# 8. RF OUTPUT POWER VERIFICATION

EUT includes different power levels for head use configuration and body use configuration and the below tables contain the highest of all configurations average conducted output powers as follows

## 8.1. GSM

**Using CMW500 Communication Test Set**
Function: Menu select > GSM Mobile Station > GSM 850/900/1800/1900

Press **Connection control** to choose the different menus
Press **RESET** > choose all to reset all settings

| | | |
|---|---|---|
| Connection | Press **Signal Off** to turn off the signal and change settings<br>Network Support > GSM+GPRS or GSM+EGPRS<br>Main Service > Packet Data<br>Service selection > Test Mode A – Auto Slot Config. off | |
| MS Signal | Press Slot Config bottom on the right twice to select and change the number of time slots and power setting | |
| | > Slot configuration | > Uplink/Gamma<br>> 33 dBm for GPRS 850/900<br>> 27 dBm for EGPRS 850/900<br>> 30 dBm for GPRS1800/1900<br>> 26 dBm for EGPRS1800/1900 |
| BS Signal | Enter the same channel number for TCH channel (test channel) and BCCH channel | |
| | Frequency Offset > | + 0 Hz |
| | Mode > | BCCH and TCH |
| | BCCH Level > | -85 dBm (May need to adjust if link is not stable) |
| | BCCH Channel > | choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel] |
| | Channel Type > | Off |
| | P0> | 4 dB |
| | Slot Config > | Unchanged (if already set under MS Signal) |
| | TCH > | choose desired test channel |
| | Hopping > | Off |
| | Main Timeslot > | 3 (Default) |
| Network | Coding Scheme > | CS 4 (GPRS) and MCS5 (EGPRS) |
| | Bit Stream > | 2E9-1PSR Bit Pattern |
| AF/RF | Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input | |
| Connection | Press **Signal On** to turn on the signal and change settings | |




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**RESULT**

### 8.1.1. GSM850

| ID: | 44351 | Date: | 10/29/18 |
|---|---|---|---|

**GPRS (GMSK) - Coding Scheme: CS1**

| Band | Ch No. | Freq. (MHz) | Power | |
|---|---|---|---|---|
| | | | 1 slot | 2 slots |
| 850.0 | 128 | 824.2 | 33.6 | 31.1 |
| | 190 | 836.6 | **33.6** | 31.1 |
| | 251 | 848.8 | 33.6 | 31.1 |

**EGPRS (8PSK) - Coding Scheme: MCS5**

| Band | Ch No. | Freq. (MHz) | Power | |
|---|---|---|---|---|
| | | | 1 slot | 2 slots |
| 850.0 | 128 | 824.2 | 26.6 | 24.5 |
| | 190 | 836.6 | 26.6 | 24.5 |
| | 251 | 848.8 | **26.7** | 24.5 |

### 8.1.2. GSM1900

| ID: | 44351 | Date: | 10/29/18 |
|---|---|---|---|

**GPRS (GMSK) - Coding Scheme: CS1**

| Band | Ch No. | Freq. (MHz) | Power | |
|---|---|---|---|---|
| | | | 1 slot | 2 slots |
| 1900.0 | 512 | 1850.2 | 30.4 | 27.1 |
| | 661 | 1880.0 | 30.4 | 26.8 |
| | 810 | 1909.8 | **30.5** | 26.9 |

**EGPRS (8PSK) - Coding Scheme: MCS5**

| Band | Ch No. | Freq. (MHz) | Power | |
|---|---|---|---|---|
| | | | 1 slot | 2 slots |
| 1900.0 | 512 | 1850.2 | **25.7** | 23.2 |
| | 661 | 1880.0 | 25.4 | 23.4 |
| | 810 | 1909.8 | 25.7 | 23.5 |




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## 8.2. WCDMA

**TEST PROCEDURE**

The transmitter output was connected to the input terminal of Directional Coupler via calibrated coaxial cable. The output coupling terminal of the Directional Coupler was directly connected to a spectrum analyzer while the output through terminal connected to the communication test set via calibrated coaxial cable.

The output power was measured with the spectrum analyzer at the low, middle and high channel in each band.

- Set the spectrum analyzer span wide enough or greater than the modulated signal BW.
- Set a spectrum analyzer at peak detection mode with VBW ≥ RBW.≥ 26dB BW, typically 5MHz.
- Set a marker to point the corresponding peak value.

**REL 99**

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The DUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7).

| Mode | Subtest | Rel99 |
|---|---|---|
| WCDMA General Settings | Loopback Mode | Test Mode 2 |
| | Rel99 RMC | 12.2kbps RMC |
| | Power Control Algorithm | Algorithm2 |
| | βc/βd | 8/15 |

**HSDPA REL 5**

The following 4 Sub-tests were completed according to Release 5 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

| | Mode | HSDPA | HSDPA | HSDPA | HSDPA |
|---|---|---|---|---|---|
| | Subtest | 1 | 2 | 3 | 4 |
| W-CDMA General Settings | Loopback Mode | Test Mode 1 | | | |
| | Rel99 RMC | 12.2kbps RMC | | | |
| | HSDPA FRC | H-Set 1 | | | |
| | Power Control Algorithm | Algorithm 2 | | | |
| | Bc | 2/15 | 12/15 | 15/15 | 15/15 |
| | Bd | 15/15 | 15/15 | 8/15 | 4/15 |
| | Bd (SF) | 64 | | | |
| | βc/βd | 2/15 | 12/15 | 15/8 | 15/4 |
| | Bhs | 4/15 | 24/15 | 30/15 | 30/15 |
| | MPR (dB) | 0 | 0 | 0.5 | 0.5 |
| HSDPA Specific Settings | $D_{ACK}$ | 8 | | | |
| | $D_{NAK}$ | 8 | | | |
| | DCQI | 8 | | | |
| | Ack-Nack repetition factor | 3 | | | |
| | CQI Feedback (Table 5.2B.4) | 4ms | | | |
| | CQI Repetition Factor (Table 5.2B.4) | 2 | | | |
| | Ahs=βhs/βc | 30/15 | | | |




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**HSPA (HSDPA & HSUPA)**

The following 5 Sub-tests were completed according to Release 9 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

| | Mode | HSPA | | | | |
|---|---|---|---|---|---|---|
| | Subtest | 1 | 2 | 3 | 4 | 5 |
| WCDMA General Settings | Loopback Mode | Test Mode 1 | | | | |
| | Rel99 RMC | 12.2 kbps RMC | | | | |
| | HSDPA FRC | H-Set 1 | | | | |
| | HSUPA Test | HSPA | | | | |
| | Power Control Algorithm | Algorithm 2 | | | | Algorithm 1 |
| | βc | 11/15 | 6/15 | 15/15 | 2/15 | 15/15 |
| | βd | 15/15 | 15/15 | 9/15 | 15/15 | 0 |
| | βec | 209/225 | 12/15 | 30/15 | 2/15 | 5/15 |
| | βc/βd | 11/15 | 6/15 | 15/9 | 2/15 | - |
| | βhs | 22/15 | 12/15 | 30/15 | 4/15 | 5/15 |
| | βed | 1309/225 | 94/75 | 47/15 | 56/75 | 47/15 |
| | CM (dB) | 1 | 3 | 2 | 3 | 1 |
| | MPR (dB) | 0 | 2 | 1 | 2 | 0 |
| HSDPA Specific Settings | DACK | 8 | | | | 0 |
| | DNAK | 8 | | | | 0 |
| | DCQI | 8 | | | | 0 |
| | Ack-Nack repetition factor | 3 | | | | |
| | CQI Feedback (Table 5.2B.4) | 4ms | | | | |
| | CQI Repetition Factor (Table 5.2B.4) | 2 | | | | |
| | Ahs = βhs/βc | 30/15 | | | | |
| HSUPA Specific Settings | E-DPDCCH | 6 | 8 | 8 | 5 | 0 |
| | DHARQ | 0 | 0 | 0 | 0 | 0 |
| | AG Index | 20 | 12 | 15 | 17 | 12 |
| | ETFCI (from 34.121 Table C.11.1.3) | 75 | 67 | 92 | 71 | 67 |
| | Associated Max UL Data Rate kbps | 242.1 | 174.9 | 482.8 | 205.8 | 308.9 |
| | Reference E-TFCIs | 5 | 5 | 2 | 5 | 1 |
| | Reference E-TFCI | 11 | 11 | 11 | 11 | 67 |
| | Reference E-TFCI PO | 4 | 4 | 4 | 4 | 18 |
| | Reference E-TFCI | 67 | 67 | 92 | 67 | 67 |
| | Reference E-TFCI PO | 18 | 18 | 18 | 18 | 18 |
| | Reference E-TFCI | 71 | 71 | 71 | 71 | 71 |
| | Reference E-TFCI PO | 23 | 23 | 23 | 23 | 23 |
| | Reference E-TFCI | 75 | 75 | 75 | 75 | 75 |
| | Reference E-TFCI PO | 26 | 26 | 26 | 26 | 26 |
| | Reference E-TFCI | 81 | 81 | 81 | 81 | 81 |
| | Reference E-TFCI PO | 27 | 27 | 27 | 27 | 27 |
| | Maximum Channelization Codes | 2xSF2 | | | | SF4 |




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## DUAL CARRIER HSDPA (DC-HSDPA (REL 8, CAT 24)

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS34.108 v9.5.0. A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0

**Table E.5.0: Levels for HSDPA connection setup**

| Parameter During Connection setup | Unit | Value |
|---|---|---|
| P-CPICH_Ec/Ior | dB | -10 |
| P-CCPCH and SCH_Ec/Ior | dB | -12 |
| PICH _Ec/Ior | dB | -15 |
| HS-PDSCH | dB | off |
| HS-SCCH_1 | dB | off |
| DPCH_Ec/Ior | dB | -5 |
| OCNS_Ec/Ior | dB | -3.1 |

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13

The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

**Table C.8.1.12: Fixed Reference Channel H-Set 12**

| Parameter | Unit | Value |
|---|---|---|
| Nominal Avg. Inf. Bit Rate | kbps | 60 |
| Inter-TTI Distance | TTI's | 1 |
| Number of HARQ Processes | Processes | 6 |
| Information Bit Payload ( $N_{INF}$ ) | Bits | 120 |
| Number Code Blocks | Blocks | 1 |
| Binary Channel Bits Per TTI | Bits | 960 |
| Total Available SML's in UE | SML's | 19200 |
| Number of SML's per HARQ Proc. | SML's | 3200 |
| Coding Rate | | 0.15 |
| Number of Physical Channel Codes | Codes | 1 |
| Modulation | | QPSK |
| Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table. | | |
| Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used. | | |

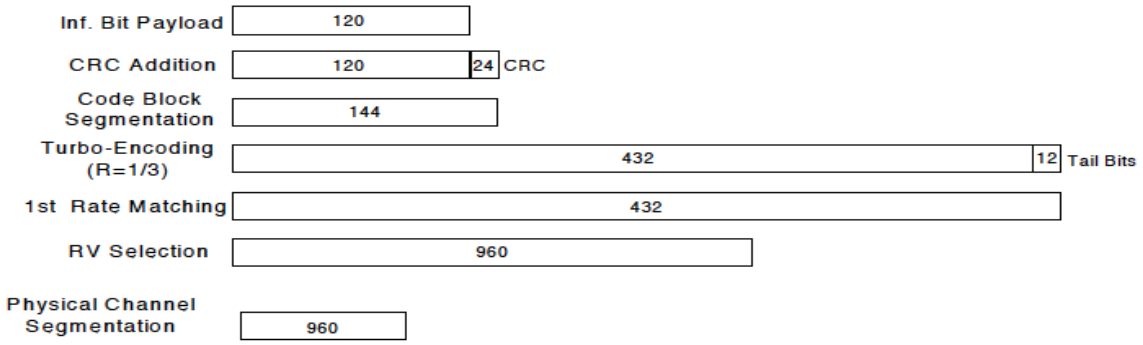


**Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)**




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The following 4 Sub-tests for HSDPA were completed according to Release 8 procedures in section 5.2 of 3GPP TS34.121. A summary of subtest settings are illustrated below:

| | Mode | HSDPA | HSDPA | HSDPA | HSDPA |
|---|---|---|---|---|---|
| | Subtest | 1 | 2 | 3 | 4 |
| WCDMA General Settings | Loopback Mode | Test Mode 1 | | | |
| | Rel99 RMC | 12.2kbps RMC | | | |
| | HSDPA FRC | H-Set 1 | | | |
| | Power Control Algorithm | Algorithm2 | | | |
| | βc | 2/15 | 11/15 | 15/15 | 15/15 |
| | βd | 15/15 | 15/15 | 8/15 | 4/15 |
| | βd (SF) | 64 | | | |
| | βc/βd | 2/15 | 12/15 | 15/8 | 15/4 |
| | βhs | 4/15 | 24/15 | 30/15 | 30/15 |
| | MPR (dB) | 0 | 0 | 0.5 | 0.5 |
| HSDPA Specific Settings | DACK | 8 | | | |
| | DNAK | 8 | | | |
| | DCQI | 8 | | | |
| | Ack-Nack Repetition factor | 3 | | | |
| | CQI Feedback | 4ms | | | |
| | CQI Repetition Factor | 2 | | | |
| | Ahs = βhs/ βc | 30/15 | | | |

**HSPA+**

The following 1 Sub-test was completed according to Release 9 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

**Table** C.11.1.4: **β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM**

| Sub-test | $\beta_c$ (Note3) | $\beta_d$ | $\beta_{HS}$ (Note1) | $\beta_{ec}$ | $\beta_{ed}$ (2xSF2) (Note 4) | $\beta_{ed}$ (2xSF4) (Note 4) | CM (dB) (Note 2) | MPR (dB) (Note 2) | AG Index (Note 4) | E-TFCI (Note 5) | E-TFCI (boost) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 0 | 30/15 | 30/15 | $\beta_{ed}1$: 30/15<br>$\beta_{ed}2$: 30/15 | $\beta_{ed}3$: 24/15<br>$\beta_{ed}4$: 24/15 | 3.5 | 2.5 | 14 | 105 | 105 |

Note 1: $\Delta_{ACK}$, $\Delta_{NACK}$ and $\Delta_{CQI}$ = 30/15 with $\beta_{hs} = 30/15 * \beta_c$.
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the $\beta_c$ is set to 1 and $\beta_d$ = 0 by default.
Note 4: $\beta_{ed}$ can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

**RESULT**



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### 8.2.1. **WCDMA BAND5**

| **ID:** | 44351 | **Date:** | 10/30/18 |
|---|---|---|---|

| Band | Mode | | UL Ch No. | Freq. (MHz) | MPR (dB) | Average (dBm) |
|---|---|---|---|---|---|---|
| W-CDMA Band 5 (850MHz) | Rel 99 | RMC, 12.2 kbps | 4132 | 826.4 | N/A | 24.8 |
| | | | 4183 | 836.6 | N/A | 24.8 |
| | | | 4233 | 846.6 | N/A | **24.9** |
| | HSDPA | Subtest 1 | 4132 | 826.4 | 0 | **23.5** |
| | | | 4183 | 836.6 | 0 | 23.5 |
| | | | 4233 | 846.6 | 0 | **23.5** |
| | | Subtest 2 | 4132 | 826.4 | 0.5 | 22.5 |
| | | | 4183 | 836.6 | 0.5 | 22.3 |
| | | | 4233 | 846.6 | 0.5 | 22.3 |
| | | Subtest 3 | 4132 | 826.4 | 0.5 | 22.3 |
| | | | 4183 | 836.6 | 0.5 | 22.3 |
| | | | 4233 | 846.6 | 0.5 | 22.4 |
| | | Subtest 4 | 4132 | 826.4 | 0.5 | 22.3 |
| | | | 4183 | 836.6 | 0.5 | 22.2 |
| | | | 4233 | 846.6 | 0.5 | 22.3 |
| | HSPA (HSDPA & HSUPA) | Subtest 1 | 4132 | 826.4 | 0.5 | 22.5 |
| | | | 4183 | 836.6 | 0.5 | 22.5 |
| | | | 4233 | 846.6 | 0.5 | 22.5 |
| | | Subtest 2 | 4132 | 826.4 | 1.5 | 21.5 |
| | | | 4183 | 836.6 | 1.5 | 21.5 |
| | | | 4233 | 846.6 | 1.5 | 21.6 |
| | | Subtest 3 | 4132 | 826.4 | 1.5 | 21.5 |
| | | | 4183 | 836.6 | 1.5 | 21.5 |
| | | | 4233 | 846.6 | 1.5 | 21.6 |
| | | Subtest 4 | 4132 | 826.4 | 1.5 | 21.5 |
| | | | 4183 | 836.6 | 1.5 | 21.5 |
| | | | 4233 | 846.6 | 1.5 | 21.6 |
| | | Subtest 5 | 4132 | 826.4 | 0.5 | 22.5 |
| | | | 4183 | 836.6 | 0.5 | 22.5 |
| | | | 4233 | 846.6 | 0.5 | 22.5 |



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## 8.2.2. WCDMA BAND2

| ID: | 44351 | Date: | 10/30/18 |
|---|---|---|---|

| Band | Mode | | UL Ch No. | Freq. (MHz) | MPR (dB) | Average (dBm) |
|---|---|---|---|---|---|---|
| W-CDMA Band 2 (1900MHz) | Rel 99 | RMC, 12.2 kbps | 9262 | 1852.4 | N/A | 24.3 |
| | | | 9400 | 1880.0 | N/A | 24.3 |
| | | | 9538 | 1907.6 | N/A | **24.5** |
| | HSDPA | Subtest 1 | 9262 | 1852.4 | 0 | 23.5 |
| | | | 9400 | 1880.0 | 0 | 23.5 |
| | | | 9538 | 1907.6 | 0 | **23.9** |
| | | Subtest 2 | 9262 | 1852.4 | 0 | 22.6 |
| | | | 9400 | 1880.0 | 0 | 22.9 |
| | | | 9538 | 1907.6 | 0 | 23.1 |
| | | Subtest 3 | 9262 | 1852.4 | 0.5 | 22.3 |
| | | | 9400 | 1880.0 | 0.5 | 22.2 |
| | | | 9538 | 1907.6 | 0.5 | 22.8 |
| | | Subtest 4 | 9262 | 1852.4 | 0.5 | 22.0 |
| | | | 9400 | 1880.0 | 0.5 | 21.9 |
| | | | 9538 | 1907.6 | 0.5 | 22.2 |
| | HSPA (HSDPA & HSUPA) | Subtest 1 | 9262 | 1852.4 | 0 | 22.3 |
| | | | 9400 | 1880.0 | 0 | 22.5 |
| | | | 9538 | 1907.6 | 0 | 22.9 |
| | | Subtest 2 | 9262 | 1852.4 | 2 | 21.5 |
| | | | 9400 | 1880.0 | 2 | 21.4 |
| | | | 9538 | 1907.6 | 2 | 21.7 |
| | | Subtest 3 | 9262 | 1852.4 | 1 | 22.6 |
| | | | 9400 | 1880.0 | 1 | 22.5 |
| | | | 9538 | 1907.6 | 1 | 22.8 |
| | | Subtest 4 | 9262 | 1852.4 | 2 | 20.3 |
| | | | 9400 | 1880.0 | 2 | 20.2 |
| | | | 9538 | 1907.6 | 2 | 20.5 |
| | | Subtest 5 | 9262 | 1852.4 | 1 | 22.3 |
| | | | 9400 | 1880.0 | 1 | 22.5 |
| | | | 9538 | 1907.6 | 1 | 22.9 |



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## 8.2.3. WCDMA BAND4

| ID: | 44351 | Date: | 10/30/18 |
|---|---|---|---|

| Band | Mode | | UL Ch No. | Freq. (MHz) | MPR (dB) | Average (dBm) |
|---|---|---|---|---|---|---|
| W-CDMA Band 4 (1700MHz) | Rel 99 | RMC, 12.2 kbps | 1312 | 1712.4 | N/A | 24.1 |
| | | | 1413 | 1732.6 | N/A | 24.3 |
| | | | 1513 | 1752.6 | N/A | **24.3** |
| | HSDPA | Subtest 1 | 1312 | 1712.4 | 0 | 24.2 |
| | | | 1413 | 1732.6 | 0 | **24.4** |
| | | | 1513 | 1752.6 | 0 | **24.4** |
| | | Subtest 2 | 1312 | 1712.4 | 1 | 23.4 |
| | | | 1413 | 1732.6 | 1 | 23.5 |
| | | | 1513 | 1752.6 | 1 | 23.5 |
| | | Subtest 3 | 1312 | 1712.4 | 2 | 22.2 |
| | | | 1413 | 1732.6 | 2 | 22.3 |
| | | | 1513 | 1752.6 | 2 | 22.5 |
| | | Subtest 4 | 1312 | 1712.4 | 2 | 22.3 |
| | | | 1413 | 1732.6 | 2 | 22.4 |
| | | | 1513 | 1752.6 | 2 | 22.5 |
| | HSPA (HSDPA & HSUPA) | Subtest 1 | 1312 | 1712.4 | 1 | 22.4 |
| | | | 1413 | 1732.6 | 1 | 22.5 |
| | | | 1513 | 1752.6 | 1 | 22.6 |
| | | Subtest 2 | 1312 | 1712.4 | 2 | 21.3 |
| | | | 1413 | 1732.6 | 2 | 21.6 |
| | | | 1513 | 1752.6 | 2 | 21.6 |
| | | Subtest 3 | 1312 | 1712.4 | 2 | 20.0 |
| | | | 1413 | 1732.6 | 2 | 20.2 |
| | | | 1513 | 1752.6 | 2 | 20.3 |
| | | Subtest 4 | 1312 | 1712.4 | 1 | 22.4 |
| | | | 1413 | 1732.6 | 1 | 22.6 |
| | | | 1513 | 1752.6 | 1 | 22.6 |
| | | Subtest 5 | 1312 | 1712.4 | 1 | 22.4 |
| | | | 1413 | 1732.6 | 1 | 22.5 |
| | | | 1513 | 1752.6 | 1 | 22.6 |



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## 8.3. LTE

**CONDUCTED OUTPUT POWER MEASUREMENT PROCEDURE**

All LTE bands conducted average power is 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 1, 2 and 3**

| Modulation | Channel bandwidth / Transmission bandwidth ($N_{RB}$) | | | | | | 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 |
| 64 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 2 |
| 64 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 3 |

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”.3

**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[1] | 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. | | | | | |




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**MODES TESTED**

- LTE 2
- LTE 4
- LTE 5
- LTE 12
- LTE 13
- LTE 17
- LTE 25
- LTE 26 (FCC PART 22)
- LTE 26 (FCC PART 90S)
- LTE 41 (FCC)
- LTE 66

**RESULTS**

EUT includes different power levels for head use configuration and body use configuration and the below tables contain the highest of all configurations average conducted output powers as follows:




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### 8.3.1. **LTE 2**

| **ID:** | 44351 | **Date:** | 10/29/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 2 (1.4 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 18607 | 18900 | 19193 |
| | | | | 1850.7 MHz | 1880.0 MHz | 1909.3 MHz |
| 1.4 | QPSK | 1 | 0 | 24.1 | 24.1 | 24.1 |
| | | 1 | 2 | **24.2** | 24.0 | 24.0 |
| | | 1 | 5 | 24.1 | 24.1 | 24.0 |
| | | 3 | 0 | 24.1 | 24.0 | 23.9 |
| | | 3 | 1 | 24.0 | 24.0 | 23.9 |
| | | 3 | 2 | 24.1 | 24.0 | 23.9 |
| | | 6 | 0 | 22.1 | 22.0 | 21.9 |
| | 16QAM | 1 | 0 | 22.4 | 22.3 | **22.4** |
| | | 1 | 2 | 22.3 | 22.1 | 22.3 |
| | | 1 | 5 | 22.3 | 22.2 | 22.3 |
| | | 3 | 0 | 22.1 | 22.1 | 21.9 |
| | | 3 | 1 | 22.0 | 22.0 | 22.0 |
| | | 3 | 2 | 22.2 | 22.0 | 22.0 |
| | | 6 | 0 | 21.1 | 21.0 | 21.0 |
| | 64QAM | 1 | 0 | **21.1** | 21.1 | 21.1 |
| | | 1 | 2 | 21.0 | 20.9 | 20.9 |
| | | 1 | 5 | 21.0 | 20.9 | 20.9 |
| | | 3 | 0 | 21.1 | 21.0 | 20.9 |
| | | 3 | 1 | 21.1 | 21.0 | 20.9 |
| | | 3 | 2 | 21.1 | 20.9 | 20.9 |
| | | 6 | 0 | 20.1 | 19.9 | 19.9 |

**OUTPUT POWER FOR LTE BAND 2 (3.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 18615 | 18900 | 19185 |
| | | | | 1851.5 MHz | 1880.0 MHz | 1908.5 MHz |
| 3.0 | QPSK | 1 | 0 | 24.2 | 24.0 | **24.4** |
| | | 1 | 7 | 24.0 | 23.9 | 24.1 |
| | | 1 | 14 | 24.1 | 24.0 | 24.3 |
| | | 8 | 0 | 22.1 | 22.0 | 22.3 |
| | | 8 | 4 | 22.1 | 22.0 | 22.2 |
| | | 8 | 7 | 22.1 | 22.0 | 22.3 |
| | | 15 | 0 | 22.1 | 22.0 | 22.3 |
| | 16QAM | 1 | 0 | 22.5 | 22.3 | **22.8** |
| | | 1 | 7 | 22.3 | 22.3 | 22.5 |
| | | 1 | 14 | 22.3 | 22.2 | 22.5 |
| | | 8 | 0 | 21.1 | 21.0 | 21.3 |
| | | 8 | 4 | 21.1 | 21.0 | 21.3 |
| | | 8 | 7 | 21.1 | 21.0 | 21.3 |
| | | 15 | 0 | 21.1 | 21.0 | 21.3 |
| | 64QAM | 1 | 0 | 21.2 | 21.3 | 21.5 |
| | | 1 | 7 | 21.6 | 21.2 | **21.7** |
| | | 1 | 14 | 21.3 | 21.2 | 21.6 |
| | | 8 | 0 | 20.2 | 20.0 | 20.4 |
| | | 8 | 4 | 20.2 | 20.0 | 20.4 |
| | | 8 | 7 | 20.2 | 20.0 | 20.4 |
| | | 15 | 0 | 20.1 | 20.0 | 20.3 |



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**OUTPUT POWER FOR LTE BAND 2 (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 18625 | 18900 | 19175 |
| | | | | 1852.5 MHz | 1880.0 MHz | 1907.5 MHz |
| 5.0 | QPSK | 1 | 0 | 24.2 | 24.1 | **24.3** |
| | | 1 | 12 | 24.3 | 24.1 | 24.2 |
| | | 1 | 24 | 24.2 | 24.1 | 24.3 |
| | | 12 | 0 | 22.2 | 22.0 | 22.3 |
| | | 12 | 6 | 22.1 | 22.0 | 22.3 |
| | | 12 | 11 | 22.1 | 22.0 | 22.3 |
| | | 25 | 0 | 22.1 | 22.0 | 22.3 |
| | 16QAM | 1 | 0 | 22.5 | 22.4 | 22.9 |
| | | 1 | 12 | 22.2 | 22.3 | **22.9** |
| | | 1 | 24 | 22.5 | 22.2 | 22.7 |
| | | 12 | 0 | 21.2 | 21.0 | 21.4 |
| | | 12 | 6 | 21.2 | 21.0 | 21.3 |
| | | 12 | 11 | 21.2 | 21.0 | 21.3 |
| | | 25 | 0 | 21.1 | 21.0 | 21.3 |
| | 64QAM | 1 | 0 | 21.1 | 21.4 | **21.7** |
| | | 1 | 12 | 21.2 | 21.2 | 21.4 |
| | | 1 | 24 | 21.1 | 21.3 | 21.5 |
| | | 12 | 0 | 20.1 | 19.9 | 20.3 |
| | | 12 | 6 | 20.1 | 20.0 | 20.3 |
| | | 12 | 11 | 20.1 | 20.0 | 20.3 |
| | | 25 | 0 | 20.2 | 20.0 | 20.3 |

**OUTPUT POWER FOR LTE BAND 2 (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 18650 | 18900 | 19150 |
| | | | | 1855.0 MHz | 1880.0 MHz | 1905.0 MHz |
| 10.0 | QPSK | 1 | 0 | 24.2 | 24.1 | **24.4** |
| | | 1 | 24 | 24.1 | 24.0 | 24.3 |
| | | 1 | 49 | 24.1 | 24.0 | 24.3 |
| | | 25 | 0 | 22.2 | 22.1 | 22.4 |
| | | 25 | 12 | 22.2 | 22.0 | 22.3 |
| | | 25 | 24 | 22.1 | 22.0 | 22.3 |
| | | 50 | 0 | 22.1 | 22.0 | 22.3 |
| | 16QAM | 1 | 0 | 22.3 | 22.2 | **22.7** |
| | | 1 | 24 | 22.0 | 22.0 | 22.6 |
| | | 1 | 49 | 22.2 | 22.1 | 22.6 |
| | | 25 | 0 | 21.2 | 21.1 | 21.4 |
| | | 25 | 12 | 21.2 | 21.0 | 21.3 |
| | | 25 | 24 | 21.2 | 21.0 | 21.3 |
| | | 50 | 0 | 21.1 | 21.0 | 21.3 |
| | 64QAM | 1 | 0 | 21.5 | 21.3 | **21.7** |
| | | 1 | 24 | 21.3 | 21.1 | 21.6 |
| | | 1 | 49 | 21.3 | 21.3 | 21.7 |
| | | 25 | 0 | 20.2 | 20.0 | 20.3 |
| | | 25 | 12 | 20.1 | 20.0 | 20.3 |
| | | 25 | 24 | 20.1 | 20.0 | 20.3 |
| | | 50 | 0 | 20.1 | 20.0 | 20.3 |




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**OUTPUT POWER FOR LTE BAND 2 (15.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 18675 | 18900 | 19125 |
| | | | | 1857.5 MHz | 1880.0 MHz | 1902.5 MHz |
| 15.0 | QPSK | 1 | 0 | 24.2 | 24.2 | 24.4 |
| | | 1 | 37 | 24.0 | 24.2 | **24.5** |
| | | 1 | 74 | 24.0 | 24.0 | 24.2 |
| | | 36 | 0 | 22.3 | 22.1 | 22.4 |
| | | 36 | 16 | 22.2 | 22.1 | 22.3 |
| | | 36 | 35 | 22.2 | 22.1 | 22.3 |
| | | 75 | 0 | 22.2 | 22.1 | 22.3 |
| | 16QAM | 1 | 0 | 22.7 | 22.5 | 22.7 |
| | | 1 | 37 | 22.6 | 22.5 | **22.7** |
| | | 1 | 74 | 22.4 | 22.3 | 22.5 |
| | | 36 | 0 | 21.2 | 21.1 | 21.3 |
| | | 36 | 16 | 21.2 | 21.0 | 21.3 |
| | | 36 | 35 | 21.1 | 21.0 | 21.3 |
| | | 75 | 0 | 21.2 | 21.1 | 21.3 |
| | 64QAM | 1 | 0 | **21.6** | 21.5 | 21.6 |
| | | 1 | 37 | 21.5 | 21.3 | 21.6 |
| | | 1 | 74 | 21.3 | 21.3 | 21.4 |
| | | 36 | 0 | 20.2 | 20.1 | 20.3 |
| | | 36 | 16 | 20.2 | 20.0 | 20.3 |
| | | 36 | 35 | 20.1 | 20.0 | 20.2 |
| | | 75 | 0 | 20.2 | 20.1 | 20.3 |

