



**FCC CFR47 PART 22H, 24E, 27 AND 90S  
CERTIFICATION TEST REPORT**

**FOR**

**CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS**

**MODEL NUMBER: A1524**

**FCC ID: BCG-E2817A**

**REPORT NUMBER: 14U17676-E17, REVISION F**

**ISSUE DATE: AUGUST 27, 2014**

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**NVLAP LAB CODE 200065-0**

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Revision History

| Rev. | Issue Date | Revisions                                            | Revised By |
|------|------------|------------------------------------------------------|------------|
| --   | 07/25/2014 | Initial Issue                                        | M. Mekuria |
| A    | 07/30/2014 | Update EUT description                               | C. Pang    |
| B    | 07/30/2014 | Update Data                                          | C. Pang    |
| C    | 08/01/2014 | Address all TCB Questions                            | T. Chu     |
| D    | 08/04/2014 | Address all TCB Questions                            | M. Hua     |
| E    | 08/25/2014 | Address all TCB Questions Section 5.4, 8.2.4 and 9.2 | M. Hua     |
| F    | 08/27/2014 | Add CDMA 1x Advanced                                 | M. Hua     |

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## 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** APPLE  
1 INFINITE LOOP  
CUPERTINO, CA 95014, U.S.A.

**EUT DESCRIPTION:** CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

**MODEL:** A1524

**SERIAL NUMBER:** C39MF19LG1G0 (Conducted); C39MV00FG2YF (Radiated)

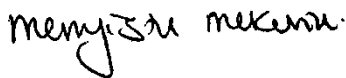
**DATE TESTED:** MAY 05 - AUGUST 04, 2014

| APPLICABLE STANDARDS                |              |
|-------------------------------------|--------------|
| STANDARD                            | TEST RESULTS |
| FCC CFR47 PART 22H, 24E, 27 and 90S | Pass         |

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

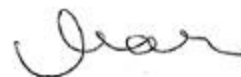
**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

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Tested By:



MONA HUA  
EMC ENGINEER  
UL VERIFICATION SERVICES INC.

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA-603-C, FCC CFR 47 Part 2, Part 22, Part 24, Part 27 and Part 90.

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

| 47173 Benicia Street               | 47266 Benicia Street                          |
|------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Chamber A | <input checked="" type="checkbox"/> Chamber D |
| <input type="checkbox"/> Chamber B | <input checked="" type="checkbox"/> Chamber E |
| <input type="checkbox"/> Chamber C | <input checked="" type="checkbox"/> Chamber F |
|                                    | <input type="checkbox"/> Chamber G            |
|                                    | <input type="checkbox"/> Chamber H            |

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://ts.nist.gov/standards/scopes/2000650.htm>.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned}\text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamplifier Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m}\end{aligned}$$

### 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER                             | UNCERTAINTY |
|---------------------------------------|-------------|
| Conducted Disturbance, 0.15 to 30 MHz | ±3.52 dB    |
| Radiated Disturbance, 30 to 1000 MHz  | ±4.94 dB    |

Uncertainty figures are valid to a confidence level of 95%.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

Model A1524 is a mobile phone with multimedia functions (music, application support, and video), Cellular GSM/GPRS/EGPRS/CDMA2000 1xRTT/1x Advanced/EVDO Rev.A/ EVDO Rev.B / WCDMA / HSPA+/DC-HSDPA/LTE FDD & Carrier Aggregation/TDD/TD-SCDMA radio, IEEE 802.11a/b/g/n/ac radio, Bluetooth radio and NFC. The rechargeable battery is not user accessible.

## 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted and ERP / EIRP output powers as follows:

### LAT OUTPUT POWER FOR LTE BAND 2

| Part 24 LTE Band 2 |                 |            |                     |       |                |       |
|--------------------|-----------------|------------|---------------------|-------|----------------|-------|
| Bandwidth<br>(MHz) | Frequency Range | Modulation | Conducted (Average) |       | EIRP (Average) |       |
|                    |                 |            | dBm                 | mW    | dBm            | mW    |
| 1.4                | 1850 - 1910     | QPSK       | 24.00               | 251.2 | 26.92          | 492.0 |
|                    |                 | 16QAM      | 23.04               | 201.4 | 25.95          | 393.6 |
| 3                  |                 | QPSK       | 23.97               | 249.5 | 26.88          | 487.5 |
|                    |                 | 16QAM      | 22.91               | 195.4 | 25.60          | 363.1 |
| 5                  |                 | QPSK       | 24.00               | 251.2 | 26.91          | 490.9 |
|                    |                 | 16QAM      | 23.32               | 214.8 | 26.23          | 419.8 |
| 10                 |                 | QPSK       | 23.97               | 249.5 | 26.89          | 488.7 |
|                    |                 | 16QAM      | 23.14               | 206.1 | 26.03          | 400.9 |
| 15                 |                 | QPSK       | 24.00               | 251.2 | 26.90          | 489.8 |
|                    |                 | 16QAM      | 23.01               | 200.0 | 25.91          | 389.9 |
| 20                 |                 | QPSK       | 24.00               | 251.2 | 26.94          | 494.3 |
|                    |                 | 16QAM      | 23.00               | 199.5 | 25.96          | 394.5 |

### UAT OUTPUT POWER FOR LTE BAND 2

| Part 24 LTE Band 2 |                 |            |                     |       |                |       |
|--------------------|-----------------|------------|---------------------|-------|----------------|-------|
| Bandwidth (MHz)    | Frequency Range | Modulation | Conducted (Average) |       | EIRP (Average) |       |
|                    |                 |            | dBm                 | mW    | dBm            | mW    |
| 1.4                | 1850 - 1910     | QPSK       | 20.80               | 120.2 | 22.43          | 175.0 |
|                    |                 | 16QAM      | 19.93               | 98.4  | 22.30          | 169.8 |
| 3                  |                 | QPSK       | 20.86               | 121.9 | 23.04          | 201.4 |
|                    |                 | 16QAM      | 19.75               | 94.4  | 21.91          | 155.2 |
| 5                  |                 | QPSK       | 20.80               | 120.2 | 23.05          | 201.8 |
|                    |                 | 16QAM      | 19.93               | 98.4  | 22.52          | 178.6 |
| 10                 |                 | QPSK       | 20.72               | 118.0 | 22.91          | 195.4 |
|                    |                 | 16QAM      | 19.67               | 92.7  | 21.77          | 150.3 |
| 15                 |                 | QPSK       | 20.72               | 118.0 | 22.86          | 193.2 |
|                    |                 | 16QAM      | 19.88               | 97.3  | 22.79          | 190.1 |
| 20                 |                 | QPSK       | 20.57               | 114.0 | 23.12          | 205.1 |
|                    |                 | 16QAM      | 19.71               | 93.5  | 22.17          | 164.8 |

**LAT OUTPUT POWER FOR LTE BAND 4**

| Part 27 LTE Band 4 |                 |            |                     |       |               |       |
|--------------------|-----------------|------------|---------------------|-------|---------------|-------|
| Bandwidth (MHz)    | Frequency Range | Modulation | Conducted (Average) |       | EIRP(Average) |       |
|                    |                 |            | dBm                 | mW    | dBm           | mW    |
| 1.4                | 1710 - 1755     | QPSK       | 24.00               | 251.2 | 26.32         | 428.5 |
|                    |                 | 16QAM      | 23.34               | 215.8 | 25.53         | 357.3 |
| 3                  |                 | QPSK       | 24.00               | 251.2 | 26.24         | 420.7 |
|                    |                 | 16QAM      | 23.35               | 216.3 | 25.58         | 361.4 |
| 5                  |                 | QPSK       | 24.00               | 251.2 | 26.28         | 424.6 |
|                    |                 | 16QAM      | 23.39               | 218.3 | 25.75         | 375.8 |
| 10                 |                 | QPSK       | 24.00               | 251.2 | 26.29         | 425.6 |
|                    |                 | 16QAM      | 23.36               | 216.8 | 25.61         | 363.9 |
| 15                 |                 | QPSK       | 24.00               | 251.2 | 26.30         | 426.6 |
|                    |                 | 16QAM      | 23.15               | 206.5 | 26.78         | 476.4 |
| 20                 |                 | QPSK       | 24.00               | 251.2 | 26.19         | 415.9 |
|                    |                 | 16QAM      | 22.96               | 197.7 | 25.21         | 331.9 |

**UAT OUTPUT POWER FOR LTE BAND 4**

| Part 27 LTE Band 4 |                 |            |                     |       |                |       |
|--------------------|-----------------|------------|---------------------|-------|----------------|-------|
| Bandwidth (MHz)    | Frequency Range | Modulation | Conducted (Average) |       | EIRP (Average) |       |
|                    |                 |            | dBm                 | mW    | dBm            | mW    |
| 1.4                | 1710 - 1755     | QPSK       | 21.15               | 130.3 | 22.67          | 184.9 |
|                    |                 | 16QAM      | 20.27               | 106.4 | 21.82          | 152.1 |
| 3                  |                 | QPSK       | 21.23               | 132.7 | 22.84          | 192.3 |
|                    |                 | 16QAM      | 20.15               | 103.5 | 21.64          | 145.9 |
| 5                  |                 | QPSK       | 21.10               | 128.8 | 22.80          | 190.5 |
|                    |                 | 16QAM      | 20.36               | 108.6 | 21.97          | 157.4 |
| 10                 |                 | QPSK       | 21.10               | 128.8 | 22.69          | 185.8 |
|                    |                 | 16QAM      | 20.07               | 101.6 | 21.65          | 146.2 |
| 15                 |                 | QPSK       | 21.11               | 129.1 | 22.67          | 184.9 |
|                    |                 | 16QAM      | 20.04               | 100.9 | 21.62          | 145.2 |
| 20                 |                 | QPSK       | 21.00               | 125.9 | 22.55          | 179.9 |
|                    |                 | 16QAM      | 20.00               | 100.0 | 21.57          | 143.5 |

### **LAT OUTPUT POWER FOR LTE BAND 5**

| Part 22 LTE Band 5 |                 |            |                     |       |               |      |                |       |
|--------------------|-----------------|------------|---------------------|-------|---------------|------|----------------|-------|
| Bandwidth (MHz)    | Frequency Range | Modulation | Conducted (Average) |       | ERP (Average) |      | EIRP (Average) |       |
|                    |                 |            | dBm                 | mW    | dBm           | mW   | dBm            | mW    |
| 1.4                | 824 - 849       | QPSK       | 24.00               | 251.2 | 19.50         | 89.1 | 21.65          | 146.2 |
|                    |                 | 16QAM      | 23.08               | 203.2 | 18.59         | 72.3 | 20.74          | 118.6 |
| 3                  |                 | QPSK       | 23.94               | 247.7 | 19.46         | 88.3 | 21.61          | 144.9 |
|                    |                 | 16QAM      | 22.90               | 195.0 | 18.39         | 69.0 | 20.54          | 113.2 |
| 5                  |                 | QPSK       | 24.00               | 251.2 | 19.52         | 89.5 | 21.67          | 146.9 |
|                    |                 | 16QAM      | 23.22               | 209.9 | 18.75         | 75.0 | 20.90          | 123.0 |
| 10                 |                 | QPSK       | 23.70               | 234.4 | 19.20         | 83.2 | 21.35          | 136.5 |
|                    |                 | 16QAM      | 22.88               | 194.1 | 18.41         | 69.3 | 20.56          | 113.8 |

### **UAT OUTPUT POWER FOR LTE BAND 5**

| Part 22 LTE Band 5 |                 |            |                     |       |               |      |                |      |
|--------------------|-----------------|------------|---------------------|-------|---------------|------|----------------|------|
| Bandwidth (MHz)    | Frequency Range | Modulation | Conducted (Average) |       | ERP (Average) |      | EIRP (Average) |      |
|                    |                 |            | dBm                 | mW    | dBm           | mW   | dBm            | mW   |
| 1.4                | 824 - 849       | QPSK       | 23.70               | 234.4 | 17.72         | 59.2 | 19.87          | 97.1 |
|                    |                 | 16QAM      | 22.76               | 188.8 | 16.69         | 46.7 | 18.84          | 76.6 |
| 3                  |                 | QPSK       | 23.64               | 231.2 | 17.65         | 58.2 | 19.80          | 95.5 |
|                    |                 | 16QAM      | 22.58               | 181.1 | 16.56         | 45.3 | 18.71          | 74.3 |
| 5                  |                 | QPSK       | 23.34               | 215.8 | 17.39         | 54.8 | 19.54          | 89.9 |
|                    |                 | 16QAM      | 22.33               | 171.0 | 16.36         | 43.3 | 18.51          | 71.0 |
| 10                 |                 | QPSK       | 23.25               | 211.3 | 17.23         | 52.8 | 19.38          | 86.7 |
|                    |                 | 16QAM      | 22.30               | 169.8 | 16.27         | 42.4 | 18.42          | 69.5 |

### **LAT OUTPUT POWER FOR LTE BAND 13**

| Part 27 LTE Band 13 |                 |            |                     |       |               |      |                |       |
|---------------------|-----------------|------------|---------------------|-------|---------------|------|----------------|-------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted (Average) |       | ERP (Average) |      | EIRP (Average) |       |
|                     |                 |            | dBm                 | mW    | dBm           | mW   | dBm            | mW    |
| 5                   | 777 - 787       | QPSK       | 23.71               | 235.0 | 19.75         | 94.4 | 21.90          | 154.9 |
|                     |                 | 16QAM      | 22.97               | 198.2 | 18.99         | 79.3 | 21.14          | 130.0 |
| 10                  |                 | QPSK       | 23.61               | 229.6 | 19.63         | 91.8 | 21.78          | 150.7 |
|                     |                 | 16QAM      | 22.89               | 194.5 | 18.90         | 77.6 | 21.05          | 127.4 |

### **UAT OUTPUT POWER FOR LTE BAND 13**

| Part 27 LTE Band 13 |                 |            |                     |       |               |      |                |      |
|---------------------|-----------------|------------|---------------------|-------|---------------|------|----------------|------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted (Average) |       | ERP (Average) |      | EIRP (Average) |      |
|                     |                 |            | dBm                 | mW    | dBm           | mW   | dBm            | mW   |
| 5                   | 777 - 787       | QPSK       | 23.64               | 231.2 | 15.22         | 33.3 | 17.37          | 54.6 |
|                     |                 | 16QAM      | 22.90               | 195.0 | 14.26         | 26.7 | 16.41          | 43.8 |
| 10                  |                 | QPSK       | 23.59               | 228.6 | 15.10         | 32.4 | 17.25          | 53.1 |
|                     |                 | 16QAM      | 22.51               | 178.2 | 14.17         | 26.1 | 16.32          | 42.9 |

### **LAT OUTPUT POWER FOR LTE BAND 17**

| Part 27 LTE Band 17 |                 |            |                     |       |               |      |                |      |
|---------------------|-----------------|------------|---------------------|-------|---------------|------|----------------|------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted (Average) |       | ERP (Average) |      | EIRP (Average) |      |
|                     |                 |            | dBm                 | mW    | dBm           | mW   | dBm            | mW   |
| 5                   | 704 - 716       | QPSK       | 23.83               | 241.5 | 16.95         | 49.5 | 19.10          | 81.3 |
|                     |                 | 16QAM      | 23.08               | 203.2 | 16.12         | 40.9 | 18.27          | 67.1 |
| 10                  |                 | QPSK       | 23.73               | 236.0 | 16.80         | 47.9 | 18.95          | 78.5 |
|                     |                 | 16QAM      | 22.90               | 195.0 | 15.98         | 39.6 | 18.13          | 65.0 |

### **UAT OUTPUT POWER FOR LTE BAND 17**

| Part 27 LTE Band 17 |                 |            |                     |       |               |      |                |      |
|---------------------|-----------------|------------|---------------------|-------|---------------|------|----------------|------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted (Average) |       | ERP (Average) |      | EIRP (Average) |      |
|                     |                 |            | dBm                 | mW    | dBm           | mW   | dBm            | mW   |
| 5                   | 704 - 716       | QPSK       | 23.65               | 231.7 | 16.49         | 44.6 | 18.64          | 73.1 |
|                     |                 | 16QAM      | 22.82               | 191.4 | 15.74         | 37.5 | 17.89          | 61.5 |
| 10                  |                 | QPSK       | 23.65               | 231.7 | 16.53         | 45.0 | 18.68          | 73.8 |
|                     |                 | 16QAM      | 22.53               | 179.1 | 15.44         | 35.0 | 17.59          | 57.4 |

**LAT OUTPUT POWER FOR LTE BAND 25**

| Part 24 LTE Band 25 |                 |            |                     |       |                |       |
|---------------------|-----------------|------------|---------------------|-------|----------------|-------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted (Average) |       | EIRP (Average) |       |
|                     |                 |            | dBm                 | mW    | dBm            | mW    |
| 1.4                 | 1850 - 1915     | QPSK       | 24.00               | 251.2 | 26.85          | 484.2 |
|                     |                 | 16QAM      | 23.06               | 202.3 | 25.90          | 389.0 |
| 3                   |                 | QPSK       | 24.00               | 251.2 | 26.83          | 481.9 |
|                     |                 | 16QAM      | 23.19               | 208.4 | 26.00          | 398.1 |
| 5                   |                 | QPSK       | 24.00               | 251.2 | 26.81          | 479.7 |
|                     |                 | 16QAM      | 23.26               | 211.8 | 26.13          | 410.2 |
| 10                  |                 | QPSK       | 23.95               | 248.3 | 26.80          | 478.6 |
|                     |                 | 16QAM      | 23.18               | 208.0 | 26.05          | 402.7 |
| 15                  |                 | QPSK       | 24.00               | 251.2 | 26.86          | 485.3 |
|                     |                 | 16QAM      | 22.93               | 196.3 | 25.82          | 381.9 |
| 20                  |                 | QPSK       | 24.00               | 251.2 | 26.84          | 483.1 |
|                     |                 | 16QAM      | 22.98               | 198.6 | 25.86          | 385.5 |

**UAT OUTPUT POWER FOR LTE BAND 25**

| Part 24 LTE Band 25 |                 |            |                    |       |                |       |
|---------------------|-----------------|------------|--------------------|-------|----------------|-------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted(Average) |       | EIRP (Average) |       |
|                     |                 |            | dBm                | mW    | dBm            | mW    |
| 1.4                 | 1850 - 1915     | QPSK       | 21.00              | 125.9 | 23.05          | 201.8 |
|                     |                 | 16QAM      | 20.24              | 105.7 | 22.18          | 165.2 |
| 3                   |                 | QPSK       | 21.00              | 125.9 | 23.07          | 202.8 |
|                     |                 | 16QAM      | 20.00              | 100.0 | 22.03          | 159.6 |
| 5                   |                 | QPSK       | 21.00              | 125.9 | 23.18          | 208.0 |
|                     |                 | 16QAM      | 20.37              | 108.9 | 22.48          | 177.0 |
| 10                  |                 | QPSK       | 21.00              | 125.9 | 23.14          | 206.1 |
|                     |                 | 16QAM      | 19.83              | 96.2  | 21.98          | 157.8 |
| 15                  |                 | QPSK       | 21.00              | 125.9 | 23.11          | 204.6 |
|                     |                 | 16QAM      | 19.88              | 97.3  | 21.96          | 157.0 |
| 20                  |                 | QPSK       | 21.00              | 125.9 | 23.04          | 201.4 |
|                     |                 | 16QAM      | 19.87              | 97.1  | 21.89          | 154.5 |

# **LAT OUTPUT POWER FOR LTE BAND 26**

| Part 90 LTE Band 26 |                 |            |                     |       |               |      |                |       |
|---------------------|-----------------|------------|---------------------|-------|---------------|------|----------------|-------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted (Average) |       | ERP (Average) |      | EIRP (Average) |       |
|                     |                 |            | dBm                 | mW    | dBm           | mW   | dBm            | mW    |
| 3                   | 814 - 824       | QPSK       | 23.35               | 216.3 | 18.85         | 76.7 | 21.00          | 125.9 |
|                     |                 | 16QAM      | 22.53               | 179.1 | 17.93         | 62.1 | 20.08          | 101.9 |
| 5                   |                 | QPSK       | 23.50               | 223.9 | 19.00         | 79.4 | 21.15          | 130.3 |
|                     |                 | 16QAM      | 22.50               | 177.8 | 18.10         | 64.6 | 20.25          | 105.9 |
| 10                  |                 | QPSK       | 23.38               | 217.8 | 18.55         | 71.6 | 20.70          | 117.5 |
|                     |                 | 16QAM      | 22.50               | 177.8 | 17.97         | 62.7 | 20.12          | 102.8 |

# **UAT OUTPUT POWER FOR LTE BAND 26**

| Part 90 LTE Band 26 |                 |            |                     |       |               |      |                |      |
|---------------------|-----------------|------------|---------------------|-------|---------------|------|----------------|------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted (Average) |       | ERP (Average) |      | EIRP (Average) |      |
|                     |                 |            | dBm                 | mW    | dBm           | mW   | dBm            | mW   |
| 3                   | 814 - 824       | QPSK       | 23.17               | 207.5 | 16.72         | 47.0 | 18.87          | 77.1 |
|                     |                 | 16QAM      | 21.98               | 157.8 | 15.50         | 35.5 | 17.65          | 58.2 |
| 5                   |                 | QPSK       | 23.10               | 204.2 | 16.69         | 46.7 | 18.84          | 76.6 |
|                     |                 | 16QAM      | 22.29               | 169.4 | 15.86         | 38.5 | 18.01          | 63.2 |
| 10                  |                 | QPSK       | 23.36               | 216.8 | 16.97         | 49.8 | 19.12          | 81.7 |
|                     |                 | 16QAM      | 22.40               | 173.8 | 15.92         | 39.1 | 18.07          | 64.1 |

**LAT OUTPUT POWER FOR LTE BAND 41**

| Part 27 LTE Band 41 |                 |            |                  |       |             |        |
|---------------------|-----------------|------------|------------------|-------|-------------|--------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted (Peak) |       | EIRP (Peak) |        |
|                     |                 |            | dBm              | mW    | dBm         | mW     |
| 5                   | 2496 - 2690     | QPSK       | 28.13            | 650.1 | 31.65       | 1462.2 |
|                     |                 | 16QAM      | 27.80            | 602.6 | 31.28       | 1342.8 |
| 10                  |                 | QPSK       | 28.40            | 691.8 | 31.97       | 1574.0 |
|                     |                 | 16QAM      | 27.96            | 625.2 | 31.48       | 1406.0 |
| 15                  |                 | QPSK       | 28.43            | 696.6 | 32.00       | 1584.9 |
|                     |                 | 16QAM      | 27.97            | 626.6 | 31.55       | 1428.9 |
| 20                  |                 | QPSK       | 28.33            | 680.8 | 31.86       | 1534.6 |
|                     |                 | 16QAM      | 28.26            | 669.9 | 30.55       | 1135.0 |

**UAT OUTPUT POWER FOR LTE BAND 41**

| Part 27 LTE Band 41 |                 |            |                  |       |             |       |
|---------------------|-----------------|------------|------------------|-------|-------------|-------|
| Bandwidth (MHz)     | Frequency Range | Modulation | Conducted (Peak) |       | EIRP (Peak) |       |
|                     |                 |            | dBm              | mW    | dBm         | mW    |
| 5                   | 2496 - 2690     | QPSK       | 27.66            | 583.4 | 29.04       | 801.7 |
|                     |                 | 16QAM      | 27.33            | 540.8 | 28.82       | 762.1 |
| 10                  |                 | QPSK       | 28.02            | 633.9 | 29.58       | 907.8 |
|                     |                 | 16QAM      | 27.49            | 561.0 | 29.01       | 796.2 |
| 15                  |                 | QPSK       | 28.03            | 635.3 | 29.57       | 905.7 |
|                     |                 | 16QAM      | 27.71            | 590.2 | 29.28       | 847.2 |
| 20                  |                 | QPSK       | 28.28            | 673.0 | 29.84       | 963.8 |
|                     |                 | 16QAM      | 28.04            | 636.8 | 29.56       | 903.6 |

### 5.3. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was 12A310 Baseband 0.26.01.

The EUT is linked with Agilent 8960, Anritsu MT8820C, and CMW500 Communication Test Sets.

### 5.4. MAXIMUM ANTENNA GAIN

Please see table below:

| LTE BANDS                    | Antenna Gain (dBi) |
|------------------------------|--------------------|
| LTE Band 2, 1850 – 1910 MHz  | 2.9                |
| LTE Band 4, 1710 – 1755 MHz  | 2.7                |
| LTE Band 5, 824 – 849 MHz    | -2.3               |
| LTE Band 13, 777 – 787 MHz   | -1.8               |
| LTE Band 17, 704 – 716 MHz   | -4.7               |
| LTE Band 25, 1850 – 1915 MHz | 2.9                |
| LTE Band 26, 814 – 824 MHz   | -2.3               |
| LTE Band 41, 2496 – 2690 MHz | 3.6                |

| LTE BANDS                    | Antenna Gain (dBi) |
|------------------------------|--------------------|
| LTE Band 2, 1850 – 1910 MHz  | 2.2                |
| LTE Band 4, 1710 – 1755 MHz  | 1.6                |
| LTE Band 5, 824 – 849 MHz    | -3.8               |
| LTE Band 13, 777 – 787 MHz   | -6.6               |
| LTE Band 17, 704 – 716 MHz   | -4.9               |
| LTE Band 25, 1850 – 1915 MHz | 2.2                |
| LTE Band 26, 814 – 824 MHz   | -4.2               |
| LTE Band 41, 2496 – 2690 MHz | 1.6                |

## **5.5. WORST-CASE CONFIGURATION AND MODE**

The worst-case scenario for all measurements is based on the investigation results.

The device has LTE Bands of Band 2, Band 4, Band 5, Band 7, Band 13, Band 17, Band 25, Band 26, and Band 41.

The RB Size was selected to measure for peak or average ERP and EIRP, which was based on the conducted power verification baseline data.

For the fundamental investigation of radiated emissions, the EUT is investigated for vertical and horizontal antenna orientations and X Y and Z orientation with and without AC Adapter and headset and the worst case was determined to be at X (portrait) orientation for cell bands and pcs bands without AC Adapter and headset.

## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

| Support Equipment List |              |               |                   |
|------------------------|--------------|---------------|-------------------|
| Description            | Manufacturer | Model         | Serial Number     |
| AC Adapter             | Dell         | Latitude 3540 | NA                |
| DC Power Supply        | Dell         | H65NM130      | 426-03P6-A00      |
| EUT AC Adapter         | Apple        | A1385         | D292365COYADHLHC3 |

### I/O CABLES (RF Conducted Test)

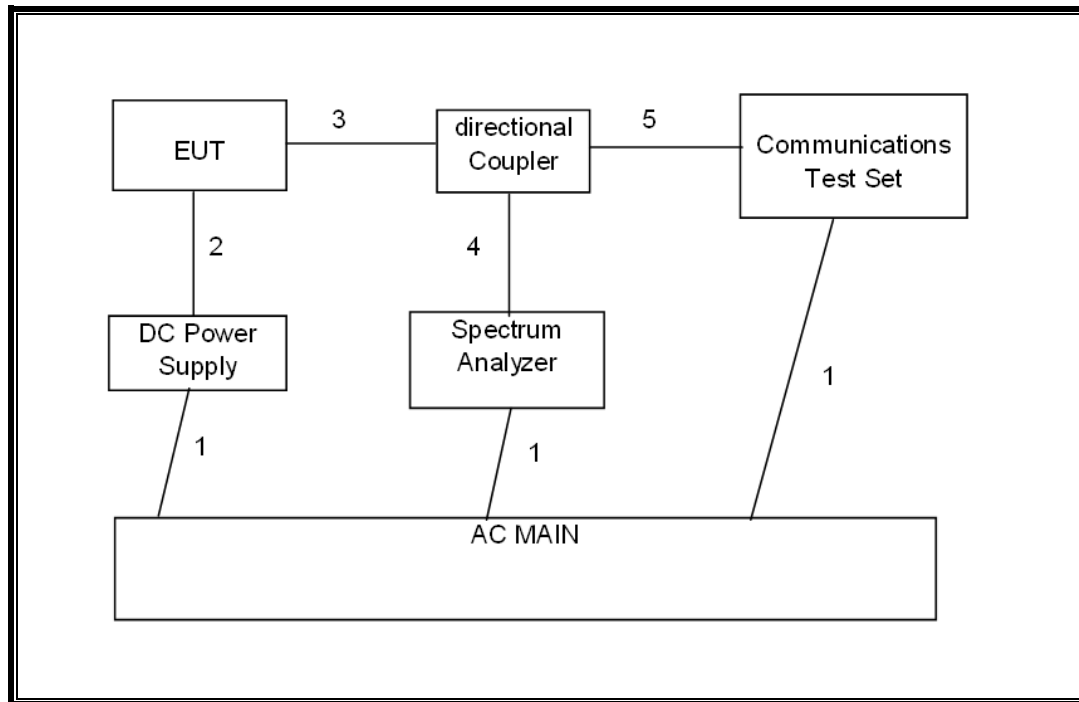
| I/O CABLE LIST |           |                      |                |             |              |         |
|----------------|-----------|----------------------|----------------|-------------|--------------|---------|
| Cable No.      | Port      | # of Identical Ports | Connector Type | Cable Type  | Cable Length | Remarks |
| 1              | AC        | 1                    | US 115V        | Un-shielded | 2m           | N/A     |
| 2              | DC        | 1                    | DC             | Un-shielded | 2m           | N/A     |
| 3              | RF In/Out | 1                    | EUT            | Un-shielded | 1m           | N/A     |
| 4              | RF In/Out | 1                    | Spectrum       | Un-shielded | 1m           | N/A     |
| 5              | RF In/Out | 1                    | Communicatio   | Un-shielded | None         | N/A     |

### I/O CABLES (RF Radiated Test)

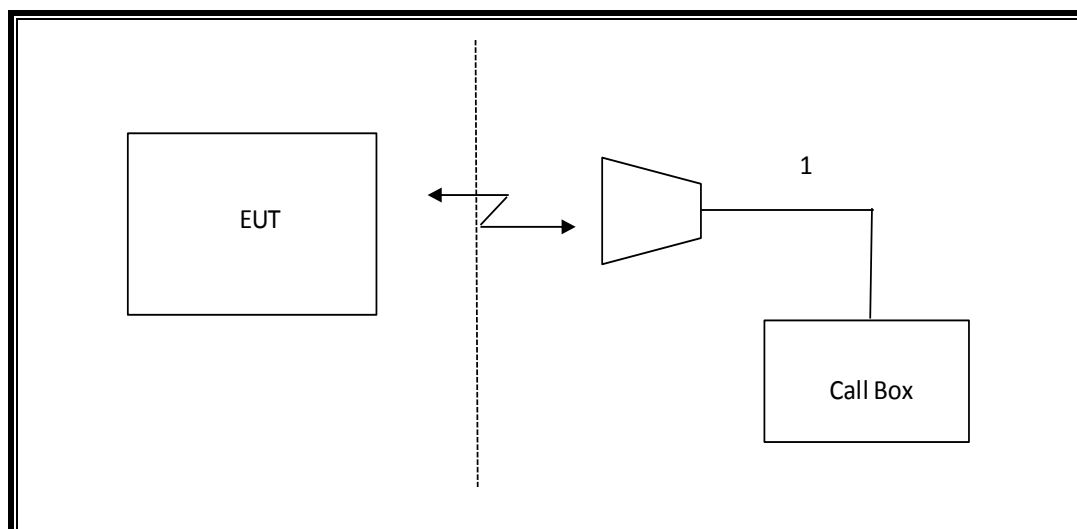
| I/O CABLE LIST |           |                      |                |             |              |         |
|----------------|-----------|----------------------|----------------|-------------|--------------|---------|
| Cable No.      | Port      | # of Identical Ports | Connector Type | Cable Type  | Cable Length | Remarks |
| 1              | RF In/Out | 1                    | Antenna        | Un-shielded | 5m           | NA      |

### TEST SETUP

**CONDUCTED SETUP DIAGRAM FOR TESTS**



**RADIATED SETUP DIAGRAM FOR TESTS**



## 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

| TEST EQUIPMENT LIST             |                |                        |        |          |
|---------------------------------|----------------|------------------------|--------|----------|
| Description                     | Manufacturer   | Model                  | Asset  | Cal Due  |
| Directional Coupler             | Krytar         | Directional Coupler    | Krytar | CNR      |
| 8960 series 10 wireless         | Agilent        | E5515E                 | F00362 | 09/11/14 |
| Spectrum Analyzer, PXA, 44GHz   | Agilent        | N9030A                 | None   | 05/17/15 |
| Wideband Radio Communication    | R & S          | CMW500                 | None   | 05/29/15 |
| Temperature / Humidity Chamber  | CSZ            | ZPHS-8-3.5-SCT/WC      | None   | 10/14/14 |
| Signal Generator, 100KHz - 6GHz | Agilent        | 8665B                  | F00124 | 03/12/15 |
| Antenna, Tuned Dipole 400~1000  | ETS Lindgren   | 3121C DB4              | C00993 | 01/23/15 |
| Highpass Filter, 2.7 GHz        | Micro-Tronics  | HPM13194               | N02686 | CNR      |
| Highpass Filter, 1.5 GHz        | Micro-Tronics  | HPM13193               | N02688 | CNR      |
| HighPass Filter 1GHz            | Micro-Tronics  | HPM18129               | None   | CNR      |
| Power Meter                     | Agilent        | N1911A                 | F00022 | 4/9/2015 |
| Power Sensor                    | Agilent        | E9323A                 | F00153 | 03/06/15 |
| Antenna, Horn 1-18GHz           | ETS Lindgren   | 3117                   | None   | 04/14/15 |
| Antenna, Horn, 18 GHz           | EMCO           | 3115                   | C00872 | 01/06/15 |
| Amplifier, 1 to 18GHz           | Miteq          | AMF-5D-01001800-40-20P | F00394 | 11/27/14 |
| Amplifier                       | Sonoma         | 310                    | F00008 | 05/28/15 |
| Antenna, Biconolog, 30MHz-1     | Sunol Sciences | JB3                    | F00027 | 05/05/15 |

## 7. RF POWER OUTPUT VERIFICATION

### LTE Measurement Procedure:

All LTE bands conducted power peak and average are obtained from the CMW500 telecommunication test set.

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3**

| Modulation | Channel bandwidth / Transmission bandwidth (RB) |         |       |        |        |        | MPR (dB) |
|------------|-------------------------------------------------|---------|-------|--------|--------|--------|----------|
|            | 1.4 MHz                                         | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz |          |
| QPSK       | > 5                                             | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 1      |
| 16 QAM     | ≤ 5                                             | ≤ 4     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 1      |
| 16 QAM     | > 5                                             | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 2      |

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS\_01".<sup>3</sup>

**Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)**

| Network Signalling value | Requirements (sub-clause) | E-UTRA Band              | Channel bandwidth (MHz) | Resources Blocks ( $N_{RB}$ ) | A-MPR (dB)    |
|--------------------------|---------------------------|--------------------------|-------------------------|-------------------------------|---------------|
| NS_01                    | 6.6.2.1.1                 | Table 5.5-1              | 1.4, 3, 5, 10, 15, 20   | Table 5.6-1                   | NA            |
| NS_03                    | 6.6.2.2.1                 | 2, 4, 10, 23, 25, 35, 36 | 3                       | >5                            | ≤ 1           |
|                          |                           |                          | 5                       | >6                            | ≤ 1           |
|                          |                           |                          | 10                      | >6                            | ≤ 1           |
|                          |                           |                          | 15                      | >8                            | ≤ 1           |
|                          |                           |                          | 20                      | >10                           | ≤ 1           |
| NS_04                    | 6.6.2.2.2                 | 41                       | 5                       | >6                            | ≤ 1           |
|                          |                           |                          | 10, 15, 20              | See Table 6.2.4-4             |               |
| NS_05                    | 6.6.3.3.1                 | 1                        | 10, 15, 20              | ≥ 50                          | ≤ 1           |
| NS_06                    | 6.6.2.2.3                 | 12, 13, 14, 17           | 1.4, 3, 5, 10           | Table 5.6-1                   | n/a           |
| NS_07                    | 6.6.2.2.3<br>6.6.3.3.2    | 13                       | 10                      | Table 6.2.4-2                 | Table 6.2.4-2 |
| NS_08                    | 6.6.3.3.3                 | 19                       | 10, 15                  | > 44                          | ≤ 3           |
| NS_09                    | 6.6.3.3.4                 | 21                       | 10, 15                  | > 40                          | ≤ 1           |
|                          |                           |                          |                         | > 55                          | ≤ 2           |
| NS_10                    |                           | 20                       | 15, 20                  | Table 6.2.4-3                 | Table 6.2.4-3 |
| NS_11                    | 6.6.2.2.1                 | 23 <sup>1</sup>          | 1.4, 3, 5, 10           | Table 6.2.4-5                 | Table 6.2.4-5 |
| ..                       |                           |                          |                         |                               |               |
| NS_32                    | -                         | -                        | -                       | -                             | -             |

Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.

## 7.1. LTE BAND 2

### LAT OUTPUT POWER FOR LTE BAND 2 (1.4MHZ)

| Bandwidth | UL Channel | Frequency | Modulation | RB<br>Size | RB<br>Offset | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------------|--------------|---------------------|------------------|
| 1.4       | 18607      | 1850.7    | QPSK       | 1          | 0            | 28.43               | 23.99            |
|           |            |           |            | 1          | 2            | 28.37               | 23.99            |
|           |            |           |            | 1          | 5            | 28.44               | 23.98            |
|           |            |           |            | 3          | 0            | 28.54               | 24.00            |
|           |            |           |            | 3          | 1            | 28.53               | 23.99            |
|           |            |           |            | 3          | 2            | 28.57               | 23.99            |
|           |            |           | 16QAM      | 6          | 0            | 28.37               | 23.20            |
|           |            |           |            | 1          | 0            | 28.40               | 23.01            |
|           |            |           |            | 1          | 2            | 28.37               | 23.01            |
|           |            |           |            | 1          | 5            | 28.47               | 23.04            |
|           |            |           |            | 3          | 0            | 28.49               | 23.02            |
|           |            |           |            | 3          | 1            | 28.46               | 23.00            |
|           |            |           |            | 3          | 2            | 28.53               | 23.01            |
|           |            |           |            | 6          | 0            | 28.41               | 22.18            |
| 1.4       | 18900      | 1880.0    | QPSK       | 1          | 0            | 28.86               | 23.98            |
|           |            |           |            | 1          | 2            | 28.57               | 23.88            |
|           |            |           |            | 1          | 5            | 28.90               | 23.99            |
|           |            |           |            | 3          | 0            | 29.02               | 23.99            |
|           |            |           |            | 3          | 1            | 28.95               | 23.98            |
|           |            |           |            | 3          | 2            | 28.96               | 23.99            |
|           |            |           | 16QAM      | 6          | 0            | 28.35               | 23.18            |
|           |            |           |            | 1          | 0            | 28.91               | 22.98            |
|           |            |           |            | 1          | 2            | 28.70               | 22.94            |
|           |            |           |            | 1          | 5            | 28.90               | 22.99            |
|           |            |           |            | 3          | 0            | 29.01               | 22.92            |
|           |            |           |            | 3          | 1            | 28.88               | 22.96            |
|           |            |           |            | 3          | 2            | 28.82               | 22.92            |
|           |            |           |            | 6          | 0            | 28.46               | 22.10            |
| 1.4       | 19193      | 1909.3    | QPSK       | 1          | 0            | 28.75               | 23.99            |
|           |            |           |            | 1          | 2            | 28.64               | 23.92            |
|           |            |           |            | 1          | 5            | 28.67               | 23.99            |
|           |            |           |            | 3          | 0            | 28.82               | 23.99            |
|           |            |           |            | 3          | 1            | 28.78               | 23.99            |
|           |            |           |            | 3          | 2            | 28.79               | 23.99            |
|           |            |           | 16QAM      | 6          | 0            | 28.37               | 23.10            |
|           |            |           |            | 1          | 0            | 28.75               | 22.97            |
|           |            |           |            | 1          | 2            | 28.68               | 22.97            |
|           |            |           |            | 1          | 5            | 28.70               | 23.00            |
|           |            |           |            | 3          | 0            | 28.80               | 22.94            |
|           |            |           |            | 3          | 1            | 28.79               | 22.98            |
|           |            |           |            | 3          | 2            | 28.78               | 22.96            |
|           |            |           |            | 6          | 0            | 28.46               | 22.14            |

**LAT OUTPUT POWER FOR LTE BAND 2 (3.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 3.0       | 18615      | 1851.5    | QPSK       | 1    | 0      | 28.38            | <b>23.97</b>  |
|           |            |           |            | 1    | 7      | 28.37            | 23.87         |
|           |            |           |            | 1    | 14     | 28.47            | 23.94         |
|           |            |           |            | 8    | 0      | 28.16            | 23.00         |
|           |            |           |            | 8    | 4      | 28.09            | 23.01         |
|           |            |           |            | 8    | 7      | 28.12            | 22.97         |
|           |            |           |            | 15   | 0      | 28.22            | 22.96         |
|           |            |           | 16QAM      | 1    | 0      | 28.30            | <b>22.91</b>  |
|           |            |           |            | 1    | 7      | 28.27            | 22.79         |
|           |            |           |            | 1    | 14     | 28.44            | 22.81         |
|           |            |           |            | 8    | 0      | 27.83            | 22.00         |
|           |            |           |            | 8    | 4      | 27.71            | 22.06         |
|           |            |           |            | 8    | 7      | 27.76            | 22.06         |
|           |            |           |            | 15   | 0      | 28.36            | 22.00         |
|           |            |           |            | 1    | 0      | 28.76            | 23.90         |
| 3.0       | 18900      | 1880.0    | QPSK       | 1    | 7      | 28.51            | 23.85         |
|           |            |           |            | 1    | 14     | <b>28.83</b>     | 23.95         |
|           |            |           |            | 8    | 0      | 28.16            | 23.00         |
|           |            |           |            | 8    | 4      | 27.94            | 22.97         |
|           |            |           |            | 8    | 7      | 28.05            | 22.99         |
|           |            |           |            | 15   | 0      | 28.35            | 22.92         |
|           |            |           | 16QAM      | 1    | 0      | 28.38            | 22.79         |
|           |            |           |            | 1    | 7      | 28.14            | 22.71         |
|           |            |           |            | 1    | 14     | 28.40            | 22.84         |
|           |            |           |            | 8    | 0      | 27.79            | 22.05         |
|           |            |           |            | 8    | 4      | 27.72            | 22.01         |
|           |            |           |            | 8    | 7      | 27.84            | 22.04         |
|           |            |           |            | 15   | 0      | 28.31            | 22.00         |
|           |            |           |            | 1    | 0      | 28.79            | 23.95         |
| 3.0       | 19185      | 1908.5    | QPSK       | 1    | 7      | 28.52            | 23.84         |
|           |            |           |            | 1    | 14     | 28.66            | 23.95         |
|           |            |           |            | 8    | 0      | 28.12            | 23.02         |
|           |            |           |            | 8    | 4      | 27.99            | 22.92         |
|           |            |           |            | 8    | 7      | 28.00            | 22.94         |
|           |            |           |            | 15   | 0      | 28.28            | 22.96         |
|           |            |           | 16QAM      | 1    | 0      | 28.38            | 22.82         |
|           |            |           |            | 1    | 7      | 28.20            | 22.72         |
|           |            |           |            | 1    | 14     | 28.42            | 22.78         |
|           |            |           |            | 8    | 0      | 27.76            | 22.03         |
|           |            |           |            | 8    | 4      | 27.68            | 22.00         |
|           |            |           |            | 8    | 7      | 27.84            | 22.05         |
|           |            |           |            | 15   | 0      | <b>28.51</b>     | 22.08         |

**LAT OUTPUT POWER FOR LTE BAND 2 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB<br>Size | RB<br>Offset | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------------|--------------|---------------------|------------------|
| 5.0       | 18625      | 1852.5    | QPSK       | 1          | 0            | 28.37               | <b>24.00</b>     |
|           |            |           |            | 1          | 12           | 28.40               | 23.97            |
|           |            |           |            | 1          | 24           | 28.57               | 23.99            |
|           |            |           |            | 12         | 0            | 28.17               | 23.00            |
|           |            |           |            | 12         | 6            | 28.11               | 23.03            |
|           |            |           |            | 12         | 11           | 28.11               | 22.99            |
|           |            |           |            | 25         | 0            | 28.50               | 23.01            |
|           |            |           | 16QAM      | 1          | 0            | 28.39               | <b>23.32</b>     |
|           |            |           |            | 1          | 12           | 28.45               | 23.26            |
|           |            |           |            | 1          | 24           | 28.60               | 23.28            |
|           |            |           |            | 12         | 0            | 28.08               | 22.10            |
|           |            |           |            | 12         | 6            | 27.86               | 21.91            |
|           |            |           |            | 12         | 11           | 27.93               | 21.88            |
|           |            |           |            | 25         | 0            | 28.59               | 21.98            |
| 5.0       | 18900      | 1880.0    | QPSK       | 1          | 0            | 28.61               | 23.86            |
|           |            |           |            | 1          | 12           | 28.46               | 23.87            |
|           |            |           |            | 1          | 24           | 28.64               | 23.93            |
|           |            |           |            | 12         | 0            | 28.19               | 23.05            |
|           |            |           |            | 12         | 6            | 27.95               | 22.93            |
|           |            |           |            | 12         | 11           | 28.03               | 22.95            |
|           |            |           |            | 25         | 0            | 28.64               | 22.96            |
|           |            |           | 16QAM      | 1          | 0            | 28.74               | 23.19            |
|           |            |           |            | 1          | 12           | 28.60               | 23.10            |
|           |            |           |            | 1          | 24           | 28.73               | 23.17            |
|           |            |           |            | 12         | 0            | 27.96               | 22.02            |
|           |            |           |            | 12         | 6            | 27.75               | 21.97            |
|           |            |           |            | 12         | 11           | 27.86               | 21.98            |
|           |            |           |            | 25         | 0            | <b>28.84</b>        | 22.16            |
| 5.0       | 19175      | 1907.5    | QPSK       | 1          | 0            | 28.70               | 23.99            |
|           |            |           |            | 1          | 12           | 28.62               | 23.97            |
|           |            |           |            | 1          | 24           | <b>28.71</b>        | 23.99            |
|           |            |           |            | 12         | 0            | 28.10               | 23.00            |
|           |            |           |            | 12         | 6            | 27.98               | 22.93            |
|           |            |           |            | 12         | 11           | 28.06               | 22.97            |
|           |            |           |            | 25         | 0            | 28.58               | 22.97            |
|           |            |           | 16QAM      | 1          | 0            | 28.43               | 23.16            |
|           |            |           |            | 1          | 12           | 28.42               | 23.22            |
|           |            |           |            | 1          | 24           | 28.59               | 23.27            |
|           |            |           |            | 12         | 0            | 27.98               | 22.01            |
|           |            |           |            | 12         | 6            | 27.88               | 21.85            |
|           |            |           |            | 12         | 11           | 27.94               | 21.87            |
|           |            |           |            | 25         | 0            | 28.72               | 21.98            |

**LAT OUTPUT POWER FOR LTE BAND 2 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------|--------|---------------------|------------------|
|           |            |           |            | Size | Offset |                     |                  |
| 10.0      | 18650      | 1855.0    | QPSK       | 1    | 0      | 28.45               | <b>23.97</b>     |
|           |            |           |            | 1    | 24     | 28.50               | 23.86            |
|           |            |           |            | 1    | 49     | 28.63               | 23.85            |
|           |            |           |            | 25   | 0      | 28.20               | 23.00            |
|           |            |           |            | 25   | 12     | 28.25               | 22.96            |
|           |            |           |            | 25   | 24     | 28.25               | 22.92            |
|           |            |           |            | 50   | 0      | <b>28.86</b>        | 23.01            |
|           |            |           | 16QAM      | 1    | 0      | 28.44               | 23.13            |
|           |            |           |            | 1    | 24     | 28.53               | 23.13            |
|           |            |           |            | 1    | 49     | 28.66               | 23.07            |
|           |            |           |            | 25   | 0      | 28.20               | 22.13            |
|           |            |           |            | 25   | 12     | 28.16               | 22.10            |
|           |            |           |            | 25   | 24     | 28.19               | 22.08            |
|           |            |           |            | 50   | 0      | 28.79               | 22.02            |
| 10.0      | 18900      | 1880.0    | QPSK       | 1    | 0      | 28.64               | 23.88            |
|           |            |           |            | 1    | 24     | 28.53               | 23.88            |
|           |            |           |            | 1    | 49     | 28.60               | 23.89            |
|           |            |           |            | 25   | 0      | 28.14               | 23.04            |
|           |            |           |            | 25   | 12     | 28.04               | 23.01            |
|           |            |           |            | 25   | 24     | 28.19               | 22.99            |
|           |            |           |            | 50   | 0      | 28.29               | 23.01            |
|           |            |           | 16QAM      | 1    | 0      | 28.74               | <b>23.14</b>     |
|           |            |           |            | 1    | 24     | 28.61               | 23.11            |
|           |            |           |            | 1    | 49     | 28.58               | 23.06            |
|           |            |           |            | 25   | 0      | 28.09               | 22.07            |
|           |            |           |            | 25   | 12     | 28.06               | 22.12            |
|           |            |           |            | 25   | 24     | 28.11               | 22.13            |
|           |            |           |            | 50   | 0      | <b>28.91</b>        | 22.03            |
| 10.0      | 19150      | 1905.0    | QPSK       | 1    | 0      | 28.49               | 23.82            |
|           |            |           |            | 1    | 24     | 28.43               | 23.79            |
|           |            |           |            | 1    | 49     | 28.62               | 23.91            |
|           |            |           |            | 25   | 0      | 28.16               | 23.00            |
|           |            |           |            | 25   | 12     | 27.94               | 22.92            |
|           |            |           |            | 25   | 24     | 28.31               | 23.04            |
|           |            |           |            | 50   | 0      | 28.55               | 22.90            |
|           |            |           | 16QAM      | 1    | 0      | 28.56               | 23.07            |
|           |            |           |            | 1    | 24     | 28.48               | 23.00            |
|           |            |           |            | 1    | 49     | 28.65               | 23.13            |
|           |            |           |            | 25   | 0      | 28.06               | 22.08            |
|           |            |           |            | 25   | 12     | 27.95               | 22.02            |
|           |            |           |            | 25   | 24     | 28.08               | 22.11            |
|           |            |           |            | 50   | 0      | 28.55               | 21.99            |

**LAT OUTPUT POWER FOR LTE BAND 2 (15.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 15.0      | 18675      | 1857.5    | QPSK       | 1    | 0      | 28.67            | 23.87         |
|           |            |           |            | 1    | 37     | 28.63            | 23.94         |
|           |            |           |            | 1    | 74     | 28.71            | <b>24.00</b>  |
|           |            |           |            | 36   | 0      | 28.19            | 23.00         |
|           |            |           |            | 36   | 16     | 27.95            | 22.92         |
|           |            |           |            | 36   | 35     | 28.06            | 22.97         |
|           |            |           |            | 75   | 0      | 28.70            | 22.95         |
|           |            |           | 16-QAM     | 1    | 0      | 28.51            | 22.95         |
|           |            |           |            | 1    | 37     | 28.33            | 22.91         |
|           |            |           |            | 1    | 74     | 28.47            | 22.97         |
|           |            |           |            | 36   | 0      | 28.20            | 22.00         |
|           |            |           |            | 36   | 16     | 27.90            | 21.98         |
|           |            |           |            | 36   | 35     | 27.93            | 21.93         |
|           |            |           |            | 75   | 0      | 28.58            | 22.09         |
| 15.0      | 18900      | 1880.0    | QPSK       | 1    | 0      | 28.41            | 24.00         |
|           |            |           |            | 1    | 37     | 28.72            | 23.95         |
|           |            |           |            | 1    | 74     | 28.80            | 23.92         |
|           |            |           |            | 36   | 0      | 28.36            | 23.20         |
|           |            |           |            | 36   | 16     | 28.23            | 23.10         |
|           |            |           |            | 36   | 35     | 28.29            | 23.03         |
|           |            |           |            | 75   | 0      | 28.82            | 23.06         |
|           |            |           | 16-QAM     | 1    | 0      | 28.41            | <b>23.01</b>  |
|           |            |           |            | 1    | 37     | 28.46            | 22.92         |
|           |            |           |            | 1    | 74     | 28.51            | 22.89         |
|           |            |           |            | 36   | 0      | 28.25            | 22.10         |
|           |            |           |            | 36   | 16     | 28.04            | 22.03         |
|           |            |           |            | 36   | 35     | 28.23            | 22.05         |
|           |            |           |            | 75   | 0      | 28.66            | 22.19         |
| 15.0      | 19125      | 1902.5    | QPSK       | 1    | 0      | 28.79            | 23.95         |
|           |            |           |            | 1    | 37     | 28.61            | 23.92         |
|           |            |           |            | 1    | 74     | 28.72            | 23.97         |
|           |            |           |            | 36   | 0      | 28.37            | 23.10         |
|           |            |           |            | 36   | 16     | 28.08            | 23.05         |
|           |            |           |            | 36   | 35     | 28.25            | 23.16         |
|           |            |           |            | 75   | 0      | <b>28.84</b>     | 23.08         |
|           |            |           | 16-QAM     | 1    | 0      | 28.57            | 22.98         |
|           |            |           |            | 1    | 37     | 28.39            | 22.96         |
|           |            |           |            | 1    | 74     | 28.45            | 22.97         |
|           |            |           |            | 36   | 0      | 28.24            | 22.08         |
|           |            |           |            | 36   | 16     | 27.94            | 22.02         |
|           |            |           |            | 36   | 35     | 28.09            | 22.10         |
|           |            |           |            | 75   | 0      | <b>28.67</b>     | 22.17         |

**LAT OUTPUT POWER FOR LTE BAND 2 (20.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 20.0      | 18700      | 1860.0    | QPSK       | 1    | 0      | 28.33            | 23.95         |
|           |            |           |            | 1    | 49     | 28.66            | 23.90         |
|           |            |           |            | 1    | 99     | 28.91            | 24.00         |
|           |            |           |            | 50   | 0      | 28.35            | 22.98         |
|           |            |           |            | 50   | 24     | 28.16            | 22.94         |
|           |            |           |            | 50   | 49     | 28.51            | 22.95         |
|           |            |           |            | 100  | 0      | 28.38            | 22.87         |
|           |            |           | 16-QAM     | 1    | 0      | 28.32            | 22.95         |
|           |            |           |            | 1    | 49     | 28.38            | 22.85         |
|           |            |           |            | 1    | 99     | 28.74            | 22.95         |
|           |            |           |            | 50   | 0      | 28.41            | 21.89         |
|           |            |           |            | 50   | 24     | 28.20            | 21.85         |
|           |            |           |            | 50   | 49     | 28.51            | 21.96         |
|           |            |           |            | 100  | 0      | 28.75            | 22.00         |
| 20.0      | 18900      | 1880.0    | QPSK       | 1    | 0      | 28.84            | 23.89         |
|           |            |           |            | 1    | 49     | 28.63            | 23.96         |
|           |            |           |            | 1    | 99     | 28.82            | 23.99         |
|           |            |           |            | 50   | 0      | 28.44            | 22.90         |
|           |            |           |            | 50   | 24     | 28.20            | 22.93         |
|           |            |           |            | 50   | 49     | 28.29            | 22.88         |
|           |            |           |            | 100  | 0      | 28.90            | 22.98         |
|           |            |           | 16-QAM     | 1    | 0      | 28.65            | 23.00         |
|           |            |           |            | 1    | 49     | 28.29            | 22.85         |
|           |            |           |            | 1    | 99     | 28.50            | 22.92         |
|           |            |           |            | 50   | 0      | 28.33            | 21.85         |
|           |            |           |            | 50   | 24     | 28.10            | 21.93         |
|           |            |           |            | 50   | 49     | 28.28            | 21.99         |
|           |            |           |            | 100  | 0      | 28.54            | 21.86         |
| 20.0      | 19100      | 1900.0    | QPSK       | 1    | 0      | 28.62            | 23.80         |
|           |            |           |            | 1    | 49     | 28.58            | 23.90         |
|           |            |           |            | 1    | 99     | 28.69            | 23.99         |
|           |            |           |            | 50   | 0      | 28.29            | 22.92         |
|           |            |           |            | 50   | 24     | 28.17            | 22.98         |
|           |            |           |            | 50   | 49     | 28.19            | 22.98         |
|           |            |           |            | 100  | 0      | 28.76            | 22.88         |
|           |            |           | 16-QAM     | 1    | 0      | 28.41            | 22.95         |
|           |            |           |            | 1    | 49     | 28.34            | 22.89         |
|           |            |           |            | 1    | 99     | 28.56            | 22.97         |
|           |            |           |            | 50   | 0      | 28.31            | 21.83         |
|           |            |           |            | 50   | 24     | 28.10            | 21.79         |
|           |            |           |            | 50   | 49     | 28.28            | 21.88         |
|           |            |           |            | 100  | 0      | 28.52            | 21.86         |

**UAT OUTPUT POWER FOR LTE BAND 2 (1.4MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------|--------|---------------------|------------------|
|           |            |           |            | Size | Offset |                     |                  |
| 1.4       | 18607      | 1850.7    | QPSK       | 1    | 0      | 25.59               | 20.76            |
|           |            |           |            | 1    | 2      | 25.56               | 20.74            |
|           |            |           |            | 1    | 5      | 25.59               | 20.78            |
|           |            |           |            | 3    | 0      | 25.72               | 20.80            |
|           |            |           |            | 3    | 1      | 25.71               | 20.76            |
|           |            |           |            | 3    | 2      | 25.71               | 20.75            |
|           |            |           | 16QAM      | 6    | 0      | 25.29               | 19.83            |
|           |            |           |            | 1    | 0      | 25.56               | 19.81            |
|           |            |           |            | 1    | 2      | 25.56               | 19.79            |
|           |            |           |            | 1    | 5      | 25.60               | 19.85            |
|           |            |           |            | 3    | 0      | 25.66               | 19.82            |
|           |            |           |            | 3    | 1      | 25.66               | 19.82            |
|           |            |           |            | 3    | 2      | 25.68               | 19.84            |
|           |            |           |            | 6    | 0      | 25.45               | 18.95            |
| 1.4       | 18900      | 1880.0    | QPSK       | 1    | 0      | 25.88               | 20.75            |
|           |            |           |            | 1    | 2      | 25.62               | 20.68            |
|           |            |           |            | 1    | 5      | 25.86               | 20.73            |
|           |            |           |            | 3    | 0      | <b>26.12</b>        | 20.79            |
|           |            |           |            | 3    | 1      | 26.04               | 20.79            |
|           |            |           |            | 3    | 2      | 26.04               | 20.80            |
|           |            |           | 16QAM      | 6    | 0      | 25.34               | 19.86            |
|           |            |           |            | 1    | 0      | 25.95               | <b>19.93</b>     |
|           |            |           |            | 1    | 2      | 25.73               | 19.89            |
|           |            |           |            | 1    | 5      | 25.90               | 19.91            |
|           |            |           |            | 3    | 0      | <b>26.08</b>        | 19.89            |
|           |            |           |            | 3    | 1      | 25.93               | 19.92            |
|           |            |           |            | 3    | 2      | 25.92               | 19.91            |
|           |            |           |            | 6    | 0      | 25.49               | 19.06            |
| 1.4       | 19193      | 1909.3    | QPSK       | 1    | 0      | 25.39               | 20.79            |
|           |            |           |            | 1    | 2      | 25.29               | 20.71            |
|           |            |           |            | 1    | 5      | 25.29               | 20.78            |
|           |            |           |            | 3    | 0      | 25.49               | <b>20.80</b>     |
|           |            |           |            | 3    | 1      | 25.45               | 20.79            |
|           |            |           |            | 3    | 2      | 25.45               | 20.79            |
|           |            |           | 16QAM      | 6    | 0      | 25.24               | 19.94            |
|           |            |           |            | 1    | 0      | 25.39               | 19.93            |
|           |            |           |            | 1    | 2      | 25.29               | 19.90            |
|           |            |           |            | 1    | 5      | 25.32               | 19.93            |
|           |            |           |            | 3    | 0      | 25.44               | 19.88            |
|           |            |           |            | 3    | 1      | 25.41               | 19.93            |
|           |            |           |            | 3    | 2      | 25.42               | 19.93            |
|           |            |           |            | 6    | 0      | 25.33               | 19.11            |

**UAT OUTPUT POWER FOR LTE BAND 2 (3.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------|--------|---------------------|------------------|
|           |            |           |            | Size | Offset |                     |                  |
| 3.0       | 18615      | 1851.5    | QPSK       | 1    | 0      | 25.58               | 20.70            |
|           |            |           |            | 1    | 7      | 25.46               | 20.61            |
|           |            |           |            | 1    | 14     | 25.68               | 20.70            |
|           |            |           |            | 8    | 0      | 25.11               | 19.80            |
|           |            |           |            | 8    | 4      | 24.97               | 19.78            |
|           |            |           |            | 8    | 7      | 25.01               | 19.79            |
|           |            |           |            | 15   | 0      | 25.30               | 19.79            |
|           |            |           | 16QAM      | 1    | 0      | 25.39               | 19.68            |
|           |            |           |            | 1    | 7      | 25.12               | 19.54            |
|           |            |           |            | 1    | 14     | 25.25               | 19.56            |
|           |            |           |            | 8    | 0      | 24.76               | 18.89            |
|           |            |           |            | 8    | 4      | 24.73               | 18.83            |
|           |            |           |            | 8    | 7      | 24.79               | 18.84            |
|           |            |           |            | 15   | 0      | 25.24               | 18.89            |
| 3.0       | 18900      | 1880.0    | QPSK       | 1    | 0      | <b>25.87</b>        | <b>20.86</b>     |
|           |            |           |            | 1    | 7      | 25.60               | 20.78            |
|           |            |           |            | 1    | 14     | 25.86               | 20.83            |
|           |            |           |            | 8    | 0      | 25.17               | 19.91            |
|           |            |           |            | 8    | 4      | 25.06               | 19.98            |
|           |            |           |            | 8    | 7      | 25.11               | 19.90            |
|           |            |           |            | 15   | 0      | 25.24               | 19.94            |
|           |            |           | 16QAM      | 1    | 0      | <b>25.44</b>        | <b>19.75</b>     |
|           |            |           |            | 1    | 7      | 25.20               | 19.67            |
|           |            |           |            | 1    | 14     | 25.42               | 19.75            |
|           |            |           |            | 8    | 0      | 24.84               | 18.99            |
|           |            |           |            | 8    | 4      | 24.78               | 18.96            |
|           |            |           |            | 8    | 7      | 24.93               | 19.02            |
|           |            |           |            | 15   | 0      | 25.10               | 18.95            |
| 3.0       | 19185      | 1908.5    | QPSK       | 1    | 0      | 25.61               | 20.82            |
|           |            |           |            | 1    | 7      | 25.32               | 20.79            |
|           |            |           |            | 1    | 14     | 25.26               | 20.81            |
|           |            |           |            | 8    | 0      | 25.09               | 19.94            |
|           |            |           |            | 8    | 4      | 24.87               | 19.92            |
|           |            |           |            | 8    | 7      | 25.04               | 19.91            |
|           |            |           |            | 15   | 0      | 25.11               | 19.93            |
|           |            |           | 16QAM      | 1    | 0      | 25.24               | 19.71            |
|           |            |           |            | 1    | 7      | 25.08               | 19.67            |
|           |            |           |            | 1    | 14     | 25.24               | 19.69            |
|           |            |           |            | 8    | 0      | 24.78               | 18.99            |
|           |            |           |            | 8    | 4      | 24.67               | 18.95            |
|           |            |           |            | 8    | 7      | 24.80               | 18.96            |
|           |            |           |            | 15   | 0      | 25.24               | 18.98            |

**UAT OUTPUT POWER FOR LTE BAND 2 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------|--------|---------------------|------------------|
|           |            |           |            | Size | Offset |                     |                  |
| 5.0       | 18625      | 1852.5    | QPSK       | 1    | 0      | 25.40               | 20.23            |
|           |            |           |            | 1    | 12     | 25.60               | 20.71            |
|           |            |           |            | 1    | 24     | 25.54               | 20.69            |
|           |            |           |            | 12   | 0      | 25.62               | 20.00            |
|           |            |           |            | 12   | 6      | 25.25               | 19.82            |
|           |            |           |            | 12   | 11     | 25.10               | 19.77            |
|           |            |           | 16QAM      | 25   | 0      | 25.23               | 19.76            |
|           |            |           |            | 1    | 0      | 25.31               | 19.22            |
|           |            |           |            | 1    | 12     | 25.67               | 19.80            |
|           |            |           |            | 1    | 24     | 25.62               | 19.93            |
|           |            |           |            | 12   | 0      | 25.66               | 19.00            |
|           |            |           |            | 12   | 6      | 25.07               | 18.98            |
|           |            |           |            | 12   | 11     | 24.98               | 18.74            |
|           |            |           |            | 25   | 0      | 25.14               | 18.68            |
| 5.0       | 18900      | 1880.0    | QPSK       | 1    | 0      | 25.64               | 19.97            |
|           |            |           |            | 1    | 12     | 25.69               | 20.79            |
|           |            |           |            | 1    | 24     | 25.47               | 20.80            |
|           |            |           |            | 12   | 0      | 25.56               | 20.00            |
|           |            |           |            | 12   | 6      | 25.09               | 19.89            |
|           |            |           |            | 12   | 11     | 25.31               | 19.57            |
|           |            |           | 16QAM      | 25   | 0      | 25.11               | 19.68            |
|           |            |           |            | 1    | 0      | 25.71               | 18.96            |
|           |            |           |            | 1    | 12     | 25.65               | 19.83            |
|           |            |           |            | 1    | 24     | 25.45               | 19.80            |
|           |            |           |            | 12   | 0      | 25.48               | 19.00            |
|           |            |           |            | 12   | 6      | 24.67               | 18.95            |
|           |            |           |            | 12   | 11     | 24.86               | 18.36            |
|           |            |           |            | 25   | 0      | 24.93               | 18.83            |
| 5.0       | 19175      | 1907.5    | QPSK       | 1    | 0      | 25.47               | 20.11            |
|           |            |           |            | 1    | 12     | 25.42               | 20.65            |
|           |            |           |            | 1    | 24     | 25.34               | 20.77            |
|           |            |           |            | 12   | 0      | 25.16               | 19.80            |
|           |            |           |            | 12   | 6      | 24.93               | 19.76            |
|           |            |           |            | 12   | 11     | 25.17               | 19.49            |
|           |            |           | 16QAM      | 25   | 0      | 24.97               | 19.65            |
|           |            |           |            | 1    | 0      | 25.42               | 18.91            |
|           |            |           |            | 1    | 12     | 25.49               | 19.80            |
|           |            |           |            | 1    | 24     | 25.37               | 19.78            |
|           |            |           |            | 12   | 0      | 25.13               | 19.00            |
|           |            |           |            | 12   | 6      | 24.54               | 18.86            |
|           |            |           |            | 12   | 11     | 24.81               | 18.78            |
|           |            |           |            | 25   | 0      | 24.85               | 18.86            |

**UAT OUTPUT POWER FOR LTE BAND 2 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------|--------|---------------------|------------------|
|           |            |           |            | Size | Offset |                     |                  |
| 10.0      | 18650      | 1855.0    | QPSK       | 1    | 0      | <b>25.76</b>        | 20.62            |
|           |            |           |            | 1    | 24     | 25.72               | 20.57            |
|           |            |           |            | 1    | 49     | 25.67               | 20.58            |
|           |            |           |            | 25   | 0      | 25.57               | 19.50            |
|           |            |           |            | 25   | 12     | 25.60               | 19.47            |
|           |            |           |            | 25   | 24     | 25.50               | 19.39            |
|           |            |           |            | 50   | 0      | 25.50               | 19.42            |
|           |            |           | 16QAM      | 1    | 0      | 25.12               | 19.52            |
|           |            |           |            | 1    | 24     | 25.17               | 19.36            |
|           |            |           |            | 1    | 49     | 25.22               | 19.35            |
|           |            |           |            | 25   | 0      | <b>25.32</b>        | 18.40            |
|           |            |           |            | 25   | 12     | 25.28               | 18.38            |
|           |            |           |            | 25   | 24     | 24.87               | 18.29            |
|           |            |           |            | 50   | 0      | 24.82               | 18.35            |
| 10.0      | 18900      | 1880.0    | QPSK       | 1    | 0      | 25.84               | <b>20.72</b>     |
|           |            |           |            | 1    | 24     | 25.78               | 20.69            |
|           |            |           |            | 1    | 49     | 25.45               | 20.61            |
|           |            |           |            | 25   | 0      | 25.60               | 19.60            |
|           |            |           |            | 25   | 12     | 25.59               | 19.56            |
|           |            |           |            | 25   | 24     | 25.80               | 19.53            |
|           |            |           |            | 50   | 0      | <b>25.90</b>        | 19.62            |
|           |            |           | 16QAM      | 1    | 0      | <b>25.11</b>        | 19.42            |
|           |            |           |            | 1    | 24     | 25.25               | 19.28            |
|           |            |           |            | 1    | 49     | 25.00               | <b>19.67</b>     |
|           |            |           |            | 25   | 0      | 24.90               | 18.50            |
|           |            |           |            | 25   | 12     | 24.86               | 18.49            |
|           |            |           |            | 25   | 24     | 24.80               | 18.56            |
|           |            |           |            | 50   | 0      | 25.00               | 18.57            |
| 10.0      | 19150      | 1905.0    | QPSK       | 1    | 0      | 25.55               | 20.46            |
|           |            |           |            | 1    | 24     | 25.47               | 20.50            |
|           |            |           |            | 1    | 49     | 25.50               | 20.36            |
|           |            |           |            | 25   | 0      | 25.45               | 19.70            |
|           |            |           |            | 25   | 12     | 25.34               | 19.68            |
|           |            |           |            | 25   | 24     | 25.47               | 19.70            |
|           |            |           |            | 50   | 0      | 25.50               | 19.69            |
|           |            |           | 16QAM      | 1    | 0      | 25.10               | 19.34            |
|           |            |           |            | 1    | 24     | 25.06               | 19.20            |
|           |            |           |            | 1    | 49     | 25.10               | 19.54            |
|           |            |           |            | 25   | 0      | 25.14               | 19.30            |
|           |            |           |            | 25   | 12     | 25.11               | 19.15            |
|           |            |           |            | 25   | 24     | 25.00               | 18.91            |
|           |            |           |            | 50   | 0      | 25.20               | 19.00            |

**UAT OUTPUT POWER FOR LTE BAND 2 (15.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 15.0      | 18675      | 1857.5    | QPSK       | 1    | 0      | 25.23            | 20.58         |
|           |            |           |            | 1    | 37     | 25.56            | 20.55         |
|           |            |           |            | 1    | 74     | 25.43            | 20.63         |
|           |            |           |            | 36   | 0      | 25.48            | 20.30         |
|           |            |           |            | 36   | 16     | 25.35            | 20.21         |
|           |            |           |            | 36   | 35     | 25.26            | 20.23         |
|           |            |           |            | 75   | 0      | 25.24            | 20.19         |
|           |            |           | 16-QAM     | 1    | 0      | 25.18            | 19.88         |
|           |            |           |            | 1    | 37     | 25.45            | 19.80         |
|           |            |           |            | 1    | 74     | 25.56            | 19.70         |
|           |            |           |            | 36   | 0      | 25.57            | 19.40         |
|           |            |           |            | 36   | 16     | 25.00            | 19.35         |
|           |            |           |            | 36   | 35     | 25.14            | 19.28         |
|           |            |           |            | 75   | 0      | 25.20            | 19.24         |
| 15.0      | 18900      | 1880.0    | QPSK       | 1    | 0      | 25.59            | 20.50         |
|           |            |           |            | 1    | 37     | 25.73            | 20.68         |
|           |            |           |            | 1    | 74     | 25.71            | 20.67         |
|           |            |           |            | 36   | 0      | 25.64            | 20.40         |
|           |            |           |            | 36   | 16     | 24.98            | 20.30         |
|           |            |           |            | 36   | 35     | 25.12            | 20.04         |
|           |            |           |            | 75   | 0      | 25.55            | 20.06         |
|           |            |           | 16-QAM     | 1    | 0      | 25.85            | 19.65         |
|           |            |           |            | 1    | 37     | 25.46            | 19.80         |
|           |            |           |            | 1    | 74     | 25.53            | 19.79         |
|           |            |           |            | 36   | 0      | 25.36            | 19.57         |
|           |            |           |            | 36   | 16     | 25.47            | 19.45         |
|           |            |           |            | 36   | 35     | 25.44            | 18.78         |
|           |            |           |            | 75   | 0      | 25.50            | 19.22         |
| 15.0      | 19125      | 1902.5    | QPSK       | 1    | 0      | 25.68            | 20.53         |
|           |            |           |            | 1    | 37     | 25.61            | 20.72         |
|           |            |           |            | 1    | 74     | 25.35            | 20.70         |
|           |            |           |            | 36   | 0      | 24.99            | 20.00         |
|           |            |           |            | 36   | 16     | 24.92            | 19.96         |
|           |            |           |            | 36   | 35     | 24.78            | 19.64         |
|           |            |           |            | 75   | 0      | 24.61            | 19.85         |
|           |            |           | 16-QAM     | 1    | 0      | 25.65            | 19.62         |
|           |            |           |            | 1    | 37     | 25.46            | 19.81         |
|           |            |           |            | 1    | 74     | 25.34            | 19.78         |
|           |            |           |            | 36   | 0      | 24.89            | 18.60         |
|           |            |           |            | 36   | 16     | 24.67            | 18.59         |
|           |            |           |            | 36   | 35     | 24.70            | 18.67         |
|           |            |           |            | 75   | 0      | 24.53            | 18.72         |

**UAT OUTPUT POWER FOR LTE BAND 2 (20.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------|--------|---------------------|------------------|
|           |            |           |            | Size | Offset |                     |                  |
| 20.0      | 18700      | 1860.0    | QPSK       | 1    | 0      | 27.93               | 20.40            |
|           |            |           |            | 1    | 49     | 27.68               | 20.35            |
|           |            |           |            | 1    | 99     | 28.17               | 20.36            |
|           |            |           |            | 50   | 0      | 27.43               | 19.75            |
|           |            |           |            | 50   | 24     | 27.43               | 19.70            |
|           |            |           |            | 50   | 49     | 27.48               | 19.71            |
|           |            |           |            | 100  | 0      | 27.98               | 19.69            |
|           |            |           | 16-QAM     | 1    | 0      | 27.56               | 19.54            |
|           |            |           |            | 1    | 49     | 26.17               | 19.62            |
|           |            |           |            | 1    | 99     | 27.75               | 19.61            |
|           |            |           |            | 50   | 0      | 27.11               | 18.75            |
|           |            |           |            | 50   | 24     | 27.13               | 18.60            |
|           |            |           |            | 50   | 49     | 27.30               | 18.64            |
|           |            |           |            | 100  | 0      | 27.48               | 18.54            |
| 20.0      | 18900      | 1880.0    | QPSK       | 1    | 0      | 28.16               | 20.34            |
|           |            |           |            | 1    | 49     | 27.95               | 20.57            |
|           |            |           |            | 1    | 99     | 28.02               | 20.36            |
|           |            |           |            | 50   | 0      | 27.65               | 19.75            |
|           |            |           |            | 50   | 24     | 27.48               | 19.34            |
|           |            |           |            | 50   | 49     | 27.59               | 19.25            |
|           |            |           |            | 100  | 0      | 28.10               | 19.37            |
|           |            |           | 16-QAM     | 1    | 0      | 27.75               | 19.44            |
|           |            |           |            | 1    | 49     | 26.67               | 19.70            |
|           |            |           |            | 1    | 99     | 26.51               | 19.67            |
|           |            |           |            | 50   | 0      | 27.50               | 18.75            |
|           |            |           |            | 50   | 24     | 27.36               | 18.36            |
|           |            |           |            | 50   | 49     | 27.45               | 18.28            |
|           |            |           |            | 100  | 0      | 27.67               | 18.37            |
| 20.0      | 19100      | 1900.0    | QPSK       | 1    | 0      | 27.80               | 20.40            |
|           |            |           |            | 1    | 49     | 26.54               | 20.41            |
|           |            |           |            | 1    | 99     | 27.92               | 20.36            |
|           |            |           |            | 50   | 0      | 27.49               | 19.75            |
|           |            |           |            | 50   | 24     | 27.31               | 19.62            |
|           |            |           |            | 50   | 49     | 27.38               | 19.70            |
|           |            |           |            | 100  | 0      | 28.29               | 19.45            |
|           |            |           | 16-QAM     | 1    | 0      | 27.10               | 19.57            |
|           |            |           |            | 1    | 49     | 26.56               | 19.54            |
|           |            |           |            | 1    | 99     | 27.62               | 19.71            |
|           |            |           |            | 50   | 0      | 27.31               | 18.68            |
|           |            |           |            | 50   | 24     | 27.20               | 18.75            |
|           |            |           |            | 50   | 49     | 27.36               | 18.74            |
|           |            |           |            | 100  | 0      | 27.72               | 18.75            |

## 7.2. LTE BAND 4

### LAT OUTPUT POWER FOR LTE BAND 4 (1.4MHZ)

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 1.4       | 19957      | 1710.7    | QPSK       | 1    | 0      | 28.70            | 23.95         |
|           |            |           |            | 1    | 2      | 28.57            | 23.93         |
|           |            |           |            | 1    | 5      | 28.61            | 23.94         |
|           |            |           |            | 3    | 0      | 28.80            | 24.00         |
|           |            |           |            | 3    | 1      | 28.73            | 23.99         |
|           |            |           |            | 3    | 2      | 28.71            | 23.98         |
|           |            |           |            | 6    | 0      | 28.60            | 23.00         |
|           |            |           |            | 1    | 0      | 28.69            | 23.34         |
|           |            |           | 16QAM      | 1    | 2      | 28.57            | 23.31         |
|           |            |           |            | 1    | 5      | 28.65            | 23.29         |
|           |            |           |            | 3    | 0      | 28.83            | 23.26         |
|           |            |           |            | 3    | 1      | 28.79            | 23.21         |
|           |            |           |            | 3    | 2      | 28.78            | 23.21         |
|           |            |           |            | 6    | 0      | 28.32            | 22.69         |
| 1.4       | 20175      | 1732.5    | QPSK       | 1    | 0      | 28.94            | 23.93         |
|           |            |           |            | 1    | 2      | 28.69            | 23.98         |
|           |            |           |            | 1    | 5      | 28.98            | 23.95         |
|           |            |           |            | 3    | 0      | 29.13            | 23.96         |
|           |            |           |            | 3    | 1      | 29.01            | 23.90         |
|           |            |           |            | 3    | 2      | 29.04            | 23.91         |
|           |            |           |            | 6    | 0      | 28.53            | 23.00         |
|           |            |           | 16QAM      | 1    | 0      | 28.98            | 23.07         |
|           |            |           |            | 1    | 2      | 28.85            | 23.09         |
|           |            |           |            | 1    | 5      | 29.03            | 23.11         |
|           |            |           |            | 3    | 0      | 29.17            | 23.10         |
|           |            |           |            | 3    | 1      | 29.02            | 23.09         |
|           |            |           |            | 3    | 2      | 29.01            | 23.09         |
|           |            |           |            | 6    | 0      | 28.66            | 22.75         |
| 1.4       | 20393      | 1754.3    | QPSK       | 1    | 0      | 28.92            | 23.92         |
|           |            |           |            | 1    | 2      | 28.72            | 23.89         |
|           |            |           |            | 1    | 5      | 28.89            | 23.91         |
|           |            |           |            | 3    | 0      | 29.11            | 23.94         |
|           |            |           |            | 3    | 1      | 29.09            | 23.97         |
|           |            |           |            | 3    | 2      | 29.11            | 23.96         |
|           |            |           |            | 6    | 0      | 28.56            | 23.06         |
|           |            |           | 16QAM      | 1    | 0      | 28.95            | 23.05         |
|           |            |           |            | 1    | 2      | 28.81            | 23.06         |
|           |            |           |            | 1    | 5      | 28.98            | 23.08         |
|           |            |           |            | 3    | 0      | 29.19            | 23.08         |
|           |            |           |            | 3    | 1      | 28.97            | 23.03         |
|           |            |           |            | 3    | 2      | 28.96            | 23.06         |
|           |            |           |            | 6    | 0      | 28.60            | 22.03         |

**LAT OUTPUT POWER FOR LTE BAND 4 (3.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 3.0       | 19965      | 1711.5    | QPSK       | 1    | 0      | 28.73            | 23.99         |
|           |            |           |            | 1    | 7      | 28.54            | 23.96         |
|           |            |           |            | 1    | 14     | 28.56            | 24.00         |
|           |            |           |            | 8    | 0      | 28.19            | 23.10         |
|           |            |           |            | 8    | 4      | 28.05            | 23.14         |
|           |            |           |            | 8    | 7      | 28.14            | 23.14         |
|           |            |           |            | 15   | 0      | 28.52            | 23.11         |
|           |            |           | 16QAM      | 1    | 0      | 28.41            | 23.00         |
|           |            |           |            | 1    | 7      | 28.15            | 22.91         |
|           |            |           |            | 1    | 14     | 28.34            | 22.97         |
|           |            |           |            | 8    | 0      | 27.73            | 22.19         |
|           |            |           |            | 8    | 4      | 27.73            | 22.18         |
|           |            |           |            | 8    | 7      | 27.86            | 22.20         |
|           |            |           |            | 15   | 0      | 28.29            | 22.18         |
| 3.0       | 20175      | 1732.5    | QPSK       | 1    | 0      | 28.75            | 23.95         |
|           |            |           |            | 1    | 7      | 28.55            | 23.95         |
|           |            |           |            | 1    | 14     | 28.84            | 23.98         |
|           |            |           |            | 8    | 0      | 28.25            | 23.10         |
|           |            |           |            | 8    | 4      | 28.19            | 23.07         |
|           |            |           |            | 8    | 7      | 28.32            | 23.08         |
|           |            |           |            | 15   | 0      | 28.54            | 23.09         |
|           |            |           | 16QAM      | 1    | 0      | 28.79            | 23.24         |
|           |            |           |            | 1    | 7      | 28.71            | 23.21         |
|           |            |           |            | 1    | 14     | 28.94            | 23.35         |
|           |            |           |            | 8    | 0      | 28.14            | 22.21         |
|           |            |           |            | 8    | 4      | 28.15            | 22.16         |
|           |            |           |            | 8    | 7      | 28.20            | 22.19         |
|           |            |           |            | 15   | 0      | 28.35            | 22.16         |
| 3.0       | 20385      | 1753.5    | QPSK       | 1    | 0      | 28.80            | 23.99         |
|           |            |           |            | 1    | 7      | 28.62            | 23.95         |
|           |            |           |            | 1    | 14     | 28.87            | 23.97         |
|           |            |           |            | 8    | 0      | 28.36            | 23.20         |
|           |            |           |            | 8    | 4      | 28.22            | 23.06         |
|           |            |           |            | 8    | 7      | 28.27            | 23.03         |
|           |            |           |            | 15   | 0      | 28.59            | 23.02         |
|           |            |           | 16QAM      | 1    | 0      | 28.45            | 22.85         |
|           |            |           |            | 1    | 7      | 28.30            | 22.84         |
|           |            |           |            | 1    | 14     | 28.49            | 22.91         |
|           |            |           |            | 8    | 0      | 27.96            | 22.27         |
|           |            |           |            | 8    | 4      | 27.92            | 22.15         |
|           |            |           |            | 8    | 7      | 27.96            | 22.16         |
|           |            |           |            | 15   | 0      | 28.36            | 22.12         |

