

# FCC TEST REPORT

For

Shanghai Rising Digital Co., Ltd.

Display screen

Model No.: SECD-5I0A-03, SECD-5I0A-03(S), SECD-5I0B-03,  
SECD-5I0B-03(S), SECD-7I0A-03, SECD-7I0A-35

Prepared For : Shanghai Rising Digital Co., Ltd.

Address : No 318, Chuanda Road, Pudong New District, Shanghai China

Prepared By : Shenzhen Anbotek Compliance Laboratory Limited

Address : 1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China

Tel: (86) 755-26066544 Fax: (86) 755-26014772

Report Number : R0217050061W3

Date of Test : May. 19~Sept. 30, 2017

Date of Report : Sept. 30, 2017

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Anbotek

## TEST REPORT

Applicant : Shanghai Rising Digital Co., Ltd.  
Manufacturer : Shanghai Rising Digital Co., Ltd.  
Product Name : Display screen  
Model No. : SECD-510A-03, SECD-510A-03(S), SECD-510B-03, SECD-510B-03(S),  
SECD-710A-03, SECD-710A-35  
Trade Mark :  **RISING**  
Rating(s) : Input: DC 8-36V, 250mA  
Output: DC 24V, 500mA

**Test Standard(s) : FCC PART 2, FCC Part 22(H), FCC Part 24(E), FCC Part 27(H): 2016**

**Test Method(s) : ANSI/TIAC603 D: 2010**

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Test : May. 19~Sept. 30, 2017

Prepared by :



*Winkey Wang*

(Tested Engineer / Winkey Wang)

Reviewer :

*Tangcy. T.*

(Project Manager / Tangcy. T)

Approved & Authorized Signer :

*Tom Chen*

(Manager / Tom Chen)

## 1. General Information

### 1.1. Client Information

|              |   |                                                           |
|--------------|---|-----------------------------------------------------------|
| Applicant    | : | Shanghai Rising Digital Co., Ltd.                         |
| Address      | : | No 318, Chuanda Road, Pudong New District, Shanghai China |
| Manufacturer | : | Shanghai Rising Digital Co., Ltd.                         |
| Address      | : | No 318, Chuanda Road, Pudong New District, Shanghai China |

### 1.2. Description of Device (EUT)

|                                                                                                                                                                  |   |                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name                                                                                                                                                     | : | Display screen                                                                                                                                                                                                                                                                                                    |
| Model No.                                                                                                                                                        | : | SECD-510A-03, SECD-510A-03(S), SECD-510B-03, SECD-510B-03(S),<br>SECD-710A-03, SECD-710A-35<br>(Note: All samples are the same except the model number and colour, so we prepare "SECD-510A-03" for test only.)                                                                                                   |
| Trade Mark                                                                                                                                                       | : |  <b>RISING</b>                                                                                                                                                                                                                   |
| Test Power Supply                                                                                                                                                | : | Input: DC 8-36V, 250mA<br>Output: DC 24V, 500mA                                                                                                                                                                                                                                                                   |
| Product Description                                                                                                                                              | : | <div> <div>Operation Frequency:</div> <div> LTE Band 2<br/>TX:1852.5~1907.5 MHz; RX:1932.5~1987.5 MHz<br/> LTE Band 4<br/>TX: 1712.5~1752.5 MHz; RX: 2112.5~2152.5 MHz<br/> LTE Band 5<br/>TX: 824 ~ 849 MHz; RX : 869 ~ 894 MHz<br/> LTE Band 17<br/>TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 MHz </div> </div> |
|                                                                                                                                                                  | : | Modulation Type: QPSK/16QAM                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                  | : | Antenna Type: PIFA Antenna                                                                                                                                                                                                                                                                                        |
|                                                                                                                                                                  | : | Antenna Gain(Peak): 1 dBi                                                                                                                                                                                                                                                                                         |
| <b>Remark:</b> 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.<br>2)This report is for LTE. |   |                                                                                                                                                                                                                                                                                                                   |

### 1.3. Auxiliary Equipment Used During Test

|     |   |     |
|-----|---|-----|
| N/A | : | N/A |
|-----|---|-----|

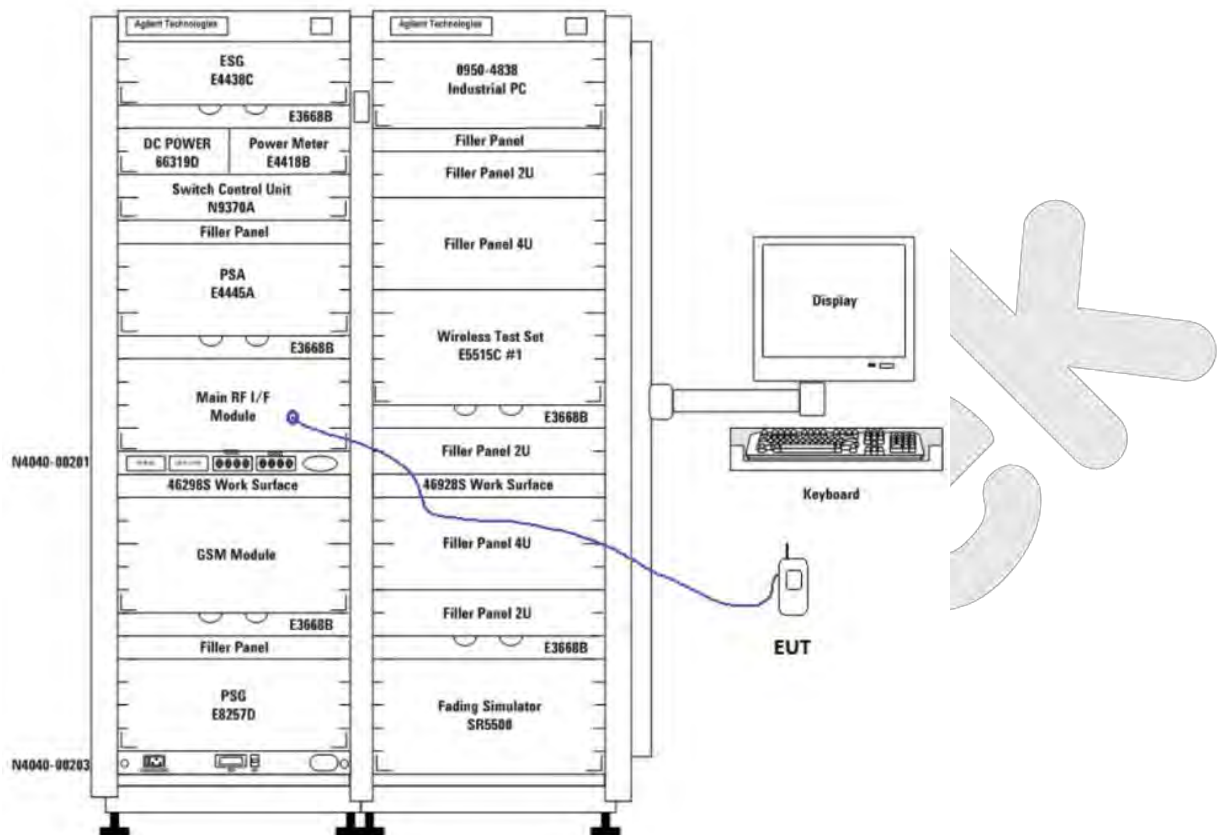
### 1.4. Description of Test Modes

The following is the description of how the EUT is exercised during testing.

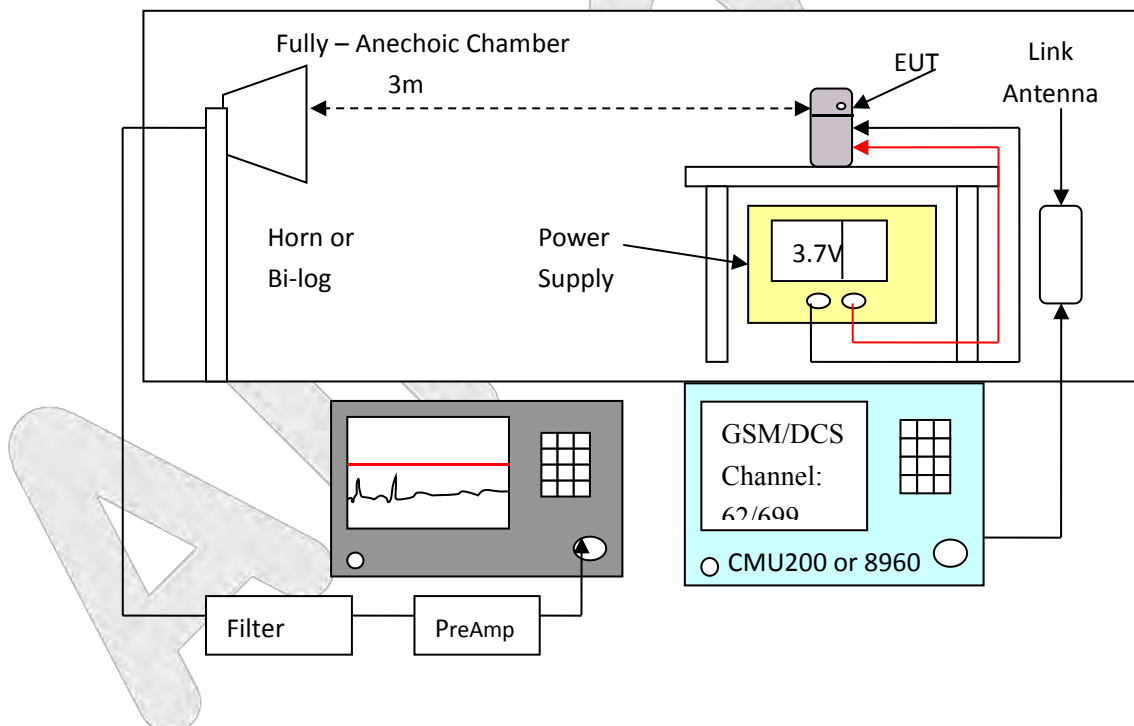
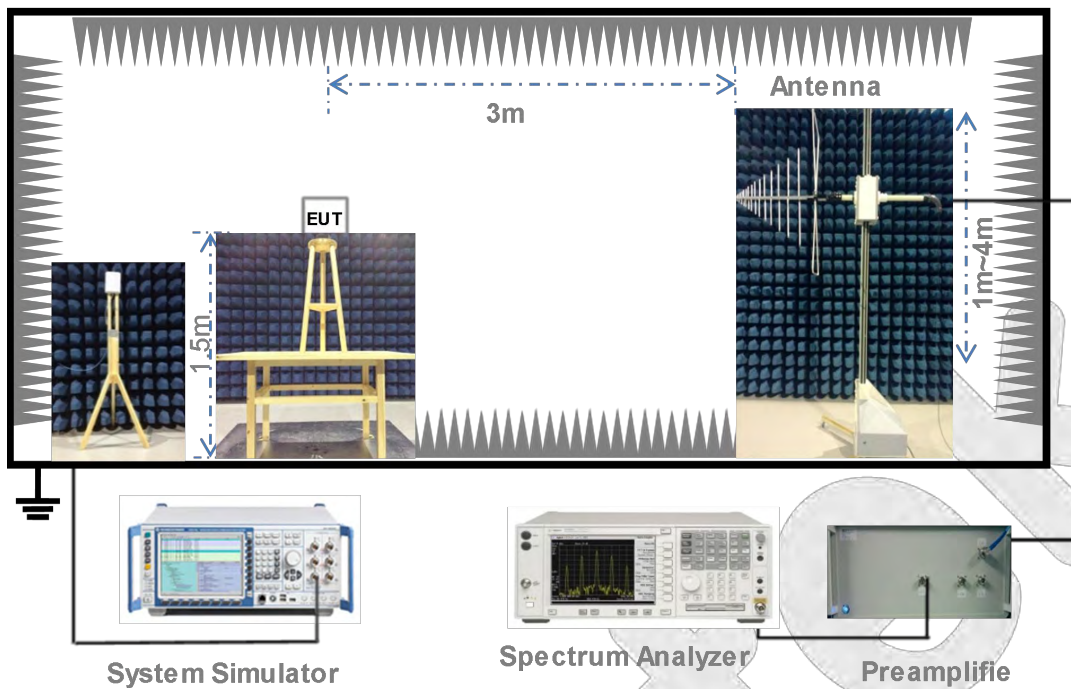
| Test              | Description Of Operation                                                             |
|-------------------|--------------------------------------------------------------------------------------|
| Emissions Testing | The EUT was communicating with base station and set to work at maximum output power. |
| Others Testing    | The EUT was communicating with base station and set to work at maximum output power. |

## 1.5. Description Of Test Setup

### 1.5.1 Conducted Test Setup



### 1.5.2 Radiated Test Setup



## 1.6. Test Equipment List

| Item | Equipment                               | Manufacturer               | Model No.      | Serial No.    | Last Cal.     | Cal. Interval |
|------|-----------------------------------------|----------------------------|----------------|---------------|---------------|---------------|
| 1.   | L.I.S.N.<br>Artificial Mains<br>Network | Rohde & Schwarz            | ENV216         | 100055        | May 27, 2017  | 1 Year        |
| 2.   | EMI Test Receiver                       | Rohde & Schwarz            | ESCI           | 100627        | May 27, 2017  | 1 Year        |
| 3.   | RF Switching Unit                       | Compliance<br>Direction    | RSU-M2         | 38303         | May 27, 2017  | 1 Year        |
| 4.   | Spectrum Analysis                       | Agilent                    | E4407B         | US39390582    | May 27, 2017  | 1 Year        |
| 5.   | Preamplifier                            | SKET Electronic            | BK1G18G30<br>D | KD17503       | May 27, 2017  | 1 Year        |
| 6.   | EMI Test Receiver                       | Rohde & Schwarz            | ESPI           | 101604        | May 27, 2017  | 1 Year        |
| 7.   | Double Ridged Horn<br>Antenna           | Instruments<br>corporation | GTH-0118       | 351600        | May 31, 2017  | 1 Year        |
| 8.   | Bilog Broadband<br>Antenna              | Schwarzbeck                | VULB9163       | VULB 9163-289 | May 31, 2017  | 1 Year        |
| 9.   | Loop Antenna                            | Schwarzbeck                | HFH2-Z2        | 100047        | Apr. 03, 2017 | 1 Year        |
| 10.  | Pre-amplifier                           | SONOMA                     | 310N           | 186860        | May 27, 2017  | 1 Year        |
| 11.  | EMI Test Software<br>EZ-EMC             | SHURPLE                    | N/A            | N/A           | N/A           | N/A           |
| 12.  | Power Sensor                            | DAER                       | RPR3006W       | 15I00041SN045 | May 27, 2017  | 1 Year        |
| 13.  | Power Sensor                            | DAER                       | RPR3006W       | 15I00041SN046 | May 27, 2017  | 1 Year        |
| 14.  | MXA Spectrum<br>Analysis                | Agilent                    | N9020A         | MY51170037    | May 27, 2017  | 1 Year        |
| 15.  | MXG RF Vector<br>Signal Generator       | Agilent                    | N5182A         | MY48180656    | May 27, 2017  | 1 Year        |
| 16.  | Signal Generator                        | Agilent                    | E4421B         | MY41000743    | May 27, 2017  | 1 Year        |
| 17.  | DC Power supply                         | IVYTECH                    | IV6003         | 1601D6030007  | May 26, 2017  | 1 Year        |
| 18.  | TEMP&HUMI<br>PROGRAMMABLE<br>CHAMBER    | Sertep                     | ZJ-HWHS80<br>B | ZJ-17042804   | Mar. 03, 2017 | 1 Year        |

## 1.8. Measurement Uncertainty

Maximum measurement uncertainty

| Parameter                         | Uncertainty                       |
|-----------------------------------|-----------------------------------|
| Occupied Channel Bandwidth        | $\pm 5 \%$                        |
| RF output power, conducted        | $\pm 1,5 \text{ dB}$              |
| Power Spectral Density, conducted | $\pm 3 \text{ dB}$                |
| Unwanted Emissions, conducted     | $\pm 3 \text{ dB}$                |
| All emissions, radiated           | $\pm 6 \text{ dB}$                |
| Temperature                       | $\pm 1 \text{ }^{\circ} \text{C}$ |
| Humidity                          | $\pm 5 \%$                        |
| DC and low frequency voltages     | $\pm 3 \%$                        |
| Time                              | $\pm 5 \%$                        |
| Duty Cycle                        | $\pm 5 \%$                        |

## 1.9. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

### FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111, July 31, 2017.

### ISED-Registration No.: 8058A-1

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A-1, June 13, 2016.

### Test Location

All Emissions tests were performed at

Shenzhen Anbotek Compliance Laboratory Limited.

at 1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China

## 2. Summary of Test

### 2.1. Summary of test result

The EUT has been tested according to the following specifications:

The tests documented in this report were performed in accordance with TIA-603-D, FCC CFR 47 Part 2, Part 22, Part 24, Part 27.

| FCC Rules                                             | Description of Test                                                    | Result     |
|-------------------------------------------------------|------------------------------------------------------------------------|------------|
| § 2.1046; § 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 |
| § 2.1047                                              | Modulation Characteristics                                             | Compliance |
| § 2.1049; § 24.238; §<br>27.53(a.5)                   | 99% & -26 dB Occupied Bandwidth                                        | Compliance |
| § 2.1051; § 24.238(a); §<br>27.53(h)                  | Spurious Emissions at Antenna Terminal                                 | Compliance |
| § 2.1053; § 24.238(a); §<br>27.53(h)                  | Field Strength of Spurious Radiation                                   | Compliance |
| § 24.238(a); § 27.53(h)                               | Out of band emission, Band Edge                                        | Compliance |
| § 2.1055; § 24.235; § 27.5(h);<br>§ 27.54             | Frequency stability vs. temperature<br>Frequency stability vs. voltage | Compliance |

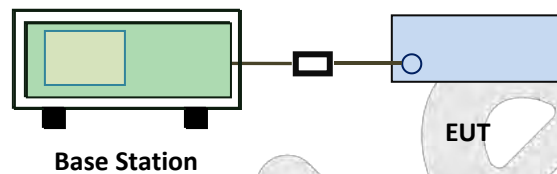
Note: Testing was performed by configuring EUT to maximum output power status, the declared output power class for different

### 3. RF Output Power Test

#### 3.1. Test Standard and Limit

| Spec        | Item | Requirement  |
|-------------|------|--------------|
| §22.913 (a) | a)   | ERP:38.45dBm |
| §24.232 (c) | b)   | EIRP:33dBm   |
| § 27.50 (c) | c)   | EIRP:30dBm   |

#### 3.2. Test Setup



#### 3.3. Test Procedure

##### For Conducted Power:

1. The transmitter output port was connected to base station.  
Set EUT at maximum power through base station.  
Select lowest, middle, and highest channels for each band and different test mode.

##### For ERP/EIRP:

2. The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.
3. 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.
4. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
5. 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.
6. Spurious emissions in dB =  $10 \log (\text{TX power in Watts}/0.001)$  – the absolute level
7. Spurious attenuation limit in dB =  $43 + 10 \log_{10} (\text{power out in Watts})$ .

#### 3.4. Test Data

## Conducted Power:

### LTE BAND 2

| Channel Bandwidth: 1.4 MHz |         |                  |        |                 |                     |         |
|----------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                 | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                            |         | Size             | Offset |                 |                     |         |
| QPSK                       | 1850.7  | 1                | 0      | 26.06           | 21.03               | PASS    |
|                            |         | 1                | 5      | 26.03           | 21.12               | PASS    |
|                            |         | 3                | 3      | 27.07           | 22.14               | PASS    |
|                            |         | 6                | 0      | 26.32           | 21.16               | PASS    |
|                            | 1880.0  | 1                | 0      | 26.42           | 21.18               | PASS    |
|                            |         | 1                | 5      | 26.27           | 22.31               | PASS    |
|                            |         | 3                | 3      | 27.35           | 22.42               | PASS    |
|                            |         | 6                | 0      | 26.09           | 22.21               | PASS    |
|                            | 1909.3  | 1                | 0      | 26.03           | 21.63               | PASS    |
|                            |         | 1                | 5      | 27.06           | 21.63               | PASS    |
|                            |         | 3                | 3      | 26.18           | 21.64               | PASS    |
|                            |         | 6                | 0      | 26.37           | 21.64               | PASS    |
| 16QAM                      | 1850.7  | 1                | 0      | 26.11           | 22.10               | PASS    |
|                            |         | 1                | 5      | 26.18           | 21.60               | PASS    |
|                            |         | 3                | 3      | 26.14           | 21.31               | PASS    |
|                            |         | 6                | 0      | 25.47           | 21.25               | PASS    |
|                            | 1880.0  | 1                | 0      | 26.53           | 21.63               | PASS    |
|                            |         | 1                | 5      | 26.59           | 21.63               | PASS    |
|                            |         | 3                | 3      | 26.13           | 21.65               | PASS    |
|                            |         | 6                | 0      | 26.16           | 21.66               | PASS    |
|                            | 1909.3  | 1                | 0      | 25.29           | 21.64               | PASS    |
|                            |         | 1                | 5      | 26.43           | 21.62               | PASS    |
|                            |         | 3                | 3      | 26.56           | 21.50               | PASS    |
|                            |         | 6                | 0      | 25.43           | 21.62               | PASS    |

| Channel Bandwidth: 3 MHz |         |                  |        |                 |                     |         |
|--------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation               | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                          |         | Size             | Offset |                 |                     |         |
| QPSK                     | 1851.5  | 1                | 0      | 26.64           | 21.08               | PASS    |
|                          |         | 1                | 14     | 26.72           | 22.03               | PASS    |
|                          |         | 8                | 7      | 26.75           | 22.17               | PASS    |
|                          |         | 15               | 0      | 26.71           | 22.16               | PASS    |
|                          | 1880.0  | 1                | 0      | 26.76           | 21.15               | PASS    |
|                          |         | 1                | 14     | 27.02           | 21.14               | PASS    |

|       |        |    |    |       |       |      |
|-------|--------|----|----|-------|-------|------|
|       | 1908.5 | 8  | 7  | 26.83 | 22.56 | PASS |
|       |        | 15 | 0  | 26.94 | 22.64 | PASS |
|       |        | 1  | 0  | 26.96 | 22.63 | PASS |
|       |        | 1  | 14 | 26.91 | 21.66 | PASS |
|       |        | 8  | 7  | 26.85 | 21.63 | PASS |
|       |        | 15 | 0  | 27.33 | 21.62 | PASS |
| 16QAM | 1851.5 | 1  | 0  | 26.82 | 21.65 | PASS |
|       |        | 1  | 14 | 26.95 | 22.62 | PASS |
|       |        | 8  | 7  | 26.81 | 22.68 | PASS |
|       |        | 15 | 0  | 26.96 | 22.60 | PASS |
|       | 1880.0 | 1  | 0  | 26.83 | 21.56 | PASS |
|       |        | 1  | 14 | 27.22 | 21.62 | PASS |
|       |        | 8  | 7  | 25.56 | 22.73 | PASS |
|       |        | 15 | 0  | 25.62 | 22.72 | PASS |
|       | 1908.5 | 1  | 0  | 25.65 | 22.60 | PASS |
|       |        | 1  | 14 | 25.66 | 21.62 | PASS |
|       |        | 8  | 7  | 25.62 | 21.61 | PASS |
|       |        | 15 | 0  | 27.28 | 21.60 | PASS |

| Channel Bandwidth: 5 MHz |         |                  |        |                 |                     |         |
|--------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation               | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                          |         | Size             | Offset |                 |                     |         |
| QPSK                     | 1852.5  | 1                | 0      | 26.96           | 21.60               | PASS    |
|                          |         | 1                | 24     | 27.01           | 21.67               | PASS    |
|                          |         | 12               | 13     | 27.15           | 22.74               | PASS    |
|                          |         | 25               | 0      | 27.46           | 21.74               | PASS    |
|                          | 1880.0  | 1                | 0      | 27.63           | 21.73               | PASS    |
|                          |         | 1                | 24     | 27.66           | 21.72               | PASS    |
|                          |         | 12               | 13     | 26.92           | 21.65               | PASS    |
|                          |         | 25               | 0      | 27.05           | 22.61               | PASS    |
|                          | 1907.5  | 1                | 0      | 27.12           | 22.73               | PASS    |
|                          |         | 1                | 24     | 27.64           | 22.75               | PASS    |
|                          |         | 12               | 13     | 27.61           | 21.72               | PASS    |
|                          |         | 25               | 0      | 27.14           | 21.72               | PASS    |
| 16QAM                    | 1852.5  | 1                | 0      | 25.71           | 22.80               | PASS    |
|                          |         | 1                | 24     | 25.62           | 22.72               | PASS    |
|                          |         | 12               | 13     | 25.74           | 22.73               | PASS    |
|                          |         | 25               | 0      | 26.25           | 21.76               | PASS    |
|                          | 1880.0  | 1                | 0      | 26.01           | 21.68               | PASS    |
|                          |         | 1                | 24     | 26.86           | 21.62               | PASS    |
|                          |         | 12               | 13     | 25.73           | 21.64               | PASS    |
|                          |         | 25               | 0      | 25.64           | 22.82               | PASS    |

|  |        |    |    |       |       |      |
|--|--------|----|----|-------|-------|------|
|  | 1907.5 | 1  | 0  | 25.79 | 22.64 | PASS |
|  |        | 1  | 24 | 26.26 | 22.63 | PASS |
|  |        | 12 | 13 | 26.18 | 21.71 | PASS |
|  |        | 25 | 0  | 26.92 | 21.71 | PASS |

| Channel Bandwidth: 10 MHz |         |                  |        |                 |                     |         |
|---------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                           |         | Size             | Offset |                 |                     |         |
| QPSK                      | 1852.5  | 1                | 0      | 26.93           | 22.44               | PASS    |
|                           |         | 1                | 49     | 27.14           | 21.65               | PASS    |
|                           |         | 25               | 25     | 26.52           | 21.68               | PASS    |
|                           |         | 50               | 0      | 27.53           | 21.73               | PASS    |
|                           | 1880.0  | 1                | 0      | 26.81           | 21.74               | PASS    |
|                           |         | 1                | 49     | 26.92           | 21.63               | PASS    |
|                           |         | 25               | 25     | 26.95           | 21.72               | PASS    |
|                           |         | 50               | 0      | 27.42           | 22.52               | PASS    |
|                           | 1907.5  | 1                | 0      | 27.59           | 21.62               | PASS    |
|                           |         | 1                | 49     | 27.75           | 21.69               | PASS    |
|                           |         | 25               | 25     | 25.97           | 20.63               | PASS    |
|                           |         | 50               | 0      | 25.63           | 20.73               | PASS    |
| 16QAM                     | 1852.5  | 1                | 0      | 25.65           | 20.33               | PASS    |
|                           |         | 1                | 49     | 26.44           | 21.67               | PASS    |
|                           |         | 25               | 25     | 26.16           | 21.69               | PASS    |
|                           |         | 50               | 0      | 26.78           | 21.72               | PASS    |
|                           | 1880.0  | 1                | 0      | 25.92           | 21.73               | PASS    |
|                           |         | 1                | 49     | 25.61           | 20.65               | PASS    |
|                           |         | 25               | 25     | 25.66           | 20.74               | PASS    |
|                           |         | 50               | 0      | 26.48           | 21.30               | PASS    |
|                           | 1907.5  | 1                | 0      | 26.16           | 21.74               | PASS    |
|                           |         | 1                | 49     | 26.87           | 21.70               | PASS    |
|                           |         | 25               | 25     | 26.93           | 22.44               | PASS    |
|                           |         | 50               | 0      | 26.38           | 21.65               | PASS    |

| Channel Bandwidth: 15 MHz |         |                  |        |                 |                     |         |
|---------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                           |         | Size             | Offset |                 |                     |         |
| QPSK                      | 1857.5  | 1                | 0      | 26.75           | 20.51               | PASS    |
|                           |         | 1                | 74     | 26.94           | 20.74               | PASS    |
|                           |         | 37               | 38     | 27.01           | 20.58               | PASS    |
|                           |         | 75               | 0      | 27.39           | 20.41               | PASS    |
|                           | 1880.0  | 1                | 0      | 27.56           | 22.32               | PASS    |
|                           |         | 1                | 74     | 26.28           | 22.24               | PASS    |
|                           |         | 37               | 38     | 26.41           | 21.56               | PASS    |
|                           |         | 75               | 0      | 25.76           | 21.57               | PASS    |
|                           | 1902.5  | 1                | 0      | 25.62           | 22.58               | PASS    |
|                           |         | 1                | 74     | 26.88           | 22.47               | PASS    |
|                           |         | 37               | 38     | 26.24           | 21.47               | PASS    |
|                           |         | 75               | 0      | 27.46           | 21.54               | PASS    |
| 16QAM                     | 1857.5  | 1                | 0      | 26.48           | 20.94               | PASS    |
|                           |         | 1                | 74     | 25.74           | 20.23               | PASS    |
|                           |         | 37               | 38     | 25.56           | 20.66               | PASS    |
|                           |         | 75               | 0      | 26.77           | 20.50               | PASS    |
|                           | 1880.0  | 1                | 0      | 26.27           | 21.47               | PASS    |
|                           |         | 1                | 74     | 27.36           | 21.52               | PASS    |
|                           |         | 37               | 38     | 26.75           | 20.54               | PASS    |
|                           |         | 75               | 0      | 26.94           | 20.54               | PASS    |
|                           | 1902.5  | 1                | 0      | 27.01           | 21.57               | PASS    |
|                           |         | 1                | 74     | 27.39           | 21.39               | PASS    |
|                           |         | 37               | 38     | 27.56           | 20.44               | PASS    |
|                           |         | 75               | 0      | 26.28           | 20.46               | PASS    |

| Channel Bandwidth: 20 MHz |         |                  |        |                 |                     |         |
|---------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                           |         | Size             | Offset |                 |                     |         |
| QPSK                      | 1860.0  | 1                | 0      | 26.93           | 21.30               | PASS    |
|                           |         | 1                | 99     | 26.05           | 21.32               | PASS    |
|                           |         | 50               | 50     | 26.12           | 22.23               | PASS    |
|                           |         | 100              | 0      | 26.48           | 22.26               | PASS    |
|                           | 1880.0  | 1                | 0      | 26.67           | 21.54               | PASS    |
|                           |         | 1                | 99     | 27.78           | 21.24               | PASS    |
|                           |         | 50               | 50     | 27.05           | 21.30               | PASS    |

|       |        |     |    |       |       |      |
|-------|--------|-----|----|-------|-------|------|
|       | 1900.0 | 100 | 0  | 26.04 | 21.83 | PASS |
|       |        | 1   | 0  | 25.66 | 19.98 | PASS |
|       |        | 1   | 99 | 27.04 | 22.36 | PASS |
|       |        | 50  | 50 | 26.32 | 21.64 | PASS |
|       |        | 100 | 0  | 27.01 | 21.65 | PASS |
| 16QAM | 1860.0 | 1   | 0  | 26.95 | 21.72 | PASS |
|       |        | 1   | 99 | 26.02 | 21.67 | PASS |
|       |        | 50  | 50 | 25.66 | 20.52 | PASS |
|       |        | 100 | 0  | 27.12 | 22.19 | PASS |
|       | 1880.0 | 1   | 0  | 26.31 | 20.12 | PASS |
|       |        | 1   | 99 | 27.43 | 21.61 | PASS |
|       |        | 50  | 50 | 26.93 | 21.65 | PASS |
|       |        | 100 | 0  | 27.05 | 22.63 | PASS |
|       | 1900.0 | 1   | 0  | 27.12 | 21.30 | PASS |
|       |        | 1   | 99 | 26.48 | 21.32 | PASS |
|       |        | 50  | 50 | 26.67 | 21.23 | PASS |
|       |        | 100 | 0  | 26.78 | 20.26 | PASS |

