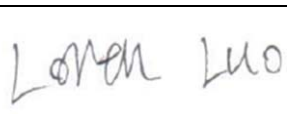
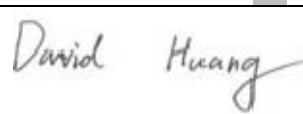


# RF TEST REPORT



Report No.: 17070226-FCC-R5

Supersede Report No.: N/A

|                                                                                                                                      |                                                                                      |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Applicant                                                                                                                            | TECNO MOBILE LIMITED                                                                 |                                                                                       |
| Product Name                                                                                                                         | Mobile phone                                                                         |                                                                                       |
| Model No.                                                                                                                            | WX4 Pro                                                                              |                                                                                       |
| Serial No.                                                                                                                           | N/A                                                                                  |                                                                                       |
| Test Standard                                                                                                                        | FCC Part 22(H):2016, FCC Part 24(E):2016, FCC Part 27: 2016;<br>ANSI/TIA-603-D: 2010 |                                                                                       |
| Test Date                                                                                                                            | March 28 to April 17, 2017                                                           |                                                                                       |
| Issue Date                                                                                                                           | April 17, 2017                                                                       |                                                                                       |
| Test Result                                                                                                                          | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail               |                                                                                       |
| Equipment complied with the specification                                                                                            | <input checked="" type="checkbox"/>                                                  |                                                                                       |
| Equipment did not comply with the specification                                                                                      | <input type="checkbox"/>                                                             |                                                                                       |
|                                                   |   |  |
| Loren Luo<br>Test Engineer                                                                                                           | David Huang<br>Checked By                                                            |                                                                                       |
| This test report may be reproduced in full only<br>Test result presented in this test report is applicable to the tested sample only |                                                                                      |                                                                                       |

Issued by:

**SIEMIC (SHENZHEN-CHINA) LABORATORIES**

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| Country/Region | Scope                              |
|----------------|------------------------------------|
| USA            | EMC, RF/Wireless, SAR, Telecom     |
| Canada         | EMC, RF/Wireless, SAR, Telecom     |
| Taiwan         | EMC, RF, Telecom, SAR, Safety      |
| Hong Kong      | RF/Wireless, SAR, Telecom          |
| Australia      | EMC, RF, Telecom, SAR, Safety      |
| Korea          | EMI, EMS, RF, SAR, Telecom, Safety |
| Japan          | EMI, RF/Wireless, SAR, Telecom     |
| Singapore      | EMC, RF, SAR, Telecom              |
| Europe         | EMC, RF, SAR, Telecom, Safety      |

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## 1. Report Revision History

| Report No.      | Report Version | Description | Issue Date     |
|-----------------|----------------|-------------|----------------|
| 17070226-FCC-R5 | NONE           | Original    | April 17, 2017 |
|                 |                |             |                |
|                 |                |             |                |
|                 |                |             |                |

## 2. Customer information

|                  |                                                                                                                               |
|------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Applicant Name   | TECNO MOBILE LIMITED                                                                                                          |
| Applicant Add    | ROOMS 05-15, 13A/F., SOUTH TOWER, WORLD FINANCE CENTRE,<br>HARBOUR CITY, 17 CANTON ROAD, TSIM SHA TSUI, KOWLOON, HONG<br>KONG |
| Manufacturer     | SHENZHEN TECNO TECHNOLOGY CO.,LTD.                                                                                            |
| Manufacturer Add | 1-4th Floor,3rd Building,Pacific Industrial Park,No.2088,Shenyan Road,Yantian<br>District,Shenzhen,Guangdong,China            |

## 3. Test site information

|                                     |                                                                                                                                              |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Lab performing tests                | SIEMIC (Shenzhen-China) LABORATORIES                                                                                                         |
| Lab Address                         | Zone A, Floor 1, Building 2 Wan Ye Long Technology Park<br>South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China<br>518108 |
| FCC Test Site No.                   | 718246                                                                                                                                       |
| IC Test Site No.                    | 4842E-1                                                                                                                                      |
| Test Software of Radiated Emission  | Radiated Emission Program-To Shenzhen v2.0                                                                                                   |
| Test Software of Conducted Emission | EZ-EMC(ver.lcp-03A1)                                                                                                                         |

## 4. Equipment under Test (EUT) Information

|                      |                                                                                                                                                                                                                   |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description of EUT:  | Mobile phone                                                                                                                                                                                                      |
| Main Model:          | WX4 Pro                                                                                                                                                                                                           |
| Serial Model:        | N/A                                                                                                                                                                                                               |
| Date EUT received:   | March 27, 2017                                                                                                                                                                                                    |
| Test Date(s):        | March 28 to April 17, 2017                                                                                                                                                                                        |
| Equipment Category : | PCE                                                                                                                                                                                                               |
| Antenna Gain:        | GSM850: -0.2dBi<br>PCS1900:1.7dBi<br>UMTS-FDD Band V: -0.2dBi<br>UMTS-FDD Band II:1.7dBi<br>LTE Band II:1.7dBi<br>LTE Band IV:1.7dBi<br>LTE Band VII:2.5dBi<br>WIFI:2.0dBi<br>Bluetooth/BLE:2.0dBi<br>GPS: 1.7dBi |
| Antenna Type:        | PIFA antenna                                                                                                                                                                                                      |
| Type of Modulation:  | GSM / GPRS: GMSK<br>EGPRS: GMSK,8PSK<br>UMTS-FDD: QPSK<br>LTE Band: QPSK, 16QAM<br>802.11b/g/n: DSSS, OFDM<br>Bluetooth: GFSK, $\pi/4$ DQPSK, 8DPSK<br>BLE: GFSK<br>GPS:BPSK                                      |

|                               |                                                                |
|-------------------------------|----------------------------------------------------------------|
|                               | GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz            |
|                               | PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz       |
|                               | UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz   |
|                               | UMTS-FDD Band II TX: 1852.4 ~ 1907.6 MHz;                      |
|                               | RX: 1932.4 ~ 1987.6 MHz                                        |
| RF Operating Frequency (ies): | LTE Band II TX: 1850.7~ 1909.3 MHz; RX : 1930.7 ~ 1989.3 MHz   |
|                               | LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7 ~ 2154.3 MHz  |
|                               | LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz |
|                               | WIFI: 802.11b/g/n(20M): 2412-2462 MHz                          |
|                               | WIFI: 802.11n(40M): 2422-2452 MHz                              |
|                               | Bluetooth& BLE: 2402-2480 MHz                                  |
|                               | GPS: 1575.42 MHz                                               |
|                               | GSM 850: 124CH                                                 |
|                               | PCS1900: 299CH                                                 |
|                               | UMTS-FDD Band V : 102CH                                        |
|                               | UMTS-FDD Band II : 277CH                                       |
| Number of Channels:           | WIFI :802.11b/g/n(20M): 11CH                                   |
|                               | WIFI :802.11n(40M): 7CH                                        |
|                               | Bluetooth: 79CH                                                |
|                               | BLE: 40CH                                                      |
|                               | GPS:1CH                                                        |
| Maximum Conducted             | LTE band II: 23.15 dBm                                         |
| AV Power to Antenna:          | LTE band IV: 23.06 dBm                                         |
|                               | LTE band VII: 23.32 dBm                                        |
|                               | LTE band II: 24.85 dBm / EIRP                                  |
| ERP/EIRP:                     | LTE band IV: 24.80 dBm / EIRP                                  |
|                               | LTE band VII: 25.82 dBm / EIRP                                 |
| Port:                         | USB Port, Earphone Port                                        |

Input Power: Adapter:  
Model:A8-501000  
Input: AC100-240V~50/60Hz,200mA  
Output: DC 5.0V,1.0A  
Battery:  
Model:BL-28BT  
Spec:3.85V,10.78Wh,2800mAh  
Limited charge voltage:4.4V

Trade Name : TECNO

GPRS/EGPRS Multi-slot class 8/10/12

FCC ID: 2ADYY-WX4PRO



## 5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

| FCC Rules                                                         | Description of Test                                                    | Result     |
|-------------------------------------------------------------------|------------------------------------------------------------------------|------------|
| § 1.1307; § 2.1093                                                | RF Exposure (SAR)                                                      | Compliance |
| §2.1046; § 22.913(a); § 24.232(c);<br>§ 27.50(c.10); § 27.50(d.4) | RF Output Power                                                        | Compliance |
| § 24.232 (d); § 27.50(d)                                          | Peak-Average Ratio                                                     | Compliance |
| § 2.1049; § 22.905; § 22.917;<br>§ 24.238; § 27.53(a.5)           | 99% & -26 dB Occupied Bandwidth                                        | Compliance |
| § 2.1051; § 22.917(a);<br>§ 24.238(a); § 27.53(h)                 | Spurious Emissions at Antenna Terminal                                 | Compliance |
| § 2.1053; § 22.917(a);<br>§ 24.238(a); § 27.53(h)                 | Field Strength of Spurious Radiation                                   | Compliance |
| § 22.917(a); § 24.238(a);                                         | Out of band emission, Band Edge                                        | Compliance |
| § 27.53(m)                                                        | Band Edge 27.53(m)                                                     | Compliance |
| § 2.1055; § 22.355; § 24.235;<br>§ 27.5(h); § 27.54               | Frequency stability vs. temperature<br>Frequency stability vs. voltage | Compliance |

Note: Testing was performed by configuring EUT to maximum output power status, the declared output power class for different

### Measurement Uncertainty

| Emissions                                    |                                                                                                                                                 |               |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Test Item                                    | Description                                                                                                                                     | Uncertainty   |
| Band Edge and Radiated<br>Spurious Emissions | Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m) | +5.6dB/-4.5dB |
| -                                            | -                                                                                                                                               | -             |

## **6. MEASUREMENTS, EXAMINATION AND DERIVED RESULTS**

### **6.1 RF Exposure (SAR)**

Test Result: Pass

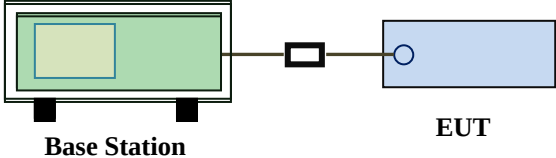
The EUT is a portable device, thus requires SAR evaluation;  
Please refer to RF Exposure Evaluation Report: 17070226-FCC-H.

## 6.2 RF Output Power

|                      |                |
|----------------------|----------------|
| Temperature          | 22°C           |
| Relative Humidity    | 53%            |
| Atmospheric Pressure | 1010mbar       |
| Test date :          | April 13, 2017 |
| Tested By :          | Loren Luo      |

### Requirement(s):

| Spec        | Item | Requirement  | Applicable                          |
|-------------|------|--------------|-------------------------------------|
| §22.913 (a) | a)   | ERP:38.45dBm | <input checked="" type="checkbox"/> |
| §24.232 (c) | b)   | EIRP:33dBm   | <input checked="" type="checkbox"/> |
| §27.50 (c)  | c)   | EIRP: 30dBm  | <input checked="" type="checkbox"/> |

|            |                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Setup |  <p style="text-align: center;"><b>Base Station</b>                      <b>EUT</b></p> |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Procedure | <p>For Conducted Power:</p> <ul style="list-style-type: none"> <li>- The transmitter output port was connected to base station.</li> <li>- Set EUT at maximum power through base station.</li> <li>- Select lowest, middle, and highest channels for each band and different test mode.</li> </ul> <p>For ERP/EIRP:</p> <ul style="list-style-type: none"> <li>- The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.</li> <li>- The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.</li> <li>- The frequency range up to tenth harmonic of the fundamental frequency was investigated.</li> </ul> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | <ul style="list-style-type: none"> <li>- Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.</li> <li>- Spurious emissions in dB = <math>10 \log (\text{TX power in Watts}/0.001)</math> – the absolute level</li> <li>- Spurious attenuation limit in dB = <math>43 + 10 \text{ Log}_{10} (\text{power out in Watts})</math>.</li> </ul> |
| Remark |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

Test Data ☒ Yes ☐ N/A  
 Test Plot ☐ Yes (See below) ☒ N/A

## Conducted Power

LTE Band II:

| BW (MHz) | Ch    | Freq. (MHz) | Mode  | UL RB Allocation | UL RB Offset | MPR | Average power (dBm) | Tune up Power tolerant |
|----------|-------|-------------|-------|------------------|--------------|-----|---------------------|------------------------|
| 20MHz    | 18700 | 1860.0      | QPSK  | 1                | 0            | 0   | 22.98               | 22 ± 1                 |
|          |       |             |       | 1                | 49           | 0   | 22.99               | 22 ± 1                 |
|          |       |             |       | 1                | 99           | 0   | 22.95               | 22 ± 1                 |
|          |       |             |       | 50               | 0            | 1   | 21.92               | 22 ± 1                 |
|          |       |             |       | 50               | 24           | 1   | 21.93               | 22 ± 1                 |
|          |       |             |       | 50               | 49           | 1   | 21.89               | 22 ± 1                 |
|          |       |             | 16QAM | 100              | 0            | 1   | 21.91               | 22 ± 1                 |
|          |       |             |       | 1                | 0            | 1   | 21.9                | 21.5 ± 1               |
|          |       |             |       | 1                | 49           | 1   | 21.89               | 21.5 ± 1               |
|          |       |             |       | 1                | 99           | 1   | 21.87               | 21.5 ± 1               |
|          |       |             |       | 50               | 0            | 2   | 21.93               | 21.5 ± 1               |
|          |       |             |       | 50               | 24           | 2   | 21.92               | 21.5 ± 1               |
|          |       |             |       | 50               | 49           | 2   | 21.9                | 21.5 ± 1               |
|          |       |             |       | 100              | 0            | 2   | 20.93               | 21.5 ± 1               |
|          | 18900 | 1880.0      | QPSK  | 1                | 0            | 0   | 22.91               | 22.5 ± 1               |
|          |       |             |       | 1                | 49           | 0   | 22.93               | 22.5 ± 1               |
|          |       |             |       | 1                | 99           | 0   | 22.95               | 22.5 ± 1               |
|          |       |             |       | 50               | 0            | 1   | 22.03               | 22.5 ± 1               |
|          |       |             |       | 50               | 24           | 1   | 22.03               | 22.5 ± 1               |
|          |       |             |       | 50               | 49           | 1   | 22.01               | 22.5 ± 1               |
|          |       |             | 16QAM | 100              | 0            | 1   | 21.96               | 22.5 ± 1               |
|          |       |             |       | 1                | 0            | 1   | 22.15               | 21.3 ± 1               |
|          |       |             |       | 1                | 49           | 1   | 22.14               | 21.3 ± 1               |
|          |       |             |       | 1                | 99           | 1   | 22.18               | 21.3 ± 1               |
|          |       |             |       | 50               | 0            | 2   | 21.96               | 21.3 ± 1               |
|          |       |             |       | 50               | 24           | 2   | 21.97               | 21.3 ± 1               |
|          |       |             |       | 50               | 49           | 2   | 21.93               | 21.3 ± 1               |
|          |       |             |       | 100              | 0            | 2   | 20.99               | 21.3 ± 1               |
|          | 19100 | 1900.0      | QPSK  | 1                | 0            | 0   | 23.14               | 22.5 ± 1               |
|          |       |             |       | 1                | 49           | 0   | <b>23.15</b>        | 22.5 ± 1               |
|          |       |             |       | 1                | 99           | 0   | 23.11               | 22.5 ± 1               |
|          |       |             |       | 50               | 0            | 1   | 22.03               | 22.5 ± 1               |
|          |       |             |       | 50               | 24           | 1   | 22.05               | 22.5 ± 1               |
|          |       |             |       | 50               | 49           | 1   | 22.06               | 22.5 ± 1               |
|          |       |             | 16QAM | 100              | 0            | 1   | 22.02               | 22.5 ± 1               |
|          |       |             |       | 1                | 0            | 1   | 22.46               | 22 ± 1                 |
|          |       |             |       | 1                | 49           | 1   | 22.45               | 22 ± 1                 |
|          |       |             |       | 1                | 99           | 1   | 22.41               | 22 ± 1                 |
|          |       |             |       | 50               | 0            | 2   | 22.05               | 22 ± 1                 |
|          |       |             |       | 50               | 24           | 2   | 22.04               | 22 ± 1                 |
|          |       |             |       | 50               | 49           | 2   | 22.03               | 22 ± 1                 |
|          |       |             |       | 100              | 0            | 2   | 21.02               | 22 ± 1                 |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 15MHz       | 18675 | 1857.5         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22 ± 1                       |
|             |       |                |       | 1                   | 37              | 0   | 22.96                     | 22 ± 1                       |
|             |       |                |       | 1                   | 74              | 0   | 22.93                     | 22 ± 1                       |
|             |       |                |       | 36                  | 0               | 1   | 21.93                     | 22 ± 1                       |
|             |       |                |       | 36                  | 16              | 1   | 21.93                     | 22 ± 1                       |
|             |       |                |       | 36                  | 35              | 1   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 75                  | 0               | 1   | 21.9                      | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.77                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 37              | 1   | 21.75                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 74              | 1   | 21.74                     | 21.3 ± 1                     |
|             |       |                |       | 36                  | 0               | 2   | 21.93                     | 21.3 ± 1                     |
|             |       |                |       | 36                  | 16              | 2   | 21.95                     | 21.3 ± 1                     |
|             |       |                |       | 36                  | 35              | 2   | 21.92                     | 21.3 ± 1                     |
|             |       |                |       | 75                  | 0               | 2   | 20.95                     | 21.3 ± 1                     |
|             | 18900 | 1880.0         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 37              | 0   | 22.99                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 74              | 0   | 22.95                     | 22.5 ± 1                     |
|             |       |                |       | 36                  | 0               | 1   | 22.01                     | 22.5 ± 1                     |
|             |       |                |       | 36                  | 16              | 1   | 22.03                     | 22.5 ± 1                     |
|             |       |                |       | 36                  | 35              | 1   | 22.04                     | 22.5 ± 1                     |
|             |       |                |       | 75                  | 0               | 1   | 21.98                     | 22.5 ± 1                     |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.19                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 37              | 1   | 22.15                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 74              | 1   | 22.17                     | 21.3 ± 1                     |
|             |       |                |       | 36                  | 0               | 2   | 22.02                     | 21.3 ± 1                     |
|             |       |                |       | 36                  | 16              | 2   | 22.03                     | 21.3 ± 1                     |
|             |       |                |       | 36                  | 35              | 2   | 22.04                     | 21.3 ± 1                     |
|             |       |                |       | 75                  | 0               | 2   | 20.97                     | 21.3 ± 1                     |
|             | 19125 | 1902.5         | QPSK  | 1                   | 0               | 0   | 22.97                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 37              | 0   | 22.96                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 74              | 0   | 22.99                     | 22.5 ± 1                     |
|             |       |                |       | 36                  | 0               | 1   | 21.99                     | 22.5 ± 1                     |
|             |       |                |       | 36                  | 16              | 1   | 21.95                     | 22.5 ± 1                     |
|             |       |                |       | 36                  | 35              | 1   | 21.99                     | 22.5 ± 1                     |
|             |       |                |       | 75                  | 0               | 1   | 21.96                     | 22.5 ± 1                     |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.57                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 37              | 1   | 22.56                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 74              | 1   | 22.54                     | 22.5 ± 1                     |
|             |       |                |       | 36                  | 0               | 2   | 21.96                     | 22.5 ± 1                     |
|             |       |                |       | 36                  | 16              | 2   | 21.93                     | 22.5 ± 1                     |
|             |       |                |       | 36                  | 35              | 2   | 21.94                     | 22.5 ± 1                     |
|             |       |                |       | 75                  | 0               | 2   | 22.99                     | 22.5 ± 1                     |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 10MHz       | 18650 | 1855           | QPSK  | 1                   | 0               | 0   | 22.96                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 24              | 0   | 22.95                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 49              | 0   | 22.94                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 0               | 1   | 21.84                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 12              | 1   | 21.85                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 24              | 1   | 21.83                     | 22.5 ± 1                     |
|             |       |                |       | 50                  | 0               | 1   | 21.87                     | 22.5 ± 1                     |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.73                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 24              | 1   | 21.75                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 49              | 1   | 21.74                     | 21.3 ± 1                     |
|             |       |                |       | 25                  | 0               | 2   | 21.84                     | 21.3 ± 1                     |
|             |       |                |       | 25                  | 12              | 2   | 21.85                     | 21.3 ± 1                     |
|             |       |                |       | 25                  | 24              | 2   | 21.88                     | 21.3 ± 1                     |
|             |       |                |       | 50                  | 0               | 2   | 20.91                     | 21.3 ± 1                     |
|             | 18900 | 1880.0         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 24              | 0   | 22.92                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 49              | 0   | 22.92                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 0               | 1   | 21.89                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 12              | 1   | 21.88                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 24              | 1   | 21.86                     | 22.5 ± 1                     |
|             |       |                |       | 50                  | 0               | 1   | 21.93                     | 22.5 ± 1                     |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.82                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 24              | 1   | 21.86                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 49              | 1   | 21.85                     | 21.3 ± 1                     |
|             |       |                |       | 25                  | 0               | 2   | 20.76                     | 21.3 ± 1                     |
|             |       |                |       | 25                  | 12              | 2   | 20.74                     | 21.3 ± 1                     |
|             |       |                |       | 25                  | 24              | 2   | 20.73                     | 21.3 ± 1                     |
|             |       |                |       | 50                  | 0               | 2   | 20.98                     | 21.3 ± 1                     |
|             | 19150 | 1905           | QPSK  | 1                   | 0               | 0   | 22.94                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 24              | 0   | 22.95                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 49              | 0   | 22.96                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 0               | 1   | 21.95                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 12              | 1   | 21.95                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 24              | 1   | 21.94                     | 22.5 ± 1                     |
|             |       |                |       | 50                  | 0               | 1   | 21.94                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.52                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 1   | 22.54                     | 22 ± 1                       |
|             |       |                |       | 1                   | 49              | 1   | 22.53                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 2   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 25                  | 12              | 2   | 21.99                     | 22 ± 1                       |
|             |       |                |       | 25                  | 24              | 2   | 21.93                     | 22 ± 1                       |
|             |       |                |       | 50                  | 0               | 2   | 21.00                     | 22 ± 1                       |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 5MHz        | 18625 | 1852.5         | QPSK  | 1                   | 0               | 0   | 22.96                     | 22 ± 1                       |
|             |       |                |       | 1                   | 12              | 0   | 22.94                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 0   | 22.98                     | 22 ± 1                       |
|             |       |                |       | 12                  | 0               | 1   | 21.91                     | 22 ± 1                       |
|             |       |                |       | 12                  | 6               | 1   | 21.91                     | 22 ± 1                       |
|             |       |                |       | 12                  | 11              | 1   | 21.91                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 1   | 21.85                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.00                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 12              | 1   | 22.02                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 24              | 1   | 22.05                     | 21.3 ± 1                     |
|             |       |                |       | 12                  | 0               | 2   | 21.91                     | 21.3 ± 1                     |
|             |       |                |       | 12                  | 6               | 2   | 21.92                     | 21.3 ± 1                     |
|             |       |                |       | 12                  | 11              | 2   | 21.94                     | 21.3 ± 1                     |
|             |       |                |       | 25                  | 0               | 2   | 21.01                     | 21.3 ± 1                     |
|             | 18900 | 1880.0         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22.3 ± 1                     |
|             |       |                |       | 1                   | 12              | 0   | 22.96                     | 22.3 ± 1                     |
|             |       |                |       | 1                   | 24              | 0   | 22.98                     | 22.3 ± 1                     |
|             |       |                |       | 12                  | 0               | 1   | 22.02                     | 22.3 ± 1                     |
|             |       |                |       | 12                  | 6               | 1   | 22.04                     | 22.3 ± 1                     |
|             |       |                |       | 12                  | 11              | 1   | 22.03                     | 22.3 ± 1                     |
|             |       |                |       | 25                  | 0               | 1   | 21.94                     | 22.3 ± 1                     |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.3                      | 22.3 ± 1                     |
|             |       |                |       | 1                   | 12              | 1   | 22.35                     | 22.3 ± 1                     |
|             |       |                |       | 1                   | 24              | 1   | 22.35                     | 22.3 ± 1                     |
|             |       |                |       | 12                  | 0               | 2   | 22.02                     | 22.3 ± 1                     |
|             |       |                |       | 12                  | 6               | 2   | 22.03                     | 22.3 ± 1                     |
|             |       |                |       | 12                  | 11              | 2   | 22.04                     | 22.3 ± 1                     |
|             |       |                |       | 25                  | 0               | 2   | 21.00                     | 22.3 ± 1                     |
|             | 19175 | 1907.5         | QPSK  | 1                   | 0               | 0   | 22.98                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 12              | 0   | 22.95                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 24              | 0   | 22.94                     | 22.5 ± 1                     |
|             |       |                |       | 12                  | 0               | 1   | 21.98                     | 22.5 ± 1                     |
|             |       |                |       | 12                  | 6               | 1   | 21.95                     | 22.5 ± 1                     |
|             |       |                |       | 12                  | 11              | 1   | 21.96                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 0               | 1   | 21.93                     | 22.5 ± 1                     |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.91                     | 21.5 ± 1                     |
|             |       |                |       | 1                   | 12              | 1   | 21.92                     | 21.5 ± 1                     |
|             |       |                |       | 1                   | 24              | 1   | 21.95                     | 21.5 ± 1                     |
|             |       |                |       | 12                  | 0               | 2   | 21.98                     | 21.5 ± 1                     |
|             |       |                |       | 12                  | 6               | 2   | 21.96                     | 21.5 ± 1                     |
|             |       |                |       | 12                  | 11              | 2   | 21.95                     | 21.5 ± 1                     |
|             |       |                |       | 25                  | 0               | 2   | 21.06                     | 21.5 ± 1                     |



| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 3MHz        | 18625 | 1852.5         | QPSK  | 1                   | 0               | 0   | 22.9                      | 22.3±1                       |
|             |       |                |       | 1                   | 7               | 0   | 22.95                     | 22.3±1                       |
|             |       |                |       | 1                   | 14              | 0   | 22.94                     | 22.3±1                       |
|             |       |                |       | 8                   | 0               | 1   | 21.80                     | 22.3±1                       |
|             |       |                |       | 8                   | 4               | 1   | 21.86                     | 22.3±1                       |
|             |       |                |       | 8                   | 7               | 1   | 21.84                     | 22.3±1                       |
|             |       |                |       | 15                  | 0               | 1   | 21.83                     | 22.3±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.67                     | 21±1                         |
|             |       |                |       | 1                   | 7               | 1   | 21.65                     | 21±1                         |
|             |       |                |       | 1                   | 14              | 1   | 21.69                     | 21±1                         |
|             |       |                |       | 8                   | 0               | 2   | 20.82                     | 21±1                         |
|             |       |                |       | 8                   | 4               | 2   | 20.86                     | 21±1                         |
|             |       |                |       | 8                   | 7               | 2   | 20.84                     | 21±1                         |
|             |       |                |       | 15                  | 0               | 2   | 20.81                     | 21±1                         |
|             | 18900 | 1880.0         | QPSK  | 1                   | 0               | 0   | 22.98                     | 22.5±1                       |
|             |       |                |       | 1                   | 7               | 0   | 22.95                     | 22.5±1                       |
|             |       |                |       | 1                   | 14              | 0   | 22.94                     | 22.5±1                       |
|             |       |                |       | 8                   | 0               | 1   | 21.89                     | 22.5±1                       |
|             |       |                |       | 8                   | 4               | 1   | 21.84                     | 22.5±1                       |
|             |       |                |       | 8                   | 7               | 1   | 21.85                     | 22.5±1                       |
|             |       |                |       | 15                  | 0               | 1   | 21.93                     | 22.5±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.82                     | 21.3±1                       |
|             |       |                |       | 1                   | 7               | 1   | 21.85                     | 21.3±1                       |
|             |       |                |       | 1                   | 14              | 1   | 21.84                     | 21.3±1                       |
|             |       |                |       | 8                   | 0               | 2   | 20.76                     | 21.3±1                       |
|             |       |                |       | 8                   | 4               | 2   | 20.74                     | 21.3±1                       |
|             |       |                |       | 8                   | 7               | 2   | 20.75                     | 21.3±1                       |
|             |       |                |       | 15                  | 0               | 2   | 20.98                     | 21.3±1                       |
|             | 19175 | 1907.5         | QPSK  | 1                   | 0               | 0   | 22.82                     | 22.5±1                       |
|             |       |                |       | 1                   | 7               | 0   | 22.85                     | 22.5±1                       |
|             |       |                |       | 1                   | 14              | 0   | 22.84                     | 22.5±1                       |
|             |       |                |       | 8                   | 0               | 1   | 21.89                     | 22.5±1                       |
|             |       |                |       | 8                   | 4               | 1   | 21.85                     | 22.5±1                       |
|             |       |                |       | 8                   | 7               | 1   | 21.85                     | 22.5±1                       |
|             |       |                |       | 15                  | 0               | 1   | 21.90                     | 22.5±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.38                     | 22.5±1                       |
|             |       |                |       | 1                   | 7               | 1   | 22.36                     | 22.5±1                       |
|             |       |                |       | 1                   | 14              | 1   | 22.34                     | 22.5±1                       |
|             |       |                |       | 8                   | 0               | 2   | 20.89                     | 22.5±1                       |
|             |       |                |       | 8                   | 4               | 2   | 20.88                     | 22.5±1                       |
|             |       |                |       | 8                   | 7               | 2   | 20.86                     | 22.5±1                       |
|             |       |                |       | 15                  | 0               | 2   | 21.02                     | 22.5±1                       |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 1.4MHz      | 18607 | 1850.7         | QPSK  | 1                   | 0               | 0   | 22.91                     | 22.5±1                       |
|             |       |                |       | 1                   | 2               | 0   | 22.92                     | 22.5±1                       |
|             |       |                |       | 1                   | 5               | 0   | 22.95                     | 22.5±1                       |
|             |       |                |       | 3                   | 0               | 0   | 22.98                     | 22.5±1                       |
|             |       |                |       | 3                   | 1               | 0   | 22.98                     | 22.5±1                       |
|             |       |                |       | 3                   | 2               | 0   | 22.94                     | 22.5±1                       |
|             |       |                |       | 6                   | 0               | 1   | 21.8                      | 22.5±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.66                     | 22.5±1                       |
|             |       |                |       | 1                   | 2               | 1   | 21.69                     | 22.5±1                       |
|             |       |                |       | 1                   | 5               | 1   | 21.66                     | 22.5±1                       |
|             |       |                |       | 3                   | 0               | 1   | 22.99                     | 22.5±1                       |
|             |       |                |       | 3                   | 1               | 1   | 22.98                     | 22.5±1                       |
|             |       |                |       | 3                   | 2               | 1   | 22.94                     | 22.5±1                       |
|             |       |                |       | 6                   | 0               | 2   | 20.8                      | 22.5±1                       |
|             | 18900 | 1880.0         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22.3±1                       |
|             |       |                |       | 1                   | 2               | 0   | 22.94                     | 22.3±1                       |
|             |       |                |       | 1                   | 5               | 0   | 22.99                     | 22.3±1                       |
|             |       |                |       | 3                   | 0               | 0   | 22.95                     | 22.3±1                       |
|             |       |                |       | 3                   | 1               | 0   | 22.94                     | 22.3±1                       |
|             |       |                |       | 3                   | 2               | 0   | 22.91                     | 22.3±1                       |
|             |       |                |       | 6                   | 0               | 1   | 21.9                      | 22.3±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.9                      | 21.3±1                       |
|             |       |                |       | 1                   | 2               | 1   | 21.95                     | 21.3±1                       |
|             |       |                |       | 1                   | 5               | 1   | 21.94                     | 21.3±1                       |
|             |       |                |       | 3                   | 0               | 1   | 22.96                     | 21.3±1                       |
|             |       |                |       | 3                   | 1               | 1   | 22.93                     | 21.3±1                       |
|             |       |                |       | 3                   | 2               | 1   | 22.94                     | 21.3±1                       |
|             |       |                |       | 6                   | 0               | 2   | 20.78                     | 21.3±1                       |
|             | 19193 | 1909.3         | QPSK  | 1                   | 0               | 0   | 22.85                     | 22.3±1                       |
|             |       |                |       | 1                   | 2               | 0   | 22.86                     | 22.3±1                       |
|             |       |                |       | 1                   | 5               | 0   | 22.87                     | 22.3±1                       |
|             |       |                |       | 3                   | 0               | 0   | 22.95                     | 22.3±1                       |
|             |       |                |       | 3                   | 1               | 0   | 22.98                     | 22.3±1                       |
|             |       |                |       | 3                   | 2               | 0   | 22.97                     | 22.3±1                       |
|             |       |                |       | 6                   | 0               | 1   | 21.85                     | 22.3±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.46                     | 22.3±1                       |
|             |       |                |       | 1                   | 2               | 1   | 21.48                     | 22.3±1                       |
|             |       |                |       | 1                   | 5               | 1   | 21.49                     | 22.3±1                       |
|             |       |                |       | 3                   | 0               | 1   | 22.99                     | 22.3±1                       |
|             |       |                |       | 3                   | 1               | 1   | 22.95                     | 22.3±1                       |
|             |       |                |       | 3                   | 2               | 1   | 22.97                     | 22.3±1                       |
|             |       |                |       | 6                   | 0               | 2   | 21.01                     | 22.3±1                       |