**LAT OUTPUT POWER FOR LTE BAND 4 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 19975      | 1712.5    | QPSK  | 1    | 0      | 28.56            | 23.94         |
|           |            |           |       | 1    | 12     | 28.44            | 23.95         |
|           |            |           |       | 1    | 24     | 28.55            | 23.97         |
|           |            |           |       | 12   | 0      | 28.15            | 23.20         |
|           |            |           |       | 12   | 6      | 27.85            | 23.11         |
|           |            |           |       | 12   | 11     | 28.05            | 23.18         |
|           |            |           |       | 25   | 0      | 28.63            | 23.11         |
|           |            |           | 16QAM | 1    | 0      | 28.65            | 23.34         |
|           |            |           |       | 1    | 12     | 28.50            | 23.27         |
|           |            |           |       | 1    | 24     | 28.57            | 23.33         |
|           |            |           |       | 12   | 0      | 27.86            | 22.20         |
|           |            |           |       | 12   | 6      | 27.65            | 22.12         |
|           |            |           |       | 12   | 11     | 27.73            | 22.17         |
|           |            |           |       | 25   | 0      | 28.58            | 22.28         |
| 5.0       | 20175      | 1732.5    | QPSK  | 1    | 0      | 28.65            | 23.98         |
|           |            |           |       | 1    | 12     | 28.53            | 23.96         |
|           |            |           |       | 1    | 24     | 28.69            | 24.00         |
|           |            |           |       | 12   | 0      | 28.21            | 23.10         |
|           |            |           |       | 12   | 6      | 28.07            | 23.08         |
|           |            |           |       | 12   | 11     | 28.17            | 23.07         |
|           |            |           |       | 25   | 0      | 28.81            | 23.10         |
|           |            |           | 16QAM | 1    | 0      | 28.75            | 23.29         |
|           |            |           |       | 1    | 12     | 28.69            | 23.23         |
|           |            |           |       | 1    | 24     | 28.74            | 23.22         |
|           |            |           |       | 12   | 0      | 27.98            | 22.20         |
|           |            |           |       | 12   | 6      | 27.84            | 22.07         |
|           |            |           |       | 12   | 11     | 27.93            | 22.10         |
|           |            |           |       | 25   | 0      | 28.63            | 22.22         |
| 5.0       | 20375      | 1752.5    | QPSK  | 1    | 0      | 28.81            | 23.98         |
|           |            |           |       | 1    | 12     | 28.76            | 24.00         |
|           |            |           |       | 1    | 24     | 28.86            | 23.99         |
|           |            |           |       | 12   | 0      | 28.23            | 23.30         |
|           |            |           |       | 12   | 6      | 28.10            | 23.10         |
|           |            |           |       | 12   | 11     | 28.22            | 23.10         |
|           |            |           |       | 25   | 0      | 28.69            | 23.10         |
|           |            |           | 16QAM | 1    | 0      | 28.55            | 23.32         |
|           |            |           |       | 1    | 12     | 28.51            | 23.35         |
|           |            |           |       | 1    | 24     | 28.61            | 23.39         |
|           |            |           |       | 12   | 0      | 28.13            | 22.00         |
|           |            |           |       | 12   | 6      | 27.86            | 21.95         |
|           |            |           |       | 12   | 11     | 27.95            | 21.97         |
|           |            |           |       | 25   | 0      | 28.75            | 22.03         |

**LAT OUTPUT POWER FOR LTE BAND 4 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 20000      | 1715.0    | QPSK  | 1    | 0      | 28.56            | 23.97         |
|           |            |           |       | 1    | 24     | 28.46            | 23.96         |
|           |            |           |       | 1    | 49     | 28.61            | <b>24.00</b>  |
|           |            |           |       | 25   | 0      | 28.24            | 23.20         |
|           |            |           |       | 25   | 12     | 27.95            | 23.16         |
|           |            |           |       | 25   | 24     | 28.19            | 23.21         |
|           |            |           |       | 50   | 0      | 28.14            | 23.18         |
|           |            |           | 16QAM | 1    | 0      | 28.57            | 23.27         |
|           |            |           |       | 1    | 24     | 28.48            | 23.29         |
|           |            |           |       | 1    | 49     | 28.61            | <b>23.36</b>  |
|           |            |           |       | 25   | 0      | 28.09            | 22.28         |
|           |            |           |       | 25   | 12     | 27.84            | 22.26         |
|           |            |           |       | 25   | 24     | 28.08            | 22.32         |
|           |            |           |       | 50   | 0      | 28.48            | 22.22         |
| 10.0      | 20175      | 1732.5    | QPSK  | 1    | 0      | 28.60            | 23.98         |
|           |            |           |       | 1    | 24     | 28.61            | 23.98         |
|           |            |           |       | 1    | 49     | <b>28.71</b>     | 23.95         |
|           |            |           |       | 25   | 0      | 28.22            | 23.20         |
|           |            |           |       | 25   | 12     | 28.14            | 23.09         |
|           |            |           |       | 25   | 24     | 28.24            | 23.07         |
|           |            |           |       | 50   | 0      | 28.63            | 23.12         |
|           |            |           | 16QAM | 1    | 0      | 28.63            | 23.22         |
|           |            |           |       | 1    | 24     | 28.70            | 23.25         |
|           |            |           |       | 1    | 49     | 28.80            | 23.30         |
|           |            |           |       | 25   | 0      | 28.07            | 22.18         |
|           |            |           |       | 25   | 12     | 28.13            | 22.24         |
|           |            |           |       | 25   | 24     | 28.24            | 22.25         |
|           |            |           |       | 50   | 0      | <b>29.01</b>     | 22.13         |
| 10.0      | 20350      | 1750.0    | QPSK  | 1    | 0      | 28.65            | 23.94         |
|           |            |           |       | 1    | 24     | 28.65            | 23.97         |
|           |            |           |       | 1    | 49     | 28.69            | 23.98         |
|           |            |           |       | 25   | 0      | 28.22            | 23.20         |
|           |            |           |       | 25   | 12     | 28.29            | 23.12         |
|           |            |           |       | 25   | 24     | 28.21            | 23.11         |
|           |            |           |       | 50   | 0      | 28.32            | 23.10         |
|           |            |           | 16QAM | 1    | 0      | 28.29            | 22.87         |
|           |            |           |       | 1    | 24     | 28.28            | 22.84         |
|           |            |           |       | 1    | 49     | 28.07            | 22.82         |
|           |            |           |       | 25   | 0      | 28.17            | 22.23         |
|           |            |           |       | 25   | 12     | 27.95            | 22.05         |
|           |            |           |       | 25   | 24     | 28.15            | 22.13         |
|           |            |           |       | 50   | 0      | 28.90            | 22.13         |

**LAT OUTPUT POWER FOR LTE BAND 4 (15.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 15.0      | 20025      | 1717.5    | QPSK   | 1    | 0      | 28.66            | <b>24.00</b>  |
|           |            |           |        | 1    | 37     | 28.42            | 23.99         |
|           |            |           |        | 1    | 74     | 28.65            | 23.97         |
|           |            |           |        | 36   | 0      | 28.24            | 23.20         |
|           |            |           |        | 36   | 16     | 28.08            | 23.27         |
|           |            |           |        | 36   | 35     | 28.22            | 23.30         |
|           |            |           |        | 75   | 0      | 28.77            | 23.25         |
|           |            |           | 16-QAM | 1    | 0      | 28.39            | <b>23.15</b>  |
|           |            |           |        | 1    | 37     | 28.34            | 23.13         |
|           |            |           |        | 1    | 74     | 28.33            | 23.04         |
|           |            |           |        | 36   | 0      | 28.07            | 22.23         |
|           |            |           |        | 36   | 16     | 27.86            | 22.20         |
|           |            |           |        | 36   | 35     | 28.00            | 22.24         |
|           |            |           |        | 75   | 0      | 28.52            | 22.35         |
| 15.0      | 20175      | 1732.5    | QPSK   | 1    | 0      | 28.63            | 23.97         |
|           |            |           |        | 1    | 37     | 28.61            | 23.97         |
|           |            |           |        | 1    | 74     | 28.77            | 23.96         |
|           |            |           |        | 36   | 0      | 28.32            | 23.20         |
|           |            |           |        | 36   | 16     | 28.14            | 23.15         |
|           |            |           |        | 36   | 35     | 28.32            | 23.24         |
|           |            |           |        | 75   | 0      | 28.79            | 23.19         |
|           |            |           | 16-QAM | 1    | 0      | 28.21            | 22.83         |
|           |            |           |        | 1    | 37     | 28.27            | 22.84         |
|           |            |           |        | 1    | 74     | 28.28            | 22.86         |
|           |            |           |        | 36   | 0      | 28.17            | 22.21         |
|           |            |           |        | 36   | 16     | 28.06            | 22.16         |
|           |            |           |        | 36   | 35     | 28.22            | 22.18         |
|           |            |           |        | 75   | 0      | <b>28.67</b>     | 22.25         |
| 15.0      | 20325      | 1747.5    | QPSK   | 1    | 0      | 28.79            | 23.96         |
|           |            |           |        | 1    | 37     | 28.69            | 23.95         |
|           |            |           |        | 1    | 74     | 28.78            | 23.98         |
|           |            |           |        | 36   | 0      | 28.39            | 23.20         |
|           |            |           |        | 36   | 16     | 28.18            | 23.17         |
|           |            |           |        | 36   | 35     | 28.23            | 23.17         |
|           |            |           |        | 75   | 0      | <b>28.82</b>     | 23.18         |
|           |            |           | 16-QAM | 1    | 0      | 28.59            | 23.08         |
|           |            |           |        | 1    | 37     | 28.47            | 23.06         |
|           |            |           |        | 1    | 74     | 28.48            | 23.08         |
|           |            |           |        | 36   | 0      | 28.29            | 22.21         |
|           |            |           |        | 36   | 16     | 28.06            | 22.15         |
|           |            |           |        | 36   | 35     | 28.14            | 22.16         |
|           |            |           |        | 75   | 0      | 28.59            | 22.27         |

**LAT OUTPUT POWER FOR LTE BAND 4 (20.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 20.0      | 20050      | 1720.0    | QPSK   | 1    | 0      | 28.59            | 23.98         |
|           |            |           |        | 1    | 49     | 28.54            | <b>24.00</b>  |
|           |            |           |        | 1    | 99     | 28.77            | 23.99         |
|           |            |           |        | 50   | 0      | 28.25            | 22.73         |
|           |            |           |        | 50   | 24     | 28.14            | 22.73         |
|           |            |           |        | 50   | 49     | 28.25            | 22.84         |
|           |            |           |        | 100  | 0      | 28.47            | 22.89         |
|           |            |           | 16-QAM | 1    | 0      | 28.32            | <b>22.96</b>  |
|           |            |           |        | 1    | 49     | 28.29            | 22.88         |
|           |            |           |        | 1    | 99     | 28.46            | 22.84         |
|           |            |           |        | 50   | 0      | 28.11            | 21.97         |
|           |            |           |        | 50   | 24     | 27.99            | 21.90         |
|           |            |           |        | 50   | 49     | 28.07            | 21.86         |
|           |            |           |        | 100  | 0      | 28.38            | 21.93         |
| 20.0      | 20175      | 1732.5    | QPSK   | 1    | 0      | 28.57            | 23.98         |
|           |            |           |        | 1    | 49     | 28.68            | 23.96         |
|           |            |           |        | 1    | 99     | <b>28.84</b>     | 23.99         |
|           |            |           |        | 50   | 0      | 28.26            | 22.85         |
|           |            |           |        | 50   | 24     | 28.16            | 22.99         |
|           |            |           |        | 50   | 49     | 28.32            | 22.84         |
|           |            |           |        | 100  | 0      | 28.73            | 23.00         |
|           |            |           | 16-QAM | 1    | 0      | 28.30            | 22.91         |
|           |            |           |        | 1    | 49     | 28.31            | 22.90         |
|           |            |           |        | 1    | 99     | <b>28.55</b>     | 22.88         |
|           |            |           |        | 50   | 0      | 28.13            | 21.76         |
|           |            |           |        | 50   | 24     | 28.14            | 21.85         |
|           |            |           |        | 50   | 49     | 28.31            | 21.86         |
|           |            |           |        | 100  | 0      | 28.24            | 21.84         |
| 20.0      | 20300      | 1745.0    | QPSK   | 1    | 0      | 28.73            | 23.86         |
|           |            |           |        | 1    | 49     | 28.72            | 23.87         |
|           |            |           |        | 1    | 99     | 28.74            | 23.84         |
|           |            |           |        | 50   | 0      | 28.36            | 22.92         |
|           |            |           |        | 50   | 24     | 28.18            | 22.92         |
|           |            |           |        | 50   | 49     | 28.23            | 22.78         |
|           |            |           |        | 100  | 0      | 28.62            | 22.75         |
|           |            |           | 16-QAM | 1    | 0      | 28.49            | 22.78         |
|           |            |           |        | 1    | 49     | 28.42            | 22.77         |
|           |            |           |        | 1    | 99     | 28.52            | 22.71         |
|           |            |           |        | 50   | 0      | 28.30            | 21.88         |
|           |            |           |        | 50   | 24     | 28.18            | 21.93         |
|           |            |           |        | 50   | 49     | 28.24            | 21.90         |
|           |            |           |        | 100  | 0      | 28.46            | 21.84         |

**UAT OUTPUT POWER FOR LTE BAND 4 (1.4MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 1.4       | 19957      | 1710.7    | QPSK       | 1    | 0      | 25.68            | 21.10         |
|           |            |           |            | 1    | 2      | 25.46            | 21.05         |
|           |            |           |            | 1    | 5      | 25.68            | 21.09         |
|           |            |           |            | 3    | 0      | 25.92            | 21.13         |
|           |            |           |            | 3    | 1      | 25.75            | 21.10         |
|           |            |           |            | 3    | 2      | 25.85            | 21.13         |
|           |            |           |            | 6    | 0      | 25.26            | 20.20         |
|           |            |           | 16QAM      | 1    | 0      | 25.67            | 20.21         |
|           |            |           |            | 1    | 2      | 25.35            | 20.15         |
|           |            |           |            | 1    | 5      | 25.66            | 20.19         |
|           |            |           |            | 3    | 0      | 25.88            | 20.20         |
|           |            |           |            | 3    | 1      | 25.64            | 20.18         |
|           |            |           |            | 3    | 2      | 25.41            | 20.18         |
|           |            |           |            | 6    | 0      | 25.23            | 19.34         |
| 1.4       | 20175      | 1732.5    | QPSK       | 1    | 0      | 24.84            | 21.11         |
|           |            |           |            | 1    | 2      | 24.81            | 21.06         |
|           |            |           |            | 1    | 5      | 24.87            | 21.14         |
|           |            |           |            | 3    | 0      | 25.16            | 21.15         |
|           |            |           |            | 3    | 1      | 25.05            | 21.13         |
|           |            |           |            | 3    | 2      | 25.04            | 21.13         |
|           |            |           |            | 6    | 0      | 25.24            | 20.20         |
|           |            |           | 16QAM      | 1    | 0      | 24.81            | 20.19         |
|           |            |           |            | 1    | 2      | 24.78            | 20.17         |
|           |            |           |            | 1    | 5      | 24.84            | 20.21         |
|           |            |           |            | 3    | 0      | 24.90            | 20.20         |
|           |            |           |            | 3    | 1      | 24.88            | 20.17         |
|           |            |           |            | 3    | 2      | 24.93            | 20.20         |
|           |            |           |            | 6    | 0      | 25.18            | 19.33         |
| 1.4       | 20393      | 1754.3    | QPSK       | 1    | 0      | 24.59            | 21.10         |
|           |            |           |            | 1    | 2      | 24.50            | 21.12         |
|           |            |           |            | 1    | 5      | 25.55            | 21.14         |
|           |            |           |            | 3    | 0      | 25.71            | 21.15         |
|           |            |           |            | 3    | 1      | 24.91            | 21.11         |
|           |            |           |            | 3    | 2      | 25.35            | 21.14         |
|           |            |           |            | 6    | 0      | 25.08            | 20.21         |
|           |            |           | 16QAM      | 1    | 0      | 25.47            | 20.27         |
|           |            |           |            | 1    | 2      | 24.81            | 20.24         |
|           |            |           |            | 1    | 5      | 25.41            | 20.22         |
|           |            |           |            | 3    | 0      | 25.18            | 20.24         |
|           |            |           |            | 3    | 1      | 24.93            | 20.21         |
|           |            |           |            | 3    | 2      | 24.62            | 20.23         |
|           |            |           |            | 6    | 0      | 24.95            | 19.35         |

**UAT OUTPUT POWER FOR LTE BAND 4 (3.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 3.0       | 19965      | 1711.5    | QPSK       | 1    | 0      | 25.59            | 21.14         |
|           |            |           |            | 1    | 7      | 25.39            | 21.12         |
|           |            |           |            | 1    | 14     | 25.59            | 21.15         |
|           |            |           |            | 8    | 0      | 24.85            | 20.21         |
|           |            |           |            | 8    | 4      | 24.81            | 20.21         |
|           |            |           |            | 8    | 7      | 24.91            | 20.23         |
|           |            |           |            | 15   | 0      | 24.95            | 20.17         |
|           |            |           | 16QAM      | 1    | 0      | 24.08            | 20.08         |
|           |            |           |            | 1    | 7      | 23.88            | 20.02         |
|           |            |           |            | 1    | 14     | 24.39            | 20.04         |
|           |            |           |            | 8    | 0      | 24.19            | 19.25         |
|           |            |           |            | 8    | 4      | 24.06            | 19.21         |
|           |            |           |            | 8    | 7      | 24.32            | 19.23         |
|           |            |           |            | 15   | 0      | 25.01            | 19.18         |
| 3.0       | 20175      | 1732.5    | QPSK       | 1    | 0      | 24.76            | 21.18         |
|           |            |           |            | 1    | 7      | 24.70            | 21.13         |
|           |            |           |            | 1    | 14     | 24.85            | 21.21         |
|           |            |           |            | 8    | 0      | 24.90            | 20.22         |
|           |            |           |            | 8    | 4      | 24.92            | 20.22         |
|           |            |           |            | 8    | 7      | 24.95            | 20.21         |
|           |            |           |            | 15   | 0      | 25.41            | 20.24         |
|           |            |           | 16QAM      | 1    | 0      | 24.75            | 20.05         |
|           |            |           |            | 1    | 7      | 24.75            | 20.01         |
|           |            |           |            | 1    | 14     | 24.85            | 20.10         |
|           |            |           |            | 8    | 0      | 24.78            | 19.29         |
|           |            |           |            | 8    | 4      | 24.78            | 19.28         |
|           |            |           |            | 8    | 7      | 24.87            | 19.28         |
|           |            |           |            | 15   | 0      | 25.08            | 19.27         |
| 3.0       | 20385      | 1753.5    | QPSK       | 1    | 0      | 24.64            | 21.23         |
|           |            |           |            | 1    | 7      | 24.43            | 21.22         |
|           |            |           |            | 1    | 14     | 25.13            | 21.22         |
|           |            |           |            | 8    | 0      | 24.70            | 20.24         |
|           |            |           |            | 8    | 4      | 24.65            | 20.24         |
|           |            |           |            | 8    | 7      | 24.67            | 20.29         |
|           |            |           |            | 15   | 0      | 25.18            | 20.27         |
|           |            |           | 16QAM      | 1    | 0      | 24.61            | 20.11         |
|           |            |           |            | 1    | 7      | 24.46            | 20.05         |
|           |            |           |            | 1    | 14     | 24.47            | 20.15         |
|           |            |           |            | 8    | 0      | 24.64            | 19.32         |
|           |            |           |            | 8    | 4      | 24.58            | 19.30         |
|           |            |           |            | 8    | 7      | 24.64            | 19.34         |
|           |            |           |            | 15   | 0      | 25.17            | 19.32         |

**UAT OUTPUT POWER FOR LTE BAND 4 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 19975      | 1712.5    | QPSK  | 1    | 0      | 25.46            | 21.00         |
|           |            |           |       | 1    | 12     | 25.33            | 21.01         |
|           |            |           |       | 1    | 24     | 25.42            | 21.01         |
|           |            |           |       | 12   | 0      | 25.06            | 20.20         |
|           |            |           |       | 12   | 6      | 24.75            | 20.20         |
|           |            |           |       | 12   | 11     | 24.84            | 20.16         |
|           |            |           |       | 25   | 0      | 25.54            | 20.19         |
|           |            |           | 16QAM | 1    | 0      | 25.04            | 20.34         |
|           |            |           |       | 1    | 12     | 25.40            | 20.34         |
|           |            |           |       | 1    | 24     | 25.40            | 20.29         |
|           |            |           |       | 12   | 0      | 24.12            | 19.15         |
|           |            |           |       | 12   | 6      | 24.16            | 19.14         |
|           |            |           |       | 12   | 11     | 24.32            | 19.15         |
|           |            |           |       | 25   | 0      | 25.48            | 19.27         |
| 5.0       | 20175      | 1732.5    | QPSK  | 1    | 0      | 24.63            | 21.05         |
|           |            |           |       | 1    | 12     | 24.71            | 21.04         |
|           |            |           |       | 1    | 24     | 24.85            | 21.05         |
|           |            |           |       | 12   | 0      | 24.79            | 20.21         |
|           |            |           |       | 12   | 6      | 24.83            | 20.20         |
|           |            |           |       | 12   | 11     | 24.91            | 20.23         |
|           |            |           |       | 25   | 0      | 25.27            | 20.21         |
|           |            |           | 16QAM | 1    | 0      | 24.65            | 20.33         |
|           |            |           |       | 1    | 12     | 24.74            | 20.31         |
|           |            |           |       | 1    | 24     | 24.88            | 20.33         |
|           |            |           |       | 12   | 0      | 24.78            | 19.21         |
|           |            |           |       | 12   | 6      | 24.80            | 19.17         |
|           |            |           |       | 12   | 11     | 24.85            | 19.18         |
|           |            |           |       | 25   | 0      | 25.27            | 19.30         |
| 5.0       | 20375      | 1752.5    | QPSK  | 1    | 0      | 24.65            | 21.06         |
|           |            |           |       | 1    | 12     | 24.48            | 21.10         |
|           |            |           |       | 1    | 24     | 24.59            | 21.09         |
|           |            |           |       | 12   | 0      | 24.73            | 20.25         |
|           |            |           |       | 12   | 6      | 24.62            | 20.21         |
|           |            |           |       | 12   | 11     | 24.61            | 20.24         |
|           |            |           |       | 25   | 0      | 25.13            | 20.21         |
|           |            |           | 16QAM | 1    | 0      | 24.68            | 20.34         |
|           |            |           |       | 1    | 12     | 24.50            | 20.33         |
|           |            |           |       | 1    | 24     | 24.77            | 20.36         |
|           |            |           |       | 12   | 0      | 24.68            | 19.23         |
|           |            |           |       | 12   | 6      | 24.62            | 19.23         |
|           |            |           |       | 12   | 11     | 24.59            | 19.22         |
|           |            |           |       | 25   | 0      | 25.09            | 19.36         |

**UAT OUTPUT POWER FOR LTE BAND 4 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 10.0      | 20000      | 1715.0    | QPSK   | 1    | 0      | 25.48            | 21.02         |
|           |            |           |        | 1    | 24     | 25.50            | 21.05         |
|           |            |           |        | 1    | 49     | <b>25.53</b>     | 21.00         |
|           |            |           |        | 25   | 0      | 25.06            | 20.21         |
|           |            |           |        | 25   | 12     | 24.85            | 20.22         |
|           |            |           |        | 25   | 24     | 24.93            | 20.19         |
|           |            |           |        | 50   | 0      | 25.14            | 20.17         |
|           |            |           | 16-QAM | 1    | 0      | 24.05            | 20.00         |
|           |            |           |        | 1    | 24     | 24.38            | 19.99         |
|           |            |           |        | 1    | 49     | 24.42            | 19.97         |
|           |            |           |        | 25   | 0      | 24.74            | 19.26         |
|           |            |           |        | 25   | 12     | 24.67            | 19.24         |
|           |            |           |        | 25   | 24     | 24.70            | 19.19         |
|           |            |           |        | 50   | 0      | <b>25.25</b>     | 19.13         |
| 15.0      | 20000      | 1732.5    | QPSK   | 1    | 0      | 24.50            | <b>21.10</b>  |
|           |            |           |        | 1    | 24     | 24.74            | 21.04         |
|           |            |           |        | 1    | 49     | 24.97            | 21.01         |
|           |            |           |        | 25   | 0      | 24.76            | 20.21         |
|           |            |           |        | 25   | 12     | 24.87            | 20.20         |
|           |            |           |        | 25   | 24     | 24.98            | 20.18         |
|           |            |           |        | 50   | 0      | 25.41            | 20.20         |
|           |            |           | 16-QAM | 1    | 0      | 24.50            | <b>20.07</b>  |
|           |            |           |        | 1    | 24     | 24.73            | 19.99         |
|           |            |           |        | 1    | 49     | 24.99            | 19.95         |
|           |            |           |        | 25   | 0      | 24.72            | 19.21         |
|           |            |           |        | 25   | 12     | 24.80            | 19.19         |
|           |            |           |        | 25   | 24     | 24.94            | 19.18         |
|           |            |           |        | 50   | 0      | 25.18            | 19.22         |
| 10.0      | 20000      | 1750.0    | QPSK   | 1    | 0      | 24.90            | 21.07         |
|           |            |           |        | 1    | 24     | 24.59            | 21.07         |
|           |            |           |        | 1    | 49     | 24.57            | 21.06         |
|           |            |           |        | 25   | 0      | 24.82            | 20.20         |
|           |            |           |        | 25   | 12     | 24.71            | 20.19         |
|           |            |           |        | 25   | 24     | 24.66            | 20.20         |
|           |            |           |        | 50   | 0      | 25.19            | 20.20         |
|           |            |           | 16-QAM | 1    | 0      | 24.93            | 20.02         |
|           |            |           |        | 1    | 24     | 24.62            | 20.02         |
|           |            |           |        | 1    | 49     | 24.45            | 19.98         |
|           |            |           |        | 25   | 0      | 24.86            | 19.25         |
|           |            |           |        | 25   | 12     | 24.69            | 19.18         |
|           |            |           |        | 25   | 24     | 24.69            | 19.25         |
|           |            |           |        | 50   | 0      | 24.91            | 19.20         |

**UAT OUTPUT POWER FOR LTE BAND 4 (15.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|--------|------|--------|---------------------|------------------|
|           |            |           |        | Size | Offset |                     |                  |
| 15.0      | 20025      | 1717.5    | QPSK   | 1    | 0      | 25.56               | 21.07            |
|           |            |           |        | 1    | 37     | 25.46               | 21.04            |
|           |            |           |        | 1    | 74     | 25.45               | 21.08            |
|           |            |           |        | 36   | 0      | 25.15               | 20.23            |
|           |            |           |        | 36   | 16     | 24.92               | 20.27            |
|           |            |           |        | 36   | 35     | 25.02               | 20.19            |
|           |            |           |        | 75   | 0      | 25.78               | 20.29            |
|           |            |           | 16-QAM | 1    | 0      | 23.98               | 20.01            |
|           |            |           |        | 1    | 37     | 24.65               | 20.00            |
|           |            |           |        | 1    | 74     | 23.91               | 19.88            |
|           |            |           |        | 36   | 0      | 25.03               | 19.29            |
|           |            |           |        | 36   | 16     | 24.68               | 19.24            |
|           |            |           |        | 36   | 35     | 24.89               | 19.22            |
|           |            |           |        | 75   | 0      | 25.58               | 19.34            |
| 15.0      | 20175      | 1732.5    | QPSK   | 1    | 0      | 24.98               | 21.01            |
|           |            |           |        | 1    | 37     | 24.72               | 21.11            |
|           |            |           |        | 1    | 74     | 24.89               | 21.11            |
|           |            |           |        | 36   | 0      | 24.71               | 20.26            |
|           |            |           |        | 36   | 16     | 24.83               | 20.30            |
|           |            |           |        | 36   | 35     | 24.93               | 20.21            |
|           |            |           |        | 75   | 0      | 25.26               | 20.30            |
|           |            |           | 16-QAM | 1    | 0      | 24.31               | 20.02            |
|           |            |           |        | 1    | 37     | 24.73               | 19.99            |
|           |            |           |        | 1    | 74     | 24.93               | 19.96            |
|           |            |           |        | 36   | 0      | 24.69               | 19.30            |
|           |            |           |        | 36   | 16     | 24.82               | 19.27            |
|           |            |           |        | 36   | 35     | 24.95               | 19.24            |
|           |            |           |        | 75   | 0      | 25.22               | 19.28            |
| 15.0      | 20325      | 1747.5    | QPSK   | 1    | 0      | 24.96               | 21.09            |
|           |            |           |        | 1    | 37     | 24.72               | 21.11            |
|           |            |           |        | 1    | 74     | 25.01               | 21.08            |
|           |            |           |        | 36   | 0      | 24.97               | 20.29            |
|           |            |           |        | 36   | 16     | 24.87               | 20.25            |
|           |            |           |        | 36   | 35     | 24.71               | 20.21            |
|           |            |           |        | 75   | 0      | 25.25               | 20.32            |
|           |            |           | 16-QAM | 1    | 0      | 24.97               | 20.03            |
|           |            |           |        | 1    | 37     | 24.77               | 20.02            |
|           |            |           |        | 1    | 74     | 24.42               | 20.04            |
|           |            |           |        | 36   | 0      | 24.99               | 19.30            |
|           |            |           |        | 36   | 16     | 24.82               | 19.28            |
|           |            |           |        | 36   | 35     | 24.70               | 19.23            |
|           |            |           |        | 75   | 0      | 25.22               | 19.30            |

**UAT OUTPUT POWER FOR LTE BAND 4 (20.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|--------|------|--------|---------------------|------------------|
|           |            |           |        | Size | Offset |                     |                  |
| 20.0      | 20050      | 1720.0    | QPSK   | 1    | 0      | 25.72               | 20.99            |
|           |            |           |        | 1    | 49     | 25.67               | 20.98            |
|           |            |           |        | 1    | 99     | 25.66               | 20.99            |
|           |            |           |        | 50   | 0      | 25.30               | 20.00            |
|           |            |           |        | 50   | 24     | 25.12               | 19.98            |
|           |            |           |        | 50   | 49     | 25.23               | 19.95            |
|           |            |           |        | 100  | 0      | 25.49               | 19.92            |
|           |            |           | 16-QAM | 1    | 0      | 24.71               | 19.97            |
|           |            |           |        | 1    | 49     | 25.28               | 19.99            |
|           |            |           |        | 1    | 99     | 24.41               | 19.96            |
|           |            |           |        | 50   | 0      | 24.90               | 19.00            |
|           |            |           |        | 50   | 24     | 24.78               | 18.93            |
|           |            |           |        | 50   | 49     | 25.09               | 18.91            |
|           |            |           |        | 100  | 0      | <b>25.49</b>        | 18.98            |
| 20.0      | 20175      | 1732.5    | QPSK   | 1    | 0      | 25.80               | 20.98            |
|           |            |           |        | 1    | 49     | 24.73               | 20.97            |
|           |            |           |        | 1    | 99     | 24.77               | 20.91            |
|           |            |           |        | 50   | 0      | 25.18               | 20.00            |
|           |            |           |        | 50   | 24     | 24.80               | 19.96            |
|           |            |           |        | 50   | 49     | 24.92               | 19.95            |
|           |            |           |        | 100  | 0      | 25.02               | 19.97            |
|           |            |           | 16-QAM | 1    | 0      | 24.76               | 19.99            |
|           |            |           |        | 1    | 49     | 24.75               | 19.97            |
|           |            |           |        | 1    | 99     | 24.81               | 19.96            |
|           |            |           |        | 50   | 0      | 24.61               | 19.00            |
|           |            |           |        | 50   | 24     | 24.80               | 19.00            |
|           |            |           |        | 50   | 49     | 24.94               | 18.91            |
|           |            |           |        | 100  | 0      | 24.93               | 18.97            |
| 20.0      | 20300      | 1745.0    | QPSK   | 1    | 0      | 24.84               | <b>21.00</b>     |
|           |            |           |        | 1    | 49     | 24.82               | 20.99            |
|           |            |           |        | 1    | 99     | <b>25.84</b>        | 20.92            |
|           |            |           |        | 50   | 0      | 24.96               | 20.00            |
|           |            |           |        | 50   | 24     | 24.86               | 19.93            |
|           |            |           |        | 50   | 49     | 24.75               | 19.96            |
|           |            |           |        | 100  | 0      | 24.85               | 19.88            |
|           |            |           | 16-QAM | 1    | 0      | 24.86               | 19.99            |
|           |            |           |        | 1    | 49     | 24.84               | <b>20.00</b>     |
|           |            |           |        | 1    | 99     | 24.32               | 19.92            |
|           |            |           |        | 50   | 0      | 24.96               | 18.99            |
|           |            |           |        | 50   | 24     | 24.85               | 18.91            |
|           |            |           |        | 50   | 49     | 24.77               | 18.93            |
|           |            |           |        | 100  | 0      | 24.96               | 19.00            |

### 7.3. LTE BAND 5

#### LAT OUTPUT POWER FOR LTE BAND 5 (1.4MHZ)

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------|--------|---------------------|------------------|
|           |            |           |            | Size | Offset |                     |                  |
| 1.4       | 20407      | 824.7     | QPSK       | 1    | 0      | 28.58               | 23.84            |
|           |            |           |            | 1    | 2      | 28.46               | 23.84            |
|           |            |           |            | 1    | 5      | 28.67               | 23.94            |
|           |            |           |            | 3    | 0      | 28.83               | 23.91            |
|           |            |           |            | 3    | 1      | 28.74               | 23.88            |
|           |            |           |            | 3    | 2      | 28.90               | 23.99            |
|           |            |           | 16QAM      | 6    | 0      | 28.42               | 23.00            |
|           |            |           |            | 1    | 0      | 28.52               | 22.89            |
|           |            |           |            | 1    | 2      | 28.54               | 22.88            |
|           |            |           |            | 1    | 5      | 28.75               | <b>23.08</b>     |
|           |            |           |            | 3    | 0      | 28.80               | 22.87            |
|           |            |           |            | 3    | 1      | 28.76               | 22.93            |
|           |            |           |            | 3    | 2      | 28.85               | 23.03            |
|           |            |           |            | 6    | 0      | 28.36               | 22.10            |
| 1.4       | 20525      | 836.5     | QPSK       | 1    | 0      | 28.86               | 23.98            |
|           |            |           |            | 1    | 2      | 28.70               | 23.90            |
|           |            |           |            | 1    | 5      | 28.91               | 23.98            |
|           |            |           |            | 3    | 0      | 29.07               | 23.99            |
|           |            |           |            | 3    | 1      | 29.07               | <b>24.00</b>     |
|           |            |           |            | 3    | 2      | <b>29.10</b>        | 23.99            |
|           |            |           | 16QAM      | 6    | 0      | 28.48               | 23.10            |
|           |            |           |            | 1    | 0      | 28.98               | 23.04            |
|           |            |           |            | 1    | 2      | 28.90               | 23.03            |
|           |            |           |            | 1    | 5      | 28.97               | 23.03            |
|           |            |           |            | 3    | 0      | <b>29.12</b>        | 22.98            |
|           |            |           |            | 3    | 1      | 29.05               | 23.01            |
|           |            |           |            | 3    | 2      | 29.02               | 22.99            |
|           |            |           |            | 6    | 0      | 28.59               | 22.00            |
| 1.4       | 20643      | 848.3     | QPSK       | 1    | 0      | 28.37               | 23.79            |
|           |            |           |            | 1    | 2      | 28.40               | 23.81            |
|           |            |           |            | 1    | 5      | 28.36               | 23.74            |
|           |            |           |            | 3    | 0      | 28.52               | 23.78            |
|           |            |           |            | 3    | 1      | 28.57               | 23.87            |
|           |            |           |            | 3    | 2      | 28.60               | 23.87            |
|           |            |           | 16QAM      | 6    | 0      | 28.28               | 23.04            |
|           |            |           |            | 1    | 0      | 28.31               | 22.70            |
|           |            |           |            | 1    | 2      | 28.38               | 22.80            |
|           |            |           |            | 1    | 5      | 28.30               | 22.66            |
|           |            |           |            | 3    | 0      | 28.52               | 22.72            |
|           |            |           |            | 3    | 1      | 28.55               | 22.85            |
|           |            |           |            | 3    | 2      | 28.51               | 22.80            |
|           |            |           |            | 6    | 0      | 28.18               | 22.39            |

**LAT OUTPUT POWER FOR LTE BAND 5 (3.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 3.0       | 20415      | 825.5     | QPSK       | 1    | 0      | 28.54            | 23.83         |
|           |            |           |            | 1    | 7      | 28.42            | 23.86         |
|           |            |           |            | 1    | 14     | 28.66            | 23.94         |
|           |            |           |            | 8    | 0      | 27.95            | 23.00         |
|           |            |           |            | 8    | 4      | 27.90            | 22.97         |
|           |            |           |            | 8    | 7      | 27.96            | 23.01         |
|           |            |           |            | 15   | 0      | 28.41            | 23.02         |
|           |            |           | 16QAM      | 1    | 0      | 28.24            | 22.76         |
|           |            |           |            | 1    | 7      | 28.12            | 22.81         |
|           |            |           |            | 1    | 14     | 28.25            | 22.83         |
|           |            |           |            | 8    | 0      | 27.68            | 22.10         |
|           |            |           |            | 8    | 4      | 27.59            | 22.10         |
|           |            |           |            | 8    | 7      | 27.65            | 22.08         |
|           |            |           |            | 15   | 0      | 28.24            | 22.05         |
| 3.0       | 20525      | 836.5     | QPSK       | 1    | 0      | 28.75            | 23.90         |
|           |            |           |            | 1    | 7      | 28.63            | 23.87         |
|           |            |           |            | 1    | 14     | 28.84            | 23.91         |
|           |            |           |            | 8    | 0      | 28.22            | 23.00         |
|           |            |           |            | 8    | 4      | 28.24            | 22.99         |
|           |            |           |            | 8    | 7      | 28.28            | 23.01         |
|           |            |           |            | 15   | 0      | 28.29            | 22.98         |
|           |            |           | 16QAM      | 1    | 0      | 28.42            | 22.81         |
|           |            |           |            | 1    | 7      | 28.34            | 22.78         |
|           |            |           |            | 1    | 14     | 28.53            | 22.81         |
|           |            |           |            | 8    | 0      | 27.94            | 22.20         |
|           |            |           |            | 8    | 4      | 27.93            | 22.12         |
|           |            |           |            | 8    | 7      | 27.97            | 22.09         |
|           |            |           |            | 15   | 0      | 28.62            | 22.06         |
| 3.0       | 20635      | 847.5     | QPSK       | 1    | 0      | 28.29            | 23.77         |
|           |            |           |            | 1    | 7      | 28.36            | 23.86         |
|           |            |           |            | 1    | 14     | 28.35            | 23.75         |
|           |            |           |            | 8    | 0      | 27.90            | 23.00         |
|           |            |           |            | 8    | 4      | 27.86            | 22.83         |
|           |            |           |            | 8    | 7      | 27.89            | 22.83         |
|           |            |           |            | 15   | 0      | 28.38            | 22.80         |
|           |            |           | 16QAM      | 1    | 0      | 28.16            | 22.90         |
|           |            |           |            | 1    | 7      | 28.20            | 22.81         |
|           |            |           |            | 1    | 14     | 28.25            | 22.86         |
|           |            |           |            | 8    | 0      | 27.76            | 22.04         |
|           |            |           |            | 8    | 4      | 27.82            | 22.06         |
|           |            |           |            | 8    | 7      | 27.82            | 22.06         |
|           |            |           |            | 15   | 0      | 28.27            | 21.84         |

**LAT OUTPUT POWER FOR LTE BAND 5 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 20425      | 826.5     | QPSK  | 1    | 0      | 28.57            | 23.88         |
|           |            |           |       | 1    | 12     | 28.33            | 23.87         |
|           |            |           |       | 1    | 24     | 28.62            | 23.99         |
|           |            |           |       | 12   | 0      | 27.87            | 23.00         |
|           |            |           |       | 12   | 6      | 27.64            | 22.82         |
|           |            |           |       | 12   | 11     | 27.77            | 22.79         |
|           |            |           |       | 25   | 0      | 28.26            | 22.70         |
|           |            |           | 16QAM | 1    | 0      | 28.33            | 23.10         |
|           |            |           |       | 1    | 12     | 28.07            | 23.06         |
|           |            |           |       | 1    | 24     | 28.28            | 23.17         |
|           |            |           |       | 12   | 0      | 27.72            | 21.74         |
|           |            |           |       | 12   | 6      | 27.42            | 21.71         |
|           |            |           |       | 12   | 11     | 27.50            | 21.72         |
|           |            |           |       | 25   | 0      | 28.16            | 21.82         |
| 5.0       | 20525      | 836.5     | QPSK  | 1    | 0      | 28.51            | 23.77         |
|           |            |           |       | 1    | 12     | 28.47            | 23.73         |
|           |            |           |       | 1    | 24     | 28.65            | 23.79         |
|           |            |           |       | 12   | 0      | 28.19            | 23.00         |
|           |            |           |       | 12   | 6      | 28.08            | 22.91         |
|           |            |           |       | 12   | 11     | 28.13            | 22.90         |
|           |            |           |       | 25   | 0      | 28.54            | 22.86         |
|           |            |           | 16QAM | 1    | 0      | 28.63            | 23.08         |
|           |            |           |       | 1    | 12     | 28.68            | 23.07         |
|           |            |           |       | 1    | 24     | 28.81            | 23.11         |
|           |            |           |       | 12   | 0      | 27.99            | 21.95         |
|           |            |           |       | 12   | 6      | 27.86            | 21.89         |
|           |            |           |       | 12   | 11     | 27.92            | 21.90         |
|           |            |           |       | 25   | 0      | 28.77            | 22.08         |
| 5.0       | 20625      | 846.5     | QPSK  | 1    | 0      | 28.56            | 24.00         |
|           |            |           |       | 1    | 12     | 28.25            | 23.83         |
|           |            |           |       | 1    | 24     | 28.34            | 23.76         |
|           |            |           |       | 12   | 0      | 28.14            | 22.90         |
|           |            |           |       | 12   | 6      | 27.84            | 22.84         |
|           |            |           |       | 12   | 11     | 27.90            | 22.79         |
|           |            |           |       | 25   | 0      | 28.47            | 22.88         |
|           |            |           | 16QAM | 1    | 0      | 28.42            | 23.22         |
|           |            |           |       | 1    | 12     | 28.28            | 23.21         |
|           |            |           |       | 1    | 24     | 28.38            | 23.22         |
|           |            |           |       | 12   | 0      | 27.85            | 21.81         |
|           |            |           |       | 12   | 6      | 27.72            | 21.82         |
|           |            |           |       | 12   | 11     | 27.98            | 21.84         |
|           |            |           |       | 25   | 0      | 28.55            | 21.91         |

**LAT OUTPUT POWER FOR LTE BAND 5 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 20450      | 829.0     | QPSK  | 1    | 0      | 28.22            | 23.58         |
|           |            |           |       | 1    | 24     | 28.29            | <b>23.70</b>  |
|           |            |           |       | 1    | 49     | 28.33            | 23.67         |
|           |            |           |       | 25   | 0      | 27.67            | 22.69         |
|           |            |           |       | 25   | 12     | 27.78            | 22.68         |
|           |            |           |       | 25   | 24     | 27.92            | 22.66         |
|           |            |           |       | 50   | 0      | 28.21            | 22.59         |
|           |            |           | 16QAM | 1    | 0      | 28.26            | 22.63         |
|           |            |           |       | 1    | 24     | 28.37            | <b>22.88</b>  |
|           |            |           |       | 1    | 49     | 28.42            | 22.83         |
|           |            |           |       | 25   | 0      | 27.71            | 21.78         |
|           |            |           |       | 25   | 12     | 27.83            | 21.69         |
|           |            |           |       | 25   | 24     | 27.90            | 21.78         |
|           |            |           |       | 50   | 0      | 28.65            | 21.83         |
| 10.0      | 20525      | 836.5     | QPSK  | 1    | 0      | 28.25            | 23.66         |
|           |            |           |       | 1    | 24     | 28.52            | 23.54         |
|           |            |           |       | 1    | 49     | 28.33            | 23.59         |
|           |            |           |       | 25   | 0      | 28.09            | 22.66         |
|           |            |           |       | 25   | 12     | 27.96            | 22.85         |
|           |            |           |       | 25   | 24     | 28.12            | 22.89         |
|           |            |           |       | 50   | 0      | 27.98            | 22.87         |
|           |            |           | 16QAM | 1    | 0      | 28.35            | 22.84         |
|           |            |           |       | 1    | 24     | 28.67            | 22.87         |
|           |            |           |       | 1    | 49     | 28.34            | <b>22.88</b>  |
|           |            |           |       | 25   | 0      | 27.99            | 21.67         |
|           |            |           |       | 25   | 12     | 28.00            | 21.70         |
|           |            |           |       | 25   | 24     | 28.08            | 21.77         |
|           |            |           |       | 50   | 0      | <b>28.82</b>     | 21.73         |
| 10.0      | 20600      | 844.0     | QPSK  | 1    | 0      | 28.42            | 23.55         |
|           |            |           |       | 1    | 24     | 28.38            | 23.52         |
|           |            |           |       | 1    | 49     | 28.52            | 23.55         |
|           |            |           |       | 25   | 0      | 27.91            | 22.57         |
|           |            |           |       | 25   | 12     | 27.96            | 22.85         |
|           |            |           |       | 25   | 24     | 28.15            | 22.87         |
|           |            |           |       | 50   | 0      | <b>28.85</b>     | 22.84         |
|           |            |           | 16QAM | 1    | 0      | 28.12            | 22.66         |
|           |            |           |       | 1    | 24     | 28.05            | 22.60         |
|           |            |           |       | 1    | 49     | 28.23            | 22.51         |
|           |            |           |       | 25   | 0      | 27.78            | 21.54         |
|           |            |           |       | 25   | 12     | 27.80            | 21.77         |
|           |            |           |       | 25   | 24     | 27.93            | 21.79         |
|           |            |           |       | 50   | 0      | 28.12            | 21.75         |

**UAT OUTPUT POWER FOR LTE BAND 5 (1.4MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 1.4       | 20407      | 824.7     | QPSK       | 1    | 0      | 28.25            | 23.58         |
|           |            |           |            | 1    | 2      | 28.08            | 23.54         |
|           |            |           |            | 1    | 5      | 28.20            | 23.57         |
|           |            |           |            | 3    | 0      | 28.46            | 23.64         |
|           |            |           |            | 3    | 1      | 28.35            | 23.58         |
|           |            |           |            | 3    | 2      | 28.37            | 23.60         |
|           |            |           |            | 6    | 0      | 27.88            | 22.64         |
|           |            |           | 16QAM      | 1    | 0      | 28.29            | 22.59         |
|           |            |           |            | 1    | 2      | 28.14            | 22.57         |
|           |            |           |            | 1    | 5      | 28.28            | 22.62         |
|           |            |           |            | 3    | 0      | 28.43            | 22.59         |
|           |            |           |            | 3    | 1      | 28.31            | 22.61         |
|           |            |           |            | 3    | 2      | 28.32            | 22.60         |
|           |            |           |            | 6    | 0      | 27.82            | 21.68         |
| 1.4       | 20525      | 836.5     | QPSK       | 1    | 0      | 28.37            | 23.65         |
|           |            |           |            | 1    | 2      | 28.18            | 23.56         |
|           |            |           |            | 1    | 5      | 28.40            | 23.64         |
|           |            |           |            | 3    | 0      | 28.62            | 23.66         |
|           |            |           |            | 3    | 1      | 28.51            | 23.61         |
|           |            |           |            | 3    | 2      | 28.53            | 23.59         |
|           |            |           |            | 6    | 0      | 28.03            | 22.63         |
|           |            |           | 16QAM      | 1    | 0      | 28.44            | 22.65         |
|           |            |           |            | 1    | 2      | 28.30            | 22.62         |
|           |            |           |            | 1    | 5      | 28.43            | 22.64         |
|           |            |           |            | 3    | 0      | 28.61            | 22.65         |
|           |            |           |            | 3    | 1      | 28.38            | 22.55         |
|           |            |           |            | 3    | 2      | 28.44            | 22.61         |
|           |            |           |            | 6    | 0      | 28.08            | 21.79         |
| 1.4       | 20643      | 848.3     | QPSK       | 1    | 0      | 28.22            | 23.68         |
|           |            |           |            | 1    | 2      | 28.21            | 23.70         |
|           |            |           |            | 1    | 5      | 28.21            | 23.68         |
|           |            |           |            | 3    | 0      | 28.36            | 23.70         |
|           |            |           |            | 3    | 1      | 28.33            | 23.70         |
|           |            |           |            | 3    | 2      | 28.37            | 23.69         |
|           |            |           |            | 6    | 0      | 28.04            | 22.71         |
|           |            |           | 16QAM      | 1    | 0      | 28.14            | 22.68         |
|           |            |           |            | 1    | 2      | 28.15            | 22.71         |
|           |            |           |            | 1    | 5      | 28.12            | 22.61         |
|           |            |           |            | 3    | 0      | 28.30            | 22.72         |
|           |            |           |            | 3    | 1      | 28.28            | 22.76         |
|           |            |           |            | 3    | 2      | 28.30            | 22.76         |
|           |            |           |            | 6    | 0      | 28.04            | 21.87         |

**UAT OUTPUT POWER FOR LTE BAND 5 (3.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 3.0       | 20415      | 825.5     | QPSK       | 1    | 0      | 28.21            | 23.57         |
|           |            |           |            | 1    | 7      | 27.93            | 23.45         |
|           |            |           |            | 1    | 14     | 28.19            | 23.54         |
|           |            |           |            | 8    | 0      | 27.48            | 22.57         |
|           |            |           |            | 8    | 4      | 27.30            | 22.54         |
|           |            |           |            | 8    | 7      | 27.43            | 22.59         |
|           |            |           |            | 15   | 0      | 28.05            | 22.53         |
|           |            |           | 16QAM      | 1    | 0      | 27.82            | 22.44         |
|           |            |           |            | 1    | 7      | 27.56            | 22.39         |
|           |            |           |            | 1    | 14     | 27.71            | 22.43         |
|           |            |           |            | 8    | 0      | 27.27            | 21.65         |
|           |            |           |            | 8    | 4      | 27.07            | 21.61         |
|           |            |           |            | 8    | 7      | 27.16            | 21.60         |
|           |            |           |            | 15   | 0      | 27.90            | 21.61         |
| 3.0       | 20525      | 836.5     | QPSK       | 1    | 0      | 28.28            | 23.59         |
|           |            |           |            | 1    | 7      | 28.08            | 23.50         |
|           |            |           |            | 1    | 14     | 28.35            | 23.57         |
|           |            |           |            | 8    | 0      | 27.69            | 22.60         |
|           |            |           |            | 8    | 4      | 27.62            | 22.61         |
|           |            |           |            | 8    | 7      | 27.67            | 22.59         |
|           |            |           |            | 15   | 0      | 27.98            | 22.61         |
|           |            |           | 16QAM      | 1    | 0      | 27.88            | 22.43         |
|           |            |           |            | 1    | 7      | 27.76            | 22.41         |
|           |            |           |            | 1    | 14     | 27.94            | 22.42         |
|           |            |           |            | 8    | 0      | 27.41            | 21.68         |
|           |            |           |            | 8    | 4      | 27.27            | 21.62         |
|           |            |           |            | 8    | 7      | 27.48            | 21.70         |
|           |            |           |            | 15   | 0      | 27.74            | 21.61         |
| 3.0       | 20635      | 847.5     | QPSK       | 1    | 0      | 28.28            | 23.57         |
|           |            |           |            | 1    | 7      | 28.19            | 23.62         |
|           |            |           |            | 1    | 14     | 28.21            | 23.64         |
|           |            |           |            | 8    | 0      | 27.65            | 22.70         |
|           |            |           |            | 8    | 4      | 27.56            | 22.68         |
|           |            |           |            | 8    | 7      | 27.64            | 22.67         |
|           |            |           |            | 15   | 0      | 28.18            | 22.68         |
|           |            |           | 16QAM      | 1    | 0      | 27.97            | 22.51         |
|           |            |           |            | 1    | 7      | 27.83            | 22.50         |
|           |            |           |            | 1    | 14     | 27.99            | 22.58         |
|           |            |           |            | 8    | 0      | 27.62            | 21.80         |
|           |            |           |            | 8    | 4      | 27.47            | 21.77         |
|           |            |           |            | 8    | 7      | 27.57            | 21.78         |
|           |            |           |            | 15   | 0      | 28.15            | 21.77         |

**UAT OUTPUT POWER FOR LTE BAND 5 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 20425      | 826.5     | QPSK  | 1    | 0      | 27.85            | 23.18         |
|           |            |           |       | 1    | 12     | 27.66            | 23.12         |
|           |            |           |       | 1    | 24     | 27.92            | 23.24         |
|           |            |           |       | 12   | 0      | 27.15            | 22.22         |
|           |            |           |       | 12   | 6      | 27.01            | 22.23         |
|           |            |           |       | 12   | 11     | 26.97            | 22.17         |
|           |            |           |       | 25   | 0      | 27.57            | 22.18         |
|           |            |           | 16QAM | 1    | 0      | 27.79            | 22.11         |
|           |            |           |       | 1    | 12     | 27.57            | 22.08         |
|           |            |           |       | 1    | 24     | 27.90            | 22.21         |
|           |            |           |       | 12   | 0      | 27.03            | 21.20         |
|           |            |           |       | 12   | 6      | 26.81            | 21.11         |
|           |            |           |       | 12   | 11     | 26.91            | 21.15         |
|           |            |           |       | 25   | 0      | 27.63            | 21.29         |
| 5.0       | 20525      | 836.5     | QPSK  | 1    | 0      | 27.94            | 23.28         |
|           |            |           |       | 1    | 12     | 27.93            | 23.31         |
|           |            |           |       | 1    | 24     | 28.09            | 23.34         |
|           |            |           |       | 12   | 0      | 27.23            | 22.19         |
|           |            |           |       | 12   | 6      | 27.17            | 22.22         |
|           |            |           |       | 12   | 11     | 27.21            | 22.21         |
|           |            |           |       | 25   | 0      | 27.67            | 22.20         |
|           |            |           | 16QAM | 1    | 0      | 27.78            | 22.33         |
|           |            |           |       | 1    | 12     | 27.64            | 22.28         |
|           |            |           |       | 1    | 24     | 27.82            | 22.30         |
|           |            |           |       | 12   | 0      | 27.25            | 21.19         |
|           |            |           |       | 12   | 6      | 27.00            | 21.22         |
|           |            |           |       | 12   | 11     | 27.08            | 21.20         |
|           |            |           |       | 25   | 0      | 27.49            | 21.27         |
| 5.0       | 20625      | 846.5     | QPSK  | 1    | 0      | 27.99            | 23.18         |
|           |            |           |       | 1    | 12     | 27.96            | 23.12         |
|           |            |           |       | 1    | 24     | 27.85            | 23.24         |
|           |            |           |       | 12   | 0      | 27.32            | 22.22         |
|           |            |           |       | 12   | 6      | 27.34            | 22.23         |
|           |            |           |       | 12   | 11     | 27.35            | 22.17         |
|           |            |           |       | 25   | 0      | 27.82            | 22.18         |
|           |            |           | 16QAM | 1    | 0      | 27.81            | 22.11         |
|           |            |           |       | 1    | 12     | 27.65            | 22.08         |
|           |            |           |       | 1    | 24     | 27.86            | 22.21         |
|           |            |           |       | 12   | 0      | 27.37            | 21.20         |
|           |            |           |       | 12   | 6      | 27.04            | 21.11         |
|           |            |           |       | 12   | 11     | 27.18            | 21.15         |
|           |            |           |       | 25   | 0      | 27.74            | 21.29         |

**UAT OUTPUT POWER FOR LTE BAND 5 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 20450      | 829.0     | QPSK  | 1    | 0      | 27.73            | 23.20         |
|           |            |           |       | 1    | 24     | 27.79            | 23.22         |
|           |            |           |       | 1    | 49     | 27.73            | 23.24         |
|           |            |           |       | 25   | 0      | 27.17            | 22.20         |
|           |            |           |       | 25   | 12     | 27.04            | 22.23         |
|           |            |           |       | 25   | 24     | 27.19            | 22.23         |
|           |            |           |       | 50   | 0      | 27.59            | 22.24         |
|           |            |           | 16QAM | 1    | 0      | 27.62            | 22.26         |
|           |            |           |       | 1    | 24     | 27.80            | 22.23         |
|           |            |           |       | 1    | 49     | 27.70            | 22.23         |
|           |            |           |       | 25   | 0      | 27.01            | 21.26         |
|           |            |           |       | 25   | 12     | 27.00            | 21.25         |
|           |            |           |       | 25   | 24     | 27.17            | 21.36         |
|           |            |           |       | 50   | 0      | 27.62            | 21.23         |
| 10.0      | 20525      | 836.5     | QPSK  | 1    | 0      | 27.75            | 22.24         |
|           |            |           |       | 1    | 24     | 27.81            | 23.20         |
|           |            |           |       | 1    | 49     | 27.73            | 23.21         |
|           |            |           |       | 25   | 0      | 27.19            | 22.23         |
|           |            |           |       | 25   | 12     | 27.21            | 22.26         |
|           |            |           |       | 25   | 24     | 27.23            | 22.26         |
|           |            |           |       | 50   | 0      | 27.59            | 22.24         |
|           |            |           | 16QAM | 1    | 0      | 27.67            | 22.25         |
|           |            |           |       | 1    | 24     | 27.80            | 22.23         |
|           |            |           |       | 1    | 49     | 27.62            | 22.22         |
|           |            |           |       | 25   | 0      | 27.21            | 21.33         |
|           |            |           |       | 25   | 12     | 27.19            | 21.31         |
|           |            |           |       | 25   | 24     | 27.23            | 21.29         |
|           |            |           |       | 50   | 0      | <b>27.93</b>     | 21.28         |
| 10.0      | 20600      | 844.0     | QPSK  | 1    | 0      | 27.70            | 23.21         |
|           |            |           |       | 1    | 24     | 27.74            | 23.22         |
|           |            |           |       | 1    | 49     | 27.90            | <b>23.25</b>  |
|           |            |           |       | 25   | 0      | 27.24            | 22.24         |
|           |            |           |       | 25   | 12     | 27.13            | 22.25         |
|           |            |           |       | 25   | 24     | 27.37            | 22.28         |
|           |            |           |       | 50   | 0      | <b>28.26</b>     | 22.26         |
|           |            |           | 16QAM | 1    | 0      | 27.68            | 22.22         |
|           |            |           |       | 1    | 24     | 27.69            | 22.21         |
|           |            |           |       | 1    | 49     | 27.91            | <b>22.30</b>  |
|           |            |           |       | 25   | 0      | 27.32            | 21.29         |
|           |            |           |       | 25   | 12     | 27.16            | 21.26         |
|           |            |           |       | 25   | 24     | 27.26            | 21.37         |
|           |            |           |       | 50   | 0      | 27.81            | 21.37         |

## 7.4. LTE BAND 13

### LAT OUTPUT POWER FOR LTE BAND 13 (5.0 MHZ)

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 23207      | 779.5     | QPSK  | 1    | 0      | 26.32            | 23.60         |
|           |            |           |       | 1    | 12     | 27.29            | 23.69         |
|           |            |           |       | 1    | 24     | 27.57            | 23.70         |
|           |            |           |       | 12   | 0      | 27.12            | 22.69         |
|           |            |           |       | 12   | 6      | 27.48            | 22.70         |
|           |            |           |       | 12   | 11     | 27.54            | 22.73         |
|           |            |           |       | 25   | 0      | 27.81            | 22.66         |
|           |            |           | 16QAM | 1    | 0      | 26.36            | 22.02         |
|           |            |           |       | 1    | 12     | 27.32            | 22.97         |
|           |            |           |       | 1    | 24     | 27.61            | 22.96         |
|           |            |           |       | 12   | 0      | 27.06            | 21.72         |
|           |            |           |       | 12   | 6      | 27.47            | 21.65         |
|           |            |           |       | 12   | 11     | 27.53            | 21.61         |
|           |            |           |       | 25   | 0      | 27.85            | 21.73         |
| 5.0       | 23230      | 782.0     | QPSK  | 1    | 0      | 27.40            | 23.71         |
|           |            |           |       | 1    | 12     | 27.57            | 23.70         |
|           |            |           |       | 1    | 24     | 27.60            | 23.70         |
|           |            |           |       | 12   | 0      | 27.60            | 22.74         |
|           |            |           |       | 12   | 6      | 27.64            | 22.70         |
|           |            |           |       | 12   | 11     | 27.65            | 22.66         |
|           |            |           |       | 25   | 0      | 27.99            | 22.64         |
|           |            |           | 16QAM | 1    | 0      | 27.41            | 22.94         |
|           |            |           |       | 1    | 12     | 27.59            | 22.90         |
|           |            |           |       | 1    | 24     | 27.68            | 22.87         |
|           |            |           |       | 12   | 0      | 27.63            | 21.58         |
|           |            |           |       | 12   | 6      | 27.60            | 21.62         |
|           |            |           |       | 12   | 11     | 27.64            | 21.59         |
|           |            |           |       | 25   | 0      | 28.00            | 21.66         |
| 5.0       | 23255      | 784.5     | QPSK  | 1    | 0      | 27.63            | 23.54         |
|           |            |           |       | 1    | 12     | 27.72            | 23.52         |
|           |            |           |       | 1    | 24     | 27.65            | 23.62         |
|           |            |           |       | 12   | 0      | 27.71            | 22.65         |
|           |            |           |       | 12   | 6      | 27.72            | 22.59         |
|           |            |           |       | 12   | 11     | 27.65            | 22.63         |
|           |            |           |       | 25   | 0      | 28.17            | 22.58         |
|           |            |           | 16QAM | 1    | 0      | 27.62            | 22.81         |
|           |            |           |       | 1    | 12     | 27.72            | 22.77         |
|           |            |           |       | 1    | 24     | 27.68            | 22.85         |
|           |            |           |       | 12   | 0      | 27.63            | 21.66         |
|           |            |           |       | 12   | 6      | 27.59            | 21.67         |
|           |            |           |       | 12   | 11     | 27.58            | 21.66         |
|           |            |           |       | 25   | 0      | 28.17            | 21.80         |

**LAT OUTPUT POWER FOR LTE BAND 13 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|-------|------|--------|---------------------|------------------|
|           |            |           |       | Size | Offset |                     |                  |
| 10.0      | 23230      | 782.0     | QPSK  | 1    | 0      | 26.50               | 23.60            |
|           |            |           |       | 1    | 24     | 27.56               | 23.56            |
|           |            |           |       | 1    | 49     | <b>27.70</b>        | <b>23.61</b>     |
|           |            |           |       | 25   | 0      | 27.39               | 22.60            |
|           |            |           |       | 25   | 12     | 27.62               | 22.67            |
|           |            |           |       | 25   | 24     | 27.66               | 22.66            |
|           |            |           |       | 50   | 0      | 27.68               | 22.67            |
|           |            |           | 16QAM | 1    | 0      | 26.57               | 22.75            |
|           |            |           |       | 1    | 24     | 27.62               | 22.82            |
|           |            |           |       | 1    | 49     | 27.82               | <b>22.89</b>     |
|           |            |           |       | 25   | 0      | 27.44               | 21.80            |
|           |            |           |       | 25   | 12     | 27.71               | 21.86            |
|           |            |           |       | 25   | 24     | 27.75               | 21.80            |
|           |            |           |       | 50   | 0      | <b>27.91</b>        | 21.69            |

**UAT OUTPUT POWER FOR LTE BAND 13 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 23207      | 779.5     | QPSK  | 1    | 0      | <b>28.44</b>     | 23.60         |
|           |            |           |       | 1    | 12     | 27.19            | 23.63         |
|           |            |           |       | 1    | 24     | 27.43            | 23.54         |
|           |            |           |       | 12   | 0      | 27.94            | 22.60         |
|           |            |           |       | 12   | 6      | 27.89            | 22.72         |
|           |            |           |       | 12   | 11     | 27.43            | 22.57         |
|           |            |           |       | 25   | 0      | 27.65            | 22.56         |
|           |            |           | 16QAM | 1    | 0      | <b>28.54</b>     | <b>22.90</b>  |
|           |            |           |       | 1    | 12     | 27.35            | 22.77         |
|           |            |           |       | 1    | 24     | 27.43            | 22.75         |
|           |            |           |       | 12   | 0      | 27.76            | 21.62         |
|           |            |           |       | 12   | 6      | 27.66            | 21.75         |
|           |            |           |       | 12   | 11     | 27.41            | 21.62         |
|           |            |           |       | 25   | 0      | 28.12            | 21.77         |
| 5.0       | 23230      | 782.0     | QPSK  | 1    | 0      | 27.18            | 23.60         |
|           |            |           |       | 1    | 12     | 27.49            | 23.47         |
|           |            |           |       | 1    | 24     | 27.32            | 23.49         |
|           |            |           |       | 12   | 0      | 27.48            | 22.60         |
|           |            |           |       | 12   | 6      | 27.40            | 22.54         |
|           |            |           |       | 12   | 11     | 27.40            | 22.53         |
|           |            |           |       | 25   | 0      | 27.88            | 22.54         |
|           |            |           | 16QAM | 1    | 0      | 27.38            | 22.83         |
|           |            |           |       | 1    | 12     | 27.51            | 22.68         |
|           |            |           |       | 1    | 24     | 27.37            | 22.72         |
|           |            |           |       | 12   | 0      | 27.39            | 21.61         |
|           |            |           |       | 12   | 6      | 27.27            | 21.59         |
|           |            |           |       | 12   | 11     | 27.28            | 21.58         |
|           |            |           |       | 25   | 0      | 27.71            | 21.75         |
| 5.0       | 23255      | 784.5     | QPSK  | 1    | 0      | 27.48            | 23.57         |
|           |            |           |       | 1    | 12     | 27.37            | <b>23.64</b>  |
|           |            |           |       | 1    | 24     | 27.28            | 23.58         |
|           |            |           |       | 12   | 0      | 27.48            | 22.58         |
|           |            |           |       | 12   | 6      | 27.44            | 22.65         |
|           |            |           |       | 12   | 11     | 27.41            | 22.64         |
|           |            |           |       | 25   | 0      | 27.87            | 22.52         |
|           |            |           | 16QAM | 1    | 0      | 27.43            | 22.71         |
|           |            |           |       | 1    | 12     | 27.38            | 22.83         |
|           |            |           |       | 1    | 24     | 27.31            | 22.79         |
|           |            |           |       | 12   | 0      | 27.45            | 21.60         |
|           |            |           |       | 12   | 6      | 27.42            | 21.69         |
|           |            |           |       | 12   | 11     | 27.42            | 21.73         |
|           |            |           |       | 25   | 0      | 27.76            | 21.74         |

**UAT OUTPUT POWER FOR LTE BAND 13 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|-------|------|--------|---------------------|------------------|
|           |            |           |       | Size | Offset |                     |                  |
| 10.0      | 23230      | 782.0     | QPSK  | 1    | 0      | <b>28.49</b>        | 23.57            |
|           |            |           |       | 1    | 24     | 27.48               | 23.50            |
|           |            |           |       | 1    | 49     | 27.36               | <b>23.59</b>     |
|           |            |           |       | 25   | 0      | 27.34               | 22.59            |
|           |            |           |       | 25   | 12     | 27.49               | 22.58            |
|           |            |           |       | 25   | 24     | 27.42               | 22.54            |
|           |            |           |       | 50   | 0      | 27.53               | 22.64            |
|           |            |           | 16QAM | 1    | 0      | <b>28.17</b>        | 22.46            |
|           |            |           |       | 1    | 24     | 27.49               | 22.39            |
|           |            |           |       | 1    | 49     | 27.35               | <b>22.51</b>     |
|           |            |           |       | 25   | 0      | 27.91               | 21.69            |
|           |            |           |       | 25   | 12     | 27.44               | 21.67            |
|           |            |           |       | 25   | 24     | 27.39               | 21.63            |
|           |            |           |       | 50   | 0      | 27.72               | 21.63            |

## 7.5. LTE BAND 17

### LAT OUTPUT POWER FOR LTE BAND 17 (5.0 MHZ)

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|-------|------|--------|---------------------|------------------|
|           |            |           |       | Size | Offset |                     |                  |
| 5.0       | 23755      | 706.5     | QPSK  | 1    | 0      | 27.64               | 23.79            |
|           |            |           |       | 1    | 12     | 27.48               | 23.77            |
|           |            |           |       | 1    | 24     | 27.46               | <b>23.83</b>     |
|           |            |           |       | 12   | 0      | 27.56               | 22.74            |
|           |            |           |       | 12   | 6      | 27.54               | 22.74            |
|           |            |           |       | 12   | 11     | 27.54               | 22.85            |
|           |            |           |       | 25   | 0      | <b>28.02</b>        | 22.74            |
|           |            |           | 16QAM | 1    | 0      | 27.64               | 22.98            |
|           |            |           |       | 1    | 12     | 27.52               | 22.95            |
|           |            |           |       | 1    | 24     | 27.53               | <b>23.08</b>     |
|           |            |           |       | 12   | 0      | 27.55               | 21.63            |
|           |            |           |       | 12   | 6      | 27.49               | 21.64            |
|           |            |           |       | 12   | 11     | 27.53               | 21.69            |
|           |            |           |       | 25   | 0      | <b>28.02</b>        | 21.83            |
| 5.0       | 23790      | 710.0     | QPSK  | 1    | 0      | 27.44               | 23.71            |
|           |            |           |       | 1    | 12     | 27.48               | 23.66            |
|           |            |           |       | 1    | 24     | 27.53               | 23.69            |
|           |            |           |       | 12   | 0      | 27.56               | 22.75            |
|           |            |           |       | 12   | 6      | 27.59               | 22.73            |
|           |            |           |       | 12   | 11     | 27.60               | 22.72            |
|           |            |           |       | 25   | 0      | 28.01               | 22.68            |
|           |            |           | 16QAM | 1    | 0      | 27.44               | 22.91            |
|           |            |           |       | 1    | 12     | 27.50               | 22.87            |
|           |            |           |       | 1    | 24     | 27.59               | 22.93            |
|           |            |           |       | 12   | 0      | 27.53               | 21.77            |
|           |            |           |       | 12   | 6      | 27.57               | 21.79            |
|           |            |           |       | 12   | 11     | 27.60               | 21.77            |
|           |            |           |       | 25   | 0      | 27.98               | 21.93            |
| 5.0       | 23825      | 713.5     | QPSK  | 1    | 0      | 27.50               | 23.67            |
|           |            |           |       | 1    | 12     | 27.59               | 23.64            |
|           |            |           |       | 1    | 24     | 27.34               | 23.72            |
|           |            |           |       | 12   | 0      | 27.63               | 22.76            |
|           |            |           |       | 12   | 6      | 27.64               | 22.75            |
|           |            |           |       | 12   | 11     | 27.55               | 22.71            |
|           |            |           |       | 25   | 0      | 28.01               | 22.65            |
|           |            |           | 16QAM | 1    | 0      | 27.53               | 22.93            |
|           |            |           |       | 1    | 12     | 27.58               | 22.88            |
|           |            |           |       | 1    | 24     | 27.38               | 22.89            |
|           |            |           |       | 12   | 0      | 27.63               | 21.73            |
|           |            |           |       | 12   | 6      | 27.60               | 21.77            |
|           |            |           |       | 12   | 11     | 27.56               | 21.76            |
|           |            |           |       | 25   | 0      | 27.99               | 21.83            |

**LAT OUTPUT POWER FOR LTE BAND 17 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 23780      | 709.0     | QPSK  | 1    | 0      | 27.65            | 23.67         |
|           |            |           |       | 1    | 24     | 27.52            | 23.72         |
|           |            |           |       | 1    | 49     | 27.57            | 23.72         |
|           |            |           |       | 25   | 0      | 27.59            | 22.82         |
|           |            |           |       | 25   | 12     | 27.55            | 22.74         |
|           |            |           |       | 25   | 24     | 27.58            | 22.79         |
|           |            |           |       | 50   | 0      | 27.95            | 22.76         |
|           |            |           | 16QAM | 1    | 0      | 27.62            | 22.51         |
|           |            |           |       | 1    | 24     | 27.54            | 22.61         |
|           |            |           |       | 1    | 49     | 27.60            | 22.57         |
|           |            |           |       | 25   | 0      | 27.62            | 21.78         |
|           |            |           |       | 25   | 12     | 27.59            | 21.79         |
|           |            |           |       | 25   | 24     | 27.63            | 21.83         |
|           |            |           |       | 50   | 0      | 27.88            | 21.79         |
| 10.0      | 23790      | 710.0     | QPSK  | 1    | 0      | 27.52            | 23.61         |
|           |            |           |       | 1    | 24     | 27.52            | 23.67         |
|           |            |           |       | 1    | 49     | 27.41            | 23.73         |
|           |            |           |       | 25   | 0      | 27.58            | 22.81         |
|           |            |           |       | 25   | 12     | 27.60            | 22.71         |
|           |            |           |       | 25   | 24     | 27.56            | 22.77         |
|           |            |           |       | 50   | 0      | 27.78            | 22.74         |
|           |            |           | 16QAM | 1    | 0      | 27.52            | 22.60         |
|           |            |           |       | 1    | 24     | 27.55            | 22.50         |
|           |            |           |       | 1    | 49     | 27.40            | 22.56         |
|           |            |           |       | 25   | 0      | 27.55            | 21.78         |
|           |            |           |       | 25   | 12     | 27.62            | 21.74         |
|           |            |           |       | 25   | 24     | 27.61            | 21.81         |
|           |            |           |       | 50   | 0      | 27.74            | 21.75         |
| 10.0      | 23800      | 711.0     | QPSK  | 1    | 0      | 27.52            | 23.63         |
|           |            |           |       | 1    | 24     | 27.42            | 23.66         |
|           |            |           |       | 1    | 49     | 27.49            | 23.67         |
|           |            |           |       | 25   | 0      | 27.53            | 22.77         |
|           |            |           |       | 25   | 12     | 27.56            | 22.75         |
|           |            |           |       | 25   | 24     | 27.58            | 22.71         |
|           |            |           |       | 50   | 0      | 27.77            | 22.75         |
|           |            |           | 16QAM | 1    | 0      | 27.54            | 22.79         |
|           |            |           |       | 1    | 24     | 27.48            | 22.84         |
|           |            |           |       | 1    | 49     | 27.58            | 22.90         |
|           |            |           |       | 25   | 0      | 27.55            | 21.91         |
|           |            |           |       | 25   | 12     | 27.57            | 21.91         |
|           |            |           |       | 25   | 24     | 27.66            | 21.86         |
|           |            |           |       | 50   | 0      | 27.71            | 21.74         |

**UAT OUTPUT POWER FOR LTE BAND 17 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 23755      | 706.5     | QPSK  | 1    | 0      | 26.90            | <b>23.65</b>  |
|           |            |           |       | 1    | 12     | 26.70            | 23.61         |
|           |            |           |       | 1    | 24     | <b>27.85</b>     | 23.58         |
|           |            |           |       | 12   | 0      | 26.95            | 22.66         |
|           |            |           |       | 12   | 6      | 26.90            | 22.69         |
|           |            |           |       | 12   | 11     | 27.42            | 22.67         |
|           |            |           |       | 25   | 0      | 27.53            | 22.66         |
|           |            |           | 16QAM | 1    | 0      | 26.91            | <b>22.82</b>  |
|           |            |           |       | 1    | 12     | 26.98            | 22.79         |
|           |            |           |       | 1    | 24     | 27.25            | 22.77         |
|           |            |           |       | 12   | 0      | 26.91            | 21.73         |
|           |            |           |       | 12   | 6      | 26.91            | 21.70         |
|           |            |           |       | 12   | 11     | 26.91            | 21.70         |
|           |            |           |       | 25   | 0      | 27.32            | 21.80         |
| 5.0       | 23790      | 710.0     | QPSK  | 1    | 0      | 27.73            | 23.57         |
|           |            |           |       | 1    | 12     | 27.26            | 23.54         |
|           |            |           |       | 1    | 24     | 26.94            | 23.56         |
|           |            |           |       | 12   | 0      | 27.57            | 22.66         |
|           |            |           |       | 12   | 6      | 27.52            | 22.61         |
|           |            |           |       | 12   | 11     | 27.57            | 22.66         |
|           |            |           |       | 25   | 0      | 27.41            | 22.62         |
|           |            |           | 16QAM | 1    | 0      | 27.18            | 22.74         |
|           |            |           |       | 1    | 12     | 27.35            | 22.79         |
|           |            |           |       | 1    | 24     | 27.07            | 22.77         |
|           |            |           |       | 12   | 0      | 27.48            | 21.73         |
|           |            |           |       | 12   | 6      | 27.34            | 21.67         |
|           |            |           |       | 12   | 11     | 27.40            | 21.68         |
|           |            |           |       | 25   | 0      | <b>27.99</b>     | 21.79         |
| 5.0       | 23825      | 713.5     | QPSK  | 1    | 0      | 27.18            | 23.54         |
|           |            |           |       | 1    | 12     | 27.00            | 23.53         |
|           |            |           |       | 1    | 24     | 26.77            | 23.56         |
|           |            |           |       | 12   | 0      | 27.07            | 22.66         |
|           |            |           |       | 12   | 6      | 27.10            | 22.61         |
|           |            |           |       | 12   | 11     | 27.05            | 22.62         |
|           |            |           |       | 25   | 0      | 27.43            | 22.56         |
|           |            |           | 16QAM | 1    | 0      | 27.21            | 22.76         |
|           |            |           |       | 1    | 12     | 27.01            | 22.68         |
|           |            |           |       | 1    | 24     | 26.79            | 22.69         |
|           |            |           |       | 12   | 0      | 27.08            | 21.68         |
|           |            |           |       | 12   | 6      | 27.09            | 21.68         |
|           |            |           |       | 12   | 11     | 27.01            | 21.64         |
|           |            |           |       | 25   | 0      | 27.41            | 21.77         |

**UAT OUTPUT POWER FOR LTE BAND 17 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 23780      | 709.0     | QPSK  | 1    | 0      | 26.86            | <b>23.65</b>  |
|           |            |           |       | 1    | 24     | 27.78            | 23.55         |
|           |            |           |       | 1    | 49     | 26.98            | 23.54         |
|           |            |           |       | 25   | 0      | 26.93            | 22.63         |
|           |            |           |       | 25   | 12     | 27.51            | 22.62         |
|           |            |           |       | 25   | 24     | 27.54            | 22.65         |
|           |            |           |       | 50   | 0      | 27.33            | 22.66         |
|           |            |           | 16QAM | 1    | 0      | 26.85            | 22.52         |
|           |            |           |       | 1    | 24     | 26.74            | 22.42         |
|           |            |           |       | 1    | 49     | 26.99            | 22.39         |
|           |            |           |       | 25   | 0      | 26.92            | 21.69         |
|           |            |           |       | 25   | 12     | 27.43            | 21.66         |
|           |            |           |       | 25   | 24     | 27.57            | 21.70         |
|           |            |           |       | 50   | 0      | <b>28.10</b>     | 21.75         |
| 10.0      | 23790      | 710.0     | QPSK  | 1    | 0      | 26.73            | 23.63         |
|           |            |           |       | 1    | 24     | 26.85            | 23.58         |
|           |            |           |       | 1    | 49     | 26.84            | 23.54         |
|           |            |           |       | 25   | 0      | 27.56            | 22.70         |
|           |            |           |       | 25   | 12     | 27.53            | 22.67         |
|           |            |           |       | 25   | 24     | 27.04            | 22.59         |
|           |            |           |       | 50   | 0      | 27.47            | 22.64         |
|           |            |           | 16QAM | 1    | 0      | 26.76            | <b>22.53</b>  |
|           |            |           |       | 1    | 24     | 26.92            | 22.45         |
|           |            |           |       | 1    | 49     | 26.88            | 22.34         |
|           |            |           |       | 25   | 0      | 27.50            | 21.70         |
|           |            |           |       | 25   | 12     | 27.54            | 21.70         |
|           |            |           |       | 25   | 24     | 27.07            | 21.63         |
|           |            |           |       | 50   | 0      | 27.34            | 21.68         |
| 10.0      | 23800      | 711.0     | QPSK  | 1    | 0      | 26.78            | 23.61         |
|           |            |           |       | 1    | 24     | <b>27.89</b>     | 23.55         |
|           |            |           |       | 1    | 49     | 26.93            | 23.50         |
|           |            |           |       | 25   | 0      | 27.55            | 22.67         |
|           |            |           |       | 25   | 12     | 27.49            | 22.62         |
|           |            |           |       | 25   | 24     | 27.03            | 22.58         |
|           |            |           |       | 50   | 0      | 27.45            | 22.67         |
|           |            |           | 16QAM | 1    | 0      | 26.80            | 22.47         |
|           |            |           |       | 1    | 24     | 26.77            | 22.40         |
|           |            |           |       | 1    | 49     | 26.95            | 22.38         |
|           |            |           |       | 25   | 0      | 27.40            | 21.72         |
|           |            |           |       | 25   | 12     | 27.44            | 21.65         |
|           |            |           |       | 25   | 24     | 27.03            | 21.64         |
|           |            |           |       | 50   | 0      | 27.94            | 21.70         |