#### LTE BAND 4

| Channel Bandwidth: 1.4 MHz |         |                  |        |                 |                     |         |
|----------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                 | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                            |         | Size             | Offset |                 |                     |         |
| QPSK                       | 1710.7  | 1                | 0      | 27.04           | 22.52               | PASS    |
|                            |         | 1                | 5      | 27.02           | 22.53               | PASS    |
|                            |         | 3                | 3      | 27.33           | 21.65               | PASS    |
|                            |         | 6                | 0      | 27.37           | 21.65               | PASS    |
|                            | 1732.5  | 1                | 0      | 27.62           | 21.64               | PASS    |
|                            |         | 1                | 5      | 27.01           | 21.52               | PASS    |
|                            |         | 3                | 3      | 27.02           | 22.61               | PASS    |
|                            |         | 6                | 0      | 27.09           | 22.53               | PASS    |
|                            | 1754.3  | 1                | 0      | 27.33           | 22.54               | PASS    |
|                            |         | 1                | 5      | 27.42           | 21.76               | PASS    |
|                            |         | 3                | 3      | 27.67           | 21.72               | PASS    |
|                            |         | 6                | 0      | 26.91           | 22.53               | PASS    |
| 16QAM                      | 1710.7  | 1                | 0      | 26.82           | 22.54               | PASS    |
|                            |         | 1                | 5      | 26.83           | 22.52               | PASS    |
|                            |         | 3                | 3      | 27.39           | 21.65               | PASS    |
|                            |         | 6                | 0      | 27.32           | 21.66               | PASS    |
|                            | 1732.5  | 1                | 0      | 27.30           | 21.62               | PASS    |
|                            |         | 1                | 5      | 26.82           | 21.52               | PASS    |
|                            |         | 3                | 3      | 26.73           | 22.51               | PASS    |
|                            |         | 6                | 0      | 26.88           | 22.56               | PASS    |

|  |        |   |   |       |       |      |
|--|--------|---|---|-------|-------|------|
|  | 1754.3 | 1 | 0 | 27.37 | 22.52 | PASS |
|  |        | 1 | 5 | 27.33 | 21.64 | PASS |
|  |        | 3 | 3 | 27.39 | 22.52 | PASS |
|  |        | 6 | 0 | 27.04 | 22.53 | PASS |

| Channel Bandwidth: 3 MHz |         |                  |        |                 |                     |         |
|--------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation               | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                          |         | Size             | Offset |                 |                     |         |
| QPSK                     | 1711.5  | 1                | 0      | 26.87           | 21.54               | PASS    |
|                          |         | 1                | 14     | 26.93           | 21.55               | PASS    |
|                          |         | 8                | 7      | 26.98           | 21.64               | PASS    |
|                          |         | 15               | 0      | 26.85           | 22.51               | PASS    |
|                          | 1732.5  | 1                | 0      | 26.82           | 22.54               | PASS    |
|                          |         | 1                | 14     | 27.81           | 22.42               | PASS    |
|                          |         | 8                | 7      | 26.59           | 21.43               | PASS    |
|                          |         | 15               | 0      | 26.95           | 21.43               | PASS    |
|                          | 1753.5  | 1                | 0      | 26.82           | 22.44               | PASS    |
|                          |         | 1                | 14     | 26.79           | 22.52               | PASS    |
|                          |         | 8                | 7      | 26.83           | 22.53               | PASS    |
|                          |         | 15               | 0      | 27.77           | 21.55               | PASS    |
| 16QAM                    | 1711.5  | 1                | 0      | 26.85           | 21.55               | PASS    |
|                          |         | 1                | 14     | 26.73           | 21.52               | PASS    |
|                          |         | 8                | 7      | 26.85           | 21.63               | PASS    |
|                          |         | 15               | 0      | 26.64           | 22.43               | PASS    |
|                          | 1732.5  | 1                | 0      | 26.83           | 22.52               | PASS    |
|                          |         | 1                | 14     | 27.41           | 22.50               | PASS    |
|                          |         | 8                | 7      | 26.92           | 21.52               | PASS    |
|                          |         | 15               | 0      | 26.85           | 21.53               | PASS    |
|                          | 1753.5  | 1                | 0      | 26.78           | 22.82               | PASS    |
|                          |         | 1                | 14     | 26.87           | 22.70               | PASS    |
|                          |         | 8                | 7      | 26.93           | 22.63               | PASS    |
|                          |         | 15               | 0      | 26.98           | 21.65               | PASS    |

| Channel Bandwidth: 5 MHz |         |                  |        |                 |                     |         |
|--------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation               | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                          |         | Size             | Offset |                 |                     |         |
| QPSK                     | 1712.5  | 1                | 0      | 26.91           | 21.47               | PASS    |
|                          |         | 1                | 24     | 26.82           | 20.68               | PASS    |
|                          |         | 12               | 13     | 26.98           | 21.36               | PASS    |
|                          |         | 25               | 0      | 27.03           | 20.26               | PASS    |

|       |        |    |    |       |       |      |
|-------|--------|----|----|-------|-------|------|
|       | 1732.5 | 1  | 0  | 27.08 | 21.78 | PASS |
|       |        | 1  | 24 | 27.11 | 21.51 | PASS |
|       |        | 12 | 13 | 26.93 | 21.77 | PASS |
|       |        | 25 | 0  | 26.81 | 20.81 | PASS |
|       | 1752.5 | 1  | 0  | 26.95 | 21.67 | PASS |
|       |        | 1  | 24 | 27.52 | 21.49 | PASS |
|       |        | 12 | 13 | 27.19 | 22.55 | PASS |
|       |        | 25 | 0  | 27.14 | 20.59 | PASS |
| 16QAM | 1712.5 | 1  | 0  | 27.12 | 21.86 | PASS |
|       |        | 1  | 24 | 26.94 | 20.04 | PASS |
|       |        | 12 | 13 | 26.97 | 21.61 | PASS |
|       |        | 25 | 0  | 27.46 | 20.43 | PASS |
|       | 1732.5 | 1  | 0  | 26.15 | 20.97 | PASS |
|       |        | 1  | 24 | 27.02 | 21.02 | PASS |
|       |        | 12 | 13 | 27.01 | 21.94 | PASS |
|       |        | 25 | 0  | 26.93 | 21.80 | PASS |
|       | 1752.5 | 1  | 0  | 26.98 | 20.50 | PASS |
|       |        | 1  | 24 | 26.15 | 21.35 | PASS |
|       |        | 12 | 13 | 27.10 | 20.53 | PASS |
|       |        | 25 | 0  | 26.59 | 21.55 | PASS |

| Channel Bandwidth: 10 MHz |         |                  |        |                 |                     |         |
|---------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                           |         | Size             | Offset |                 |                     |         |
| QPSK                      | 1715.0  | 1                | 0      | 26.93           | 21.56               | PASS    |
|                           |         | 1                | 49     | 27.55           | 21.55               | PASS    |
|                           |         | 25               | 25     | 27.68           | 21.57               | PASS    |
|                           |         | 50               | 0      | 27.62           | 21.56               | PASS    |
|                           | 1732.5  | 1                | 0      | 26.73           | 22.67               | PASS    |
|                           |         | 1                | 49     | 26.65           | 22.45               | PASS    |
|                           |         | 25               | 25     | 26.67           | 22.23               | PASS    |
|                           |         | 50               | 0      | 27.24           | 21.53               | PASS    |
|                           | 1750.0  | 1                | 0      | 27.28           | 21.52               | PASS    |
|                           |         | 1                | 49     | 27.54           | 22.21               | PASS    |
|                           |         | 25               | 25     | 26.76           | 22.22               | PASS    |
|                           |         | 50               | 0      | 26.62           | 22.26               | PASS    |
| 16QAM                     | 1715.0  | 1                | 0      | 26.74           | 21.44               | PASS    |
|                           |         | 1                | 49     | 27.23           | 21.44               | PASS    |
|                           |         | 25               | 25     | 27.37           | 21.44               | PASS    |
|                           |         | 50               | 0      | 27.53           | 21.43               | PASS    |
|                           | 1732.5  | 1                | 0      | 26.96           | 22.22               | PASS    |
|                           |         | 1                | 49     | 26.72           | 22.25               | PASS    |
|                           |         | 25               | 25     | 26.67           | 22.23               | PASS    |

|  |        |    |    |       |       |      |
|--|--------|----|----|-------|-------|------|
|  |        | 50 | 0  | 27.64 | 21.42 | PASS |
|  | 1750.0 | 1  | 0  | 27.53 | 21.45 | PASS |
|  |        | 1  | 49 | 27.68 | 22.52 | PASS |
|  |        | 25 | 25 | 26.84 | 22.44 | PASS |
|  |        | 50 | 0  | 26.77 | 22.02 | PASS |

| Channel Bandwidth: 15 MHz |         |                  |        |                 |                     |         |
|---------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                           |         | Size             | Offset |                 |                     |         |
| QPSK                      | 1717.5  | 1                | 0      | 26.99           | 22.54               | PASS    |
|                           |         | 1                | 74     | 26.76           | 22.47               | PASS    |
|                           |         | 37               | 38     | 26.85           | 21.65               | PASS    |
|                           |         | 75               | 0      | 27.32           | 21.59               | PASS    |
|                           | 1732.5  | 1                | 0      | 27.45           | 22.46               | PASS    |
|                           |         | 1                | 74     | 28.19           | 22.23               | PASS    |
|                           |         | 37               | 38     | 26.94           | 22.54               | PASS    |
|                           |         | 75               | 0      | 26.77           | 21.46               | PASS    |
|                           | 1747.5  | 1                | 0      | 26.84           | 21.50               | PASS    |
|                           |         | 1                | 74     | 27.47           | 21.54               | PASS    |
|                           |         | 37               | 38     | 27.43           | 21.55               | PASS    |
|                           |         | 75               | 0      | 27.16           | 22.47               | PASS    |
| 16QAM                     | 1717.5  | 1                | 0      | 26.93           | 22.32               | PASS    |
|                           |         | 1                | 74     | 26.95           | 22.64               | PASS    |
|                           |         | 37               | 38     | 26.73           | 21.57               | PASS    |
|                           |         | 75               | 0      | 27.68           | 21.60               | PASS    |
|                           | 1732.5  | 1                | 0      | 27.64           | 22.85               | PASS    |
|                           |         | 1                | 74     | 27.27           | 22.73               | PASS    |
|                           |         | 37               | 38     | 26.95           | 22.47               | PASS    |
|                           |         | 75               | 0      | 26.92           | 21.92               | PASS    |
|                           | 1747.5  | 1                | 0      | 26.75           | 21.88               | PASS    |
|                           |         | 1                | 74     | 26.61           | 21.83               | PASS    |
|                           |         | 37               | 38     | 26.65           | 21.78               | PASS    |
|                           |         | 75               | 0      | 26.28           | 22.83               | PASS    |

| Channel Bandwidth: 20 MHz |         |                  |        |                 |                     |         |
|---------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                           |         | Size             | Offset |                 |                     |         |
| QPSK                      | 1720.0  | 1                | 0      | 27.16           | 21.58               | PASS    |
|                           |         | 1                | 99     | 27.29           | 22.63               | PASS    |
|                           |         | 50               | 50     | 27.27           | 22.54               | PASS    |

|       |        |     |    |       |       |      |
|-------|--------|-----|----|-------|-------|------|
| 16QAM | 1732.5 | 100 | 0  | 27.66 | 22.57 | PASS |
|       |        | 1   | 0  | 27.69 | 21.59 | PASS |
|       |        | 1   | 99 | 27.74 | 21.55 | PASS |
|       |        | 50  | 50 | 27.20 | 22.92 | PASS |
|       |        | 100 | 0  | 27.14 | 22.63 | PASS |
|       | 1745.0 | 1   | 0  | 27.25 | 22.89 | PASS |
|       |        | 1   | 99 | 27.53 | 21.52 | PASS |
|       |        | 50  | 50 | 27.65 | 21.60 | PASS |
|       |        | 100 | 0  | 27.78 | 21.74 | PASS |
|       | 1720.0 | 1   | 0  | 27.22 | 21.67 | PASS |
|       |        | 1   | 99 | 27.18 | 22.53 | PASS |
|       |        | 50  | 50 | 27.24 | 22.65 | PASS |
|       |        | 100 | 0  | 27.55 | 22.52 | PASS |
|       | 1732.5 | 1   | 0  | 27.67 | 21.51 | PASS |
|       |        | 1   | 99 | 27.84 | 21.60 | PASS |
|       |        | 50  | 50 | 27.18 | 22.85 | PASS |
|       |        | 100 | 0  | 27.22 | 22.82 | PASS |
|       | 1745.0 | 1   | 0  | 27.18 | 22.83 | PASS |
|       |        | 1   | 99 | 27.63 | 21.87 | PASS |
|       |        | 50  | 50 | 27.74 | 21.90 | PASS |
|       |        | 100 | 0  | 26.27 | 21.97 | PASS |

## LTE BAND 5

| Channel Bandwidth: 1.4 MHz |         |                  |        |                 |                     |         |
|----------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                 | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                            |         | Size             | Offset |                 |                     |         |
| QPSK                       | 824.7   | 1                | 0      | 26.80           | 22.41               | PASS    |
|                            |         | 1                | 5      | 26.91           | 22.42               | PASS    |
|                            |         | 3                | 3      | 27.09           | 21.64               | PASS    |
|                            |         | 6                | 0      | 27.18           | 21.15               | PASS    |
|                            | 836.5   | 1                | 0      | 27.43           | 22.41               | PASS    |
|                            |         | 1                | 5      | 26.84           | 22.42               | PASS    |
|                            |         | 3                | 3      | 26.79           | 22.36               | PASS    |
|                            |         | 6                | 0      | 26.77           | 21.53               | PASS    |
|                            | 848.3   | 1                | 0      | 27.08           | 21.54               | PASS    |
|                            |         | 1                | 5      | 27.12           | 21.44               | PASS    |
|                            |         | 3                | 3      | 27.37           | 21.51               | PASS    |
|                            |         | 6                | 0      | 26.76           | 22.39               | PASS    |

|       |       |   |   |       |       |      |
|-------|-------|---|---|-------|-------|------|
| 16QAM | 824.7 | 1 | 0 | 26.77 | 22.44 | PASS |
|       |       | 1 | 5 | 26.84 | 22.36 | PASS |
|       |       | 3 | 3 | 27.08 | 21.52 | PASS |
|       |       | 6 | 0 | 27.17 | 21.47 | PASS |
|       | 836.5 | 1 | 0 | 27.42 | 22.69 | PASS |
|       |       | 1 | 5 | 26.66 | 22.36 | PASS |
|       |       | 3 | 3 | 26.57 | 22.48 | PASS |
|       |       | 6 | 0 | 26.58 | 21.64 | PASS |
|       | 848.3 | 1 | 0 | 27.14 | 21.15 | PASS |
|       |       | 1 | 5 | 27.07 | 21.51 | PASS |
|       |       | 3 | 3 | 27.05 | 21.66 | PASS |
|       |       | 6 | 0 | 26.57 | 22.69 | PASS |

| Channel Bandwidth: 3 MHz |         |                  |        |                 |                     |         |
|--------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation               | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                          |         | Size             | Offset |                 |                     |         |
| QPSK                     | 825.5   | 1                | 0      | 26.57           | 21.52               | PASS    |
|                          |         | 1                | 14     | 26.64           | 22.39               | PASS    |
|                          |         | 8                | 7      | 27.17           | 22.42               | PASS    |
|                          |         | 15               | 0      | 26.62           | 22.26               | PASS    |
|                          | 836.5   | 1                | 0      | 26.68           | 21.31               | PASS    |
|                          |         | 1                | 14     | 26.73           | 21.31               | PASS    |
|                          |         | 8                | 7      | 26.63           | 22.32               | PASS    |
|                          |         | 15               | 0      | 26.57           | 22.26               | PASS    |
|                          | 847.5   | 1                | 0      | 27.56           | 22.41               | PASS    |
|                          |         | 1                | 14     | 26.34           | 21.43               | PASS    |
|                          |         | 8                | 7      | 26.45           | 21.43               | PASS    |
|                          |         | 15               | 0      | 26.57           | 21.17               | PASS    |
| 16QAM                    | 825.5   | 1                | 0      | 26.54           | 21.51               | PASS    |
|                          |         | 1                | 14     | 26.58           | 22.31               | PASS    |
|                          |         | 8                | 7      | 27.52           | 22.28               | PASS    |
|                          |         | 15               | 0      | 26.19           | 22.38               | PASS    |
|                          | 836.5   | 1                | 0      | 26.48           | 21.37               | PASS    |
|                          |         | 1                | 14     | 26.15           | 21.41               | PASS    |
|                          |         | 8                | 7      | 26.39           | 22.66               | PASS    |
|                          |         | 15               | 0      | 26.58           | 22.58               | PASS    |
|                          | 847.5   | 1                | 0      | 27.16           | 22.51               | PASS    |
|                          |         | 1                | 14     | 26.67           | 21.53               | PASS    |
|                          |         | 8                | 7      | 26.89           | 21.52               | PASS    |
|                          |         | 15               | 0      | 26.53           | 21.52               | PASS    |

| Channel Bandwidth: 5 MHz |         |                  |        |                 |                     |         |
|--------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation               | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                          |         | Size             | Offset |                 |                     |         |
| QPSK                     | 826.5   | 1                | 0      | 26.73           | 22.31               | PASS    |
|                          |         | 1                | 24     | 26.77           | 21.55               | PASS    |
|                          |         | 12               | 13     | 26.84           | 21.54               | PASS    |
|                          |         | 25               | 0      | 26.37           | 22.42               | PASS    |
|                          | 836.5   | 1                | 0      | 26.45           | 22.18               | PASS    |
|                          |         | 1                | 24     | 26.89           | 22.51               | PASS    |
|                          |         | 12               | 13     | 26.66           | 21.49               | PASS    |
|                          |         | 25               | 0      | 26.57           | 21.49               | PASS    |
|                          | 846.5   | 1                | 0      | 26.73           | 21.44               | PASS    |
|                          |         | 1                | 24     | 27.31           | 21.38               | PASS    |
|                          |         | 12               | 13     | 27.27           | 22.41               | PASS    |
|                          |         | 25               | 0      | 27.32           | 22.19               | PASS    |
| 16QAM                    | 826.5   | 1                | 0      | 26.68           | 22.54               | PASS    |
|                          |         | 1                | 24     | 26.56           | 21.41               | PASS    |
|                          |         | 12               | 13     | 26.59           | 21.39               | PASS    |
|                          |         | 25               | 0      | 26.27           | 22.76               | PASS    |
|                          | 836.5   | 1                | 0      | 27.23           | 22.31               | PASS    |
|                          |         | 1                | 24     | 27.34           | 22.42               | PASS    |
|                          |         | 12               | 13     | 26.87           | 21.64               | PASS    |
|                          |         | 25               | 0      | 26.69           | 21.47               | PASS    |
|                          | 846.5   | 1                | 0      | 26.72           | 21.31               | PASS    |
|                          |         | 1                | 24     | 26.21           | 21.43               | PASS    |
|                          |         | 12               | 13     | 27.07           | 22.77               | PASS    |
|                          |         | 25               | 0      | 26.77           | 21.54               | PASS    |

| Channel Bandwidth: 10 MHz |         |                  |        |                 |                     |         |
|---------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                           |         | Size             | Offset |                 |                     |         |
| QPSK                      | 829.0   | 1                | 0      | 27.10           | 22.55               | PASS    |
|                           |         | 1                | 49     | 27.37           | 22.33               | PASS    |
|                           |         | 25               | 25     | 26.48           | 22.11               | PASS    |
|                           |         | 50               | 0      | 27.11           | 21.41               | PASS    |
|                           | 836.5   | 1                | 0      | 26.42           | 21.18               | PASS    |
|                           |         | 1                | 49     | 26.99           | 22.09               | PASS    |

|       |       |    |    |       |       |      |
|-------|-------|----|----|-------|-------|------|
| 16QAM | 844   | 25 | 25 | 27.03 | 22.10 | PASS |
|       |       | 50 | 0  | 27.29 | 22.14 | PASS |
|       |       | 1  | 0  | 26.51 | 21.32 | PASS |
|       |       | 1  | 49 | 26.37 | 21.32 | PASS |
|       |       | 25 | 25 | 26.49 | 21.32 | PASS |
|       |       | 50 | 0  | 26.98 | 21.31 | PASS |
|       | 829.0 | 1  | 0  | 27.12 | 22.15 | PASS |
|       |       | 1  | 49 | 27.28 | 22.13 | PASS |
|       |       | 25 | 25 | 26.71 | 22.11 | PASS |
|       |       | 50 | 0  | 26.47 | 21.32 | PASS |
|       | 836.5 | 1  | 0  | 26.42 | 21.33 | PASS |
|       |       | 1  | 49 | 27.39 | 21.87 | PASS |
|       |       | 25 | 25 | 27.28 | 22.32 | PASS |
|       |       | 50 | 0  | 27.43 | 21.18 | PASS |
|       | 844   | 1  | 0  | 26.59 | 21.61 | PASS |
|       |       | 1  | 49 | 26.52 | 21.56 | PASS |
|       |       | 25 | 25 | 26.38 | 21.19 | PASS |
|       |       | 50 | 0  | 26.48 | 21.11 | PASS |

## LTE BAND 17

| Channel Bandwidth: 5 MHz |         |                  |        |                 |                     |         |
|--------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation               | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                          |         | Size             | Offset |                 |                     |         |
| QPSK                     | 706.5   | 1                | 0      | 26.65           | 22.25               | PASS    |
|                          |         | 1                | 24     | 26.67           | 21.56               | PASS    |
|                          |         | 12               | 13     | 27.24           | 21.55               | PASS    |
|                          |         | 25               | 0      | 27.28           | 21.57               | PASS    |
|                          | 710.0   | 1                | 0      | 26.54           | 21.56               | PASS    |
|                          |         | 1                | 24     | 26.76           | 22.67               | PASS    |
|                          |         | 12               | 13     | 26.62           | 22.45               | PASS    |
|                          |         | 25               | 0      | 26.74           | 22.23               | PASS    |
|                          | 713.5   | 1                | 0      | 26.23           | 21.53               | PASS    |
|                          |         | 1                | 24     | 27.11           | 21.52               | PASS    |
|                          |         | 12               | 13     | 27.09           | 22.21               | PASS    |
|                          |         | 25               | 0      | 26.96           | 22.22               | PASS    |
| 16QAM                    | 706.5   | 1                | 0      | 26.72           | 22.26               | PASS    |
|                          |         | 1                | 24     | 26.67           | 21.44               | PASS    |
|                          |         | 12               | 13     | 27.34           | 21.44               | PASS    |
|                          |         | 25               | 0      | 27.53           | 21.44               | PASS    |
|                          | 710.0   | 1                | 0      | 27.41           | 21.43               | PASS    |
|                          |         | 1                | 24     | 26.84           | 22.22               | PASS    |
|                          |         | 12               | 13     | 26.77           | 22.25               | PASS    |

|  |       |    |    |       |       |      |
|--|-------|----|----|-------|-------|------|
|  |       | 25 | 0  | 26.63 | 22.23 | PASS |
|  | 713.5 | 1  | 0  | 25.68 | 21.42 | PASS |
|  |       | 1  | 24 | 26.56 | 21.45 | PASS |
|  |       | 12 | 13 | 26.65 | 22.52 | PASS |
|  |       | 25 | 0  | 26.67 | 22.44 | PASS |

| Channel Bandwidth: 10 MHz |         |                  |        |                 |                     |         |
|---------------------------|---------|------------------|--------|-----------------|---------------------|---------|
| Modulation                | Channel | RB Configuration |        | Peak Power(dBm) | Average Power [dBm] | Verdict |
|                           |         | Size             | Offset |                 |                     |         |
| QPSK                      | 709.0   | 1                | 0      | 26.95           | 22.47               | PASS    |
|                           |         | 1                | 49     | 27.02           | 21.65               | PASS    |
|                           |         | 25               | 25     | 26.95           | 21.59               | PASS    |
|                           |         | 50               | 0      | 27.43           | 22.46               | PASS    |
|                           | 710.0   | 1                | 0      | 27.46           | 22.23               | PASS    |
|                           |         | 1                | 49     | 26.23           | 22.54               | PASS    |
|                           |         | 25               | 25     | 26.99           | 21.46               | PASS    |
|                           |         | 50               | 0      | 26.76           | 21.50               | PASS    |
|                           | 711.0   | 1                | 0      | 26.85           | 21.54               | PASS    |
|                           |         | 1                | 49     | 27.32           | 21.55               | PASS    |
|                           |         | 25               | 25     | 27.45           | 22.47               | PASS    |
|                           |         | 50               | 0      | 25.19           | 22.32               | PASS    |
| 16QAM                     | 709.0   | 1                | 0      | 26.94           | 22.64               | PASS    |
|                           |         | 1                | 49     | 26.77           | 21.57               | PASS    |
|                           |         | 25               | 25     | 26.84           | 21.60               | PASS    |
|                           |         | 50               | 0      | 27.47           | 22.85               | PASS    |
|                           | 710.0   | 1                | 0      | 27.43           | 22.73               | PASS    |
|                           |         | 1                | 49     | 26.16           | 22.47               | PASS    |
|                           |         | 25               | 25     | 26.93           | 21.92               | PASS    |
|                           |         | 50               | 0      | 26.95           | 21.88               | PASS    |
|                           | 711.0   | 1                | 0      | 26.73           | 21.83               | PASS    |
|                           |         | 1                | 49     | 27.68           | 21.78               | PASS    |
|                           |         | 25               | 25     | 27.64           | 22.83               | PASS    |
|                           |         | 50               | 0      | 27.27           | 22.76               | PASS    |