LTE band IV:

| BW (MHz) | Ch    | Freq. (MHz) | Mode  | UL RB Allocation | UL RB Offset | MPR | Average power (dBm) | Tune up Power tolerant |
|----------|-------|-------------|-------|------------------|--------------|-----|---------------------|------------------------|
| 20MHz    | 20050 | 1720.0      | QPSK  | 1                | 0            | 0   | <b>22.99</b>        | 22.5±1                 |
|          |       |             |       | 1                | 49           | 0   | 22.95               | 22.5±1                 |
|          |       |             |       | 1                | 99           | 0   | 22.94               | 22.5±1                 |
|          |       |             |       | 50               | 0            | 1   | 21.95               | 22.5±1                 |
|          |       |             |       | 50               | 24           | 1   | 21.95               | 22.5±1                 |
|          |       |             |       | 50               | 49           | 1   | 21.94               | 22.5±1                 |
|          |       |             |       | 100              | 0            | 1   | 21.94               | 22.5±1                 |
|          |       |             | 16QAM | 1                | 0            | 1   | 21.95               | 21.5±1                 |
|          |       |             |       | 1                | 49           | 1   | 21.96               | 21.5±1                 |
|          |       |             |       | 1                | 99           | 1   | 21.97               | 21.5±1                 |
|          |       |             |       | 50               | 0            | 2   | 21.95               | 21.5±1                 |
|          |       |             |       | 50               | 24           | 2   | 21.94               | 21.5±1                 |
|          |       |             |       | 50               | 49           | 2   | 21.96               | 21.5±1                 |
|          |       |             |       | 100              | 0            | 2   | 20.97               | 21.5±1                 |
|          | 20175 | 1732.5      | QPSK  | 1                | 0            | 0   | 22.95               | 22.5±1                 |
|          |       |             |       | 1                | 49           | 0   | 22.94               | 22.5±1                 |
|          |       |             |       | 1                | 99           | 0   | 22.92               | 22.5±1                 |
|          |       |             |       | 50               | 0            | 1   | 22.03               | 22.5±1                 |
|          |       |             |       | 50               | 24           | 1   | 22.02               | 22.5±1                 |
|          |       |             |       | 50               | 49           | 1   | 22.01               | 22.5±1                 |
|          |       |             |       | 100              | 0            | 1   | 21.99               | 22.5±1                 |
|          |       |             | 16QAM | 1                | 0            | 1   | 22.17               | 22±1                   |
|          |       |             |       | 1                | 49           | 1   | 22.14               | 22±1                   |
|          |       |             |       | 1                | 99           | 1   | 22.16               | 22±1                   |
|          |       |             |       | 50               | 0            | 2   | 22.01               | 22±1                   |
|          |       |             |       | 50               | 24           | 2   | 22.03               | 22±1                   |
|          |       |             |       | 50               | 49           | 2   | 22.04               | 22±1                   |
|          |       |             |       | 100              | 0            | 2   | 21.01               | 22±1                   |
|          | 20300 | 1745.0      | QPSK  | 1                | 0            | 0   | 22.99               | 22±1                   |
|          |       |             |       | 1                | 49           | 0   | 22.95               | 22±1                   |
|          |       |             |       | 1                | 99           | 0   | 22.97               | 22±1                   |
|          |       |             |       | 50               | 0            | 1   | 21.95               | 22±1                   |
|          |       |             |       | 50               | 24           | 1   | 21.96               | 22±1                   |
|          |       |             |       | 50               | 49           | 1   | 21.94               | 22±1                   |
|          |       |             |       | 100              | 0            | 1   | 21.94               | 22±1                   |
|          |       |             | 16QAM | 1                | 0            | 1   | 22.37               | 22±1                   |
|          |       |             |       | 1                | 49           | 1   | 22.35               | 22±1                   |
|          |       |             |       | 1                | 99           | 1   | 22.39               | 22±1                   |
|          |       |             |       | 50               | 0            | 2   | 21.95               | 22±1                   |
|          |       |             |       | 50               | 24           | 2   | 21.96               | 22±1                   |
|          |       |             |       | 50               | 49           | 2   | 21.94               | 22±1                   |
|          |       |             |       | 100              | 0            | 2   | 21.02               | 22±1                   |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 15MHz       | 20025 | 1717.5         | QPSK  | 1                   | 0               | 0   | 22.93                     | 22 ± 1                       |
|             |       |                |       | 1                   | 37              | 0   | 22.94                     | 22 ± 1                       |
|             |       |                |       | 1                   | 74              | 0   | 22.95                     | 22 ± 1                       |
|             |       |                |       | 36                  | 0               | 1   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 36                  | 16              | 1   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 36                  | 35              | 1   | 21.94                     | 22 ± 1                       |
|             |       |                |       | 75                  | 0               | 1   | 21.96                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.78                     | 22 ± 1                       |
|             |       |                |       | 1                   | 37              | 1   | 21.74                     | 22 ± 1                       |
|             |       |                |       | 1                   | 74              | 1   | 21.79                     | 22 ± 1                       |
|             |       |                |       | 36                  | 0               | 2   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 36                  | 16              | 2   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 36                  | 35              | 2   | 21.93                     | 22 ± 1                       |
|             |       |                |       | 75                  | 0               | 2   | 21.01                     | 22 ± 1                       |
|             | 20175 | 1732.5         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22 ± 1                       |
|             |       |                |       | 1                   | 37              | 0   | 22.95                     | 22 ± 1                       |
|             |       |                |       | 1                   | 74              | 0   | 22.97                     | 22 ± 1                       |
|             |       |                |       | 36                  | 0               | 1   | 22.06                     | 22 ± 1                       |
|             |       |                |       | 36                  | 16              | 1   | 22.06                     | 22 ± 1                       |
|             |       |                |       | 36                  | 35              | 1   | 22.04                     | 22 ± 1                       |
|             |       |                |       | 75                  | 0               | 1   | 22.03                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.19                     | 22 ± 1                       |
|             |       |                |       | 1                   | 37              | 1   | 22.21                     | 22 ± 1                       |
|             |       |                |       | 1                   | 74              | 1   | 22.23                     | 22 ± 1                       |
|             |       |                |       | 36                  | 0               | 2   | 22.06                     | 22 ± 1                       |
|             |       |                |       | 36                  | 16              | 2   | 22.05                     | 22 ± 1                       |
|             |       |                |       | 36                  | 35              | 2   | 22.08                     | 22 ± 1                       |
|             |       |                |       | 75                  | 0               | 2   | 21.01                     | 22 ± 1                       |
|             | 20325 | 1747.5         | QPSK  | 1                   | 0               | 0   | 22.94                     | 22 ± 1                       |
|             |       |                |       | 1                   | 37              | 0   | 22.95                     | 22 ± 1                       |
|             |       |                |       | 1                   | 74              | 0   | 22.96                     | 22 ± 1                       |
|             |       |                |       | 36                  | 0               | 1   | 21.97                     | 22 ± 1                       |
|             |       |                |       | 36                  | 16              | 1   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 36                  | 35              | 1   | 21.93                     | 22 ± 1                       |
|             |       |                |       | 75                  | 0               | 1   | 21.95                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.46                     | 22 ± 1                       |
|             |       |                |       | 1                   | 37              | 1   | 22.45                     | 22 ± 1                       |
|             |       |                |       | 1                   | 74              | 1   | 22.48                     | 22 ± 1                       |
|             |       |                |       | 36                  | 0               | 2   | 21.97                     | 22 ± 1                       |
|             |       |                |       | 36                  | 16              | 2   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 36                  | 35              | 2   | 21.98                     | 22 ± 1                       |
|             |       |                |       | 75                  | 0               | 2   | 21.02                     | 22 ± 1                       |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 10MHz       | 20000 | 1715.0         | QPSK  | 1                   | 0               | 0   | 22.94                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 0   | 22.95                     | 22 ± 1                       |
|             |       |                |       | 1                   | 49              | 0   | 22.96                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 1   | 21.88                     | 22 ± 1                       |
|             |       |                |       | 25                  | 12              | 1   | 21.86                     | 22 ± 1                       |
|             |       |                |       | 25                  | 24              | 1   | 21.85                     | 22 ± 1                       |
|             |       |                |       | 50                  | 0               | 1   | 21.91                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.76                     | 21.5 ± 1                     |
|             |       |                |       | 1                   | 24              | 1   | 21.75                     | 21.5 ± 1                     |
|             |       |                |       | 1                   | 49              | 1   | 21.74                     | 21.5 ± 1                     |
|             |       |                |       | 25                  | 0               | 2   | 21.86                     | 21.5 ± 1                     |
|             |       |                |       | 25                  | 12              | 2   | 21.85                     | 21.5 ± 1                     |
|             |       |                |       | 25                  | 24              | 2   | 21.85                     | 21.5 ± 1                     |
|             |       |                |       | 50                  | 0               | 2   | 20.94                     | 21.5 ± 1                     |
|             | 20175 | 1732.5         | QPSK  | 1                   | 0               | 0   | 22.97                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 0   | 22.95                     | 22 ± 1                       |
|             |       |                |       | 1                   | 49              | 0   | 22.98                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 1   | 21.98                     | 22 ± 1                       |
|             |       |                |       | 25                  | 12              | 1   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 25                  | 24              | 1   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 50                  | 0               | 1   | 21.98                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.94                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 1   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 1                   | 49              | 1   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 2   | 21.98                     | 22 ± 1                       |
|             |       |                |       | 25                  | 12              | 2   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 25                  | 24              | 2   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 50                  | 0               | 2   | 21.01                     | 22 ± 1                       |
|             | 20350 | 1750.0         | QPSK  | 1                   | 0               | 0   | 22.87                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 0   | 22.86                     | 22 ± 1                       |
|             |       |                |       | 1                   | 49              | 0   | 22.88                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 1   | 21.9                      | 22 ± 1                       |
|             |       |                |       | 25                  | 12              | 1   | 21.92                     | 22 ± 1                       |
|             |       |                |       | 25                  | 24              | 1   | 21.91                     | 22 ± 1                       |
|             |       |                |       | 50                  | 0               | 1   | 21.9                      | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.42                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 1   | 22.43                     | 22 ± 1                       |
|             |       |                |       | 1                   | 49              | 1   | 22.41                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 2   | 21.9                      | 22 ± 1                       |
|             |       |                |       | 25                  | 12              | 2   | 21.92                     | 22 ± 1                       |
|             |       |                |       | 25                  | 24              | 2   | 21.93                     | 22 ± 1                       |
|             |       |                |       | 50                  | 0               | 2   | 21.01                     | 22 ± 1                       |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 5MHz        | 20000 | 1715.0         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22 ± 1                       |
|             |       |                |       | 1                   | 12              | 0   | 22.95                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 0   | 22.94                     | 22 ± 1                       |
|             |       |                |       | 12                  | 0               | 1   | 21.97                     | 22 ± 1                       |
|             |       |                |       | 12                  | 6               | 1   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 12                  | 11              | 1   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 1   | 21.91                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.01                     | 22 ± 1                       |
|             |       |                |       | 1                   | 12              | 1   | 22.03                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 1   | 22.02                     | 22 ± 1                       |
|             |       |                |       | 12                  | 0               | 2   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 12                  | 6               | 2   | 21.04                     | 22 ± 1                       |
|             |       |                |       | 12                  | 11              | 2   | 21.02                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 2   | 21.02                     | 22 ± 1                       |
|             | 20175 | 1732.5         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22 ± 1                       |
|             |       |                |       | 1                   | 12              | 0   | 22.95                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 0   | 22.96                     | 22 ± 1                       |
|             |       |                |       | 12                  | 0               | 1   | 22.03                     | 22 ± 1                       |
|             |       |                |       | 12                  | 6               | 1   | 22.05                     | 22 ± 1                       |
|             |       |                |       | 12                  | 11              | 1   | 22.04                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 1   | 21.97                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.24                     | 22 ± 1                       |
|             |       |                |       | 1                   | 12              | 1   | 22.25                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 1   | 22.26                     | 22 ± 1                       |
|             |       |                |       | 12                  | 0               | 2   | 21.97                     | 22 ± 1                       |
|             |       |                |       | 12                  | 6               | 2   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 12                  | 11              | 2   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 2   | 21.02                     | 22 ± 1                       |
|             | 20350 | 1750.0         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22 ± 1                       |
|             |       |                |       | 1                   | 12              | 0   | 22.96                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 0   | 22.98                     | 22 ± 1                       |
|             |       |                |       | 12                  | 0               | 1   | 21.97                     | 22 ± 1                       |
|             |       |                |       | 12                  | 6               | 1   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 12                  | 11              | 1   | 21.97                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 1   | 21.88                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.89                     | 22 ± 1                       |
|             |       |                |       | 1                   | 12              | 1   | 21.88                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 1   | 21.87                     | 22 ± 1                       |
|             |       |                |       | 12                  | 0               | 2   | 21.97                     | 22 ± 1                       |
|             |       |                |       | 12                  | 6               | 2   | 21.96                     | 22 ± 1                       |
|             |       |                |       | 12                  | 11              | 2   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 2   | 22.99                     | 22 ± 1                       |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 3MHz        | 19965 | 1711.5         | QPSK  | 1                   | 0               | 0   | 22.84                     | 22 ± 1                       |
|             |       |                |       | 1                   | 7               | 0   | 22.86                     | 22 ± 1                       |
|             |       |                |       | 1                   | 14              | 0   | 22.85                     | 22 ± 1                       |
|             |       |                |       | 8                   | 0               | 1   | 21.83                     | 22 ± 1                       |
|             |       |                |       | 8                   | 4               | 1   | 21.85                     | 22 ± 1                       |
|             |       |                |       | 8                   | 7               | 1   | 21.84                     | 22 ± 1                       |
|             |       |                |       | 15                  | 0               | 1   | 21.85                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.71                     | 21.5 ± 1                     |
|             |       |                |       | 1                   | 7               | 1   | 21.7                      | 21.5 ± 1                     |
|             |       |                |       | 1                   | 14              | 1   | 21.73                     | 21.5 ± 1                     |
|             |       |                |       | 8                   | 0               | 2   | 20.82                     | 21.5 ± 1                     |
|             |       |                |       | 8                   | 4               | 2   | 20.82                     | 21.5 ± 1                     |
|             |       |                |       | 8                   | 7               | 2   | 20.83                     | 21.5 ± 1                     |
|             |       |                |       | 15                  | 0               | 2   | 20.84                     | 21.5 ± 1                     |
|             | 20175 | 1732.5         | QPSK  | 1                   | 0               | 0   | 22.99                     | 22 ± 1                       |
|             |       |                |       | 1                   | 7               | 0   | 22.95                     | 22 ± 1                       |
|             |       |                |       | 1                   | 14              | 0   | 22.97                     | 22 ± 1                       |
|             |       |                |       | 8                   | 0               | 1   | 21.94                     | 22 ± 1                       |
|             |       |                |       | 8                   | 4               | 1   | 21.95                     | 22 ± 1                       |
|             |       |                |       | 8                   | 7               | 1   | 21.93                     | 22 ± 1                       |
|             |       |                |       | 15                  | 0               | 1   | 21.96                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 21.9                      | 21.5 ± 1                     |
|             |       |                |       | 1                   | 7               | 1   | 21.92                     | 21.5 ± 1                     |
|             |       |                |       | 1                   | 14              | 1   | 21.95                     | 21.5 ± 1                     |
|             |       |                |       | 8                   | 0               | 2   | 20.79                     | 21.5 ± 1                     |
|             |       |                |       | 8                   | 4               | 2   | 20.78                     | 21.5 ± 1                     |
|             |       |                |       | 8                   | 7               | 2   | 20.77                     | 21.5 ± 1                     |
|             |       |                |       | 15                  | 0               | 2   | 21                        | 21.5 ± 1                     |
|             | 20385 | 1753.5         | QPSK  | 1                   | 0               | 0   | 22.79                     | 22 ± 1                       |
|             |       |                |       | 1                   | 7               | 0   | 22.78                     | 22 ± 1                       |
|             |       |                |       | 1                   | 14              | 0   | 22.77                     | 22 ± 1                       |
|             |       |                |       | 8                   | 0               | 1   | 21.84                     | 22 ± 1                       |
|             |       |                |       | 8                   | 4               | 1   | 21.85                     | 22 ± 1                       |
|             |       |                |       | 8                   | 7               | 1   | 21.86                     | 22 ± 1                       |
|             |       |                |       | 15                  | 0               | 1   | 21.88                     | 22 ± 1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.37                     | 22 ± 1                       |
|             |       |                |       | 1                   | 7               | 1   | 22.36                     | 22 ± 1                       |
|             |       |                |       | 1                   | 14              | 1   | 22.35                     | 22 ± 1                       |
|             |       |                |       | 8                   | 0               | 2   | 20.85                     | 22 ± 1                       |
|             |       |                |       | 8                   | 4               | 2   | 20.85                     | 22 ± 1                       |
|             |       |                |       | 8                   | 7               | 2   | 20.83                     | 22 ± 1                       |
|             |       |                |       | 15                  | 0               | 2   | 20.99                     | 22 ± 1                       |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 1.4MHz      | 19957 | 1710.7         | QPSK  | 1                   | 0               | 0   | 22.86                     | 22 ± 1                       |
|             |       |                |       | 1                   | 2               | 0   | 22.85                     | 22 ± 1                       |
|             |       |                |       | 1                   | 5               | 0   | 22.84                     | 22 ± 1                       |
|             |       |                |       | 3                   | 0               | 0   | 22.91                     | 22 ± 1                       |
|             |       |                |       | 3                   | 1               | 0   | 22.92                     | 22 ± 1                       |
|             |       |                |       | 3                   | 2               | 0   | 22.94                     | 22 ± 1                       |
|             |       |                | 16QAM | 6                   | 0               | 1   | 21.83                     | 22 ± 1                       |
|             |       |                |       | 1                   | 0               | 1   | 21.71                     | 22 ± 1                       |
|             |       |                |       | 1                   | 2               | 1   | 21.72                     | 22 ± 1                       |
|             |       |                |       | 1                   | 5               | 1   | 21.73                     | 22 ± 1                       |
|             |       |                |       | 3                   | 0               | 1   | 22.92                     | 22 ± 1                       |
|             |       |                |       | 3                   | 1               | 1   | 22.93                     | 22 ± 1                       |
|             |       |                |       | 3                   | 2               | 1   | 22.91                     | 22 ± 1                       |
|             |       |                |       | 6                   | 0               | 2   | 21.03                     | 22 ± 1                       |
|             | 20175 | 1732.5         | QPSK  | 1                   | 0               | 0   | 23.05                     | 23 ± 1                       |
|             |       |                |       | 1                   | 2               | 0   | 23.01                     | 23 ± 1                       |
|             |       |                |       | 1                   | 5               | 0   | 23.1                      | 23 ± 1                       |
|             |       |                |       | 3                   | 0               | 0   | <b>23.06</b>              | 23 ± 1                       |
|             |       |                |       | 3                   | 1               | 0   | 23.05                     | 23 ± 1                       |
|             |       |                |       | 3                   | 2               | 0   | 23.06                     | 23 ± 1                       |
|             |       |                | 16QAM | 6                   | 0               | 1   | 22.02                     | 23 ± 1                       |
|             |       |                |       | 1                   | 0               | 1   | 21.87                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 2               | 1   | 21.85                     | 21.3 ± 1                     |
|             |       |                |       | 1                   | 5               | 1   | 21.86                     | 21.3 ± 1                     |
|             |       |                |       | 3                   | 0               | 1   | 21.95                     | 21.3 ± 1                     |
|             |       |                |       | 3                   | 1               | 1   | 21.96                     | 21.3 ± 1                     |
|             |       |                |       | 3                   | 2               | 1   | 21.94                     | 21.3 ± 1                     |
|             |       |                |       | 6                   | 0               | 2   | 20.8                      | 21.3 ± 1                     |
|             | 20393 | 1754.3         | QPSK  | 1                   | 0               | 0   | 22.84                     | 22 ± 1                       |
|             |       |                |       | 1                   | 2               | 0   | 22.85                     | 22 ± 1                       |
|             |       |                |       | 1                   | 5               | 0   | 22.84                     | 22 ± 1                       |
|             |       |                |       | 3                   | 0               | 0   | 22.98                     | 22 ± 1                       |
|             |       |                |       | 3                   | 1               | 0   | 22.98                     | 22 ± 1                       |
|             |       |                |       | 3                   | 2               | 0   | 22.94                     | 22 ± 1                       |
|             |       |                | 16QAM | 6                   | 0               | 1   | 21.84                     | 22 ± 1                       |
|             |       |                |       | 1                   | 0               | 1   | 21.44                     | 22 ± 1                       |
|             |       |                |       | 1                   | 2               | 1   | 21.45                     | 22 ± 1                       |
|             |       |                |       | 1                   | 5               | 1   | 21.46                     | 22 ± 1                       |
|             |       |                |       | 3                   | 0               | 1   | 22.98                     | 22 ± 1                       |
|             |       |                |       | 3                   | 1               | 1   | 22.95                     | 22 ± 1                       |
|             |       |                |       | 3                   | 2               | 1   | 22.94                     | 22 ± 1                       |
|             |       |                |       | 6                   | 0               | 2   | 21.01                     | 22 ± 1                       |



LTE band VII:

| BW (MHz) | Ch    | Freq. (MHz) | Mode  | UL RB Allocation | UL RB Offset | MPR | Average power (dBm) | Tune up Power tolerant |
|----------|-------|-------------|-------|------------------|--------------|-----|---------------------|------------------------|
| 20MHz    | 20850 | 2510        | QPSK  | 1                | 0            | 0   | <b>23.27</b>        | 23 ± 1                 |
|          |       |             |       | 1                | 49           | 0   | 23.26               | 23 ± 1                 |
|          |       |             |       | 1                | 99           | 0   | 23.24               | 23 ± 1                 |
|          |       |             |       | 50               | 0            | 1   | 22.19               | 23 ± 1                 |
|          |       |             |       | 50               | 24           | 1   | 22.18               | 23 ± 1                 |
|          |       |             |       | 50               | 49           | 1   | 22.20               | 23 ± 1                 |
|          |       |             |       | 100              | 0            | 1   | 22.15               | 23 ± 1                 |
|          |       |             | 16QAM | 1                | 0            | 1   | 22.17               | 22 ± 1                 |
|          |       |             |       | 1                | 49           | 1   | 22.16               | 22 ± 1                 |
|          |       |             |       | 1                | 99           | 1   | 22.15               | 22 ± 1                 |
|          |       |             |       | 50               | 0            | 2   | 22.18               | 22 ± 1                 |
|          |       |             |       | 50               | 24           | 2   | 21.04               | 22 ± 1                 |
|          |       |             |       | 50               | 49           | 2   | 21.05               | 22 ± 1                 |
|          |       |             |       | 100              | 0            | 2   | 21.06               | 22 ± 1                 |
|          | 21100 | 2535        | QPSK  | 1                | 0            | 0   | 23.02               | 22.1 ± 1               |
|          |       |             |       | 1                | 49           | 0   | 23.01               | 22.1 ± 1               |
|          |       |             |       | 1                | 99           | 0   | 23.01               | 22.1 ± 1               |
|          |       |             |       | 50               | 0            | 1   | 22.17               | 22.1 ± 1               |
|          |       |             |       | 50               | 24           | 1   | 22.16               | 22.1 ± 1               |
|          |       |             |       | 50               | 49           | 1   | 22.15               | 22.1 ± 1               |
|          |       |             |       | 100              | 0            | 1   | 21.24               | 22.1 ± 1               |
|          |       |             | 16QAM | 1                | 0            | 1   | 22.34               | 22 ± 1                 |
|          |       |             |       | 1                | 49           | 1   | 22.35               | 22 ± 1                 |
|          |       |             |       | 1                | 99           | 1   | 22.31               | 22 ± 1                 |
|          |       |             |       | 50               | 0            | 2   | 22.17               | 22 ± 1                 |
|          |       |             |       | 50               | 24           | 2   | 22.15               | 22 ± 1                 |
|          |       |             |       | 50               | 49           | 2   | 22.16               | 22 ± 1                 |
|          |       |             |       | 100              | 0            | 2   | 21.05               | 22 ± 1                 |
|          | 21350 | 2560        | QPSK  | 1                | 0            | 0   | 23.04               | 22.1 ± 1               |
|          |       |             |       | 1                | 49           | 0   | 23.05               | 22.1 ± 1               |
|          |       |             |       | 1                | 99           | 0   | 23.06               | 22.1 ± 1               |
|          |       |             |       | 50               | 0            | 1   | 23.04               | 22.1 ± 1               |
|          |       |             |       | 50               | 24           | 1   | 22.08               | 22.1 ± 1               |
|          |       |             |       | 50               | 49           | 1   | 22.06               | 22.1 ± 1               |
|          |       |             |       | 100              | 0            | 1   | 22.07               | 22.1 ± 1               |
|          |       |             | 16QAM | 1                | 0            | 1   | 22.4                | 22 ± 1                 |
|          |       |             |       | 1                | 49           | 1   | 22.41               | 22 ± 1                 |
|          |       |             |       | 1                | 99           | 1   | 22.42               | 22 ± 1                 |
|          |       |             |       | 50               | 0            | 2   | 22.08               | 22 ± 1                 |
|          |       |             |       | 50               | 24           | 2   | 22.06               | 22 ± 1                 |
|          |       |             |       | 50               | 49           | 2   | 22.04               | 22 ± 1                 |
|          |       |             |       | 100              | 0            | 2   | 21.00               | 22 ± 1                 |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 15MHz       | 20825 | 1717.5         | QPSK  | 1                   | 0               | 0   | 23.24                     | 22.3±1                       |
|             |       |                |       | 1                   | 37              | 0   | 23.25                     | 22.3±1                       |
|             |       |                |       | 1                   | 74              | 0   | 23.22                     | 22.3±1                       |
|             |       |                |       | 36                  | 0               | 1   | 22.29                     | 22.3±1                       |
|             |       |                |       | 36                  | 16              | 1   | 22.28                     | 22.3±1                       |
|             |       |                |       | 36                  | 35              | 1   | 22.27                     | 22.3±1                       |
|             |       |                |       | 75                  | 0               | 1   | 22.29                     | 22.3±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.02                     | 22±1                         |
|             |       |                |       | 1                   | 37              | 1   | 22.03                     | 22±1                         |
|             |       |                |       | 1                   | 74              | 1   | 22.01                     | 22±1                         |
|             |       |                |       | 36                  | 0               | 2   | 22.29                     | 22±1                         |
|             |       |                |       | 36                  | 16              | 2   | 22.26                     | 22±1                         |
|             |       |                |       | 36                  | 35              | 2   | 22.27                     | 22±1                         |
|             |       |                |       | 75                  | 0               | 2   | 22.29                     | 22±1                         |
|             | 21100 | 1732.5         | QPSK  | 1                   | 0               | 0   | 23.01                     | 22.5±1                       |
|             |       |                |       | 1                   | 37              | 0   | 23.02                     | 22.5±1                       |
|             |       |                |       | 1                   | 74              | 0   | 23.02                     | 22.5±1                       |
|             |       |                |       | 36                  | 0               | 1   | 22.13                     | 22.5±1                       |
|             |       |                |       | 36                  | 16              | 1   | 22.15                     | 22.5±1                       |
|             |       |                |       | 36                  | 35              | 1   | 22.14                     | 22.5±1                       |
|             |       |                |       | 75                  | 0               | 1   | 22.13                     | 22.5±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.32                     | 22±1                         |
|             |       |                |       | 1                   | 37              | 1   | 22.33                     | 22±1                         |
|             |       |                |       | 1                   | 74              | 1   | 22.34                     | 22±1                         |
|             |       |                |       | 36                  | 0               | 2   | 22.13                     | 22±1                         |
|             |       |                |       | 36                  | 16              | 2   | 22.15                     | 22±1                         |
|             |       |                |       | 36                  | 35              | 2   | 22.14                     | 22±1                         |
|             |       |                |       | 75                  | 0               | 2   | 21.04                     | 22±1                         |
|             | 21375 | 1747.5         | QPSK  | 1                   | 0               | 0   | 22.97                     | 22±1                         |
|             |       |                |       | 1                   | 37              | 0   | 22.95                     | 22±1                         |
|             |       |                |       | 1                   | 74              | 0   | 22.94                     | 22±1                         |
|             |       |                |       | 36                  | 0               | 1   | 22.11                     | 22±1                         |
|             |       |                |       | 36                  | 16              | 1   | 22.13                     | 22±1                         |
|             |       |                |       | 36                  | 35              | 1   | 22.14                     | 22±1                         |
|             |       |                |       | 75                  | 0               | 1   | 22.12                     | 22±1                         |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.51                     | 22±1                         |
|             |       |                |       | 1                   | 37              | 1   | 22.51                     | 22±1                         |
|             |       |                |       | 1                   | 74              | 1   | 22.53                     | 22±1                         |
|             |       |                |       | 36                  | 0               | 2   | 22.11                     | 22±1                         |
|             |       |                |       | 36                  | 16              | 2   | 22.14                     | 22±1                         |
|             |       |                |       | 36                  | 35              | 2   | 22.15                     | 22±1                         |
|             |       |                |       | 75                  | 0               | 2   | 21.00                     | 22±1                         |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 10MHz       | 20800 | 2502           | QPSK  | 1                   | 0               | 0   | 23.21                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 24              | 0   | 23.2                      | 22.5 ± 1                     |
|             |       |                |       | 1                   | 49              | 0   | 23.2                      | 22.5 ± 1                     |
|             |       |                |       | 25                  | 0               | 1   | 22.16                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 12              | 1   | 22.18                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 24              | 1   | 22.18                     | 22.5 ± 1                     |
|             |       |                |       | 50                  | 0               | 1   | 22.15                     | 22.5 ± 1                     |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.02                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 1   | 21.99                     | 22 ± 1                       |
|             |       |                |       | 1                   | 49              | 1   | 22.01                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 2   | 22.15                     | 22 ± 1                       |
|             |       |                |       | 25                  | 12              | 2   | 22.17                     | 22 ± 1                       |
|             |       |                |       | 25                  | 24              | 2   | 22.2                      | 22 ± 1                       |
|             |       |                |       | 50                  | 0               | 2   | 21.04                     | 22 ± 1                       |
|             | 21100 | 2535           | QPSK  | 1                   | 0               | 0   | 22.99                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 24              | 0   | 22.99                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 49              | 0   | 22.97                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 0               | 1   | 22.11                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 12              | 1   | 22.1                      | 22.5 ± 1                     |
|             |       |                |       | 25                  | 24              | 1   | 22.08                     | 22.5 ± 1                     |
|             |       |                |       | 50                  | 0               | 1   | 22.09                     | 22.5 ± 1                     |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.64                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 1   | 22.62                     | 22 ± 1                       |
|             |       |                |       | 1                   | 49              | 1   | 22.65                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 2   | 22.12                     | 22 ± 1                       |
|             |       |                |       | 25                  | 12              | 2   | 22.1                      | 22 ± 1                       |
|             |       |                |       | 25                  | 24              | 2   | 22.12                     | 22 ± 1                       |
|             |       |                |       | 50                  | 0               | 2   | 21.05                     | 22 ± 1                       |
|             | 21400 | 2565           | QPSK  | 1                   | 0               | 0   | 23.06                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 24              | 0   | 23.06                     | 22.5 ± 1                     |
|             |       |                |       | 1                   | 49              | 0   | 23.04                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 0               | 1   | 22.04                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 12              | 1   | 22.07                     | 22.5 ± 1                     |
|             |       |                |       | 25                  | 24              | 1   | 22.09                     | 22.5 ± 1                     |
|             |       |                |       | 50                  | 0               | 1   | 22.08                     | 22.5 ± 1                     |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.01                     | 22 ± 1                       |
|             |       |                |       | 1                   | 24              | 1   | 22.02                     | 22 ± 1                       |
|             |       |                |       | 1                   | 49              | 1   | 22.03                     | 22 ± 1                       |
|             |       |                |       | 25                  | 0               | 2   | 22.04                     | 22 ± 1                       |
|             |       |                |       | 25                  | 12              | 2   | 22.02                     | 22 ± 1                       |
|             |       |                |       | 25                  | 24              | 2   | 22                        | 22 ± 1                       |
|             |       |                |       | 50                  | 0               | 2   | 21.05                     | 22 ± 1                       |

| BW<br>(MHz) | Ch    | Freq.<br>(MHz) | Mode  | UL RB<br>Allocation | UL RB<br>Offset | MPR | Average<br>power<br>(dBm) | Tune up<br>Power<br>tolerant |
|-------------|-------|----------------|-------|---------------------|-----------------|-----|---------------------------|------------------------------|
| 5MHz        | 19975 | 1712.5         | QPSK  | 1                   | 0               | 0   | 23.3                      | 22.5±1                       |
|             |       |                |       | 1                   | 12              | 0   | <b>23.32</b>              | 22.5±1                       |
|             |       |                |       | 1                   | 24              | 0   | 23.32                     | 22.5±1                       |
|             |       |                |       | 12                  | 0               | 1   | 22.2                      | 22.5±1                       |
|             |       |                |       | 12                  | 6               | 1   | 22.19                     | 22.5±1                       |
|             |       |                |       | 12                  | 11              | 1   | 22.21                     | 22.5±1                       |
|             |       |                |       | 25                  | 0               | 1   | 22.15                     | 22.5±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.18                     | 22±1                         |
|             |       |                |       | 1                   | 12              | 1   | 22.2                      | 22±1                         |
|             |       |                |       | 1                   | 24              | 1   | 22.18                     | 22±1                         |
|             |       |                |       | 12                  | 0               | 2   | 22.19                     | 22±1                         |
|             |       |                |       | 12                  | 6               | 2   | 22.22                     | 22±1                         |
|             |       |                |       | 12                  | 11              | 2   | 22.23                     | 22±1                         |
|             |       |                |       | 25                  | 0               | 2   | 21.04                     | 22±1                         |
|             | 20175 | 1732.5         | QPSK  | 1                   | 0               | 0   | 23.06                     | 22.5±1                       |
|             |       |                |       | 1                   | 12              | 0   | 23.06                     | 22.5±1                       |
|             |       |                |       | 1                   | 24              | 0   | 23.07                     | 22.5±1                       |
|             |       |                |       | 12                  | 0               | 1   | 22.14                     | 22.5±1                       |
|             |       |                |       | 12                  | 6               | 1   | 22.12                     | 22.5±1                       |
|             |       |                |       | 12                  | 11              | 1   | 22.12                     | 22.5±1                       |
|             |       |                |       | 25                  | 0               | 1   | 22.07                     | 22.5±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.4                      | 22±1                         |
|             |       |                |       | 1                   | 12              | 1   | 22.41                     | 22±1                         |
|             |       |                |       | 1                   | 24              | 1   | 22.44                     | 22±1                         |
|             |       |                |       | 12                  | 0               | 2   | 22.15                     | 22±1                         |
|             |       |                |       | 12                  | 6               | 2   | 22.15                     | 22±1                         |
|             |       |                |       | 12                  | 11              | 2   | 22.15                     | 22±1                         |
|             |       |                |       | 25                  | 0               | 2   | 21                        | 22.5±1                       |
|             | 20375 | 1752.5         | QPSK  | 1                   | 0               | 0   | 23.03                     | 22.5±1                       |
|             |       |                |       | 1                   | 12              | 0   | 23                        | 22.5±1                       |
|             |       |                |       | 1                   | 24              | 0   | 23                        | 22.5±1                       |
|             |       |                |       | 12                  | 0               | 1   | 22.11                     | 22.5±1                       |
|             |       |                |       | 12                  | 6               | 1   | 22.09                     | 22.5±1                       |
|             |       |                |       | 12                  | 11              | 1   | 22.06                     | 22.5±1                       |
|             |       |                |       | 25                  | 0               | 1   | 22.04                     | 22.5±1                       |
|             |       |                | 16QAM | 1                   | 0               | 1   | 22.01                     | 21.3±1                       |
|             |       |                |       | 1                   | 12              | 1   | 22                        | 21.3±1                       |
|             |       |                |       | 1                   | 24              | 1   | 22                        | 21.3±1                       |
|             |       |                |       | 12                  | 0               | 2   | 22.12                     | 21.3±1                       |
|             |       |                |       | 12                  | 6               | 2   | 22.1                      | 21.3±1                       |
|             |       |                |       | 12                  | 11              | 2   | 22.08                     | 21.3±1                       |
|             |       |                |       | 25                  | 0               | 2   | 21.13                     | 21.3±1                       |