## 7.6. LTE BAND 25

### LAT OUTPUT POWER FOR LTE BAND 25 (1.4MHZ)

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------|--------|---------------------|------------------|
|           |            |           |            | Size | Offset |                     |                  |
| 1.4       | 26047      | 1850.7    | QPSK       | 1    | 0      | 28.36               | 23.93            |
|           |            |           |            | 1    | 2      | 28.35               | 23.89            |
|           |            |           |            | 1    | 5      | 28.38               | 23.94            |
|           |            |           |            | 3    | 0      | 28.52               | 24.00            |
|           |            |           |            | 3    | 1      | 28.47               | 23.93            |
|           |            |           |            | 3    | 2      | 28.52               | 23.97            |
|           |            |           |            | 6    | 0      | 28.25               | 22.82            |
|           |            |           | 16QAM      | 1    | 0      | 28.35               | 22.97            |
|           |            |           |            | 1    | 2      | 28.32               | 22.87            |
|           |            |           |            | 1    | 5      | 28.39               | 22.92            |
|           |            |           |            | 3    | 0      | 28.42               | 22.88            |
|           |            |           |            | 3    | 1      | 28.42               | 22.90            |
|           |            |           |            | 3    | 2      | 28.47               | 22.88            |
|           |            |           |            | 6    | 0      | 28.26               | 22.05            |
|           |            |           |            |      |        |                     |                  |
| 1.4       | 26365      | 1882.5    | QPSK       | 1    | 0      | 28.89               | 23.95            |
|           |            |           |            | 1    | 2      | 28.65               | 23.94            |
|           |            |           |            | 1    | 5      | 28.75               | 23.87            |
|           |            |           |            | 3    | 0      | 29.06               | 23.96            |
|           |            |           |            | 3    | 1      | 28.96               | 24.00            |
|           |            |           |            | 3    | 2      | 29.01               | 23.95            |
|           |            |           |            | 6    | 0      | 28.38               | 22.98            |
|           |            |           | 16QAM      | 1    | 0      | 28.97               | 23.01            |
|           |            |           |            | 1    | 2      | 28.80               | 22.99            |
|           |            |           |            | 1    | 5      | 28.86               | 22.92            |
|           |            |           |            | 3    | 0      | 29.13               | 23.02            |
|           |            |           |            | 3    | 1      | 28.98               | 23.02            |
|           |            |           |            | 3    | 2      | 28.97               | 23.02            |
|           |            |           |            | 6    | 0      | 28.53               | 22.17            |
|           |            |           |            |      |        |                     |                  |
| 1.4       | 26683      | 1914.3    | QPSK       | 1    | 0      | 28.48               | 24.00            |
|           |            |           |            | 1    | 2      | 28.41               | 23.95            |
|           |            |           |            | 1    | 5      | 28.33               | 23.99            |
|           |            |           |            | 3    | 0      | 28.57               | 24.00            |
|           |            |           |            | 3    | 1      | 28.51               | 23.98            |
|           |            |           |            | 3    | 2      | 28.50               | 23.97            |
|           |            |           |            | 6    | 0      | 28.43               | 22.93            |
|           |            |           | 16QAM      | 1    | 0      | 28.47               | 23.04            |
|           |            |           |            | 1    | 2      | 28.43               | 22.98            |
|           |            |           |            | 1    | 5      | 28.41               | 23.05            |
|           |            |           |            | 3    | 0      | 28.56               | 23.00            |
|           |            |           |            | 3    | 1      | 28.54               | 23.01            |
|           |            |           |            | 3    | 2      | 28.55               | 23.06            |
|           |            |           |            | 6    | 0      | 28.41               | 22.18            |
|           |            |           |            |      |        |                     |                  |

**LAT OUTPUT POWER FOR LTE BAND 25 (3.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 3.0       | 26055      | 1851.5    | QPSK       | 1    | 0      | 28.33            | 23.89         |
|           |            |           |            | 1    | 7      | 28.33            | 23.84         |
|           |            |           |            | 1    | 14     | 28.45            | 23.97         |
|           |            |           |            | 8    | 0      | 28.03            | 22.85         |
|           |            |           |            | 8    | 4      | 27.91            | 22.86         |
|           |            |           |            | 8    | 7      | 28.11            | 22.93         |
|           |            |           |            | 15   | 0      | 28.61            | 22.88         |
|           |            |           | 16QAM      | 1    | 0      | 28.33            | 23.15         |
|           |            |           |            | 1    | 7      | 28.37            | 22.98         |
|           |            |           |            | 1    | 14     | 28.48            | <b>23.19</b>  |
|           |            |           |            | 8    | 0      | 27.92            | 21.99         |
|           |            |           |            | 8    | 4      | 27.87            | 22.02         |
|           |            |           |            | 8    | 7      | 28.06            | 22.14         |
|           |            |           |            | 15   | 0      | 28.51            | 21.95         |
| 3.0       | 26365      | 1882.5    | QPSK       | 1    | 0      | 28.70            | 23.92         |
|           |            |           |            | 1    | 7      | 28.42            | 23.81         |
|           |            |           |            | 1    | 14     | 28.65            | 23.88         |
|           |            |           |            | 8    | 0      | 28.24            | 23.02         |
|           |            |           |            | 8    | 4      | 28.15            | 23.00         |
|           |            |           |            | 8    | 7      | 28.17            | 22.90         |
|           |            |           |            | 15   | 0      | <b>28.79</b>     | 23.02         |
|           |            |           | 16QAM      | 1    | 0      | <b>28.79</b>     | 23.17         |
|           |            |           |            | 1    | 7      | 28.55            | 23.05         |
|           |            |           |            | 1    | 14     | 28.70            | 23.12         |
|           |            |           |            | 8    | 0      | 28.07            | 22.08         |
|           |            |           |            | 8    | 4      | 28.07            | 22.07         |
|           |            |           |            | 8    | 7      | 28.01            | 21.99         |
|           |            |           |            | 15   | 0      | 28.24            | 22.04         |
| 3.0       | 26675      | 1913.5    | QPSK       | 1    | 0      | 28.68            | 23.93         |
|           |            |           |            | 1    | 7      | 28.43            | 23.87         |
|           |            |           |            | 1    | 14     | 28.38            | <b>24.00</b>  |
|           |            |           |            | 8    | 0      | 28.12            | 22.96         |
|           |            |           |            | 8    | 4      | 28.14            | 23.01         |
|           |            |           |            | 8    | 7      | 28.12            | 23.00         |
|           |            |           |            | 15   | 0      | 28.54            | 22.96         |
|           |            |           | 16QAM      | 1    | 0      | 28.46            | 22.78         |
|           |            |           |            | 1    | 7      | 28.29            | 22.75         |
|           |            |           |            | 1    | 14     | 28.45            | 22.85         |
|           |            |           |            | 8    | 0      | 27.93            | 22.08         |
|           |            |           |            | 8    | 4      | 27.91            | 22.08         |
|           |            |           |            | 8    | 7      | 27.92            | 22.06         |
|           |            |           |            | 15   | 0      | 28.59            | 22.09         |

**LAT OUTPUT POWER FOR LTE BAND 25 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 26065      | 1852.5    | QPSK  | 1    | 0      | 28.31            | 23.82         |
|           |            |           |       | 1    | 12     | 28.39            | 23.88         |
|           |            |           |       | 1    | 24     | 28.55            | 23.90         |
|           |            |           |       | 12   | 0      | 28.00            | 22.81         |
|           |            |           |       | 12   | 6      | 28.02            | 22.96         |
|           |            |           |       | 12   | 11     | 28.11            | 22.98         |
|           |            |           |       | 25   | 0      | 28.45            | 22.91         |
|           |            |           | 16QAM | 1    | 0      | 28.33            | 23.07         |
|           |            |           |       | 1    | 12     | 28.42            | 23.08         |
|           |            |           |       | 1    | 24     | 28.59            | 23.12         |
|           |            |           |       | 12   | 0      | 27.89            | 21.94         |
|           |            |           |       | 12   | 6      | 27.82            | 22.01         |
|           |            |           |       | 12   | 11     | 27.81            | 21.99         |
|           |            |           |       | 25   | 0      | 28.56            | 22.15         |
| 5.0       | 26365      | 1882.5    | QPSK  | 1    | 0      | <b>28.77</b>     | <b>24.00</b>  |
|           |            |           |       | 1    | 12     | 28.55            | 23.92         |
|           |            |           |       | 1    | 24     | 28.76            | 24.00         |
|           |            |           |       | 12   | 0      | 28.03            | 22.96         |
|           |            |           |       | 12   | 6      | 28.06            | 23.02         |
|           |            |           |       | 12   | 11     | 27.94            | 22.87         |
|           |            |           |       | 25   | 0      | 28.65            | 22.97         |
|           |            |           | 16QAM | 1    | 0      | 28.53            | <b>23.26</b>  |
|           |            |           |       | 1    | 12     | 28.34            | 23.14         |
|           |            |           |       | 1    | 24     | 28.53            | 23.22         |
|           |            |           |       | 12   | 0      | 28.05            | 21.85         |
|           |            |           |       | 12   | 6      | 27.79            | 21.86         |
|           |            |           |       | 12   | 11     | 27.85            | 21.82         |
|           |            |           |       | 25   | 0      | <b>28.77</b>     | 21.99         |
| 5.0       | 26665      | 1912.5    | QPSK  | 1    | 0      | 28.58            | 23.83         |
|           |            |           |       | 1    | 12     | 28.50            | 23.84         |
|           |            |           |       | 1    | 24     | 28.39            | 23.98         |
|           |            |           |       | 12   | 0      | 28.27            | 22.97         |
|           |            |           |       | 12   | 6      | 28.03            | 22.92         |
|           |            |           |       | 12   | 11     | 28.06            | 22.93         |
|           |            |           |       | 25   | 0      | 28.68            | 22.90         |
|           |            |           | 16QAM | 1    | 0      | 28.59            | 23.11         |
|           |            |           |       | 1    | 12     | 28.58            | 23.12         |
|           |            |           |       | 1    | 24     | 28.49            | 23.21         |
|           |            |           |       | 12   | 0      | 28.08            | 22.01         |
|           |            |           |       | 12   | 6      | 27.89            | 21.94         |
|           |            |           |       | 12   | 11     | 27.94            | 22.01         |
|           |            |           |       | 25   | 0      | 28.67            | 22.14         |

**LAT OUTPUT POWER FOR LTE BAND 25 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 26090      | 1855.0    | QPSK  | 1    | 0      | 28.38            | 23.82         |
|           |            |           |       | 1    | 24     | 28.49            | 23.86         |
|           |            |           |       | 1    | 49     | 28.63            | 23.84         |
|           |            |           |       | 25   | 0      | 28.23            | 22.97         |
|           |            |           |       | 25   | 12     | 28.09            | 23.00         |
|           |            |           |       | 25   | 24     | 28.24            | 22.91         |
|           |            |           |       | 50   | 0      | 28.19            | 23.01         |
|           |            |           | 16QAM | 1    | 0      | 28.38            | 23.03         |
|           |            |           |       | 1    | 24     | 28.50            | 23.09         |
|           |            |           |       | 1    | 49     | 28.77            | 23.15         |
|           |            |           |       | 25   | 0      | 28.19            | 22.12         |
|           |            |           |       | 25   | 12     | 28.01            | 22.14         |
|           |            |           |       | 25   | 24     | 28.18            | 22.07         |
|           |            |           |       | 50   | 0      | 28.37            | 22.02         |
| 10.0      | 26365      | 1882.5    | QPSK  | 1    | 0      | 28.56            | 23.85         |
|           |            |           |       | 1    | 24     | 28.55            | 23.88         |
|           |            |           |       | 1    | 49     | 28.59            | 23.90         |
|           |            |           |       | 25   | 0      | 28.21            | 22.98         |
|           |            |           |       | 25   | 12     | 28.05            | 23.01         |
|           |            |           |       | 25   | 24     | 28.22            | 22.91         |
|           |            |           |       | 50   | 0      | 28.28            | 23.00         |
|           |            |           | 16QAM | 1    | 0      | 28.62            | 23.09         |
|           |            |           |       | 1    | 24     | 28.71            | 23.18         |
|           |            |           |       | 1    | 49     | 28.59            | 23.07         |
|           |            |           |       | 25   | 0      | 28.12            | 22.10         |
|           |            |           |       | 25   | 12     | 28.12            | 22.16         |
|           |            |           |       | 25   | 24     | 28.09            | 22.05         |
|           |            |           |       | 50   | 0      | 28.67            | 22.05         |
| 10.0      | 26640      | 1910.0    | QPSK  | 1    | 0      | 28.57            | 23.85         |
|           |            |           |       | 1    | 24     | 28.51            | 23.88         |
|           |            |           |       | 1    | 49     | 28.42            | 23.95         |
|           |            |           |       | 25   | 0      | 28.31            | 22.99         |
|           |            |           |       | 25   | 12     | 28.12            | 22.95         |
|           |            |           |       | 25   | 24     | 28.33            | 23.00         |
|           |            |           |       | 50   | 0      | 28.26            | 22.93         |
|           |            |           | 16QAM | 1    | 0      | 28.24            | 22.71         |
|           |            |           |       | 1    | 24     | 28.26            | 22.67         |
|           |            |           |       | 1    | 49     | 28.36            | 22.76         |
|           |            |           |       | 25   | 0      | 28.11            | 22.00         |
|           |            |           |       | 25   | 12     | 28.11            | 22.00         |
|           |            |           |       | 25   | 24     | 28.13            | 22.02         |
|           |            |           |       | 50   | 0      | 28.71            | 22.00         |

**LAT OUTPUT POWER FOR LTE BAND 25 (15.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 15.0      | 26115      | 1857.5    | QPSK   | 1    | 0      | 28.38            | 23.90         |
|           |            |           |        | 1    | 37     | 28.69            | 23.94         |
|           |            |           |        | 1    | 74     | 28.75            | 23.87         |
|           |            |           |        | 36   | 0      | 28.33            | 23.11         |
|           |            |           |        | 36   | 16     | 28.22            | 23.06         |
|           |            |           |        | 36   | 35     | 28.27            | 23.03         |
|           |            |           |        | 75   | 0      | 28.74            | 23.04         |
|           |            |           | 16-QAM | 1    | 0      | 28.38            | 22.93         |
|           |            |           |        | 1    | 37     | 28.41            | 22.89         |
|           |            |           |        | 1    | 74     | 28.51            | 22.88         |
|           |            |           |        | 36   | 0      | 28.22            | 22.06         |
|           |            |           |        | 36   | 16     | 28.02            | 22.02         |
|           |            |           |        | 36   | 35     | 28.10            | 21.96         |
|           |            |           |        | 75   | 0      | 28.61            | 22.14         |
| 15.0      | 26365      | 1882.5    | QPSK   | 1    | 0      | 28.71            | 23.89         |
|           |            |           |        | 1    | 37     | 28.52            | 23.84         |
|           |            |           |        | 1    | 74     | 28.71            | 23.94         |
|           |            |           |        | 36   | 0      | 28.27            | 23.04         |
|           |            |           |        | 36   | 16     | 28.14            | 23.06         |
|           |            |           |        | 36   | 35     | 28.21            | 23.07         |
|           |            |           |        | 75   | 0      | 29.02            | 23.13         |
|           |            |           | 16-QAM | 1    | 0      | 28.23            | 22.67         |
|           |            |           |        | 1    | 37     | 28.09            | 22.62         |
|           |            |           |        | 1    | 74     | 28.27            | 22.73         |
|           |            |           |        | 36   | 0      | 28.16            | 22.06         |
|           |            |           |        | 36   | 16     | 28.07            | 22.09         |
|           |            |           |        | 36   | 35     | 28.11            | 22.05         |
|           |            |           |        | 75   | 0      | 28.81            | 22.23         |
| 15.0      | 26615      | 1907.5    | QPSK   | 1    | 0      | 28.55            | 23.81         |
|           |            |           |        | 1    | 37     | 28.54            | 23.85         |
|           |            |           |        | 1    | 74     | 28.41            | 24.00         |
|           |            |           |        | 36   | 0      | 28.44            | 23.11         |
|           |            |           |        | 36   | 16     | 28.15            | 23.04         |
|           |            |           |        | 36   | 35     | 28.36            | 23.06         |
|           |            |           |        | 75   | 0      | 28.87            | 23.05         |
|           |            |           | 16-QAM | 1    | 0      | 28.15            | 22.66         |
|           |            |           |        | 1    | 37     | 28.16            | 22.68         |
|           |            |           |        | 1    | 74     | 28.34            | 22.77         |
|           |            |           |        | 36   | 0      | 28.30            | 22.13         |
|           |            |           |        | 36   | 16     | 28.03            | 22.06         |
|           |            |           |        | 36   | 35     | 28.31            | 22.07         |
|           |            |           |        | 75   | 0      | 28.98            | 22.17         |

**LAT OUTPUT POWER FOR LTE BAND 25 (20.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 20.0      | 26140      | 1860.0    | QPSK   | 1    | 0      | 28.31            | 23.77         |
|           |            |           |        | 1    | 49     | 28.65            | 23.89         |
|           |            |           |        | 1    | 99     | 28.88            | 23.97         |
|           |            |           |        | 50   | 0      | 28.31            | 22.97         |
|           |            |           |        | 50   | 24     | 28.20            | 22.95         |
|           |            |           |        | 50   | 49     | 28.47            | 22.93         |
|           |            |           |        | 100  | 0      | 28.72            | 22.89         |
|           |            |           | 16-QAM | 1    | 0      | 28.27            | 22.96         |
|           |            |           |        | 1    | 49     | 28.32            | 22.95         |
|           |            |           |        | 1    | 99     | 28.66            | 22.93         |
|           |            |           |        | 50   | 0      | 28.27            | 21.97         |
|           |            |           |        | 50   | 24     | 28.15            | 21.96         |
|           |            |           |        | 50   | 49     | 28.46            | 21.88         |
|           |            |           |        | 100  | 0      | 28.53            | 21.92         |
| 20.0      | 26365      | 1882.5    | QPSK   | 1    | 0      | 28.77            | 23.87         |
|           |            |           |        | 1    | 49     | 28.68            | 23.99         |
|           |            |           |        | 1    | 99     | 28.74            | 23.93         |
|           |            |           |        | 50   | 0      | 28.28            | 22.87         |
|           |            |           |        | 50   | 24     | 28.22            | 22.89         |
|           |            |           |        | 50   | 49     | 28.17            | 22.87         |
|           |            |           |        | 100  | 0      | 28.96            | 23.00         |
|           |            |           | 16-QAM | 1    | 0      | 28.51            | 22.98         |
|           |            |           |        | 1    | 49     | 28.34            | 22.85         |
|           |            |           |        | 1    | 99     | 28.46            | 22.80         |
|           |            |           |        | 50   | 0      | 28.25            | 21.96         |
|           |            |           |        | 50   | 24     | 28.14            | 21.94         |
|           |            |           |        | 50   | 49     | 28.23            | 21.98         |
|           |            |           |        | 100  | 0      | 28.59            | 21.79         |
| 20.0      | 26590      | 1905.0    | QPSK   | 1    | 0      | 28.72            | 23.87         |
|           |            |           |        | 1    | 49     | 28.68            | 23.99         |
|           |            |           |        | 1    | 99     | 28.35            | 24.00         |
|           |            |           |        | 50   | 0      | 28.25            | 22.93         |
|           |            |           |        | 50   | 24     | 28.18            | 22.84         |
|           |            |           |        | 50   | 49     | 28.59            | 22.96         |
|           |            |           |        | 100  | 0      | 28.82            | 22.94         |
|           |            |           | 16-QAM | 1    | 0      | 28.45            | 22.66         |
|           |            |           |        | 1    | 49     | 28.33            | 22.76         |
|           |            |           |        | 1    | 99     | 28.42            | 22.82         |
|           |            |           |        | 50   | 0      | 28.28            | 21.85         |
|           |            |           |        | 50   | 24     | 28.07            | 21.88         |
|           |            |           |        | 50   | 49     | 28.52            | 21.96         |
|           |            |           |        | 100  | 0      | 28.86            | 21.94         |

**UAT OUTPUT POWER FOR LTE BAND 25 (1.4MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 1.4       | 26047      | 1850.7    | QPSK       | 1    | 0      | 25.46            | 20.85         |
|           |            |           |            | 1    | 2      | 25.20            | 20.75         |
|           |            |           |            | 1    | 5      | 25.45            | 20.86         |
|           |            |           |            | 3    | 0      | 25.64            | 20.89         |
|           |            |           |            | 3    | 1      | 25.59            | 20.86         |
|           |            |           |            | 3    | 2      | 25.65            | 20.86         |
|           |            |           |            | 6    | 0      | 25.06            | 19.81         |
|           |            |           | 16QAM      | 1    | 0      | 25.57            | 19.83         |
|           |            |           |            | 1    | 2      | 25.35            | 19.78         |
|           |            |           |            | 1    | 5      | 25.50            | 19.80         |
|           |            |           |            | 3    | 0      | 25.66            | 19.79         |
|           |            |           |            | 3    | 1      | 25.54            | 19.81         |
|           |            |           |            | 3    | 2      | 25.55            | 19.81         |
|           |            |           |            | 6    | 0      | 25.07            | 18.96         |
|           |            |           |            | 6    | 0      | 25.07            | 18.96         |
| 1.4       | 26365      | 1882.5    | QPSK       | 1    | 0      | 25.25            | 20.64         |
|           |            |           |            | 1    | 2      | 25.03            | 20.58         |
|           |            |           |            | 1    | 5      | 25.36            | 20.74         |
|           |            |           |            | 3    | 0      | 25.49            | 20.73         |
|           |            |           |            | 3    | 1      | 25.40            | 20.69         |
|           |            |           |            | 3    | 2      | 25.48            | 20.68         |
|           |            |           |            | 6    | 0      | 24.88            | 19.64         |
|           |            |           | 16QAM      | 1    | 0      | 25.42            | 19.68         |
|           |            |           |            | 1    | 2      | 25.19            | 19.63         |
|           |            |           |            | 1    | 5      | 25.49            | 19.79         |
|           |            |           |            | 3    | 0      | 25.54            | 19.65         |
|           |            |           |            | 3    | 1      | 25.41            | 19.68         |
|           |            |           |            | 3    | 2      | 25.43            | 19.69         |
|           |            |           |            | 6    | 0      | 24.88            | 18.78         |
|           |            |           |            | 6    | 0      | 24.88            | 18.78         |
| 1.4       | 26683      | 1914.3    | QPSK       | 1    | 0      | 25.74            | 20.96         |
|           |            |           |            | 1    | 2      | 25.52            | 20.95         |
|           |            |           |            | 1    | 5      | 25.68            | 20.97         |
|           |            |           |            | 3    | 0      | 25.87            | 20.98         |
|           |            |           |            | 3    | 1      | 25.81            | 20.99         |
|           |            |           |            | 3    | 2      | 25.78            | 21.00         |
|           |            |           |            | 6    | 0      | 25.18            | 20.05         |
|           |            |           | 16QAM      | 1    | 0      | 25.69            | 20.19         |
|           |            |           |            | 1    | 2      | 25.54            | 20.19         |
|           |            |           |            | 1    | 5      | 25.49            | 20.24         |
|           |            |           |            | 3    | 0      | 25.91            | 20.21         |
|           |            |           |            | 3    | 1      | 25.80            | 20.19         |
|           |            |           |            | 3    | 2      | 25.80            | 20.24         |
|           |            |           |            | 6    | 0      | 25.32            | 19.38         |
|           |            |           |            | 6    | 0      | 25.32            | 19.38         |

**UAT OUTPUT POWER FOR LTE BAND 25 (3.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 3.0       | 26055      | 1851.5    | QPSK       | 1    | 0      | 25.43            | 20.85         |
|           |            |           |            | 1    | 7      | 25.15            | 20.74         |
|           |            |           |            | 1    | 14     | 25.35            | 20.78         |
|           |            |           |            | 8    | 0      | 24.69            | 19.86         |
|           |            |           |            | 8    | 4      | 24.69            | 19.86         |
|           |            |           |            | 8    | 7      | 24.60            | 19.82         |
|           |            |           |            | 15   | 0      | 25.01            | 19.80         |
|           |            |           | 16QAM      | 1    | 0      | 25.03            | 19.63         |
|           |            |           |            | 1    | 7      | 24.83            | 19.55         |
|           |            |           |            | 1    | 14     | 24.98            | 19.60         |
|           |            |           |            | 8    | 0      | 24.36            | 18.91         |
|           |            |           |            | 8    | 4      | 24.30            | 18.84         |
|           |            |           |            | 8    | 7      | 24.49            | 18.89         |
|           |            |           |            | 15   | 0      | 25.05            | 18.87         |
| 3.0       | 26365      | 1882.5    | QPSK       | 1    | 0      | 25.26            | 20.65         |
|           |            |           |            | 1    | 7      | 25.05            | 20.64         |
|           |            |           |            | 1    | 14     | 25.38            | 20.78         |
|           |            |           |            | 8    | 0      | 24.65            | 19.73         |
|           |            |           |            | 8    | 4      | 24.49            | 19.69         |
|           |            |           |            | 8    | 7      | 24.60            | 19.78         |
|           |            |           |            | 15   | 0      | 25.15            | 19.72         |
|           |            |           | 16QAM      | 1    | 0      | 24.89            | 19.51         |
|           |            |           |            | 1    | 7      | 24.75            | 19.50         |
|           |            |           |            | 1    | 14     | 24.88            | 19.55         |
|           |            |           |            | 8    | 0      | 24.30            | 18.73         |
|           |            |           |            | 8    | 4      | 24.20            | 18.71         |
|           |            |           |            | 8    | 7      | 24.37            | 18.80         |
|           |            |           |            | 15   | 0      | 24.88            | 18.72         |
| 3.0       | 26675      | 1913.5    | QPSK       | 1    | 0      | 25.56            | 21.00         |
|           |            |           |            | 1    | 7      | 25.45            | 20.95         |
|           |            |           |            | 1    | 14     | 25.65            | 21.00         |
|           |            |           |            | 8    | 0      | 24.97            | 20.03         |
|           |            |           |            | 8    | 4      | 24.99            | 20.16         |
|           |            |           |            | 8    | 7      | 24.99            | 20.18         |
|           |            |           |            | 15   | 0      | 25.37            | 20.07         |
|           |            |           | 16QAM      | 1    | 0      | 25.24            | 19.86         |
|           |            |           |            | 1    | 7      | 25.15            | 19.87         |
|           |            |           |            | 1    | 14     | 25.21            | 20.00         |
|           |            |           |            | 8    | 0      | 24.74            | 19.10         |
|           |            |           |            | 8    | 4      | 24.87            | 19.23         |
|           |            |           |            | 8    | 7      | 24.80            | 19.25         |
|           |            |           |            | 15   | 0      | 25.58            | 19.26         |

**UAT OUTPUT POWER FOR LTE BAND 25 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 26065      | 1852.5    | QPSK  | 1    | 0      | 25.17            | 20.75         |
|           |            |           |       | 1    | 12     | 24.99            | 20.71         |
|           |            |           |       | 1    | 24     | 25.09            | 20.71         |
|           |            |           |       | 12   | 0      | 24.72            | 19.80         |
|           |            |           |       | 12   | 6      | 24.50            | 19.76         |
|           |            |           |       | 12   | 11     | 24.55            | 19.75         |
|           |            |           |       | 25   | 0      | 25.06            | 19.78         |
|           |            |           | 16QAM | 1    | 0      | 25.17            | 19.92         |
|           |            |           |       | 1    | 12     | 25.12            | 19.93         |
|           |            |           |       | 1    | 24     | 25.14            | 19.92         |
|           |            |           |       | 12   | 0      | 24.50            | 18.84         |
|           |            |           |       | 12   | 6      | 24.39            | 18.83         |
|           |            |           |       | 12   | 11     | 24.39            | 18.80         |
|           |            |           |       | 25   | 0      | 25.09            | 18.90         |
| 5.0       | 26365      | 1882.5    | QPSK  | 1    | 0      | 25.01            | 20.60         |
|           |            |           |       | 1    | 12     | 24.99            | 20.73         |
|           |            |           |       | 1    | 24     | 25.06            | 20.69         |
|           |            |           |       | 12   | 0      | 24.61            | 19.72         |
|           |            |           |       | 12   | 6      | 24.37            | 19.67         |
|           |            |           |       | 12   | 11     | 24.58            | 19.79         |
|           |            |           |       | 25   | 0      | 25.07            | 19.71         |
|           |            |           | 16QAM | 1    | 0      | 25.05            | 19.83         |
|           |            |           |       | 1    | 12     | 25.13            | 19.93         |
|           |            |           |       | 1    | 24     | 25.12            | 19.91         |
|           |            |           |       | 12   | 0      | 24.35            | 18.69         |
|           |            |           |       | 12   | 6      | 24.24            | 18.66         |
|           |            |           |       | 12   | 11     | 24.30            | 18.75         |
|           |            |           |       | 25   | 0      | 24.82            | 18.82         |
| 5.0       | 26665      | 1912.5    | QPSK  | 1    | 0      | 25.23            | 20.88         |
|           |            |           |       | 1    | 12     | 25.25            | 20.95         |
|           |            |           |       | 1    | 24     | 25.44            | 21.00         |
|           |            |           |       | 12   | 0      | 24.89            | 19.99         |
|           |            |           |       | 12   | 6      | 24.76            | 20.03         |
|           |            |           |       | 12   | 11     | 24.91            | 20.14         |
|           |            |           |       | 25   | 0      | 25.27            | 19.96         |
|           |            |           | 16QAM | 1    | 0      | 25.28            | 20.11         |
|           |            |           |       | 1    | 12     | 25.35            | 20.15         |
|           |            |           |       | 1    | 24     | 25.53            | 20.37         |
|           |            |           |       | 12   | 0      | 24.72            | 19.04         |
|           |            |           |       | 12   | 6      | 24.57            | 19.02         |
|           |            |           |       | 12   | 11     | 24.76            | 19.18         |
|           |            |           |       | 25   | 0      | 25.37            | 19.14         |

**UAT OUTPUT POWER FOR LTE BAND 25 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 26090      | 1855.0    | QPSK  | 1    | 0      | 25.27            | 20.82         |
|           |            |           |       | 1    | 24     | 25.17            | 20.78         |
|           |            |           |       | 1    | 49     | 25.20            | 20.80         |
|           |            |           |       | 25   | 0      | 24.77            | 19.87         |
|           |            |           |       | 25   | 12     | 24.65            | 19.84         |
|           |            |           |       | 25   | 24     | 24.71            | 19.88         |
|           |            |           |       | 50   | 0      | 24.89            | 19.92         |
|           |            |           | 16QAM | 1    | 0      | 24.88            | 19.57         |
|           |            |           |       | 1    | 24     | 24.72            | 19.56         |
|           |            |           |       | 1    | 49     | 24.78            | 19.61         |
|           |            |           |       | 25   | 0      | 24.57            | 18.81         |
|           |            |           |       | 25   | 12     | 24.49            | 18.84         |
|           |            |           |       | 25   | 24     | 24.58            | 18.87         |
|           |            |           |       | 50   | 0      | 25.02            | 18.94         |
| 10.0      | 26365      | 1882.5    | QPSK  | 1    | 0      | 25.13            | 20.69         |
|           |            |           |       | 1    | 24     | 25.04            | 20.62         |
|           |            |           |       | 1    | 49     | 25.05            | 20.68         |
|           |            |           |       | 25   | 0      | 24.54            | 19.69         |
|           |            |           |       | 25   | 12     | 24.54            | 19.66         |
|           |            |           |       | 25   | 24     | 24.56            | 19.76         |
|           |            |           |       | 50   | 0      | 25.44            | 19.73         |
|           |            |           | 16QAM | 1    | 0      | 24.75            | 19.51         |
|           |            |           |       | 1    | 24     | 24.55            | 19.38         |
|           |            |           |       | 1    | 49     | 24.69            | 19.52         |
|           |            |           |       | 25   | 0      | 24.41            | 18.66         |
|           |            |           |       | 25   | 12     | 24.26            | 18.64         |
|           |            |           |       | 25   | 24     | 24.54            | 18.79         |
|           |            |           |       | 50   | 0      | 24.90            | 18.70         |
| 10.0      | 26640      | 1910.0    | QPSK  | 1    | 0      | 25.22            | 20.84         |
|           |            |           |       | 1    | 24     | 25.12            | 20.81         |
|           |            |           |       | 1    | 49     | 25.41            | 21.00         |
|           |            |           |       | 25   | 0      | 24.79            | 19.92         |
|           |            |           |       | 25   | 12     | 24.79            | 19.93         |
|           |            |           |       | 25   | 24     | 24.81            | 19.92         |
|           |            |           |       | 50   | 0      | 25.66            | 19.84         |
|           |            |           | 16QAM | 1    | 0      | 24.87            | 19.70         |
|           |            |           |       | 1    | 24     | 24.70            | 19.60         |
|           |            |           |       | 1    | 49     | 25.04            | 19.83         |
|           |            |           |       | 25   | 0      | 24.71            | 18.99         |
|           |            |           |       | 25   | 12     | 24.57            | 18.91         |
|           |            |           |       | 25   | 24     | 24.71            | 18.91         |
|           |            |           |       | 50   | 0      | 25.63            | 18.97         |

**UAT OUTPUT POWER FOR LTE BAND 25 (15.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 15.0      | 26115      | 1857.5    | QPSK   | 1    | 0      | 25.28            | 20.80         |
|           |            |           |        | 1    | 37     | 25.17            | 20.85         |
|           |            |           |        | 1    | 74     | 25.13            | 20.74         |
|           |            |           |        | 36   | 0      | 24.80            | 19.91         |
|           |            |           |        | 36   | 16     | 24.67            | 19.94         |
|           |            |           |        | 36   | 35     | 24.68            | 19.93         |
|           |            |           |        | 75   | 0      | 25.39            | 19.96         |
|           |            |           | 16-QAM | 1    | 0      | 24.91            | 19.62         |
|           |            |           |        | 1    | 37     | 24.77            | 19.60         |
|           |            |           |        | 1    | 74     | 24.71            | 19.53         |
|           |            |           |        | 36   | 0      | 24.79            | 18.91         |
|           |            |           |        | 36   | 16     | 24.67            | 18.96         |
|           |            |           |        | 36   | 35     | 24.70            | 18.93         |
|           |            |           |        | 75   | 0      | 25.43            | 19.10         |
| 15.0      | 26365      | 1882.5    | QPSK   | 1    | 0      | 25.23            | 20.75         |
|           |            |           |        | 1    | 37     | 25.06            | 20.72         |
|           |            |           |        | 1    | 74     | 25.10            | 20.76         |
|           |            |           |        | 36   | 0      | 24.80            | 19.81         |
|           |            |           |        | 36   | 16     | 24.50            | 19.77         |
|           |            |           |        | 36   | 35     | 24.58            | 19.80         |
|           |            |           |        | 75   | 0      | 25.18            | 19.87         |
|           |            |           | 16-QAM | 1    | 0      | 24.85            | 19.58         |
|           |            |           |        | 1    | 37     | 24.66            | 19.50         |
|           |            |           |        | 1    | 74     | 24.67            | 19.55         |
|           |            |           |        | 36   | 0      | 24.72            | 18.85         |
|           |            |           |        | 36   | 16     | 24.40            | 18.75         |
|           |            |           |        | 36   | 35     | 24.57            | 18.82         |
|           |            |           |        | 75   | 0      | 25.30            | 18.87         |
| 15.0      | 26615      | 1907.5    | QPSK   | 1    | 0      | 25.29            | 20.84         |
|           |            |           |        | 1    | 37     | 25.09            | 20.87         |
|           |            |           |        | 1    | 74     | 25.52            | <b>21.00</b>  |
|           |            |           |        | 36   | 0      | 24.95            | 20.04         |
|           |            |           |        | 36   | 16     | 24.76            | 19.98         |
|           |            |           |        | 36   | 35     | 24.91            | 20.01         |
|           |            |           |        | 75   | 0      | <b>25.53</b>     | 20.00         |
|           |            |           | 16-QAM | 1    | 0      | 24.91            | 19.67         |
|           |            |           |        | 1    | 37     | 24.74            | 19.66         |
|           |            |           |        | 1    | 74     | 25.09            | <b>19.88</b>  |
|           |            |           |        | 36   | 0      | 24.97            | 19.10         |
|           |            |           |        | 36   | 16     | 24.67            | 19.04         |
|           |            |           |        | 36   | 35     | 24.83            | 19.01         |
|           |            |           |        | 75   | 0      | <b>25.69</b>     | 19.13         |

**UAT OUTPUT POWER FOR LTE BAND 25 (20.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 20.0      | 26140      | 1860.0    | QPSK   | 1    | 0      | 25.43            | 20.94         |
|           |            |           |        | 1    | 49     | 25.30            | 20.97         |
|           |            |           |        | 1    | 99     | 25.43            | 20.95         |
|           |            |           |        | 50   | 0      | 24.92            | 19.94         |
|           |            |           |        | 50   | 24     | 24.73            | 19.95         |
|           |            |           |        | 50   | 49     | 24.85            | 19.94         |
|           |            |           |        | 100  | 0      | 25.03            | 19.92         |
|           |            |           | 16-QAM | 1    | 0      | 25.11            | 19.64         |
|           |            |           |        | 1    | 49     | 24.86            | 19.64         |
|           |            |           |        | 1    | 99     | 25.06            | 19.61         |
|           |            |           |        | 50   | 0      | 24.78            | 18.99         |
|           |            |           |        | 50   | 24     | 24.58            | 18.94         |
|           |            |           |        | 50   | 49     | 24.69            | 18.90         |
|           |            |           |        | 100  | 0      | 24.80            | 19.00         |
| 20.0      | 26365      | 1882.5    | QPSK   | 1    | 0      | 25.40            | 20.87         |
|           |            |           |        | 1    | 49     | 25.17            | 20.77         |
|           |            |           |        | 1    | 99     | 25.17            | 20.77         |
|           |            |           |        | 50   | 0      | 24.95            | 19.88         |
|           |            |           |        | 50   | 24     | 24.50            | 19.73         |
|           |            |           |        | 50   | 49     | 24.81            | 19.88         |
|           |            |           |        | 100  | 0      | 24.68            | 19.79         |
|           |            |           | 16-QAM | 1    | 0      | 25.12            | 19.60         |
|           |            |           |        | 1    | 49     | 24.74            | 19.56         |
|           |            |           |        | 1    | 99     | 24.86            | 19.60         |
|           |            |           |        | 50   | 0      | 24.70            | 18.83         |
|           |            |           |        | 50   | 24     | 24.41            | 18.69         |
|           |            |           |        | 50   | 49     | 24.58            | 18.78         |
|           |            |           |        | 100  | 0      | 24.75            | 18.84         |
| 20.0      | 26590      | 1905.0    | QPSK   | 1    | 0      | 25.43            | 20.91         |
|           |            |           |        | 1    | 49     | 25.45            | 20.95         |
|           |            |           |        | 1    | 99     | 25.65            | 21.00         |
|           |            |           |        | 50   | 0      | 25.21            | 20.00         |
|           |            |           |        | 50   | 24     | 24.91            | 20.00         |
|           |            |           |        | 50   | 49     | 25.19            | 20.00         |
|           |            |           |        | 100  | 0      | 25.36            | 19.99         |
|           |            |           | 16-QAM | 1    | 0      | 25.18            | 19.64         |
|           |            |           |        | 1    | 49     | 25.05            | 19.73         |
|           |            |           |        | 1    | 99     | 25.32            | 19.87         |
|           |            |           |        | 50   | 0      | 25.04            | 19.00         |
|           |            |           |        | 50   | 24     | 24.86            | 18.97         |
|           |            |           |        | 50   | 49     | 25.15            | 18.98         |
|           |            |           |        | 100  | 0      | 25.95            | 19.00         |

## 7.7. LTE BAND 26

### LAT OUTPUT POWER FOR LTE BAND 26 (3.0 MHZ)

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|------------|------|--------|---------------------|------------------|
|           |            |           |            | Size | Offset |                     |                  |
| 3.0       | 26705      | 820.3     | QPSK       | 1    | 0      | <b>28.21</b>        | 23.32            |
|           |            |           |            | 1    | 7      | 27.93               | 23.21            |
|           |            |           |            | 1    | 14     | 28.09               | 23.29            |
|           |            |           |            | 8    | 0      | 27.46               | 22.36            |
|           |            |           |            | 8    | 4      | 27.40               | 22.35            |
|           |            |           |            | 8    | 7      | 27.39               | 22.31            |
|           |            |           |            | 15   | 0      | 27.77               | 22.28            |
|           |            |           | 16QAM      | 1    | 0      | 27.84               | 22.23            |
|           |            |           |            | 1    | 7      | 27.42               | 22.07            |
|           |            |           |            | 1    | 14     | 27.61               | 22.15            |
|           |            |           |            | 8    | 0      | 27.18               | 21.40            |
|           |            |           |            | 8    | 4      | 27.20               | 21.42            |
|           |            |           |            | 8    | 7      | 27.15               | 21.42            |
|           |            |           |            | 15   | 0      | 27.92               | 21.42            |
| 3.0       | 26865      | 821.3     | QPSK       | 1    | 0      | 28.09               | 23.31            |
|           |            |           |            | 1    | 7      | 27.83               | 23.24            |
|           |            |           |            | 1    | 14     | 27.77               | 23.31            |
|           |            |           |            | 8    | 0      | 27.60               | 22.33            |
|           |            |           |            | 8    | 4      | 27.51               | 22.35            |
|           |            |           |            | 8    | 7      | 27.62               | 22.33            |
|           |            |           |            | 15   | 0      | 27.77               | 22.33            |
|           |            |           | 16QAM      | 1    | 0      | <b>28.15</b>        | <b>22.53</b>     |
|           |            |           |            | 1    | 7      | 27.87               | 22.51            |
|           |            |           |            | 1    | 14     | 27.79               | 22.48            |
|           |            |           |            | 8    | 0      | 27.48               | 21.45            |
|           |            |           |            | 8    | 4      | 27.28               | 21.38            |
|           |            |           |            | 8    | 7      | 27.33               | 21.43            |
|           |            |           |            | 15   | 0      | 28.04               | 21.39            |
| 3.0       | 27025      | 822.3     | QPSK       | 1    | 0      | 28.11               | 23.30            |
|           |            |           |            | 1    | 7      | 27.69               | 23.20            |
|           |            |           |            | 1    | 14     | 27.79               | <b>23.35</b>     |
|           |            |           |            | 8    | 0      | 27.38               | 22.28            |
|           |            |           |            | 8    | 4      | 27.32               | 22.31            |
|           |            |           |            | 8    | 7      | 27.29               | 22.27            |
|           |            |           |            | 15   | 0      | 27.79               | 22.31            |
|           |            |           | 16QAM      | 1    | 0      | 27.49               | 22.17            |
|           |            |           |            | 1    | 7      | 27.47               | 22.06            |
|           |            |           |            | 1    | 14     | 27.74               | 22.23            |
|           |            |           |            | 8    | 0      | 27.19               | 21.37            |
|           |            |           |            | 8    | 4      | 27.07               | 21.34            |
|           |            |           |            | 8    | 7      | 27.17               | 21.39            |
|           |            |           |            | 15   | 0      | 27.58               | 21.32            |

**LAT OUTPUT POWER FOR LTE BAND 26 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 26865      | 821.3     | QPSK  | 1    | 0      | 28.19            | 23.41         |
|           |            |           |       | 1    | 12     | 27.98            | 23.39         |
|           |            |           |       | 1    | 24     | <b>28.22</b>     | <b>23.50</b>  |
|           |            |           |       | 12   | 0      | 27.49            | 22.32         |
|           |            |           |       | 12   | 6      | 27.36            | 22.33         |
|           |            |           |       | 12   | 11     | 27.39            | 22.35         |
|           |            |           |       | 25   | 0      | 28.10            | 22.28         |
|           |            |           | 16QAM | 1    | 0      | <b>28.10</b>     | <b>22.50</b>  |
|           |            |           |       | 1    | 12     | 27.56            | 22.48         |
|           |            |           |       | 1    | 24     | 27.77            | 22.47         |
|           |            |           |       | 12   | 0      | 27.43            | 21.20         |
|           |            |           |       | 12   | 6      | 27.20            | 21.18         |
|           |            |           |       | 12   | 11     | 27.22            | 21.20         |
|           |            |           |       | 25   | 0      | 28.05            | 21.26         |

**LAT OUTPUT POWER FOR LTE BAND 26 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 26740      | 819.0     | QPSK  | 1    | 0      | <b>27.72</b>     | <b>23.38</b>  |
|           |            |           |       | 1    | 24     | 27.50            | 23.17         |
|           |            |           |       | 1    | 49     | 27.35            | 23.08         |
|           |            |           |       | 25   | 0      | 27.42            | 23.15         |
|           |            |           |       | 25   | 12     | 27.55            | 22.87         |
|           |            |           |       | 25   | 24     | 27.53            | 22.62         |
|           |            |           |       | 50   | 0      | 27.70            | 22.39         |
|           |            |           | 16QAM | 1    | 0      | 27.15            | <b>22.50</b>  |
|           |            |           |       | 1    | 24     | 27.11            | 22.49         |
|           |            |           |       | 1    | 49     | 27.44            | 22.42         |
|           |            |           |       | 25   | 0      | 27.34            | 22.37         |
|           |            |           |       | 25   | 12     | 27.31            | 21.92         |
|           |            |           |       | 25   | 24     | 27.43            | 21.77         |
|           |            |           |       | 50   | 0      | <b>27.50</b>     | 21.63         |

**UAT OUTPUT POWER FOR LTE BAND 26 (3.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Modulation | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|------------|------|--------|------------------|---------------|
|           |            |           |            | Size | Offset |                  |               |
| 3.0       | 26705      | 820.3     | QPSK       | 1    | 0      | <b>27.96</b>     | <b>23.17</b>  |
|           |            |           |            | 1    | 7      | 27.67            | 23.03         |
|           |            |           |            | 1    | 14     | 27.83            | 23.10         |
|           |            |           |            | 8    | 0      | 27.18            | 22.12         |
|           |            |           |            | 8    | 4      | 27.19            | 22.14         |
|           |            |           |            | 8    | 7      | 27.23            | 22.13         |
|           |            |           |            | 15   | 0      | 27.69            | 22.08         |
|           |            |           | 16QAM      | 1    | 0      | 27.44            | 21.96         |
|           |            |           |            | 1    | 7      | 27.13            | 21.86         |
|           |            |           |            | 1    | 14     | 27.26            | 21.92         |
|           |            |           |            | 8    | 0      | 26.94            | 21.19         |
|           |            |           |            | 8    | 4      | 26.88            | 21.17         |
|           |            |           |            | 8    | 7      | 26.88            | 21.17         |
|           |            |           |            | 15   | 0      | <b>27.63</b>     | <b>21.16</b>  |
| 3.0       | 26865      | 821.3     | QPSK       | 1    | 0      | 27.88            | 23.10         |
|           |            |           |            | 1    | 7      | 27.63            | 23.06         |
|           |            |           |            | 1    | 14     | 27.73            | 23.11         |
|           |            |           |            | 8    | 0      | 27.15            | 22.13         |
|           |            |           |            | 8    | 4      | 27.09            | 22.12         |
|           |            |           |            | 8    | 7      | 27.15            | 22.10         |
|           |            |           |            | 15   | 0      | 27.56            | 22.12         |
|           |            |           | 16QAM      | 1    | 0      | 27.47            | <b>21.98</b>  |
|           |            |           |            | 1    | 7      | 27.15            | 21.87         |
|           |            |           |            | 1    | 14     | 27.36            | 21.92         |
|           |            |           |            | 8    | 0      | 26.95            | 21.18         |
|           |            |           |            | 8    | 4      | 26.86            | 21.17         |
|           |            |           |            | 8    | 7      | 26.94            | 21.21         |
|           |            |           |            | 15   | 0      | 27.43            | 21.15         |
| 3.0       | 27025      | 822.3     | QPSK       | 1    | 0      | 27.88            | 23.15         |
|           |            |           |            | 1    | 7      | 27.35            | 22.98         |
|           |            |           |            | 1    | 14     | 27.54            | 23.07         |
|           |            |           |            | 8    | 0      | 27.21            | 22.13         |
|           |            |           |            | 8    | 4      | 27.03            | 22.07         |
|           |            |           |            | 8    | 7      | 27.14            | 22.12         |
|           |            |           |            | 15   | 0      | 27.25            | 22.09         |
|           |            |           | 16QAM      | 1    | 0      | 27.21            | 21.96         |
|           |            |           |            | 1    | 7      | 27.20            | 21.87         |
|           |            |           |            | 1    | 14     | 27.37            | 21.93         |
|           |            |           |            | 8    | 0      | 26.93            | 21.22         |
|           |            |           |            | 8    | 4      | 26.81            | 21.18         |
|           |            |           |            | 8    | 7      | 26.84            | 21.17         |
|           |            |           |            | 15   | 0      | 27.60            | 21.16         |

**UAT OUTPUT POWER FOR LTE BAND 26 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 26865      | 821.3     | QPSK  | 1    | 0      | <b>27.82</b>     | <b>23.10</b>  |
|           |            |           |       | 1    | 12     | 27.55            | 23.04         |
|           |            |           |       | 1    | 24     | 27.48            | 23.05         |
|           |            |           |       | 12   | 0      | 27.21            | 22.08         |
|           |            |           |       | 12   | 6      | 27.14            | 22.12         |
|           |            |           |       | 12   | 11     | 27.09            | 22.09         |
|           |            |           |       | 25   | 0      | 27.57            | 22.07         |
|           |            |           | 16QAM | 1    | 0      | 27.78            | <b>22.29</b>  |
|           |            |           |       | 1    | 12     | 27.66            | 22.27         |
|           |            |           |       | 1    | 24     | 27.61            | 22.26         |
|           |            |           |       | 12   | 0      | 27.05            | 21.12         |
|           |            |           |       | 12   | 6      | 26.81            | 21.09         |
|           |            |           |       | 12   | 11     | 26.90            | 21.12         |
|           |            |           |       | 25   | 0      | <b>27.81</b>     | 21.26         |

**UAT OUTPUT POWER FOR LTE BAND 26 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 26740      | 819.0     | QPSK  | 1    | 0      | 27.65            | <b>23.36</b>  |
|           |            |           |       | 1    | 24     | 27.42            | 23.04         |
|           |            |           |       | 1    | 49     | 27.36            | 23.00         |
|           |            |           |       | 25   | 0      | 27.46            | 22.50         |
|           |            |           |       | 25   | 12     | 27.53            | 22.42         |
|           |            |           |       | 25   | 24     | 27.48            | 22.41         |
|           |            |           |       | 50   | 0      | <b>27.66</b>     | 22.14         |
|           |            |           | 16QAM | 1    | 0      | 27.12            | <b>22.40</b>  |
|           |            |           |       | 1    | 24     | 26.95            | 22.32         |
|           |            |           |       | 1    | 49     | 27.32            | 22.29         |
|           |            |           |       | 25   | 0      | 27.28            | 21.50         |
|           |            |           |       | 25   | 12     | <b>27.34</b>     | 21.46         |
|           |            |           |       | 25   | 24     | 27.25            | 21.37         |
|           |            |           |       | 50   | 0      | 27.26            | 21.46         |

## 7.8. LTE BAND 41

### LAT OUTPUT POWER FOR LTE BAND 41 (5.0 MHZ)

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power<br>(dBm) | Average<br>(dBm) |
|-----------|------------|-----------|-------|------|--------|---------------------|------------------|
|           |            |           |       | Size | Offset |                     |                  |
| 5.0       | 39675      | 2498.5    | QPSK  | 1    | 0      | 28.10               | 22.30            |
|           |            |           |       | 1    | 12     | 27.95               | 22.26            |
|           |            |           |       | 1    | 24     | 28.03               | <b>22.37</b>     |
|           |            |           |       | 12   | 0      | 27.37               | 21.49            |
|           |            |           |       | 12   | 6      | 27.33               | 21.53            |
|           |            |           |       | 12   | 11     | 27.24               | 21.45            |
|           |            |           |       | 25   | 0      | 27.56               | 21.51            |
|           |            |           | 16QAM | 1    | 0      | 26.83               | 21.47            |
|           |            |           |       | 1    | 12     | 26.78               | 21.44            |
|           |            |           |       | 1    | 24     | 26.83               | <b>21.49</b>     |
|           |            |           |       | 12   | 0      | 27.26               | 20.47            |
|           |            |           |       | 12   | 6      | 27.20               | 20.43            |
|           |            |           |       | 12   | 11     | 27.27               | 20.48            |
|           |            |           |       | 25   | 0      | 27.52               | 20.61            |
| 5.0       | 40620      | 2593.0    | QPSK  | 1    | 0      | 26.94               | 22.26            |
|           |            |           |       | 1    | 12     | 26.93               | 22.31            |
|           |            |           |       | 1    | 24     | 26.98               | 22.36            |
|           |            |           |       | 12   | 0      | 27.46               | 21.36            |
|           |            |           |       | 12   | 6      | 27.64               | 21.42            |
|           |            |           |       | 12   | 11     | 27.70               | 21.44            |
|           |            |           |       | 25   | 0      | <b>28.13</b>        | 21.33            |
|           |            |           | 16QAM | 1    | 0      | 27.14               | 21.34            |
|           |            |           |       | 1    | 12     | 27.00               | 21.36            |
|           |            |           |       | 1    | 24     | 27.09               | 21.36            |
|           |            |           |       | 12   | 0      | <b>27.80</b>        | 20.31            |
|           |            |           |       | 12   | 6      | 27.74               | 20.29            |
|           |            |           |       | 12   | 11     | 27.77               | 20.33            |
|           |            |           |       | 25   | 0      | 27.61               | 20.43            |
| 5.0       | 41565      | 2687.5    | QPSK  | 1    | 0      | 27.91               | 22.30            |
|           |            |           |       | 1    | 12     | 27.74               | 22.30            |
|           |            |           |       | 1    | 24     | 27.70               | 22.26            |
|           |            |           |       | 12   | 0      | 27.48               | 21.32            |
|           |            |           |       | 12   | 6      | 27.50               | 21.27            |
|           |            |           |       | 12   | 11     | 27.52               | 21.30            |
|           |            |           |       | 25   | 0      | 27.37               | 21.24            |
|           |            |           | 16QAM | 1    | 0      | 27.05               | 21.24            |
|           |            |           |       | 1    | 12     | 27.12               | 21.19            |
|           |            |           |       | 1    | 24     | 26.96               | 21.15            |
|           |            |           |       | 12   | 0      | 27.02               | 20.20            |
|           |            |           |       | 12   | 6      | 27.01               | 20.19            |
|           |            |           |       | 12   | 11     | 27.04               | 20.20            |
|           |            |           |       | 25   | 0      | 27.54               | 20.32            |

**LAT OUTPUT POWER FOR LTE BAND 41 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 39700      | 2501.0    | QPSK  | 1    | 0      | <b>28.40</b>     | 22.48         |
|           |            |           |       | 1    | 24     | 28.19            | 22.49         |
|           |            |           |       | 1    | 49     | 28.28            | <b>22.50</b>  |
|           |            |           |       | 25   | 0      | 27.92            | 21.57         |
|           |            |           |       | 25   | 12     | 27.38            | 21.51         |
|           |            |           |       | 25   | 24     | 27.54            | 21.66         |
|           |            |           |       | 50   | 0      | 27.58            | 21.52         |
|           |            |           | 16QAM | 1    | 0      | 27.14            | 21.07         |
|           |            |           |       | 1    | 24     | 26.97            | 21.04         |
|           |            |           |       | 1    | 49     | 27.07            | 21.14         |
|           |            |           |       | 25   | 0      | 27.51            | 20.62         |
|           |            |           |       | 25   | 12     | 27.37            | 20.56         |
|           |            |           |       | 25   | 24     | 27.46            | 20.65         |
|           |            |           |       | 50   | 0      | 27.77            | 20.53         |
| 10.0      | 40620      | 2593.0    | QPSK  | 1    | 0      | 27.67            | 22.16         |
|           |            |           |       | 1    | 24     | 27.56            | 22.13         |
|           |            |           |       | 1    | 49     | 27.68            | 22.17         |
|           |            |           |       | 25   | 0      | 27.60            | 21.42         |
|           |            |           |       | 25   | 12     | 27.64            | 21.37         |
|           |            |           |       | 25   | 24     | 27.65            | 21.47         |
|           |            |           |       | 50   | 0      | 27.76            | 21.36         |
|           |            |           | 16QAM | 1    | 0      | 26.99            | <b>21.28</b>  |
|           |            |           |       | 1    | 24     | 26.90            | 21.24         |
|           |            |           |       | 1    | 49     | 26.97            | 21.23         |
|           |            |           |       | 25   | 0      | 27.67            | 20.49         |
|           |            |           |       | 25   | 12     | 27.72            | 20.46         |
|           |            |           |       | 25   | 24     | 27.62            | 20.45         |
|           |            |           |       | 50   | 0      | 27.48            | 20.40         |
| 10.0      | 41540      | 2685.0    | QPSK  | 1    | 0      | 28.23            | 22.31         |
|           |            |           |       | 1    | 24     | 28.29            | 22.33         |
|           |            |           |       | 1    | 49     | 28.07            | 22.26         |
|           |            |           |       | 25   | 0      | 27.81            | 21.43         |
|           |            |           |       | 25   | 12     | 27.74            | 21.33         |
|           |            |           |       | 25   | 24     | 27.76            | 21.37         |
|           |            |           |       | 50   | 0      | 27.53            | 21.31         |
|           |            |           | 16QAM | 1    | 0      | 27.83            | 20.82         |
|           |            |           |       | 1    | 24     | 27.55            | 20.87         |
|           |            |           |       | 1    | 49     | 27.67            | 20.86         |
|           |            |           |       | 25   | 0      | 27.71            | 20.43         |
|           |            |           |       | 25   | 12     | 27.40            | 20.34         |
|           |            |           |       | 25   | 24     | 27.40            | 20.30         |
|           |            |           |       | 50   | 0      | <b>27.96</b>     | 20.34         |

**LAT OUTPUT POWER FOR LTE BAND 41 (15.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 15.0      | 39725      | 2503.5    | QPSK   | 1    | 0      | 28.37            | 22.47         |
|           |            |           |        | 1    | 37     | 28.19            | <b>22.50</b>  |
|           |            |           |        | 1    | 74     | <b>28.43</b>     | 22.48         |
|           |            |           |        | 36   | 0      | 27.78            | 21.57         |
|           |            |           |        | 36   | 16     | 27.74            | 21.62         |
|           |            |           |        | 36   | 35     | 27.78            | 21.56         |
|           |            |           |        | 75   | 0      | 27.85            | 21.62         |
|           |            |           | 16-QAM | 1    | 0      | 27.16            | 21.11         |
|           |            |           |        | 1    | 37     | 26.98            | 21.12         |
|           |            |           |        | 1    | 74     | 27.20            | 21.08         |
|           |            |           |        | 36   | 0      | 27.39            | 20.56         |
|           |            |           |        | 36   | 16     | 27.34            | 20.65         |
|           |            |           |        | 36   | 35     | 27.38            | 20.61         |
|           |            |           |        | 75   | 0      | 27.79            | 20.67         |
| 15.0      | 40620      | 2593.0    | QPSK   | 1    | 0      | 27.60            | 22.29         |
|           |            |           |        | 1    | 37     | 27.52            | 22.33         |
|           |            |           |        | 1    | 74     | 27.55            | 22.28         |
|           |            |           |        | 36   | 0      | 28.09            | 21.46         |
|           |            |           |        | 36   | 16     | 28.01            | 21.44         |
|           |            |           |        | 36   | 35     | 28.17            | 21.43         |
|           |            |           |        | 75   | 0      | 28.10            | 21.39         |
|           |            |           | 16-QAM | 1    | 0      | 27.59            | 21.53         |
|           |            |           |        | 1    | 37     | 27.55            | <b>21.54</b>  |
|           |            |           |        | 1    | 74     | 27.57            | 21.49         |
|           |            |           |        | 36   | 0      | 27.57            | 20.42         |
|           |            |           |        | 36   | 16     | 27.54            | 20.49         |
|           |            |           |        | 36   | 35     | 27.49            | 20.40         |
|           |            |           |        | 75   | 0      | 27.84            | 20.43         |
| 15.0      | 41515      | 2682.5    | QPSK   | 1    | 0      | 28.15            | 22.19         |
|           |            |           |        | 1    | 37     | 28.26            | 22.34         |
|           |            |           |        | 1    | 74     | 28.08            | 22.31         |
|           |            |           |        | 36   | 0      | 28.15            | 21.31         |
|           |            |           |        | 36   | 16     | 28.29            | 21.42         |
|           |            |           |        | 36   | 35     | 28.15            | 21.38         |
|           |            |           |        | 75   | 0      | 27.78            | 21.38         |
|           |            |           | 16-QAM | 1    | 0      | 27.67            | 20.81         |
|           |            |           |        | 1    | 37     | 27.73            | 20.89         |
|           |            |           |        | 1    | 74     | 27.09            | 20.79         |
|           |            |           |        | 36   | 0      | 27.36            | 20.29         |
|           |            |           |        | 36   | 16     | 27.51            | 20.40         |
|           |            |           |        | 36   | 35     | 27.46            | 20.35         |
|           |            |           |        | 75   | 0      | <b>27.97</b>     | 20.42         |

**LAT OUTPUT POWER FOR LTE BAND 41 (20.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 20.0      | 39750      | 2506.0    | QPSK   | 1    | 0      | 27.59            | 22.10         |
|           |            |           |        | 1    | 49     | 27.52            | 22.12         |
|           |            |           |        | 1    | 99     | 27.87            | 22.30         |
|           |            |           |        | 50   | 0      | 27.78            | 21.00         |
|           |            |           |        | 50   | 24     | 28.07            | 21.00         |
|           |            |           |        | 50   | 49     | 28.33            | 21.09         |
|           |            |           |        | 100  | 0      | 27.95            | 21.19         |
|           |            |           | 16-QAM | 1    | 0      | 27.18            | 21.04         |
|           |            |           |        | 1    | 49     | 26.62            | 21.00         |
|           |            |           |        | 1    | 99     | 27.41            | 21.03         |
|           |            |           |        | 50   | 0      | 27.33            | 20.18         |
|           |            |           |        | 50   | 24     | 27.34            | 20.15         |
|           |            |           |        | 50   | 49     | 27.52            | 20.19         |
|           |            |           |        | 100  | 0      | 27.86            | 20.17         |
| 20.0      | 40620      | 2593.0    | QPSK   | 1    | 0      | 27.32            | 22.33         |
|           |            |           |        | 1    | 49     | 27.25            | 22.31         |
|           |            |           |        | 1    | 99     | 27.57            | 22.28         |
|           |            |           |        | 50   | 0      | 27.64            | 21.38         |
|           |            |           |        | 50   | 24     | 27.85            | 21.43         |
|           |            |           |        | 50   | 49     | 27.72            | 21.31         |
|           |            |           |        | 100  | 0      | 27.83            | 21.42         |
|           |            |           | 16-QAM | 1    | 0      | 26.80            | 21.47         |
|           |            |           |        | 1    | 49     | 26.63            | 21.40         |
|           |            |           |        | 1    | 99     | 26.73            | 21.38         |
|           |            |           |        | 50   | 0      | 27.65            | 20.45         |
|           |            |           |        | 50   | 24     | 27.43            | 20.43         |
|           |            |           |        | 50   | 49     | 27.56            | 20.44         |
|           |            |           |        | 100  | 0      | 27.81            | 20.48         |
| 20.0      | 41490      | 2680.0    | QPSK   | 1    | 0      | 27.90            | 22.38         |
|           |            |           |        | 1    | 49     | 27.90            | 22.40         |
|           |            |           |        | 1    | 99     | 27.84            | 22.38         |
|           |            |           |        | 50   | 0      | 27.80            | 21.28         |
|           |            |           |        | 50   | 24     | 27.87            | 21.32         |
|           |            |           |        | 50   | 49     | 27.86            | 21.38         |
|           |            |           |        | 100  | 0      | 27.63            | 21.25         |
|           |            |           | 16-QAM | 1    | 0      | 27.30            | 21.25         |
|           |            |           |        | 1    | 49     | 27.41            | 21.28         |
|           |            |           |        | 1    | 99     | 27.27            | 21.35         |
|           |            |           |        | 50   | 0      | 28.26            | 20.35         |
|           |            |           |        | 50   | 24     | 27.86            | 20.32         |
|           |            |           |        | 50   | 49     | 27.91            | 20.36         |
|           |            |           |        | 100  | 0      | 27.84            | 20.37         |

**UAT OUTPUT POWER FOR LTE BAND 41 (5.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 5.0       | 39675      | 2498.5    | QPSK  | 1    | 0      | 26.96            | 21.85         |
|           |            |           |       | 1    | 12     | 26.83            | 21.82         |
|           |            |           |       | 1    | 24     | 26.89            | 21.88         |
|           |            |           |       | 12   | 0      | 26.82            | 21.02         |
|           |            |           |       | 12   | 6      | 26.72            | 21.04         |
|           |            |           |       | 12   | 11     | 26.77            | 21.05         |
|           |            |           |       | 25   | 0      | 27.12            | 21.08         |
|           |            |           | 16QAM | 1    | 0      | 26.41            | 20.91         |
|           |            |           |       | 1    | 12     | 26.28            | 20.89         |
|           |            |           |       | 1    | 24     | 26.35            | 20.98         |
|           |            |           |       | 12   | 0      | 26.89            | 19.99         |
|           |            |           |       | 12   | 6      | 26.79            | 20.00         |
|           |            |           |       | 12   | 11     | 26.78            | 19.95         |
|           |            |           |       | 25   | 0      | 27.09            | 20.11         |
| 5.0       | 40620      | 2593.0    | QPSK  | 1    | 0      | 27.40            | 21.81         |
|           |            |           |       | 1    | 12     | 27.22            | 21.69         |
|           |            |           |       | 1    | 24     | 27.29            | 21.68         |
|           |            |           |       | 12   | 0      | 27.01            | 21.00         |
|           |            |           |       | 12   | 6      | 26.91            | 20.90         |
|           |            |           |       | 12   | 11     | 26.96            | 20.86         |
|           |            |           |       | 25   | 0      | 27.05            | 20.95         |
|           |            |           | 16QAM | 1    | 0      | 26.68            | 20.91         |
|           |            |           |       | 1    | 12     | 26.55            | 20.82         |
|           |            |           |       | 1    | 24     | 26.63            | 20.88         |
|           |            |           |       | 12   | 0      | 26.90            | 19.98         |
|           |            |           |       | 12   | 6      | 26.79            | 19.87         |
|           |            |           |       | 12   | 11     | 26.74            | 19.75         |
|           |            |           |       | 25   | 0      | 27.33            | 20.00         |
| 5.0       | 41565      | 2687.5    | QPSK  | 1    | 0      | 27.66            | 21.79         |
|           |            |           |       | 1    | 12     | 27.55            | 21.80         |
|           |            |           |       | 1    | 24     | 27.59            | 22.02         |
|           |            |           |       | 12   | 0      | 27.24            | 21.08         |
|           |            |           |       | 12   | 6      | 27.21            | 21.09         |
|           |            |           |       | 12   | 11     | 27.26            | 21.01         |
|           |            |           |       | 25   | 0      | 27.39            | 21.12         |
|           |            |           | 16QAM | 1    | 0      | 26.74            | 20.88         |
|           |            |           |       | 1    | 12     | 26.75            | 20.99         |
|           |            |           |       | 1    | 24     | 26.88            | 21.10         |
|           |            |           |       | 12   | 0      | 26.77            | 19.87         |
|           |            |           |       | 12   | 6      | 26.71            | 19.85         |
|           |            |           |       | 12   | 11     | 26.75            | 19.89         |
|           |            |           |       | 25   | 0      | 27.11            | 20.05         |

**UAT OUTPUT POWER FOR LTE BAND 41 (10.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode  | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|-------|------|--------|------------------|---------------|
|           |            |           |       | Size | Offset |                  |               |
| 10.0      | 39700      | 2501.0    | QPSK  | 1    | 0      | 26.91            | 21.81         |
|           |            |           |       | 1    | 24     | 26.73            | 21.82         |
|           |            |           |       | 1    | 49     | 26.91            | 21.90         |
|           |            |           |       | 25   | 0      | 26.97            | 21.11         |
|           |            |           |       | 25   | 12     | 26.85            | 21.07         |
|           |            |           |       | 25   | 24     | 27.08            | 21.15         |
|           |            |           |       | 50   | 0      | 27.29            | 21.04         |
|           |            |           | 16QAM | 1    | 0      | 26.44            | 20.94         |
|           |            |           |       | 1    | 24     | 26.16            | 20.90         |
|           |            |           |       | 1    | 49     | 26.46            | <b>21.05</b>  |
|           |            |           |       | 25   | 0      | 27.19            | 20.12         |
|           |            |           |       | 25   | 12     | 27.08            | 20.13         |
|           |            |           |       | 25   | 24     | 27.03            | 20.19         |
|           |            |           |       | 50   | 0      | 26.98            | 20.08         |
| 10.0      | 40620      | 2593.0    | QPSK  | 1    | 0      | 27.38            | 21.79         |
|           |            |           |       | 1    | 24     | 27.21            | 21.69         |
|           |            |           |       | 1    | 49     | 27.30            | 21.76         |
|           |            |           |       | 25   | 0      | 27.37            | 21.08         |
|           |            |           |       | 25   | 12     | 27.34            | 20.99         |
|           |            |           |       | 25   | 24     | 27.18            | 20.86         |
|           |            |           |       | 50   | 0      | 27.53            | 20.98         |
|           |            |           | 16QAM | 1    | 0      | 26.71            | 20.90         |
|           |            |           |       | 1    | 24     | 26.53            | 20.77         |
|           |            |           |       | 1    | 49     | 26.61            | 20.87         |
|           |            |           |       | 25   | 0      | 27.47            | 20.07         |
|           |            |           |       | 25   | 12     | 27.43            | 20.00         |
|           |            |           |       | 25   | 24     | 27.23            | 19.92         |
|           |            |           |       | 50   | 0      | 27.13            | 20.02         |
| 10.0      | 41540      | 2685.0    | QPSK  | 1    | 0      | <b>28.02</b>     | 22.19         |
|           |            |           |       | 1    | 24     | 27.91            | 22.07         |
|           |            |           |       | 1    | 49     | 27.95            | <b>22.22</b>  |
|           |            |           |       | 25   | 0      | 27.46            | 21.05         |
|           |            |           |       | 25   | 12     | 27.44            | 21.04         |
|           |            |           |       | 25   | 24     | 27.51            | 21.10         |
|           |            |           |       | 50   | 0      | 27.31            | 21.10         |
|           |            |           | 16QAM | 1    | 0      | <b>27.49</b>     | 20.67         |
|           |            |           |       | 1    | 24     | 26.75            | 20.40         |
|           |            |           |       | 1    | 49     | 27.43            | 20.73         |
|           |            |           |       | 25   | 0      | 27.17            | 19.99         |
|           |            |           |       | 25   | 12     | 27.06            | 19.93         |
|           |            |           |       | 25   | 24     | 27.12            | 20.01         |
|           |            |           |       | 50   | 0      | 27.44            | 19.99         |

**UAT OUTPUT POWER FOR LTE BAND 41 (15.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 15.0      | 39725      | 2503.5    | QPSK   | 1    | 0      | 27.64            | 22.00         |
|           |            |           |        | 1    | 37     | 27.42            | 22.08         |
|           |            |           |        | 1    | 74     | 27.73            | 22.02         |
|           |            |           |        | 36   | 0      | 27.25            | 21.09         |
|           |            |           |        | 36   | 16     | 27.19            | 21.07         |
|           |            |           |        | 36   | 35     | 27.47            | 21.13         |
|           |            |           |        | 75   | 0      | 27.43            | 21.02         |
|           |            |           | 16-QAM | 1    | 0      | 26.84            | 21.19         |
|           |            |           |        | 1    | 37     | 26.74            | 21.28         |
|           |            |           |        | 1    | 74     | 27.07            | 21.22         |
|           |            |           |        | 36   | 0      | 27.04            | 20.12         |
|           |            |           |        | 36   | 16     | 26.91            | 20.08         |
|           |            |           |        | 36   | 35     | 27.02            | 20.12         |
|           |            |           |        | 75   | 0      | 27.39            | 20.10         |
| 15.0      | 40620      | 2593.0    | QPSK   | 1    | 0      | 27.79            | 21.95         |
|           |            |           |        | 1    | 37     | 27.64            | 21.93         |
|           |            |           |        | 1    | 74     | 27.24            | 21.97         |
|           |            |           |        | 36   | 0      | 27.90            | 21.07         |
|           |            |           |        | 36   | 16     | 27.68            | 21.00         |
|           |            |           |        | 36   | 35     | 27.71            | 21.02         |
|           |            |           |        | 75   | 0      | 27.68            | 20.95         |
|           |            |           | 16-QAM | 1    | 0      | 27.31            | 21.12         |
|           |            |           |        | 1    | 37     | 27.22            | 21.11         |
|           |            |           |        | 1    | 74     | 27.21            | 21.19         |
|           |            |           |        | 36   | 0      | 27.37            | 20.08         |
|           |            |           |        | 36   | 16     | 27.23            | 20.02         |
|           |            |           |        | 36   | 35     | 27.17            | 20.05         |
|           |            |           |        | 75   | 0      | 27.59            | 19.98         |
| 15.0      | 41515      | 2682.5    | QPSK   | 1    | 0      | 28.03            | 22.20         |
|           |            |           |        | 1    | 37     | 27.97            | 22.06         |
|           |            |           |        | 1    | 74     | 27.92            | 22.21         |
|           |            |           |        | 36   | 0      | 28.02            | 21.25         |
|           |            |           |        | 36   | 16     | 28.01            | 21.18         |
|           |            |           |        | 36   | 35     | 27.86            | 21.06         |
|           |            |           |        | 75   | 0      | 27.65            | 21.20         |
|           |            |           | 16-QAM | 1    | 0      | 27.32            | 20.74         |
|           |            |           |        | 1    | 37     | 27.27            | 20.58         |
|           |            |           |        | 1    | 74     | 27.42            | 20.76         |
|           |            |           |        | 36   | 0      | 27.09            | 20.08         |
|           |            |           |        | 36   | 16     | 27.05            | 20.05         |
|           |            |           |        | 36   | 35     | 26.95            | 19.92         |
|           |            |           |        | 75   | 0      | 27.71            | 20.24         |

**UAT OUTPUT POWER FOR LTE BAND 41 (20.0 MHZ)**

| Bandwidth | UL Channel | Frequency | Mode   | RB   | RB     | Peak Power (dBm) | Average (dBm) |
|-----------|------------|-----------|--------|------|--------|------------------|---------------|
|           |            |           |        | Size | Offset |                  |               |
| 20.0      | 39750      | 2506.0    | QPSK   | 1    | 0      | 27.71            | 22.14         |
|           |            |           |        | 1    | 49     | 27.50            | 22.19         |
|           |            |           |        | 1    | 99     | <b>28.28</b>     | 22.10         |
|           |            |           |        | 50   | 0      | 27.48            | 21.13         |
|           |            |           |        | 50   | 24     | 27.29            | 21.18         |
|           |            |           |        | 50   | 49     | 27.42            | 21.16         |
|           |            |           |        | 100  | 0      | 27.33            | 21.20         |
|           |            |           | 16-QAM | 1    | 0      | 26.63            | 21.03         |
|           |            |           |        | 1    | 49     | 26.51            | 21.08         |
|           |            |           |        | 1    | 99     | 27.40            | 21.10         |
|           |            |           |        | 50   | 0      | 27.44            | 20.09         |
|           |            |           |        | 50   | 24     | 27.20            | 20.13         |
|           |            |           |        | 50   | 49     | 27.47            | 20.08         |
|           |            |           |        | 100  | 0      | 27.25            | 20.02         |
| 20.0      | 40620      | 2593.0    | QPSK   | 1    | 0      | 27.96            | 22.07         |
|           |            |           |        | 1    | 49     | 27.78            | 22.11         |
|           |            |           |        | 1    | 99     | 27.92            | 22.25         |
|           |            |           |        | 50   | 0      | 27.54            | 21.14         |
|           |            |           |        | 50   | 24     | 27.57            | 21.08         |
|           |            |           |        | 50   | 49     | 27.31            | 21.06         |
|           |            |           |        | 100  | 0      | 27.34            | 21.10         |
|           |            |           | 16-QAM | 1    | 0      | 26.94            | 21.09         |
|           |            |           |        | 1    | 49     | 26.84            | 21.03         |
|           |            |           |        | 1    | 99     | 26.88            | 21.10         |
|           |            |           |        | 50   | 0      | <b>28.04</b>     | 20.14         |
|           |            |           |        | 50   | 24     | 27.46            | 20.02         |
|           |            |           |        | 50   | 49     | 27.48            | 20.06         |
|           |            |           |        | 100  | 0      | 27.44            | 20.07         |
| 20.0      | 41490      | 2680.0    | QPSK   | 1    | 0      | 27.81            | 22.34         |
|           |            |           |        | 1    | 49     | 27.73            | 22.30         |
|           |            |           |        | 1    | 99     | 27.71            | <b>22.39</b>  |
|           |            |           |        | 50   | 0      | 27.87            | 21.30         |
|           |            |           |        | 50   | 24     | 27.70            | 21.21         |
|           |            |           |        | 50   | 49     | 27.60            | 21.18         |
|           |            |           |        | 100  | 0      | 27.55            | 21.22         |
|           |            |           | 16-QAM | 1    | 0      | 27.17            | 21.21         |
|           |            |           |        | 1    | 49     | 27.24            | 21.15         |
|           |            |           |        | 1    | 99     | 27.16            | <b>21.25</b>  |
|           |            |           |        | 50   | 0      | 28.02            | 20.21         |
|           |            |           |        | 50   | 24     | 27.63            | 20.13         |
|           |            |           |        | 50   | 49     | 27.64            | 20.07         |
|           |            |           |        | 100  | 0      | 27.55            | 20.16         |

## **8. CONDUCTED TEST RESULTS**

### **8.1. OCCUPIED BANDWIDTH**

#### **RULE PART(S)**

FCC: §2.1049

#### **LIMITS**

For reporting purposes only

#### **TEST PROCEDURE**

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The -26dB bandwidth was also measured and recorded.

