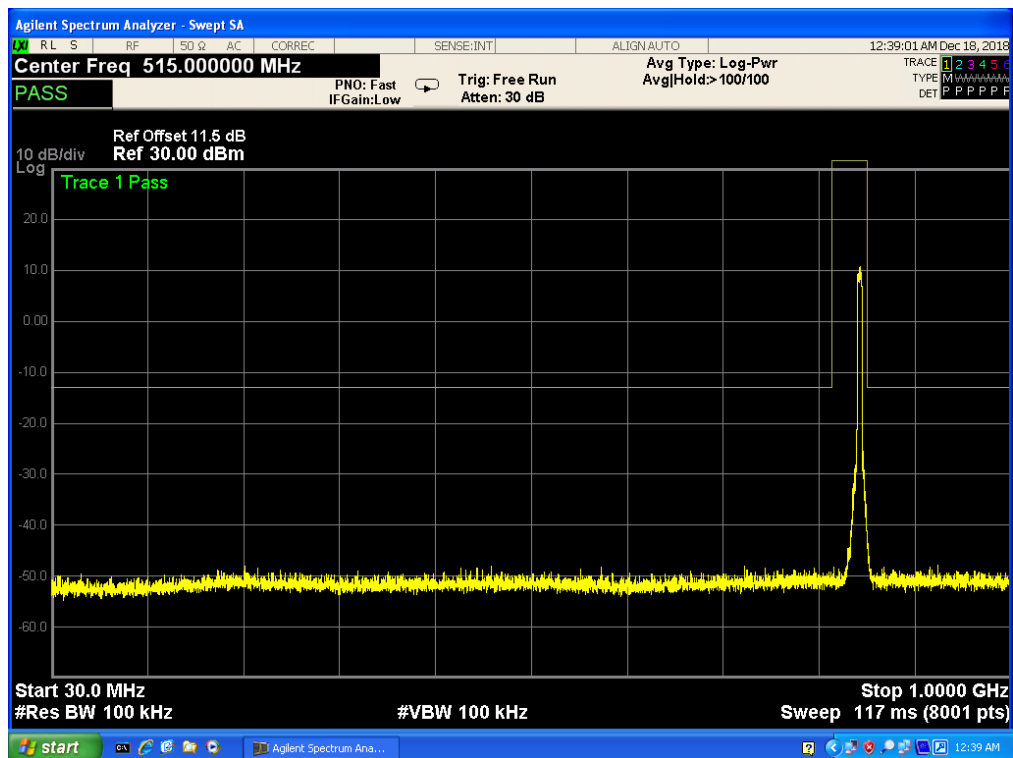
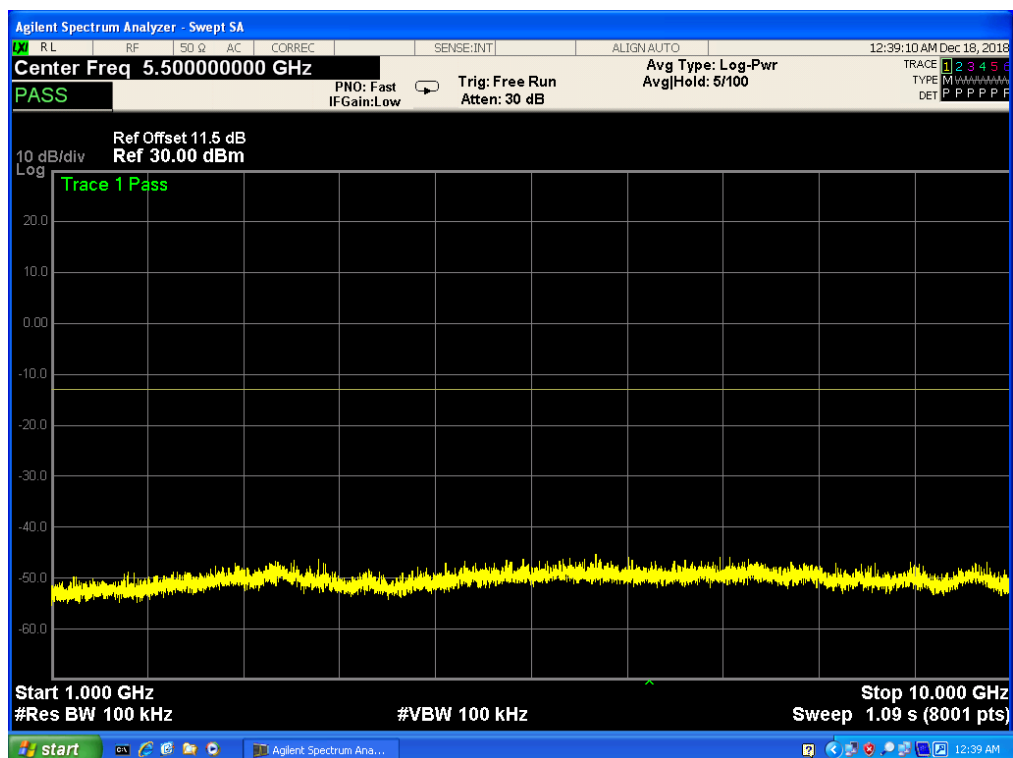


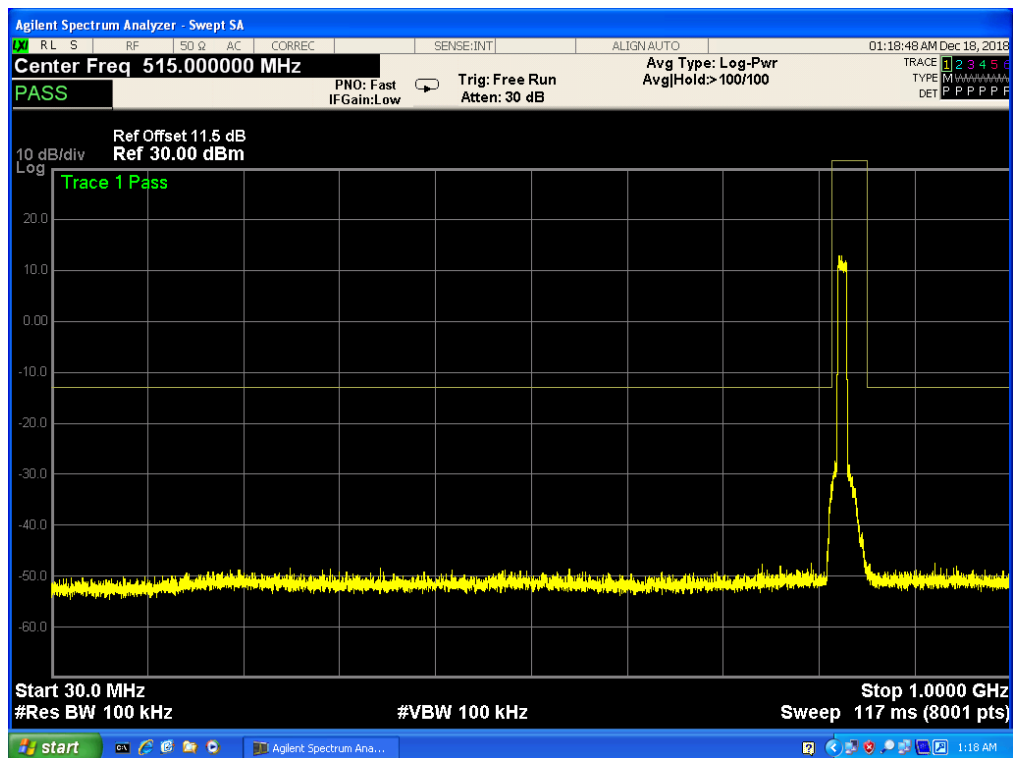
Band 5, UL Channel 20625, UL Frequency 846.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



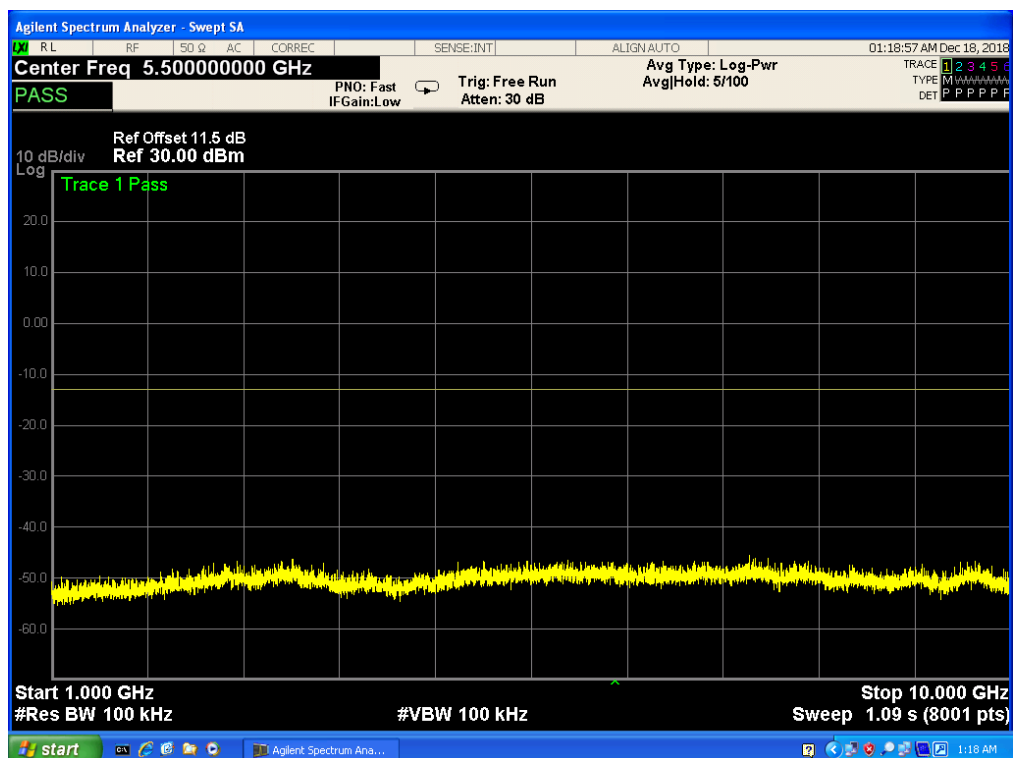
Band 5, UL Channel 20625, UL Frequency 846.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



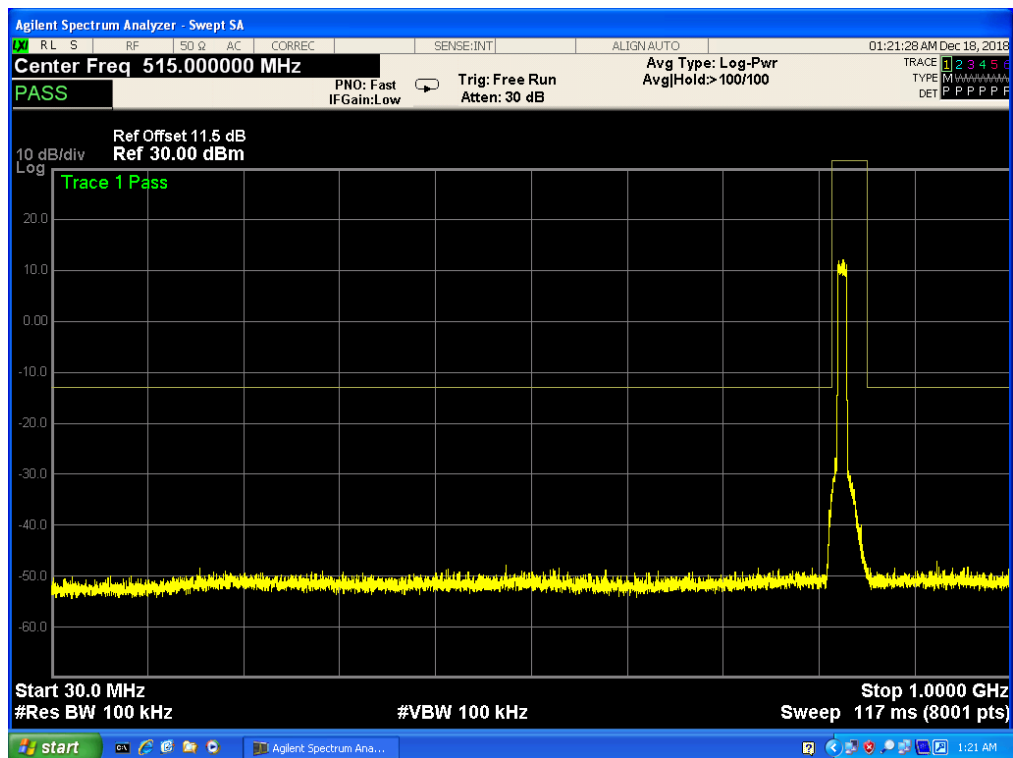
Band 5, UL Channel 20450, UL Frequency 829.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



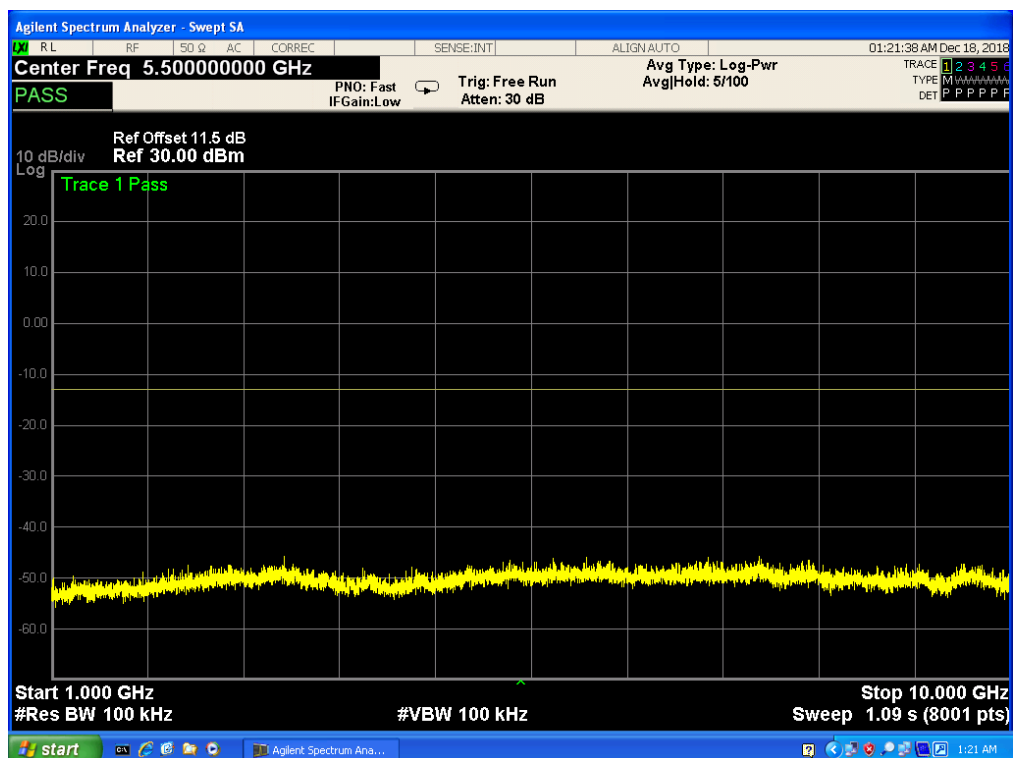
Band 5, UL Channel 20450, UL Frequency 829.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



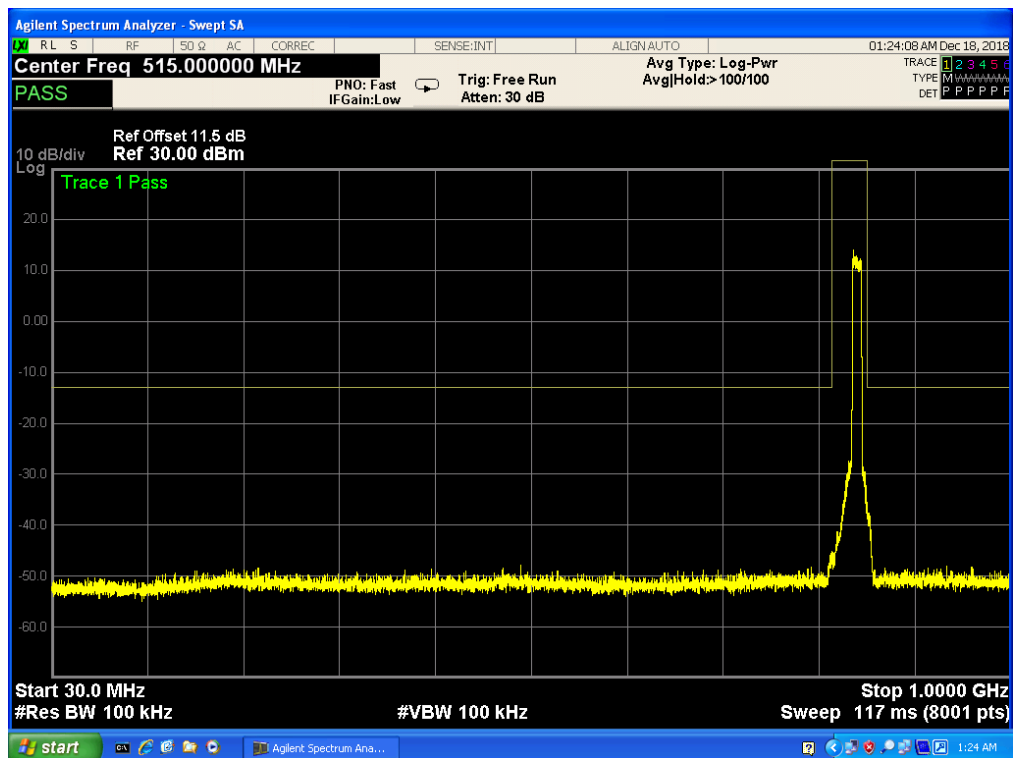
Band 5, UL Channel 20450, UL Frequency 829.0, BW 10.0, NO. RB 50, RB POS. Low, 16-QAM



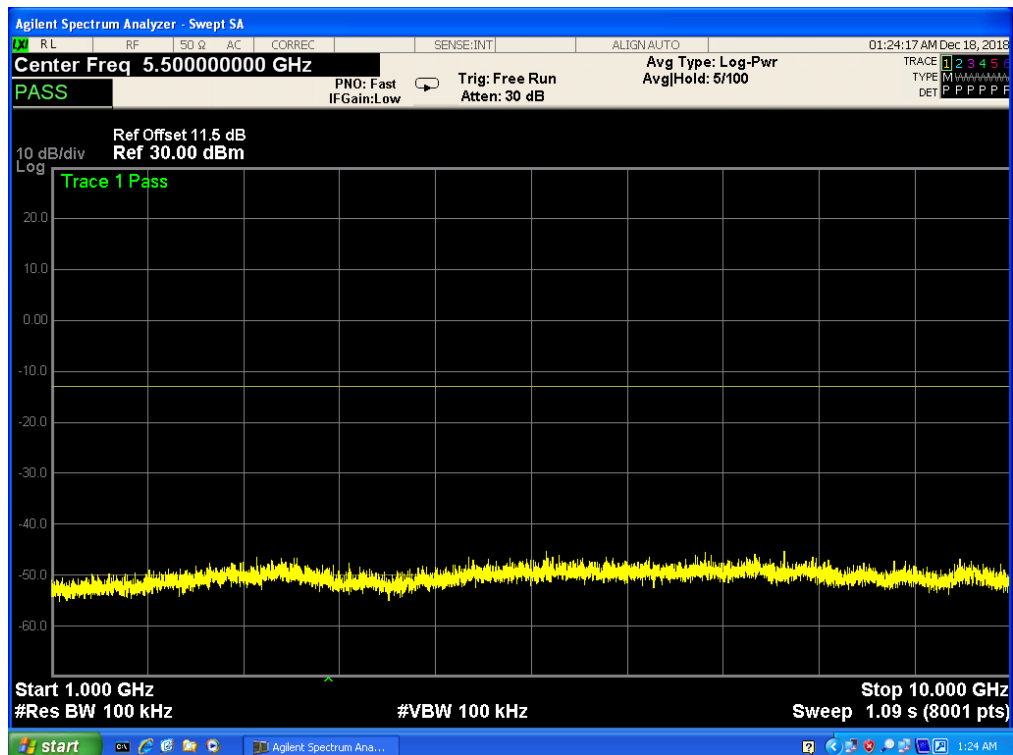
Band 5, UL Channel 20450, UL Frequency 829.0, BW 10.0, NO. RB 50, RB POS. Low, 16-QAM



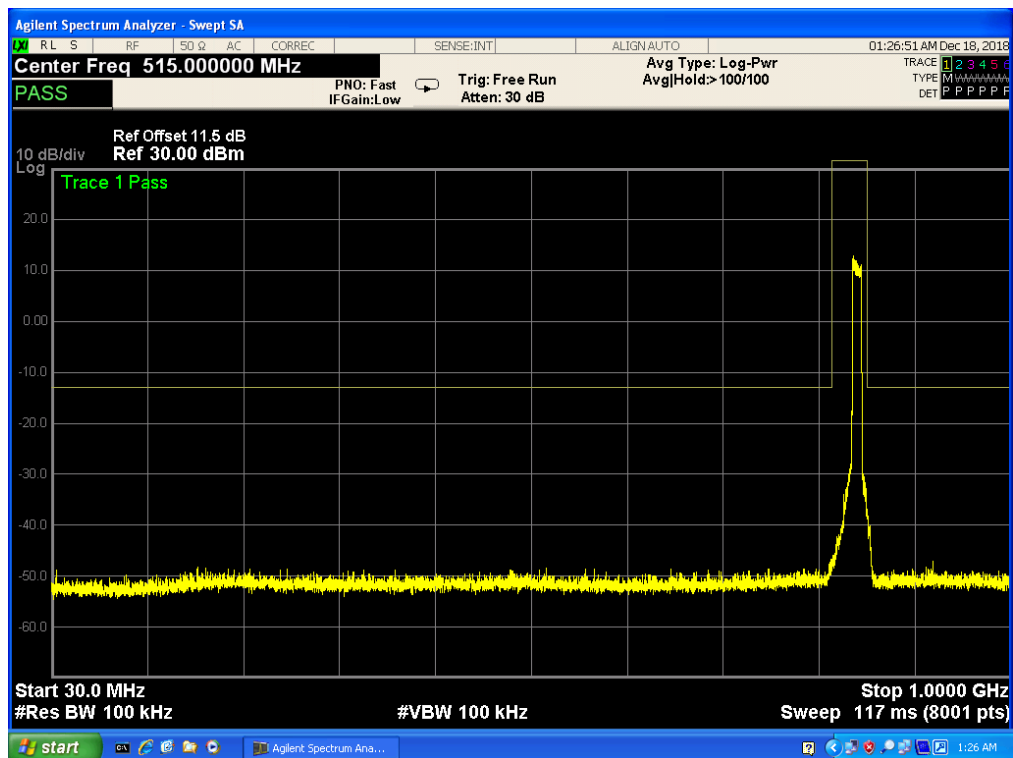
Band 5,UL Channel 20600,UL Frequency 844.0,BW 10.0,NO. RB 50,RB POS. Low,QPSK



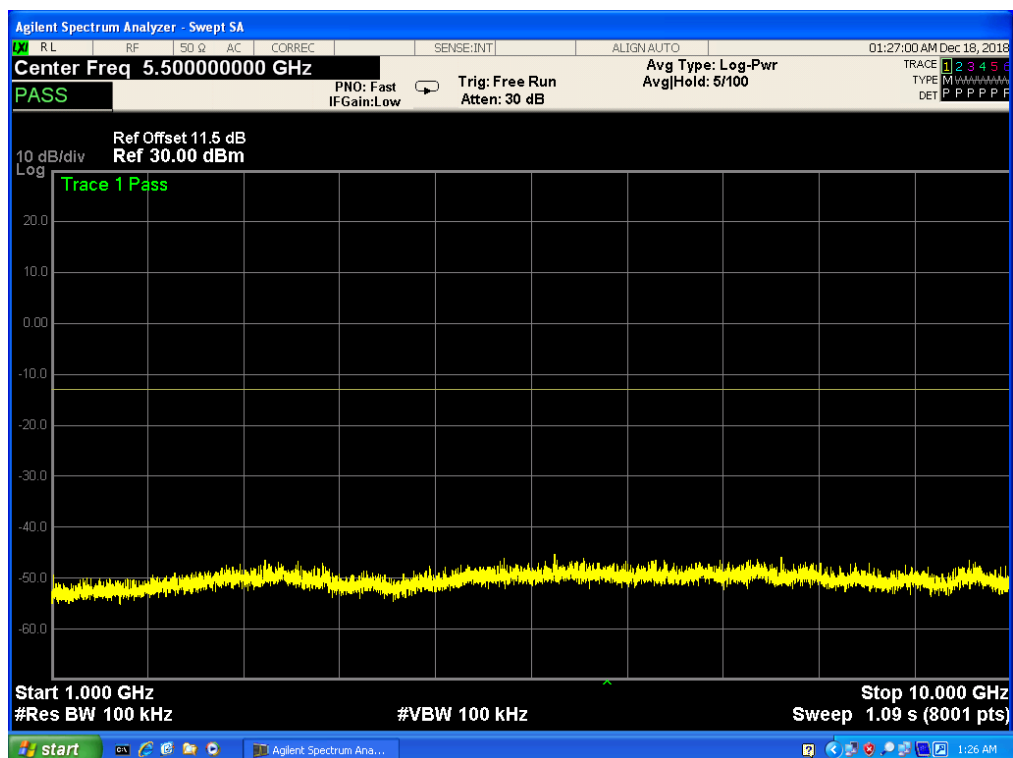
Band 5,UL Channel 20600,UL Frequency 844.0,BW 10.0,NO. RB 50,RB POS. Low,QPSK



Band 5, UL Channel 20600, UL Frequency 844.0, BW 10.0, NO. RB 50, RB POS. Low, 16-QAM

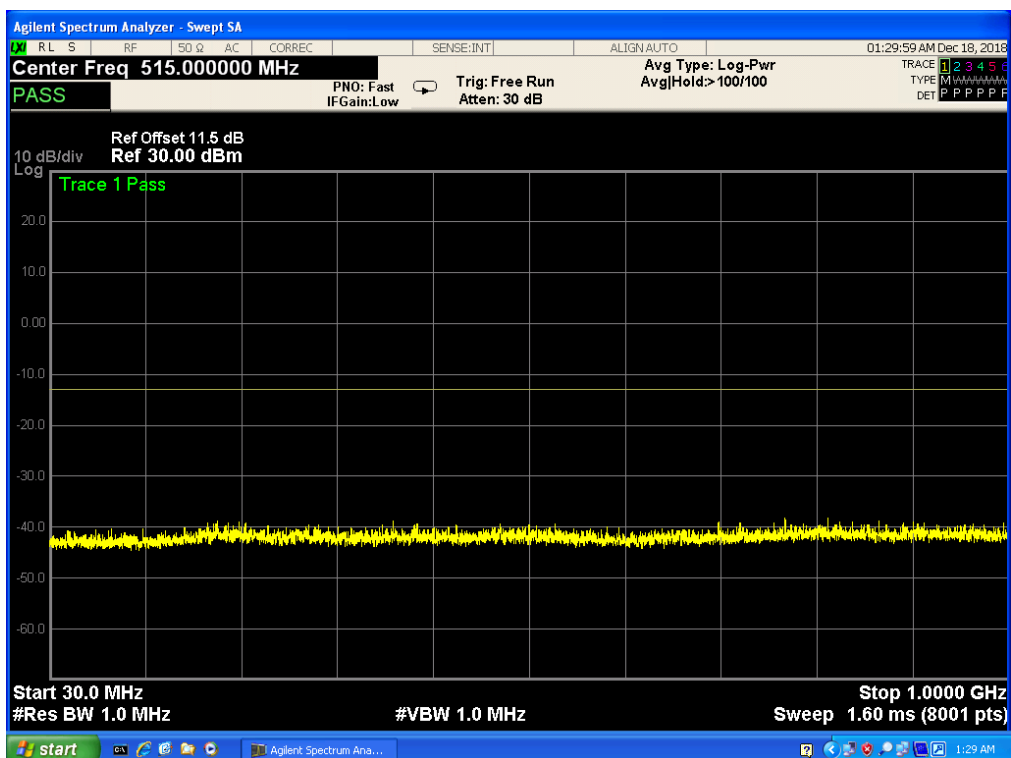


Band 5, UL Channel 20600, UL Frequency 844.0, BW 10.0, NO. RB 50, RB POS. Low, 16-QAM

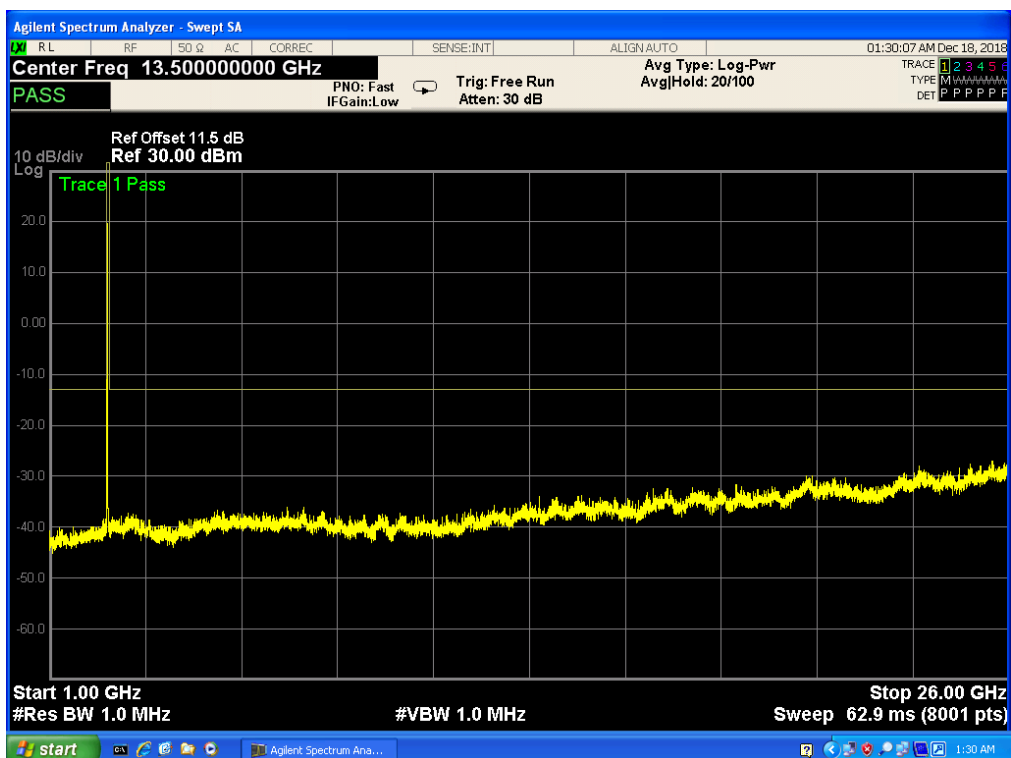


## 7.4 LTE BAND 7

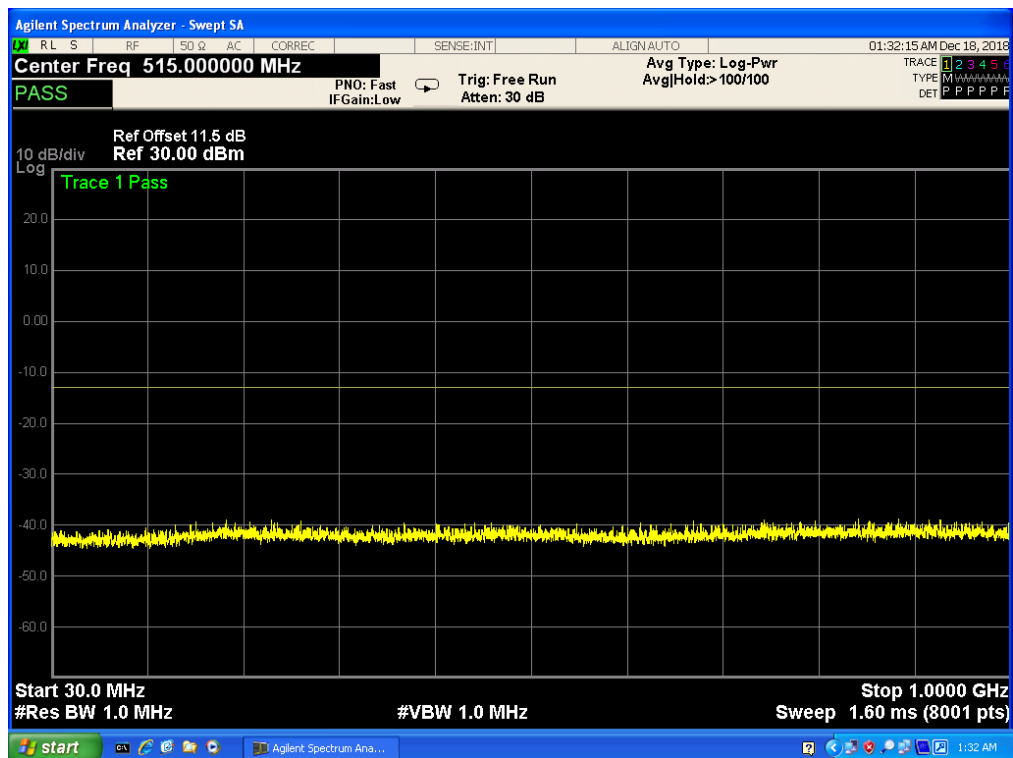
*Band 7,UL Channel 20775,UL Frequency 2502.5,BW 5.0,NO. RB 25,RB POS. Low,QPSK*