## ERP & EIRP

### EIRP for LTE Band II (Part 24E)

| Frequency (MHz) | BW (MHz) | Modulation | RB Size/Offset | Substituted level (dBm) | Antenna Polarization | Antenna Gain correction (dBi) | Cable Loss (dB) | Absolute Level (dBm) | Limit (dBm) |
|-----------------|----------|------------|----------------|-------------------------|----------------------|-------------------------------|-----------------|----------------------|-------------|
| 1850.7          | 1.4      | QPSK       | 1/0            | 17.65                   | V                    | 7.88                          | 0.85            | 24.68                | 33.01       |
| 1880            | 1.4      | QPSK       | 1/0            | 17.66                   | V                    | 7.88                          | 0.85            | <b>24.69</b>         | 33.01       |
| 1909.3          | 1.4      | QPSK       | 1/0            | 17.65                   | V                    | 7.88                          | 0.85            | 24.68                | 33.01       |
| 1850.7          | 1.4      | QPSK       | 1/0            | 16.48                   | H                    | 7.88                          | 0.85            | 23.51                | 33.01       |
| 1880            | 1.4      | QPSK       | 1/0            | 16.52                   | H                    | 7.88                          | 0.85            | 23.55                | 33.01       |
| 1909.3          | 1.4      | QPSK       | 1/0            | 16.45                   | H                    | 7.88                          | 0.85            | 23.48                | 33.01       |
| 1850.7          | 1.4      | 16-QAM     | 1/0            | 17.66                   | V                    | 7.88                          | 0.85            | 24.69                | 33.01       |
| 1880            | 1.4      | 16-QAM     | 1/0            | 17.63                   | V                    | 7.88                          | 0.85            | 24.66                | 33.01       |
| 1909.3          | 1.4      | 16-QAM     | 1/0            | 17.66                   | V                    | 7.88                          | 0.85            | 24.69                | 33.01       |
| 1850.7          | 1.4      | 16-QAM     | 1/0            | 16.49                   | H                    | 7.88                          | 0.85            | 23.52                | 33.01       |
| 1880            | 1.4      | 16-QAM     | 1/0            | 16.41                   | H                    | 7.88                          | 0.85            | 23.44                | 33.01       |
| 1909.3          | 1.4      | 16-QAM     | 1/0            | 16.52                   | H                    | 7.88                          | 0.85            | 23.55                | 33.01       |
| 1851.5          | 3        | QPSK       | 1/0            | 17.62                   | V                    | 7.88                          | 0.85            | 24.65                | 33.01       |
| 1880            | 3        | QPSK       | 1/0            | 17.65                   | V                    | 7.88                          | 0.85            | 24.68                | 33.01       |
| 1908.5          | 3        | QPSK       | 1/0            | 17.52                   | V                    | 7.88                          | 0.85            | 24.55                | 33.01       |
| 1851.5          | 3        | QPSK       | 1/0            | 16.45                   | H                    | 7.88                          | 0.85            | 23.48                | 33.01       |
| 1880            | 3        | QPSK       | 1/0            | 16.5                    | H                    | 7.88                          | 0.85            | 23.53                | 33.01       |
| 1908.5          | 3        | QPSK       | 1/0            | 16.43                   | H                    | 7.88                          | 0.85            | 23.46                | 33.01       |
| 1851.5          | 3        | 16-QAM     | 1/0            | 16.36                   | V                    | 7.88                          | 0.85            | 23.39                | 33.01       |
| 1880            | 3        | 16-QAM     | 1/0            | 16.52                   | V                    | 7.88                          | 0.85            | 23.55                | 33.01       |
| 1908.5          | 3        | 16-QAM     | 1/0            | 17.05                   | V                    | 7.88                          | 0.85            | 24.08                | 33.01       |
| 1851.5          | 3        | 16-QAM     | 1/0            | 15.28                   | H                    | 7.88                          | 0.85            | 22.31                | 33.01       |
| 1880            | 3        | 16-QAM     | 1/0            | 15.32                   | H                    | 7.88                          | 0.85            | 22.35                | 33.01       |
| 1908.5          | 3        | 16-QAM     | 1/0            | 15.88                   | H                    | 7.88                          | 0.85            | 22.91                | 33.01       |
| 1852.5          | 5        | QPSK       | 1/24           | 17.65                   | V                    | 7.88                          | 0.85            | 24.68                | 33.01       |
| 1880            | 5        | QPSK       | 1/0            | 17.66                   | V                    | 7.88                          | 0.85            | 24.69                | 33.01       |
| 1907.5          | 5        | QPSK       | 1/24           | 17.65                   | V                    | 7.88                          | 0.85            | 24.68                | 33.01       |
| 1852.5          | 5        | QPSK       | 1/24           | 16.47                   | H                    | 7.88                          | 0.85            | 23.5                 | 33.01       |
| 1880            | 5        | QPSK       | 1/0            | 16.55                   | H                    | 7.88                          | 0.85            | 23.58                | 33.01       |
| 1907.5          | 5        | QPSK       | 1/24           | 16.44                   | H                    | 7.88                          | 0.85            | 23.47                | 33.01       |
| 1852.5          | 5        | 16-QAM     | 1/24           | 16.72                   | V                    | 7.88                          | 0.85            | 23.75                | 33.01       |
| 1880            | 5        | 16-QAM     | 1/0            | 17.02                   | V                    | 7.88                          | 0.85            | 24.05                | 33.01       |

|        |    |        |      |       |   |      |      |              |       |
|--------|----|--------|------|-------|---|------|------|--------------|-------|
| 1907.5 | 5  | 16-QAM | 1/24 | 16.65 | V | 7.88 | 0.85 | 23.68        | 33.01 |
| 1852.5 | 5  | 16-QAM | 1/24 | 15.58 | H | 7.88 | 0.85 | 22.61        | 33.01 |
| 1880   | 5  | 16-QAM | 1/0  | 16.9  | H | 7.88 | 0.85 | 23.93        | 33.01 |
| 1907.5 | 5  | 16-QAM | 1/24 | 15.39 | H | 7.88 | 0.85 | 22.42        | 33.01 |
| 1855   | 10 | QPSK   | 1/0  | 17.63 | V | 7.88 | 0.85 | 24.66        | 33.01 |
| 1880   | 10 | QPSK   | 1/0  | 17.66 | V | 7.88 | 0.85 | 24.69        | 33.01 |
| 1905   | 10 | QPSK   | 1/49 | 17.63 | V | 7.88 | 0.85 | 24.66        | 33.01 |
| 1855   | 10 | QPSK   | 1/0  | 16.42 | H | 7.88 | 0.85 | 23.45        | 33.01 |
| 1880   | 10 | QPSK   | 1/0  | 16.58 | H | 7.88 | 0.85 | 23.61        | 33.01 |
| 1905   | 10 | QPSK   | 1/49 | 16.36 | H | 7.88 | 0.85 | 23.39        | 33.01 |
| 1855   | 10 | 16-QAM | 1/0  | 16.55 | V | 7.88 | 0.85 | 23.58        | 33.01 |
| 1880   | 10 | 16-QAM | 1/0  | 16.53 | V | 7.88 | 0.85 | 23.56        | 33.01 |
| 1905   | 10 | 16-QAM | 1/49 | 17.21 | V | 7.88 | 0.85 | 24.24        | 33.01 |
| 1855   | 10 | 16-QAM | 1/0  | 15.38 | H | 7.88 | 0.85 | 22.41        | 33.01 |
| 1880   | 10 | 16-QAM | 1/0  | 15.34 | H | 7.88 | 0.85 | 22.37        | 33.01 |
| 1905   | 10 | 16-QAM | 1/49 | 15.49 | H | 7.88 | 0.85 | 22.52        | 33.01 |
| 1857.5 | 15 | QPSK   | 1/0  | 17.66 | V | 7.88 | 0.85 | 24.69        | 33.01 |
| 1880   | 15 | QPSK   | 1/0  | 17.66 | V | 7.88 | 0.85 | 24.69        | 33.01 |
| 1902.5 | 15 | QPSK   | 1/0  | 17.66 | V | 7.88 | 0.85 | 24.69        | 33.01 |
| 1857.5 | 15 | QPSK   | 1/0  | 16.35 | H | 7.88 | 0.85 | 23.38        | 33.01 |
| 1880   | 15 | QPSK   | 1/0  | 16.57 | H | 7.88 | 0.85 | 23.6         | 33.01 |
| 1902.5 | 15 | QPSK   | 1/0  | 16.56 | H | 7.88 | 0.85 | 23.59        | 33.01 |
| 1857.5 | 15 | 16-QAM | 1/0  | 17.62 | V | 7.88 | 0.85 | 24.65        | 33.01 |
| 1880   | 15 | 16-QAM | 1/0  | 16.86 | V | 7.88 | 0.85 | 23.89        | 33.01 |
| 1902.5 | 15 | 16-QAM | 1/0  | 17.24 | V | 7.88 | 0.85 | 24.27        | 33.01 |
| 1857.5 | 15 | 16-QAM | 1/0  | 16.58 | H | 7.88 | 0.85 | 23.61        | 33.01 |
| 1880   | 15 | 16-QAM | 1/0  | 15.73 | H | 7.88 | 0.85 | 22.76        | 33.01 |
| 1902.5 | 15 | 16-QAM | 1/0  | 16.08 | H | 7.88 | 0.85 | 23.11        | 33.01 |
| 1860   | 20 | QPSK   | 1/0  | 17.66 | V | 7.88 | 0.85 | 24.69        | 33.01 |
| 1880   | 20 | QPSK   | 1/0  | 17.62 | V | 7.88 | 0.85 | 24.65        | 33.01 |
| 1900   | 20 | QPSK   | 1/0  | 17.82 | V | 7.88 | 0.85 | <b>24.85</b> | 33.01 |
| 1860   | 20 | QPSK   | 1/0  | 16.62 | H | 7.88 | 0.85 | 23.65        | 33.01 |
| 1880   | 20 | QPSK   | 1/0  | 16.56 | H | 7.88 | 0.85 | 23.59        | 33.01 |
| 1900   | 20 | QPSK   | 1/0  | 16.68 | H | 7.88 | 0.85 | 23.71        | 33.01 |
| 1860   | 20 | 16-QAM | 1/0  | 16.6  | V | 7.88 | 0.85 | 23.63        | 33.01 |
| 1880   | 20 | 16-QAM | 1/0  | 16.85 | V | 7.88 | 0.85 | 23.88        | 33.01 |
| 1900   | 20 | 16-QAM | 1/0  | 17.13 | V | 7.88 | 0.85 | 24.16        | 33.01 |
| 1860   | 20 | 16-QAM | 1/0  | 15.53 | H | 7.88 | 0.85 | 22.56        | 33.01 |

|             |                 |
|-------------|-----------------|
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|      |    |        |     |       |   |      |      |       |       |
|------|----|--------|-----|-------|---|------|------|-------|-------|
| 1880 | 20 | 16-QAM | 1/0 | 15.7  | H | 7.88 | 0.85 | 22.73 | 33.01 |
| 1900 | 20 | 16-QAM | 1/0 | 15.95 | H | 7.88 | 0.85 | 22.98 | 33.01 |

### EIRP for LTE Band IV (Part 27)

| Frequency (MHz) | BW (MHz) | Modulation | RB Size/Offset | Substituted level (dBm) | Antenna Polarization | Antenna Gain correction (dBi) | Cable Loss (dB) | Absolute Level (dBm) | Limit (dBm) |
|-----------------|----------|------------|----------------|-------------------------|----------------------|-------------------------------|-----------------|----------------------|-------------|
| 1710.7          | 1.4      | QPSK       | 1/0            | 17.48                   | V                    | 7.95                          | 0.79            | 24.64                | 30          |
| 1732.5          | 1.4      | QPSK       | 1/0            | 17.64                   | V                    | 7.95                          | 0.79            | <b>24.80</b>         | 30          |
| 1754.3          | 1.4      | QPSK       | 1/0            | 17.52                   | V                    | 7.95                          | 0.79            | 24.68                | 30          |
| 1710.7          | 1.4      | QPSK       | 1/0            | 16.41                   | H                    | 7.95                          | 0.79            | 23.57                | 30          |
| 1732.5          | 1.4      | QPSK       | 1/0            | 16.55                   | H                    | 7.95                          | 0.79            | 23.71                | 30          |
| 1754.3          | 1.4      | QPSK       | 1/0            | 16.46                   | H                    | 7.95                          | 0.79            | 23.62                | 30          |
| 1710.7          | 1.4      | 16-QAM     | 1/5            | 17.47                   | V                    | 7.95                          | 0.79            | 24.63                | 30          |
| 1732.5          | 1.4      | 16-QAM     | 1/0            | 16.5                    | V                    | 7.95                          | 0.79            | 23.66                | 30          |
| 1754.3          | 1.4      | 16-QAM     | 1/0            | 17.52                   | V                    | 7.95                          | 0.79            | 24.68                | 30          |
| 1710.7          | 1.4      | 16-QAM     | 1/5            | 16.35                   | H                    | 7.95                          | 0.79            | 23.51                | 30          |
| 1732.5          | 1.4      | 16-QAM     | 1/0            | 15.19                   | H                    | 7.95                          | 0.79            | 22.35                | 30          |
| 1754.3          | 1.4      | 16-QAM     | 1/0            | 16.32                   | H                    | 7.95                          | 0.79            | 23.48                | 30          |
| 1711.5          | 3        | QPSK       | 1/0            | 17.4                    | V                    | 7.95                          | 0.79            | 24.56                | 30          |
| 1732.5          | 3        | QPSK       | 1/0            | 17.53                   | V                    | 7.95                          | 0.79            | 24.69                | 30          |
| 1753.5          | 3        | QPSK       | 1/0            | 17.33                   | V                    | 7.95                          | 0.79            | 24.49                | 30          |
| 1711.5          | 3        | QPSK       | 1/0            | 16.16                   | H                    | 7.95                          | 0.79            | 23.32                | 30          |
| 1732.5          | 3        | QPSK       | 1/0            | 16.44                   | H                    | 7.95                          | 0.79            | 23.6                 | 30          |
| 1753.5          | 3        | QPSK       | 1/0            | 16.13                   | H                    | 7.95                          | 0.79            | 23.29                | 30          |
| 1711.5          | 3        | 16-QAM     | 1/0            | 16.27                   | V                    | 7.95                          | 0.79            | 23.43                | 30          |
| 1732.5          | 3        | 16-QAM     | 1/0            | 16.49                   | V                    | 7.95                          | 0.79            | 23.65                | 30          |
| 1753.5          | 3        | 16-QAM     | 1/0            | 16.91                   | V                    | 7.95                          | 0.79            | 24.07                | 30          |
| 1711.5          | 3        | 16-QAM     | 1/0            | 15.09                   | H                    | 7.95                          | 0.79            | 22.25                | 30          |
| 1732.5          | 3        | 16-QAM     | 1/0            | 15.38                   | H                    | 7.95                          | 0.79            | 22.54                | 30          |
| 1753.5          | 3        | 16-QAM     | 1/0            | 16.73                   | H                    | 7.95                          | 0.79            | 23.89                | 30          |
| 1712.5          | 5        | QPSK       | 1/0            | 17.53                   | V                    | 7.95                          | 0.79            | 24.69                | 30          |
| 1732.5          | 5        | QPSK       | 1/0            | 17.53                   | V                    | 7.95                          | 0.79            | 24.69                | 30          |
| 1752.5          | 5        | QPSK       | 1/24           | 17.53                   | V                    | 7.95                          | 0.79            | 24.69                | 30          |
| 1712.5          | 5        | QPSK       | 1/0            | 16.27                   | H                    | 7.95                          | 0.79            | 23.43                | 30          |
| 1732.5          | 5        | QPSK       | 1/0            | 16.4                    | H                    | 7.95                          | 0.79            | 23.56                | 30          |
| 1752.5          | 5        | QPSK       | 1/24           | 16.36                   | H                    | 7.95                          | 0.79            | 23.52                | 30          |
| 1712.5          | 5        | 16-QAM     | 1/0            | 16.57                   | V                    | 7.95                          | 0.79            | 23.73                | 30          |
| 1732.5          | 5        | 16-QAM     | 1/0            | 16.8                    | V                    | 7.95                          | 0.79            | 23.96                | 30          |
| 1752.5          | 5        | 16-QAM     | 1/24           | 16.51                   | V                    | 7.95                          | 0.79            | 23.67                | 30          |
| 1712.5          | 5        | 16-QAM     | 1/0            | 15.45                   | H                    | 7.95                          | 0.79            | 22.61                | 30          |
| 1732.5          | 5        | 16-QAM     | 1/0            | 15.69                   | H                    | 7.95                          | 0.79            | 22.85                | 30          |



|        |    |        |      |       |   |      |      |       |    |
|--------|----|--------|------|-------|---|------|------|-------|----|
| 1752.5 | 5  | 16-QAM | 1/24 | 15.18 | H | 7.95 | 0.79 | 22.34 | 30 |
| 1715   | 10 | QPSK   | 1/0  | 17.5  | V | 7.95 | 0.79 | 24.66 | 30 |
| 1732.5 | 10 | QPSK   | 1/49 | 17.52 | V | 7.95 | 0.79 | 24.68 | 30 |
| 1750   | 10 | QPSK   | 1/0  | 17.42 | V | 7.95 | 0.79 | 24.58 | 30 |
| 1715   | 10 | QPSK   | 1/0  | 16.22 | H | 7.95 | 0.79 | 23.38 | 30 |
| 1732.5 | 10 | QPSK   | 1/49 | 16.08 | H | 7.95 | 0.79 | 23.24 | 30 |
| 1750   | 10 | QPSK   | 1/0  | 16.15 | H | 7.95 | 0.79 | 23.31 | 30 |
| 1715   | 10 | 16-QAM | 1/0  | 16.4  | V | 7.95 | 0.79 | 23.56 | 30 |
| 1732.5 | 10 | 16-QAM | 1/49 | 16.52 | V | 7.95 | 0.79 | 23.68 | 30 |
| 1750   | 10 | 16-QAM | 1/0  | 16.97 | V | 7.95 | 0.79 | 24.13 | 30 |
| 1715   | 10 | 16-QAM | 1/0  | 15.1  | H | 7.95 | 0.79 | 22.26 | 30 |
| 1732.5 | 10 | 16-QAM | 1/49 | 15.37 | H | 7.95 | 0.79 | 22.53 | 30 |
| 1750   | 10 | 16-QAM | 1/0  | 15.74 | H | 7.95 | 0.79 | 22.9  | 30 |
| 1717.5 | 15 | QPSK   | 1/0  | 17.49 | V | 7.95 | 0.79 | 24.65 | 30 |
| 1732.5 | 15 | QPSK   | 1/74 | 17.53 | V | 7.95 | 0.79 | 24.69 | 30 |
| 1747.5 | 15 | QPSK   | 1/0  | 17.5  | V | 7.95 | 0.79 | 24.66 | 30 |
| 1717.5 | 15 | QPSK   | 1/0  | 16.46 | H | 7.95 | 0.79 | 23.62 | 30 |
| 1732.5 | 15 | QPSK   | 1/74 | 16.43 | H | 7.95 | 0.79 | 23.59 | 30 |
| 1747.5 | 15 | QPSK   | 1/0  | 16.31 | H | 7.95 | 0.79 | 23.47 | 30 |
| 1717.5 | 15 | 16-QAM | 1/0  | 16.5  | V | 7.95 | 0.79 | 23.66 | 30 |
| 1732.5 | 15 | 16-QAM | 1/74 | 16.77 | V | 7.95 | 0.79 | 23.93 | 30 |
| 1747.5 | 15 | 16-QAM | 1/0  | 17.02 | V | 7.95 | 0.79 | 24.18 | 30 |
| 1717.5 | 15 | 16-QAM | 1/0  | 15.25 | H | 7.95 | 0.79 | 22.41 | 30 |
| 1732.5 | 15 | 16-QAM | 1/74 | 15.7  | H | 7.95 | 0.79 | 22.86 | 30 |
| 1747.5 | 15 | 16-QAM | 1/0  | 16.79 | H | 7.95 | 0.79 | 23.95 | 30 |
| 1720   | 20 | QPSK   | 1/99 | 17.53 | V | 7.95 | 0.79 | 24.69 | 30 |
| 1732.5 | 20 | QPSK   | 1/99 | 17.49 | V | 7.95 | 0.79 | 24.65 | 30 |
| 1745   | 20 | QPSK   | 1/0  | 17.53 | V | 7.95 | 0.79 | 24.69 | 30 |
| 1720   | 20 | QPSK   | 1/99 | 16.35 | H | 7.95 | 0.79 | 23.51 | 30 |
| 1732.5 | 20 | QPSK   | 1/99 | 16.27 | H | 7.95 | 0.79 | 23.43 | 30 |
| 1745   | 20 | QPSK   | 1/0  | 16.21 | H | 7.95 | 0.79 | 23.37 | 30 |
| 1720   | 20 | 16-QAM | 1/99 | 16.51 | V | 7.95 | 0.79 | 23.67 | 30 |
| 1732.5 | 20 | 16-QAM | 1/99 | 16.71 | V | 7.95 | 0.79 | 23.87 | 30 |
| 1745   | 20 | 16-QAM | 1/0  | 16.93 | V | 7.95 | 0.79 | 24.09 | 30 |
| 1720   | 20 | 16-QAM | 1/99 | 15.39 | H | 7.95 | 0.79 | 22.55 | 30 |
| 1732.5 | 20 | 16-QAM | 1/99 | 15.58 | H | 7.95 | 0.79 | 22.74 | 30 |
| 1745   | 20 | 16-QAM | 1/0  | 16.77 | H | 7.95 | 0.79 | 23.93 | 30 |

### ERP for LTE Band VII (Part 27)

| Frequency (MHz) | BW (MHz) | Modulation | RB Size/Offset | Substituted level (dBm) | Antenna Polarization | Antenna Gain correction (dBi) | Cable Loss (dB) | Absolute Level (dBm) | Limit (dBm) |
|-----------------|----------|------------|----------------|-------------------------|----------------------|-------------------------------|-----------------|----------------------|-------------|
| 2502.5          | 5        | QPSK       | 1/0            | 17.72                   | V                    | 8.93                          | 0.83            | <b>25.82</b>         | 30          |
| 2535            | 5        | QPSK       | 1/0            | 17.47                   | V                    | 8.93                          | 0.83            | 25.57                | 30          |
| 2567.5          | 5        | QPSK       | 1/24           | 17.43                   | V                    | 8.93                          | 0.83            | 25.53                | 30          |
| 2502.5          | 5        | QPSK       | 1/0            | 16.6                    | H                    | 8.93                          | 0.83            | 24.7                 | 30          |
| 2535            | 5        | QPSK       | 1/0            | 16.24                   | H                    | 8.93                          | 0.83            | 24.34                | 30          |
| 2567.5          | 5        | QPSK       | 1/24           | 16.21                   | H                    | 8.93                          | 0.83            | 24.31                | 30          |
| 2502.5          | 5        | 16-QAM     | 1/0            | 16.63                   | V                    | 8.93                          | 0.83            | 24.73                | 30          |
| 2535            | 5        | 16-QAM     | 1/0            | 16.84                   | V                    | 8.93                          | 0.83            | 24.94                | 30          |
| 2567.5          | 5        | 16-QAM     | 1/24           | 16.52                   | V                    | 8.93                          | 0.83            | 24.62                | 30          |
| 2502.5          | 5        | 16-QAM     | 1/0            | 15.56                   | H                    | 8.93                          | 0.83            | 23.66                | 30          |
| 2535            | 5        | 16-QAM     | 1/0            | 15.79                   | H                    | 8.93                          | 0.83            | 23.89                | 30          |
| 2567.5          | 5        | 16-QAM     | 1/24           | 15.33                   | H                    | 8.93                          | 0.83            | 23.43                | 30          |
| 2505            | 10       | QPSK       | 1/0            | 17.61                   | V                    | 8.93                          | 0.83            | 25.71                | 30          |
| 2535            | 10       | QPSK       | 1/49           | 17.39                   | V                    | 8.93                          | 0.83            | 25.49                | 30          |
| 2565            | 10       | QPSK       | 1/0            | 17.46                   | V                    | 8.93                          | 0.83            | 25.56                | 30          |
| 2505            | 10       | QPSK       | 1/0            | 16.48                   | H                    | 8.93                          | 0.83            | 24.58                | 30          |
| 2535            | 10       | QPSK       | 1/49           | 16.15                   | H                    | 8.93                          | 0.83            | 24.25                | 30          |
| 2565            | 10       | QPSK       | 1/0            | 16.26                   | H                    | 8.93                          | 0.83            | 24.36                | 30          |
| 2505            | 10       | 16-QAM     | 1/0            | 16.6                    | V                    | 8.93                          | 0.83            | 24.7                 | 30          |
| 2535            | 10       | 16-QAM     | 1/49           | 17.05                   | V                    | 8.93                          | 0.83            | 25.15                | 30          |
| 2565            | 10       | 16-QAM     | 1/0            | 16.44                   | V                    | 8.93                          | 0.83            | 24.54                | 30          |
| 2505            | 10       | 16-QAM     | 1/0            | 15.42                   | H                    | 8.93                          | 0.83            | 23.52                | 30          |
| 2535            | 10       | 16-QAM     | 1/49           | 15.98                   | H                    | 8.93                          | 0.83            | 24.08                | 30          |
| 2565            | 10       | 16-QAM     | 1/0            | 15.31                   | H                    | 8.93                          | 0.83            | 23.41                | 30          |
| 2507.5          | 15       | QPSK       | 1/0            | 17.65                   | V                    | 8.93                          | 0.83            | 25.75                | 30          |
| 2535            | 15       | QPSK       | 1/74           | 17.42                   | V                    | 8.93                          | 0.83            | 25.52                | 30          |
| 2562.5          | 15       | QPSK       | 1/0            | 17.37                   | V                    | 8.93                          | 0.83            | 25.47                | 30          |
| 2507.5          | 15       | QPSK       | 1/0            | 16.52                   | H                    | 8.93                          | 0.83            | 24.62                | 30          |
| 2535            | 15       | QPSK       | 1/74           | 16.27                   | H                    | 8.93                          | 0.83            | 24.37                | 30          |
| 2562.5          | 15       | QPSK       | 1/0            | 16.31                   | H                    | 8.93                          | 0.83            | 24.41                | 30          |
| 2507.5          | 15       | 16-QAM     | 1/0            | 16.69                   | V                    | 8.93                          | 0.83            | 24.79                | 30          |
| 2535            | 15       | 16-QAM     | 1/74           | 16.74                   | V                    | 8.93                          | 0.83            | 24.84                | 30          |
| 2562.5          | 15       | 16-QAM     | 1/0            | 16.93                   | V                    | 8.93                          | 0.83            | 25.03                | 30          |

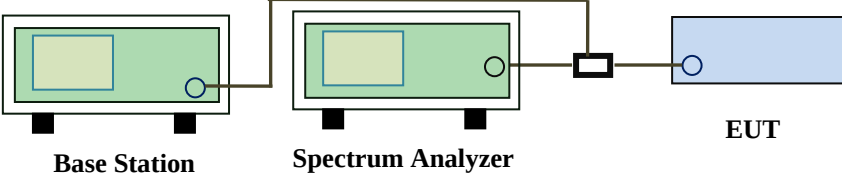
|        |    |        |      |       |   |      |      |       |    |
|--------|----|--------|------|-------|---|------|------|-------|----|
| 2507.5 | 15 | 16-QAM | 1/0  | 15.55 | H | 8.93 | 0.83 | 23.65 | 30 |
| 2535   | 15 | 16-QAM | 1/74 | 15.63 | H | 8.93 | 0.83 | 23.73 | 30 |
| 2562.5 | 15 | 16-QAM | 1/0  | 15.81 | H | 8.93 | 0.83 | 23.91 | 30 |
| 2510   | 20 | QPSK   | 1/99 | 17.67 | V | 8.93 | 0.83 | 25.77 | 30 |
| 2535   | 20 | QPSK   | 1/99 | 17.42 | V | 8.93 | 0.83 | 25.52 | 30 |
| 2560   | 20 | QPSK   | 1/0  | 17.46 | V | 8.93 | 0.83 | 25.56 | 30 |
| 2510   | 20 | QPSK   | 1/99 | 16.5  | H | 8.93 | 0.83 | 24.6  | 30 |
| 2535   | 20 | QPSK   | 1/99 | 16.25 | H | 8.93 | 0.83 | 24.35 | 30 |
| 2560   | 20 | QPSK   | 1/0  | 16.34 | H | 8.93 | 0.83 | 24.44 | 30 |
| 2510   | 20 | 16-QAM | 1/99 | 16.57 | V | 8.93 | 0.83 | 24.67 | 30 |
| 2535   | 20 | 16-QAM | 1/99 | 16.75 | V | 8.93 | 0.83 | 24.85 | 30 |
| 2560   | 20 | 16-QAM | 1/0  | 16.82 | V | 8.93 | 0.83 | 24.92 | 30 |
| 2510   | 20 | 16-QAM | 1/99 | 15.45 | H | 8.93 | 0.83 | 23.55 | 30 |
| 2535   | 20 | 16-QAM | 1/99 | 15.62 | H | 8.93 | 0.83 | 23.72 | 30 |
| 2560   | 20 | 16-QAM | 1/0  | 15.76 | H | 8.93 | 0.83 | 23.86 | 30 |

### 6.3 Peak-Average Ratio

|                      |                |
|----------------------|----------------|
| Temperature          | 24°C           |
| Relative Humidity    | 55%            |
| Atmospheric Pressure | 1013mbar       |
| Test date :          | April 12, 2017 |
| Tested By :          | Loren Luo      |

#### Requirement(s):

| Spec                     | Item | Requirement                                                               | Applicable                          |
|--------------------------|------|---------------------------------------------------------------------------|-------------------------------------|
| §24.232(d)<br>§ 27.50(d) | a)   | The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB. | <input checked="" type="checkbox"/> |

|            |                                                                                                                                                                     |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Setup |  <p style="text-align: center;">Base Station      Spectrum Analyzer      EUT</p> |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Procedure | <p><b>According with KDB 971168 v02r02</b></p> <p><b>5.7.2 Alternate procedure for PAPR</b></p> <p><b>5.1.2 Peak power measurements with a peak power meter</b></p> <p>The total peak output power may be measured using a broadband peak RF power meter. The power meter must have a video bandwidth that is greater than or equal to the emission bandwidth and utilize a fast-responding diode detector.</p> <p><b>5.2.3 Average power measurement with average power meter</b></p> <p>As an alternative to the use of a spectrum/signal analyzer or EMI receiver to perform a measurement of the total in-band average output power, a wideband RF average power meter with a thermocouple detector or equivalent can be used under certain conditions</p> <p>If the EUT can be configured to transmit continuously (i.e., the burst duty</p> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | <p>cycle <math>\geq</math> 98%) and at all times the EUT is transmitting at its maximum output power level, then a conventional wide-band RF power meter can be used. If the EUT cannot be configured to transmit continuously (i.e., the burst duty cycle <math>&lt;</math> 98%), then there are two options for the use of an average power meter. First, a gated average power meter can be used to perform the measurement if the gating parameters can be adjusted such that the power is measured only over active transmission bursts at maximum output power levels. A conventional average power meter can also be used if the measured burst duty cycle is constant (i.e., duty cycle variations are less than <math>\pm</math> 2 percent) by performing the measurement over the on/off burst cycles and then correcting (increasing) the measured level by a factor equal to <math>10\log(1/\text{duty cycle})</math></p> |
| Remark |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

Test Data ☒ Yes ☐ N/A  
 Test Plot ☐ Yes (See below) ☒ N/A

### LTE Band II (part 24E)

| BW(MHz) | Frequency (MHz) | Mode   | Modulation | Conducted Power (dBm) |         | Peak-Average Ratio (PAR) |
|---------|-----------------|--------|------------|-----------------------|---------|--------------------------|
|         |                 |        |            | Peak                  | Average |                          |
| 1.4     | 1880            | RB 1/0 | QPSK       | 25.66                 | 22.99   | 2.67                     |
|         |                 |        | 16QAM      | 25.35                 | 21.9    | 3.45                     |
| 3       | 1880            | RB 1/0 | QPSK       | 25.62                 | 22.98   | 2.64                     |
|         |                 |        | 16QAM      | 25.79                 | 21.82   | 3.97                     |
| 5       | 1880            | RB 1/0 | QPSK       | 25.61                 | 22.99   | 2.62                     |
|         |                 |        | 16QAM      | 25.43                 | 22.3    | 3.13                     |
| 10      | 1880            | RB 1/0 | QPSK       | 25.43                 | 22.99   | 2.44                     |
|         |                 |        | 16QAM      | 25.65                 | 21.82   | 3.83                     |
| 15      | 1880            | RB 1/0 | QPSK       | 25.68                 | 22.99   | 2.69                     |
|         |                 |        | 16QAM      | 25.27                 | 22.19   | 3.08                     |
| 20      | 1880            | RB 1/0 | QPSK       | 25.55                 | 22.91   | 2.64                     |
|         |                 |        | 16QAM      | 25.75                 | 22.15   | 3.6                      |

### LTE Band IV (part 27)

| BW(MHz) | Frequency (MHz) | Mode   | Modulation | Conducted Power (dBm) |         | Peak-Average Ratio (PAR) |
|---------|-----------------|--------|------------|-----------------------|---------|--------------------------|
|         |                 |        |            | Peak                  | Average |                          |
| 1.4     | 1732.5          | RB 1/0 | QPSK       | 25.46                 | 23.05   | 2.41                     |
|         |                 |        | 16QAM      | 25.43                 | 21.87   | 3.56                     |
| 3       | 1732.5          | RB 1/0 | QPSK       | 25.42                 | 22.99   | 2.43                     |
|         |                 |        | 16QAM      | 25.12                 | 21.9    | 3.22                     |
| 5       | 1732.5          | RB 1/0 | QPSK       | 25.36                 | 22.99   | 2.37                     |
|         |                 |        | 16QAM      | 25.45                 | 22.24   | 3.21                     |
| 10      | 1732.5          | RB 1/0 | QPSK       | 25.26                 | 22.97   | 2.29                     |
|         |                 |        | 16QAM      | 25.36                 | 21.84   | 3.52                     |
| 15      | 1732.5          | RB 1/0 | QPSK       | 25.56                 | 22.99   | 2.57                     |
|         |                 |        | 16QAM      | 25.33                 | 22.19   | 3.14                     |
| 20      | 1732.5          | RB 1/0 | QPSK       | 25.75                 | 22.95   | 2.8                      |
|         |                 |        | 16QAM      | 25.49                 | 22.17   | 3.32                     |