**OUTPUT POWER FOR LTE BAND 2 (20.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 18700 | 18900 | 19100 |
| | | | | 1860.0 MHz | 1880.0 MHz | 1900.0 MHz |
| 20.0 | QPSK | 1 | 0 | 24.2 | 24.2 | **24.4** |
| | | 1 | 49 | 23.8 | 23.9 | 24.1 |
| | | 1 | 99 | 24.0 | 24.0 | 24.2 |
| | | 50 | 0 | 22.2 | 22.1 | 22.3 |
| | | 50 | 24 | 22.1 | 22.1 | 22.3 |
| | | 50 | 49 | 22.0 | 22.0 | 22.2 |
| | | 100 | 0 | 22.1 | 22.1 | 22.3 |
| | 16QAM | 1 | 0 | 22.7 | 22.7 | **22.8** |
| | | 1 | 49 | 22.3 | 22.4 | 22.6 |
| | | 1 | 99 | 22.4 | 22.4 | 22.7 |
| | | 50 | 0 | 21.2 | 21.1 | 21.3 |
| | | 50 | 24 | 21.1 | 21.1 | 21.2 |
| | | 50 | 49 | 21.0 | 21.0 | 21.2 |
| | | 100 | 0 | 21.1 | 21.0 | 21.2 |
| | 64QAM | 1 | 0 | **21.6** | 21.5 | 21.6 |
| | | 1 | 49 | 21.4 | 21.1 | 21.3 |
| | | 1 | 99 | 21.3 | 21.2 | 21.4 |
| | | 50 | 0 | 20.2 | 20.1 | 20.2 |
| | | 50 | 24 | 20.1 | 20.0 | 20.2 |
| | | 50 | 49 | 20.0 | 20.0 | 20.2 |
| | | 100 | 0 | 20.1 | 20.0 | 20.2 |




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## 8.3.2. LTE 4

| ID: | 44351 | Date: | 11/2/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 4 (1.4 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 19957 | 20175 | 20393 |
| | | | | 1710.7 MHz | 1732.5 MHz | 1754.3 MHz |
| 1.4 | QPSK | 1 | 0 | 24.0 | 24.1 | **24.2** |
| | | 1 | 2 | 23.9 | 24.1 | 24.1 |
| | | 1 | 5 | 23.9 | 24.1 | 24.1 |
| | | 3 | 0 | 23.8 | 23.9 | 24.0 |
| | | 3 | 1 | 23.8 | 24.0 | 24.0 |
| | | 3 | 2 | 23.8 | 24.0 | 24.0 |
| | | 6 | 0 | 21.9 | 22.1 | 22.1 |
| | 16QAM | 1 | 0 | 22.2 | **22.4** | 22.3 |
| | | 1 | 2 | 21.8 | 22.3 | 22.2 |
| | | 1 | 5 | 22.1 | 22.3 | 22.2 |
| | | 3 | 0 | 21.8 | 22.1 | 22.0 |
| | | 3 | 1 | 21.7 | 22.2 | 22.0 |
| | | 3 | 2 | 21.8 | 22.2 | 22.0 |
| | | 6 | 0 | 20.9 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | **21.3** | 21.2 | 21.2 |
| | | 1 | 2 | 21.2 | 20.9 | 21.1 |
| | | 1 | 5 | 21.1 | 21.0 | 21.1 |
| | | 3 | 0 | 20.9 | 21.1 | 21.1 |
| | | 3 | 1 | 20.9 | 21.1 | 21.1 |
| | | 3 | 2 | 20.8 | 21.1 | 21.1 |
| | | 6 | 0 | 19.9 | 20.0 | 20.1 |

**OUTPUT POWER FOR LTE BAND 4 (3.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 19965 | 20175 | 20385 |
| | | | | 1711.5 MHz | 1732.5 MHz | 1753.5 MHz |
| 3.0 | QPSK | 1 | 0 | 23.9 | 24.1 | 24.1 |
| | | 1 | 7 | 24.1 | 24.3 | **24.4** |
| | | 1 | 14 | 23.9 | 24.1 | 24.2 |
| | | 8 | 0 | 21.9 | 22.1 | 22.1 |
| | | 8 | 4 | 21.9 | 22.1 | 22.1 |
| | | 8 | 7 | 21.8 | 22.0 | 22.1 |
| | | 15 | 0 | 21.9 | 22.0 | 22.1 |
| | 16QAM | 1 | 0 | 22.1 | 22.5 | 22.4 |
| | | 1 | 7 | 22.0 | **22.8** | 22.4 |
| | | 1 | 14 | 21.9 | 22.5 | 22.4 |
| | | 8 | 0 | 20.9 | 21.0 | 21.1 |
| | | 8 | 4 | 20.9 | 21.1 | 21.2 |
| | | 8 | 7 | 20.9 | 21.1 | 21.2 |
| | | 15 | 0 | 20.8 | 21.0 | 21.1 |
| | 64QAM | 1 | 0 | 21.3 | 21.3 | 21.5 |
| | | 1 | 7 | 20.9 | 21.4 | 21.5 |
| | | 1 | 14 | 21.1 | 21.4 | **21.6** |
| | | 8 | 0 | 19.9 | 20.2 | 20.2 |
| | | 8 | 4 | 19.9 | 20.1 | 20.2 |
| | | 8 | 7 | 19.9 | 20.2 | 20.2 |
| | | 15 | 0 | 19.8 | 20.1 | 20.1 |



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**OUTPUT POWER FOR LTE BAND 4 (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 19975 | 20175 | 20375 |
| | | | | 1712.5 MHz | 1732.5 MHz | 1752.5 MHz |
| 5.0 | QPSK | 1 | 0 | 23.9 | 24.1 | 24.2 |
| | | 1 | 12 | 23.7 | 24.0 | **24.3** |
| | | 1 | 24 | 23.9 | 24.1 | 24.2 |
| | | 12 | 0 | 21.9 | 22.1 | 22.2 |
| | | 12 | 6 | 21.8 | 22.1 | 22.1 |
| | | 12 | 11 | 21.9 | 22.1 | 22.1 |
| | | 25 | 0 | 21.9 | 22.1 | 22.1 |
| | 16QAM | 1 | 0 | 22.3 | 22.4 | 22.5 |
| | | 1 | 12 | 22.4 | 22.4 | 22.3 |
| | | 1 | 24 | 22.1 | 22.3 | **22.5** |
| | | 12 | 0 | 20.9 | 21.1 | 21.2 |
| | | 12 | 6 | 20.9 | 21.1 | 21.2 |
| | | 12 | 11 | 20.9 | 21.1 | 21.2 |
| | | 25 | 0 | 20.8 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | 21.3 | 21.1 | 21.3 |
| | | 1 | 12 | 21.3 | 20.8 | 21.1 |
| | | 1 | 24 | 21.2 | 21.2 | **21.3** |
| | | 12 | 0 | 19.8 | 20.1 | 20.2 |
| | | 12 | 6 | 19.9 | 20.1 | 20.2 |
| | | 12 | 11 | 19.9 | 20.1 | 20.2 |
| | | 25 | 0 | 19.8 | 20.1 | 20.2 |

**OUTPUT POWER FOR LTE BAND 4 (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 20000 | 20175 | 20350 |
| | | | | 1715.0 MHz | 1732.5 MHz | 1750.0 MHz |
| 10.0 | QPSK | 1 | 0 | 23.9 | 24.1 | **24.2** |
| | | 1 | 24 | 23.8 | 24.1 | 24.1 |
| | | 1 | 49 | 23.9 | 24.1 | 24.1 |
| | | 25 | 0 | 21.9 | 22.1 | 22.2 |
| | | 25 | 12 | 21.9 | 22.1 | 22.1 |
| | | 25 | 24 | 21.9 | 22.1 | 22.1 |
| | | 50 | 0 | 21.9 | 22.1 | 22.1 |
| | 16QAM | 1 | 0 | 22.0 | **22.4** | 22.2 |
| | | 1 | 24 | 21.7 | 22.1 | 22.0 |
| | | 1 | 49 | 21.9 | 22.3 | 22.2 |
| | | 25 | 0 | 21.0 | 21.2 | 21.2 |
| | | 25 | 12 | 20.9 | 21.1 | 21.2 |
| | | 25 | 24 | 20.9 | 21.1 | 21.2 |
| | | 50 | 0 | 20.9 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | 21.2 | 21.4 | **21.4** |
| | | 1 | 24 | 21.0 | 21.2 | 21.3 |
| | | 1 | 49 | 21.2 | 21.2 | 21.4 |
| | | 25 | 0 | 19.9 | 20.1 | 20.2 |
| | | 25 | 12 | 19.9 | 20.1 | 20.1 |
| | | 25 | 24 | 19.9 | 20.1 | 20.1 |
| | | 50 | 0 | 19.9 | 20.1 | 20.1 |



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**OUTPUT POWER FOR LTE BAND 4 (15.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 20025 | 20175 | 20325 |
| | | | | 1717.5 MHz | 1732.5 MHz | 1747.5 MHz |
| 15.0 | QPSK | 1 | 0 | 24.0 | 24.2 | 24.2 |
| | | 1 | 37 | 24.1 | 24.2 | **24.4** |
| | | 1 | 74 | 23.8 | 24.0 | 24.0 |
| | | 36 | 0 | 22.0 | 22.2 | 22.2 |
| | | 36 | 16 | 21.9 | 22.1 | 22.1 |
| | | 36 | 35 | 21.9 | 22.1 | 22.1 |
| | | 75 | 0 | 22.0 | 22.2 | 22.2 |
| | 16QAM | 1 | 0 | 22.2 | 22.5 | 22.4 |
| | | 1 | 37 | 22.3 | **22.5** | 22.4 |
| | | 1 | 74 | 22.0 | 22.3 | 22.2 |
| | | 36 | 0 | 21.0 | 21.2 | 21.2 |
| | | 36 | 16 | 20.9 | 21.1 | 21.1 |
| | | 36 | 35 | 20.9 | 21.1 | 21.1 |
| | | 75 | 0 | 20.9 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | **21.5** | 21.4 | 21.4 |
| | | 1 | 37 | 21.5 | 21.3 | 21.3 |
| | | 1 | 74 | 21.3 | 21.3 | 21.2 |
| | | 36 | 0 | 20.0 | 20.2 | 20.2 |
| | | 36 | 16 | 19.9 | 20.1 | 20.1 |
| | | 36 | 35 | 19.9 | 20.1 | 20.1 |
| | | 75 | 0 | 19.9 | 20.2 | 20.1 |

**OUTPUT POWER FOR LTE BAND 4 (20.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 20050 | 20175 | 20300 |
| | | | | 1720.0 MHz | 1732.5 MHz | 1745.0 MHz |
| 20.0 | QPSK | 1 | 0 | 24.1 | **24.2** | 24.2 |
| | | 1 | 49 | 23.8 | 23.9 | 23.8 |
| | | 1 | 99 | 23.9 | 24.0 | 24.0 |
| | | 50 | 0 | 22.2 | 22.2 | 22.2 |
| | | 50 | 24 | 22.1 | 22.1 | 22.1 |
| | | 50 | 49 | 22.1 | 22.1 | 22.1 |
| | | 100 | 0 | 22.1 | 22.1 | 22.1 |
| | 16QAM | 1 | 0 | 22.4 | **22.6** | 22.5 |
| | | 1 | 49 | 22.2 | 22.3 | 22.3 |
| | | 1 | 99 | 22.2 | 22.4 | 22.3 |
| | | 50 | 0 | 21.2 | 21.2 | 21.2 |
| | | 50 | 24 | 21.1 | 21.1 | 21.1 |
| | | 50 | 49 | 21.1 | 21.1 | 21.1 |
| | | 100 | 0 | 21.1 | 21.1 | 21.0 |
| | 64QAM | 1 | 0 | 21.5 | **21.6** | 21.5 |
| | | 1 | 49 | 21.2 | 21.2 | 21.2 |
| | | 1 | 99 | 21.2 | 21.3 | 21.3 |
| | | 50 | 0 | 20.1 | 20.1 | 20.1 |
| | | 50 | 24 | 20.0 | 20.1 | 20.0 |
| | | 50 | 49 | 20.0 | 20.0 | 20.0 |
| | | 100 | 0 | 20.0 | 20.1 | 20.0 |



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### 8.3.3. **LTE 5**

| **ID:** | 44351 | **Date:** | 11/5/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 5 (1.4 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 20407 | 20525 | 20643 |
| | | | | 824.7 MHz | 836.5 MHz | 848.3 MHz |
| 1.4 | QPSK | 1 | 0 | **24.8** | 24.7 | 24.7 |
| | | 1 | 2 | 24.7 | 24.6 | 24.6 |
| | | 1 | 5 | 24.7 | 24.6 | 24.6 |
| | | 3 | 0 | 24.6 | 24.5 | 24.6 |
| | | 3 | 1 | 24.6 | 24.6 | 24.5 |
| | | 3 | 2 | 24.7 | 24.6 | 24.5 |
| | | 6 | 0 | 22.2 | 22.1 | 22.1 |
| | 16QAM | 1 | 0 | 22.4 | **22.7** | 22.4 |
| | | 1 | 2 | 22.7 | 22.6 | 22.3 |
| | | 1 | 5 | 22.3 | 22.6 | 22.3 |
| | | 3 | 0 | 22.2 | 22.1 | 22.1 |
| | | 3 | 1 | 22.3 | 22.3 | 22.0 |
| | | 3 | 2 | 22.3 | 22.2 | 22.1 |
| | | 6 | 0 | 21.2 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | **21.6** | 21.3 | 21.6 |
| | | 1 | 2 | 21.5 | 21.3 | 21.6 |
| | | 1 | 5 | 21.6 | 21.2 | 21.4 |
| | | 3 | 0 | 21.2 | 21.0 | 21.1 |
| | | 3 | 1 | 21.2 | 21.0 | 21.1 |
| | | 3 | 2 | 21.2 | 21.0 | 21.1 |
| | | 6 | 0 | 20.2 | 20.1 | 20.2 |

**OUTPUT POWER FOR LTE BAND 5 (3.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 20415 | 20525 | 20635 |
| | | | | 825.5 MHz | 836.5 MHz | 847.5 MHz |
| 3.0 | QPSK | 1 | 0 | 24.8 | 24.7 | 24.7 |
| | | 1 | 7 | **25.0** | 24.9 | 25.0 |
| | | 1 | 14 | 24.8 | 24.7 | 24.7 |
| | | 8 | 0 | 22.2 | 22.1 | 22.1 |
| | | 8 | 4 | 22.2 | 22.1 | 22.1 |
| | | 8 | 7 | 22.2 | 22.1 | 22.1 |
| | | 15 | 0 | 22.2 | 22.1 | 22.1 |
| | 16QAM | 1 | 0 | 22.5 | 22.6 | 22.5 |
| | | 1 | 7 | 22.6 | **22.9** | 22.7 |
| | | 1 | 14 | 22.4 | 22.7 | 22.5 |
| | | 8 | 0 | 21.3 | 21.2 | 21.1 |
| | | 8 | 4 | 21.3 | 21.2 | 21.1 |
| | | 8 | 7 | 21.3 | 21.2 | 21.1 |
| | | 15 | 0 | 21.3 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | 21.3 | 21.5 | 21.3 |
| | | 1 | 7 | **21.8** | 21.2 | 21.4 |
| | | 1 | 14 | 21.7 | 21.3 | 21.3 |
| | | 8 | 0 | 20.4 | 20.1 | 20.2 |
| | | 8 | 4 | 20.3 | 20.1 | 20.2 |
| | | 8 | 7 | 20.3 | 20.1 | 20.2 |
| | | 15 | 0 | 20.2 | 20.1 | 20.2 |



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**OUTPUT POWER FOR LTE BAND 5 (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 20425 | 20525 | 20625 |
| | | | | 826.5 MHz | 836.5 MHz | 846.5 MHz |
| 5.0 | QPSK | 1 | 0 | **24.8** | 24.6 | 24.6 |
| | | 1 | 12 | 24.7 | 24.6 | 24.5 |
| | | 1 | 24 | 24.7 | 24.6 | 24.6 |
| | | 12 | 0 | 22.3 | 22.1 | 22.1 |
| | | 12 | 6 | 22.2 | 22.1 | 22.1 |
| | | 12 | 11 | 22.2 | 22.1 | 22.1 |
| | | 25 | 0 | 22.2 | 22.1 | 22.1 |
| | 16QAM | 1 | 0 | 22.7 | 22.7 | 22.6 |
| | | 1 | 12 | **22.7** | 22.7 | 22.6 |
| | | 1 | 24 | 22.6 | 22.6 | 22.5 |
| | | 12 | 0 | 21.2 | 21.2 | 21.0 |
| | | 12 | 6 | 21.2 | 21.1 | 21.1 |
| | | 12 | 11 | 21.2 | 21.1 | 21.1 |
| | | 25 | 0 | 21.2 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | **21.7** | 21.6 | 21.7 |
| | | 1 | 12 | 21.6 | 21.4 | 21.5 |
| | | 1 | 24 | 21.6 | 21.4 | 21.5 |
| | | 12 | 0 | 20.2 | 20.2 | 20.2 |
| | | 12 | 6 | 20.2 | 20.2 | 20.2 |
| | | 12 | 11 | 20.2 | 20.2 | 20.2 |
| | | 25 | 0 | 20.2 | 20.1 | 20.1 |

**OUTPUT POWER FOR LTE BAND 5 (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 20450 | 20525 | 20600 |
| | | | | 829.0 MHz | 836.5 MHz | 844.0 MHz |
| 10.0 | QPSK | 1 | 0 | 24.6 | **24.7** | 24.7 |
| | | 1 | 24 | 24.5 | 24.6 | 24.6 |
| | | 1 | 49 | 24.4 | 24.5 | 24.4 |
| | | 25 | 0 | 22.1 | 22.2 | 22.1 |
| | | 25 | 12 | 22.0 | 22.1 | 22.0 |
| | | 25 | 24 | 22.0 | 22.1 | 22.0 |
| | | 50 | 0 | 22.3 | 22.1 | 22.1 |
| | 16QAM | 1 | 0 | 22.3 | **22.3** | 22.2 |
| | | 1 | 24 | 22.1 | 22.0 | 22.1 |
| | | 1 | 49 | 22.1 | 22.2 | 22.1 |
| | | 25 | 0 | 21.1 | 21.1 | 21.1 |
| | | 25 | 12 | 21.0 | 21.1 | 21.0 |
| | | 25 | 24 | 21.1 | 21.1 | 21.1 |
| | | 50 | 0 | 21.2 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | 21.3 | **21.4** | 21.4 |
| | | 1 | 24 | 21.2 | 21.3 | 21.3 |
| | | 1 | 49 | 21.3 | 21.4 | 21.4 |
| | | 25 | 0 | 20.1 | 20.1 | 20.1 |
| | | 25 | 12 | 20.1 | 20.1 | 20.1 |
| | | 25 | 24 | 20.1 | 20.1 | 20.1 |
| | | 50 | 0 | 20.1 | 20.1 | 20.0 |




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## 8.3.4. LTE 12

| ID: | 44351 | Date: | 10/30/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 12 (1.4 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 23017 | 23095 | 23173 |
| | | | | 699.7 MHz | 707.5 MHz | 715.3 MHz |
| 1.4 | QPSK | 1 | 0 | **24.1** | 24.1 | 24.0 |
| | | 1 | 2 | 24.1 | 24.0 | 24.0 |
| | | 1 | 5 | 24.1 | 24.0 | 24.0 |
| | | 3 | 0 | 24.0 | 24.0 | 23.9 |
| | | 3 | 1 | 24.0 | 24.0 | 23.9 |
| | | 3 | 2 | 24.0 | 24.0 | 24.0 |
| | | 6 | 0 | 22.1 | 22.0 | 21.9 |
| | 16QAM | 1 | 0 | **22.6** | 22.4 | 22.4 |
| | | 1 | 2 | 22.5 | 22.4 | 22.2 |
| | | 1 | 5 | 22.5 | 22.3 | 22.3 |
| | | 3 | 0 | 22.1 | 22.1 | 22.0 |
| | | 3 | 1 | 22.2 | 22.2 | 22.1 |
| | | 3 | 2 | 22.2 | 22.2 | 22.1 |
| | | 6 | 0 | 21.0 | 21.0 | 21.0 |
| | 64QAM | 1 | 0 | 21.2 | **21.4** | 21.1 |
| | | 1 | 2 | 21.0 | 21.3 | 21.0 |
| | | 1 | 5 | 21.3 | 21.2 | 21.0 |
| | | 3 | 0 | 21.1 | 21.3 | 21.0 |
| | | 3 | 1 | 21.1 | 21.4 | 21.0 |
| | | 3 | 2 | 21.2 | 21.3 | 21.0 |
| | | 6 | 0 | 20.0 | 20.0 | 20.0 |

**OUTPUT POWER FOR LTE BAND 12 (3.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 23025 | 23095 | 23165 |
| | | | | 700.5 MHz | 707.5 MHz | 714.5 MHz |
| 3.0 | QPSK | 1 | 0 | 24.1 | 24.1 | 24.0 |
| | | 1 | 7 | **24.3** | 24.2 | 23.7 |
| | | 1 | 14 | 24.2 | 24.1 | 23.9 |
| | | 8 | 0 | 22.1 | 22.0 | 22.0 |
| | | 8 | 4 | 22.1 | 22.0 | 21.9 |
| | | 8 | 7 | 22.0 | 22.0 | 21.9 |
| | | 15 | 0 | 22.1 | 22.0 | 22.0 |
| | 16QAM | 1 | 0 | 22.4 | 22.6 | 22.4 |
| | | 1 | 7 | **22.7** | 22.7 | 22.4 |
| | | 1 | 14 | 22.5 | 22.6 | 22.4 |
| | | 8 | 0 | 21.1 | 21.1 | 21.0 |
| | | 8 | 4 | 21.1 | 21.1 | 21.0 |
| | | 8 | 7 | 21.1 | 21.0 | 21.0 |
| | | 15 | 0 | 21.2 | 21.1 | 21.0 |
| | 64QAM | 1 | 0 | **21.4** | 21.3 | 21.1 |
| | | 1 | 7 | 21.1 | 21.0 | 21.4 |
| | | 1 | 14 | 21.3 | 21.2 | 21.3 |
| | | 8 | 0 | 20.1 | 20.1 | 20.1 |
| | | 8 | 4 | 20.1 | 20.0 | 20.1 |
| | | 8 | 7 | 20.1 | 20.0 | 20.0 |
| | | 15 | 0 | 20.1 | 20.1 | 20.0 |




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**OUTPUT POWER FOR LTE BAND 12 (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 23035 | 23095 | 23155 |
| | | | | 701.5 MHz | 707.5 MHz | 713.5 MHz |
| 5.0 | QPSK | 1 | 0 | 24.1 | 24.0 | 24.0 |
| | | 1 | 12 | 24.0 | 23.9 | 24.1 |
| | | 1 | 24 | **24.1** | 24.0 | 24.0 |
| | | 12 | 0 | 22.1 | 22.0 | 22.0 |
| | | 12 | 6 | 22.1 | 22.0 | 22.0 |
| | | 12 | 11 | 22.1 | 22.0 | 22.0 |
| | | 25 | 0 | 22.1 | 22.0 | 22.0 |
| | 16QAM | 1 | 0 | **22.5** | 22.4 | 22.4 |
| | | 1 | 12 | 22.5 | 22.4 | 22.2 |
| | | 1 | 24 | 22.4 | 22.3 | 22.4 |
| | | 12 | 0 | 21.1 | 21.1 | 21.1 |
| | | 12 | 6 | 21.1 | 21.1 | 21.1 |
| | | 12 | 11 | 21.1 | 21.1 | 21.1 |
| | | 25 | 0 | 21.1 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | 21.3 | 21.4 | **21.4** |
| | | 1 | 12 | 21.1 | 21.1 | 21.3 |
| | | 1 | 24 | 21.4 | 21.4 | 21.3 |
| | | 12 | 0 | 20.2 | 20.0 | 20.1 |
| | | 12 | 6 | 20.2 | 20.1 | 20.1 |
| | | 12 | 11 | 20.2 | 20.1 | 20.1 |
| | | 25 | 0 | 20.2 | 20.1 | 20.0 |

**OUTPUT POWER FOR LTE BAND 12 (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 23060 | 23095 | 23130 |
| | | | | 704.0 MHz | 707.5 MHz | 711.0 MHz |
| 10.0 | QPSK | 1 | 0 | 24.1 | **24.1** | 24.0 |
| | | 1 | 24 | 24.0 | 24.0 | 23.9 |
| | | 1 | 49 | 24.0 | 24.0 | 23.9 |
| | | 25 | 0 | 22.1 | 22.1 | 22.0 |
| | | 25 | 12 | 22.1 | 22.0 | 21.9 |
| | | 25 | 24 | 22.1 | 22.0 | 21.9 |
| | | 50 | 0 | 22.1 | 22.0 | 22.0 |
| | 16QAM | 1 | 0 | 22.3 | **22.3** | 22.2 |
| | | 1 | 24 | 22.1 | 22.1 | 21.9 |
| | | 1 | 49 | 22.2 | 22.2 | 22.1 |
| | | 25 | 0 | 21.2 | 21.2 | 21.1 |
| | | 25 | 12 | 21.2 | 21.1 | 21.0 |
| | | 25 | 24 | 21.2 | 21.1 | 21.0 |
| | | 50 | 0 | 21.1 | 21.1 | 21.0 |
| | 64QAM | 1 | 0 | **21.5** | 21.3 | 21.4 |
| | | 1 | 24 | 21.3 | 21.1 | 21.1 |
| | | 1 | 49 | 21.3 | 21.1 | 21.3 |
| | | 25 | 0 | 20.1 | 20.1 | 20.0 |
| | | 25 | 12 | 20.1 | 20.0 | 20.0 |
| | | 25 | 24 | 20.1 | 20.0 | 20.0 |
| | | 50 | 0 | 20.1 | 20.1 | 20.0 |




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## 8.3.5. LTE 13

| ID: | 52300 | Date: | 10/30/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 13 (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 23207 | 23230 | 23255 |
| | | | | 779.5 MHz | 782.0 MHz | 784.5 MHz |
| 5.0 | QPSK | 1 | 0 | 22.5 | 24.7 | 24.8 |
| | | 1 | 12 | 24.6 | 24.6 | **24.8** |
| | | 1 | 24 | 24.7 | 24.6 | 24.7 |
| | | 12 | 0 | 22.3 | 22.2 | 22.2 |
| | | 12 | 6 | 22.2 | 22.2 | 22.2 |
| | | 12 | 11 | 22.2 | 22.2 | 22.2 |
| | | 25 | 0 | 22.2 | 22.2 | 22.2 |
| | 16QAM | 1 | 0 | **22.7** | 22.6 | 22.6 |
| | | 1 | 12 | 22.6 | 22.6 | 22.7 |
| | | 1 | 24 | 22.6 | 22.4 | 22.6 |
| | | 12 | 0 | 21.3 | 21.2 | 21.3 |
| | | 12 | 6 | 21.2 | 21.1 | 21.2 |
| | | 12 | 11 | 21.2 | 21.2 | 21.3 |
| | | 25 | 0 | 21.2 | 21.2 | 21.2 |
| | 64QAM | 1 | 0 | **21.8** | 21.5 | 21.5 |
| | | 1 | 12 | 21.4 | 21.4 | 21.3 |
| | | 1 | 24 | 21.6 | 21.4 | 21.4 |
| | | 12 | 0 | 20.2 | 20.3 | 20.2 |
| | | 12 | 6 | 20.3 | 20.2 | 20.2 |
| | | 12 | 11 | 20.3 | 20.3 | 20.2 |
| | | 25 | 0 | 20.2 | 20.2 | 20.2 |

**OUTPUT POWER FOR LTE BAND 13 (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | N/A | 23230 | N/A |
| | | | | N/A | 782.0 MHz | N/A |
| 10.0 | QPSK | 1 | 0 | | **24.7** | |
| | | 1 | 24 | | 24.7 | |
| | | 1 | 49 | | 24.7 | |
| | | 25 | 0 | | 22.2 | |
| | | 25 | 12 | | 22.2 | |
| | | 25 | 24 | | 22.2 | |
| | | 50 | 0 | | 22.2 | |
| | 16QAM | 1 | 0 | | **22.5** | |
| | | 1 | 24 | | 22.2 | |
| | | 1 | 49 | | 22.3 | |
| | | 25 | 0 | | 21.3 | |
| | | 25 | 12 | | 21.2 | |
| | | 25 | 24 | | 21.2 | |
| | | 50 | 0 | | 21.2 | |
| | 64QAM | 1 | 0 | | **21.5** | |
| | | 1 | 24 | | 21.3 | |
| | | 1 | 49 | | 21.4 | |
| | | 25 | 0 | | 20.2 | |
| | | 25 | 12 | | 20.2 | |
| | | 25 | 24 | | 20.2 | |
| | | 50 | 0 | | 20.2 | |




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## 8.3.6. LTE 17

| ID: | 44351 | Date: | 11/5/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 17 (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 23755 | 23790 | 23825 |
| | | | | 706.5 MHz | 710.0 MHz | 713.5 MHz |
| 5.0 | QPSK | 1 | 0 | 24.0 | **24.1** | 24.0 |
| | | 1 | 12 | 24.0 | 24.0 | 24.0 |
| | | 1 | 24 | 24.0 | 24.0 | 24.0 |
| | | 12 | 0 | 22.2 | 22.1 | 22.2 |
| | | 12 | 6 | 22.2 | 22.1 | 22.2 |
| | | 12 | 11 | 22.2 | 22.0 | 22.2 |
| | | 25 | 0 | 22.6 | 22.1 | 22.7 |
| | 16QAM | 1 | 0 | 22.4 | **22.4** | 22.4 |
| | | 1 | 12 | 22.3 | 22.1 | 22.4 |
| | | 1 | 24 | 22.3 | 22.3 | 22.4 |
| | | 12 | 0 | 21.1 | 21.2 | 21.2 |
| | | 12 | 6 | 21.1 | 21.1 | 21.1 |
| | | 12 | 11 | 21.2 | 21.1 | 21.3 |
| | | 25 | 0 | 21.2 | 21.1 | 21.2 |
| | 64QAM | 1 | 0 | 21.4 | **21.4** | 21.2 |
| | | 1 | 12 | 21.3 | 21.2 | 21.3 |
| | | 1 | 24 | 21.4 | 21.3 | 21.4 |
| | | 12 | 0 | 20.2 | 20.1 | 20.2 |
| | | 12 | 6 | 20.1 | 20.1 | 20.1 |
| | | 12 | 11 | 20.2 | 20.1 | 20.2 |
| | | 25 | 0 | 20.1 | 20.1 | 20.1 |

**OUTPUT POWER FOR LTE BAND 17 (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 23780 | 23790 | 23800 |
| | | | | 709.0 MHz | 710.0 MHz | 711.0 MHz |
| 10.0 | QPSK | 1 | 0 | 24.1 | **24.1** | 24.0 |
| | | 1 | 24 | 24.0 | 24.1 | 24.0 |
| | | 1 | 49 | 24.0 | 24.1 | 24.0 |
| | | 25 | 0 | 22.1 | 22.1 | 22.1 |
| | | 25 | 12 | 22.2 | 22.1 | 22.1 |
| | | 25 | 24 | 22.1 | 22.1 | 22.1 |
| | | 50 | 0 | 22.6 | 22.1 | 22.0 |
| | 16QAM | 1 | 0 | 22.4 | **22.6** | 22.5 |
| | | 1 | 24 | 22.5 | 22.5 | 22.5 |
| | | 1 | 49 | 22.4 | 22.5 | 22.5 |
| | | 25 | 0 | 21.0 | 21.1 | 21.0 |
| | | 25 | 12 | 21.0 | 21.1 | 21.0 |
| | | 25 | 24 | 21.2 | 21.1 | 21.0 |
| | | 50 | 0 | 21.1 | 21.1 | 21.0 |
| | 64QAM | 1 | 0 | 21.3 | 21.5 | 21.4 |
| | | 1 | 24 | 21.2 | 21.2 | 21.2 |
| | | 1 | 49 | 21.4 | **21.5** | 21.5 |
| | | 25 | 0 | 20.2 | 20.2 | 20.1 |
| | | 25 | 12 | 20.1 | 20.1 | 20.1 |
| | | 25 | 24 | 20.2 | 20.2 | 20.1 |
| | | 50 | 0 | 20.1 | 20.1 | 20.1 |