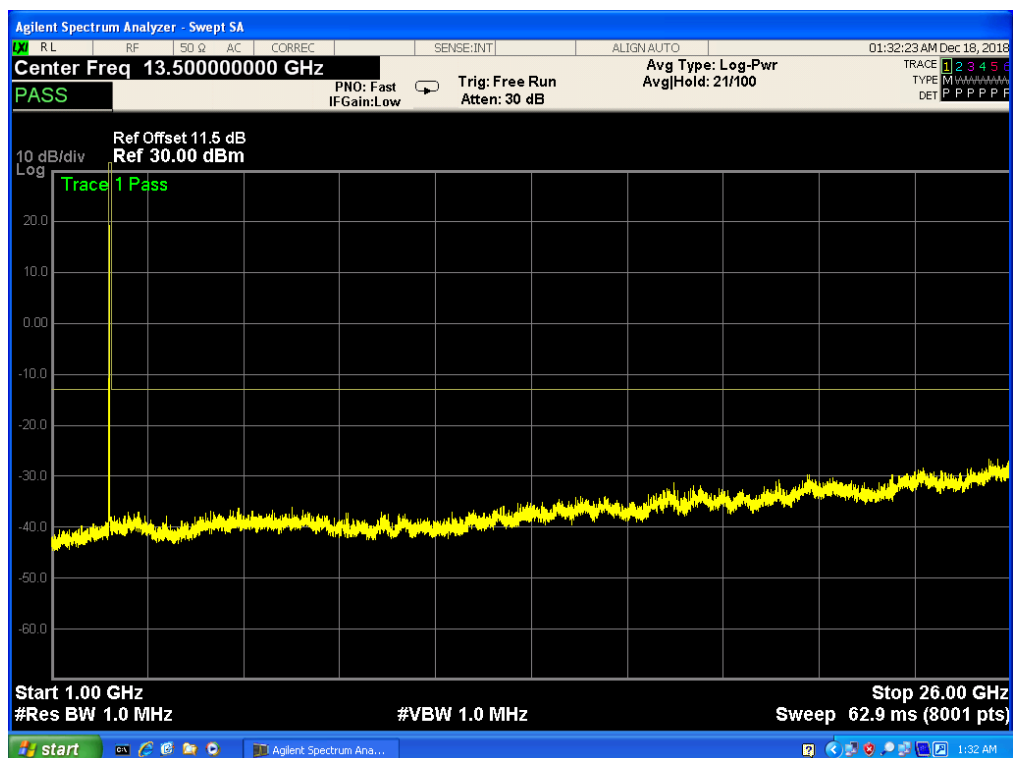
*Band 7,UL Channel 20775,UL Frequency 2502.5,BW 5.0,NO. RB 25,RB POS. Low,QPSK*



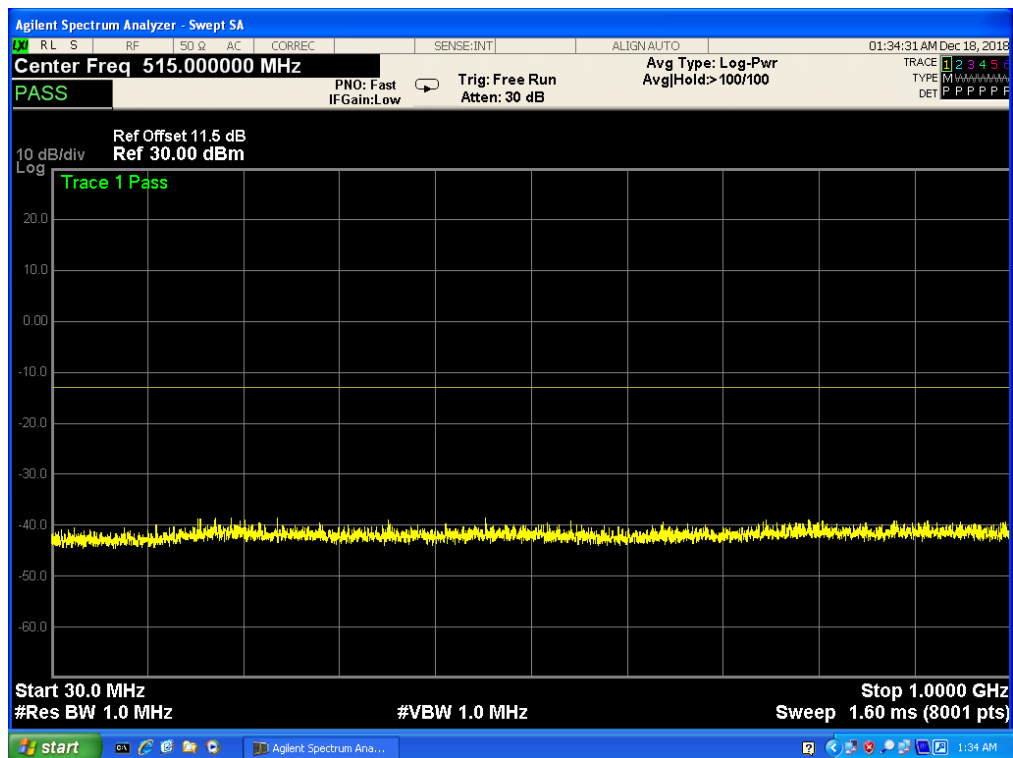
Band 7, UL Channel 20775, UL Frequency 2502.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



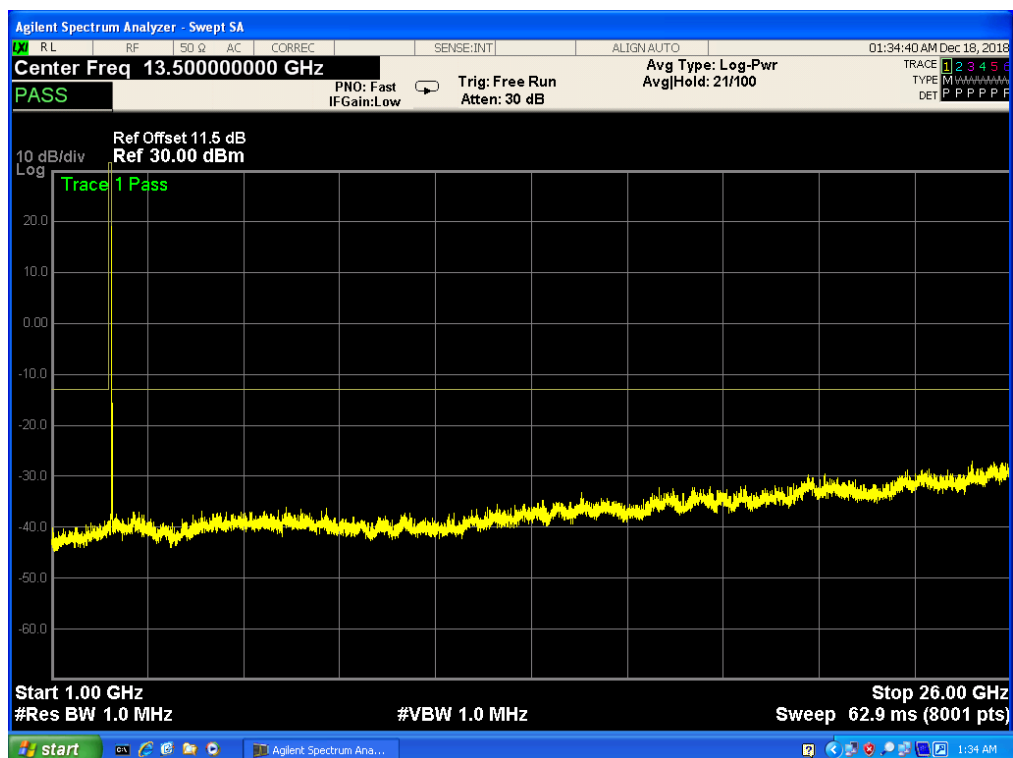
Band 7, UL Channel 20775, UL Frequency 2502.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



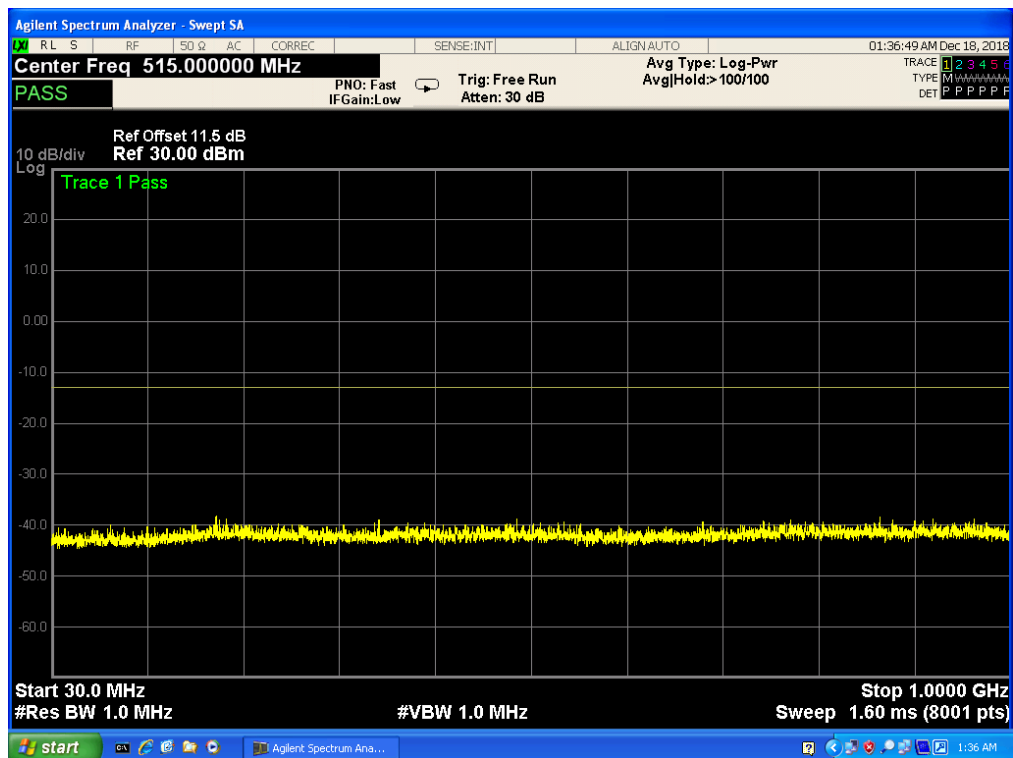
Band 7,UL Channel 21425,UL Frequency 2567.5,BW 5.0,NO. RB 25,RB POS. Low,QPSK



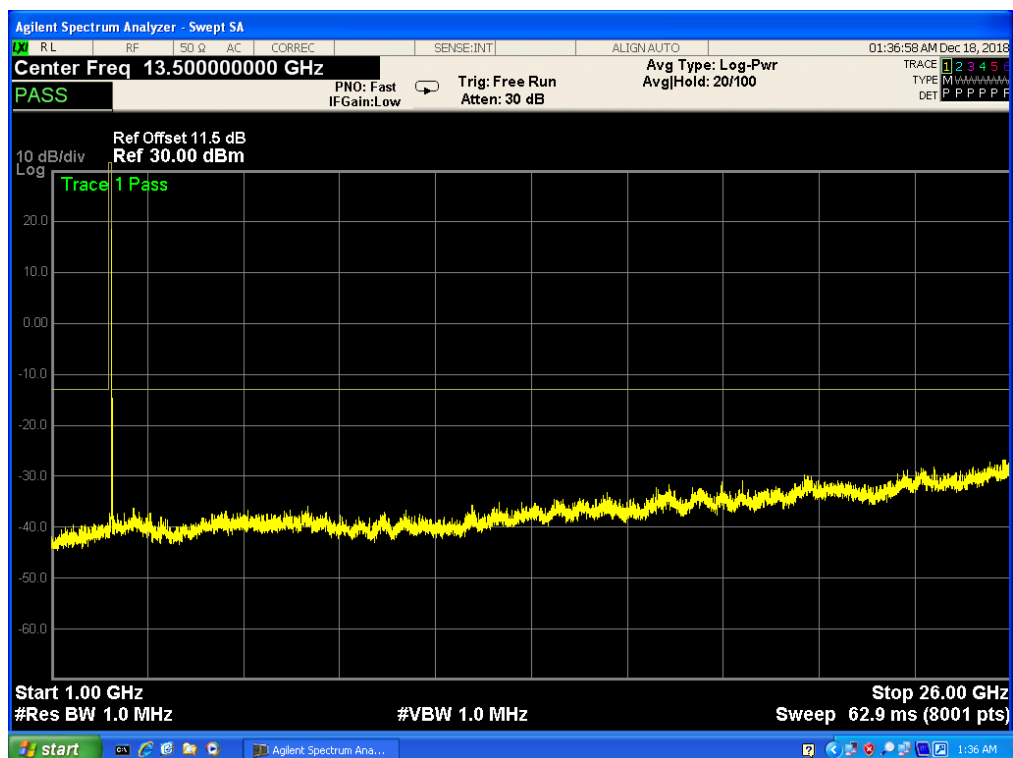
Band 7,UL Channel 21425,UL Frequency 2567.5,BW 5.0,NO. RB 25,RB POS. Low,QPSK



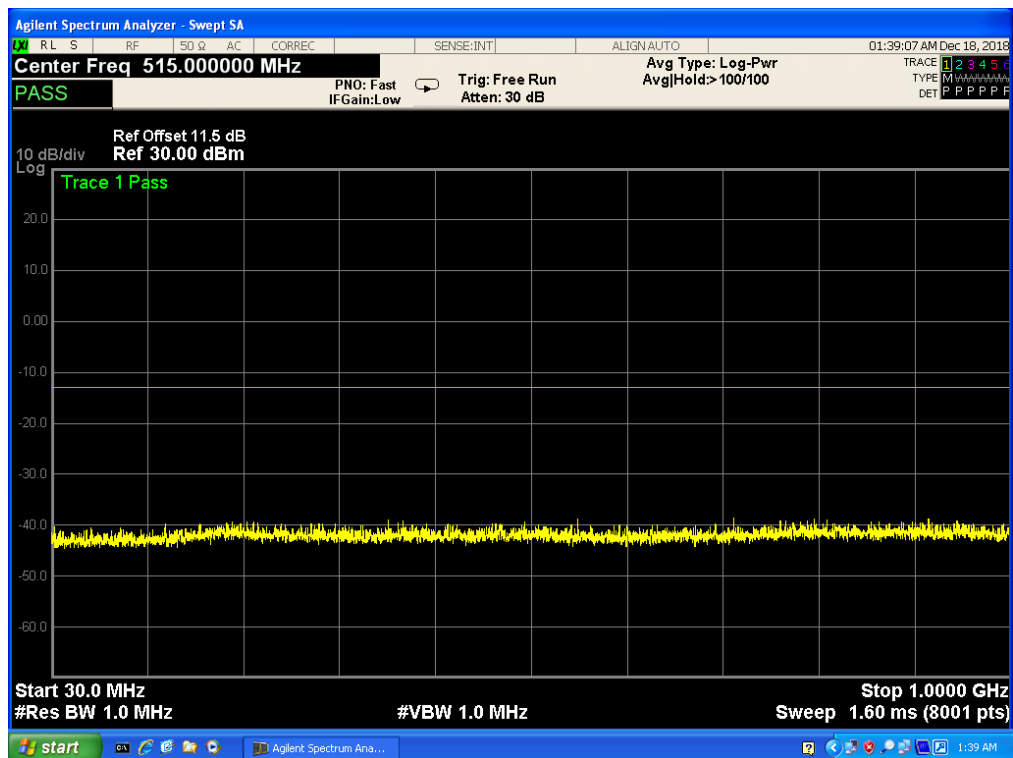
Band 7, UL Channel 21425, UL Frequency 2567.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



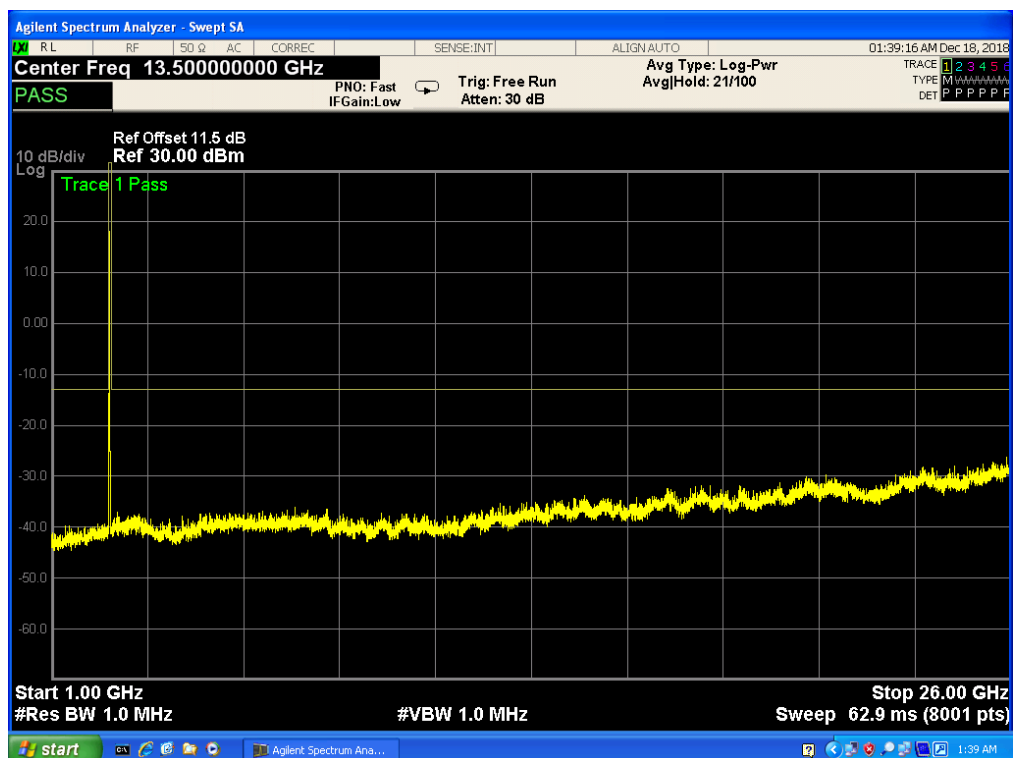
Band 7, UL Channel 21425, UL Frequency 2567.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



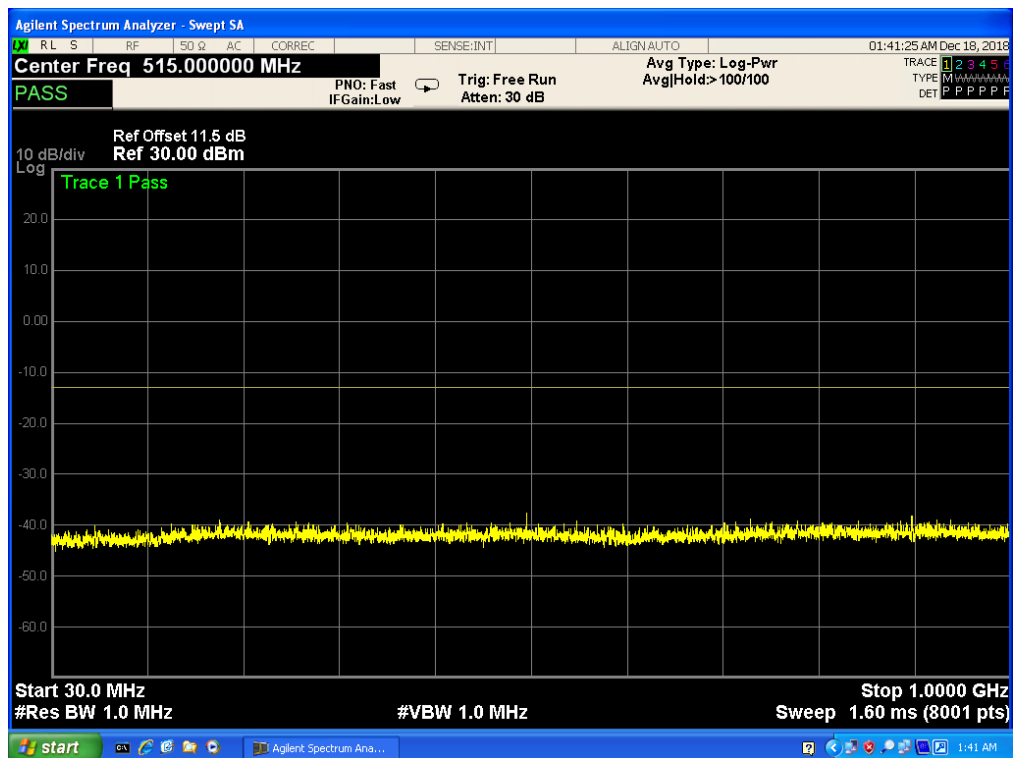
Band 7, UL Channel 20800, UL Frequency 2505.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



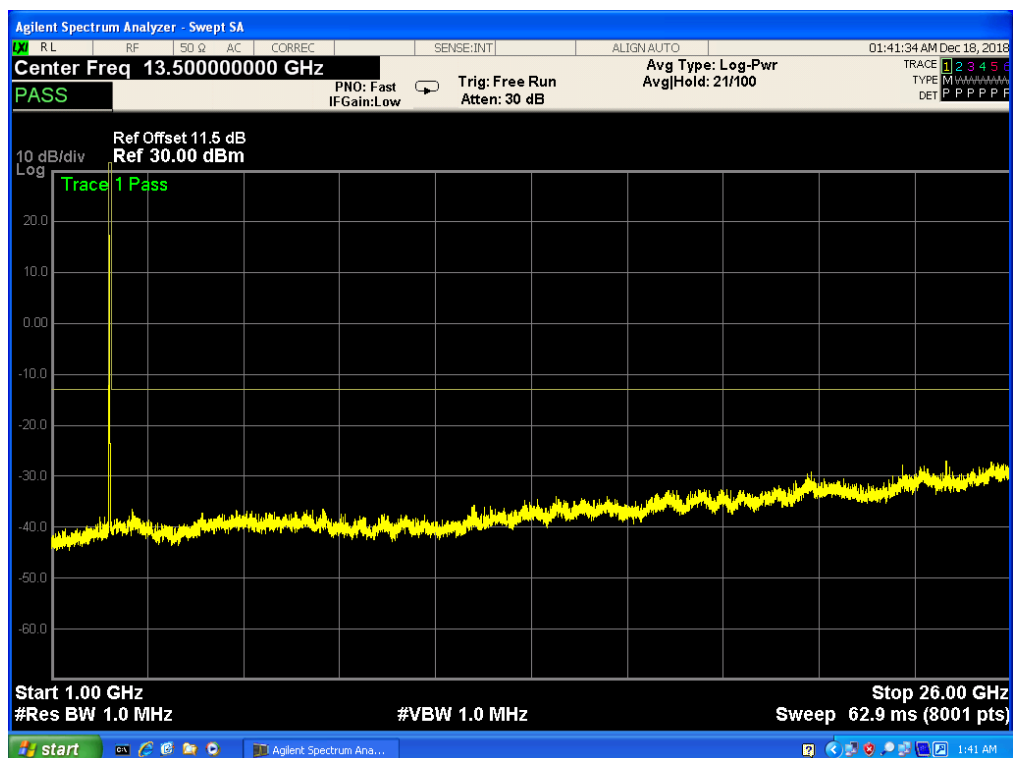
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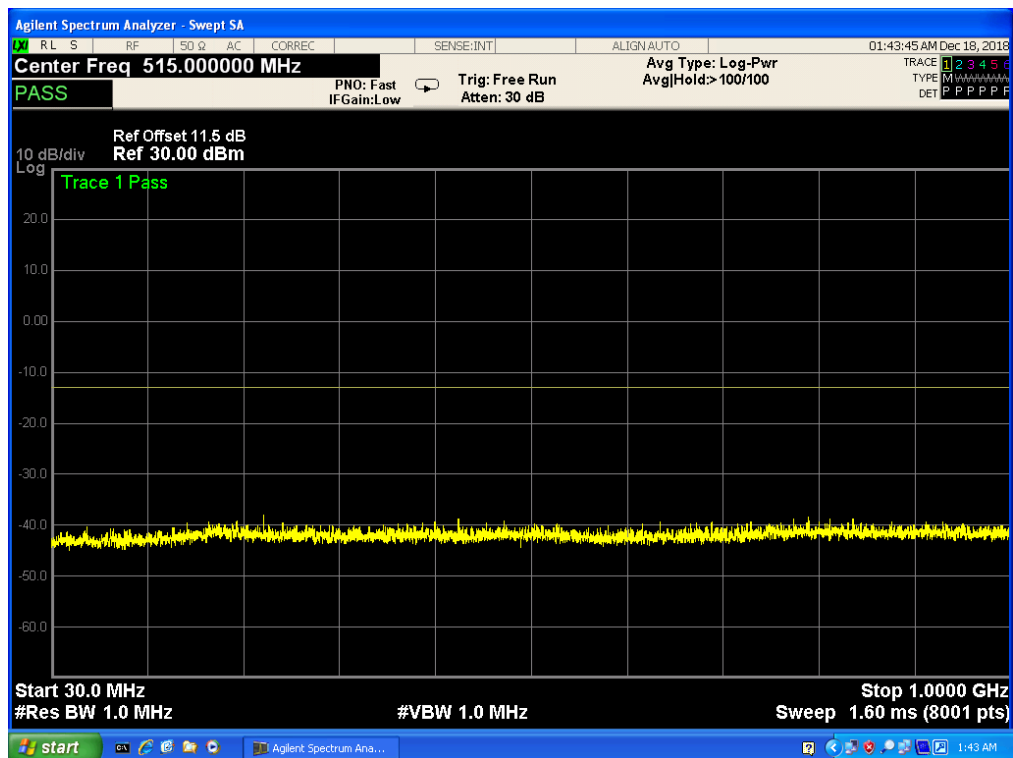
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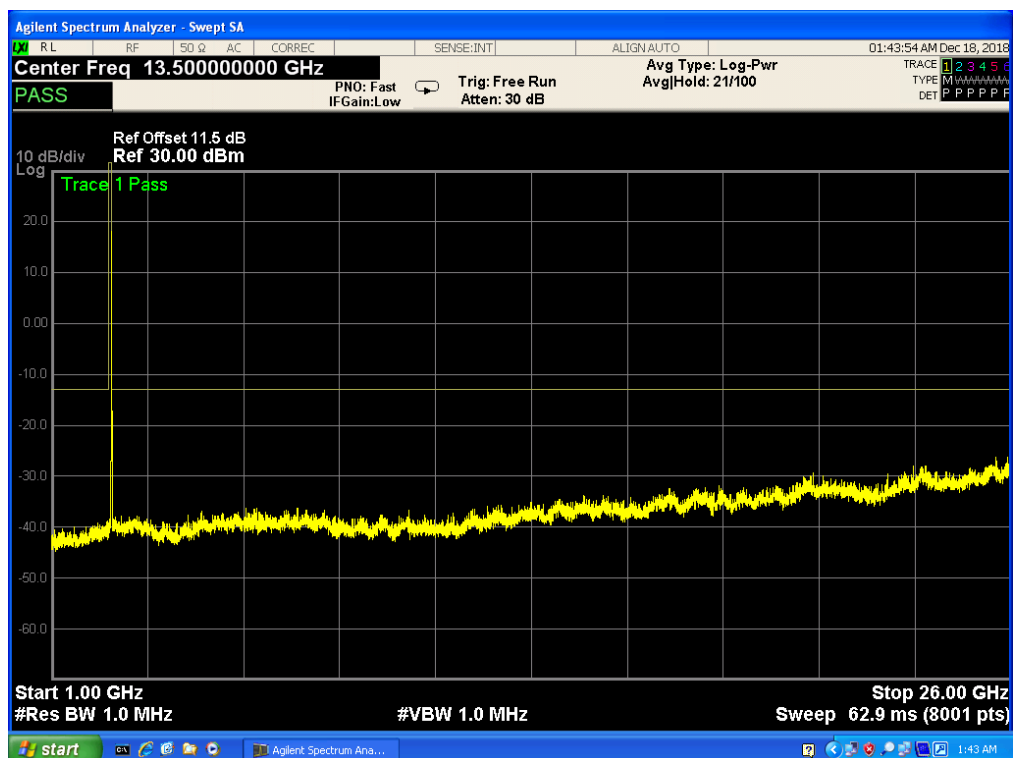
Band 7, UL Channel 20800, UL Frequency 2505.0, BW 10.0, NO. RB 50, RB POS. Low, 16-QAM



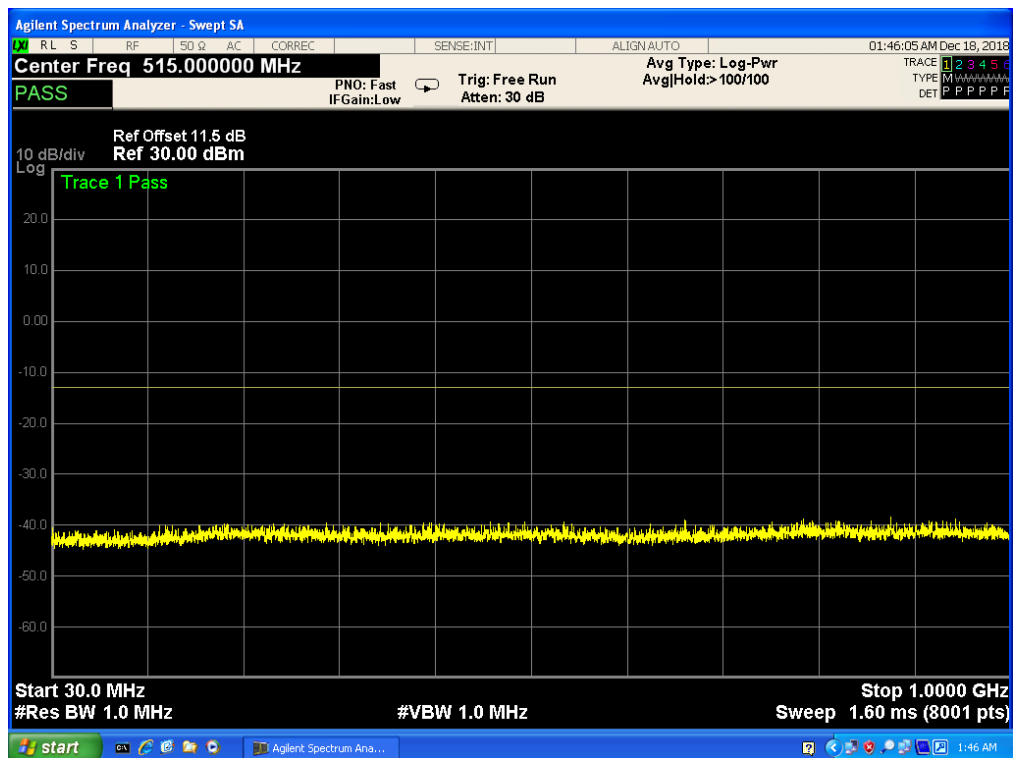
Band 7, UL Channel 21400, UL Frequency 2565.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



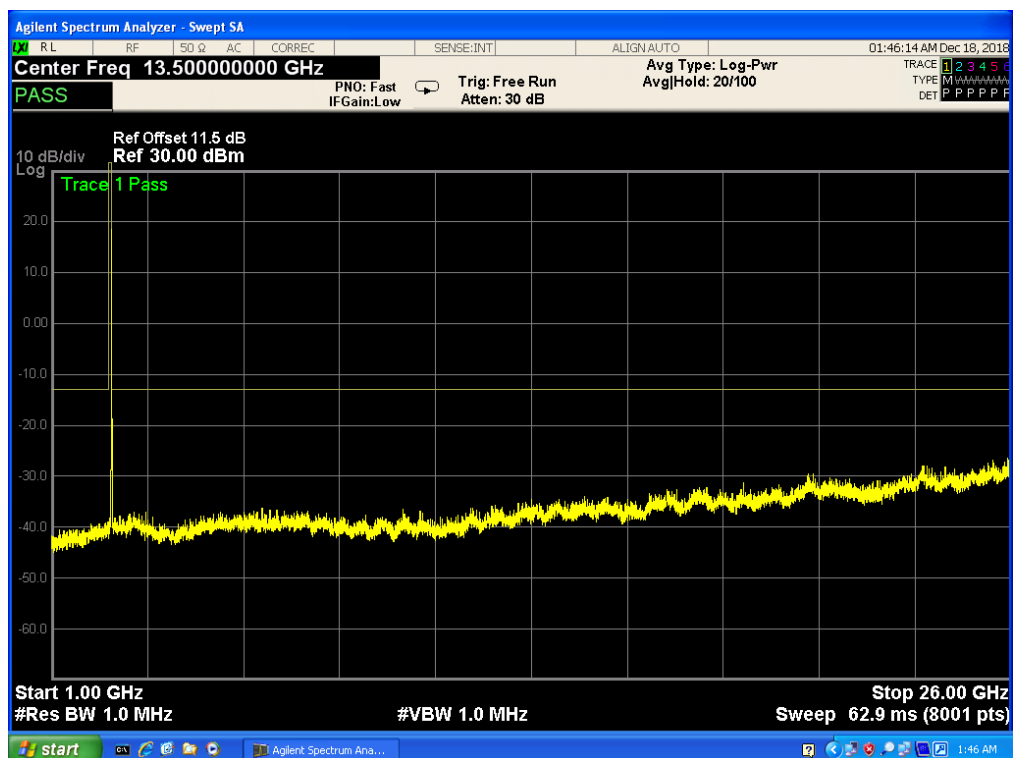
Band 7, UL Channel 21400, UL Frequency 2565.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