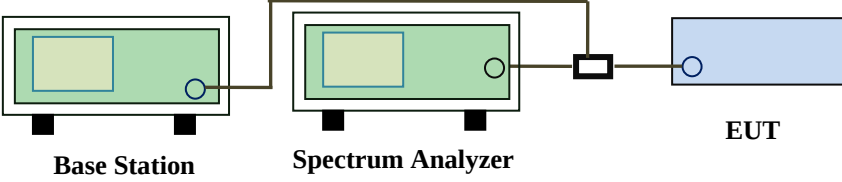
### LTE Band VII (part 27)

| BW(MHz) | Frequency (MHz) | Mode   | Modulation | Conducted Power (dBm) |         | Peak-Average Ratio (PAR) |
|---------|-----------------|--------|------------|-----------------------|---------|--------------------------|
|         |                 |        |            | Peak                  | Average |                          |
| 5       | 2535            | RB 1/0 | QPSK       | 25.3                  | 23.06   | 2.24                     |
|         |                 |        | 16QAM      | 25.36                 | 22.4    | 2.96                     |
| 10      | 2535            | RB 1/0 | QPSK       | 25.15                 | 22.99   | 2.16                     |
|         |                 |        | 16QAM      | 25.46                 | 2.64    | 22.82                    |
| 15      | 2535            | RB 1/0 | QPSK       | 25.22                 | 23.01   | 2.21                     |
|         |                 |        | 16QAM      | 25.36                 | 22.32   | 3.04                     |
| 20      | 2535            | RB 1/0 | QPSK       | 25.56                 | 23.02   | 2.54                     |
|         |                 |        | 16QAM      | 25.43                 | 22.34   | 3.09                     |

## 6.4 Occupied Bandwidth

|                      |                |
|----------------------|----------------|
| Temperature          | 24°C           |
| Relative Humidity    | 55%            |
| Atmospheric Pressure | 1013mbar       |
| Test date :          | April 12, 2017 |
| Tested By :          | Loren Luo      |

### Requirement(s):

| Spec                                                    | Item                                                                                                                                                                                                                                     | Requirement                 | Applicable                          |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------|
| §2.1049,<br>§22.917,<br>§22.905<br>§24.238<br>§27.53(a) | a)                                                                                                                                                                                                                                       | 99% Occupied Bandwidth(kHz) | <input checked="" type="checkbox"/> |
|                                                         | b)                                                                                                                                                                                                                                       | 26 dB Bandwidth(kHz)        | <input checked="" type="checkbox"/> |
| Test Setup                                              |                                                                                                                                                      |                             |                                     |
| Test Procedure                                          | <ul style="list-style-type: none"> <li>- The EUT was connected to Spectrum Analyzer and Base Station via power divider.</li> <li>- The 99% and 26 dB occupied bandwidth (BW) of the middle channel for the highest RF powers.</li> </ul> |                             |                                     |
| Remark                                                  |                                                                                                                                                                                                                                          |                             |                                     |
| Result                                                  | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail                                                                                                                                                                   |                             |                                     |

Test Data    ☒ Yes      ☐ N/A  
 Test Plot    ☒ Yes (See below)      ☐ N/A



### LTE Band II (Part 24E)

| BW(MHz) | Channel | Frequency (MHz) | Modulation | 99% Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---------|---------|-----------------|------------|------------------------------|-----------------------|
| 1.4     | 18607   | 1850            | 16QAM      | 1.0939                       | 1.253                 |
|         |         |                 | QPSK       | 1.1042                       | 1.283                 |
| 1.4     | 18900   | 1880            | 16QAM      | 1.1013                       | 1.278                 |
|         |         |                 | QPSK       | 1.1034                       | 1.262                 |
| 1.4     | 19193   | 1909            | 16QAM      | 1.1056                       | 1.279                 |
|         |         |                 | QPSK       | 1.0981                       | 1.269                 |
| 3       | 18615   | 1852            | 16QAM      | 2.7384                       | 3.012                 |
|         |         |                 | QPSK       | 2.7401                       | 3.033                 |
| 3       | 18900   | 1880            | 16QAM      | 2.7409                       | 3.043                 |
|         |         |                 | QPSK       | 2.7442                       | 3.039                 |
| 3       | 19185   | 1909            | 16QAM      | 2.7471                       | 3.022                 |
|         |         |                 | QPSK       | 2.7426                       | 3.050                 |
| 5       | 18625   | 1853            | 16QAM      | 4.5323                       | 5.038                 |
|         |         |                 | QPSK       | 4.5433                       | 5.087                 |
| 5       | 18900   | 1880            | 16QAM      | 4.5414                       | 5.038                 |
|         |         |                 | QPSK       | 4.5366                       | 5.018                 |
| 5       | 19175   | 1908            | 16QAM      | 4.5312                       | 5.071                 |
|         |         |                 | QPSK       | 4.5293                       | 5.037                 |
| 10      | 18650   | 1855            | 16QAM      | 9.0605                       | 10.10                 |
|         |         |                 | QPSK       | 9.0419                       | 10.07                 |
| 10      | 18900   | 1880            | 16QAM      | 9.0443                       | 10.08                 |
|         |         |                 | QPSK       | 9.0441                       | 10.10                 |
| 10      | 19150   | 1905            | 16QAM      | 9.0577                       | 10.02                 |
|         |         |                 | QPSK       | 9.0569                       | 10.17                 |
| 15      | 18675   | 1858            | 16QAM      | 13.492                       | 14.77                 |
|         |         |                 | QPSK       | 13.460                       | 14.67                 |
| 15      | 18900   | 1880            | 16QAM      | 13.487                       | 14.72                 |
|         |         |                 | QPSK       | 13.493                       | 14.77                 |
| 15      | 19125   | 1903            | 16QAM      | 13.468                       | 14.71                 |
|         |         |                 | QPSK       | 13.473                       | 14.77                 |

|    |       |      |       |        |       |
|----|-------|------|-------|--------|-------|
| 20 | 18700 | 1860 | 16QAM | 17.943 | 19.51 |
|    |       |      | QPSK  | 17.904 | 19.37 |
| 20 | 18900 | 1880 | 16QAM | 17.935 | 19.36 |
|    |       |      | QPSK  | 17.917 | 19.61 |
| 20 | 19100 | 1900 | 16QAM | 17.910 | 19.33 |
|    |       |      | QPSK  | 17.943 | 19.25 |

### LTE Band IV (Part 27)

| BW(MHz) | Channel | Frequency (MHz) | Modulation | 99% Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---------|---------|-----------------|------------|------------------------------|-----------------------|
| 1.4     | 19957   | 1711            | 16QAM      | 1.0962                       | 1.273                 |
|         |         |                 | QPSK       | 1.1035                       | 1.287                 |
| 1.4     | 20175   | 1733            | 16QAM      | 1.1012                       | 1.266                 |
|         |         |                 | QPSK       | 1.1043                       | 1.268                 |
| 1.4     | 20393   | 1754            | 16QAM      | 1.1014                       | 1.272                 |
|         |         |                 | QPSK       | 1.1061                       | 1.294                 |
| 3       | 19965   | 1712            | 16QAM      | 2.7384                       | 3.047                 |
|         |         |                 | QPSK       | 2.7510                       | 3.033                 |
| 3       | 20175   | 1733            | 16QAM      | 2.7334                       | 3.048                 |
|         |         |                 | QPSK       | 2.7333                       | 3.057                 |
| 3       | 20385   | 1754            | 16QAM      | 2.7492                       | 3.065                 |
|         |         |                 | QPSK       | 2.7434                       | 3.055                 |
| 5       | 19975   | 1713            | 16QAM      | 4.5277                       | 5.067                 |
|         |         |                 | QPSK       | 4.5320                       | 5.026                 |
| 5       | 20175   | 1733            | 16QAM      | 4.5453                       | 5.057                 |
|         |         |                 | QPSK       | 4.5218                       | 5.020                 |
| 5       | 20375   | 1753            | 16QAM      | 4.5298                       | 5.054                 |
|         |         |                 | QPSK       | 4.5359                       | 5.029                 |
| 10      | 20000   | 1715            | 16QAM      | 9.0598                       | 10.08                 |
|         |         |                 | QPSK       | 9.0538                       | 10.12                 |
| 10      | 20175   | 1733            | 16QAM      | 9.0649                       | 10.06                 |
|         |         |                 | QPSK       | 9.0592                       | 10.10                 |
| 10      | 20350   | 1750            | 16QAM      | 9.0438                       | 10.10                 |
|         |         |                 | QPSK       | 9.0801                       | 10.19                 |
| 15      | 20025   | 1718            | 16QAM      | 13.483                       | 14.85                 |
|         |         |                 | QPSK       | 13.455                       | 14.74                 |
| 15      | 20175   | 1733            | 16QAM      | 13.487                       | 14.81                 |
|         |         |                 | QPSK       | 13.493                       | 14.79                 |
| 15      | 20325   | 1748            | 16QAM      | 13.500                       | 14.86                 |
|         |         |                 | QPSK       | 13.507                       | 14.97                 |

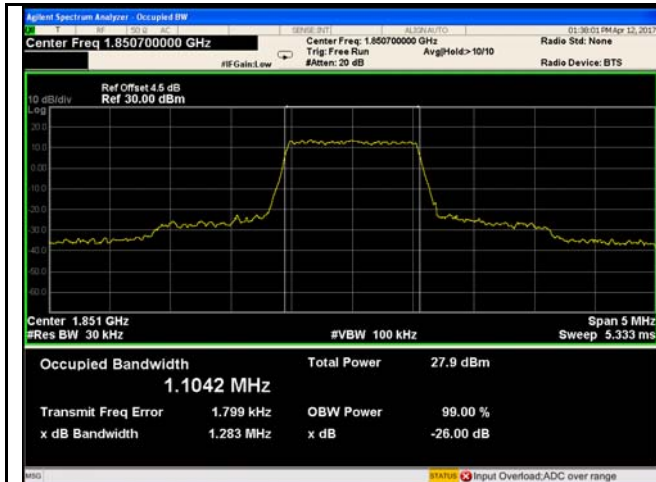
|    |       |      |       |        |       |
|----|-------|------|-------|--------|-------|
| 20 | 20050 | 1720 | 16QAM | 17.920 | 19.45 |
|    |       |      | QPSK  | 17.916 | 19.26 |
| 20 | 20175 | 1733 | 16QAM | 17.914 | 19.45 |
|    |       |      | QPSK  | 17.910 | 19.37 |
| 20 | 20300 | 1745 | 16QAM | 17.949 | 19.29 |
|    |       |      | QPSK  | 17.944 | 19.43 |

### LTE Band VII (Part 27) result

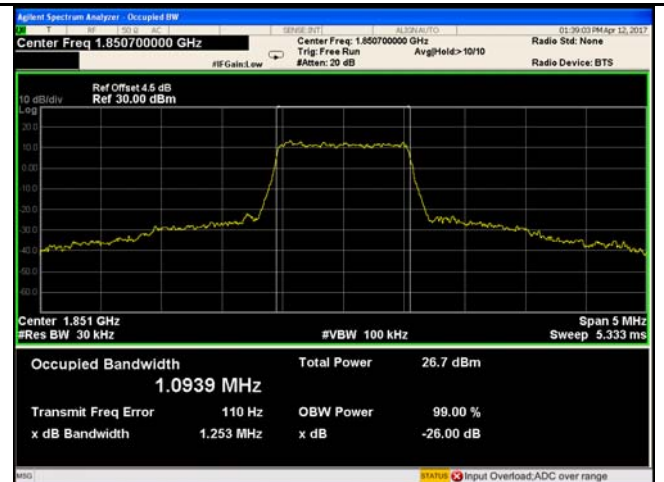
| BW(MHz) | Channel | Frequency (MHz) | Modulation | 99% Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---------|---------|-----------------|------------|------------------------------|-----------------------|
| 5       | 20775   | 2503            | 16QAM      | 4.5352                       | 5.041                 |
|         |         |                 | QPSK       | 4.5339                       | 5.059                 |
| 5       | 21100   | 2535            | 16QAM      | 4.5290                       | 5.046                 |
|         |         |                 | QPSK       | 4.5217                       | 5.053                 |
| 5       | 21425   | 2568            | 16QAM      | 4.5237                       | 5.040                 |
|         |         |                 | QPSK       | 4.5299                       | 5.047                 |
| 10      | 20800   | 2505            | 16QAM      | 9.0563                       | 10.08                 |
|         |         |                 | QPSK       | 9.0406                       | 10.02                 |
| 10      | 21100   | 2535            | 16QAM      | 9.0382                       | 10.09                 |
|         |         |                 | QPSK       | 9.0643                       | 10.07                 |
| 10      | 21400   | 2565            | 16QAM      | 9.0760                       | 10.07                 |
|         |         |                 | QPSK       | 9.0482                       | 10.11                 |
| 15      | 20825   | 2508            | 16QAM      | 13.493                       | 14.80                 |
|         |         |                 | QPSK       | 13.462                       | 14.85                 |
| 15      | 21100   | 2535            | 16QAM      | 13.479                       | 14.80                 |
|         |         |                 | QPSK       | 13.495                       | 14.85                 |
| 15      | 21400   | 2563            | 16QAM      | 13.516                       | 14.82                 |
|         |         |                 | QPSK       | 13.520                       | 14.99                 |
| 20      | 20850   | 2510            | 16QAM      | 17.913                       | 19.31                 |
|         |         |                 | QPSK       | 17.909                       | 19.43                 |
| 20      | 21100   | 2535            | 16QAM      | 17.940                       | 19.34                 |
|         |         |                 | QPSK       | 17.929                       | 19.50                 |
| 20      | 21350   | 2560            | 16QAM      | 17.902                       | 19.49                 |
|         |         |                 | QPSK       | 17.934                       | 19.36                 |

## Test Plots

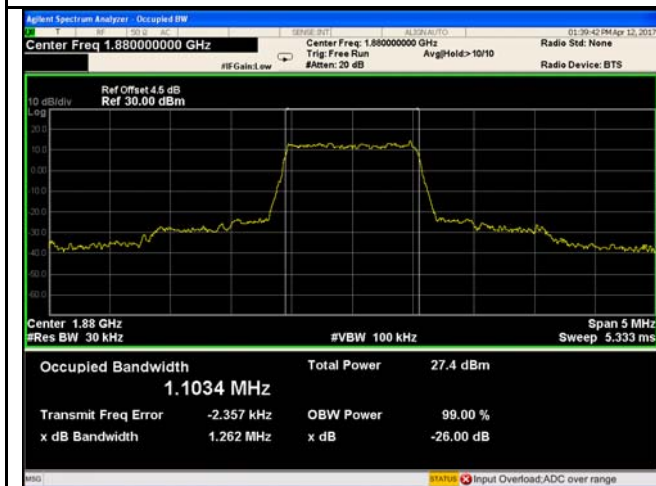
### LTE Band II (Part 24E)



