700       | --                      | ±4700       | PASS    |
|                 | -15              | --                      |             | --                      |             |         |
|                 | -10              | --                      |             | --                      |             |         |
|                 | 0                | -3.08                   |             | -1.12                   |             |         |
|                 | 10               | 13.70                   |             | -8.01                   |             |         |
|                 | 20               | 31.22                   |             | -5.91                   |             |         |
|                 | 25               | -3.08                   |             | -1.12                   |             |         |
|                 | 30               | 7.77                    |             | -4.13                   |             |         |
|                 | 40               | -4.89                   |             | 15.75                   |             |         |
|                 | 50               | --                      |             | --                      |             |         |
| 2.8 V           | 25               | 11.34                   |             | 22.77                   |             |         |
| 4.35V           | 25               | 4.43                    |             | 11.87                   |             |         |

| FDD LTE Band 4  |                    |                              |                |                              |                |         |
|-----------------|--------------------|------------------------------|----------------|------------------------------|----------------|---------|
| Test Conditions |                    | Frequency Deviation          |                |                              |                | Verdict |
| Power<br>(V)    | Temperature<br>(℃) | QPSK 10MHz                   |                | 16QAM 10MHz                  |                |         |
|                 |                    | Middle channel<br>1732.5 MHz |                | Middle channel<br>1732.5 MHz |                |         |
|                 |                    | Value<br>(Hz)                | Limits<br>(Hz) | Value<br>(Hz)                | Limits<br>(Hz) |         |
| 3.8 V           | -20                | --                           | ±4331.25       | --                           | ±4331.25       | PASS    |
|                 | -15                | --                           |                | --                           |                |         |
|                 | -10                | --                           |                | --                           |                |         |
|                 | 0                  | -0.62                        |                | -0.44                        |                |         |
|                 | 10                 | 4.86                         |                | 20.15                        |                |         |
|                 | 20                 | -3.87                        |                | -5.06                        |                |         |
|                 | 25                 | -0.62                        |                | -0.44                        |                |         |
|                 | 30                 | -4.29                        |                | 19.08                        |                |         |
|                 | 40                 | -7.81                        |                | 2.83                         |                |         |
|                 | 50                 | --                           |                | --                           |                |         |
| 2.8 V           | 25                 | 30.60                        |                | -6.13                        |                |         |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 77 of 101

|       |    |       |  |       |  |  |
|-------|----|-------|--|-------|--|--|
| 4.35V | 25 | -4.18 |  | -7.69 |  |  |
|-------|----|-------|--|-------|--|--|

| FDD LTE Band 5  |                  |                          |             |                          |             |         |
|-----------------|------------------|--------------------------|-------------|--------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation      |             |                          |             | Verdict |
| Power (V)       | Temperature (°C) | QPSK 10MHz               |             | 16QAM 10MHz              |             |         |
|                 |                  | Middle channel 836.5 MHz |             | Middle channel 836.5 MHz |             |         |
|                 |                  | Value (Hz)               | Limits (Hz) | Value (Hz)               | Limits (Hz) |         |
| 3.8 V           | -20              | --                       | ±2091.25    | --                       | ±2091.25    | PASS    |
|                 | -15              | --                       |             | --                       |             |         |
|                 | -10              | --                       |             | --                       |             |         |
|                 | 0                | -11.58                   |             | 15.77                    |             |         |
|                 | 10               | 2.60                     |             | 20.85                    |             |         |
|                 | 20               | -7.23                    |             | 6.98                     |             |         |
|                 | 25               | 0.19                     |             | -0.16                    |             |         |
|                 | 30               | 15.84                    |             | 26.38                    |             |         |
|                 | 40               | 0.72                     |             | -6.85                    |             |         |
|                 | 50               | --                       |             | --                       |             |         |
| 2.8 V           | 25               | 10.97                    |             | 17.70                    |             |         |
| 4.35V           | 25               | -18.24                   |             | 4.87                     |             |         |

| FDD LTE Band 7  |                     |                            |                |                            |                |         |
|-----------------|---------------------|----------------------------|----------------|----------------------------|----------------|---------|
| Test Conditions |                     | Frequency Deviation        |                |                            |                | Verdict |
| Power<br>(V)    | Temperature<br>(°C) | QPSK 10MHz                 |                | 16QAM 10MHz                |                |         |
|                 |                     | Middle channel<br>2535 MHz |                | Middle channel<br>2535 MHz |                |         |
|                 |                     | Value<br>(Hz)              | Limits<br>(Hz) | Value<br>(Hz)              | Limits<br>(Hz) |         |
| 3.8 V           | -20                 | --                         | ±6337.5        | --                         | ±6337.5        | PASS    |
|                 | -15                 | --                         |                | --                         |                |         |
|                 | -10                 | --                         |                | --                         |                |         |
|                 | 0                   | 24.37                      |                | 25.27                      |                |         |
|                 | 10                  | 26.07                      |                | 27.24                      |                |         |
|                 | 20                  | -7.34                      |                | 5.87                       |                |         |
|                 | 25                  | -2.89                      |                | -1.54                      |                |         |
|                 | 30                  | 17.31                      |                | 26.09                      |                |         |
|                 | 40                  | 28.67                      |                | 29.74                      |                |         |
|                 | 50                  | --                         |                | --                         |                |         |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 78 of 101

|       |    |       |  |       |  |  |
|-------|----|-------|--|-------|--|--|
| 2.8 V | 25 | 19.83 |  | 4.44  |  |  |
| 4.35V | 25 | 15.83 |  | 28.93 |  |  |

| FDD LTE Band 12 |                  |                          |             |                          |             |         |
|-----------------|------------------|--------------------------|-------------|--------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation      |             |                          |             | Verdict |
| Power (V)       | Temperature (°C) | QPSK 10MHz               |             | 16QAM 10MHz              |             |         |
|                 |                  | Middle channel 707.5 MHz |             | Middle channel 707.5 MHz |             |         |
|                 |                  | Value (Hz)               | Limits (Hz) | Value (Hz)               | Limits (Hz) |         |
| 3.8 V           | -20              | --                       | ±1768.75    | --                       | ±1768.75    | PASS    |
|                 | -15              | --                       |             | --                       |             |         |
|                 | -10              | --                       |             | --                       |             |         |
|                 | 0                | 25.13                    |             | 25.74                    |             |         |
|                 | 10               | 25.06                    |             | 28.31                    |             |         |
|                 | 20               | -7.00                    |             | 7.15                     |             |         |
|                 | 25               | -1.32                    |             | -1.22                    |             |         |
|                 | 30               | 15.65                    |             | 25.30                    |             |         |
|                 | 40               | 28.66                    |             | 29.96                    |             |         |
|                 | 50               | --                       |             | --                       |             |         |
| 2.8 V           | 25               | 19.38                    |             | 3.74                     |             |         |
| 4.35V           | 25               | 16.74                    |             | 28.37                    |             |         |

| FDD LTE Band 13 |                  |                        |             |                        |             |         |
|-----------------|------------------|------------------------|-------------|------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation    |             |                        |             | Verdict |
| Power (V)       | Temperature (°C) | QPSK 10MHz             |             | 16QAM 10MHz            |             |         |
|                 |                  | Middle channel 782 MHz |             | Middle channel 782 MHz |             |         |
|                 |                  | Value (Hz)             | Limits (Hz) | Value (Hz)             | Limits (Hz) |         |
| 3.8 V           | -20              | --                     | ±1955       | --                     | ±1955       | PASS    |
|                 | -15              | --                     |             | --                     |             |         |
|                 | -10              | --                     |             | --                     |             |         |
|                 | 0                | 26.80                  |             | 21.23                  |             |         |
|                 | 10               | 15.31                  |             | 29.41                  |             |         |
|                 | 20               | -0.53                  |             | -3.02                  |             |         |
|                 | 25               | 24.59                  |             | 4.15                   |             |         |
|                 | 30               | 26.76                  |             | -4.28                  |             |         |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 79 of 101