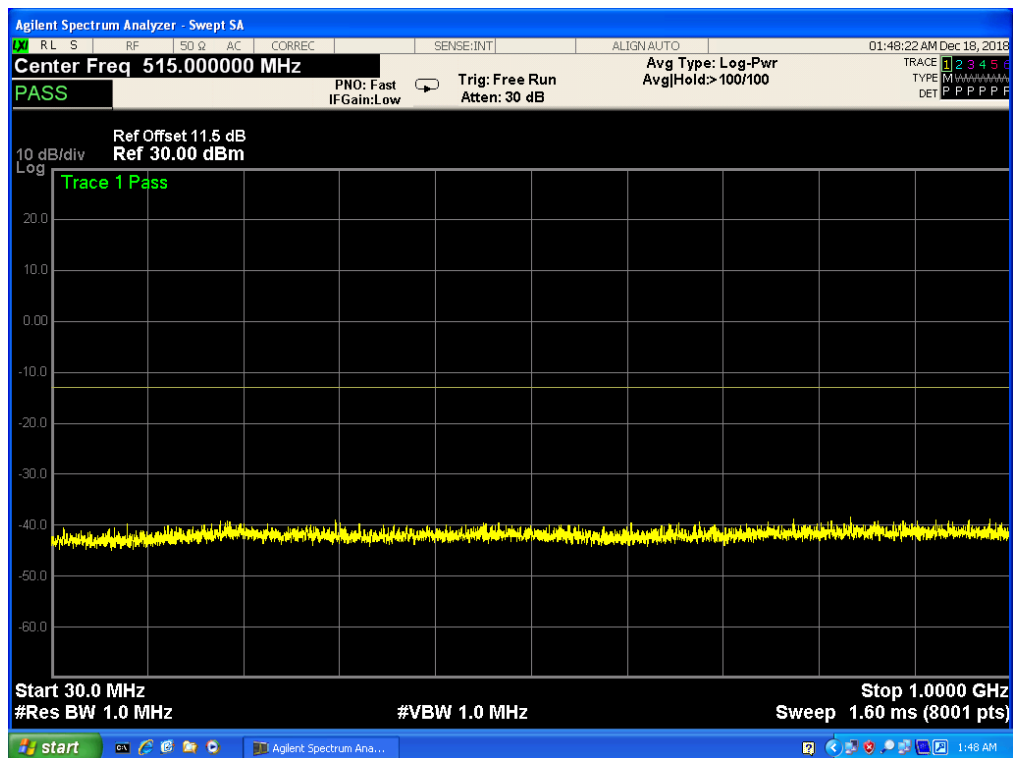
Band 7, UL Channel 21400, UL Frequency 2565.0, BW 10.0, NO. RB 50, RB POS. Low, 16-QAM



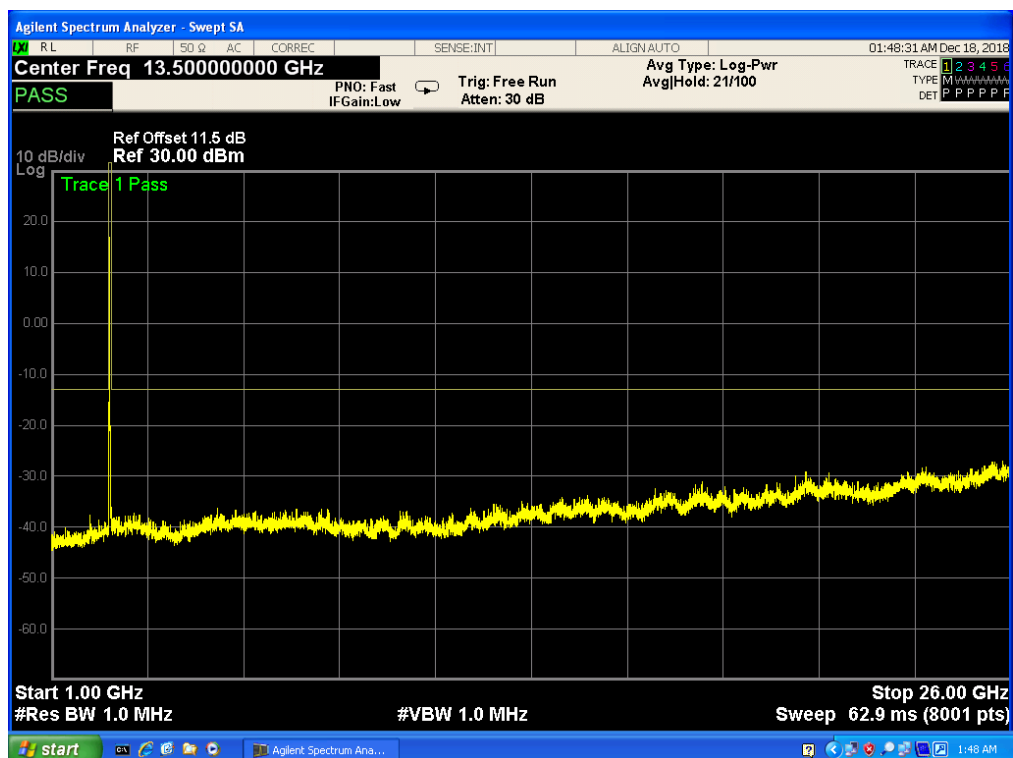
Band 7, UL Channel 21400, UL Frequency 2565.0, BW 10.0, NO. RB 50, RB POS. Low, 16-QAM



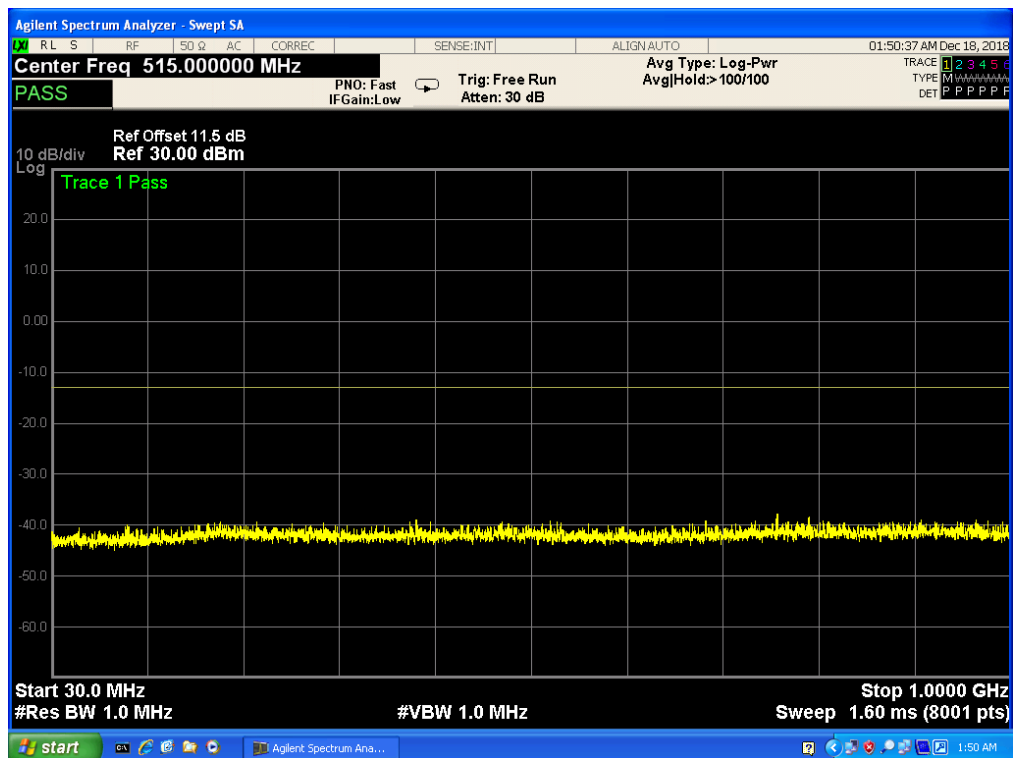
Band 7, UL Channel 20825, UL Frequency 2507.5, BW 15.0, NO. RB 75, RB POS. Low, QPSK



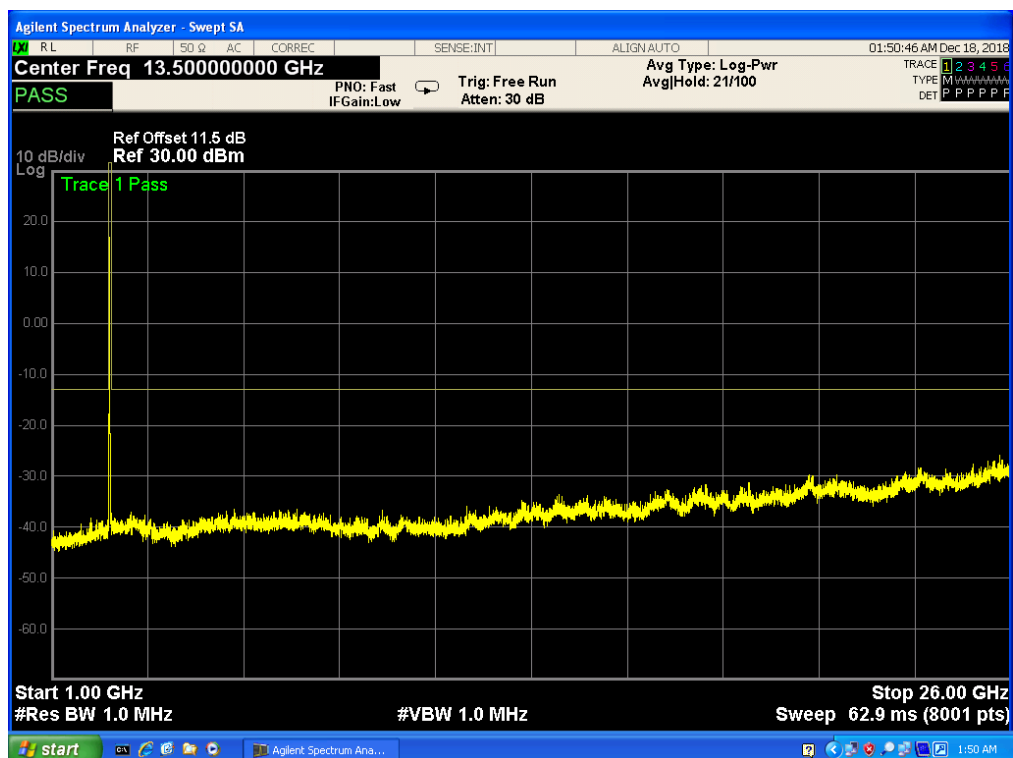
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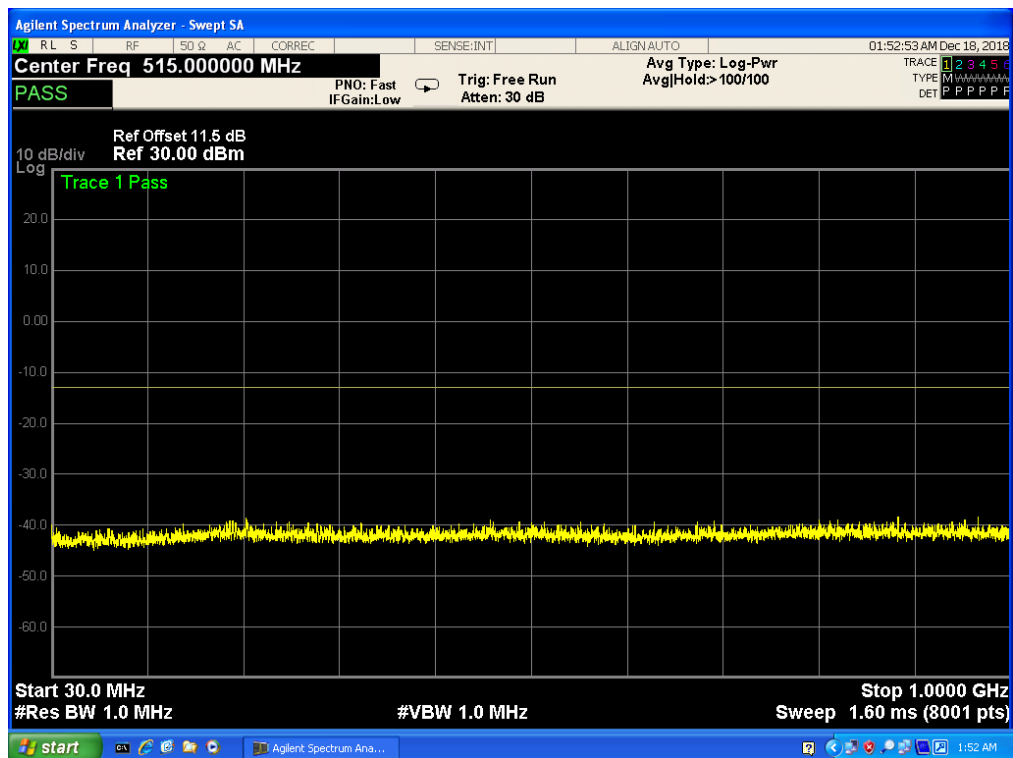
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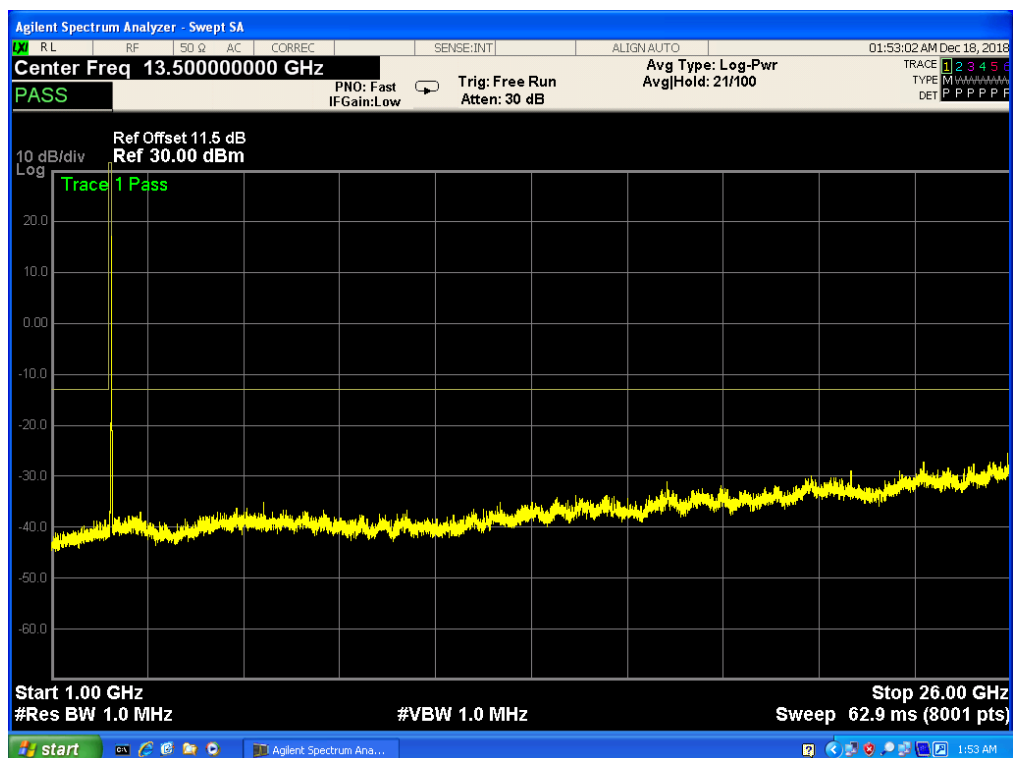
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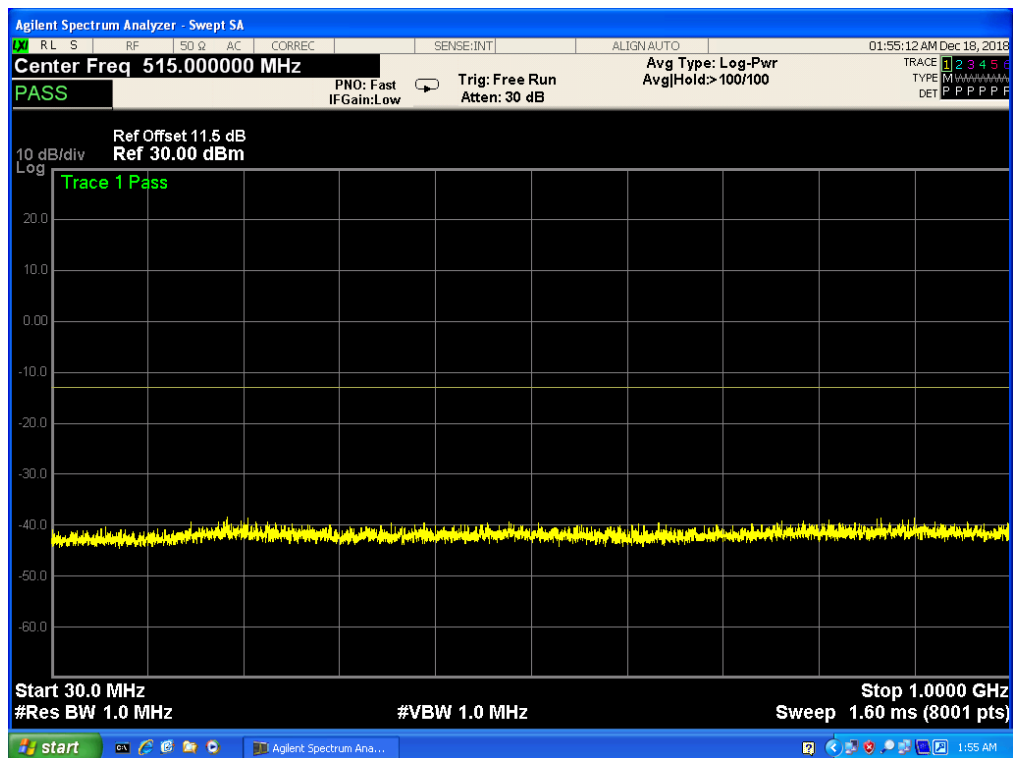
Band 7, UL Channel 21375, UL Frequency 2562.5, BW 15.0, NO. RB 75, RB POS. Low, QPSK



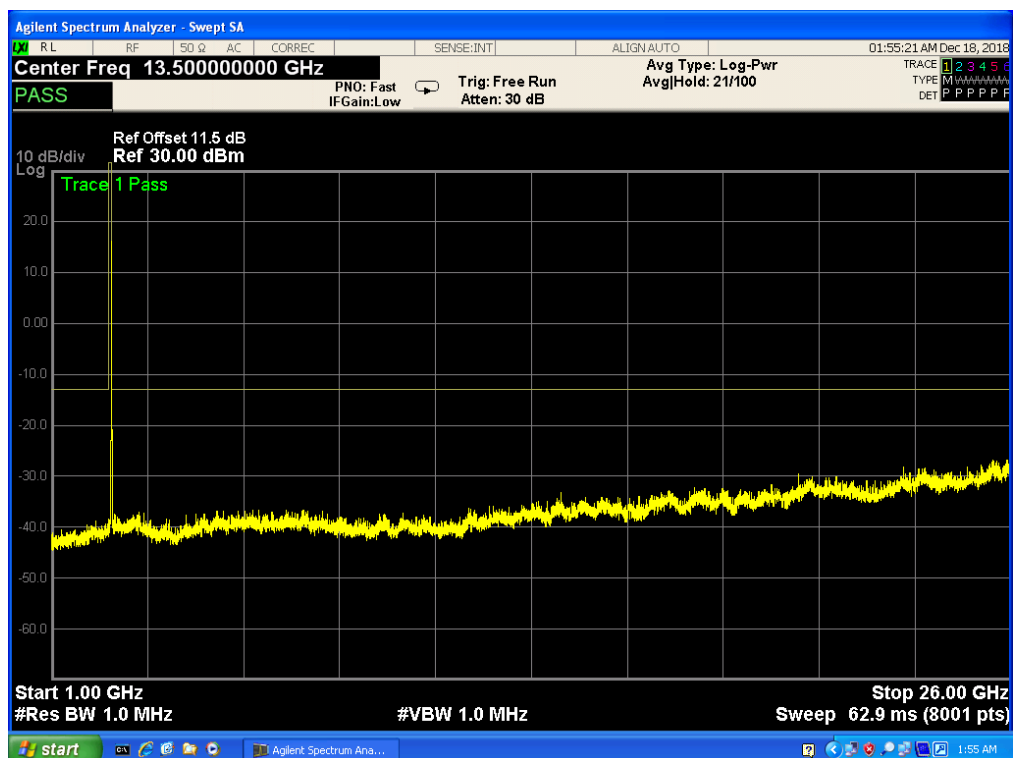
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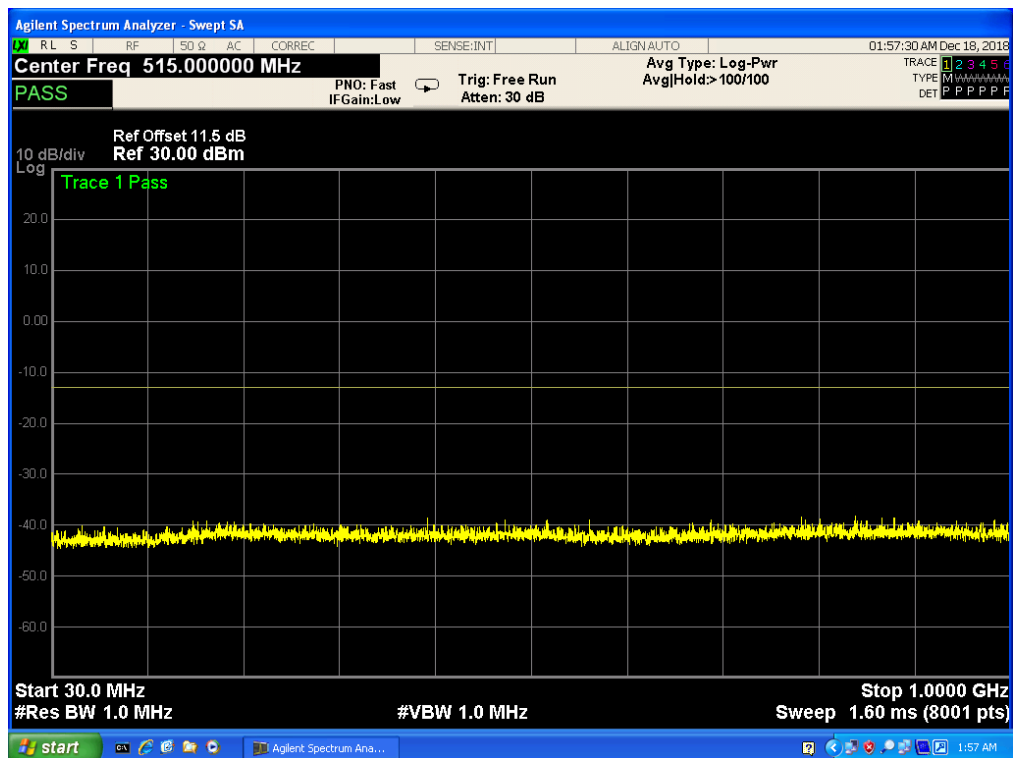
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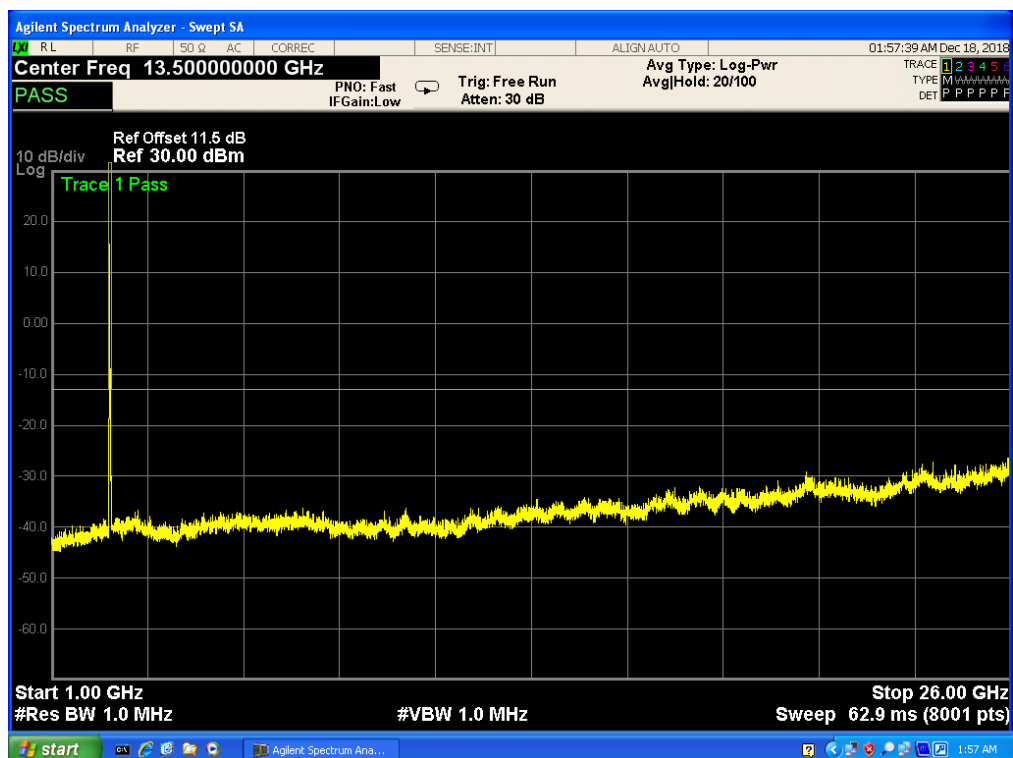
Band 7, UL Channel 21375, UL Frequency 2562.5, BW 15.0, NO. RB 75, RB POS. Low, 16-QAM



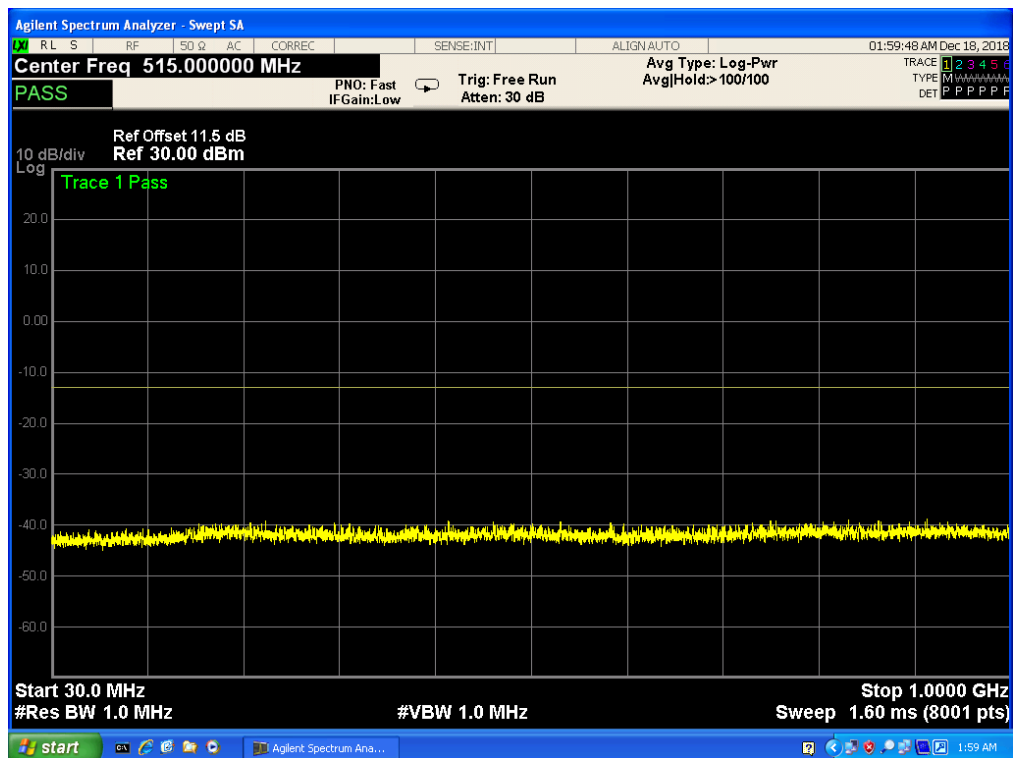
Band 7, UL Channel 20850, UL Frequency 2510.0, BW 20.0, NO. RB 100, RB POS. Low, QPSK



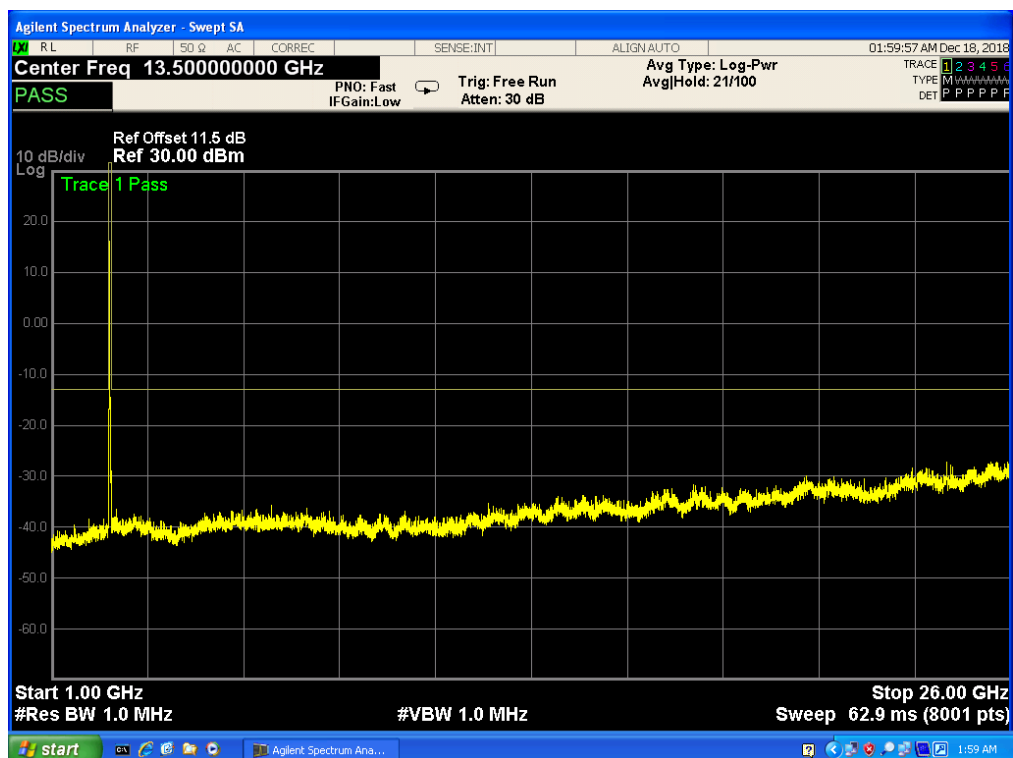
Band 7, UL Channel 20850, UL Frequency 2510.0, BW 20.0, NO. RB 100, RB POS. Low, QPSK