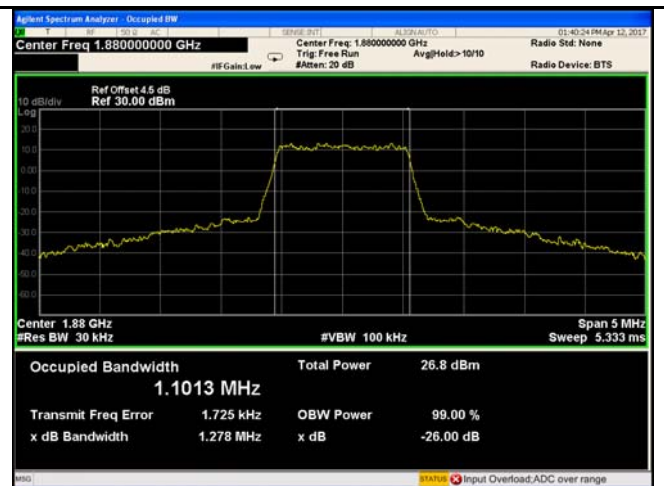
LTE band II - Low CH QPSK-1.4



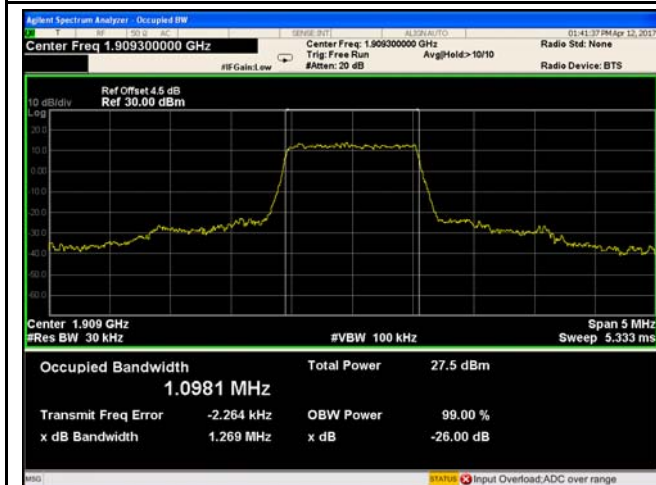
LTE band II - Low CH 16QAM-1.4



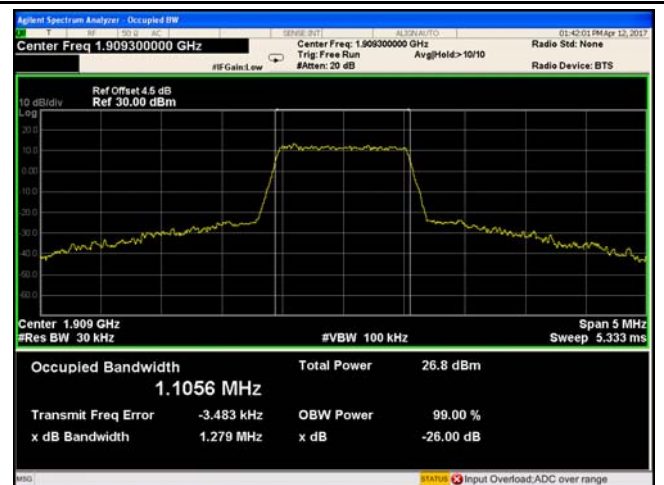
LTE band II - Middle CH QPSK-1.4



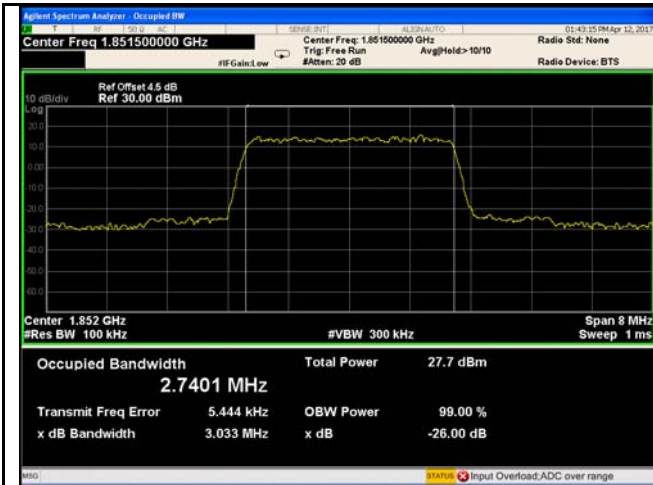
LTE band II - Middle CH 16QAM-1.4



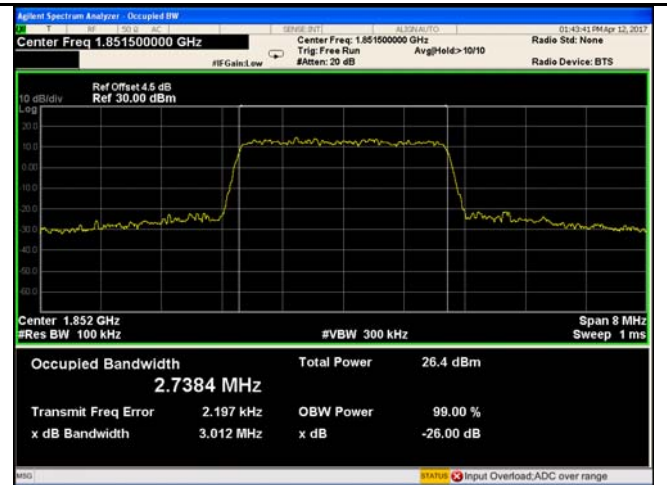
LTE band II - High CH QPSK-1.4



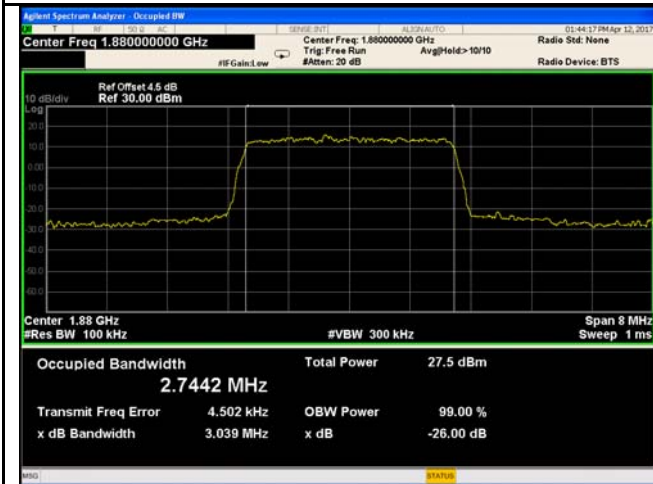
LTE band II - High CH 16QAM-1.4



LTE band II - Low CH QPSK-3



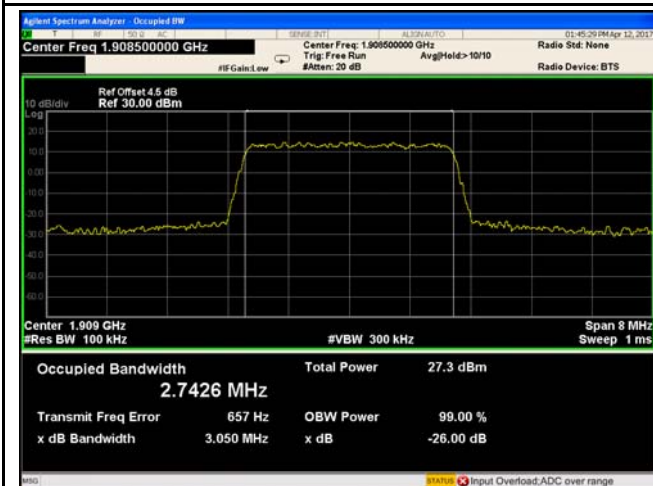
LTE band II - Low CH 16QAM-3



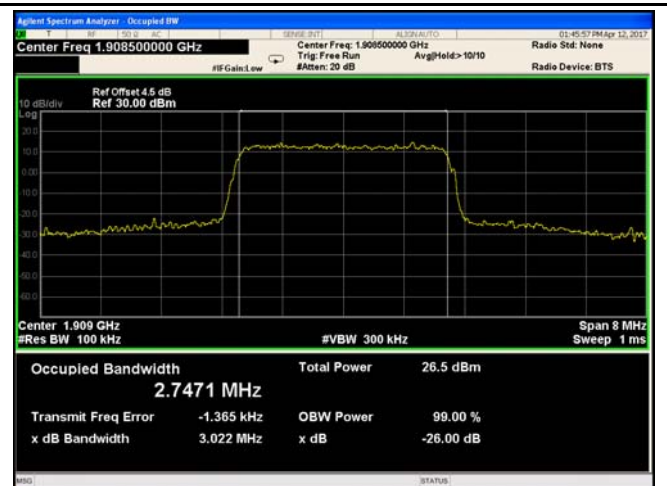
LTE band II - Middle CH QPSK-3



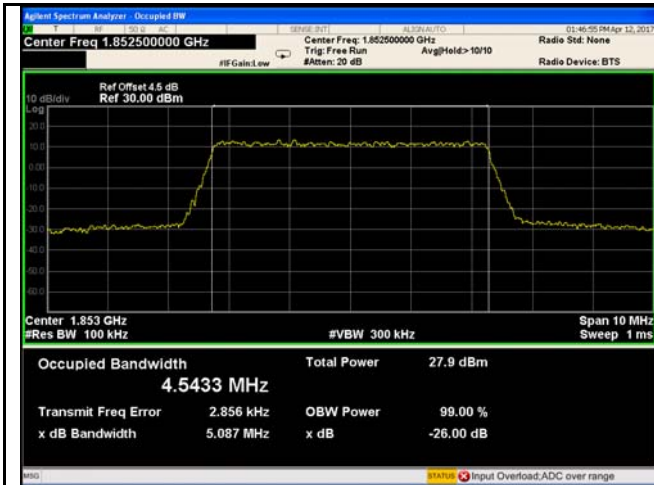
LTE band II - Middle CH 16QAM-3



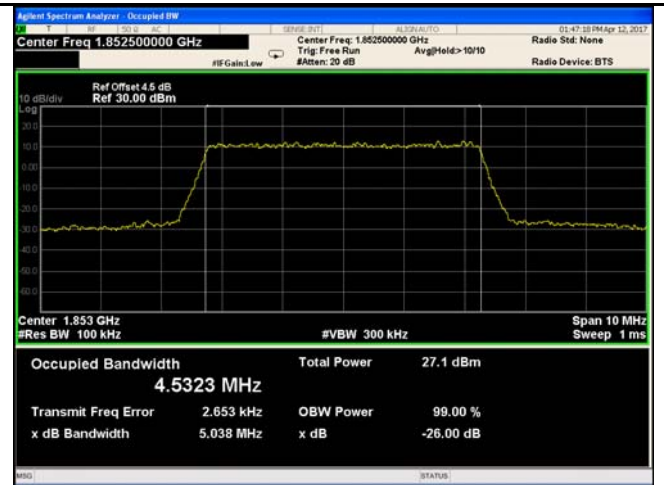
LTE band II - High CH QPSK-3



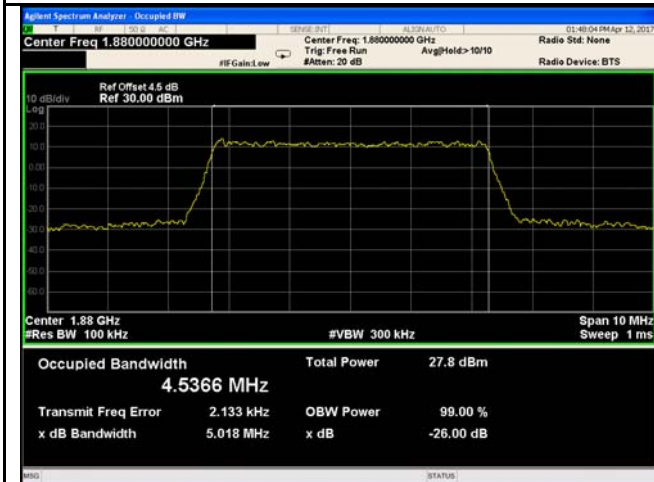
LTE band II - High CH 16QAM-3



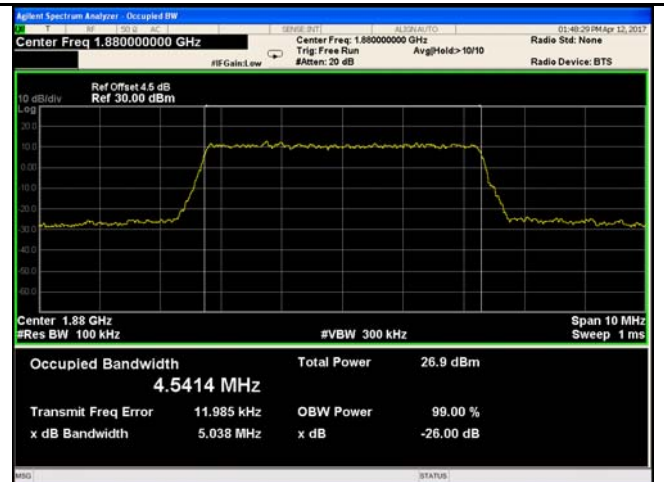
LTE band II - Low CH QPSK-5



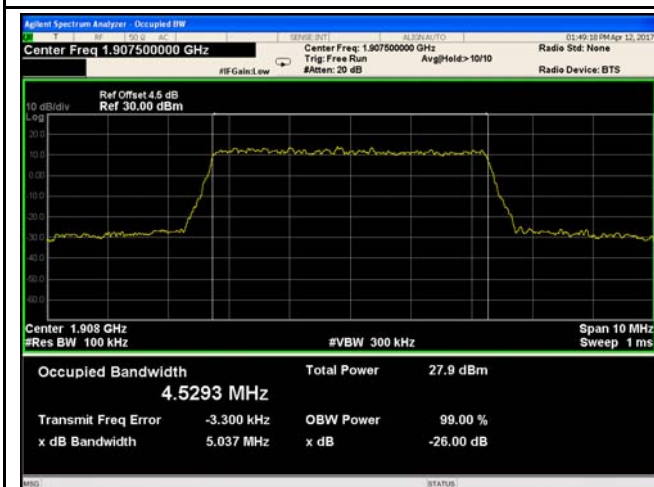
LTE band II - Low CH 16QAM-5



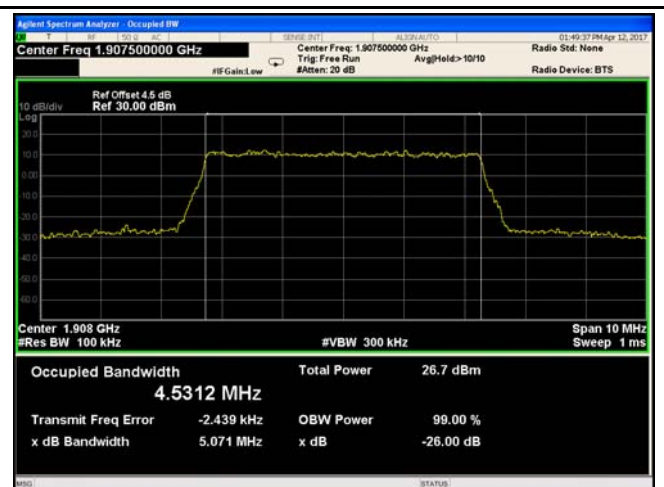
LTE band II - Middle CH QPSK-5



LTE band II - Middle CH 16QAM-5

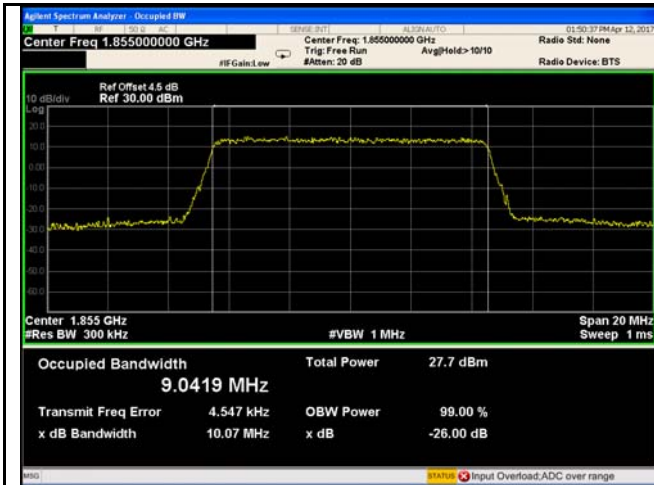


LTE band II - High CH QPSK-5



LTE band II - High CH 16QAM-5

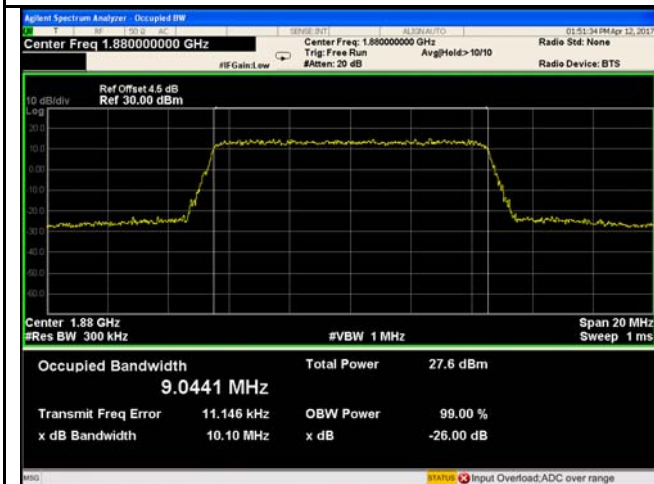




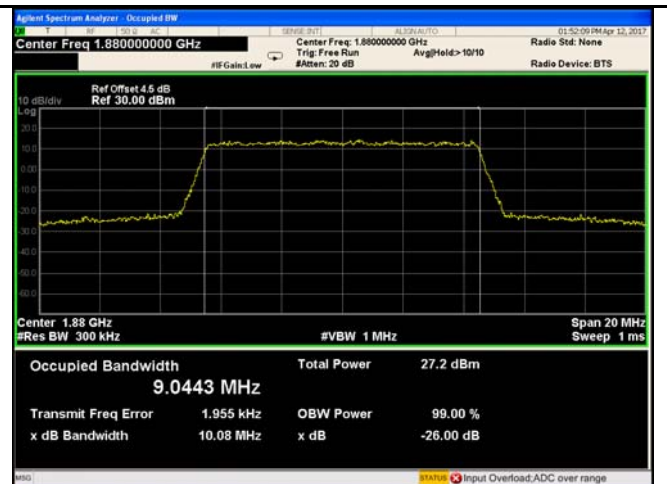
LTE band II - Low CH QPSK-10



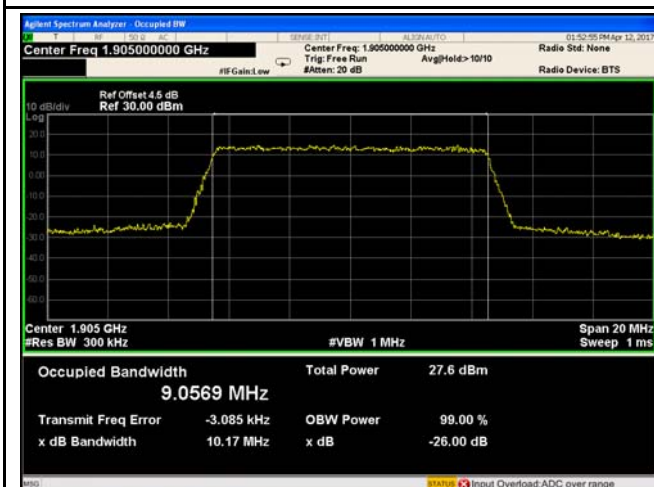
LTE band II - Low CH 16QAM-10



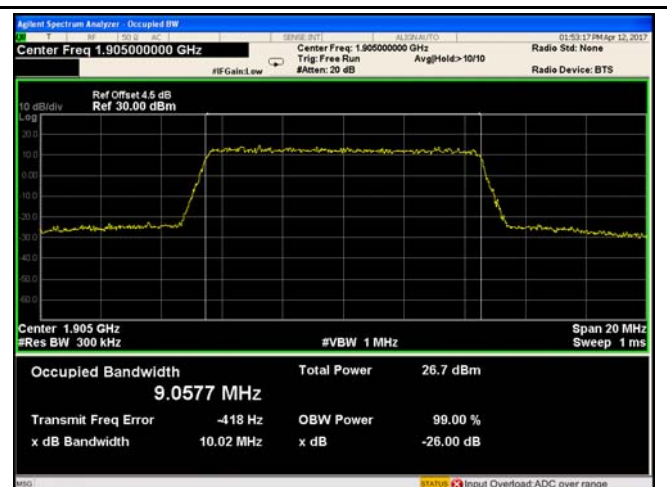
LTE band II - Middle CH QPSK-10



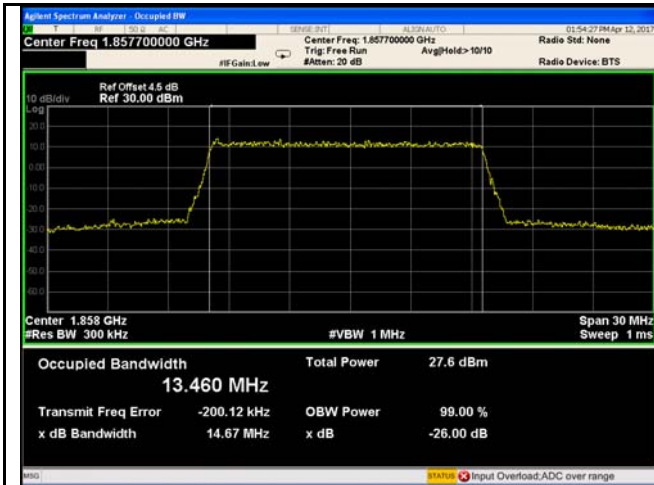
LTE band II - Middle CH 16QAM-10



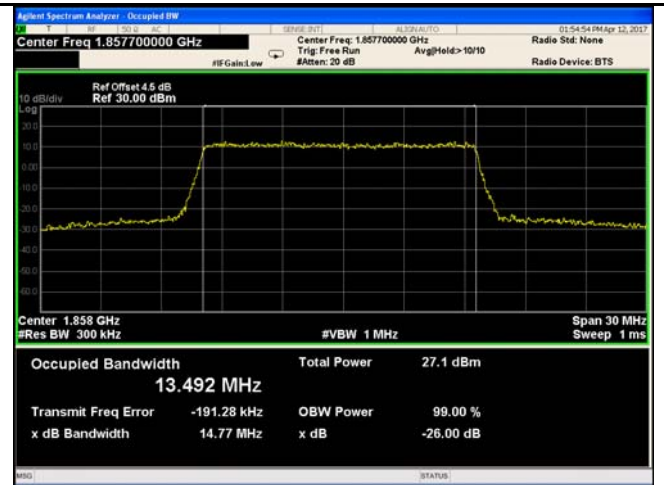
LTE band II - High CH QPSK-10



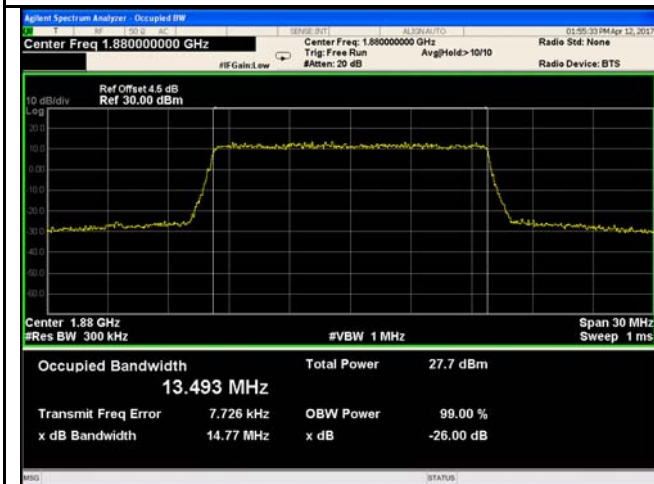
LTE band II - High CH 16QAM-10



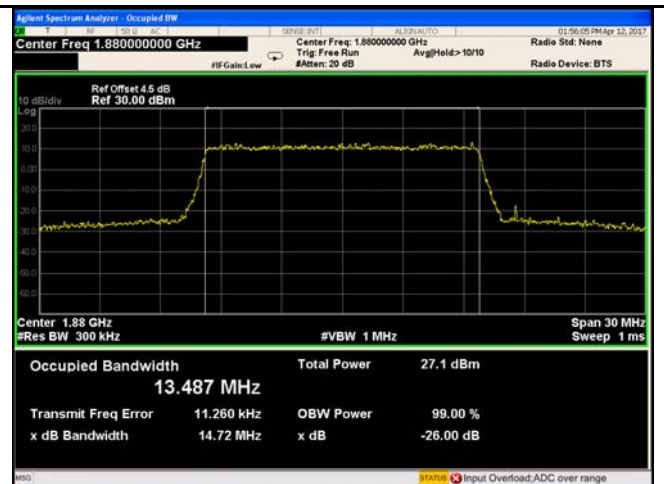
LTE band II - Low CH QPSK-15



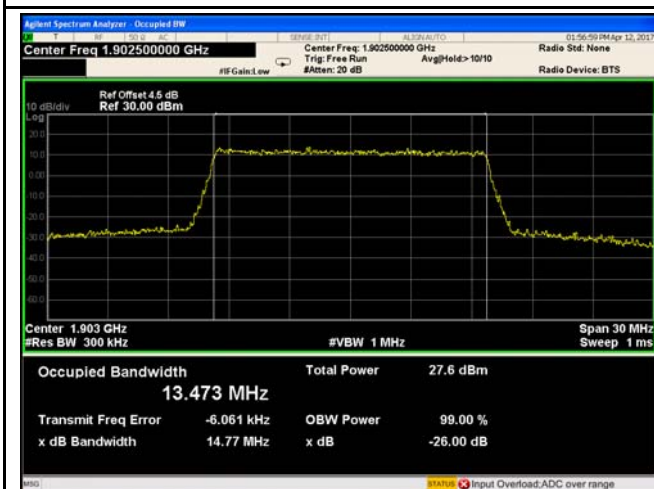
LTE band II - Low CH 16QAM-15



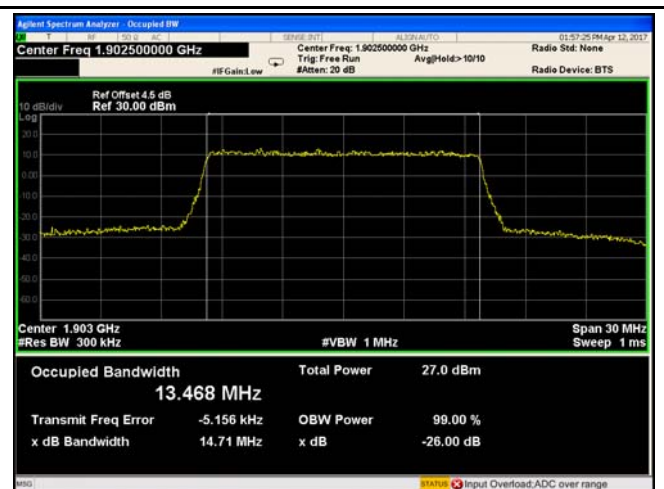
LTE band II - Middle CH QPSK-15



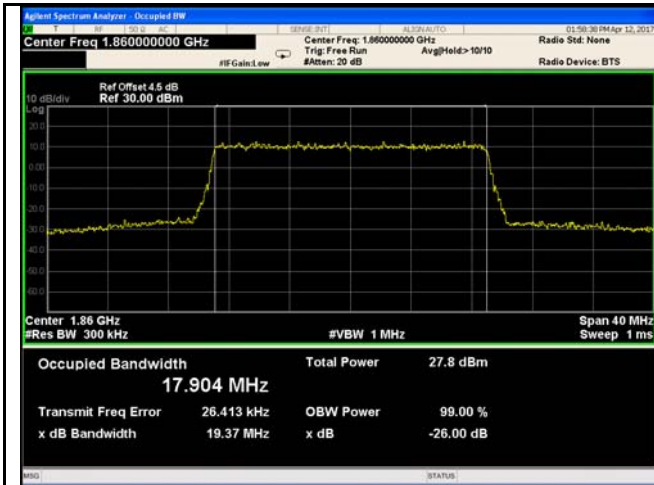
LTE band II - Middle CH 16QAM-15



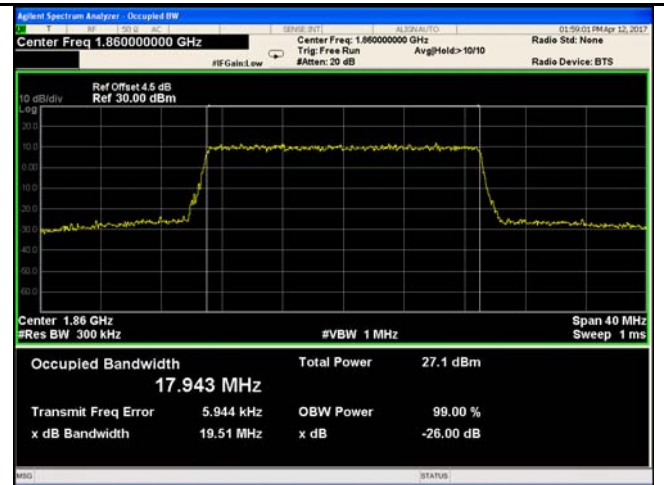
LTE band II - High CH QPSK-15



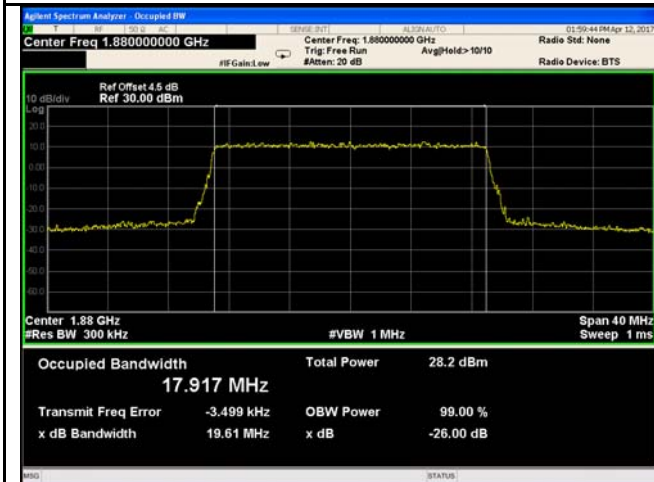
LTE band II - High CH 16QAM-15



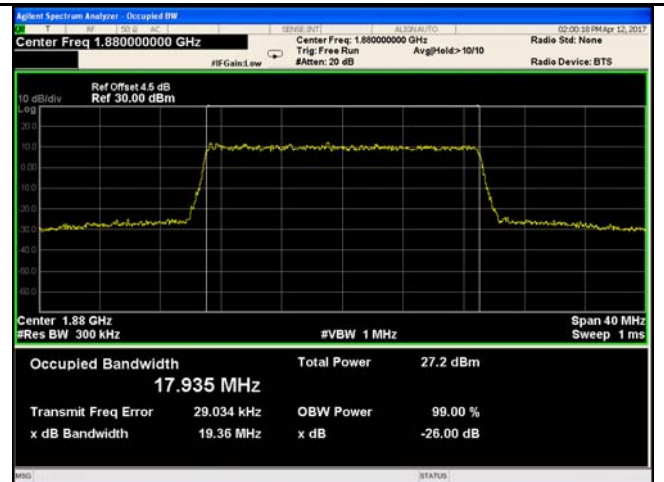
LTE band II - Low CH QPSK-20



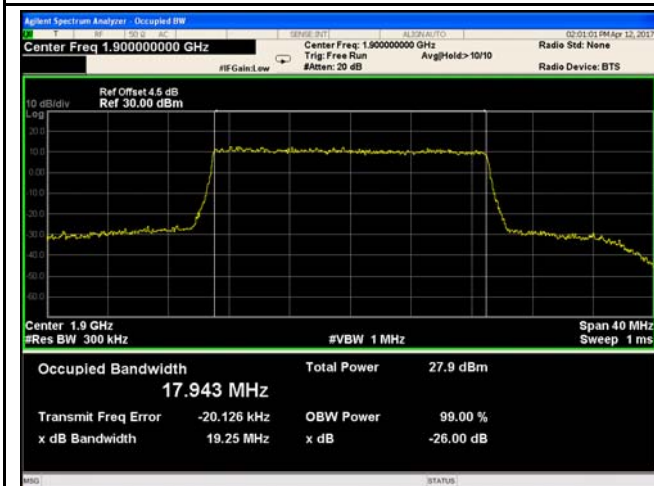
LTE band II - Low CH 16QAM-20



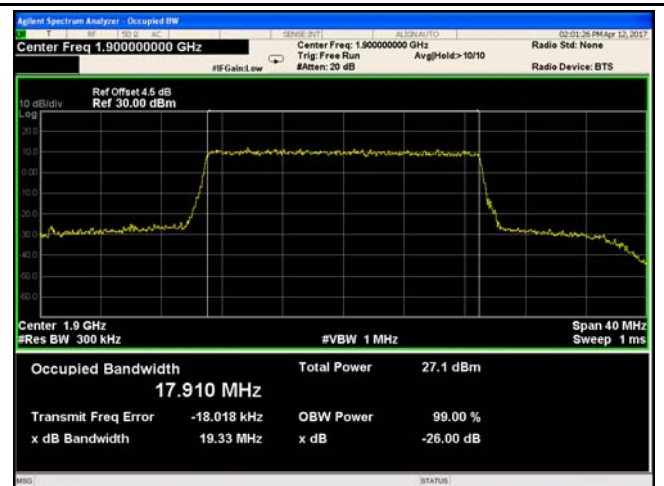
LTE band II - Middle CH QPSK-20



LTE band II - Middle CH 16QAM-20

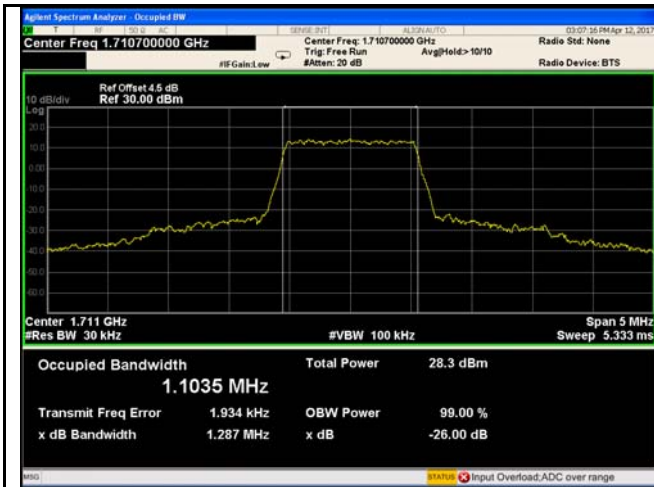


LTE band II - High CH QPSK-20



LTE band II - High CH 16QAM-20

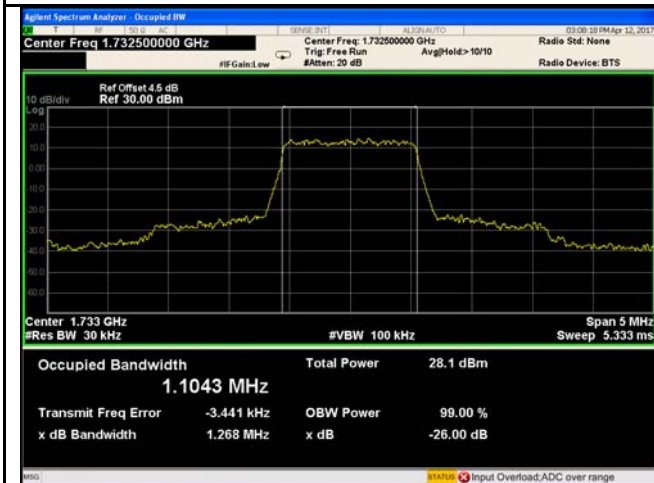
## LTE band IV (Part 27)