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## 8.3.7. LTE 25

| ID: | 52300 | Date: | 11/12/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 25 (1.4 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26047 | 26365 | 26683 |
| | | | | 1850.7 MHz | 1882.5 MHz | 1914.3 MHz |
| 1.4 | QPSK | 1 | 0 | 24.3 | 24.2 | **24.4** |
| | | 1 | 2 | 24.2 | 24.2 | 24.3 |
| | | 1 | 5 | 24.2 | 24.2 | 24.3 |
| | | 3 | 0 | 24.1 | 24.1 | 24.3 |
| | | 3 | 1 | 24.1 | 24.1 | 24.2 |
| | | 3 | 2 | 24.2 | 24.1 | 24.3 |
| | | 6 | 0 | 22.3 | 22.1 | 22.4 |
| | 16QAM | 1 | 0 | **22.7** | 22.6 | 22.6 |
| | | 1 | 2 | 22.5 | 22.4 | 22.4 |
| | | 1 | 5 | 22.5 | 22.5 | 22.4 |
| | | 3 | 0 | 22.2 | 22.2 | 22.3 |
| | | 3 | 1 | 22.3 | 22.1 | 22.2 |
| | | 3 | 2 | 22.3 | 22.2 | 22.4 |
| | | 6 | 0 | 21.2 | 21.2 | 21.4 |
| | 64QAM | 1 | 0 | 21.5 | 21.5 | 21.5 |
| | | 1 | 2 | 21.2 | 21.4 | 21.4 |
| | | 1 | 5 | 21.2 | 21.4 | 21.4 |
| | | 3 | 0 | 21.4 | 21.2 | 21.4 |
| | | 3 | 1 | 21.4 | 21.2 | 21.5 |
| | | 3 | 2 | 21.4 | 21.2 | **21.5** |
| | | 6 | 0 | 20.2 | 20.1 | 20.3 |

**OUTPUT POWER FOR LTE BAND 25 (3.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26055 | 26365 | 26675 |
| | | | | 1851.5 MHz | 1882.5 MHz | 1913.5 MHz |
| 3.0 | QPSK | 1 | 0 | 24.4 | 24.2 | 24.5 |
| | | 1 | 7 | 24.5 | 24.4 | **24.7** |
| | | 1 | 14 | 24.4 | 24.2 | 24.4 |
| | | 8 | 0 | 22.3 | 22.2 | 22.4 |
| | | 8 | 4 | 22.3 | 22.2 | 22.4 |
| | | 8 | 7 | 22.3 | 22.2 | 22.4 |
| | | 15 | 0 | 22.3 | 22.2 | 22.4 |
| | 16QAM | 1 | 0 | 22.4 | 22.2 | 22.6 |
| | | 1 | 7 | 22.6 | 22.2 | **22.7** |
| | | 1 | 14 | 22.5 | 22.3 | 22.5 |
| | | 8 | 0 | 21.3 | 21.2 | 21.5 |
| | | 8 | 4 | 21.3 | 21.2 | 21.5 |
| | | 8 | 7 | 21.3 | 21.2 | 21.4 |
| | | 15 | 0 | 21.3 | 21.2 | 21.4 |
| | 64QAM | 1 | 0 | 21.3 | 21.3 | 21.5 |
| | | 1 | 7 | 21.5 | 21.0 | **21.8** |
| | | 1 | 14 | 21.4 | 21.2 | 21.5 |
| | | 8 | 0 | 20.3 | 20.2 | 20.4 |
| | | 8 | 4 | 20.3 | 20.2 | 20.5 |
| | | 8 | 7 | 20.3 | 20.1 | 20.4 |
| | | 15 | 0 | 20.2 | 20.1 | 20.3 |



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**OUTPUT POWER FOR LTE BAND 25 (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26065 | 26365 | 26665 |
| | | | | 1852.5 MHz | 1882.5 MHz | 1912.5 MHz |
| 5.0 | QPSK | 1 | 0 | 24.3 | 24.2 | **24.4** |
| | | 1 | 12 | 24.2 | 24.1 | 24.3 |
| | | 1 | 24 | 24.3 | 24.2 | 24.4 |
| | | 12 | 0 | 22.3 | 22.2 | 22.4 |
| | | 12 | 6 | 22.2 | 22.2 | 22.4 |
| | | 12 | 11 | 22.2 | 22.2 | 22.4 |
| | | 25 | 0 | 22.3 | 22.2 | 22.4 |
| | 16QAM | 1 | 0 | 22.8 | 22.7 | **23.1** |
| | | 1 | 12 | 22.8 | 22.8 | 23.1 |
| | | 1 | 24 | 22.7 | 22.6 | 22.9 |
| | | 12 | 0 | 21.3 | 21.1 | 21.4 |
| | | 12 | 6 | 21.2 | 21.1 | 21.4 |
| | | 12 | 11 | 21.2 | 21.1 | 21.4 |
| | | 25 | 0 | 21.3 | 21.2 | 21.4 |
| | 64QAM | 1 | 0 | 21.5 | 21.6 | **21.6** |
| | | 1 | 12 | 21.3 | 21.4 | 21.5 |
| | | 1 | 24 | 21.6 | 21.5 | 21.6 |
| | | 12 | 0 | 20.3 | 20.2 | 20.5 |
| | | 12 | 6 | 20.3 | 20.1 | 20.4 |
| | | 12 | 11 | 20.3 | 20.2 | 20.4 |
| | | 25 | 0 | 20.3 | 20.1 | 20.4 |

**OUTPUT POWER FOR LTE BAND 25 (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26090 | 26365 | 26640 |
| | | | | 1855.0 MHz | 1882.5 MHz | 1910.0 MHz |
| 10.0 | QPSK | 1 | 0 | 24.3 | 24.2 | **24.5** |
| | | 1 | 24 | 24.3 | 24.2 | 24.4 |
| | | 1 | 49 | 24.3 | 24.2 | 24.3 |
| | | 25 | 0 | 22.3 | 22.2 | 22.5 |
| | | 25 | 12 | 22.2 | 22.2 | 22.4 |
| | | 25 | 24 | 22.2 | 22.1 | 22.4 |
| | | 50 | 0 | 22.2 | 22.2 | 22.5 |
| | 16QAM | 1 | 0 | 22.6 | 22.4 | **22.6** |
| | | 1 | 24 | 22.3 | 22.2 | 22.3 |
| | | 1 | 49 | 22.4 | 22.3 | 22.4 |
| | | 25 | 0 | 21.3 | 21.2 | 21.5 |
| | | 25 | 12 | 21.2 | 21.2 | 21.5 |
| | | 25 | 24 | 21.2 | 21.1 | 21.4 |
| | | 50 | 0 | 21.2 | 21.2 | 21.5 |
| | 64QAM | 1 | 0 | 21.6 | 21.3 | **21.7** |
| | | 1 | 24 | 21.4 | 21.0 | 21.5 |
| | | 1 | 49 | 21.5 | 21.2 | 21.5 |
| | | 25 | 0 | 20.3 | 20.2 | 20.5 |
| | | 25 | 12 | 20.2 | 20.2 | 20.4 |
| | | 25 | 24 | 20.2 | 20.1 | 20.4 |
| | | 50 | 0 | 20.2 | 20.1 | 20.4 |



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**OUTPUT POWER FOR LTE BAND 25 (15.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26115 | 26365 | 26615 |
| | | | | 1857.5 MHz | 1882.5 MHz | 1907.5 MHz |
| 15.0 | QPSK | 1 | 0 | 24.4 | 24.3 | 24.5 |
| | | 1 | 37 | 24.6 | 24.4 | **24.6** |
| | | 1 | 74 | 24.2 | 24.1 | 24.2 |
| | | 36 | 0 | 22.4 | 22.3 | 22.6 |
| | | 36 | 16 | 22.3 | 22.2 | 22.5 |
| | | 36 | 35 | 22.3 | 22.2 | 22.4 |
| | | 75 | 0 | 22.3 | 22.2 | 22.5 |
| | 16QAM | 1 | 0 | 22.6 | 22.6 | 22.8 |
| | | 1 | 37 | 22.5 | 22.5 | **22.9** |
| | | 1 | 74 | 22.3 | 22.4 | 22.6 |
| | | 36 | 0 | 21.4 | 21.2 | 21.5 |
| | | 36 | 16 | 21.3 | 21.2 | 21.5 |
| | | 36 | 35 | 21.2 | 21.2 | 21.4 |
| | | 75 | 0 | 21.3 | 21.2 | 21.5 |
| | 64QAM | 1 | 0 | 21.6 | 21.6 | **21.7** |
| | | 1 | 37 | 21.5 | 21.6 | 21.7 |
| | | 1 | 74 | 21.3 | 21.4 | 21.5 |
| | | 36 | 0 | 20.3 | 20.2 | 20.5 |
| | | 36 | 16 | 20.2 | 20.2 | 20.5 |
| | | 36 | 35 | 20.2 | 20.2 | 20.4 |
| | | 75 | 0 | 20.3 | 20.2 | 20.5 |

**OUTPUT POWER FOR LTE BAND 25 (20.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26140 | 26365 | 26590 |
| | | | | 1860.0 MHz | 1882.5 MHz | 1905.0 MHz |
| 20.0 | QPSK | 1 | 0 | 24.4 | 24.3 | **24.6** |
| | | 1 | 49 | 24.0 | 24.0 | 24.2 |
| | | 1 | 99 | 24.1 | 24.1 | 24.2 |
| | | 50 | 0 | 22.3 | 22.3 | 22.5 |
| | | 50 | 24 | 22.3 | 22.2 | 22.5 |
| | | 50 | 49 | 22.1 | 22.1 | 22.4 |
| | | 100 | 0 | 22.2 | 22.2 | 22.5 |
| | 16QAM | 1 | 0 | 22.9 | 22.6 | **23.1** |
| | | 1 | 49 | 22.6 | 22.3 | 22.8 |
| | | 1 | 99 | 22.6 | 22.4 | 22.8 |
| | | 50 | 0 | 21.4 | 21.3 | 21.6 |
| | | 50 | 24 | 21.3 | 21.2 | 21.5 |
| | | 50 | 49 | 21.2 | 21.1 | 21.4 |
| | | 100 | 0 | 21.2 | 21.2 | 21.4 |
| | 64QAM | 1 | 0 | 21.8 | 21.7 | **21.9** |
| | | 1 | 49 | 21.4 | 21.3 | 21.6 |
| | | 1 | 99 | 21.4 | 21.4 | 21.6 |
| | | 50 | 0 | 20.3 | 20.2 | 20.5 |
| | | 50 | 24 | 20.2 | 20.2 | 20.4 |
| | | 50 | 49 | 20.1 | 20.1 | 20.4 |
| | | 100 | 0 | 20.2 | 20.1 | 20.4 |




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## 8.3.8. LTE 26 (FCC PART 90S)

| ID: | 52300 | Date: | 10/30/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 26 (FCC PART 90S) (1.4 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26697 | 26740 | 26783 |
| | | | | 814.7 MHz | 819.0 MHz | 823.3 MHz |
| 1.4 | QPSK | 1 | 0 | **24.5** | 24.0 | 24.0 |
| | | 1 | 2 | 24.4 | 24.4 | 24.0 |
| | | 1 | 5 | 24.4 | 24.3 | 24.0 |
| | | 3 | 0 | 24.4 | 22.1 | 22.3 |
| | | 3 | 1 | 24.4 | 22.2 | 22.3 |
| | | 3 | 2 | 24.4 | 22.2 | 22.4 |
| | | 6 | 0 | 22.4 | 22.3 | 22.2 |
| | 16QAM | 1 | 0 | 22.5 | 22.3 | 22.4 |
| | | 1 | 2 | 22.5 | 22.2 | 22.2 |
| | | 1 | 5 | **22.5** | 22.3 | 22.3 |
| | | 3 | 0 | 22.4 | 21.3 | 21.4 |
| | | 3 | 1 | 22.4 | 21.3 | 21.3 |
| | | 3 | 2 | 22.5 | 21.3 | 21.4 |
| | | 6 | 0 | 21.5 | 21.3 | 21.2 |
| | 64QAM | 1 | 0 | **21.7** | 21.6 | 21.4 |
| | | 1 | 2 | 21.7 | 21.2 | 21.4 |
| | | 1 | 5 | 21.5 | 21.5 | 21.4 |
| | | 3 | 0 | 21.5 | 20.3 | 20.4 |
| | | 3 | 1 | 21.5 | 20.4 | 20.3 |
| | | 3 | 2 | 21.5 | 20.3 | 20.3 |
| | | 6 | 0 | 20.4 | 20.5 | 20.3 |

**OUTPUT POWER FOR LTE BAND 26 (FCC PART 90S) (3.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26705 | 26740 | 26775 |
| | | | | 815.5 MHz | 819.0 MHz | 822.5 MHz |
| 3.0 | QPSK | 1 | 0 | **24.5** | 24.3 | 24.2 |
| | | 1 | 7 | 24.4 | 24.1 | 24.1 |
| | | 1 | 14 | 24.4 | 24.1 | 24.2 |
| | | 8 | 0 | 22.4 | 22.1 | 22.1 |
| | | 8 | 4 | 22.4 | 22.2 | 22.1 |
| | | 8 | 7 | 22.4 | 22.2 | 22.2 |
| | | 15 | 0 | 22.4 | 22.2 | 22.3 |
| | 16QAM | 1 | 0 | **22.9** | 22.4 | 22.4 |
| | | 1 | 7 | 22.7 | 22.4 | 22.2 |
| | | 1 | 14 | 22.8 | 22.4 | 22.4 |
| | | 8 | 0 | 21.5 | 21.4 | 21.3 |
| | | 8 | 4 | 21.4 | 21.3 | 21.2 |
| | | 8 | 7 | 21.4 | 21.3 | 21.2 |
| | | 15 | 0 | 21.5 | 21.3 | 21.3 |
| | 64QAM | 1 | 0 | 21.3 | 21.4 | 21.1 |
| | | 1 | 7 | **21.7** | 21.3 | 21.2 |
| | | 1 | 14 | 21.6 | 21.5 | 21.3 |
| | | 8 | 0 | 20.4 | 20.3 | 20.3 |
| | | 8 | 4 | 20.4 | 20.2 | 20.2 |
| | | 8 | 7 | 20.4 | 20.2 | 20.2 |
| | | 15 | 0 | 20.4 | 20.2 | 20.4 |




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**OUTPUT POWER FOR LTE BAND 26 (FCC PART 90S) (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power | | |
|---|---|---|---|---|---|---|
| | | | | Conducted Average (dBm) | | |
| | | | | 26715 | 26740 | 26765 |
| | | | | 816.5 MHz | 819.0 MHz | 821.5 MHz |
| 5.0 | QPSK | 1 | 0 | **24.4** | 24.3 | 24.1 |
| | | 1 | 12 | 24.3 | 24.3 | 24.1 |
| | | 1 | 24 | 24.4 | 24.2 | 24.1 |
| | | 12 | 0 | 22.4 | 22.3 | 22.0 |
| | | 12 | 6 | 22.4 | 22.2 | 22.0 |
| | | 12 | 11 | 22.4 | 22.2 | 22.2 |
| | | 25 | 0 | 22.3 | 22.3 | 22.2 |
| | 16QAM | 1 | 0 | **22.8** | 22.6 | 22.3 |
| | | 1 | 12 | 22.7 | 22.2 | 22.2 |
| | | 1 | 24 | 22.7 | 22.4 | 22.3 |
| | | 12 | 0 | 21.4 | 21.4 | 21.3 |
| | | 12 | 6 | 21.4 | 21.3 | 21.3 |
| | | 12 | 11 | 21.4 | 21.3 | 21.2 |
| | | 25 | 0 | 21.3 | 21.3 | 21.2 |
| | 64QAM | 1 | 0 | **21.8** | 21.5 | 21.5 |
| | | 1 | 12 | 21.6 | 21.2 | 21.2 |
| | | 1 | 24 | 21.7 | 21.5 | 21.3 |
| | | 12 | 0 | 20.4 | 20.3 | 20.4 |
| | | 12 | 6 | 20.4 | 20.2 | 20.3 |
| | | 12 | 11 | 20.4 | 20.2 | 20.2 |
| | | 25 | 0 | 20.4 | 20.2 | 20.3 |

**OUTPUT POWER FOR LTE BAND 26 (FCC PART 90S) (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power | | |
|---|---|---|---|---|---|---|
| | | | | Conducted Average (dBm) | | |
| | | | | N/A | 26740 | N/A |
| | | | | N/A | 819.0 MHz | N/A |
| 10.0 | QPSK | 1 | 0 | | **24.4** | |
| | | 1 | 24 | | 24.3 | |
| | | 1 | 49 | | 24.3 | |
| | | 25 | 0 | | 22.4 | |
| | | 25 | 12 | | 22.3 | |
| | | 25 | 24 | | 22.3 | |
| | | 50 | 0 | | 22.4 | |
| | 16QAM | 1 | 0 | | **22.7** | |
| | | 1 | 24 | | 22.4 | |
| | | 1 | 49 | | 22.5 | |
| | | 25 | 0 | | 21.4 | |
| | | 25 | 12 | | 21.3 | |
| | | 25 | 24 | | 21.3 | |
| | | 50 | 0 | | 21.3 | |
| | 64QAM | 1 | 0 | | **21.6** | |
| | | 1 | 24 | | 21.4 | |
| | | 1 | 49 | | 21.5 | |
| | | 25 | 0 | | 20.4 | |
| | | 25 | 12 | | 20.3 | |
| | | 25 | 24 | | 20.3 | |
| | | 50 | 0 | | 20.3 | |



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**OUTPUT POWER FOR LTE BAND 26 (FCC PART 90S) (15.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power | | |
|---|---|---|---|---|---|---|
| | | | | Conducted Average (dBm) | | |
| | | | | 26765 | N/A | N/A |
| | | | | 821.5 | N/A | N/A |
| 15.0 | QPSK | 1 | 0 | 24.2 | | |
| | | 1 | 37 | **24.4** | | |
| | | 1 | 74 | 24.0 | | |
| | | 36 | 0 | 22.3 | | |
| | | 36 | 16 | 22.3 | | |
| | | 36 | 35 | 22.3 | | |
| | | 75 | 0 | 22.3 | | |
| | 16QAM | 1 | 0 | **22.8** | | |
| | | 1 | 37 | 22.7 | | |
| | | 1 | 74 | 22.6 | | |
| | | 36 | 0 | 21.3 | | |
| | | 36 | 16 | 21.3 | | |
| | | 36 | 35 | 21.2 | | |
| | | 75 | 0 | 21.2 | | |
| | 64QAM | 1 | 0 | **21.4** | | |
| | | 1 | 37 | 21.2 | | |
| | | 1 | 74 | 21.3 | | |
| | | 36 | 0 | 20.4 | | |
| | | 36 | 16 | 20.3 | | |
| | | 36 | 35 | 20.2 | | |
| | | 75 | 0 | 20.2 | | |




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## 8.3.9. LTE 26 (FCC PART 22)

| ID: | 52300 | Date: | 10/30/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 26 (FCC PART 22) (1.4 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26797 | 26915 | 27033 |
| | | | | 824.7 MHz | 836.5 MHz | 848.3 MHz |
| 1.4 | QPSK | 1 | 0 | 24.0 | **24.3** | 24.3 |
| | | 1 | 2 | 24.0 | 24.3 | 24.2 |
| | | 1 | 5 | 24.0 | 24.2 | 24.2 |
| | | 3 | 0 | 22.5 | 24.2 | 24.2 |
| | | 3 | 1 | 22.5 | 24.2 | 24.1 |
| | | 3 | 2 | 22.3 | 24.2 | 24.1 |
| | | 6 | 0 | 22.4 | 22.2 | 22.2 |
| | 16QAM | 1 | 0 | 22.5 | **22.5** | 22.5 |
| | | 1 | 2 | 22.5 | 22.3 | 22.4 |
| | | 1 | 5 | 22.5 | 22.4 | 22.3 |
| | | 3 | 0 | 21.3 | 22.3 | 22.2 |
| | | 3 | 1 | 21.5 | 22.1 | 22.2 |
| | | 3 | 2 | 21.3 | 22.2 | 22.3 |
| | | 6 | 0 | 21.5 | 21.3 | 21.2 |
| | 64QAM | 1 | 0 | 21.4 | **21.8** | 21.5 |
| | | 1 | 2 | 21.4 | 21.8 | 21.3 |
| | | 1 | 5 | 21.4 | 21.5 | 21.4 |
| | | 3 | 0 | 20.3 | 21.3 | 21.2 |
| | | 3 | 1 | 20.4 | 21.2 | 21.2 |
| | | 3 | 2 | 20.4 | 21.2 | 21.3 |
| | | 6 | 0 | 20.2 | 20.3 | 20.2 |

**OUTPUT POWER FOR LTE BAND 26 (FCC PART 22) (3.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26805 | 26915 | 27025 |
| | | | | 825.5 MHz | 836.5 MHz | 847.5 MHz |
| 3.0 | QPSK | 1 | 0 | 24.0 | 24.3 | 24.2 |
| | | 1 | 7 | 24.0 | **24.5** | 24.3 |
| | | 1 | 14 | 24.4 | 24.3 | 24.2 |
| | | 8 | 0 | 22.4 | 22.2 | 22.2 |
| | | 8 | 4 | 22.4 | 22.2 | 22.2 |
| | | 8 | 7 | 22.2 | 22.2 | 22.1 |
| | | 15 | 0 | 22.4 | 22.2 | 22.2 |
| | 16QAM | 1 | 0 | 22.6 | 22.4 | 22.5 |
| | | 1 | 7 | 22.5 | 22.5 | **22.9** |
| | | 1 | 14 | 22.5 | 22.4 | 22.6 |
| | | 8 | 0 | 21.3 | 21.3 | 21.2 |
| | | 8 | 4 | 21.3 | 21.3 | 21.2 |
| | | 8 | 7 | 21.3 | 21.3 | 21.2 |
| | | 15 | 0 | 21.4 | 21.2 | 21.2 |
| | 64QAM | 1 | 0 | 21.6 | **21.7** | 21.3 |
| | | 1 | 7 | 21.5 | 21.1 | 21.4 |
| | | 1 | 14 | 21.5 | 21.5 | 21.3 |
| | | 8 | 0 | 20.3 | 20.2 | 20.2 |
| | | 8 | 4 | 20.4 | 20.2 | 20.2 |
| | | 8 | 7 | 20.4 | 20.2 | 20.2 |
| | | 15 | 0 | 20.4 | 20.2 | 20.1 |



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**OUTPUT POWER FOR LTE BAND 26 (FCC PART 22) (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26815 | 26915 | 27015 |
| | | | | 826.5 MHz | 836.5 MHz | 846.5 MHz |
| 5.0 | QPSK | 1 | 0 | 24.2 | 24.2 | **24.2** |
| | | 1 | 12 | 24.1 | 24.2 | 24.2 |
| | | 1 | 24 | 24.0 | 24.2 | 24.2 |
| | | 12 | 0 | 22.4 | 22.2 | 22.2 |
| | | 12 | 6 | 22.4 | 22.2 | 22.2 |
| | | 12 | 11 | 22.2 | 22.2 | 22.2 |
| | | 25 | 0 | 22.4 | 22.2 | 22.2 |
| | 16QAM | 1 | 0 | 22.5 | 22.5 | 22.7 |
| | | 1 | 12 | 22.3 | 22.5 | **22.8** |
| | | 1 | 24 | 22.3 | 22.4 | 22.6 |
| | | 12 | 0 | 21.3 | 21.2 | 21.2 |
| | | 12 | 6 | 21.3 | 21.2 | 21.2 |
| | | 12 | 11 | 21.3 | 21.2 | 21.2 |
| | | 25 | 0 | 21.4 | 21.2 | 21.2 |
| | 64QAM | 1 | 0 | 21.3 | **21.6** | 21.4 |
| | | 1 | 12 | 21.3 | 21.4 | 21.2 |
| | | 1 | 24 | 21.3 | 21.6 | 21.4 |
| | | 12 | 0 | 20.3 | 20.2 | 20.3 |
| | | 12 | 6 | 20.4 | 20.2 | 20.2 |
| | | 12 | 11 | 20.3 | 20.2 | 20.2 |
| | | 25 | 0 | 20.3 | 20.3 | 20.2 |

**OUTPUT POWER FOR LTE BAND 26 (FCC PART 22) (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 26840 | 26915 | 26990 |
| | | | | 829.0 MHz | 836.5 MHz | 844.0 MHz |
| 10.0 | QPSK | 1 | 0 | 24.2 | **24.3** | 24.3 |
| | | 1 | 24 | 24.2 | 24.2 | 24.2 |
| | | 1 | 49 | 24.1 | 24.2 | 24.1 |
| | | 25 | 0 | 22.3 | 22.3 | 22.2 |
| | | 25 | 12 | 22.3 | 22.2 | 22.1 |
| | | 25 | 24 | 22.2 | 22.2 | 22.1 |
| | | 50 | 0 | 22.4 | 22.2 | 22.2 |
| | 16QAM | 1 | 0 | 22.4 | 22.3 | **22.4** |
| | | 1 | 24 | 22.4 | 22.1 | 22.1 |
| | | 1 | 49 | 22.3 | 22.2 | 22.2 |
| | | 25 | 0 | 21.3 | 21.3 | 21.2 |
| | | 25 | 12 | 21.3 | 21.2 | 21.1 |
| | | 25 | 24 | 21.3 | 21.2 | 21.1 |
| | | 50 | 0 | 21.3 | 21.2 | 21.2 |
| | 64QAM | 1 | 0 | 21.2 | **21.5** | 21.5 |
| | | 1 | 24 | 21.2 | 21.3 | 21.3 |
| | | 1 | 49 | 21.2 | 21.3 | 21.4 |
| | | 25 | 0 | 20.3 | 20.3 | 20.3 |
| | | 25 | 12 | 20.3 | 20.2 | 20.2 |
| | | 25 | 24 | 20.2 | 20.2 | 20.2 |
| | | 50 | 0 | 20.3 | 20.2 | 20.2 |



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**OUTPUT POWER FOR LTE BAND 26 (FCC PART 22) (15.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power | | |
|---|---|---|---|---|---|---|
| | | | | Conducted Average (dBm) | | |
| | | | | 26865 | 26915 | 26965 |
| | | | | 831.5 MHz | 836.5 MHz | 841.5 MHz |
| 15.0 | QPSK | 1 | 0 | 24.4 | 24.4 | 24.3 |
| | | 1 | 37 | 24.5 | **24.5** | 24.4 |
| | | 1 | 74 | 24.1 | 24.1 | 24.0 |
| | | 36 | 0 | 22.3 | 22.3 | 22.2 |
| | | 36 | 16 | 22.3 | 22.3 | 22.2 |
| | | 36 | 35 | 22.2 | 22.2 | 22.1 |
| | | 75 | 0 | 22.3 | 22.3 | 22.2 |
| | 16QAM | 1 | 0 | 22.5 | 22.6 | 22.6 |
| | | 1 | 37 | 22.6 | **22.7** | 22.6 |
| | | 1 | 74 | 22.4 | 22.4 | 22.4 |
| | | 36 | 0 | 21.3 | 21.4 | 21.2 |
| | | 36 | 16 | 21.3 | 21.3 | 21.2 |
| | | 36 | 35 | 21.3 | 21.2 | 21.1 |
| | | 75 | 0 | 21.3 | 21.3 | 21.2 |
| | 64QAM | 1 | 0 | 21.7 | **21.7** | 21.6 |
| | | 1 | 37 | 21.6 | 21.6 | 21.4 |
| | | 1 | 74 | 21.6 | 21.5 | 21.4 |
| | | 36 | 0 | 20.3 | 20.3 | 20.2 |
| | | 36 | 16 | 20.3 | 20.2 | 20.2 |
| | | 36 | 35 | 20.2 | 20.2 | 20.1 |
| | | 75 | 0 | 20.3 | 20.3 | 20.2 |




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## 8.3.10. **LTE 41 (FCC)**

| **ID:** | 52300 | **Date:** | 10/29/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 41 (FCC) (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 39675 | 40620 | 41565 |
| | | | | 2498.5 MHz | 2593.0 MHz | 2687.5 MHz |
| 5.0 | QPSK | 1 | 0 | **23.7** | 23.6 | 23.7 |
| | | 1 | 12 | 23.5 | 23.4 | 23.5 |
| | | 1 | 24 | 23.6 | 23.5 | 23.6 |
| | | 12 | 0 | 21.6 | 21.5 | 21.6 |
| | | 12 | 6 | 21.6 | 21.5 | 21.6 |
| | | 12 | 11 | 21.6 | 21.5 | 21.6 |
| | | 25 | 0 | 21.6 | 21.5 | 21.6 |
| | 16QAM | 1 | 0 | 21.5 | 21.5 | 21.7 |
| | | 1 | 12 | 21.5 | 21.5 | 21.5 |
| | | 1 | 24 | 21.5 | 21.5 | **21.7** |
| | | 12 | 0 | 20.6 | 20.5 | 20.6 |
| | | 12 | 6 | 20.6 | 20.5 | 20.6 |
| | | 12 | 11 | 20.6 | 20.5 | 20.6 |
| | | 25 | 0 | 20.6 | 20.5 | 20.6 |
| | 64QAM | 1 | 0 | **21.7** | 20.7 | 20.9 |
| | | 1 | 12 | 20.5 | 20.5 | 20.8 |
| | | 1 | 24 | 20.6 | 20.5 | 21.0 |
| | | 12 | 0 | 19.8 | 19.6 | 19.7 |
| | | 12 | 6 | 19.7 | 19.6 | 19.7 |
| | | 12 | 11 | 19.7 | 19.6 | 19.7 |
| | | 25 | 0 | 19.7 | 19.6 | 19.8 |

**OUTPUT POWER FOR LTE BAND 41 (FCC) (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 39700 | 40620 | 41540 |
| | | | | 2501.0 MHz | 2593.0 MHz | 2685.0 MHz |
| 10.0 | QPSK | 1 | 0 | **23.7** | 23.6 | 23.7 |
| | | 1 | 24 | 23.5 | 23.6 | 23.7 |
| | | 1 | 49 | 23.6 | 23.5 | 23.6 |
| | | 25 | 0 | 21.7 | 21.6 | 21.7 |
| | | 25 | 12 | 21.7 | 21.5 | 21.7 |
| | | 25 | 24 | 21.6 | 21.5 | 21.6 |
| | | 50 | 0 | 21.7 | 21.5 | 21.7 |
| | 16QAM | 1 | 0 | **22.0** | 21.5 | 21.7 |
| | | 1 | 24 | 21.8 | 21.5 | 21.5 |
| | | 1 | 49 | 21.9 | 21.5 | 21.6 |
| | | 25 | 0 | 20.7 | 20.5 | 20.7 |
| | | 25 | 12 | 20.7 | 20.5 | 20.7 |
| | | 25 | 24 | 20.6 | 20.5 | 20.7 |
| | | 50 | 0 | 20.6 | 20.5 | 20.7 |
| | 64QAM | 1 | 0 | 20.6 | **20.9** | 20.7 |
| | | 1 | 24 | 20.5 | 20.8 | 20.7 |
| | | 1 | 49 | 20.6 | 20.8 | 20.6 |
| | | 25 | 0 | 19.8 | 19.7 | 19.8 |
| | | 25 | 12 | 19.7 | 19.6 | 19.8 |
| | | 25 | 24 | 19.7 | 19.6 | 19.7 |
| | | 50 | 0 | 19.7 | 19.6 | 19.8 |