|       |    |       |  |       |  |  |
|-------|----|-------|--|-------|--|--|
|       | 40 | 21.39 |  | 14.50 |  |  |
|       | 50 | --    |  | --    |  |  |
| 2.8 V | 25 | -0.98 |  | 1.44  |  |  |
| 4.35V | 25 | -3.55 |  | 17.13 |  |  |

| FDD LTE Band 17 |                  |                        |             |                        |             |         |
|-----------------|------------------|------------------------|-------------|------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation    |             |                        |             | Verdict |
| Power (V)       | Temperature (°C) | QPSK 10MHz             |             | 16QAM 10MHz            |             |         |
|                 |                  | Middle channel 710 MHz |             | Middle channel 710 MHz |             |         |
|                 |                  | Value (Hz)             | Limits (Hz) | Value (Hz)             | Limits (Hz) |         |
| 3.8 V           | -20              | --                     | ±1775       | --                     | ±1775       | PASS    |
|                 | -15              | --                     |             | --                     |             |         |
|                 | -10              | --                     |             | --                     |             |         |
|                 | 0                | 25.98                  |             | 2.67                   |             |         |
|                 | 10               | -4.92                  |             | 18.32                  |             |         |
|                 | 20               | 19.20                  |             | 27.80                  |             |         |
|                 | 25               | 2.3                    |             | 1.92                   |             |         |
|                 | 30               | 13.30                  |             | 25.90                  |             |         |
|                 | 40               | 11.20                  |             | 24.29                  |             |         |
|                 | 50               | --                     |             | --                     |             |         |
| 2.8 V           | 25               | 4.87                   |             | 21.48                  |             |         |
| 4.35V           | 25               | -8.15                  |             | 16.38                  |             |         |

| FDD LTE Band 25 |                  |                           |             |                           |             |         |
|-----------------|------------------|---------------------------|-------------|---------------------------|-------------|---------|
| Test Conditions |                  | Frequency Deviation       |             |                           |             | Verdict |
| Power (V)       | Temperature (°C) | QPSK 10MHz                |             | 16QAM 10MHz               |             |         |
|                 |                  | Middle channel 1882.5 MHz |             | Middle channel 1882.5 MHz |             |         |
|                 |                  | Value (Hz)                | Limits (Hz) | Value (Hz)                | Limits (Hz) |         |
| 3.8 V           | -20              | --                        | ±4706.25    | --                        | ±4706.25    | PASS    |
|                 | -15              | --                        |             | --                        |             |         |
|                 | -10              | --                        |             | --                        |             |         |
|                 | 0                | -7.05                     |             | 20.89                     |             |         |
|                 | 10               | 14.78                     |             | -7.42                     |             |         |
|                 | 20               | 29.54                     |             | -7.29                     |             |         |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 80 of 101

|                 |                    |                            |                |                            |                |         |
|-----------------|--------------------|----------------------------|----------------|----------------------------|----------------|---------|
|                 | 25                 | 1.13                       |                | 0.72                       |                |         |
|                 | 30                 | 7.84                       |                | -5.11                      |                |         |
|                 | 40                 | -4.42                      |                | 16.46                      |                |         |
|                 | 50                 | --                         |                | --                         |                |         |
| 2.8 V           | 25                 | 10.14                      |                | 22.05                      |                |         |
| 4.35V           | 25                 | 5.36                       |                | 13.02                      |                |         |
| FDD LTE Band 41 |                    |                            |                |                            |                |         |
| Test Conditions |                    | Frequency Deviation        |                |                            |                | Verdict |
| Power<br>(V)    | Temperature<br>(℃) | QPSK 10MHz                 |                | 16QAM 10MHz                |                |         |
|                 |                    | Middle channel<br>2605 MHz |                | Middle channel<br>2605 MHz |                |         |
|                 |                    | Value<br>(Hz)              | Limits<br>(Hz) | Value<br>(Hz)              | Limits<br>(Hz) |         |
| 3.8 V           | -20                | --                         | ±6512.5        | --                         | ±6512.5        | PASS    |
|                 | -15                | --                         |                | --                         |                |         |
|                 | -10                | --                         |                | --                         |                |         |
|                 | 0                  | 20.88                      |                | 28.13                      |                |         |
|                 | 10                 | 20.73                      |                | 3.19                       |                |         |
|                 | 20                 | -4.82                      |                | 22.52                      |                |         |
|                 | 25                 | 0.51                       |                | -1.49                      |                |         |
|                 | 30                 | 28.52                      |                | 28.76                      |                |         |
|                 | 40                 | 19.00                      |                | 5.57                       |                |         |
|                 | 50                 | --                         |                | --                         |                |         |
| 2.8 V           | 25                 | 23.93                      |                | 3.20                       |                |         |
| 4.35V           | 25                 | 7.80                       |                | 23.60                      |                |         |



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 81 of 101

## 5.1.5 Spurious Emission at Antenna Terminals

### Note(s):

1. GSM and EGPRS modes have been verified, and only the worst data with different bandwidth for LTE are shown here.
2. The frequencies of verdict which are marked by "N/A" should be ignored because they are MS carrier frequency.
3. Test plots please refer to the document "Annex No: EXHIBIT C of SHE19020010-03AE.pdf".

### Spurious Emission Measurement Results for GSM/WCDMA/CDMA

| Test Band     | Channel | Refer to Plot <sup>Note 3</sup> | Verdict |
|---------------|---------|---------------------------------|---------|
| GSM 850       | Low     | 1.1                             | PASS    |
|               | Middle  | 1.2                             | PASS    |
|               | High    | 1.3                             | PASS    |
| GSM 1900      | Low     | 2.1                             | PASS    |
|               | Middle  | 2.2                             | PASS    |
|               | High    | 2.3                             | PASS    |
| EDGE 850      | Low     | 3.1                             | PASS    |
|               | Middle  | 3.2                             | PASS    |
|               | High    | 3.3                             | PASS    |
| EDGE 1900     | Low     | 4.1                             | PASS    |
|               | Middle  | 4.2                             | PASS    |
|               | High    | 4.3                             | PASS    |
| WCDMA Band II | Low     | 5.1                             | PASS    |
|               | Middle  | 5.2                             | PASS    |
|               | High    | 5.3                             | PASS    |
| WCDMA Band V  | Low     | 6.1                             | PASS    |
|               | Middle  | 6.2                             | PASS    |
|               | High    | 6.3                             | PASS    |
| CDMA BC0      | Low     | 7.1                             | PASS    |
|               | Middle  | 7.2                             | PASS    |
|               | High    | 7.3                             | PASS    |
| EVDO BC0      | Low     | 8.1                             | PASS    |
|               | Middle  | 8.2                             | PASS    |
|               | High    | 8.3                             | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 82 of 101