#### **MODES TESTED**

- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 41

#### **RESULTS**

| BAND       | MODE                   | RB SIZE/ RB<br>OFFSET | f (MHz) | 99% BW<br>(MHz) | - 26dB BW<br>(MHz) |
|------------|------------------------|-----------------------|---------|-----------------|--------------------|
| LTE BAND 2 | 1.4 MHz BAND<br>QPSK   | 6/0                   | 1880    | 1.0869          | 1.162              |
|            | 1.4 MHz BAND<br>16QAM  | 6/0                   | 1880    | 1.0817          | 1.214              |
|            | 3.0 MHz BAND<br>QPSK   | 15/0                  | 1880    | 2.6953          | 2.882              |
|            | 3.0 MHz BAND<br>16QAM  | 15/0                  | 1880    | 2.6716          | 2.841              |
|            | 5.0 MHz BAND<br>QPSK   | 25/0                  | 1880    | 4.452           | 4.768              |
|            | 5.0 MHz BAND<br>16QAM  | 25/0                  | 1880    | 4.4579          | 4.647              |
|            | 10.0 MHz BAND<br>QPSK  | 50/0                  | 1880    | 8.831           | 9.366              |
|            | 10.0 MHz BAND<br>16QAM | 50/0                  | 1880    | 8.9842          | 9.356              |
|            | 15.0 MHz BAND<br>QPSK  | 75/0                  | 1880    | 13.3805         | 13.983             |
|            | 15.0 MHz BAND<br>16QAM | 75/0                  | 1880    | 13.4401         | 13.998             |
|            | 20.0 MHz BAND<br>QPSK  | 100/0                 | 1880    | 17.9194         | 18.683             |
|            | 20.0 MHz BAND<br>16QAM | 100/0                 | 1880    | 17.8501         | 18.796             |

| BAND       | MODE                   | RB SIZE/ RB<br>OFFSET | f (MHz) | 99% BW<br>(MHz) | - 26dB BW<br>(MHz) |
|------------|------------------------|-----------------------|---------|-----------------|--------------------|
| LTE BAND 4 | 1.4 MHz BAND<br>QPSK   | 6/0                   | 1732.5  | 1.0915          | 1.213              |
|            | 1.4 MHz BAND<br>16QAM  | 6/0                   | 1732.5  | 1.0845          | 1.239              |
|            | 3.0 MHz BAND<br>QPSK   | 15/0                  | 1732.5  | 2.6924          | 2.806              |
|            | 3.0 MHz BAND<br>16QAM  | 15/0                  | 1732.5  | 2.6754          | 2.794              |
|            | 5.0 MHz BAND<br>QPSK   | 25/0                  | 1732.5  | 4.5049          | 4.7                |
|            | 5.0 MHz BAND<br>16QAM  | 25/0                  | 1732.5  | 4.4198          | 4.727              |
|            | 10.0 MHz BAND<br>QPSK  | 50/0                  | 1732.5  | 8.8377          | 9.569              |
|            | 10.0 MHz BAND<br>16QAM | 50/0                  | 1732.5  | 8.89            | 9.309              |
|            | 15.0 MHz BAND<br>QPSK  | 75/0                  | 1732.5  | 13.447          | 13.961             |
|            | 15.0 MHz BAND<br>16QAM | 75/0                  | 1732.5  | 13.4581         | 13.88              |
|            | 20.0 MHz BAND<br>QPSK  | 100/0                 | 1732.5  | 17.7873         | 18.631             |
|            | 20.0 MHz BAND<br>16QAM | 100/0                 | 1732.5  | 17.8043         | 18.521             |

| BAND       | MODE                | RB SIZE/ RB OFFSET | f (MHz) | 99% BW (MHz) | - 26dB BW (MHz) |
|------------|---------------------|--------------------|---------|--------------|-----------------|
| LTE BAND 5 | 1.4 MHz BAND QPSK   | 6/0                | 836.5   | 1.0878       | 1.202           |
|            | 1.4 MHz BAND 16QAM  | 6/0                | 836.5   | 1.0682       | 1.201           |
|            | 3.0 MHz BAND QPSK   | 15/0               | 836.5   | 2.702        | 2.823           |
|            | 3.0 MHz BAND 16QAM  | 15/0               | 836.5   | 2.6813       | 2.879           |
|            | 5.0 MHz BAND QPSK   | 25/0               | 836.5   | 4.4138       | 4.77            |
|            | 5.0 MHz BAND 16QAM  | 25/0               | 836.5   | 4.4645       | 4.776           |
|            | 10.0 MHz BAND QPSK  | 50/0               | 836.5   | 8.8669       | 9.548           |
|            | 10.0 MHz BAND 16QAM | 50/0               | 836.5   | 8.9628       | 9.400           |

| BAND        | MODE                | RB SIZE/ RB OFFSET | f (MHz) | 99% BW (MHz) | - 26dB BW (MHz) |
|-------------|---------------------|--------------------|---------|--------------|-----------------|
| LTE BAND 13 | 5.0 MHz BAND QPSK   | 25/0               | 782     | 4.4341       | 4.827           |
|             | 5.0 MHz BAND 16QAM  | 25/0               | 782     | 4.4700       | 4.788           |
|             | 10.0 MHz BAND QPSK  | 50/0               | 782     | 9.0484       | 9.357           |
|             | 10.0 MHz BAND 16QAM | 50/0               | 782     | 8.9311       | 9.379           |

| BAND        | MODE                | RB SIZE/ RB OFFSET | f (MHz) | 99% BW (MHz) | - 26dB BW (MHz) |
|-------------|---------------------|--------------------|---------|--------------|-----------------|
| LTE BAND 17 | 5.0 MHz BAND QPSK   | 25/0               | 710     | 4.4814       | 4.797           |
|             | 5.0 MHz BAND 16QAM  | 25/0               | 710     | 4.4344       | 4.64            |
|             | 10.0 MHz BAND QPSK  | 50/0               | 710     | 8.9085       | 9.321           |
|             | 10.0 MHz BAND 16QAM | 50/0               | 710     | 8.9682       | 9.285           |

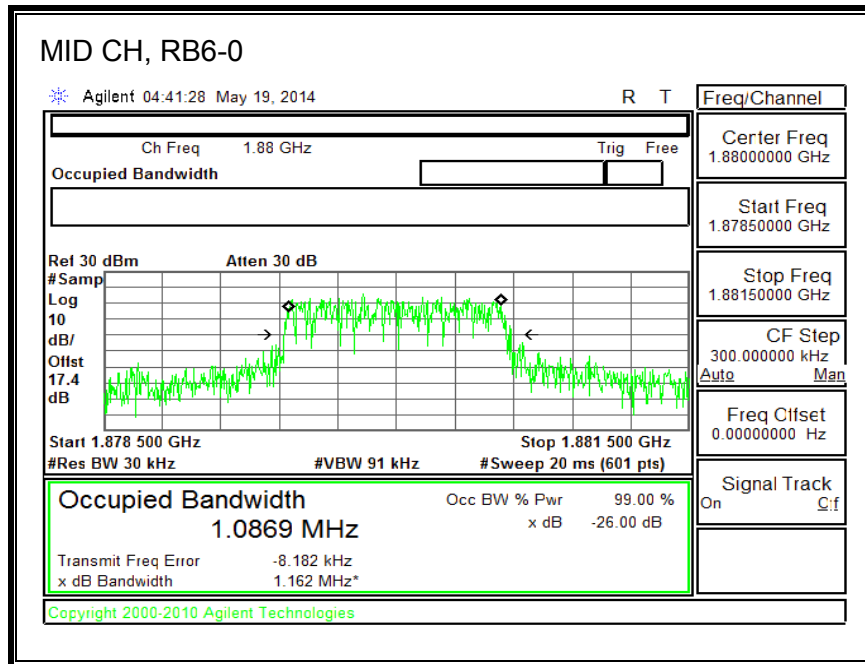
| BAND        | MODE                | RB SIZE/ RB OFFSET | f (MHz) | 99% BW (MHz) | - 26dB BW (MHz) |
|-------------|---------------------|--------------------|---------|--------------|-----------------|
| LTE BAND 25 | 1.4 MHz BAND QPSK   | 6/0                | 1882.5  | 1.0893       | 1.205           |
|             | 1.4 MHz BAND 16QAM  | 6/0                | 1882.5  | 1.0887       | 1.225           |
|             | 3.0 MHz BAND QPSK   | 15/0               | 1882.5  | 2.6619       | 2.861           |
|             | 3.0 MHz BAND 16QAM  | 15/0               | 1882.5  | 2.7021       | 2.791           |
|             | 5.0 MHz BAND QPSK   | 25/0               | 1882.5  | 4.4543       | 4.685           |
|             | 5.0 MHz BAND 16QAM  | 25/0               | 1882.5  | 4.4765       | 4.664           |
|             | 10.0 MHz BAND QPSK  | 50/0               | 1882.5  | 8.9722       | 9.320           |
|             | 10.0 MHz BAND 16QAM | 50/0               | 1882.5  | 8.9453       | 9.327           |
|             | 15.0 MHz BAND QPSK  | 75/0               | 1882.5  | 13.2636      | 14.100          |
|             | 15.0 MHz BAND 16QAM | 75/0               | 1882.5  | 13.4341      | 14.190          |
|             | 20.0 MHz BAND QPSK  | 100/0              | 1882.5  | 17.7542      | 18.687          |
|             | 20.0 MHz BAND 16QAM | 100/0              | 1882.5  | 17.8708      | 18.500          |

| BAND    | MODE                | RB SIZE/ RB OFFSET | f (MHz) | 99% BW (MHz) | - 26dB BW (MHz) |
|---------|---------------------|--------------------|---------|--------------|-----------------|
| BAND 26 | 3.0 MHz BAND QPSK   | 15/0               | 821.3   | 2.6976       | 2.811           |
|         | 3.0 MHz BAND 16QAM  | 15/0               | 821.3   | 2.6983       | 2.894           |
|         | 5.0 MHz BAND QPSK   | 25/0               | 821.3   | 4.4349       | 4.708           |
|         | 5.0 MHz BAND 16QAM  | 25/0               | 821.3   | 4.3716       | 4.673           |
|         | 10.0 MHz BAND QPSK  | 50/0               | 819     | 8.7834       | 9.311           |
|         | 10.0 MHz BAND 16QAM | 50/0               | 819     | 8.8901       | 9.533           |

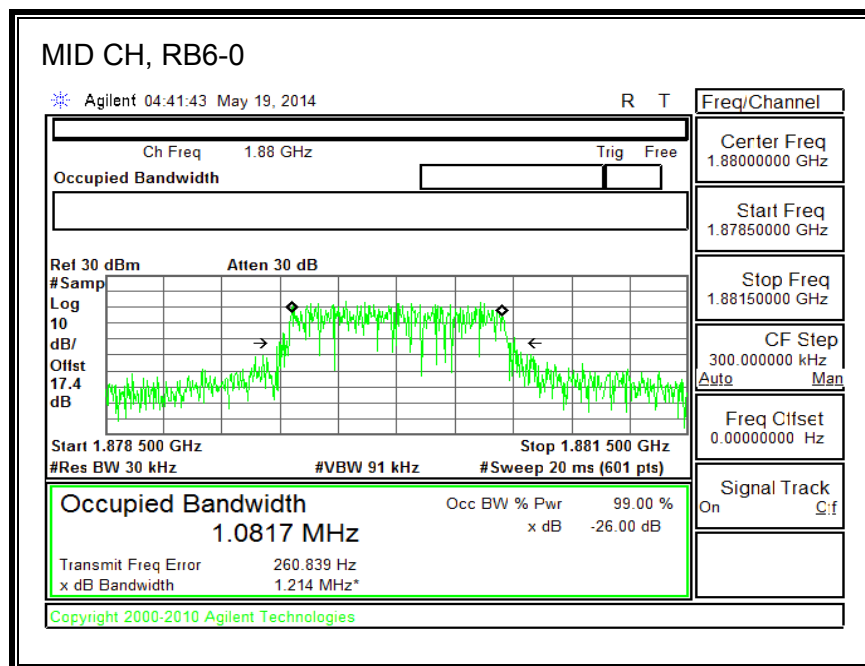
| BAND        | MODE                   | RB SIZE/ RB<br>OFFSET | f (MHz) | 99% BW<br>(MHz) | (-) 26dB BW<br>(MHz) |
|-------------|------------------------|-----------------------|---------|-----------------|----------------------|
| LTE BAND 41 | 5.0 MHz BAND<br>QPSK   | 25/0                  | 2593    | 4.4244          | 4.628                |
|             | 5.0 MHz BAND<br>16QAM  | 25/0                  | 2593    | 4.4623          | 4.777                |
|             | 10.0 MHz BAND<br>QPSK  | 50/0                  | 2593    | 8.9134          | 9.292                |
|             | 10.0 MHz BAND<br>16QAM | 50/0                  | 2593    | 8.8946          | 9.311                |
|             | 15.0 MHz BAND<br>QPSK  | 75/0                  | 2593    | 13.1975         | 13.999               |
|             | 15.0 MHz BAND<br>16QAM | 75/0                  | 2593    | 13.3464         | 13.989               |
|             | 20.0 MHz BAND<br>QPSK  | 100/0                 | 2593    | 17.798          | 18.691               |
|             | 20.0 MHz BAND<br>16QAM | 100/0                 | 2593    | 17.8516         | 18.797               |

## 8.1.1. LTE BAND 2

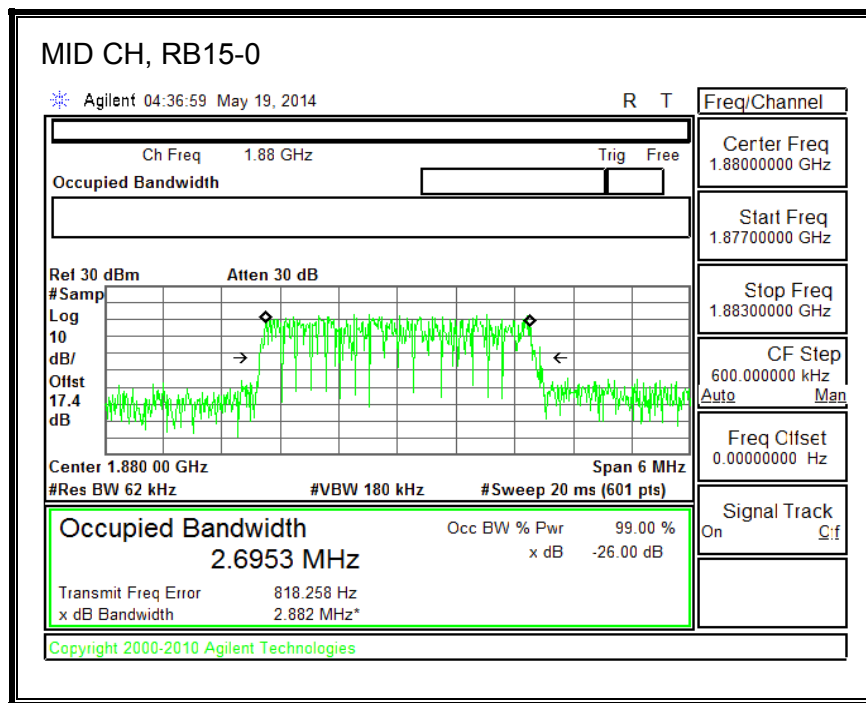
### QPSK, (1.4 MHz BAND WIDTH)



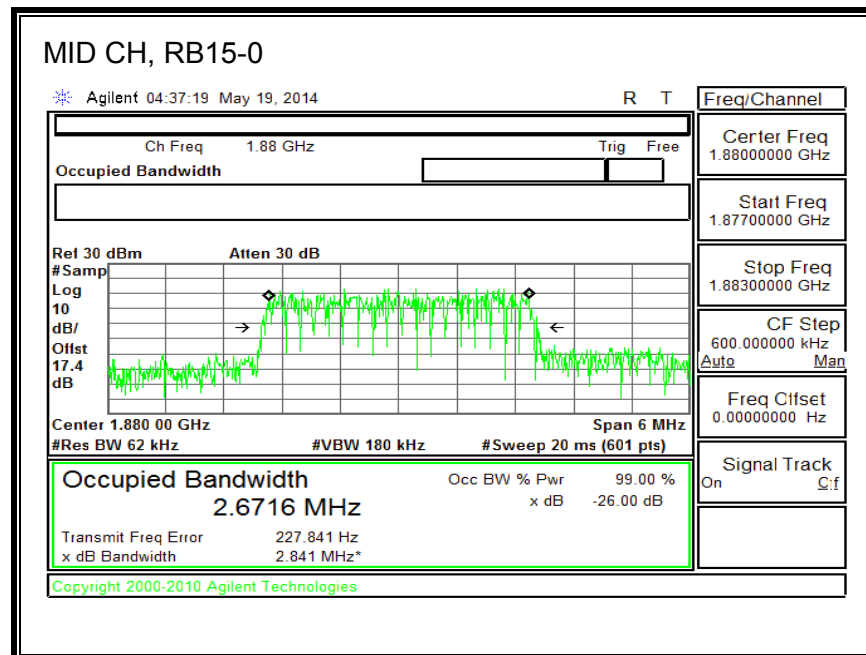
### 16QAM, (1.4 MHz BAND WIDTH)



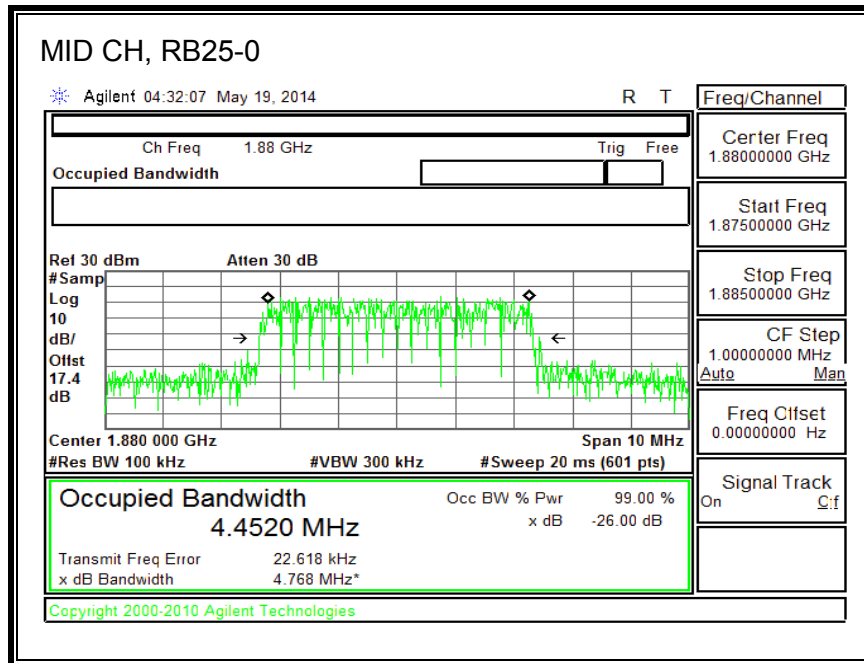
**QPSK, (3.0 MHz BAND WIDTH)**



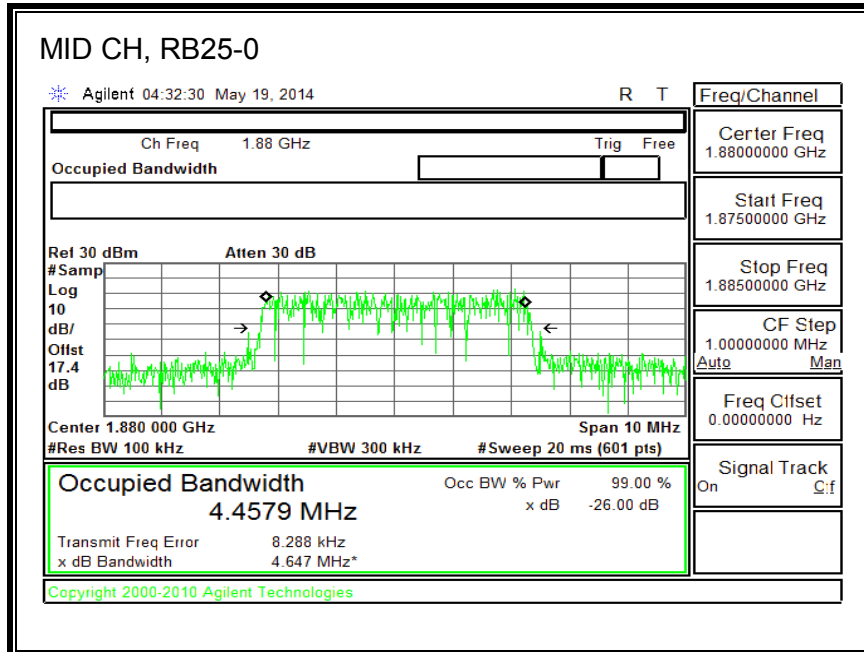
**16QAM, (3.0 MHz BAND WIDTH)**



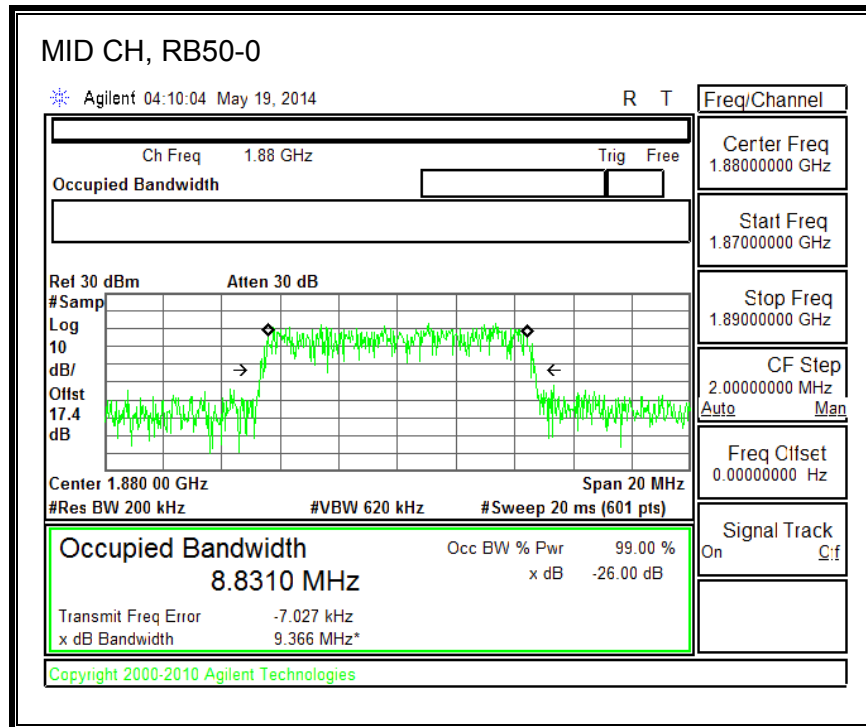
**QPSK, (5.0 MHz BAND WIDTH)**



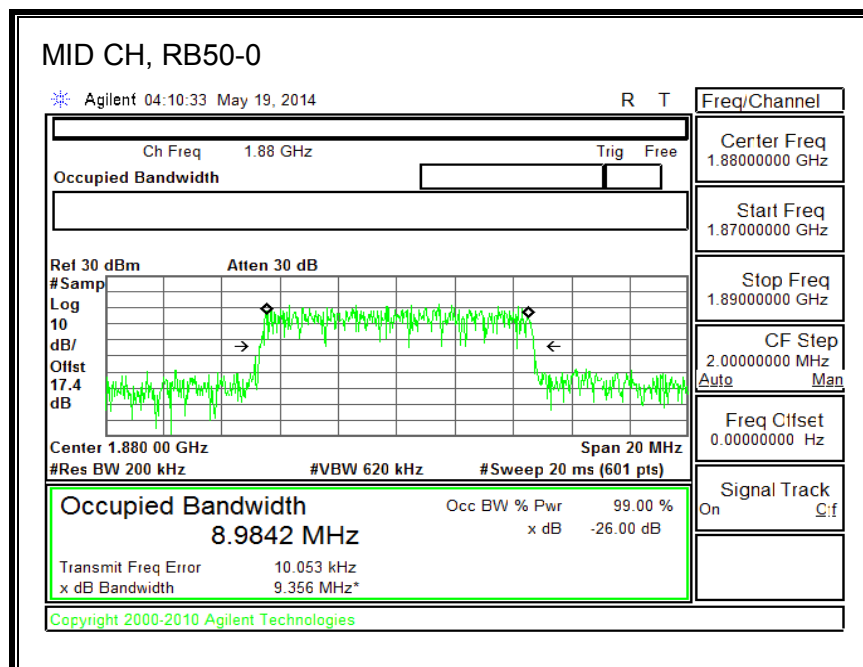
**16QAM, (5.0 MHz BAND WIDTH)**



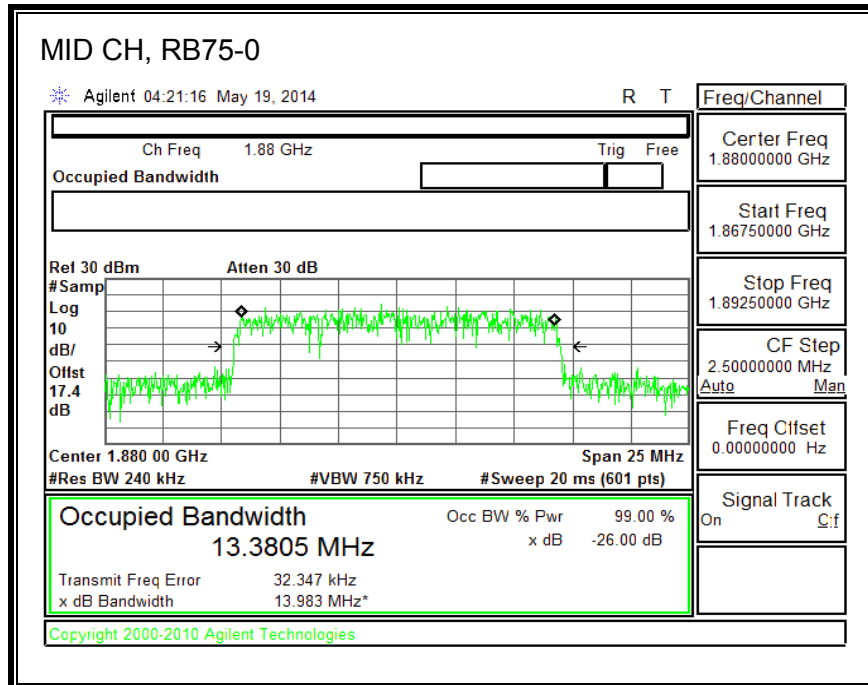
**QPSK, (10.0 MHz BAND WIDTH)**



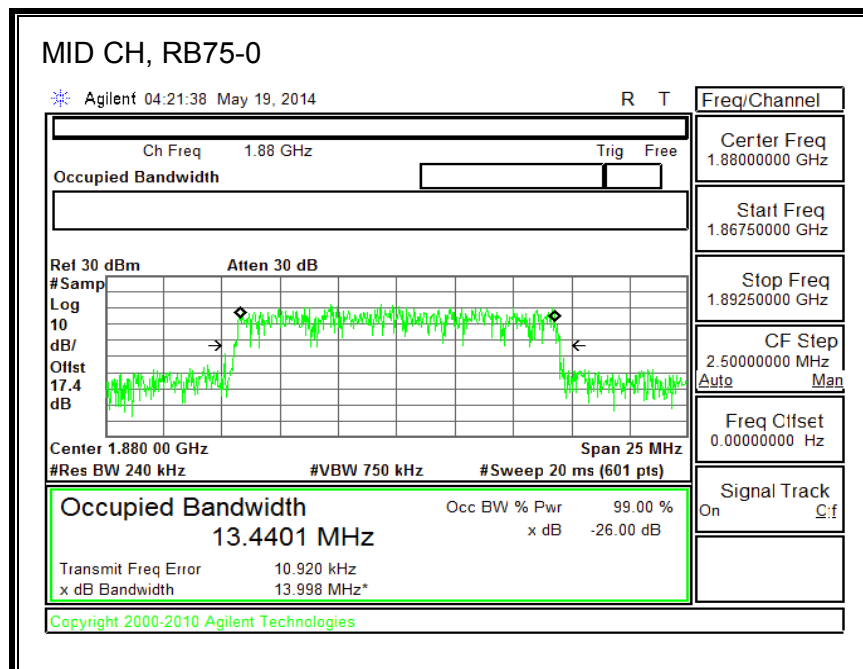
**16QAM, (10.0 MHz BAND WIDTH)**



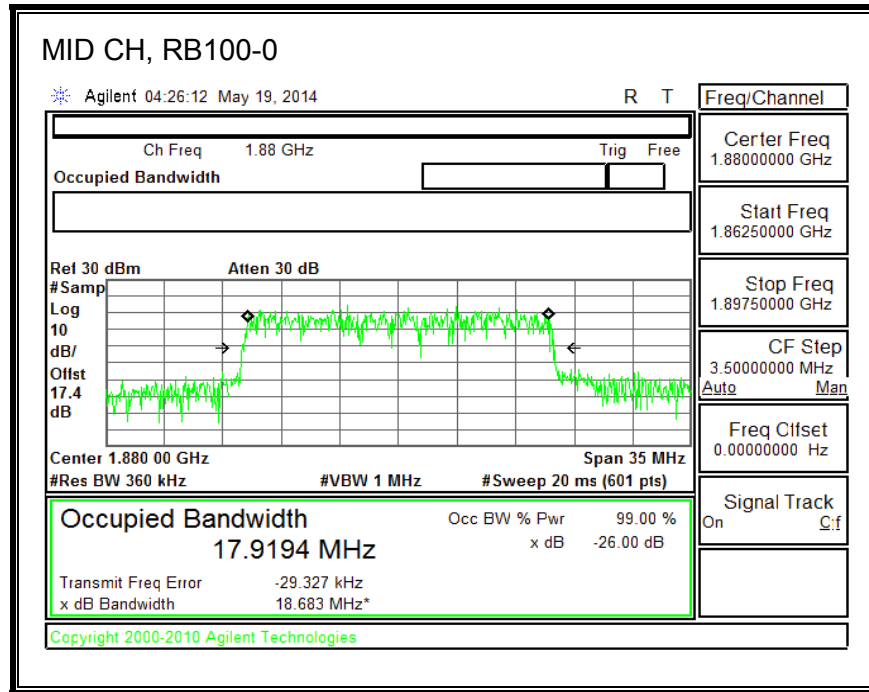
**QPSK, (15.0 MHz BAND WIDTH)**



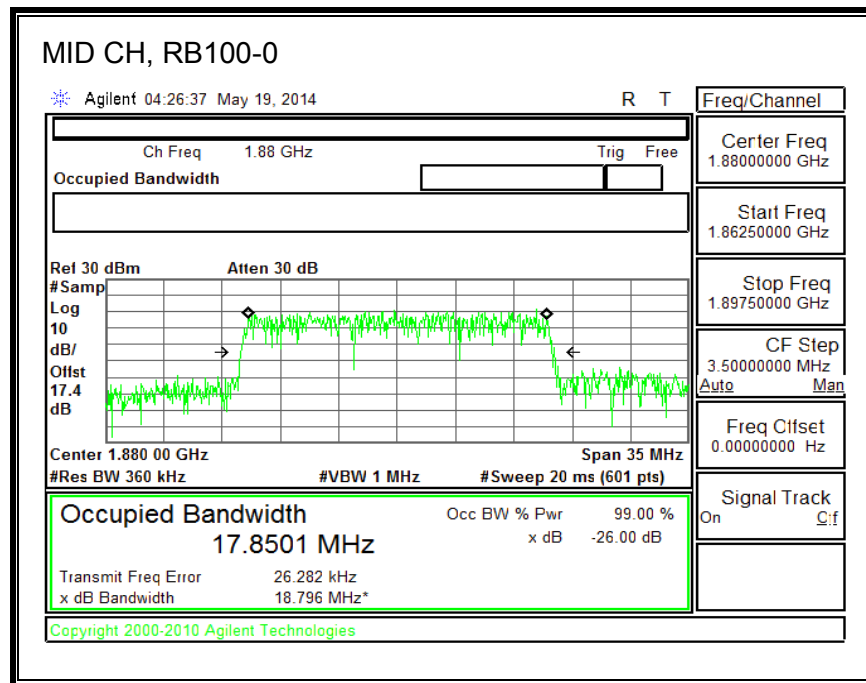
**16QAM, (15.0 MHz BAND WIDTH)**



**QPSK, (20.0 MHz BAND WIDTH)**

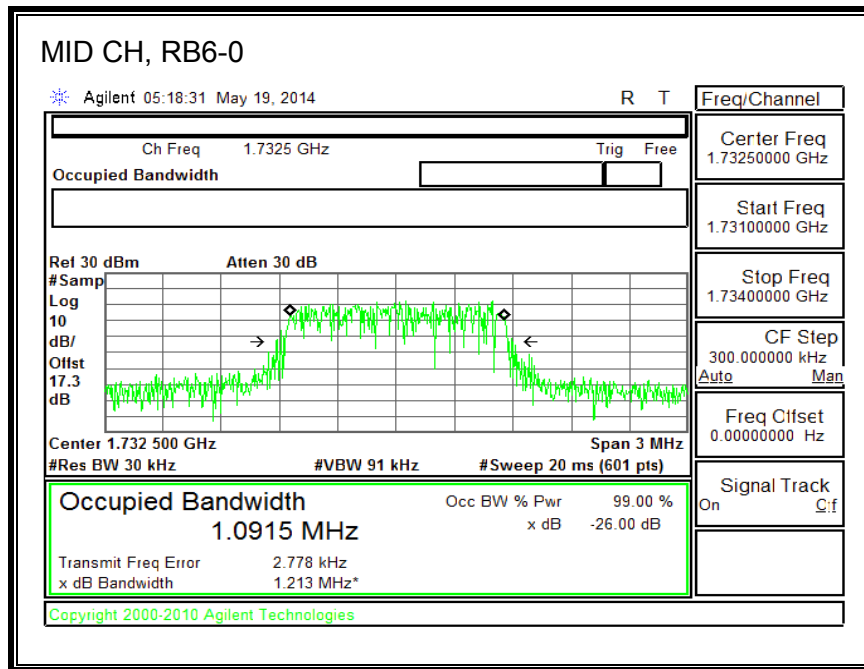


**16QAM, (20.0 MHz BAND WIDTH)**

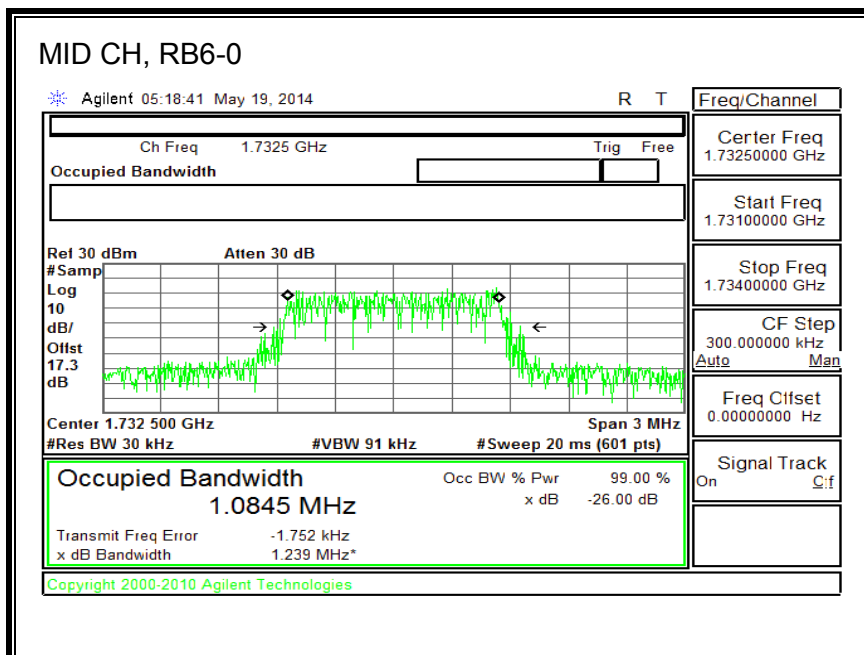


## 8.1.2. LTE BAND 4

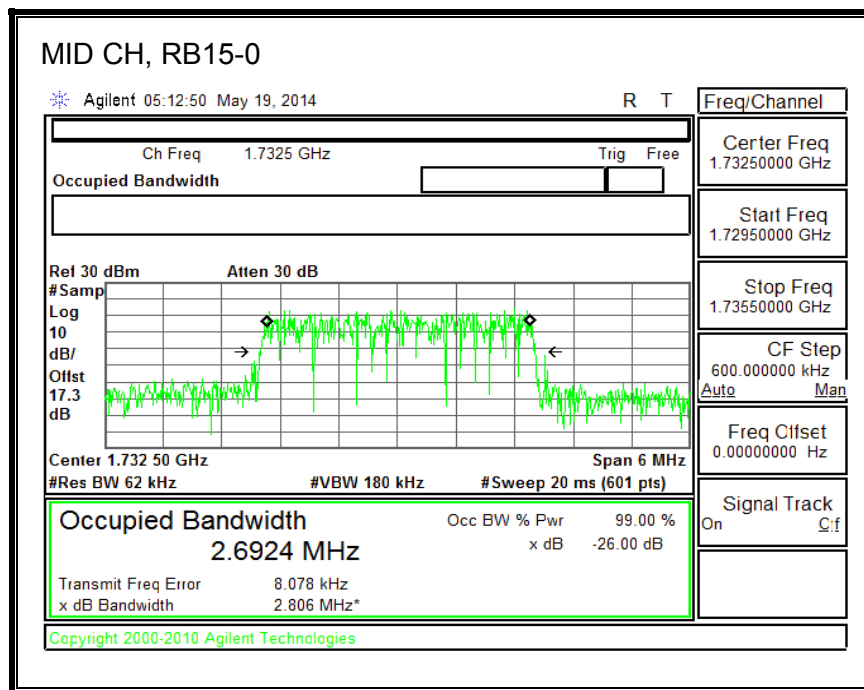
### QPSK, (1.4 MHz BAND WIDTH)



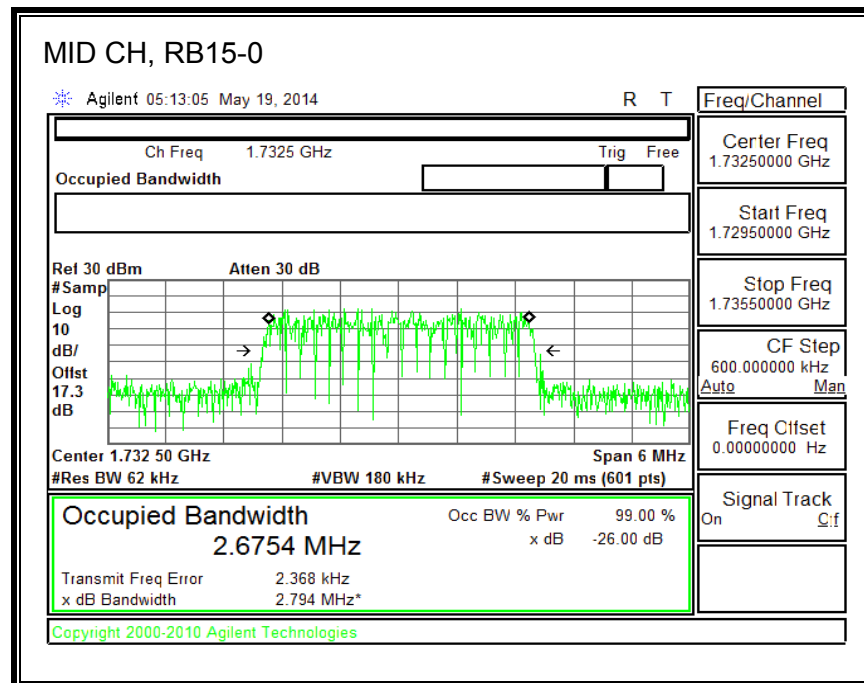
### 16QAM, (1.4 MHz BAND WIDTH)



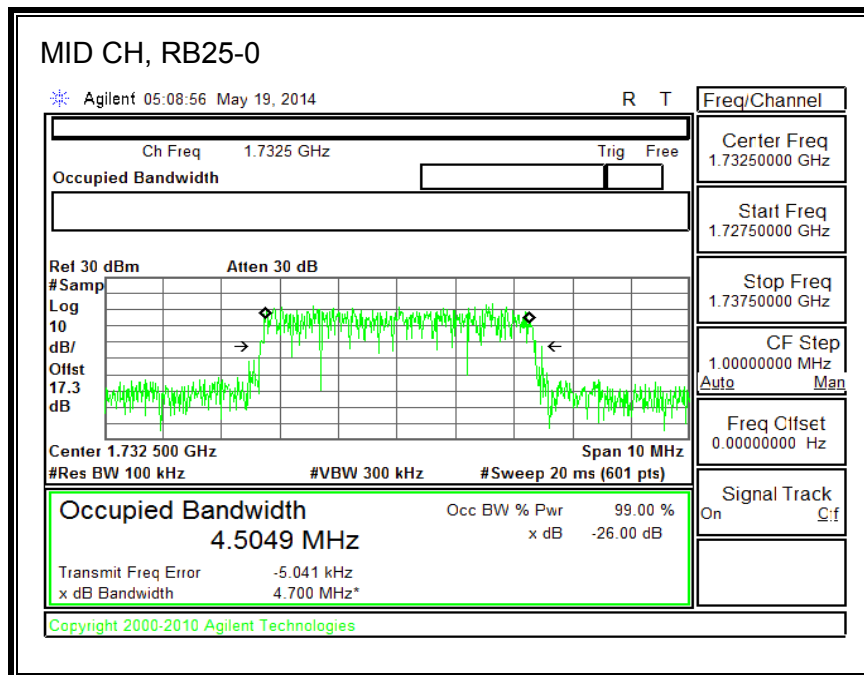
**QPSK, (3.0 MHz BAND WIDTH)**



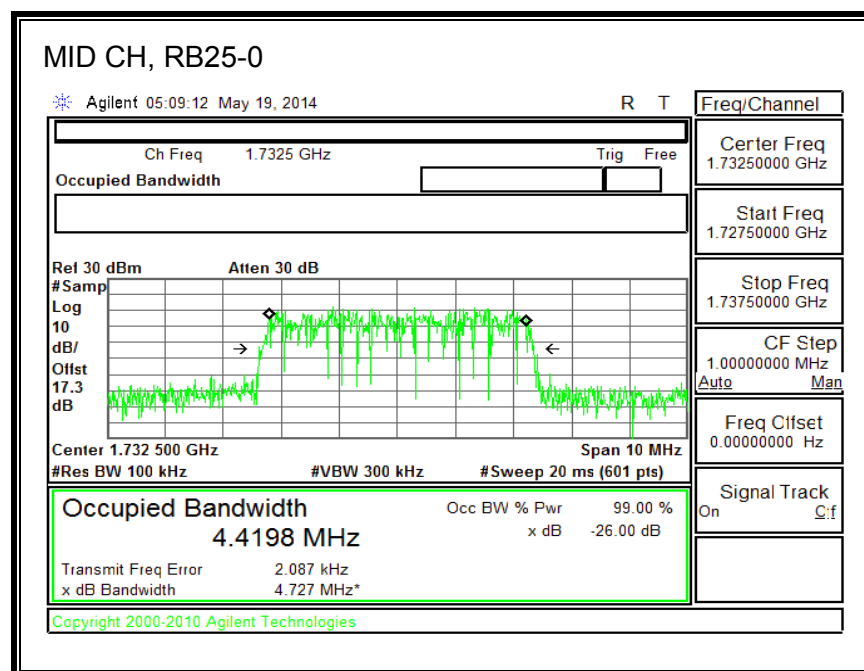
**16QAM, (3.0 MHz BAND WIDTH)**



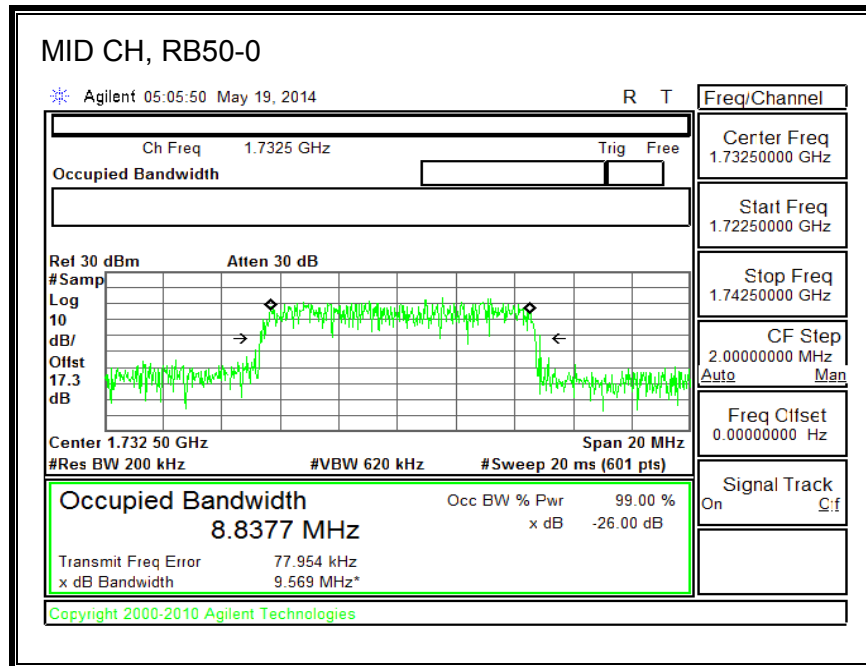
**QPSK, (5.0 MHz BAND WIDTH)**



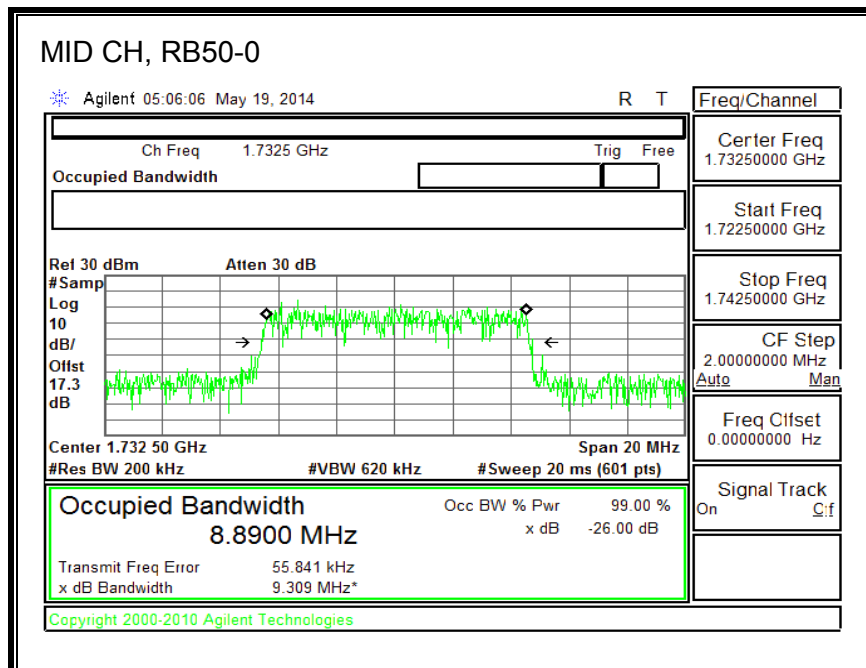
**16QAM, (5.0 MHz BAND WIDTH)**



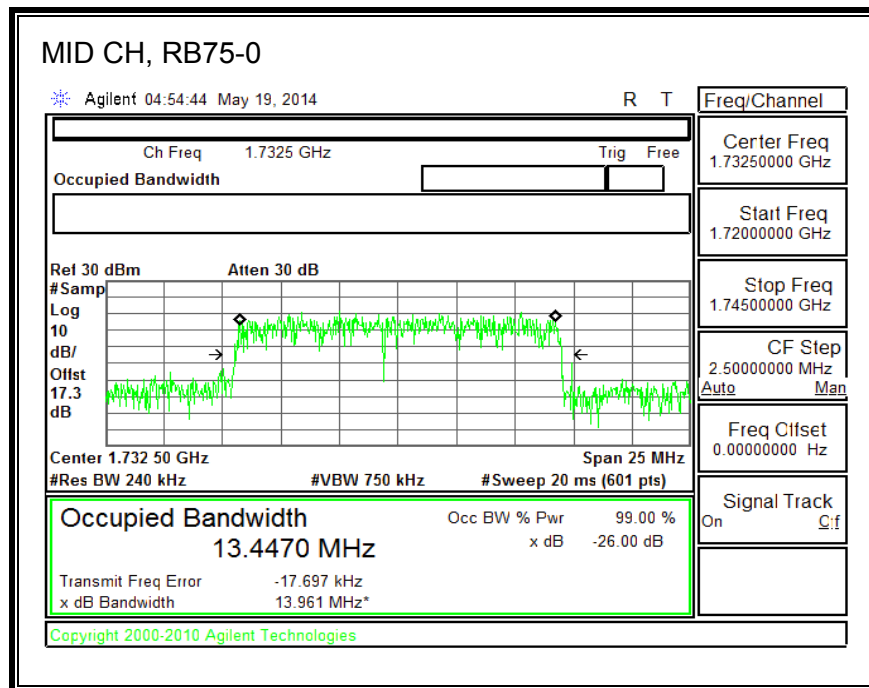
**QPSK, (10.0 MHz BAND WIDTH)**



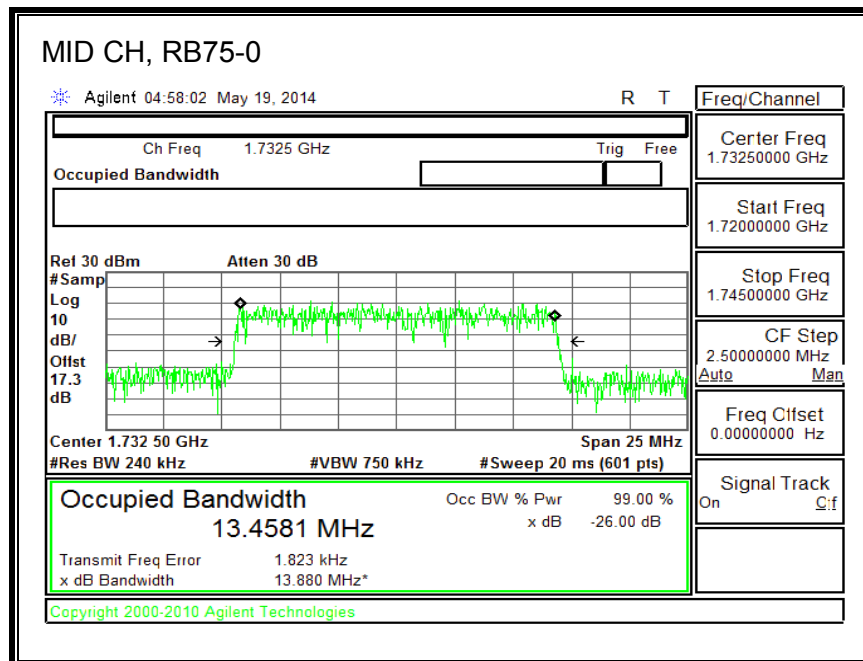
**16QAM, (10.0 MHz BAND WIDTH)**



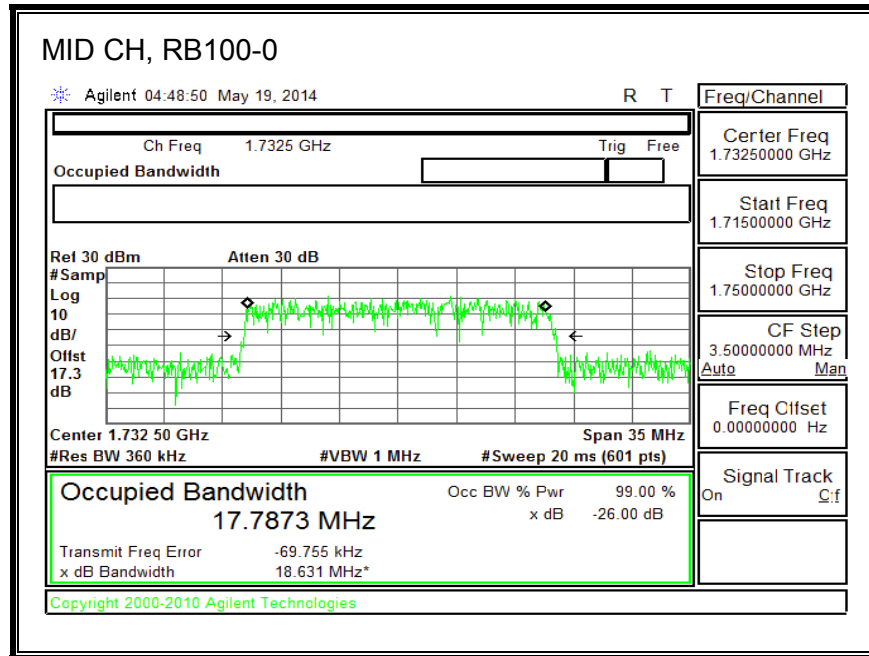
**QPSK, (15.0 MHz BAND WIDTH)**



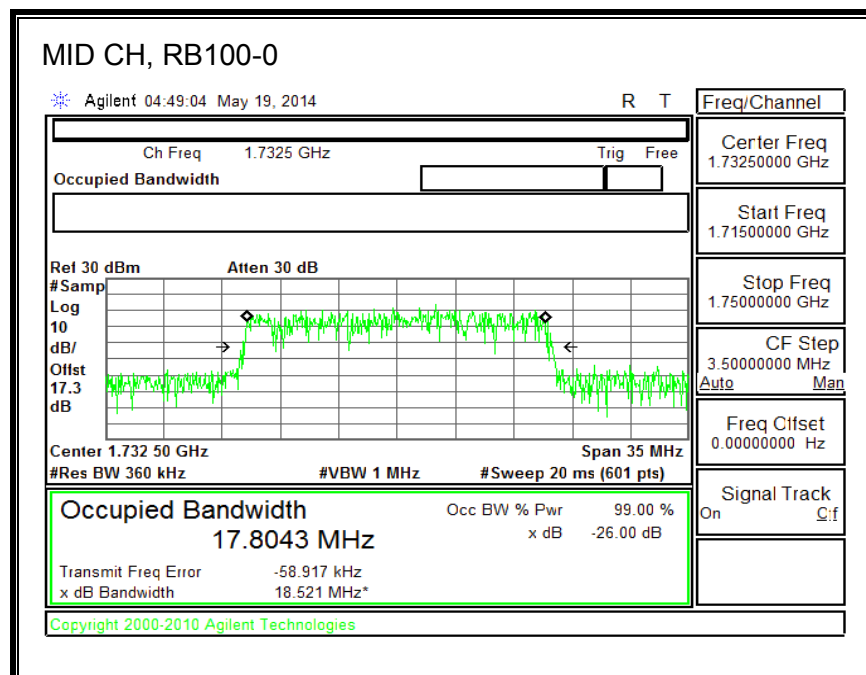
**16QAM, (15.0 MHz BAND WIDTH)**



**QPSK, (20.0 MHz BAND WIDTH)**

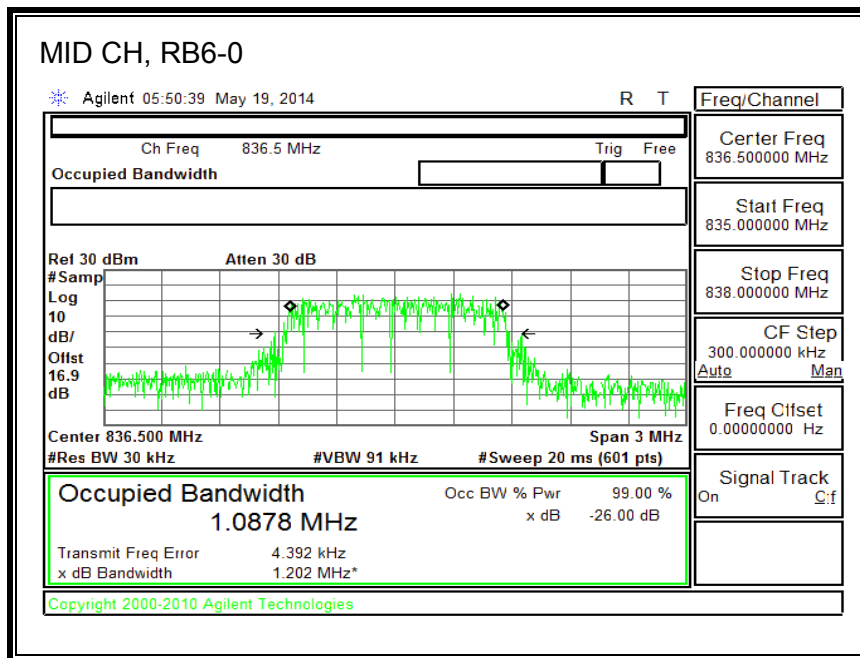


**16QAM, (20.0 MHz BAND WIDTH)**

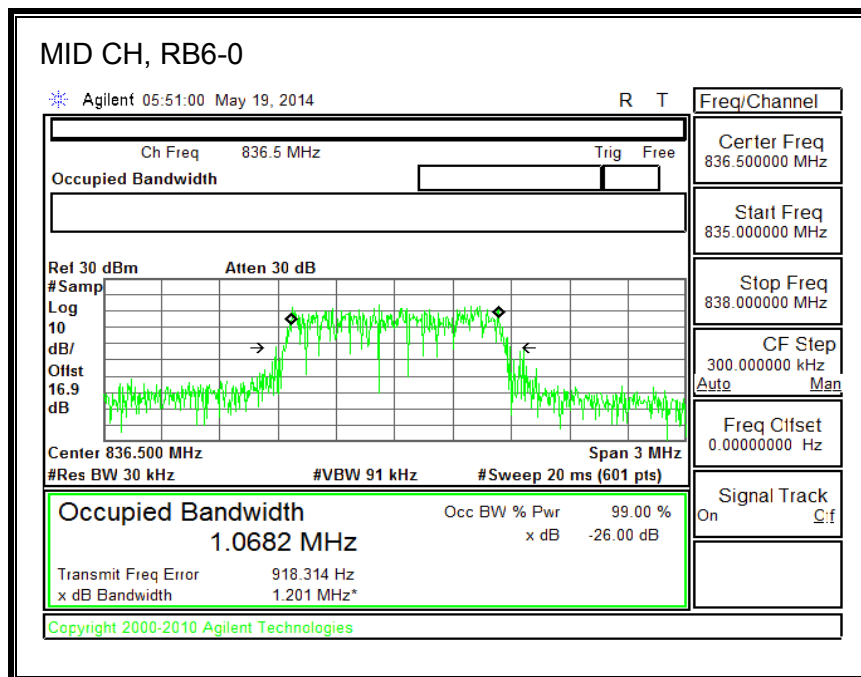


### 8.1.3. LTE BAND 5

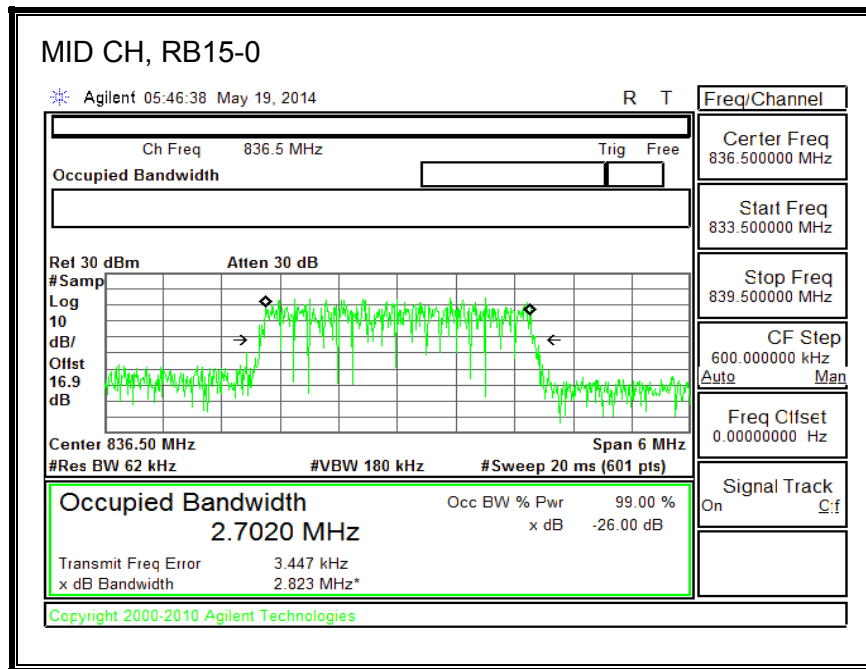
#### QPSK, (1.4 MHz BAND WIDTH)



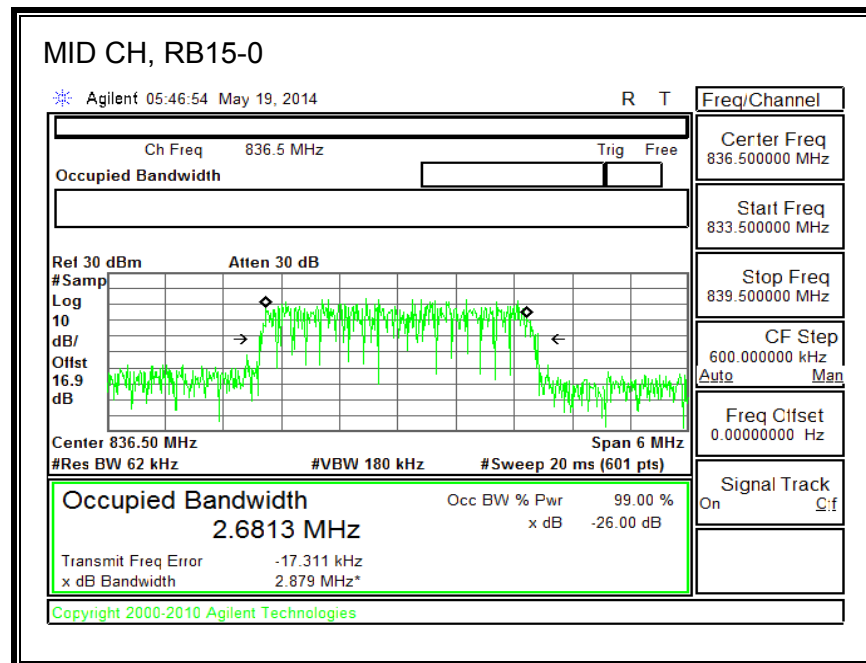
#### 16QAM, (1.4 MHz BAND WIDTH)



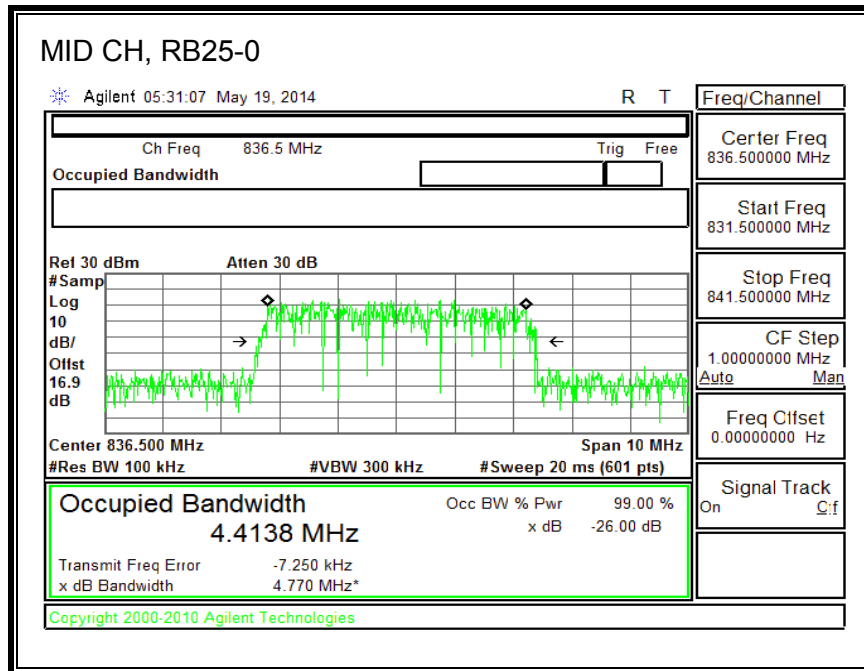
**QPSK, (3.0 MHz BAND WIDTH)**



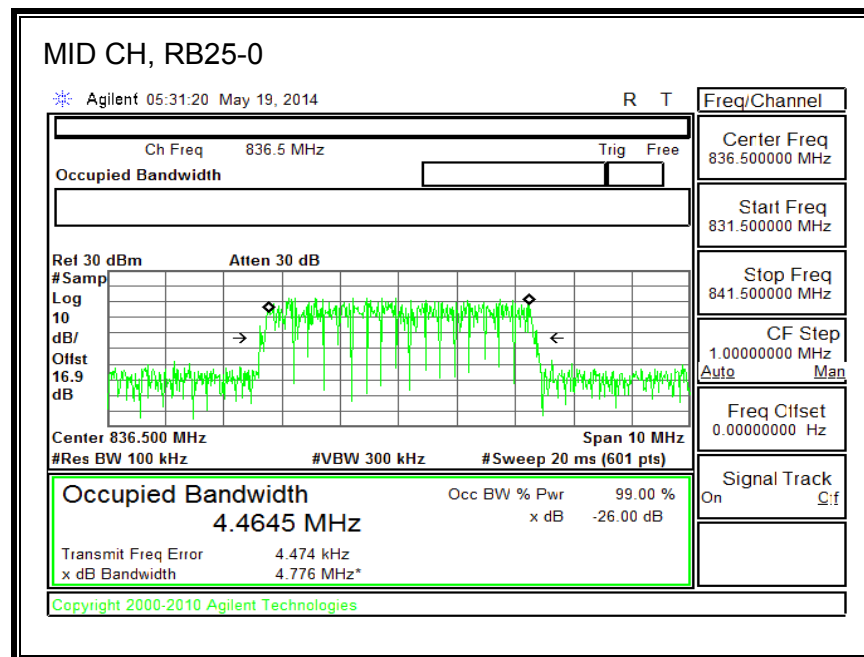
**16QAM, (3.0 MHz BAND WIDTH)**



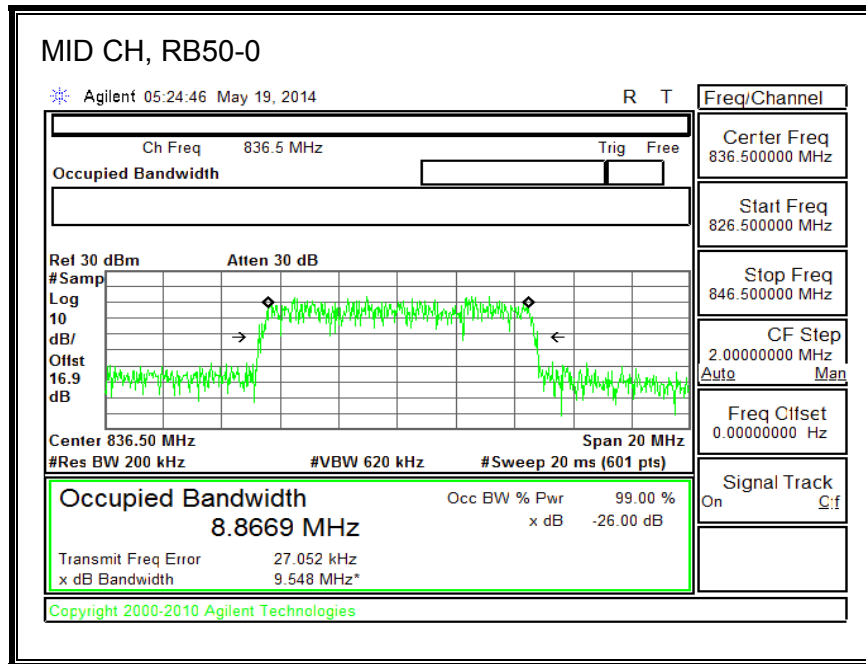
**QPSK, (5.0 MHz BAND WIDTH)**



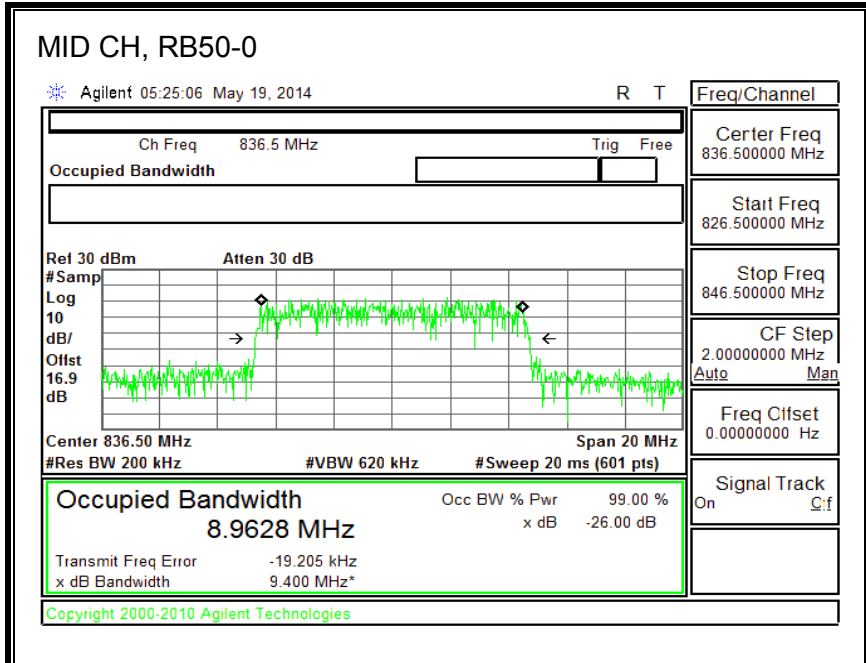
**16QAM, (5.0 MHz BAND WIDTH)**



**QPSK, (10.0 MHz BAND WIDTH)**

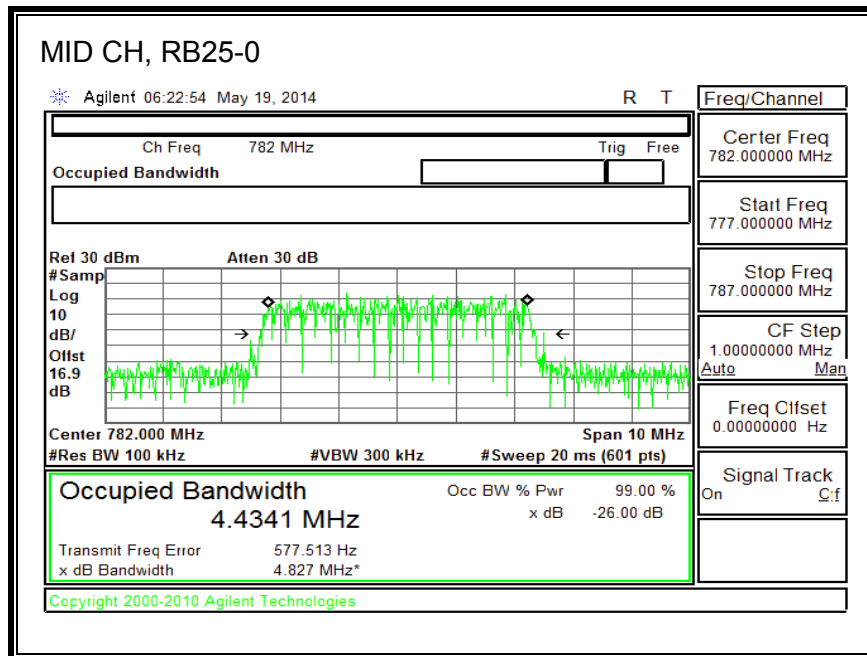


**16QAM, (10.0 MHz BAND WIDTH)**

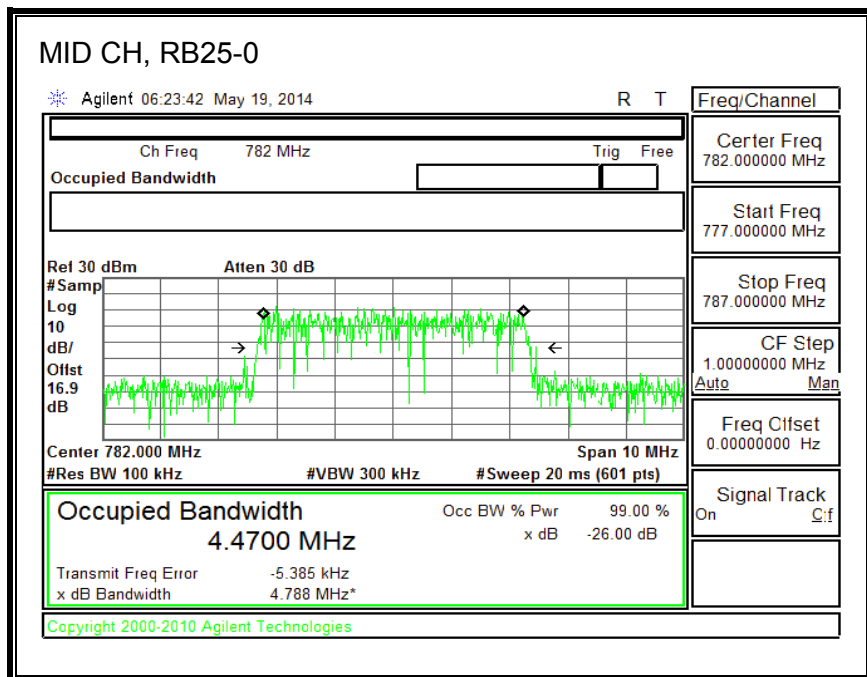


### 8.1.4. LTE BAND 13

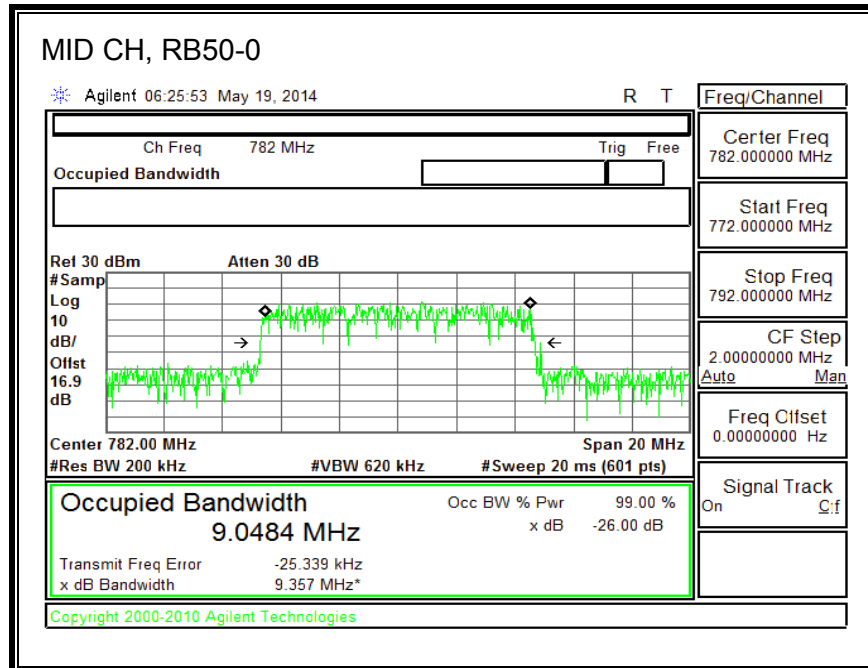
#### QPSK, (5.0 MHz BAND WIDTH)



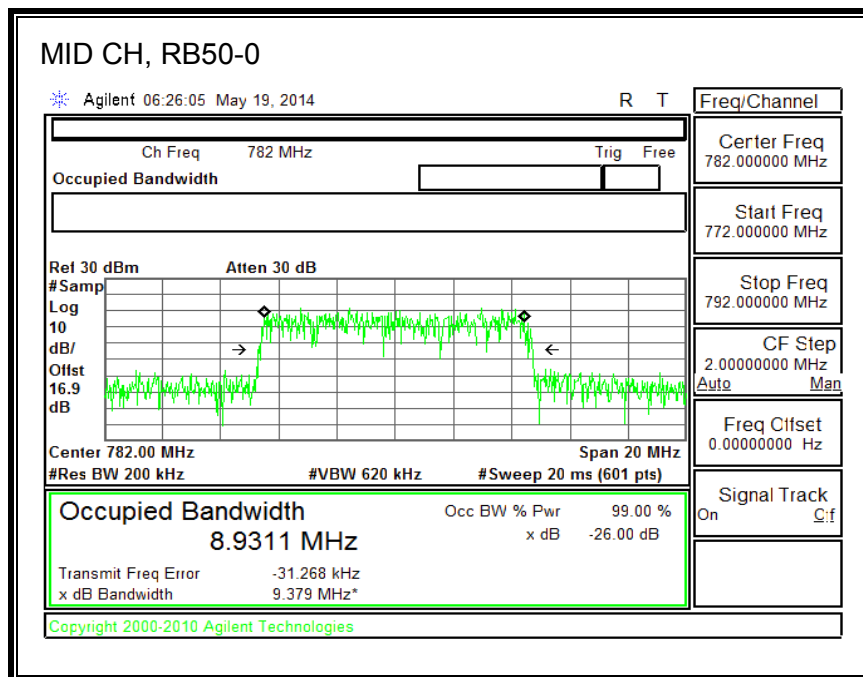
#### 16QAM, (5.0 MHz BAND WIDTH)



**QPSK, (10.0 MHz BAND WIDTH)**

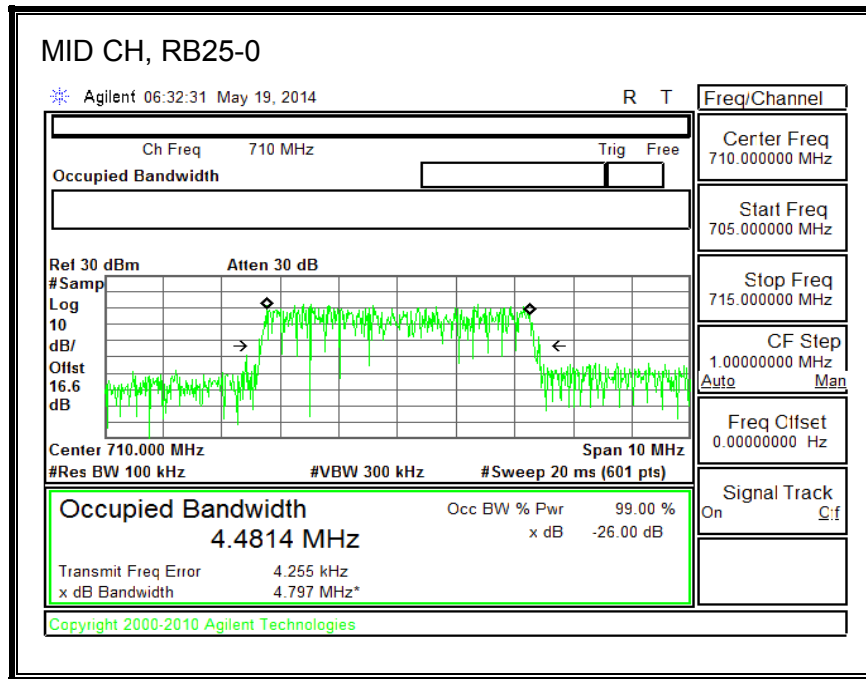


**16QAM, (10.0 MHz BAND WIDTH)**

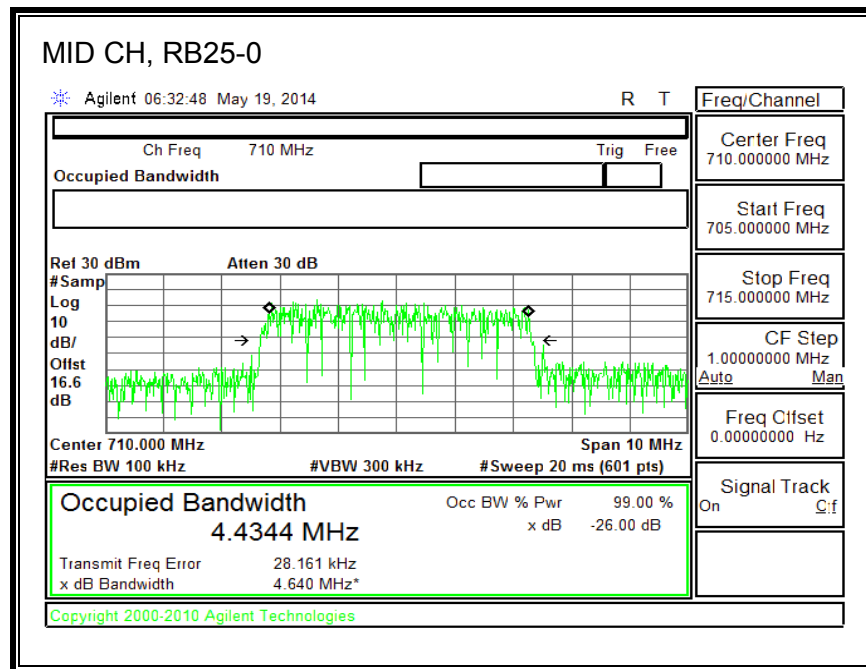


### 8.1.5. LTE BAND 17

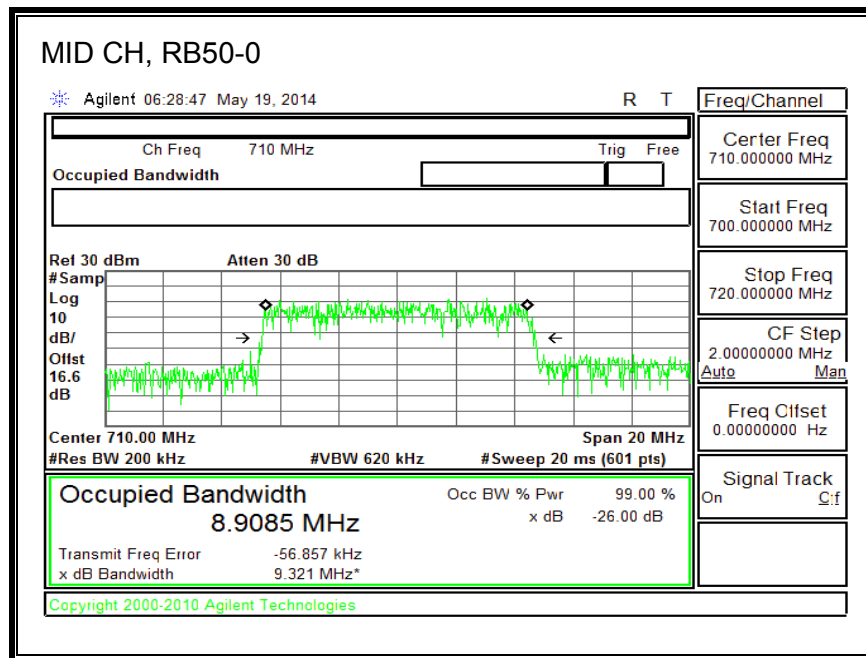
#### QPSK, (5.0 MHz BAND WIDTH)



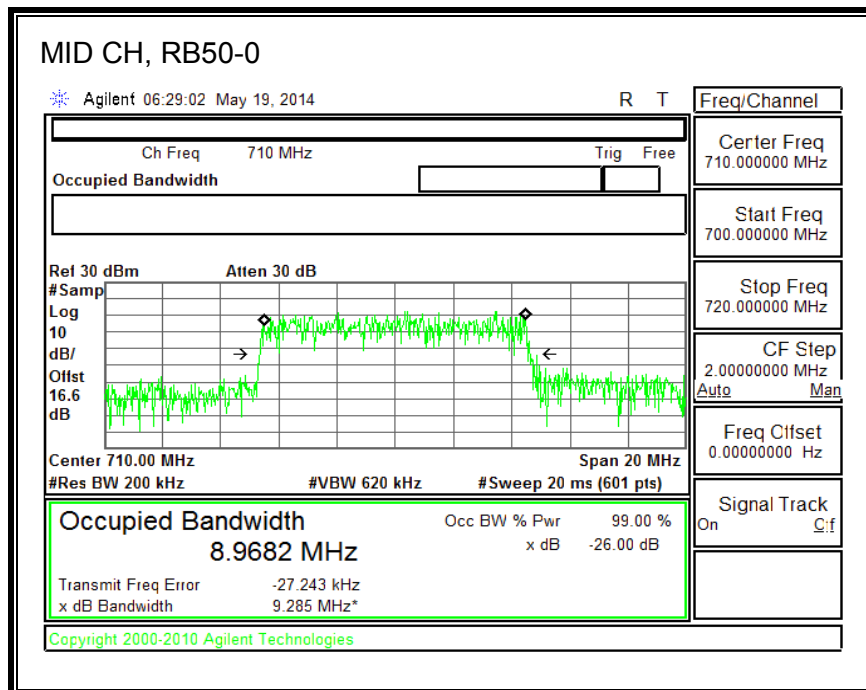
#### 16QAM, (5.0 MHz BAND WIDTH)



**QPSK, (10.0 MHz BAND WIDTH)**

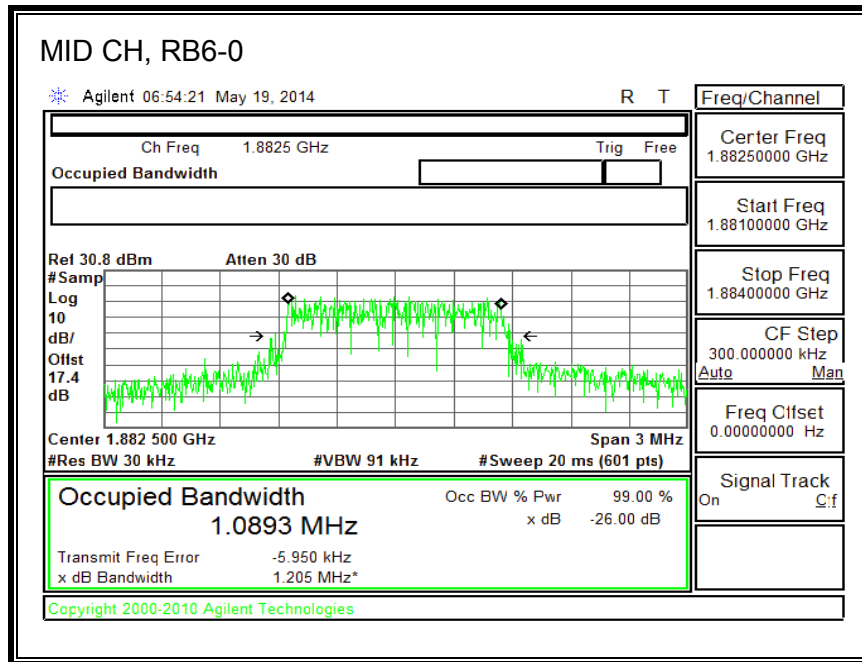


**16QAM, (10.0 MHz BAND WIDTH)**

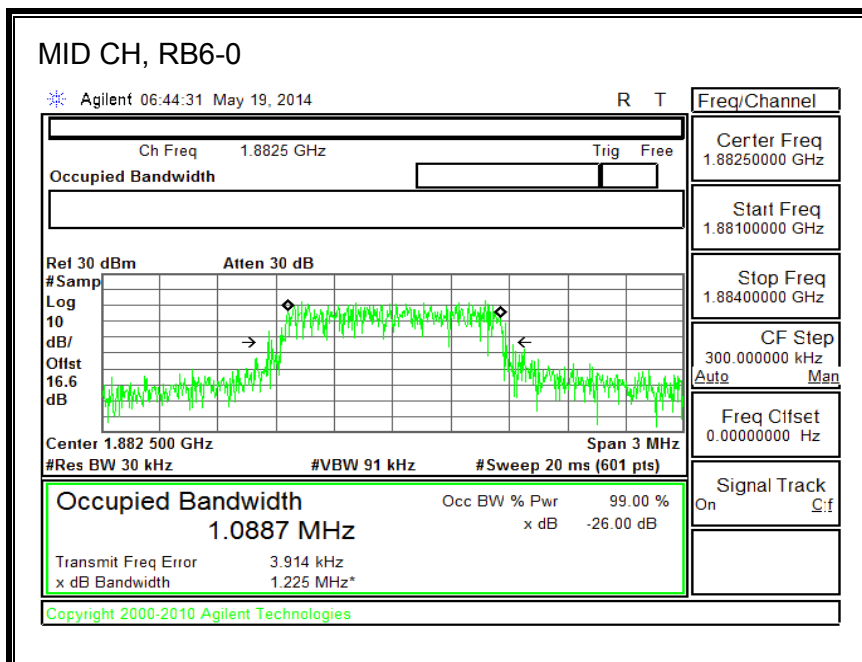


### 8.1.6. LTE BAND 25

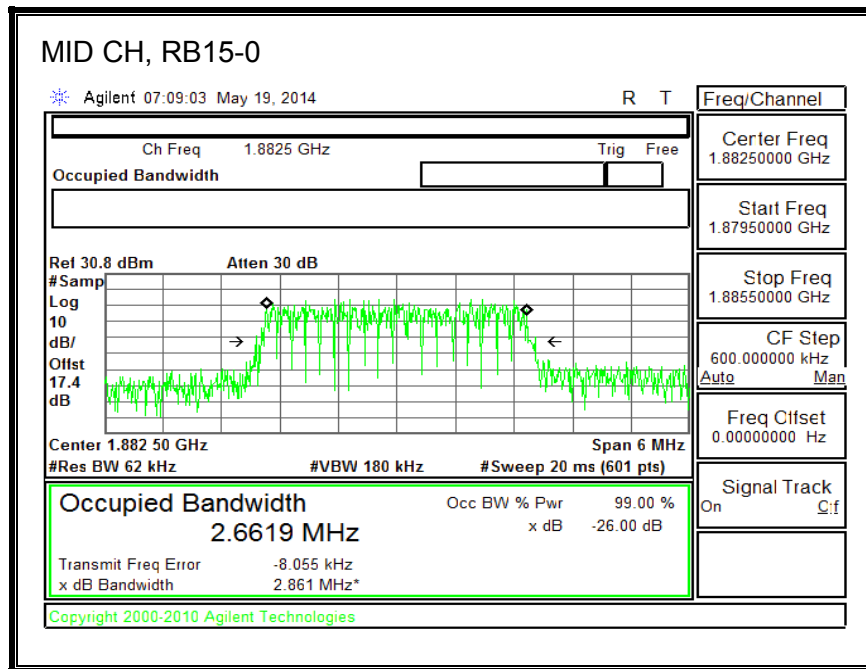
#### QPSK, (1.4 MHz BAND WIDTH)