## Radiated Output Power:

| Radiated Power (E.I.R.P) for LTE BAND 2 (1.4MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|------------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                       | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                       | 1850.7    | 15.00                   | Horizontal           | 8.13               | 0.96            | 22.17                | Pass       |
|                                                            | 1850.7    | 14.94                   | Vertical             | 8.13               | 0.96            | 22.11                | Pass       |
|                                                            | 1880.0    | 15.41                   | Horizontal           | 8.14               | 0.96            | 22.59                | Pass       |
|                                                            | 1880.0    | 15.10                   | Vertical             | 8.14               | 0.96            | 22.28                | Pass       |
|                                                            | 1909.3    | 15.03                   | Horizontal           | 8.14               | 0.96            | 22.21                | Pass       |
|                                                            | 1909.3    | 15.09                   | Vertical             | 8.14               | 0.96            | 22.27                | Pass       |
| 16QAM                                                      | 1850.7    | 14.22                   | Horizontal           | 8.13               | 0.96            | 21.39                | Pass       |
|                                                            | 1850.7    | 14.20                   | Vertical             | 8.13               | 0.96            | 21.37                | Pass       |
|                                                            | 1880.0    | 14.45                   | Horizontal           | 8.14               | 0.96            | 21.63                | Pass       |
|                                                            | 1880.0    | 14.42                   | Vertical             | 8.14               | 0.96            | 21.60                | Pass       |
|                                                            | 1909.3    | 14.12                   | Horizontal           | 8.14               | 0.96            | 21.30                | Pass       |
|                                                            | 1909.3    | 14.09                   | Vertical             | 8.14               | 0.96            | 21.27                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 2 (3MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                     | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                     | 1851.5    | 14.92                   | Horizontal           | 8.13               | 0.96            | 22.09                | Pass       |
|                                                          | 1851.5    | 14.89                   | Vertical             | 8.13               | 0.96            | 22.06                | Pass       |
|                                                          | 1880.0    | 15.02                   | Horizontal           | 8.14               | 0.96            | 22.20                | Pass       |
|                                                          | 1880.0    | 14.26                   | Vertical             | 8.14               | 0.96            | 21.44                | Pass       |
|                                                          | 1908.5    | 15.06                   | Horizontal           | 8.14               | 0.96            | 22.24                | Pass       |
|                                                          | 1908.5    | 15.17                   | Vertical             | 8.14               | 0.96            | 22.35                | Pass       |
| 16QAM                                                    | 1851.5    | 14.17                   | Horizontal           | 8.13               | 0.96            | 21.34                | Pass       |
|                                                          | 1851.5    | 14.12                   | Vertical             | 8.13               | 0.96            | 21.29                | Pass       |
|                                                          | 1880.0    | 14.26                   | Horizontal           | 8.14               | 0.96            | 21.44                | Pass       |
|                                                          | 1880.0    | 14.29                   | Vertical             | 8.14               | 0.96            | 21.47                | Pass       |
|                                                          | 1908.5    | 14.26                   | Horizontal           | 8.14               | 0.96            | 21.44                | Pass       |
|                                                          | 1908.5    | 14.19                   | Vertical             | 8.14               | 0.96            | 21.37                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 2 (5MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                     | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                     | 1852.5    | 15.08                   | Horizontal           | 8.13               | 0.96            | 22.25                | Pass       |
|                                                          | 1852.5    | 15.02                   | Vertical             | 8.13               | 0.96            | 22.19                | Pass       |
|                                                          | 1880.0    | 15.17                   | Horizontal           | 8.14               | 0.96            | 22.35                | Pass       |
|                                                          | 1880.0    | 15.14                   | Vertical             | 8.14               | 0.96            | 22.32                | Pass       |
|                                                          | 1907.5    | 15.20                   | Horizontal           | 8.14               | 0.96            | 22.38                | Pass       |
|                                                          | 1907.5    | 15.34                   | Vertical             | 8.14               | 0.96            | 22.52                | Pass       |
| 16QAM                                                    | 1852.5    | 14.40                   | Horizontal           | 8.13               | 0.96            | 21.57                | Pass       |
|                                                          | 1852.5    | 14.26                   | Vertical             | 8.13               | 0.96            | 21.43                | Pass       |
|                                                          | 1880.0    | 14.41                   | Horizontal           | 8.14               | 0.96            | 21.59                | Pass       |
|                                                          | 1880.0    | 14.48                   | Vertical             | 8.14               | 0.96            | 21.66                | Pass       |
|                                                          | 1907.5    | 14.01                   | Horizontal           | 8.14               | 0.96            | 21.19                | Pass       |
|                                                          | 1907.5    | 13.94                   | Vertical             | 8.14               | 0.96            | 21.12                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 2 (10MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|-----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                      | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                      | 1855.0    | 15.01                   | Horizontal           | 8.13               | 0.96            | 22.18                | Pass       |
|                                                           | 1855.0    | 15.03                   | Vertical             | 8.13               | 0.96            | 22.20                | Pass       |
|                                                           | 1880.0    | 15.06                   | Horizontal           | 8.14               | 0.96            | 22.24                | Pass       |
|                                                           | 1880.0    | 15.07                   | Vertical             | 8.14               | 0.96            | 22.25                | Pass       |
|                                                           | 1905.0    | 15.17                   | Horizontal           | 8.14               | 0.96            | 22.35                | Pass       |
|                                                           | 1905.0    | 15.16                   | Vertical             | 8.14               | 0.96            | 22.34                | Pass       |
| 16QAM                                                     | 1855.0    | 14.26                   | Horizontal           | 8.13               | 0.96            | 21.43                | Pass       |
|                                                           | 1855.0    | 14.15                   | Vertical             | 8.13               | 0.96            | 21.32                | Pass       |
|                                                           | 1880.0    | 14.28                   | Horizontal           | 8.14               | 0.96            | 21.46                | Pass       |
|                                                           | 1880.0    | 14.35                   | Vertical             | 8.14               | 0.96            | 21.53                | Pass       |
|                                                           | 1905.0    | 14.31                   | Horizontal           | 8.14               | 0.96            | 21.49                | Pass       |
|                                                           | 1905.0    | 14.25                   | Vertical             | 8.14               | 0.96            | 21.43                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 2 (15MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|-----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                      | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                      | 1857.5    | 13.34                   | Horizontal           | 8.13               | 0.96            | 20.51                | Pass       |
|                                                           | 1857.5    | 13.57                   | Vertical             | 8.13               | 0.96            | 20.74                | Pass       |
|                                                           | 1880.0    | 15.14                   | Horizontal           | 8.14               | 0.96            | 22.32                | Pass       |
|                                                           | 1880.0    | 15.06                   | Vertical             | 8.14               | 0.96            | 22.24                | Pass       |
|                                                           | 1902.5    | 15.40                   | Horizontal           | 8.14               | 0.96            | 22.58                | Pass       |
|                                                           | 1902.5    | 15.29                   | Vertical             | 8.14               | 0.96            | 22.47                | Pass       |
| 16QAM                                                     | 1857.5    | 12.77                   | Horizontal           | 8.13               | 0.96            | 19.94                | Pass       |
|                                                           | 1857.5    | 13.06                   | Vertical             | 8.13               | 0.96            | 20.23                | Pass       |
|                                                           | 1880.0    | 14.29                   | Horizontal           | 8.14               | 0.96            | 21.47                | Pass       |
|                                                           | 1880.0    | 14.34                   | Vertical             | 8.14               | 0.96            | 21.52                | Pass       |
|                                                           | 1902.5    | 14.39                   | Horizontal           | 8.14               | 0.96            | 21.57                | Pass       |
|                                                           | 1902.5    | 14.21                   | Vertical             | 8.14               | 0.96            | 21.39                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 2 (20MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|-----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                      | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                      | 1860.0    | 13.57                   | Horizontal           | 8.13               | 0.96            | 20.74                | Pass       |
|                                                           | 1860.0    | 12.97                   | Vertical             | 8.13               | 0.96            | 20.14                | Pass       |
|                                                           | 1880.0    | 15.32                   | Horizontal           | 8.14               | 0.96            | 22.50                | Pass       |
|                                                           | 1880.0    | 15.19                   | Vertical             | 8.14               | 0.96            | 22.37                | Pass       |
|                                                           | 1900.0    | 15.51                   | Horizontal           | 8.14               | 0.96            | 22.69                | Pass       |
|                                                           | 1900.0    | 15.36                   | Vertical             | 8.14               | 0.96            | 22.54                | Pass       |
| 16QAM                                                     | 1860.0    | 12.85                   | Horizontal           | 8.13               | 0.96            | 20.02                | Pass       |
|                                                           | 1860.0    | 13.29                   | Vertical             | 8.13               | 0.96            | 20.46                | Pass       |
|                                                           | 1880.0    | 14.36                   | Horizontal           | 8.14               | 0.96            | 21.54                | Pass       |
|                                                           | 1880.0    | 14.34                   | Vertical             | 8.14               | 0.96            | 21.52                | Pass       |
|                                                           | 1900.0    | 14.66                   | Horizontal           | 8.14               | 0.96            | 21.84                | Pass       |
|                                                           | 1900.0    | 14.36                   | Vertical             | 8.14               | 0.96            | 21.54                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 4 (1.4MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|------------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                       | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                       | 1710.7    | 14.72                   | Horizontal           | 8.03               | 0.91            | 21.84                | Pass       |
|                                                            | 1710.7    | 14.61                   | Vertical             | 8.03               | 0.91            | 21.73                | Pass       |
|                                                            | 1732.5    | 14.61                   | Horizontal           | 8.04               | 0.91            | 21.74                | Pass       |
|                                                            | 1732.5    | 14.59                   | Vertical             | 8.04               | 0.91            | 21.72                | Pass       |
|                                                            | 1754.3    | 14.33                   | Horizontal           | 8.04               | 0.91            | 21.46                | Pass       |
|                                                            | 1754.3    | 14.31                   | Vertical             | 8.04               | 0.91            | 21.44                | Pass       |
| 16QAM                                                      | 1710.7    | 13.98                   | Horizontal           | 8.03               | 0.91            | 21.10                | Pass       |
|                                                            | 1710.7    | 12.99                   | Vertical             | 8.03               | 0.91            | 20.11                | Pass       |
|                                                            | 1732.5    | 15.82                   | Horizontal           | 8.04               | 0.91            | 22.95                | Pass       |
|                                                            | 1732.5    | 15.83                   | Vertical             | 8.04               | 0.91            | 22.96                | Pass       |
|                                                            | 1754.3    | 13.39                   | Horizontal           | 8.04               | 0.91            | 20.52                | Pass       |
|                                                            | 1754.3    | 15.38                   | Vertical             | 8.04               | 0.91            | 22.51                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 4 (3MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                     | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                     | 1711.5    | 13.60                   | Horizontal           | 8.03               | 0.91            | 20.72                | Pass       |
|                                                          | 1711.5    | 14.58                   | Vertical             | 8.03               | 0.91            | 21.70                | Pass       |
|                                                          | 1732.5    | 14.50                   | Horizontal           | 8.04               | 0.91            | 21.63                | Pass       |
|                                                          | 1732.5    | 14.51                   | Vertical             | 8.04               | 0.91            | 21.64                | Pass       |
|                                                          | 1753.5    | 14.41                   | Horizontal           | 8.04               | 0.91            | 21.54                | Pass       |
|                                                          | 1753.5    | 14.29                   | Vertical             | 8.04               | 0.91            | 21.42                | Pass       |
| 16QAM                                                    | 1711.5    | 14.90                   | Horizontal           | 8.03               | 0.91            | 22.02                | Pass       |
|                                                          | 1711.5    | 15.01                   | Vertical             | 8.03               | 0.91            | 22.13                | Pass       |
|                                                          | 1732.5    | 13.69                   | Horizontal           | 8.04               | 0.91            | 20.82                | Pass       |
|                                                          | 1732.5    | 16.72                   | Vertical             | 8.04               | 0.91            | <b>23.85</b>         | Pass       |
|                                                          | 1753.5    | 15.56                   | Horizontal           | 8.04               | 0.91            | 22.69                | Pass       |
|                                                          | 1753.5    | 13.45                   | Vertical             | 8.04               | 0.91            | 20.58                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 4 (5MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                     | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                     | 1712.5    | 14.35                   | Horizontal           | 8.03               | 0.91            | 21.47                | Pass       |
|                                                          | 1712.5    | 13.56                   | Vertical             | 8.03               | 0.91            | 20.68                | Pass       |
|                                                          | 1732.5    | 14.65                   | Horizontal           | 8.04               | 0.91            | 21.78                | Pass       |
|                                                          | 1732.5    | 14.38                   | Vertical             | 8.04               | 0.91            | 21.51                | Pass       |
|                                                          | 1752.5    | 14.54                   | Horizontal           | 8.04               | 0.91            | 21.67                | Pass       |
|                                                          | 1752.5    | 14.36                   | Vertical             | 8.04               | 0.91            | 21.49                | Pass       |
| 16QAM                                                    | 1712.5    | 14.74                   | Horizontal           | 8.03               | 0.91            | 21.86                | Pass       |
|                                                          | 1712.5    | 12.92                   | Vertical             | 8.03               | 0.91            | 20.04                | Pass       |
|                                                          | 1732.5    | 13.84                   | Horizontal           | 8.04               | 0.91            | 20.97                | Pass       |
|                                                          | 1732.5    | 13.89                   | Vertical             | 8.04               | 0.91            | 21.02                | Pass       |
|                                                          | 1752.5    | 13.37                   | Horizontal           | 8.04               | 0.91            | 20.50                | Pass       |
|                                                          | 1752.5    | 14.22                   | Vertical             | 8.04               | 0.91            | 21.35                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 4 (10MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|-----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                      | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                      | 1715.0    | 14.08                   | Horizontal           | 8.03               | 0.91            | 21.20                | Pass       |
|                                                           | 1715.0    | 13.43                   | Vertical             | 8.03               | 0.91            | 20.55                | Pass       |
|                                                           | 1732.5    | 14.56                   | Horizontal           | 8.04               | 0.91            | 21.69                | Pass       |
|                                                           | 1732.5    | 13.48                   | Vertical             | 8.04               | 0.91            | 20.61                | Pass       |
|                                                           | 1750.0    | 13.31                   | Horizontal           | 8.04               | 0.91            | 20.44                | Pass       |
|                                                           | 1750.0    | 13.87                   | Vertical             | 8.04               | 0.91            | 21.00                | Pass       |
| 16QAM                                                     | 1715.0    | 14.43                   | Horizontal           | 8.03               | 0.91            | 21.55                | Pass       |
|                                                           | 1715.0    | 13.88                   | Vertical             | 8.03               | 0.91            | 21.00                | Pass       |
|                                                           | 1732.5    | 14.71                   | Horizontal           | 8.04               | 0.91            | 21.84                | Pass       |
|                                                           | 1732.5    | 14.92                   | Vertical             | 8.04               | 0.91            | 22.05                | Pass       |
|                                                           | 1750.0    | 13.76                   | Horizontal           | 8.04               | 0.91            | 20.89                | Pass       |
|                                                           | 1750.0    | 14.39                   | Vertical             | 8.04               | 0.91            | 21.52                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 4 (15MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|-----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                      | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                      | 1717.5    | 14.26                   | Horizontal           | 8.03               | 0.91            | 21.38                | Pass       |
|                                                           | 1717.5    | 14.49                   | Vertical             | 8.03               | 0.91            | 21.61                | Pass       |
|                                                           | 1732.5    | 14.60                   | Horizontal           | 8.04               | 0.91            | 21.73                | Pass       |
|                                                           | 1732.5    | 14.11                   | Vertical             | 8.04               | 0.91            | 21.24                | Pass       |
|                                                           | 1747.5    | 15.13                   | Horizontal           | 8.04               | 0.91            | 22.26                | Pass       |
|                                                           | 1747.5    | 15.07                   | Vertical             | 8.04               | 0.91            | 22.20                | Pass       |
| 16QAM                                                     | 1717.5    | 13.99                   | Horizontal           | 8.03               | 0.91            | 21.11                | Pass       |
|                                                           | 1717.5    | 15.93                   | Vertical             | 8.03               | 0.91            | 23.05                | Pass       |
|                                                           | 1732.5    | 13.71                   | Horizontal           | 8.04               | 0.91            | 20.84                | Pass       |
|                                                           | 1732.5    | 14.54                   | Vertical             | 8.04               | 0.91            | 21.67                | Pass       |
|                                                           | 1747.5    | 14.45                   | Horizontal           | 8.04               | 0.91            | 21.58                | Pass       |
|                                                           | 1747.5    | 15.49                   | Vertical             | 8.04               | 0.91            | 22.62                | Pass       |

| Radiated Power (E.I.R.P) for LTE BAND 4 (20MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|-----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                      | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                      | 1720.0    | 15.40                   | Horizontal           | 8.03               | 0.91            | 22.52                | Pass       |
|                                                           | 1720.0    | 15.07                   | Vertical             | 8.03               | 0.91            | 22.19                | Pass       |
|                                                           | 1732.5    | 14.40                   | Horizontal           | 8.04               | 0.91            | 21.53                | Pass       |
|                                                           | 1732.5    | 13.67                   | Vertical             | 8.04               | 0.91            | 20.80                | Pass       |
|                                                           | 1745.0    | 15.40                   | Horizontal           | 8.04               | 0.91            | 22.53                | Pass       |
|                                                           | 1745.0    | 16.58                   | Vertical             | 8.04               | 0.91            | 23.71                | Pass       |
| 16QAM                                                     | 1720.0    | 14.59                   | Horizontal           | 8.03               | 0.91            | 21.71                | Pass       |
|                                                           | 1720.0    | 15.33                   | Vertical             | 8.03               | 0.91            | 22.45                | Pass       |
|                                                           | 1732.5    | 14.70                   | Horizontal           | 8.04               | 0.91            | 21.83                | Pass       |
|                                                           | 1732.5    | 12.90                   | Vertical             | 8.04               | 0.91            | 20.03                | Pass       |
|                                                           | 1745.0    | 14.79                   | Horizontal           | 8.04               | 0.91            | 21.92                | Pass       |
|                                                           | 1745.0    | 14.03                   | Vertical             | 8.04               | 0.91            | 21.16                | Pass       |

| Radiated Power (E.R.P) for LTE BAND 5 (1.4MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                     | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                     | 824.7     | 15.50                   | Horizontal           | 6.4                | 0.52            | 21.38                | Pass       |
|                                                          | 824.7     | 16.35                   | Vertical             | 6.4                | 0.52            | 22.23                | Pass       |
|                                                          | 836.5     | 17.89                   | Horizontal           | 6.4                | 0.52            | 23.77                | Pass       |
|                                                          | 836.5     | 16.51                   | Vertical             | 6.4                | 0.52            | 22.39                | Pass       |
|                                                          | 848.3     | 16.66                   | Horizontal           | 6.5                | 0.52            | 22.64                | Pass       |
|                                                          | 848.3     | 15.40                   | Vertical             | 6.5                | 0.52            | 21.38                | Pass       |
| 16QAM                                                    | 824.7     | 16.74                   | Horizontal           | 6.4                | 0.52            | 22.62                | Pass       |
|                                                          | 824.7     | 15.65                   | Vertical             | 6.4                | 0.52            | 21.53                | Pass       |
|                                                          | 836.5     | 17.09                   | Horizontal           | 6.4                | 0.52            | 22.97                | Pass       |
|                                                          | 836.5     | 15.96                   | Vertical             | 6.4                | 0.52            | 21.84                | Pass       |
|                                                          | 848.3     | 16.88                   | Horizontal           | 6.5                | 0.52            | 22.86                | Pass       |
|                                                          | 848.3     | 16.75                   | Vertical             | 6.5                | 0.52            | 22.73                | Pass       |

| Radiated Power (E.R.P) for LTE BAND 5 (3MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|--------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                   | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                   | 825.5     | 15.69                   | Horizontal           | 6.4                | 0.52            | 21.57                | Pass       |
|                                                        | 825.5     | 15.43                   | Vertical             | 6.4                | 0.52            | 21.31                | Pass       |
|                                                        | 836.5     | 16.79                   | Horizontal           | 6.4                | 0.52            | 22.67                | Pass       |
|                                                        | 836.5     | 16.49                   | Vertical             | 6.4                | 0.52            | 22.37                | Pass       |
|                                                        | 847.5     | 15.04                   | Horizontal           | 6.5                | 0.52            | 21.02                | Pass       |
|                                                        | 847.5     | 14.53                   | Vertical             | 6.5                | 0.52            | 20.51                | Pass       |
| 16QAM                                                  | 825.5     | 16.04                   | Horizontal           | 6.4                | 0.52            | 21.92                | Pass       |
|                                                        | 825.5     | 15.78                   | Vertical             | 6.4                | 0.52            | 21.66                | Pass       |
|                                                        | 836.5     | 16.98                   | Horizontal           | 6.4                | 0.52            | 22.86                | Pass       |
|                                                        | 836.5     | 15.92                   | Vertical             | 6.4                | 0.52            | 21.80                | Pass       |
|                                                        | 847.5     | 15.39                   | Horizontal           | 6.5                | 0.52            | 21.37                | Pass       |
|                                                        | 847.5     | 14.97                   | Vertical             | 6.5                | 0.52            | 20.95                | Pass       |

| Radiated Power (E.R.P) for LTE BAND 5 (5MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|--------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                   | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                   | 826.5     | 15.76                   | Horizontal           | 6.4                | 0.52            | 21.64                | Pass       |
|                                                        | 826.5     | 15.45                   | Vertical             | 6.4                | 0.52            | 21.33                | Pass       |
|                                                        | 836.5     | 15.83                   | Horizontal           | 6.4                | 0.52            | 21.71                | Pass       |
|                                                        | 836.5     | 15.45                   | Vertical             | 6.4                | 0.52            | 21.33                | Pass       |
|                                                        | 846.5     | 15.33                   | Horizontal           | 6.5                | 0.52            | 21.31                | Pass       |
|                                                        | 846.5     | 15.57                   | Vertical             | 6.5                | 0.52            | 21.55                | Pass       |
| 16QAM                                                  | 826.5     | 16.12                   | Horizontal           | 6.4                | 0.52            | 22.00                | Pass       |
|                                                        | 826.5     | 15.87                   | Vertical             | 6.4                | 0.52            | 21.75                | Pass       |
|                                                        | 836.5     | 16.17                   | Horizontal           | 6.4                | 0.52            | 22.05                | Pass       |
|                                                        | 836.5     | 15.93                   | Vertical             | 6.4                | 0.52            | 21.81                | Pass       |
|                                                        | 846.5     | 15.34                   | Horizontal           | 6.5                | 0.52            | 21.32                | Pass       |
|                                                        | 846.5     | 15.64                   | Vertical             | 6.5                | 0.52            | 21.62                | Pass       |

| Radiated Power (E.R.P) for LTE BAND 5 (10MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|---------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                    | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                    | 829.0     | 16.63                   | Horizontal           | 6.4                | 0.52            | 22.51                | Pass       |
|                                                         | 829.0     | 15.44                   | Vertical             | 6.4                | 0.52            | 21.32                | Pass       |
|                                                         | 836.5     | 15.55                   | Horizontal           | 6.4                | 0.52            | 21.43                | Pass       |
|                                                         | 836.5     | 15.57                   | Vertical             | 6.4                | 0.52            | 21.45                | Pass       |
|                                                         | 844.0     | 15.35                   | Horizontal           | 6.5                | 0.52            | 21.33                | Pass       |
|                                                         | 844.0     | 16.13                   | Vertical             | 6.5                | 0.52            | 22.11                | Pass       |
| 16QAM                                                   | 829.0     | 16.21                   | Horizontal           | 6.4                | 0.52            | 22.09                | Pass       |
|                                                         | 829.0     | 16.22                   | Vertical             | 6.4                | 0.52            | 22.10                | Pass       |
|                                                         | 836.5     | 16.44                   | Horizontal           | 6.4                | 0.52            | 22.32                | Pass       |
|                                                         | 836.5     | 14.44                   | Vertical             | 6.4                | 0.52            | 20.32                | Pass       |
|                                                         | 844.0     | 15.15                   | Horizontal           | 6.5                | 0.52            | 21.13                | Pass       |
|                                                         | 844.0     | 15.13                   | Vertical             | 6.5                | 0.52            | 21.11                | Pass       |

| Radiated Power (E.R.P) for LTE BAND 17 (5MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|---------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                    | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                    | 706.5     | 16.19                   | Horizontal           | 6.1                | 0.49            | 21.80                | Pass       |
|                                                         | 706.5     | 15.80                   | Vertical             | 6.1                | 0.49            | 21.41                | Pass       |
|                                                         | 710.0     | 17.21                   | Horizontal           | 6.1                | 0.49            | <b>22.82</b>         | Pass       |
|                                                         | 710.0     | 15.55                   | Vertical             | 6.1                | 0.49            | 21.16                | Pass       |
|                                                         | 713.5     | 15.86                   | Horizontal           | 6.1                | 0.49            | 21.47                | Pass       |
|                                                         | 713.5     | 17.00                   | Vertical             | 6.1                | 0.49            | 22.61                | Pass       |
| 16QAM                                                   | 706.5     | 15.58                   | Horizontal           | 6.1                | 0.49            | 21.19                | Pass       |
|                                                         | 706.5     | 15.20                   | Vertical             | 6.1                | 0.49            | 20.81                | Pass       |
|                                                         | 710.0     | 17.20                   | Horizontal           | 6.1                | 0.49            | 22.81                | Pass       |
|                                                         | 710.0     | 15.56                   | Vertical             | 6.1                | 0.49            | 21.17                | Pass       |
|                                                         | 713.5     | 15.96                   | Horizontal           | 6.1                | 0.49            | 21.57                | Pass       |
|                                                         | 713.5     | 16.19                   | Vertical             | 6.1                | 0.49            | 21.80                | Pass       |

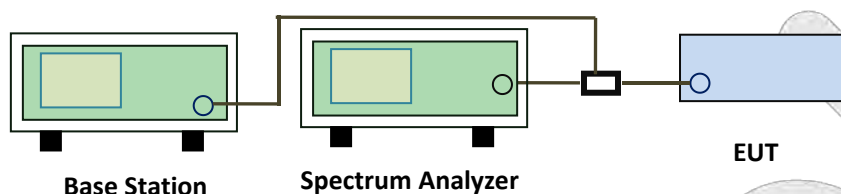
| Radiated Power (E.R.P) for LTE BAND 17 (10MHZ BANDWIDTH) |           |                         |                      |                    |                 |                      |            |
|----------------------------------------------------------|-----------|-------------------------|----------------------|--------------------|-----------------|----------------------|------------|
| Mode                                                     | Frequency | Substituted Level (dBm) | Antenna Polarization | Antenna Gain (dBi) | Cable loss (dB) | Absolute Level (dBm) | Conclusion |
| QPSK                                                     | 709.0     | 15.93                   | Horizontal           | 6.1                | 0.49            | 21.54                | Pass       |
|                                                          | 709.0     | 15.85                   | Vertical             | 6.1                | 0.49            | 21.46                | Pass       |
|                                                          | 710.0     | 15.88                   | Horizontal           | 6.1                | 0.49            | 21.49                | Pass       |
|                                                          | 710.0     | 15.83                   | Vertical             | 6.1                | 0.49            | 21.44                | Pass       |
|                                                          | 711.0     | 14.81                   | Horizontal           | 6.1                | 0.49            | 20.42                | Pass       |
|                                                          | 711.0     | 15.86                   | Vertical             | 6.1                | 0.49            | 21.47                | Pass       |
| 16QAM                                                    | 709.0     | 17.11                   | Horizontal           | 6.1                | 0.49            | <b>22.72</b>         | Pass       |
|                                                          | 709.0     | 15.73                   | Vertical             | 6.1                | 0.49            | 21.34                | Pass       |
|                                                          | 710.0     | 16.89                   | Horizontal           | 6.1                | 0.49            | 22.50                | Pass       |
|                                                          | 710.0     | 15.14                   | Vertical             | 6.1                | 0.49            | 20.75                | Pass       |
|                                                          | 711.0     | 14.82                   | Horizontal           | 6.1                | 0.49            | 20.43                | Pass       |
|                                                          | 711.0     | 15.96                   | Vertical             | 6.1                | 0.49            | 21.57                | Pass       |

## 4. Peak-Average Ratio

### 4.1. Test Standard and Limit

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

### 4.2. Test Setup



### 4.3. Test Procedure

#### According with KDB 971168

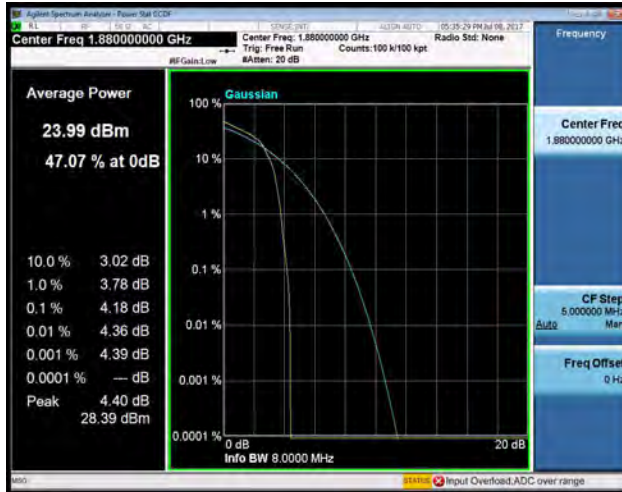
1. The signal analyzer's CCDF measurement profile is enabled
2. Frequency = carrier center frequency
3. Measurement BW > Emission bandwidth of signal
4. The signal analyzer was set to collect one million samples to generate the CCDF curve
5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

### 4.4. Test Data

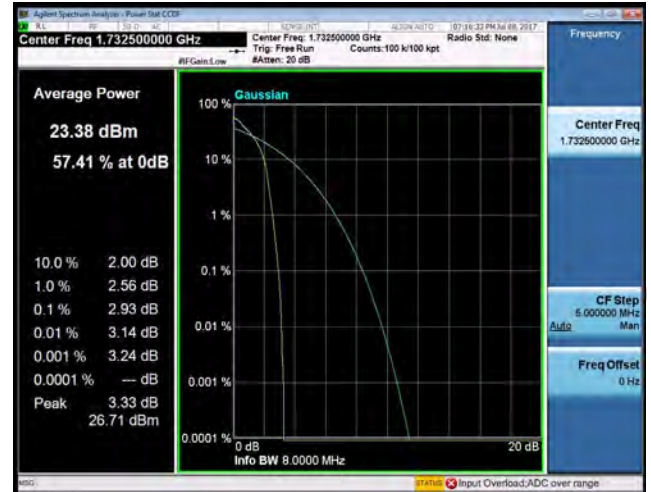
| BAND | CHANNEL | Frequency [MHz] | BANDWIDTH | NO. RB | RB POS. | MODULATION | PAR [dB] |
|------|---------|-----------------|-----------|--------|---------|------------|----------|
| 2    | 18900   | 1880.0          | 1.4       | 1      | Low     | QPSK       | 4.18     |
| 2    | 18900   | 1880.0          | 1.4       | 1      | Low     | 16QAM      | 5.05     |
| 2    | 18900   | 1880.0          | 3.0       | 1      | Low     | QPSK       | 4.35     |
| 2    | 18900   | 1880.0          | 3.0       | 1      | Low     | 16QAM      | 5.11     |
| 2    | 18900   | 1880.0          | 5.0       | 1      | Low     | QPSK       | 4.42     |
| 2    | 18900   | 1880.0          | 5.0       | 1      | Low     | 16QAM      | 5.14     |
| 2    | 18900   | 1880.0          | 10.0      | 1      | Low     | QPSK       | 4.49     |
| 2    | 18900   | 1880.0          | 10.0      | 1      | Low     | 16QAM      | 5.21     |
| 2    | 18900   | 1880.0          | 15.0      | 1      | Low     | QPSK       | 4.63     |
| 2    | 18900   | 1880.0          | 15.0      | 1      | Low     | 16QAM      | 5.47     |
| 2    | 18900   | 1880.0          | 20.0      | 1      | Low     | QPSK       | 4.63     |
| 2    | 18900   | 1880.0          | 20.0      | 1      | Low     | 16QAM      | 5.50     |
| 4    | 20175   | 1732.5          | 1.4       | 1      | Low     | QPSK       | 2.93     |
| 4    | 20175   | 1732.5          | 1.4       | 1      | Low     | 16QAM      | 3.90     |
| 4    | 20175   | 1732.5          | 3.0       | 1      | Low     | QPSK       | 3.08     |
| 4    | 20175   | 1732.5          | 3.0       | 1      | Low     | 16QAM      | 3.85     |
| 4    | 20175   | 1732.5          | 5.0       | 1      | Low     | QPSK       | 2.95     |
| 4    | 20175   | 1732.5          | 5.0       | 1      | Low     | 16QAM      | 3.80     |
| 4    | 20175   | 1732.5          | 10.0      | 1      | Low     | QPSK       | 3.92     |
| 4    | 20175   | 1732.5          | 10.0      | 1      | Low     | 16QAM      | 3.77     |
| 4    | 20175   | 1732.5          | 15.0      | 1      | Low     | QPSK       | 2.70     |
| 4    | 20175   | 1732.5          | 15.0      | 1      | Low     | 16QAM      | 3.68     |
| 4    | 20175   | 1732.5          | 20.0      | 1      | Low     | QPSK       | 4.69     |
| 4    | 20175   | 1732.5          | 20.0      | 1      | Low     | 16QAM      | 3.24     |
| 5    | 20525   | 836.5           | 1.4       | 1      | Low     | QPSK       | 3.43     |
| 5    | 20525   | 836.5           | 1.4       | 1      | Low     | 16QAM      | 4.35     |
| 5    | 20525   | 836.5           | 3.0       | 1      | Low     | QPSK       | 3.52     |
| 5    | 20525   | 836.5           | 3.0       | 1      | Low     | 16QAM      | 4.50     |
| 5    | 20525   | 836.5           | 5.0       | 1      | Low     | QPSK       | 3.49     |
| 5    | 20525   | 836.5           | 5.0       | 1      | Low     | 16QAM      | 4.55     |
| 5    | 20525   | 836.5           | 10.0      | 1      | Low     | QPSK       | 3.72     |
| 5    | 20525   | 836.5           | 10.0      | 1      | Low     | 16QAM      | 4.28     |
| 17   | 23790   | 710.0           | 5.0       | 1      | Low     | QPSK       | 4.98     |
| 17   | 23790   | 710.0           | 5.0       | 1      | Low     | 16QAM      | 5.86     |
| 17   | 23790   | 710.0           | 10.0      | 1      | Low     | QPSK       | 4.93     |
| 17   | 23790   | 710.0           | 10.0      | 1      | Low     | 16QAM      | 4.14     |

## Test Plots

Band 2(Channel Bandwidth: 1.4 MHz)-QPSK



Band 4(Channel Bandwidth: 1.4 MHz)-QPSK



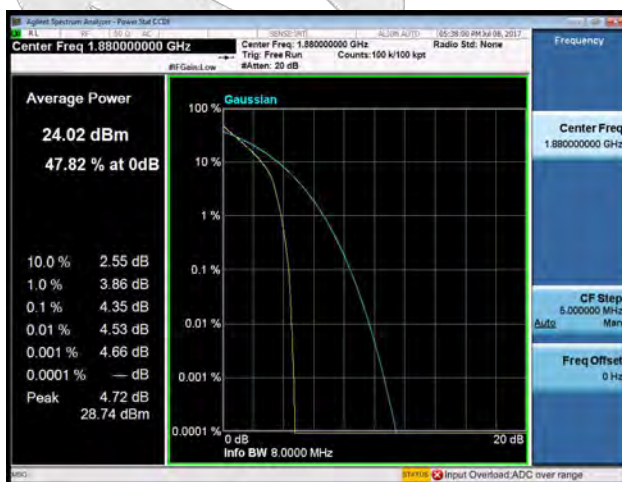
Band 2(Channel Bandwidth: 1.4 MHz)-16QAM



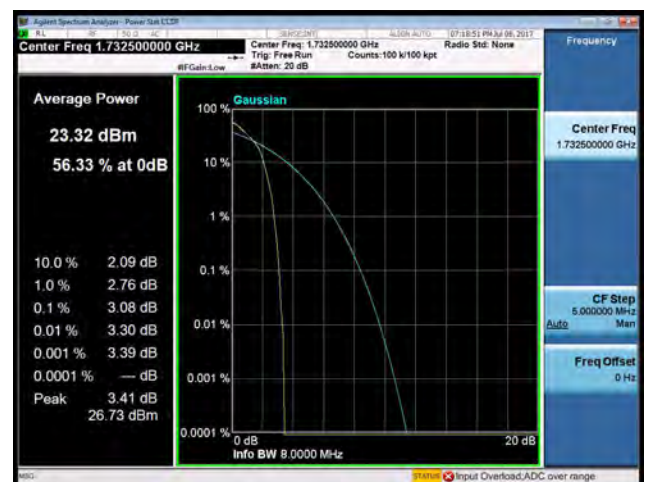
Band 4(Channel Bandwidth: 1.4 MHz)-16QAM