## Spurious Emission Measurement Results for LTE

| FDD LTE Band 2 |        |        |                         |                                 |         |
|----------------|--------|--------|-------------------------|---------------------------------|---------|
| Test BW        | CH     | Modul. | RB Set<br>(Size#Offset) | Refer to Plot <sup>Note 3</sup> | Verdict |
| 1.4 MHz        | Low    | QPSK   | RB1#0                   | 9.1                             | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.2                             | PASS    |
|                | Middle | QPSK   | RB1#0                   | 9.3                             | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.4                             | PASS    |
|                | High   | QPSK   | RB1#0                   | 9.5                             | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.6                             | PASS    |
| 3 MHz          | Low    | QPSK   | RB1#0                   | 9.7                             | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.8                             | PASS    |
|                | Middle | QPSK   | RB1#0                   | 9.9                             | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.10                            | PASS    |
|                | High   | QPSK   | RB1#0                   | 9.11                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.12                            | PASS    |
| 5 MHz          | Low    | QPSK   | RB1#0                   | 9.13                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.14                            | PASS    |
|                | Middle | QPSK   | RB1#0                   | 9.15                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.16                            | PASS    |
|                | High   | QPSK   | RB1#0                   | 9.17                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.18                            | PASS    |
| 10 MHz         | Low    | QPSK   | RB1#0                   | 9.19                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.20                            | PASS    |
|                | Middle | QPSK   | RB1#0                   | 9.21                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.22                            | PASS    |
|                | High   | QPSK   | RB1#0                   | 9.23                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.24                            | PASS    |
| 15 MHz         | Low    | QPSK   | RB1#0                   | 9.25                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.26                            | PASS    |
|                | Middle | QPSK   | RB1#0                   | 9.27                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.28                            | PASS    |
|                | High   | QPSK   | RB1#0                   | 9.29                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.30                            | PASS    |
| 20 MHz         | Low    | QPSK   | RB1#0                   | 9.31                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.32                            | PASS    |
|                | Middle | QPSK   | RB1#0                   | 9.33                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.34                            | PASS    |
|                | High   | QPSK   | RB1#0                   | 9.35                            | PASS    |
|                |        | 16QAM  | RB1#0                   | 9.36                            | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 83 of 101

| FDD LTE Band 4 |        |        |                      |                                 |         |
|----------------|--------|--------|----------------------|---------------------------------|---------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 3</sup> | Verdict |
| 1.4 MHz        | Low    | QPSK   | RB1#0                | 10.1                            | PASS    |
|                |        | 16QAM  | RB1#0                | 10.2                            | PASS    |
|                | Middle | QPSK   | RB1#0                | 10.3                            | PASS    |
|                |        | 16QAM  | RB1#0                | 10.4                            | PASS    |
|                | High   | QPSK   | RB1#0                | 10.5                            | PASS    |
|                |        | 16QAM  | RB1#0                | 10.6                            | PASS    |
| 3 MHz          | Low    | QPSK   | RB1#0                | 10.7                            | PASS    |
|                |        | 16QAM  | RB1#0                | 10.8                            | PASS    |
|                | Middle | QPSK   | RB1#0                | 10.9                            | PASS    |
|                |        | 16QAM  | RB1#0                | 10.10                           | PASS    |
|                | High   | QPSK   | RB1#0                | 10.11                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.12                           | PASS    |
| 5 MHz          | Low    | QPSK   | RB1#0                | 10.13                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.14                           | PASS    |
|                | Middle | QPSK   | RB1#0                | 10.15                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.16                           | PASS    |
|                | High   | QPSK   | RB1#0                | 10.17                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.18                           | PASS    |
| 10 MHz         | Low    | QPSK   | RB1#0                | 10.19                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.20                           | PASS    |
|                | Middle | QPSK   | RB1#0                | 10.21                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.22                           | PASS    |
|                | High   | QPSK   | RB1#0                | 10.23                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.24                           | PASS    |
| 15 MHz         | Low    | QPSK   | RB1#0                | 10.25                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.26                           | PASS    |
|                | Middle | QPSK   | RB1#0                | 10.27                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.28                           | PASS    |
|                | High   | QPSK   | RB1#0                | 10.29                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.30                           | PASS    |
| 20 MHz         | Low    | QPSK   | RB1#0                | 10.31                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.32                           | PASS    |
|                | Middle | QPSK   | RB1#0                | 10.33                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.34                           | PASS    |
|                | High   | QPSK   | RB1#0                | 10.35                           | PASS    |
|                |        | 16QAM  | RB1#0                | 10.36                           | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 84 of 101

| FDD LTE Band 5 |        |        |                      |                                 |         |
|----------------|--------|--------|----------------------|---------------------------------|---------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 3</sup> | Verdict |
| 1.4 MHz        | Low    | QPSK   | RB1#0                | 11.1                            | PASS    |
|                |        | 16QAM  | RB1#0                | 11.2                            | PASS    |
|                | Middle | QPSK   | RB1#0                | 11.3                            | PASS    |
|                |        | 16QAM  | RB1#0                | 11.4                            | PASS    |
|                | High   | QPSK   | RB1#0                | 11.5                            | PASS    |
|                |        | 16QAM  | RB1#0                | 11.6                            | PASS    |
| 3 MHz          | Low    | QPSK   | RB1#0                | 11.7                            | PASS    |
|                |        | 16QAM  | RB1#0                | 11.8                            | PASS    |
|                | Middle | QPSK   | RB1#0                | 11.9                            | PASS    |
|                |        | 16QAM  | RB1#0                | 11.10                           | PASS    |
|                | High   | QPSK   | RB1#0                | 11.11                           | PASS    |
|                |        | 16QAM  | RB1#0                | 11.12                           | PASS    |
| 5 MHz          | Low    | QPSK   | RB1#0                | 11.13                           | PASS    |
|                |        | 16QAM  | RB1#0                | 11.14                           | PASS    |
|                | Middle | QPSK   | RB1#0                | 11.15                           | PASS    |
|                |        | 16QAM  | RB1#0                | 11.16                           | PASS    |
|                | High   | QPSK   | RB1#0                | 11.17                           | PASS    |
|                |        | 16QAM  | RB1#0                | 11.18                           | PASS    |
| 10 MHz         | Low    | QPSK   | RB1#0                | 11.19                           | PASS    |
|                |        | 16QAM  | RB1#0                | 11.20                           | PASS    |
|                | Middle | QPSK   | RB1#0                | 11.21                           | PASS    |
|                |        | 16QAM  | RB1#0                | 11.22                           | PASS    |
|                | High   | QPSK   | RB1#0                | 11.23                           | PASS    |
|                |        | 16QAM  | RB1#0                | 11.24                           | PASS    |

| FDD LTE Band 7 |        |        |                      |                                 |         |
|----------------|--------|--------|----------------------|---------------------------------|---------|
| Test BW        | CH     | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 3</sup> | Verdict |
| 5 MHz          | Low    | QPSK   | RB1#0                | 12.1                            | PASS    |
|                |        | 16QAM  | RB1#0                | 12.2                            | PASS    |
|                | Middle | QPSK   | RB1#0                | 12.3                            | PASS    |
|                |        | 16QAM  | RB1#0                | 12.4                            | PASS    |
|                | High   | QPSK   | RB1#0                | 12.5                            | PASS    |
|                |        | 16QAM  | RB1#0                | 12.6                            | PASS    |
| 10 MHz         | Low    | QPSK   | RB1#0                | 12.7                            | PASS    |
|                |        | 16QAM  | RB1#0                | 12.8                            | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 85 of 101

|        |        |       |       |       |      |
|--------|--------|-------|-------|-------|------|
|        | Middle | QPSK  | RB1#0 | 12.9  | PASS |
|        |        | 16QAM | RB1#0 | 12.10 | PASS |
|        | High   | QPSK  | RB1#0 | 12.11 | PASS |
|        |        | 16QAM | RB1#0 | 12.12 | PASS |
| 15 MHz | Low    | QPSK  | RB1#0 | 12.13 | PASS |
|        |        | 16QAM | RB1#0 | 12.14 | PASS |
|        | Middle | QPSK  | RB1#0 | 12.15 | PASS |
|        |        | 16QAM | RB1#0 | 12.16 | PASS |
|        | High   | QPSK  | RB1#0 | 12.17 | PASS |
|        |        | 16QAM | RB1#0 | 12.18 | PASS |
| 20 MHz | Low    | QPSK  | RB1#0 | 12.19 | PASS |
|        |        | 16QAM | RB1#0 | 12.20 | PASS |
|        | Middle | QPSK  | RB1#0 | 12.21 | PASS |
|        |        | 16QAM | RB1#0 | 12.22 | PASS |
|        | High   | QPSK  | RB1#0 | 12.23 | PASS |
|        |        | 16QAM | RB1#0 | 12.24 | PASS |