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**OUTPUT POWER FOR LTE BAND 41 (FCC) (15.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 39725 | 40620 | 41515 |
| | | | | 2503.5 MHz | 2593.0 MHz | 2682.5 MHz |
| 15.0 | QPSK | 1 | 0 | **23.8** | 23.6 | 23.8 |
| | | 1 | 37 | 23.6 | 23.3 | 23.5 |
| | | 1 | 74 | 23.6 | 23.4 | 23.6 |
| | | 36 | 0 | 21.7 | 21.6 | 21.7 |
| | | 36 | 16 | 21.7 | 21.5 | 21.7 |
| | | 36 | 35 | 21.6 | 21.5 | 21.6 |
| | | 75 | 0 | 21.7 | 21.6 | 21.7 |
| | 16QAM | 1 | 0 | 21.6 | 21.5 | **22.0** |
| | | 1 | 37 | 21.6 | 21.5 | 21.6 |
| | | 1 | 74 | 21.5 | 21.5 | 21.6 |
| | | 36 | 0 | 20.7 | 20.5 | 20.7 |
| | | 36 | 16 | 20.7 | 20.5 | 20.6 |
| | | 36 | 35 | 20.6 | 20.5 | 20.6 |
| | | 75 | 0 | 20.7 | 20.6 | 20.6 |
| | 64QAM | 1 | 0 | 20.8 | **21.0** | 20.9 |
| | | 1 | 37 | 20.7 | 20.5 | 20.7 |
| | | 1 | 74 | 20.7 | 20.8 | 20.6 |
| | | 36 | 0 | 19.7 | 19.6 | 19.7 |
| | | 36 | 16 | 19.6 | 19.5 | 19.7 |
| | | 36 | 35 | 19.6 | 19.5 | 19.7 |
| | | 75 | 0 | 19.7 | 19.6 | 19.8 |

**OUTPUT POWER FOR LTE BAND 41 (FCC) (20.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 39750 | 40620 | 41490 |
| | | | | 2506.0 MHz | 2593.0 MHz | 2680.0 MHz |
| 20.0 | QPSK | 1 | 0 | 23.8 | 23.7 | **23.9** |
| | | 1 | 49 | 23.6 | 23.5 | 23.7 |
| | | 1 | 99 | 23.6 | 23.4 | 23.7 |
| | | 50 | 0 | 21.7 | 21.6 | 21.7 |
| | | 50 | 24 | 21.7 | 21.5 | 21.7 |
| | | 50 | 49 | 21.6 | 21.5 | 21.6 |
| | | 100 | 0 | 21.7 | 21.5 | 21.6 |
| | 16QAM | 1 | 0 | 22.0 | 21.8 | 21.9 |
| | | 1 | 49 | 21.6 | 21.5 | **22.0** |
| | | 1 | 99 | 21.8 | 21.6 | 21.6 |
| | | 50 | 0 | 20.7 | 20.6 | 20.8 |
| | | 50 | 24 | 20.7 | 20.5 | 20.7 |
| | | 50 | 49 | 20.6 | 20.5 | 20.6 |
| | | 100 | 0 | 20.6 | 20.5 | 20.6 |
| | 64QAM | 1 | 0 | 20.8 | 20.6 | **21.2** |
| | | 1 | 49 | 20.7 | 20.5 | 20.5 |
| | | 1 | 99 | 20.6 | 20.5 | 21.0 |
| | | 50 | 0 | 19.8 | 19.7 | 19.8 |
| | | 50 | 24 | 19.7 | 19.6 | 19.8 |
| | | 50 | 49 | 19.7 | 19.6 | 19.7 |
| | | 100 | 0 | 19.7 | 19.6 | 19.8 |




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## 8.3.11. **LTE 66**

| **ID:** | 44351 | **Date:** | 10/31/18 |
|---|---|---|---|

**OUTPUT POWER FOR LTE BAND 66 (1.4 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 131979 | 132322 | 132665 |
| | | | | 1710.7 MHz | 1745.0 MHz | 1779.3 MHz |
| 1.4 | QPSK | 1 | 0 | 23.9 | **24.1** | 24.1 |
| | | 1 | 2 | 23.8 | 24.0 | 23.9 |
| | | 1 | 5 | 23.8 | 24.0 | 23.9 |
| | | 3 | 0 | 22.7 | 22.9 | 22.8 |
| | | 3 | 1 | 22.6 | 22.9 | 22.9 |
| | | 3 | 2 | 22.7 | 22.9 | 22.9 |
| | | 6 | 0 | 22.8 | 23.0 | 22.9 |
| | 16QAM | 1 | 0 | 22.3 | **22.5** | 22.2 |
| | | 1 | 2 | 22.1 | 22.3 | 21.9 |
| | | 1 | 5 | 22.2 | 22.4 | 22.1 |
| | | 3 | 0 | 21.8 | 22.0 | 22.0 |
| | | 3 | 1 | 21.9 | 22.1 | 21.9 |
| | | 3 | 2 | 21.9 | 22.1 | 21.9 |
| | | 6 | 0 | 21.7 | 21.9 | 22.0 |
| | 64QAM | 1 | 0 | 22.1 | **22.3** | 22.2 |
| | | 1 | 2 | 22.1 | 22.1 | 22.2 |
| | | 1 | 5 | 22.0 | 22.1 | 22.1 |
| | | 3 | 0 | 20.9 | 21.0 | 20.9 |
| | | 3 | 1 | 20.9 | 21.1 | 20.9 |
| | | 3 | 2 | 20.9 | 21.0 | 20.9 |
| | | 6 | 0 | 19.8 | 20.0 | 19.9 |

**OUTPUT POWER FOR LTE BAND 66 (3.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 131987 | 132322 | 132657 |
| | | | | 1711.5 MHz | 1745.0 MHz | 1778.5 MHz |
| 3.0 | QPSK | 1 | 0 | 23.8 | 24.1 | 24.1 |
| | | 1 | 7 | 24.1 | **24.3** | 24.0 |
| | | 1 | 14 | 23.8 | 24.1 | 24.1 |
| | | 8 | 0 | 22.8 | 23.0 | 23.1 |
| | | 8 | 4 | 22.8 | 23.0 | 23.1 |
| | | 8 | 7 | 22.8 | 23.0 | 23.1 |
| | | 15 | 0 | 22.8 | 23.0 | 23.1 |
| | 16QAM | 1 | 0 | 21.9 | 22.2 | 22.4 |
| | | 1 | 7 | 22.0 | 22.3 | **22.5** |
| | | 1 | 14 | 22.0 | 22.2 | 22.4 |
| | | 8 | 0 | 21.8 | 22.0 | 22.2 |
| | | 8 | 4 | 21.8 | 22.0 | 22.2 |
| | | 8 | 7 | 21.8 | 22.0 | 22.2 |
| | | 15 | 0 | 21.8 | 22.0 | 22.1 |
| | 64QAM | 1 | 0 | 22.1 | 22.1 | 22.4 |
| | | 1 | 7 | 22.4 | 22.3 | **22.5** |
| | | 1 | 14 | 22.2 | 22.1 | 22.5 |
| | | 8 | 0 | 19.8 | 19.9 | 20.2 |
| | | 8 | 4 | 19.8 | 20.0 | 20.1 |
| | | 8 | 7 | 19.8 | 19.9 | 20.1 |
| | | 15 | 0 | 19.8 | 20.0 | 20.1 |




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**OUTPUT POWER FOR LTE BAND 66 (5.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 131997 | 132322 | 132647 |
| | | | | 1712.5 MHz | 1745.0 MHz | 1777.5 MHz |
| 5.0 | QPSK | 1 | 0 | 23.8 | 24.0 | 24.1 |
| | | 1 | 12 | 23.7 | 24.0 | **24.2** |
| | | 1 | 24 | 23.8 | 24.0 | 24.1 |
| | | 12 | 0 | 21.8 | 22.0 | 22.1 |
| | | 12 | 6 | 21.8 | 22.0 | 22.1 |
| | | 12 | 11 | 21.8 | 22.0 | 22.1 |
| | | 25 | 0 | 21.8 | 22.0 | 22.1 |
| | 16QAM | 1 | 0 | 22.2 | 22.4 | 22.5 |
| | | 1 | 12 | 22.2 | 22.4 | **22.6** |
| | | 1 | 24 | 22.1 | 22.3 | 22.5 |
| | | 12 | 0 | 20.8 | 20.9 | 21.2 |
| | | 12 | 6 | 20.7 | 20.9 | 21.1 |
| | | 12 | 11 | 20.8 | 20.9 | 21.1 |
| | | 25 | 0 | 20.8 | 21.0 | 21.1 |
| | 64QAM | 1 | 0 | 21.1 | 21.1 | 21.2 |
| | | 1 | 12 | 20.9 | 21.3 | **21.5** |
| | | 1 | 24 | 21.0 | 21.2 | 21.2 |
| | | 12 | 0 | 19.8 | 20.0 | 20.1 |
| | | 12 | 6 | 19.7 | 20.0 | 20.1 |
| | | 12 | 11 | 19.8 | 20.0 | 20.1 |
| | | 25 | 0 | 19.7 | 20.0 | 20.1 |

**OUTPUT POWER FOR LTE BAND 66 (10.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 132022 | 132322 | 132622 |
| | | | | 1715.0 MHz | 1745.0 MHz | 1775.0 MHz |
| 10.0 | QPSK | 1 | 0 | 23.8 | 24.0 | **24.1** |
| | | 1 | 24 | 23.7 | 24.0 | 24.1 |
| | | 1 | 49 | 23.7 | 24.0 | 24.0 |
| | | 25 | 0 | 21.8 | 22.0 | 22.1 |
| | | 25 | 12 | 21.8 | 22.0 | 22.1 |
| | | 25 | 24 | 21.8 | 22.0 | 22.1 |
| | | 50 | 0 | 21.8 | 22.0 | 22.1 |
| | 16QAM | 1 | 0 | 22.0 | 22.2 | **22.3** |
| | | 1 | 24 | 21.7 | 22.0 | 22.1 |
| | | 1 | 49 | 21.9 | 22.1 | 22.2 |
| | | 25 | 0 | 20.9 | 21.1 | 21.2 |
| | | 25 | 12 | 20.8 | 21.0 | 21.1 |
| | | 25 | 24 | 20.8 | 21.0 | 21.1 |
| | | 50 | 0 | 20.8 | 21.0 | 21.1 |
| | 64QAM | 1 | 0 | 21.0 | 21.3 | **21.4** |
| | | 1 | 24 | 20.8 | 21.1 | 21.2 |
| | | 1 | 49 | 20.9 | 21.2 | 21.2 |
| | | 25 | 0 | 19.8 | 20.0 | 20.1 |
| | | 25 | 12 | 19.8 | 20.0 | 20.1 |
| | | 25 | 24 | 19.8 | 20.0 | 20.1 |
| | | 50 | 0 | 19.7 | 20.0 | 20.0 |



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**OUTPUT POWER FOR LTE BAND 66 (15.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 132047 | 132322 | 132597 |
| | | | | 1717.5 MHz | 1745.0 MHz | 1772.5 MHz |
| 15.0 | QPSK | 1 | 0 | 23.9 | 24.1 | 24.2 |
| | | 1 | 37 | 24.0 | 24.3 | **24.3** |
| | | 1 | 74 | 23.7 | 23.9 | 23.9 |
| | | 36 | 0 | 21.9 | 22.1 | 22.2 |
| | | 36 | 16 | 21.8 | 22.1 | 22.1 |
| | | 36 | 35 | 21.8 | 22.0 | 22.0 |
| | | 75 | 0 | 21.9 | 22.1 | 22.1 |
| | 16QAM | 1 | 0 | 22.2 | 22.4 | 22.6 |
| | | 1 | 37 | 22.3 | 22.4 | **22.6** |
| | | 1 | 74 | 22.0 | 22.3 | 22.4 |
| | | 36 | 0 | 20.9 | 21.1 | 21.1 |
| | | 36 | 16 | 20.8 | 21.0 | 21.1 |
| | | 36 | 35 | 20.8 | 21.0 | 21.0 |
| | | 75 | 0 | 20.9 | 21.1 | 21.1 |
| | 64QAM | 1 | 0 | 21.3 | 21.4 | **21.6** |
| | | 1 | 37 | 21.4 | 21.4 | 21.6 |
| | | 1 | 74 | 21.0 | 21.2 | 21.4 |
| | | 36 | 0 | 19.9 | 20.1 | 20.1 |
| | | 36 | 16 | 19.8 | 20.1 | 20.1 |
| | | 36 | 35 | 19.8 | 20.0 | 20.0 |
| | | 75 | 0 | 19.8 | 20.1 | 20.1 |

**OUTPUT POWER FOR LTE BAND 66 (20.0 MHz)**

| Bandwidth (MHz) | Modulation | RB Allocation | RB Offset | Power Conducted Average (dBm) | | |
|---|---|---|---|---|---|---|
| | | | | 132072 | 132322 | 132572 |
| | | | | 1720.0 MHz | 1745.0 MHz | 1770.0 MHz |
| 20.0 | QPSK | 1 | 0 | 24.0 | 24.1 | **24.2** |
| | | 1 | 49 | 23.6 | 23.7 | 23.8 |
| | | 1 | 99 | 23.7 | 23.9 | 23.9 |
| | | 50 | 0 | 22.0 | 22.1 | 22.1 |
| | | 50 | 24 | 21.9 | 22.0 | 22.1 |
| | | 50 | 49 | 21.8 | 22.0 | 22.0 |
| | | 100 | 0 | 21.9 | 22.0 | 22.1 |
| | 16QAM | 1 | 0 | 22.5 | **22.6** | 22.5 |
| | | 1 | 49 | 22.2 | 22.3 | 22.3 |
| | | 1 | 99 | 22.2 | 22.3 | 22.3 |
| | | 50 | 0 | 20.9 | 21.1 | 21.1 |
| | | 50 | 24 | 20.9 | 21.0 | 21.1 |
| | | 50 | 49 | 20.8 | 21.0 | 21.0 |
| | | 100 | 0 | 20.8 | 21.0 | 21.1 |
| | 64QAM | 1 | 0 | 21.3 | 21.5 | **21.7** |
| | | 1 | 49 | 21.1 | 21.3 | 21.5 |
| | | 1 | 99 | 21.0 | 21.3 | 21.4 |
| | | 50 | 0 | 19.9 | 20.1 | 20.1 |
| | | 50 | 24 | 19.8 | 20.0 | 20.0 |
| | | 50 | 49 | 19.7 | 20.0 | 20.0 |
| | | 100 | 0 | 19.8 | 20.0 | 20.1 |




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# 9. CONDUCTED TEST RESULTS

## 9.1. 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 middle channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

**MODES TESTED**

- GSM 850
- GSM 1900
- WCDMA Band 5
- WCDMA Band 2
- WCDMA Band 4
- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 12
- LTE Band 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 41
- LTE Band 66

**RESULTS**

There is no limit required and power is the same for low, middle and high channel; therefore, only middle channel was tested.




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**GSM**

| Band | Modulation | Channel | f(MHz) | 99% BW (KHz) | -26dB BW (KHz) |
|---|---|---|---|---|---|
| GSM850 | GPRS | 190 | 836.6 | 245.77 | 318.0 |
| | EGPRS | | | 244.60 | 314.1 |
| GSM1900 | GPRS | 661 | 1880.0 | 241.31 | 318.1 |
| | EGPRS | | | 232.14 | 305.5 |

**WCDMA**

| Band | Modulation | Channel | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| BAND5 | REL 99 | 4408 | 836.6 | 4.15 | 4.71 |
| | HSDPA | | | 4.18 | 4.7 |
| BAND2 | REL 99 | 9800 | 1880.0 | 4.17 | 4.7 |
| | HSDPA | | | 4.18 | 4.74 |
| BAND4 | REL 99 | 1638 | 1732.6 | 4.16 | 4.73 |
| | HSDPA | | | 4.18 | 4.73 |



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**LTE2**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 2 | 1.4 MHz, QPSK | 6/0 | 1880.0 | 1.09 | 1.29 |
| | 1.4 MHz, 16QAM | | | 1.09 | 1.31 |
| | 3 MHz, QPSK | 15/0 | | 2.69 | 3.03 |
| | 3 MHz, 16QAM | | | 2.69 | 3.04 |
| | 5 MHz, QPSK | 25/0 | | 4.5 | 5.27 |
| | 5 MHz, 16QAM | | | 4.51 | 5.3 |
| | 10 MHz, QPSK | 50/0 | | 8.97 | 10.26 |
| | 10 MHz, 16QAM | | | 8.97 | 10.07 |
| | 15 MHz, QPSK | 75/0 | | 13.44 | 14.92 |
| | 15 MHz, 16QAM | | | 13.42 | 15.33 |
| | 20 MHz, QPSK | 100/0 | | 17.88 | 19.9 |
| | 20 MHz, 16QAM | | | 17.87 | 19.49 |

**LTE4**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 4 | 1.4 MHz, QPSK | 6/0 | 1732.5 | 1.08 | 1.26 |
| | 1.4 MHz, 16QAM | | | 1.09 | 1.29 |
| | 3 MHz, QPSK | 15/0 | | 2.68 | 3.04 |
| | 3 MHz, 16QAM | | | 2.68 | 3.06 |
| | 5 MHz, QPSK | 25/0 | | 4.5 | 5.22 |
| | 5 MHz, 16QAM | | | 4.51 | 5.22 |
| | 10 MHz, QPSK | 50/0 | | 8.96 | 10.03 |
| | 10 MHz, 16QAM | | | 8.97 | 10.45 |
| | 15 MHz, QPSK | 75/0 | | 13.41 | 15.06 |
| | 15 MHz, 16QAM | | | 13.37 | 14.89 |
| | 20 MHz, QPSK | 100/0 | | 17.86 | 19.69 |
| | 20 MHz, 16QAM | | | 17.87 | 19.88 |

**LTE5**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 5 | 1.4 MHz, QPSK | 6/0 | 836.5 | 1.08 | 1.28 |
| | 1.4 MHz, 16QAM | | | 1.09 | 1.32 |
| | 3 MHz, QPSK | 15/0 | | 2.68 | 3.08 |
| | 3 MHz, 16QAM | | | 2.69 | 3.07 |
| | 5 MHz, QPSK | 25/0 | | 4.51 | 5.26 |
| | 5 MHz, 16QAM | | | 4.52 | 5.21 |
| | 10 MHz, QPSK | 50/0 | | 8.95 | 9.88 |
| | 10 MHz, 16QAM | | | 8.94 | 10.12 |



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**LTE12**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 12 | 1.4 MHz, QPSK | 6/0 | 707.5 | 1.08 | 1.26 |
| | 1.4 MHz, 16QAM | | | 1.09 | 1.29 |
| | 3 MHz, QPSK | 15/0 | | 2.68 | 3.08 |
| | 3 MHz, 16QAM | | | 2.69 | 3.04 |
| | 5 MHz, QPSK | 25/0 | | 4.52 | 5.19 |
| | 5 MHz, 16QAM | | | 4.49 | 5.29 |
| | 10 MHz, QPSK | 50/0 | | 8.97 | 10.05 |
| | 10 MHz, 16QAM | | | 8.95 | 10.1 |

**LTE13**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 13 | 5 MHz, QPSK | 25/0 | 782.0 | 4.51 | 5.17 |
| | 5 MHz, 16QAM | | | 4.51 | 5.32 |
| | 10 MHz, QPSK | 50/0 | | 8.94 | 9.91 |
| | 10 MHz, 16QAM | | | 8.94 | 10 |

**LTE17**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 17 | 5 MHz, QPSK | 25/0 | 710.0 | 4.51 | 5.19 |
| | 5 MHz, 16QAM | | | 4.5 | 5.21 |
| | 10 MHz, QPSK | 50/0 | | 8.95 | 10.03 |
| | 10 MHz, 16QAM | | | 8.93 | 10.15 |

**LTE25**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 25 | 1.4 MHz, QPSK | 6/0 | 1882.5 | 1.09 | 1.29 |
| | 1.4 MHz, 16QAM | | | 1.09 | 1.32 |
| | 3 MHz, QPSK | 15/0 | | 2.69 | 3.05 |
| | 3 MHz, 16QAM | | | 2.69 | 3.08 |
| | 5 MHz, QPSK | 25/0 | | 4.52 | 5.21 |
| | 5 MHz, 16QAM | | | 4.5 | 5.16 |
| | 10 MHz, QPSK | 50/0 | | 8.97 | 9.98 |
| | 10 MHz, 16QAM | | | 8.98 | 10.14 |
| | 15 MHz, QPSK | 75/0 | | 13.41 | 14.78 |
| | 15 MHz, 16QAM | | | 13.42 | 15.2 |
| | 20 MHz, QPSK | 100/0 | | 17.9 | 19.64 |
| | 20 MHz, 16QAM | | | 17.86 | 19.71 |



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**LTE26 (FCC PART 90S)**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 26 | 1.4 MHz, QPSK | 6/0 | 819.0 | 1.08 | 1.30 |
| | 1.4 MHz, 16QAM | | | 1.09 | 1.31 |
| | 3 MHz, QPSK | 15/0 | | 2.69 | 3.04 |
| | 3 MHz, 16QAM | | | 2.69 | 3.06 |
| | 5 MHz, QPSK | 25/0 | | 4.51 | 5.21 |
| | 5 MHz, 16QAM | | | 4.51 | 5.24 |
| | 10 MHz, QPSK | 50/0 | | 8.94 | 9.98 |
| | 10 MHz, 16QAM | | | 8.95 | 10.07 |
| | 15 MHz, QPSK | 75/0 | 821.5 | 13.42 | 15.16 |
| | 15 MHz, 16QAM | | | 13.45 | 14.97 |

**LTE26 (FCC PART 22)**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 26 | 1.4 MHz, QPSK | 6/0 | 831.5<br>836.5(15MHz) | 1.09 | 1.28 |
| | 1.4 MHz, 16QAM | | | 1.08 | 1.31 |
| | 3 MHz, QPSK | 15/0 | | 2.68 | 3.05 |
| | 3 MHz, 16QAM | | | 2.69 | 3.06 |
| | 5 MHz, QPSK | 25/0 | | 4.50 | 5.17 |
| | 5 MHz, 16QAM | | | 4.50 | 5.16 |
| | 10 MHz, QPSK | 50/0 | | 8.96 | 10.24 |
| | 10 MHz, 16QAM | | | 8.98 | 9.98 |
| | 15 MHz, QPSK | 75/0 | | 13.38 | 14.76 |
| | 15 MHz, 16QAM | | | 13.42 | 14.77 |

**LTE41**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 41 | 5 MHz, QPSK | 25/0 | 2593.0 | 4.51 | 5.25 |
| | 5 MHz, 16QAM | | | 4.5 | 5.22 |
| | 10 MHz, QPSK | 50/0 | | 8.98 | 10.11 |
| | 10 MHz, 16QAM | | | 8.97 | 10.28 |
| | 15 MHz, QPSK | 75/0 | | 13.45 | 14.92 |
| | 15 MHz, 16QAM | | | 13.45 | 15.09 |
| | 20 MHz, QPSK | 100/0 | | 17.91 | 19.89 |
| | 20 MHz, 16QAM | | | 17.91 | 19.88 |



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**LTE66**

| Band | Mode | RB Allocation/RB Offset | f(MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---|---|---|---|---|---|
| LTE BAND 66 | 1.4 MHz, QPSK | 6/0 | 1745.0 | 1.09 | 1.28 |
| | 1.4 MHz, 16QAM | | | 1.08 | 1.31 |
| | 3 MHz, QPSK | 15/0 | | 2.69 | 3.06 |
| | 3 MHz, 16QAM | | | 2.69 | 3.03 |
| | 5 MHz, QPSK | 25/0 | | 4.5 | 5.28 |
| | 5 MHz, 16QAM | | | 4.52 | 5.26 |
| | 10 MHz, QPSK | 50/0 | | 8.95 | 10.11 |
| | 10 MHz, 16QAM | | | 8.96 | 10.03 |
| | 15 MHz, QPSK | 75/0 | | 13.38 | 15.22 |
| | 15 MHz, 16QAM | | | 13.4 | 15.28 |
| | 20 MHz, QPSK | 100/0 | | 17.89 | 19.58 |
| | 20 MHz, 16QAM | | | 17.88 | 19.66 |




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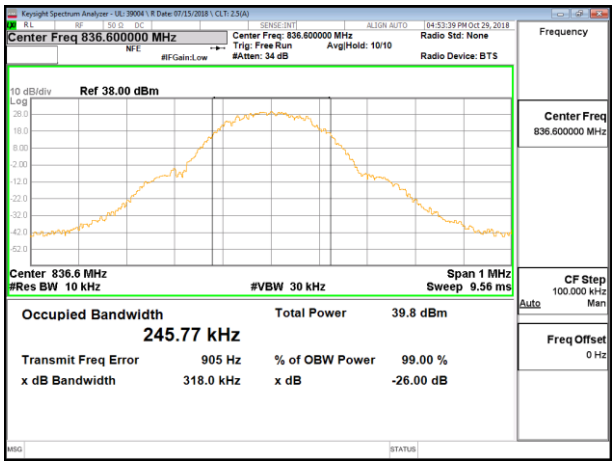
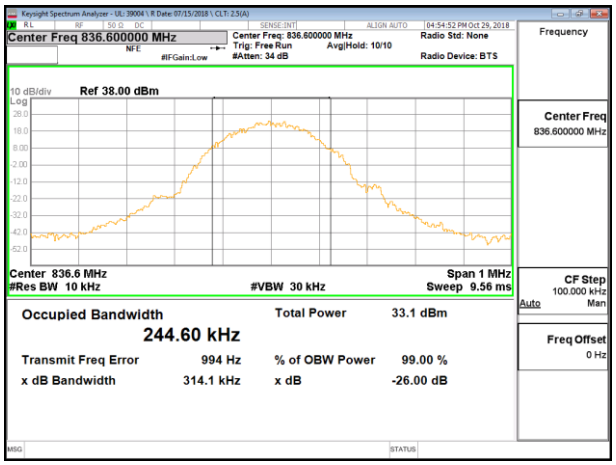
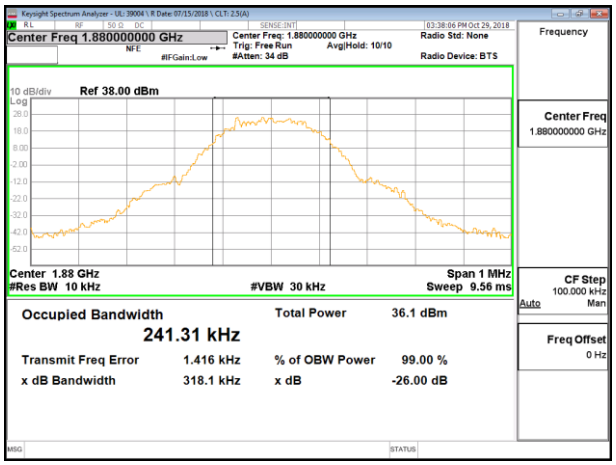
### 9.1.1. **GSM**



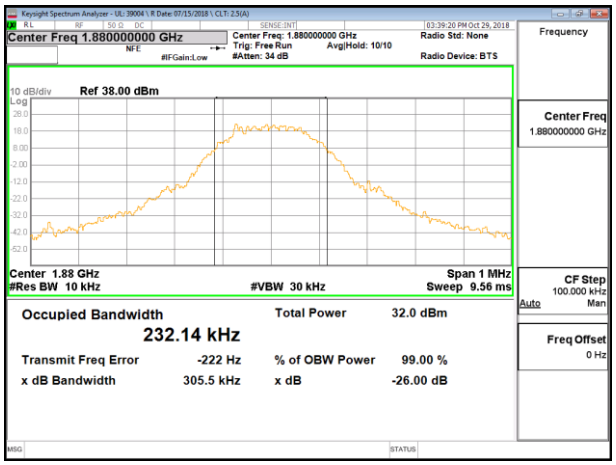

GSM 850MHz GPRS MID Channel




GSM 850MHz EGPRS MID Channel




GSM 1900MHz GPRS MID Channel




GSM 1900MHz EGPRS MID Channel



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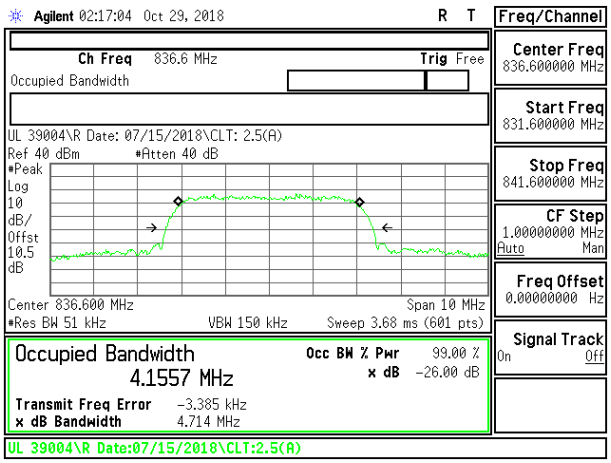
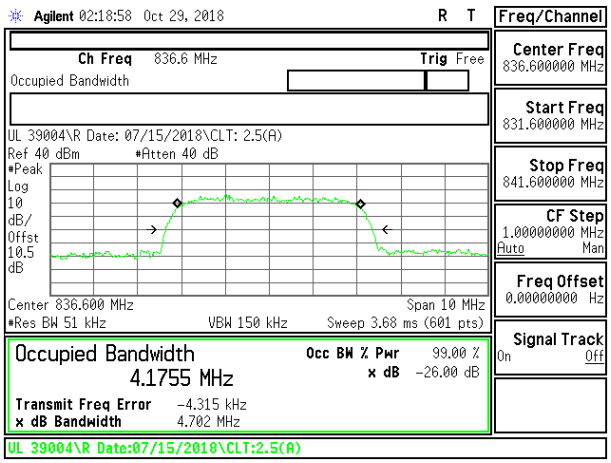
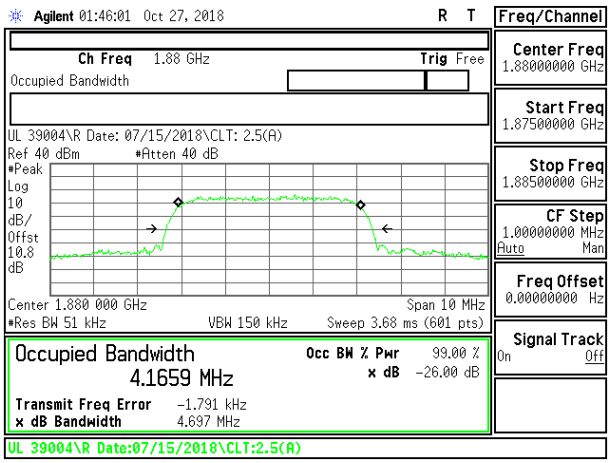
## 9.1.2. **WCDMA**