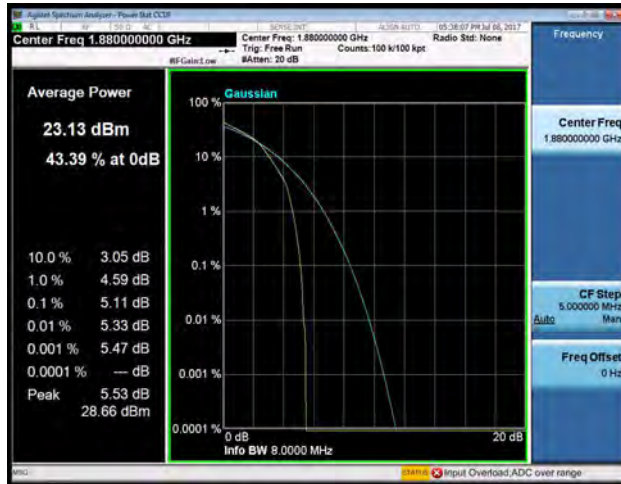
Band 2(Channel Bandwidth: 3 MHz)-QPSK



Band 4(Channel Bandwidth: 3 MHz)-QPSK



Band 2(Channel Bandwidth: 3 MHz)-16QAM



Band 4(Channel Bandwidth: 3 MHz)-16QAM



Band 2(Channel Bandwidth: 5 MHz)-QPSK



Band 4(Channel Bandwidth: 5 MHz)-QPSK



Band 2(Channel Bandwidth: 5 MHz)-16QAM



Band 4(Channel Bandwidth: 5 MHz)-16QAM



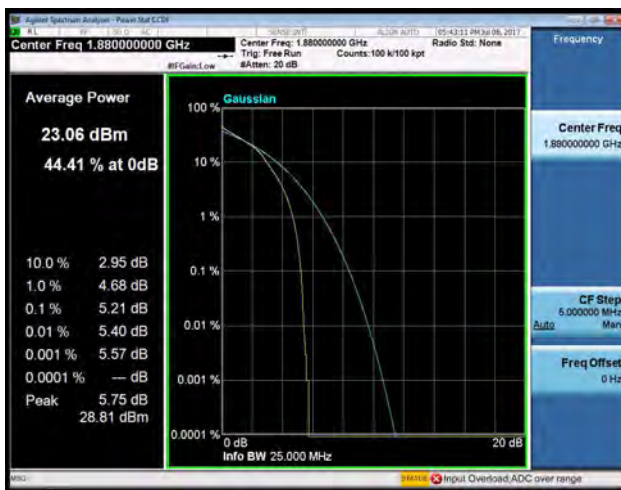
Band 2(Channel Bandwidth: 10 MHz)-QPSK



Band 4(Channel Bandwidth: 10 MHz)-QPSK



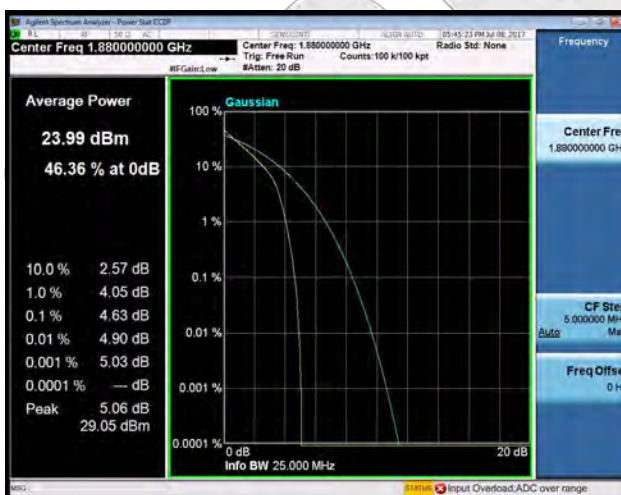
Band 2(Channel Bandwidth: 10 MHz)-16QAM



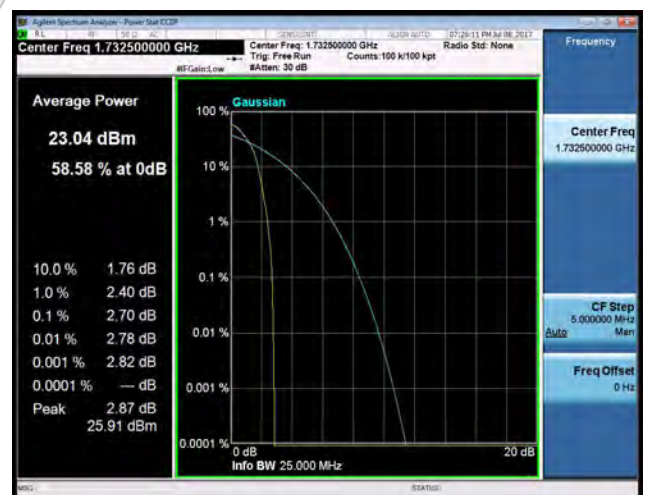
Band 4(Channel Bandwidth: 10 MHz)-16QAM



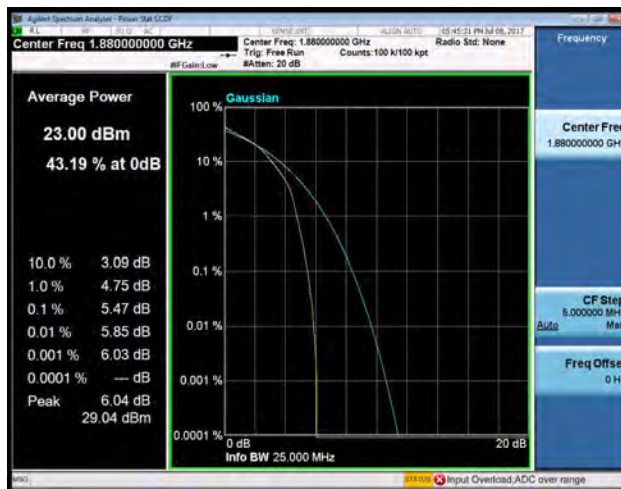
Band 2(Channel Bandwidth: 15 MHz)-QPSK



Band 4(Channel Bandwidth: 15 MHz)-QPSK



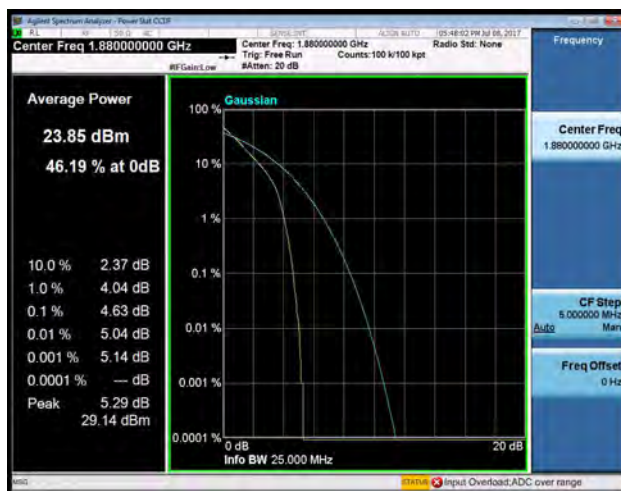
Band 2(Channel Bandwidth: 15 MHz)-16QAM



Band 4(Channel Bandwidth: 15 MHz)-16QAM



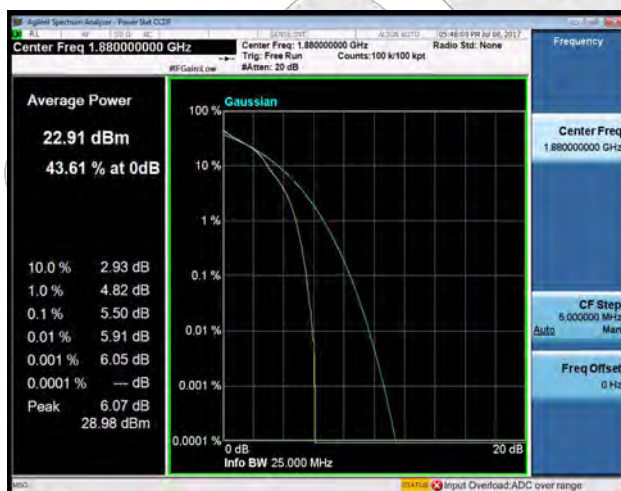
Band 2(Channel Bandwidth: 20 MHz)-QPSK



Band 4(Channel Bandwidth: 20 MHz)-QPSK



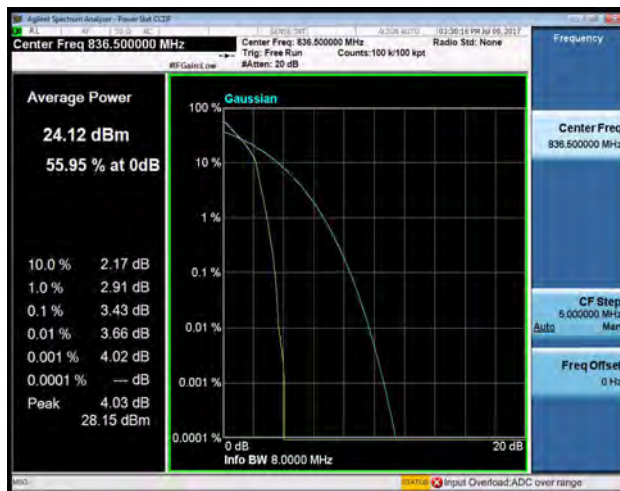
Band 2(Channel Bandwidth: 20 MHz)-16QAM



Band 4(Channel Bandwidth: 20 MHz)-16QAM



Band 5(Channel Bandwidth: 1.4 MHz)-QPSK



Band 17(Channel Bandwidth: 5 MHz)-QPSK



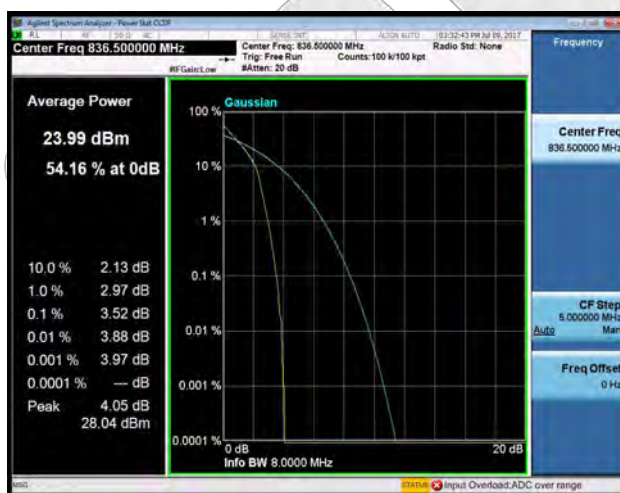
Band 5(Channel Bandwidth: 1.4 MHz)-16QAM



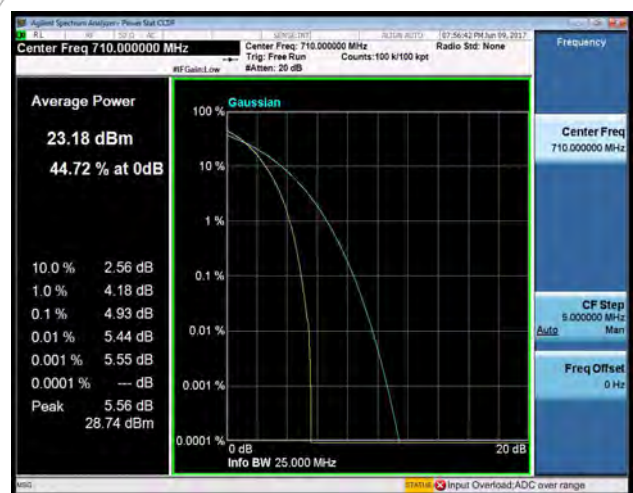
Band 17(Channel Bandwidth: 5MHz)-16QAM



Band 5(Channel Bandwidth: 3 MHz)-QPSK



Band 17(Channel Bandwidth: 10 MHz)-QPSK



Band 5(Channel Bandwidth: 3 MHz)-16QAM



Band 17(Channel Bandwidth: 10 MHz)-16QAM



Band 5(Channel Bandwidth: 5 MHz)-QPSK



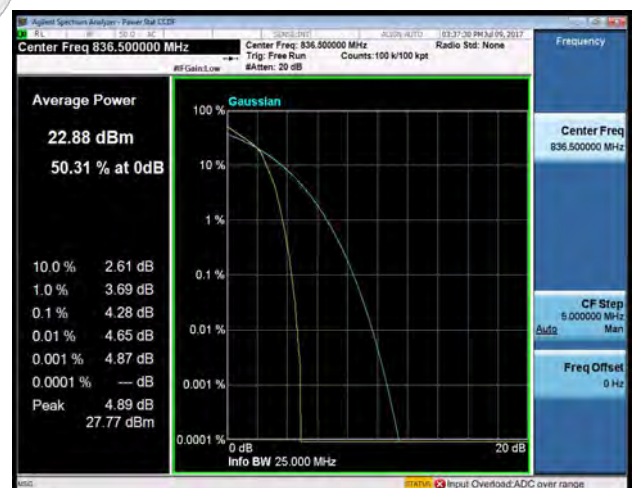
Band 5(Channel Bandwidth: 5 MHz)-16QAM



Band 5(Channel Bandwidth: 10 MHz)-QPSK



Band 5(Channel Bandwidth: 10 MHz)-16QAM



## 5. Modulation Characteristic

According to FCC § 2.1047(d), Part 22H, 24E there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

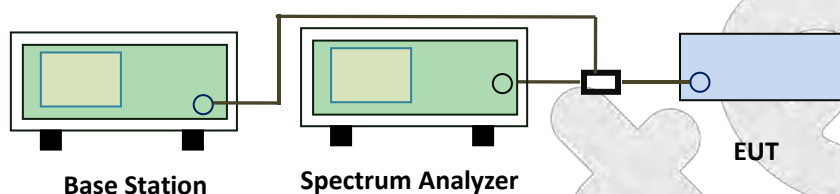
Anbotek

## 6. Occupied Bandwidth

### 6.1. Test Standard and Limit

| Spec                                                    | Item | Requirement                 |
|---------------------------------------------------------|------|-----------------------------|
| §2.1049,<br>§22.917,<br>§22.905<br>§24.238<br>§27.53(a) | a)   | 99% Occupied Bandwidth(kHz) |
|                                                         | b)   | 26 dB Bandwidth(kHz)        |

### 6.2. Test Setup



### 6.3. Test Procedure

The EUT was connected to Spectrum Analyzer and Base Station via power divider.

The 99% and 26 dB occupied bandwidth (BW) of the middle channel for the highest RF powers.

### 6.4. Test Data

#### LTE Band 2:

| BW(MHz) | Channel | Frequency (MHz) | Modulation | 99% Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---------|---------|-----------------|------------|------------------------------|-----------------------|
| 1.4     | 18607   | 1850.7          | QPSK       | 1.0794                       | 1.236                 |
|         |         |                 | 16QAM      | 1.0821                       | 1.250                 |
| 1.4     | 18900   | 1880            | QPSK       | 1.0783                       | 1.279                 |
|         |         |                 | 16QAM      | 1.0817                       | 1.294                 |
| 1.4     | 19193   | 1909.3          | QPSK       | <b>1.0950</b>                | 1.548                 |
|         |         |                 | 16QAM      | 1.0905                       | 1.583                 |
| 3       | 18615   | 1851.5          | QPSK       | 2.6858                       | 2.885                 |
|         |         |                 | 16QAM      | 2.6859                       | 2.895                 |
| 3       | 18900   | 1880            | QPSK       | 2.6877                       | 2.903                 |
|         |         |                 | 16QAM      | 2.6856                       | 2.893                 |
| 3       | 19185   | 1908.5          | QPSK       | 2.6879                       | 2.987                 |
|         |         |                 | 16QAM      | 2.6882                       | 3.015                 |
| 5       | 18625   | 1852.5          | QPSK       | 4.4846                       | 4.838                 |
|         |         |                 | 16QAM      | 4.4823                       | 4.817                 |
| 5       | 18900   | 1800            | QPSK       | 4.4797                       | 4.838                 |
|         |         |                 | 16QAM      | 4.4797                       | 4.875                 |

|    |       |        |       |        |       |
|----|-------|--------|-------|--------|-------|
| 5  | 19175 | 1907.5 | QPSK  | 4.4833 | 4.858 |
|    |       |        | 16QAM | 4.4916 | 4.823 |
| 10 | 18650 | 1855   | QPSK  | 8.9399 | 9.590 |
|    |       |        | 16QAM | 8.9294 | 9.499 |
| 10 | 18900 | 1880   | QPSK  | 8.9438 | 9.472 |
|    |       |        | 16QAM | 8.9384 | 9.471 |
| 10 | 19150 | 1905   | QPSK  | 8.9504 | 9.637 |
|    |       |        | 16QAM | 8.9602 | 9.490 |
| 15 | 18675 | 1857.5 | QPSK  | 13.397 | 14.19 |
|    |       |        | 16QAM | 13.383 | 14.04 |
| 15 | 18900 | 1880   | QPSK  | 13.416 | 14.21 |
|    |       |        | 16QAM | 13.427 | 14.12 |
| 15 | 19125 | 1902.5 | QPSK  | 13.466 | 14.59 |
|    |       |        | 16QAM | 13.452 | 14.18 |
| 20 | 18700 | 1860   | QPSK  | 17.822 | 18.56 |
|    |       |        | 16QAM | 17.822 | 18.59 |
| 20 | 18900 | 1880   | QPSK  | 17.902 | 18.61 |
|    |       |        | 16QAM | 17.909 | 18.66 |
| 20 | 19100 | 1900   | QPSK  | 17.907 | 18.71 |
|    |       |        | 16QAM | 17.909 | 18.66 |

**LTE Band 4:**

| BW(MHz) | Channel | Frequency (MHz) | Modulation | 99% Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---------|---------|-----------------|------------|------------------------------|-----------------------|
| 1.4     | 19957   | 1710.7          | QPSK       | 1.0794                       | 1.237                 |
|         |         |                 | 16QAM      | 1.0813                       | 1.219                 |
| 1.4     | 20175   | 1732.5          | QPSK       | 1.0762                       | 1.230                 |
|         |         |                 | 16QAM      | 1.0788                       | 1.224                 |
| 1.4     | 20393   | 1754.3          | QPSK       | 1.0780                       | 1.225                 |
|         |         |                 | 16QAM      | 1.0761                       | 1.223                 |
| 3       | 19965   | 1711.5          | QPSK       | 2.6845                       | 2.886                 |
|         |         |                 | 16QAM      | 2.6805                       | 2.874                 |
| 3       | 20175   | 1732.5          | QPSK       | <b>2.6863</b>                | 2.879                 |
|         |         |                 | 16QAM      | 2.6843                       | 2.857                 |
| 3       | 20385   | 1753.5          | QPSK       | 2.6837                       | 2.864                 |
|         |         |                 | 16QAM      | 2.6816                       | 2.886                 |
| 5       | 19975   | 1712.5          | QPSK       | 4.4845                       | 4.798                 |
|         |         |                 | 16QAM      | 4.4816                       | 4.835                 |
| 5       | 20175   | 1732.5          | QPSK       | 4.4859                       | 4.756                 |
|         |         |                 | 16QAM      | 4.4768                       | 4.822                 |
| 5       | 20375   | 1752.5          | QPSK       | 4.4799                       | 4.895                 |
|         |         |                 | 16QAM      | 4.4855                       | 4.791                 |

|    |       |        |       |        |       |
|----|-------|--------|-------|--------|-------|
| 10 | 20000 | 1715   | QPSK  | 8.9503 | 9.502 |
|    |       |        | 16QAM | 8.9419 | 9.462 |
| 10 | 20175 | 1732.5 | QPSK  | 8.9238 | 9.483 |
|    |       |        | 16QAM | 8.9114 | 9.466 |
| 10 | 20350 | 1750   | QPSK  | 8.9355 | 9.461 |
|    |       |        | 16QAM | 8.9452 | 9.530 |
| 15 | 20025 | 1717.5 | QPSK  | 13.418 | 14.09 |
|    |       |        | 16QAM | 13.414 | 14.04 |
| 15 | 20175 | 1732.5 | QPSK  | 13.369 | 14.10 |
|    |       |        | 16QAM | 13.382 | 14.00 |
| 15 | 20325 | 1747.5 | QPSK  | 13.440 | 14.12 |
|    |       |        | 16QAM | 13.436 | 14.03 |
| 20 | 20050 | 1720   | QPSK  | 17.890 | 18.57 |
|    |       |        | 16QAM | 17.893 | 18.57 |
| 20 | 20175 | 1732.5 | QPSK  | 17.808 | 18.59 |
|    |       |        | 16QAM | 17.810 | 18.54 |
| 20 | 20300 | 1745   | QPSK  | 17.925 | 18.71 |
|    |       |        | 16QAM | 17.896 | 18.64 |

#### LTE Band 5:

| BW(MHz) | Channel | Frequency (MHz) | Modulation | 99% Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---------|---------|-----------------|------------|------------------------------|-----------------------|
| 1.4     | 20407   | 824.7           | QPSK       | 1.0785                       | 1.281                 |
|         |         |                 | 16QAM      | <b>1.0825</b>                | 1.231                 |
| 1.4     | 20525   | 836.5           | QPSK       | 1.0793                       | 1.236                 |
|         |         |                 | 16QAM      | 1.0803                       | 1.248                 |
| 1.4     | 20643   | 848.3           | QPSK       | 1.0779                       | 1.214                 |
|         |         |                 | 16QAM      | 1.0780                       | 1.228                 |
| 3       | 20415   | 825.5           | QPSK       | 2.6874                       | 2.858                 |
|         |         |                 | 16QAM      | 2.6837                       | 2.876                 |
| 3       | 20525   | 836.5           | QPSK       | 2.6851                       | 2.895                 |
|         |         |                 | 16QAM      | 2.6852                       | 2.896                 |
| 3       | 20635   | 847.5           | QPSK       | 2.6850                       | 2.890                 |
|         |         |                 | 16QAM      | 2.6891                       | 2.886                 |
| 5       | 20425   | 826.5           | QPSK       | 4.4884                       | 4.828                 |
|         |         |                 | 16QAM      | 4.4805                       | 4.846                 |
| 5       | 20525   | 836.5           | QPSK       | 4.4848                       | 4.867                 |
|         |         |                 | 16QAM      | 4.4904                       | 4.803                 |
| 5       | 20625   | 846.5           | QPSK       | 4.4799                       | 4.827                 |
|         |         |                 | 16QAM      | 4.4859                       | 4.868                 |
| 10      | 20450   | 829.0           | QPSK       | 8.9502                       | 9.478                 |
|         |         |                 | 16QAM      | 8.9477                       | 9.464                 |

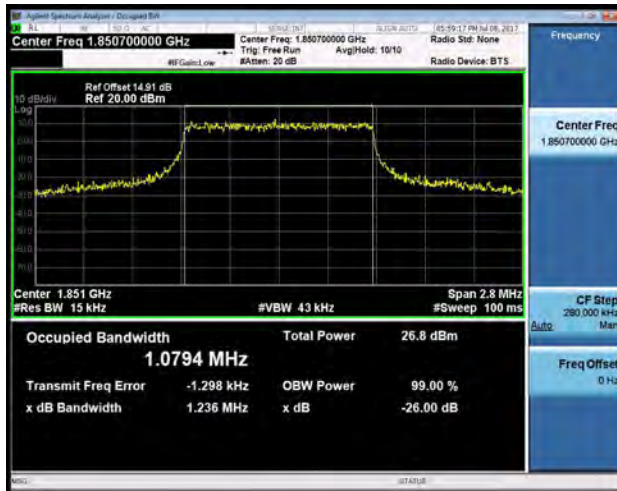
|    |       |       |       |               |       |
|----|-------|-------|-------|---------------|-------|
| 10 | 20525 | 836.5 | QPSK  | 8.9528        | 9.636 |
|    |       |       | 16QAM | <b>8.9606</b> | 9.593 |
| 10 | 20600 | 844.0 | QPSK  | 8.9393        | 9.630 |
|    |       |       | 16QAM | 8.9459        | 9.452 |

#### LTE Band 17:

| BW(MHz) | Channel | Frequency (MHz) | Modulation | 99% Occupied Bandwidth (MHz) | 26 dB Bandwidth (MHz) |
|---------|---------|-----------------|------------|------------------------------|-----------------------|
| 5       | 23755   | 706.5           | QPSK       | 4.4852                       | 4.839                 |
|         |         |                 | 16QAM      | 4.4805                       | 4.831                 |
| 5       | 23790   | 710             | QPSK       | 4.4881                       | 4.843                 |
|         |         |                 | 16QAM      | <b>4.4947</b>                | 4.805                 |
| 5       | 23825   | 713.5           | QPSK       | 4.4747                       | 4.797                 |
|         |         |                 | 16QAM      | 4.4688                       | 4.811                 |
| 10      | 23780   | 709             | QPSK       | 8.9864                       | 9.545                 |
|         |         |                 | 16QAM      | <b>8.9888</b>                | 9.506                 |
| 10      | 23790   | 710             | QPSK       | 8.9706                       | 9.541                 |
|         |         |                 | 16QAM      | 8.9724                       | 9.391                 |
| 10      | 23800   | 711             | QPSK       | 8.9235                       | 9.399                 |
|         |         |                 | 16QAM      | 8.9472                       | 9.383                 |