| FDD LTE Band 12 |        |        |                      |                                 |         |
|-----------------|--------|--------|----------------------|---------------------------------|---------|
| Test BW         | CH     | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 3</sup> | Verdict |
| 1.4 MHz         | Low    | QPSK   | RB1#0                | 13.1                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.2                            | PASS    |
|                 | Middle | QPSK   | RB1#0                | 13.3                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.4                            | PASS    |
|                 | High   | QPSK   | RB1#0                | 13.5                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.6                            | PASS    |
| 3 MHz           | Low    | QPSK   | RB1#0                | 13.7                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.8                            | PASS    |
|                 | Middle | QPSK   | RB1#0                | 13.9                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.10                           | PASS    |
|                 | High   | QPSK   | RB1#0                | 13.11                           | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.12                           | PASS    |
| 5 MHz           | Low    | QPSK   | RB1#0                | 13.13                           | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.14                           | PASS    |
|                 | Middle | QPSK   | RB1#0                | 13.15                           | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.16                           | PASS    |
|                 | High   | QPSK   | RB1#0                | 13.17                           | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.18                           | PASS    |
| 10 MHz          | Low    | QPSK   | RB1#0                | 13.19                           | PASS    |
|                 |        | 16QAM  | RB1#0                | 13.20                           | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 86 of 101

|  |        |       |       |       |      |
|--|--------|-------|-------|-------|------|
|  | Middle | QPSK  | RB1#0 | 13.21 | PASS |
|  |        | 16QAM | RB1#0 | 13.22 | PASS |
|  | High   | QPSK  | RB1#0 | 13.23 | PASS |
|  |        | 16QAM | RB1#0 | 13.24 | PASS |

| FDD LTE Band 13 |        |        |                      |                                 |         |
|-----------------|--------|--------|----------------------|---------------------------------|---------|
| Test BW         | CH     | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 3</sup> | Verdict |
| 5 MHz           | Low    | QPSK   | RB1#0                | 14.1                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 14.2                            | PASS    |
|                 | Middle | QPSK   | RB1#0                | 14.3                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 14.4                            | PASS    |
|                 | High   | QPSK   | RB1#0                | 14.5                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 14.5                            | PASS    |
| 10 MHz          | Low    | QPSK   | --                   | --                              | --      |
|                 |        | 16QAM  | --                   | --                              | --      |
|                 | Middle | QPSK   | RB1#0                | 14.7                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 14.8                            | PASS    |
|                 | High   | QPSK   | --                   | --                              | --      |
|                 |        | 16QAM  | --                   | --                              | --      |

| FDD LTE Band 17 |        |        |                      |                                 |         |
|-----------------|--------|--------|----------------------|---------------------------------|---------|
| Test BW         | CH     | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 3</sup> | Verdict |
| 5 MHz           | Low    | QPSK   | RB1#0                | 15.1                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 15.2                            | PASS    |
|                 | Middle | QPSK   | RB1#0                | 15.3                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 15.4                            | PASS    |
|                 | High   | QPSK   | RB1#0                | 15.5                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 15.6                            | PASS    |
| 10 MHz          | Low    | QPSK   | RB1#0                | 15.7                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 15.8                            | PASS    |
|                 | Middle | QPSK   | RB1#0                | 15.9                            | PASS    |
|                 |        | 16QAM  | RB1#0                | 15.10                           | PASS    |
|                 | High   | QPSK   | RB1#0                | 15.11                           | PASS    |
|                 |        | 16QAM  | RB1#0                | 15.12                           | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 87 of 101

| FDD LTE Band 25 |        |        |                         |                                 |         |
|-----------------|--------|--------|-------------------------|---------------------------------|---------|
| Test BW         | CH     | Modul. | RB Set<br>(Size#Offset) | Refer to Plot <sup>Note 3</sup> | Verdict |
| 1.4 MHz         | Low    | QPSK   | RB1#0                   | 16.1                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.2                            | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 16.3                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.4                            | PASS    |
|                 | High   | QPSK   | RB1#0                   | 16.5                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.6                            | PASS    |
| 3 MHz           | Low    | QPSK   | RB1#0                   | 16.7                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.8                            | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 16.9                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.10                           | PASS    |
|                 | High   | QPSK   | RB1#0                   | 16.11                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.12                           | PASS    |
| 5 MHz           | Low    | QPSK   | RB1#0                   | 16.13                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.14                           | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 16.15                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.16                           | PASS    |
|                 | High   | QPSK   | RB1#0                   | 16.17                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.18                           | PASS    |
| 10 MHz          | Low    | QPSK   | RB1#0                   | 16.19                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.20                           | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 16.21                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.22                           | PASS    |
|                 | High   | QPSK   | RB1#0                   | 16.23                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.24                           | PASS    |
| 15 MHz          | Low    | QPSK   | RB1#0                   | 16.25                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.26                           | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 16.27                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.28                           | PASS    |
|                 | High   | QPSK   | RB1#0                   | 16.29                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.30                           | PASS    |
| 20 MHz          | Low    | QPSK   | RB1#0                   | 16.31                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.32                           | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 16.33                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.34                           | PASS    |
|                 | High   | QPSK   | RB1#0                   | 16.35                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 16.36                           | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 88 of 101

| FDD LTE Band 41 |        |        |                         |                                 |         |
|-----------------|--------|--------|-------------------------|---------------------------------|---------|
| Test BW         | CH     | Modul. | RB Set<br>(Size#Offset) | Refer to Plot <sup>Note 3</sup> | Verdict |
| 5 MHz           | Low    | QPSK   | RB1#0                   | 17.1                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.2                            | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 17.3                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.4                            | PASS    |
|                 | High   | QPSK   | RB1#0                   | 17.5                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.6                            | PASS    |
| 10 MHz          | Low    | QPSK   | RB1#0                   | 17.7                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.8                            | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 17.9                            | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.10                           | PASS    |
|                 | High   | QPSK   | RB1#0                   | 17.11                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.12                           | PASS    |
| 15 MHz          | Low    | QPSK   | RB1#0                   | 17.13                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.14                           | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 17.15                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.16                           | PASS    |
|                 | High   | QPSK   | RB1#0                   | 17.17                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.18                           | PASS    |
| 20 MHz          | Low    | QPSK   | RB1#0                   | 17.19                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.20                           | PASS    |
|                 | Middle | QPSK   | RB1#0                   | 17.21                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.22                           | PASS    |
|                 | High   | QPSK   | RB1#0                   | 17.23                           | PASS    |
|                 |        | 16QAM  | RB1#0                   | 17.24                           | PASS    |



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 89 of 101

## 5.1.6 Band Edge

### Note(s):

1. Test plots please refer to the document "Annex No: EXHIBIT D of SHE19020010-03AE.pdf".

### Band Edge Measurement Results for GSM/WCDMA/CDMA

| Test Band     | Channel | Refer to Plot <sup>Note 1</sup> | Verdict |
|---------------|---------|---------------------------------|---------|
| GSM 850       | Low     | 1.1                             | PASS    |
|               | High    | 1.2                             | PASS    |
| GSM 1900      | Low     | 2.1                             | PASS    |
|               | High    | 2.2                             | PASS    |
| EDGE 850      | Low     | 3.1                             | PASS    |
|               | High    | 3.2                             | PASS    |
| EDGE 1900     | Low     | 4.1                             | PASS    |
|               | High    | 4.2                             | PASS    |
| WCDMA Band II | Low     | 5.1                             | PASS    |
|               | High    | 5.2                             | PASS    |
| WCDMA Band V  | Low     | 6.1                             | PASS    |
|               | High    | 6.2                             | PASS    |
| CDMA BC0      | Low     | 7.1                             | PASS    |
|               | High    | 7.2                             | PASS    |
| EVDO BC0      | Low     | 8.1                             | PASS    |
|               | High    | 8.2                             | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 90 of 101