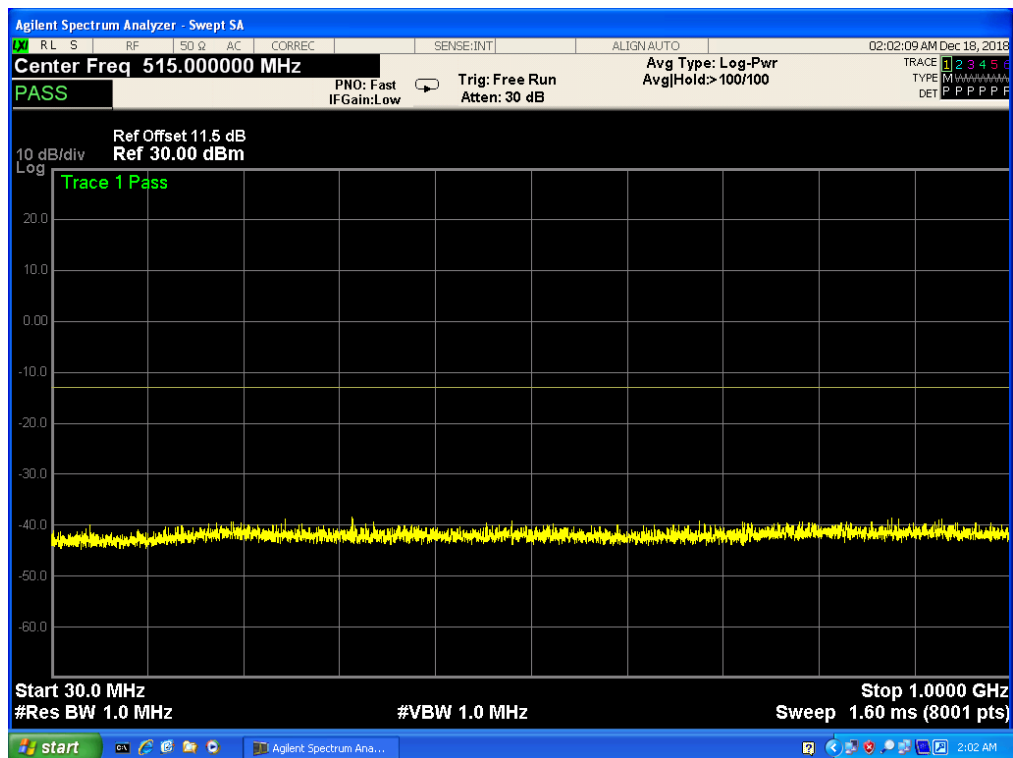
Band 7, UL Channel 20850, UL Frequency 2510.0, BW 20.0, NO. RB 100, RB POS. Low, 16-QAM



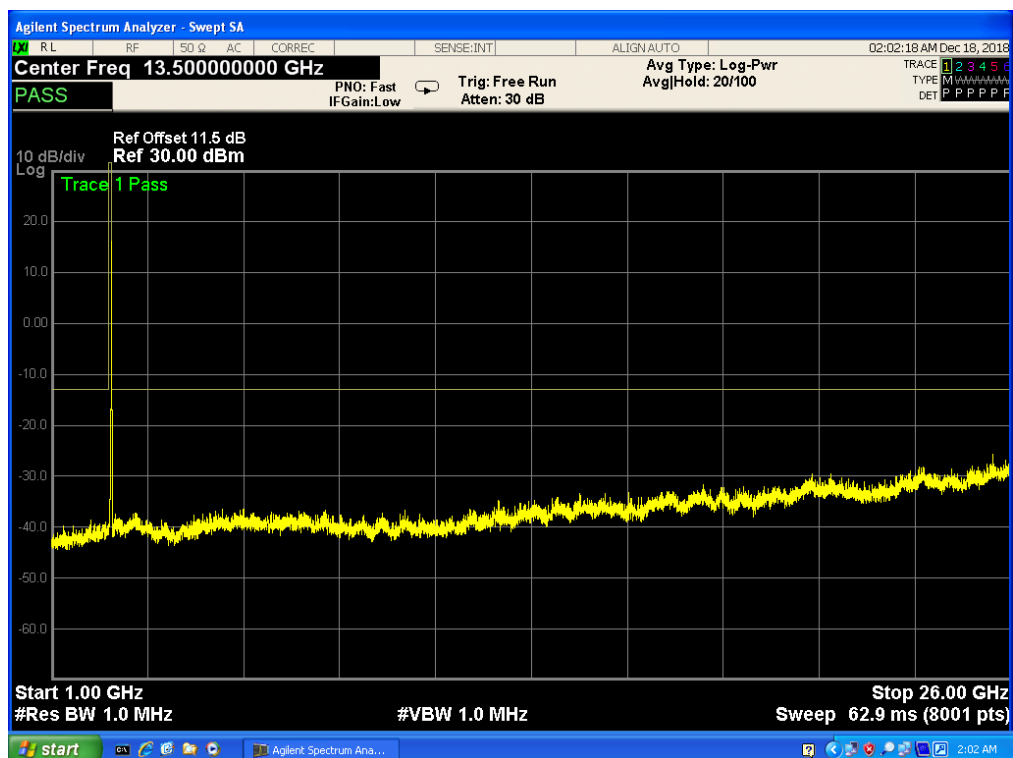
Band 7, UL Channel 20850, UL Frequency 2510.0, BW 20.0, NO. RB 100, RB POS. Low, 16-QAM



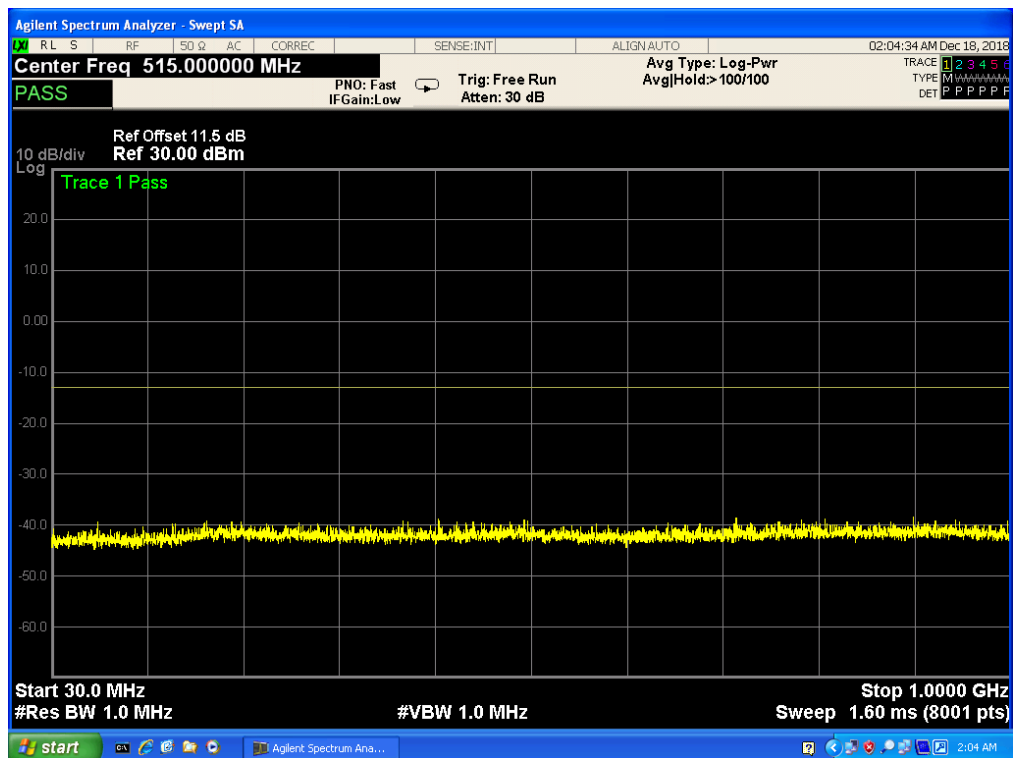
Band 7, UL Channel 21350, UL Frequency 2560.0, BW 20.0, NO. RB 100, RB POS. Low, QPSK



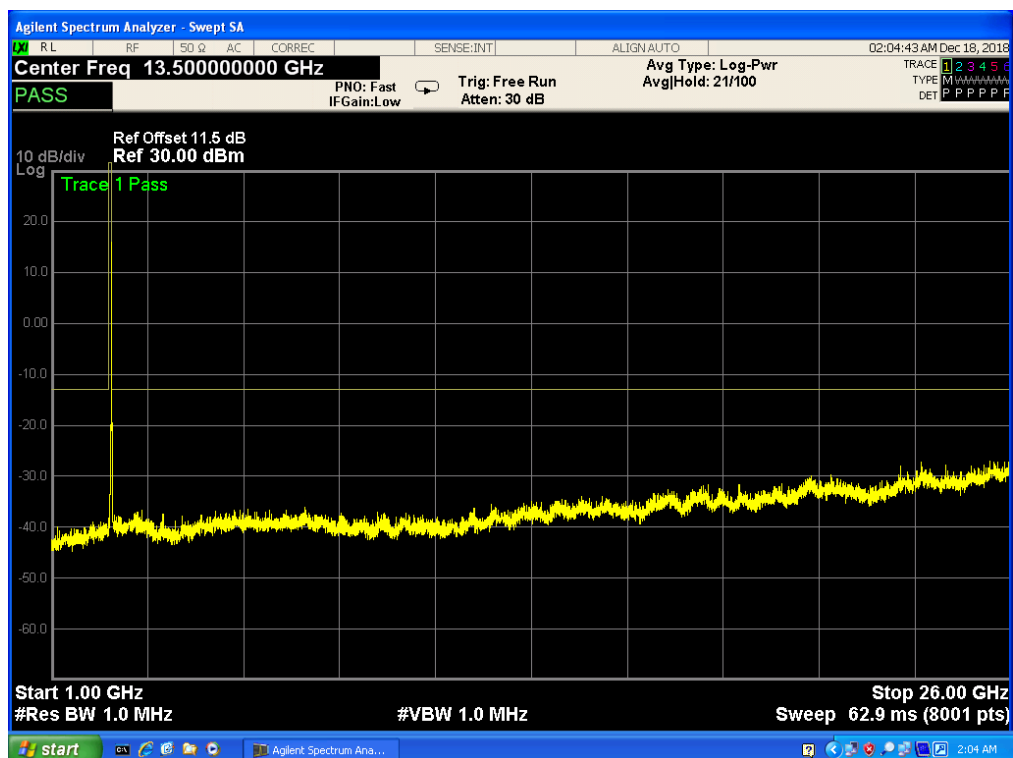
Band 7, UL Channel 21350, UL Frequency 2560.0, BW 20.0, NO. RB 100, RB POS. Low, QPSK



Band 7, UL Channel 21350, UL Frequency 2560.0, BW 20.0, NO. RB 100, RB POS. Low, 16-QAM

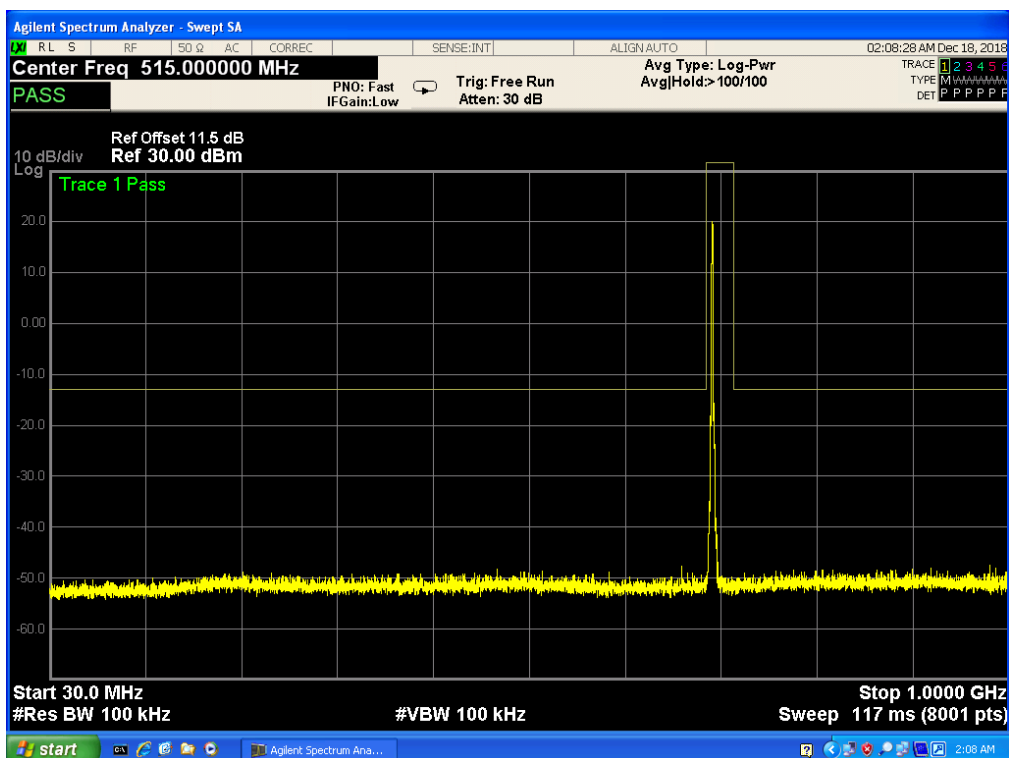


Band 7, UL Channel 21350, UL Frequency 2560.0, BW 20.0, NO. RB 100, RB POS. Low, 16-QAM

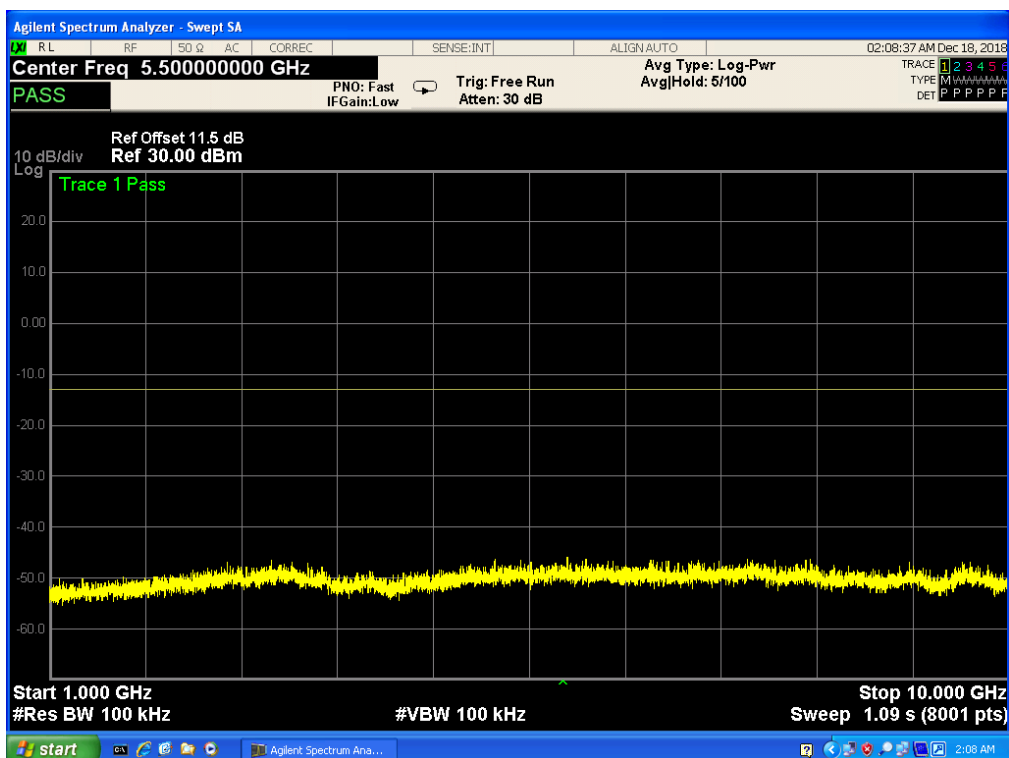


## 7.5 LTE BAND 12

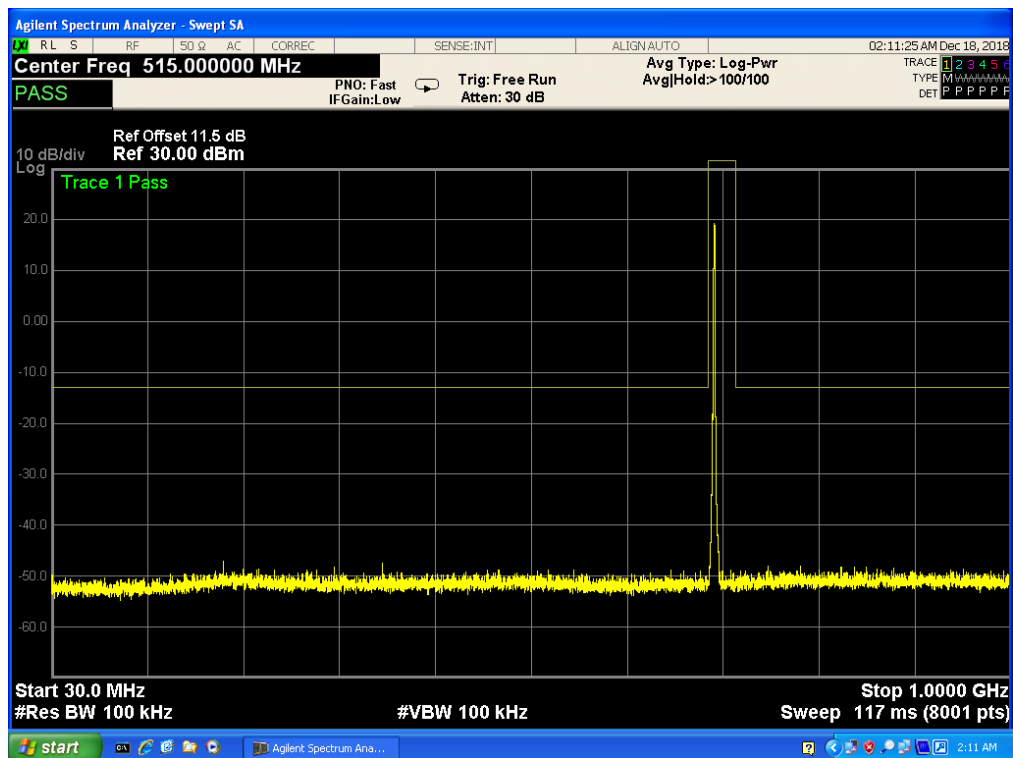
Band 12, UL Channel 23017, UL Frequency 699.7, BW 1.4, NO. RB 6, RB POS. Low, QPSK



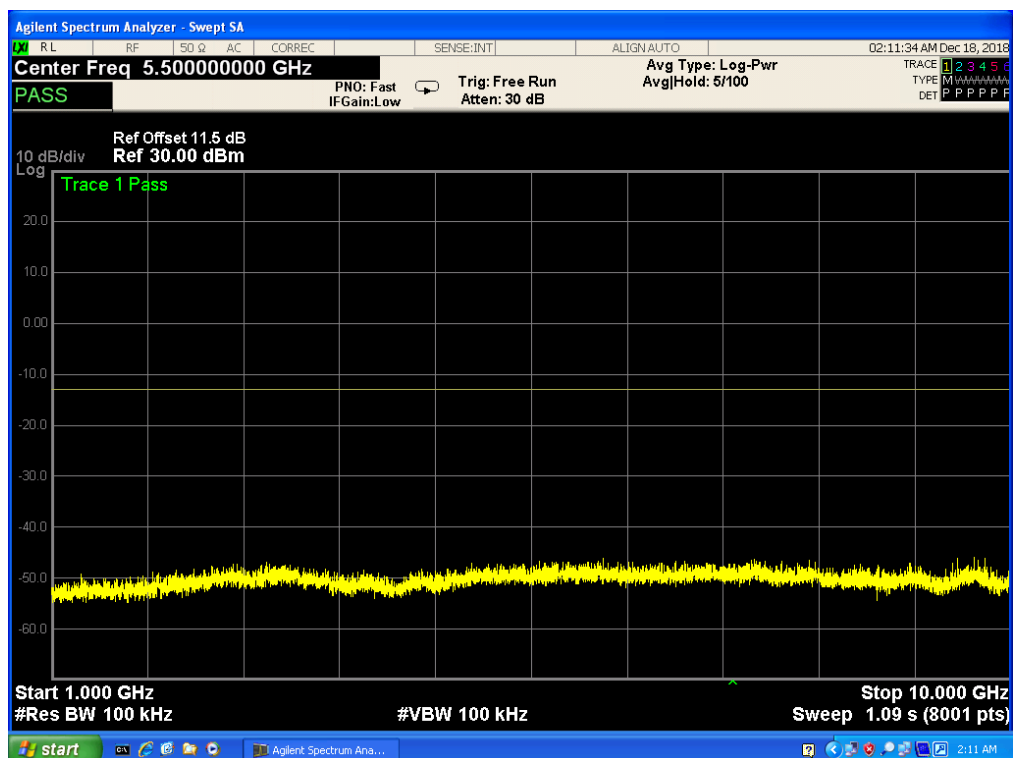
Band 12, UL Channel 23017, UL Frequency 699.7, BW 1.4, NO. RB 6, RB POS. Low, QPSK



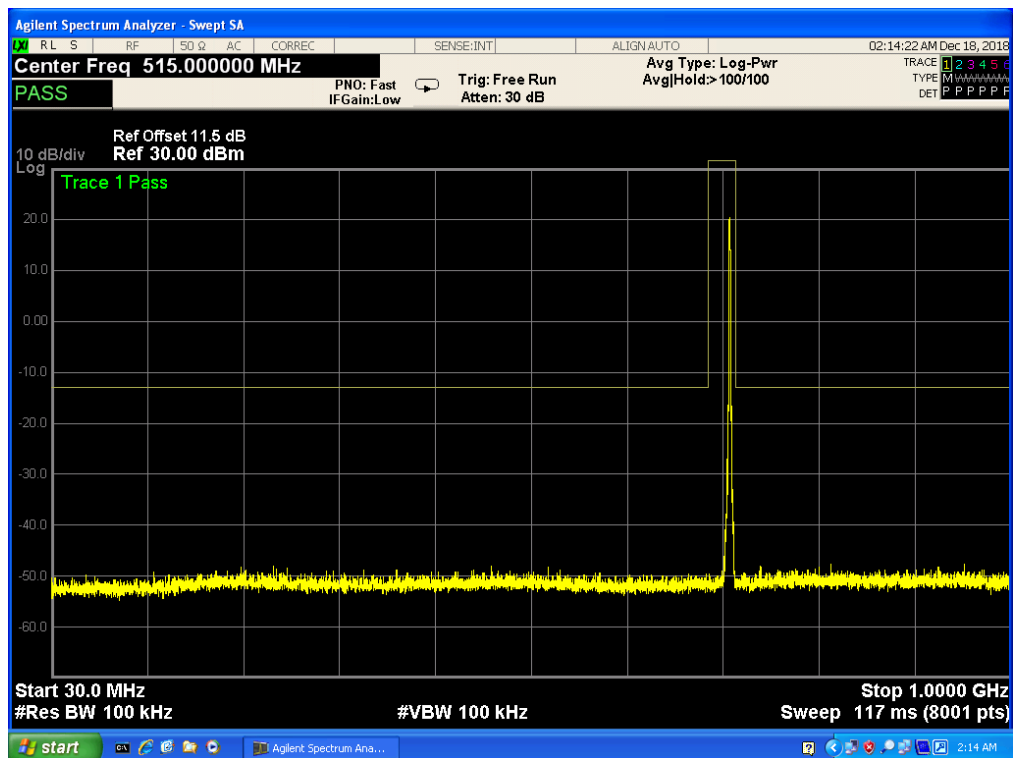
Band 12, UL Channel 23017, UL Frequency 699.7, BW 1.4, NO. RB 6, RB POS. Low, 16-QAM



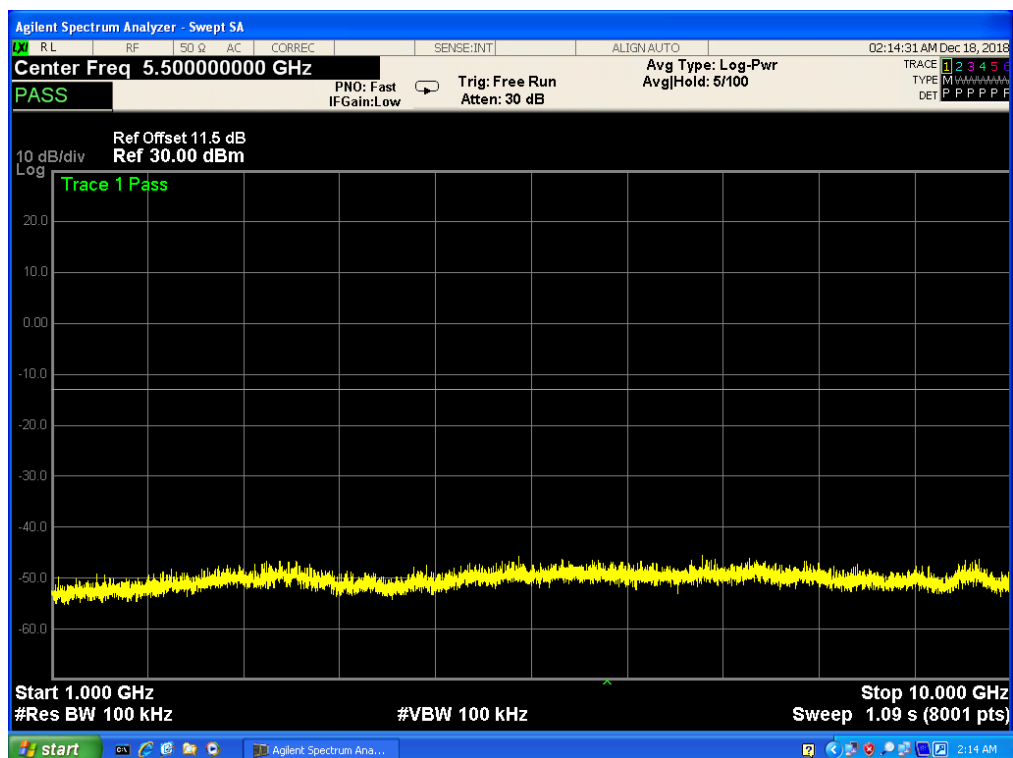
Band 12, UL Channel 23017, UL Frequency 699.7, BW 1.4, NO. RB 6, RB POS. Low, 16-QAM



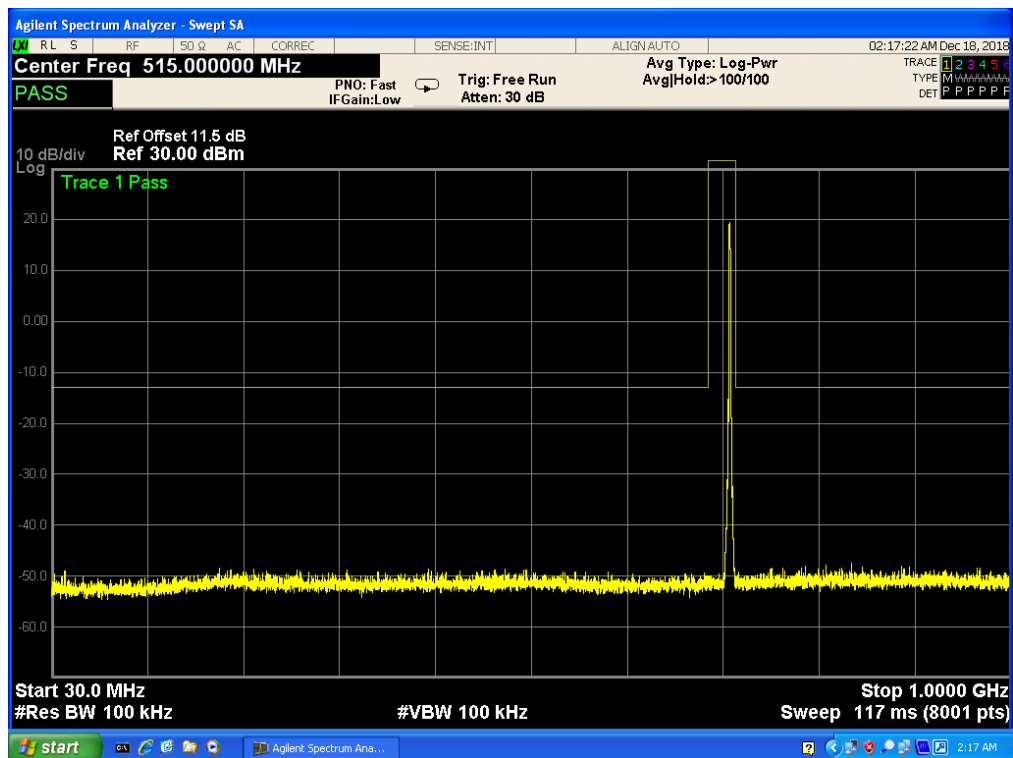
Band 12, UL Channel 23173, UL Frequency 715.3, BW 1.4, NO. RB 6, RB POS. Low, QPSK



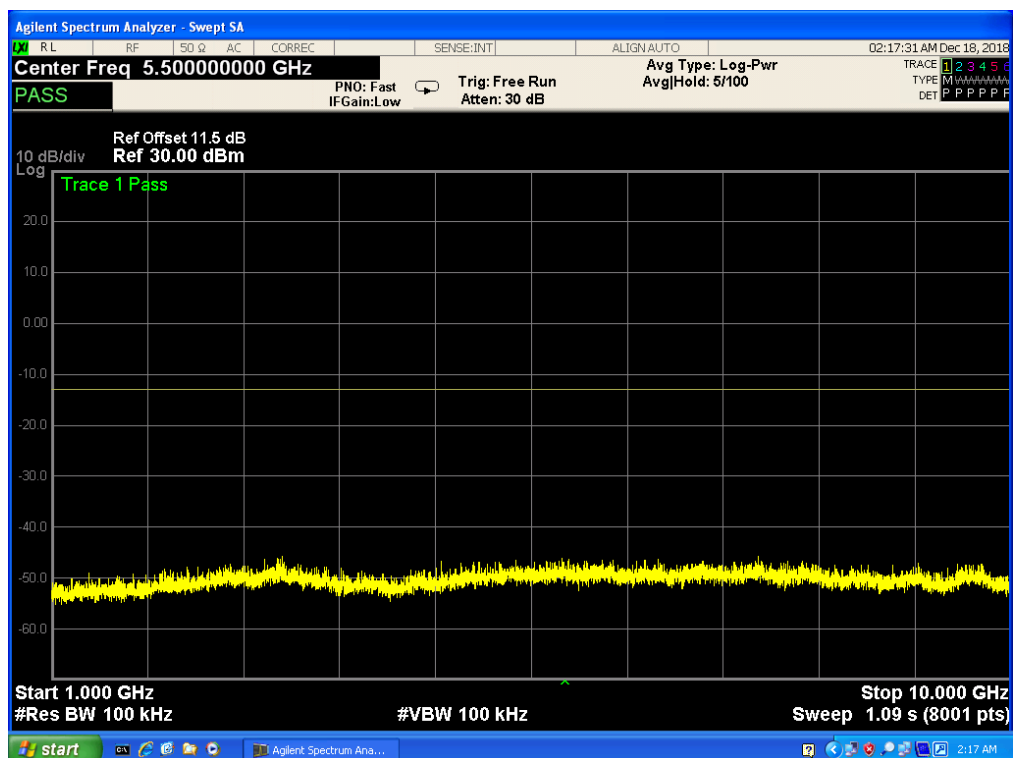
Band 12, UL Channel 23173, UL Frequency 715.3, BW 1.4, NO. RB 6, RB POS. Low, QPSK



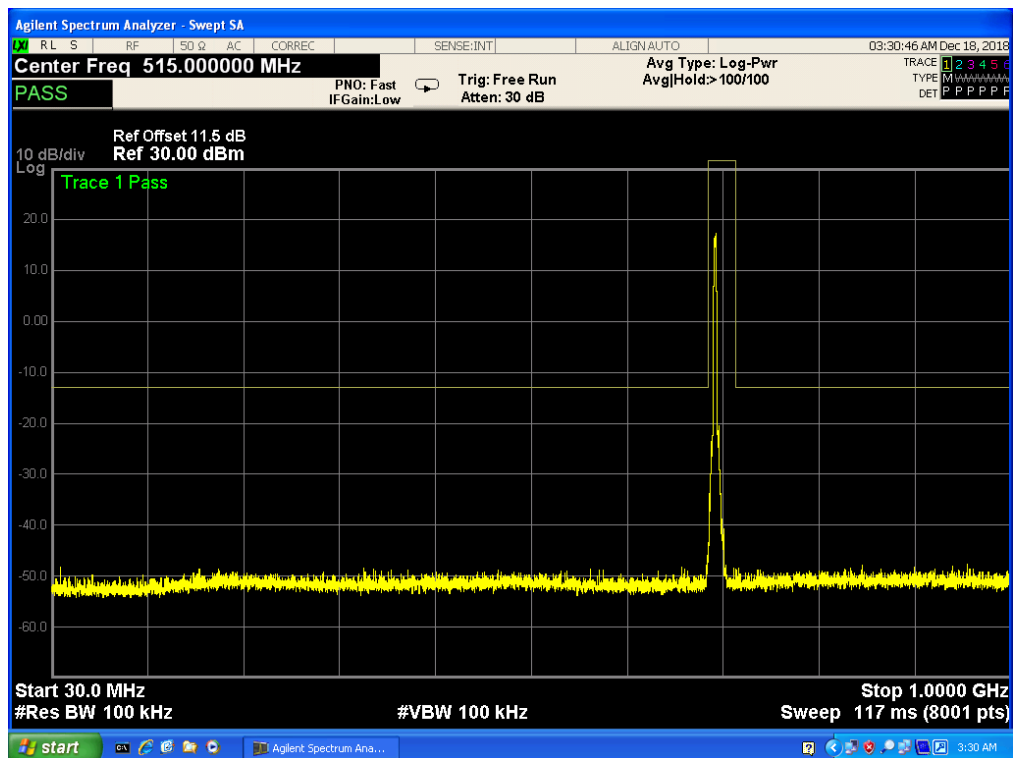
Band 12, UL Channel 23173, UL Frequency 715.3, BW 1.4, NO. RB 6, RB POS. Low, 16-QAM