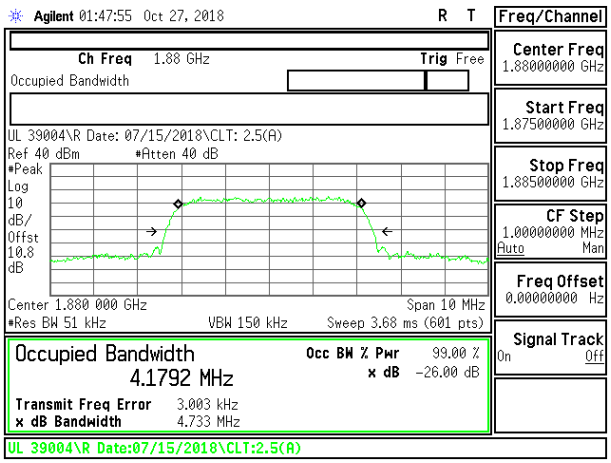

WCDMA BAND5 Rel99 MID Channel



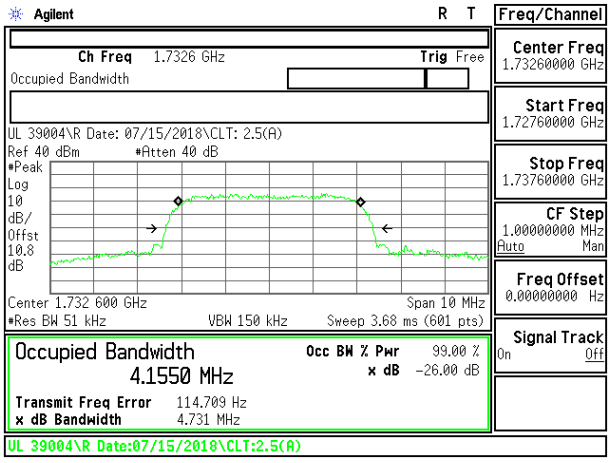

WCDMA BAND5 HSDPA MID Channel



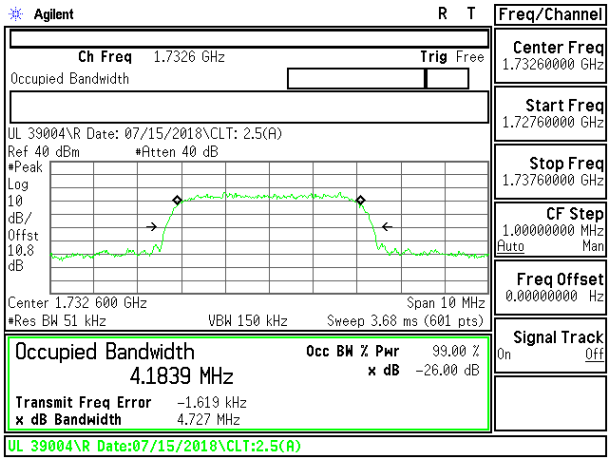

WCDMA BAND2 Rel99 MID Channel




WCDMA BAND2 HSDPA MID Channel




WCDMA BAND4 Rel99 MID Channel




WCDMA BAND4 HSDPA MID Channel



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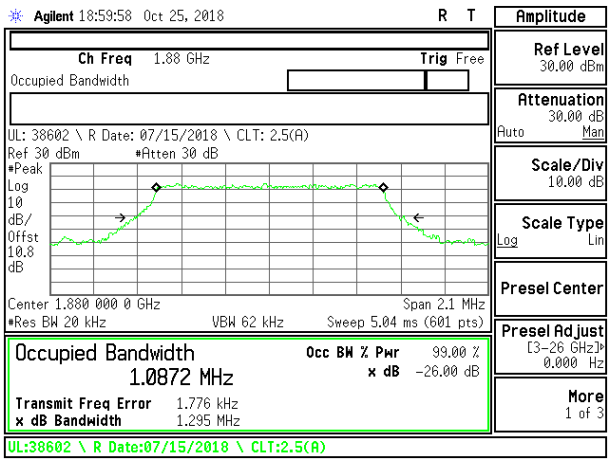
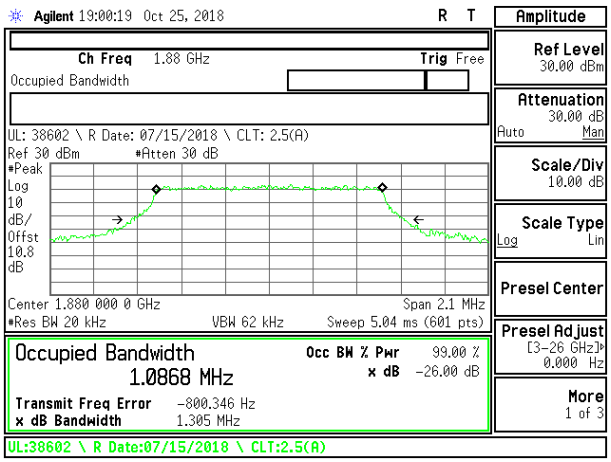
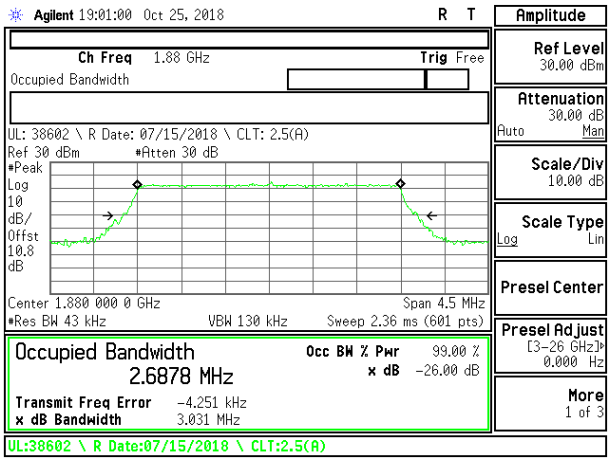
## 9.1.3. **LTE BAND 2**



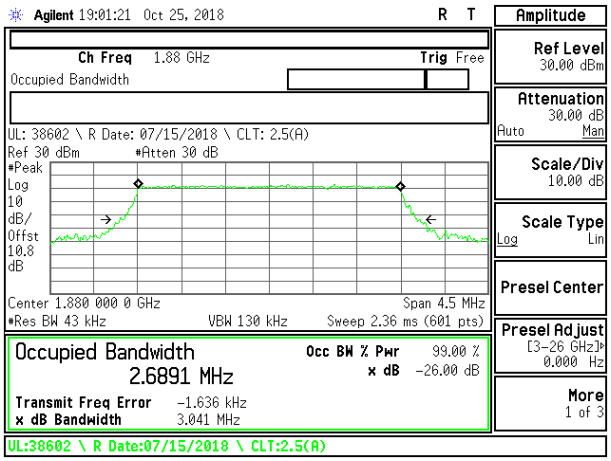

LTE B2 1.4MHz QPSK Mid Channel RB6-0



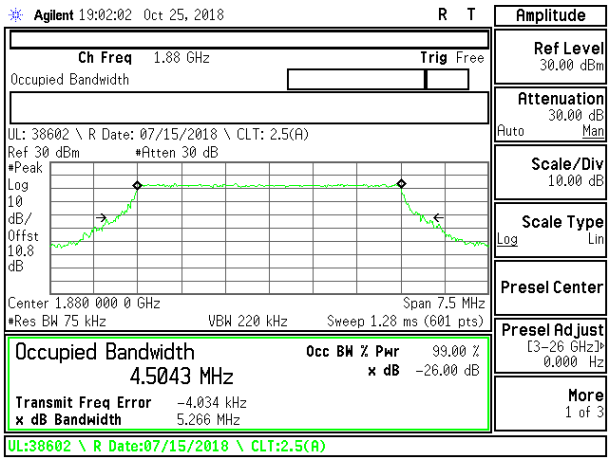

LTE B2 1.4MHz 16QAM Mid Channel RB6-0



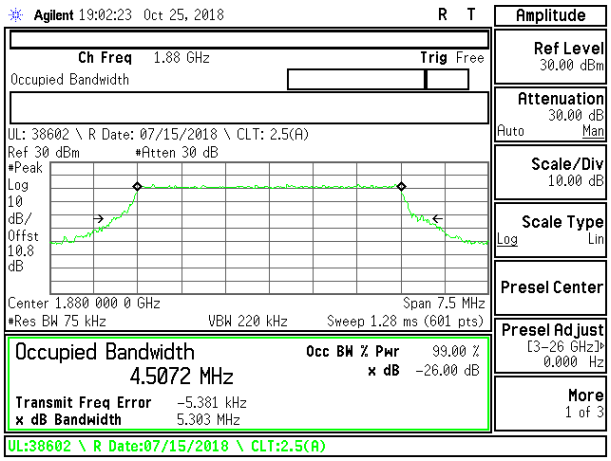

LTE B2 3MHz QPSK Mid Channel RB15-0




LTE B2 3MHz 16QAM Mid Channel RB15-0




LTE B2 5MHz QPSK Mid Channel RB25-0




LTE B2 5MHz 16QAM Mid Channel RB25-0



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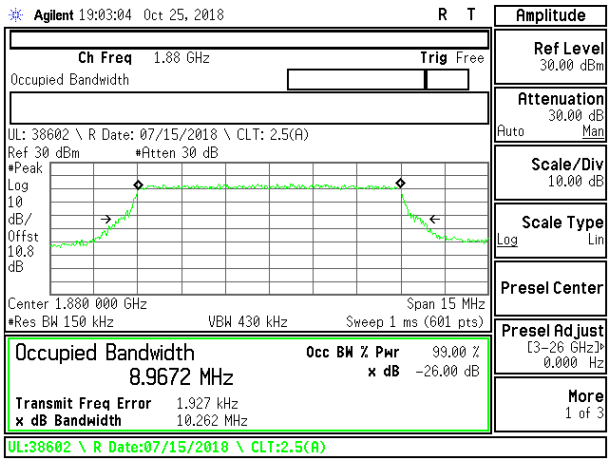
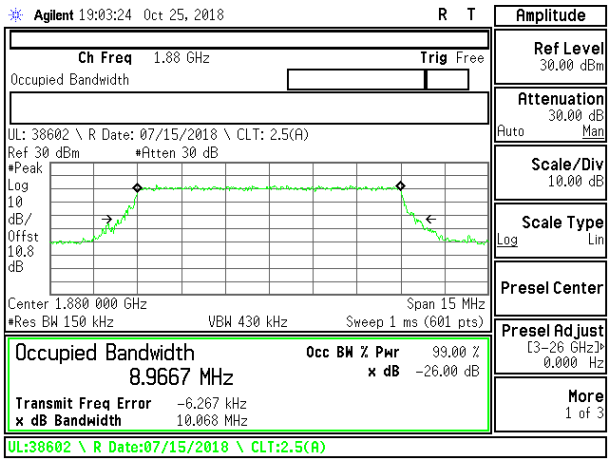
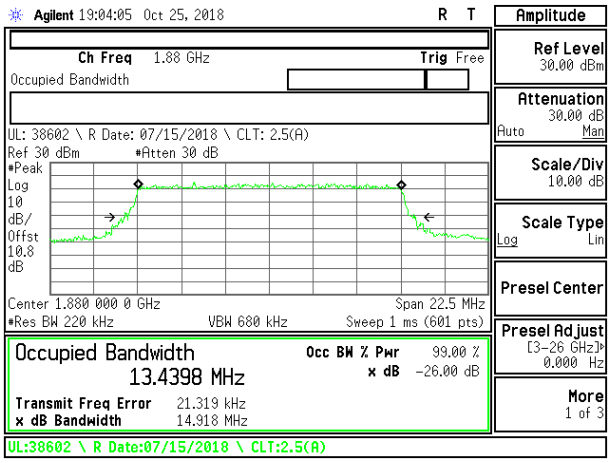


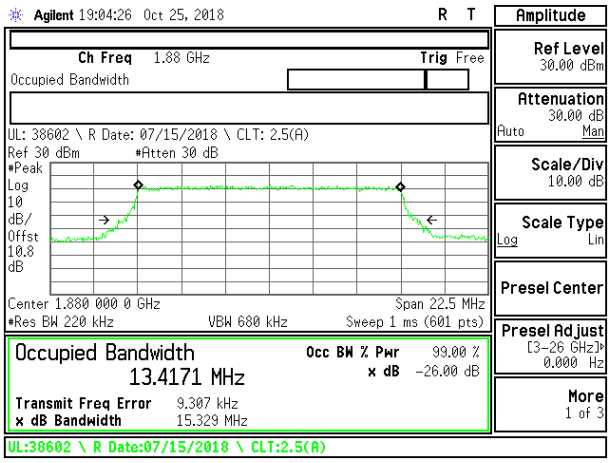

LTE B2 10MHz QPSK Mid Channel RB50-0



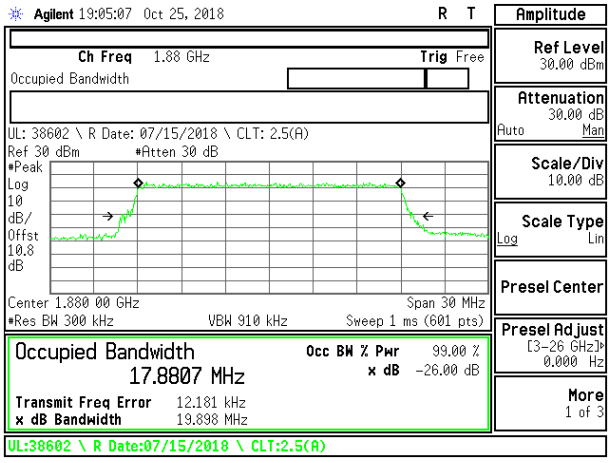

LTE B2 10MHz 16QAM Mid Channel RB50-0



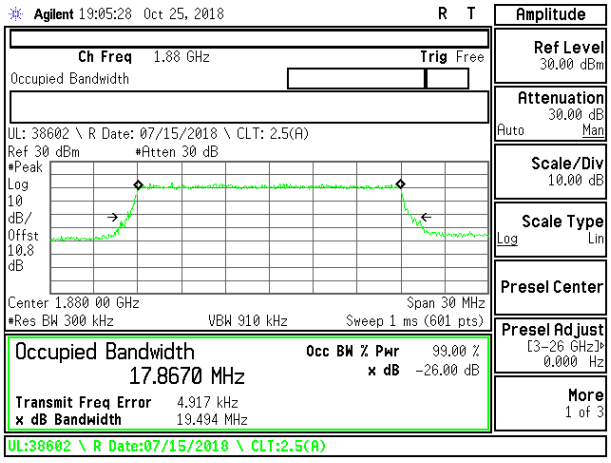

LTE B2 15MHz QPSK Mid Channel RB75-0




LTE B2 15MHz 16QAM Mid Channel RB75-0




LTE B2 20MHz QPSK Mid Channel RB100-0




LTE B2 20MHz 16QAM Mid Channel RB100-0



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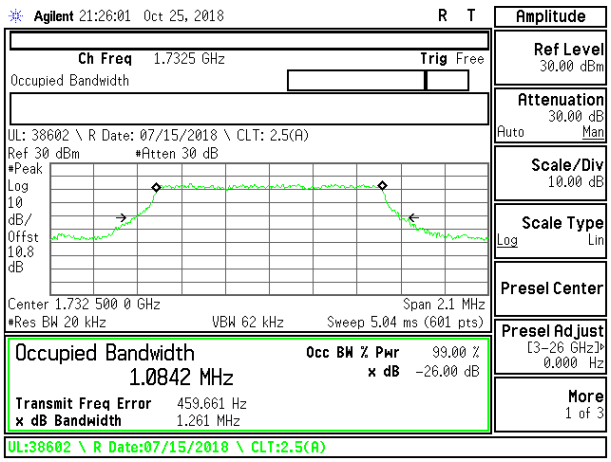
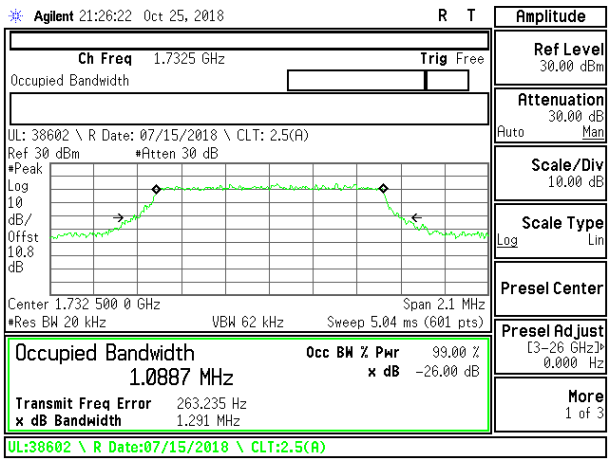
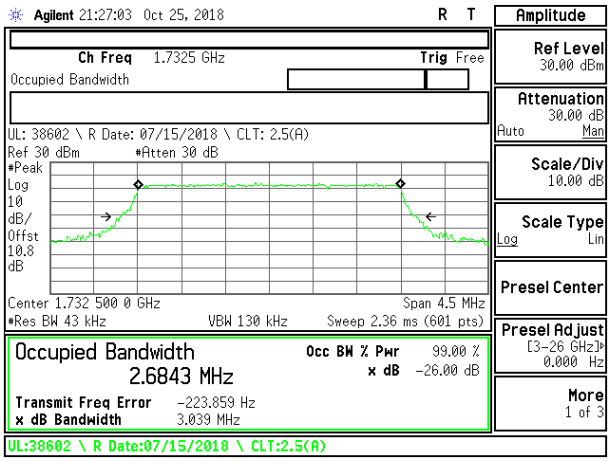
## 9.1.4. **LTE BAND 4**



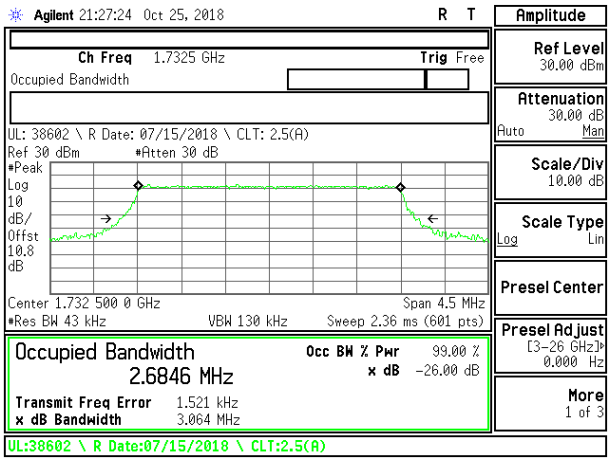

LTE B4 1.4MHz QPSK Mid Channel RB6-0



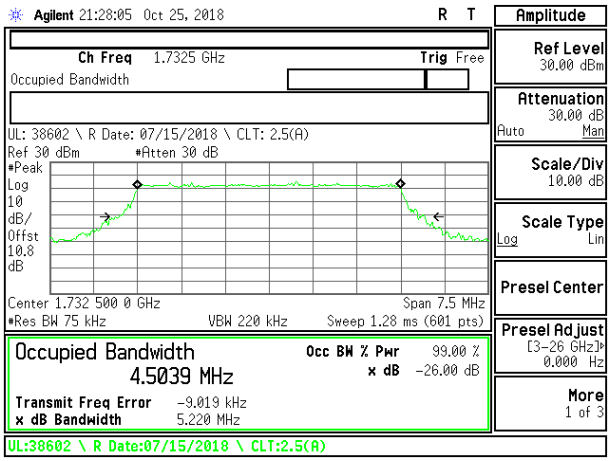

LTE B4 1.4MHz 16QAM Mid Channel RB6-0



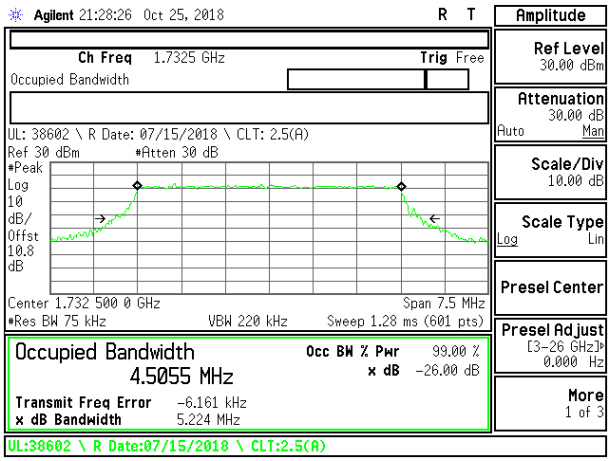

LTE B4 3MHz QPSK Mid Channel RB15-0




LTE B4 3MHz 16QAM Mid Channel RB15-0




LTE B4 5MHz QPSK Mid Channel RB25-0




LTE B4 5MHz 16QAM Mid Channel RB25-0



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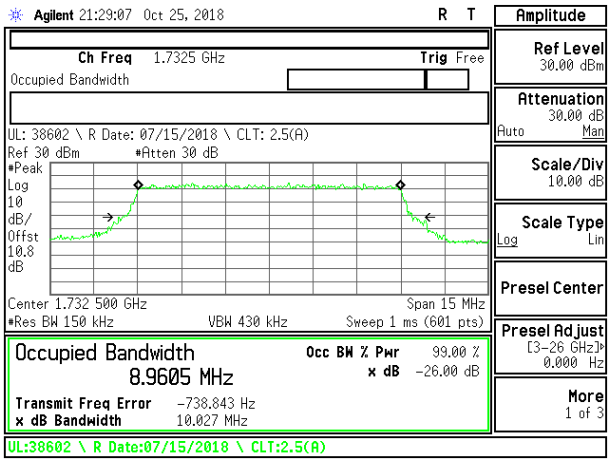
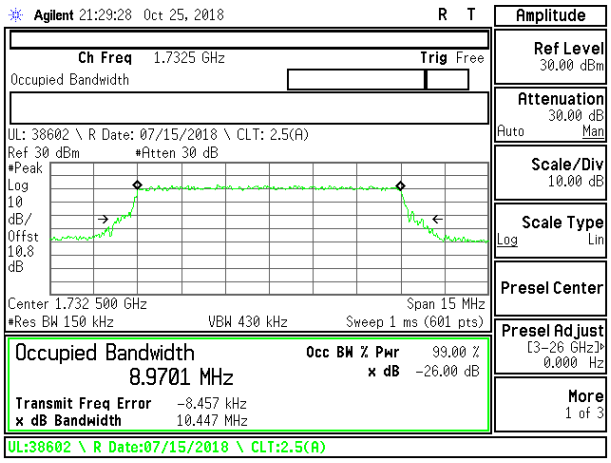
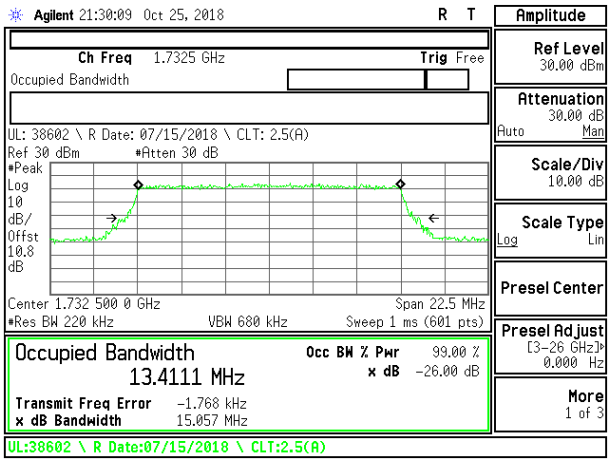


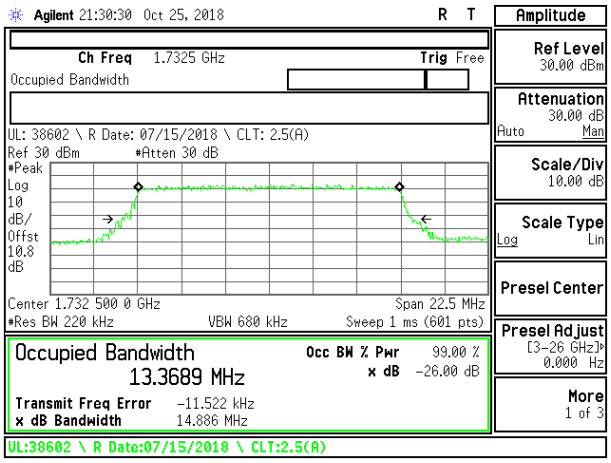

LTE B4 10MHz QPSK Mid Channel RB50-0



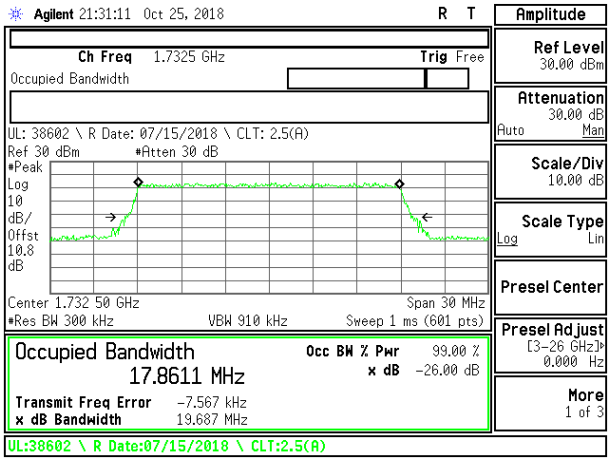

LTE B4 10MHz 16QAM Mid Channel RB50-0



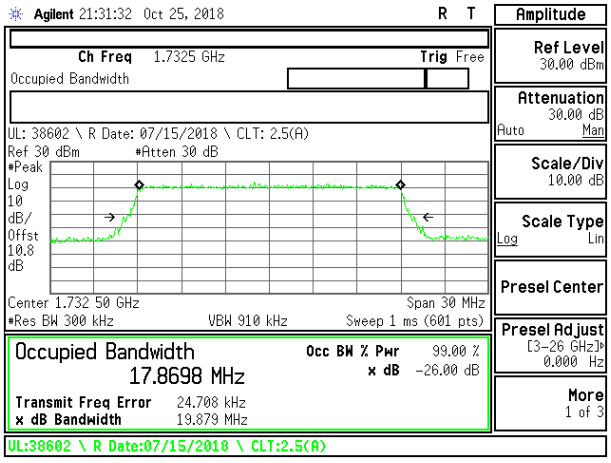

LTE B4 15MHz QPSK Mid Channel RB75-0




LTE B4 15MHz 16QAM Mid Channel RB75-0




LTE B4 20MHz QPSK Mid Channel RB100-0




LTE B4 20MHz 16QAM Mid Channel RB100-0



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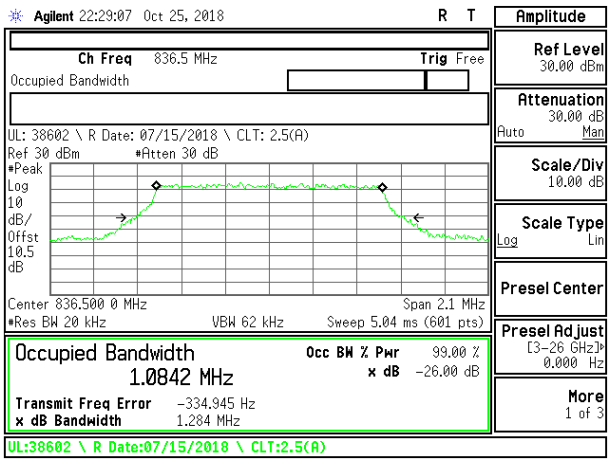
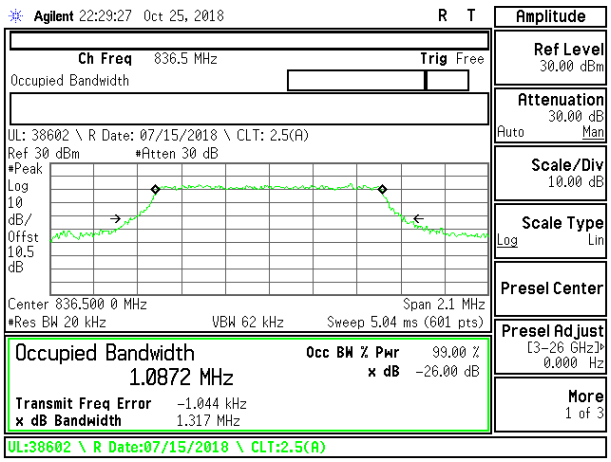
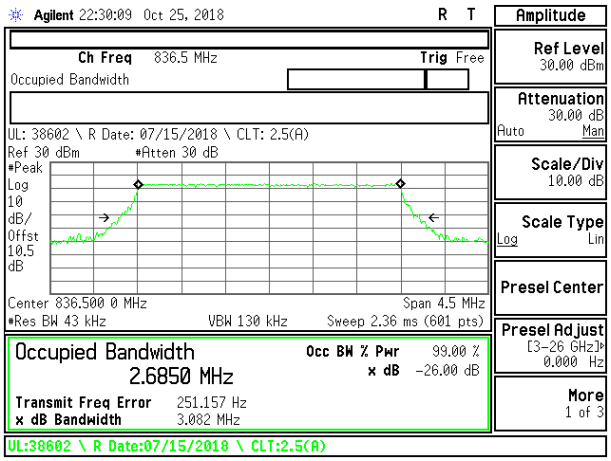
## 9.1.5. **LTE BAND 5**



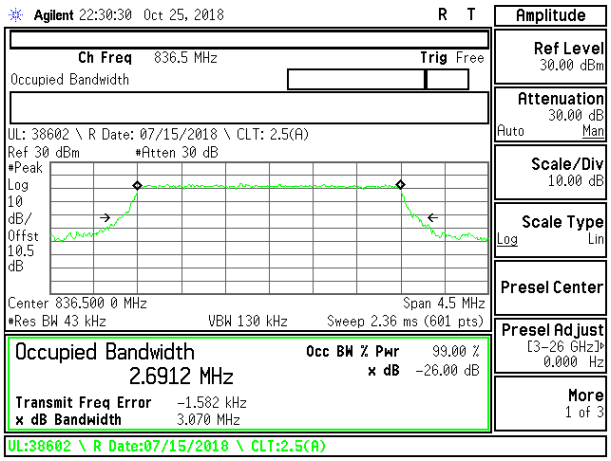

LTE B5 1.4MHz QPSK Mid Channel RB6-0



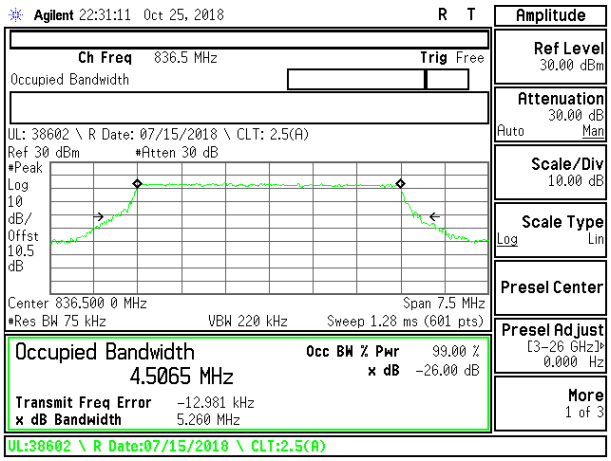

LTE B5 1.4MHz 16QAM Mid Channel RB6-0



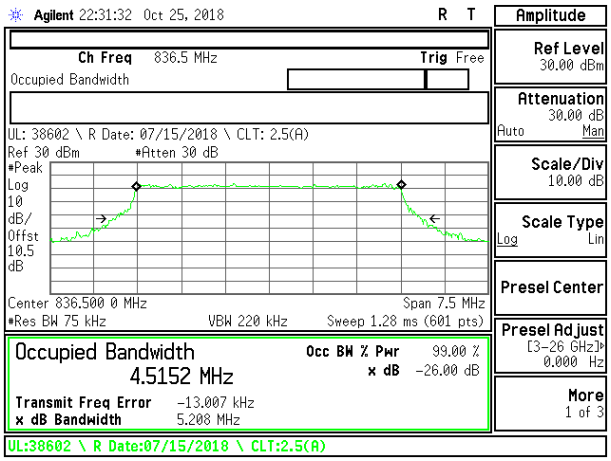

LTE B5 3MHz QPSK Mid Channel RB15-0




LTE B5 3MHz 16QAM Mid Channel RB15-0




LTE B5 5MHz QPSK Mid Channel RB25-0




LTE B5 5MHz 16QAM Mid Channel RB25-0



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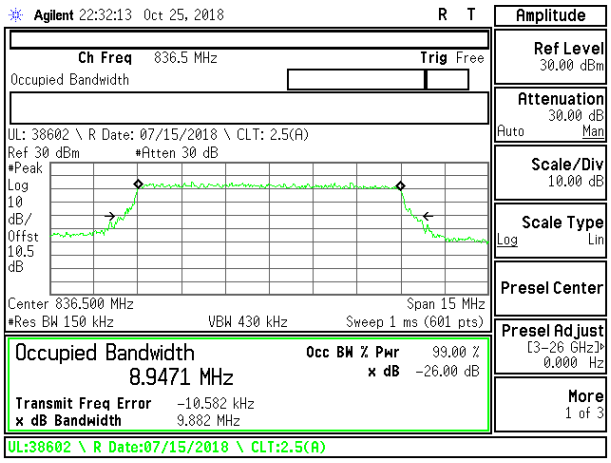
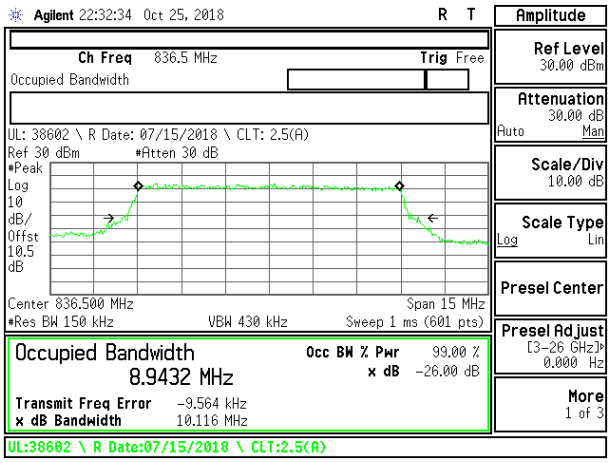