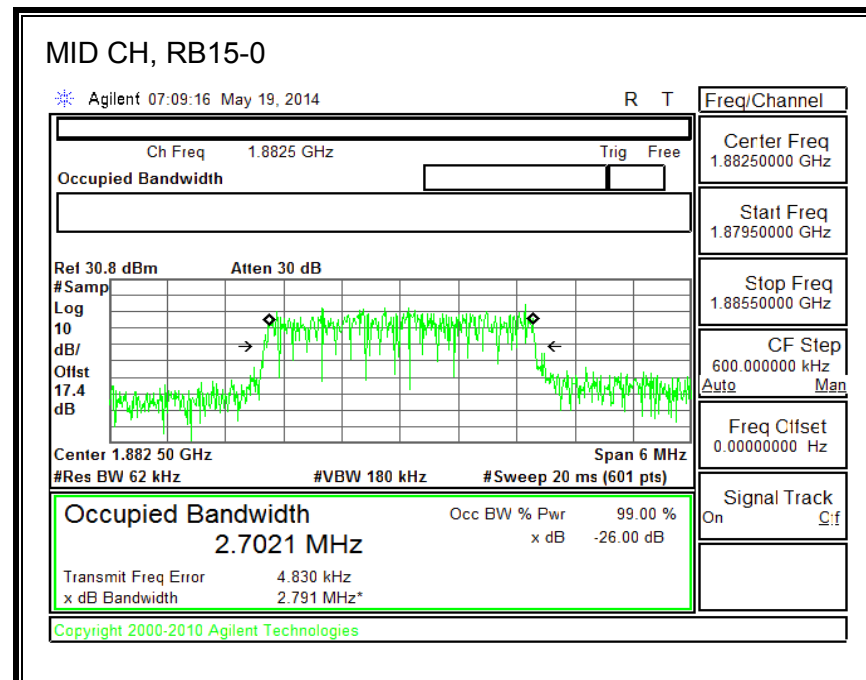
#### 16QAM, (1.4 MHz BAND WIDTH)



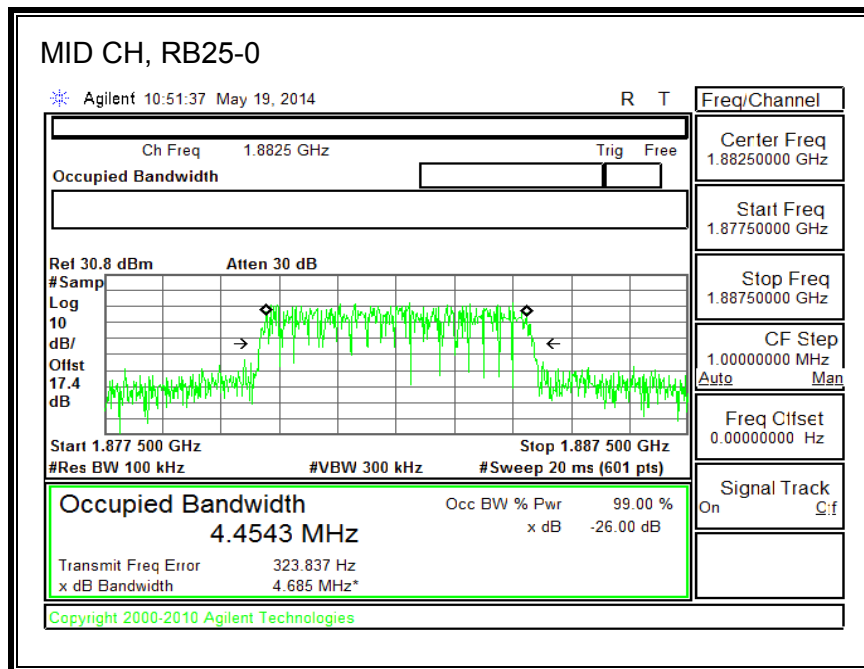
**QPSK, (3.0 MHz BAND WIDTH)**



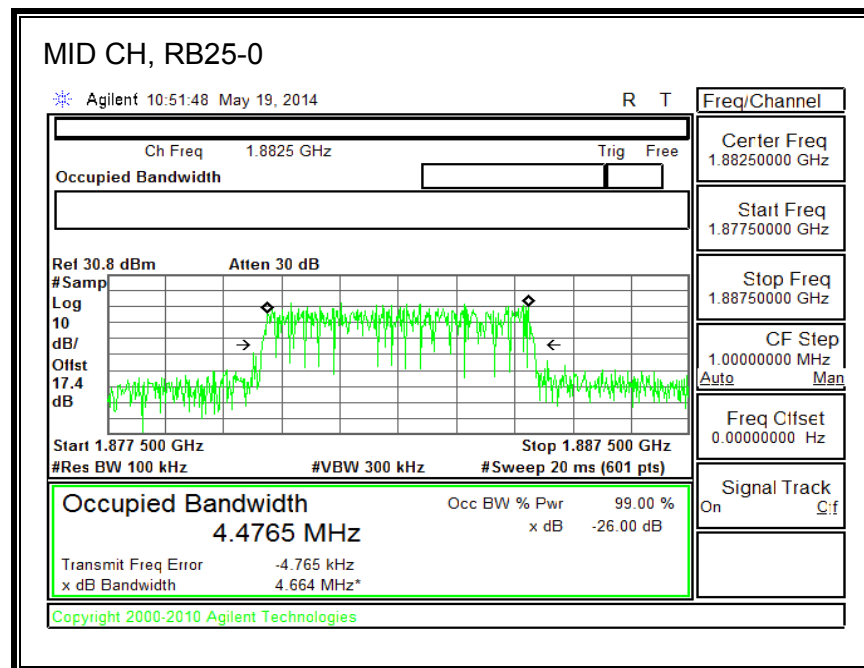
**16QAM, (3.0 MHz BAND WIDTH)**



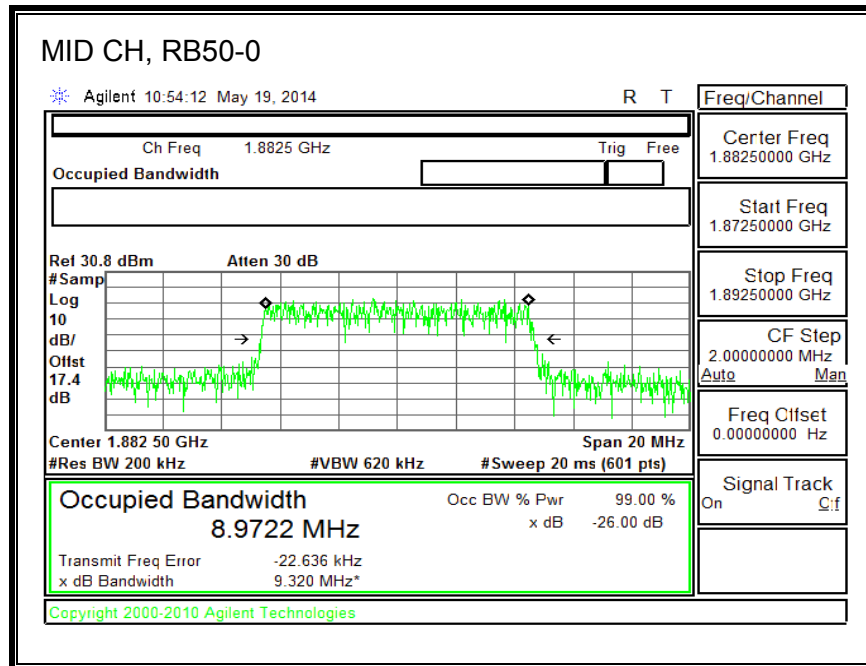
**QPSK, (5.0 MHz BAND WIDTH)**



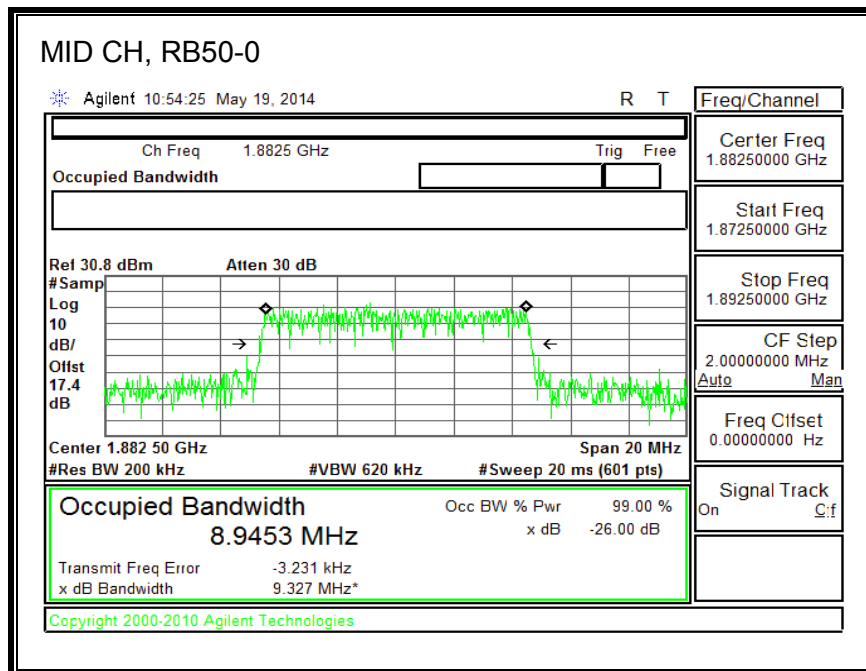
**16QAM, (5.0 MHz BAND WIDTH)**



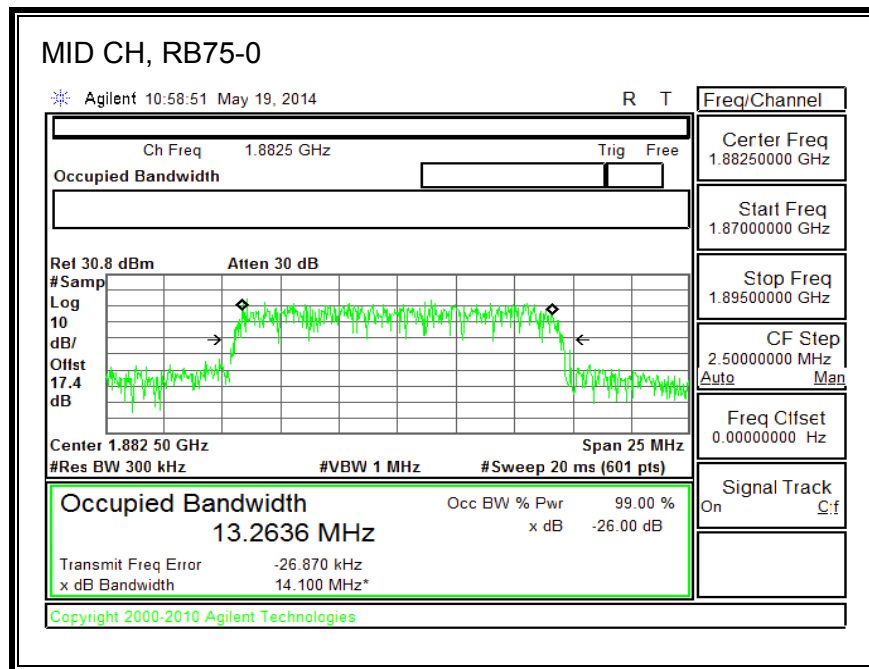
**QPSK, (10.0 MHz BAND WIDTH)**



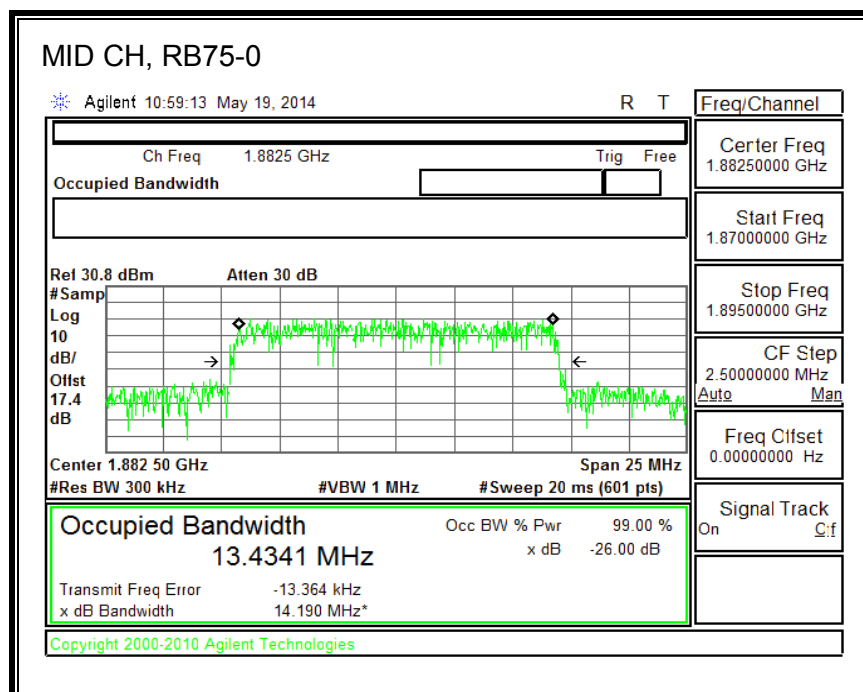
**16QAM, (10.0 MHz BAND WIDTH)**



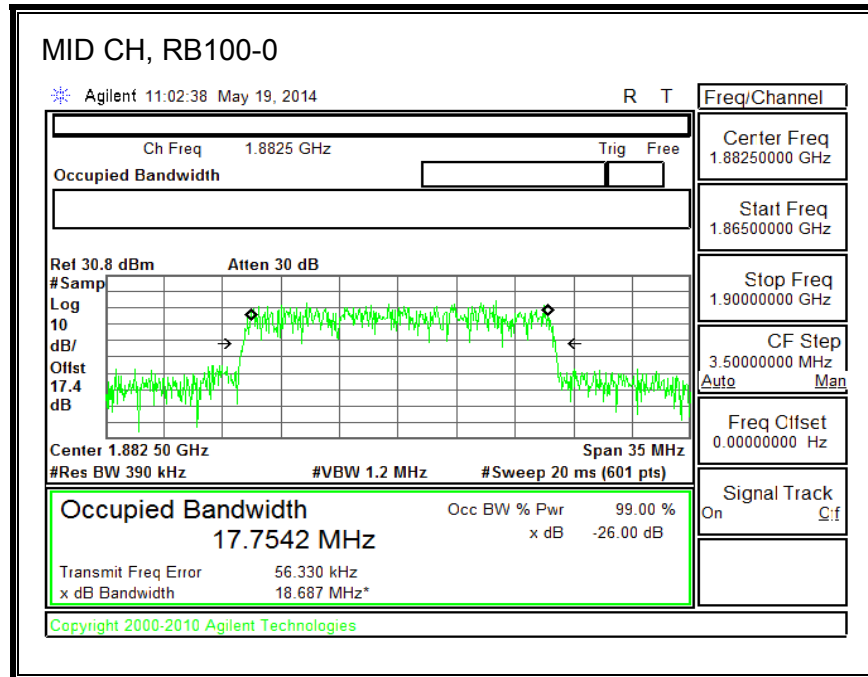
**QPSK, (15.0 MHz BAND WIDTH)**



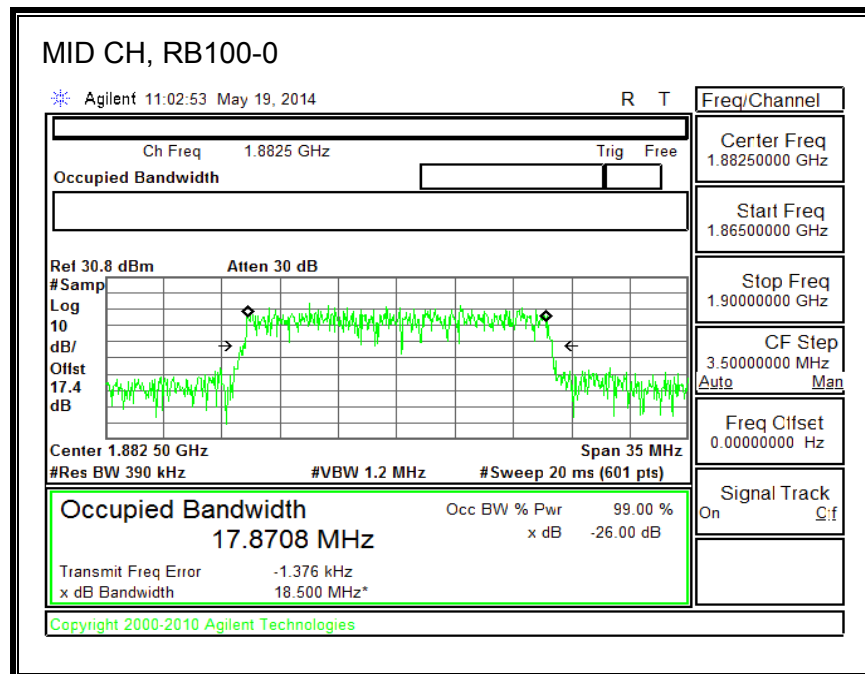
**16QAM, (15.0 MHz BAND WIDTH)**



**QPSK, (20.0 MHz BAND WIDTH)**

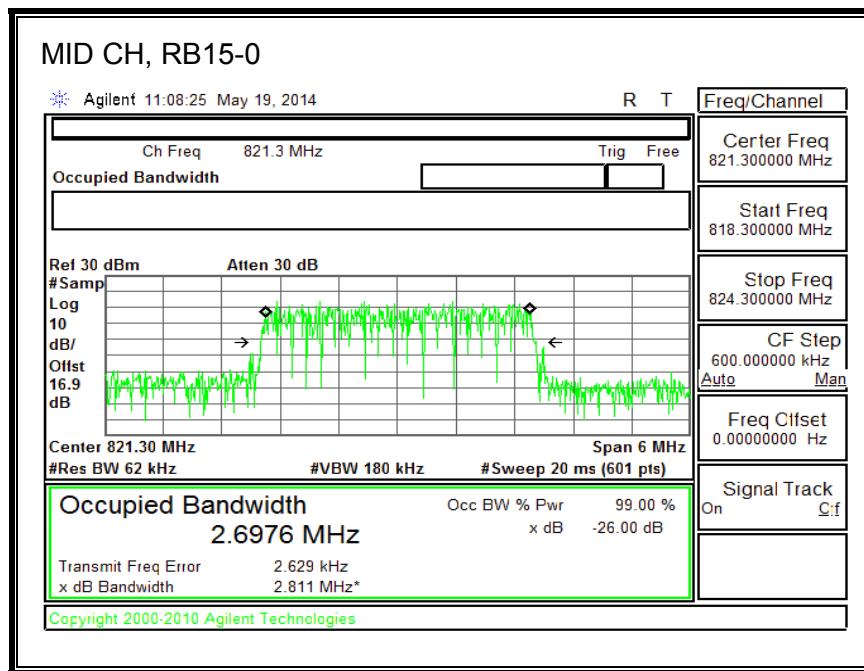


**16QAM, (20.0 MHz BAND WIDTH)**

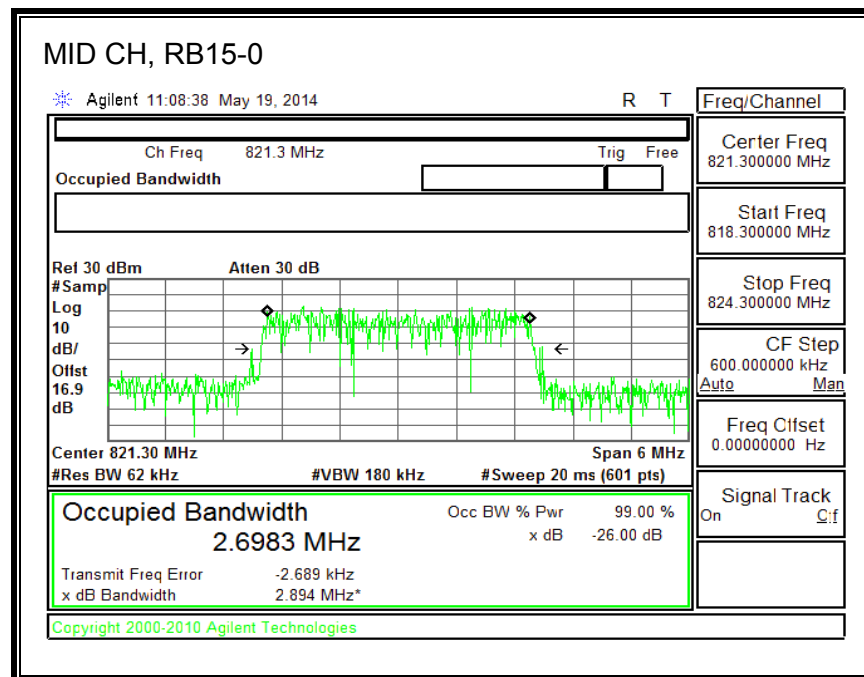


### 8.1.7. LTE BAND 26

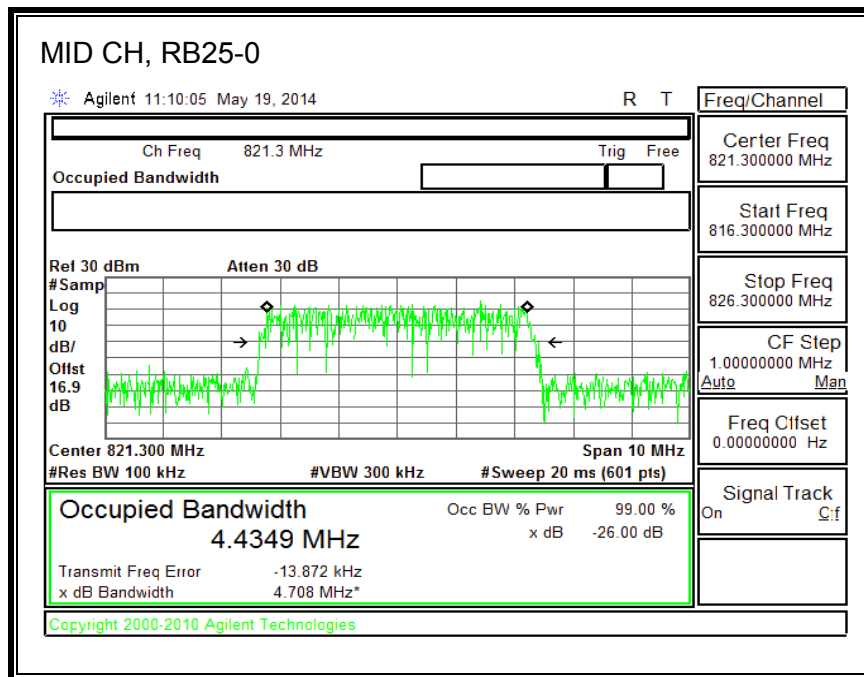
#### QPSK, (3.0 MHz BAND WIDTH)



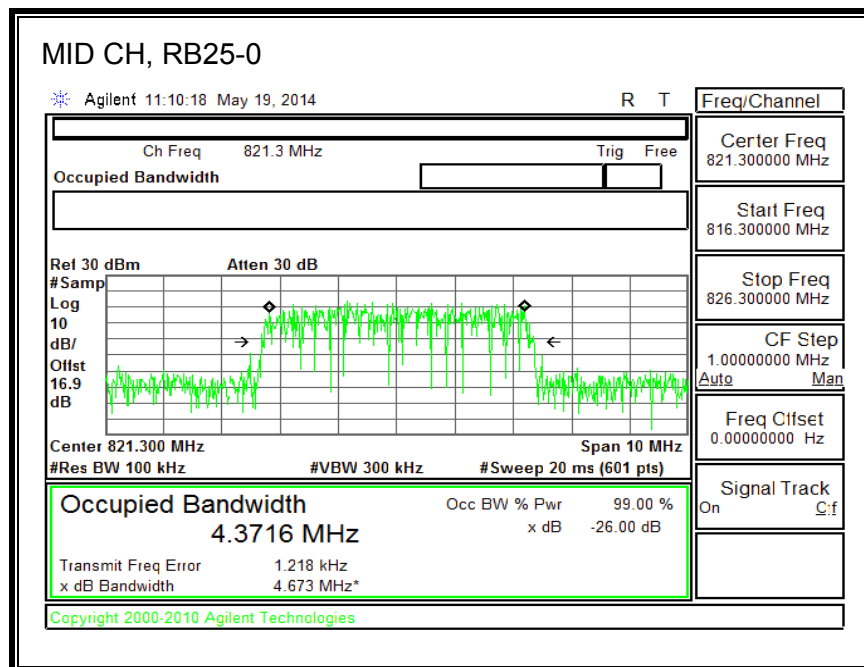
#### 16QAM, (3.0 MHz BAND WIDTH)



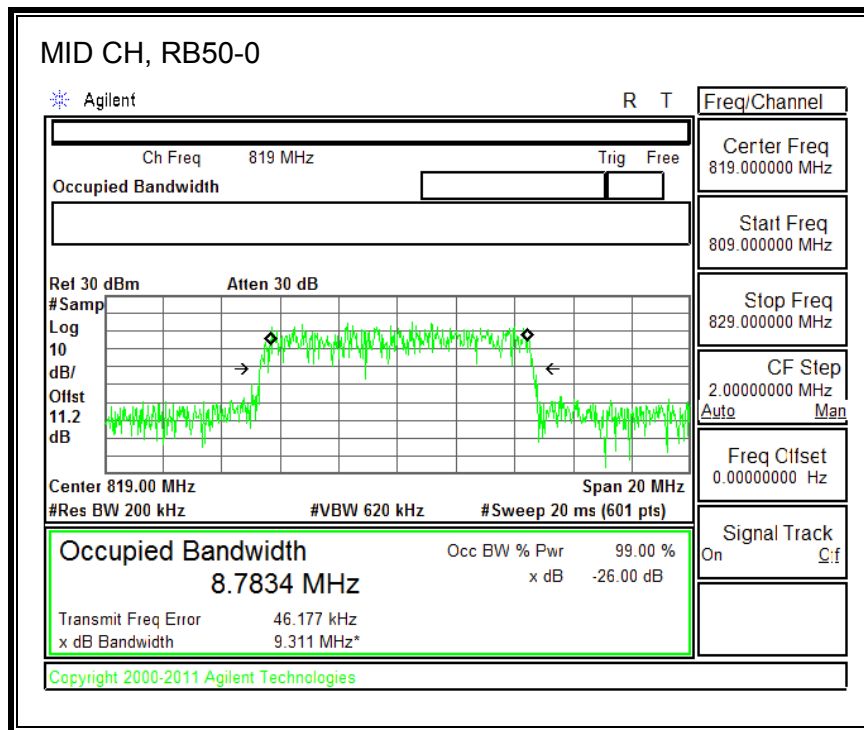
**QPSK, (5.0 MHz BAND WIDTH)**



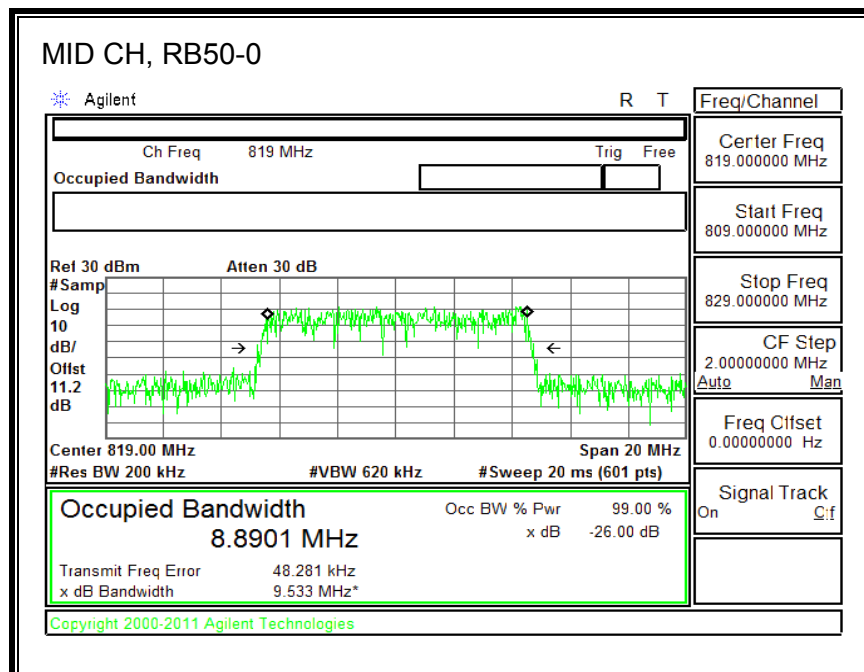
**16QAM, (5.0 MHz BAND WIDTH)**



**QPSK, (10.0 MHz BAND WIDTH)**

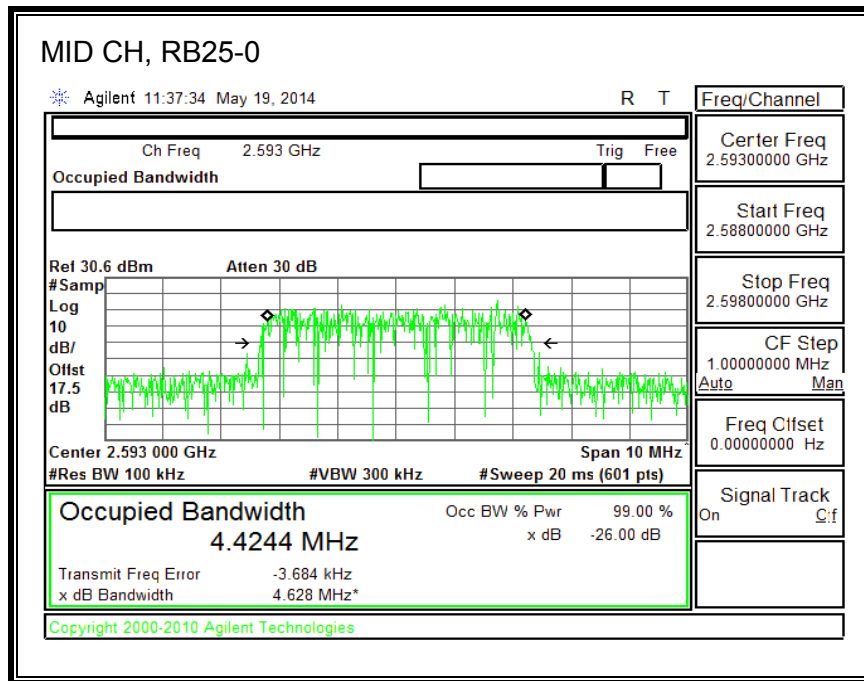


**16QAM, (10.0 MHz BAND WIDTH)**

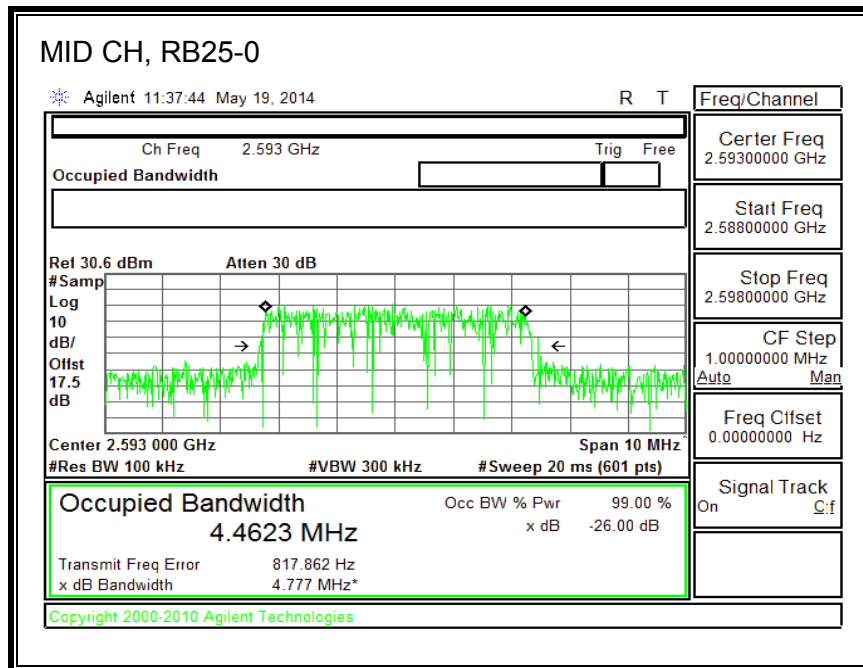


## 8.1.8. LTE BAND 41

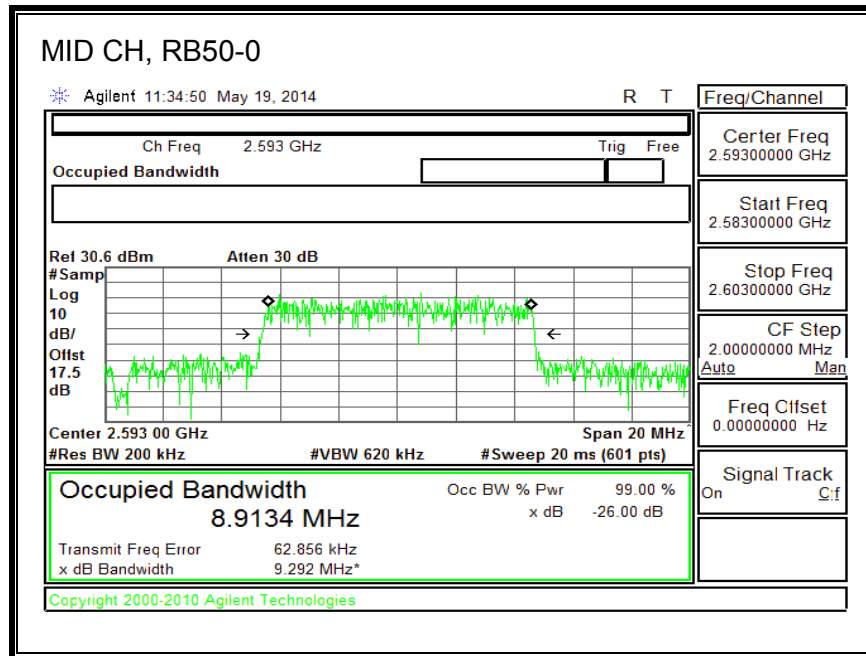
### QPSK, (5.0 MHz BAND WIDTH)



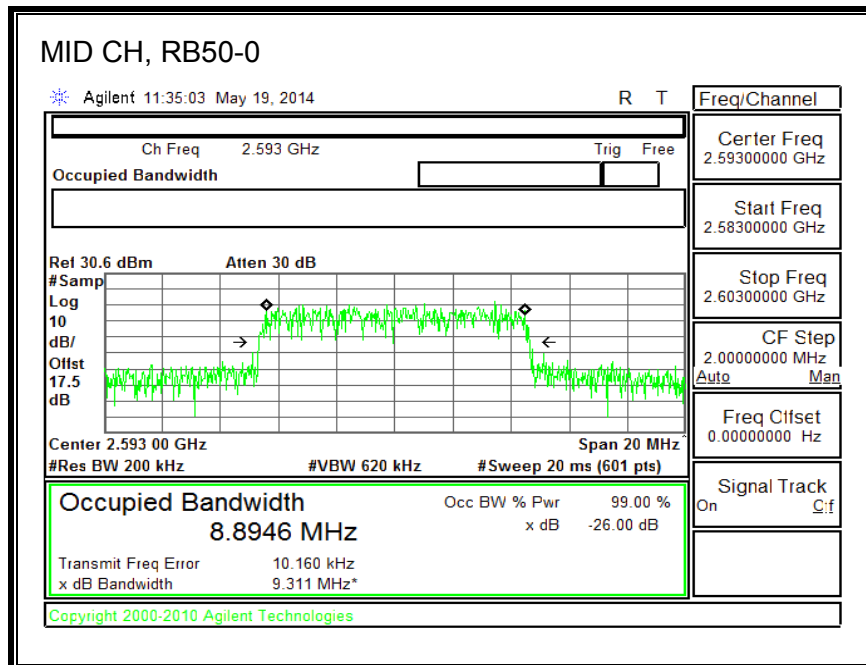
### 16QAM, (5.0 MHz BAND WIDTH)



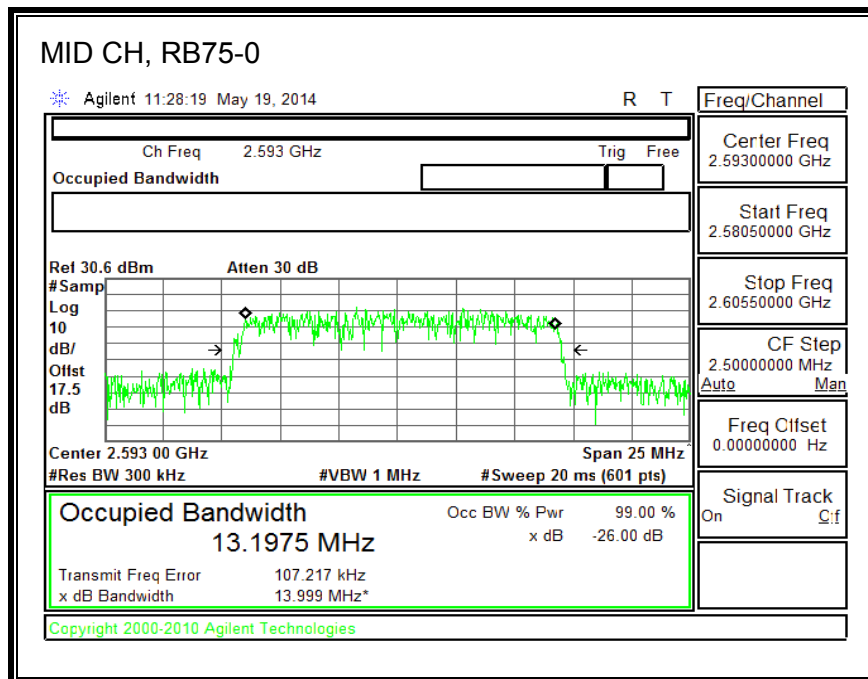
**QPSK, (10.0 MHz BAND WIDTH)**



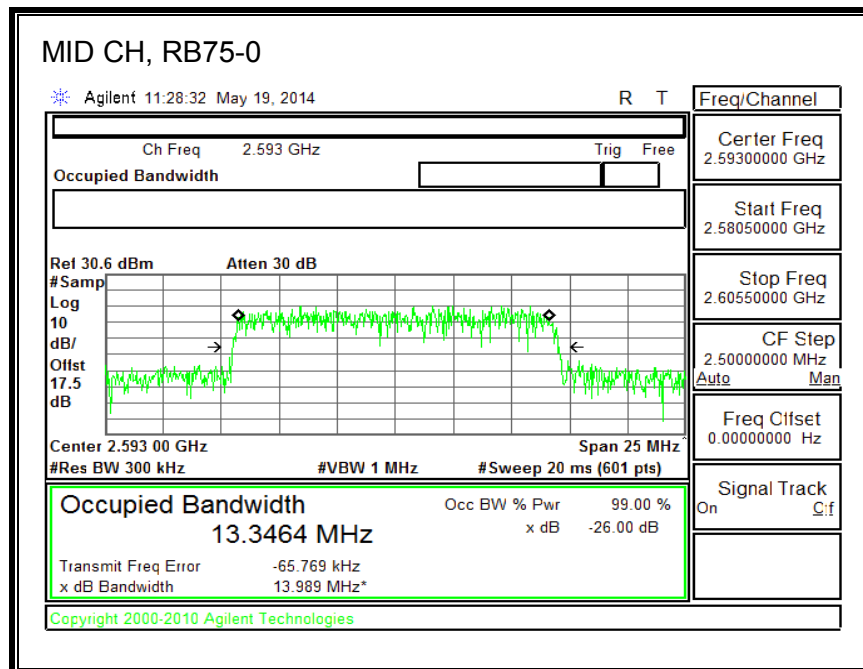
**16QAM, (10.0 MHz BAND WIDTH)**



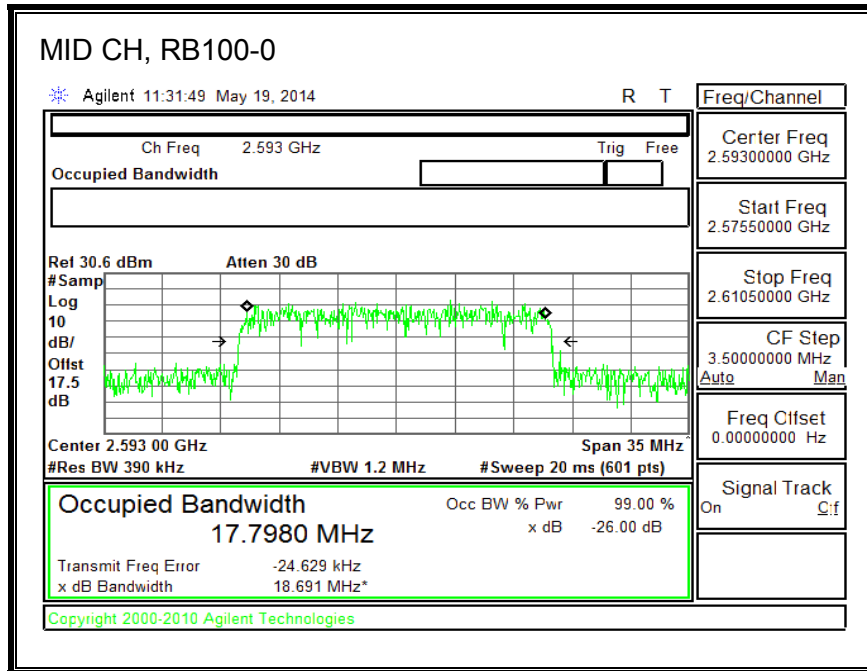
QPSK, (15.0 MHz BAND WIDTH)



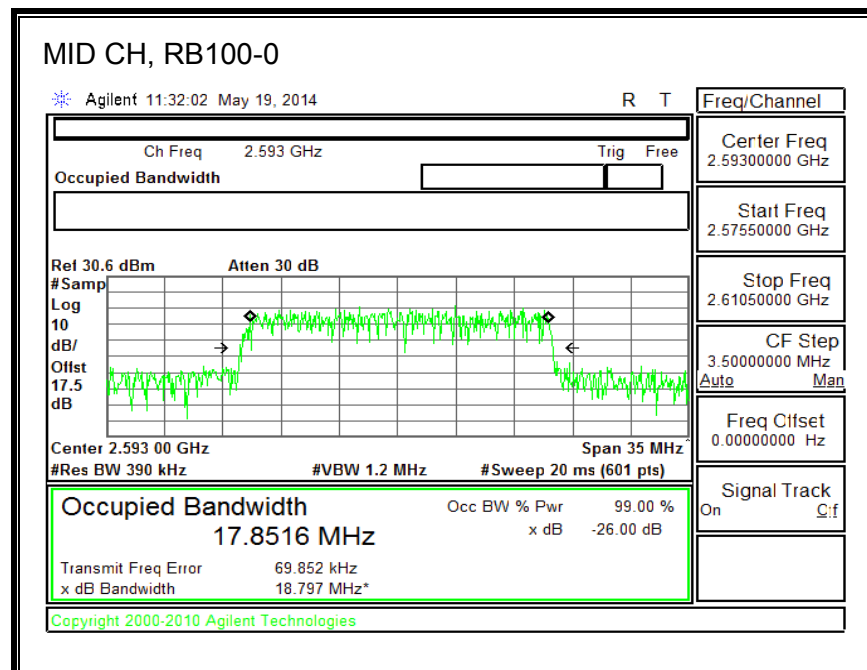
16QAM, (15.0 MHz BAND WIDTH)



**QPSK, (20.0 MHz BAND WIDTH)**



**16QAM, (20.0 MHz BAND WIDTH)**



## 8.2. BANDEDGE AND EMISSION MASK

### RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53, and §90.691

FCC: §22.359

FCC: §27.53 (LTE BAND 41)

### LIMITS

FCC: §22.359, §24.238, §27.53

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

FCC: §90.210, and §90.691 (LTE BAND 26)

(a)(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $116 \log_{10}(f/6.1)$  decibels or  $50 + 10 \log_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(a)(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz. (NOTE: Use 100 kHz reference bandwidth.)

FCC: §27.53

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

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

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

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

(5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

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

FCC: §27.53 (LTE BAND 41)

(m)(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full

required measurement bandwidth ( i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

Emission mask plot has limit line to demonstrate the out of band emission lower than -25dBm/MHz, therefore, in order to show compliance, following formula has been applied on each emission mask plots.

RBW integration method is applied when RBW less than 1MHz: Emission mask display line formula=  $-25\text{dBm} + 10\log(\text{RBW}/1\text{MHz})$

For example: If RBW = 100 KHz than display line limit will be  $-25\text{dBm} + 10\log(100/1000) = -35\text{dBm}$

(m)(4) For mobile digital stations, the attenuation factor shall be not less than  $43 + 10 \log(P)$  dB at the channel edge and  $55 + 10 \log(P)$  dB at 5.5 megahertz from the channel edges.

(Channel edges are defined under §27.5 (i) Frequency assignment for the BRS/EBS band)

(m)(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed

#### **RULE PART(S) for Emission Mask**

FCC: §90.210, and §90.691

(a)(1)For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $116 \log_{10}(f/6.1)$  decibels or  $50 + 10 \log_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(a)(2)For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz. {NOTE: Use 100 kHz reference bandwidth.}

### **TEST PROCEDURE**

The transmitter output was connected to a CMW500 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

For each band edge measurement:

Set the spectrum analyzer span to include the block edge frequency (704, 716, 824, 849, 1710 and 1755, 1850 and 1910MHz)

Set a marker to point the corresponding band edge frequency in each test case.

Set display line at -13 dBm

Set resolution bandwidth to at least 1% of emission bandwidth.

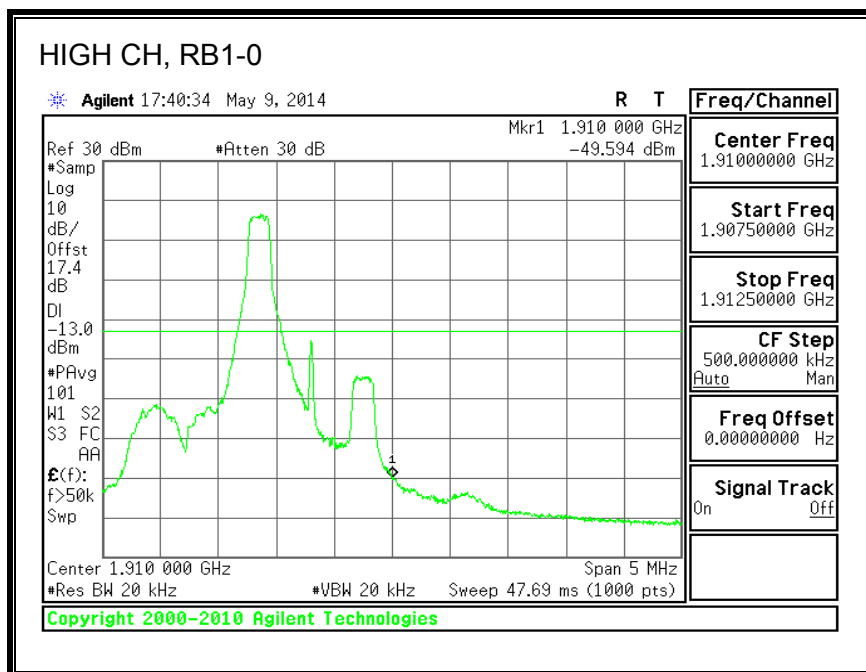
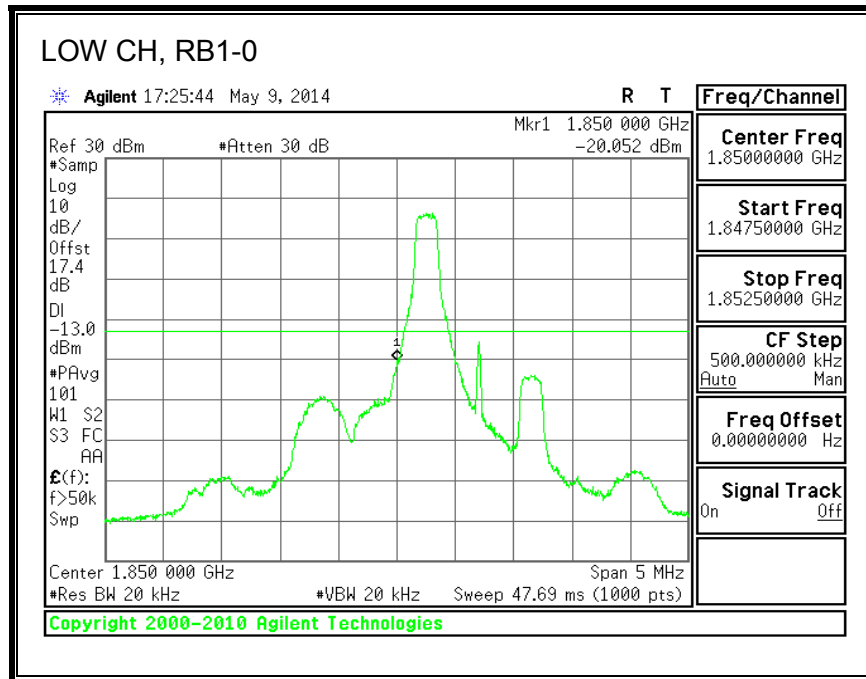
### **MODES TESTED**

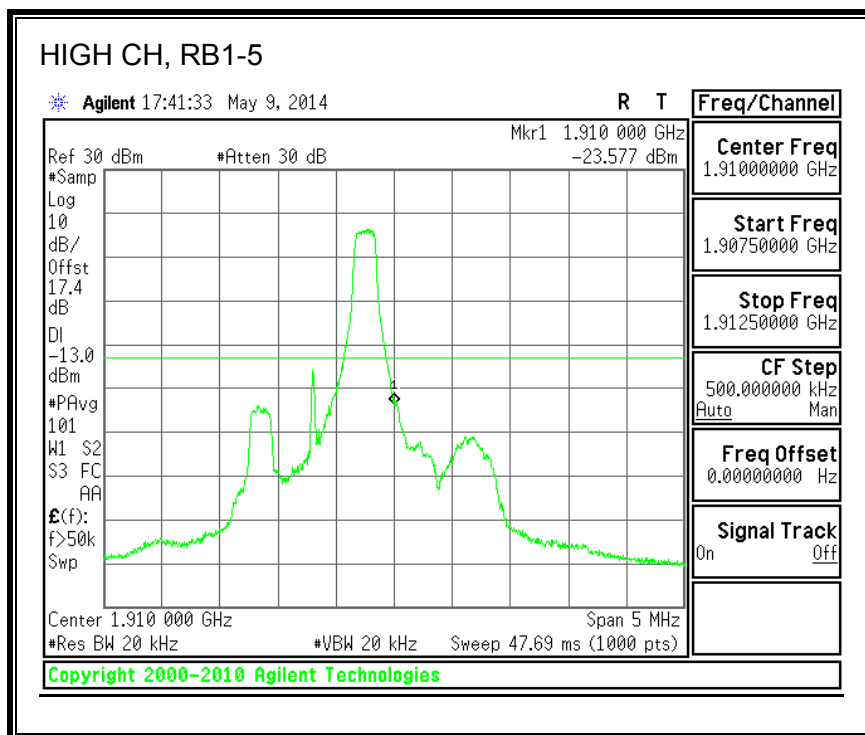
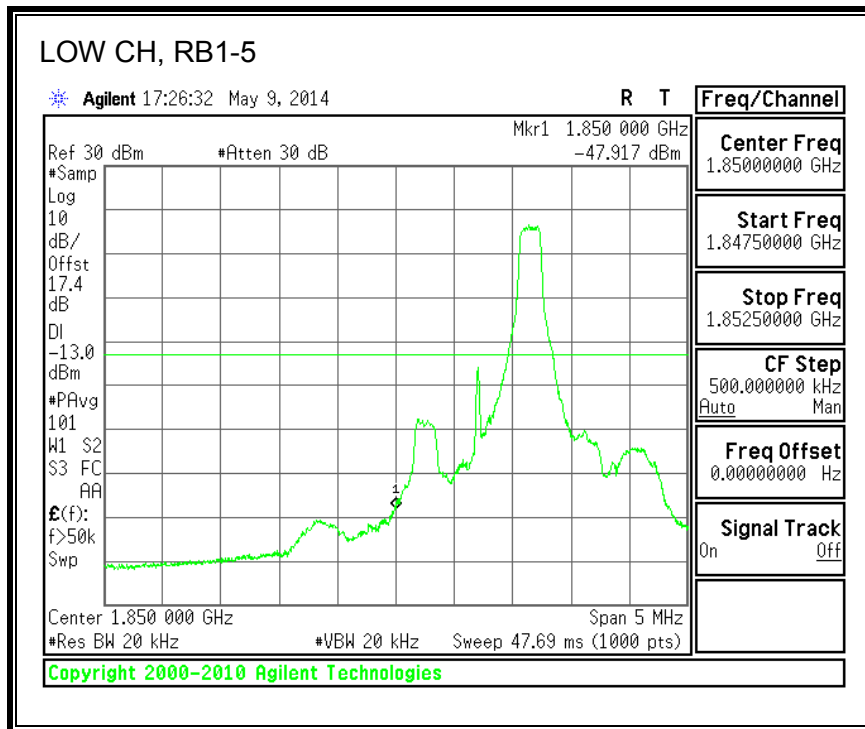
- Band 2
- Band 4
- Band 5
- Band 13
- Band 17
- Band 25
- Band 26
- Band 41

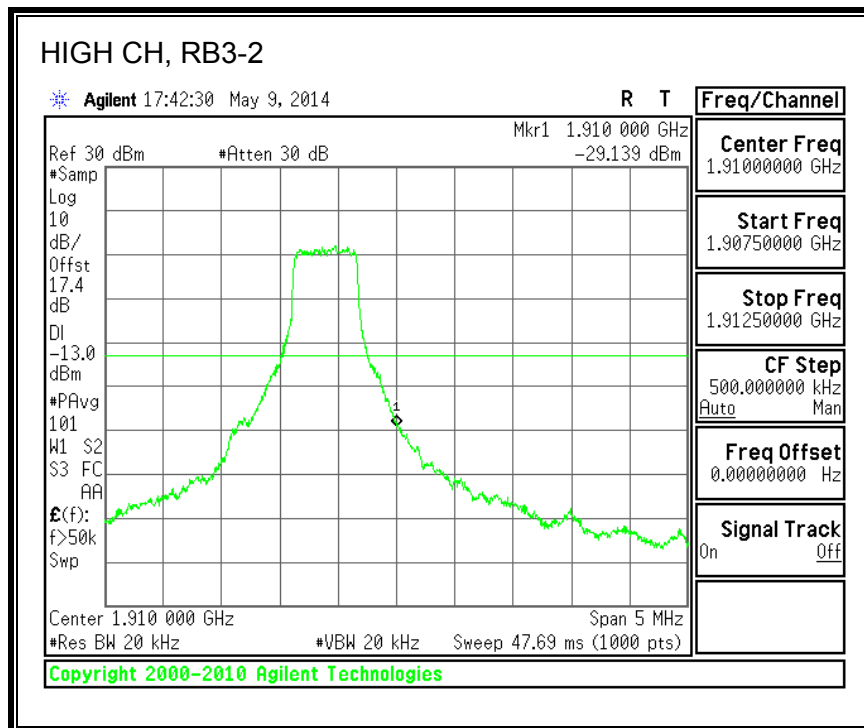
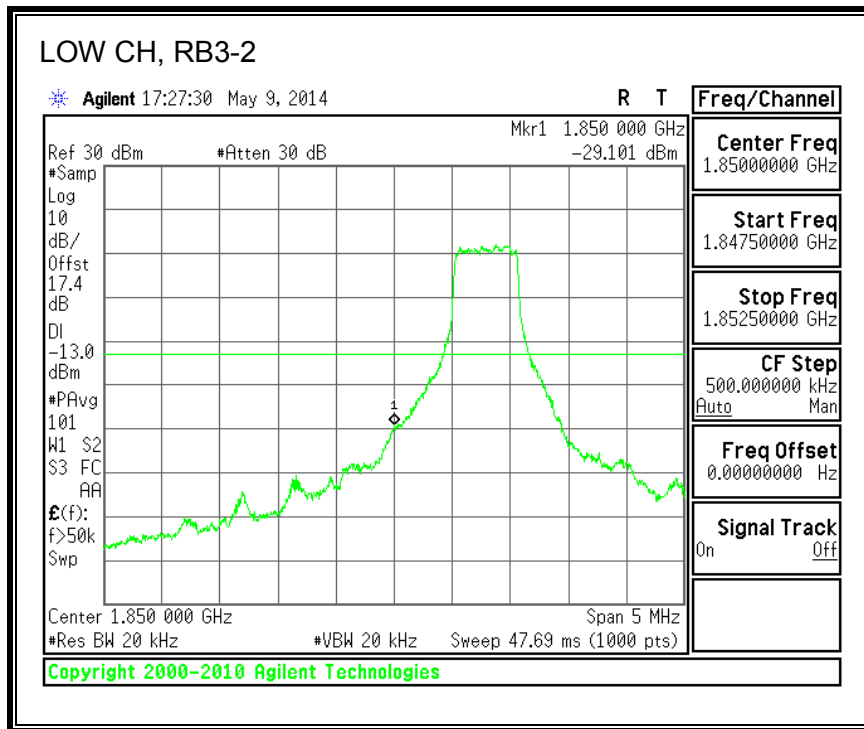
### **RESULTS**

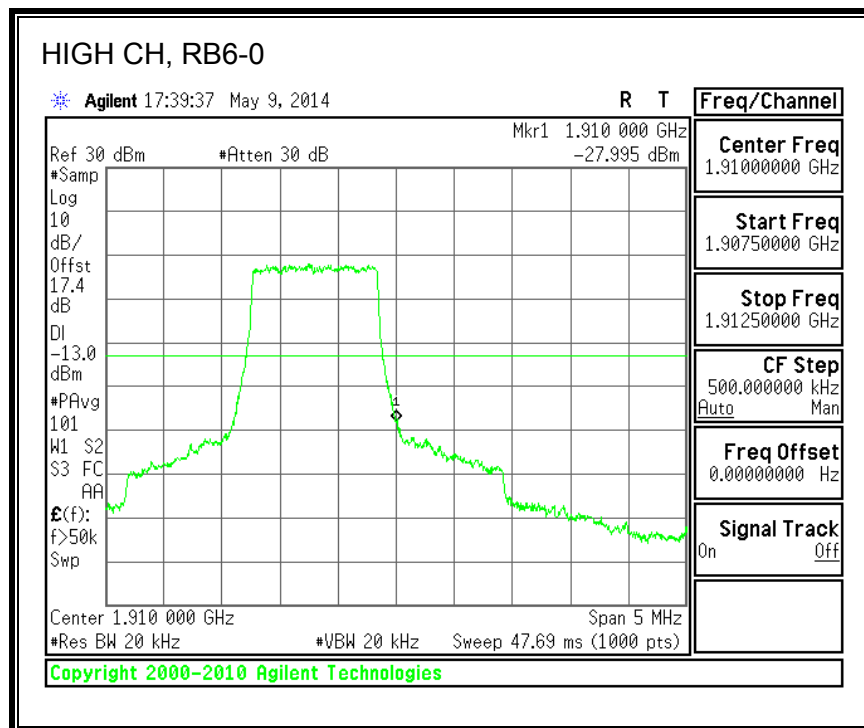
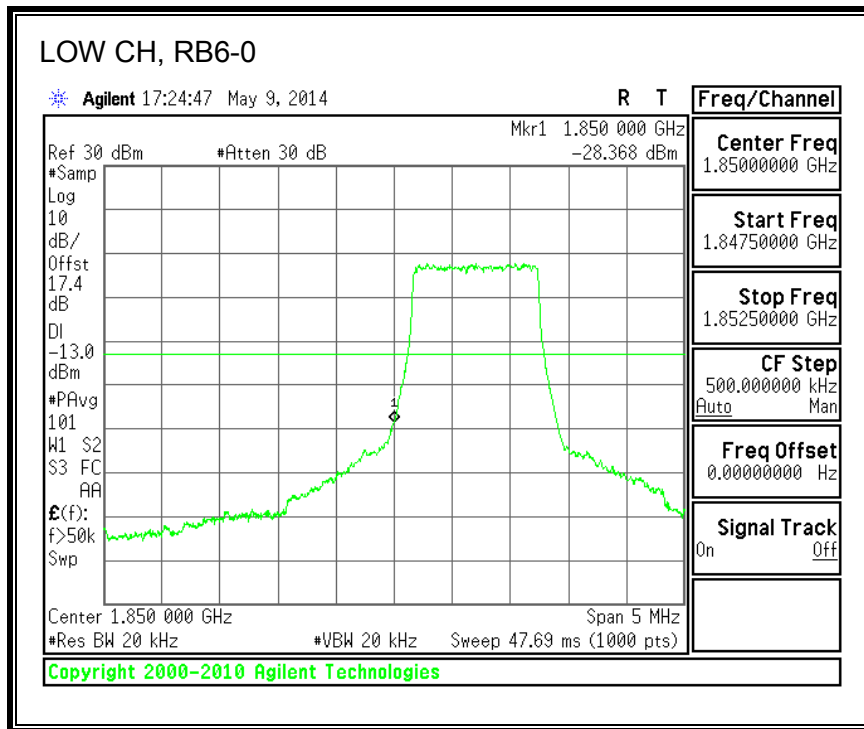
## 8.2.1. LTE BAND 2 BANDEDGE

### QPSK, (1.4 MHz BAND WIDTH)

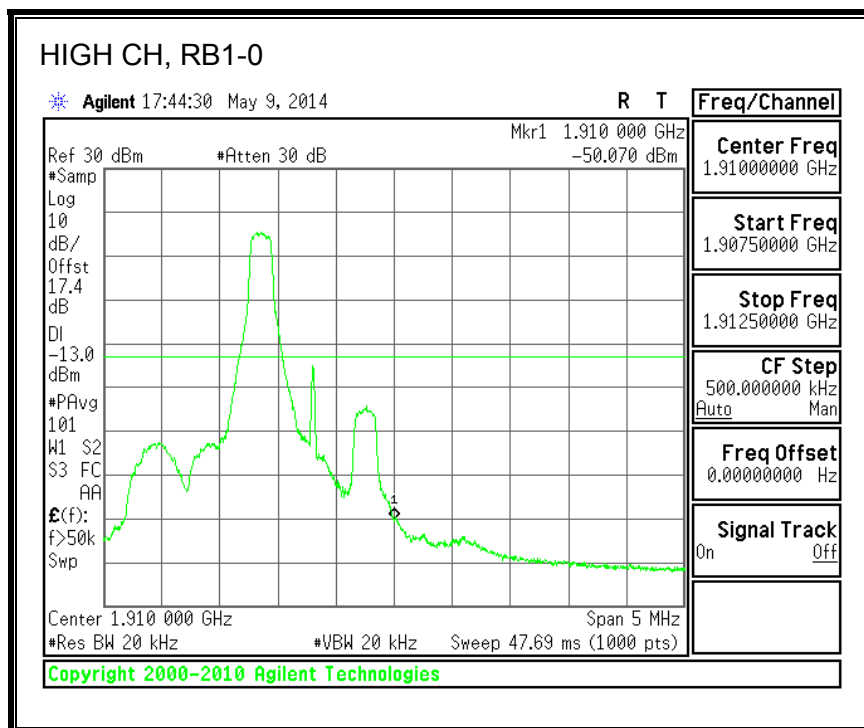
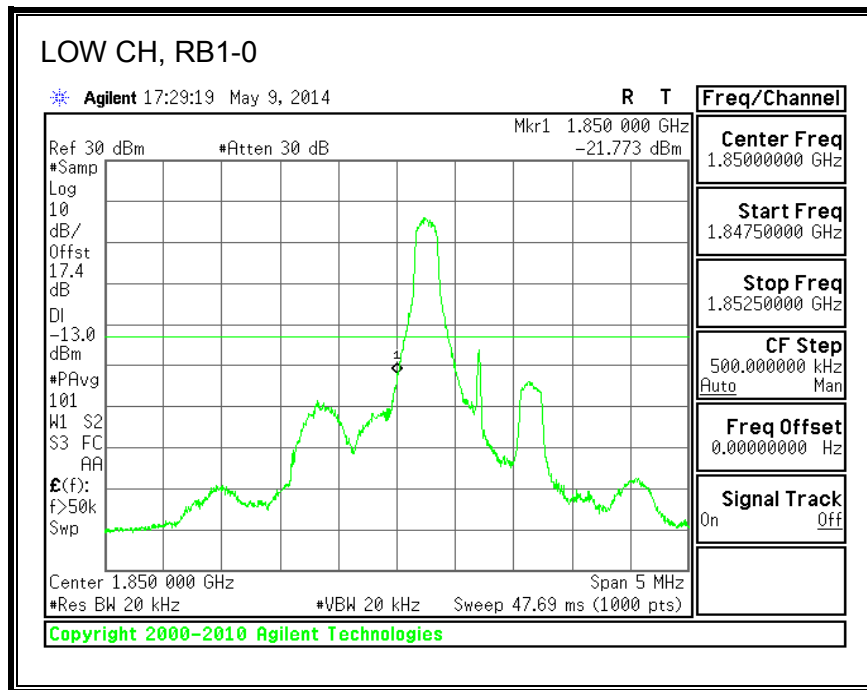


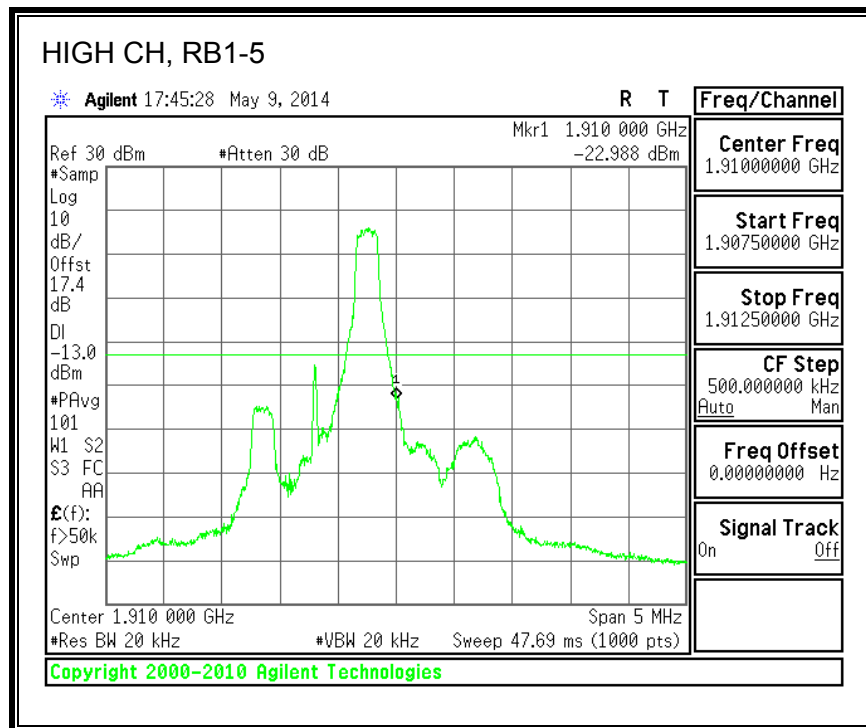
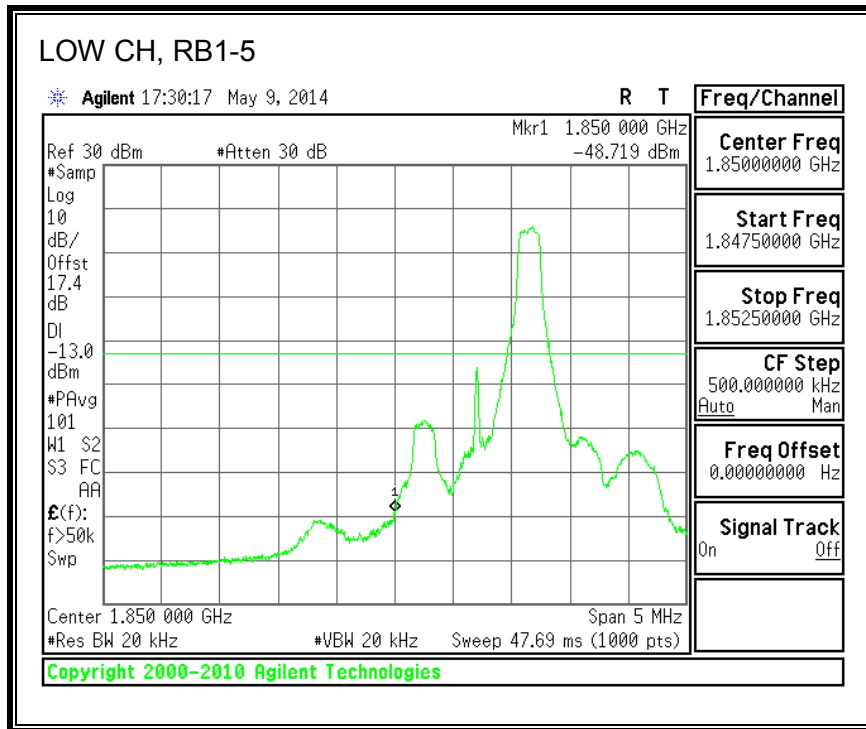


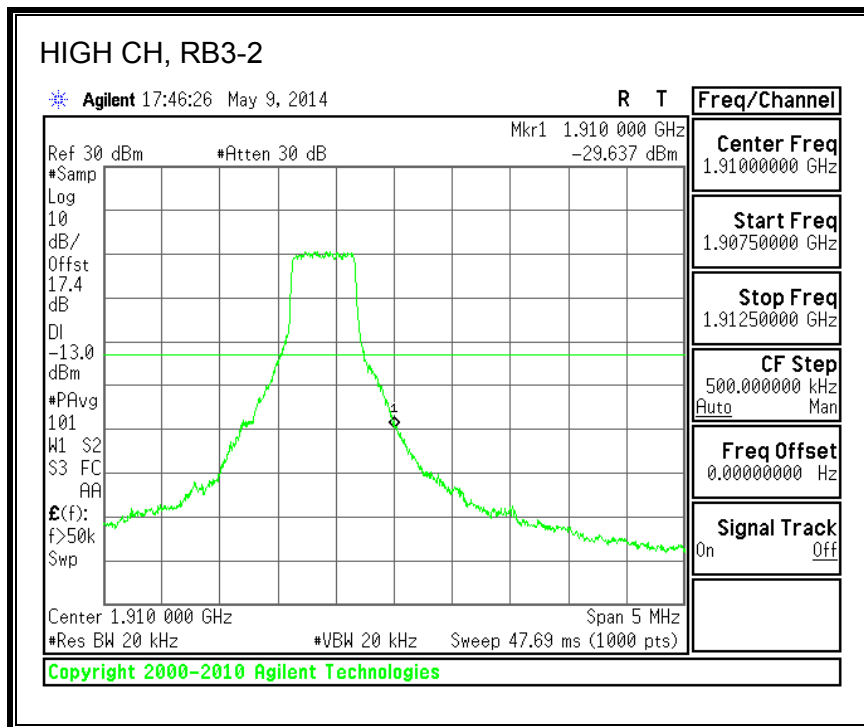
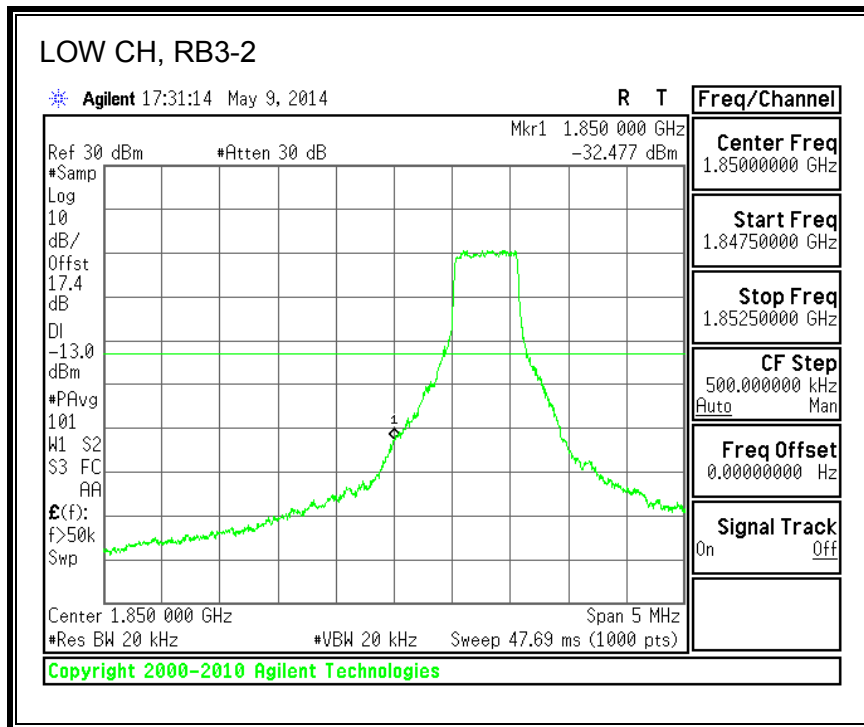


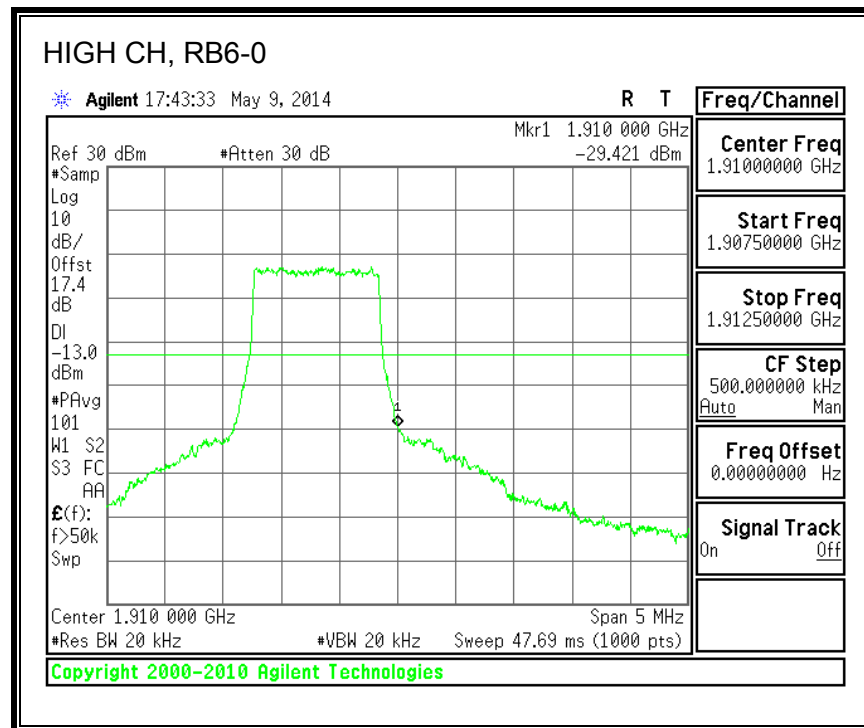
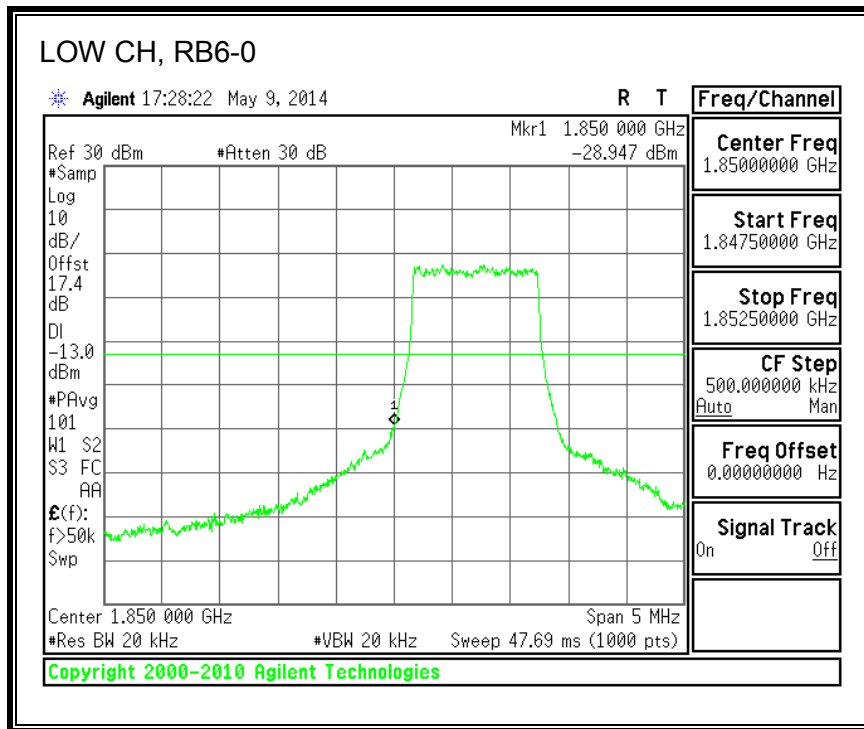


**16QAM, (1.4 MHz BAND WIDTH)**

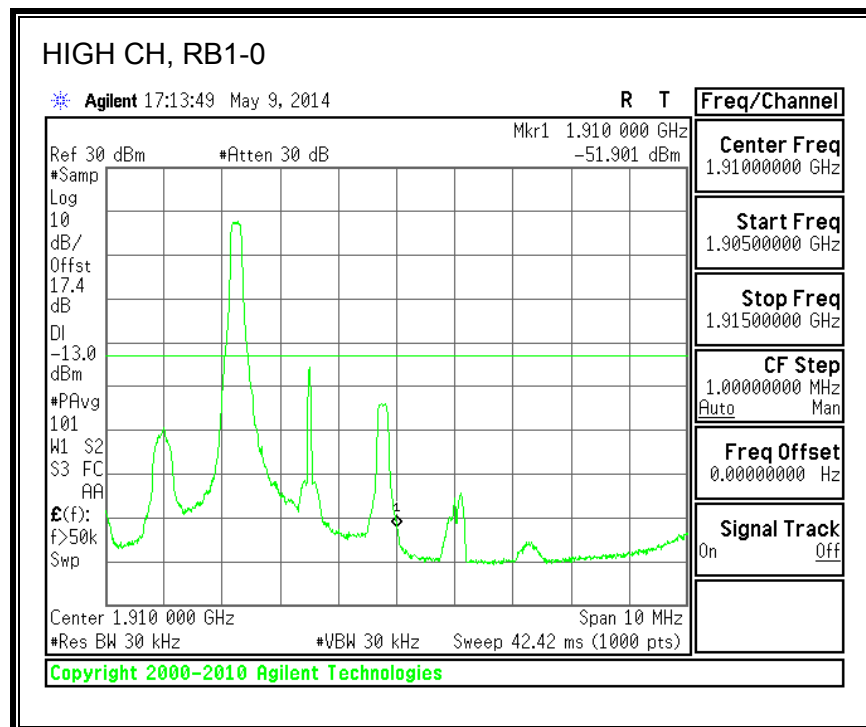
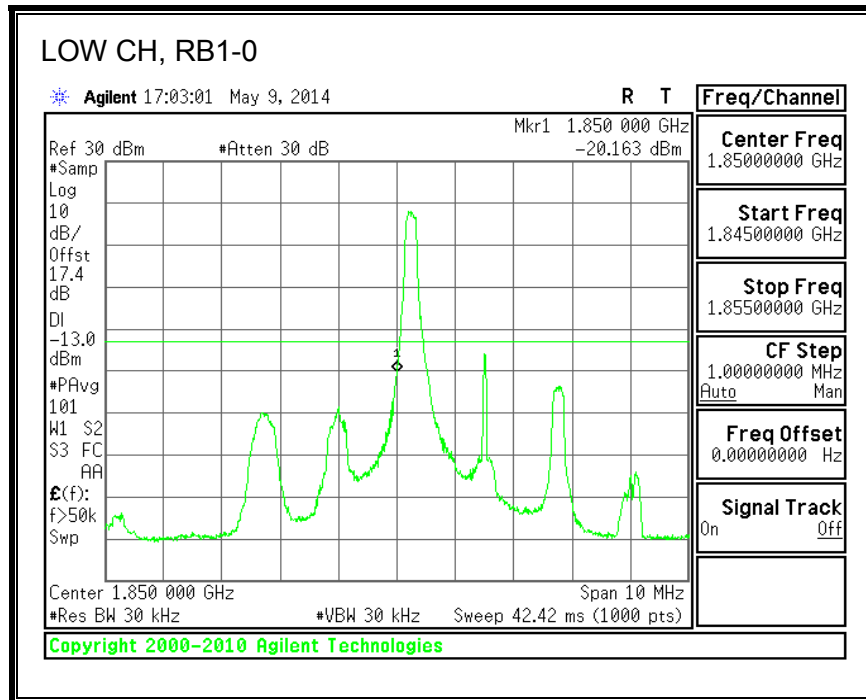