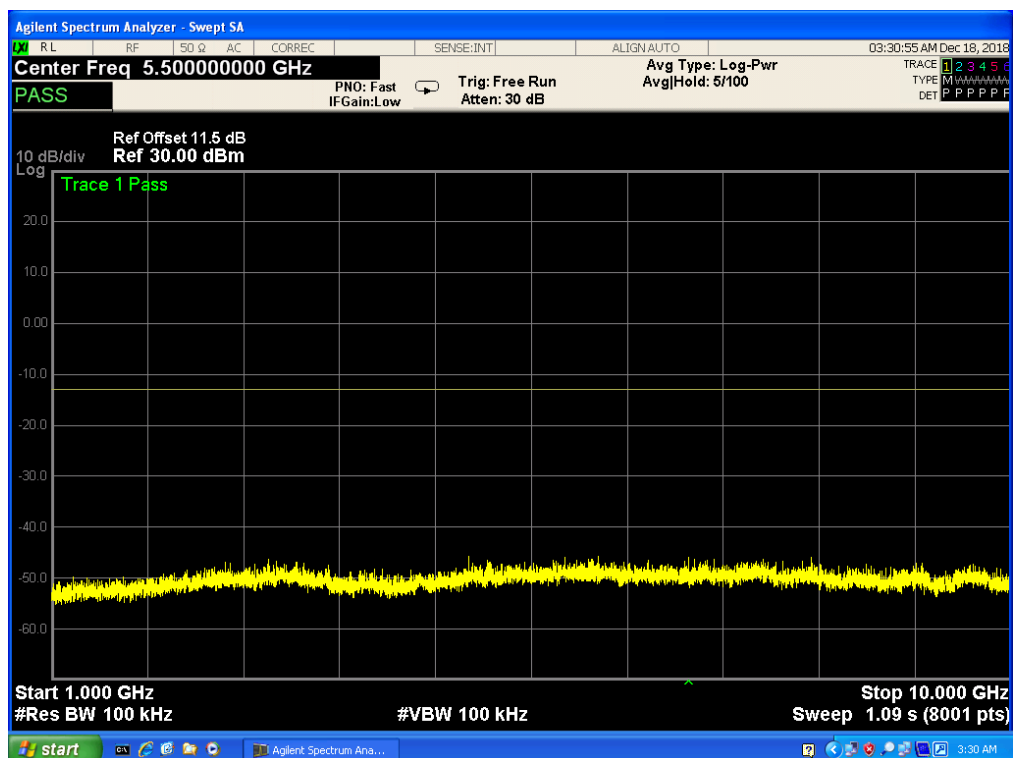
Band 12, UL Channel 23173, UL Frequency 715.3, BW 1.4, NO. RB 6, RB POS. Low, 16-QAM



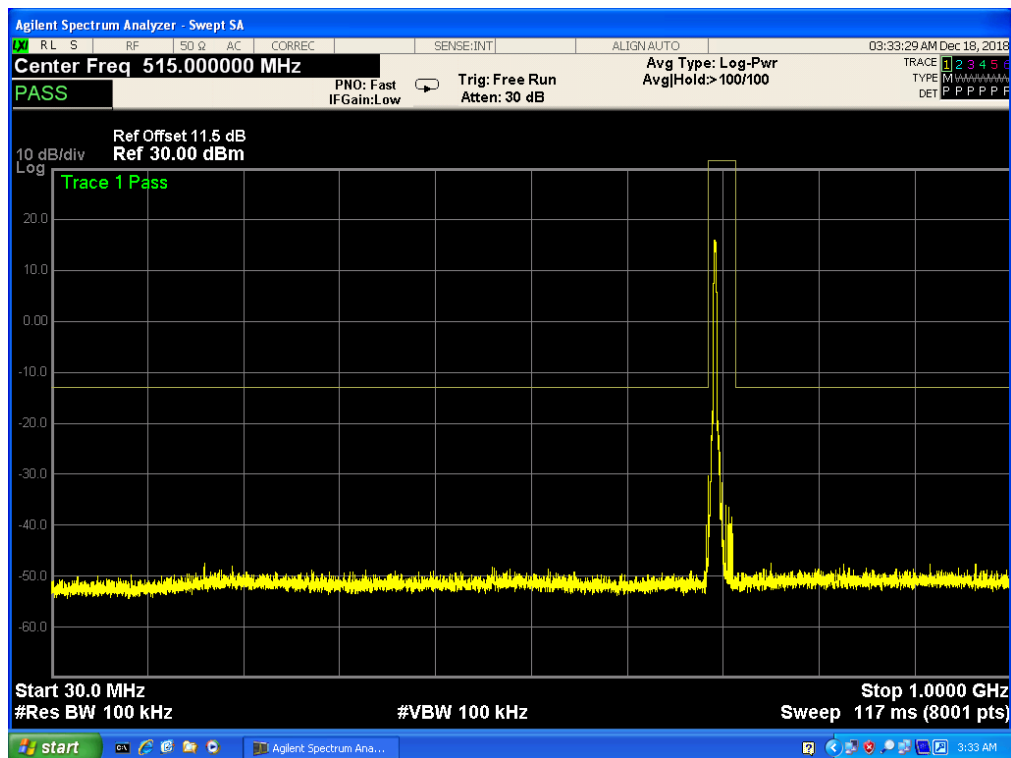
Band 12, UL Channel 23025, UL Frequency 700.5, BW 3.0, NO. RB 15, RB POS. Low, QPSK



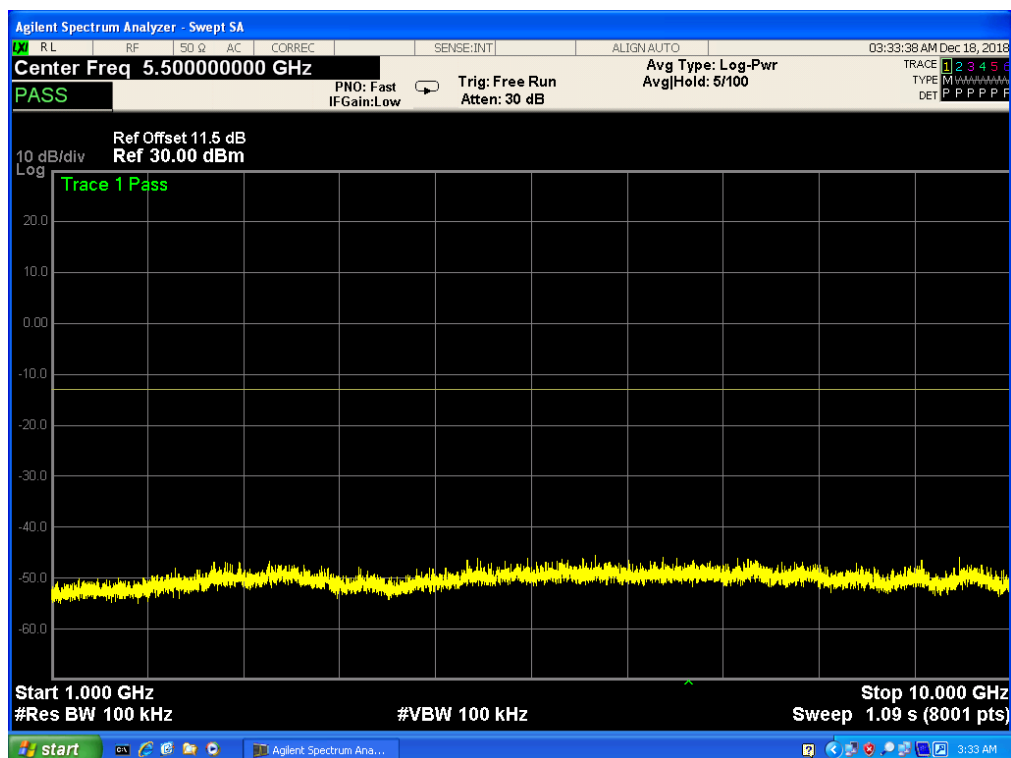
Band 12, UL Channel 23025, UL Frequency 700.5, BW 3.0, NO. RB 15, RB POS. Low, QPSK



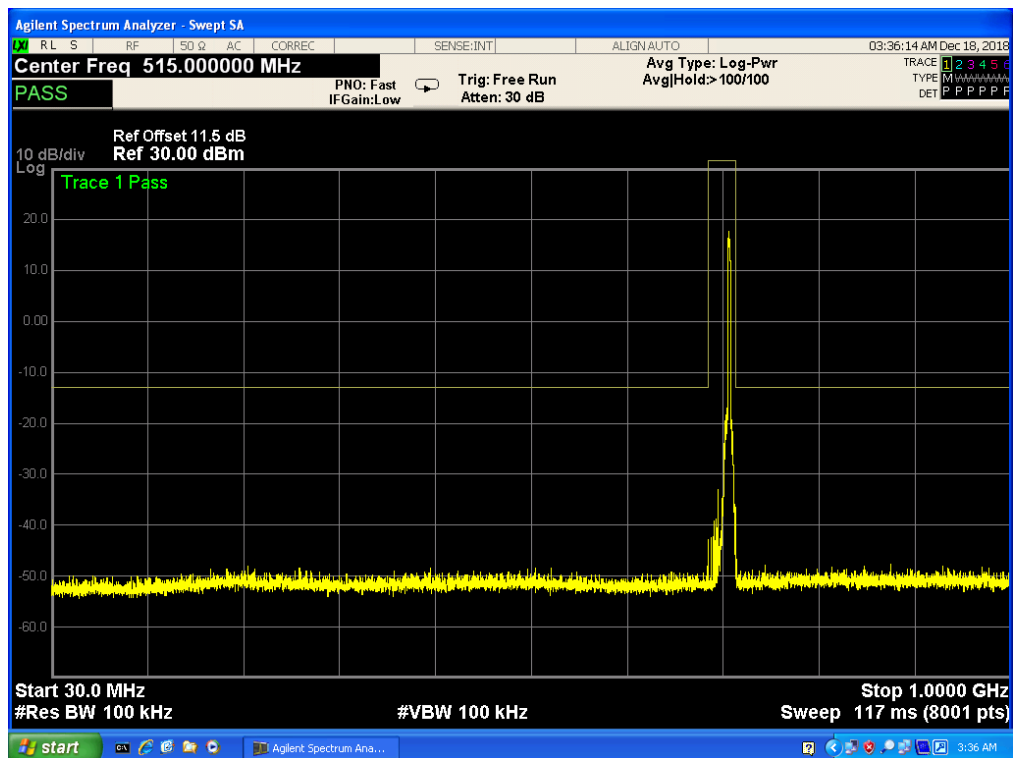
Band 12,UL Channel 23025,UL Frequency 700.5,BW 3.0,NO. RB 15,RB POS. Low,16-QAM



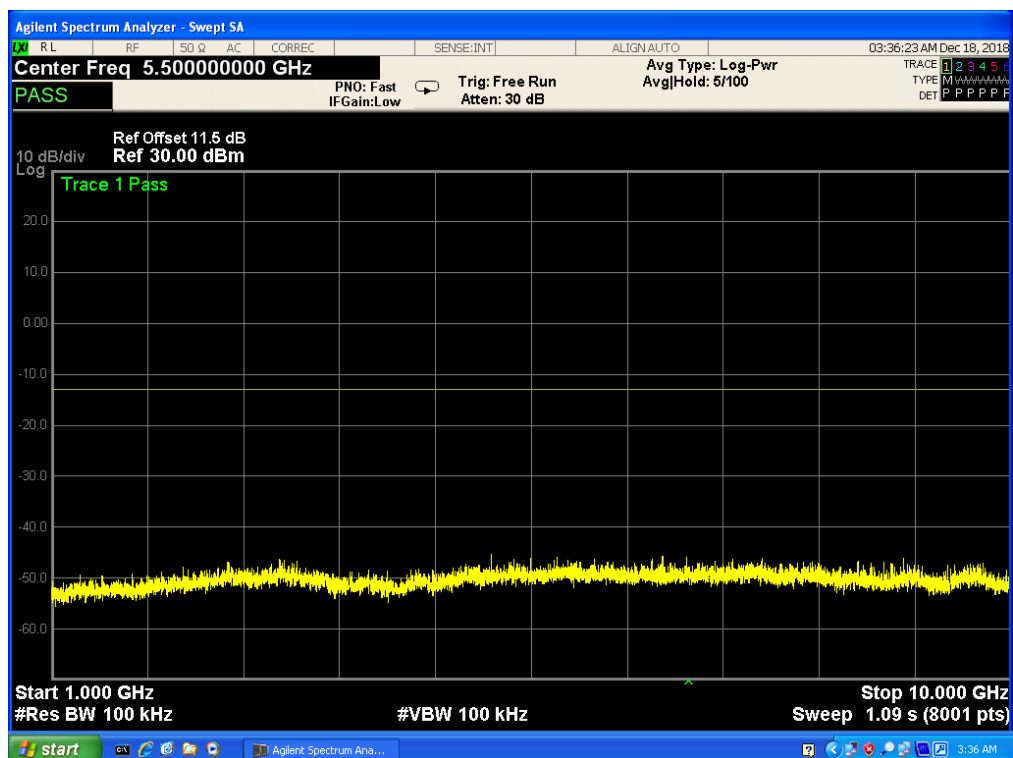
Band 12,UL Channel 23025,UL Frequency 700.5,BW 3.0,NO. RB 15,RB POS. Low,16-QAM



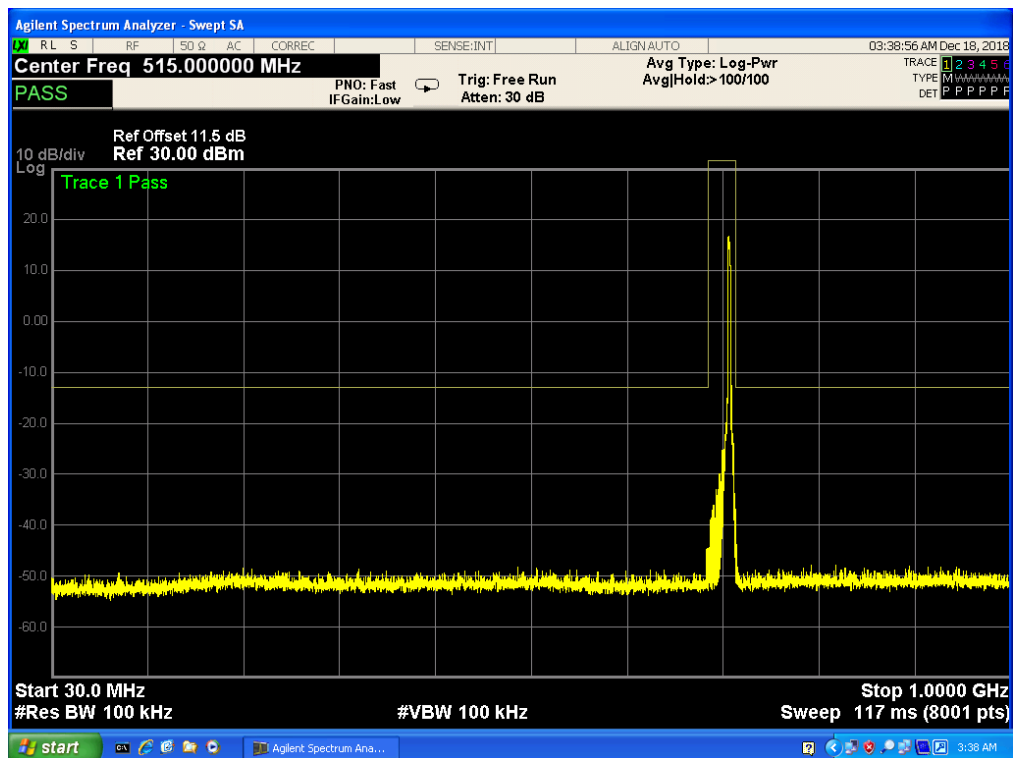
Band 12, UL Channel 23165, UL Frequency 714.5, BW 3.0, NO. RB 15, RB POS. Low, QPSK



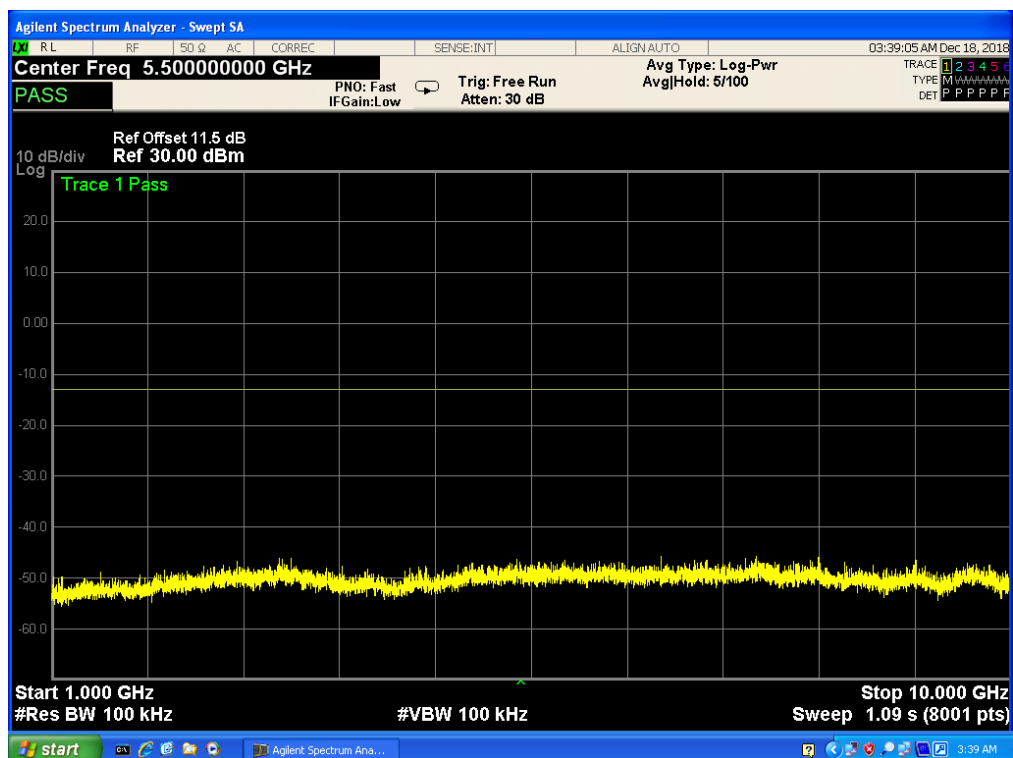
Band 12, UL Channel 23165, UL Frequency 714.5, BW 3.0, NO. RB 15, RB POS. Low, QPSK



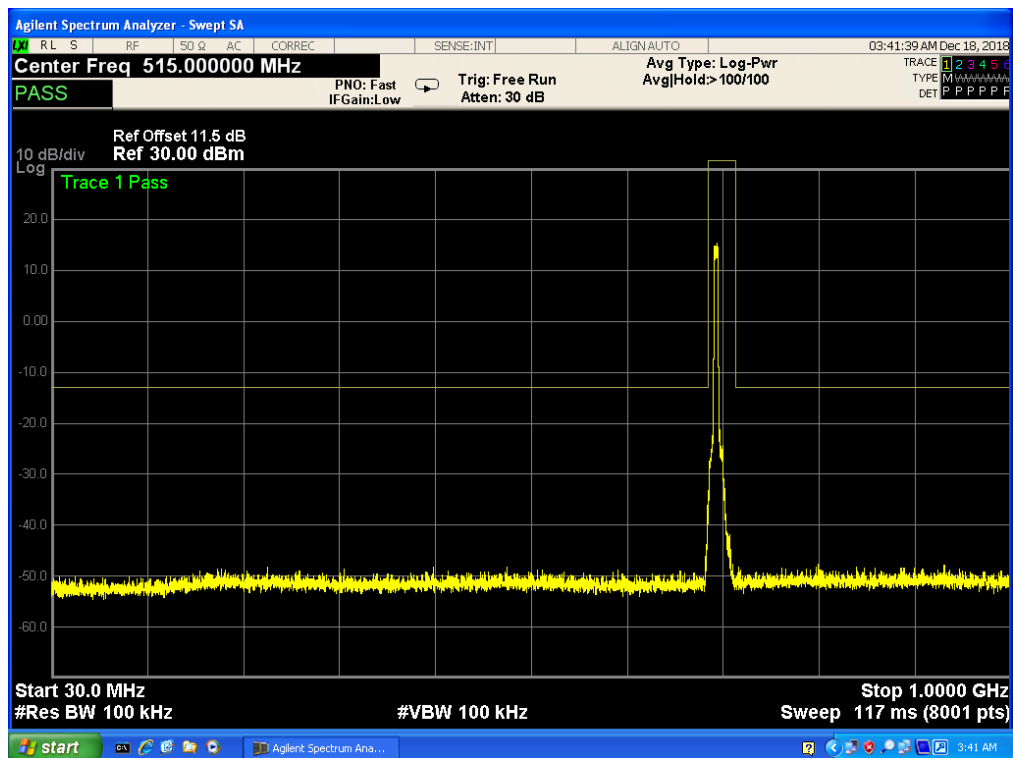
Band 12,UL Channel 23165,UL Frequency 714.5,BW 3.0,NO. RB 15,RB POS. Low,16-QAM



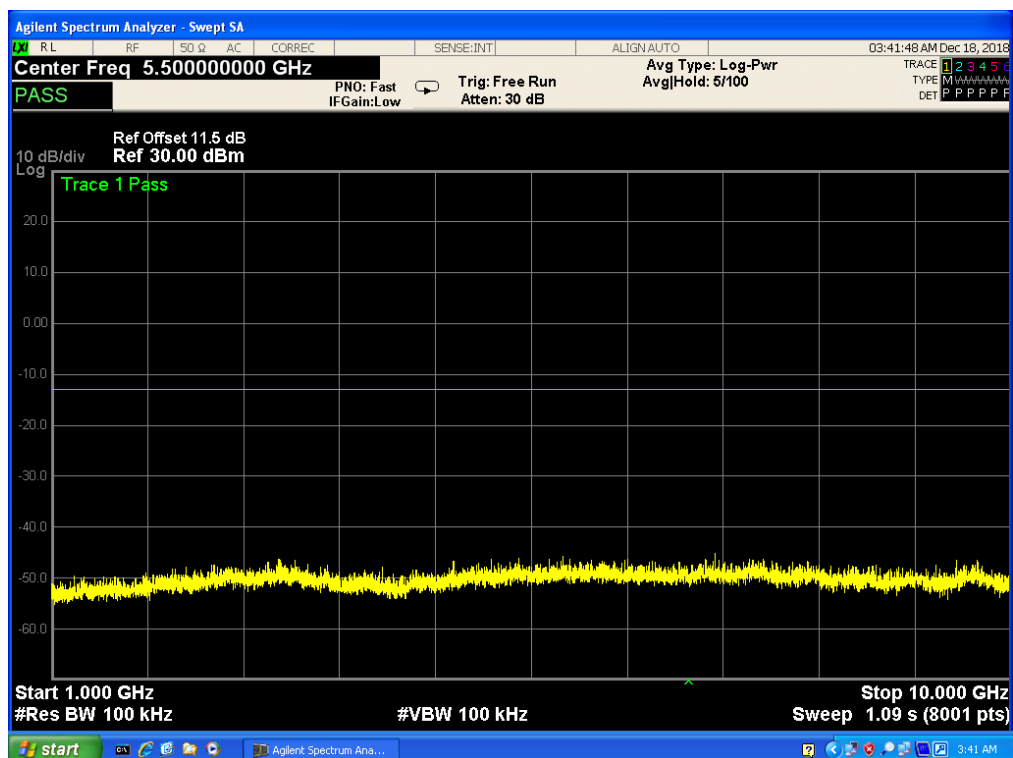
Band 12,UL Channel 23165,UL Frequency 714.5,BW 3.0,NO. RB 15,RB POS. Low,16-QAM



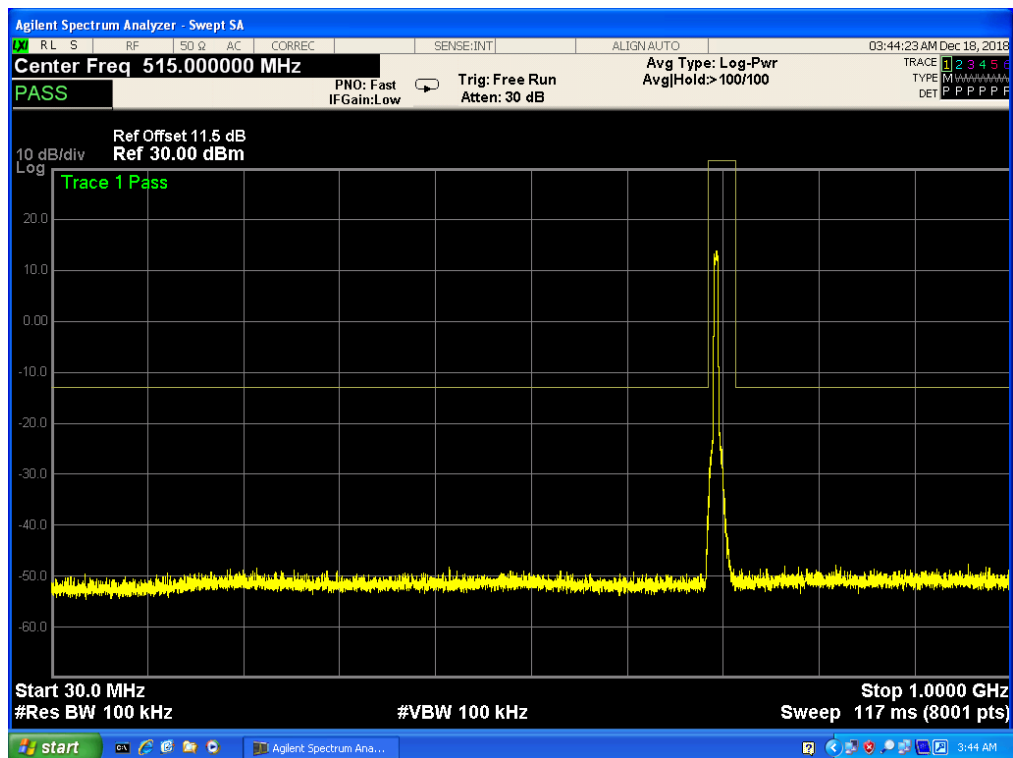
Band 12, UL Channel 23035, UL Frequency 701.5, BW 5.0, NO. RB 25, RB POS. Low, QPSK



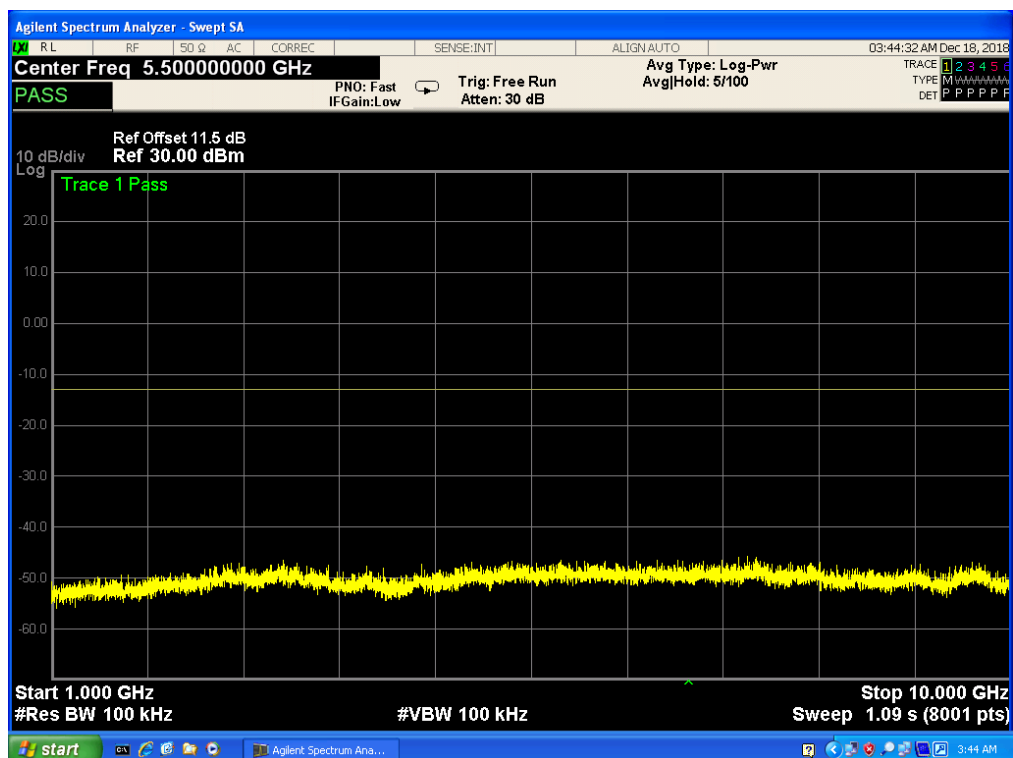
Band 12, UL Channel 23035, UL Frequency 701.5, BW 5.0, NO. RB 25, RB POS. Low, QPSK



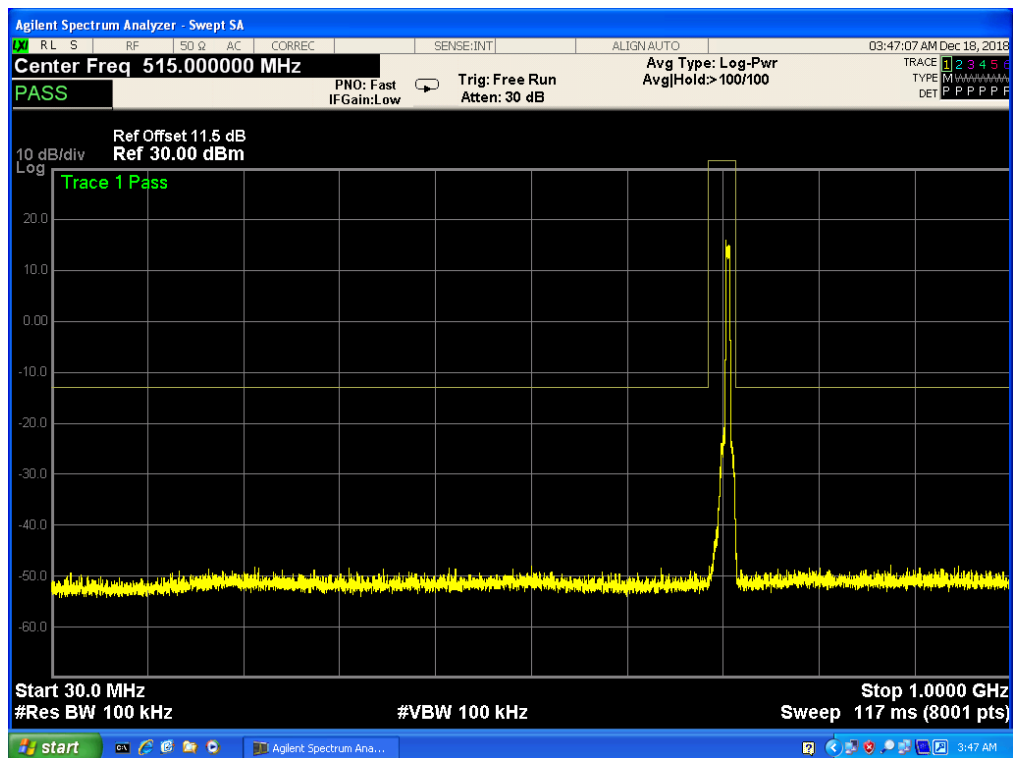
Band 12,UL Channel 23035,UL Frequency 701.5,BW 5.0,NO. RB 25,RB POS. Low,16-QAM