LTE B5 10MHz QPSK Mid Channel RB50-0




LTE B5 10MHz 16QAM Mid Channel RB50-0



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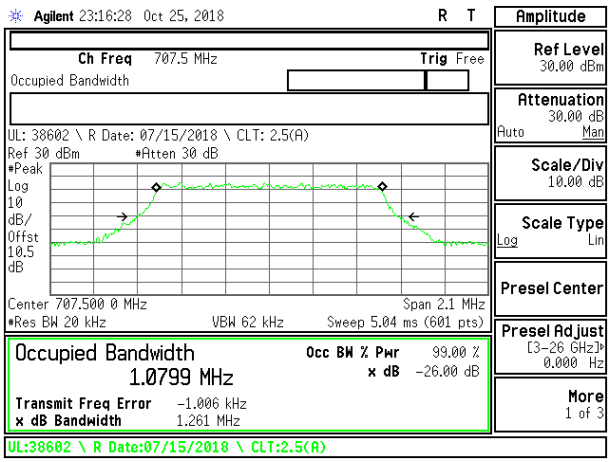
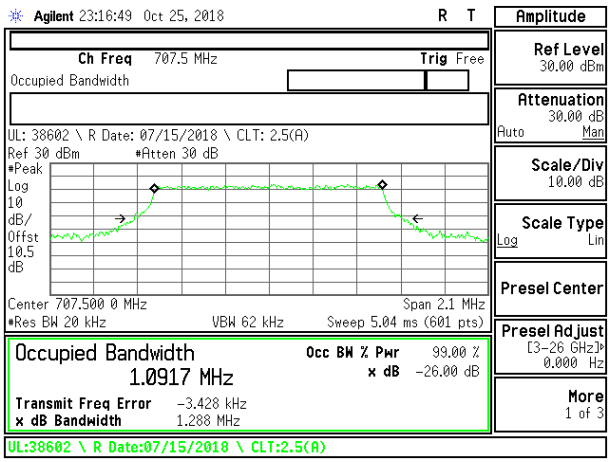
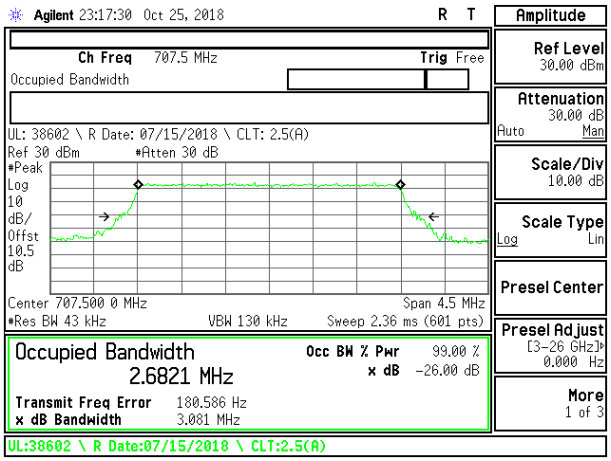
## 9.1.6. **LTE BAND 12**



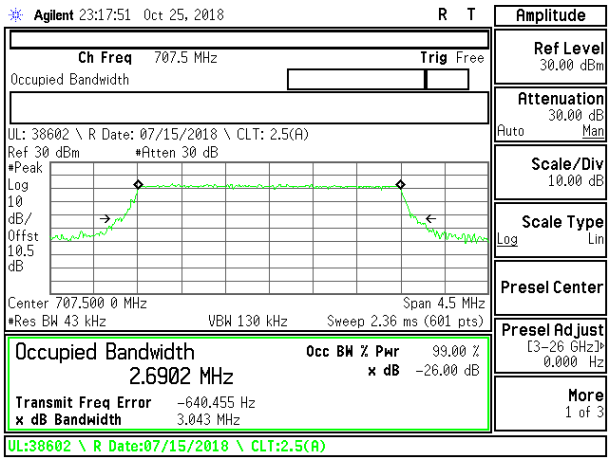

LTE B12 1.4MHz QPSK Mid Channel RB6-0



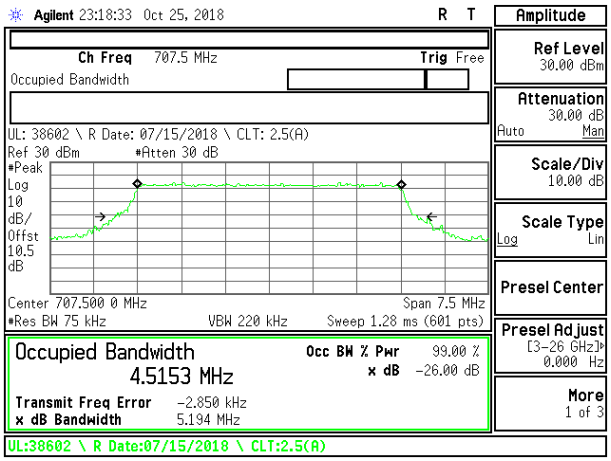

LTE B12 1.4MHz 16QAM Mid Channel RB6-0



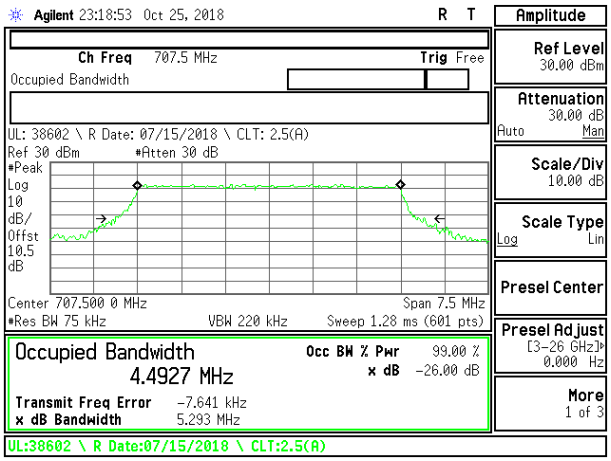

LTE B12 3MHz QPSK Mid Channel RB15-0




LTE B12 3MHz 16QAM Mid Channel RB15-0




LTE B12 5MHz QPSK Mid Channel RB25-0




LTE B12 5MHz 16QAM Mid Channel RB25-0



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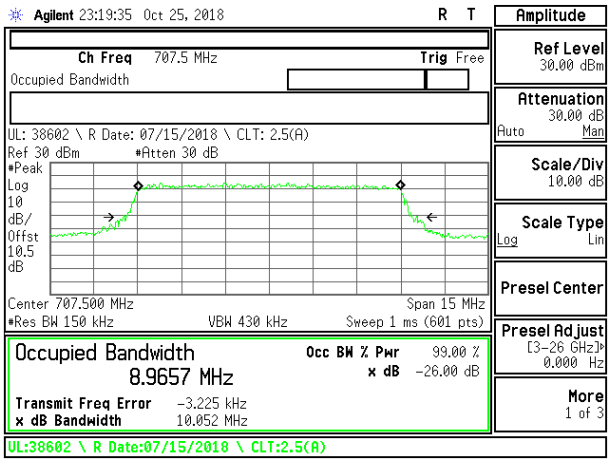
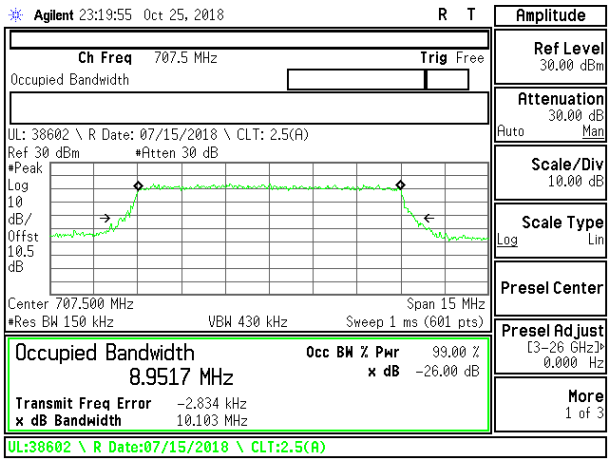



LTE B12 10MHz QPSK Mid Channel RB50-0




LTE B12 10MHz 16QAM Mid Channel RB50-0



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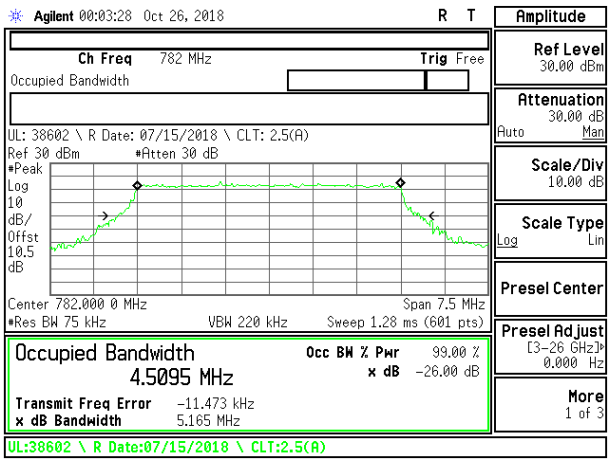
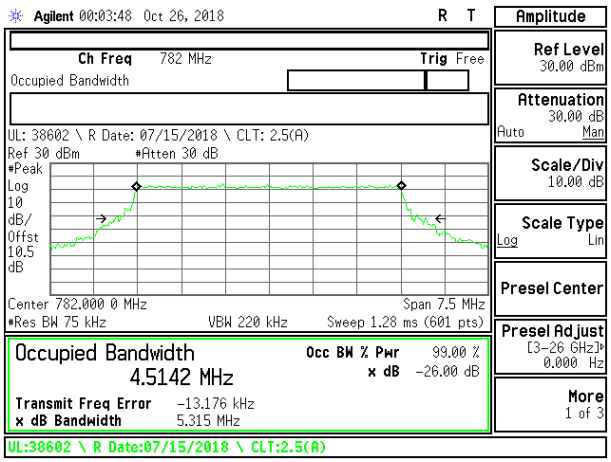
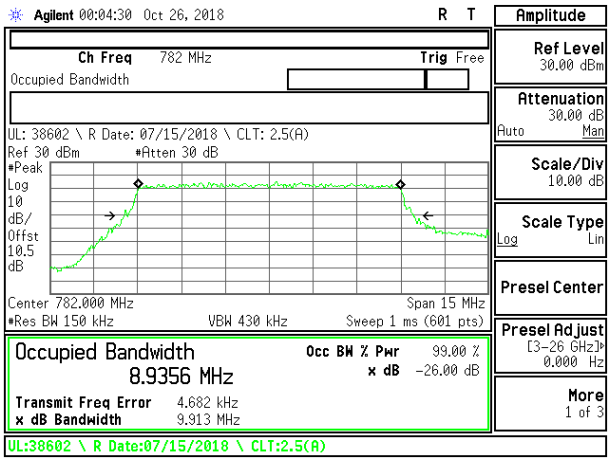
## 9.1.7. **LTE BAND 13**



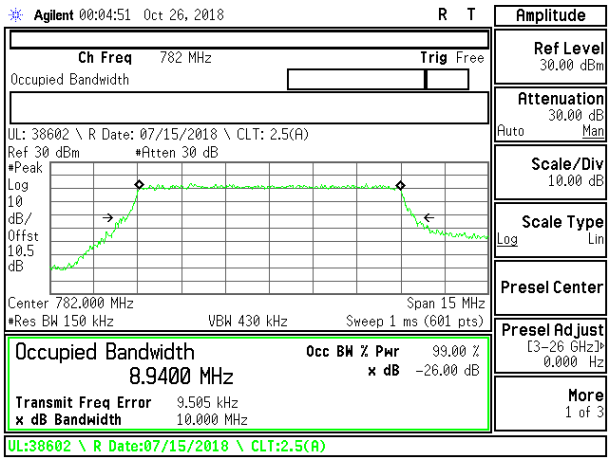

LTE B13 5MHz QPSK Mid Channel RB25-0




LTE B13 5MHz 16QAM Mid Channel RB25-0




LTE B13 10MHz QPSK Mid Channel RB50-0




LTE B13 10MHz 16QAM Mid Channel RB50-0



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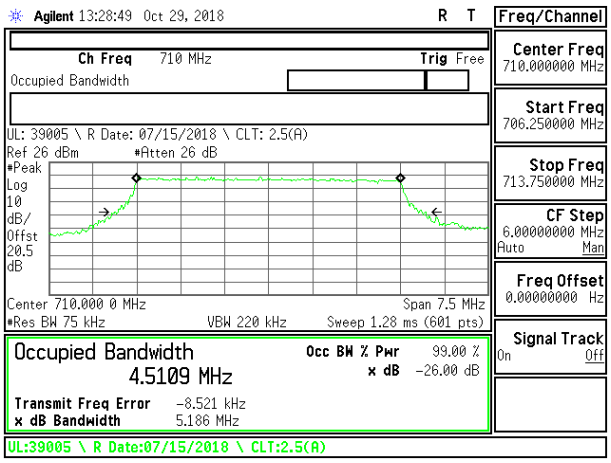
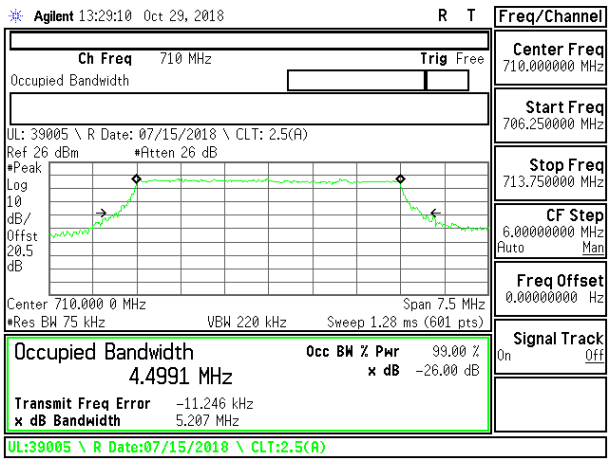
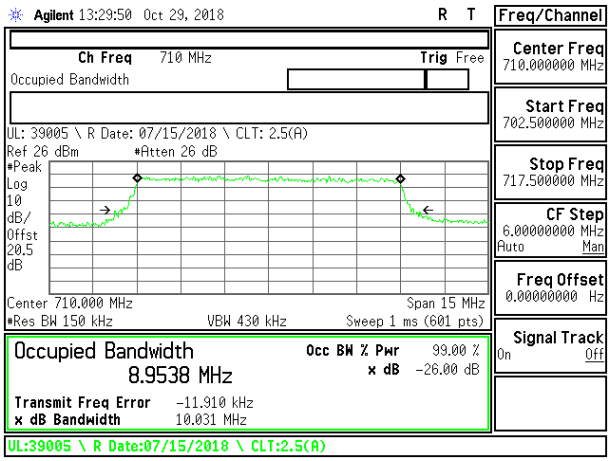
## 9.1.8. **LTE BAND 17**



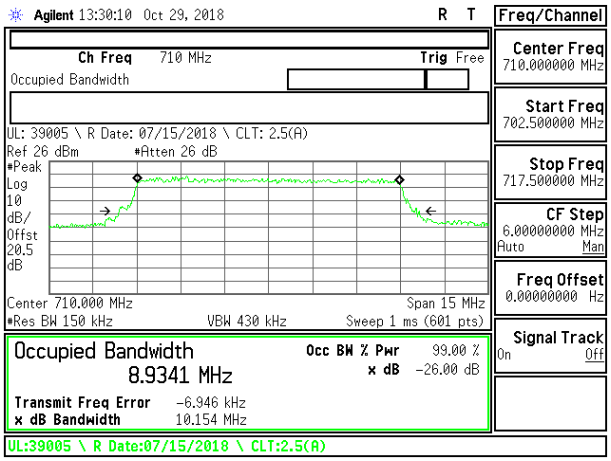

LTE B17 5MHz QPSK Mid Channel RB25-0




LTE B17 5MHz 16QAM Mid Channel RB25-0




LTE B17 10MHz QPSK Mid Channel RB50-0




LTE B17 10MHz 16QAM Mid Channel RB50-0



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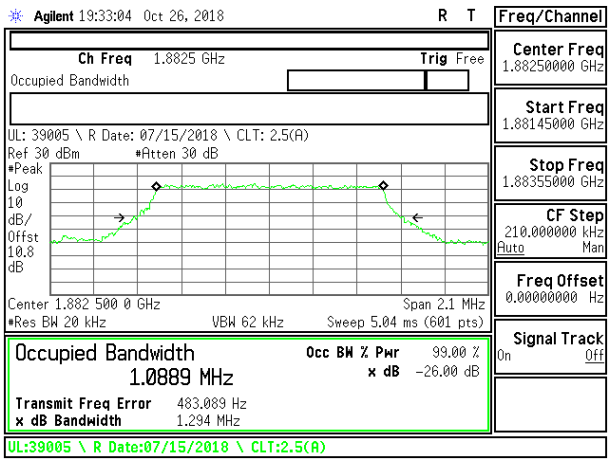
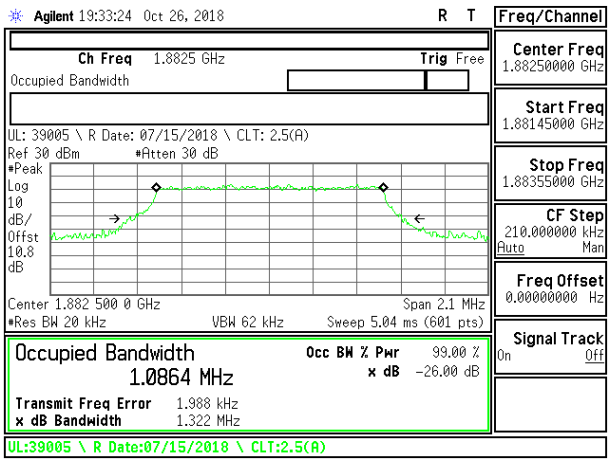
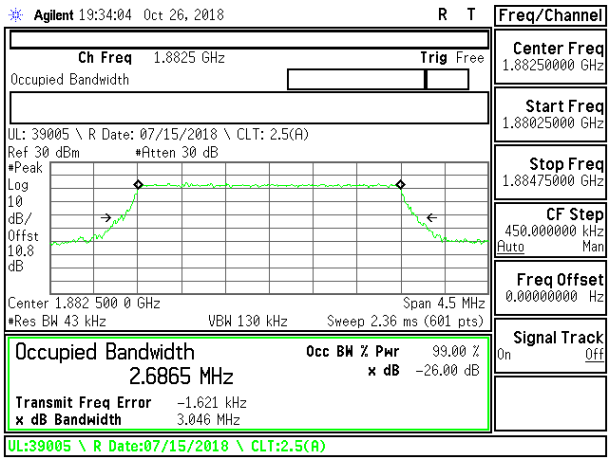
## 9.1.9. **LTE BAND 25**



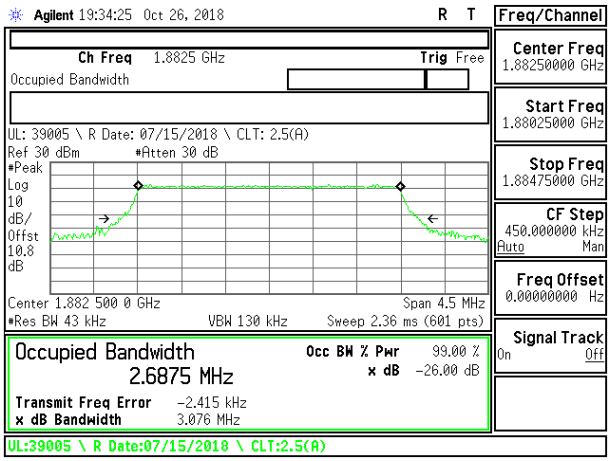

LTE B25 1.4MHz QPSK Mid Channel RB6-0



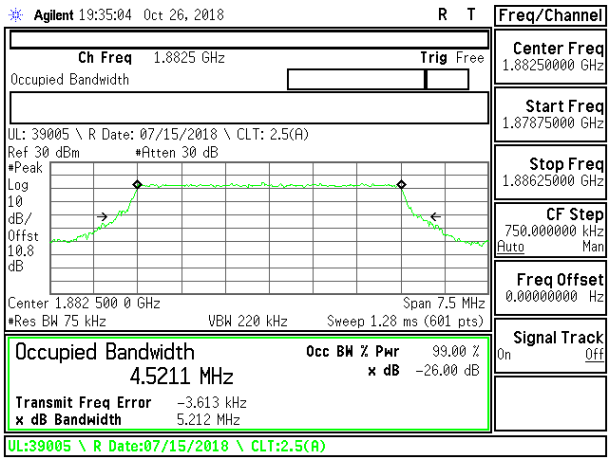

LTE B25 1.4MHz 16QAM Mid Channel RB6-0



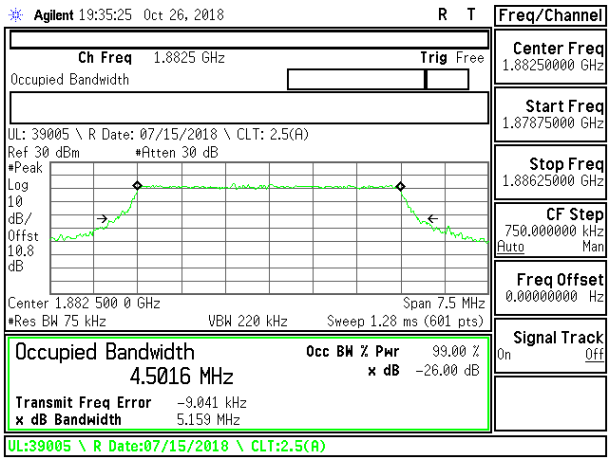

LTE B25 3MHz QPSK Mid Channel RB15-0




LTE B25 3MHz 16QAM Mid Channel RB15-0




LTE B25 5MHz QPSK Mid Channel RB25-0




LTE B25 5MHz 16QAM Mid Channel RB25-0



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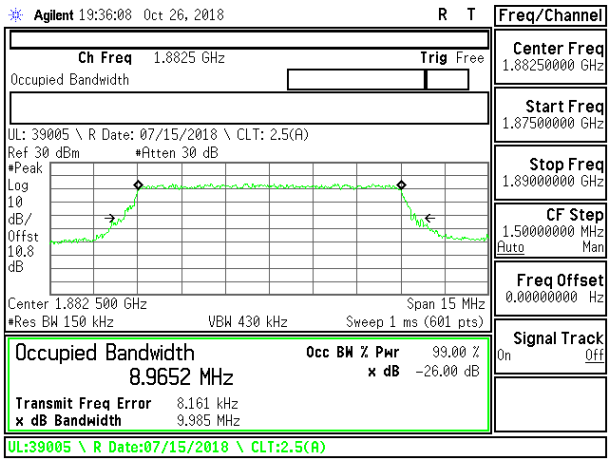
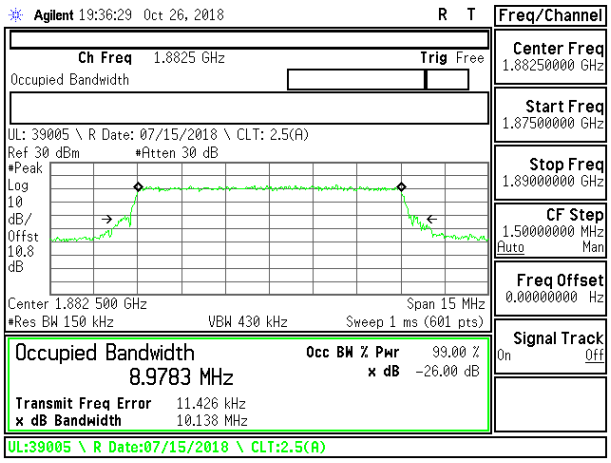
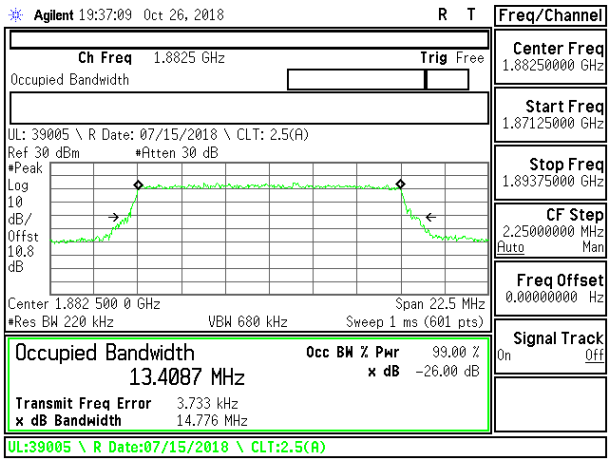


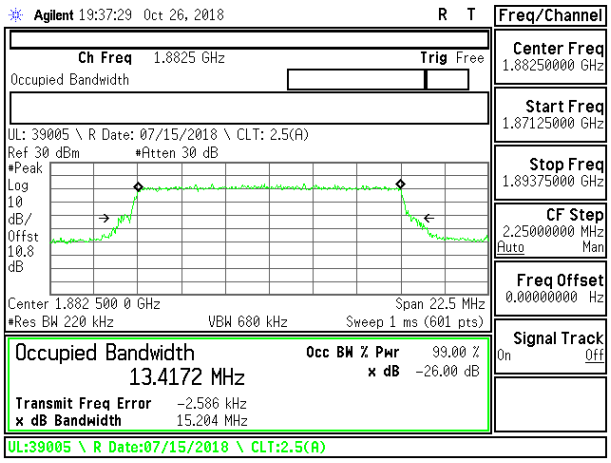

LTE B25 10MHz QPSK Mid Channel RB50-0



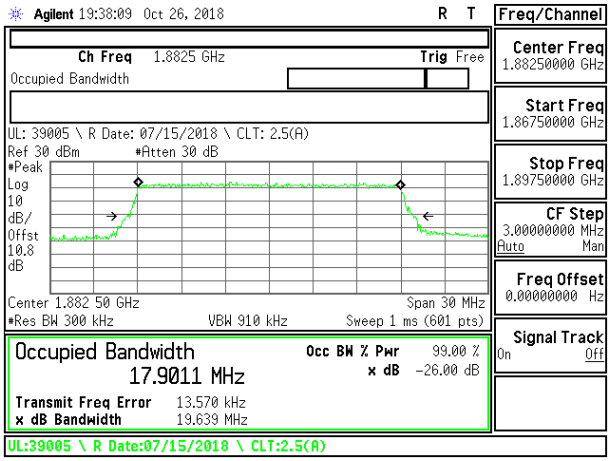

LTE B25 10MHz 16QAM Mid Channel RB50-0



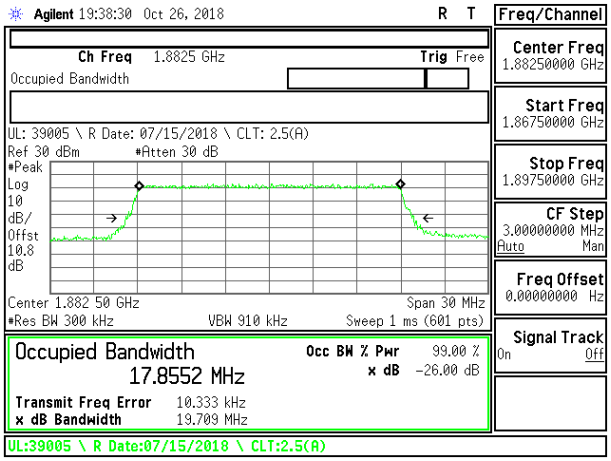

LTE B25 15MHz QPSK Mid Channel RB75-0




LTE B25 15MHz 16QAM Mid Channel RB75-0




LTE B25 20MHz QPSK Mid Channel RB100-0




LTE B25 20MHz 16QAM Mid Channel RB100-0



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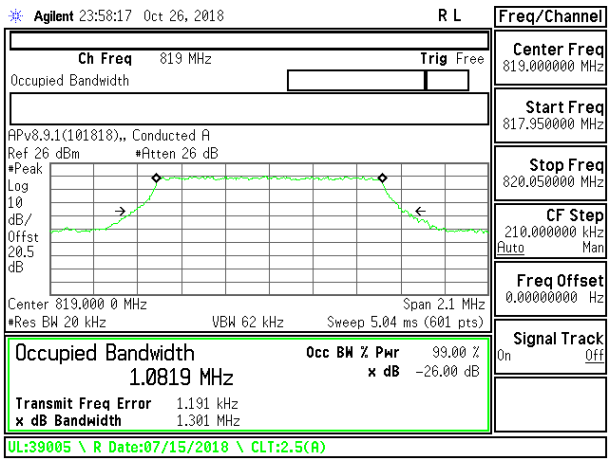
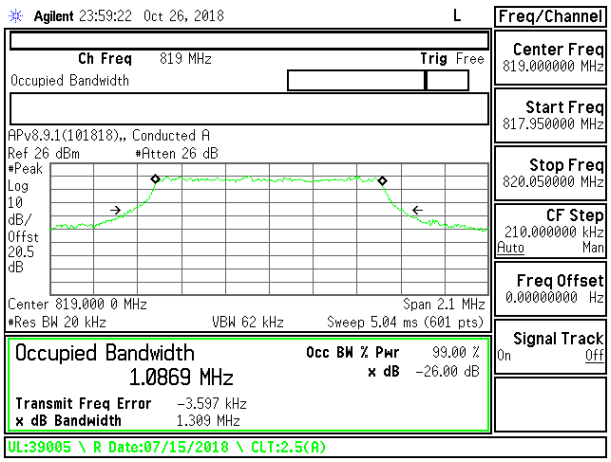
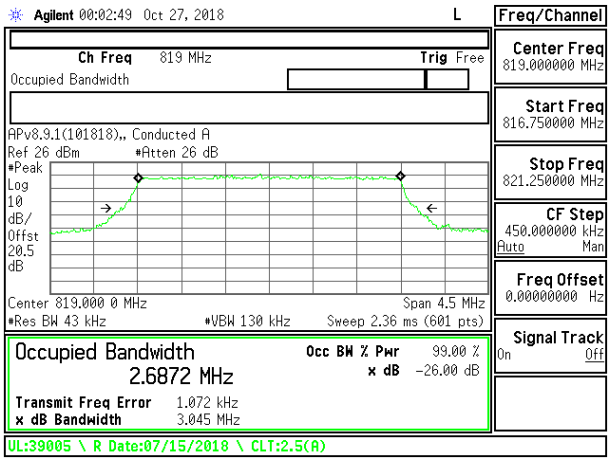
## 9.1.10. **LTE BAND 26 (FCC PART 90S)**