## Band Edge Measurement Results for LTE

| FDD LTE Band 2 |      |        |                      |                                 |         |
|----------------|------|--------|----------------------|---------------------------------|---------|
| Test BW        | CH   | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 1</sup> | Verdict |
| 1.4 MHz        | Low  | QPSK   | RB1#0                | 9.1                             | PASS    |
|                |      |        | RB6#0                | 9.2                             | PASS    |
|                |      | 16QAM  | RB1#0                | 9.3                             | PASS    |
|                |      |        | RB6#0                | 9.4                             | PASS    |
|                | High | QPSK   | RB1#0                | 9.5                             | PASS    |
|                |      |        | RB6#0                | 9.6                             | PASS    |
|                |      | 16QAM  | RB1#0                | 9.7                             | PASS    |
|                |      |        | RB6#0                | 9.8                             | PASS    |
| 3 MHz          | Low  | QPSK   | RB1#0                | 9.9                             | PASS    |
|                |      |        | RB15#0               | 9.10                            | PASS    |
|                |      | 16QAM  | RB1#0                | 9.11                            | PASS    |
|                |      |        | RB15#0               | 9.12                            | PASS    |
|                | High | QPSK   | RB1#0                | 9.13                            | PASS    |
|                |      |        | RB15#0               | 9.14                            | PASS    |
|                |      | 16QAM  | RB1#0                | 9.15                            | PASS    |
|                |      |        | RB15#0               | 9.16                            | PASS    |
| 5 MHz          | Low  | QPSK   | RB1#0                | 9.17                            | PASS    |
|                |      |        | RB25#0               | 9.18                            | PASS    |
|                |      | 16QAM  | RB1#0                | 9.19                            | PASS    |
|                |      |        | RB25#0               | 9.20                            | PASS    |
|                | High | QPSK   | RB1#0                | 9.21                            | PASS    |
|                |      |        | RB25#0               | 9.22                            | PASS    |
|                |      | 16QAM  | RB1#0                | 9.23                            | PASS    |
|                |      |        | RB25#0               | 9.24                            | PASS    |
| 10 MHz         | Low  | QPSK   | RB1#0                | 9.25                            | PASS    |
|                |      |        | RB50#0               | 9.26                            | PASS    |
|                |      | 16QAM  | RB1#0                | 9.27                            | PASS    |
|                |      |        | RB50#0               | 9.28                            | PASS    |
|                | High | QPSK   | RB1#0                | 9.29                            | PASS    |
|                |      |        | RB50#0               | 9.30                            | PASS    |
|                |      | 16QAM  | RB1#0                | 9.31                            | PASS    |
|                |      |        | RB50#0               | 9.32                            | PASS    |
| 15 MHz         | Low  | QPSK   | RB1#0                | 9.33                            | PASS    |
|                |      |        | RB75#0               | 9.34                            | PASS    |
|                |      | 16QAM  | RB1#0                | 9.35                            | PASS    |
|                |      |        | RB75#0               | 9.36                            | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 91 of 101

|        |      |       |         |      |      |
|--------|------|-------|---------|------|------|
| 20 MHz | High | QPSK  | RB1#0   | 9.37 | PASS |
|        |      |       | RB75#0  | 9.38 | PASS |
|        |      | 16QAM | RB1#0   | 9.39 | PASS |
|        |      |       | RB75#0  | 9.40 | PASS |
|        | Low  | QPSK  | RB1#0   | 9.41 | PASS |
|        |      |       | RB100#0 | 9.42 | PASS |
|        |      | 16QAM | RB1#0   | 9.43 | PASS |
|        |      |       | RB100#0 | 9.44 | PASS |
|        | High | QPSK  | RB1#0   | 9.45 | PASS |
|        |      |       | RB100#0 | 9.46 | PASS |
|        |      | 16QAM | RB1#0   | 9.47 | PASS |
|        |      |       | RB100#0 | 9.48 | PASS |

| FDD LTE Band 4 |      |        |                      |                                 |         |
|----------------|------|--------|----------------------|---------------------------------|---------|
| Test BW        | CH   | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 1</sup> | Verdict |
| 1.4 MHz        | Low  | QPSK   | RB1#0                | 10.1                            | PASS    |
|                |      |        | RB6#0                | 10.2                            | PASS    |
|                |      | 16QAM  | RB1#0                | 10.3                            | PASS    |
|                |      |        | RB6#0                | 10.4                            | PASS    |
|                | High | QPSK   | RB1#0                | 10.5                            | PASS    |
|                |      |        | RB6#0                | 10.6                            | PASS    |
|                |      | 16QAM  | RB1#0                | 10.7                            | PASS    |
|                |      |        | RB6#0                | 10.8                            | PASS    |
| 3 MHz          | Low  | QPSK   | RB1#0                | 10.9                            | PASS    |
|                |      |        | RB15#0               | 10.10                           | PASS    |
|                |      | 16QAM  | RB1#0                | 10.11                           | PASS    |
|                |      |        | RB15#0               | 10.12                           | PASS    |
|                | High | QPSK   | RB1#0                | 10.13                           | PASS    |
|                |      |        | RB15#0               | 10.14                           | PASS    |
|                |      | 16QAM  | RB1#0                | 10.15                           | PASS    |
|                |      |        | RB15#0               | 10.16                           | PASS    |
| 5 MHz          | Low  | QPSK   | RB1#0                | 10.17                           | PASS    |
|                |      |        | RB25#0               | 10.18                           | PASS    |
|                |      | 16QAM  | RB1#0                | 10.19                           | PASS    |
|                |      |        | RB25#0               | 10.20                           | PASS    |
|                | High | QPSK   | RB1#0                | 10.21                           | PASS    |
|                |      |        | RB25#0               | 10.22                           | PASS    |
|                |      | 16QAM  | RB1#0                | 10.23                           | PASS    |
|                |      |        | RB25#0               | 10.24                           | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 92 of 101

|        |      |       |         |       |      |
|--------|------|-------|---------|-------|------|
| 10 MHz | Low  | QPSK  | RB1#0   | 10.25 | PASS |
|        |      |       | RB50#0  | 10.26 | PASS |
|        |      | 16QAM | RB1#0   | 10.27 | PASS |
|        |      |       | RB50#0  | 10.28 | PASS |
|        | High | QPSK  | RB1#0   | 10.29 | PASS |
|        |      |       | RB50#0  | 10.30 | PASS |
|        |      | 16QAM | RB1#0   | 10.31 | PASS |
|        |      |       | RB50#0  | 10.32 | PASS |
| 15 MHz | Low  | QPSK  | RB1#0   | 10.33 | PASS |
|        |      |       | RB75#0  | 10.34 | PASS |
|        |      | 16QAM | RB1#0   | 10.35 | PASS |
|        |      |       | RB75#0  | 10.36 | PASS |
|        | High | QPSK  | RB1#0   | 10.37 | PASS |
|        |      |       | RB75#0  | 10.38 | PASS |
|        |      | 16QAM | RB1#0   | 10.39 | PASS |
|        |      |       | RB75#0  | 10.40 | PASS |
| 20 MHz | Low  | QPSK  | RB1#0   | 10.41 | PASS |
|        |      |       | RB100#0 | 10.42 | PASS |
|        |      | 16QAM | RB1#0   | 10.43 | PASS |
|        |      |       | RB100#0 | 10.44 | PASS |
|        | High | QPSK  | RB1#0   | 10.45 | PASS |
|        |      |       | RB100#0 | 10.46 | PASS |
|        |      | 16QAM | RB1#0   | 10.47 | PASS |
|        |      |       | RB100#0 | 10.48 | PASS |