**Note:** This test was only measured at maximum RB allocation for each LTE BW

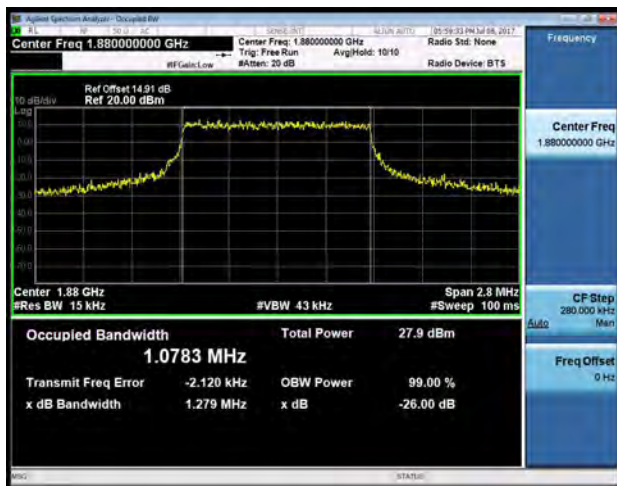
## Test Plots



LTE band 2 - Low CH QPSK-1.4



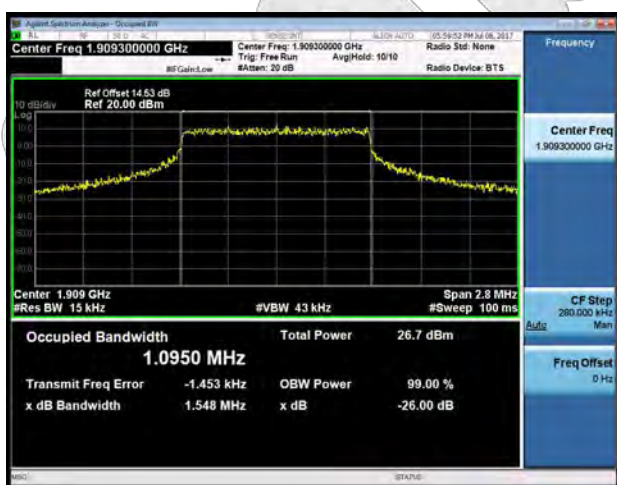
LTE band 2 - Low CH 16QAM-1.4



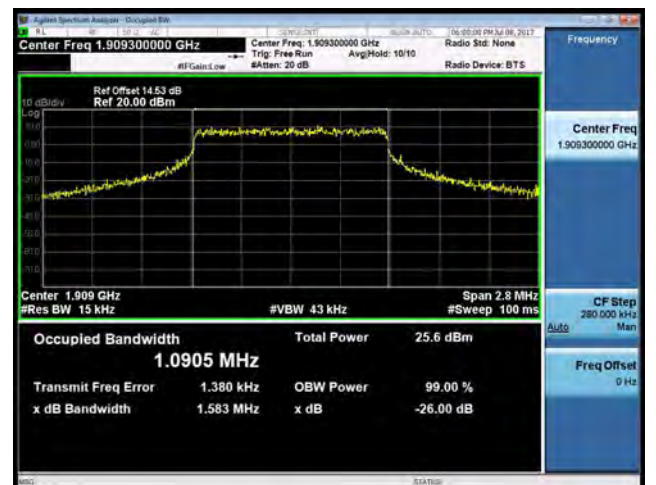
LTE band 2 - Middle CH QPSK-1.4



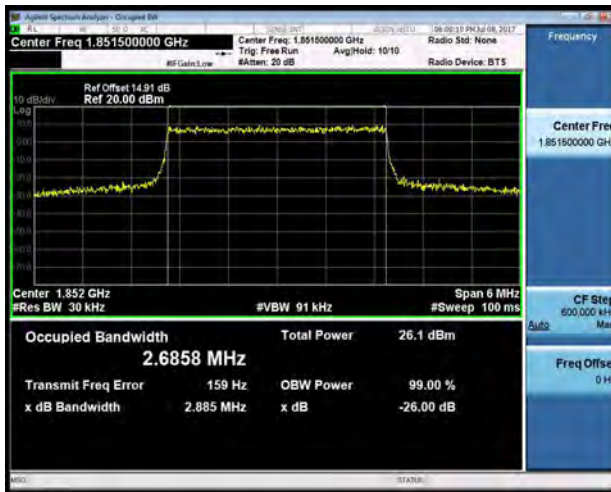
LTE band 2 - Middle CH 16QAM-1.4



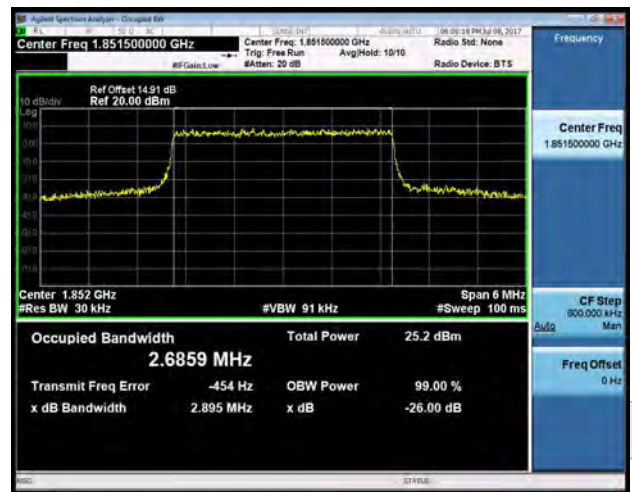
LTE band 2 - High CH QPSK-1.4



LTE band 2 -High CH 16QAM-1.4



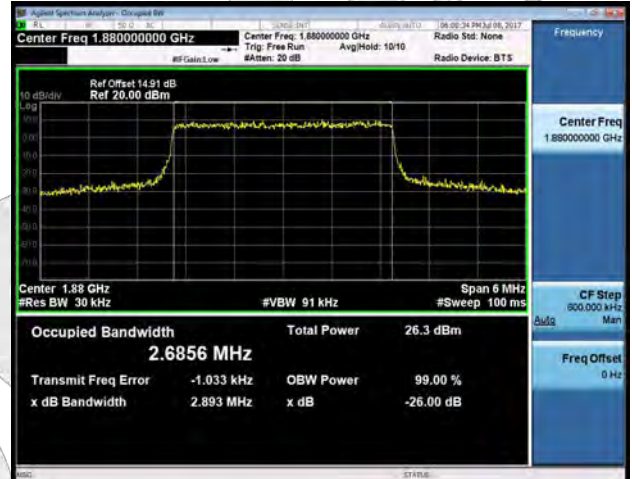
LTE band 2 - Low CH QPSK-3



LTE band 2 - Low CH 16QAM-3



LTE band 2 - Middle CH QPSK-3



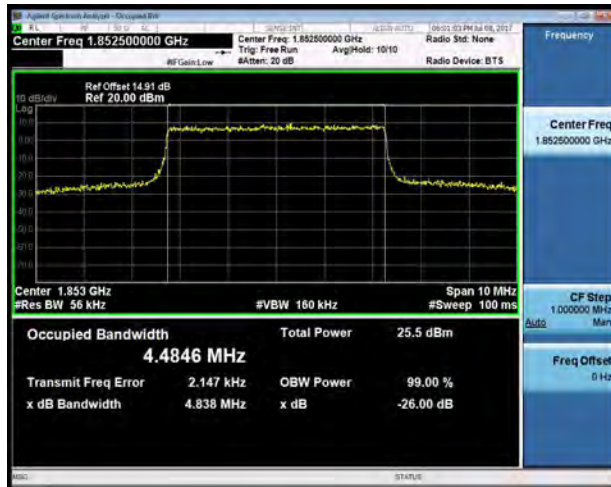
LTE band 2 - Middle CH 16QAM-3



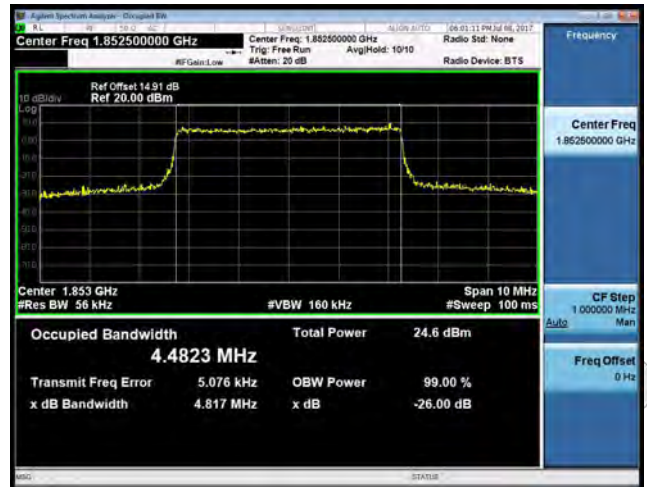
LTE band 2 - High CH QPSK-3



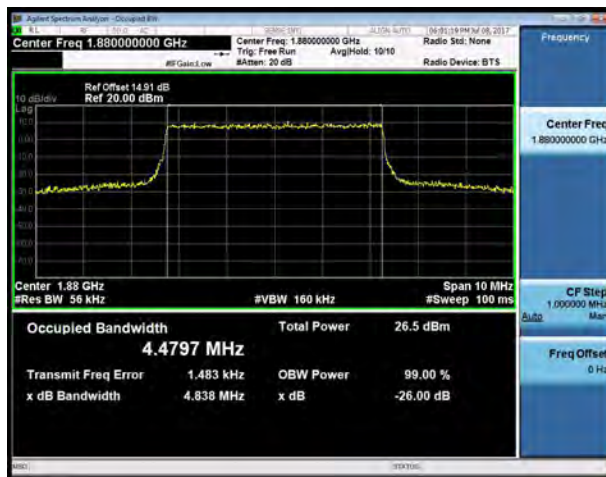
LTE band 2 -High CH 16QAM-3



LTE band 2 - Low CH QPSK-5



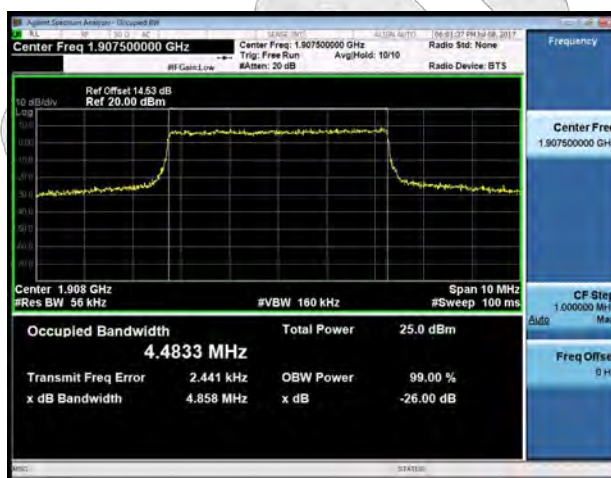
LTE band 2 - Low CH 16QAM-5



LTE band 2 - Middle CH QPSK-5



LTE band 2 - Middle CH 16QAM-5



LTE band 2 - High CH QPSK-5



LTE band 2 - High CH 16QAM-5



LTE band 2 - Low CH QPSK-10



LTE band 2 - Low CH 16QAM-10



LTE band 2 - Middle CH QPSK-10



LTE band 2 - Middle CH 16QAM-10



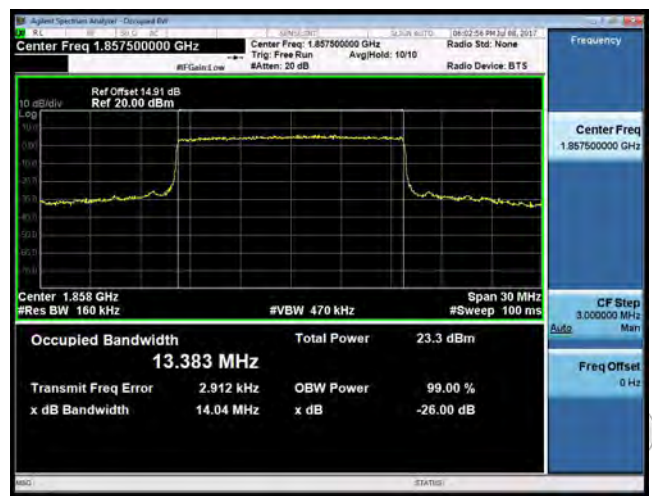
LTE band 2 - High CH QPSK-10



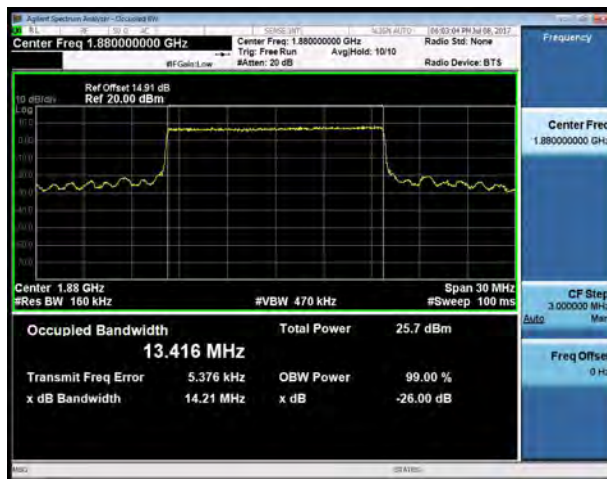
LTE band 2 -High CH 16QAM-10



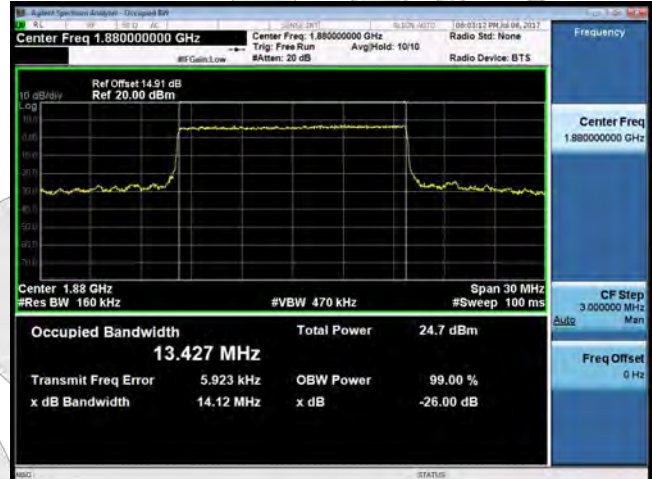
LTE band 2 - Low CH QPSK-15



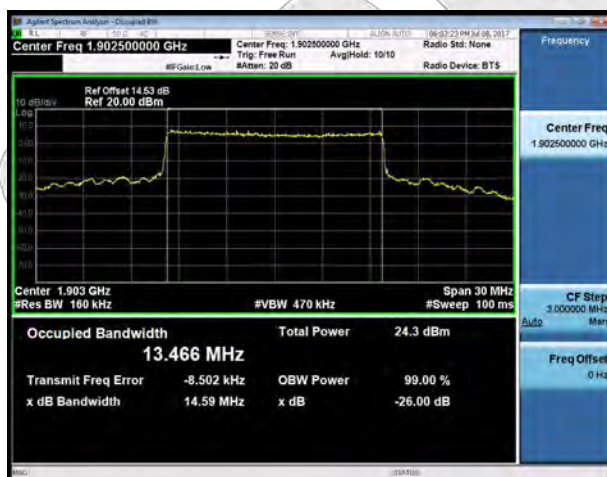
LTE band 2 - Low CH 16QAM-15



LTE band 2 - Middle CH QPSK-15



LTE band 2 - Middle CH 16QAM-15



LTE band 2 - High CH QPSK-15



LTE band 2 - High CH 16QAM-15



LTE band 2 - Low CH QPSK-20



LTE band 2 - Low CH 16QAM-20



LTE band 2 - Middle CH QPSK-20



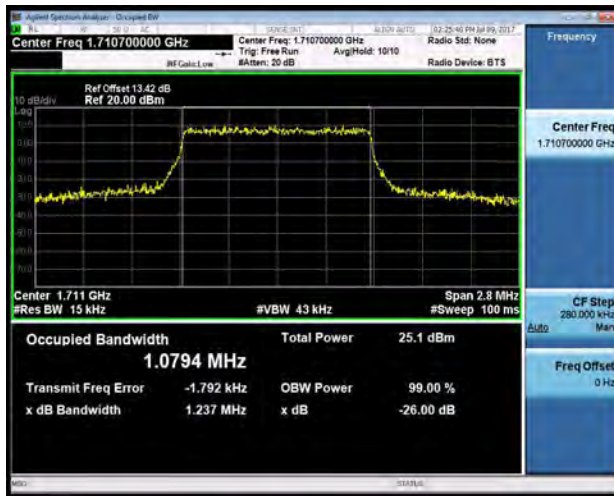
LTE band 2 - Middle CH 16QAM-20



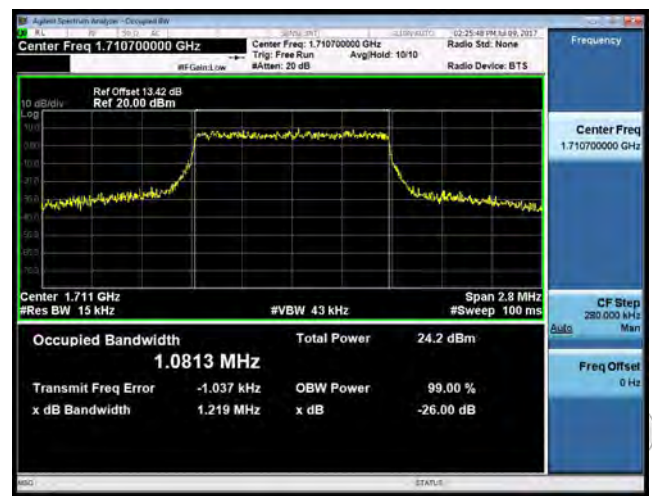
LTE band 2 - High CH QPSK-20



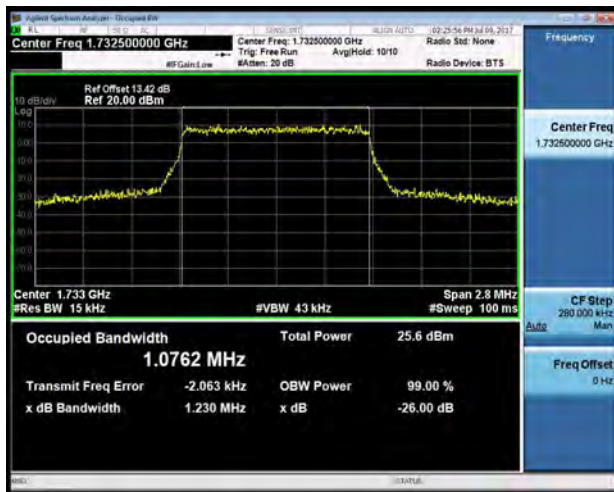
LTE band 2 - High CH 16QAM-20



LTE band 4 - Low CH QPSK-1.4



LTE band 4- Low CH 16QAM-1.4



LTE band 4 - Middle CH QPSK-1.4



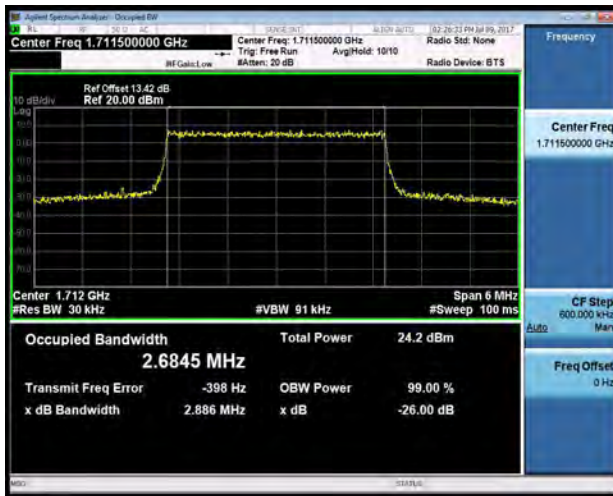
LTE band 4 - Middle CH 16QAM-1.4



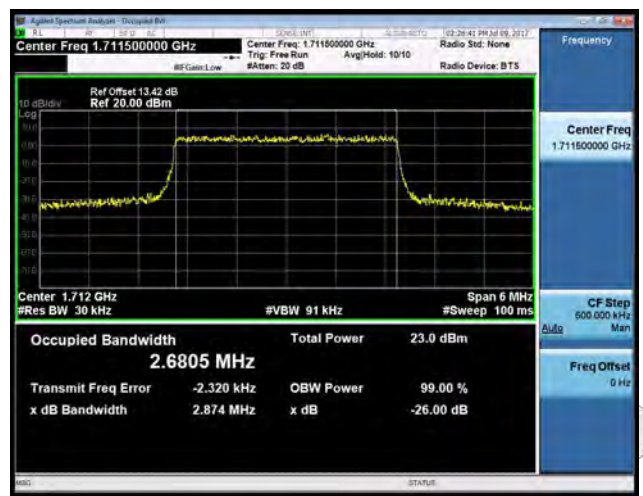
LTE band 4 - High CH QPSK-1.4



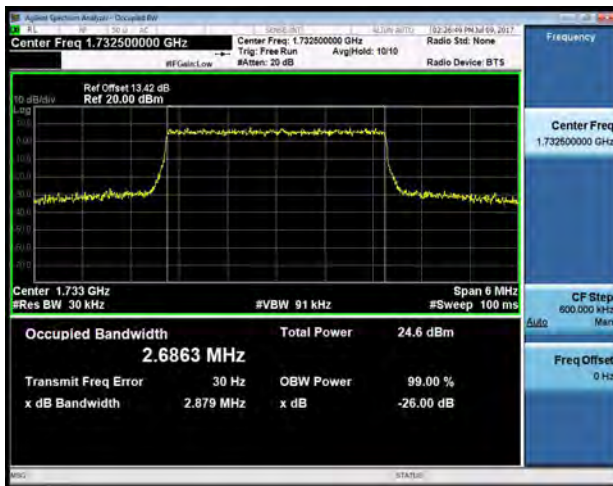
LTE band 4 -High CH 16QAM-1.4



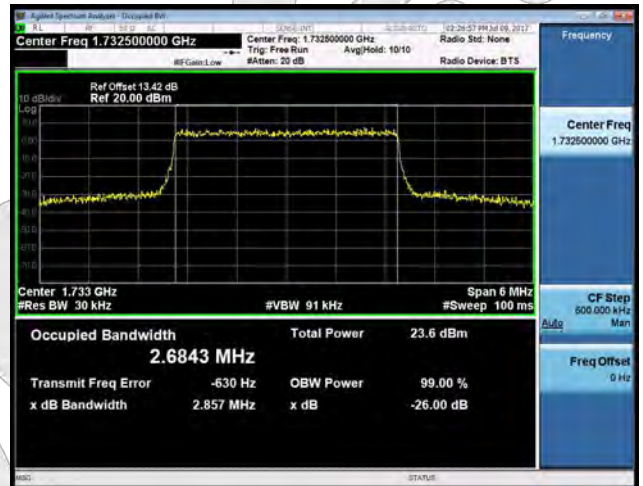
LTE band 4 - Low CH QPSK-3



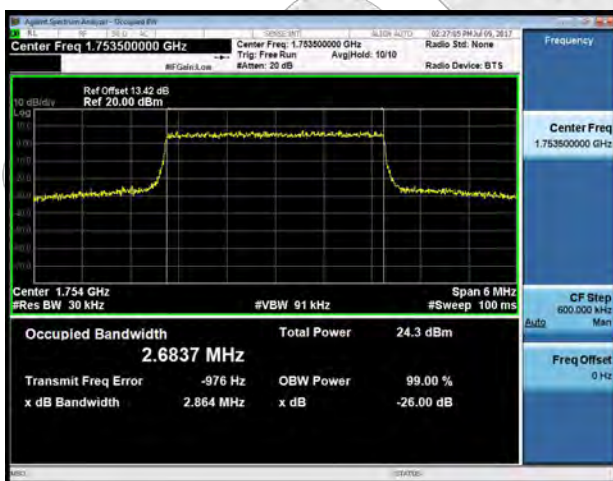
LTE band 4 - Low CH 16QAM-3



LTE band 4 - Middle CH QPSK-3



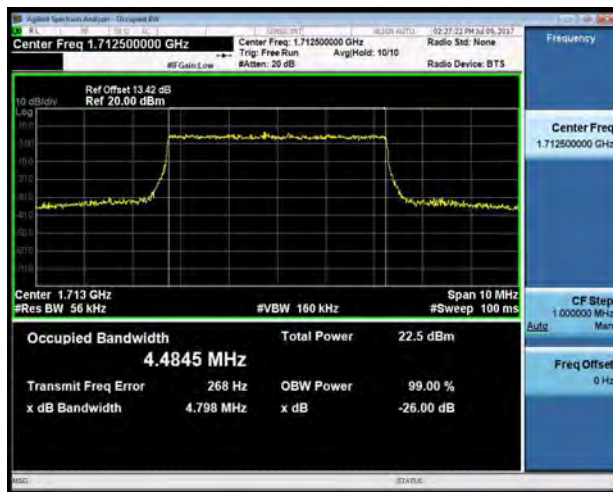
LTE band 4 - Middle CH 16QAM-3



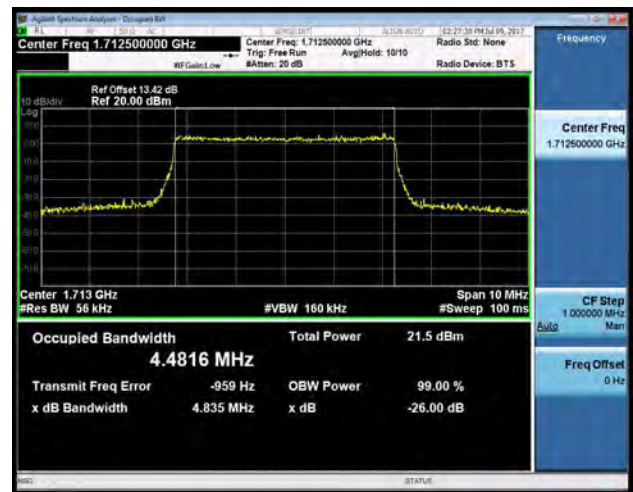
LTE band 4 - High CH QPSK-3



LTE band 4 -High CH 16QAM-3



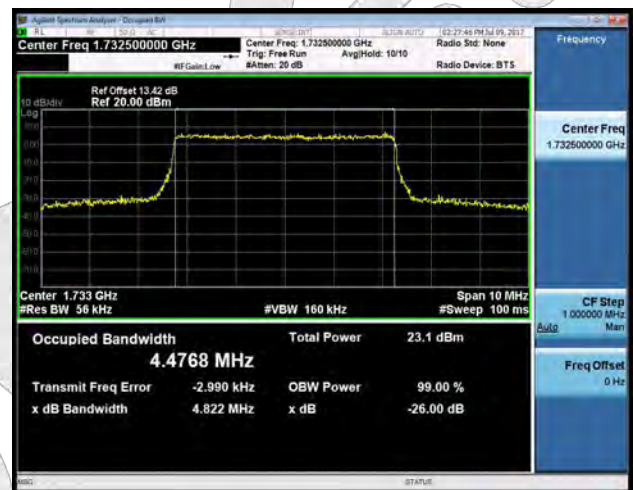
LTE band 4 - Low CH QPSK-5



LTE band 4 - Low CH 16QAM-5



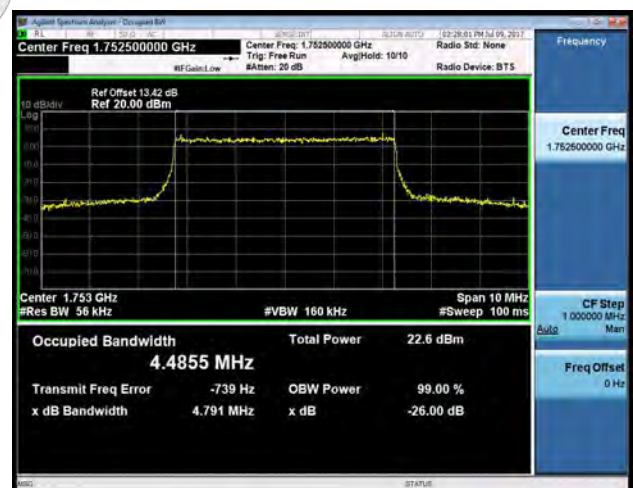
LTE band 4 - Middle CH QPSK-5



LTE band 4 - Middle CH 16QAM-5



LTE band 4 - High CH QPSK-5



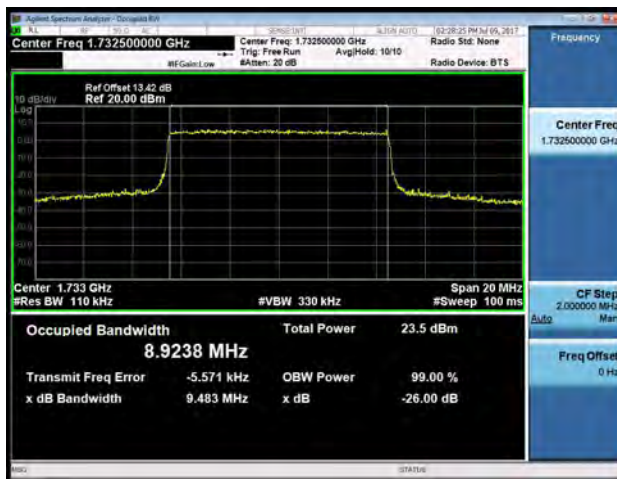
LTE band 4 -High CH 16QAM-5



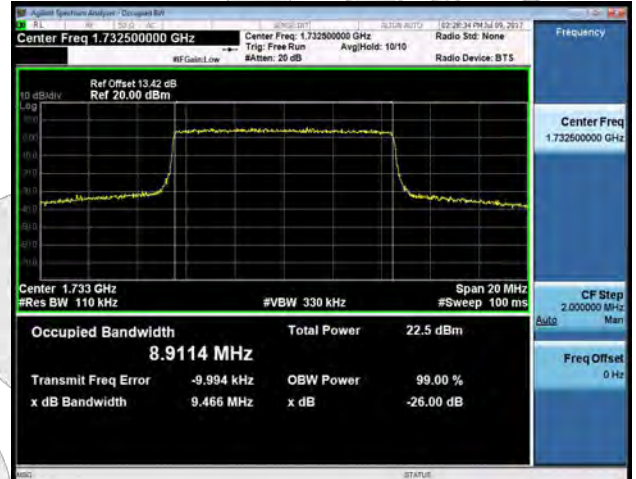
LTE band 4 - Low CH QPSK-10



LTE band 4 - Low CH 16QAM-10



LTE band 4 - Middle CH QPSK-10



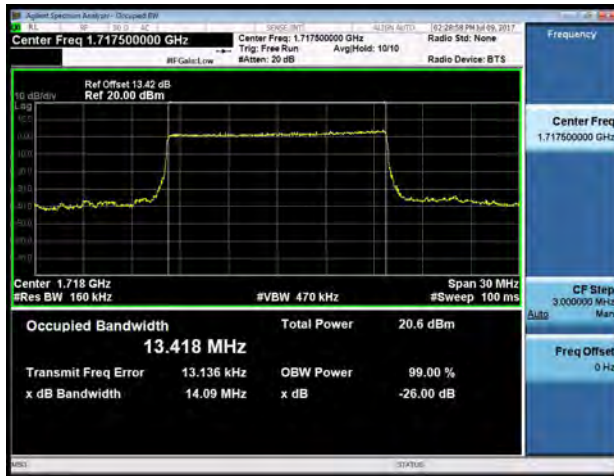
LTE band 4 - Middle CH 16QAM-10



LTE band 4 - High CH QPSK-10



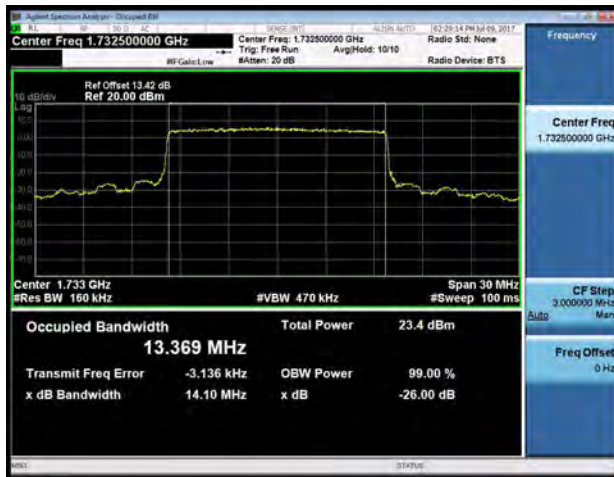
LTE band 4 -High CH 16QAM-10



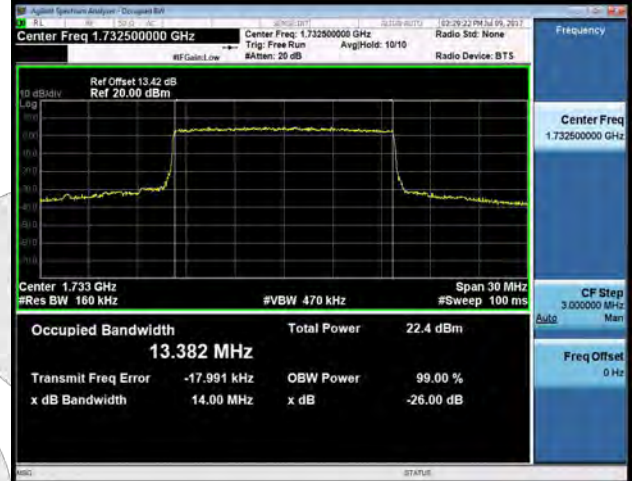
LTE band 4 - Low CH QPSK-15



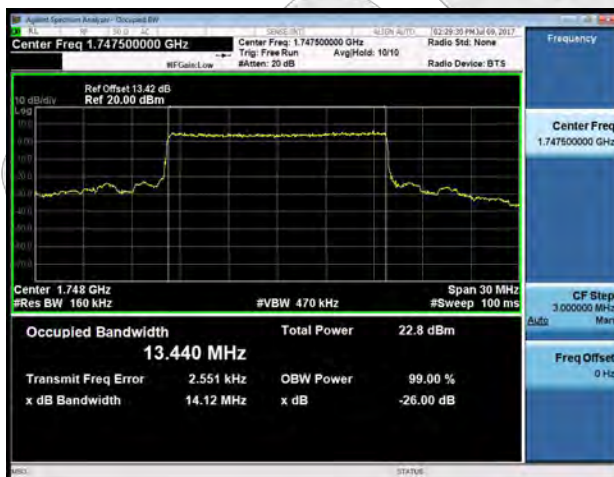
LTE band 4 - Low CH 16QAM-15



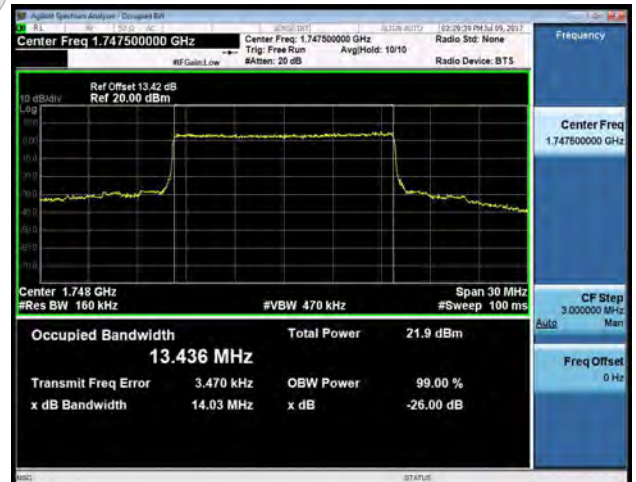
LTE band 4 - Middle CH QPSK-15



LTE band 4 - Middle CH 16QAM-15



LTE band 4 - High CH QPSK-15



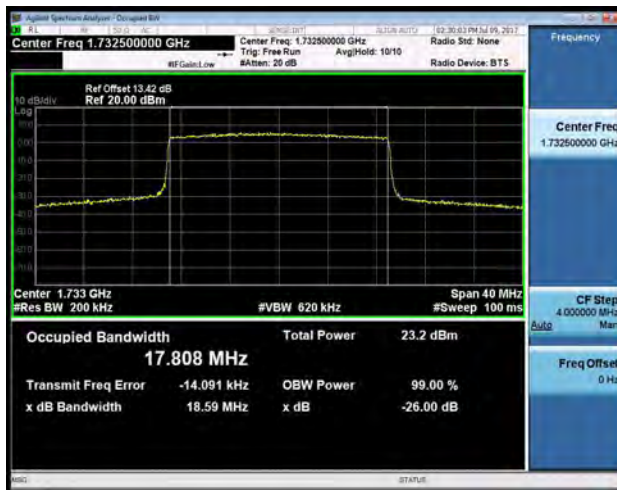
LTE band 4 - High CH 16QAM-15



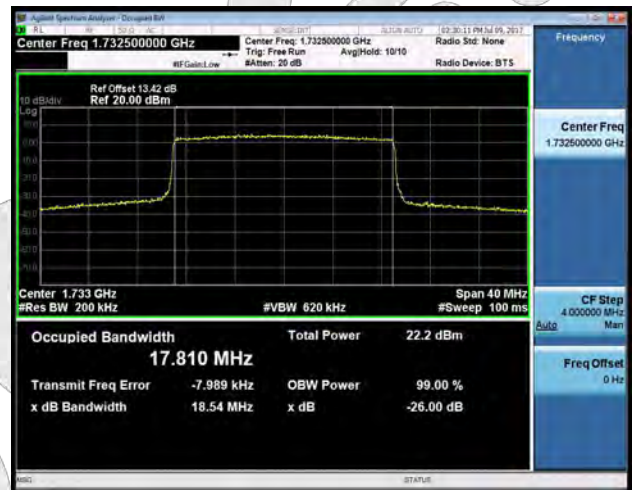
LTE band 4 - Low CH QPSK-20



LTE band 4 - Low CH 16QAM-20



LTE band 4 - Middle CH QPSK-20



LTE band 4 - Middle CH 16QAM-20



LTE band 4 - High CH QPSK-20



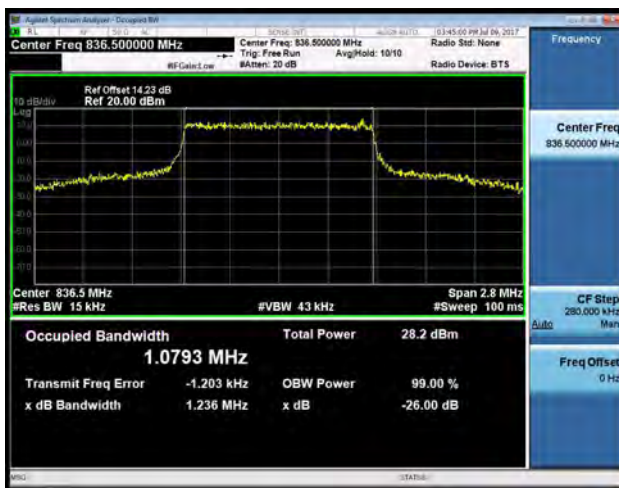
LTE band 4 - High CH 16QAM-20



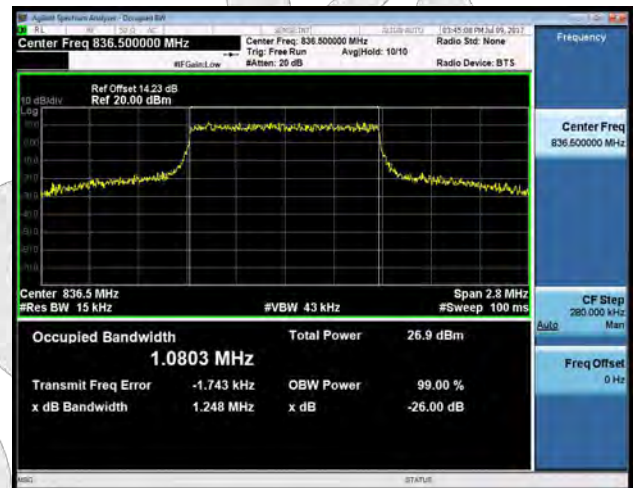
LTE band 5 - Low CH QPSK-1.4



LTE band 5 - Low CH 16QAM-1.4



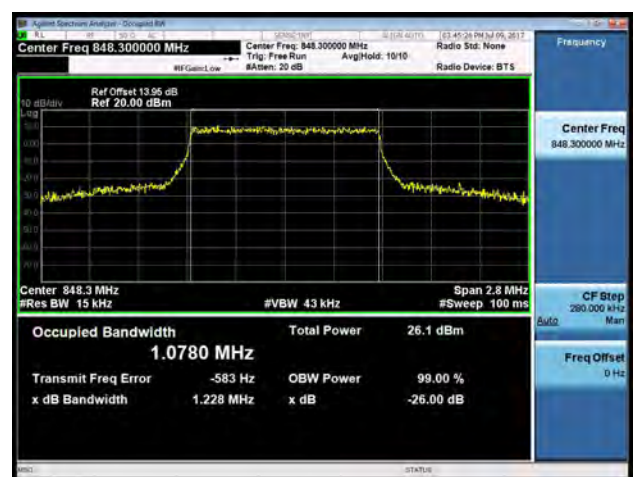
LTE band 5 - Middle CH QPSK-1.4



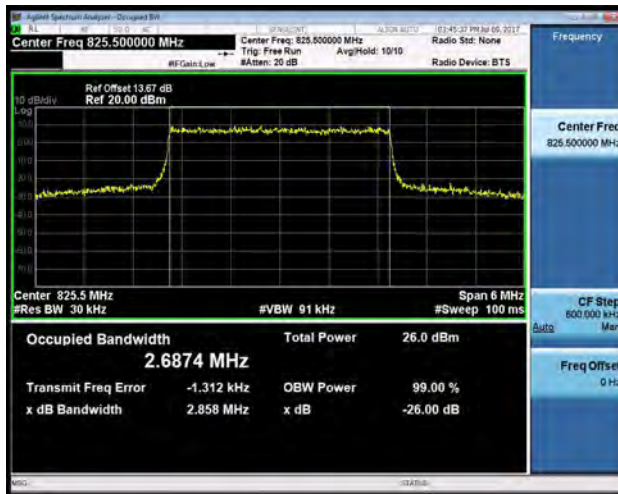
LTE band 5 - Middle CH 16QAM-1.4



LTE band 5 - High CH QPSK-1.4



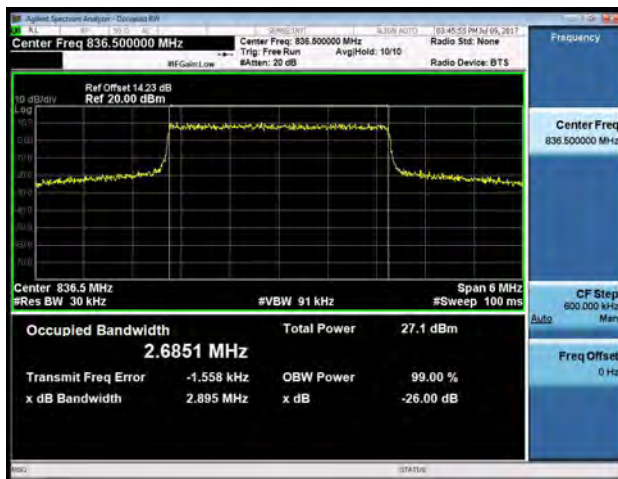
LTE band 5 -High CH 16QAM-1.4



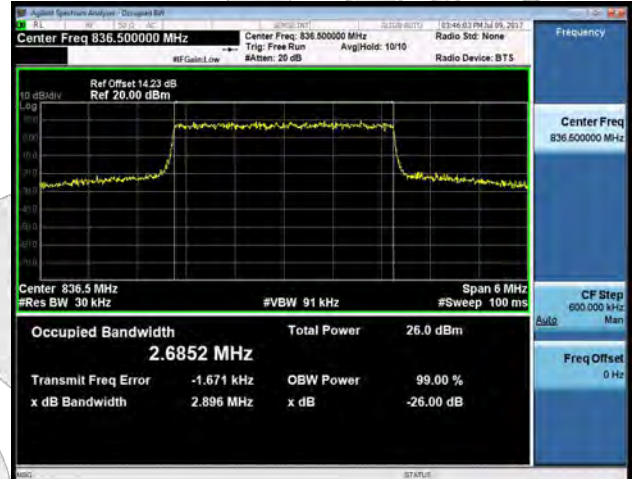
LTE band 5 - Low CH QPSK-3



LTE band 5 - Low CH 16QAM-3



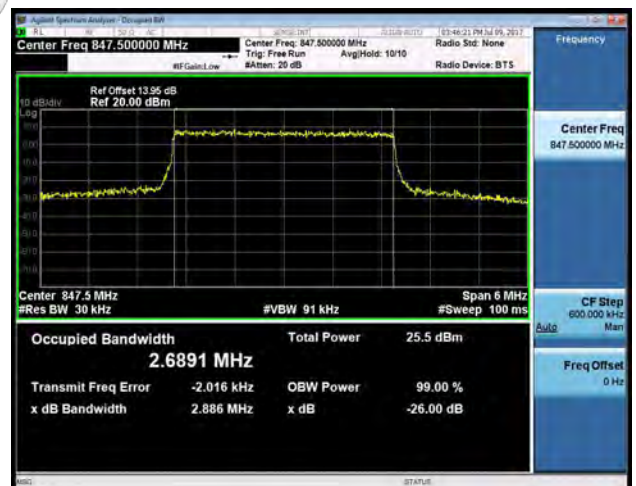
LTE band 5 - Middle CH QPSK-3



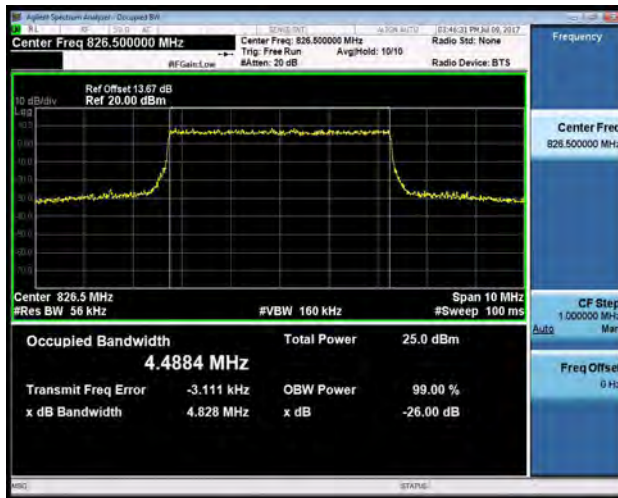
LTE band 5 - Middle CH 16QAM-3



LTE band 5 - High CH QPSK-3



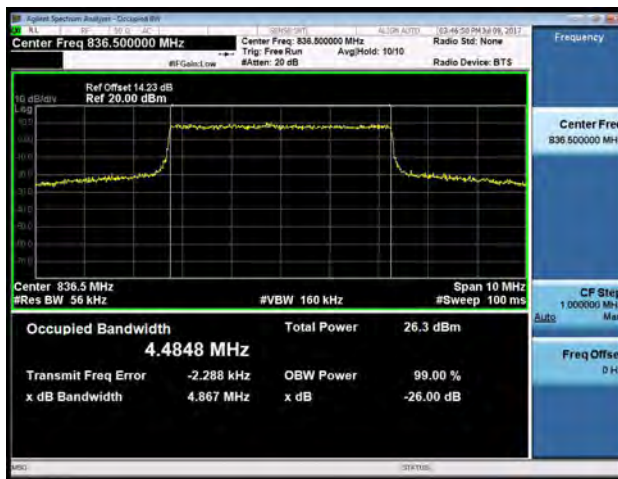
LTE band 5 - High CH 16QAM-3



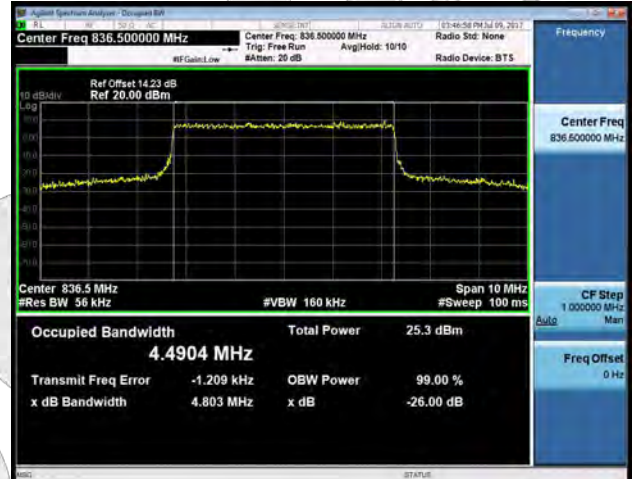
LTE band 5 - Low CH QPSK-5



LTE band 5 - Low CH 16QAM-5



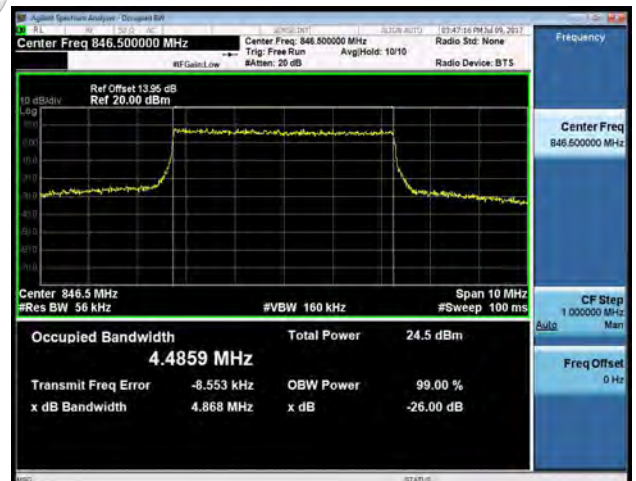
LTE band 5 - Middle CH QPSK-5



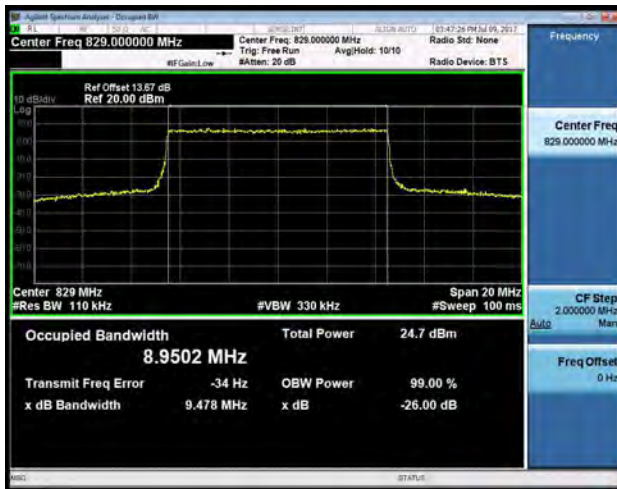
LTE band 5 - Middle CH 16QAM-5



LTE band 5 - High CH QPSK-5



LTE band 5 - High CH 16QAM-5



LTE band 5 - Low CH QPSK-10



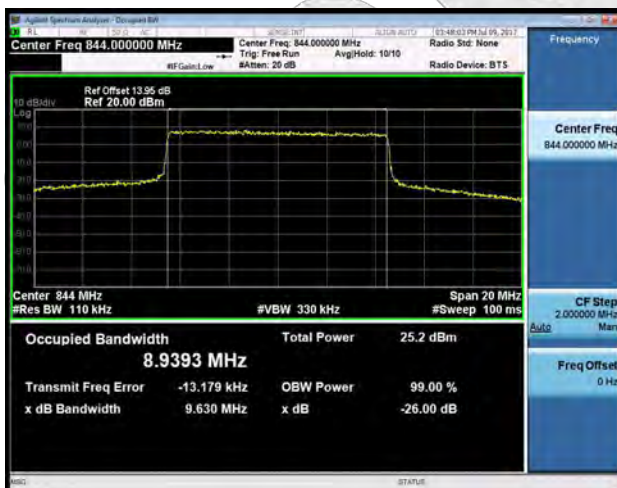
LTE band 5 - Low CH 16QAM-10



LTE band 5 - Middle CH QPSK-10



LTE band 5 - Middle CH 16QAM-10



LTE band 5 - High CH QPSK-10



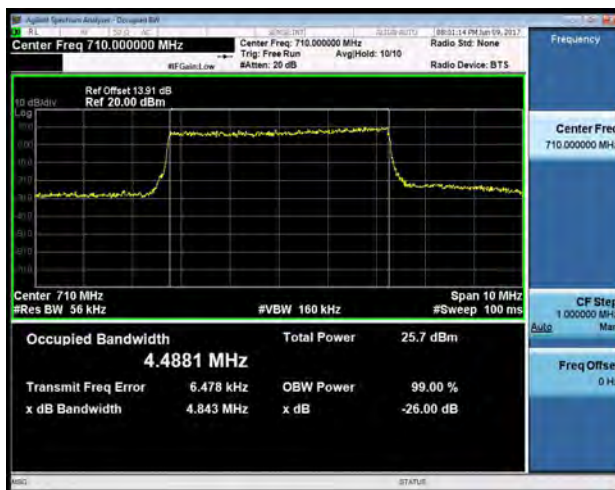
LTE band 5 - High CH 16QAM-10



LTE band 17 - Low CH QPSK-5



LTE band 17 - Low CH 16QAM-5



LTE band 17 - Middle CH QPSK-5



LTE band 17 - Middle CH 16QAM-5



LTE band 17 - High CH QPSK-5



LTE band 17 -High CH 16QAM-5



LTE band 17 - Low CH QPSK-10



LTE band 17 - Low CH 16QAM-10



LTE band 17 - Middle CH QPSK-10



LTE band 17 - Middle CH 16QAM-10



LTE band 17 - High CH QPSK-10



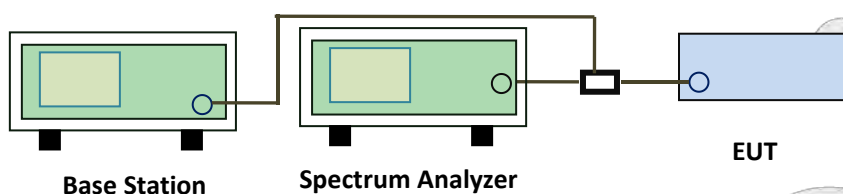
LTE band 17 -High CH 16QAM-10

## 7. Spurious Emissions at Antenna Terminals

### 7.1. Test Standard and Limit

The mean power of emissions must be attenuated below the mean power of the unmodulated carrier (P) on any frequency outside the frequency band by at least  $(43 + 10 \log P)$  dB, in this case, -13dBm.

### 7.2. Test Setup



### 7.3. Test Procedure

The EUT was connected to Spectrum Analyzer and Base Station via power divider.  
The Band Edges of low and high channels for the highest RF powers were measured.  
Setting RBW as roughly  $BW/100$ .

### 7.4. Test Data

## Test Plots

### LTE BAND 2\_LCH\_1RB#0



### LTE BAND 2\_MCH\_1RB#0



### LTE BAND 2\_HCH\_1RB#0



### LTE BAND 4\_LCH\_1RB#0



### LTE BAND 4\_MCH\_1RB#0



### LTE BAND 4\_HCH\_1RB#0



### LTE BAND 5\_LCH\_1RB#0



### LTE BAND 5\_MCH\_1RB#0



### LTE BAND 5\_HCH\_1RB#0



LTE BAND 17\_LCH\_1RB#0



LTE BAND 17\_MCH\_1RB#0



LTE BAND 17\_HCH\_1RB#0



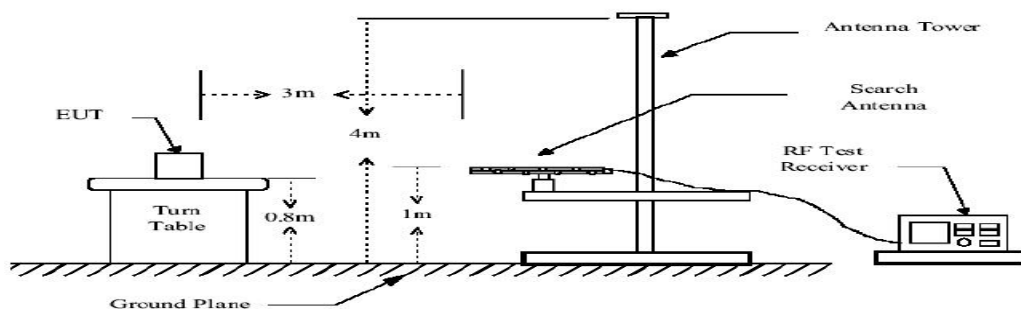
## 8. Spurious Radiated Emissions

### 8.1. Test Standard and Limit

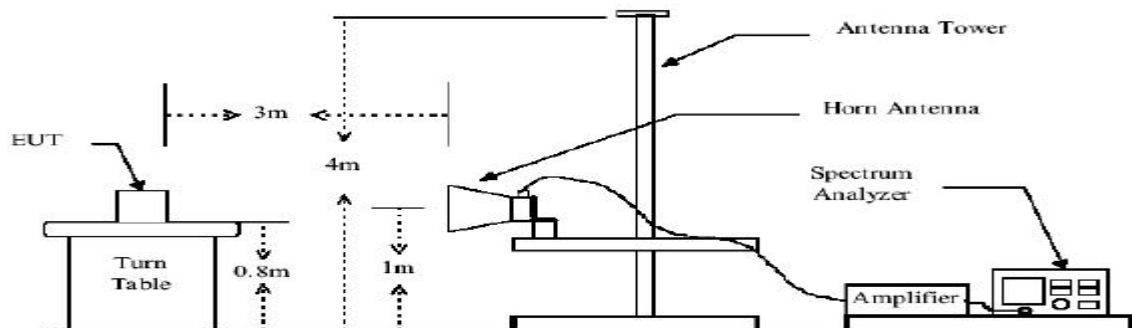
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

### 8.2. Test Setup

For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



### 8.3. Test Procedure

1. The testing follows FCC KDB 971168 D01 Section 5.8 and ANSI/TIA-603-D-2010 – Section 2.2.12
2. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
3. VBW  $\geq 3 \times$  RBW
4. Span = 1.5 times the OBW
5. No. of sweep points  $> 2 \times$  span/RBW
6. Detector = Peak
7. Trace mode = max hold
8. The trace was allowed to stabilize

#### 8.4. Test Data

**Note: Test performed from 30MHz to 10th harmonics with low/middle/high channels, only the worst data were recorded.**

| LTE BAND 2                     |            |                    |                |            |             |            |
|--------------------------------|------------|--------------------|----------------|------------|-------------|------------|
| Test Results for Channel 18607 |            |                    |                |            |             |            |
| Frequency(MHz)                 | Power(dBm) | Antenna Gain (dBi) | Cable loss(dB) | PMea (dBm) | Limit (dBm) | Polarity   |
| 3701.4                         | -34.12     | 15.45              | 2.03           | -20.7      | -13.00      | Horizontal |
| 3701.4                         | -33.23     | 15.45              | 2.03           | -19.81     | -13.00      | Vertical   |
| 5552.1                         | -35.34     | 19.63              | 2.51           | -18.22     | -13.00      | Vertical   |
| 5552.1                         | -33.65     | 19.63              | 2.51           | -16.53     | -13.00      | Horizontal |
| 7402.8                         | -36.16     | 22.88              | 3.62           | -16.9      | -13.00      | Horizontal |
| 7402.8                         | -35.98     | 22.88              | 3.62           | -16.72     | -13.00      | Vertical   |
| Test Results for Channel 18900 |            |                    |                |            |             |            |
| 3760                           | -37.23     | 15.83              | 2.07           | -23.47     | -13.00      | Horizontal |
| 3760                           | -32.76     | 15.83              | 2.07           | -19        | -13.00      | Vertical   |
| 5640                           | -41.87     | 20.32              | 2.76           | -24.31     | -13.00      | Vertical   |
| 5640                           | -43.56     | 20.32              | 2.76           | -26        | -13.00      | Horizontal |
| 7520                           | -39.29     | 23.48              | 3.88           | -19.69     | -13.00      | Horizontal |
| 7520                           | -39.56     | 23.48              | 3.88           | -19.96     | -13.00      | Vertical   |
| Test Results for Channel 19193 |            |                    |                |            |             |            |
| 3818.6                         | -37.87     | 16.14              | 2.27           | -24        | -13.00      | Horizontal |
| 3818.6                         | -35.45     | 16.14              | 2.27           | -21.58     | -13.00      | Vertical   |
| 5727.9                         | -36.34     | 20.43              | 2.77           | -18.68     | -13.00      | Vertical   |
| 5727.9                         | -34.83     | 20.43              | 2.77           | -17.17     | -13.00      | Horizontal |
| 7637.2                         | -42.45     | 23.78              | 4.03           | -22.7      | -13.00      | Horizontal |