LTE band IV - Low CH QPSK-1.4



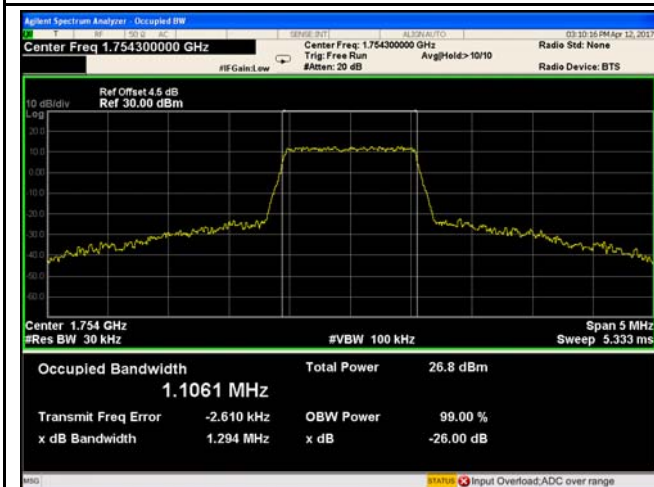
LTE band IV - Low CH 16QAM-1.4



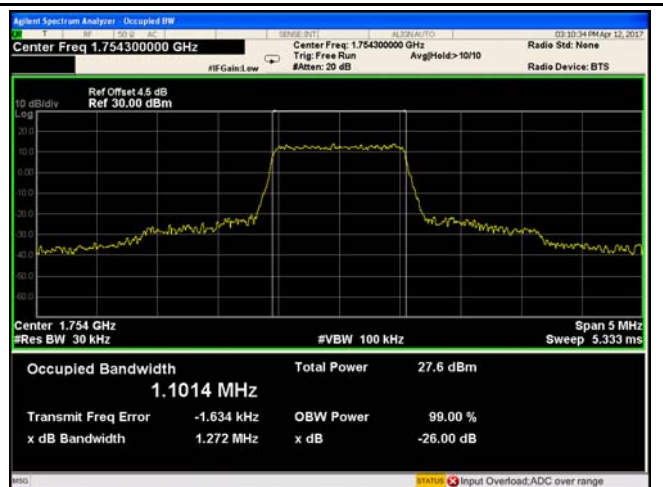
LTE band IV - Middle CH QPSK-1.4



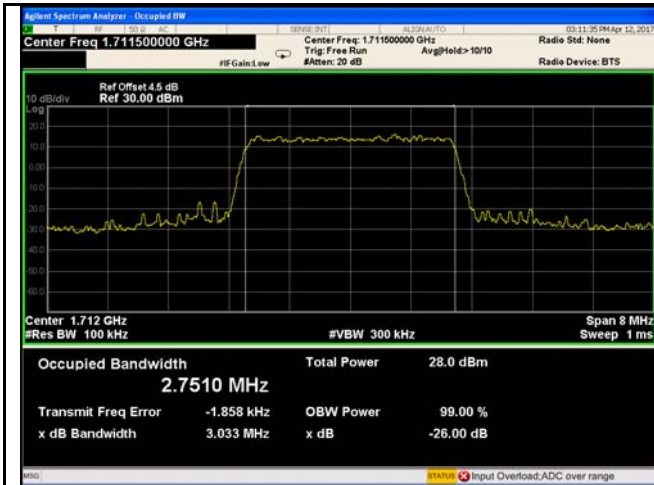
LTE band IV - Middle CH 16QAM-1.4



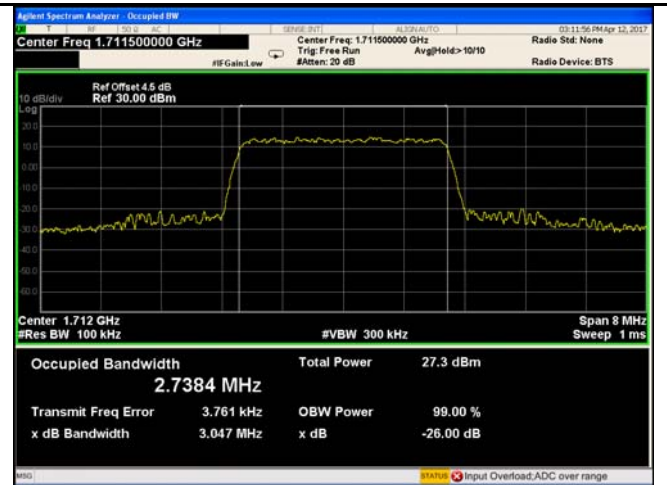
LTE band IV - High CH QPSK-1.4



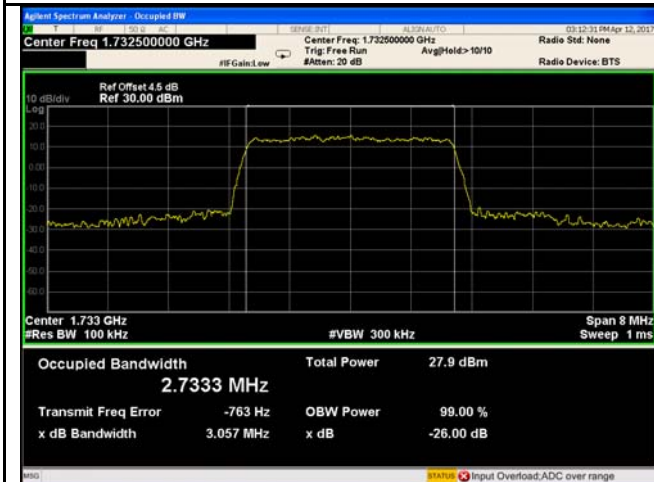
LTE band IV - High CH 16QAM-1.4



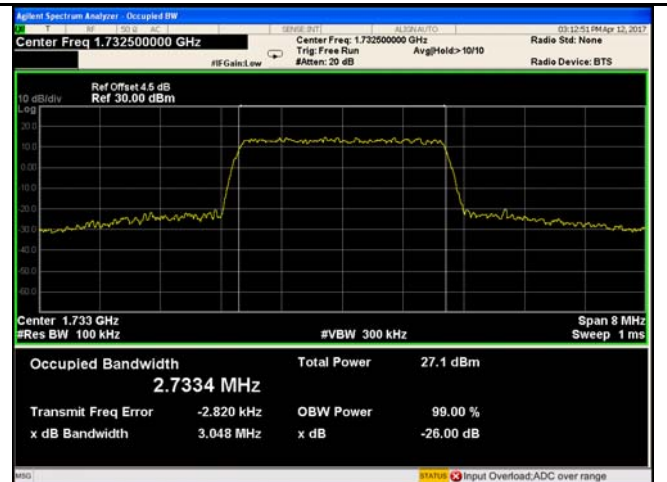
LTE band IV - Low CH QPSK-3



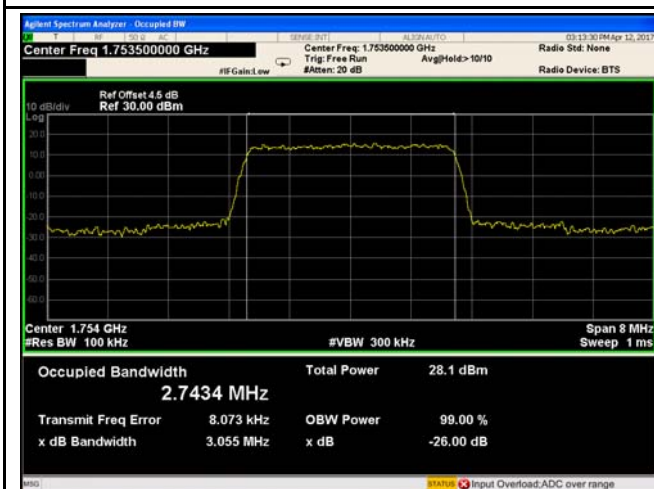
LTE band IV - Low CH 16QAM-3



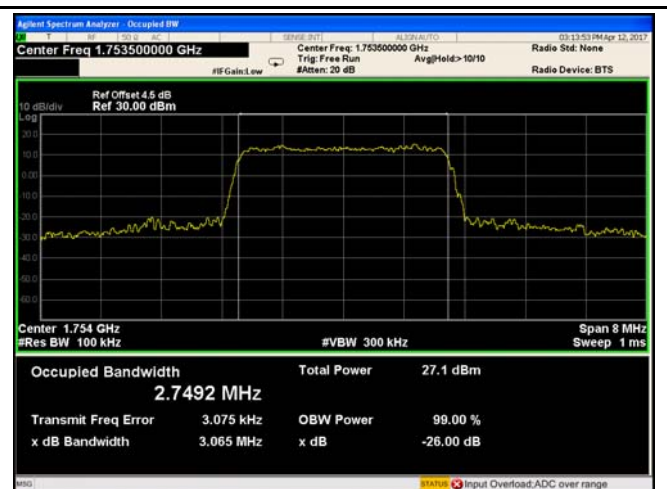
LTE band IV - Middle CH QPSK-3



LTE band IV - Middle CH 16QAM-3

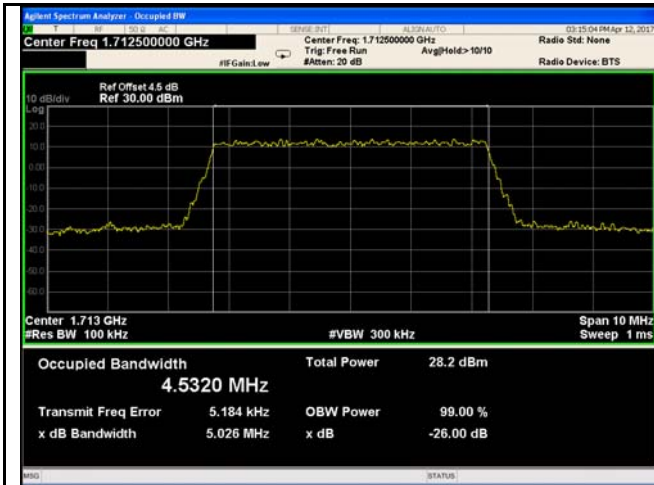


LTE band IV - High CH QPSK-3

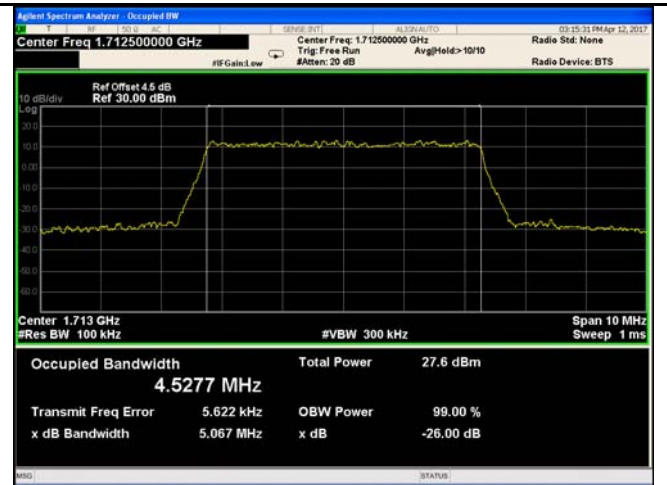


LTE band IV - High CH 16QAM-3

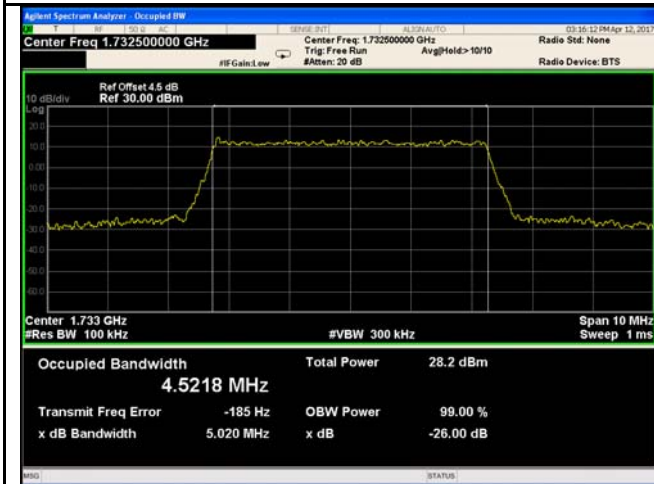




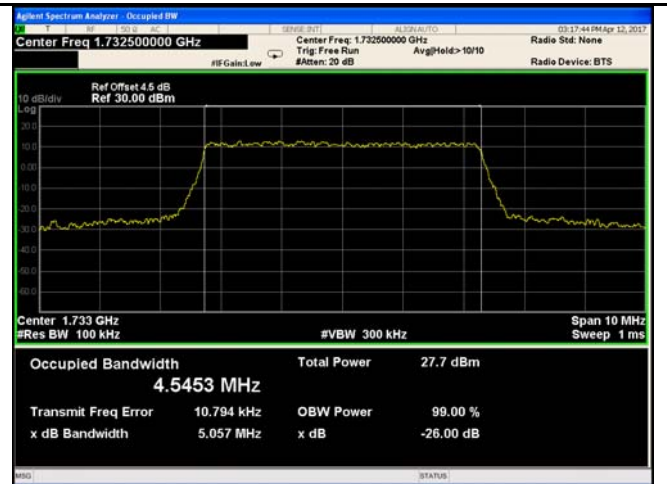
LTE band IV - Low CH QPSK-5



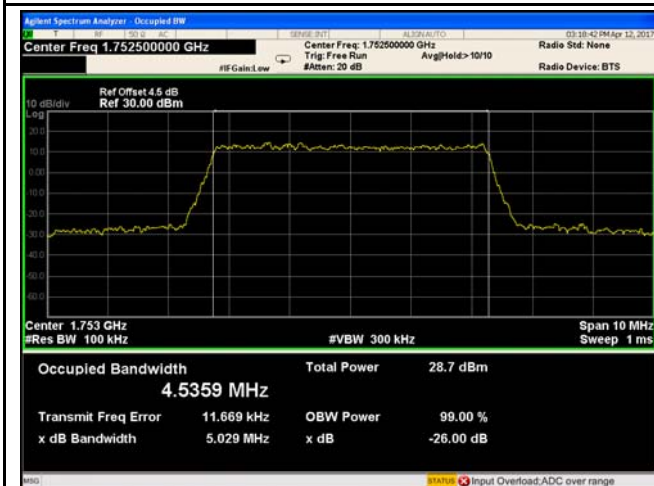
LTE band IV - Low CH 16QAM-5



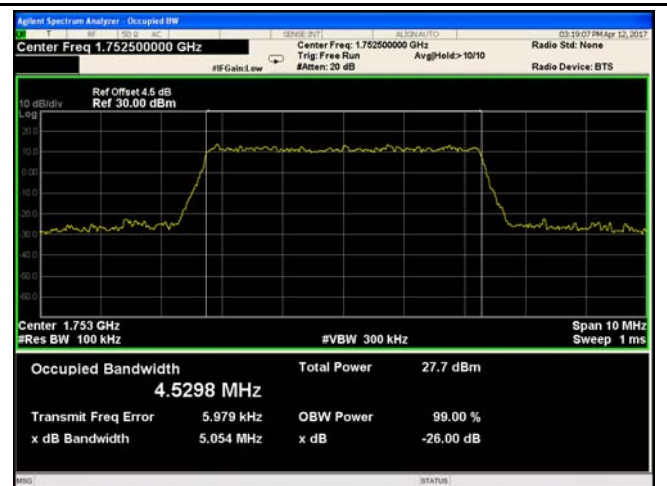
LTE band IV - Middle CH QPSK-5



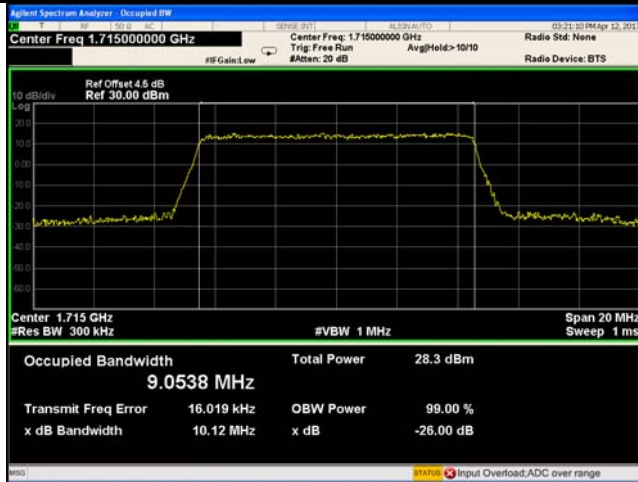
LTE band IV - Middle CH 16QAM-5



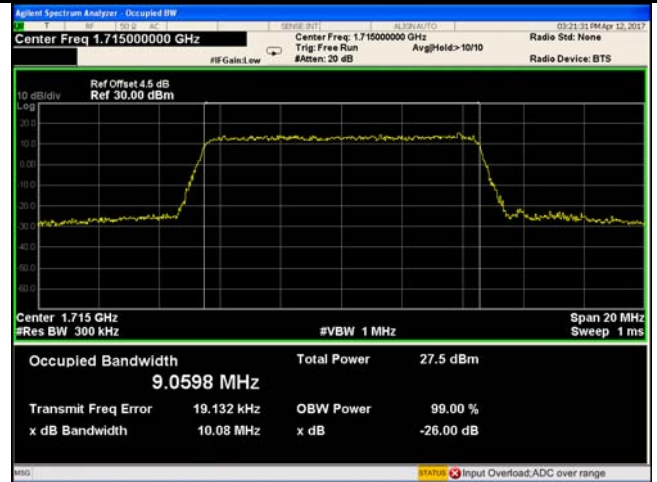
LTE band IV - High CH QPSK-5



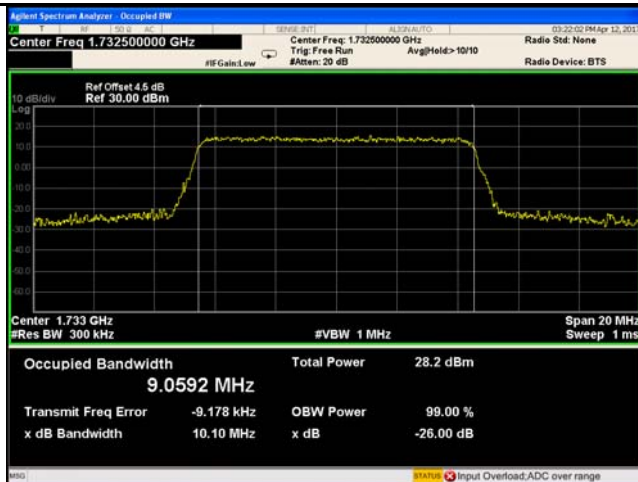
LTE band IV - High CH 16QAM-5



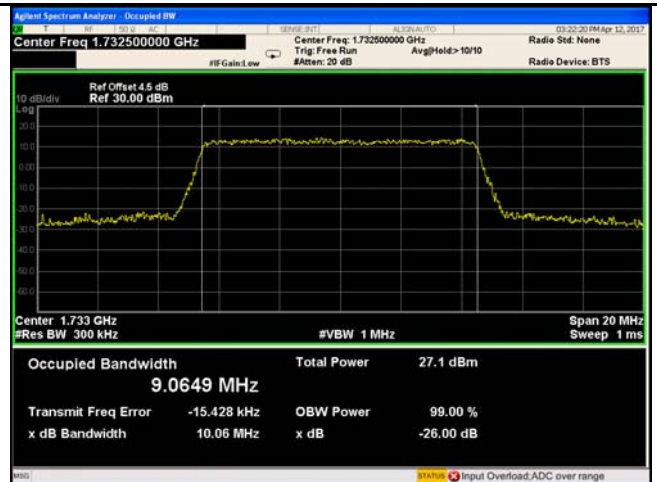
LTE band IV - Low CH QPSK-10



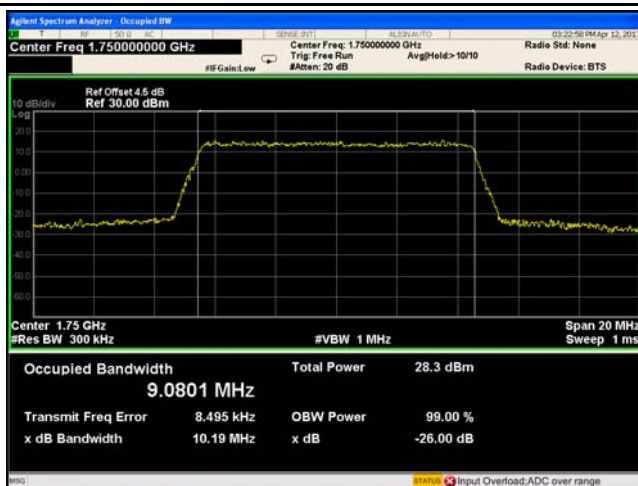
LTE band IV - Low CH 16QAM-10



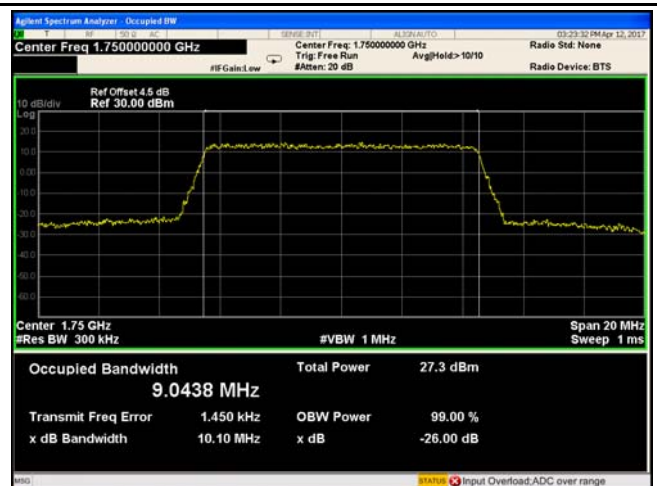
LTE band IV - Middle CH QPSK-10



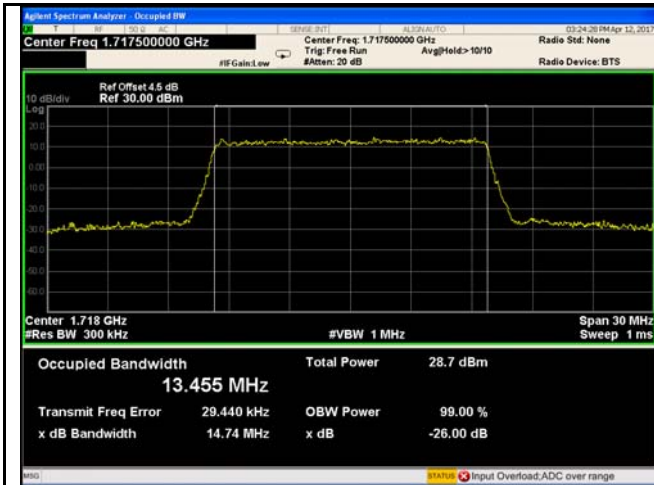
LTE band IV - Middle CH 16QAM-10



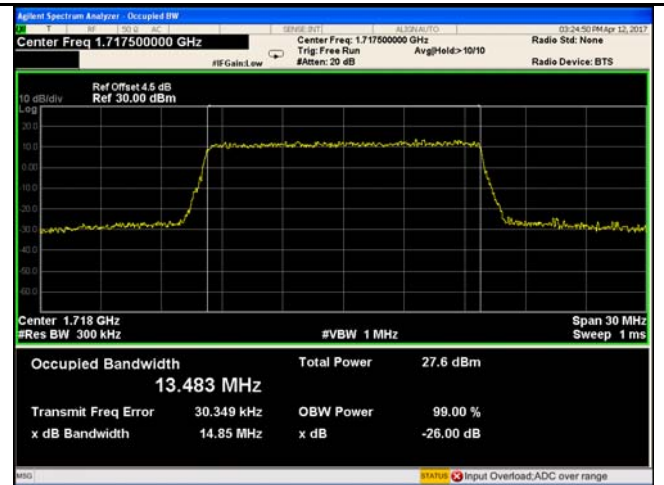
LTE band IV - High CH QPSK-10



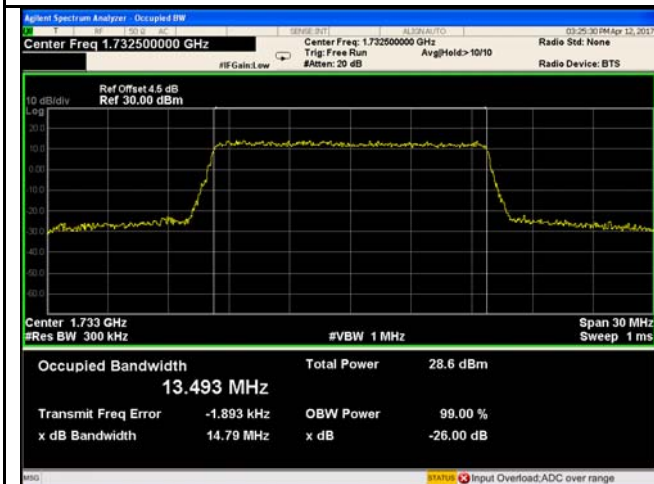
LTE band IV - High CH 16QAM-10



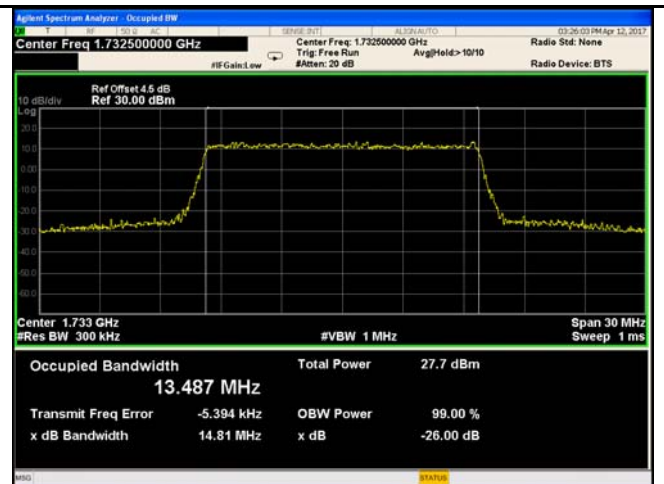
LTE band IV - Low CH QPSK-15



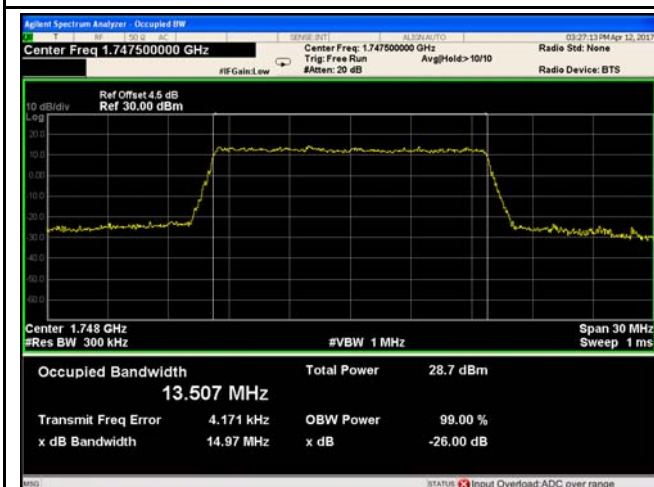
LTE band IV - Low CH 16QAM-15



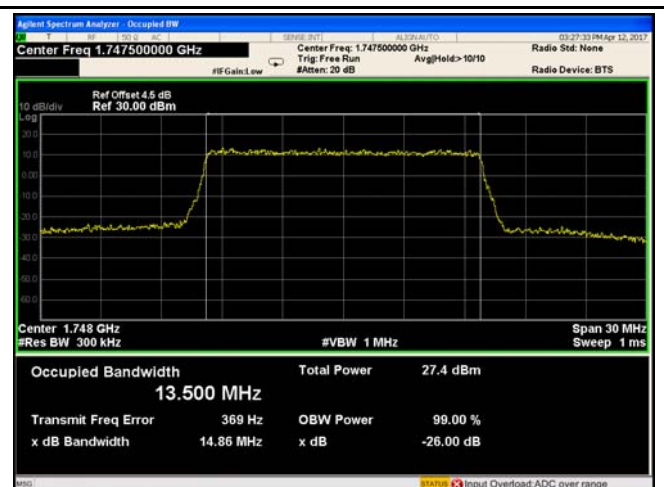
LTE band IV - Middle CH QPSK-15



LTE band IV - Middle CH 16QAM-15



LTE band IV - High CH QPSK-15

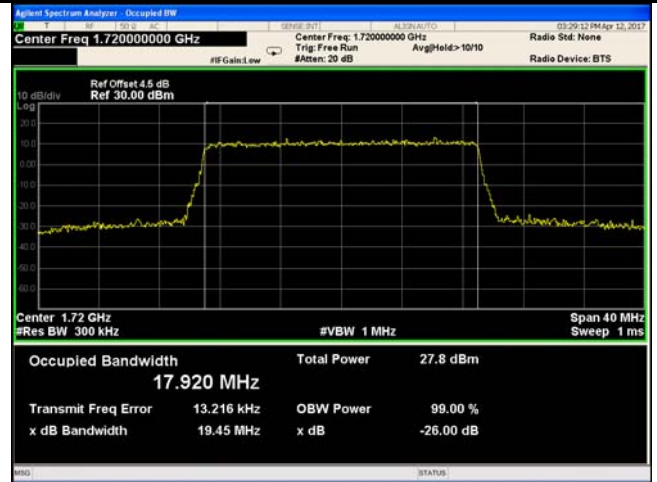


LTE band IV - High CH 16QAM-15

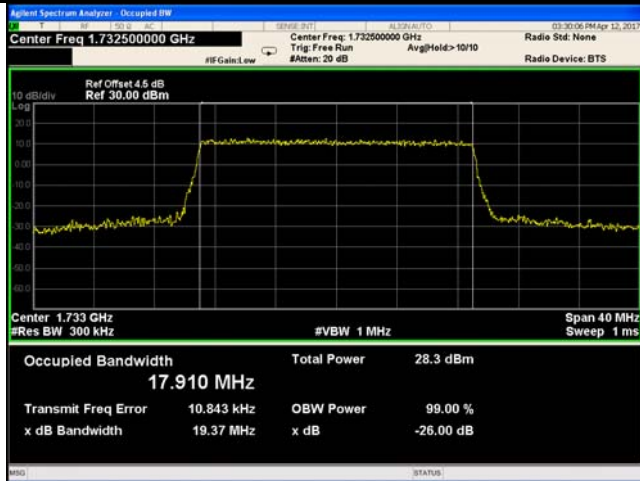




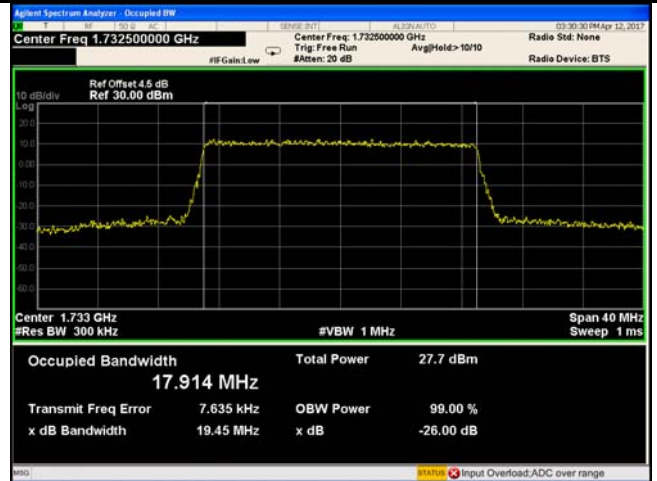
LTE band IV - Low CH QPSK-20



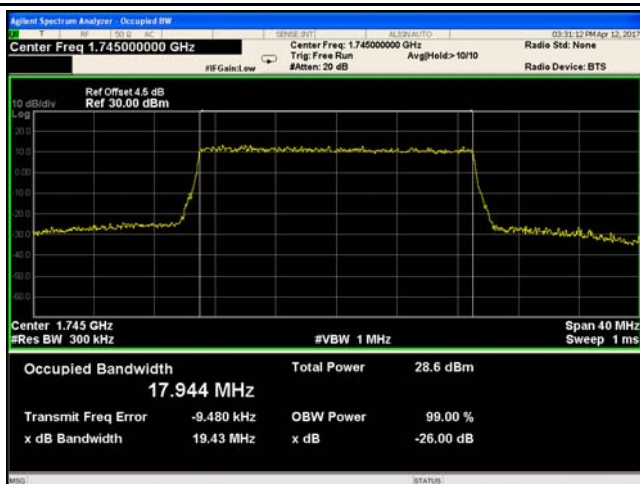
LTE band IV - Low CH 16QAM-20



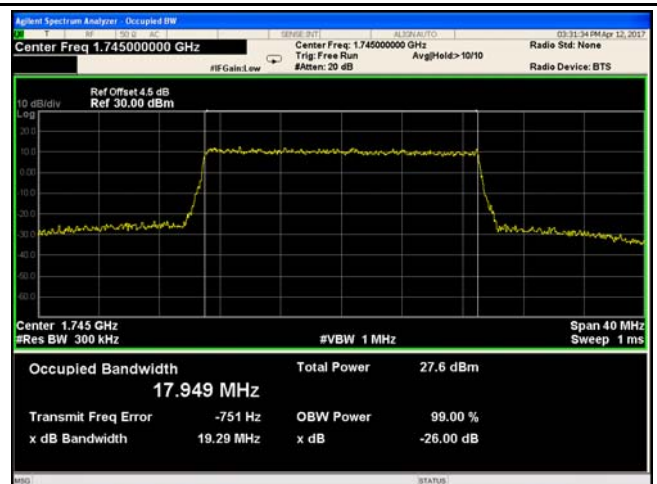
LTE band IV - Middle CH QPSK-20



LTE band IV - Middle CH 16QAM-20

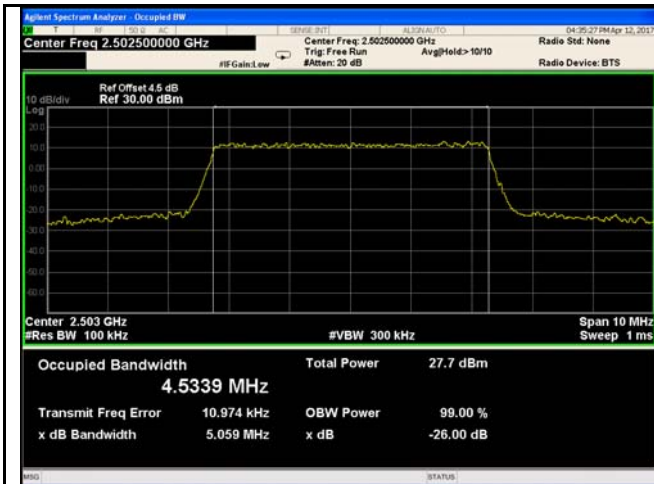


LTE band IV - High CH QPSK-20

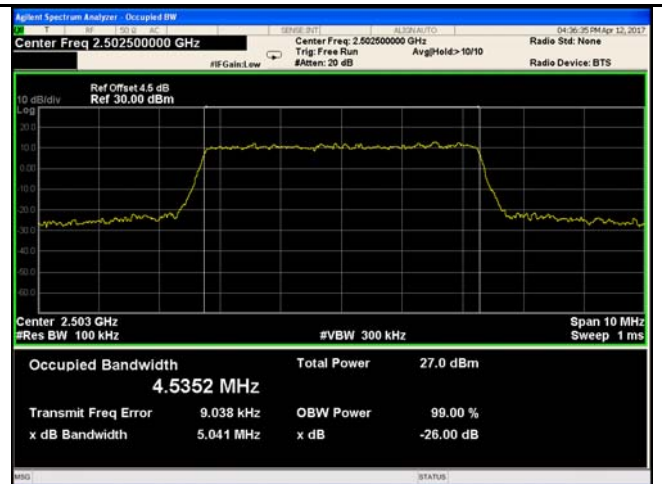


LTE band IV - High CH 16QAM-20

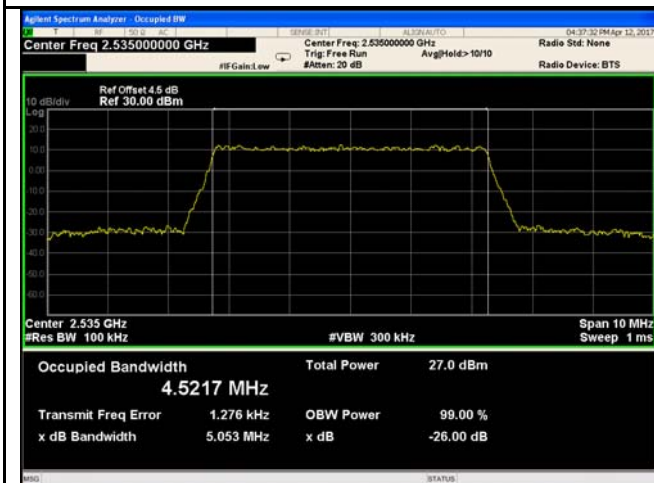
## LTE band VII (Part 27)