| FDD LTE Band 5 |      |        |                         |                                 |         |
|----------------|------|--------|-------------------------|---------------------------------|---------|
| Test BW        | CH   | Modul. | RB Set<br>(Size#Offset) | Refer to Plot <sup>Note 1</sup> | Verdict |
| 1.4 MHz        | Low  | QPSK   | RB1#0                   | 11.1                            | PASS    |
|                |      |        | RB6#0                   | 11.2                            | PASS    |
|                |      | 16QAM  | RB1#0                   | 11.3                            | PASS    |
|                |      |        | RB6#0                   | 11.4                            | PASS    |
|                | High | QPSK   | RB1#0                   | 11.5                            | PASS    |
|                |      |        | RB6#0                   | 11.6                            | PASS    |
|                |      | 16QAM  | RB1#0                   | 11.7                            | PASS    |
|                |      |        | RB6#0                   | 11.8                            | PASS    |
| 3 MHz          | Low  | QPSK   | RB1#0                   | 11.9                            | PASS    |
|                |      |        | RB15#0                  | 11.10                           | PASS    |
|                |      | 16QAM  | RB1#0                   | 11.11                           | PASS    |
|                |      |        | RB15#0                  | 11.12                           | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 93 of 101

|        |      |       |        |       |      |
|--------|------|-------|--------|-------|------|
| 5 MHz  | High | QPSK  | RB1#0  | 11.13 | PASS |
|        |      |       | RB15#0 | 11.14 | PASS |
|        |      | 16QAM | RB1#0  | 11.15 | PASS |
|        |      |       | RB15#0 | 11.16 | PASS |
|        | Low  | QPSK  | RB1#0  | 11.17 | PASS |
|        |      |       | RB25#0 | 11.18 | PASS |
|        |      | 16QAM | RB1#0  | 11.19 | PASS |
|        |      |       | RB25#0 | 11.20 | PASS |
| 10 MHz | High | QPSK  | RB1#0  | 11.21 | PASS |
|        |      |       | RB25#0 | 11.22 | PASS |
|        |      | 16QAM | RB1#0  | 11.23 | PASS |
|        |      |       | RB25#0 | 11.24 | PASS |
|        | Low  | QPSK  | RB1#0  | 11.25 | PASS |
|        |      |       | RB50#0 | 11.26 | PASS |
|        |      | 16QAM | RB1#0  | 11.27 | PASS |
|        |      |       | RB50#0 | 11.28 | PASS |

| FDD LTE Band 7 |      |        |                      |                                 |         |
|----------------|------|--------|----------------------|---------------------------------|---------|
| Test BW        | CH   | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 1</sup> | Verdict |
| 5 MHz          | Low  | QPSK   | RB1#0                | 12.1                            | PASS    |
|                |      |        | RB25#0               | 12.2                            | PASS    |
|                |      | 16QAM  | RB1#0                | 12.3                            | PASS    |
|                |      |        | RB25#0               | 12.4                            | PASS    |
|                | High | QPSK   | RB1#0                | 12.5                            | PASS    |
|                |      |        | RB25#0               | 12.6                            | PASS    |
|                |      | 16QAM  | RB1#0                | 12.7                            | PASS    |
|                |      |        | RB25#0               | 12.8                            | PASS    |
| 10 MHz         | Low  | QPSK   | RB1#0                | 12.9                            | PASS    |
|                |      |        | RB50#0               | 12.10                           | PASS    |
|                |      | 16QAM  | RB1#0                | 12.11                           | PASS    |
|                |      |        | RB50#0               | 12.12                           | PASS    |
|                | High | QPSK   | RB1#0                | 12.13                           | PASS    |
|                |      |        | RB50#0               | 12.14                           | PASS    |
|                |      | 16QAM  | RB1#0                | 12.15                           | PASS    |
|                |      |        | RB50#0               | 12.16                           | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 94 of 101

|        |      |       |         |       |      |
|--------|------|-------|---------|-------|------|
| 15 MHz | Low  | QPSK  | RB1#0   | 12.17 | PASS |
|        |      |       | RB75#0  | 12.18 | PASS |
|        |      | 16QAM | RB1#0   | 12.19 | PASS |
|        |      |       | RB75#0  | 12.20 | PASS |
|        | High | QPSK  | RB1#0   | 12.21 | PASS |
|        |      |       | RB75#0  | 12.22 | PASS |
|        |      | 16QAM | RB1#0   | 12.23 | PASS |
|        |      |       | RB75#0  | 12.24 | PASS |
| 20 MHz | Low  | QPSK  | RB1#0   | 12.25 | PASS |
|        |      |       | RB100#0 | 12.26 | PASS |
|        |      | 16QAM | RB1#0   | 12.27 | PASS |
|        |      |       | RB100#0 | 12.28 | PASS |
|        | High | QPSK  | RB1#0   | 12.29 | PASS |
|        |      |       | RB100#0 | 12.30 | PASS |
|        |      | 16QAM | RB1#0   | 12.31 | PASS |
|        |      |       | RB100#0 | 12.32 | PASS |

| FDD LTE Band 12 |      |        |                      |                                 |         |
|-----------------|------|--------|----------------------|---------------------------------|---------|
| Test BW         | CH   | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 1</sup> | Verdict |
| 1.4 MHz         | Low  | QPSK   | RB1#0                | 13.1                            | PASS    |
|                 |      |        | RB6#0                | 13.2                            | PASS    |
|                 |      | 16QAM  | RB1#0                | 13.3                            | PASS    |
|                 |      |        | RB6#0                | 13.4                            | PASS    |
|                 | High | QPSK   | RB1#0                | 13.5                            | PASS    |
|                 |      |        | RB6#0                | 13.6                            | PASS    |
|                 |      | 16QAM  | RB1#0                | 13.7                            | PASS    |
|                 |      |        | RB6#0                | 13.8                            | PASS    |
| 3 MHz           | Low  | QPSK   | RB1#0                | 13.9                            | PASS    |
|                 |      |        | RB15#0               | 13.10                           | PASS    |
|                 |      | 16QAM  | RB1#0                | 13.11                           | PASS    |
|                 |      |        | RB15#0               | 13.12                           | PASS    |
|                 | High | QPSK   | RB1#0                | 13.13                           | PASS    |
|                 |      |        | RB15#0               | 13.14                           | PASS    |
|                 |      | 16QAM  | RB1#0                | 13.15                           | PASS    |
|                 |      |        | RB15#0               | 13.16                           | PASS    |
| 5 MHz           | Low  | QPSK   | RB1#0                | 13.17                           | PASS    |
|                 |      |        | RB25#0               | 13.18                           | PASS    |
|                 |      | 16QAM  | RB1#0                | 13.19                           | PASS    |
|                 |      |        | RB25#0               | 13.20                           | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 95 of 101

|        |      |       |        |       |      |
|--------|------|-------|--------|-------|------|
| 10 MHz | High | QPSK  | RB1#0  | 13.21 | PASS |
|        |      |       | RB25#0 | 13.22 | PASS |
|        |      | 16QAM | RB1#0  | 13.23 | PASS |
|        |      |       | RB25#0 | 13.24 | PASS |
|        | Low  | QPSK  | RB1#0  | 31.25 | PASS |
|        |      |       | RB50#0 | 13.26 | PASS |
|        |      | 16QAM | RB1#0  | 13.27 | PASS |
|        |      |       | RB50#0 | 13.28 | PASS |
| 10 MHz | High | QPSK  | RB1#0  | 13.29 | PASS |
|        |      |       | RB50#0 | 13.30 | PASS |
|        |      | 16QAM | RB1#0  | 13.31 | PASS |
|        |      |       | RB50#0 | 13.32 | PASS |