| 7637.2                         | -41.25     | 23.78              | 4.03           | -21.5      | -13.00      | Vertical   |

**NOTE:**

- 1.All other emissions more than 30dB below the limit.
- 2.ALL mode were investigating.The results above show only the worst case

| LTE BAND 4                     |            |                    |                |            |             |            |
|--------------------------------|------------|--------------------|----------------|------------|-------------|------------|
| Test Results for Channel 19957 |            |                    |                |            |             |            |
| Frequency(MHz)                 | Power(dBm) | Antenna Gain (dBi) | Cable loss(dB) | PMea (dBm) | Limit (dBm) | Polarity   |
| 3421.4                         | -35.45     | 14.12              | 1.91           | -23.24     | -13.00      | Horizontal |
| 3421.4                         | -36.45     | 14.12              | 1.91           | -24.24     | -13.00      | Vertical   |
| 5132.1                         | -37.56     | 16.37              | 2.23           | -23.42     | -13.00      | Vertical   |
| 5132.1                         | -36.85     | 16.37              | 2.23           | -22.71     | -13.00      | Horizontal |
| 6842.4                         | -38.67     | 21.35              | 3.24           | -20.56     | -13.00      | Horizontal |
| 6842.4                         | -37.86     | 21.35              | 3.24           | -19.75     | -13.00      | Vertical   |
| Test Results for Channel 20175 |            |                    |                |            |             |            |
| 3465                           | -38.76     | 14.31              | 1.92           | -26.37     | -13.00      | Horizontal |
| 3465                           | -39.23     | 14.31              | 1.92           | -26.84     | -13.00      | Vertical   |
| 5197.5                         | -38.67     | 16.43              | 2.26           | -24.5      | -13.00      | Vertical   |
| 5197.5                         | -40.04     | 16.43              | 2.26           | -25.87     | -13.00      | Horizontal |
| 6930                           | -39.87     | 21.48              | 3.26           | -21.65     | -13.00      | Horizontal |
| 6930                           | -39.12     | 21.48              | 3.26           | -20.9      | -13.00      | Vertical   |
| Test Results for Channel 20393 |            |                    |                |            |             |            |
| 3508.6                         | -37.65     | 14.36              | 2.27           | -25.56     | -13.00      | Horizontal |
| 3508.6                         | -36.78     | 14.36              | 2.27           | -24.69     | -13.00      | Vertical   |
| 5262.9                         | -38.89     | 16.59              | 2.77           | -25.07     | -13.00      | Vertical   |
| 5262.9                         | -35.87     | 16.59              | 2.77           | -22.05     | -13.00      | Horizontal |
| 7017.2                         | -43.45     | 21.62              | 3.32           | -25.15     | -13.00      | Horizontal |
| 7017.2                         | -44.27     | 21.62              | 3.32           | -25.97     | -13.00      | Vertical   |

NOTE:

- 1.All other emissions more than 30dB below the limit.
- 2.ALL mode were investigating.The results above show only the worst case

| LTE BAND 5                     |            |                    |                |            |             |            |
|--------------------------------|------------|--------------------|----------------|------------|-------------|------------|
| Test Results for Channel 20407 |            |                    |                |            |             |            |
| Frequency(MHz)                 | Power(dBm) | Antenna Gain (dBi) | Cable loss(dB) | PMea (dBm) | Limit (dBm) | Polarity   |
| 1649.4                         | -32.41     | 8.42               | 0.62           | -24.61     | -13.00      | Vertical   |
| 1649.4                         | -33.23     | 8.42               | 0.62           | -25.43     | -13.00      | Horizontal |
| 2474.1                         | -32.54     | 12.0               | 1.0            | -21.54     | -13.00      | Vertical   |
| 2474.1                         | -31.65     | 12.0               | 1.0            | -20.65     | -13.00      | Horizontal |
| 3298.8                         | -31.76     | 13.8               | 1.5            | -19.46     | -13.00      | Horizontal |
| 3298.8                         | -31.44     | 13.8               | 1.5            | -19.14     | -13.00      | Vertical   |
| Test Results for Channel 20525 |            |                    |                |            |             |            |
| 1673.0                         | -32.12     | 8.70               | 0.7            | -24.12     | -13.00      | Vertical   |
| 1673.0                         | -32.17     | 8.70               | 0.7            | -24.17     | -13.00      | Horizontal |
| 2509.5                         | -34.24     | 12.2               | 1.0            | -23.04     | -13.00      | Vertical   |
| 2509.5                         | -33.23     | 12.2               | 1.0            | -22.03     | -13.00      | Horizontal |
| 3346.0                         | -33.52     | 14.2               | 1.6            | -20.92     | -13.00      | Horizontal |
| 3346.0                         | -34.34     | 14.2               | 1.6            | -21.74     | -13.00      | Vertical   |
| Test Results for Channel 20643 |            |                    |                |            |             |            |
| 1696.6                         | -32.34     | 8.78               | 0.68           | -24.24     | -13.00      | Vertical   |
| 1696.6                         | -33.23     | 8.78               | 0.68           | -25.13     | -13.00      | Horizontal |
| 2544.9                         | -34.12     | 12.69              | 1.0            | -22.43     | -13.00      | Vertical   |
| 2544.9                         | -33.29     | 12.69              | 1.0            | -21.6      | -13.00      | Horizontal |
| 3393.2                         | -33.58     | 14.52              | 1.6            | -20.66     | -13.00      | Horizontal |
| 3393.2                         | -34.56     | 14.52              | 1.6            | -21.64     | -13.00      | Vertical   |

NOTE:

- 1.All other emissions more than 30dB below the limit.
- 2.ALL mode were investigating. The results above show only the worst case

| LTE BAND 17                    |            |                    |                |            |             |            |
|--------------------------------|------------|--------------------|----------------|------------|-------------|------------|
| Test Results for Channel 23755 |            |                    |                |            |             |            |
| Frequency(MHz)                 | Power(dBm) | Antenna Gain (dBi) | Cable loss(dB) | PMea (dBm) | Limit (dBm) | Polarity   |
| 1413.0                         | -33.23     | 7.42               | 0.51           | -26.32     | -13.00      | Vertical   |
| 1413.0                         | -32.75     | 7.42               | 0.51           | -25.84     | -13.00      | Horizontal |
| 2119.5                         | -33.45     | 10.96              | 0.87           | -23.36     | -13.00      | Vertical   |
| 2119.5                         | -34.03     | 10.96              | 0.87           | -23.94     | -13.00      | Horizontal |
| 2826.0                         | -32.54     | 12.38              | 1.35           | -21.51     | -13.00      | Horizontal |
| 2826.0                         | -33.76     | 12.38              | 1.35           | -22.73     | -13.00      | Vertical   |
| Test Results for Channel 23790 |            |                    |                |            |             |            |
| 1420.0                         | -33.52     | 7.42               | 0.57           | -26.67     | -13.00      | Vertical   |
| 1420.0                         | -34.65     | 7.42               | 0.57           | -27.8      | -13.00      | Horizontal |
| 2130.0                         | -34.56     | 10.96              | 0.88           | -24.48     | -13.00      | Vertical   |
| 2130.0                         | -35.87     | 10.96              | 0.88           | -25.79     | -13.00      | Horizontal |
| 2840.0                         | -34.53     | 12.4               | 1.36           | -23.49     | -13.00      | Horizontal |
| 2840.0                         | -34.52     | 12.4               | 1.36           | -23.48     | -13.00      | Vertical   |
| Test Results for Channel 23825 |            |                    |                |            |             |            |
| 1427.0                         | -33.35     | 7.42               | 0.68           | -26.61     | -13.00      | Vertical   |
| 1427.0                         | -34.56     | 7.42               | 0.68           | -27.82     | -13.00      | Horizontal |
| 2140.5                         | -33.95     | 10.98              | 0.9            | -23.87     | -13.00      | Vertical   |
| 2140.5                         | -34.24     | 10.98              | 0.9            | -24.16     | -13.00      | Horizontal |
| 2854.0                         | -35.34     | 12.43              | 1.38           | -24.29     | -13.00      | Horizontal |
| 2854.0                         | -36.51     | 12.43              | 1.38           | -25.46     | -13.00      | Vertical   |

NOTE:

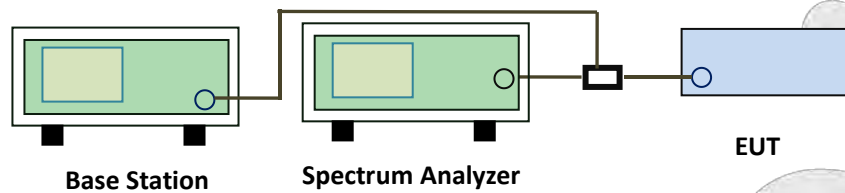
- 1.All other emissions more than 30dB below the limit.
- 2.ALL mode were investigatingated.The results above show only the worst case

## 9. Band Edge Compliance

### 9.1. Test Standard and Limit

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.

### 9.2. Test Setup



### 9.3. Test Procedure

The EUT was connected to Spectrum Analyzer and Base Station via power divider.

The Band Edges of low and high channels for the highest RF powers were measured. Setting RBW as roughly BW/100.