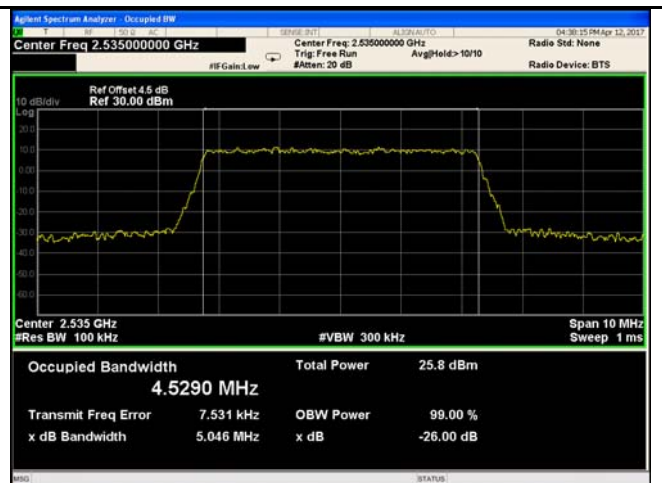
LTE band VII - Low CH QPSK-5



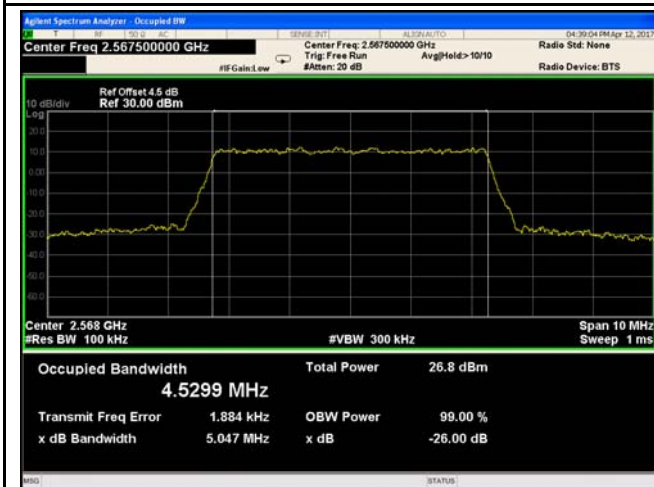
LTE band VII - Low CH 16QAM-5



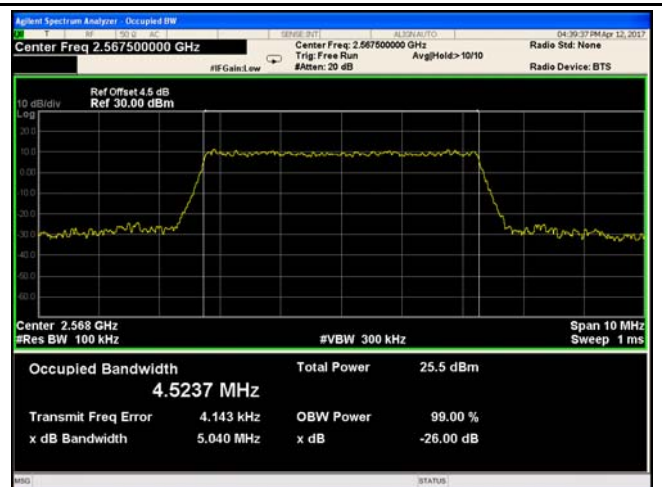
LTE band VII - Middle CH QPSK-5



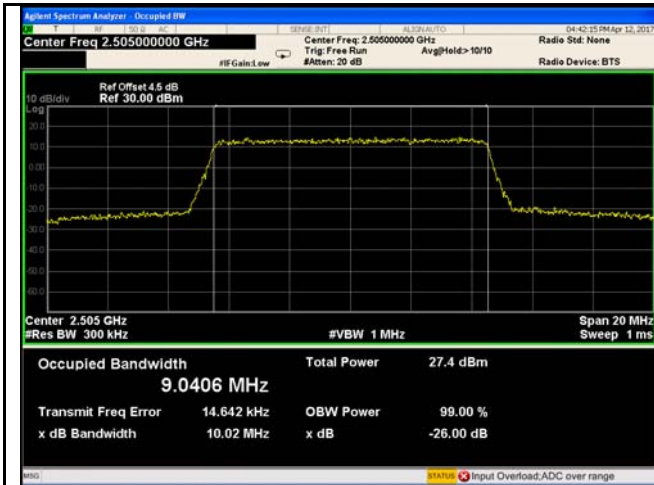
LTE band VII - Middle CH 16QAM-5



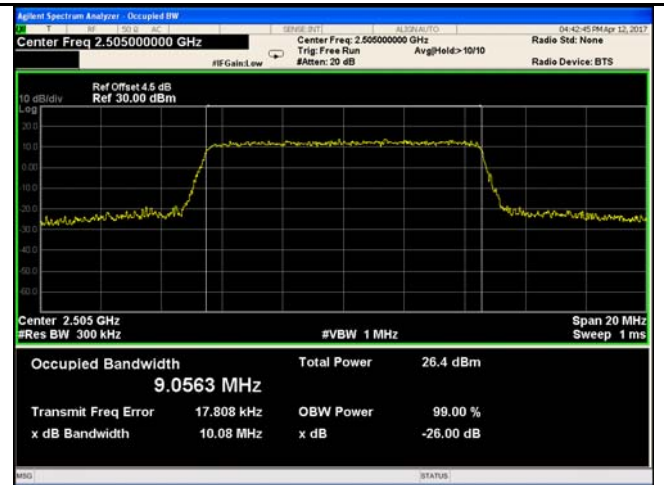
LTE band VII - High CH QPSK-5



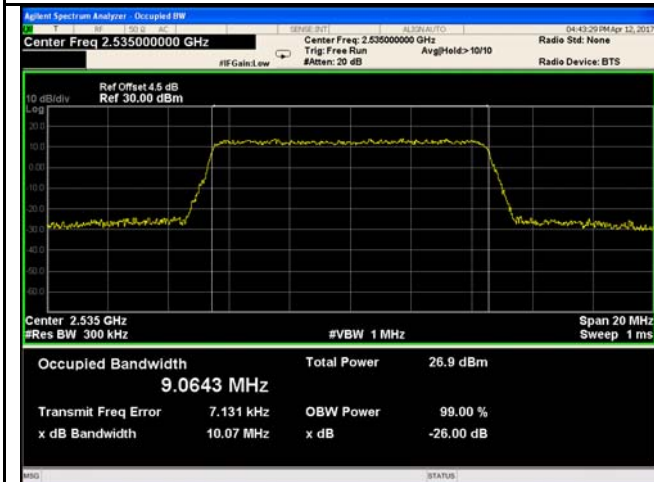
LTE band VII - High CH 16QAM-5



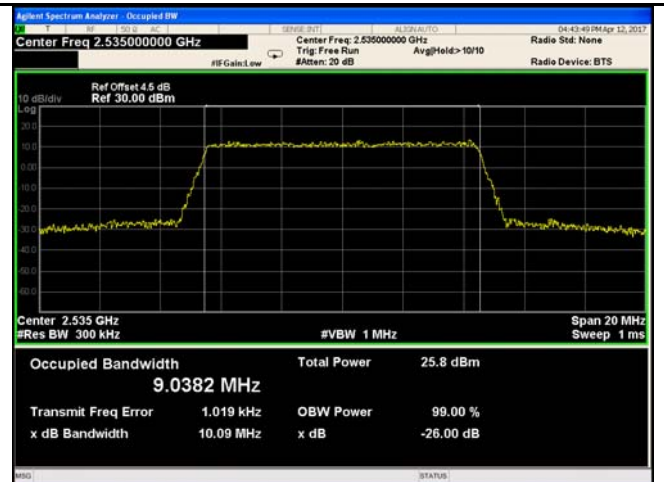
LTE band VII - Low CH QPSK-10



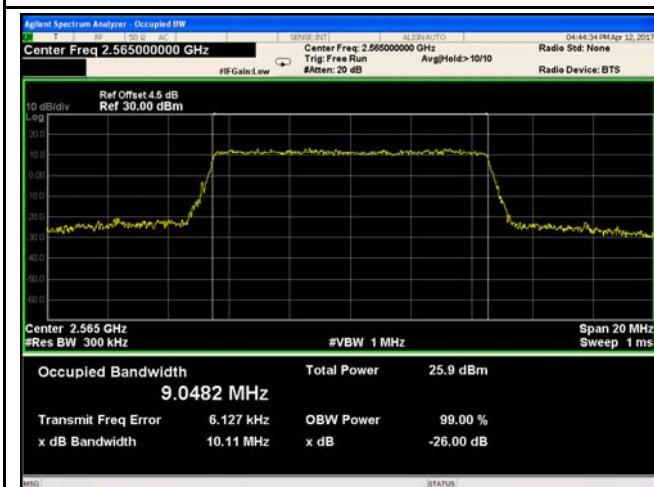
LTE band VII - Low CH 16QAM-10



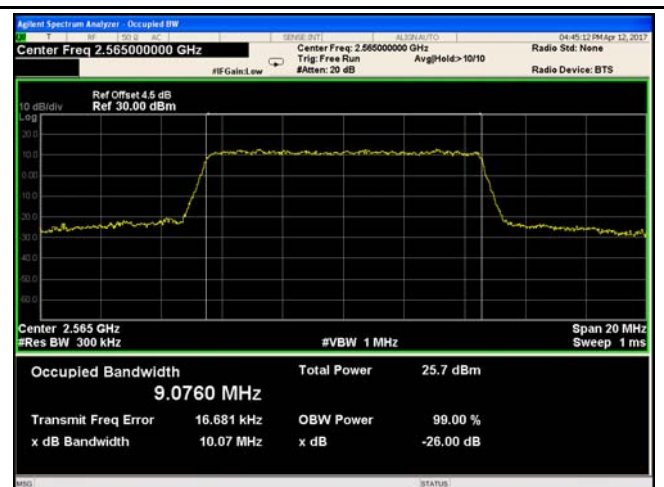
LTE band VII - Middle CH QPSK-10



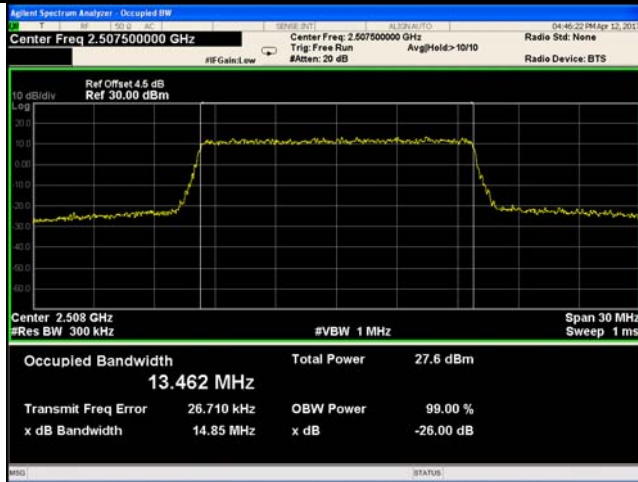
LTE band VII - Middle CH 16QAM-10



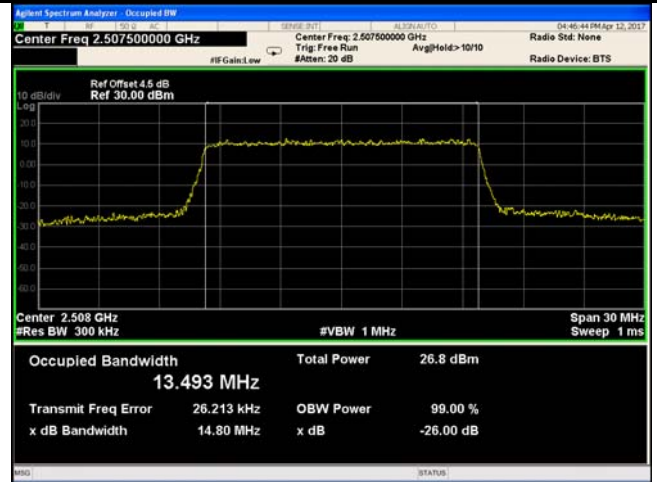
LTE band VII - High CH QPSK-10



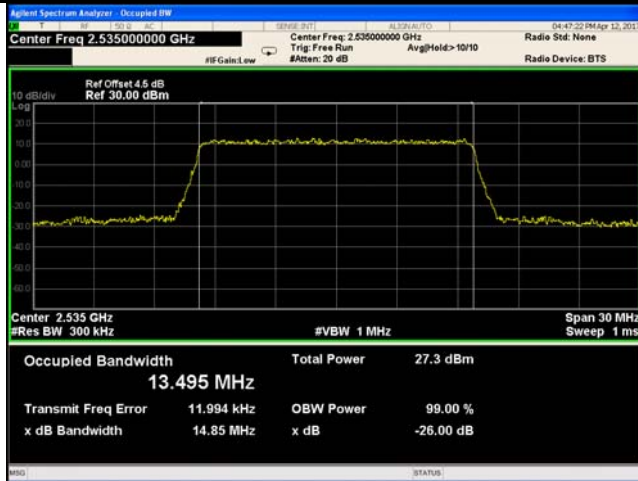
LTE band VII - High CH 16QAM-10



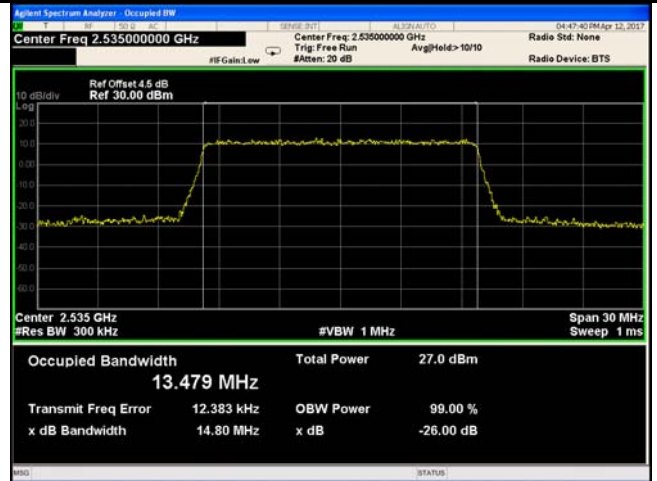
LTE band VII - Low CH QPSK-15



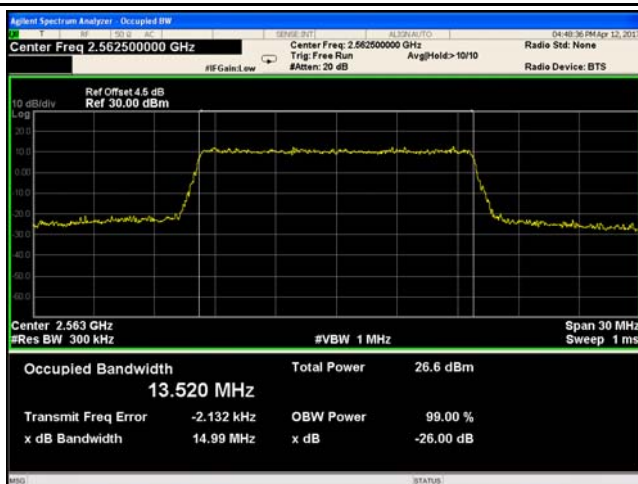
LTE band VII - Low CH 16QAM-15



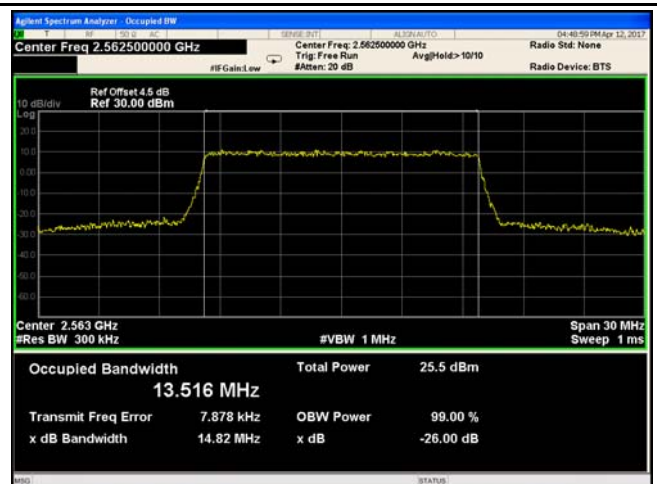
LTE band VII - Middle CH QPSK-15



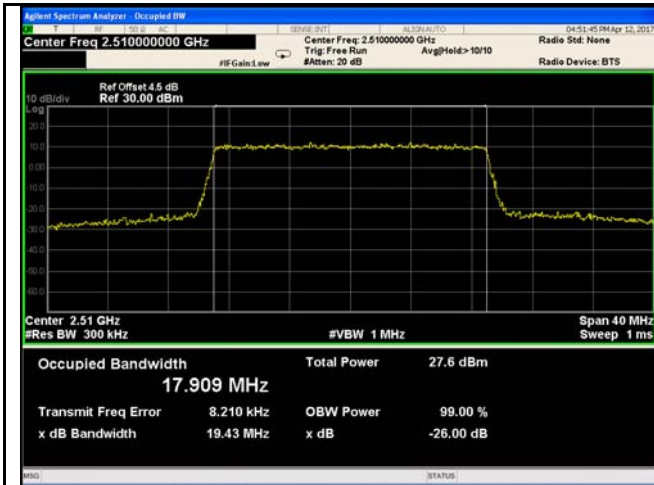
LTE band VII - Middle CH 16QAM-15



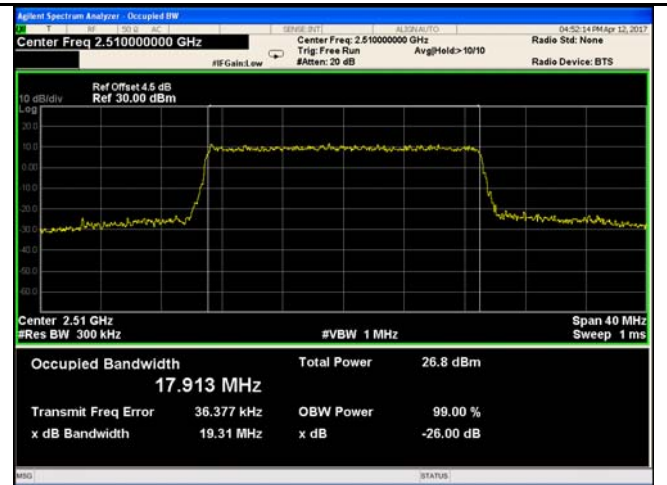
LTE band VII - High CH QPSK-15



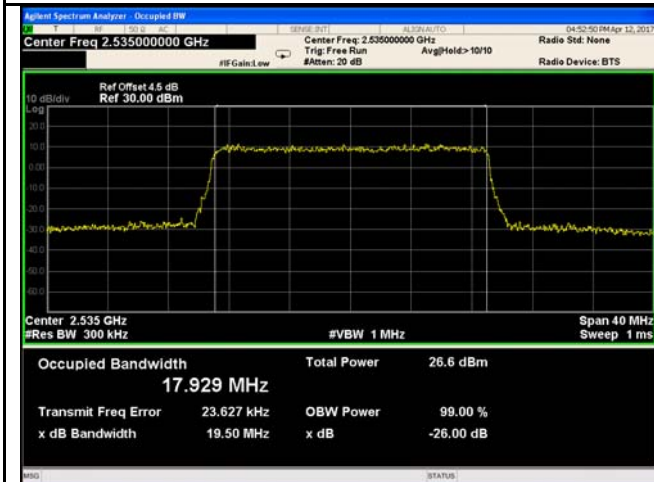
LTE band VII - High CH 16QAM-15



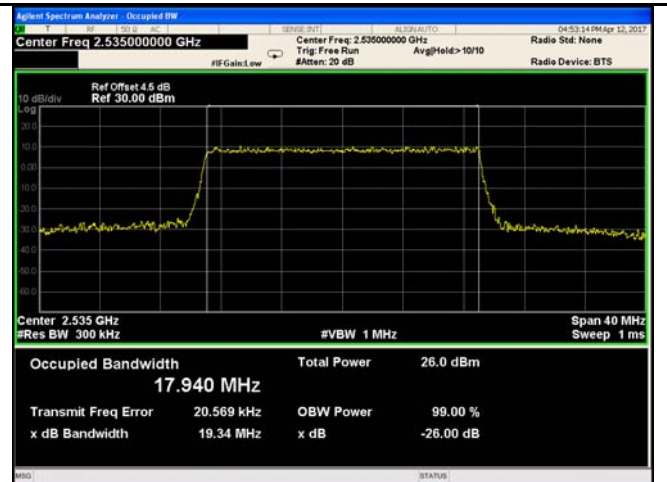
LTE band VII - Low CH QPSK-20



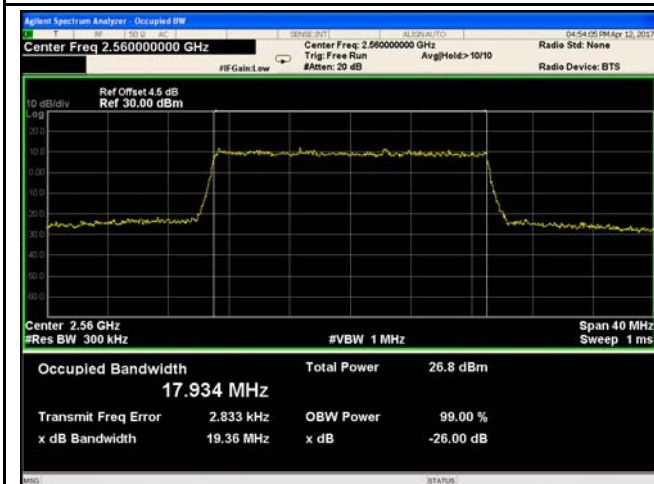
LTE band VII - Low CH 16QAM-20



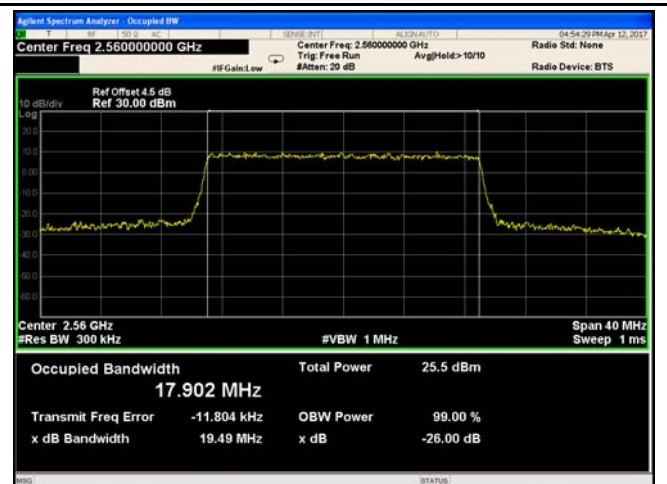
LTE band VII - Middle CH QPSK-20



LTE band VII - Middle CH 16QAM-20



LTE band VII - High CH QPSK-20



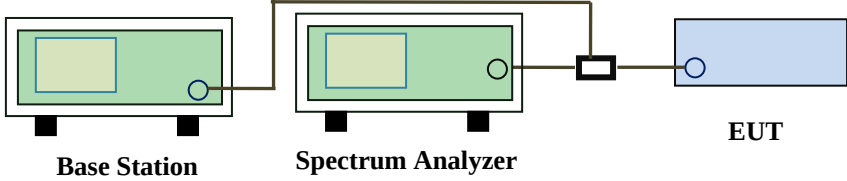
LTE band VII - High CH 16QAM-20



## 6.5 Spurious Emissions at Antenna Terminals

|                      |                |
|----------------------|----------------|
| Temperature          | 24°C           |
| Relative Humidity    | 55%            |
| Atmospheric Pressure | 1013mbar       |
| Test date :          | April 12, 2017 |
| Tested By :          | Loren Luo      |

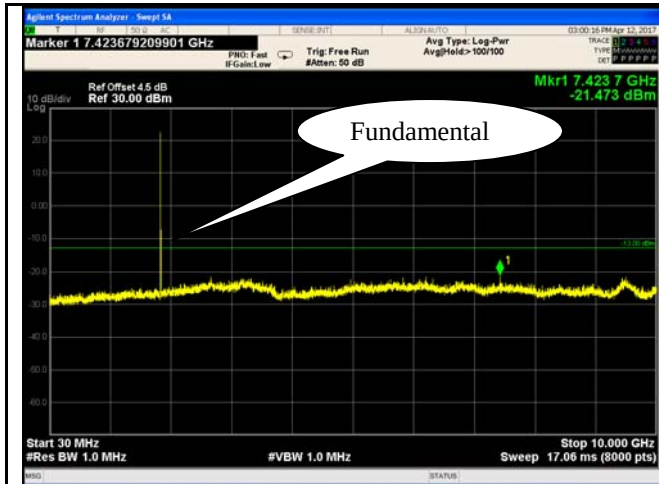
### Requirement(s):

| Spec                                                | Item                                                                                                                                                                                                                                                                     | Requirement                                                                                                                                                               | Applicable                          |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| §2.1051,<br>§22.917(a)&<br>§24.238(a)<br>§ 27.53(h) | a)                                                                                                                                                                                                                                                                       | The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB | <input checked="" type="checkbox"/> |
| Test Setup                                          |  <p>Base Station      Spectrum Analyzer      EUT</p>                                                                                                                                 |                                                                                                                                                                           |                                     |
| Test Procedure                                      | <ul style="list-style-type: none"> <li>- The EUT was connected to Spectrum Analyzer and Base Station via power divider.</li> <li>- The Band Edges of low and high channels for the highest RF powers were measured.</li> <li>- Setting RBW as roughly BW/100.</li> </ul> |                                                                                                                                                                           |                                     |
| Remark                                              |                                                                                                                                                                                                                                                                          |                                                                                                                                                                           |                                     |
| Result                                              | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail                                                                                                                                                                                                   |                                                                                                                                                                           |                                     |

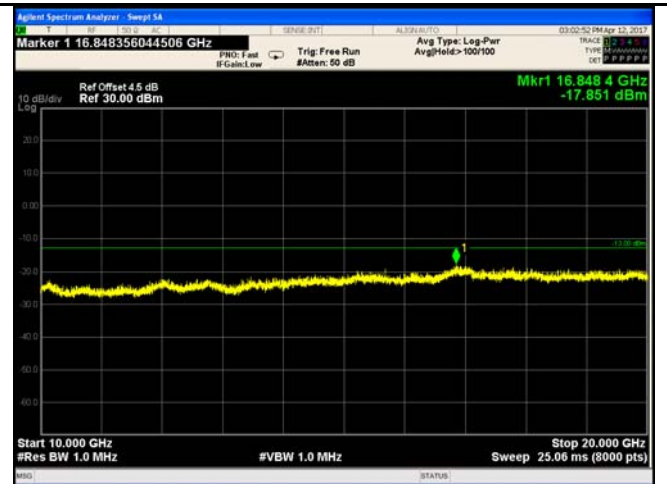
Test Data    ☒ Yes      ☐ N/A  
 Test Plot    ☒ Yes (See below)      ☐ N/A

## Test Plots 30MHz-5GHz

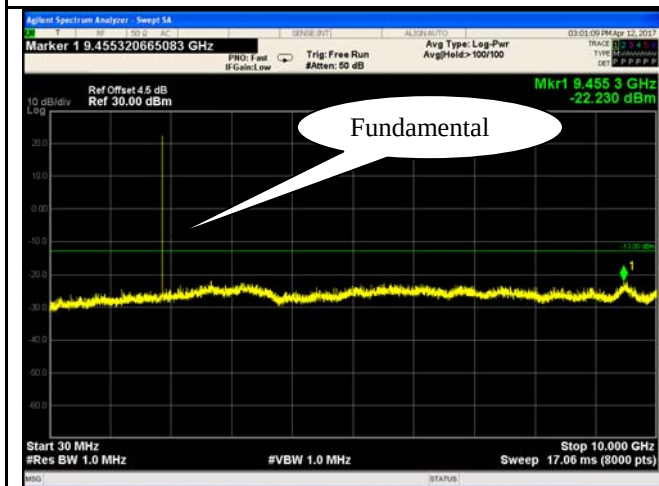
### LTE band II (Part 24E)



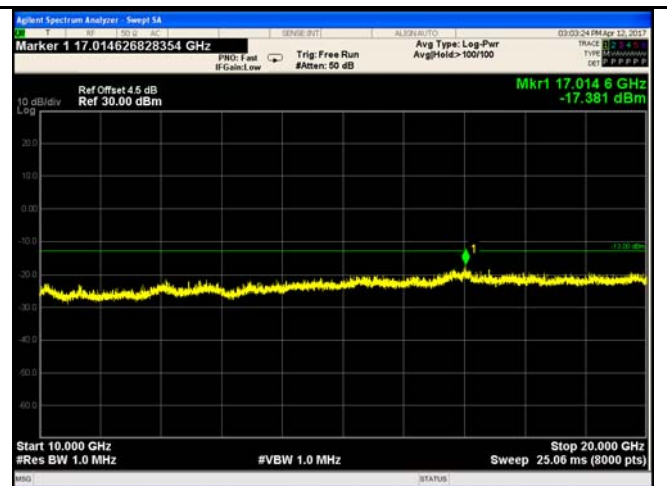
LTE band II - Low Channel-1



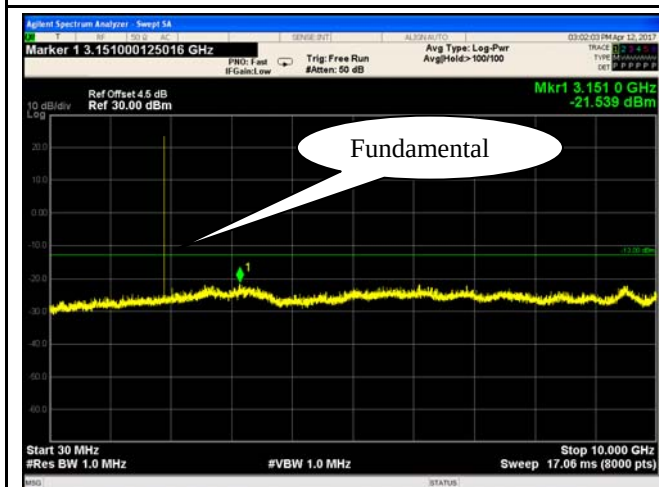
LTE band II - Low Channel-2



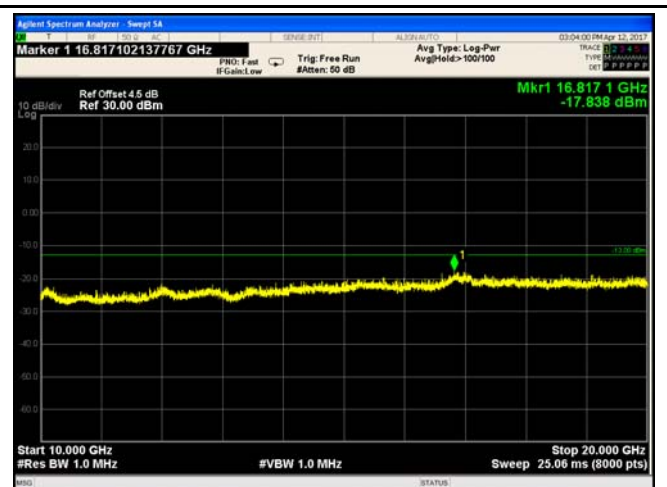
LTE band II Middle Channel-1



LTE band II Middle Channel-2

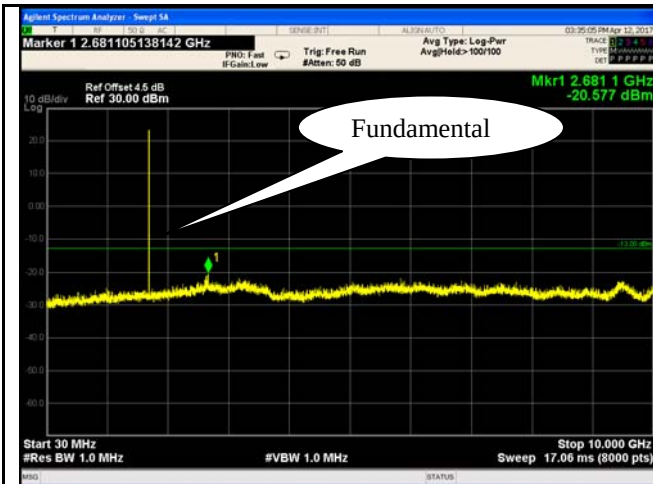


LTE band II - High Channel-1

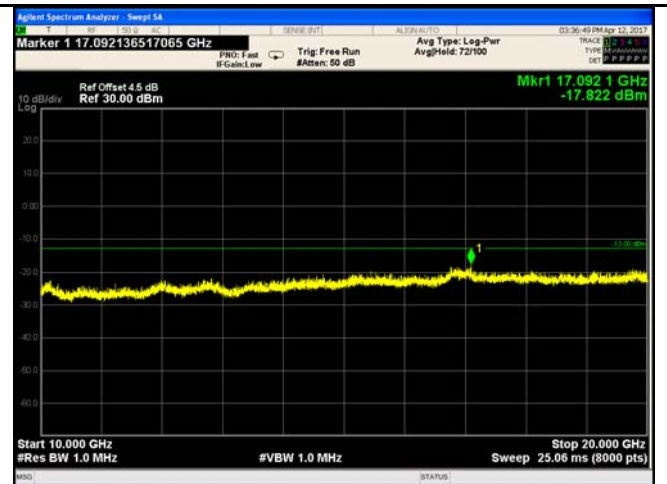


LTE band II - High Channel-2

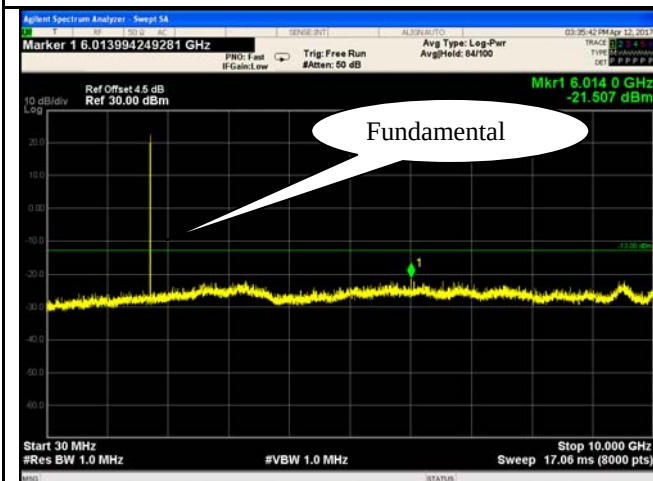
## LTE band IV (Part27) result



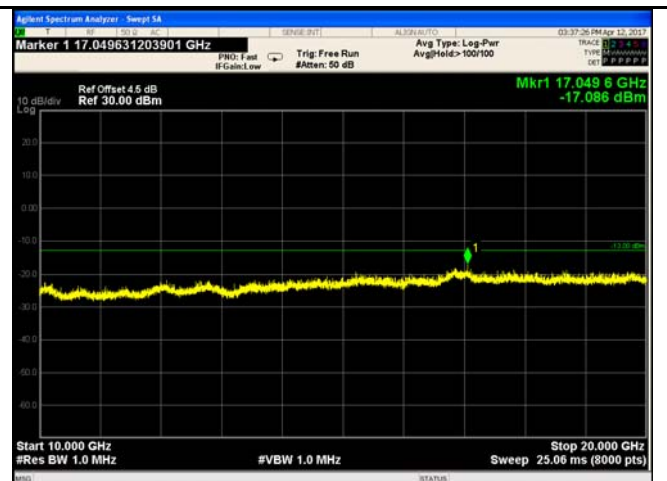
LTE band IV - Low Channel-1



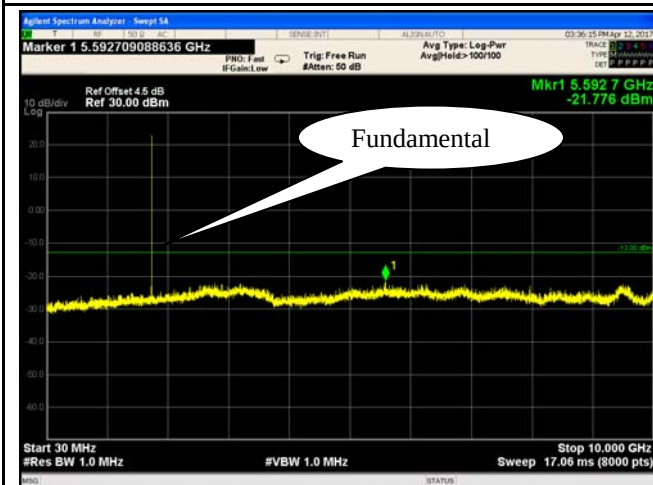
LTE band IV - Low Channel-2



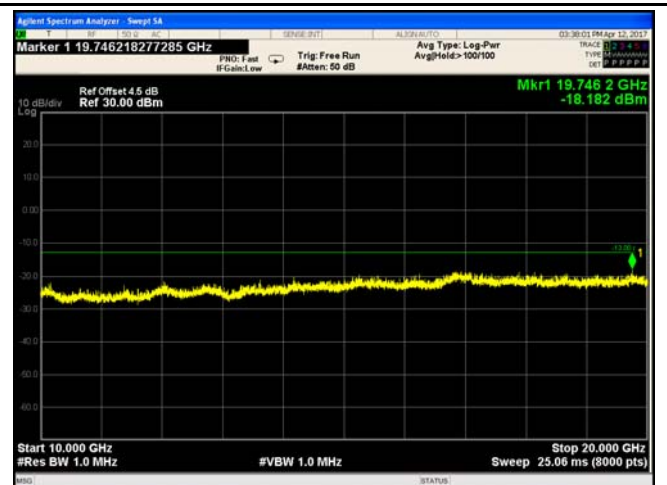
LTE band IV - Middle Channel-1



LTE band IV - Middle Channel-2



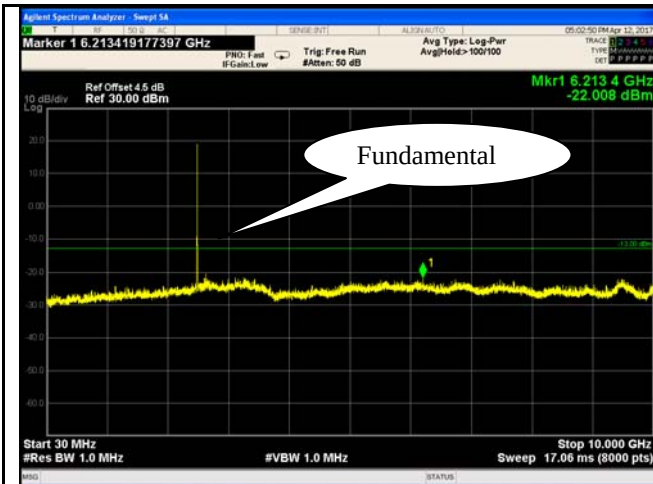
LTE band IV - High Channel-1



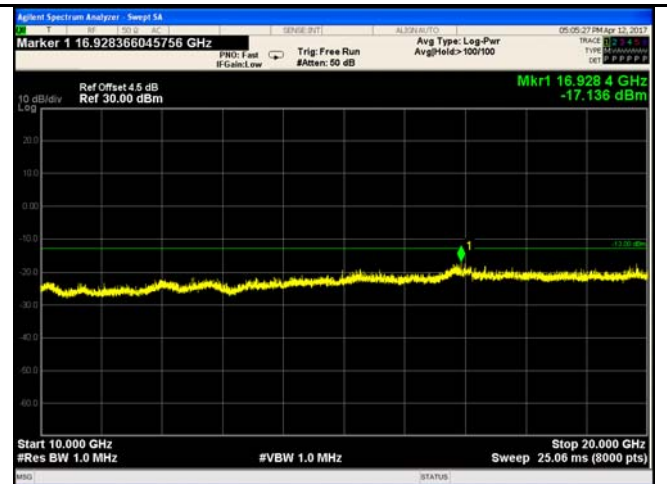
LTE band IV - High Channel-2



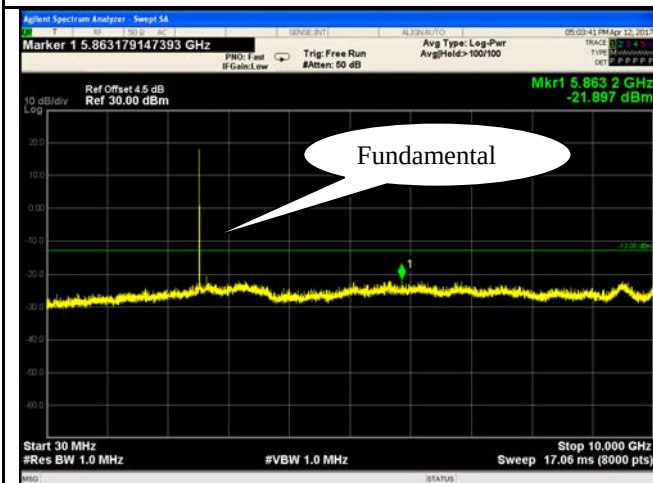
## LTE band VII (Part 27)



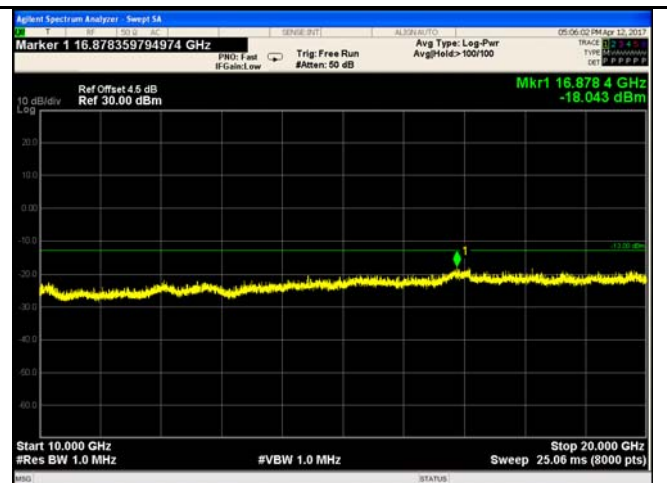
LTE band VII - Low Channel-1



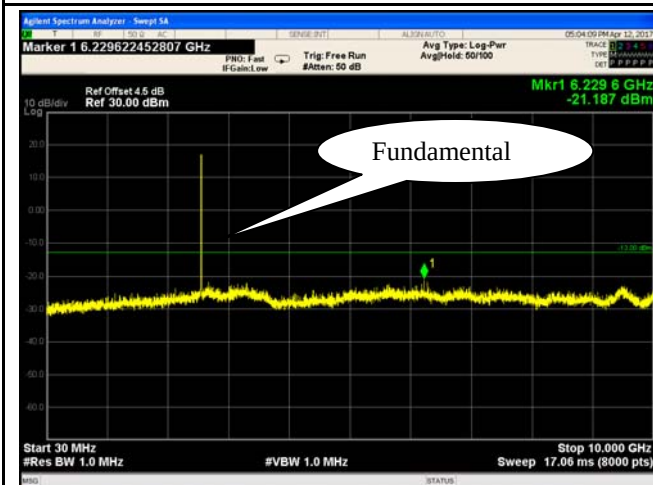
LTE band VII - Low Channel-2



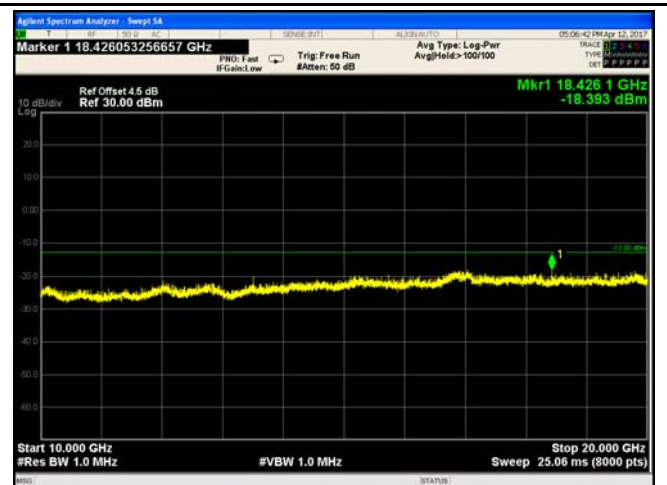
LTE band VII - Middle Channel-1



LTE band VII - Middle Channel-2



LTE band VII - High Channel-1

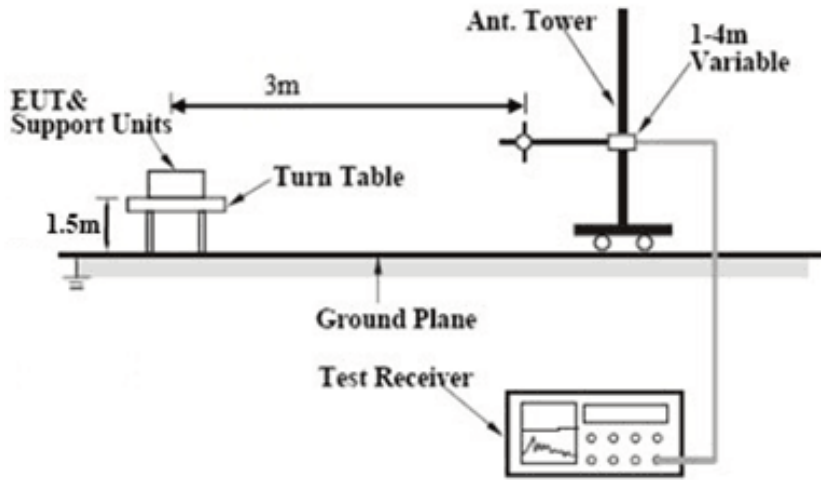


LTE band VII - High Channel-2

## 6.6 Spurious Radiated Emissions

|                      |                |
|----------------------|----------------|
| Temperature          | 22°C           |
| Relative Humidity    | 53%            |
| Atmospheric Pressure | 1010mbar       |
| Test date :          | April 13, 2017 |
| Tested By :          | Loren Luo      |

### Requirement(s):

| Spec                                           | Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Requirement                                                                                                                                                                                                                                                         | Applicable                          |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| §2.1053,<br>§22.917 &<br>§24.238<br>§ 27.53(h) | a)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic. | <input checked="" type="checkbox"/> |
| Test setup                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                     |                                     |
| Test Procedure                                 | <ol style="list-style-type: none"> <li>1. The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.</li> <li>2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.</li> <li>3. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.<br/>Sample Calculation:<br/>EUT Field Strength = Raw Amplitude (dBμV/m) – Amplifier Gain (dB) + Antenna</li> </ol> |                                                                                                                                                                                                                                                                     |                                     |

|             |                 |
|-------------|-----------------|
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|        |                                                                        |
|--------|------------------------------------------------------------------------|
|        | Factor (dB) + Cable Loss (dB) + Filter Attenuation (dB, if used)       |
| Remark |                                                                        |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail |

Test Data ☒ Yes ☐ N/A  
 Test Plot ☐ Yes (See below) ☒ N/A

## LTE band II (Part 24E) result

### Low channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 3720            | -46.31                  | V              | 10.25                        | 2.73            | -38.79                  | -13         | -25.79      |
| 3720            | -46.89                  | H              | 10.25                        | 2.73            | -39.37                  | -13         | -26.37      |
| 50.8            | -45.26                  | V              | -4.2                         | 0.11            | -49.57                  | -13         | -36.57      |
| 204.5           | -48.73                  | H              | 4.6                          | 0.18            | -44.31                  | -13         | -31.31      |

### Middle channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 3760            | -46.35                  | V              | 10.25                        | 2.73            | -38.83                  | -13         | -25.83      |
| 3760            | -46.98                  | H              | 10.25                        | 2.73            | -39.46                  | -13         | -26.46      |
| 50.8            | -45.03                  | V              | -4.2                         | 0.11            | -49.34                  | -13         | -36.34      |
| 204.5           | -48.16                  | H              | 4.6                          | 0.18            | -43.74                  | -13         | -30.74      |

### High channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 3800            | -46.02                  | V              | 10.36                        | 2.73            | -38.39                  | -13         | -25.39      |
| 3800            | -46.83                  | H              | 10.36                        | 2.73            | -39.2                   | -13         | -26.2       |
| 50.8            | -45.07                  | V              | -4.2                         | 0.11            | -49.38                  | -13         | -36.38      |
| 204.5           | -46.89                  | H              | 4.6                          | 0.18            | -42.47                  | -13         | -29.47      |

#### Note:

1, The testing has been conformed to  $10 \times 1907.5 \text{ MHz} = 19,075 \text{ MHz}$

2, All other emissions more than 30 dB below the limit

3, X-Axis, Y-Axis and -Axis were investigated. The results above show only the worst case.

## LTE band IV(Part27) result

### Low channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 3440            | -46.18                  | V              | 10.06                        | 2.52            | -38.64                  | -13         | -25.64      |
| 3440            | -47.32                  | H              | 10.06                        | 2.52            | -39.78                  | -13         | -26.78      |
| 50.8            | -45.53                  | V              | -4.2                         | 0.11            | -49.84                  | -13         | -36.84      |
| 204.5           | -48.61                  | H              | 4.6                          | 0.18            | -44.19                  | -13         | -31.19      |

### Middle channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 3465            | -46.37                  | V              | 10.09                        | 2.52            | -38.8                   | -13         | -25.8       |
| 3465            | -46.95                  | H              | 10.09                        | 2.52            | -39.38                  | -13         | -26.38      |
| 50.8            | -46.55                  | V              | -4.2                         | 0.11            | -50.86                  | -13         | -37.86      |
| 204.5           | -49.34                  | H              | 4.6                          | 0.18            | -44.92                  | -13         | -31.92      |

### High channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 3490            | -45.99                  | V              | 10.09                        | 2.52            | -38.42                  | -13         | -25.42      |
| 3490            | -47.15                  | H              | 10.09                        | 2.52            | -39.58                  | -13         | -26.58      |
| 50.8            | -46.33                  | V              | -4.2                         | 0.11            | -50.64                  | -13         | -37.64      |
| 204.5           | -48.86                  | H              | 4.6                          | 0.18            | -44.44                  | -13         | -31.44      |

#### Note:

1, The testing has been conformed to  $10 \times 1752.5 \text{ MHz} = 17,525 \text{ MHz}$

2, All other emissions more than 30 dB below the limit

3, X-Axis, Y-Axis and -Axis were investigated. The results above show only the worst case.