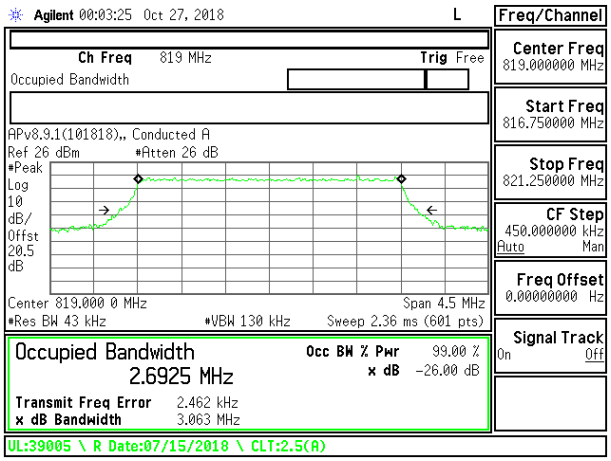

LTE B26 1.4MHz QPSK Mid Channel RB6-0



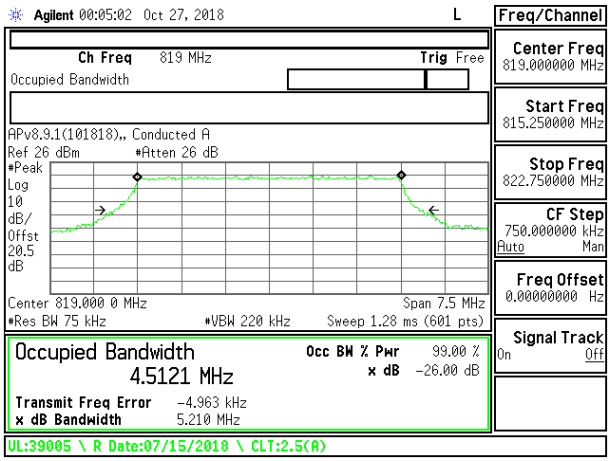

LTE B26 1.4MHz 16QAM Mid Channel RB6-0



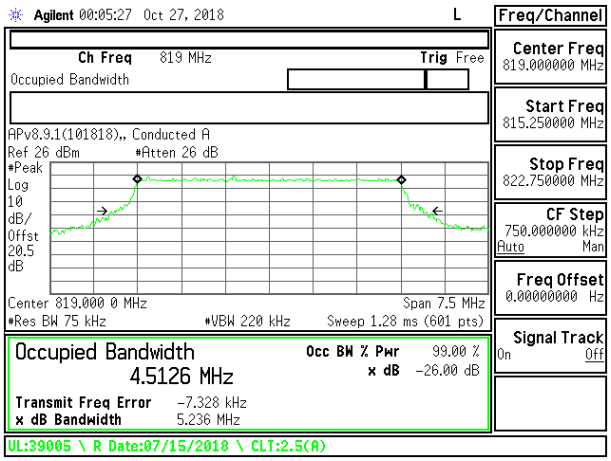

LTE B26 3MHz QPSK Mid Channel RB15-0




LTE B26 3MHz 16QAM Mid Channel RB15-0




LTE B26 5MHz QPSK Mid Channel RB25-0




LTE B26 5MHz 16QAM Mid Channel RB25-0



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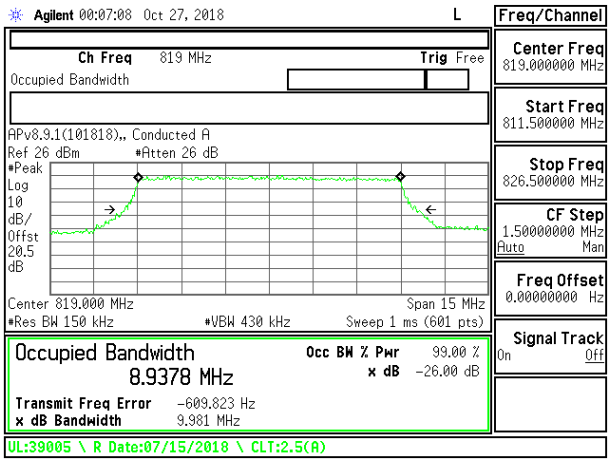
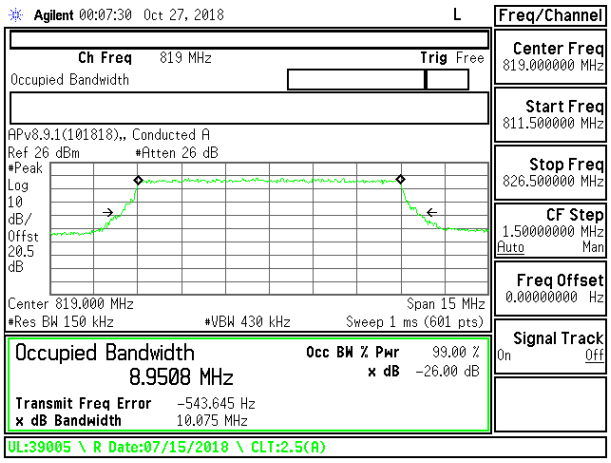
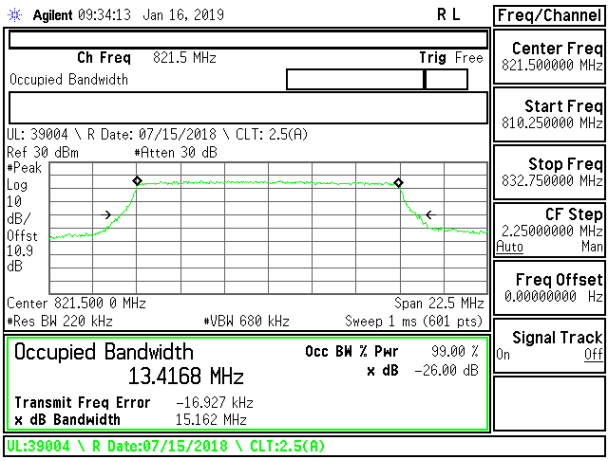


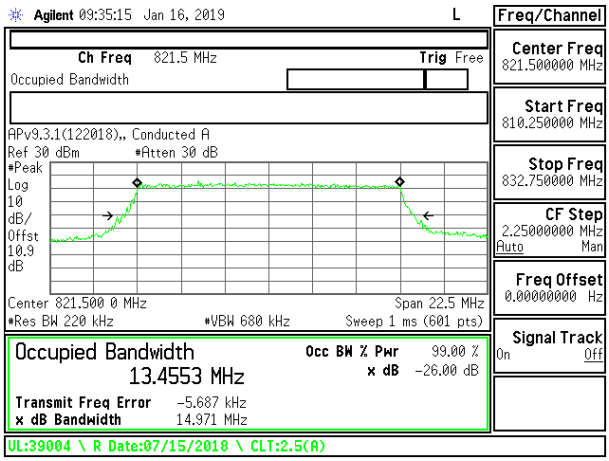

LTE B26 10MHz QPSK Mid Channel RB50-0




LTE B26 10MHz 16QAM Mid Channel RB50-0




LTE B26 15MHz QPSK Low Channel RB75-0




LTE B26 15MHz 16QAM Low Channel RB75-0



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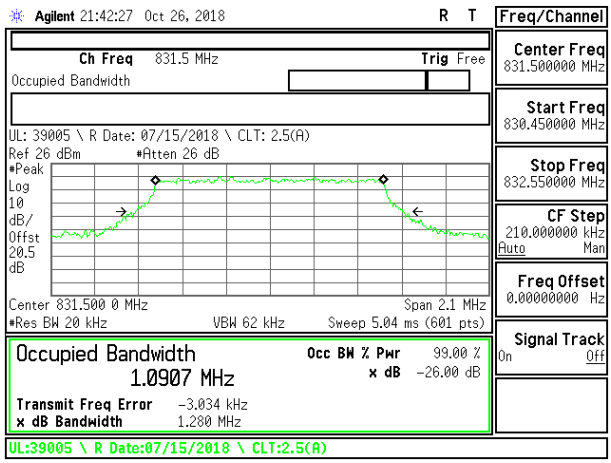
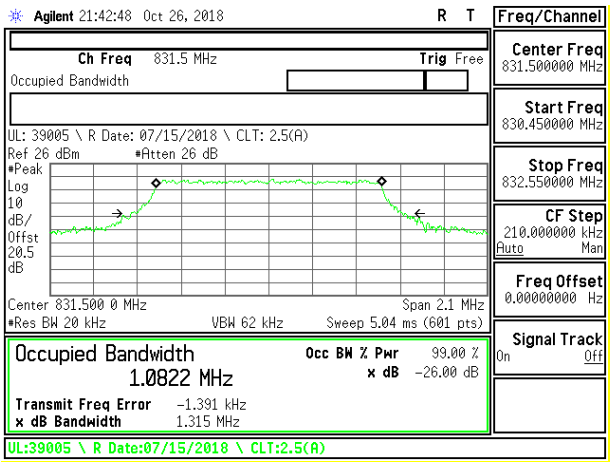
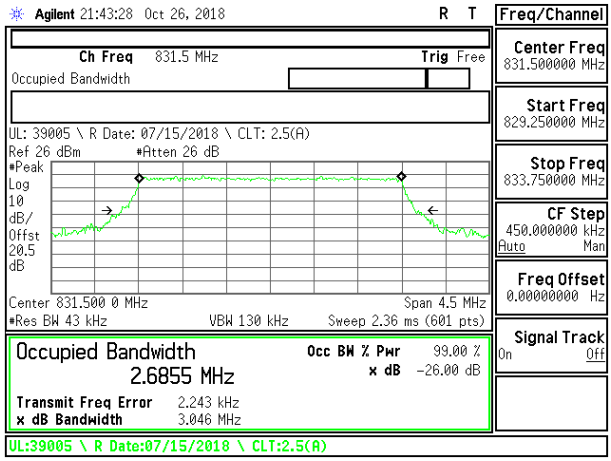
## 9.1.11. **LTE BAND 26 (FCC PART 22)**



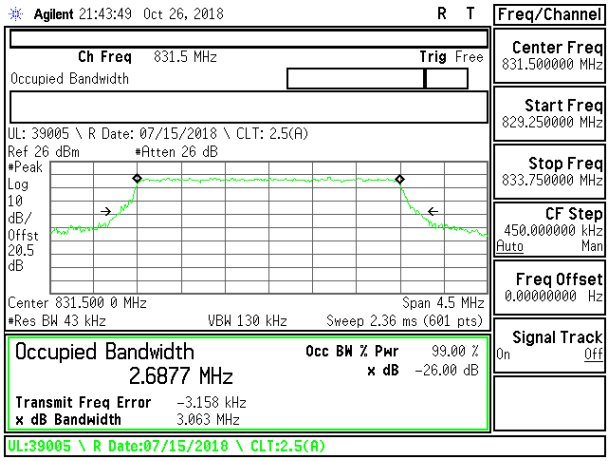

LTE B26 1.4MHz QPSK Mid Channel RB6-0



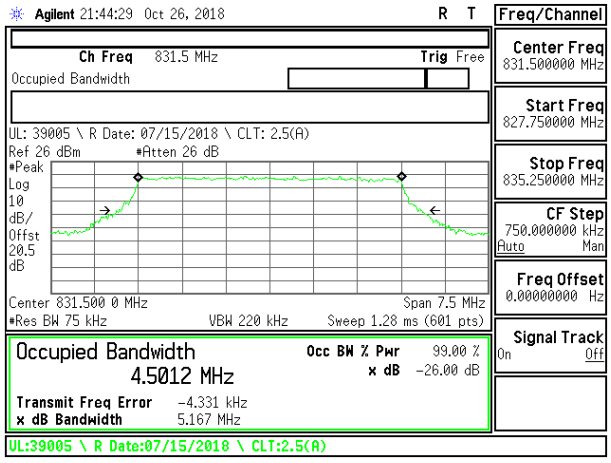

LTE B26 1.4MHz 16QAM Mid Channel RB6-0



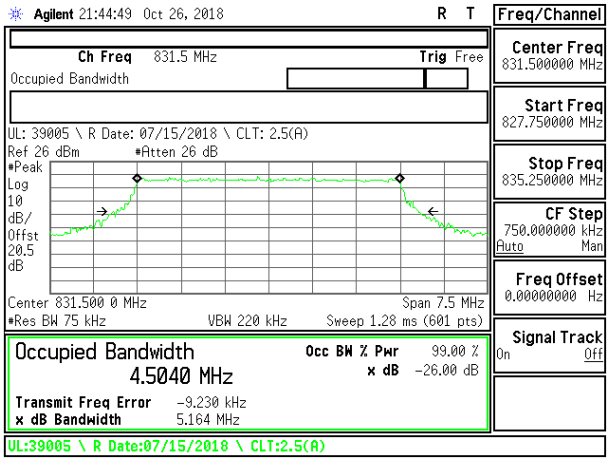

LTE B26 3MHz QPSK Mid Channel RB15-0




LTE B26 3MHz 16QAM Mid Channel RB15-0




LTE B26 5MHz QPSK Mid Channel RB25-0




LTE B26 5MHz 16QAM Mid Channel RB25-0



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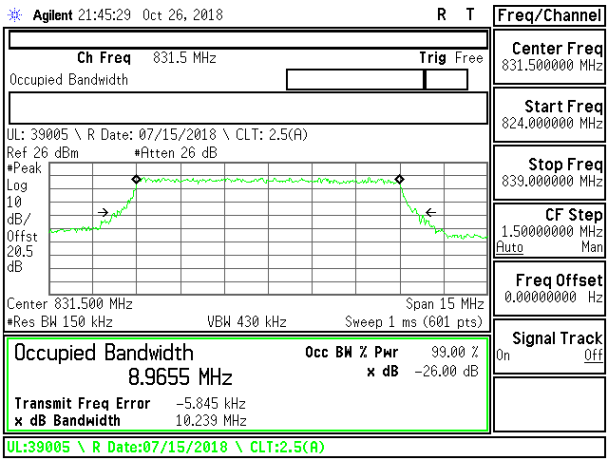
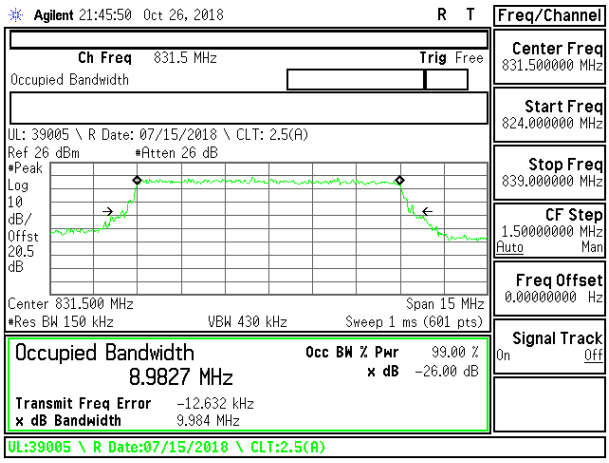
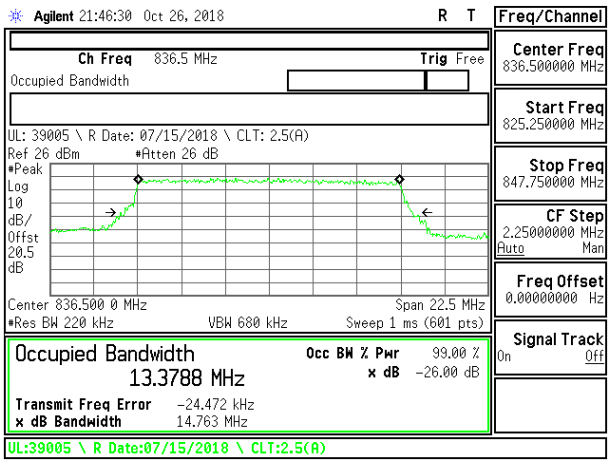


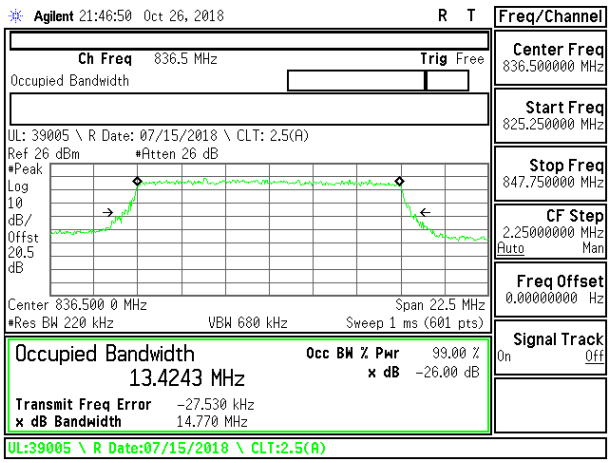

LTE B26 10MHz QPSK Mid Channel RB50-0




LTE B26 10MHz 16QAM Mid Channel RB50-0




LTE B26 15MHz QPSK Mid Channel RB75-0




LTE B26 15MHz 16QAM Mid Channel RB75-0



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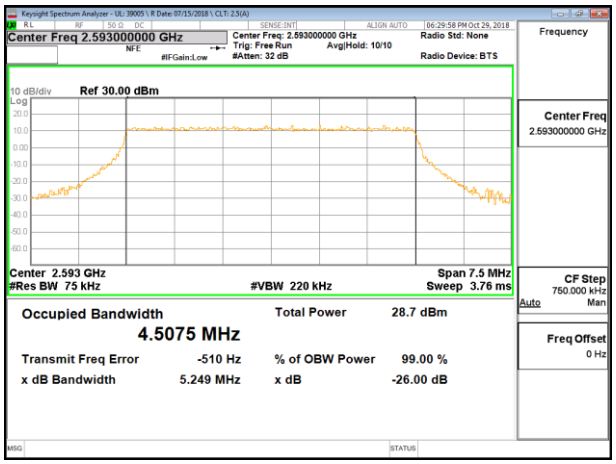
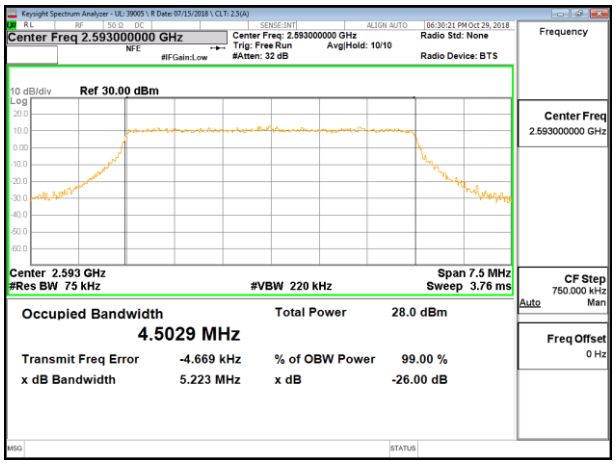
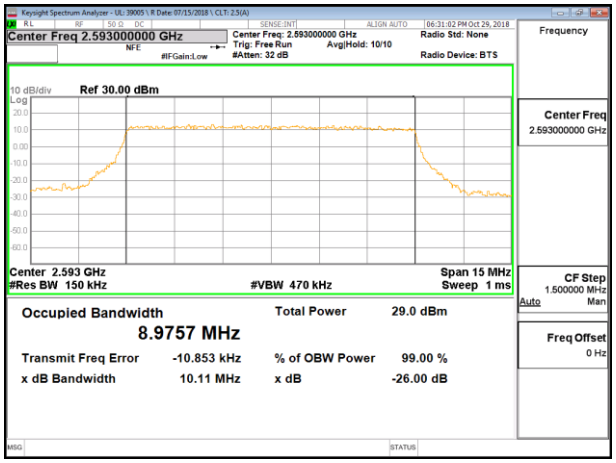
## 9.1.12. **LTE BAND 41**



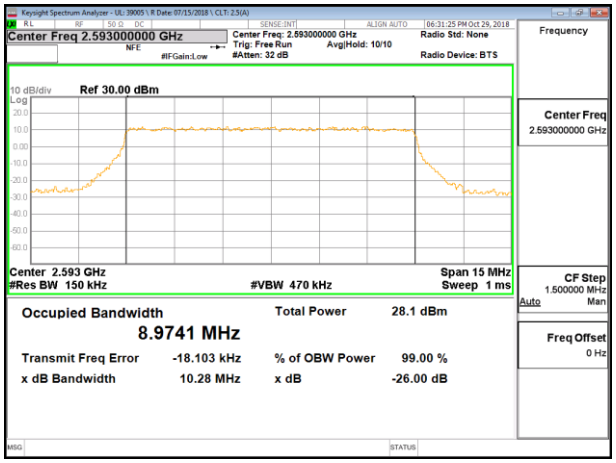

LTE B41 5MHz QPSK Mid Channel RB25-0



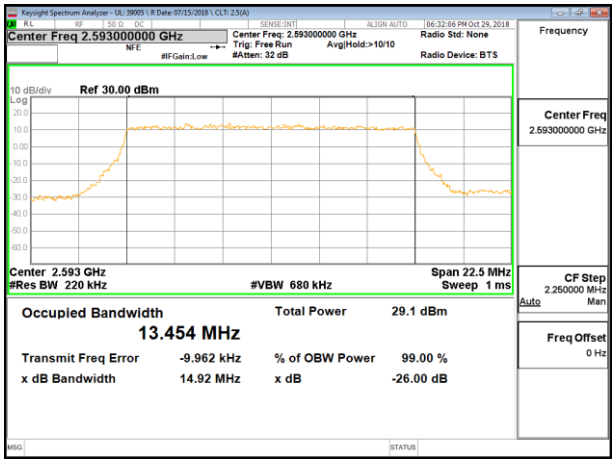

LTE B41 5MHz 16QAM Mid Channel RB25-0



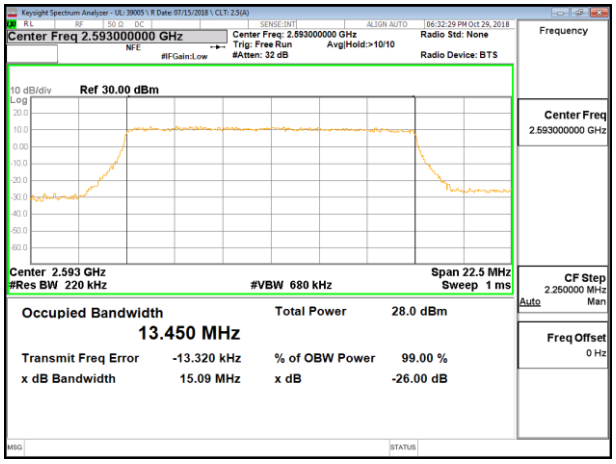

LTE B41 10MHz QPSK Mid Channel RB50-0




LTE B41 10MHz 16QAM Mid Channel RB50-0




LTE B41 15MHz QPSK Mid Channel RB75-0




LTE B41 15MHz 16QAM Mid Channel RB75-0



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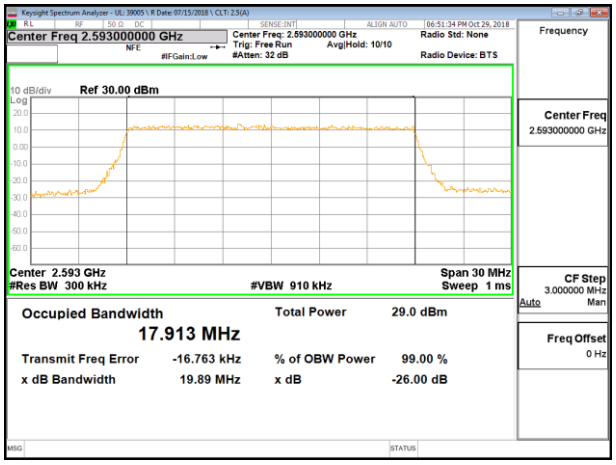
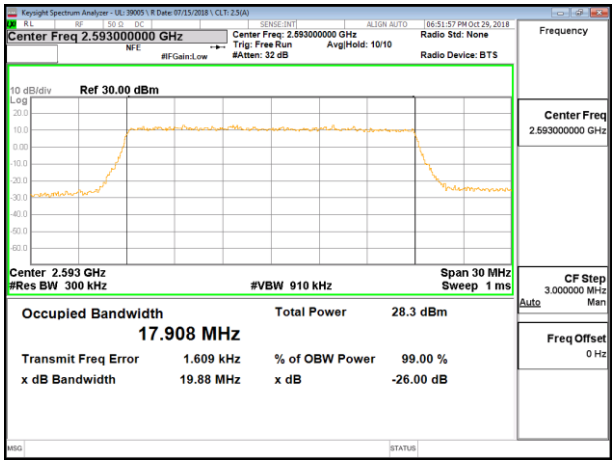



LTE B41 20MHz QPSK Mid Channel RB100-0




LTE B41 20MHz 16QAM Mid Channel RB100-0



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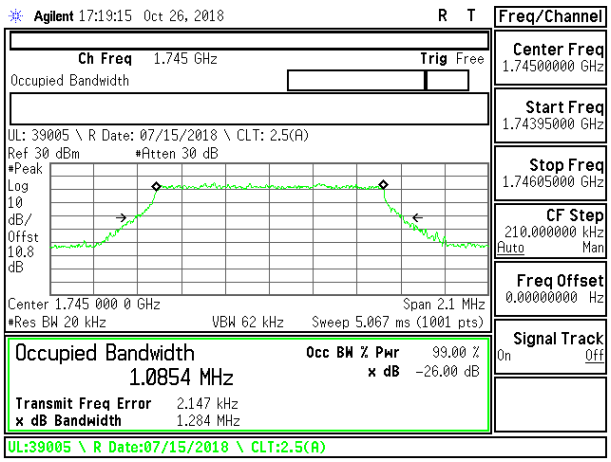
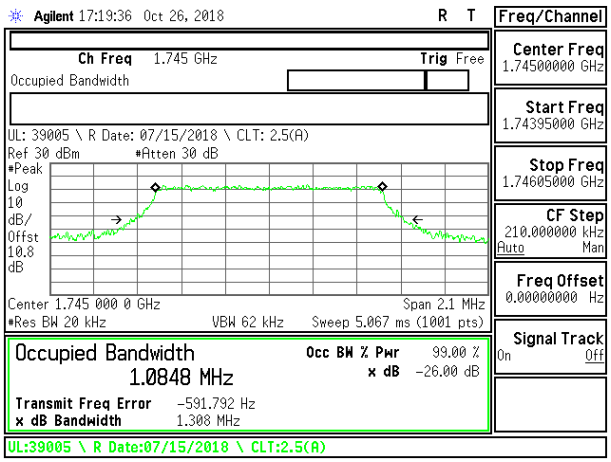
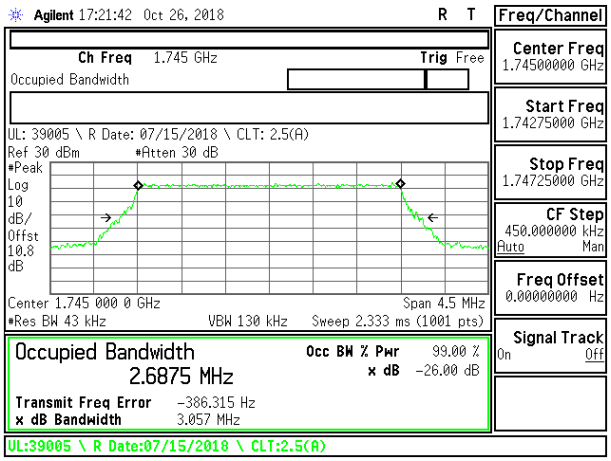
## 9.1.13. **LTE BAND 66**



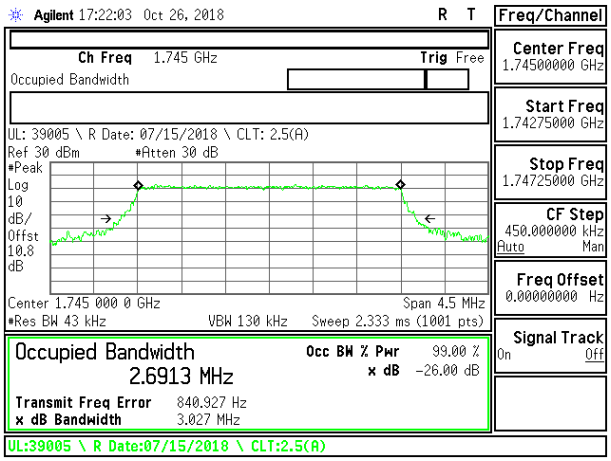

LTE B66 1.4MHz QPSK Mid Channel RB6-0



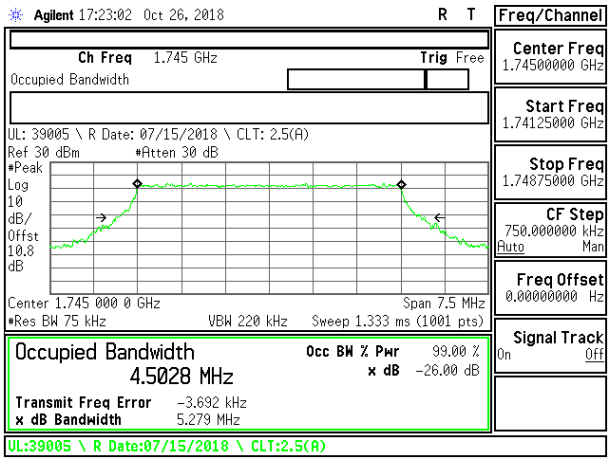

LTE B66 1.4MHz 16QAM Mid Channel RB6-0



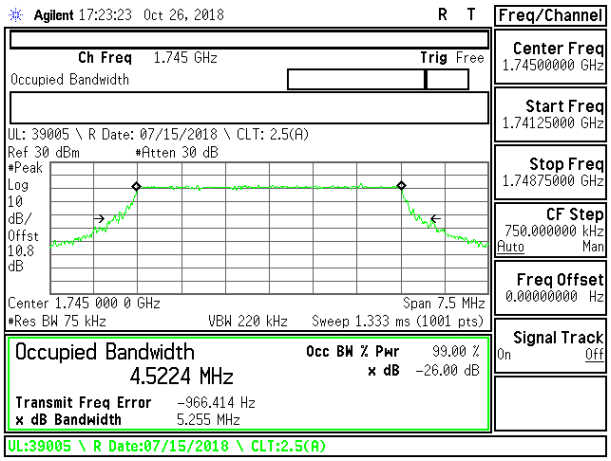

LTE B66 3MHz QPSK Mid Channel RB15-0




LTE B66 3MHz 16QAM Mid Channel RB15-0




LTE B66 5MHz QPSK Mid Channel RB25-0




LTE B66 5MHz 16QAM Mid Channel RB25-0



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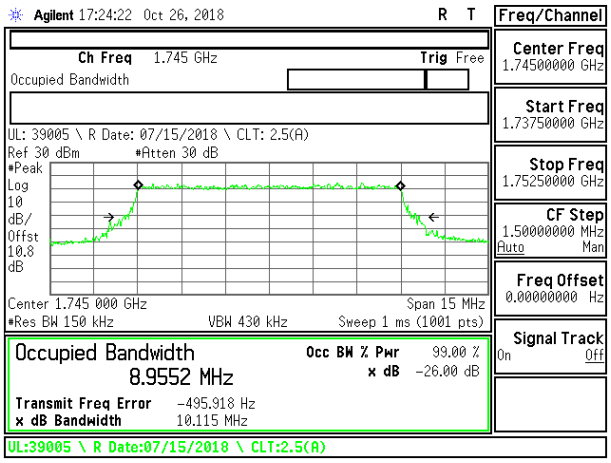
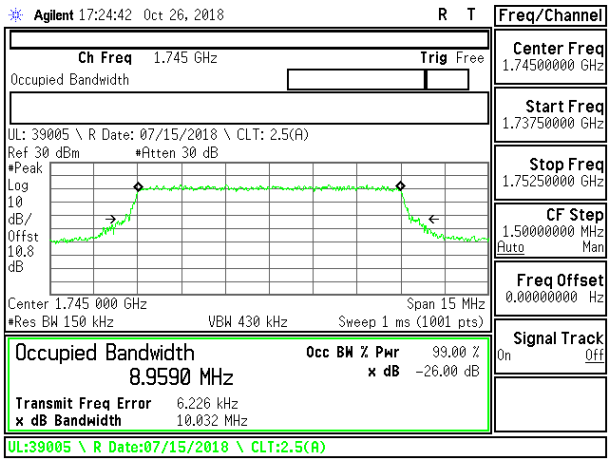
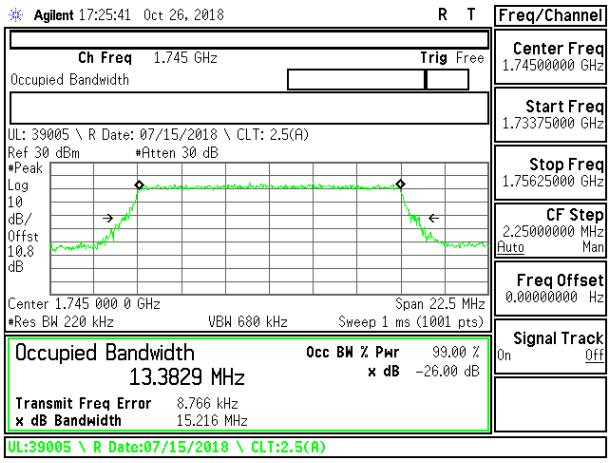