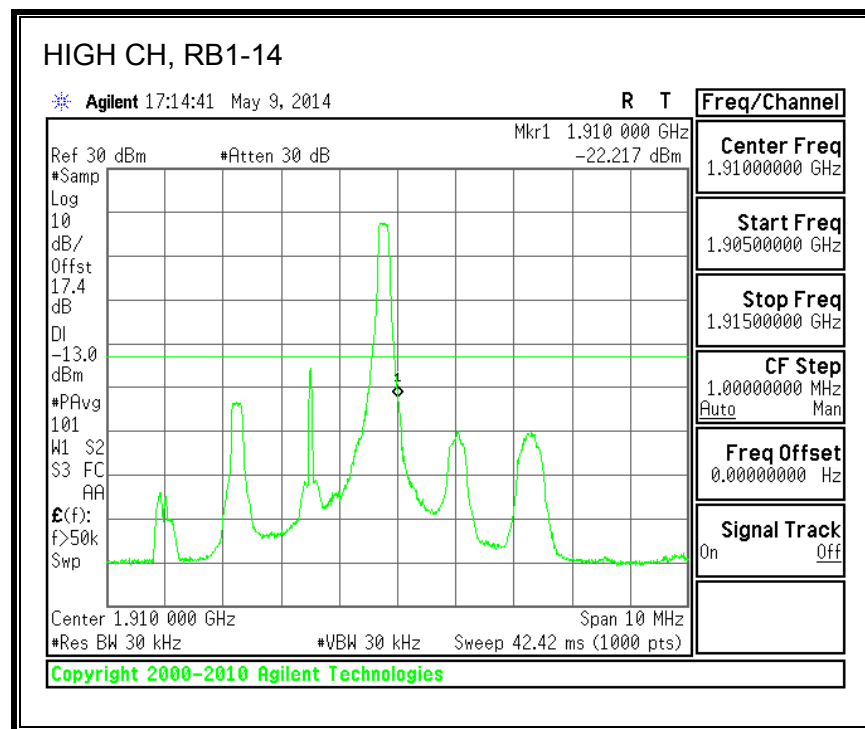
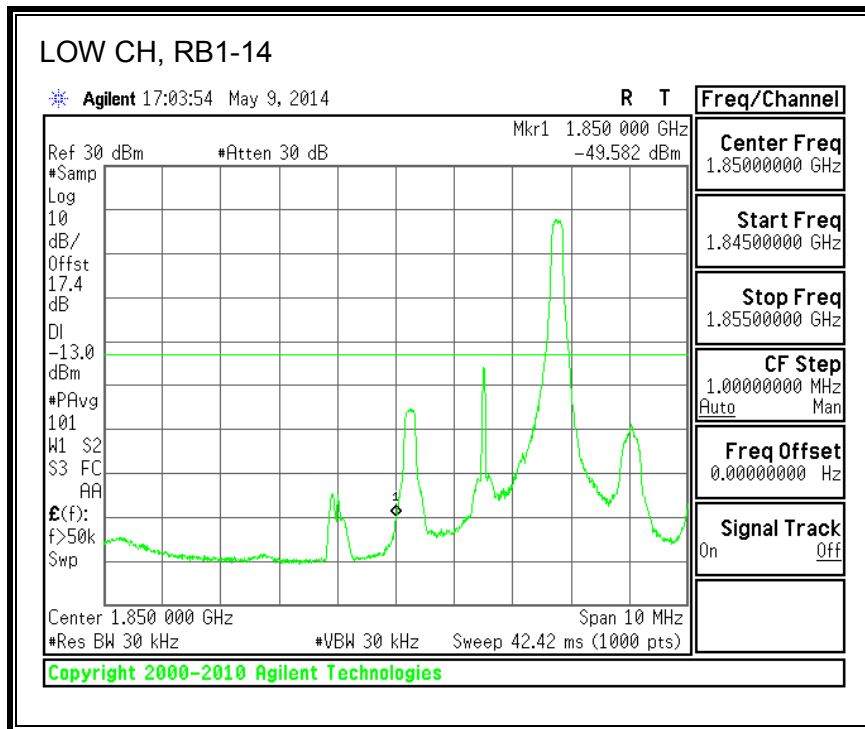


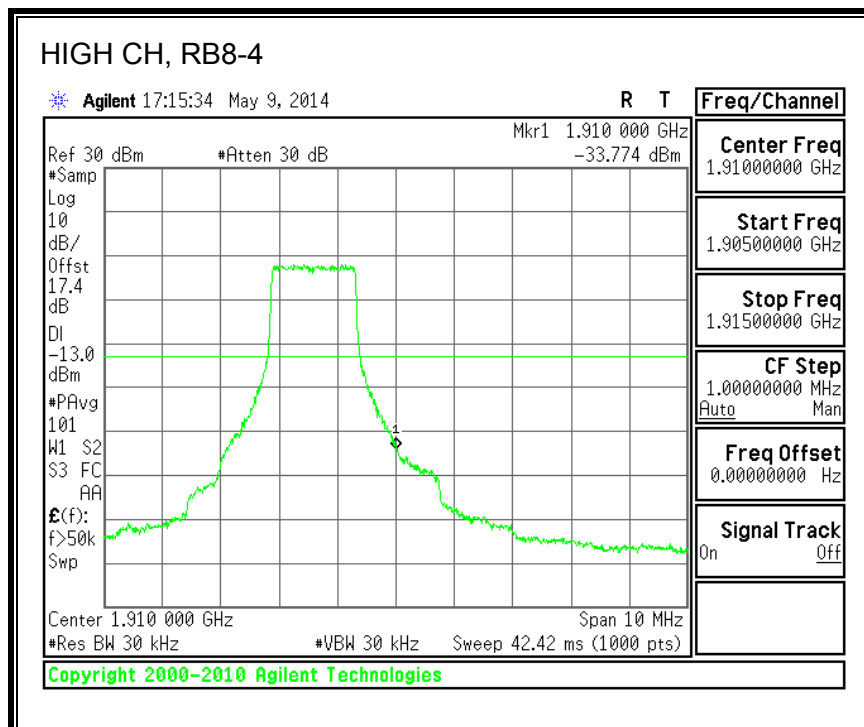
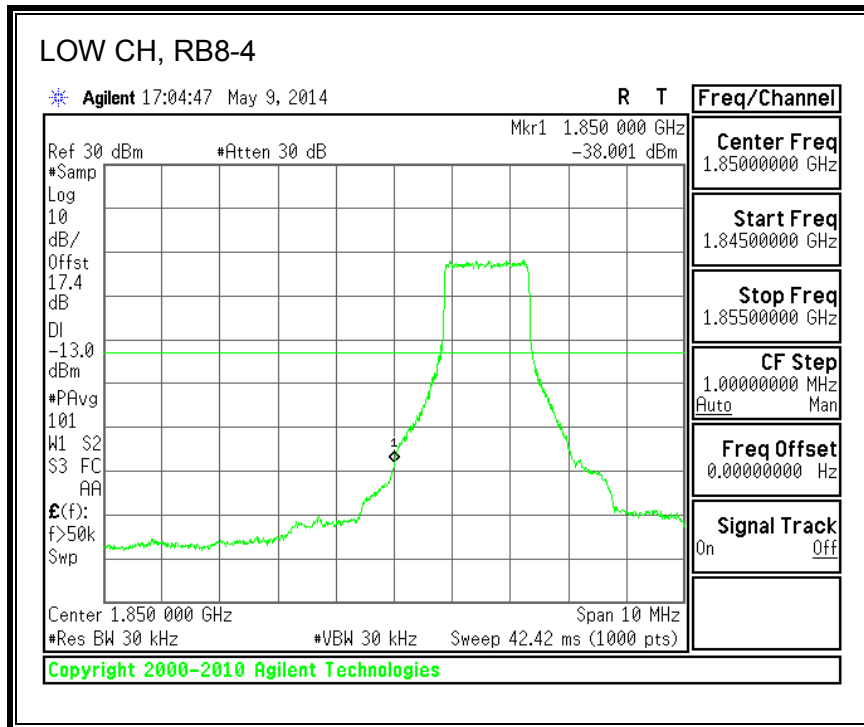


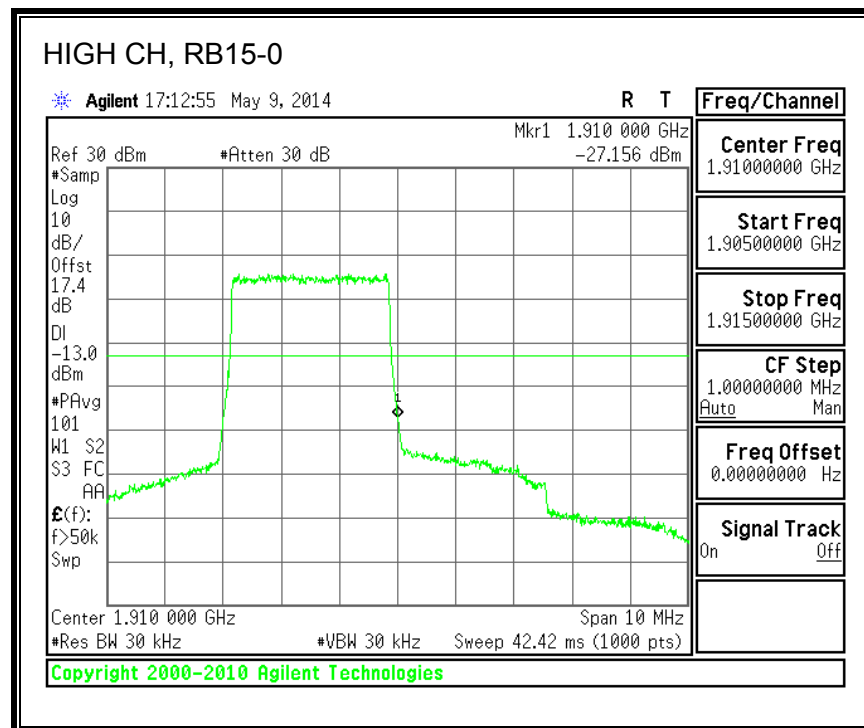
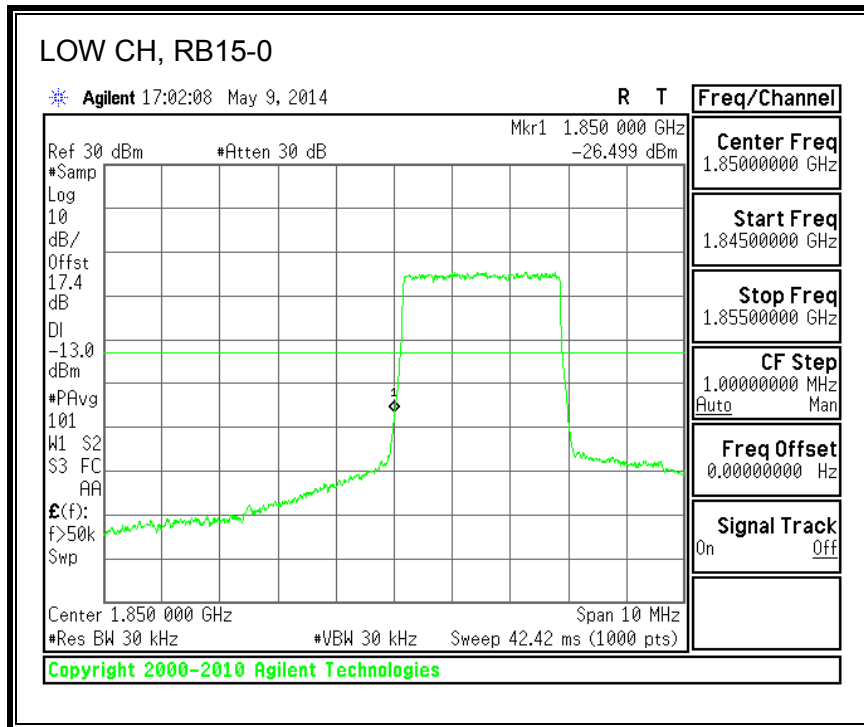


**QPSK, (3.0 MHz BAND WIDTH)**

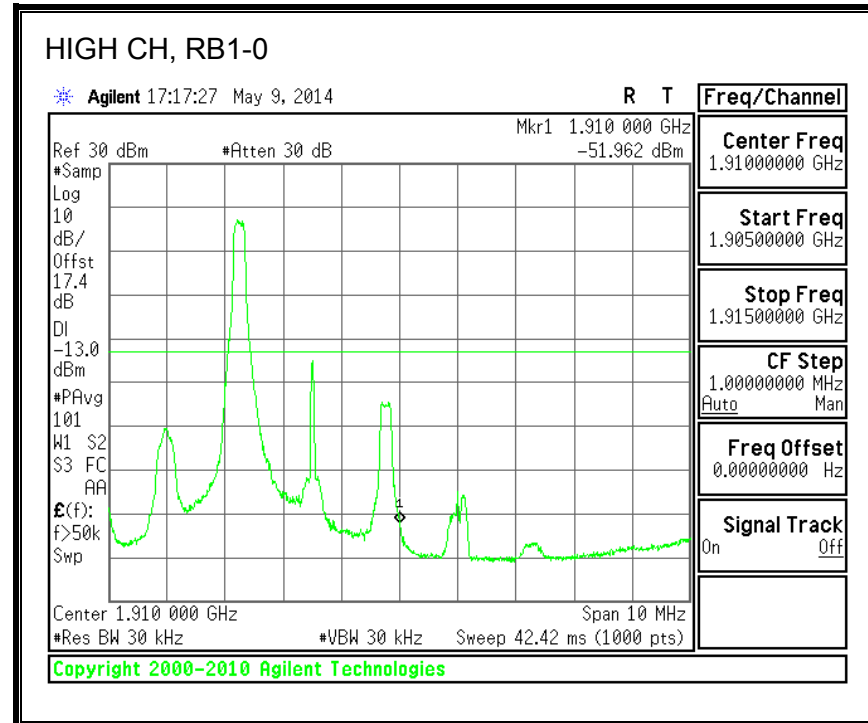
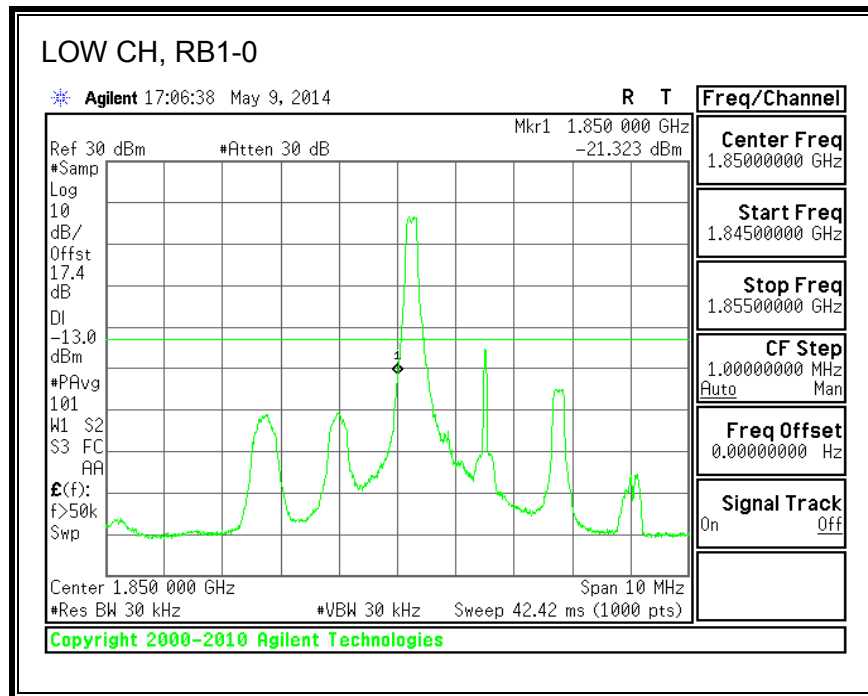


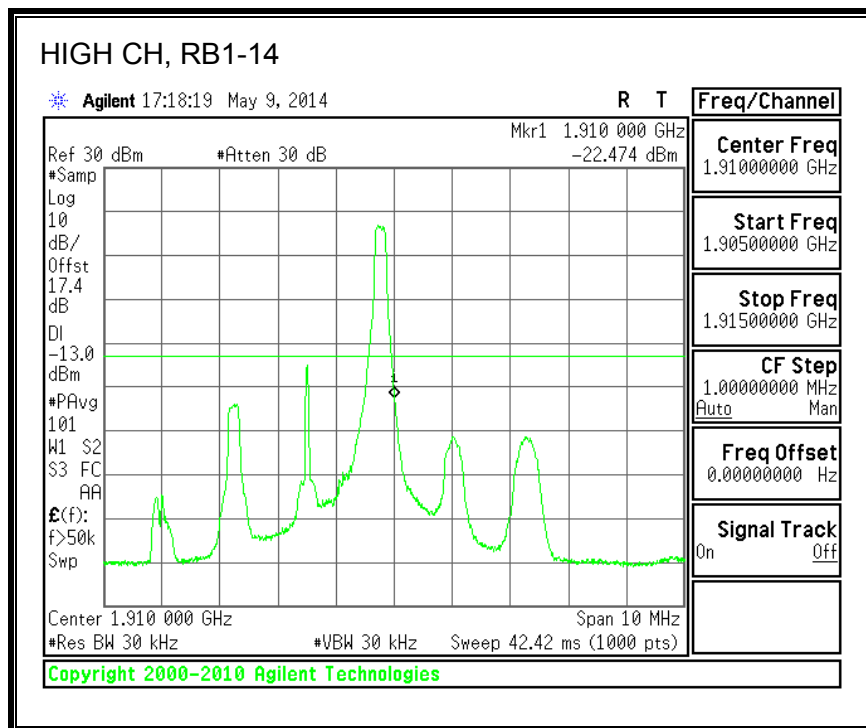
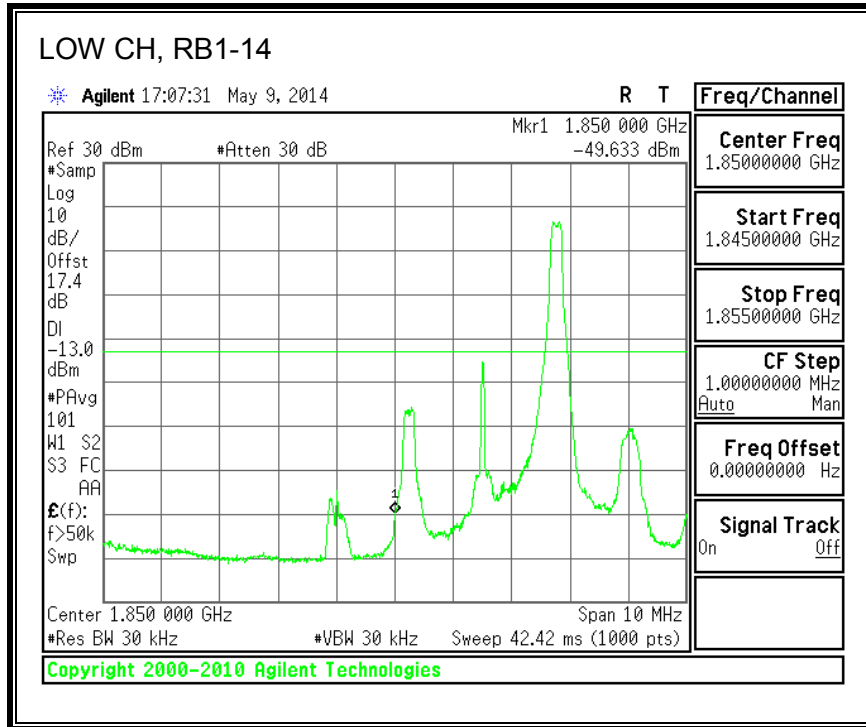


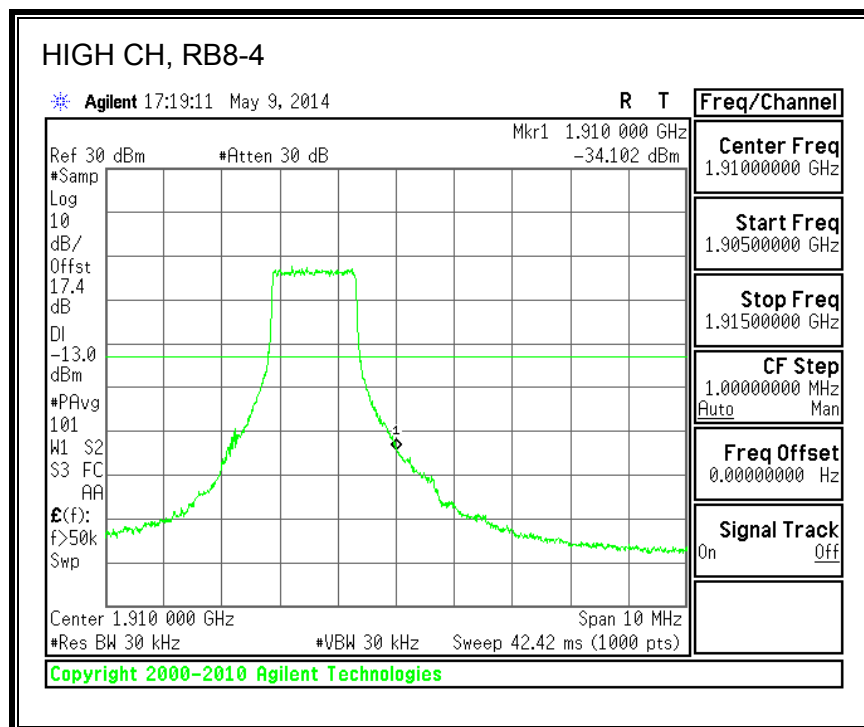
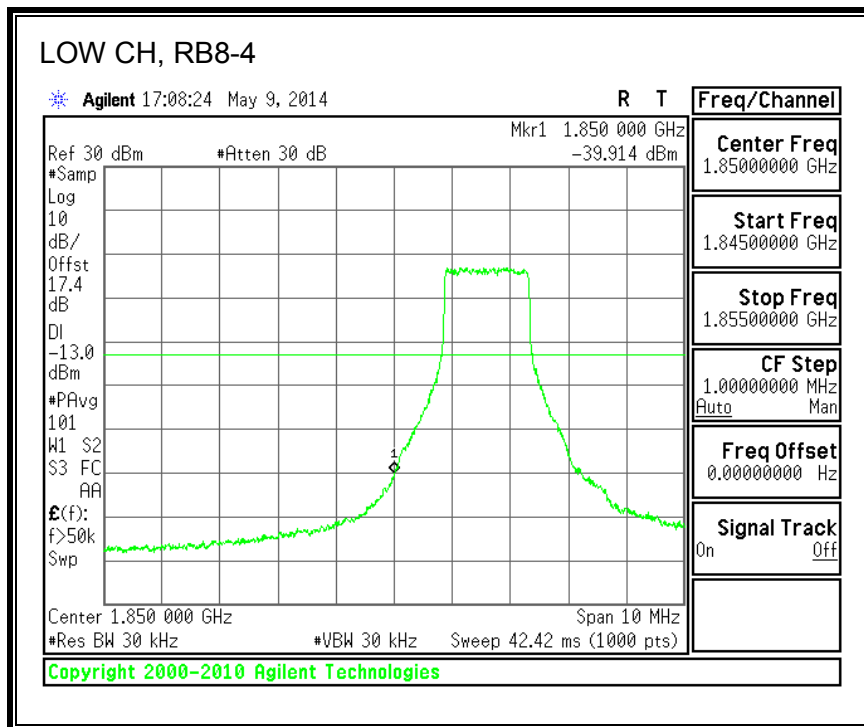


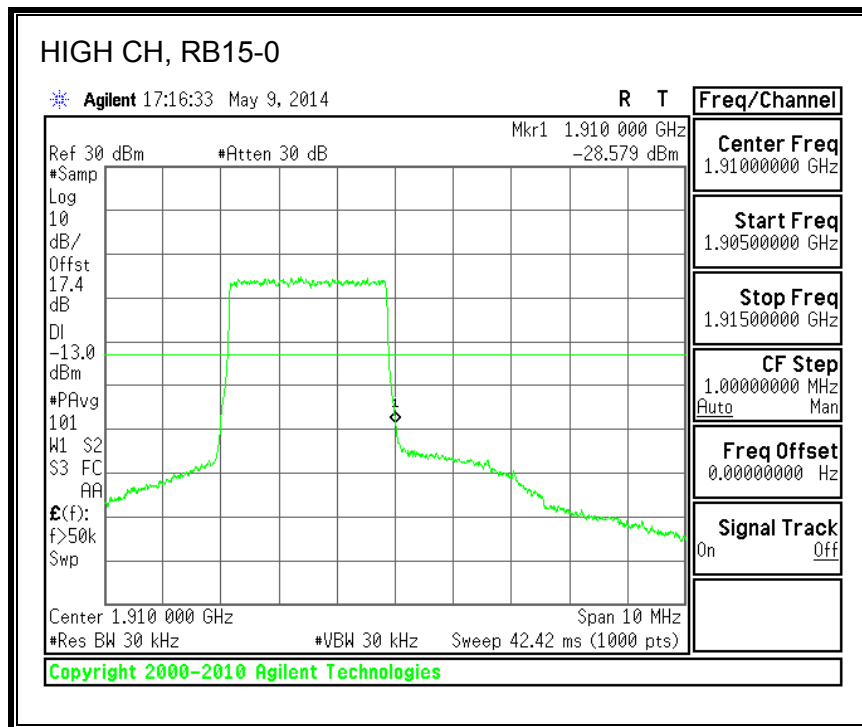
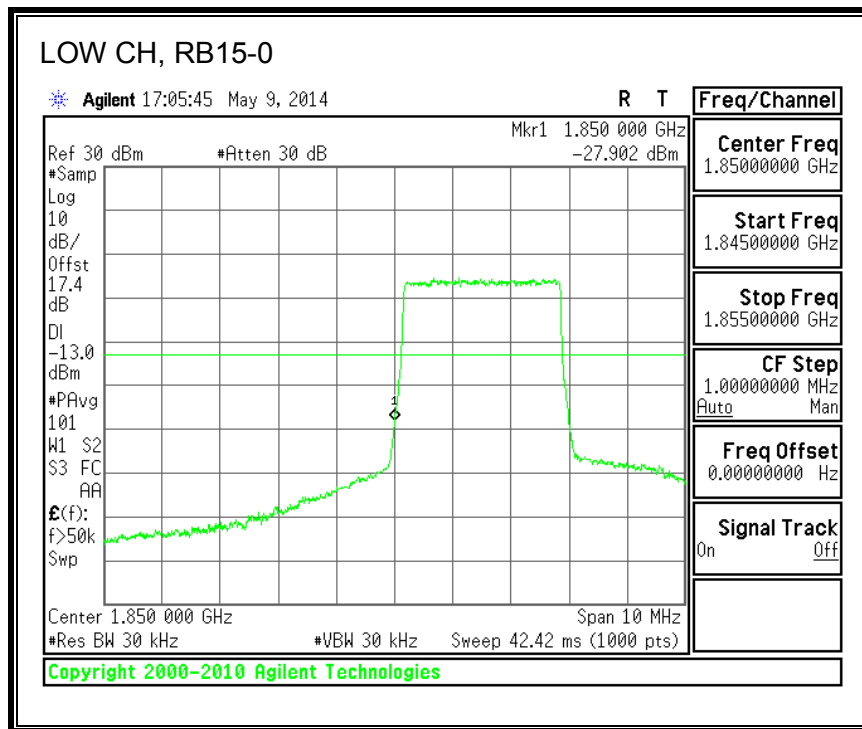


**16QAM, (3.0 MHz BAND WIDTH)**

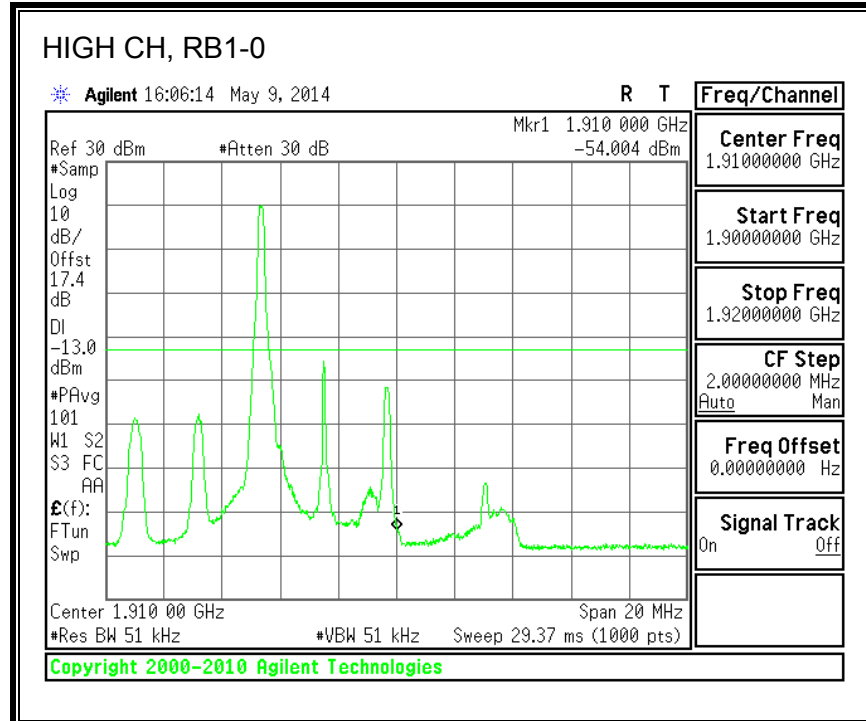
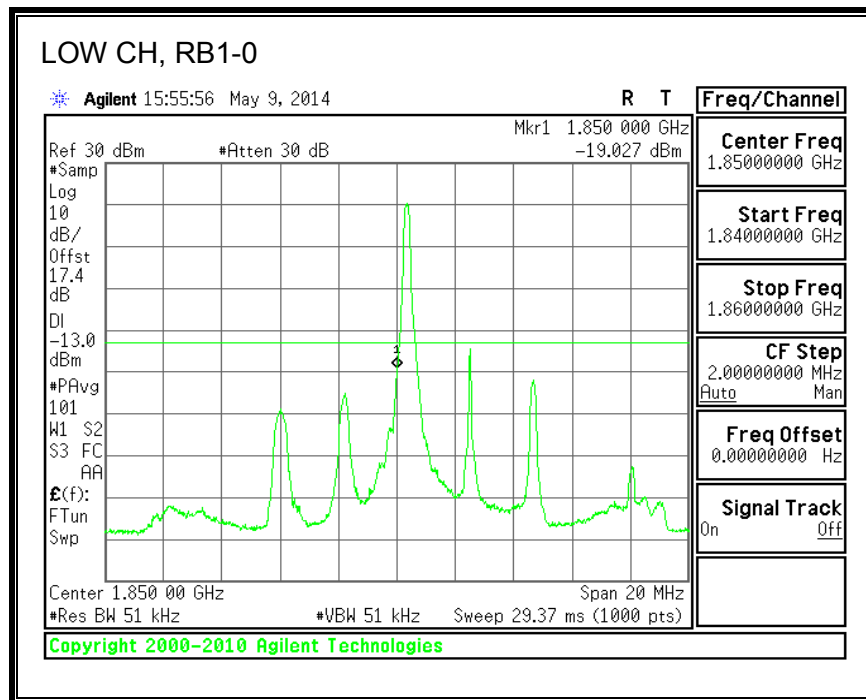


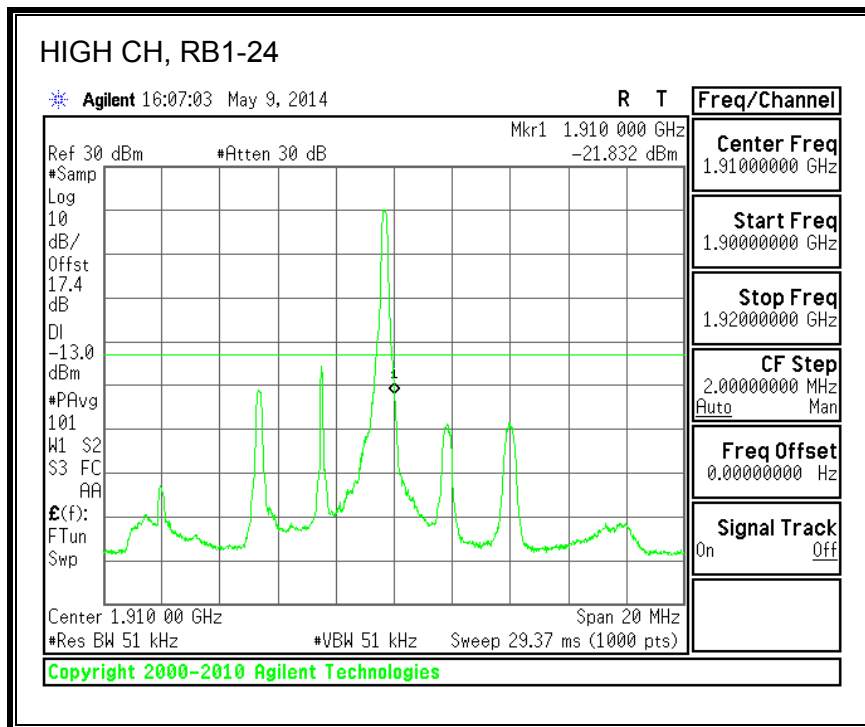
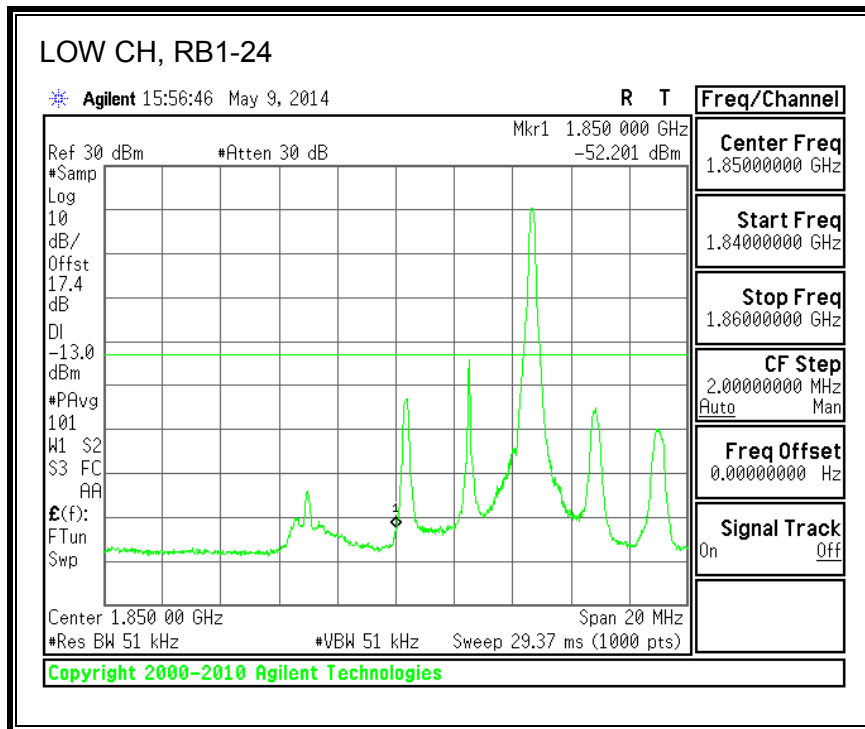


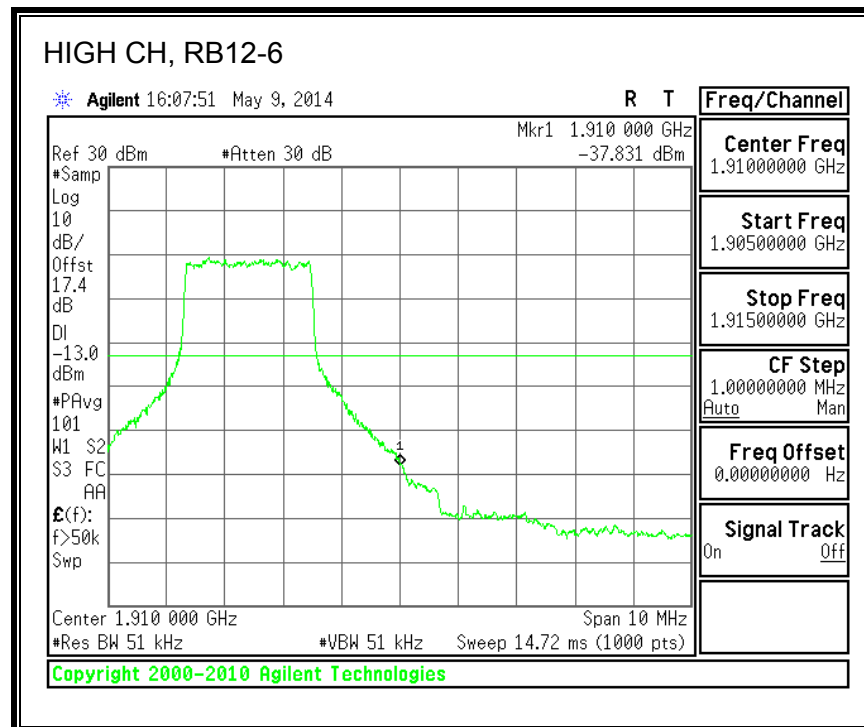
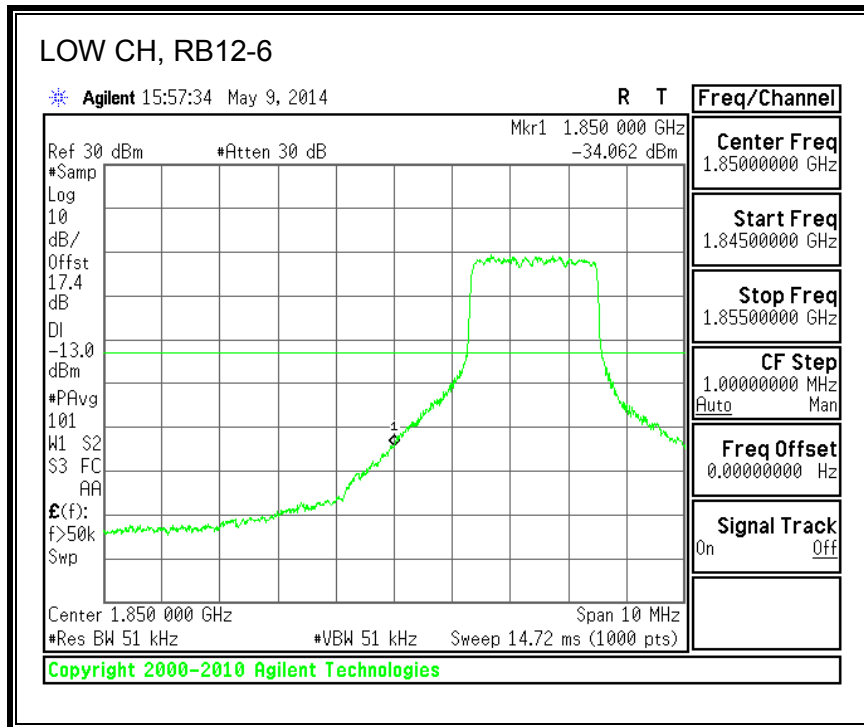


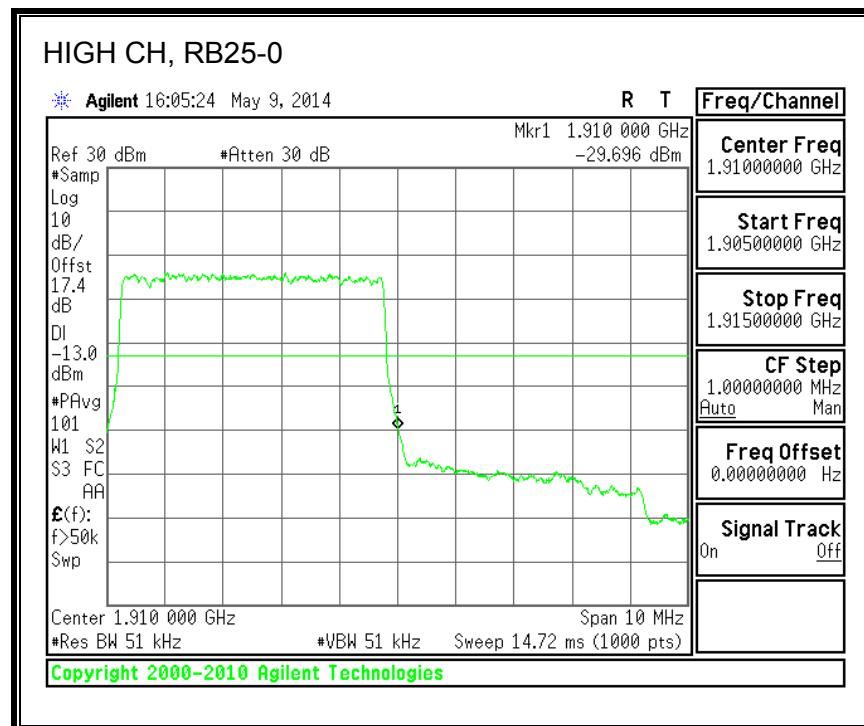
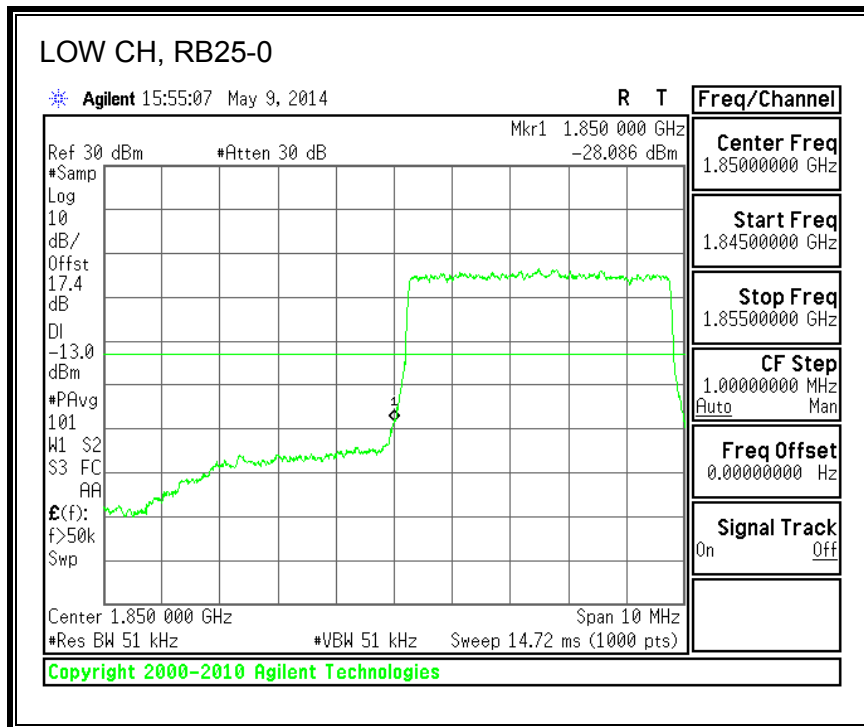


**QPSK, (5.0 MHz BAND WIDTH)**

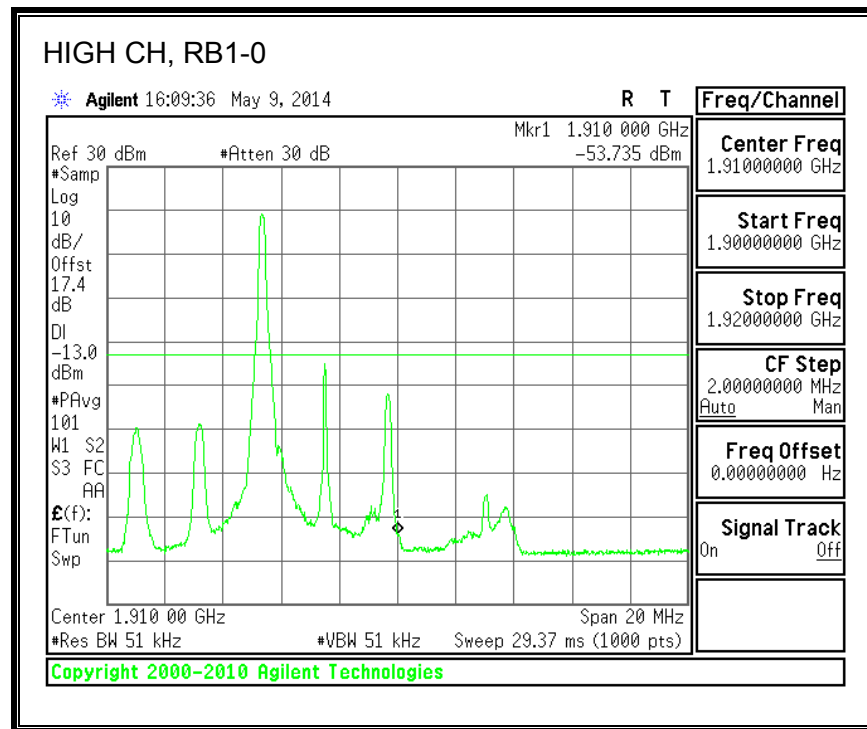
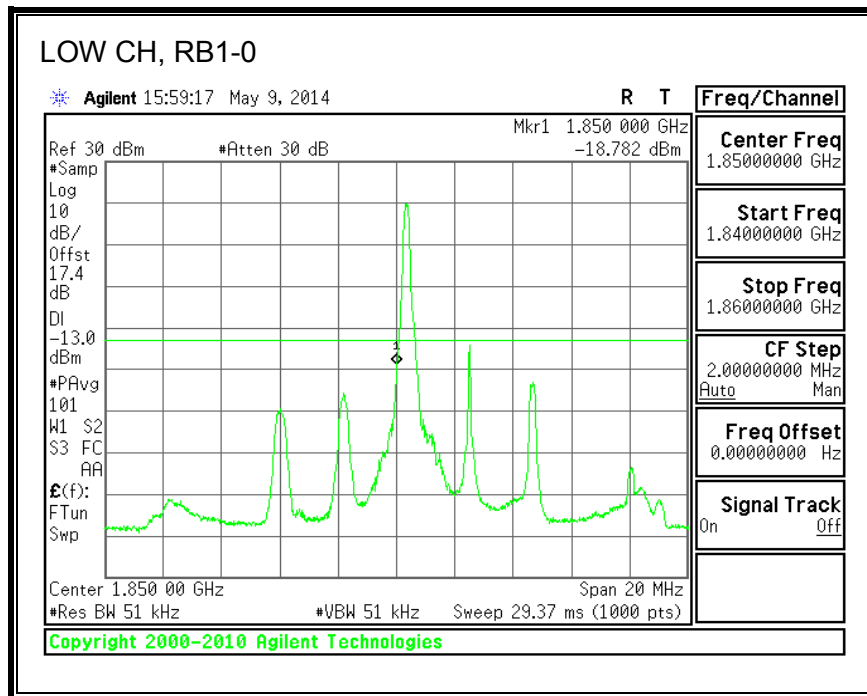


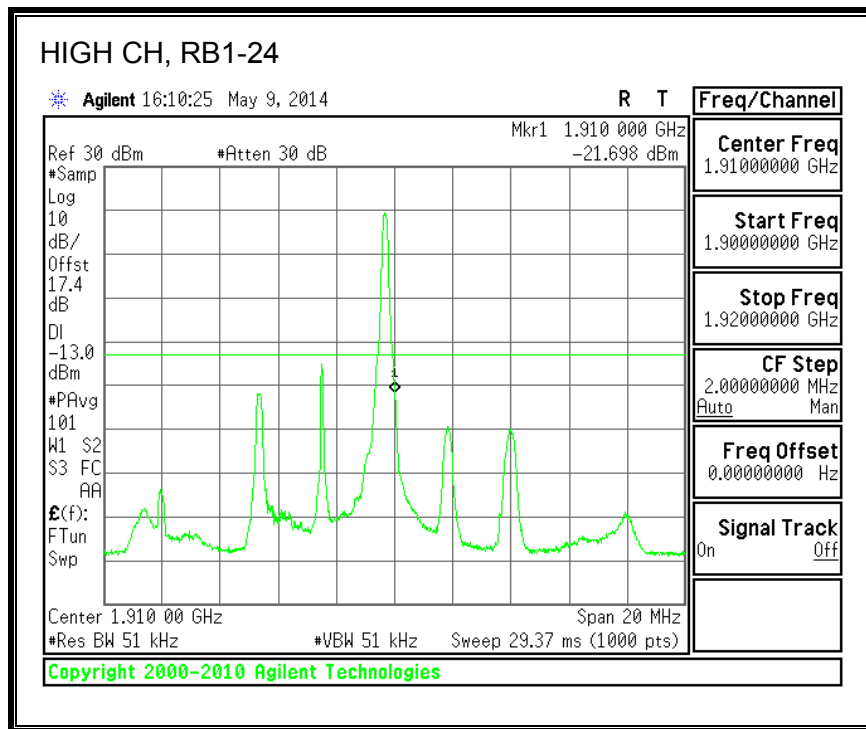
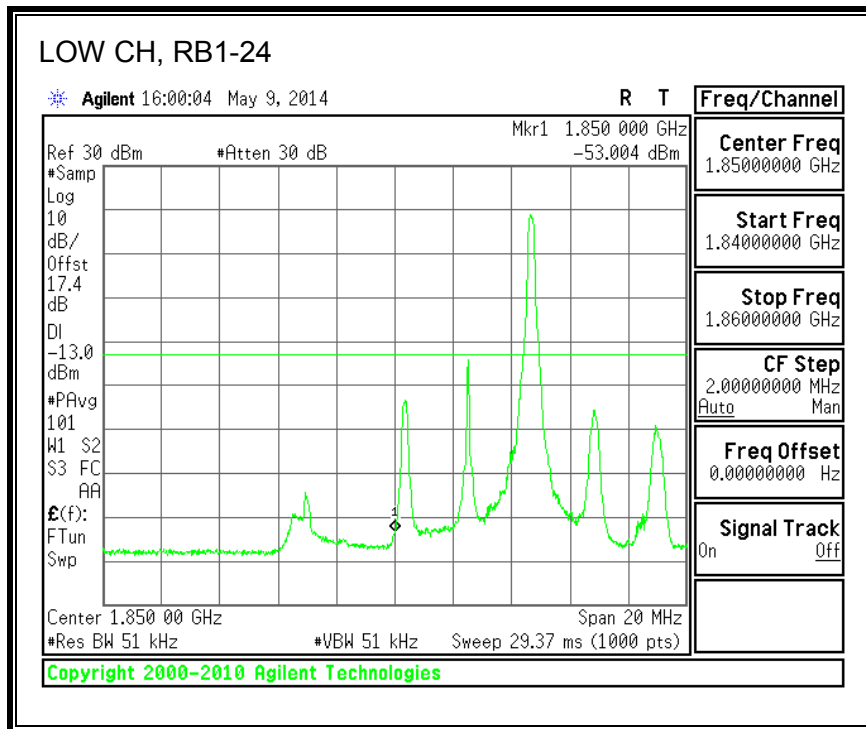


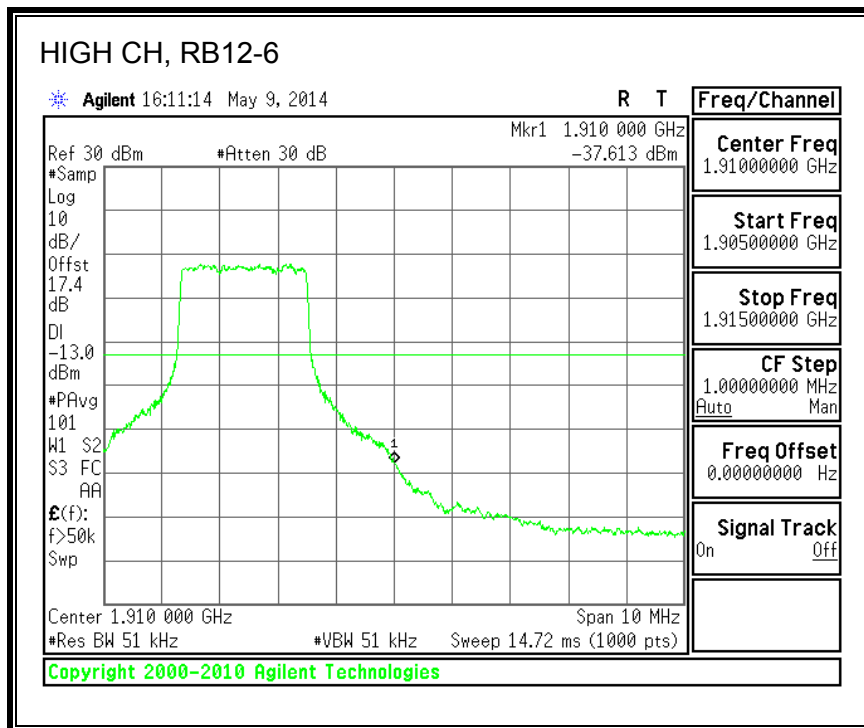
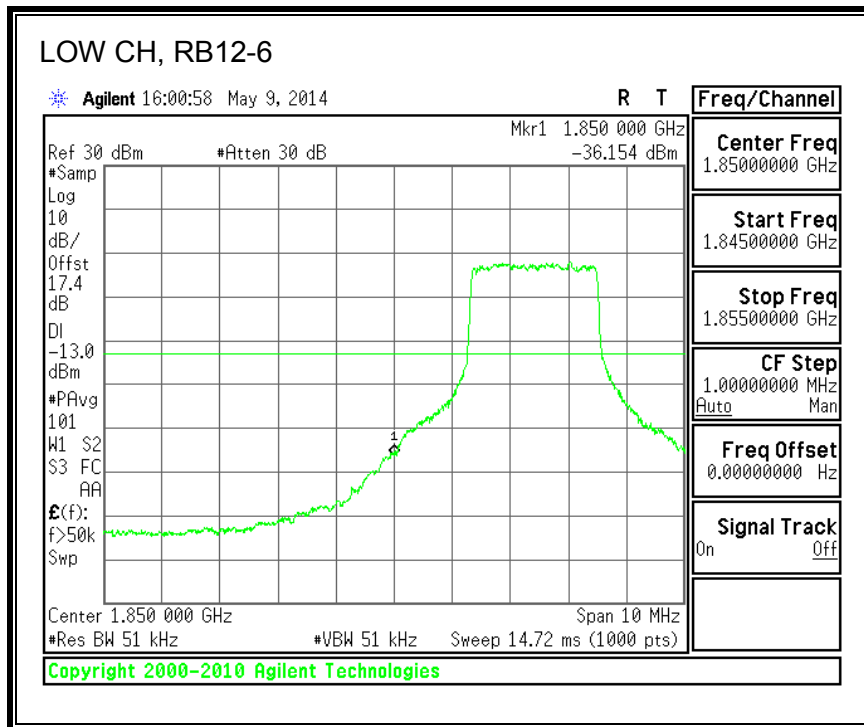


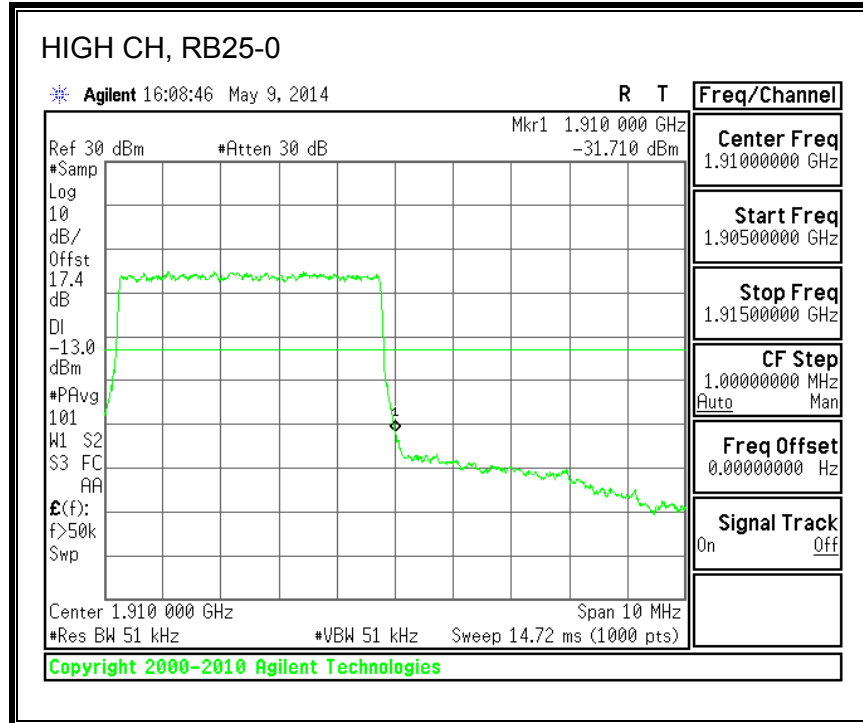
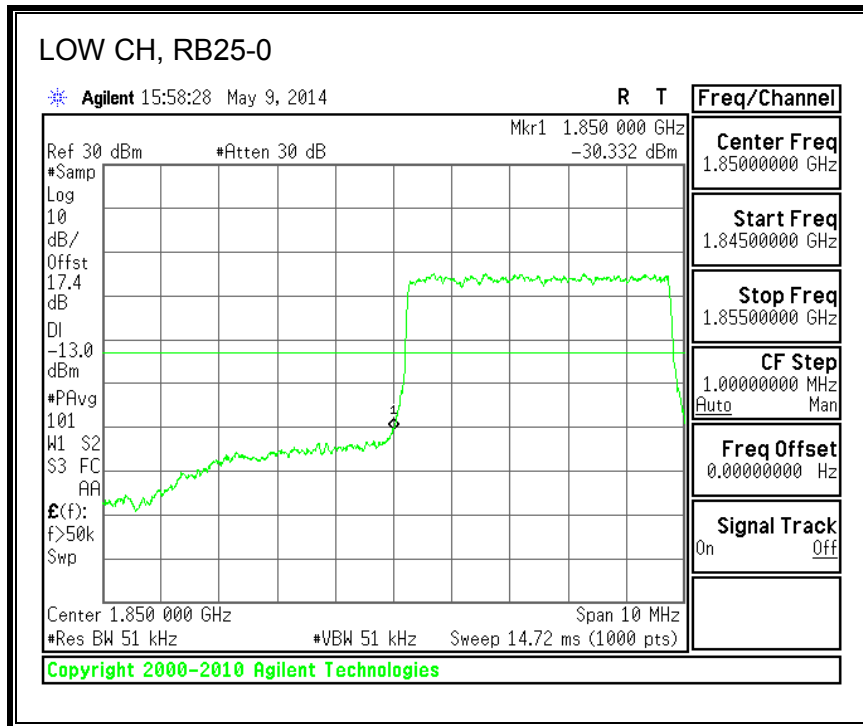


**16QAM, (5.0 MHz BAND WIDTH)**

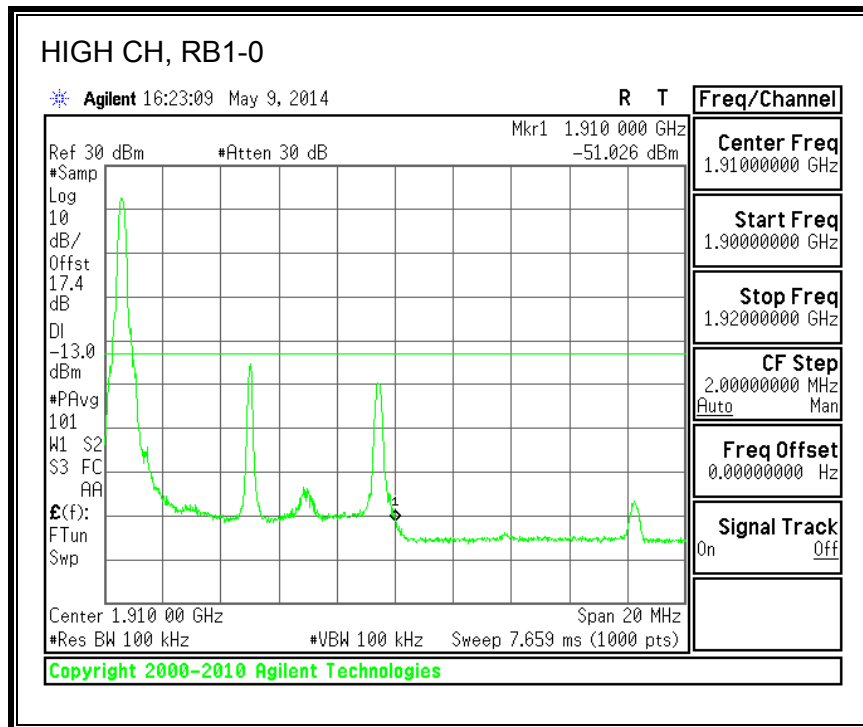
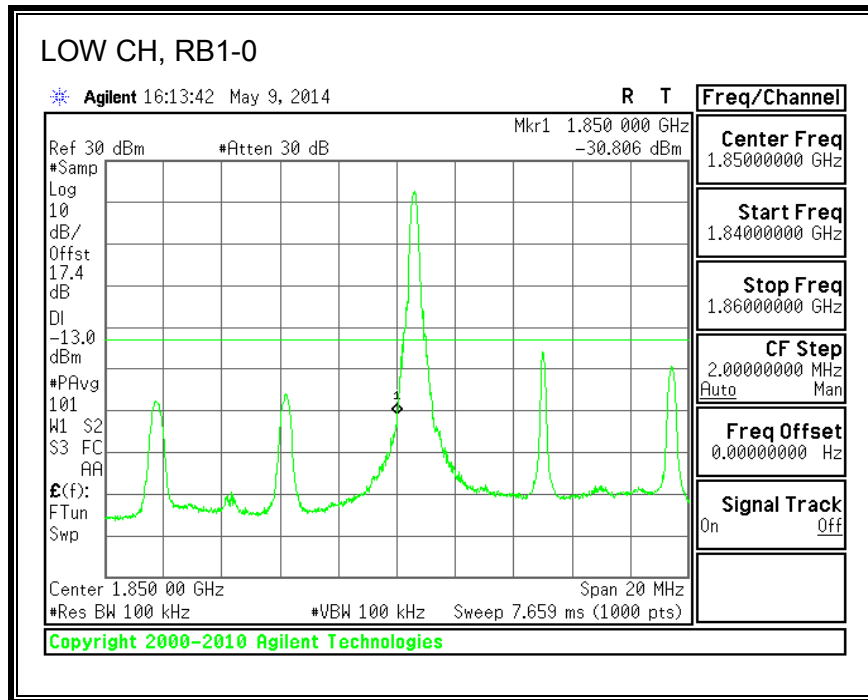


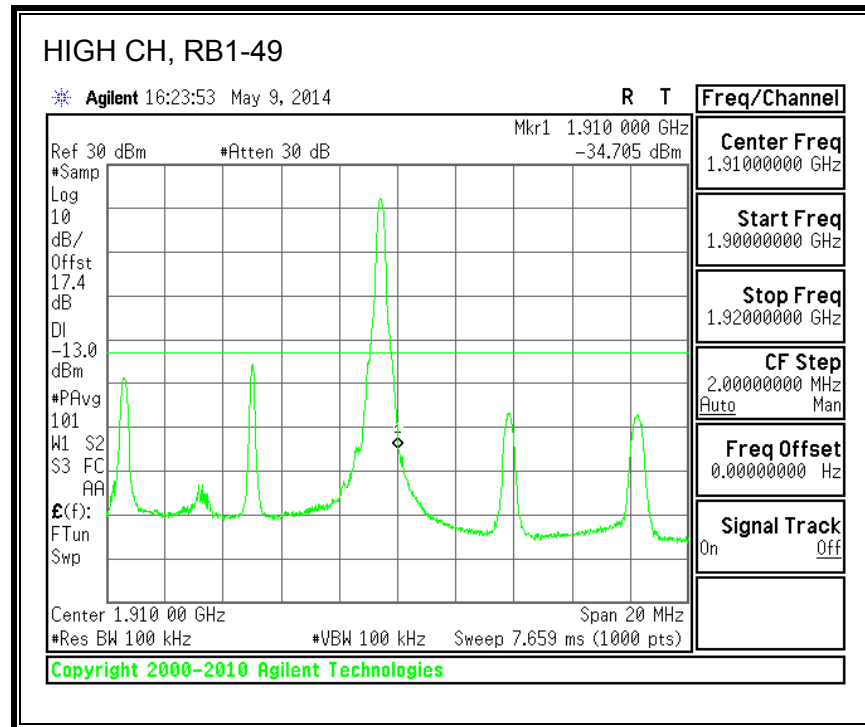
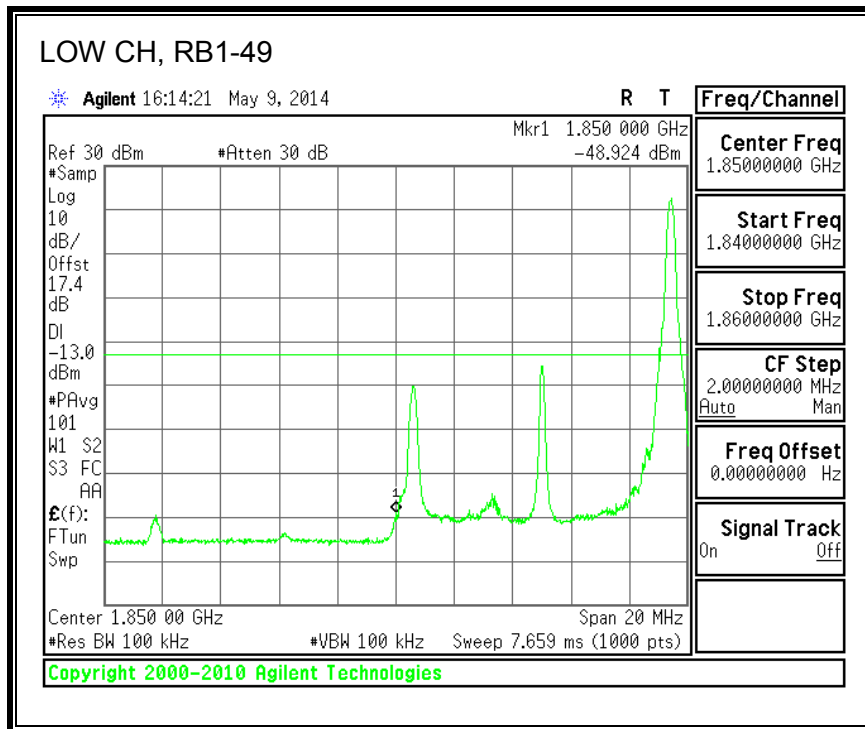


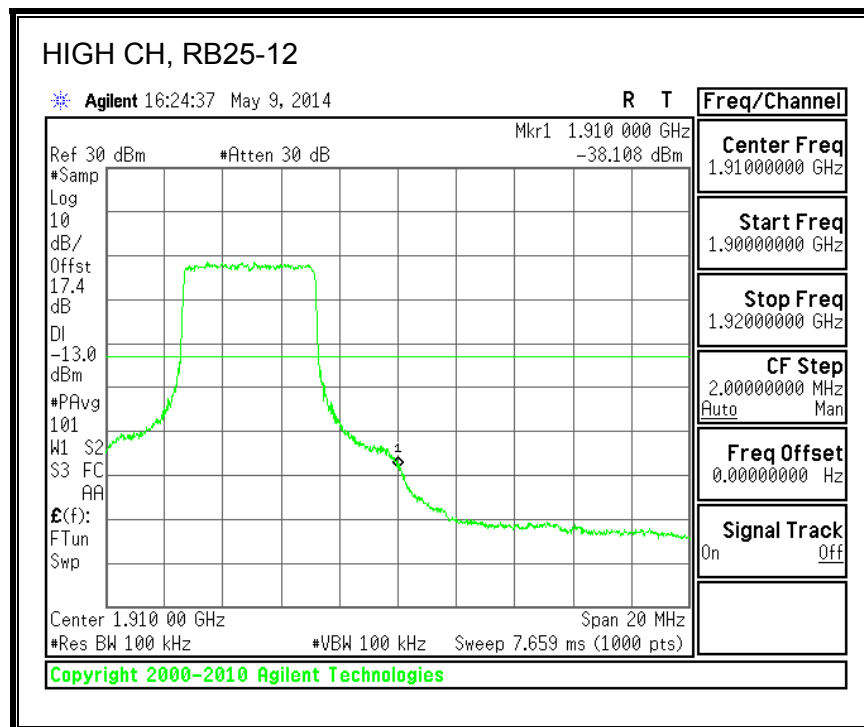
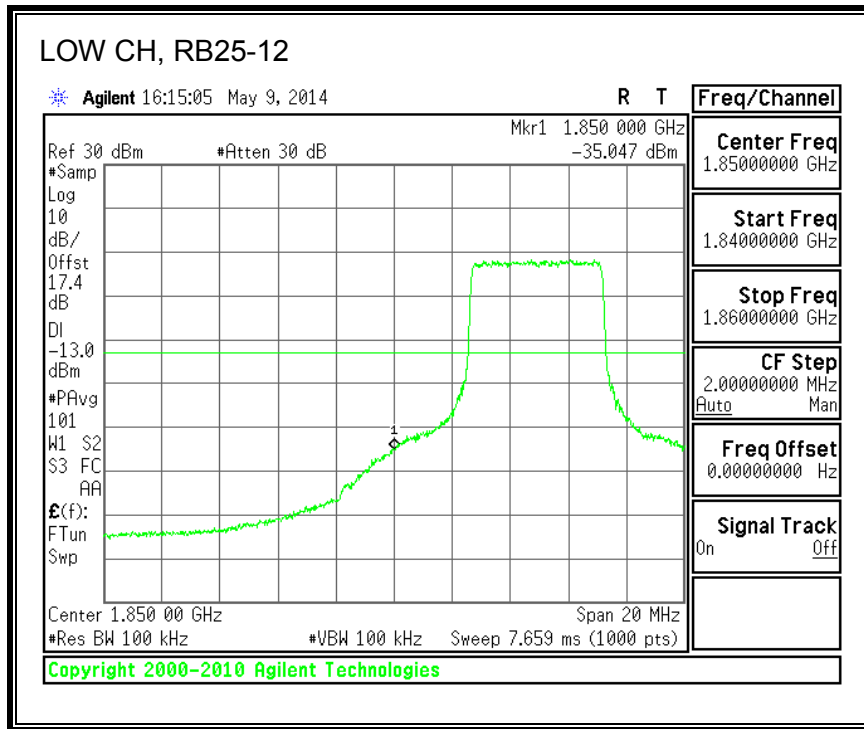


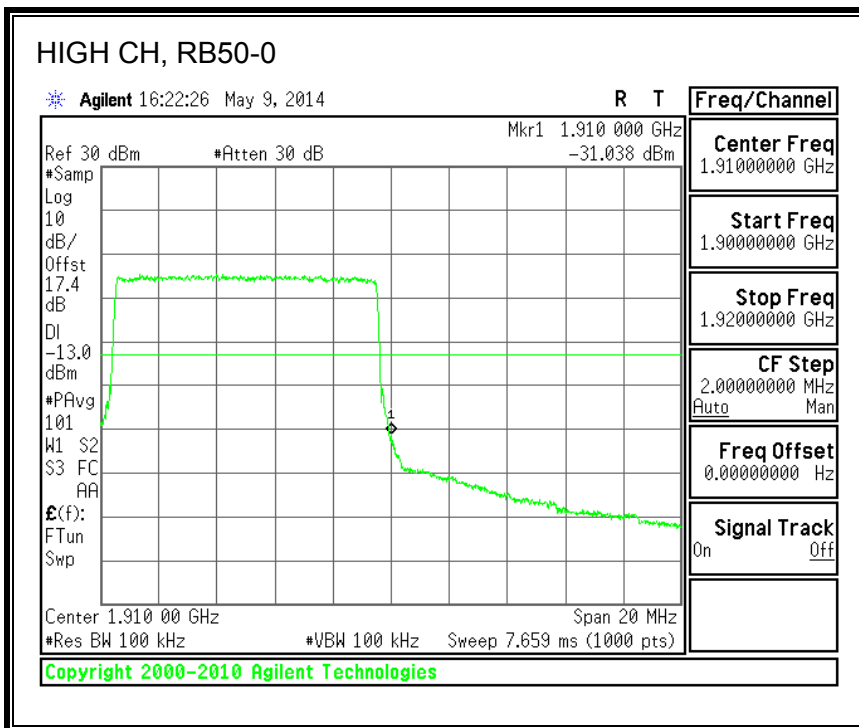
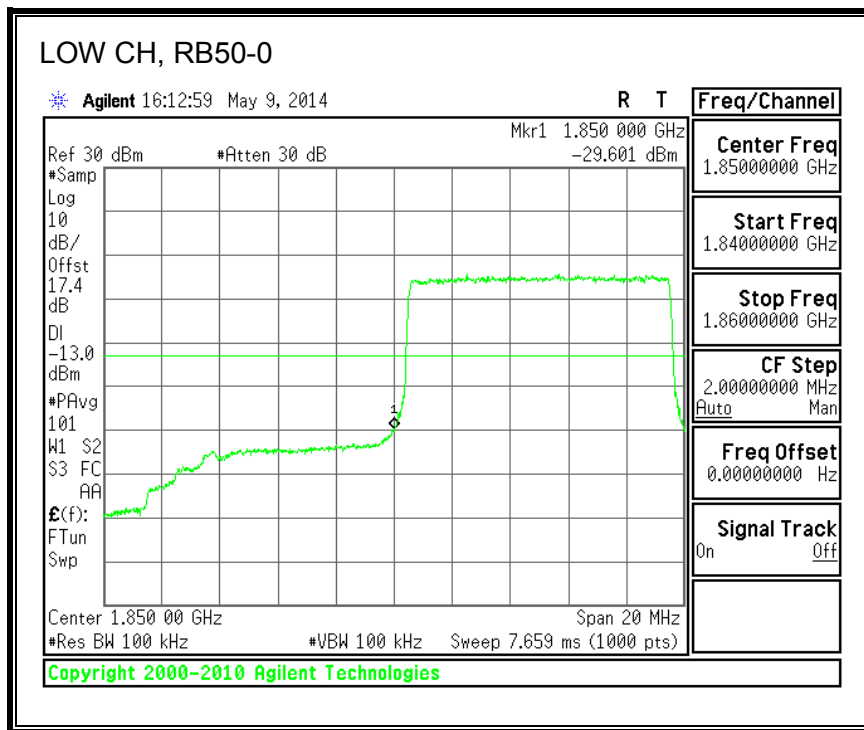


**QPSK, (10.0 MHz BAND WIDTH)**

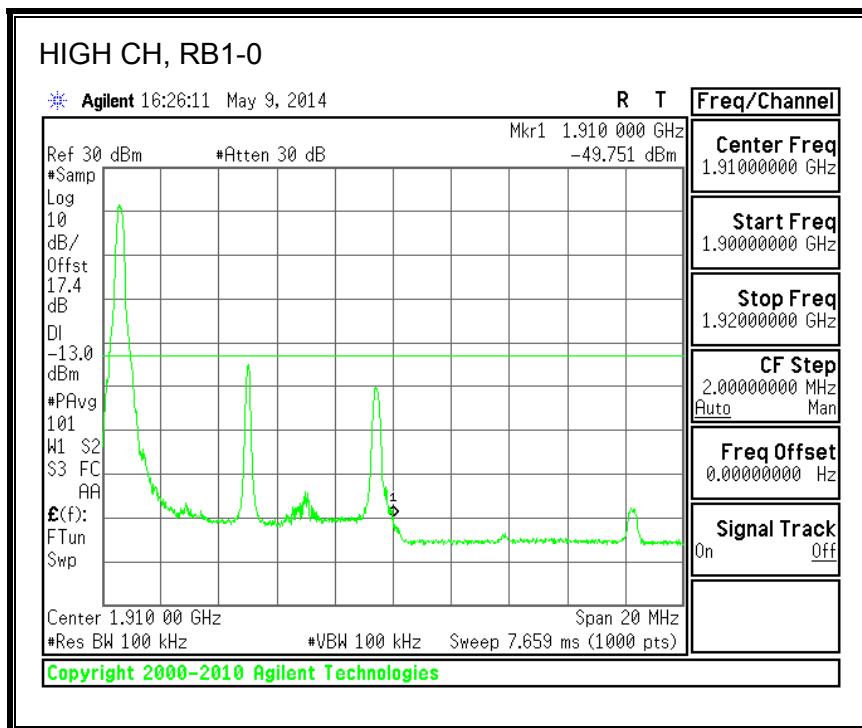
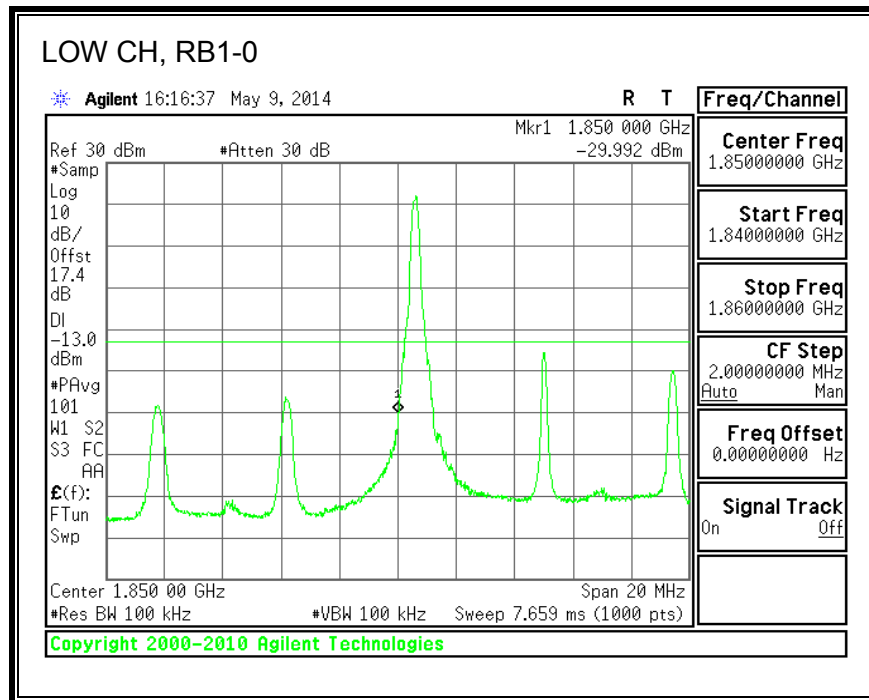


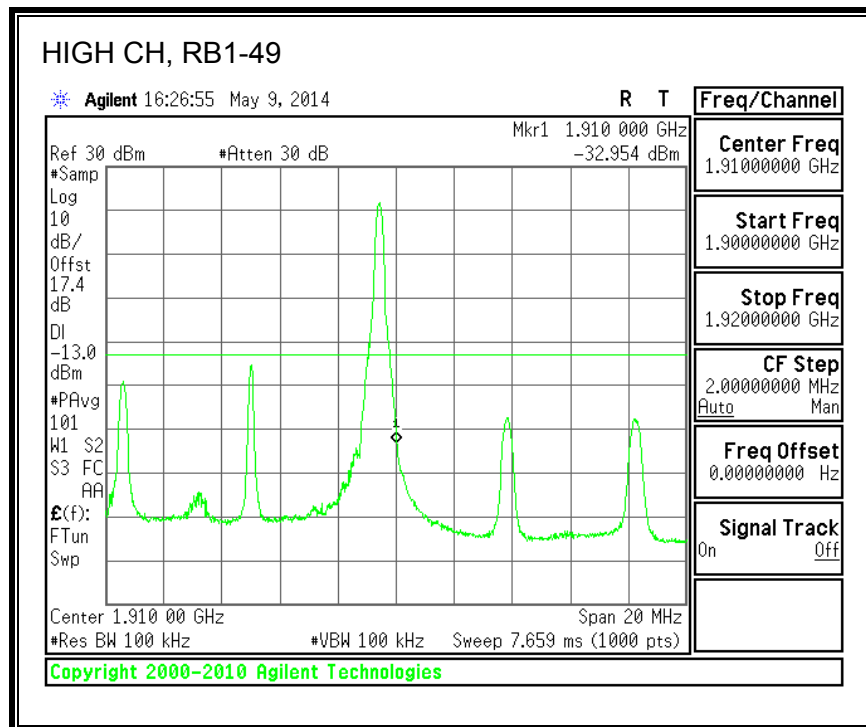
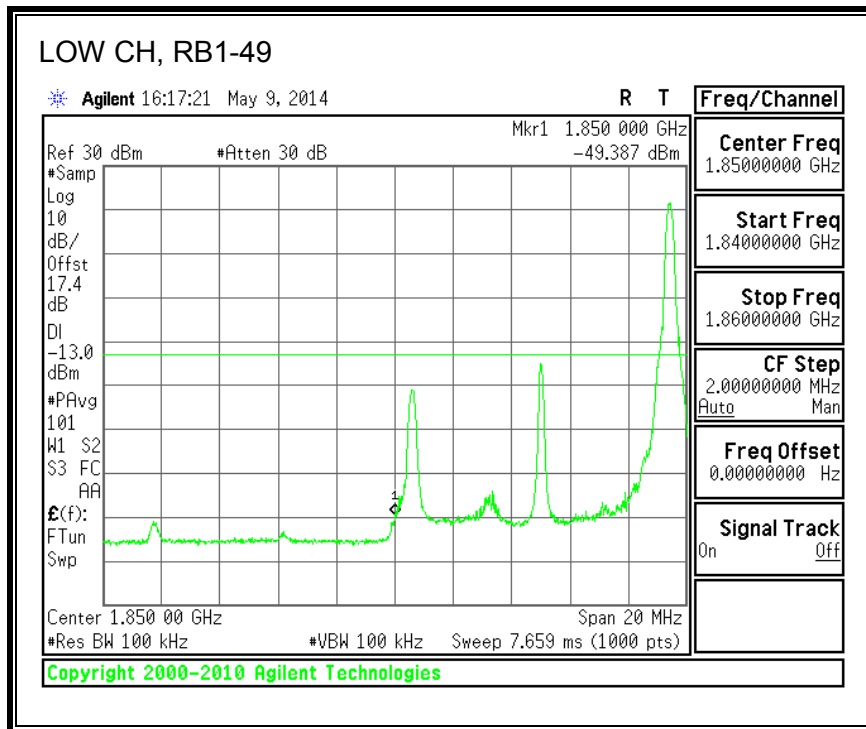