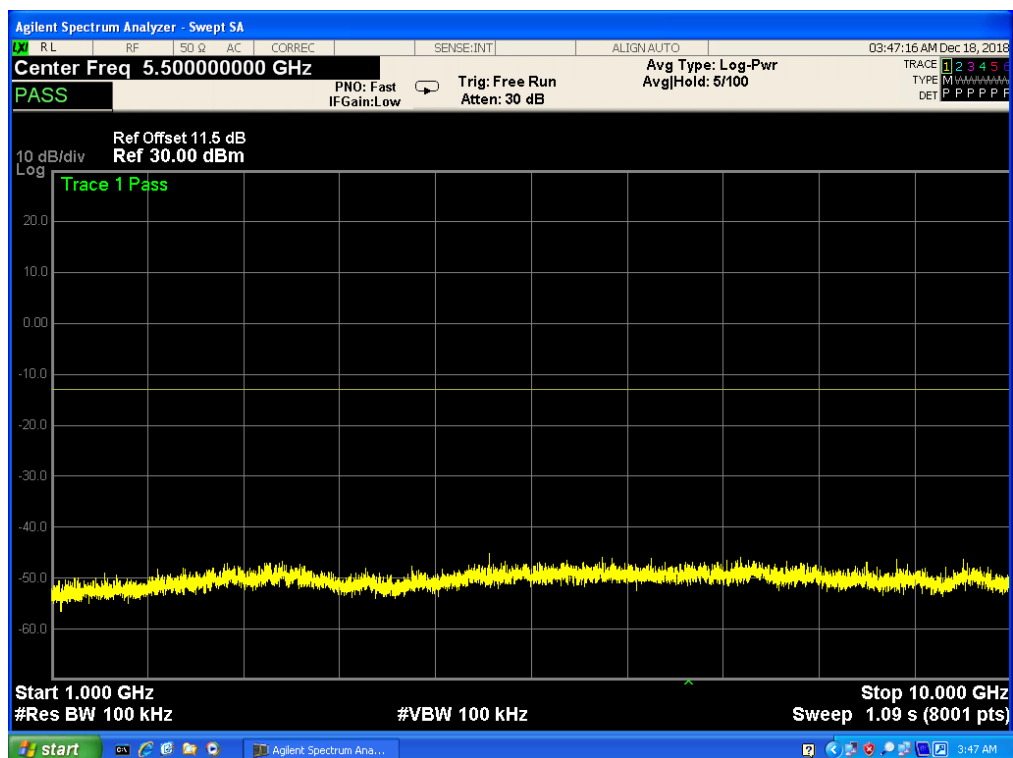
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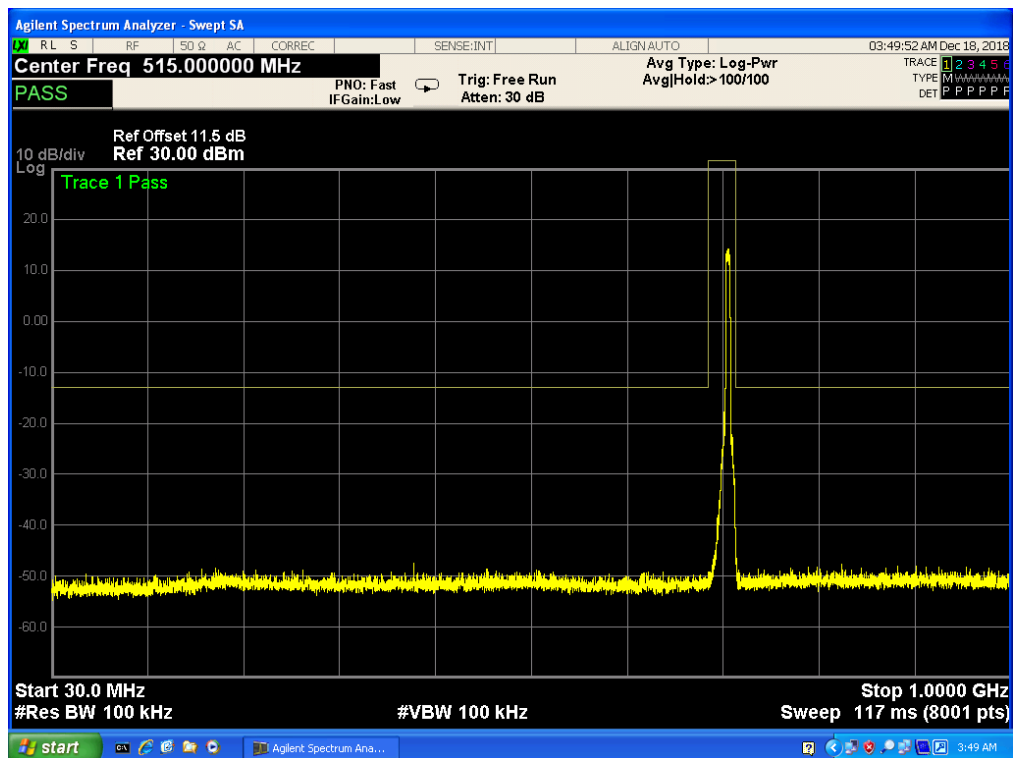
Band 12, UL Channel 23155, UL Frequency 713.5, BW 5.0, NO. RB 25, RB POS. Low, QPSK



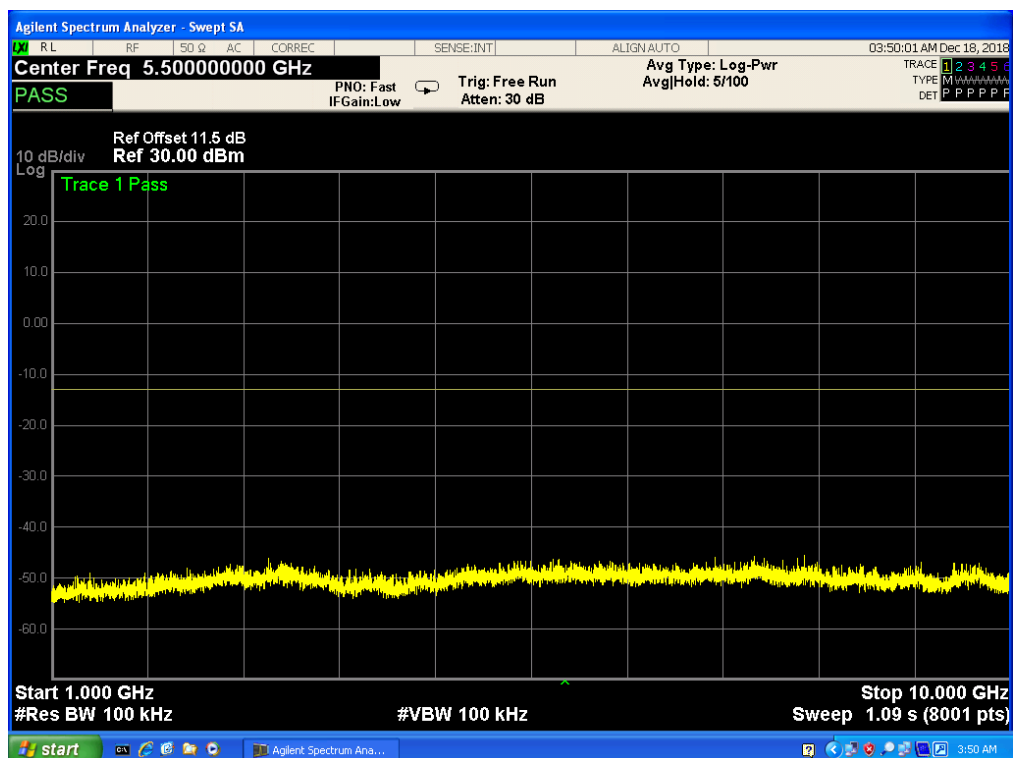
Band 12, UL Channel 23155, UL Frequency 713.5, BW 5.0, NO. RB 25, RB POS. Low, QPSK



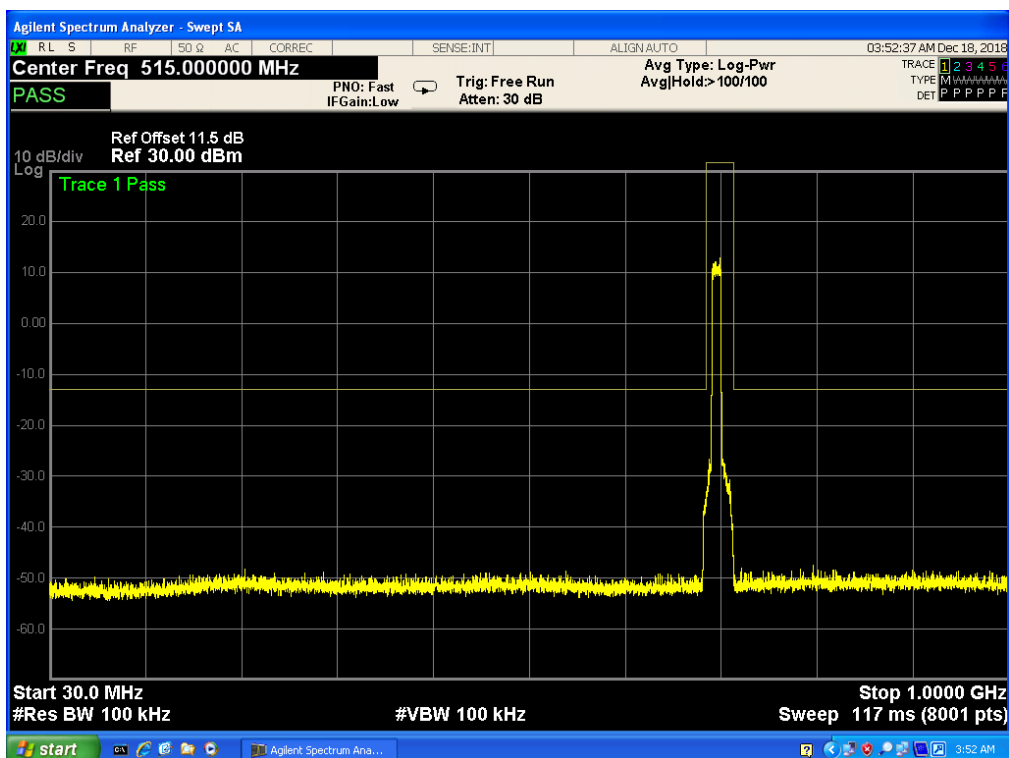
Band 12, UL Channel 23155, UL Frequency 713.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



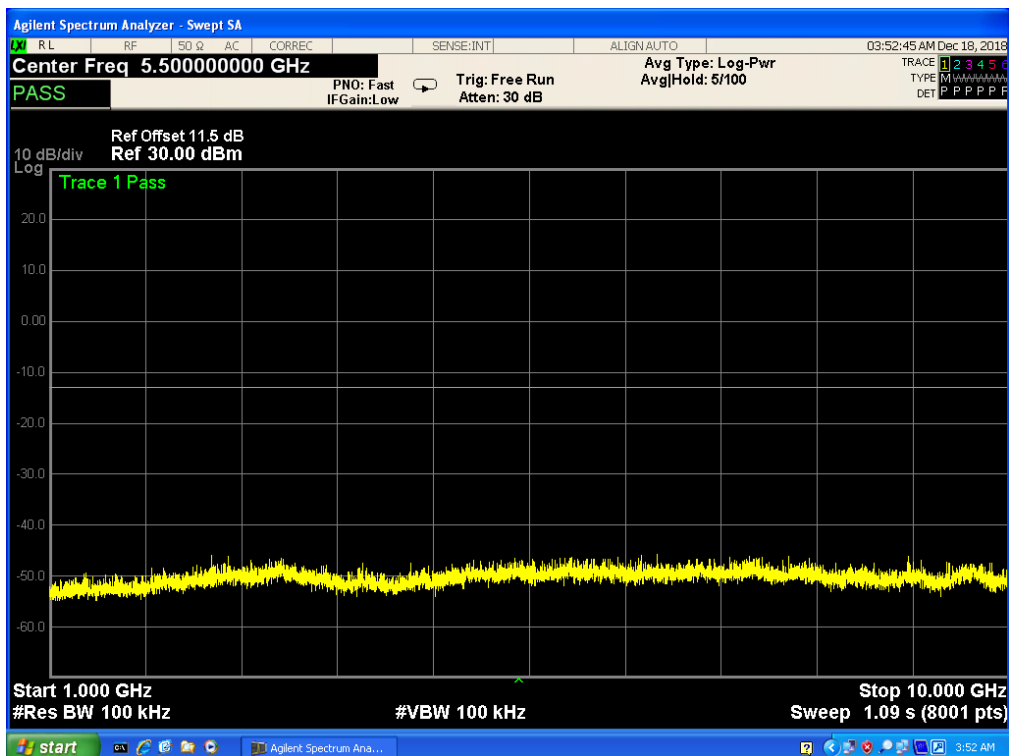
Band 12, UL Channel 23155, UL Frequency 713.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



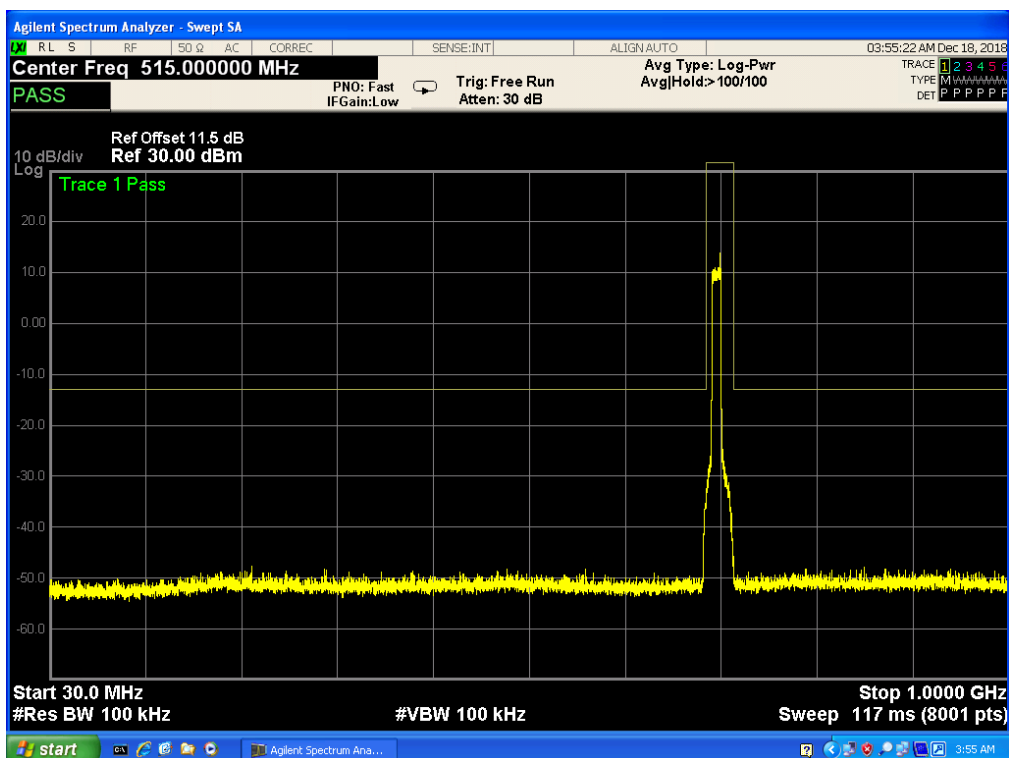
Band 12, UL Channel 23060, UL Frequency 704.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



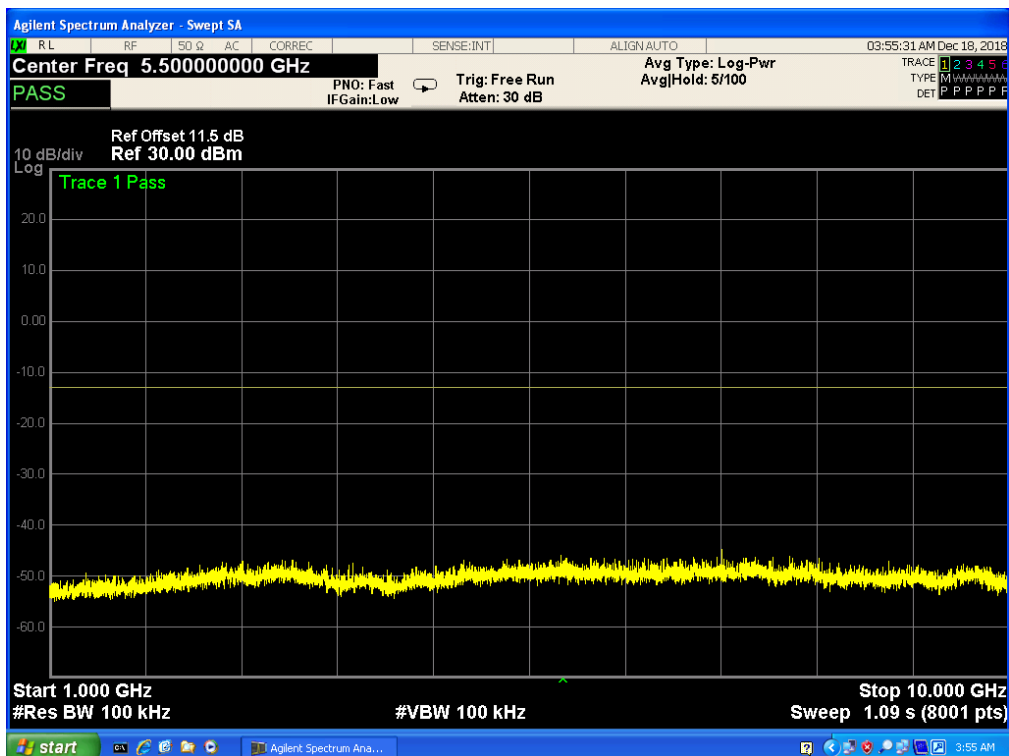
Band 12, UL Channel 23060, UL Frequency 704.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



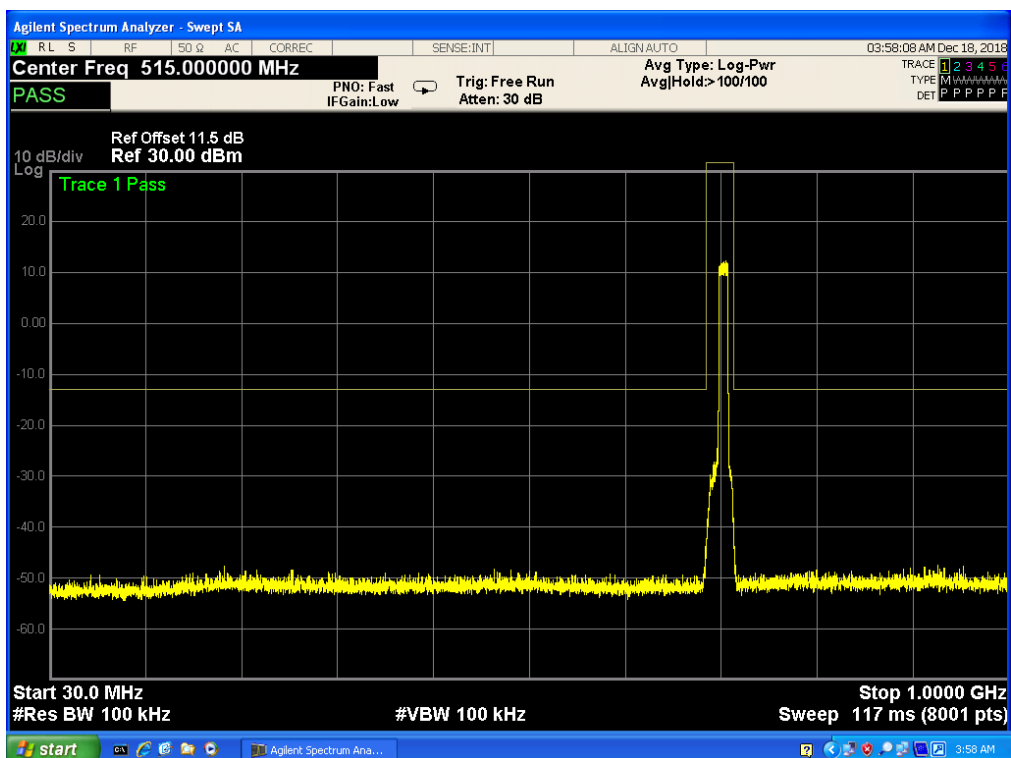
Band 12,UL Channel 23060,UL Frequency 704.0,BW 10.0,NO. RB 50,RB POS. Low,16-QAM



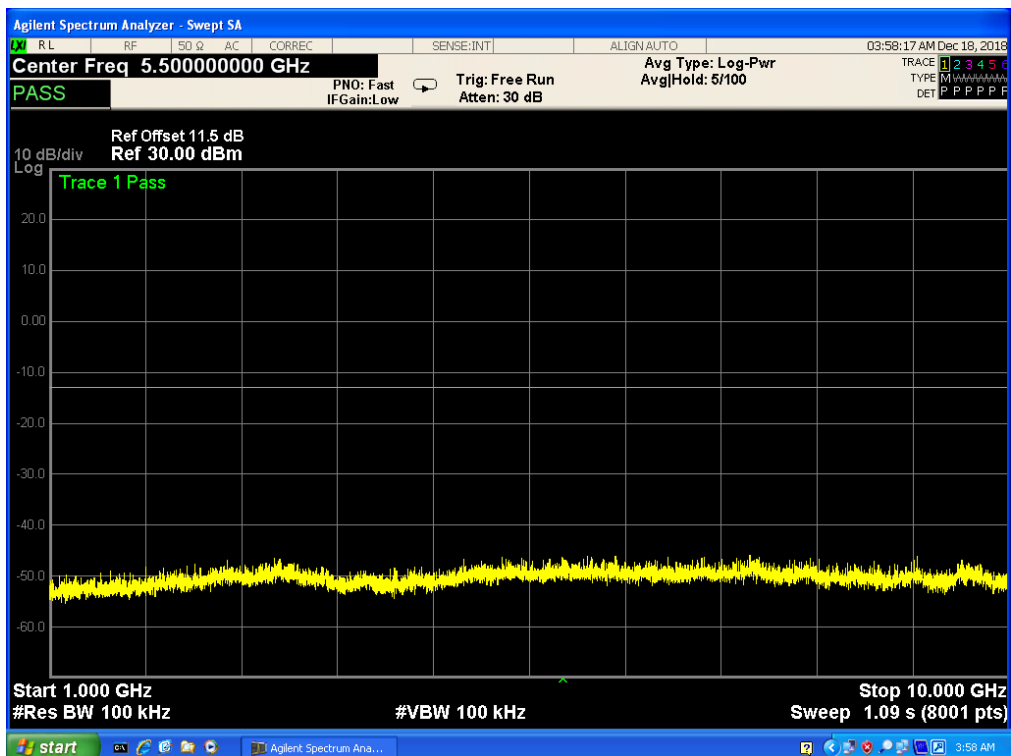
Band 12,UL Channel 23060,UL Frequency 704.0,BW 10.0,NO. RB 50,RB POS. Low,16-QAM



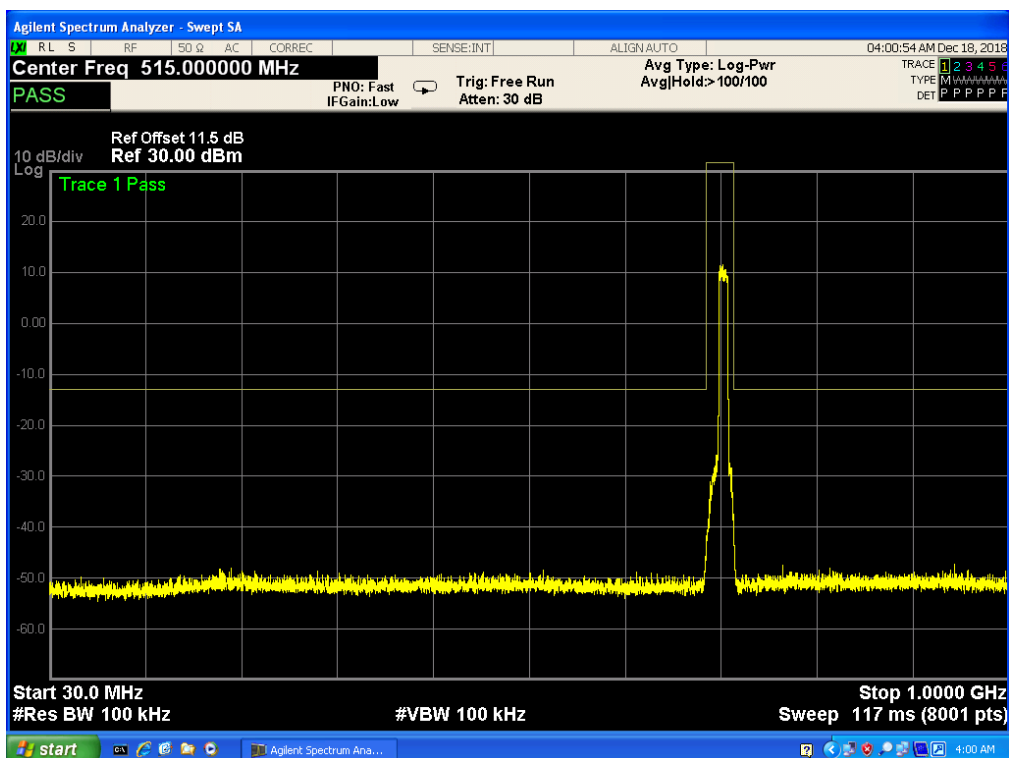
Band 12, UL Channel 23130, UL Frequency 711.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



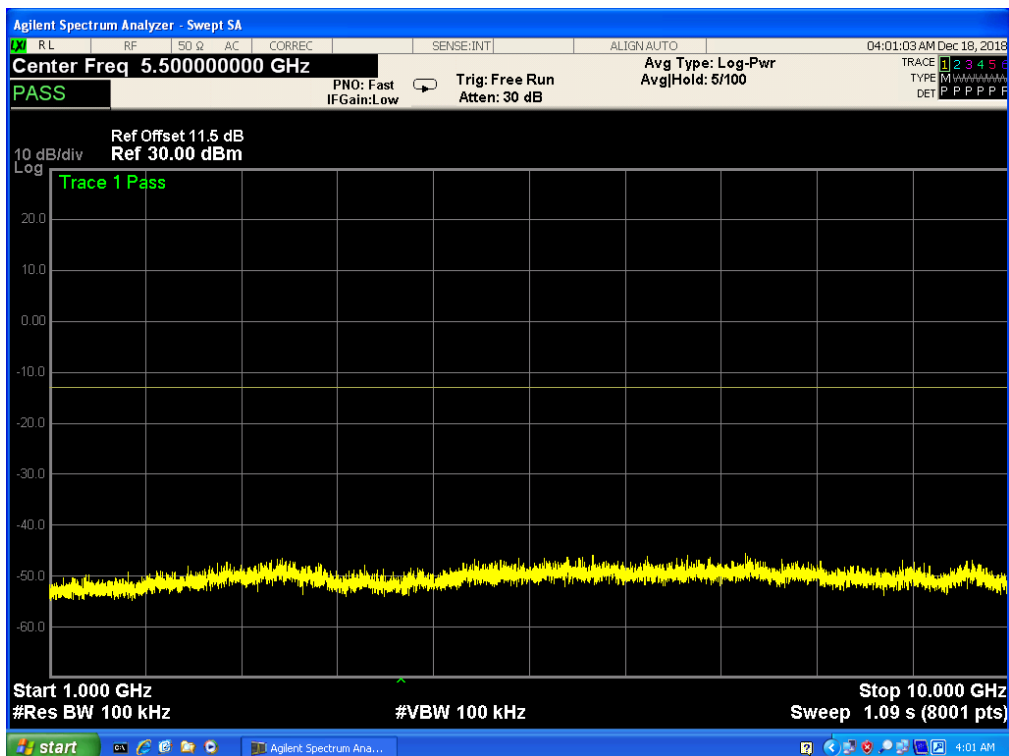
Band 12, UL Channel 23130, UL Frequency 711.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



Band 12,UL Channel 23130,UL Frequency 711.0,BW 10.0,NO. RB 50,RB POS. Low,16-QAM

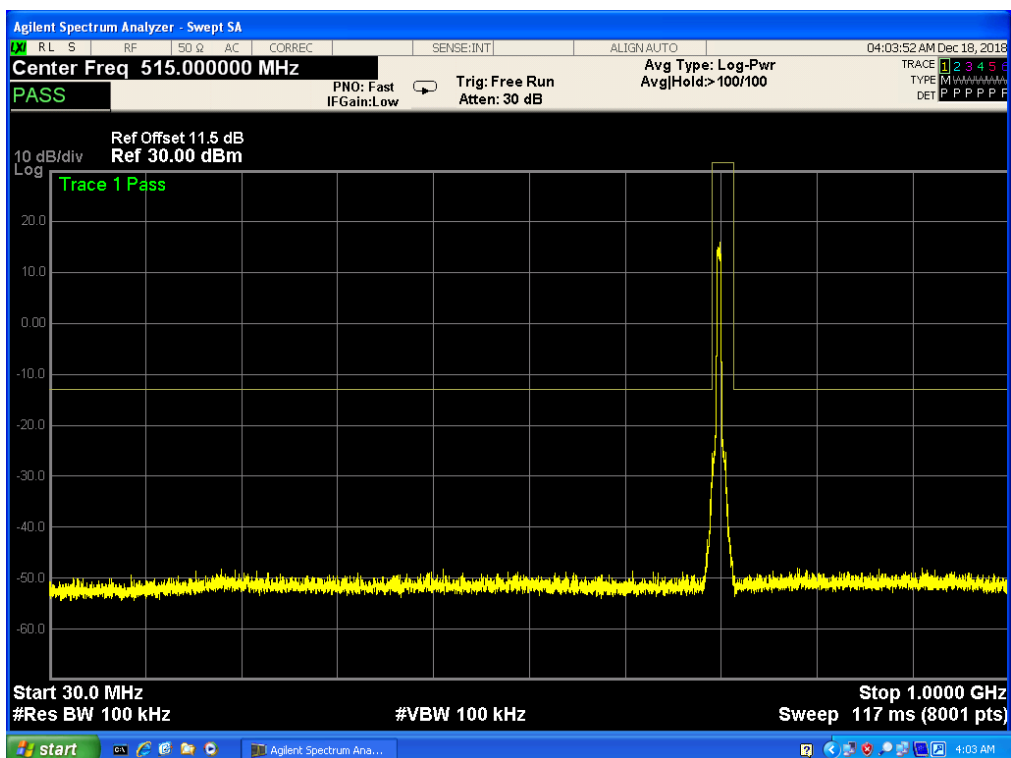


Band 12,UL Channel 23130,UL Frequency 711.0,BW 10.0,NO. RB 50,RB POS. Low,16-QAM

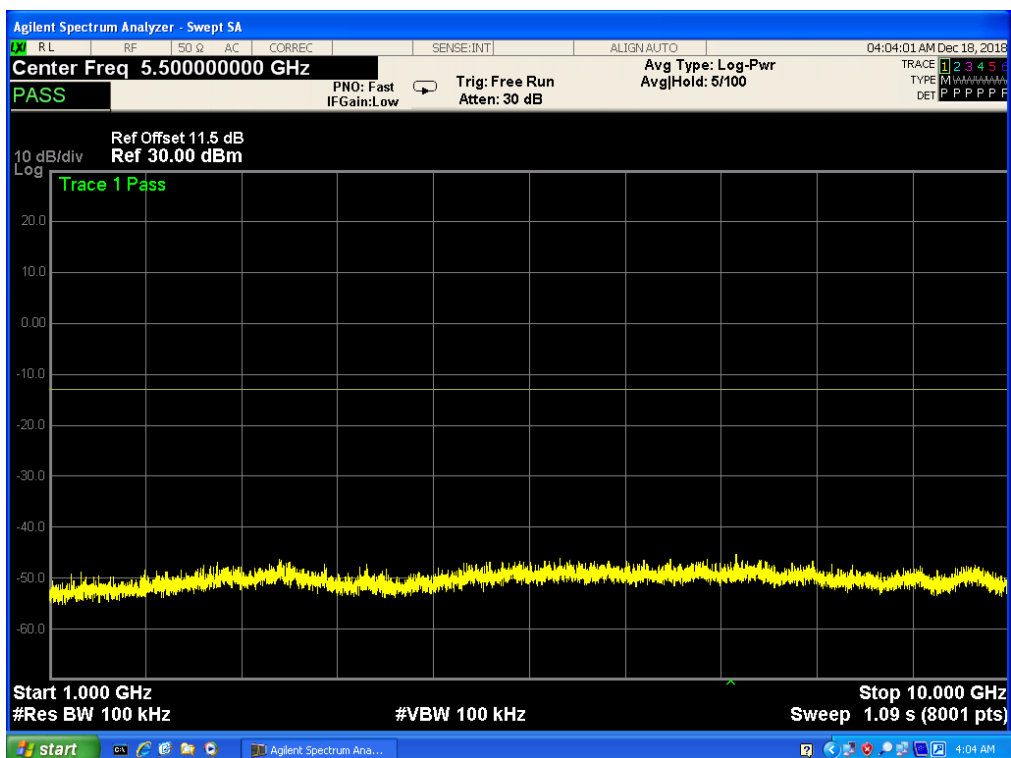


## 7.6 LTE BAND 17

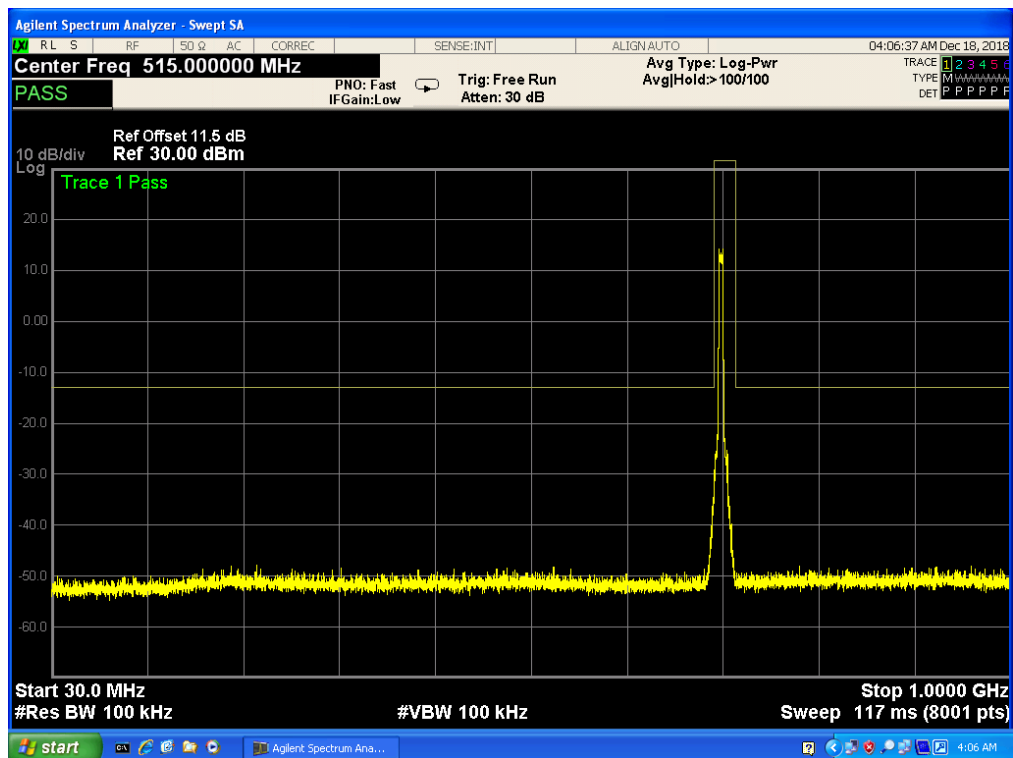
Band 17, UL Channel 23755, UL Frequency 706.5, BW 5.0, NO. RB 25, RB POS. Low, QPSK