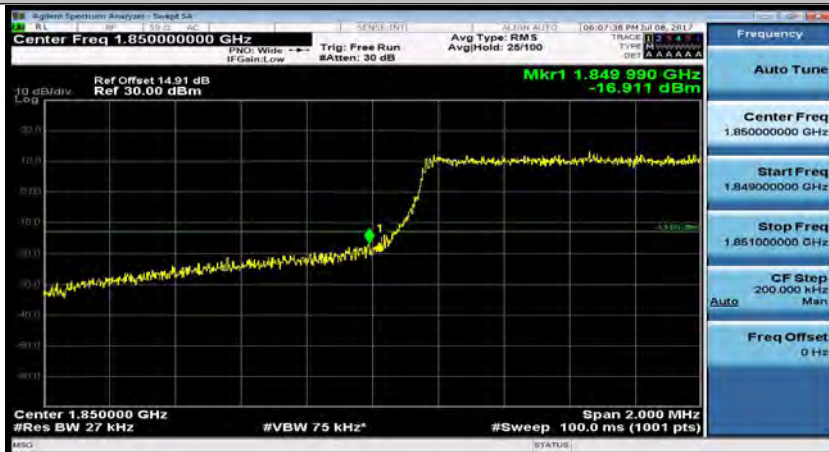
### 9.4. Test Data

All the modulation modes and Channels have been tested, the data of the worst mode are recorded in the following page

## LTE Band 2

### Channel Bandwidth: 1.4 MHz

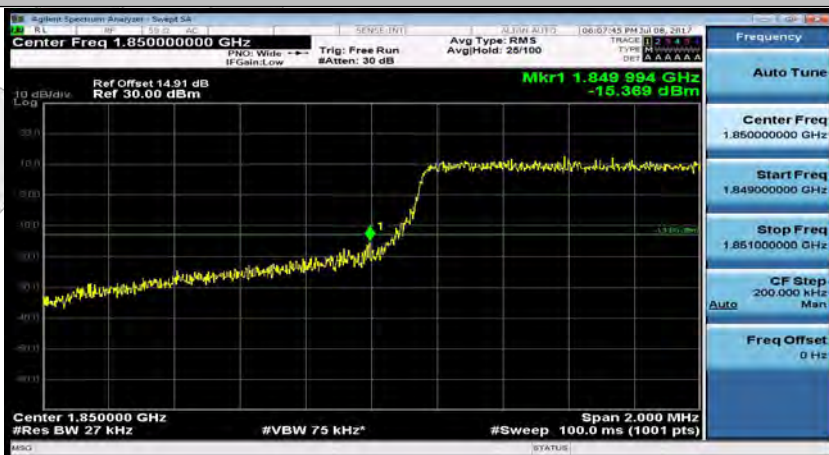
(Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK\_6RB#0



(Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK\_6RB#0



(Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM\_6RB#0



(Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM\_6RB#0



Channel Bandwidth: 3 MHz

(Channel Bandwidth: 3 MHz)\_LCH\_QPSK\_15RB#0



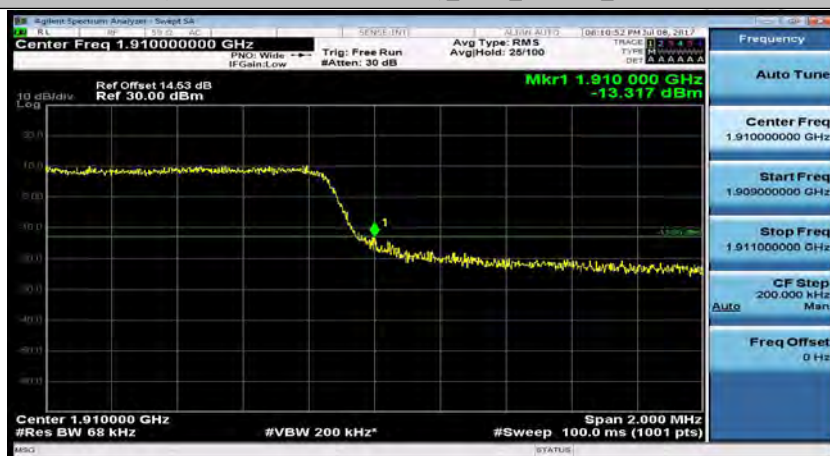
(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_15RB#0



(Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_15RB#0



(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_15RB#0

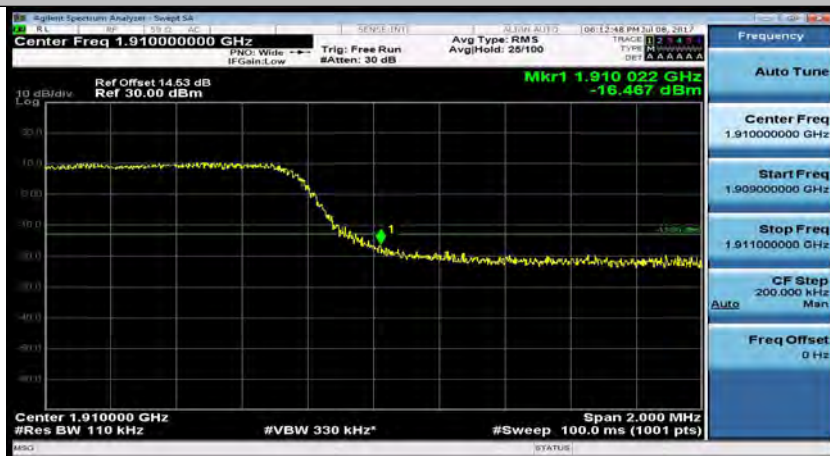


### Channel Bandwidth: 5 MHz

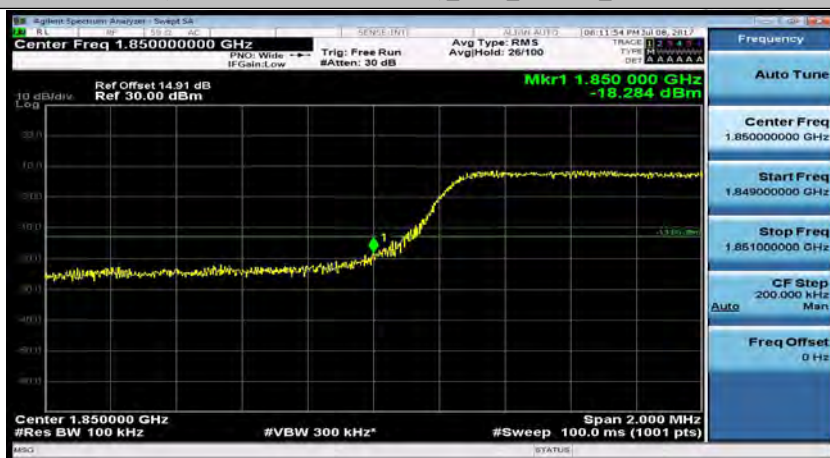
(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_25RB#0



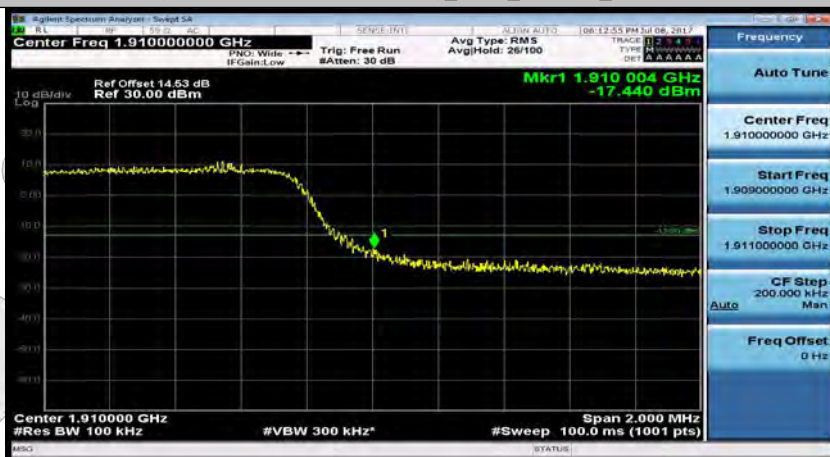
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_25RB#0



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_25RB#0

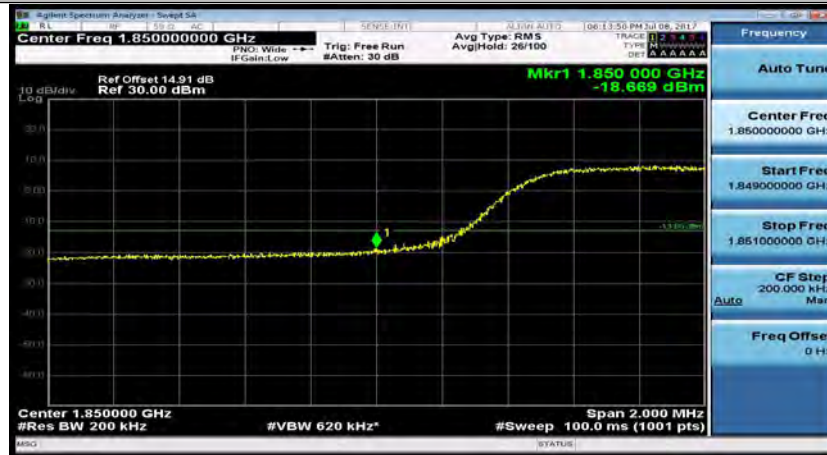


(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_25RB#0



## Channel Bandwidth: 10 MHz

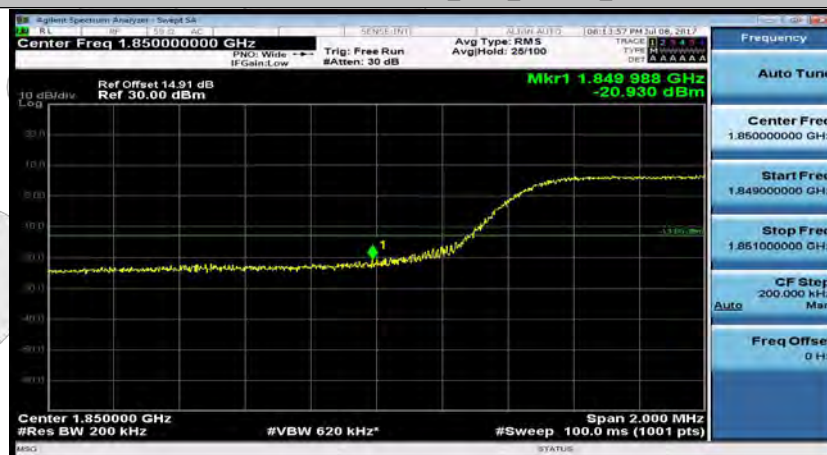
Channel Bandwidth: 10 MHz\_LCH\_QPSK\_50RB#0



Channel Bandwidth: 10 MHz\_HCH\_QPSK\_50RB#0



Channel Bandwidth: 10 MHz\_LCH\_16QAM\_50RB#0



Channel Bandwidth: 10 MHz\_HCH\_16QAM\_50RB#0

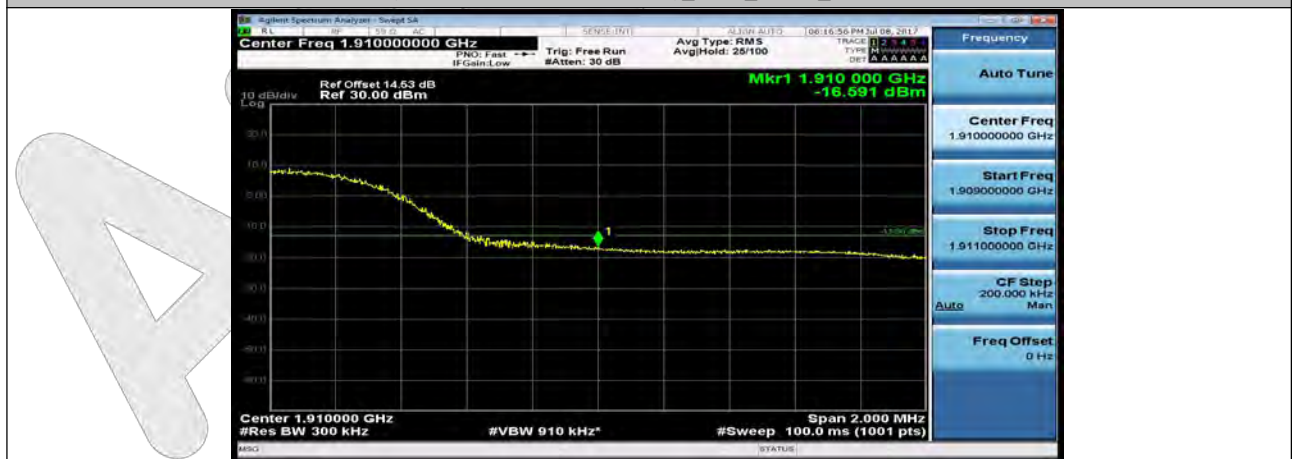


Channel Bandwidth: 15 MHz

(Channel Bandwidth:15 MHz)\_LCH\_QPSK\_75RB#0



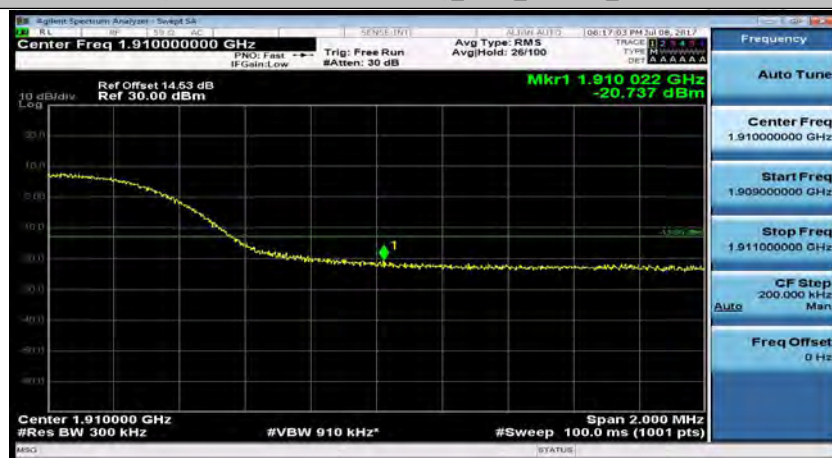
(Channel Bandwidth:15 MHz)\_HCH\_QPSK\_75RB#0



(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_75RB#0



(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_75RB#0



### Channel Bandwidth: 20 MHz

(Channel Bandwidth:20 MHz)\_LCH\_QPSK\_100RB#0



(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_100RB#0



(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_100RB#0



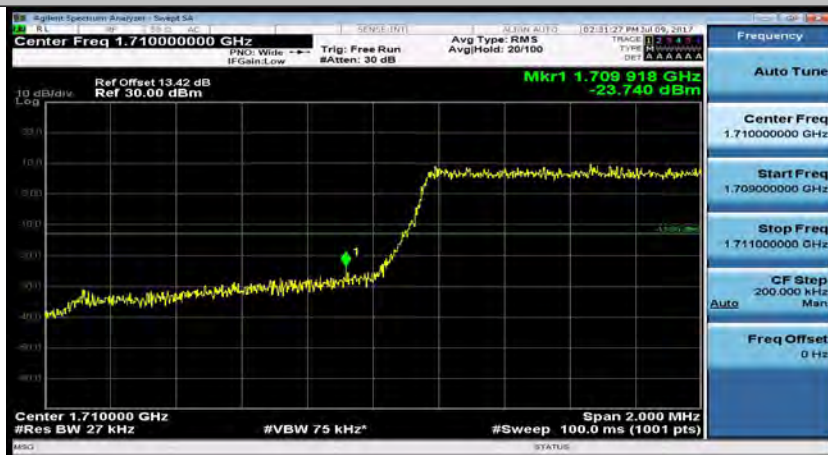
(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_100RB#0



## LTE BAND 4

### Channel Bandwidth: 1.4 MHz

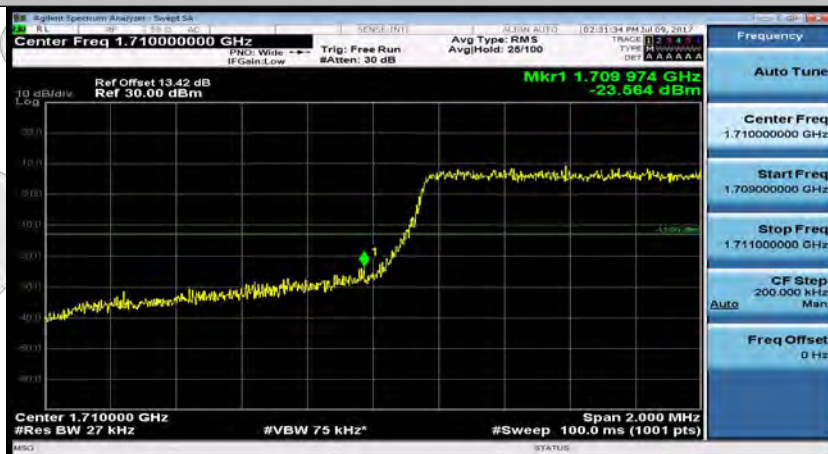
(Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK\_6RB#0



(Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK\_6RB#0



(Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM\_6RB#0

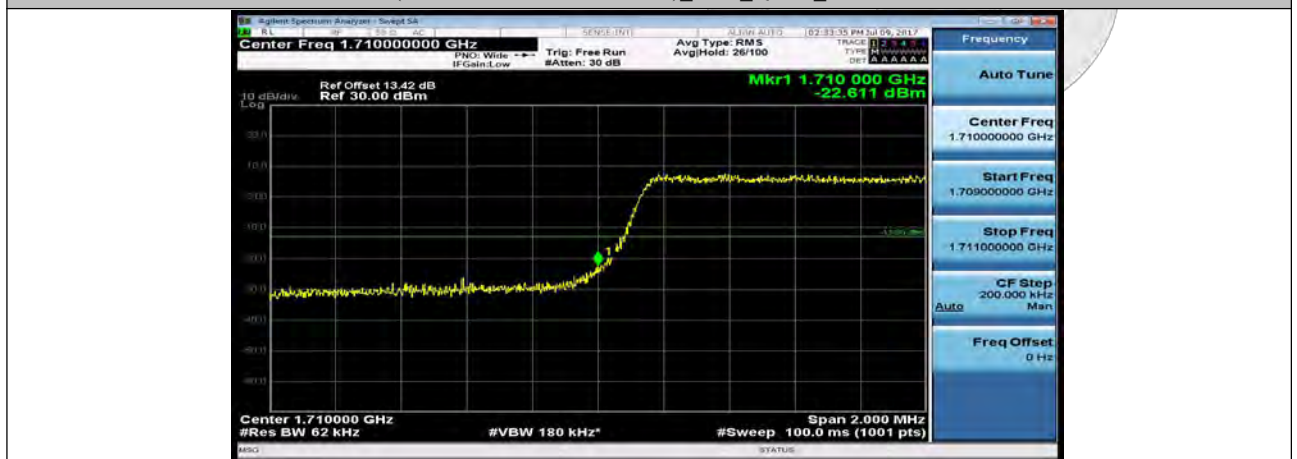


(Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM\_6RB#0



Channel Bandwidth: 3 MHz

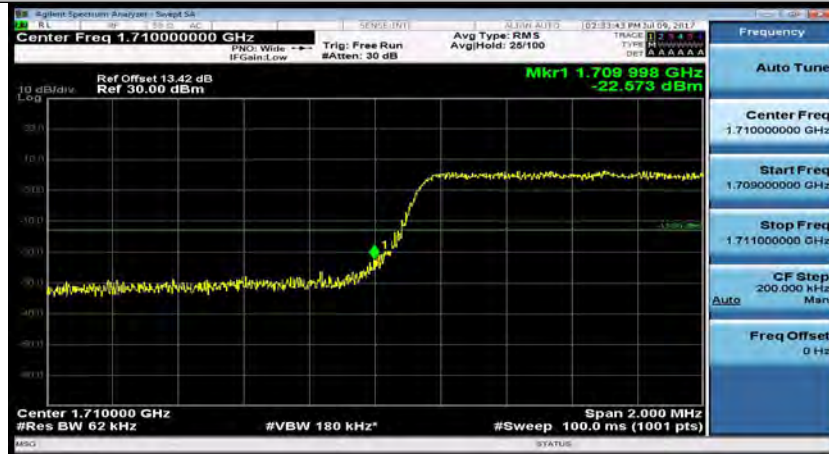
(Channel Bandwidth: 3 MHz)\_LCH\_QPSK\_15RB#0



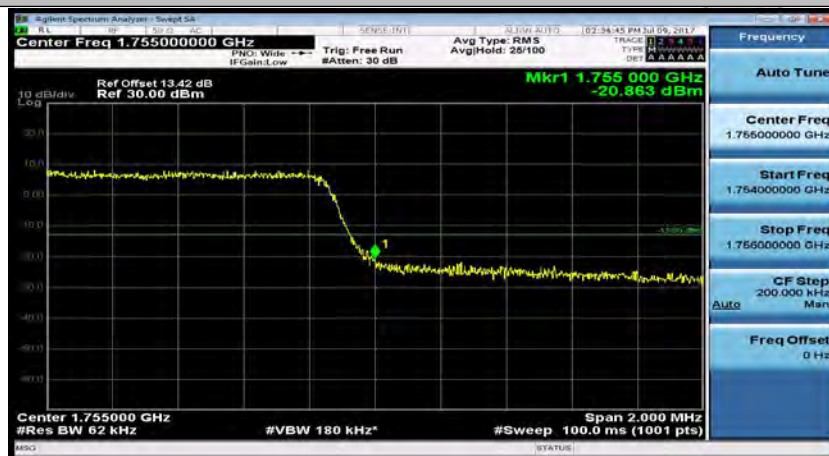
(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_15RB#0



(Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_15RB#0

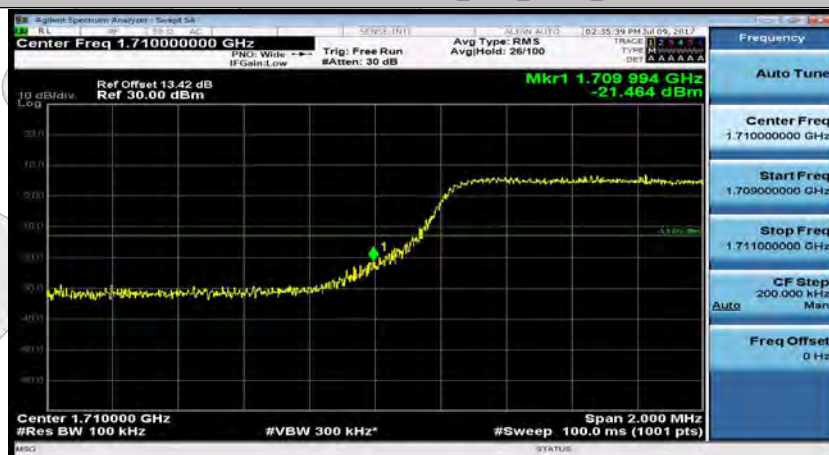


(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_15RB#0

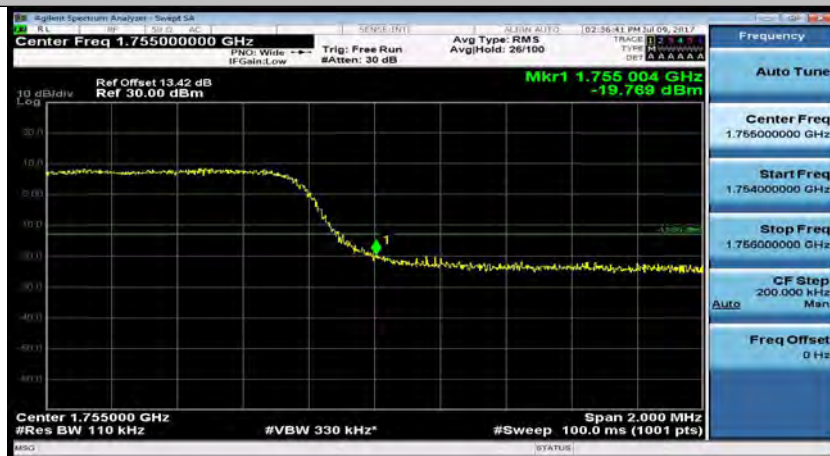


### Channel Bandwidth: 5 MHz

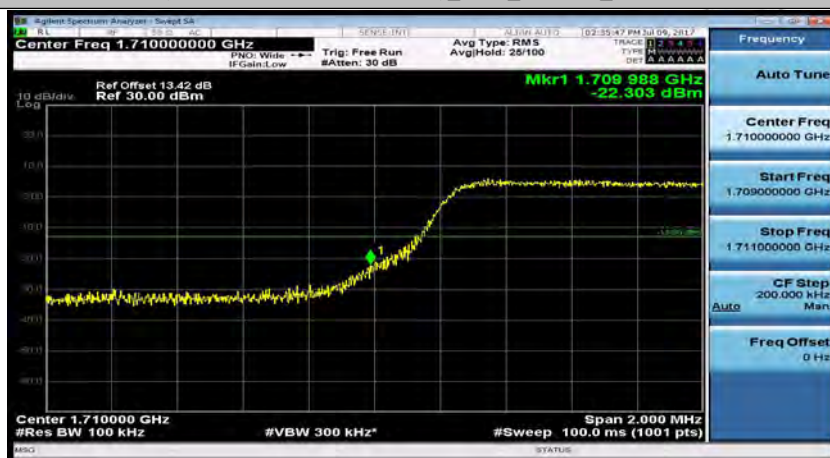
(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_25RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_25RB#0



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_25RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_25RB#0

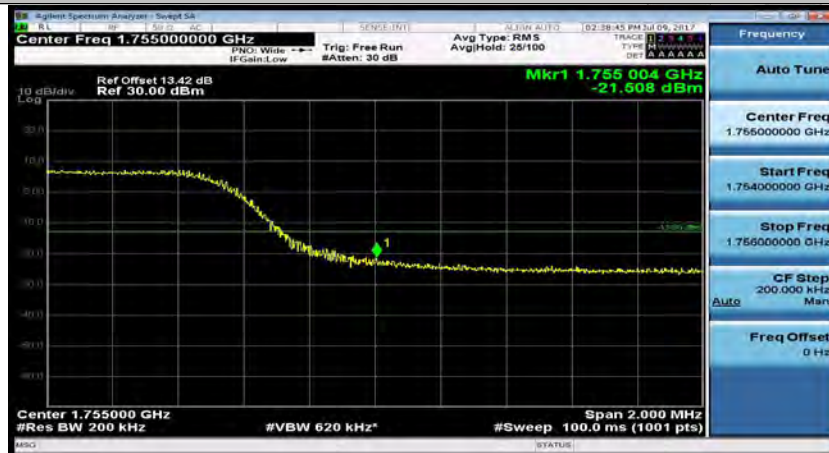


## Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz\_LCH\_QPSK\_50RB#0



Channel Bandwidth: 10 MHz\_HCH\_QPSK\_50RB#0



Channel Bandwidth: 10 MHz\_LCH\_16QAM\_50RB#0

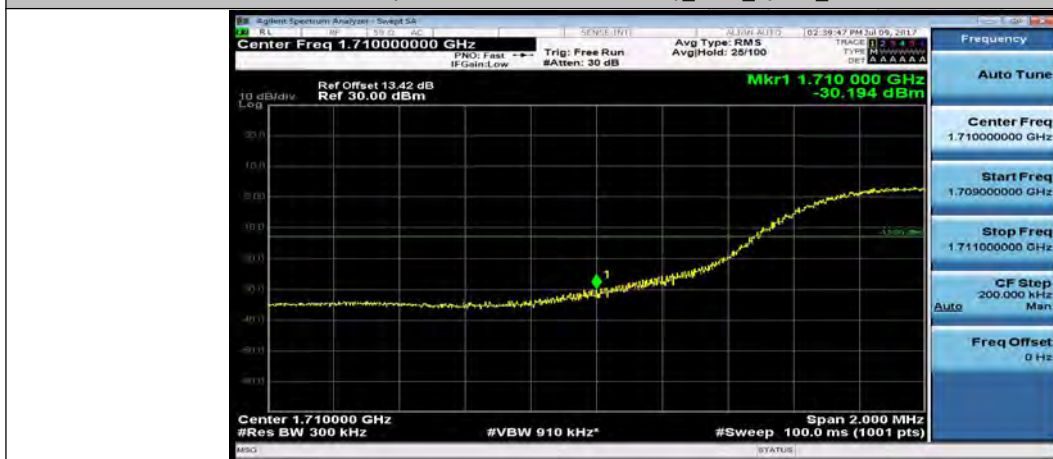


Channel Bandwidth: 10 MHz\_HCH\_16QAM\_50RB#0

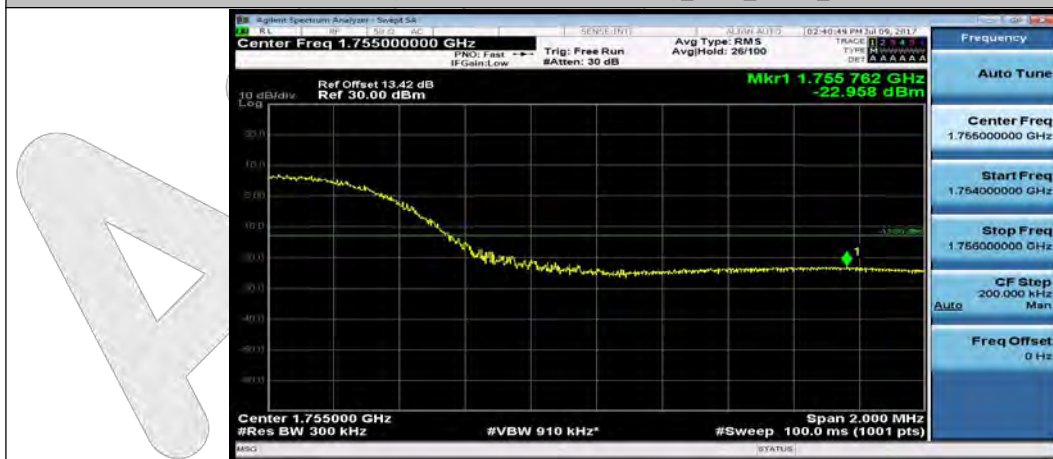


Channel Bandwidth: 15 MHz

(Channel Bandwidth:15 MHz)\_LCH\_QPSK\_75RB#0



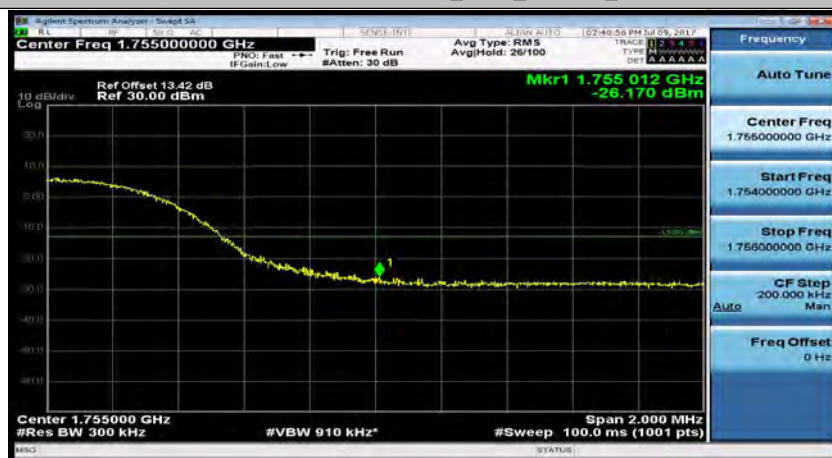
(Channel Bandwidth:15 MHz)\_HCH\_QPSK\_75RB#0



(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_75RB#0



(Channel Bandwidth:15 MHz)\_HCH\_16QAM\_75RB#0

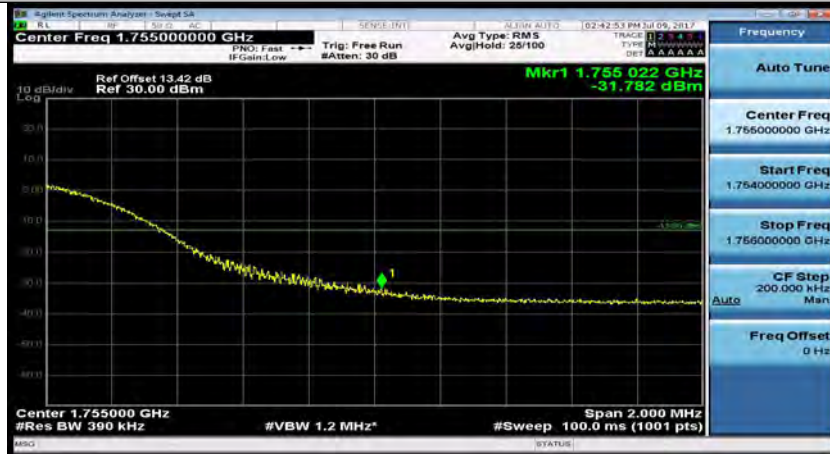


### Channel Bandwidth: 20 MHz

(Channel Bandwidth:20 MHz)\_LCH\_QPSK\_100RB#0



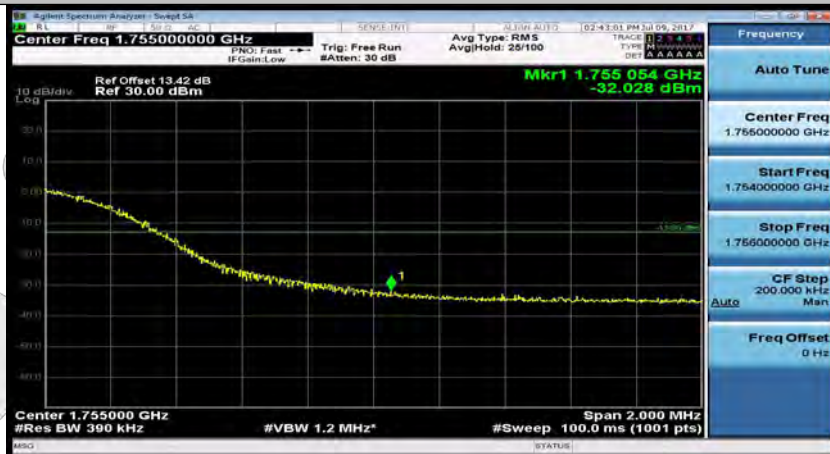
(Channel Bandwidth:20 MHz)\_HCH\_QPSK\_100RB#0