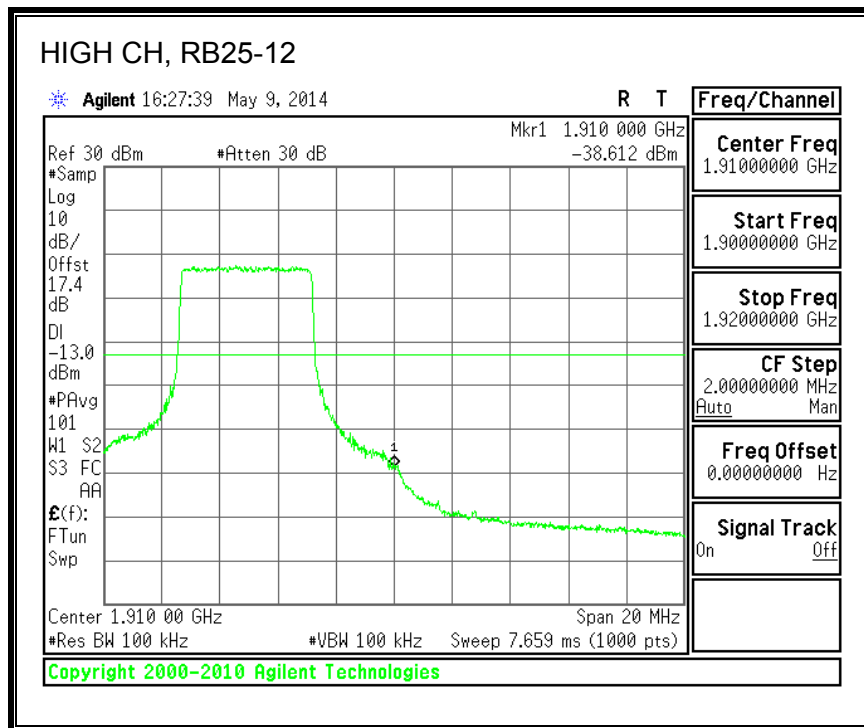
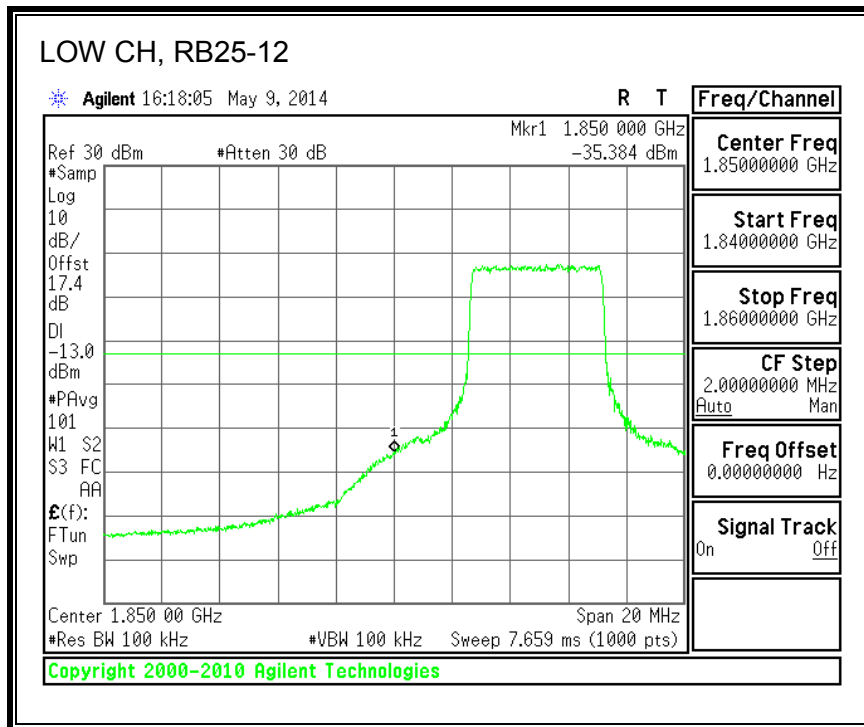


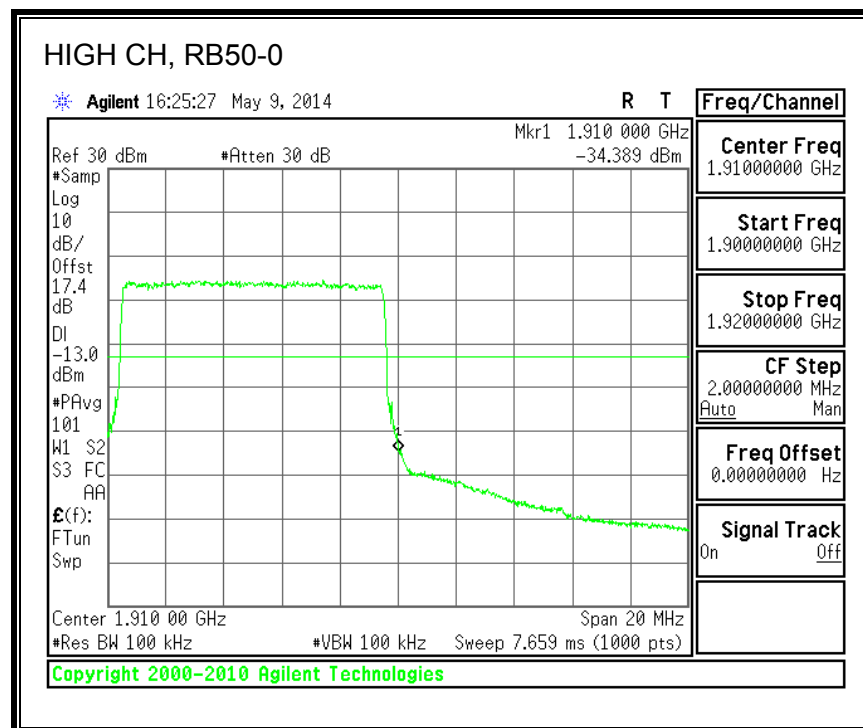
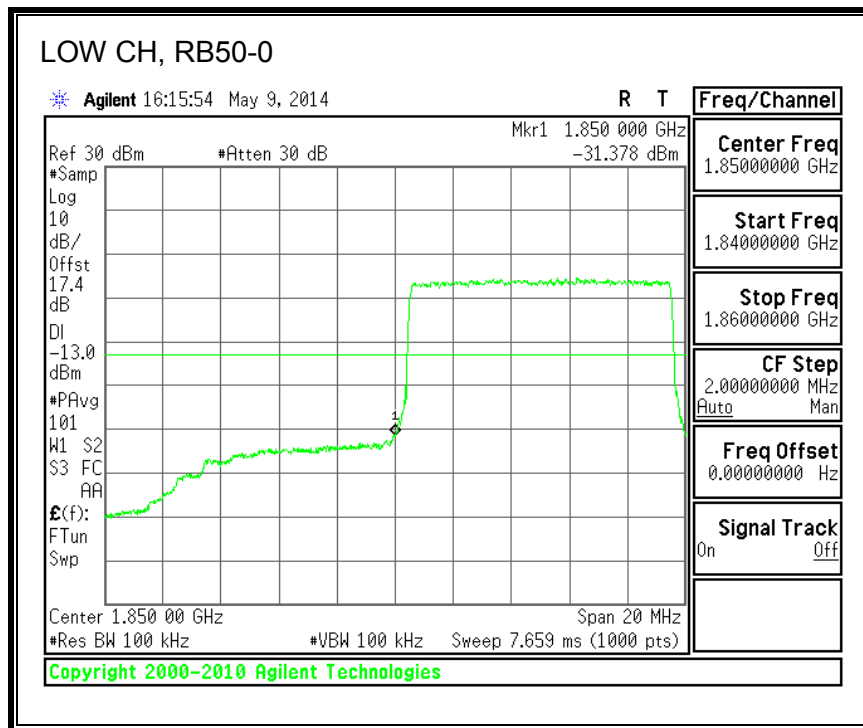


**16QAM, (10.0 MHz BAND WIDTH)**

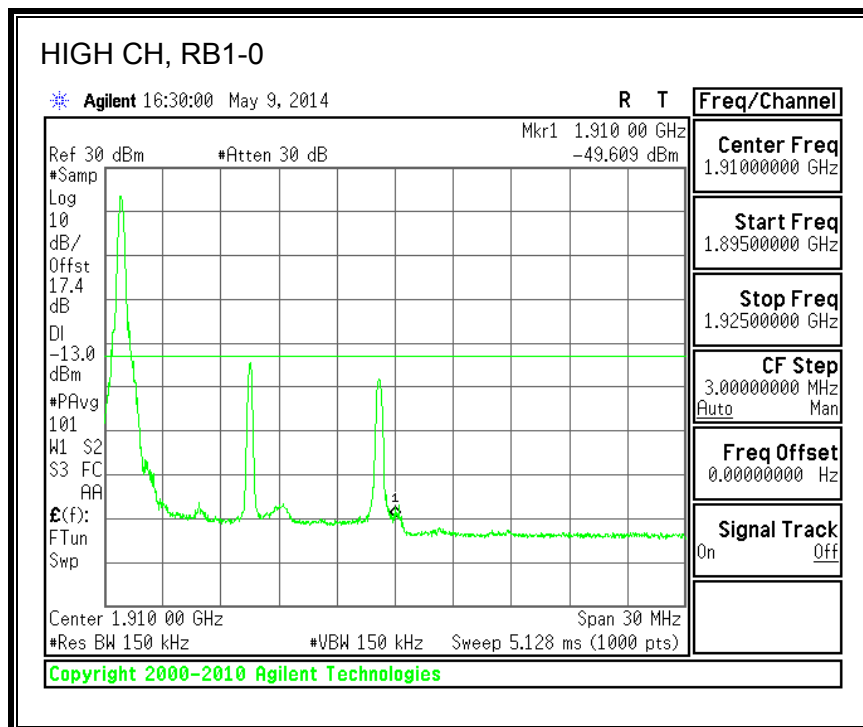
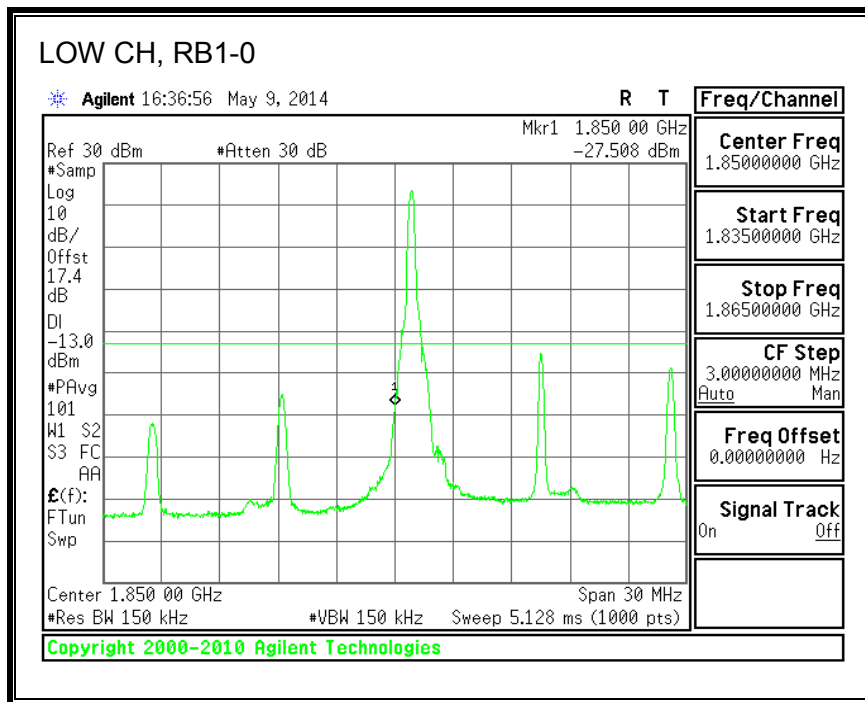


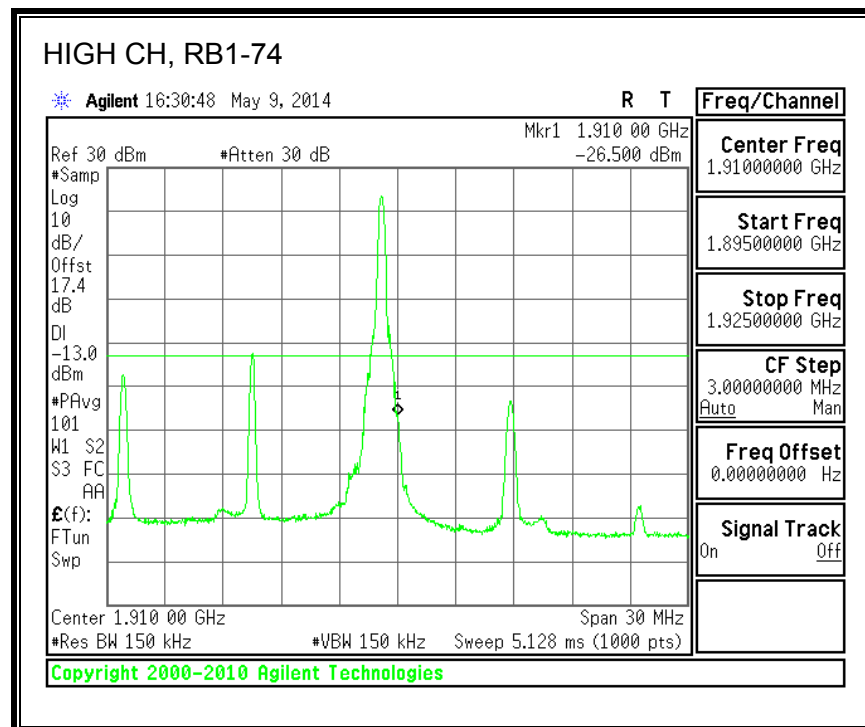
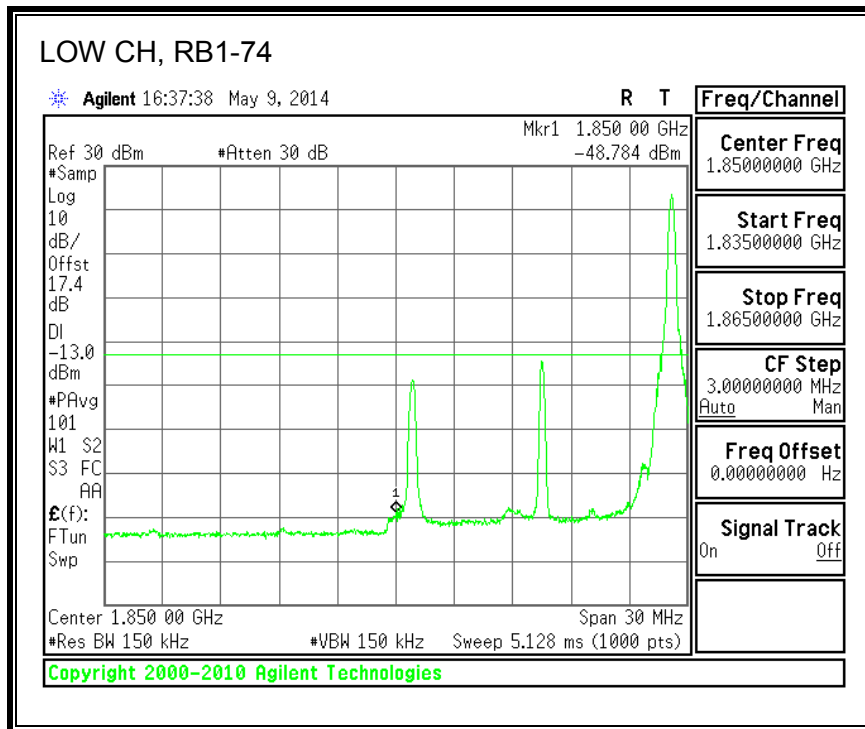


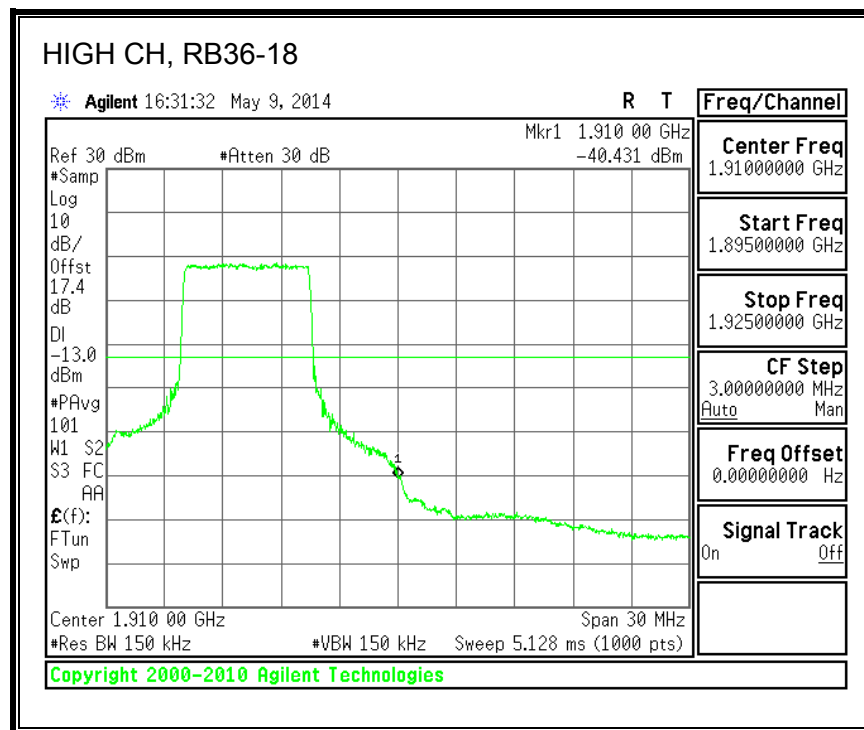
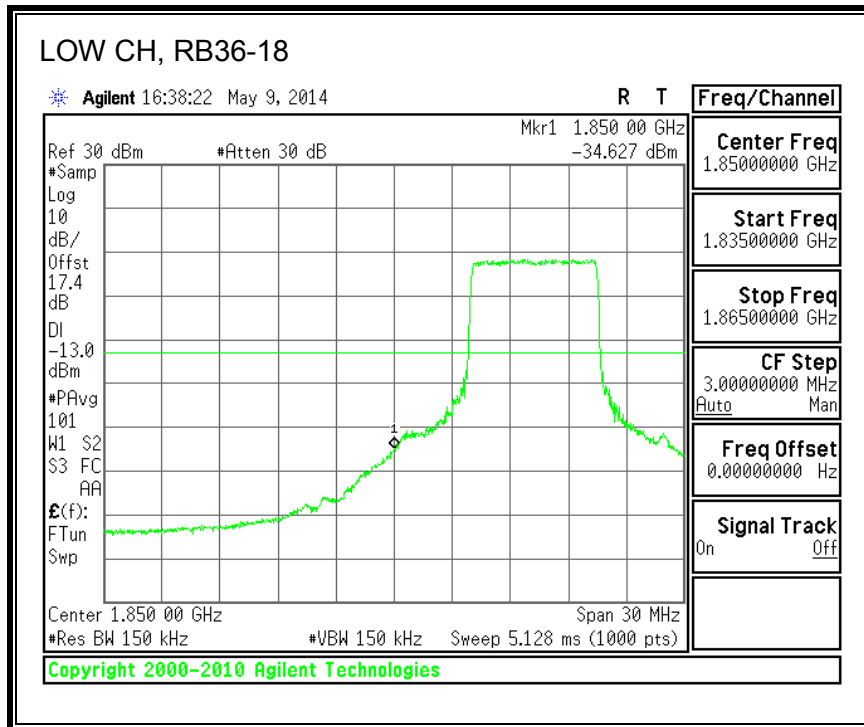


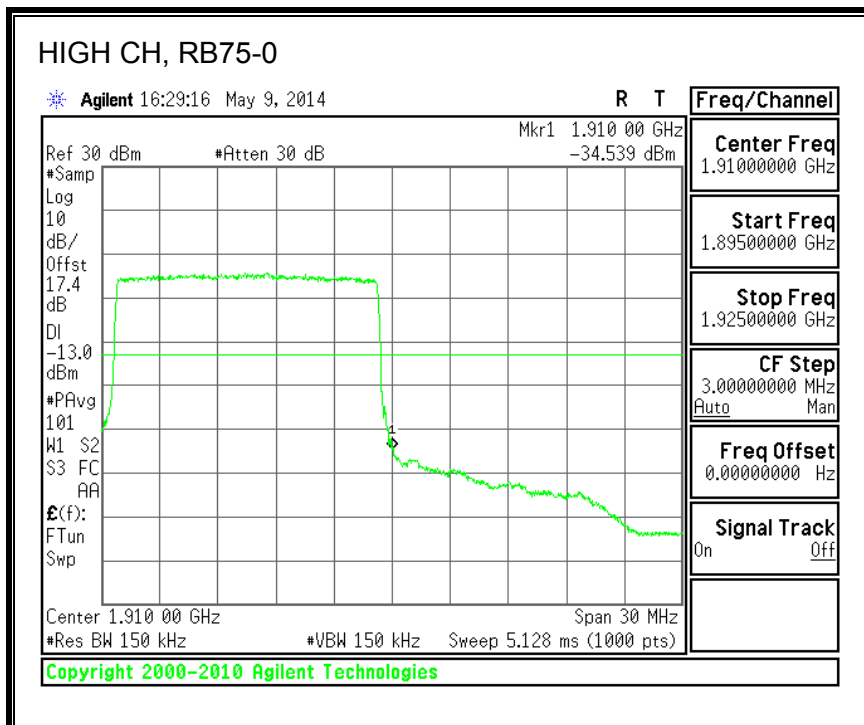
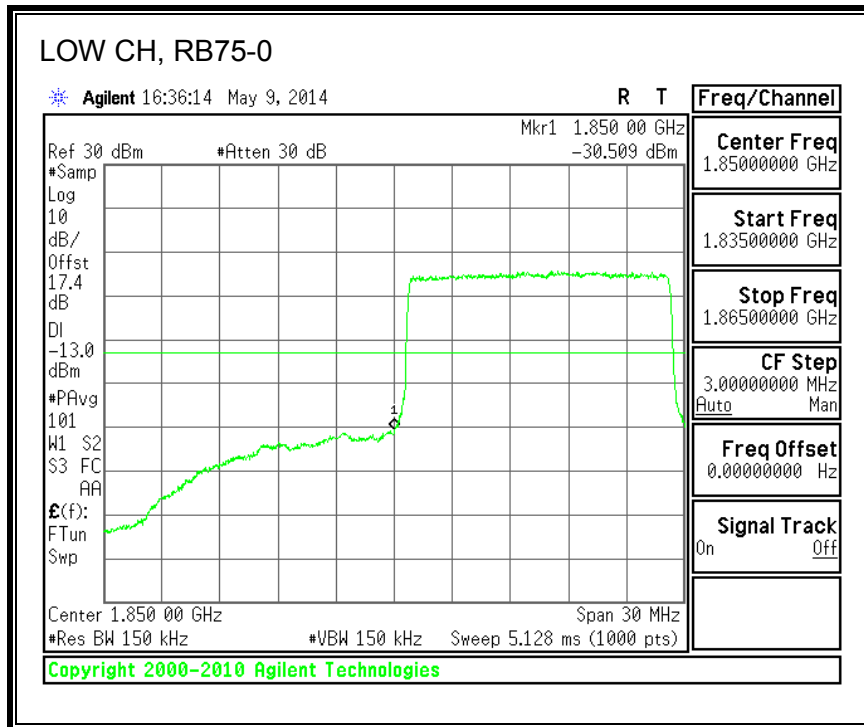


**QPSK, (15.0 MHz BAND WIDTH)**

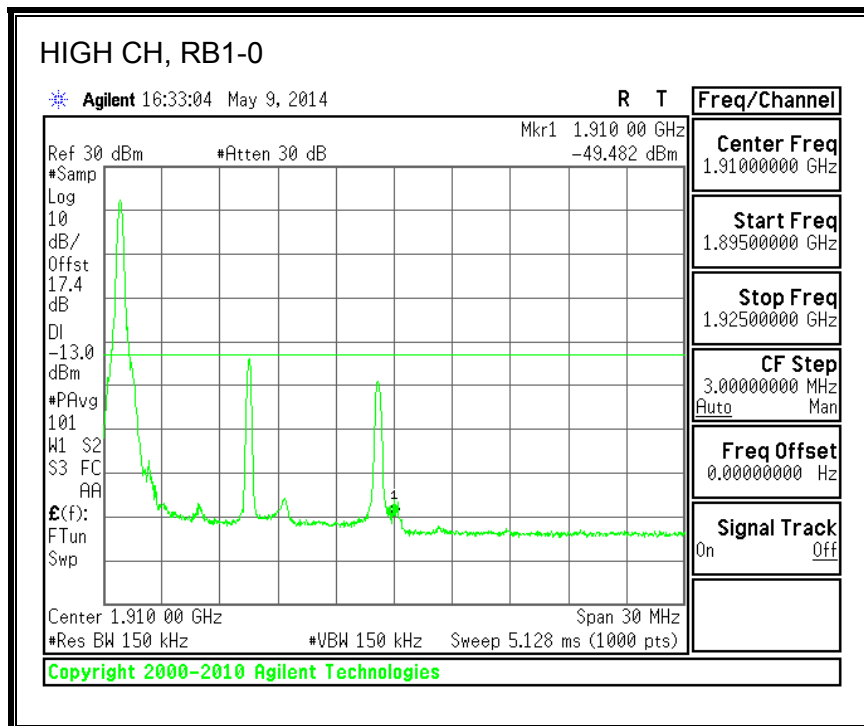
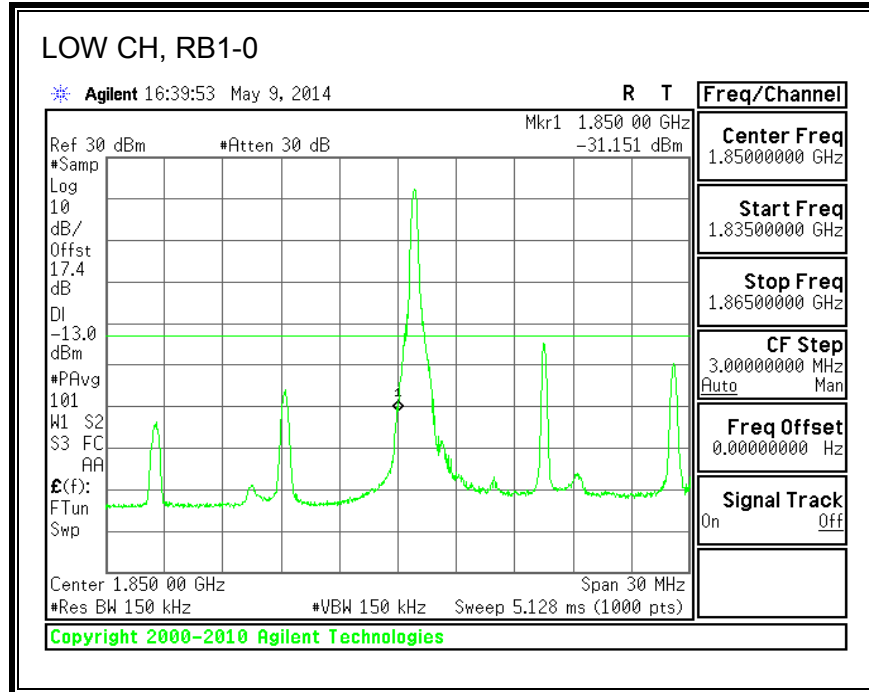


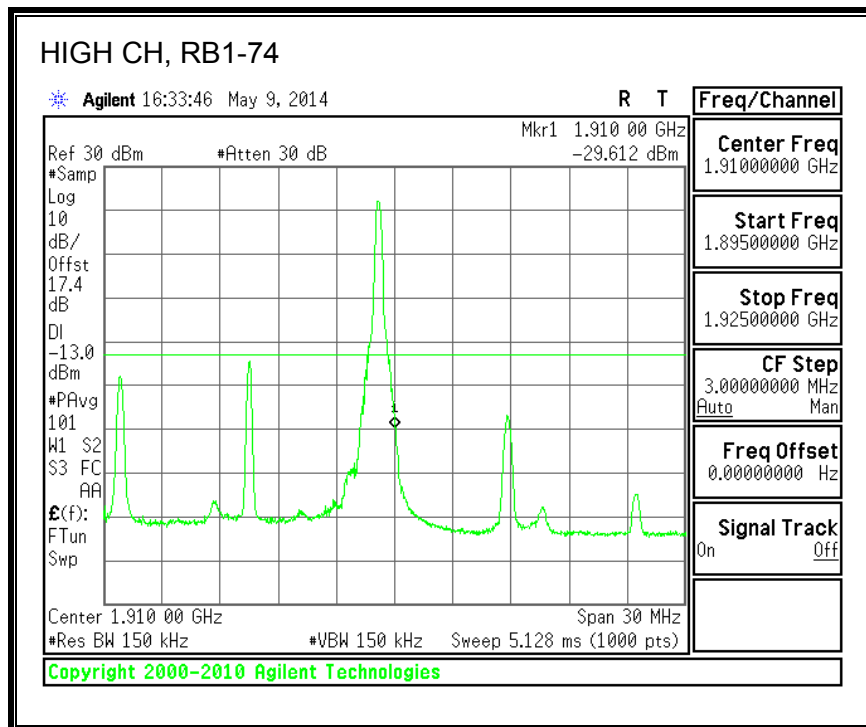
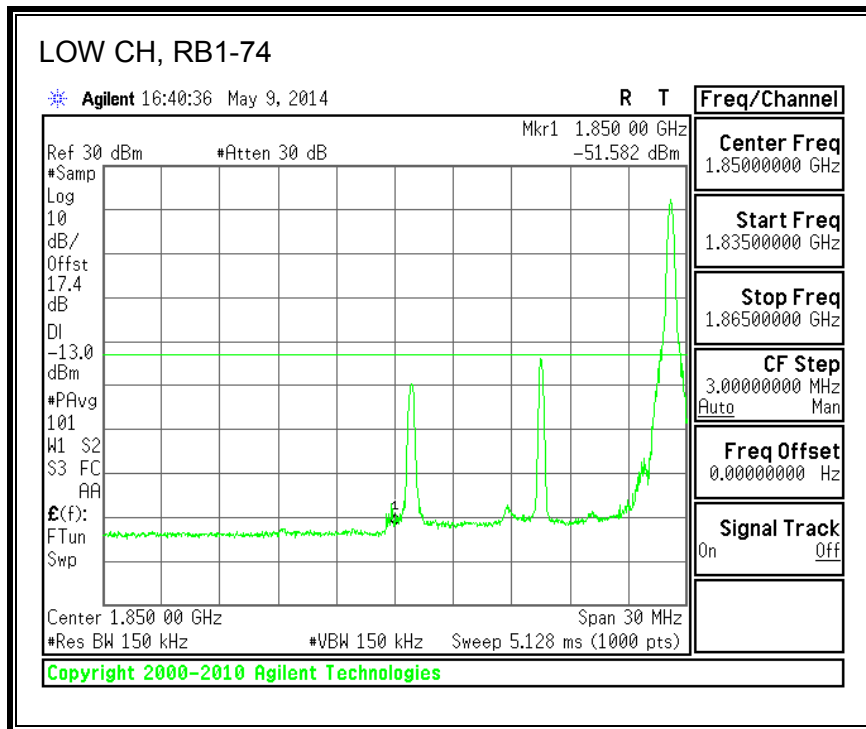


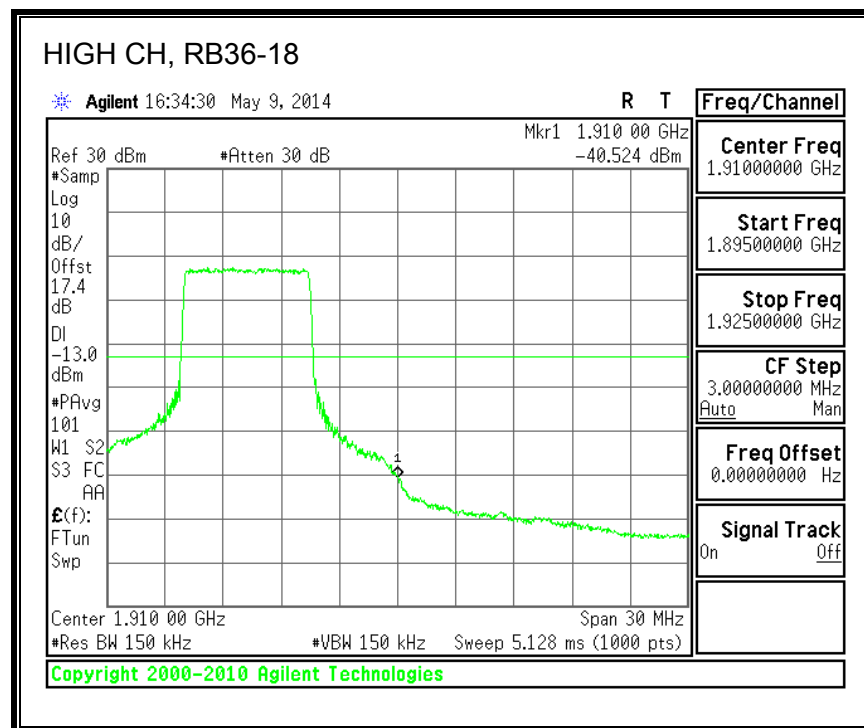
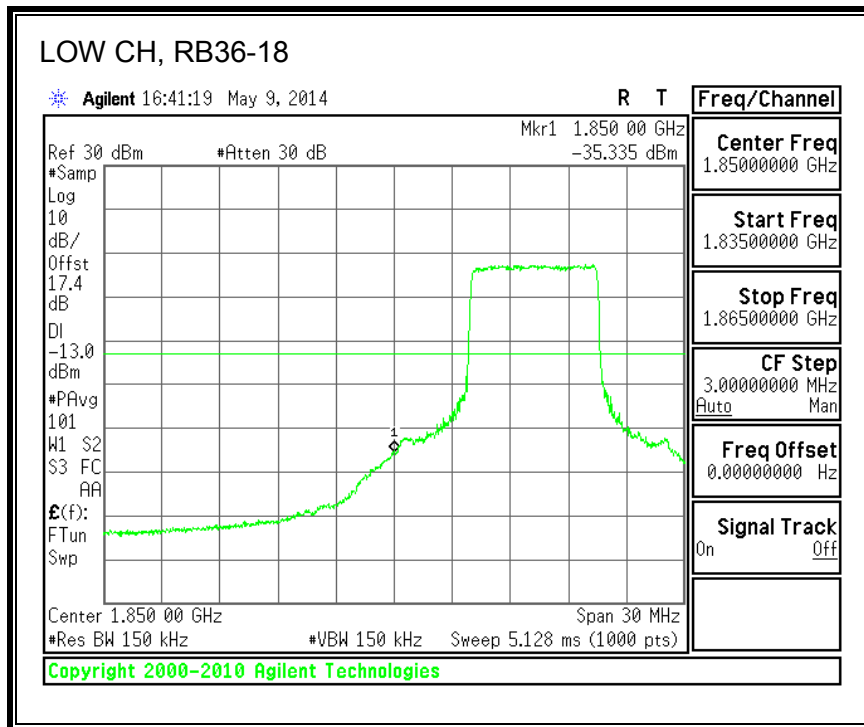


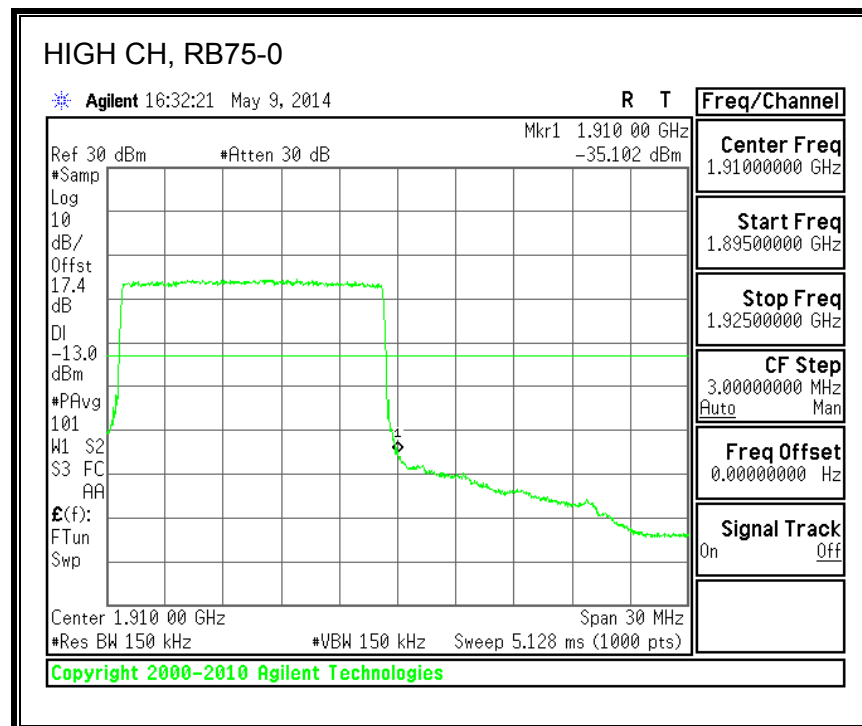
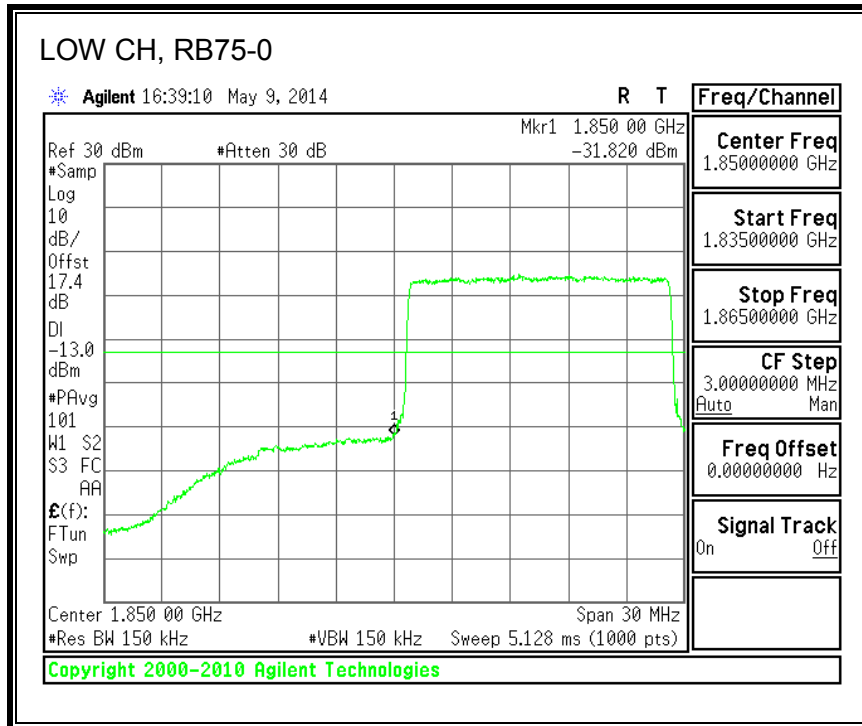


**16QAM, (15.0 MHz BAND WIDTH)**

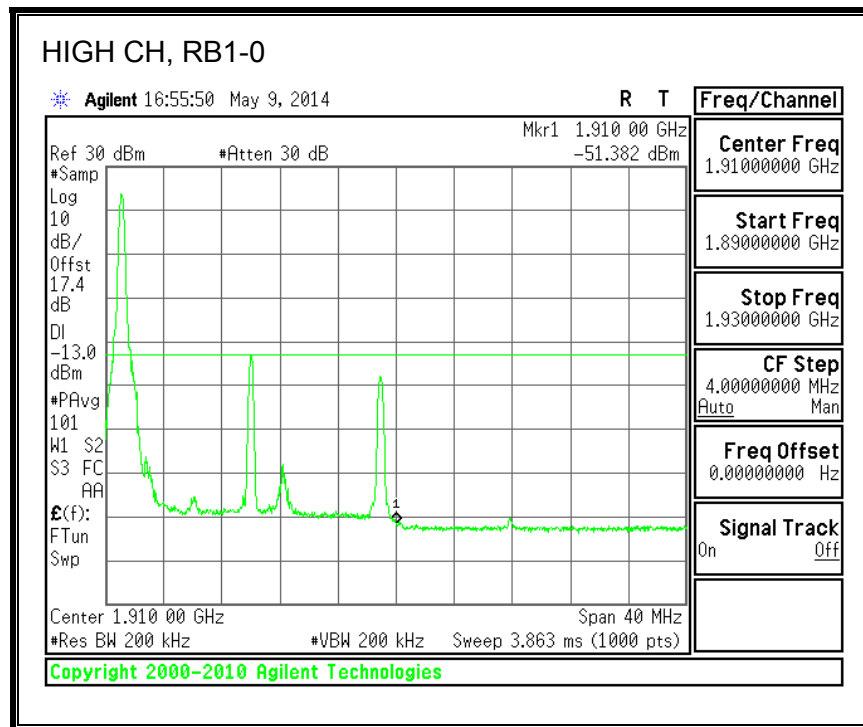
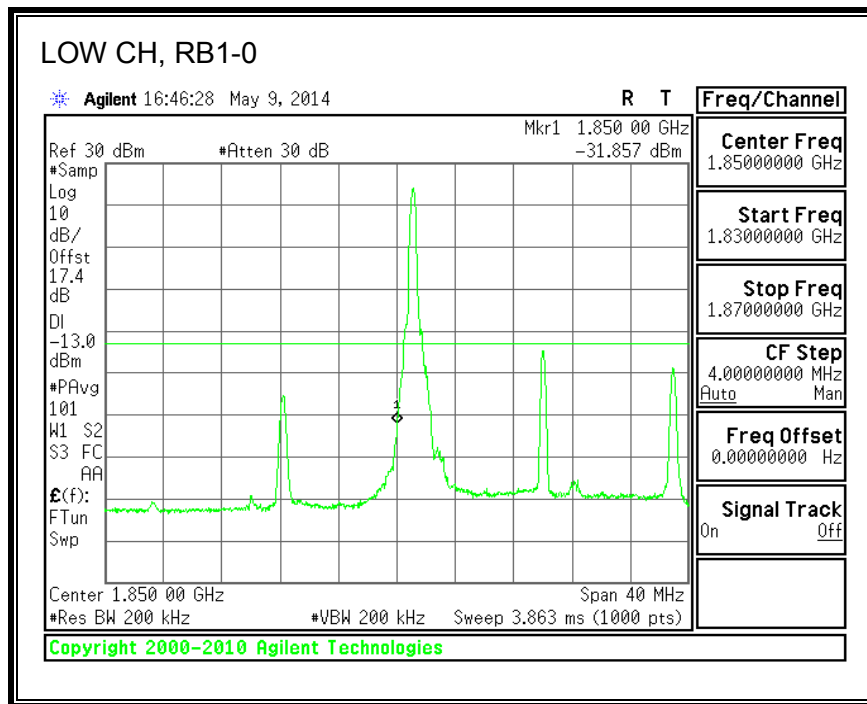


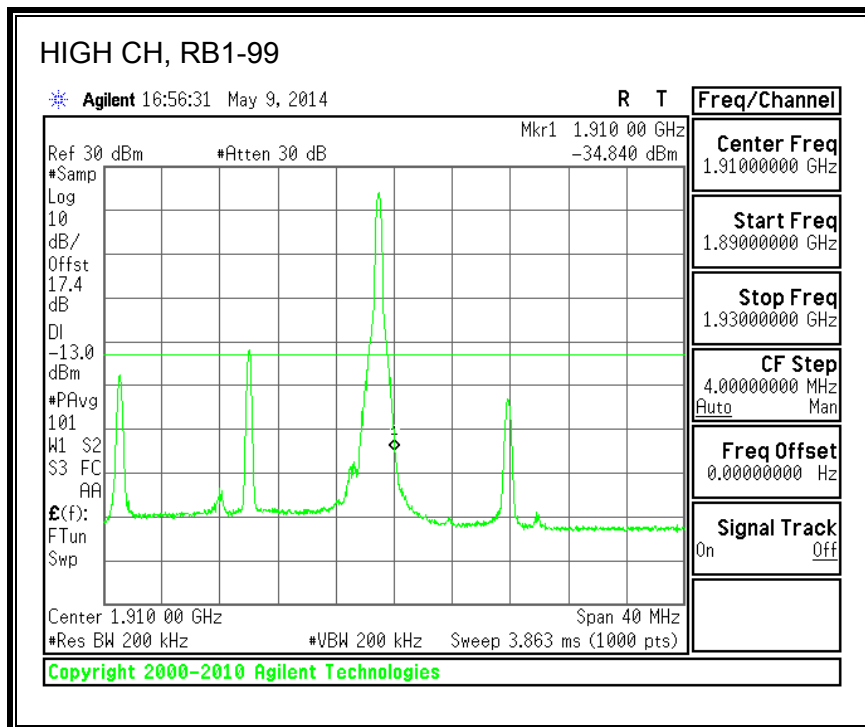
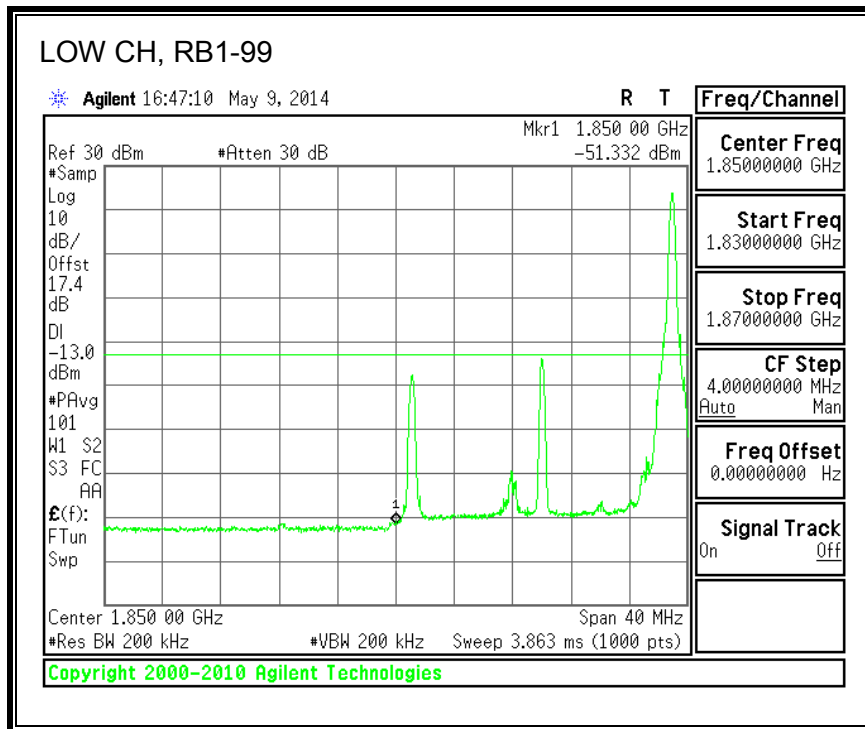


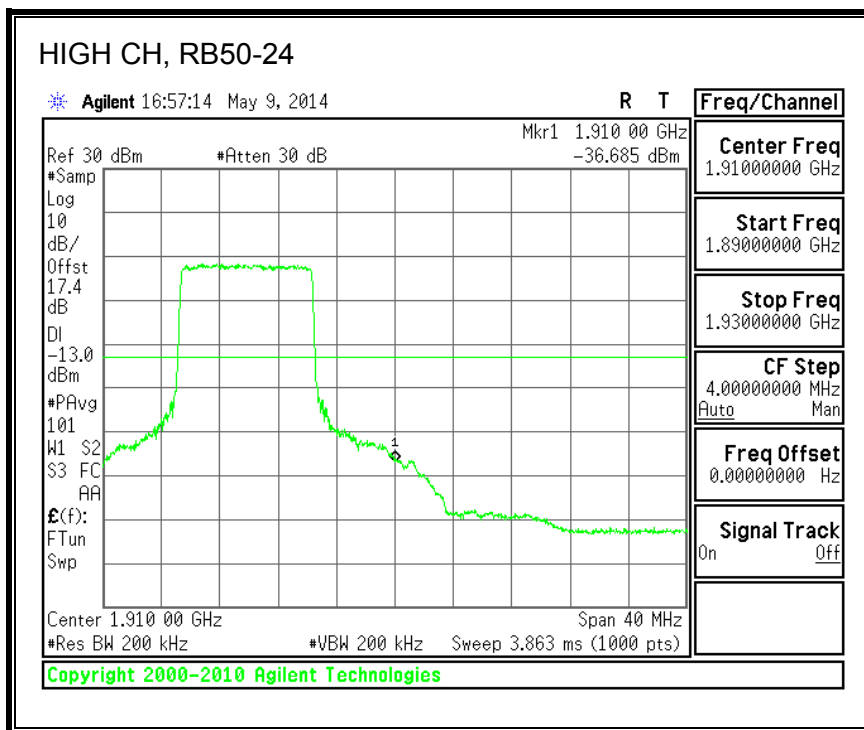
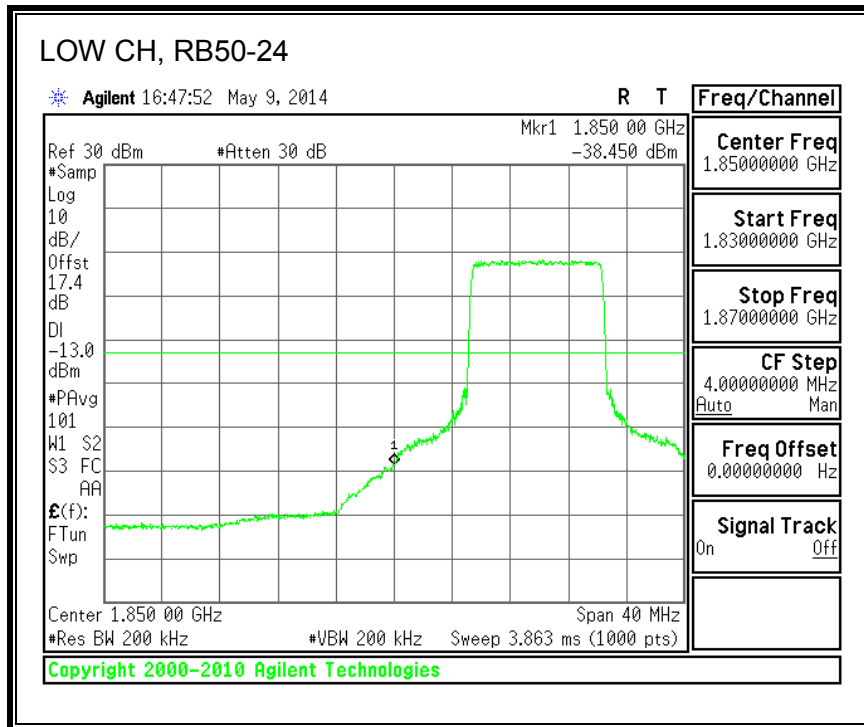


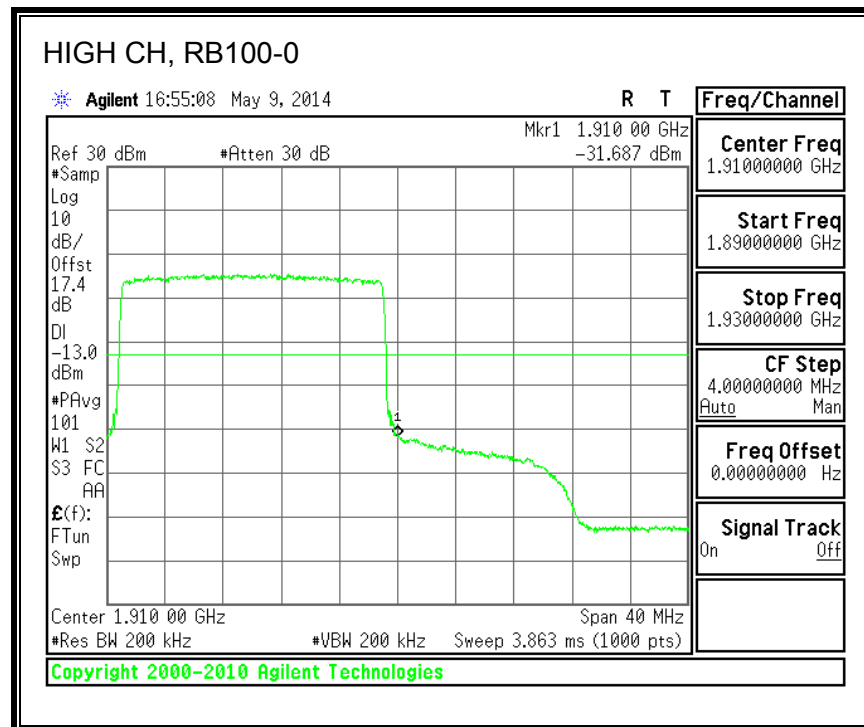
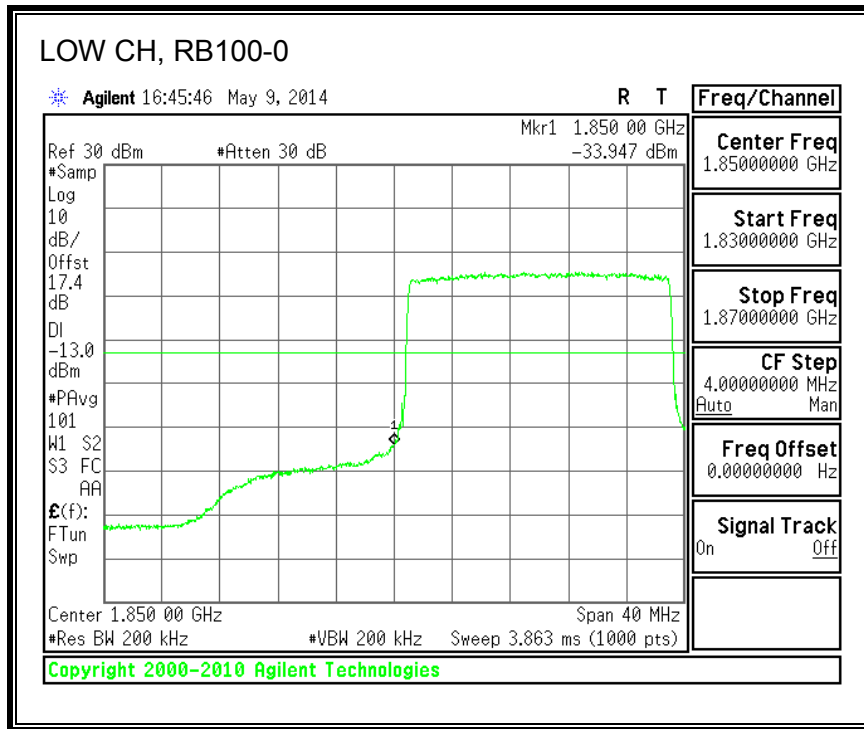


**QPSK, (20.0 MHz BAND WIDTH)**

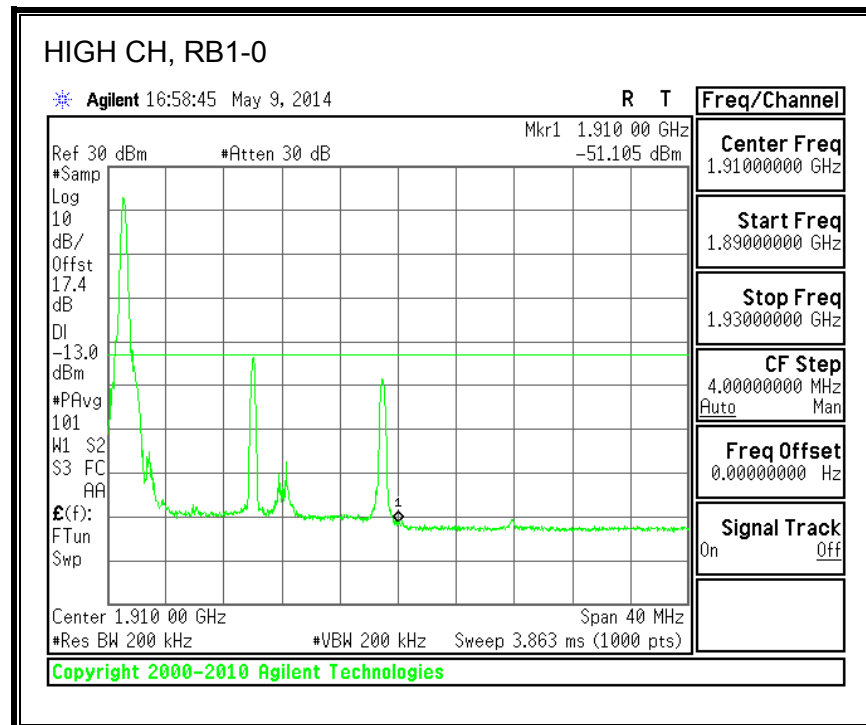
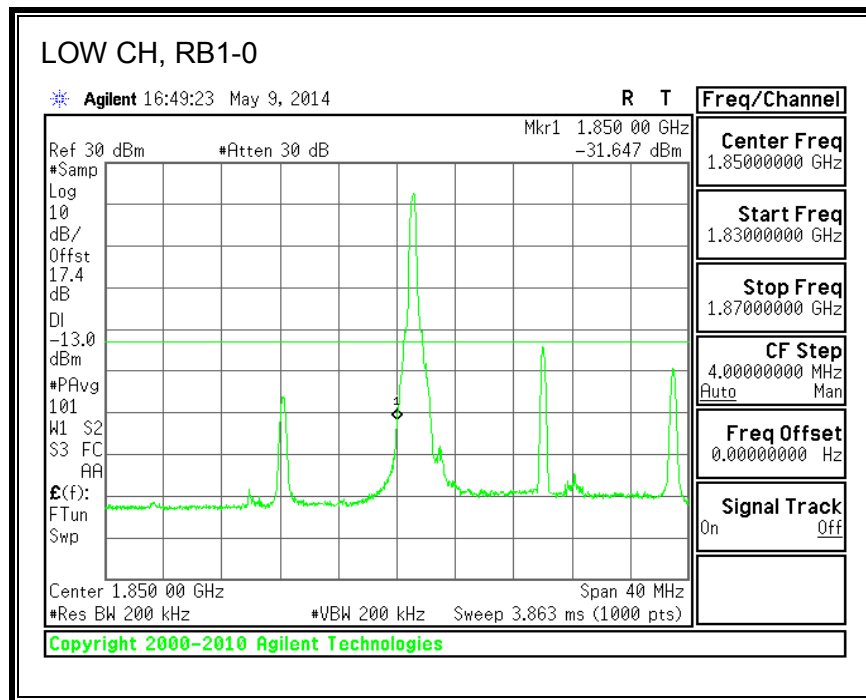


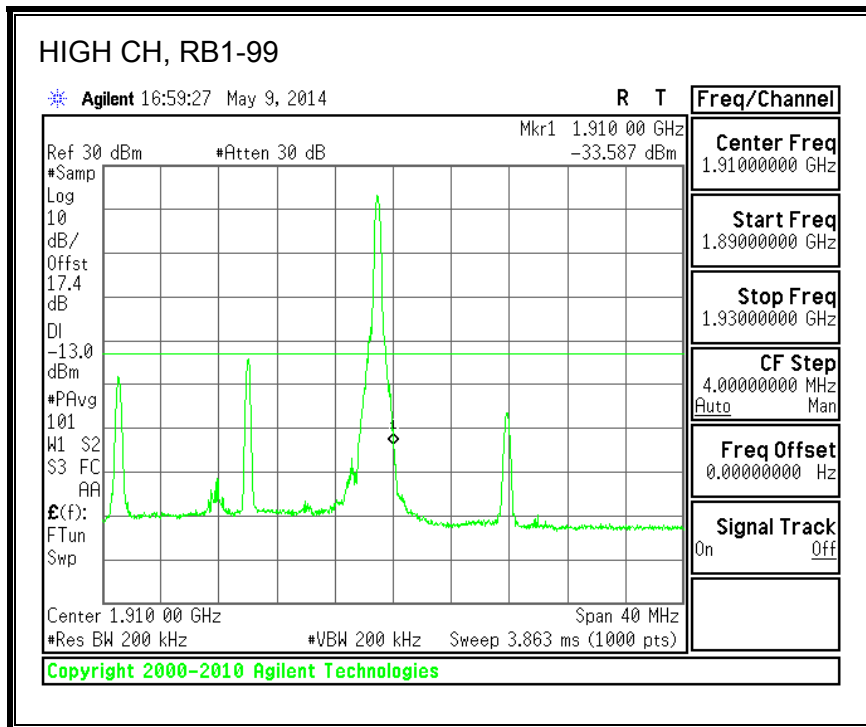
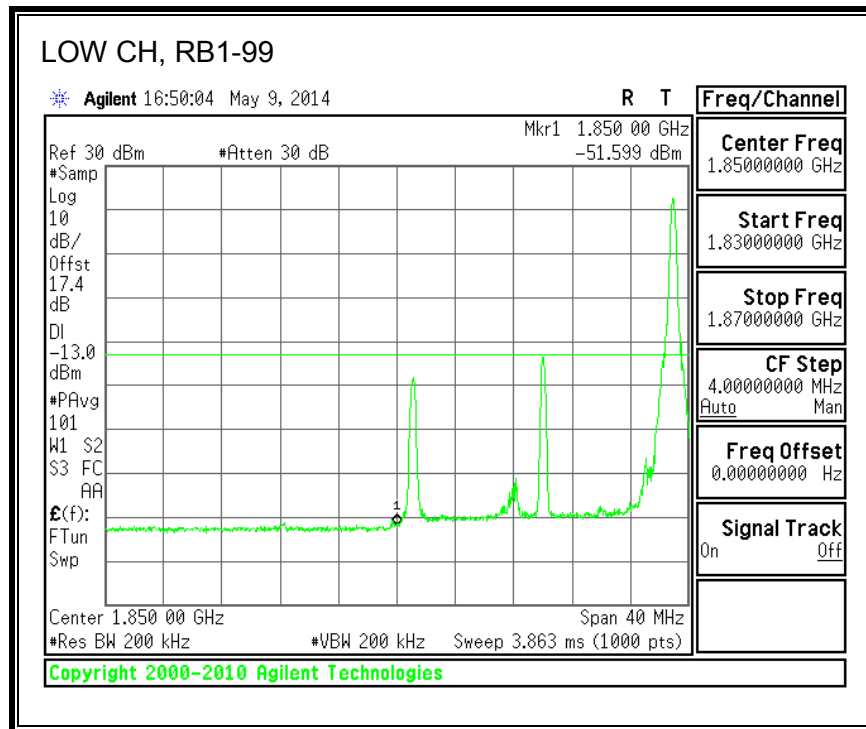


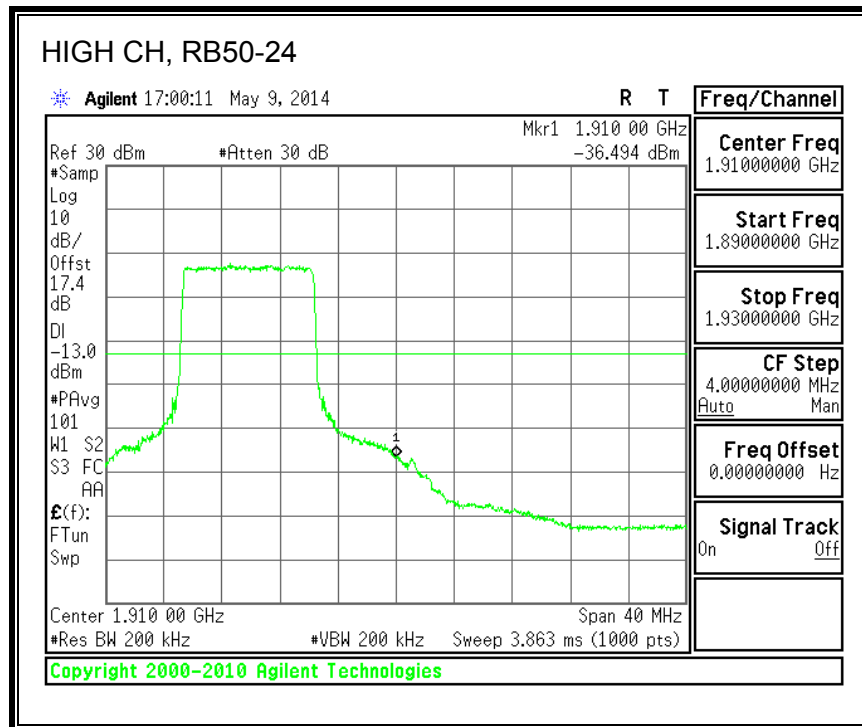
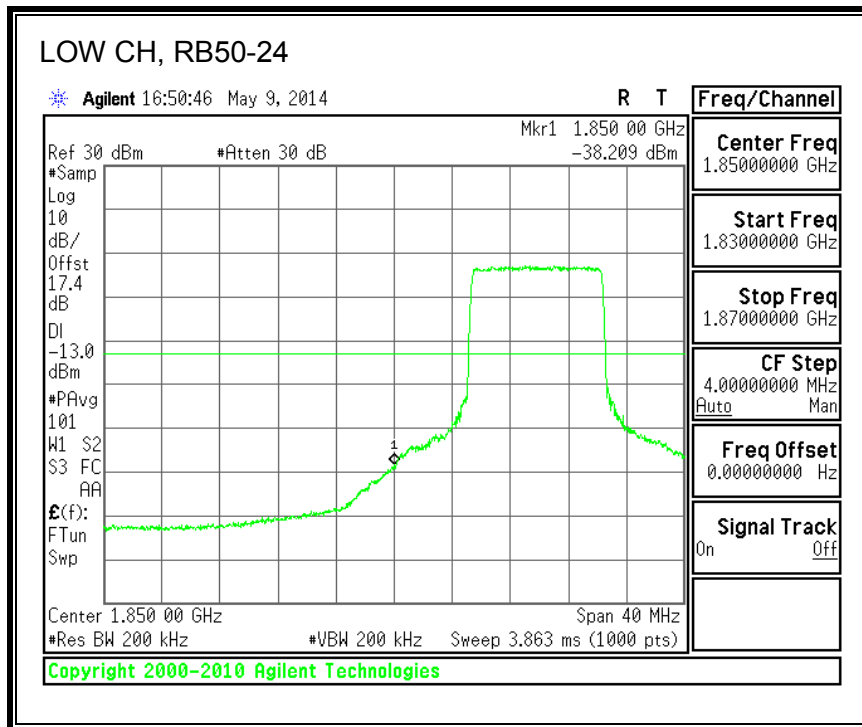


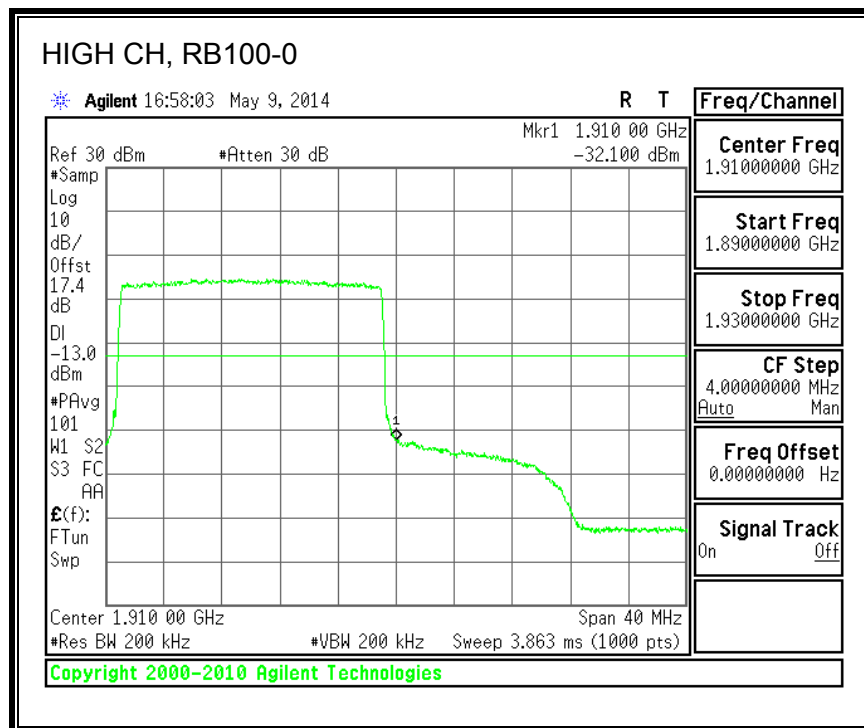
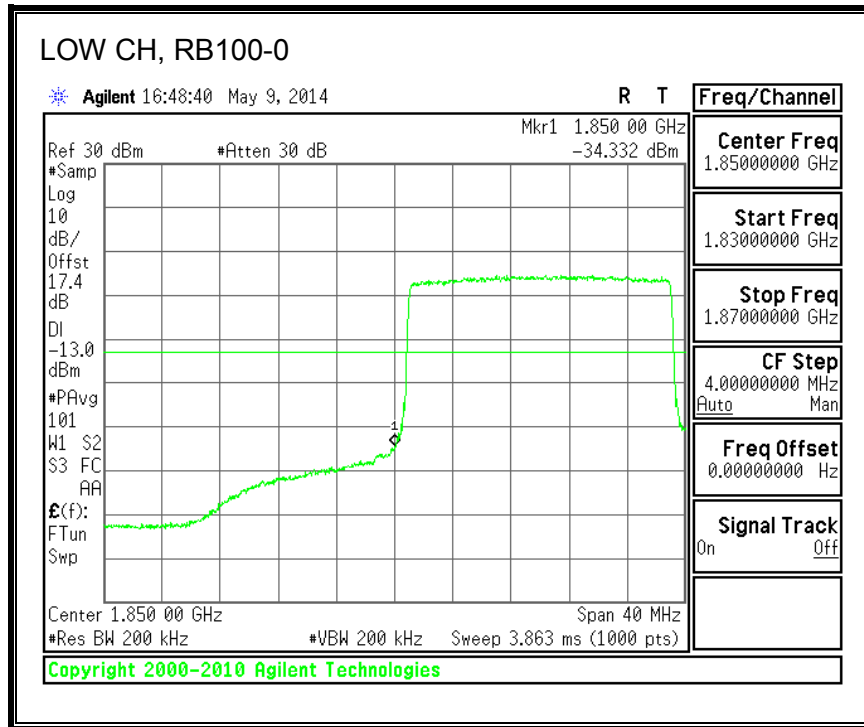


**16QAM, (20.0 MHz BAND WIDTH)**



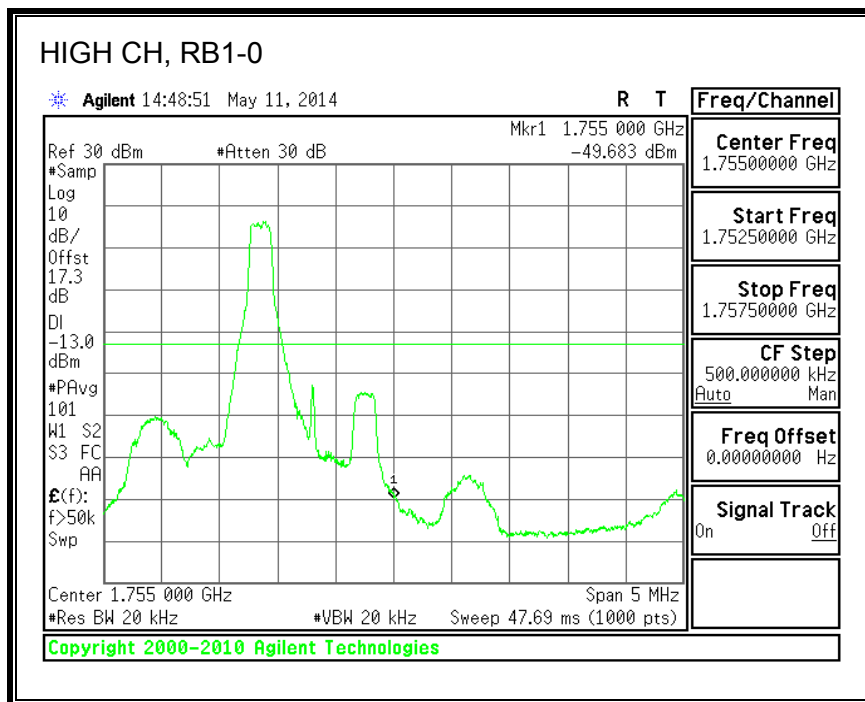
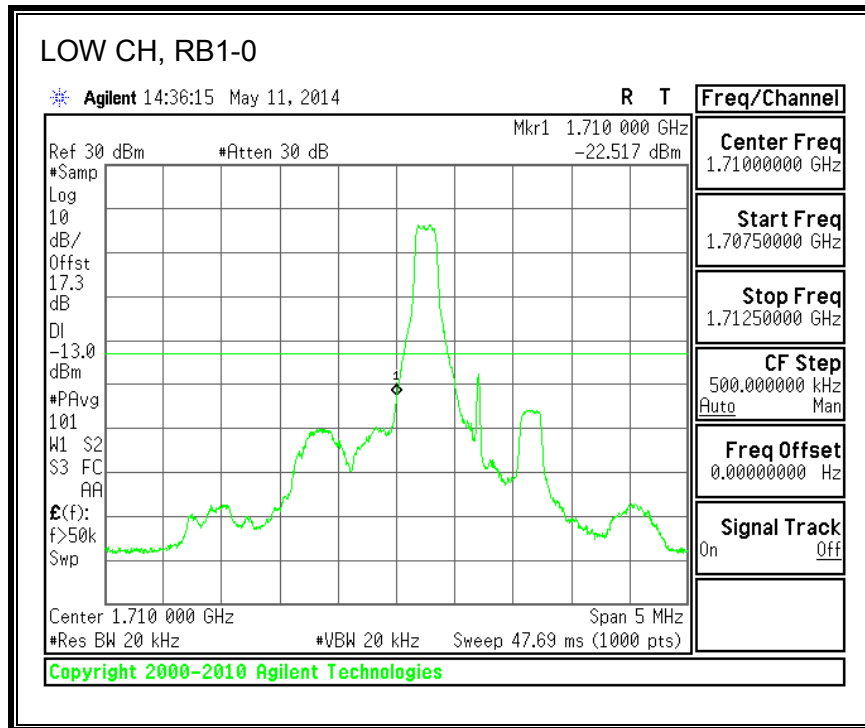


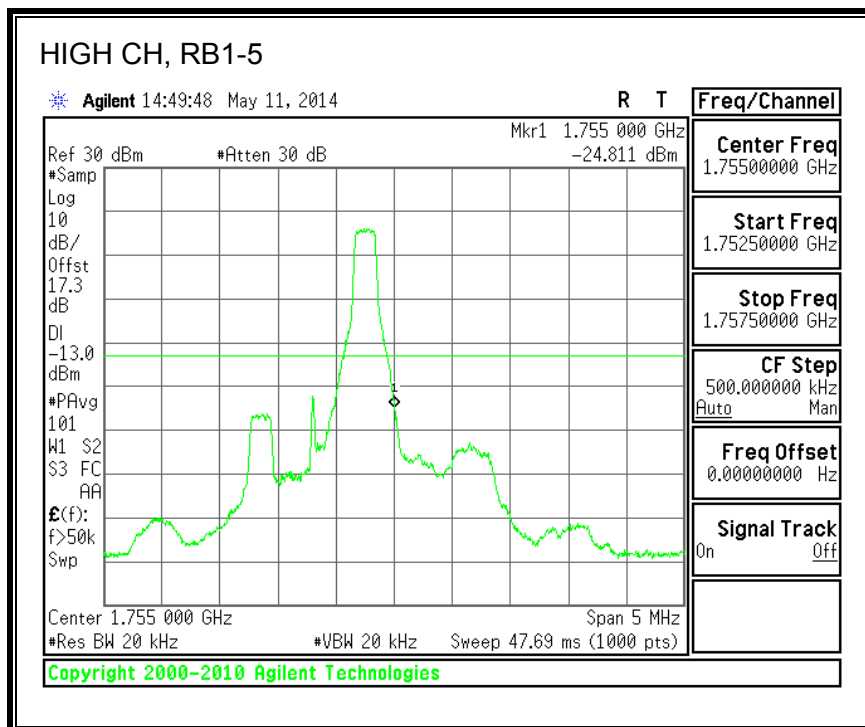
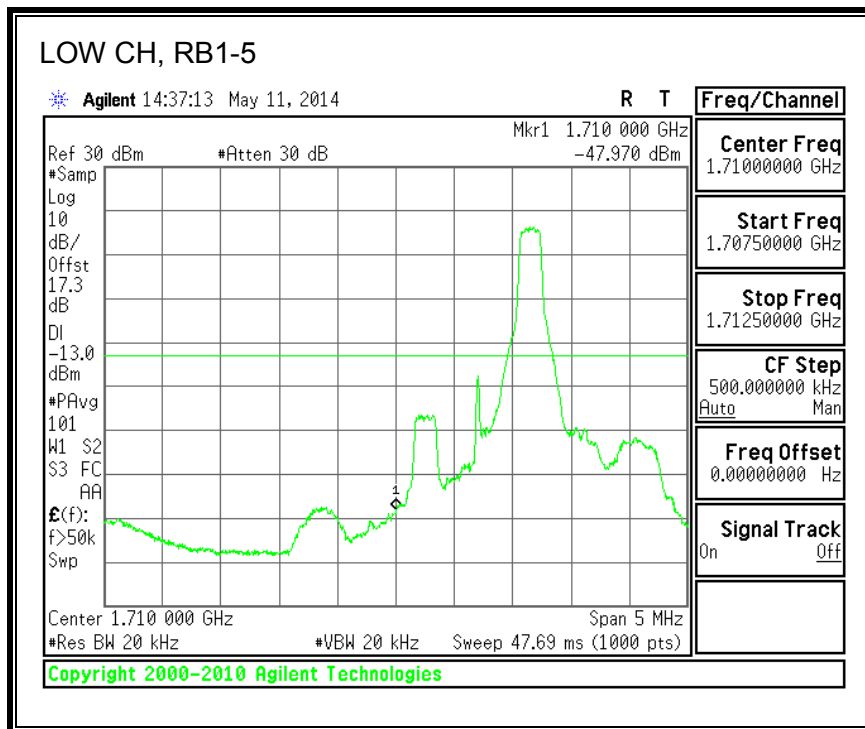


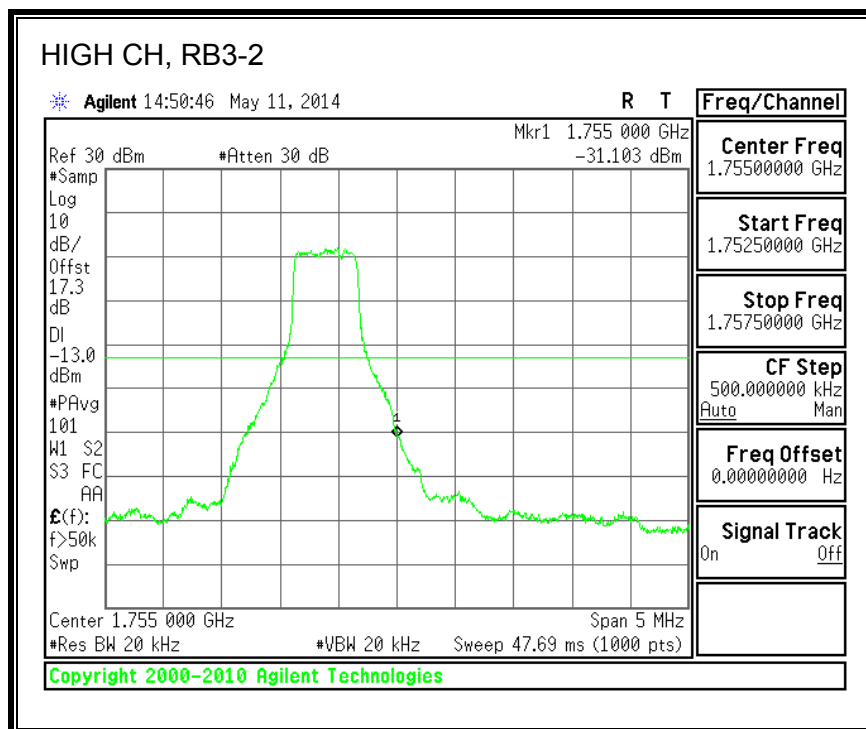
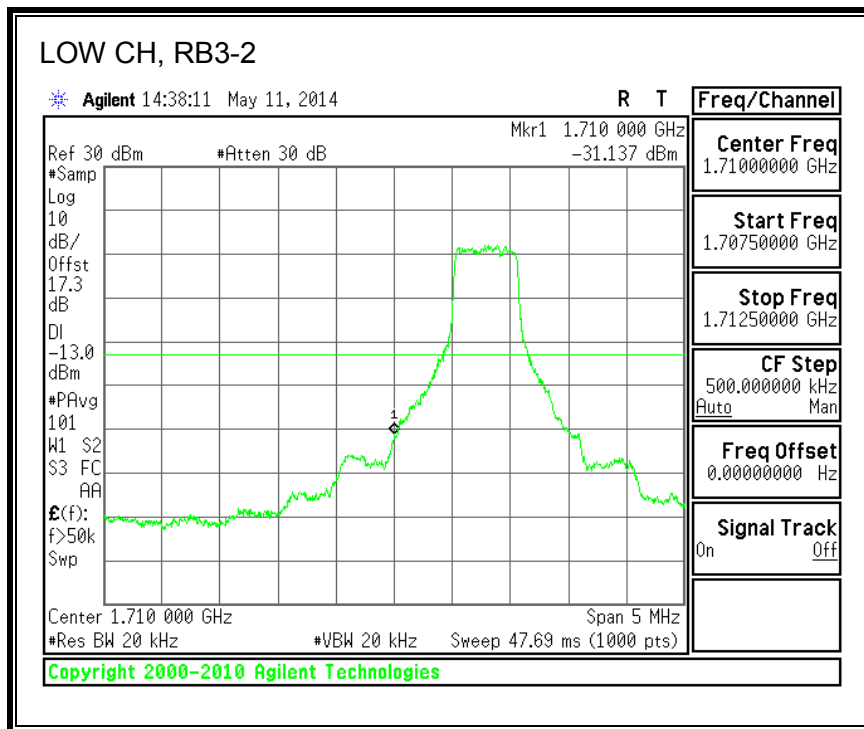