## LTE band VII(Part27) result

### Low channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 5020            | -48.22                  | V              | 10.29                        | 0.98            | -38.91                  | -13         | -25.91      |
| 5020            | -47.96                  | H              | 10.29                        | 0.98            | -38.65                  | -13         | -25.65      |
| 50.8            | -46.38                  | V              | -4.2                         | 0.11            | -50.69                  | -13         | -37.69      |
| 204.5           | -48.24                  | H              | 4.6                          | 0.18            | -43.82                  | -13         | -30.82      |

### Middle channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 5070            | -47.94                  | V              | 10.3                         | 0.99            | -38.63                  | -13         | -25.63      |
| 5070            | -48.11                  | H              | 10.3                         | 0.99            | -38.8                   | -13         | -25.8       |
| 50.8            | -45.83                  | V              | -4.2                         | 0.11            | -50.14                  | -13         | -37.14      |
| 204.5           | -48.25                  | H              | 4.6                          | 0.18            | -43.83                  | -13         | -30.83      |

### High channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 5120            | -48.21                  | V              | 10.32                        | 1               | -38.89                  | -13         | -25.89      |
| 5120            | -48.35                  | H              | 10.32                        | 1               | -39.03                  | -13         | -26.03      |
| 50.8            | -46.27                  | V              | -4.2                         | 0.11            | -50.58                  | -13         | -37.58      |
| 204.5           | -47.3                   | H              | 4.6                          | 0.18            | -42.88                  | -13         | -29.88      |

#### Note:

1, The testing has been conformed to  $10 \times 2567.5 \text{ MHz} = 25,675 \text{ MHz}$

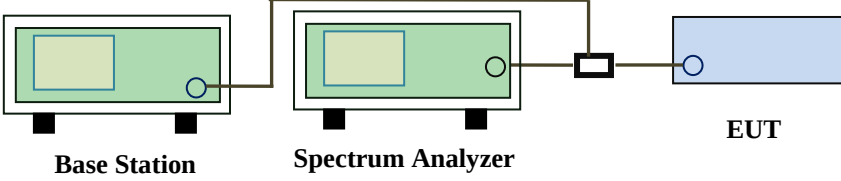
2, All other emissions more than 30 dB below the limit

3, X-Axis, Y-Axis and -Axis were investigated. The results above show only the worst case.

## 6.7 Band Edge

|                      |                |
|----------------------|----------------|
| Temperature          | 24°C           |
| Relative Humidity    | 55%            |
| Atmospheric Pressure | 1013mbar       |
| Test date :          | April 12, 2017 |
| Tested By :          | Loren Luo      |

### Requirement(s):

| Spec                                   | Item                                                                                                                                                                                                                                                          | Requirement                                                                                                                                                                | Applicable                          |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| §22.917(a)<br>§24.238(a)<br>§ 27.53(h) | a)                                                                                                                                                                                                                                                            | The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. | <input checked="" type="checkbox"/> |
| Test setup                             |  <p>Base Station      Spectrum Analyzer      EUT</p>                                                                                                                      |                                                                                                                                                                            |                                     |
| Procedure                              | <ul style="list-style-type: none"> <li>- The EUT was connected to Spectrum Analyzer and Base Station via power divider.</li> <li>- The Band Edges of low and high channels for the highest RF powers were measured. Setting RBW as roughly BW/100.</li> </ul> |                                                                                                                                                                            |                                     |
| Remark                                 |                                                                                                                                                                                                                                                               |                                                                                                                                                                            |                                     |
| Result                                 | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail                                                                                                                                                                                        |                                                                                                                                                                            |                                     |

Test Data    ☒ Yes      ☐ N/A

Test Plot    ☒ Yes (See below)      ☐ N/A

### LTE band II (Part 24E) result

| BW(MHz) | Channel | Frequency (MHz) | Mode  | Emission (dBm) | Limit (dBm) |
|---------|---------|-----------------|-------|----------------|-------------|
| 1.4     | 18607   | 1850            | QPSK  | -28.434        | -13         |
|         |         |                 | 16QAM | -28.014        | -13         |
| 1.4     | 18900   | 1910            | QPSK  | -28.560        | -13         |
|         |         |                 | 16QAM | -27.805        | -13         |
| 3       | 18615   | 1850            | QPSK  | -21.546        | -13         |
|         |         |                 | 16QAM | -21.225        | -13         |
| 3       | 19185   | 1910            | QPSK  | -23.845        | -13         |
|         |         |                 | 16QAM | -23.811        | -13         |
| 5       | 18625   | 1850            | QPSK  | -18.563        | -13         |
|         |         |                 | 16QAM | -19.671        | -13         |
| 5       | 19175   | 1910            | QPSK  | -20.352        | -13         |
|         |         |                 | 16QAM | -21.499        | -13         |
| 10      | 18650   | 1850            | QPSK  | -20.643        | -13         |
|         |         |                 | 16QAM | -18.451        | -13         |
| 10      | 19150   | 1910            | QPSK  | -19.649        | -13         |
|         |         |                 | 16QAM | -20.480        | -13         |
| 15      | 18675   | 1850            | QPSK  | -23.606        | -13         |
|         |         |                 | 16QAM | -24.573        | -13         |
| 15      | 19125   | 1910            | QPSK  | -24.593        | -13         |
|         |         |                 | 16QAM | -23.060        | -13         |
| 20      | 18700   | 1848            | QPSK  | -23.909        | -13         |
|         |         |                 | 16QAM | -24.030        | -13         |
| 20      | 19100   | 1911            | QPSK  | -27.482        | -13         |
|         |         |                 | 16QAM | -27.820        | -13         |

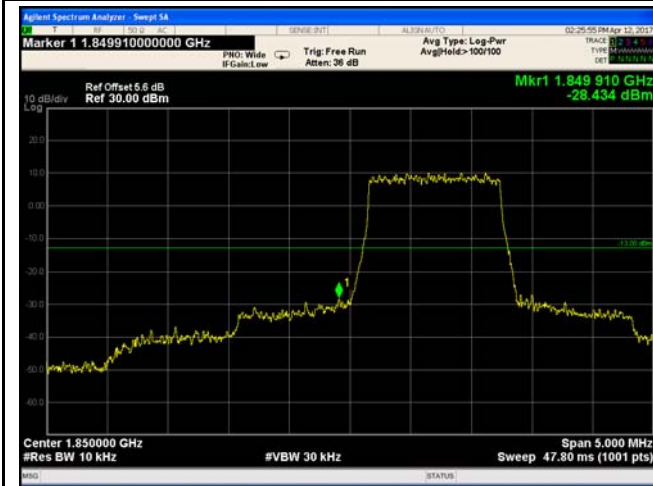


### LTE band IV (Part 27) result

| BW(MHz) | Channel | Frequency (MHz) | Mode  | Emission (dBm) | Limit (dBm) |
|---------|---------|-----------------|-------|----------------|-------------|
| 1.4     | 19957   | 1710            | QPSK  | -28.884        | -13         |
|         |         |                 | 16QAM | -28.831        | -13         |
| 1.4     | 20393   | 1755            | QPSK  | -27.282        | -13         |
|         |         |                 | 16QAM | -26.584        | -13         |
| 3       | 19965   | 1710            | QPSK  | -20.983        | -13         |
|         |         |                 | 16QAM | -21.628        | -13         |
| 3       | 20385   | 1755            | QPSK  | -21.170        | -13         |
|         |         |                 | 16QAM | -20.853        | -13         |
| 5       | 19975   | 1710            | QPSK  | -17.819        | -13         |
|         |         |                 | 16QAM | -18.028        | -13         |
| 5       | 20375   | 1755            | QPSK  | -19.264        | -13         |
|         |         |                 | 16QAM | -19.016        | -13         |
| 10      | 20000   | 1710            | QPSK  | -20.144        | -13         |
|         |         |                 | 16QAM | -18.247        | -13         |
| 10      | 20350   | 1755            | QPSK  | -20.282        | -13         |
|         |         |                 | 16QAM | -20.213        | -13         |
| 15      | 20025   | 1710            | QPSK  | -21.866        | -13         |
|         |         |                 | 16QAM | -23.311        | -13         |
| 15      | 20325   | 1755            | QPSK  | -22.332        | -13         |
|         |         |                 | 16QAM | -21.839        | -13         |
| 20      | 20050   | 1710            | QPSK  | -28.174        | -13         |
|         |         |                 | 16QAM | -23.642        | -13         |
| 20      | 20300   | 1755            | QPSK  | -26.138        | -13         |
|         |         |                 | 16QAM | -24.570        | -13         |

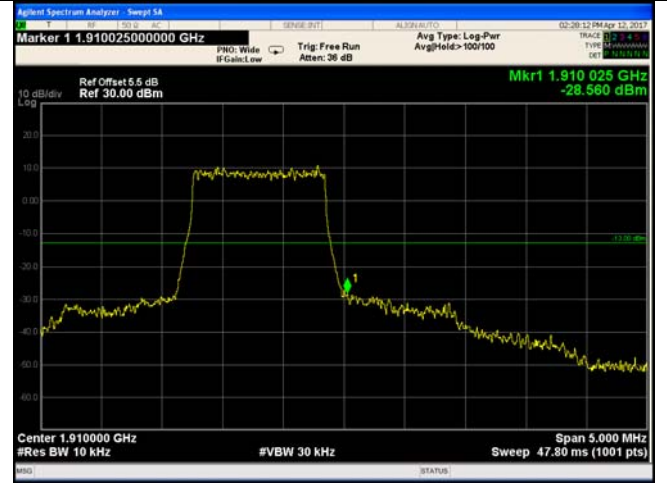
## Test Plots

### LTE band II (Part 24E)



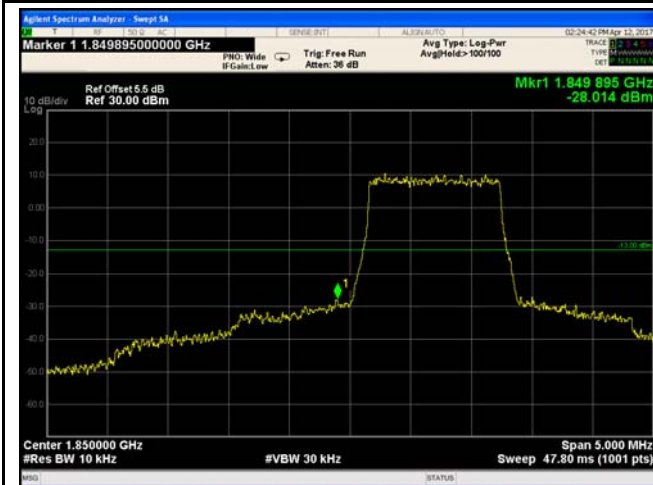
LTE band II - Low Channel QPSK-1.4

Note: Offset=Cable loss (4.5) + 10log  
(12.83/10)=4.5+1.1=5.6dB



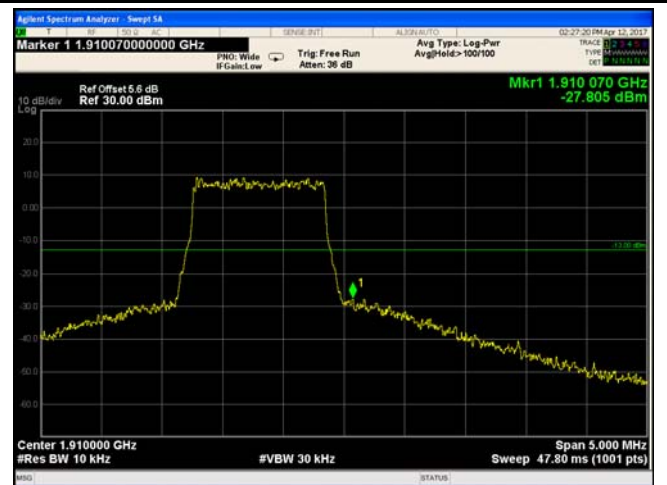
LTE band II - High Channel QPSK-1.4

Note: Offset=Cable loss (4.5) + 10log  
(12.69/10)=4.5+1.0=5.5dB



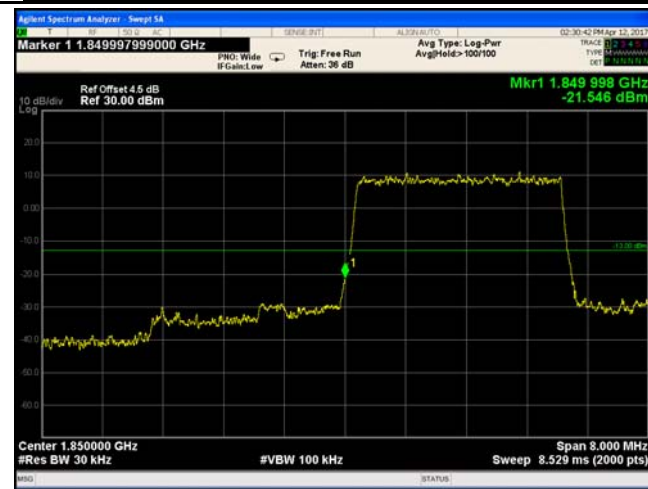
LTE band II - Low Channel 16QAM-1.4

Note: Offset=Cable loss (4.5) + 10log  
(12.53/10)=4.5+1.0=5.5 dB



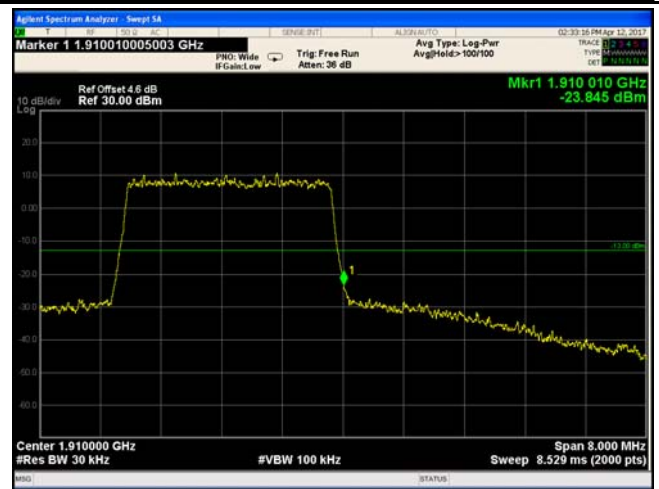
LTE band II - High Channel 16QAM-1.4

Note: Offset=Cable loss (4.5) + 10log  
(12.79/10)=4.5+1.1=5.6 dB



LTE band II - Low Channel QPSK-3

Note: Offset=Cable loss (4.5) + 10log  
(30.33/30)=4.5+0.0=4.5 dB



LTE band II - High Channel QPSK-3

Note: Offset=Cable loss (4.5) + 10log  
(30.50/30)=4.5+0.1=4.6 dB



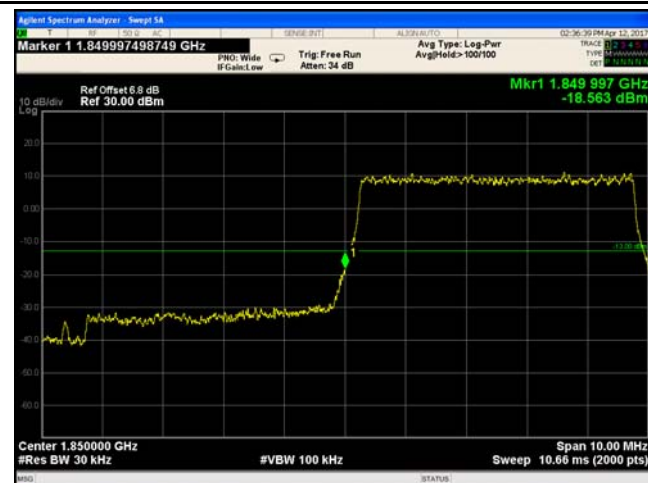
LTE band II - Low Channel 16QAM-3

Note: Offset=Cable loss (4.5) + 10log  
(30.12/30)=4.5+0.0=4.5 dB



LTE band II - High Channel 16QAM-3

Note: Offset=Cable loss (4.5) + 10log  
(30.22/30)=4.5+0.0=4.5 dB

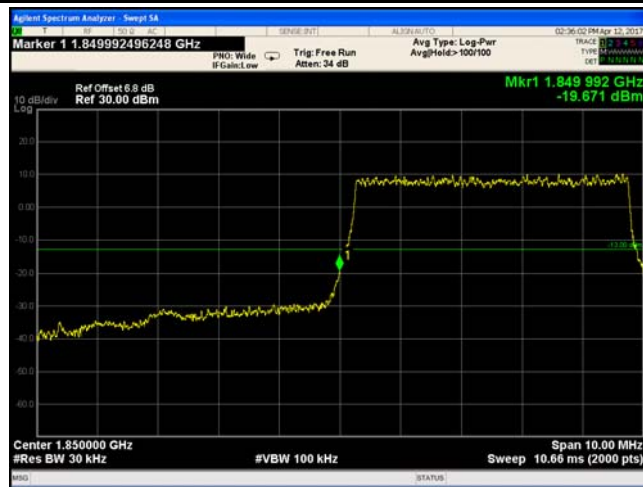


LTE band II - Low Channel QPSK-5



LTE band II - High Channel QPSK-5

Note: Offset=Cable loss (4.5) + 10log  
(50.87/30)=4.5+2.3=6.8 dB



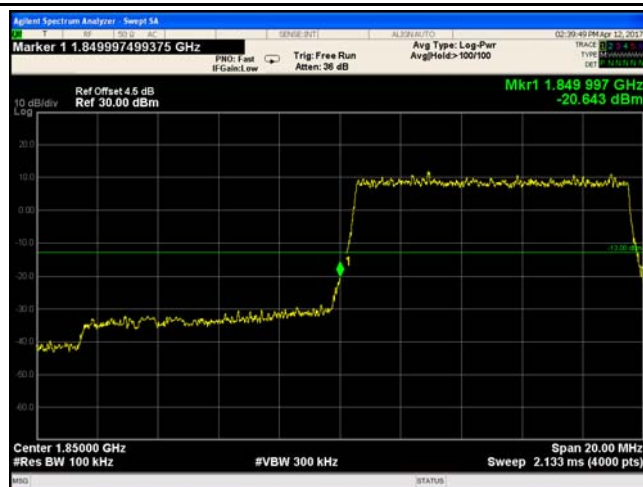
LTE band II - Low Channel 16QAM-5

Note: Offset=Cable loss (4.5) + 10log  
(50.37/30)=4.5+2.3=6.8 dB



LTE band II - High Channel 16QAM-5

Note: Offset=Cable loss (4.5) + 10log  
(50.38/30)=4.5+2.3=6.8 dB



LTE band II - Low Channel QPSK-10

Note: Offset=Cable loss (4.5) + 10log  
(50.71/30)=4.5+2.3=6.8 dB



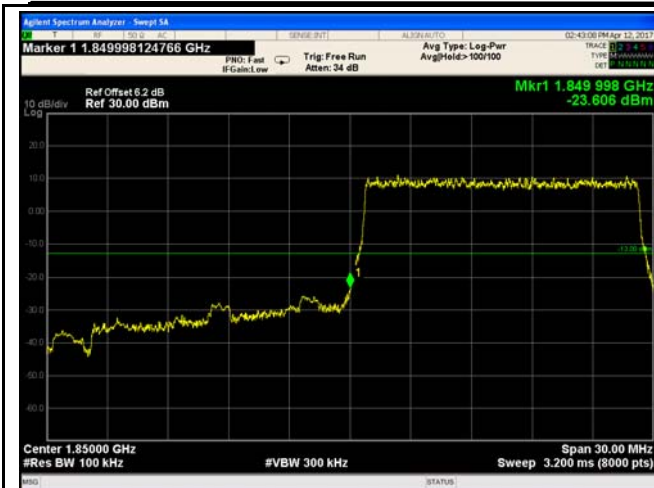
LTE band II - High Channel QPSK-10



LTE band II - Low Channel 16QAM-10

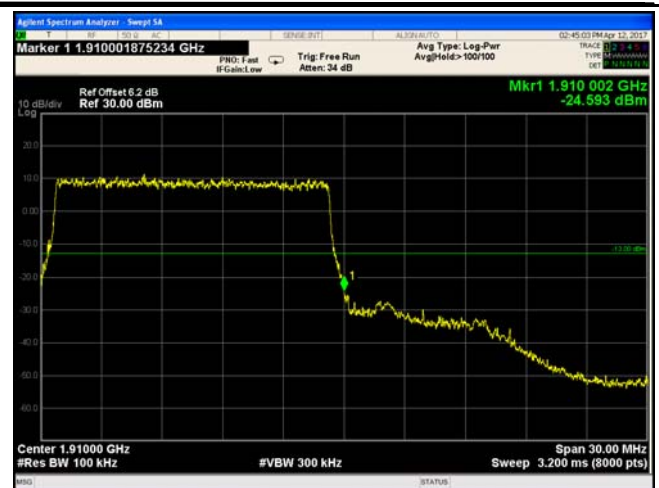


LTE band II - High Channel 16QAM-10



LTE band II - Low Channel QPSK-15

Note: Offset=Cable loss (4.5) + 10log  
(146.7/100)=4.5+1.7=6.2 dB



LTE band II - High Channel QPSK-15

Note: Offset=Cable loss (4.5) + 10log  
(147.7/100)=4.5+1.7=6.2 dB



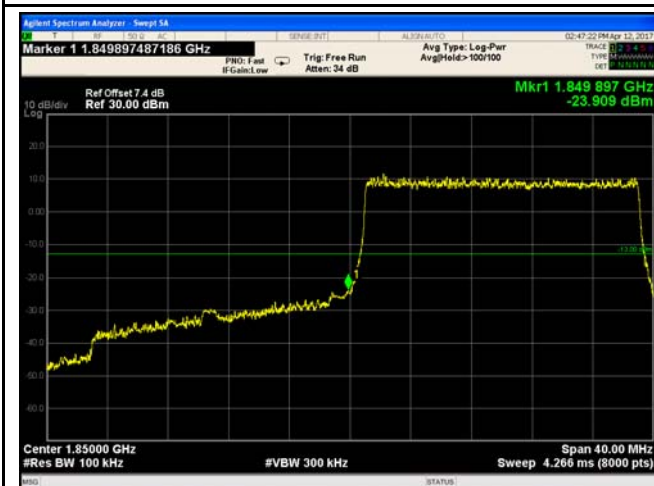
LTE band II - Low Channel 16QAM-15

Note: Offset=Cable loss (4.5) + 10log  
(147.7/100)=4.5+1.7=6.2 dB

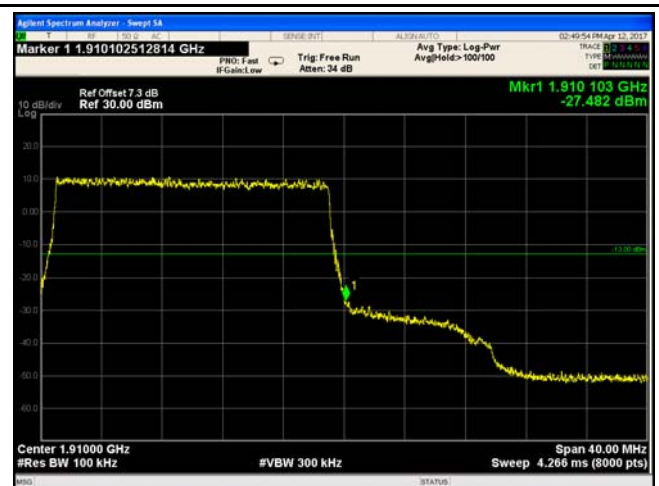


LTE band II - High Channel 16QAM-15

Note: Offset=Cable loss (4.5) + 10log  
(147.1/100)=4.5+1.7=6.2 dB

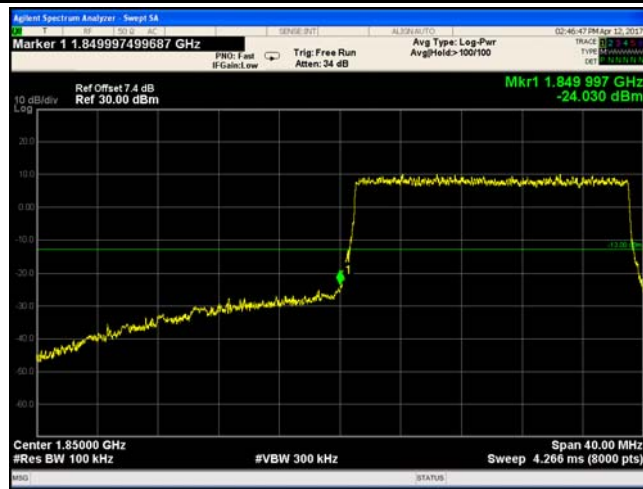


LTE band II - Low Channel QPSK-20



LTE band II - High Channel QPSK-20

Note: Offset=Cable loss (4.5) + 10log  
(193.7/100)=4.5+2.9=7.4 dB



LTE band II - Low Channel 16QAM-20

Note: Offset=Cable loss (4.5) + 10log  
(195.1/100)=4.5+2.9=7.4 dB

Note: Offset=Cable loss (4.5) + 10log  
(192.5/100)=4.5+2.8=7.3 dB

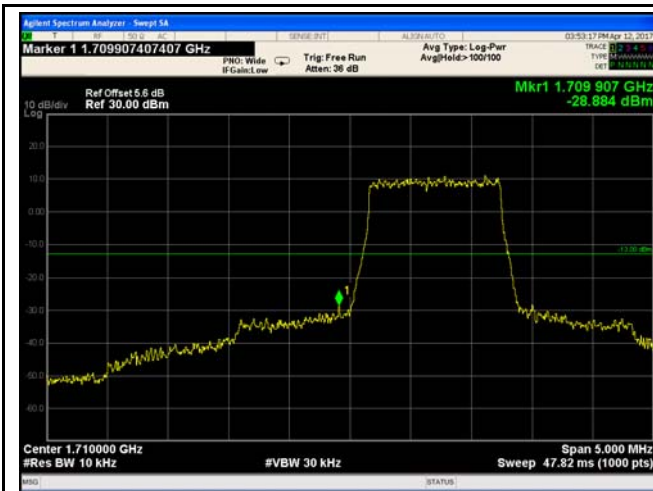


LTE band II - High Channel 16QAM-20

Note: Offset=Cable loss (4.5) + 10log  
(193.3/100)=4.5+2.9=7.4 dB

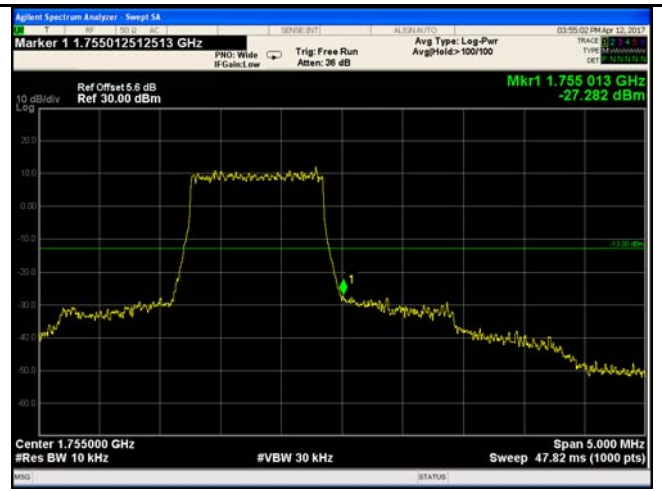


## LTE band IV (Part 27)



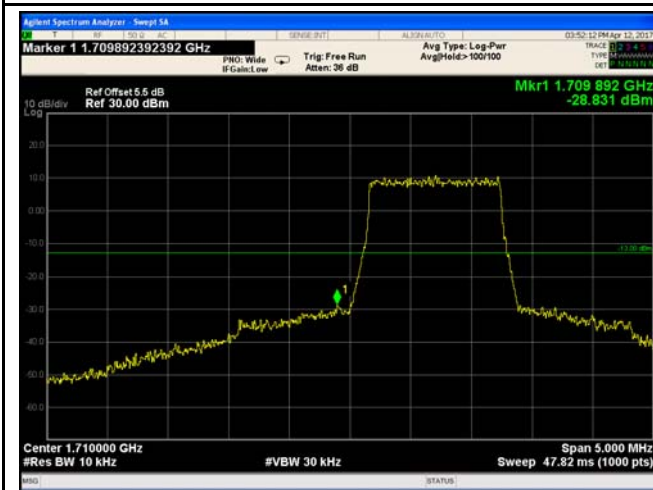
LTE band IV - Low Channel QPSK-1.4

Note: Offset=Cable loss (4.5) + 10log  
(12.87/10)=4.5+1.1=5.6 dB



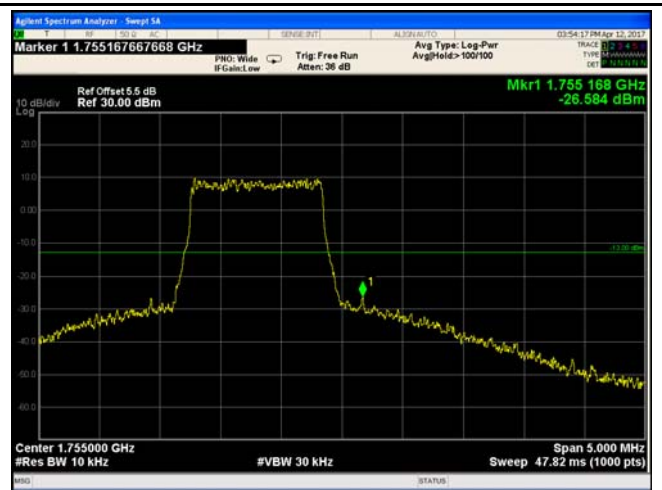
LTE band IV - High Channel QPSK-1.4

Note: Offset=Cable loss (4.5) + 10log  
(12.94/10)=4.5+1.1=5.6 dB



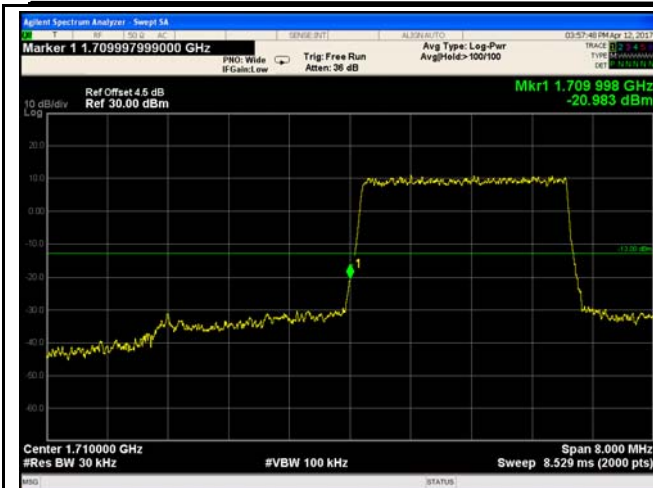
LTE band IV - Low Channel 16QAM-1.4

Note: Offset=Cable loss (4.5) + 10log  
(12.73/10)=4.5+1.0=5.5 dB



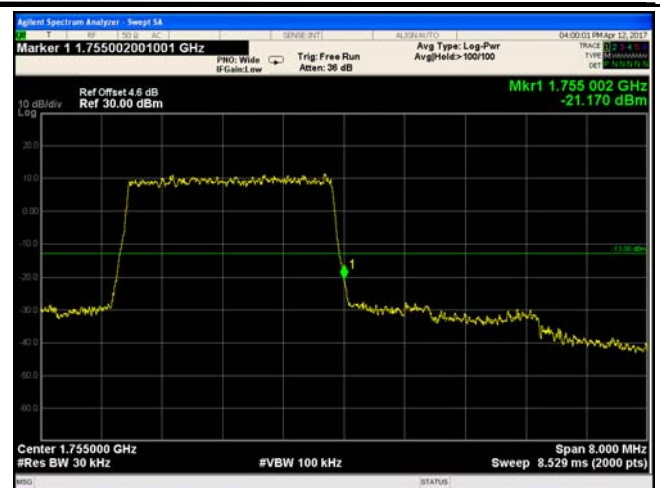
LTE band IV - High Channel 16QAM-1.4

Note: Offset=Cable loss (4.5) + 10log  
(12.72/10)=4.5+1.0=5.5 dB



LTE band IV - Low Channel QPSK-3

Note: Offset=Cable loss (4.5) + 10log  
(30.33/30)=4.5+0.0=4.5 dB



LTE band IV - High Channel QPSK-3

Note: Offset=Cable loss (4.5) + 10log  
(30.55/30)=4.5+0.1=4.6 dB



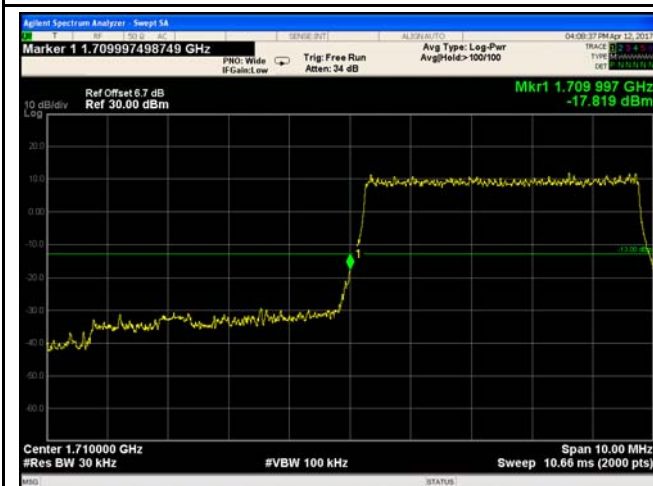
LTE band IV - Low Channel 16QAM-3

Note: Offset=Cable loss (4.5) + 10log  
(30.47/30)=4.5+0.1=4.6 dB



LTE band IV - High Channel 16QAM-3

Note: Offset=Cable loss (4.5) + 10log  
(30.65/30)=4.5+0.1=4.6 dB



LTE band IV - Low Channel QPSK-5



LTE band IV - High Channel QPSK-5