## FDD LTE Band 13

| Test BW | CH   | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 1</sup> | Verdict |
|---------|------|--------|----------------------|---------------------------------|---------|
| 5 MHz   | Low  | QPSK   | RB1#0                | 14.1                            | PASS    |
|         |      |        | RB25#0               | 14.2                            | PASS    |
|         |      | 16QAM  | RB1#0                | 14.3                            | PASS    |
|         |      |        | RB25#0               | 14.4                            | PASS    |
|         | High | QPSK   | RB1#0                | 14.5                            | PASS    |
|         |      |        | RB25#0               | 14.6                            | PASS    |
|         |      | 16QAM  | RB1#0                | 14.7                            | PASS    |
|         |      |        | RB25#0               | 14.8                            | PASS    |
| 10 MHz  | Low  | QPSK   | RB1#0                | 14.9                            | PASS    |
|         |      |        | RB50#0               | 14.10                           | PASS    |
|         |      | 16QAM  | RB1#0                | 14.11                           | PASS    |
|         |      |        | RB50#0               | 14.12                           | PASS    |
|         | High | QPSK   | RB1#0                | 14.13                           | PASS    |
|         |      |        | RB50#0               | 14.14                           | PASS    |
|         |      | 16QAM  | RB1#0                | 14.15                           | PASS    |
|         |      |        | RB50#0               | 14.16                           | PASS    |

## FDD LTE Band 17

| Test BW | CH  | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 1</sup> | Verdict |
|---------|-----|--------|----------------------|---------------------------------|---------|
| 5 MHz   | Low | QPSK   | RB1#0                | 15.1                            | PASS    |
|         |     |        | RB25#0               | 15.2                            | PASS    |
|         |     | 16QAM  | RB1#0                | 15.3                            | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 96 of 101

|        |      |       |        |       |      |
|--------|------|-------|--------|-------|------|
| 10 MHz | High | QPSK  | RB25#0 | 15.4  | PASS |
|        |      |       | RB1#0  | 15.5  | PASS |
|        |      | 16QAM | RB25#0 | 15.6  | PASS |
|        |      |       | RB1#0  | 15.7  | PASS |
|        | Low  | QPSK  | RB25#0 | 15.8  | PASS |
|        |      |       | RB1#0  | 15.9  | PASS |
|        |      | 16QAM | RB50#0 | 15.10 | PASS |
|        |      |       | RB1#0  | 15.11 | PASS |
| 10 MHz | High | QPSK  | RB50#0 | 15.12 | PASS |
|        |      |       | RB1#0  | 15.13 | PASS |
|        |      | 16QAM | RB50#0 | 15.14 | PASS |
|        |      |       | RB1#0  | 15.15 | PASS |
|        | Low  | QPSK  | RB50#0 | 15.16 | PASS |
|        |      |       | RB1#0  |       |      |
|        |      | 16QAM | RB50#0 |       |      |
|        |      |       | RB1#0  |       |      |

| FDD LTE Band 25 |      |        |                         |                                 |         |
|-----------------|------|--------|-------------------------|---------------------------------|---------|
| Test BW         | CH   | Modul. | RB Set<br>(Size#Offset) | Refer to Plot <sup>Note 1</sup> | Verdict |
| 1.4 MHz         | Low  | QPSK   | RB1#0                   | 16.1                            | PASS    |
|                 |      |        | RB6#0                   | 16.2                            | PASS    |
|                 |      | 16QAM  | RB1#0                   | 16.3                            | PASS    |
|                 |      |        | RB6#0                   | 16.4                            | PASS    |
|                 | High | QPSK   | RB1#0                   | 16.5                            | PASS    |
|                 |      |        | RB6#0                   | 16.6                            | PASS    |
|                 |      | 16QAM  | RB1#0                   | 16.7                            | PASS    |
|                 |      |        | RB6#0                   | 16.8                            | PASS    |
| 3 MHz           | Low  | QPSK   | RB1#0                   | 16.9                            | PASS    |
|                 |      |        | RB15#0                  | 16.10                           | PASS    |
|                 |      | 16QAM  | RB1#0                   | 16.11                           | PASS    |
|                 |      |        | RB15#0                  | 16.12                           | PASS    |
|                 | High | QPSK   | RB1#0                   | 16.13                           | PASS    |
|                 |      |        | RB15#0                  | 16.14                           | PASS    |
|                 |      | 16QAM  | RB1#0                   | 16.15                           | PASS    |
|                 |      |        | RB15#0                  | 16.16                           | PASS    |
| 5 MHz           | Low  | QPSK   | RB1#0                   | 16.17                           | PASS    |
|                 |      |        | RB25#0                  | 16.18                           | PASS    |
|                 |      | 16QAM  | RB1#0                   | 16.19                           | PASS    |
|                 |      |        | RB25#0                  | 16.20                           | PASS    |
|                 | High | QPSK   | RB1#0                   | 16.21                           | PASS    |
|                 |      |        | RB25#0                  | 16.22                           | PASS    |
|                 |      | 16QAM  | RB1#0                   | 16.23                           | PASS    |



# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 97 of 101

|        |      |       |         |       |      |
|--------|------|-------|---------|-------|------|
|        |      |       | RB25#0  | 16.24 | PASS |
| 10 MHz | Low  | QPSK  | RB1#0   | 16.25 | PASS |
|        |      |       | RB50#0  | 16.26 | PASS |
|        |      | 16QAM | RB1#0   | 16.27 | PASS |
|        |      |       | RB50#0  | 16.28 | PASS |
|        | High | QPSK  | RB1#0   | 16.29 | PASS |
|        |      |       | RB50#0  | 16.30 | PASS |
|        |      | 16QAM | RB1#0   | 16.31 | PASS |
|        |      |       | RB50#0  | 16.32 | PASS |
| 15 MHz | Low  | QPSK  | RB1#0   | 16.33 | PASS |
|        |      |       | RB75#0  | 16.34 | PASS |
|        |      | 16QAM | RB1#0   | 16.35 | PASS |
|        |      |       | RB75#0  | 16.36 | PASS |
|        | High | QPSK  | RB1#0   | 16.37 | PASS |
|        |      |       | RB75#0  | 16.38 | PASS |
|        |      | 16QAM | RB1#0   | 16.39 | PASS |
|        |      |       | RB75#0  | 16.40 | PASS |
| 20 MHz | Low  | QPSK  | RB1#0   | 16.41 | PASS |
|        |      |       | RB100#0 | 16.42 | PASS |
|        |      | 16QAM | RB1#0   | 16.43 | PASS |
|        |      |       | RB100#0 | 16.44 | PASS |
|        | High | QPSK  | RB1#0   | 16.45 | PASS |
|        |      |       | RB100#0 | 16.46 | PASS |
|        |      | 16QAM | RB1#0   | 16.47 | PASS |
|        |      |       | RB100#0 | 16.48 | PASS |