(Channel Bandwidth:20 MHz)\_LCH\_16QAM\_100RB#0



(Channel Bandwidth:20 MHz)\_HCH\_16QAM\_100RB#0



## LTE BAND 5

### Channel Bandwidth: 1.4 MHz

(Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK\_6RB#0



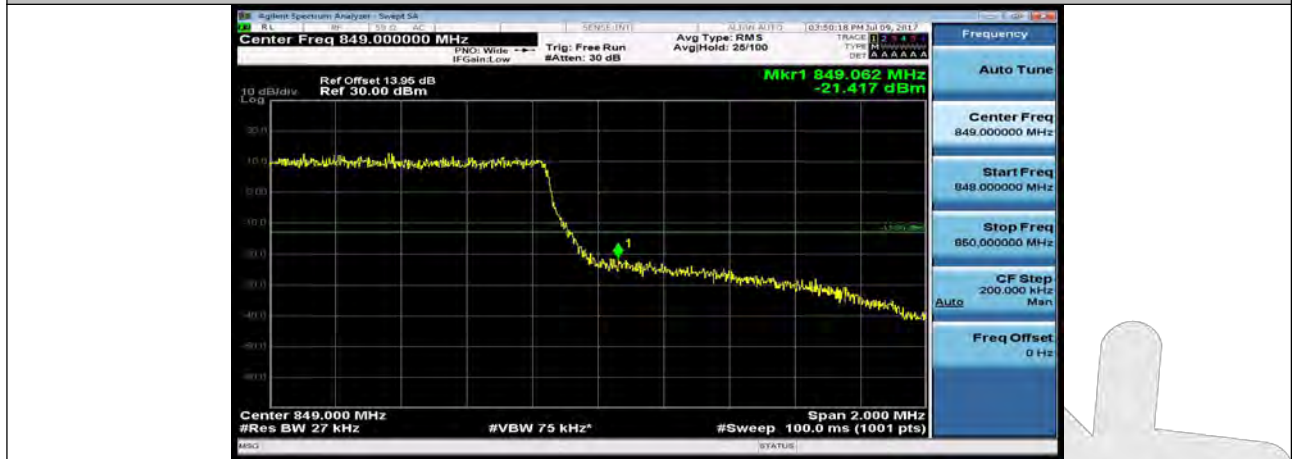
(Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK\_6RB#0



(Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM\_6RB#0

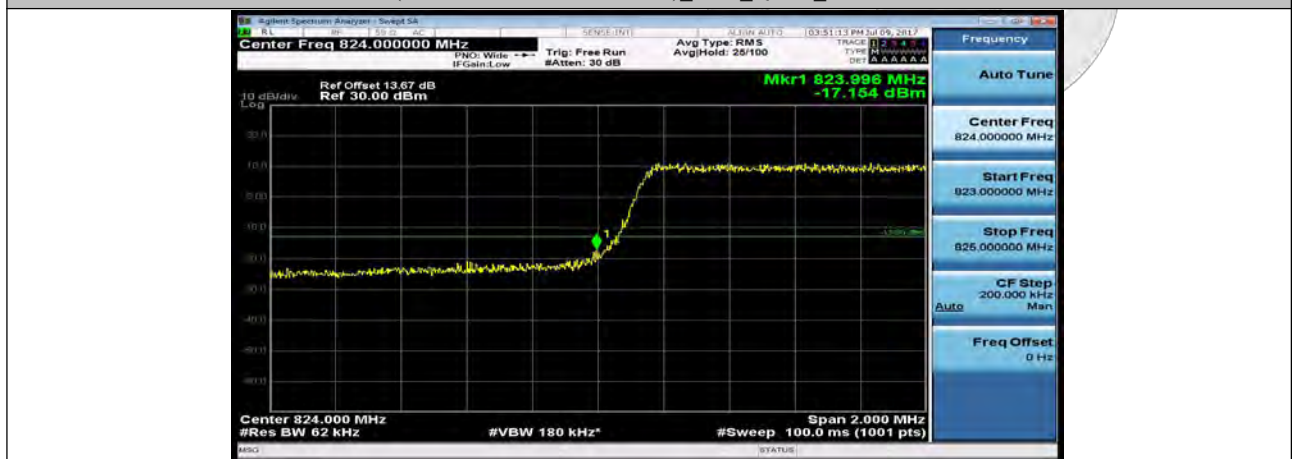


(Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM\_6RB#0



Channel Bandwidth: 3 MHz

(Channel Bandwidth: 3 MHz)\_LCH\_QPSK\_15RB#0



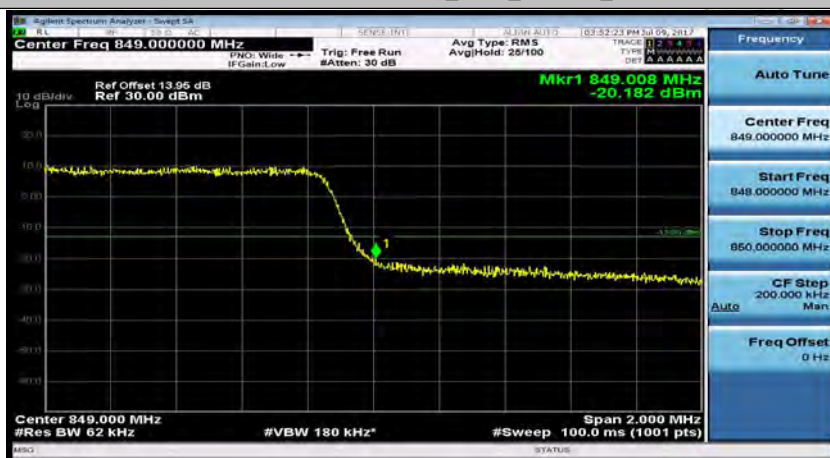
(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_15RB#0



(Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_15RB#0

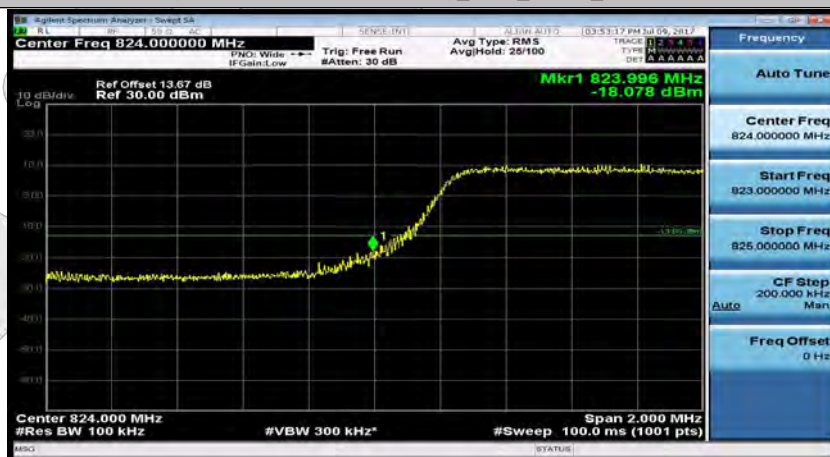


(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_15RB#0

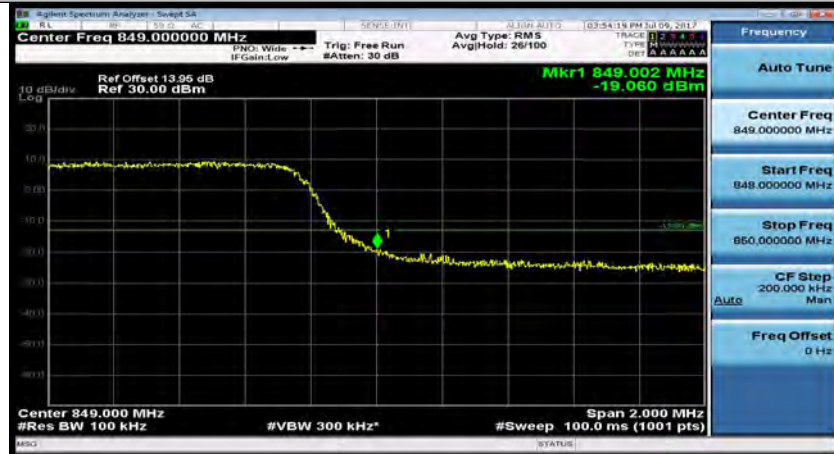


### Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_25RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_25RB#0



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_25RB#0

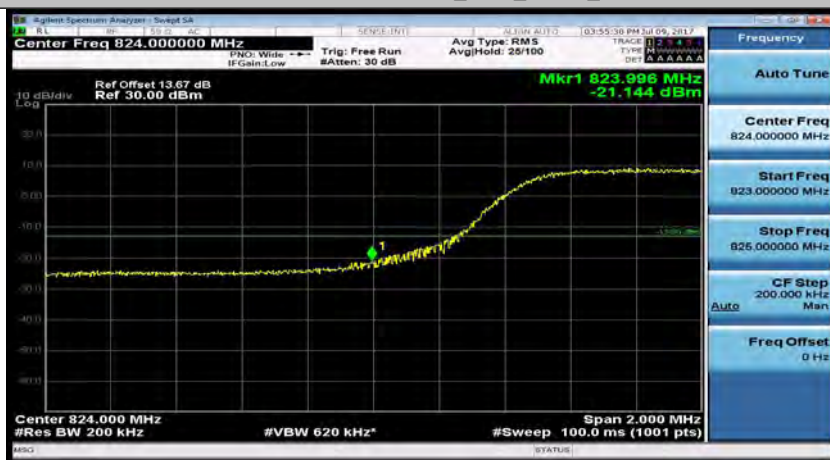


(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_25RB#0



## Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz\_LCH\_QPSK\_50RB#0



Channel Bandwidth: 10 MHz\_HCH\_QPSK\_50RB#0



Channel Bandwidth: 10 MHz\_LCH\_16QAM\_50RB#0



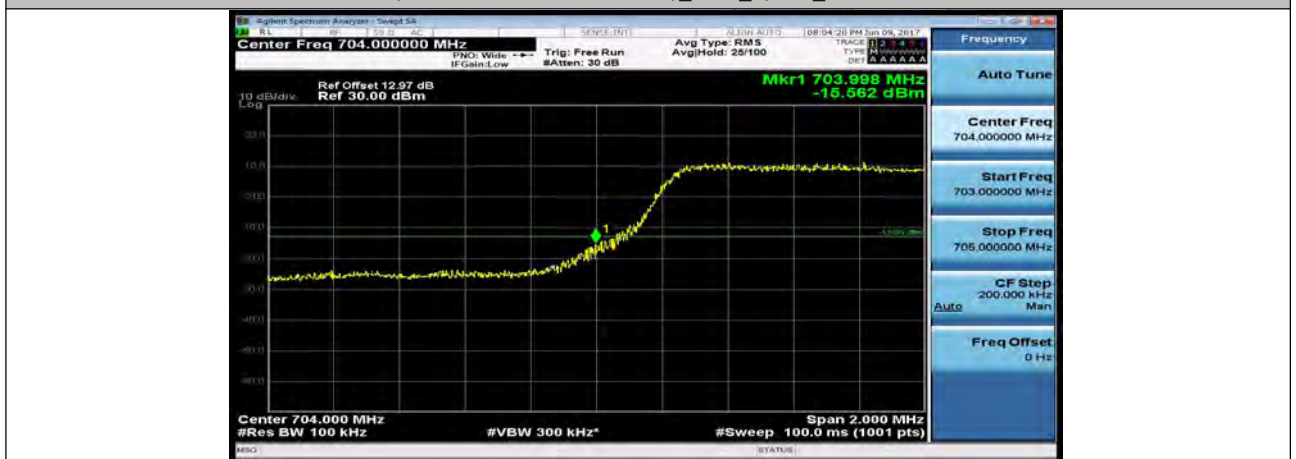
Channel Bandwidth: 10 MHz\_HCH\_16QAM\_50RB#0



## LTE Band 17

Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_25RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_25RB#0



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_25RB#0

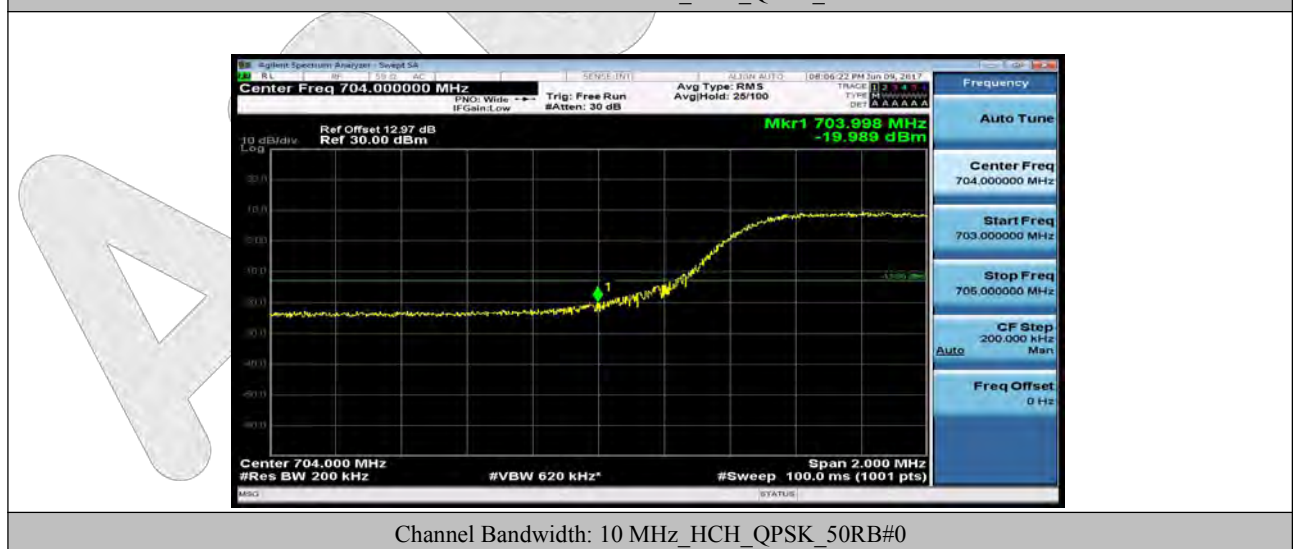


(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_25RB#0



### Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz\_LCH\_QPSK\_50RB#0



Channel Bandwidth: 10 MHz\_HCH\_QPSK\_50RB#0



Channel Bandwidth: 10 MHz\_LCH\_16QAM\_50RB#0



Channel Bandwidth: 10 MHz\_HCH\_16QAM\_50RB#0



## 10. Frequency Stability

### 10.1. Test Standard and Limit

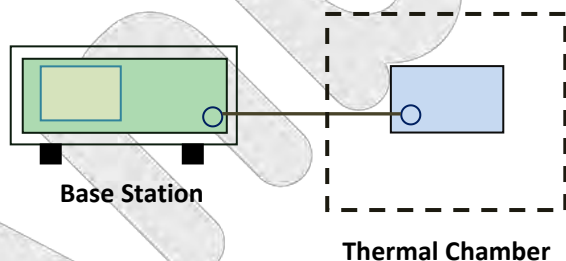
According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below:

Frequency Tolerance for Transmitters in the Public Mobile Services

| Frequency Range (MHz) | Base, fixed (ppm) | Mobile $\leq 3$ watts (ppm) | Mobile $\leq 3$ watts (ppm) |
|-----------------------|-------------------|-----------------------------|-----------------------------|
| 25 to 50              | 20.0              | 20.0                        | 50.0                        |
| 50 to 450             | 5.0               | 5.0                         | 50.0                        |
| 450 to 512            | 2.5               | 5.0                         | 5.0                         |
| 821 to 896            | 1.5               | 2.5                         | 2.5                         |
| 928 to 29.            | .0                | N/A                         | N/A                         |
| 929 to 960.           | 1.5               | N/A                         | N/A                         |
| 2110 to 2220          | 10.0              | N/A                         | N/A                         |

According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized frequency block.

### 10.2. Test Setup



### 10.3. Test Procedure

A communication link was established between EUT and base station. The frequency error was monitored and measured by base station under variation of ambient temperature and variation of primary supply voltage.

Limit: The frequency stability of the transmitter shall be maintained within  $\pm 0.00025\%$  ( $\pm 2.5\text{ppm}$ ) of the center frequency.

### 10.4. Test Data

## LTE BAND 2

| Voltage     |         |               |                  |                |                 |             |         |
|-------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Modulation  | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK        | MCH     | VL            | TN               | -3.35          | -0.001781       | ± 2.5       | PASS    |
|             |         | VN            | TN               | 3.59           | 0.001910        | ± 2.5       | PASS    |
|             |         | VH            | TN               | 5.06           | 0.002694        | ± 2.5       | PASS    |
| 16QAM       | MCH     | VL            | TN               | 5.95           | 0.003165        | ± 2.5       | PASS    |
|             |         | VN            | TN               | -10.00         | -0.005319       | ± 2.5       | PASS    |
|             |         | VH            | TN               | 22.92          | 0.012212        | ± 2.5       | PASS    |
| Temperature |         |               |                  |                |                 |             |         |
| Modulation  | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK        | MCH     | VN            | -30              | 3.56           | 0.001895        | ± 2.5       | PASS    |
|             |         | VN            | -20              | 3.89           | 0.002070        | ± 2.5       | PASS    |
|             |         | VN            | -10              | 4.72           | 0.002511        | ± 2.5       | PASS    |
|             |         | VN            | 0                | 23.00          | 0.012235        | ± 2.5       | PASS    |
|             |         | VN            | 10               | 3.98           | 0.002115        | ± 2.5       | PASS    |
|             |         | VN            | 20               | 4.82           | 0.002564        | ± 2.5       | PASS    |
|             |         | VN            | 30               | -16.71         | -0.008887       | ± 2.5       | PASS    |
|             |         | VN            | 40               | 4.82           | 0.002564        | ± 2.5       | PASS    |
|             |         | VN            | 50               | 5.47           | 0.002907        | ± 2.5       | PASS    |
| 16QAM       | MCH     | VN            | -30              | 3.63           | 0.001933        | ± 2.5       | PASS    |
|             |         | VN            | -20              | 0.79           | 0.000419        | ± 2.5       | PASS    |
|             |         | VN            | -10              | 4.95           | 0.002633        | ± 2.5       | PASS    |
|             |         | VN            | 0                | 2.66           | 0.001415        | ± 2.5       | PASS    |
|             |         | VN            | 10               | -13.62         | -0.007244       | ± 2.5       | PASS    |
|             |         | VN            | 20               | 25.75          | 0.013696        | ± 2.5       | PASS    |
|             |         | VN            | 30               | -9.23          | -0.004908       | ± 2.5       | PASS    |
|             |         | VN            | 40               | 4.84           | 0.002572        | ± 2.5       | PASS    |
|             |         | VN            | 50               | -1.69          | -0.000898       | ± 2.5       | PASS    |

## LTE BAND 4

| Voltage     |         |               |                  |                |                 |             |         |
|-------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Modulation  | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK        | MCH     | VL            | TN               | 4.98           | 0.002873        | ± 2.5       | PASS    |
|             |         | VN            | TN               | -4.18          | -0.002411       | ± 2.5       | PASS    |
|             |         | VH            | TN               | 7.51           | 0.004335        | ± 2.5       | PASS    |
| 16QAM       | MCH     | VL            | TN               | 3.82           | 0.002205        | ± 2.5       | PASS    |
|             |         | VN            | TN               | 5.22           | 0.003014        | ± 2.5       | PASS    |
|             |         | VH            | TN               | -17.95         | -0.010362       | ± 2.5       | PASS    |
| Temperature |         |               |                  |                |                 |             |         |
| Modulation  | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK        | MCH     | VN            | -30              | 2.02           | 0.001164        | ± 2.5       | PASS    |
|             |         | VN            | -20              | -13.00         | -0.007506       | ± 2.5       | PASS    |
|             |         | VN            | -10              | <b>22.70</b>   | <b>0.013104</b> | ± 2.5       | PASS    |
|             |         | VN            | 0                | -1.82          | -0.001049       | ± 2.5       | PASS    |
|             |         | VN            | 10               | 1.90           | 0.001098        | ± 2.5       | PASS    |
|             |         | VN            | 20               | -21.49         | -0.012118       | ± 2.5       | PASS    |
|             |         | VN            | 30               | 4.75           | 0.002744        | ± 2.5       | PASS    |
|             |         | VN            | 40               | 4.55           | 0.002626        | ± 2.5       | PASS    |
|             |         | VN            | 50               | -7.72          | -0.00445        | ± 2.5       | PASS    |
| 16QAM       | MCH     | VN            | -30              | <b>8.89</b>    | <b>0.005131</b> | ± 2.5       | PASS    |
|             |         | VN            | -20              | 8.71           | 0.005028        | ± 2.5       | PASS    |
|             |         | VN            | -10              | -9.91          | -0.00572        | ± 2.5       | PASS    |
|             |         | VN            | 0                | 2.24           | 0.001291        | ± 2.5       | PASS    |
|             |         | VN            | 10               | -1.78          | -0.00103        | ± 2.5       | PASS    |
|             |         | VN            | 20               | -3.18          | -0.00184        | ± 2.5       | PASS    |
|             |         | VN            | 30               | -5.21          | -0.00301        | ± 2.5       | PASS    |
|             |         | VN            | 40               | 3.32           | 0.001917        | ± 2.5       | PASS    |
|             |         | VN            | 50               | 6.94           | 0.004009        | ± 2.5       | PASS    |

## LTE BAND 5

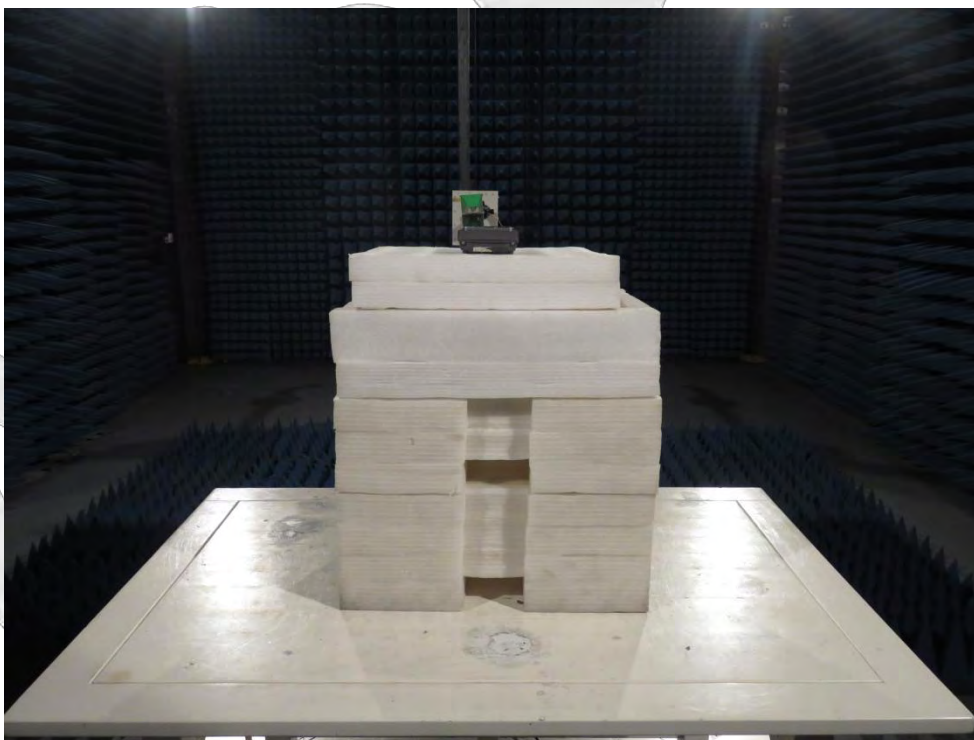
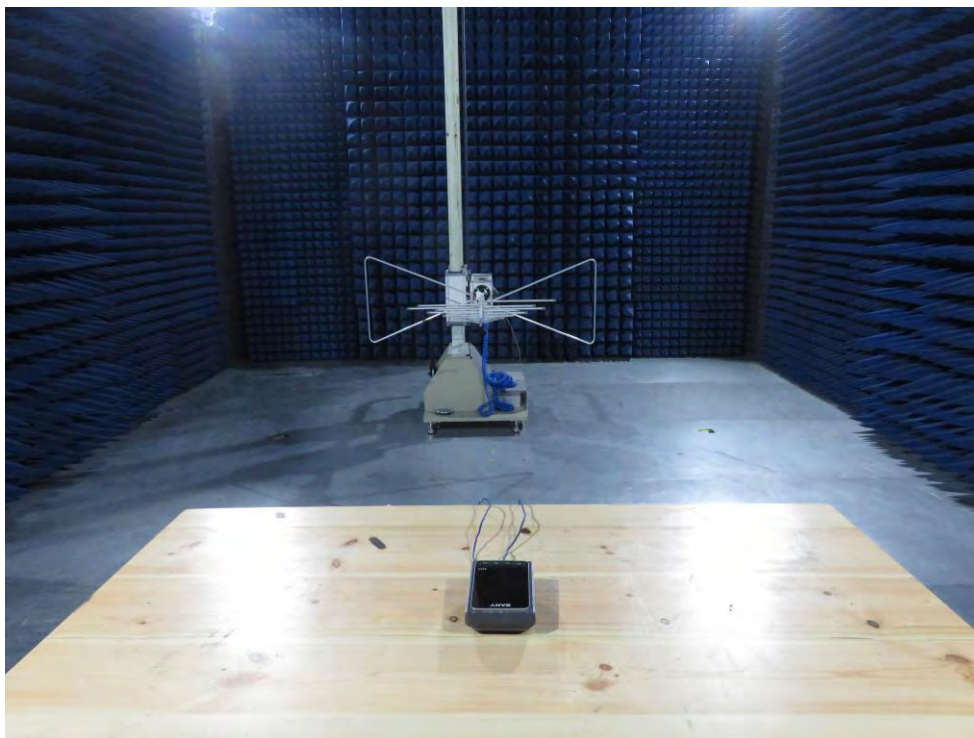
| Voltage     |         |               |                  |                |                 |             |         |
|-------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Modulation  | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK        | MCH     | VL            | TN               | 6.72           | 0.008035        | ± 2.5       | PASS    |
|             |         | VN            | TN               | 9.61           | 0.011493        | ± 2.5       | PASS    |
|             |         | VH            | TN               | 7.98           | 0.009539        | ± 2.5       | PASS    |
| 16QAM       | MCH     | VL            | TN               | 1.30           | 0.001552        | ± 2.5       | PASS    |
|             |         | VN            | TN               | -1.01          | -0.001205       | ± 2.5       | PASS    |
|             |         | VH            | TN               | -5.23          | -0.006255       | ± 2.5       | PASS    |
| Temperature |         |               |                  |                |                 |             |         |
| Modulation  | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK        | MCH     | VN            | -30              | -7.05          | -0.008427       | ± 2.5       | PASS    |
|             |         | VN            | -20              | 6.73           | 0.008048        | ± 2.5       | PASS    |
|             |         | VN            | -10              | -3.01          | -0.003596       | ± 2.5       | PASS    |
|             |         | VN            | 0                | -7.45          | -0.008908       | ± 2.5       | PASS    |
|             |         | VN            | 10               | -4.19          | -0.005005       | ± 2.5       | PASS    |
|             |         | VN            | 20               | 5.19           | 0.006207        | ± 2.5       | PASS    |
|             |         | VN            | 30               | -7.55          | -0.009022       | ± 2.5       | PASS    |
|             |         | VN            | 40               | -1.11          | -0.001325       | ± 2.5       | PASS    |
|             |         | VN            | 50               | 6.70           | 0.008013        | ± 2.5       | PASS    |
| 16QAM       | MCH     | VN            | -30              | -8.40          | -0.010040       | ± 2.5       | PASS    |
|             |         | VN            | -20              | -6.48          | -0.007743       | ± 2.5       | PASS    |
|             |         | VN            | -10              | 9.37           | 0.011196        | ± 2.5       | PASS    |
|             |         | VN            | 0                | 8.16           | 0.009752        | ± 2.5       | PASS    |
|             |         | VN            | 10               | -5.95          | -0.007111       | ± 2.5       | PASS    |
|             |         | VN            | 20               | 2.31           | 0.002761        | ± 2.5       | PASS    |
|             |         | VN            | 30               | -2.60          | -0.003110       | ± 2.5       | PASS    |
|             |         | VN            | 40               | 1.17           | 0.001394        | ± 2.5       | PASS    |
|             |         | VN            | 50               | -4.12          | -0.002376       | ± 2.5       | PASS    |

## LTE BAND 17

| Voltage     |         |               |                  |                |                 |             |         |
|-------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Modulation  | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK        | MCH     | VL            | TN               | -0.71          | -0.000994       | ± 2.5       | PASS    |
|             |         | VN            | TN               | -5.26          | -0.007413       | ± 2.5       | PASS    |
|             |         | VH            | TN               | 3.58           | 0.005045        | ± 2.5       | PASS    |
| 16QAM       | MCH     | VL            | TN               | 0.72           | 0.001011        | ± 2.5       | PASS    |
|             |         | VN            | TN               | -5.60          | -0.007882       | ± 2.5       | PASS    |
|             |         | VH            | TN               | 0.15           | 0.000218        | ± 2.5       | PASS    |
| Temperature |         |               |                  |                |                 |             |         |
| Modulation  | Channel | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| QPSK        | MCH     | VN            | -30              | 9.85           | 0.013878        | ± 2.5       | PASS    |
|             |         | VN            | -20              | -0.88          | -0.001236       | ± 2.5       | PASS    |
|             |         | VN            | -10              | -6.37          | -0.008974       | ± 2.5       | PASS    |
|             |         | VN            | 0                | -7.22          | -0.010162       | ± 2.5       | PASS    |
|             |         | VN            | 10               | 3.02           | 0.004252        | ± 2.5       | PASS    |
|             |         | VN            | 20               | 5.77           | 0.008125        | ± 2.5       | PASS    |
|             |         | VN            | 30               | -1.64          | -0.002316       | ± 2.5       | PASS    |
|             |         | VN            | 40               | -3.29          | -0.004640       | ± 2.5       | PASS    |
|             |         | VN            | 50               | 1.39           | 0.001962        | ± 2.5       | PASS    |
| 16QAM       | MCH     | VN            | -30              | -2.15          | -0.003024       | ± 2.5       | PASS    |
|             |         | VN            | -20              | -4.37          | -0.006153       | ± 2.5       | PASS    |
|             |         | VN            | -10              | 2.76           | 0.003888        | ± 2.5       | PASS    |
|             |         | VN            | 0                | -7.07          | -0.009955       | ± 2.5       | PASS    |
|             |         | VN            | 10               | -1.09          | -0.001531       | ± 2.5       | PASS    |
|             |         | VN            | 20               | -1.12          | -0.001575       | ± 2.5       | PASS    |
|             |         | VN            | 30               | 4.18           | 0.005881        | ± 2.5       | PASS    |
|             |         | VN            | 40               | -8.57          | -0.012068       | ± 2.5       | PASS    |
|             |         | VN            | 50               | 0.85           | 0.001201        | ± 2.5       | PASS    |

## APPENDIX I -- TEST SETUP PHOTOGRAPH

Photo of Radiation Emission Test



## APPENDIX II -- PHOTOGRAPH

Reference to the test report No. R0217050061W1

Anbotek