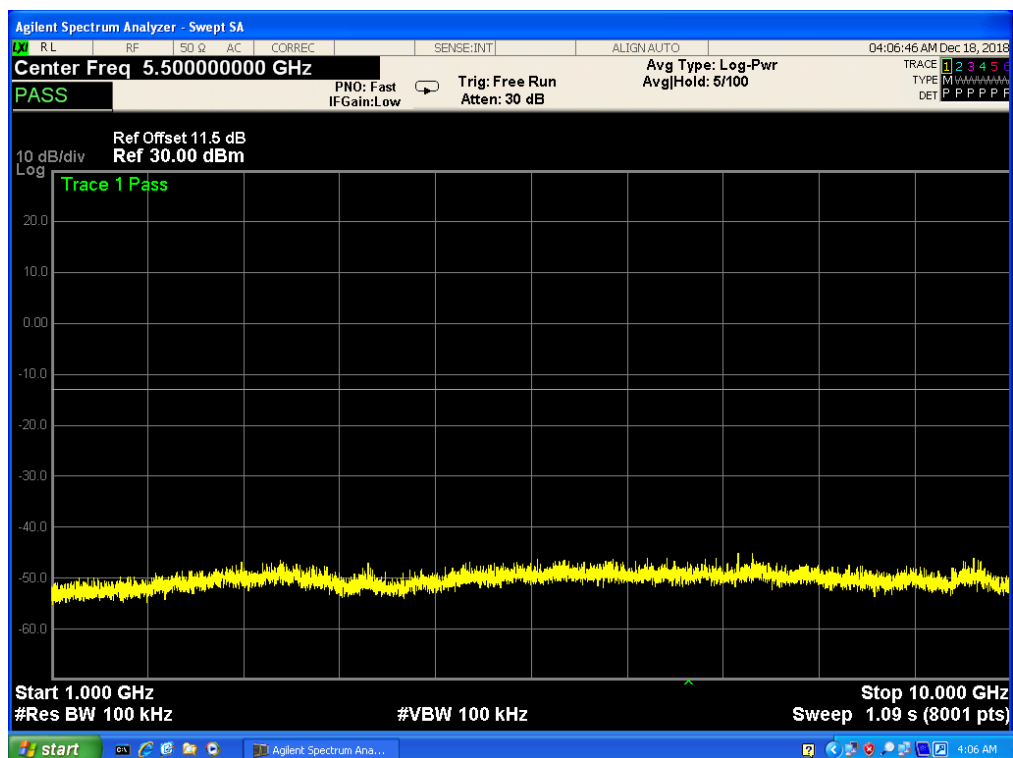
Band 17, UL Channel 23755, UL Frequency 706.5, BW 5.0, NO. RB 25, RB POS. Low, QPSK



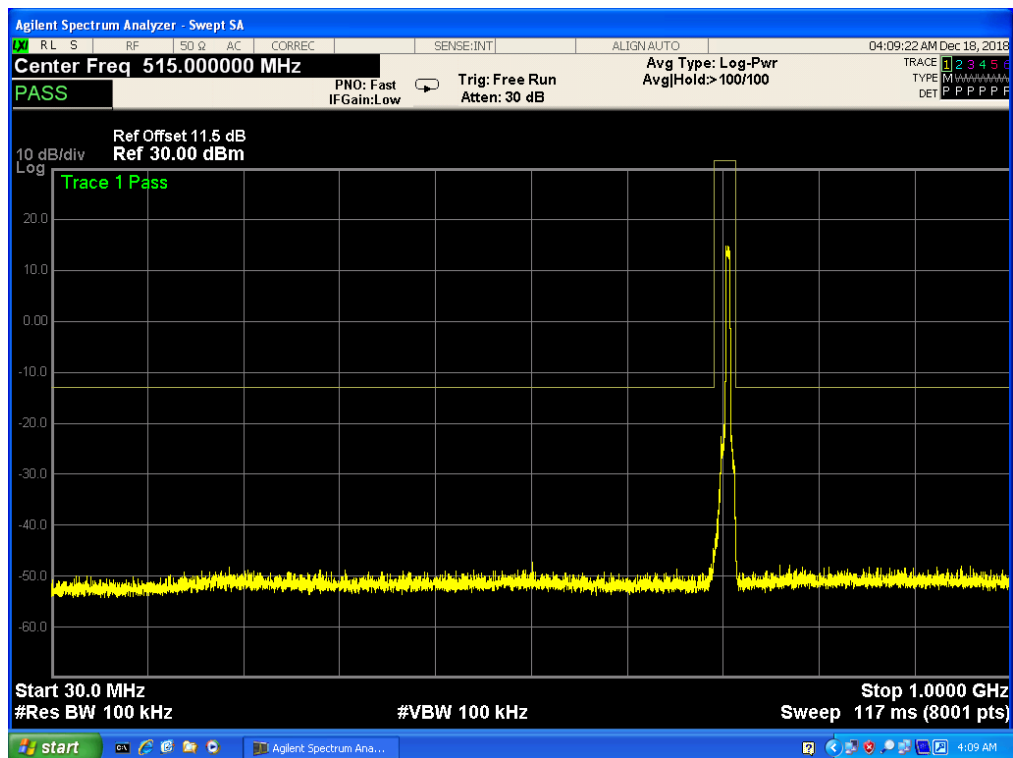
Band 17, UL Channel 23755, UL Frequency 706.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



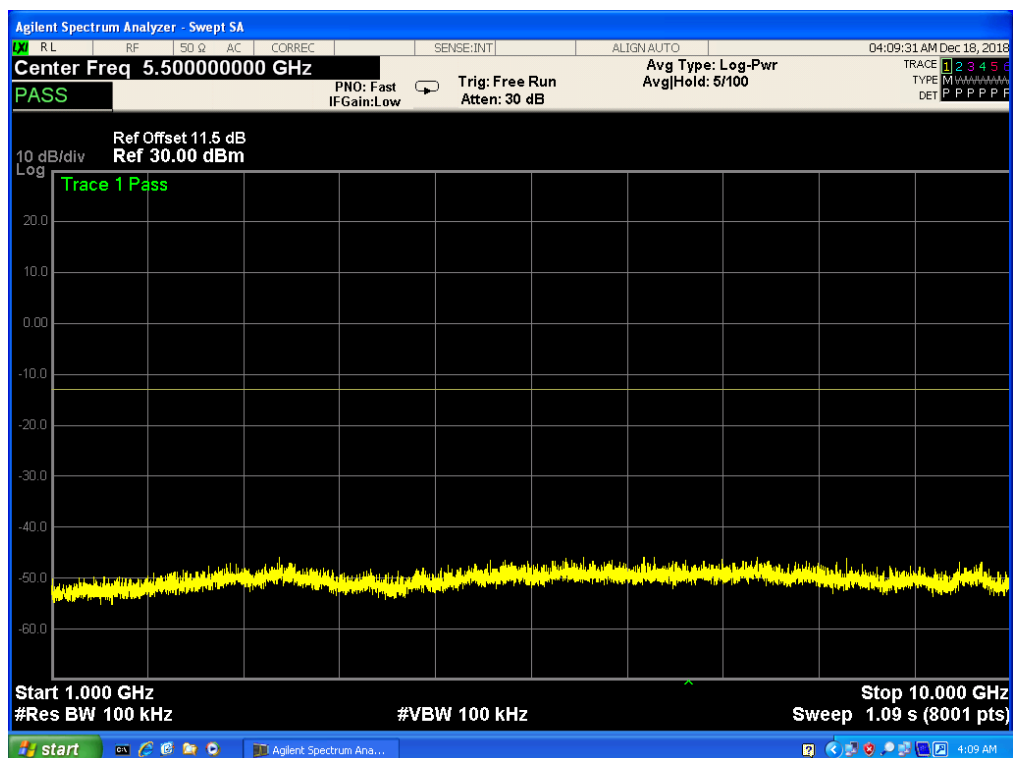
Band 17, UL Channel 23755, UL Frequency 706.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



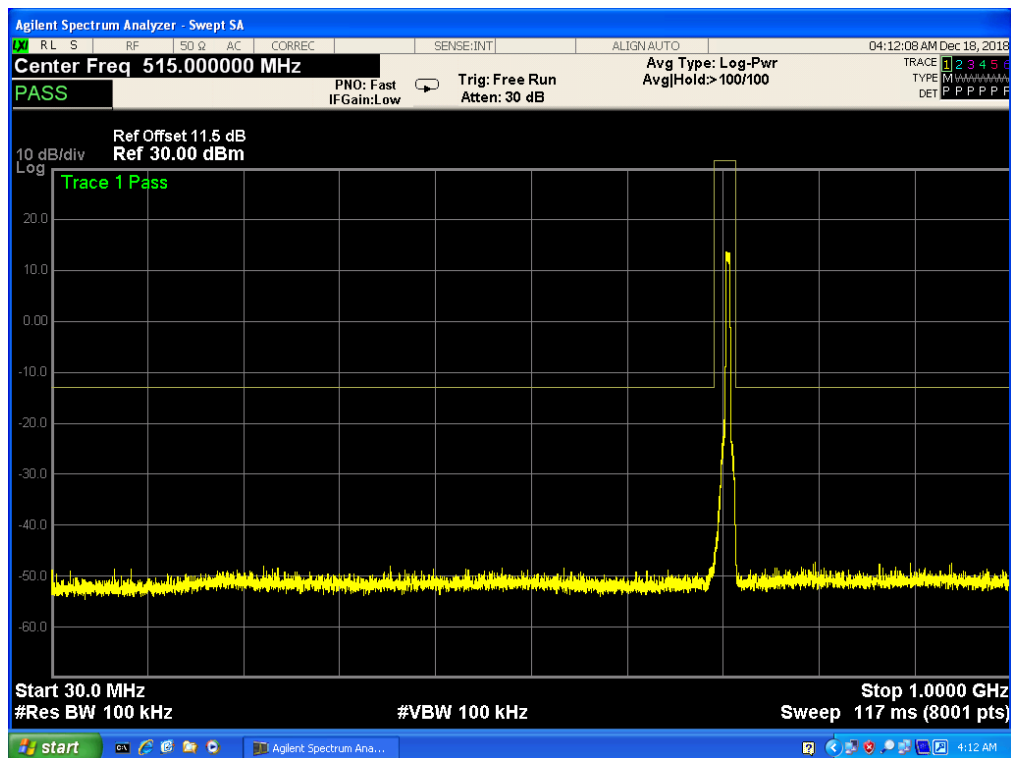
Band 17, UL Channel 23825, UL Frequency 713.5, BW 5.0, NO. RB 25, RB POS. Low, QPSK



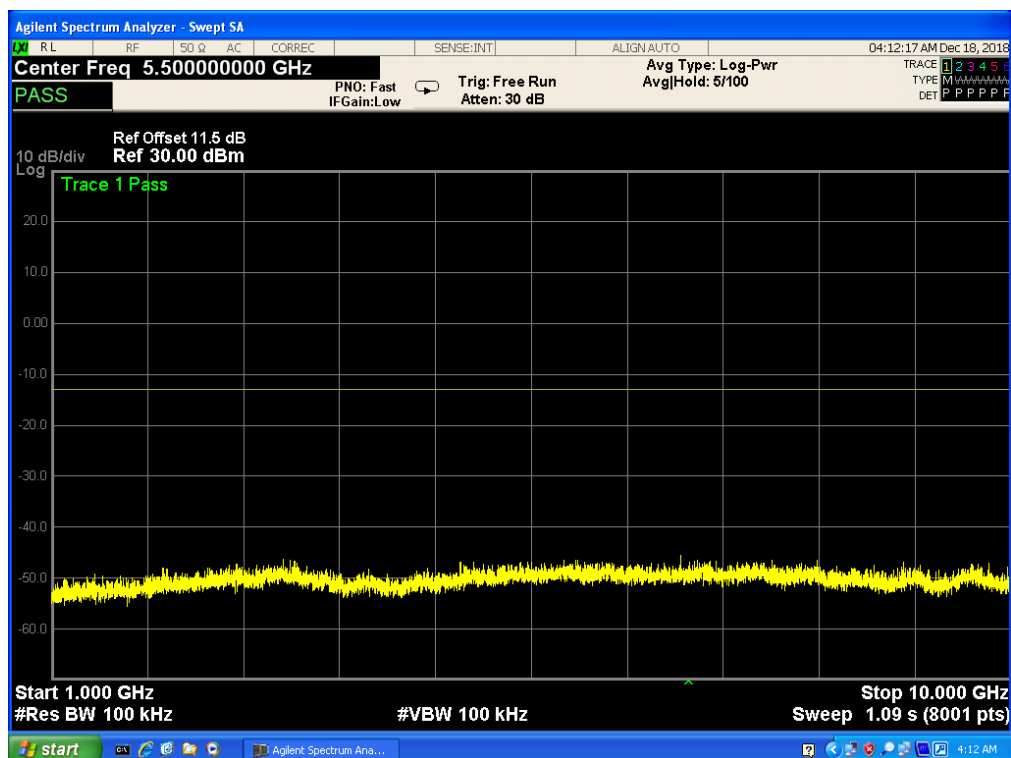
Band 17, UL Channel 23825, UL Frequency 713.5, BW 5.0, NO. RB 25, RB POS. Low, QPSK



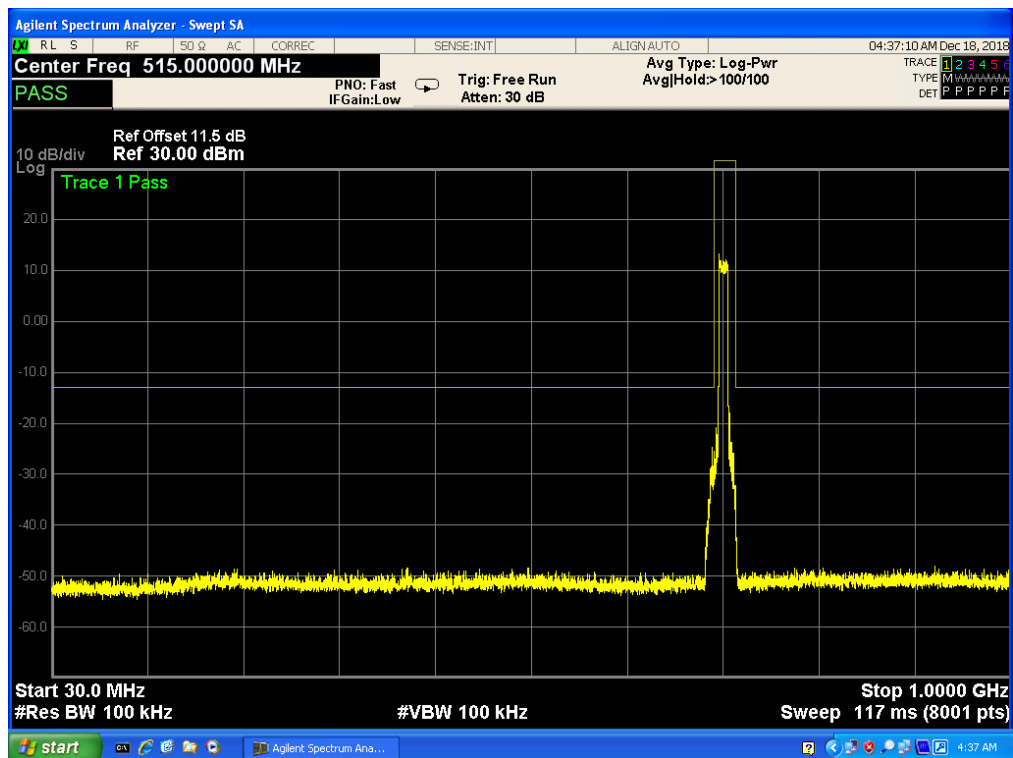
Band 17, UL Channel 23825, UL Frequency 713.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



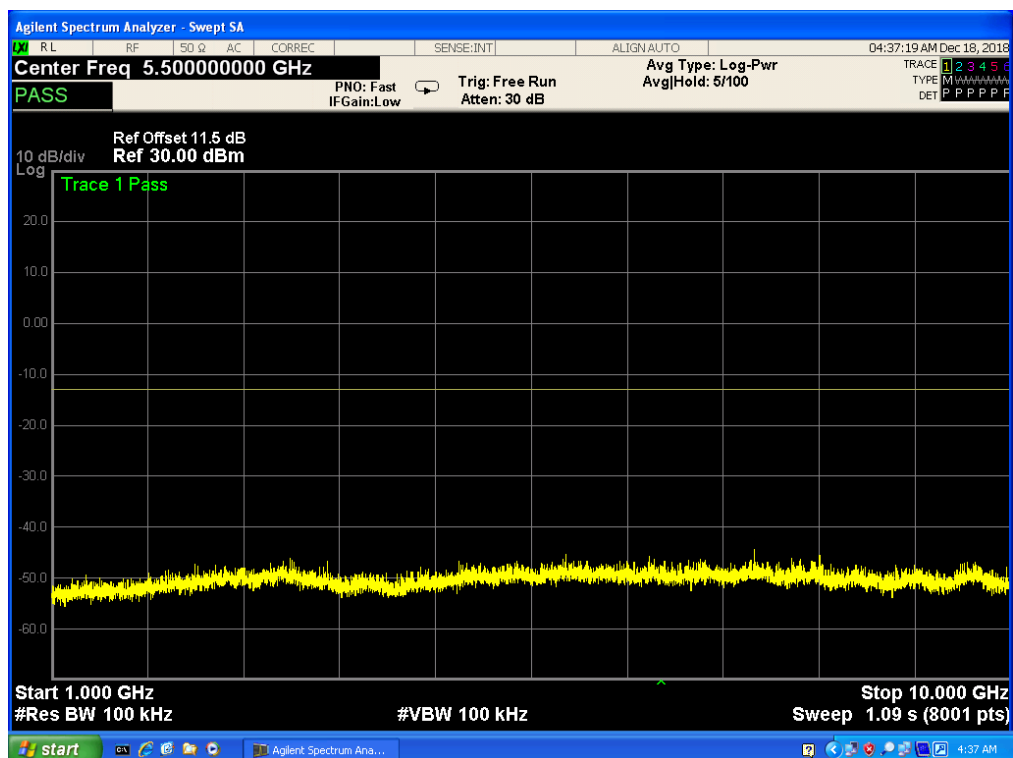
Band 17, UL Channel 23825, UL Frequency 713.5, BW 5.0, NO. RB 25, RB POS. Low, 16-QAM



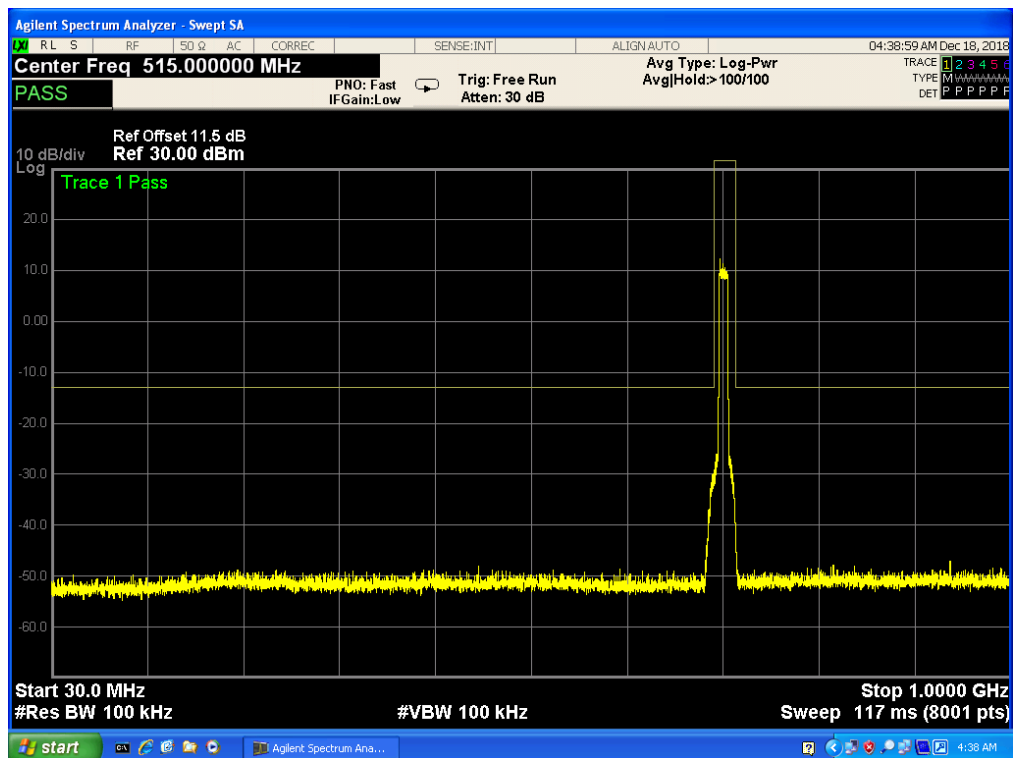
Band 17, UL Channel 23780, UL Frequency 709.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



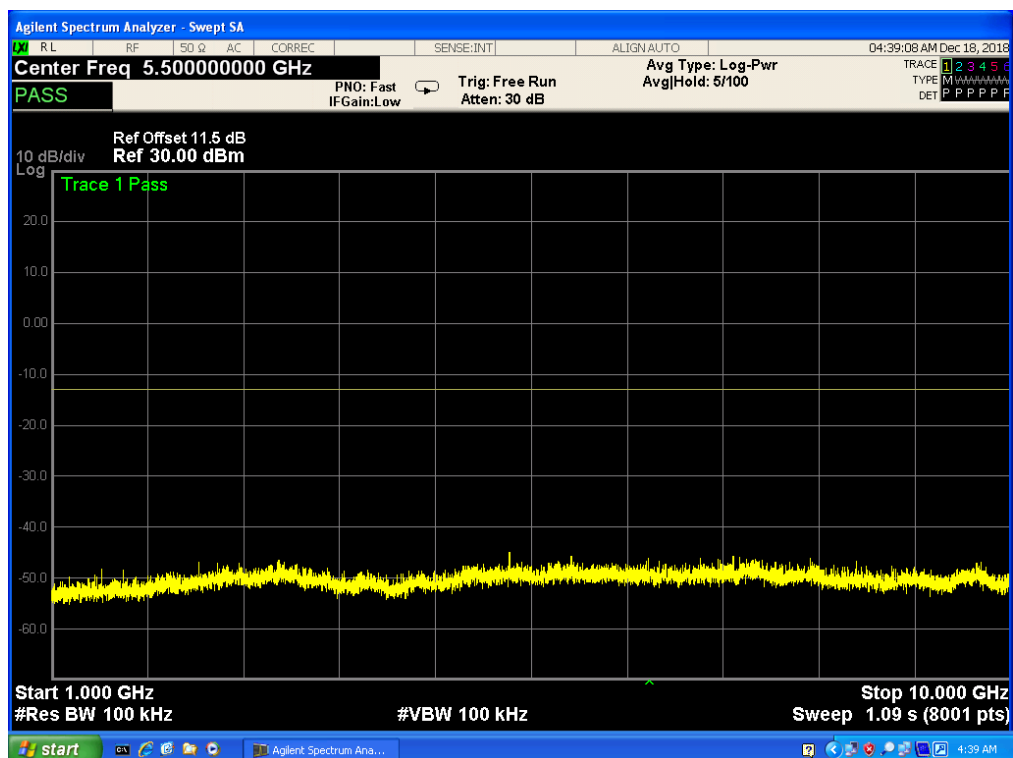
Band 17, UL Channel 23780, UL Frequency 709.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



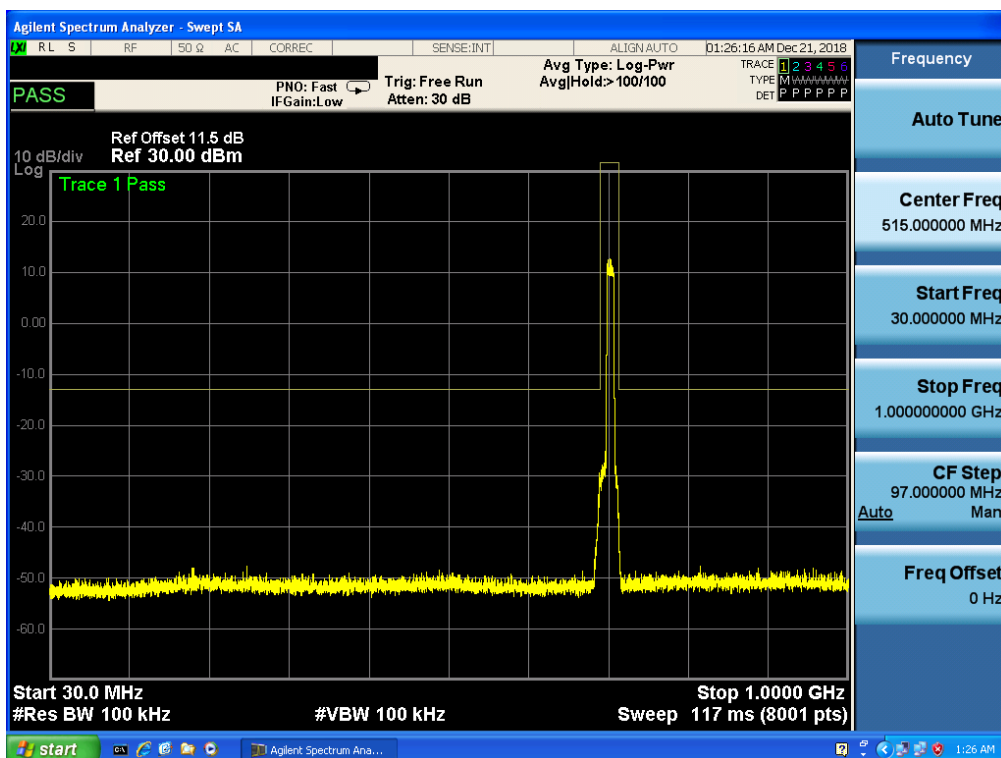
Band 17, UL Channel 23780, UL Frequency 709.0, BW 10.0, NO. RB 50, RB POS. Low, 16-QAM



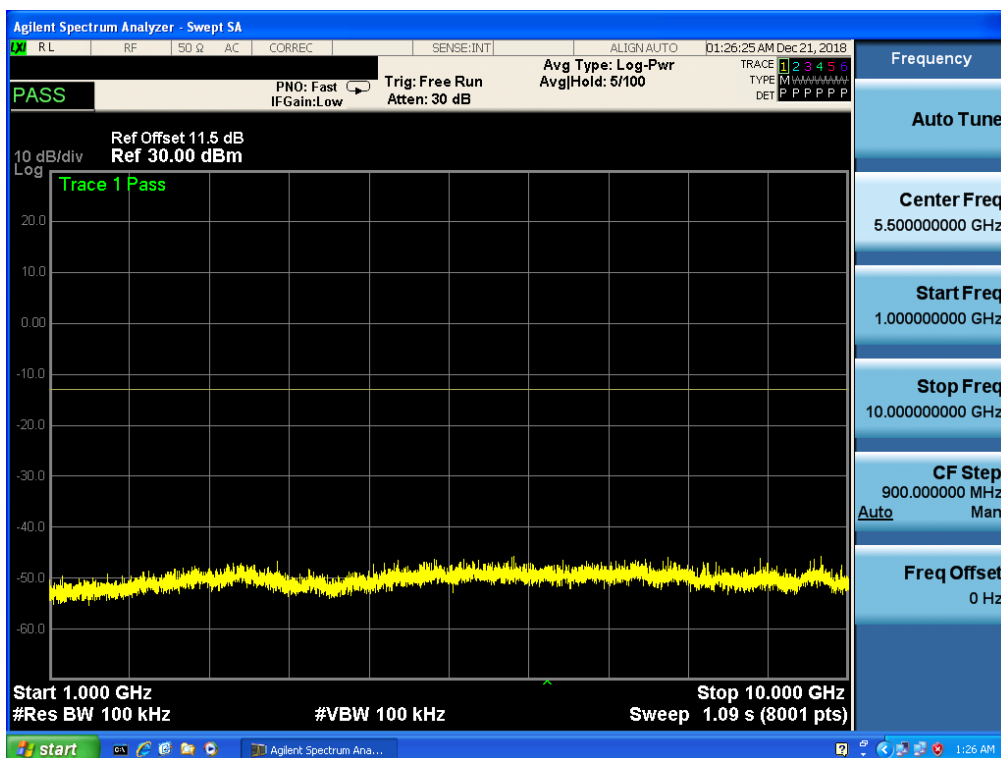
Band 17, UL Channel 23780, UL Frequency 709.0, BW 10.0, NO. RB 50, RB POS. Low, 16-QAM



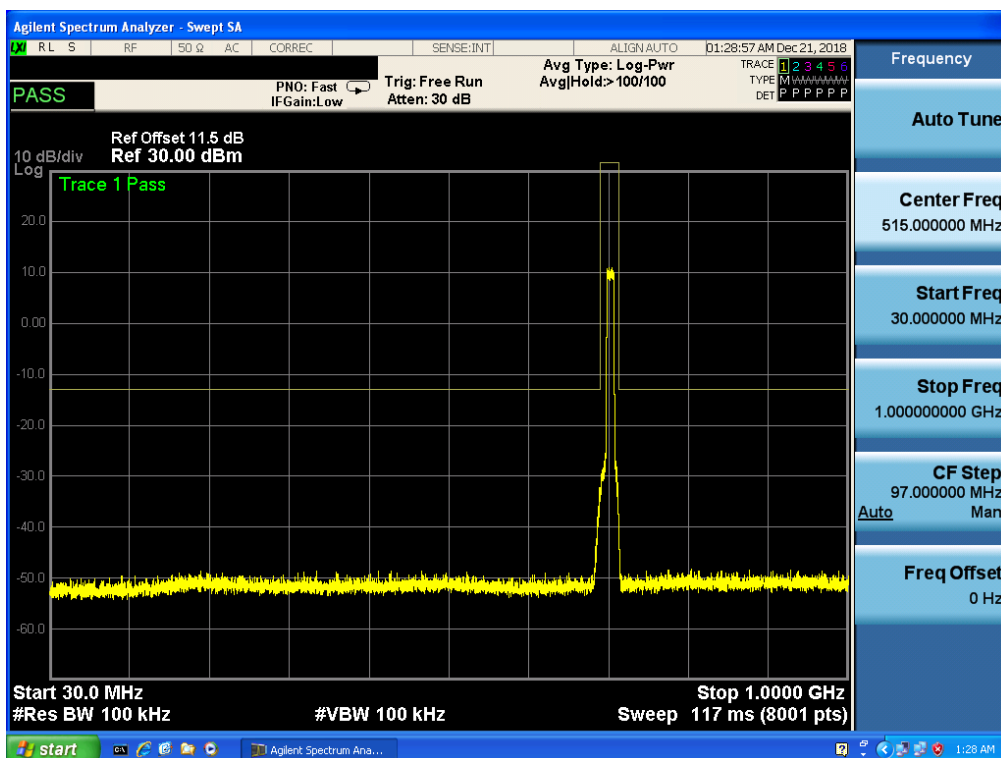
Band 17, UL Channel 23800, UL Frequency 711.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



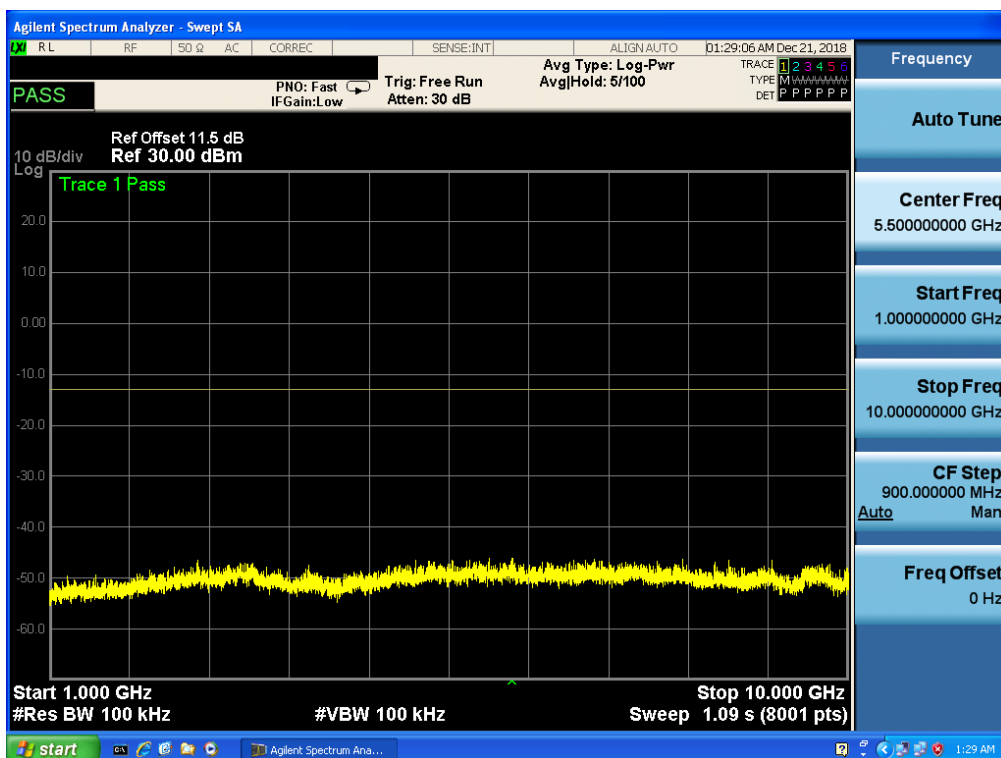
Band 17, UL Channel 23800, UL Frequency 711.0, BW 10.0, NO. RB 50, RB POS. Low, QPSK



Band 17,UL Channel 23800,UL Frequency 711.0,BW 10.0,NO. RB 50,RB POS. Low,16-QAM



Band 17,UL Channel 23800,UL Frequency 711.0,BW 10.0,NO. RB 50,RB POS. Low,16-QAM



## 8. Radiated Spurious Emission

### 8.1. RADIATED POWER (ERP & EIRP)

#### RULE PART(S)

FCC: §2.1046, §22.913, §24.232 and §27.50

#### LIMITS:

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.  
27.50 (c) (10) the following power and antenna height requirements apply to stations transmitting in the 698–746 MHz band, the portable stations (hand-held devices) are limited to 3 watts ERP.  
27.50 (b)(10) Portable stations (hand-held devices) transmitting in the 746–757 MHz, 758–763 MHz, 776–793 MHz, and 805–806 MHz bands are limited to 3 watts ERP.  
27.50 (d)(4) The following power and antenna height requirements apply to stations transmitting in the 1710–1755 MHz and 2110–2155 MHz bands: Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.