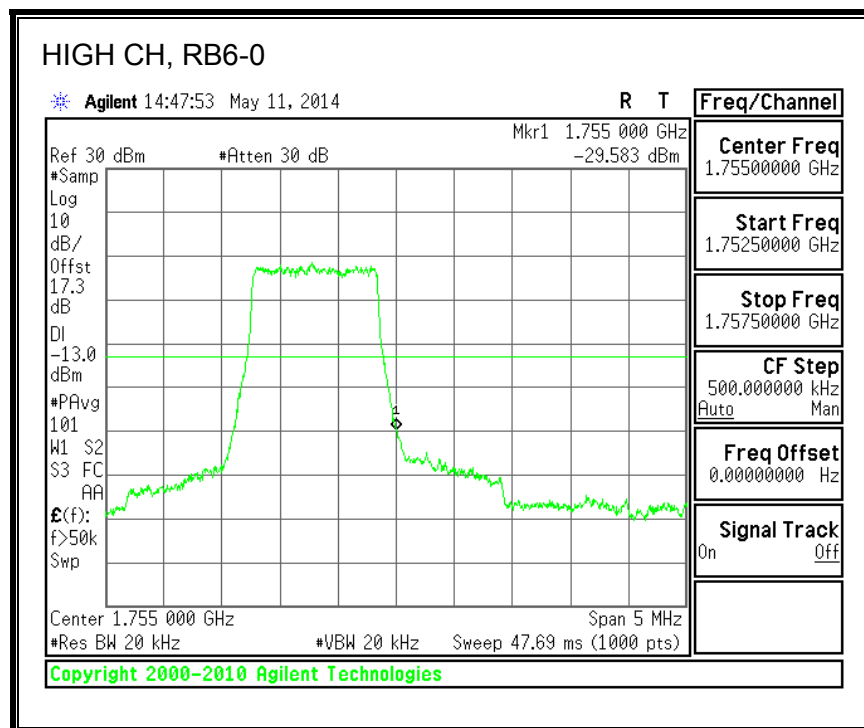
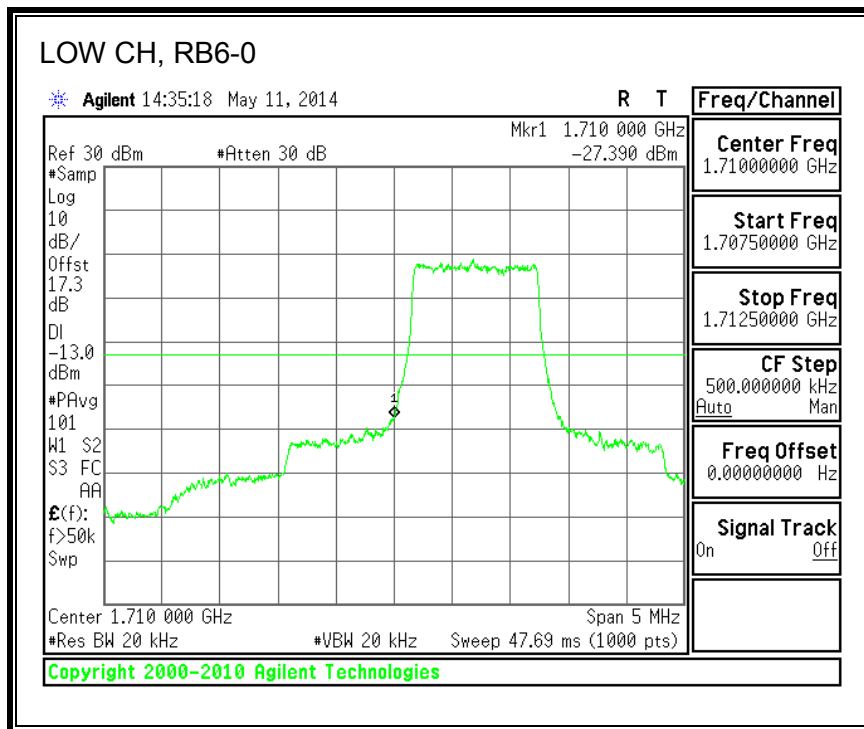
## 8.2.2. LTE BAND 4 BANDEDGE

### QPSK, (1.4 MHz BAND WIDTH)

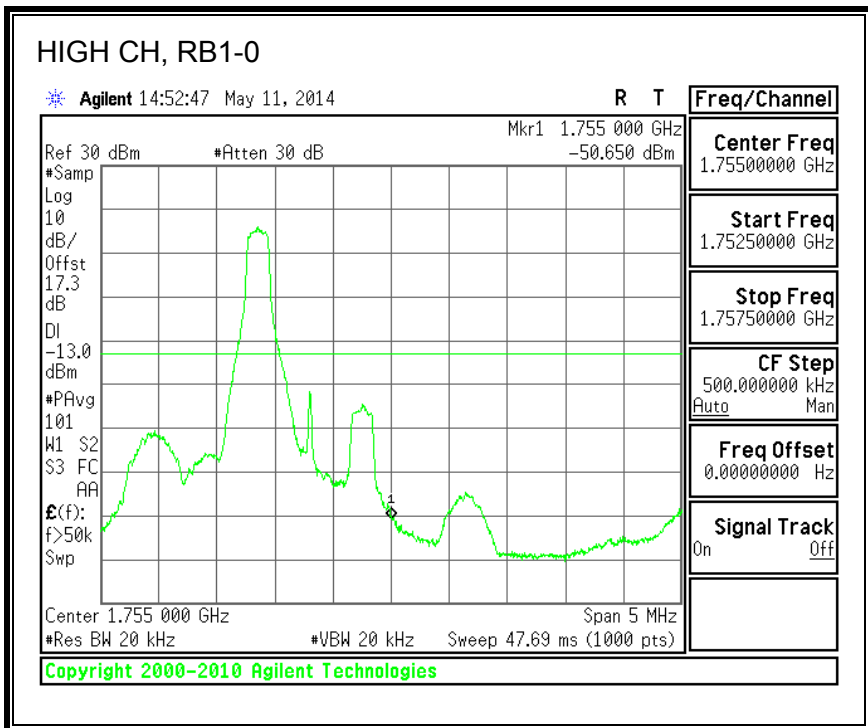
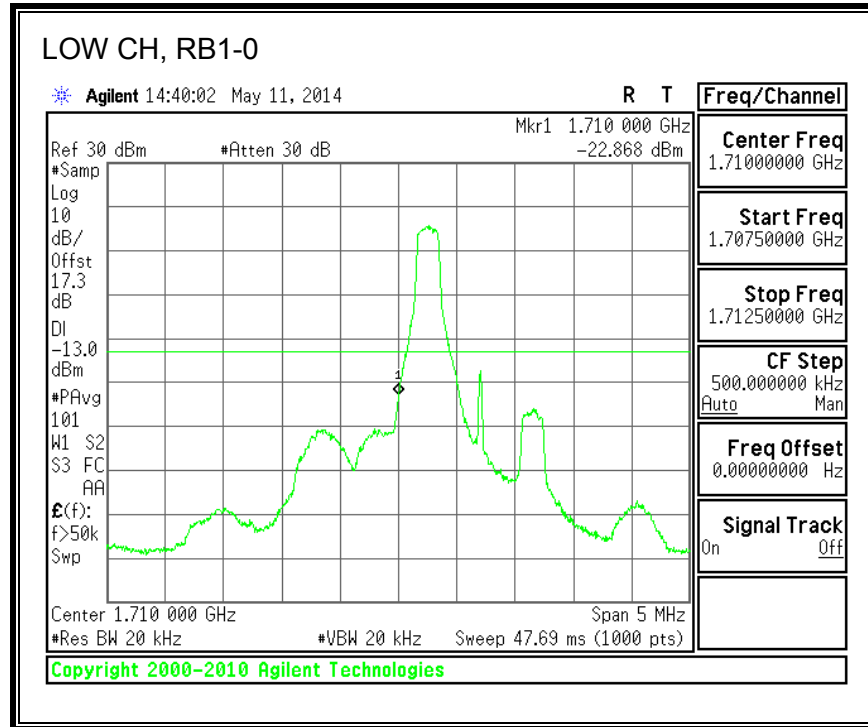


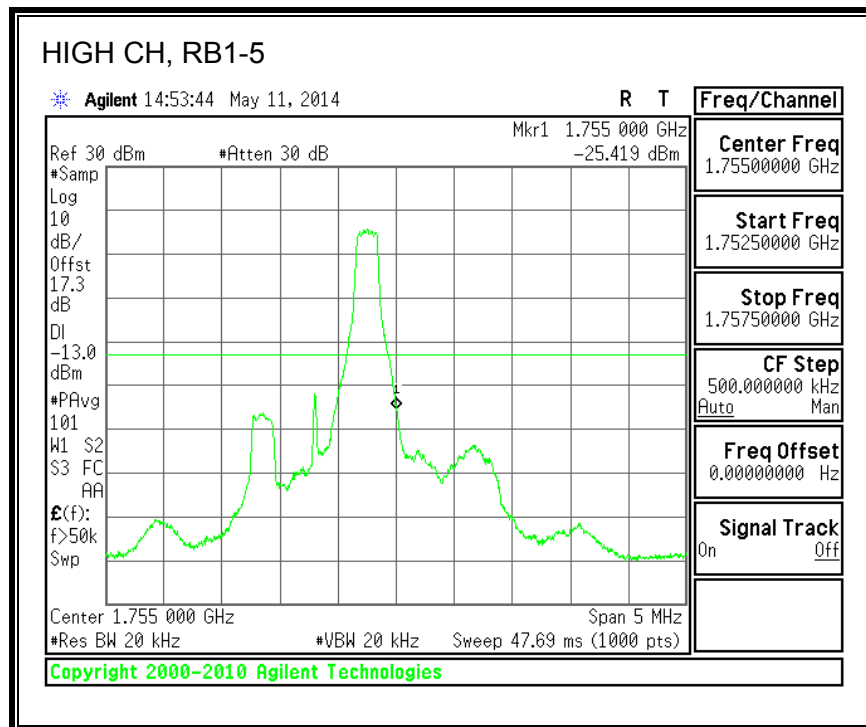
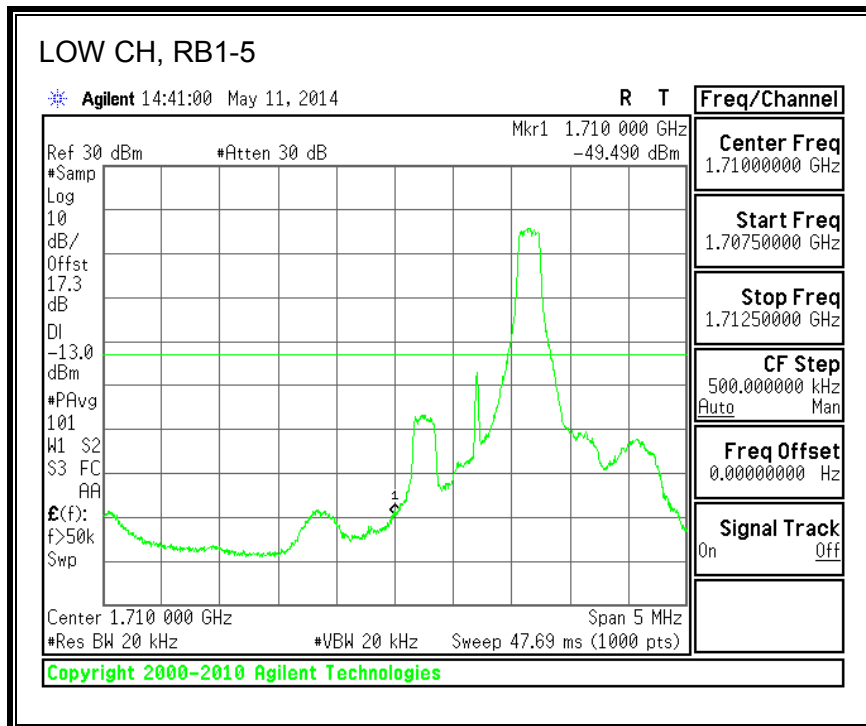


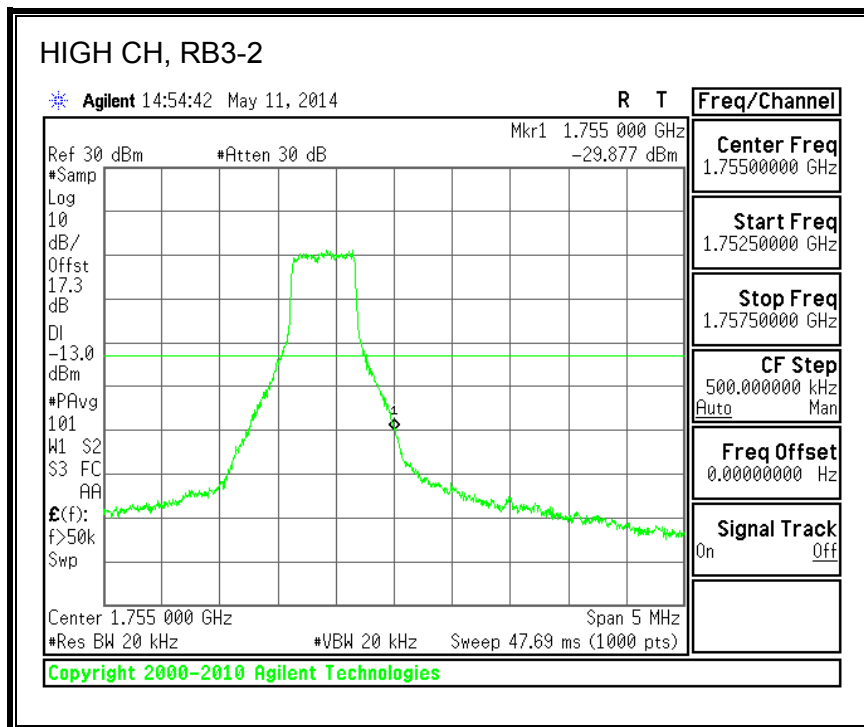
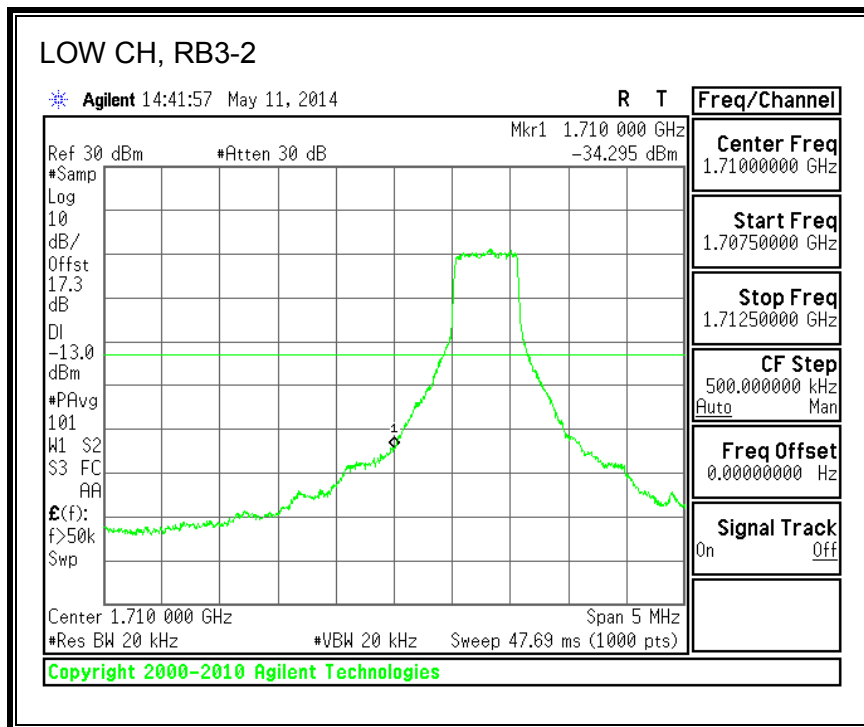


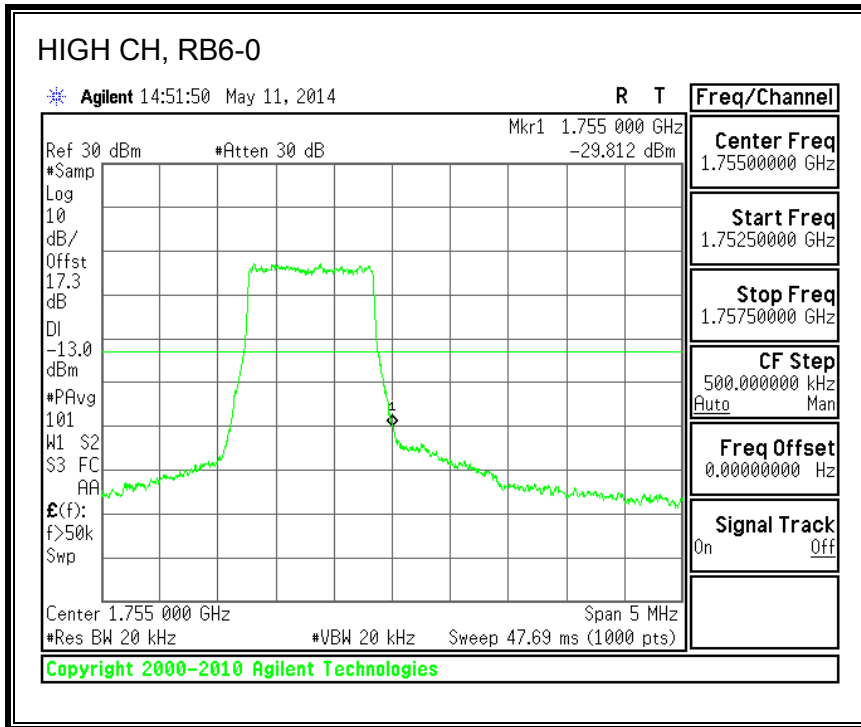
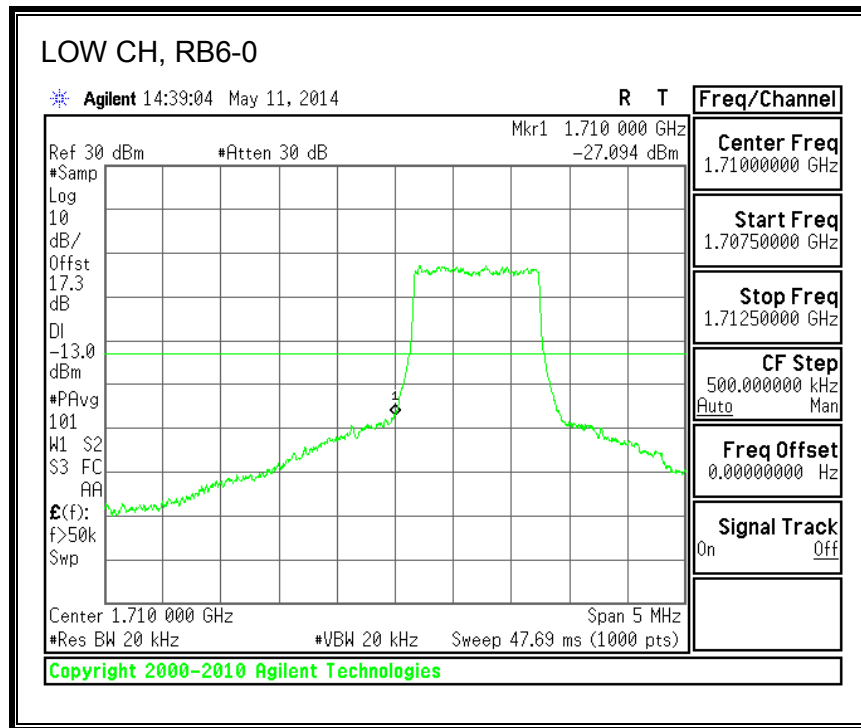


**16QAM, (1.4 MHz BAND WIDTH)**

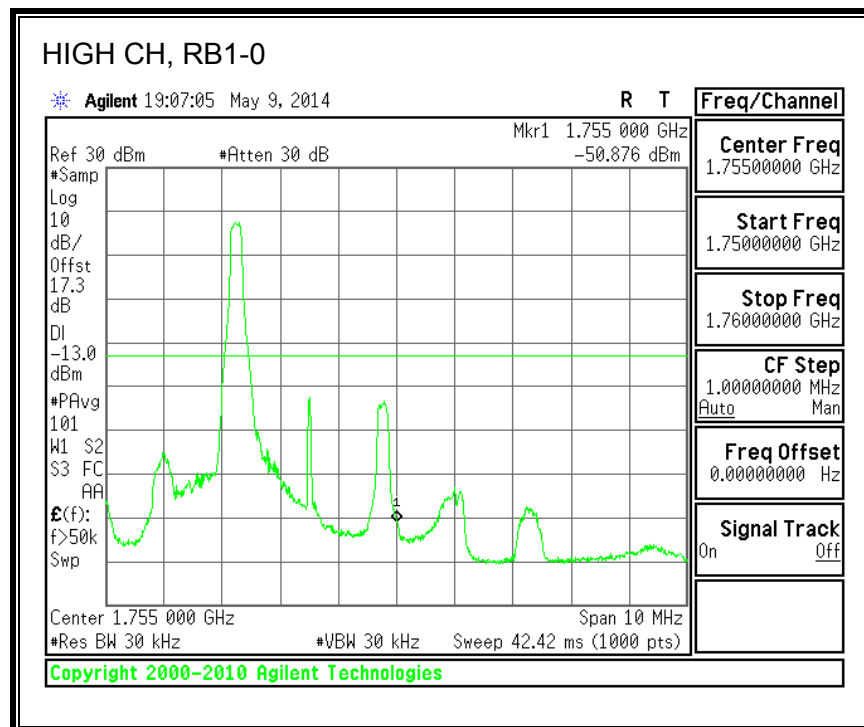
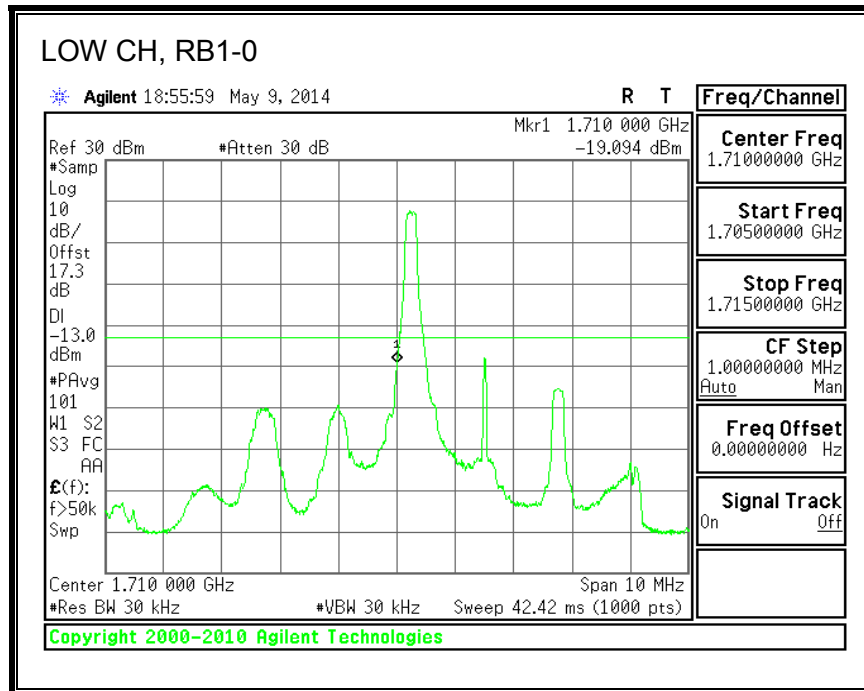


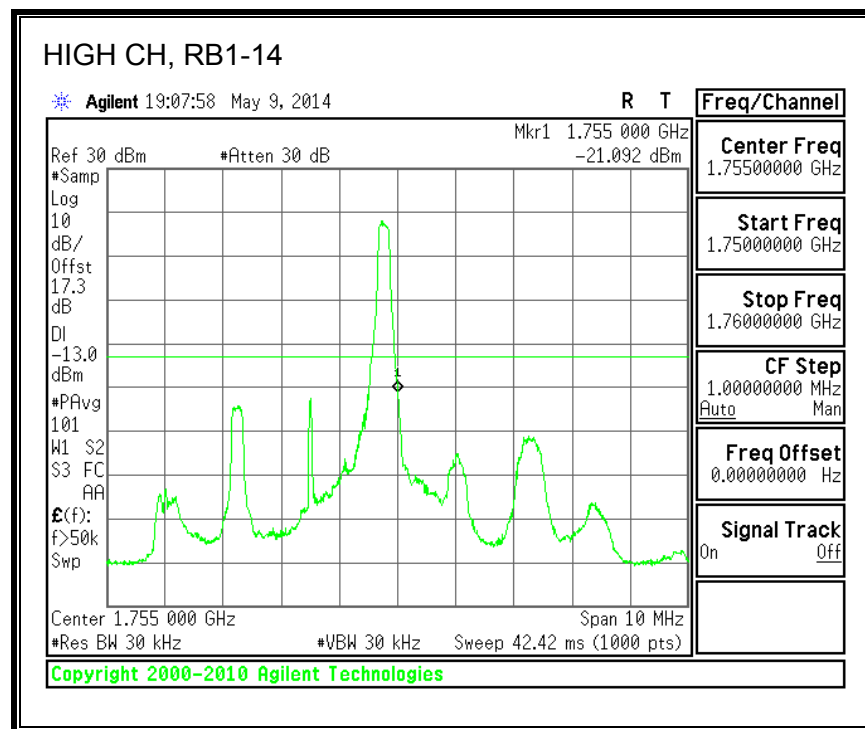
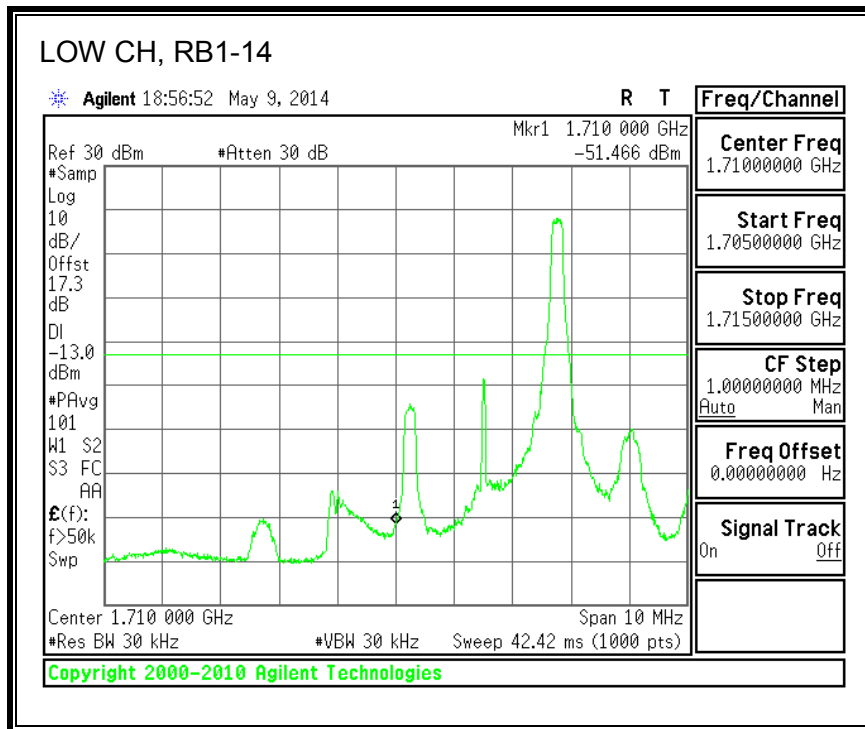


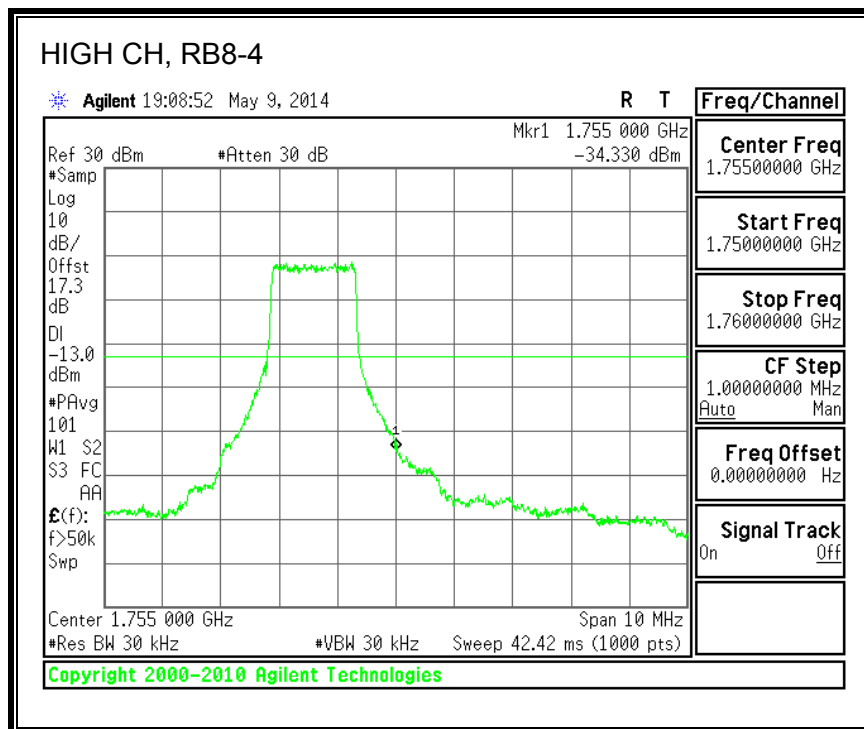
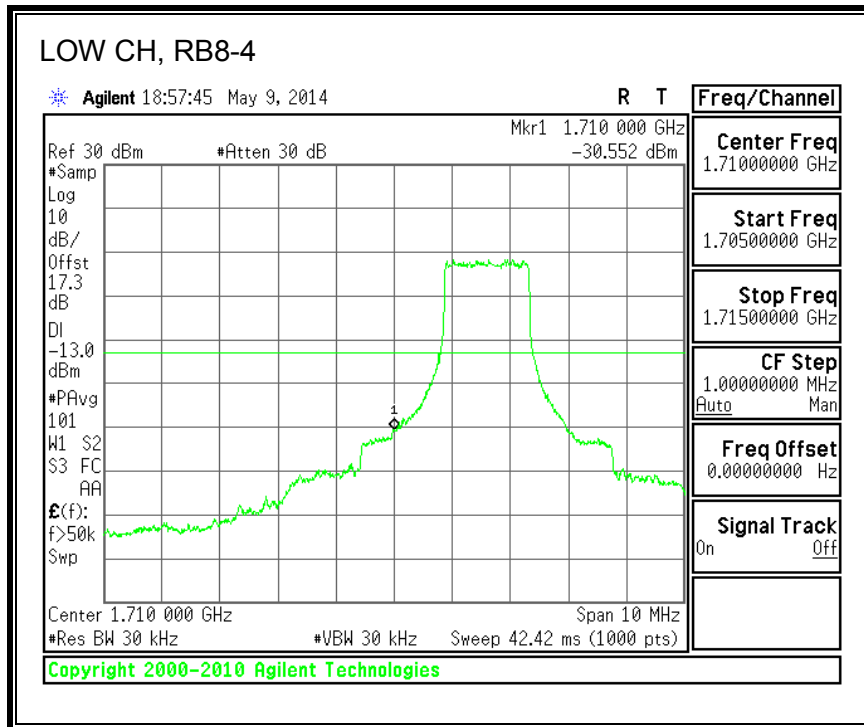


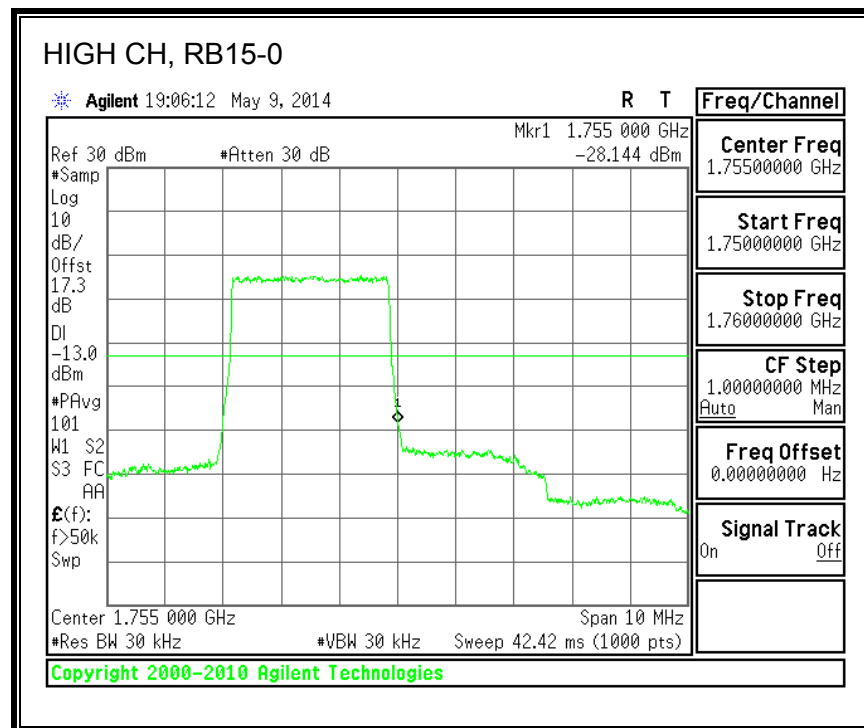
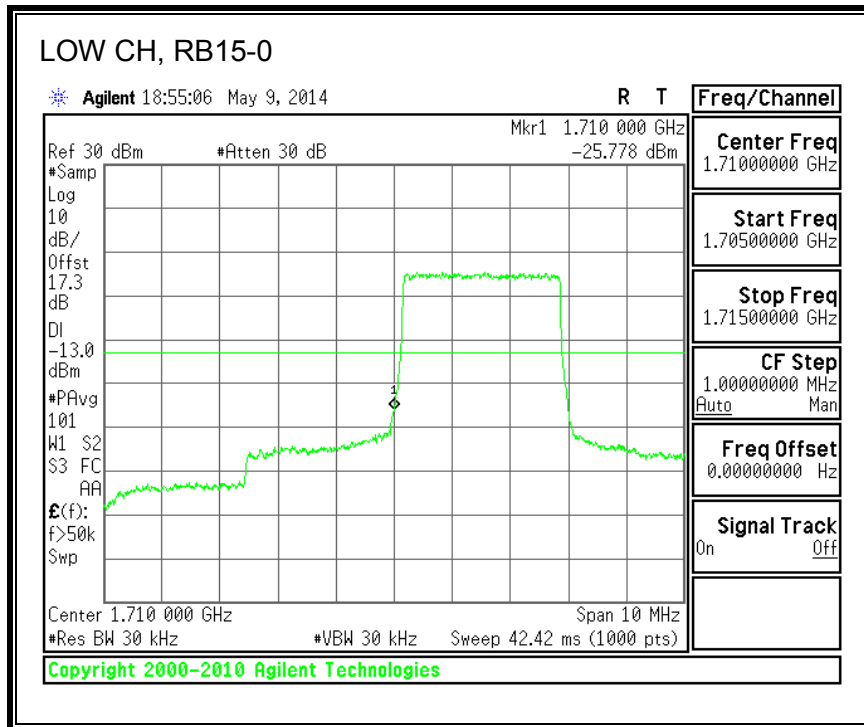


**QPSK, (3.0 MHz BAND WIDTH)**

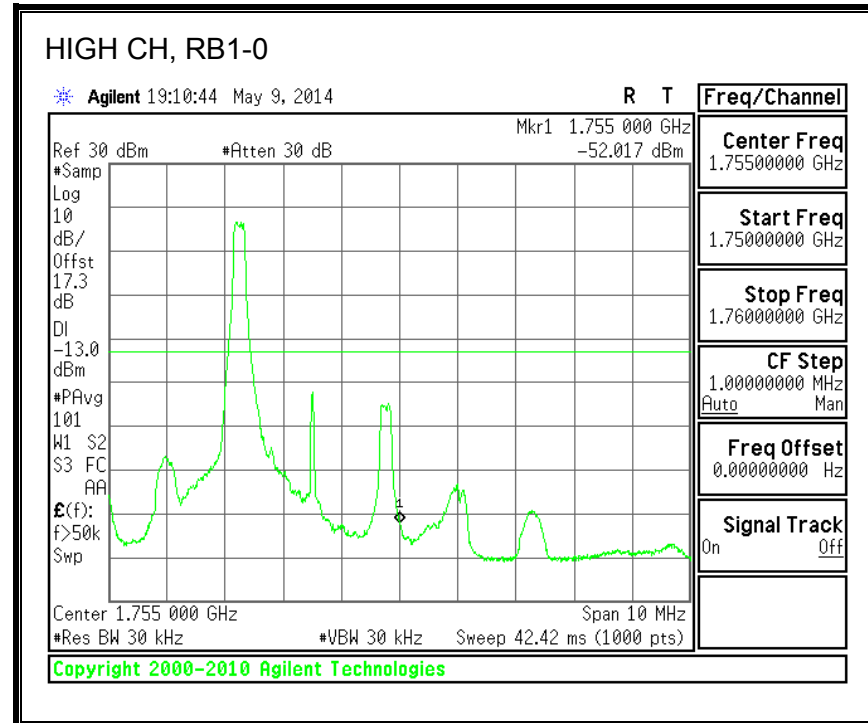
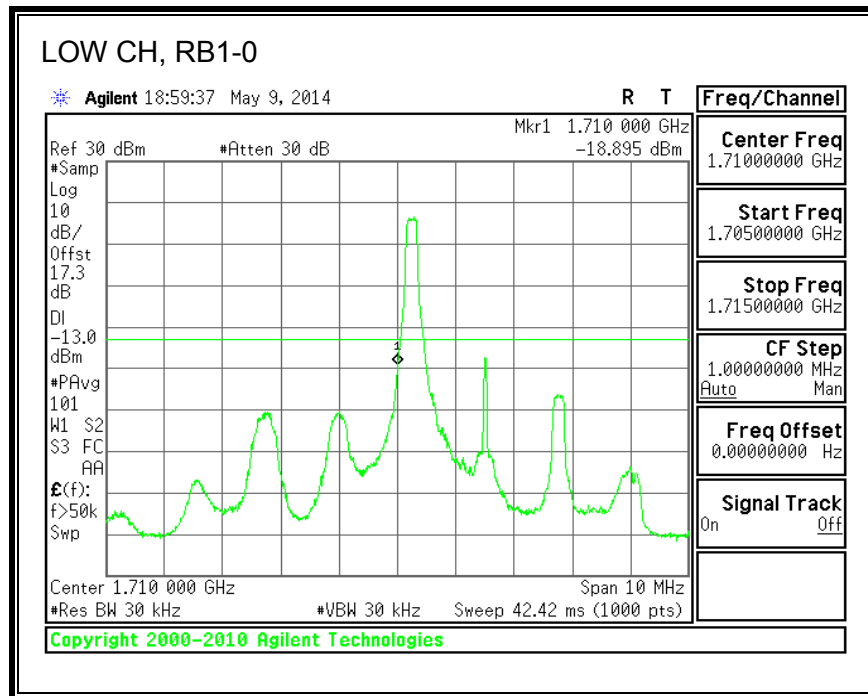


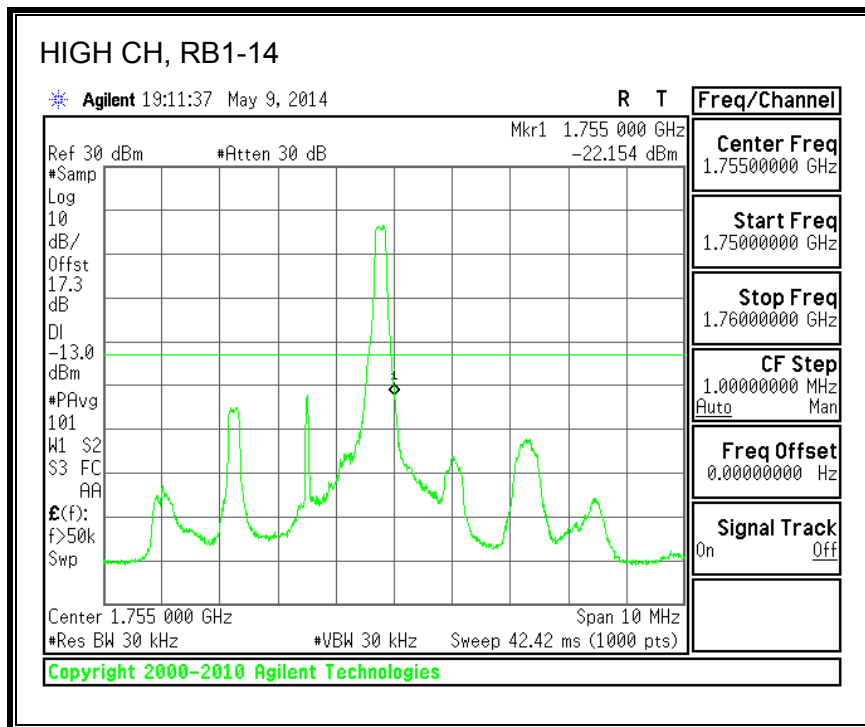
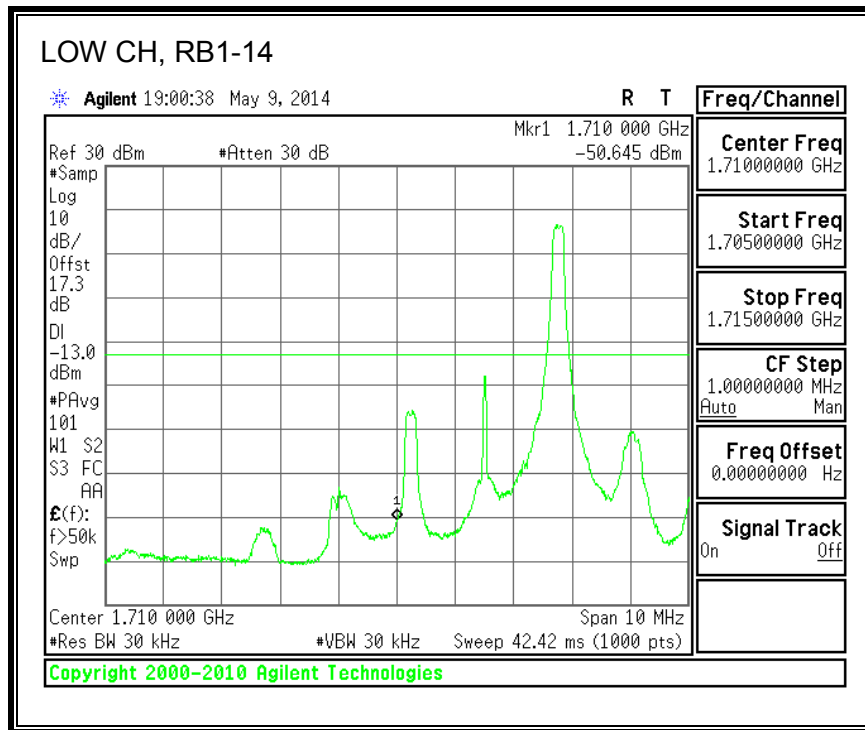


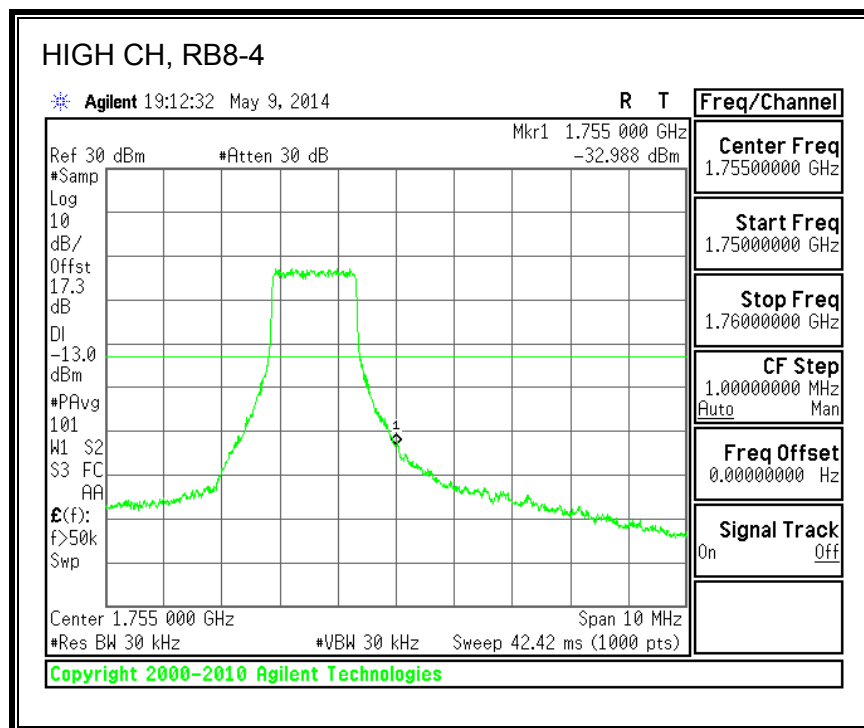
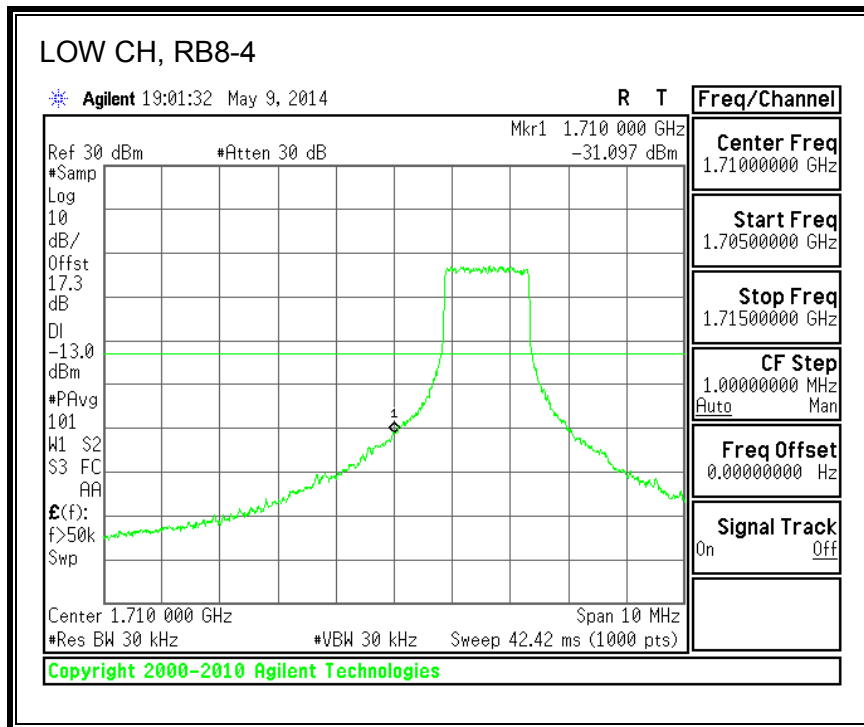


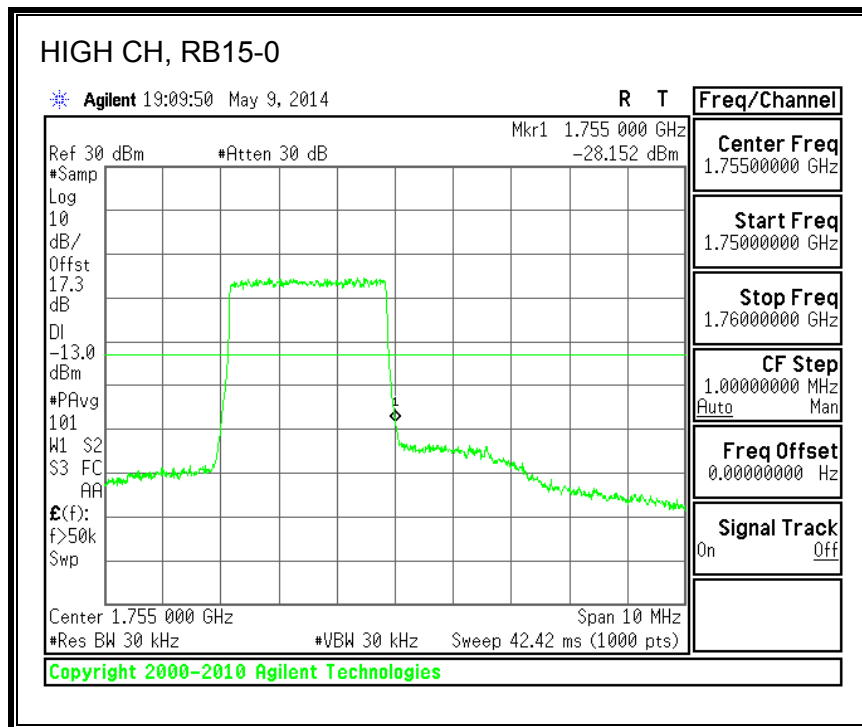
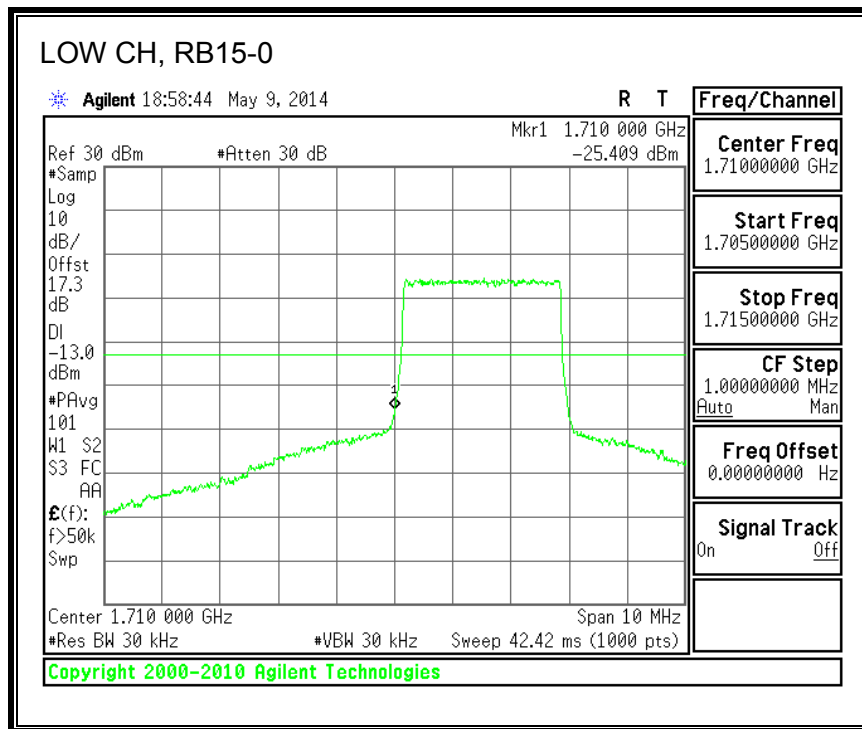


**16QAM, (3.0 MHz BAND WIDTH)**

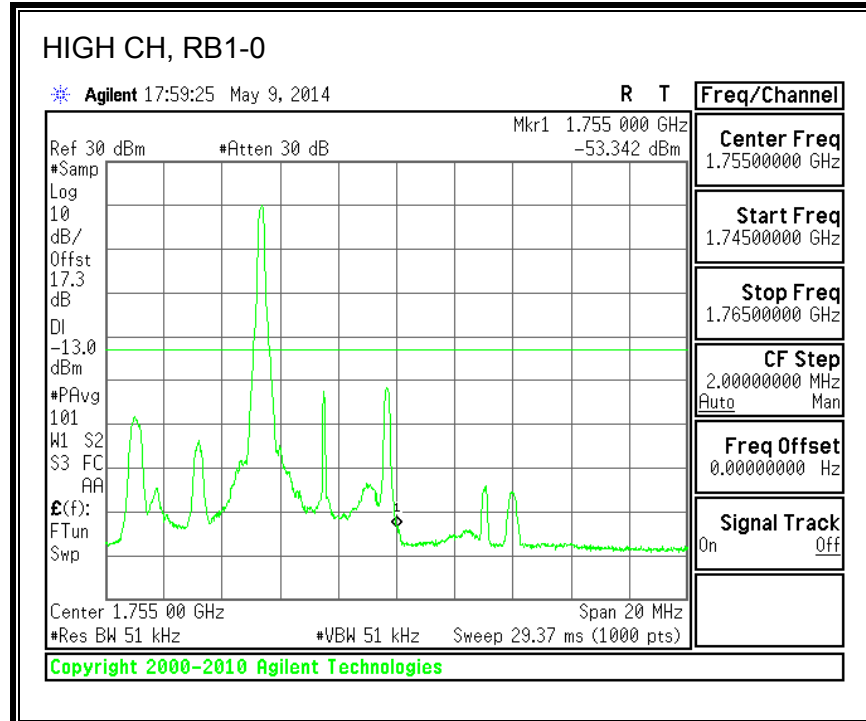
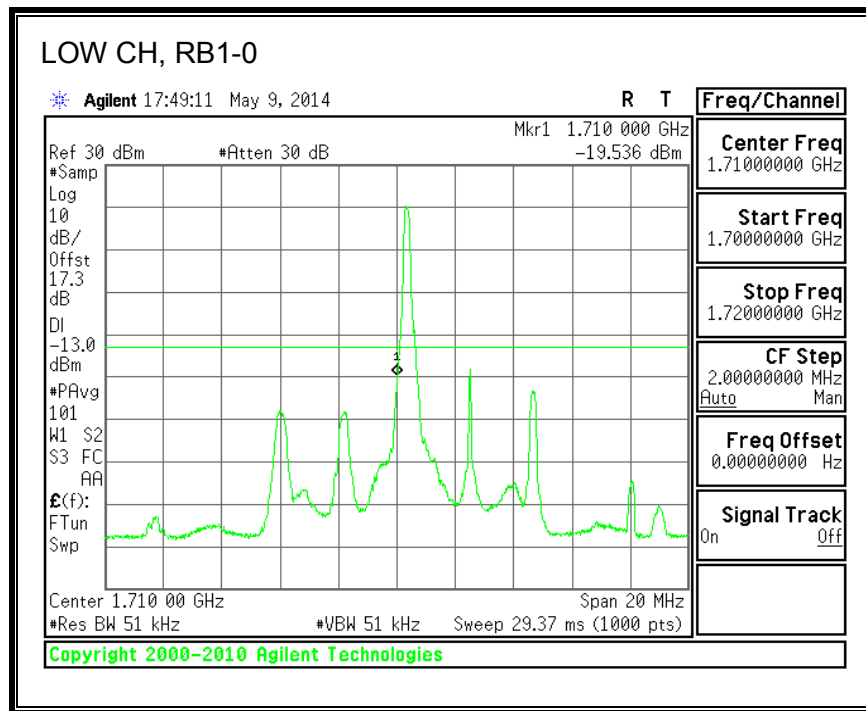


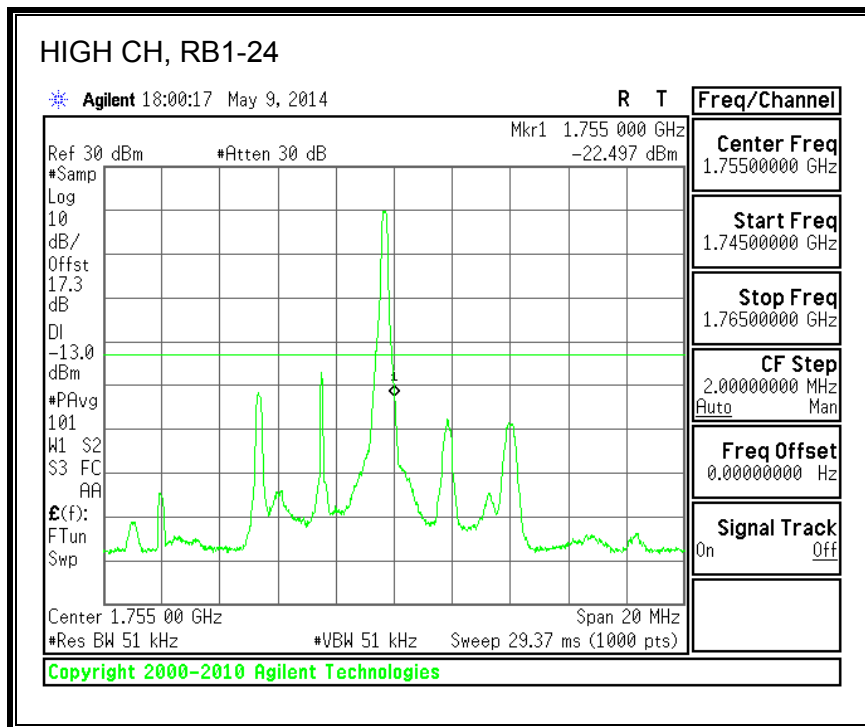
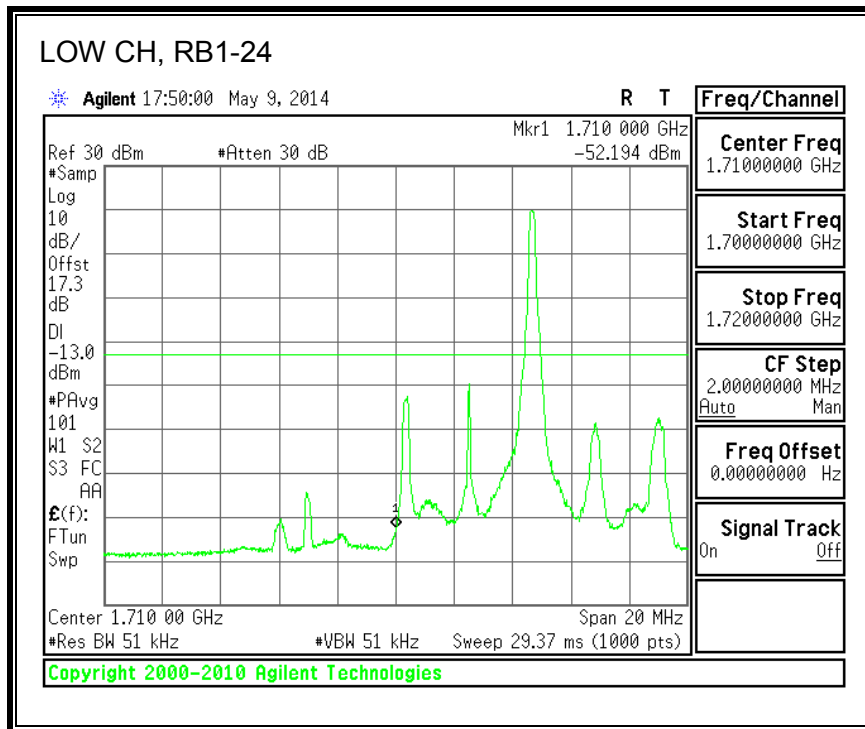


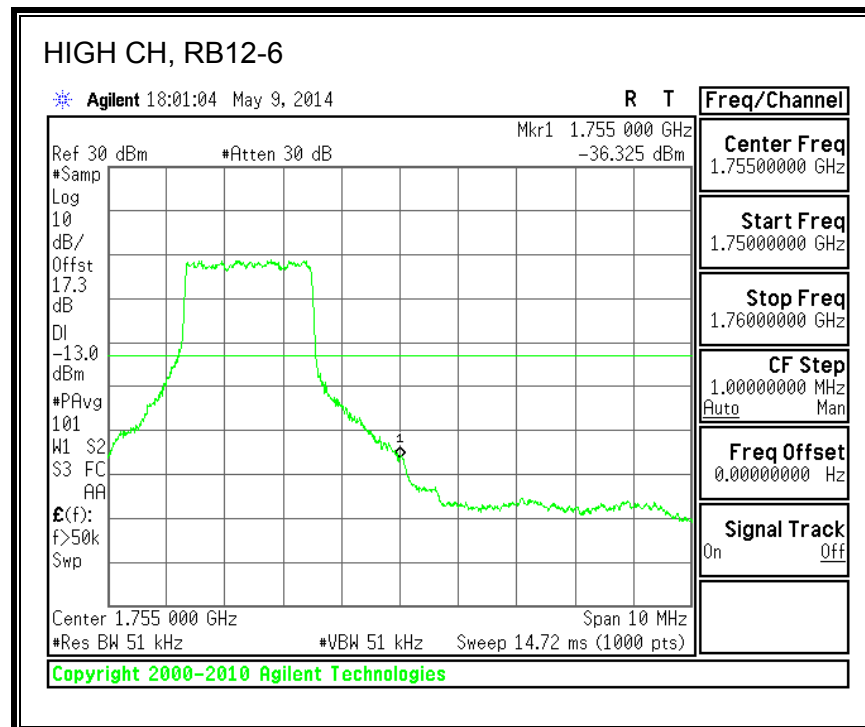
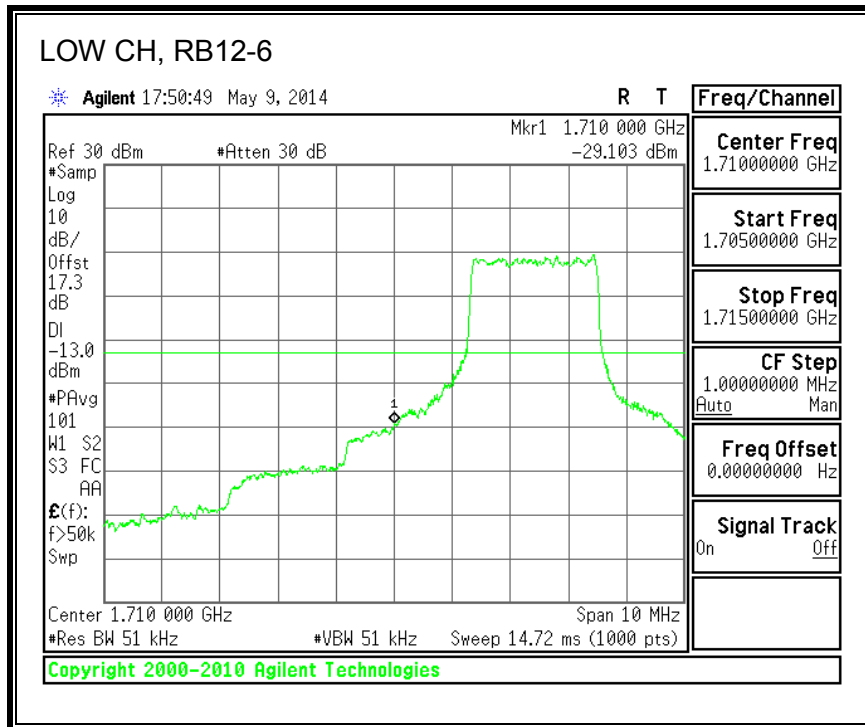


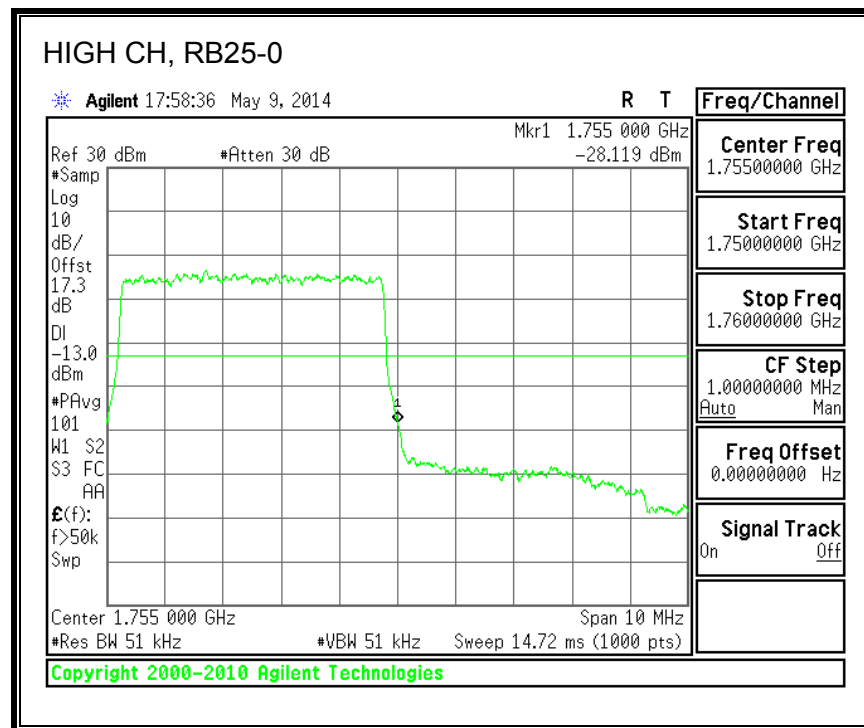
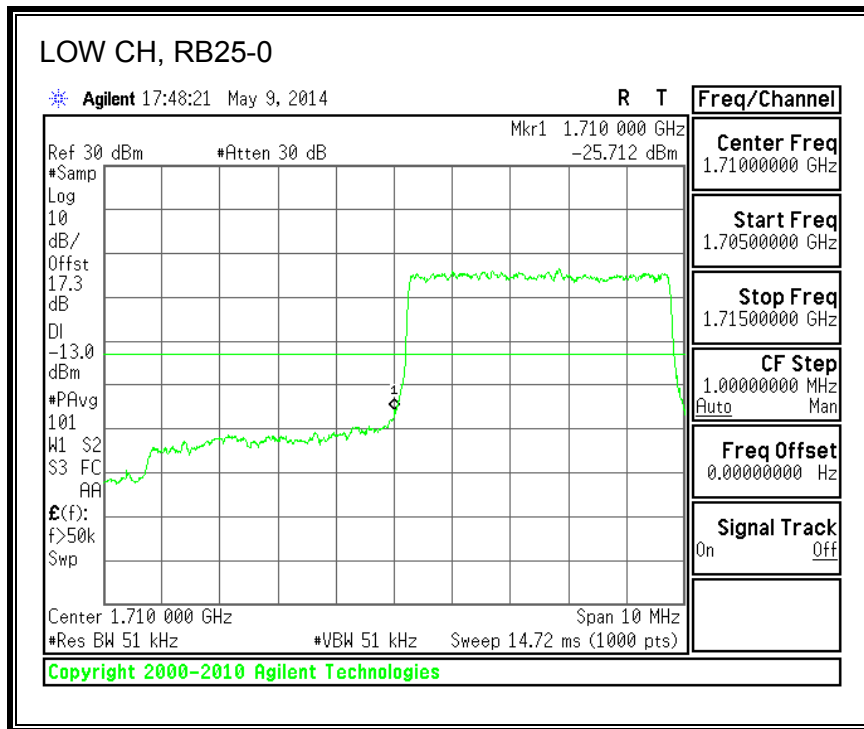


**QPSK, (5.0 MHz BAND WIDTH)**

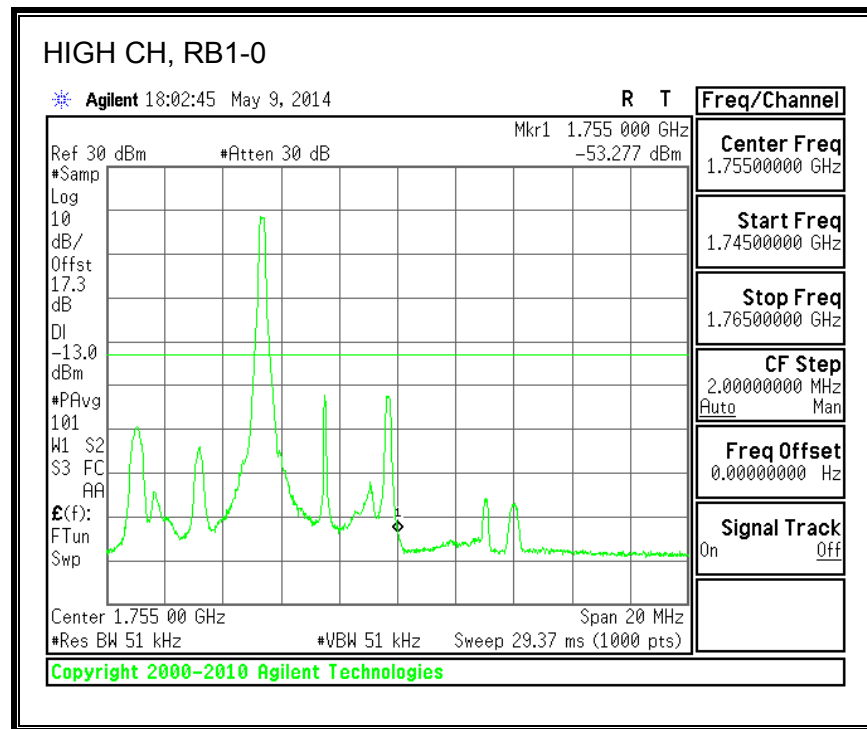
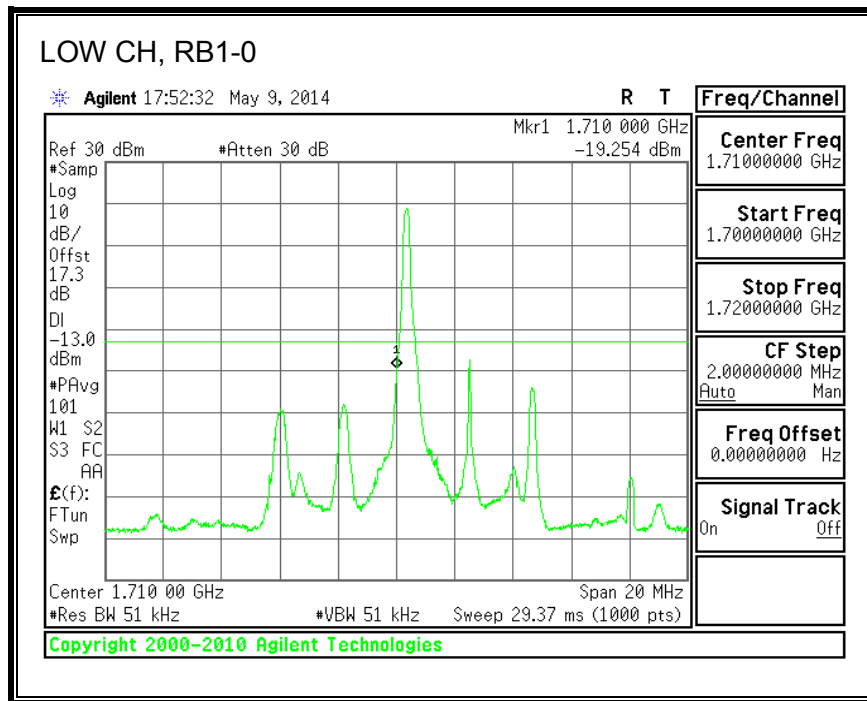


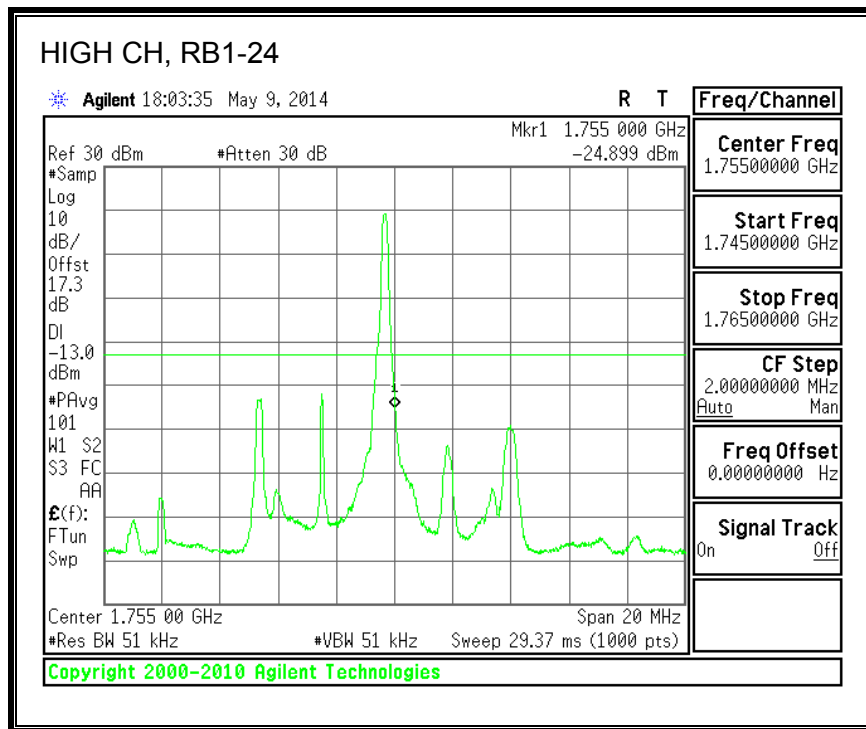
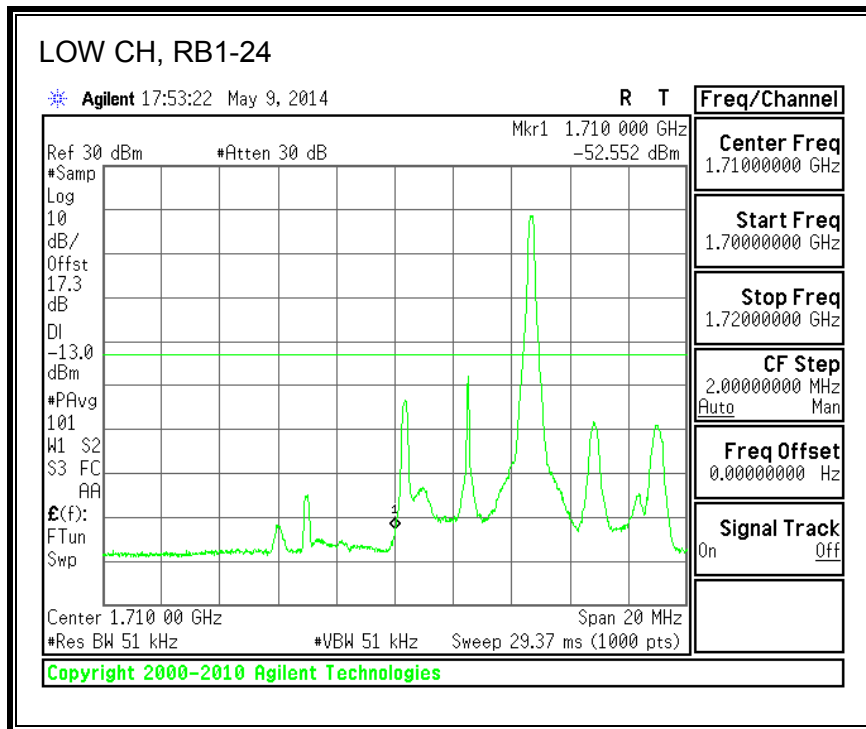


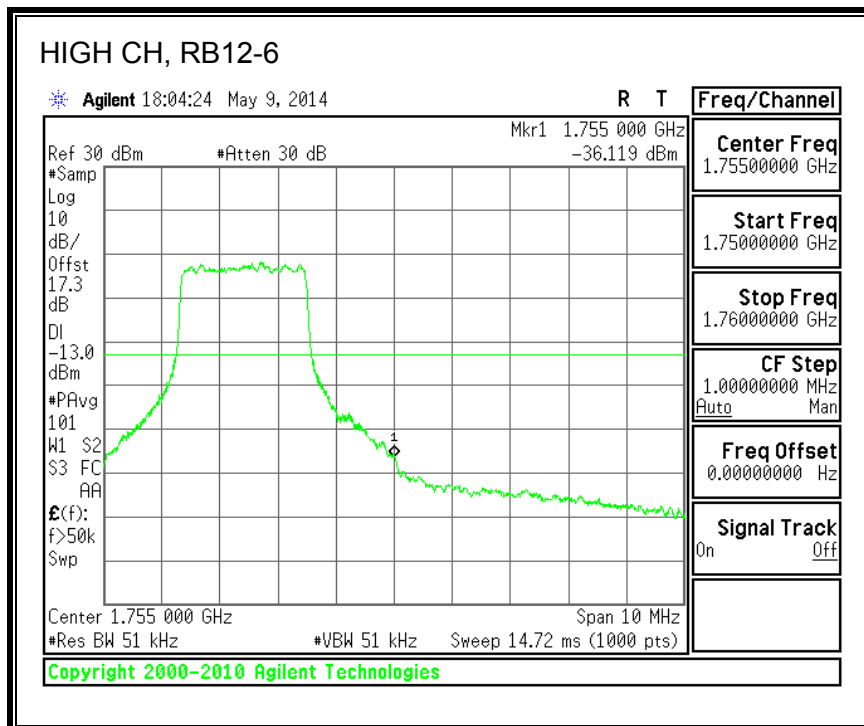
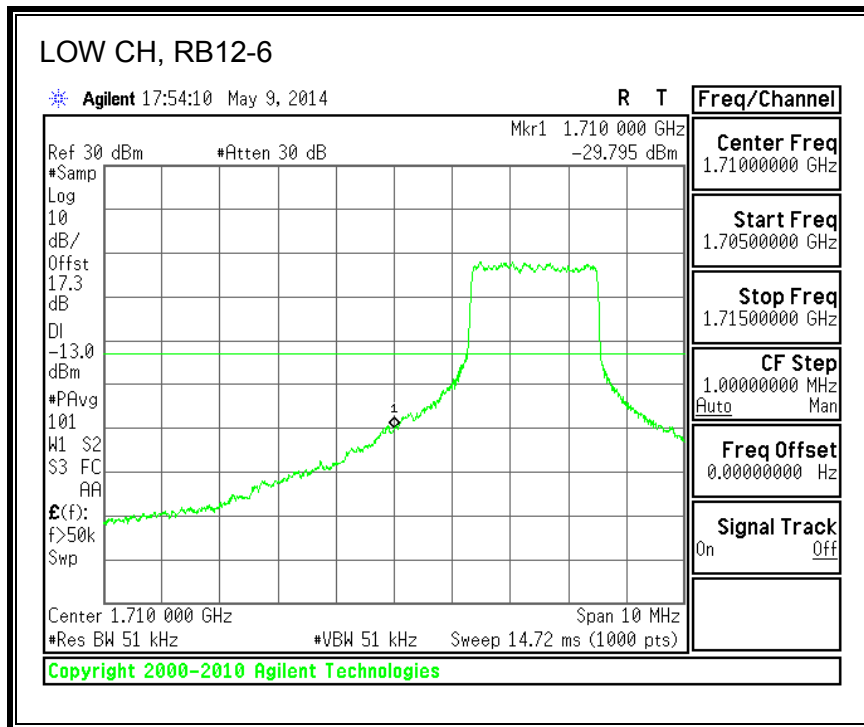


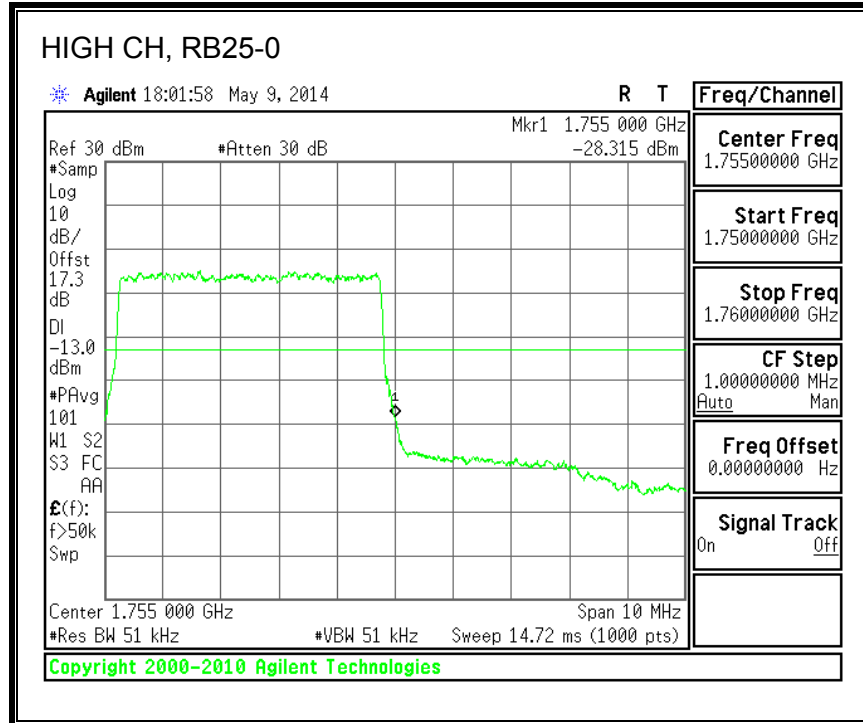
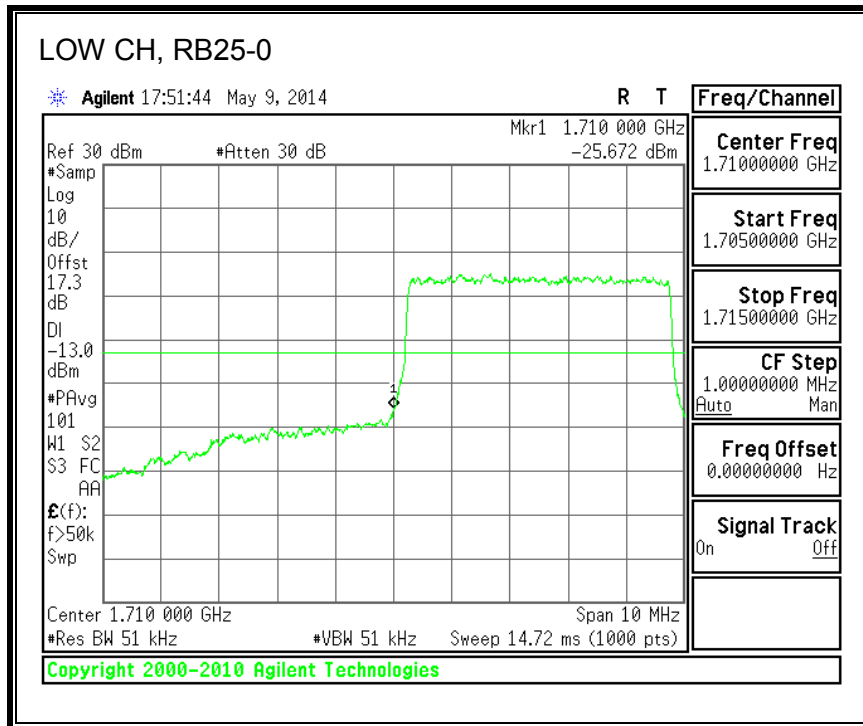


**16QAM, (5.0 MHz BAND WIDTH)**









**QPSK, (10.0 MHz BAND WIDTH)**