## FDD LTE Band 41

| Test BW | CH   | Modul. | RB Set<br>(Size#Offset) | Refer to Plot <sup>Note 1</sup> | Verdict |
|---------|------|--------|-------------------------|---------------------------------|---------|
| 5 MHz   | Low  | QPSK   | RB1#0                   | 17.1                            | PASS    |
|         |      |        | RB25#0                  | 17.2                            | PASS    |
|         |      | 16QAM  | RB1#0                   | 17.3                            | PASS    |
|         |      |        | RB25#0                  | 17.4                            | PASS    |
|         | High | QPSK   | RB1#0                   | 17.5                            | PASS    |
|         |      |        | RB25#0                  | 17.6                            | PASS    |
|         |      | 16QAM  | RB1#0                   | 17.7                            | PASS    |
|         |      |        | RB25#0                  | 17.8                            | PASS    |
| 10 MHz  | Low  | QPSK   | RB1#0                   | 17.9                            | PASS    |
|         |      |        | RB50#0                  | 17.10                           | PASS    |
|         |      | 16QAM  | RB1#0                   | 17.11                           | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 98 of 101

|        |      |       |         |       |      |
|--------|------|-------|---------|-------|------|
|        | High | QPSK  | RB50#0  | 17.12 | PASS |
|        |      |       | RB1#0   | 17.13 | PASS |
|        |      | 16QAM | RB50#0  | 17.14 | PASS |
|        |      |       | RB1#0   | 17.15 | PASS |
|        |      |       | RB50#0  | 17.16 | PASS |
| 15 MHz | Low  | QPSK  | RB1#0   | 17.17 | PASS |
|        |      |       | RB75#0  | 17.18 | PASS |
|        |      | 16QAM | RB1#0   | 17.19 | PASS |
|        |      |       | RB75#0  | 17.20 | PASS |
|        | High | QPSK  | RB1#0   | 17.21 | PASS |
|        |      |       | RB75#0  | 17.22 | PASS |
|        |      | 16QAM | RB1#0   | 17.23 | PASS |
|        |      |       | RB75#0  | 17.24 | PASS |
| 20 MHz | Low  | QPSK  | RB1#0   | 17.25 | PASS |
|        |      |       | RB100#0 | 17.26 | PASS |
|        |      | 16QAM | RB1#0   | 17.27 | PASS |
|        |      |       | RB100#0 | 17.28 | PASS |
|        | High | QPSK  | RB1#0   | 17.29 | PASS |
|        |      |       | RB100#0 | 17.30 | PASS |
|        |      | 16QAM | RB1#0   | 17.31 | PASS |
|        |      |       | RB100#0 | 17.32 | PASS |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 99 of 101

## 5.1.7 Field Strength of Spurious Radiation

### Note(s):

1. GSM and EGPRS modes have been verified, only the worst data with different transmit bandwidth for LTE are shown here.
2. The frequencies of verdict which are marked by "N/A" should be ignored because they are MS carrier frequency.
3. When measurement frequency is above 18GHz, there is only noise floor of test system existing. So that there is no test data above 18GHz in the report.
4. Test plots please refer to the document "Annex No: EXHIBIT E of SHE19020010-03AE.pdf".

### Field Strength of Spurious Radiation Measurement Results for GSM/WCDMA/CDMA

| Test Band     | Channel | Refer to Plot <sup>Note 4</sup> | Verdict |
|---------------|---------|---------------------------------|---------|
| GSM 850       | Low     | 1.1                             | PASS    |
|               | Middle  | 1.2                             | PASS    |
|               | High    | 1.3                             | PASS    |
| GSM 1900      | Low     | 2.1                             | PASS    |
|               | Middle  | 2.2                             | PASS    |
|               | High    | 2.3                             | PASS    |
| EDGE 850      | Low     | 3.1                             | PASS    |
|               | Middle  | 3.2                             | PASS    |
|               | High    | 3.3                             | PASS    |
| EDGE 1900     | Low     | 4.1                             | PASS    |
|               | Middle  | 4.2                             | PASS    |
|               | High    | 4.3                             | PASS    |
| WCDMA Band II | Low     | 5.1                             | PASS    |
|               | Middle  | 5.2                             | PASS    |
|               | High    | 5.3                             | PASS    |
| WCDMA Band V  | Low     | 6.1                             | PASS    |
|               | Middle  | 6.2                             | PASS    |
|               | High    | 6.3                             | PASS    |
| CDMA BC0      | Low     | 7.1                             | PASS    |
|               | Middle  | 7.2                             | PASS    |
|               | High    | 7.3                             | PASS    |
| EVDO BC0      | Low     | 8.1                             | PASS    |
|               | Middle  | 8.2                             | PASS    |
|               | High    | 8.3                             | PASS    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 100 of 101

## Band Edge Measurement Results for LTE

| FDD LTE Band 2 |         |        |                      |                                 |         |
|----------------|---------|--------|----------------------|---------------------------------|---------|
| Test BW        | Channel | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 4</sup> | Verdict |
| 1.4 MHz        | Middle  | QPSK   | RB1#0                | 9.1                             | Pass    |
| 3 MHz          | Middle  | QPSK   | RB1#0                | 9.2                             | Pass    |
| 5 MHz          | Middle  | QPSK   | RB1#0                | 9.3                             | Pass    |
| 10 MHz         | Middle  | QPSK   | RB1#0                | 9.4                             | Pass    |
| 15 MHz         | Middle  | QPSK   | RB1#0                | 9.5                             | Pass    |
| 20 MHz         | Middle  | QPSK   | RB1#0                | 9.6                             | Pass    |

| FDD LTE Band 4 |         |        |                      |                                 |         |
|----------------|---------|--------|----------------------|---------------------------------|---------|
| Test BW        | Channel | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 4</sup> | Verdict |
| 1.4 MHz        | Middle  | QPSK   | RB1#0                | 10.1                            | Pass    |
| 3 MHz          | Middle  | QPSK   | RB1#0                | 10.2                            | Pass    |
| 5 MHz          | Middle  | QPSK   | RB1#0                | 10.3                            | Pass    |
| 10 MHz         | Middle  | QPSK   | RB1#0                | 10.4                            | Pass    |
| 15 MHz         | Middle  | QPSK   | RB1#0                | 10.5                            | Pass    |
| 20 MHz         | Middle  | QPSK   | RB1#0                | 10.6                            | Pass    |

| FDD LTE Band 5 |         |        |                      |                                 |         |
|----------------|---------|--------|----------------------|---------------------------------|---------|
| Test BW        | Channel | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 4</sup> | Verdict |
| 1.4 MHz        | Middle  | QPSK   | RB1#0                | 11.1                            | Pass    |
| 3 MHz          | Middle  | QPSK   | RB1#0                | 11.2                            | Pass    |
| 5 MHz          | Middle  | QPSK   | RB1#0                | 11.3                            | Pass    |
| 10 MHz         | Middle  | QPSK   | RB1#0                | 11.4                            | Pass    |

| FDD LTE Band 7 |         |        |                      |                                 |         |
|----------------|---------|--------|----------------------|---------------------------------|---------|
| Test BW        | Channel | Modul. | RB Set (Size#Offset) | Refer to Plot <sup>Note 4</sup> | Verdict |
| 5 MHz          | Middle  | QPSK   | RB1#0                | 12.1                            | Pass    |
| 10 MHz         | Middle  | QPSK   | RB1#0                | 12.2                            | Pass    |
| 15 MHz         | Middle  | QPSK   | RB1#0                | 12.3                            | Pass    |
| 20 MHz         | Middle  | QPSK   | RB1#0                | 12.4                            | Pass    |

# TEST REPORT

Report No.: SHE19020010-03AE

Date: 2020-05-15

Page 101 of 101

## FDD LTE Band 17

| Test BW | Channel | Modul. | RB Set<br>(Size#Offset) | Refer to Plot <sup>Note 4</sup> | Verdict |
|---------|---------|--------|-------------------------|---------------------------------|---------|
| 5 MHz   | Middle  | QPSK   | RB1#0                   | 13.1                            | Pass    |
| 10 MHz  | Middle  | QPSK   | RB1#0                   | 13.2                            | Pass    |

\*\*\*End of the report\*\*\*