#### TEST PROCEDURE

ANSI/TIA-603-E Clause 2.2.17

KDB 971168 v02r01 RF power output using broadband peak and average power meter method.

KDB 971168 D01 Power Meas License Digital Systems v02r01, "Measurement Guidance for Certification of Licensed Digital Transmitters"

#### MODES TESTED

- ☐ LTE Band 2
- LTE Band 4
- ☐ LTE Band5
- LTE Band 7
- LTE Band 12
- LTE Band 17

#### RESULTS

## 8.2 LTE BAND 2

| Radiated Power (EIRP) for Band 2 |                   |           |                          |                        |                          |                                      |              |                                 |                |
|----------------------------------|-------------------|-----------|--------------------------|------------------------|--------------------------|--------------------------------------|--------------|---------------------------------|----------------|
| Mode                             | RB/<br>RB<br>SIZE | Frequency | Result                   |                        |                          |                                      |              |                                 | Conclusio<br>n |
|                                  |                   |           | SG<br>Level<br>(dBm<br>) | Cable<br>Loss<br>(dBm) | Antenn<br>a Gain<br>(dB) | Max.<br>EIRP<br>Avera<br>ge<br>(dBm) | Max.<br>EIRP | Polarizati<br>on Of<br>Max. ERP |                |
|                                  |                   |           |                          |                        |                          |                                      | Average      |                                 |                |
|                                  |                   |           |                          |                        |                          |                                      | (mW)         |                                 |                |
| 1.4MHz<br>Band<br>QPSK           | 6/0               | 1850.7    | -2.71                    | 3.76                   | 28.24                    | 21.77                                | 150.314      | Vertical                        | Pass           |
|                                  |                   | 1880      | -2.55                    | 3.91                   | 28.22                    | 21.76                                | 149.968      | Vertical                        | Pass           |
|                                  |                   | 1909.3    | -2.52                    | 3.93                   | 28.20                    | 21.75                                | 149.624      | Vertical                        | Pass           |
| 1.4MHz<br>Band 16<br>QAM         | 6/0               | 1850.7    | -3.61                    | 3.76                   | 28.24                    | 20.87                                | 122.180      | Vertical                        | Pass           |
|                                  |                   | 1880      | -3.40                    | 3.91                   | 28.22                    | 20.91                                | 123.310      | Vertical                        | Pass           |
|                                  |                   | 1909.3    | -3.31                    | 3.93                   | 28.20                    | 20.96                                | 124.738      | Vertical                        | Pass           |
| 3.0MHz<br>Band<br>QPSK           | 15/0              | 1851.5    | -2.58                    | 3.77                   | 28.23                    | 21.88                                | 154.170      | Vertical                        | Pass           |
|                                  |                   | 1880      | -2.39                    | 3.91                   | 28.24                    | 21.94                                | 156.315      | Vertical                        | Pass           |
|                                  |                   | 1908.5    | -2.38                    | 3.94                   | 28.25                    | 21.93                                | 155.955      | Vertical                        | Pass           |
| 3.0MHz<br>Band 16<br>QAM         | 15/0              | 1851.5    | -3.60                    | 3.77                   | 28.23                    | 20.86                                | 121.899      | Vertical                        | Pass           |
|                                  |                   | 1880      | -3.52                    | 3.91                   | 28.24                    | 20.81                                | 120.504      | Vertical                        | Pass           |
|                                  |                   | 1908.5    | -3.32                    | 3.94                   | 28.25                    | 20.99                                | 125.603      | Vertical                        | Pass           |
| 5.0MHz<br>Band<br>QPSK           | 25/0              | 1852.5    | -2.70                    | 3.77                   | 28.31                    | 21.84                                | 152.757      | Vertical                        | Pass           |
|                                  |                   | 1880      | -2.40                    | 3.91                   | 28.22                    | 21.91                                | 155.239      | Vertical                        | Pass           |
|                                  |                   | 1907.5    | -2.53                    | 3.94                   | 28.20                    | 21.73                                | 148.936      | Vertical                        | Pass           |
| 5.0MHz<br>Band 16<br>QAM         | 25/0              | 1852.5    | -3.66                    | 3.77                   | 28.31                    | 20.88                                | 122.462      | Vertical                        | Pass           |
|                                  |                   | 1880      | -3.44                    | 3.91                   | 28.22                    | 20.87                                | 122.180      | Vertical                        | Pass           |
|                                  |                   | 1907.5    | -3.29                    | 3.94                   | 28.20                    | 20.97                                | 125.026      | Vertical                        | Pass           |
| 10.0MH<br>z Band<br>QPSK         | 50/0              | 1855      | -2.69                    | 3.79                   | 28.33                    | 21.85                                | 153.109      | Vertical                        | Pass           |
|                                  |                   | 1880      | -2.46                    | 3.95                   | 28.22                    | 21.81                                | 151.705      | Vertical                        | Pass           |
|                                  |                   | 1905      | -2.46                    | 3.97                   | 28.19                    | 21.76                                | 149.968      | Vertical                        | Pass           |
| 10.0MH<br>z Band<br>16 QAM       | 50/0              | 1855      | -3.73                    | 3.79                   | 28.33                    | 20.81                                | 120.504      | Vertical                        | Pass           |
|                                  |                   | 1880      | -3.46                    | 3.95                   | 28.22                    | 20.81                                | 120.504      | Vertical                        | Pass           |
|                                  |                   | 1905      | -3.55                    | 3.97                   | 28.19                    | 20.67                                | 116.681      | Vertical                        | Pass           |
| 15.0MH<br>z Band<br>QPSK         | 75/0              | 1857.5    | -2.64                    | 3.79                   | 28.34                    | 21.91                                | 155.239      | Vertical                        | Pass           |
|                                  |                   | 1880      | -2.36                    | 3.95                   | 28.22                    | 21.91                                | 155.239      | Vertical                        | Pass           |
|                                  |                   | 1902.5    | -2.16                    | 3.97                   | 28.18                    | 22.05                                | 160.325      | Vertical                        | Pass           |
| 15.0MH<br>z Band<br>16 QAM       | 75/0              | 1857.5    | -3.77                    | 3.79                   | 28.34                    | 20.78                                | 119.674      | Vertical                        | Pass           |
|                                  |                   | 1880      | -3.44                    | 3.95                   | 28.22                    | 20.83                                | 121.060      | Vertical                        | Pass           |
|                                  |                   | 1902.5    | -3.43                    | 3.97                   | 28.18                    | 20.78                                | 119.674      | Vertical                        | Pass           |

|                             |           |      |       |      |       |       |         |          |      |
|-----------------------------|-----------|------|-------|------|-------|-------|---------|----------|------|
| 20.0MHz<br>z Band<br>QPSK   | 100/<br>0 | 1860 | -2.70 | 3.81 | 28.35 | 21.84 | 152.757 | Vertical | Pass |
|                             |           | 1880 | -2.49 | 3.96 | 28.22 | 21.77 | 150.314 | Vertical | Pass |
|                             |           | 1900 | -2.17 | 4.00 | 28.16 | 21.99 | 158.125 | Vertical | Pass |
| 20.0MHz<br>z Band<br>16 QAM | 100/<br>0 | 1860 | -3.65 | 3.81 | 28.35 | 20.89 | 122.744 | Vertical | Pass |
|                             |           | 1880 | -3.29 | 3.96 | 28.22 | 20.97 | 125.026 | Vertical | Pass |
|                             |           | 1900 | -3.31 | 4.00 | 28.16 | 20.85 | 121.619 | Vertical | Pass |

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

| Radiated Power (EIRP) for Band 2 |                   |           |                          |                        |                             |                                  |                                     |                                 |            |
|----------------------------------|-------------------|-----------|--------------------------|------------------------|-----------------------------|----------------------------------|-------------------------------------|---------------------------------|------------|
| Mode                             | RB/<br>RB<br>SIZE | Frequency | Result                   |                        |                             |                                  |                                     |                                 | Conclusion |
|                                  |                   |           | SG<br>Level<br>(dBm<br>) | Cable<br>Loss<br>(dBm) | Anten<br>na<br>Gain<br>(dB) | Max.<br>EIRP<br>Average<br>(dBm) | Max.<br>EIRP<br>Averag<br>e<br>(mW) | Polarizati<br>on Of<br>Max. ERP |            |
| 1.4MHz<br>Band<br>QPSK           | 6/0               | 1850.7    | -2.67                    | 3.76                   | 28.24                       | 21.81                            | 151.705                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -2.45                    | 3.91                   | 28.22                       | 21.86                            | 153.462                             | Horizontal                      | Pass       |
|                                  |                   | 1909.3    | -2.42                    | 3.93                   | 28.20                       | 21.85                            | 153.109                             | Horizontal                      | Pass       |
| 1.4MHz<br>Band 16<br>QAM         | 6/0               | 1850.7    | -3.54                    | 3.76                   | 28.24                       | 20.94                            | 124.165                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -3.35                    | 3.91                   | 28.22                       | 20.96                            | 124.738                             | Horizontal                      | Pass       |
|                                  |                   | 1909.3    | -3.35                    | 3.93                   | 28.20                       | 20.92                            | 123.595                             | Horizontal                      | Pass       |
| 3.0MHz<br>Band<br>QPSK           | 15/0              | 1851.5    | -2.63                    | 3.77                   | 28.23                       | 21.83                            | 152.405                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -2.49                    | 3.91                   | 28.24                       | 21.84                            | 152.757                             | Horizontal                      | Pass       |
|                                  |                   | 1908.5    | -2.48                    | 3.94                   | 28.25                       | 21.83                            | 152.405                             | Horizontal                      | Pass       |
| 3.0MHz<br>Band 16<br>QAM         | 15/0              | 1851.5    | -3.65                    | 3.77                   | 28.23                       | 20.81                            | 120.504                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -3.48                    | 3.91                   | 28.24                       | 20.85                            | 121.619                             | Horizontal                      | Pass       |
|                                  |                   | 1908.5    | -3.42                    | 3.94                   | 28.25                       | 20.89                            | 122.744                             | Horizontal                      | Pass       |
| 5.0MHz<br>Band<br>QPSK           | 25/0              | 1852.5    | -2.80                    | 3.77                   | 28.31                       | 21.74                            | 149.279                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -2.52                    | 3.91                   | 28.22                       | 21.79                            | 151.008                             | Horizontal                      | Pass       |
|                                  |                   | 1907.5    | -2.63                    | 3.94                   | 28.20                       | 21.63                            | 145.546                             | Horizontal                      | Pass       |
| 5.0MHz<br>Band 16<br>QAM         | 25/0              | 1852.5    | -3.70                    | 3.77                   | 28.31                       | 20.84                            | 121.339                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -3.34                    | 3.91                   | 28.22                       | 20.97                            | 125.026                             | Horizontal                      | Pass       |
|                                  |                   | 1907.5    | -3.38                    | 3.94                   | 28.20                       | 20.88                            | 122.462                             | Horizontal                      | Pass       |
| 10.0MH<br>z Band<br>QPSK         | 50/0              | 1855      | -2.73                    | 3.79                   | 28.33                       | 21.81                            | 151.705                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -2.38                    | 3.95                   | 28.22                       | 21.89                            | 154.525                             | Horizontal                      | Pass       |
|                                  |                   | 1905      | -2.36                    | 3.97                   | 28.19                       | 21.86                            | 153.462                             | Horizontal                      | Pass       |
| 10.0MH<br>z Band<br>16 QAM       | 50/0              | 1855      | -3.65                    | 3.79                   | 28.33                       | 20.89                            | 122.744                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -3.29                    | 3.95                   | 28.22                       | 20.98                            | 125.314                             | Horizontal                      | Pass       |
|                                  |                   | 1905      | -3.43                    | 3.97                   | 28.19                       | 20.79                            | 119.950                             | Horizontal                      | Pass       |
| 15.0MH<br>z Band<br>QPSK         | 75/0              | 1857.5    | -2.56                    | 3.79                   | 28.34                       | 21.99                            | 158.125                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -2.28                    | 3.95                   | 28.22                       | 21.99                            | 158.125                             | Horizontal                      | Pass       |
|                                  |                   | 1902.5    | -2.19                    | 3.97                   | 28.18                       | 22.02                            | 159.221                             | Horizontal                      | Pass       |
| 15.0MH<br>z Band<br>16 QAM       | 75/0              | 1857.5    | -3.71                    | 3.79                   | 28.34                       | 20.84                            | 121.339                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -3.40                    | 3.95                   | 28.22                       | 20.87                            | 122.180                             | Horizontal                      | Pass       |
|                                  |                   | 1902.5    | -3.30                    | 3.97                   | 28.18                       | 20.91                            | 123.310                             | Horizontal                      | Pass       |
| 20.0MH<br>z Band                 | 100/<br>0         | 1860      | -2.79                    | 3.81                   | 28.35                       | 21.75                            | 149.624                             | Horizontal                      | Pass       |
|                                  |                   | 1880      | -2.44                    | 3.96                   | 28.22                       | 21.82                            | 152.055                             | Horizontal                      | Pass       |

|                        |       |      |       |      |       |       |         |            |      |
|------------------------|-------|------|-------|------|-------|-------|---------|------------|------|
| QPSK                   |       | 1900 | -2.25 | 4.00 | 28.16 | 21.91 | 155.239 | Horizontal | Pass |
| 20.0MHz Band<br>16 QAM | 100/0 | 1860 | -3.62 | 3.81 | 28.35 | 20.92 | 123.595 | Horizontal | Pass |
|                        |       | 1880 | -3.30 | 3.96 | 28.22 | 20.96 | 124.738 | Horizontal | Pass |
|                        |       | 1900 | -3.34 | 4.00 | 28.16 | 20.82 | 120.781 | Horizontal | Pass |

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

### 8.3 LTE BAND 4

| Radiated Power (EIRP) for Band 4 |            |           |                |                  |                   |                         |                        |                          |            |
|----------------------------------|------------|-----------|----------------|------------------|-------------------|-------------------------|------------------------|--------------------------|------------|
| Mode                             | RB/RB SIZE | Frequency | Result         |                  |                   |                         |                        |                          | Conclusion |
|                                  |            |           | SG Level (dBm) | Cable Loss (dBm) | Antenna Gain (dB) | Max. EIRP Average (dBm) | Max. EIRP Average (mW) | Polarization Of Max. ERP |            |
| 1.4MHz Band QPSK                 | 6/0        | 1710.7    | -2.62          | 3.12             | 27.58             | 21.84                   | 152.757                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -2.57          | 3.27             | 27.61             | 21.77                   | 150.314                | Vertical                 | Pass       |
|                                  |            | 1754.3    | -2.42          | 3.29             | 27.63             | 21.92                   | 155.597                | Vertical                 | Pass       |
| 1.4MHz Band 16 QAM               | 6/0        | 1710.7    | -3.55          | 3.12             | 27.58             | 20.91                   | 123.310                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -3.40          | 3.27             | 27.61             | 20.94                   | 124.165                | Vertical                 | Pass       |
|                                  |            | 1754.3    | -3.46          | 3.29             | 27.63             | 20.88                   | 122.462                | Vertical                 | Pass       |
| 3.0MHz Band QPSK                 | 15/0       | 1711.5    | -2.56          | 3.13             | 27.61             | 21.92                   | 155.597                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -2.40          | 3.27             | 27.61             | 21.94                   | 156.315                | Vertical                 | Pass       |
|                                  |            | 1753.5    | -2.47          | 3.30             | 27.62             | 21.85                   | 153.109                | Vertical                 | Pass       |
| 3.0MHz Band 16 QAM               | 15/0       | 1711.5    | -3.15          | 3.13             | 27.61             | 21.33                   | 135.831                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -3.09          | 3.27             | 27.61             | 21.25                   | 133.352                | Vertical                 | Pass       |
|                                  |            | 1753.5    | -3.01          | 3.30             | 27.62             | 21.31                   | 135.207                | Vertical                 | Pass       |
| 5.0MHz Band QPSK                 | 25/0       | 1712.5    | -2.29          | 3.13             | 27.63             | 22.21                   | 166.341                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -2.15          | 3.27             | 27.61             | 22.19                   | 165.577                | Vertical                 | Pass       |
|                                  |            | 1752.5    | -2.19          | 3.30             | 27.60             | 22.11                   | 162.555                | Vertical                 | Pass       |
| 5.0MHz Band 16 QAM               | 25/0       | 1712.5    | -3.38          | 3.13             | 27.63             | 21.12                   | 129.420                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -3.16          | 3.27             | 27.61             | 21.18                   | 131.220                | Vertical                 | Pass       |
|                                  |            | 1752.5    | -3.14          | 3.30             | 27.60             | 21.16                   | 130.617                | Vertical                 | Pass       |
| 10.0MHz Band QPSK                | 50/0       | 1715      | -2.51          | 3.15             | 27.64             | 21.98                   | 157.761                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -2.34          | 3.31             | 27.61             | 21.96                   | 157.036                | Vertical                 | Pass       |
|                                  |            | 1750      | -2.34          | 3.33             | 27.59             | 21.92                   | 155.597                | Vertical                 | Pass       |
| 10.0MHz Band 16 QAM              | 50/0       | 1715      | -3.55          | 3.15             | 27.64             | 20.94                   | 124.165                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -3.29          | 3.31             | 27.61             | 21.01                   | 126.183                | Vertical                 | Pass       |
|                                  |            | 1750      | -3.42          | 3.33             | 27.59             | 20.84                   | 121.339                | Vertical                 | Pass       |
| 15.0MHz Band QPSK                | 75/0       | 1717.5    | -2.67          | 3.15             | 27.65             | 21.83                   | 152.405                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -2.28          | 3.31             | 27.61             | 22.02                   | 159.221                | Vertical                 | Pass       |
|                                  |            | 1747.5    | -2.30          | 3.33             | 27.57             | 21.94                   | 156.315                | Vertical                 | Pass       |
| 15.0MHz Band 16 QAM              | 75/0       | 1717.5    | -3.63          | 3.15             | 27.65             | 20.87                   | 122.180                | Vertical                 | Pass       |
|                                  |            | 1732.5    | -3.44          | 3.31             | 27.61             | 20.86                   | 121.899                | Vertical                 | Pass       |
|                                  |            | 1747.5    | -3.46          | 3.33             | 27.57             | 20.78                   | 119.674                | Vertical                 | Pass       |

|                            |       |        |       |      |       |       |         |          |      |
|----------------------------|-------|--------|-------|------|-------|-------|---------|----------|------|
| 20.0MH<br>z Band<br>QPSK   | 100/0 | 1720   | -2.58 | 3.17 | 27.66 | 21.91 | 155.239 | Vertical | Pass |
|                            |       | 1732.5 | -2.35 | 3.32 | 27.61 | 21.94 | 156.315 | Vertical | Pass |
|                            |       | 1745   | -2.36 | 3.36 | 27.56 | 21.84 | 152.757 | Vertical | Pass |
| 20.0MH<br>z Band<br>16 QAM | 100/0 | 1720   | -3.55 | 3.17 | 27.66 | 20.94 | 124.165 | Vertical | Pass |
|                            |       | 1732.5 | -3.44 | 3.32 | 27.61 | 20.85 | 121.619 | Vertical | Pass |
|                            |       | 1745   | -3.21 | 3.36 | 27.56 | 20.99 | 125.603 | Vertical | Pass |

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

| Radiated Power (EIRP) for Band 4 |            |           |                |                  |                   |                         |                        |                          |            |
|----------------------------------|------------|-----------|----------------|------------------|-------------------|-------------------------|------------------------|--------------------------|------------|
| Mode                             | RB/RB SIZE | Frequency | Result         |                  |                   |                         |                        |                          | Conclusion |
|                                  |            |           | SG Level (dBm) | Cable Loss (dBm) | Antenna Gain (dB) | Max. EIRP Average (dBm) | Max. EIRP Average (mW) | Polarization Of Max. ERP |            |
| 1.4MHz Band QPSK                 | 6/0        | 1710.7    | -2.65          | 3.12             | 27.58             | 21.81                   | 151.705                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -2.70          | 3.27             | 27.61             | 21.64                   | 145.881                | Horizontal               | Pass       |
|                                  |            | 1754.3    | -2.39          | 3.29             | 27.63             | 21.95                   | 156.675                | Horizontal               | Pass       |
| 1.4MHz Band 16 QAM               | 6/0        | 1710.7    | -3.50          | 3.12             | 27.58             | 20.96                   | 124.738                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -3.38          | 3.27             | 27.61             | 20.96                   | 124.738                | Horizontal               | Pass       |
|                                  |            | 1754.3    | -3.43          | 3.29             | 27.63             | 20.91                   | 123.310                | Horizontal               | Pass       |
| 3.0MHz Band QPSK                 | 15/0       | 1711.5    | -2.67          | 3.13             | 27.61             | 21.81                   | 151.705                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -2.50          | 3.27             | 27.61             | 21.84                   | 152.757                | Horizontal               | Pass       |
|                                  |            | 1753.5    | -2.49          | 3.30             | 27.62             | 21.83                   | 152.405                | Horizontal               | Pass       |
| 3.0MHz Band 16 QAM               | 15/0       | 1711.5    | -3.25          | 3.13             | 27.61             | 21.23                   | 132.739                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -3.13          | 3.27             | 27.61             | 21.21                   | 132.130                | Horizontal               | Pass       |
|                                  |            | 1753.5    | -3.10          | 3.30             | 27.62             | 21.22                   | 132.434                | Horizontal               | Pass       |
| 5.0MHz Band QPSK                 | 25/0       | 1712.5    | -2.33          | 3.13             | 27.63             | 22.17                   | 164.816                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -2.18          | 3.27             | 27.61             | 22.16                   | 164.437                | Horizontal               | Pass       |
|                                  |            | 1752.5    | -2.21          | 3.30             | 27.60             | 22.09                   | 161.808                | Horizontal               | Pass       |
| 5.0MHz Band 16 QAM               | 25/0       | 1712.5    | -3.43          | 3.13             | 27.63             | 21.07                   | 127.938                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -3.25          | 3.27             | 27.61             | 21.09                   | 128.529                | Horizontal               | Pass       |
|                                  |            | 1752.5    | -3.25          | 3.30             | 27.60             | 21.05                   | 127.350                | Horizontal               | Pass       |
| 10.0MHz Band QPSK                | 50/0       | 1715      | -2.48          | 3.15             | 27.64             | 22.01                   | 158.855                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -2.39          | 3.31             | 27.61             | 21.91                   | 155.239                | Horizontal               | Pass       |
|                                  |            | 1750      | -2.27          | 3.33             | 27.59             | 21.99                   | 158.125                | Horizontal               | Pass       |
| 10.0MHz Band 16 QAM              | 50/0       | 1715      | -3.60          | 3.15             | 27.64             | 20.89                   | 122.744                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -3.38          | 3.31             | 27.61             | 20.92                   | 123.595                | Horizontal               | Pass       |
|                                  |            | 1750      | -3.48          | 3.33             | 27.59             | 20.78                   | 119.674                | Horizontal               | Pass       |
| 15.0MHz Band QPSK                | 75/0       | 1717.5    | -2.76          | 3.15             | 27.65             | 21.74                   | 149.279                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -2.34          | 3.31             | 27.61             | 21.96                   | 157.036                | Horizontal               | Pass       |
|                                  |            | 1747.5    | -2.38          | 3.33             | 27.57             | 21.86                   | 153.462                | Horizontal               | Pass       |
| 15.0MHz Band 16 QAM              | 75/0       | 1717.5    | -3.53          | 3.15             | 27.65             | 20.97                   | 125.026                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -3.34          | 3.31             | 27.61             | 20.96                   | 124.738                | Horizontal               | Pass       |
|                                  |            | 1747.5    | -3.25          | 3.33             | 27.57             | 20.99                   | 125.603                | Horizontal               | Pass       |
| 20.0MHz Band                     | 100/0      | 1720      | -2.54          | 3.17             | 27.66             | 21.95                   | 156.675                | Horizontal               | Pass       |
|                                  |            | 1732.5    | -2.40          | 3.32             | 27.61             | 21.89                   | 154.525                | Horizontal               | Pass       |

|        |       |        |       |      |       |       |         |            |      |
|--------|-------|--------|-------|------|-------|-------|---------|------------|------|
| QPSK   |       | 1745   | -2.45 | 3.36 | 27.56 | 21.75 | 149.624 | Horizontal | Pass |
| 20.0MH | 100/0 | 1720   | -3.66 | 3.17 | 27.66 | 20.83 | 121.060 | Horizontal | Pass |
| z Band |       | 1732.5 | -3.48 | 3.32 | 27.61 | 20.81 | 120.504 | Horizontal | Pass |
| 16 QAM |       | 1745   | -3.28 | 3.36 | 27.56 | 20.92 | 123.595 | Horizontal | Pass |

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)

#### 8.4 LTE BAND 5

| Radiated Power (ERP) for Band 5 |                   |           |                      |                        |                         |                    |                                  |                                 |                                |            |
|---------------------------------|-------------------|-----------|----------------------|------------------------|-------------------------|--------------------|----------------------------------|---------------------------------|--------------------------------|------------|
| Mode                            | RB/<br>RB<br>SIZE | Frequency | Result               |                        |                         |                    |                                  |                                 |                                | Conclusion |
|                                 |                   |           | SG<br>Level<br>(dBm) | Cable<br>Loss<br>(dBm) | Antenna<br>Gain<br>(dB) | Correction<br>(dB) | Max.<br>EIRP<br>Average<br>(dBm) | Max.<br>EIRP<br>Average<br>(mW) | Polarization<br>Of<br>Max. ERP |            |
| 1.4MHz<br>Band<br>QPSK          | 6/0               | 824.7     | 5.79                 | 2.01                   | 19.68                   | 2.15               | 21.31                            | 135.207                         | Vertical                       | Pass       |
|                                 |                   | 836.5     | 5.67                 | 2.01                   | 19.77                   | 2.15               | 21.28                            | 134.276                         | Vertical                       | Pass       |
|                                 |                   | 848.3     | 5.69                 | 2.02                   | 19.82                   | 2.15               | 21.34                            | 136.144                         | Vertical                       | Pass       |
| 1.4MHz<br>Band 16<br>QAM        | 6/0               | 824.7     | 4.63                 | 2.01                   | 19.68                   | 2.15               | 20.15                            | 103.514                         | Vertical                       | Pass       |
|                                 |                   | 836.5     | 4.52                 | 2.01                   | 19.77                   | 2.15               | 20.13                            | 103.039                         | Vertical                       | Pass       |
|                                 |                   | 848.3     | 4.56                 | 2.02                   | 19.82                   | 2.15               | 20.21                            | 104.954                         | Vertical                       | Pass       |
| 3.0MHz<br>Band<br>QPSK          | 15/0              | 825.5     | 5.77                 | 2.01                   | 19.70                   | 2.15               | 21.31                            | 135.207                         | Vertical                       | Pass       |
|                                 |                   | 836.5     | 5.63                 | 2.01                   | 19.77                   | 2.15               | 21.24                            | 133.045                         | Vertical                       | Pass       |
|                                 |                   | 847.5     | 5.62                 | 2.02                   | 19.81                   | 2.15               | 21.26                            | 133.660                         | Vertical                       | Pass       |
| 3.0MHz<br>Band 16<br>QAM        | 15/0              | 825.5     | 4.73                 | 2.01                   | 19.70                   | 2.15               | 20.27                            | 106.414                         | Vertical                       | Pass       |
|                                 |                   | 836.5     | 4.70                 | 2.01                   | 19.77                   | 2.15               | 20.31                            | 107.399                         | Vertical                       | Pass       |
|                                 |                   | 847.5     | 4.57                 | 2.02                   | 19.81                   | 2.15               | 20.21                            | 104.954                         | Vertical                       | Pass       |
| 5.0MHz<br>Band<br>QPSK          | 25/0              | 826.5     | 5.57                 | 2.01                   | 19.71                   | 2.15               | 21.12                            | 129.420                         | Vertical                       | Pass       |
|                                 |                   | 836.5     | 5.45                 | 2.01                   | 19.77                   | 2.15               | 21.06                            | 127.644                         | Vertical                       | Pass       |
|                                 |                   | 846.5     | 5.53                 | 2.02                   | 19.79                   | 2.15               | 21.15                            | 130.317                         | Vertical                       | Pass       |
| 5.0MHz<br>Band 16<br>QAM        | 25/0              | 826.5     | 4.76                 | 2.01                   | 19.71                   | 2.15               | 20.31                            | 107.399                         | Vertical                       | Pass       |
|                                 |                   | 836.5     | 4.76                 | 2.01                   | 19.77                   | 2.15               | 20.37                            | 108.893                         | Vertical                       | Pass       |
|                                 |                   | 846.5     | 4.60                 | 2.02                   | 19.79                   | 2.15               | 20.22                            | 105.196                         | Vertical                       | Pass       |
| 10.0MHz<br>z Band<br>QPSK       | 50/0              | 829       | 5.65                 | 2.01                   | 19.73                   | 2.15               | 21.22                            | 132.434                         | Vertical                       | Pass       |
|                                 |                   | 836.5     | 5.57                 | 2.01                   | 19.77                   | 2.15               | 21.18                            | 131.220                         | Vertical                       | Pass       |
|                                 |                   | 844       | 5.60                 | 2.02                   | 19.78                   | 2.15               | 21.21                            | 132.130                         | Vertical                       | Pass       |
| 10.0MHz<br>z Band<br>16 QAM     | 50/0              | 829       | 4.90                 | 2.01                   | 19.73                   | 2.15               | 20.47                            | 111.429                         | Vertical                       | Pass       |
|                                 |                   | 836.5     | 4.85                 | 2.01                   | 19.77                   | 2.15               | 20.46                            | 111.173                         | Vertical                       | Pass       |
|                                 |                   | 844       | 4.77                 | 2.02                   | 19.78                   | 2.15               | 20.38                            | 109.144                         | Vertical                       | Pass       |

Note:

SG Level= Signal generator output

Max. EIRP Average (dBm)= Antenna Gain(dB)+ SG Level (dBm)- Cable Loss(dBm)