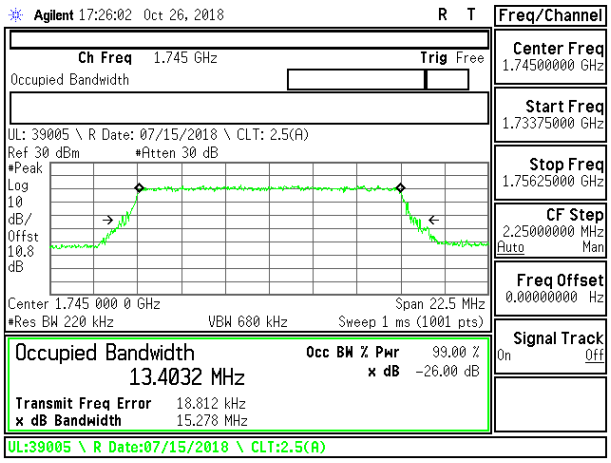

LTE B66 10MHz QPSK Mid Channel RB50-0



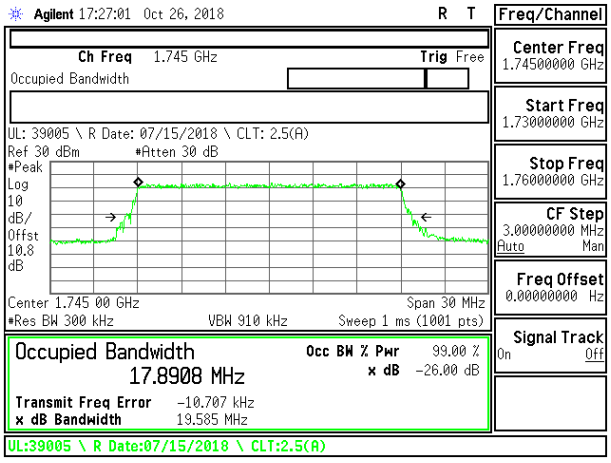

LTE B66 10MHz 16QAM Mid Channel RB50-0



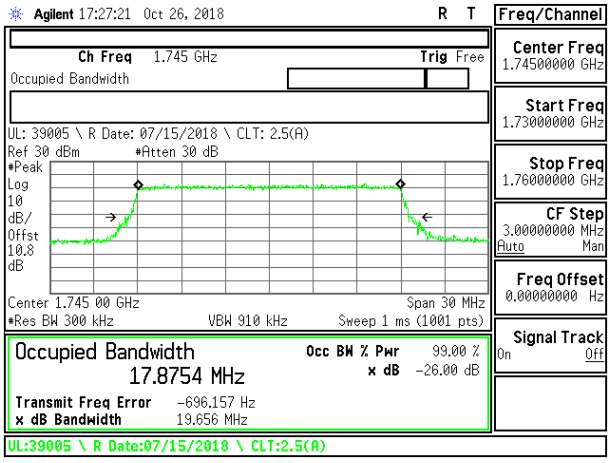

LTE B66 15MHz QPSK Mid Channel RB75-0




LTE B66 15MHz 16QAM Mid Channel RB75-0




LTE B66 20MHz QPSK Mid Channel RB100-0




LTE B66 20MHz 16QAM Mid Channel RB100-0



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## 9.2. BAND EDGE AND EMISSION MASK

**RULE PART(S)**

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

**LIMITS**

FCC: §22.917, §24.238, §27.53 (h), §90.691

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: §90.691 Emission mask requirements for EA-based systems.

(a) Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(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 Log10(f/6.1) decibels or 50 + 10 Log10(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.

(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 + 10Log10(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.

FCC: §27.53 (Band 13)

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

(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)(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)(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.

(f) Emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals. (-70 dBW/MHz = -40dBm/MHz).

FCC: §27.53 (Band 12, 17)

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or




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greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

FCC: §27.53 (Band 41)
(m)(4) For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

**TEST PROCEDURE**

The transmitter output was connected to a CMW500Test 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.
- 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**

- GSM 850
- GSM 1900
- WCDMA Band 5
- WCDMA Band 2
- WCDMA Band 4
- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 12
- LTE Band 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 41
- LTE Band 66

**RESULTS**




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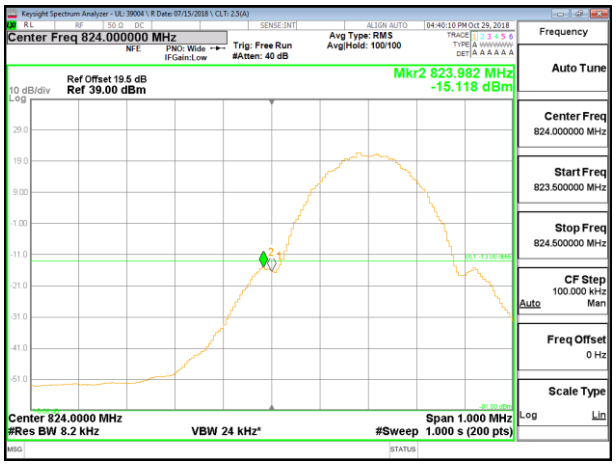
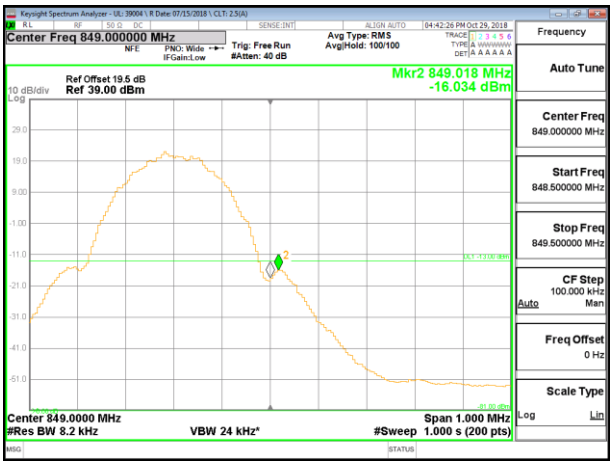
## 9.2.1. **GSM850**

### GPRS

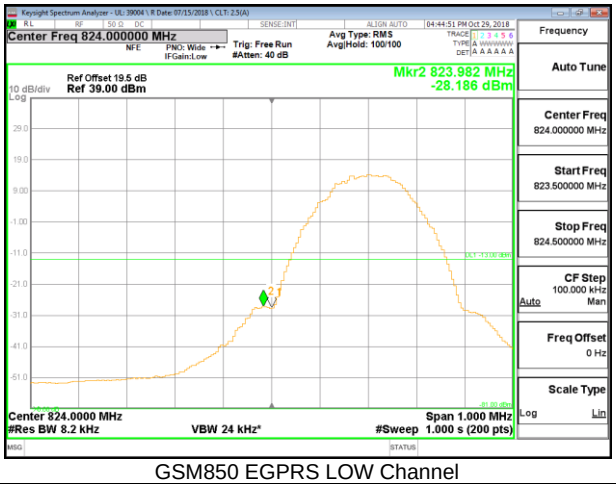



GSM850 GPRS LOW Channel

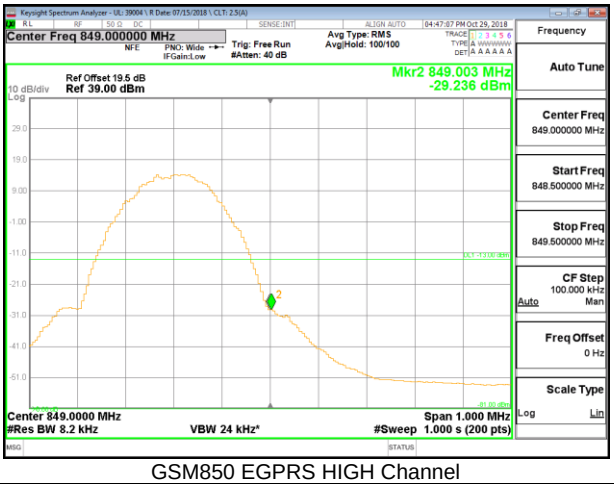



GSM850 GPRS HIGH Channel

### EGPRS




GSM850 EGPRS LOW Channel




GSM850 EGPRS HIGH Channel



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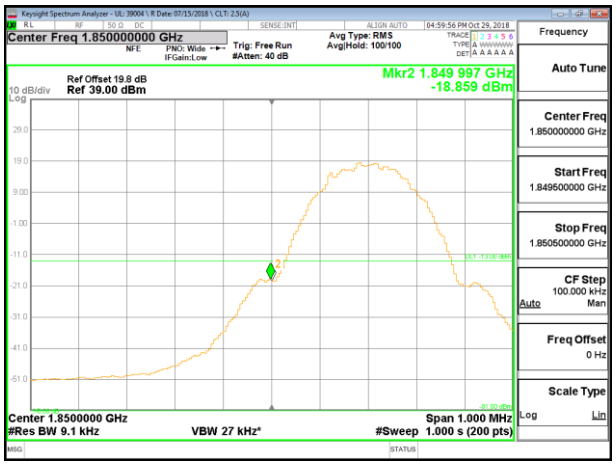
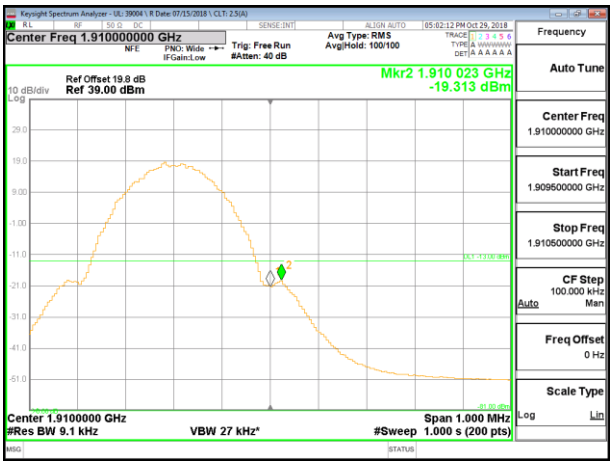
## 9.2.2. **GSM1900**

### GPRS

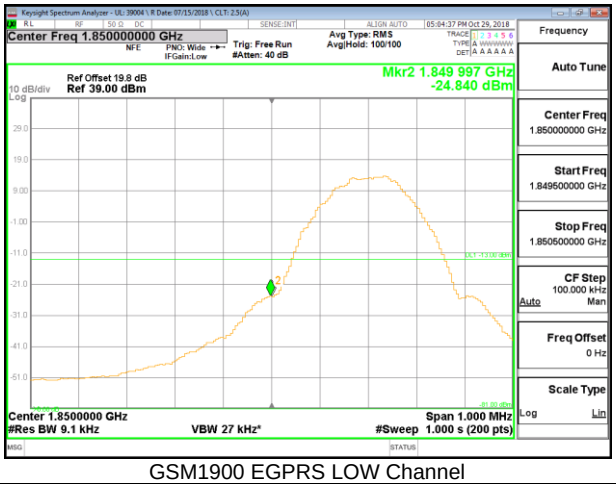



GSM1900 GPRS LOW Channel

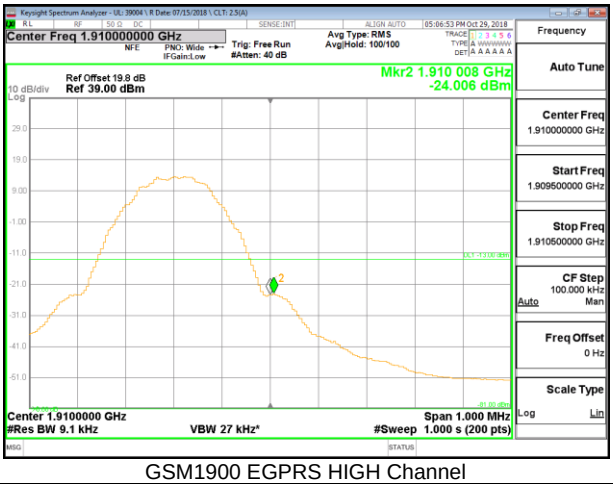



GSM1900 GPRS HIGH Channel

### EGPRS




GSM1900 EGPRS LOW Channel




GSM1900 EGPRS HIGH Channel



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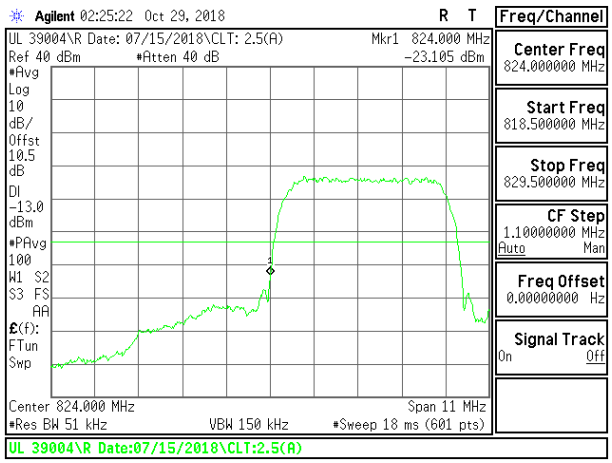
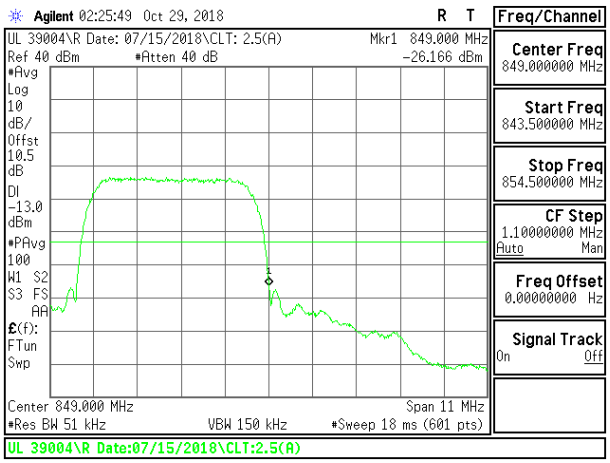
## 9.2.3. **WCDMA BAND5**

### Rel99

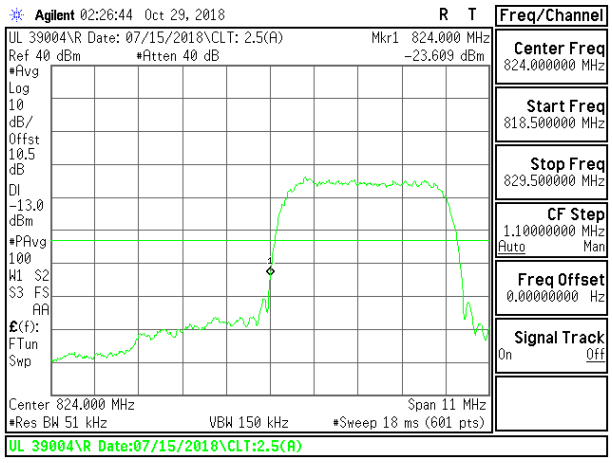


BAND5 Rel99 LOW Channel

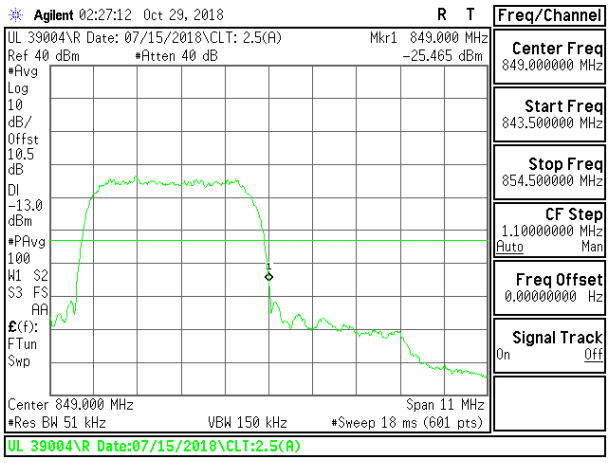


BAND5 Rel99 HIGH Channel

### HSDPA



BAND5 HSDPA LOW Channel



BAND5 HSDPA HIGH Channel



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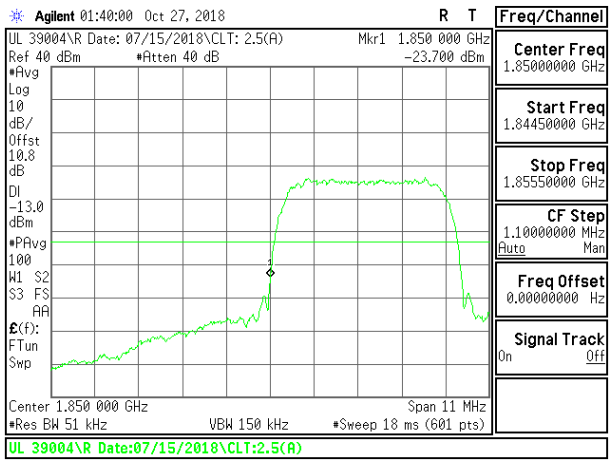
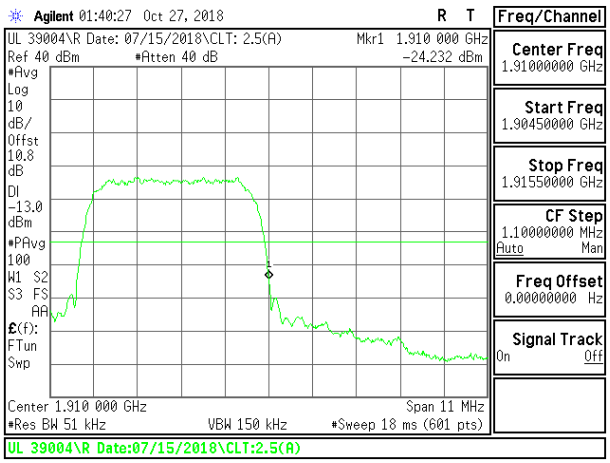
## 9.2.4. **WCDMA BAND2**

### Rel99

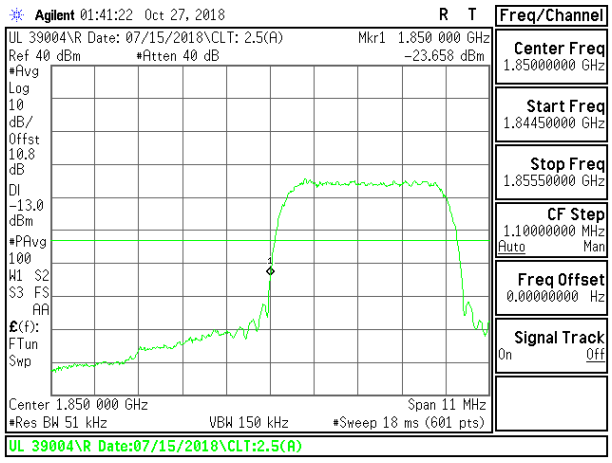


BAND2 Rel99 LOW Channel

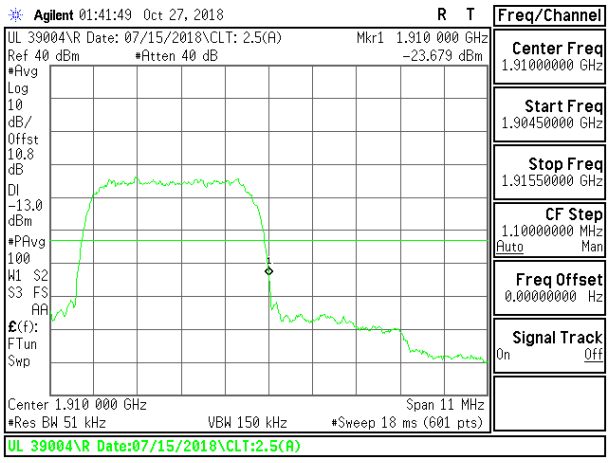


BAND2 Rel99 HIGH Channel

### HSDPA



BAND2 HSDPA LOW Channel



BAND2 HSDPA HIGH Channel



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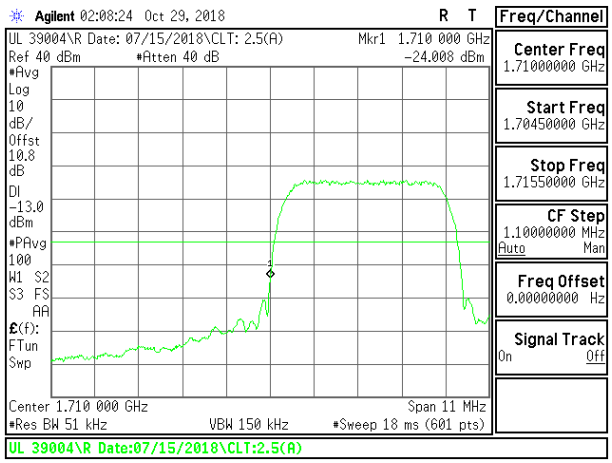
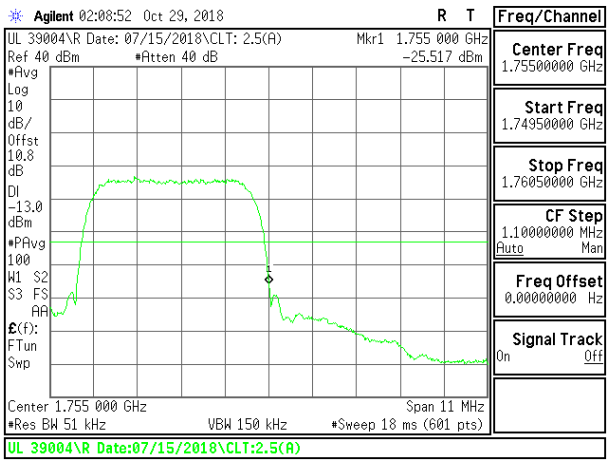
## 9.2.5. **WCDMA BAND4**

### Rel99

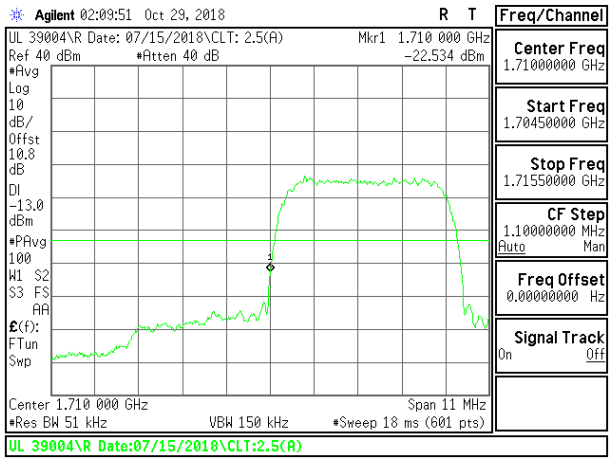



BAND4 Rel99 LOW Channel




BAND4 Rel99 HIGH Channel

### HSDPA

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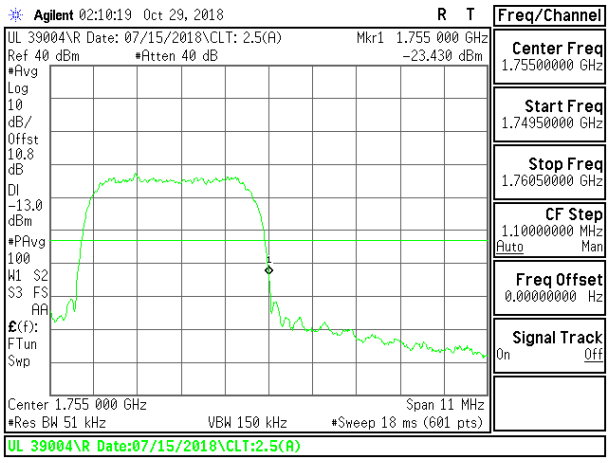


BAND4 HSDPA HIGH Channel



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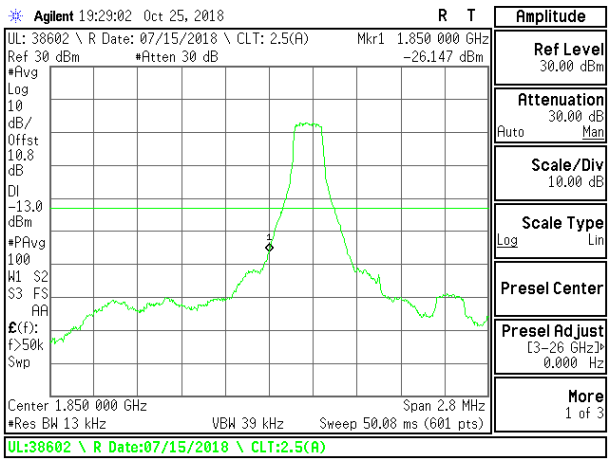
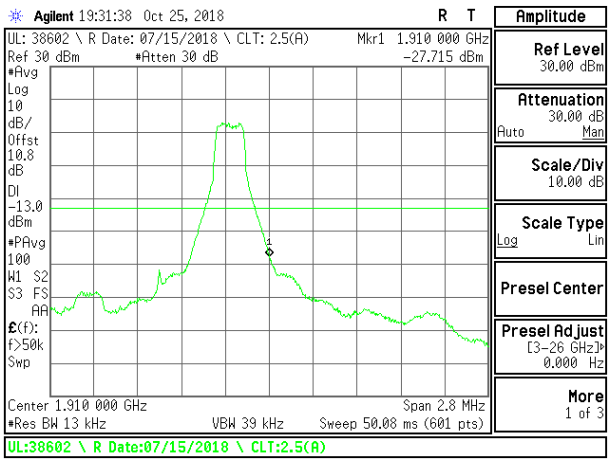
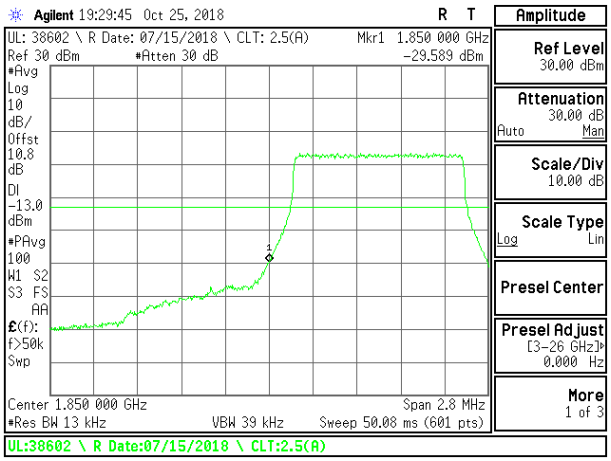
## 9.2.6. **LTE BAND 2 BANDEDGE**



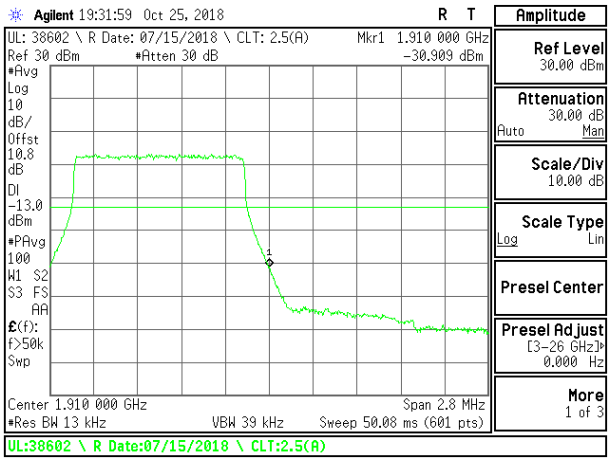

LTE B2 1.4MHz QPSK Low Channel RB1-0




LTE B2 1.4MHz QPSK High Channel RB1-5




LTE B2 1.4MHz QPSK Low Channel RB6-0




LTE B2 1.4MHz QPSK High Channel RB6-0



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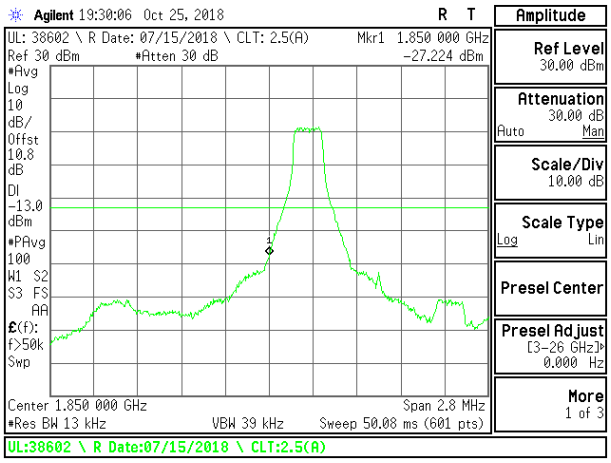
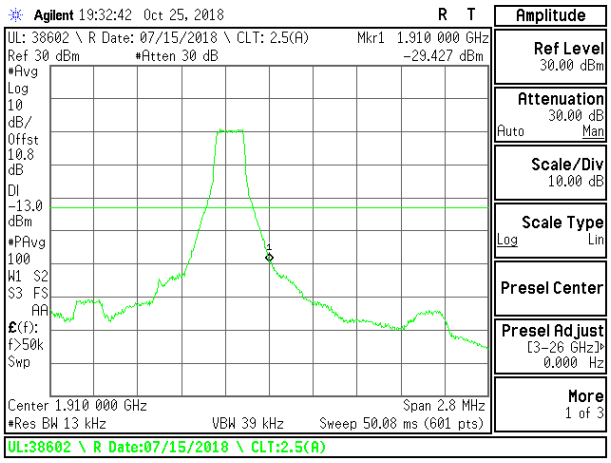
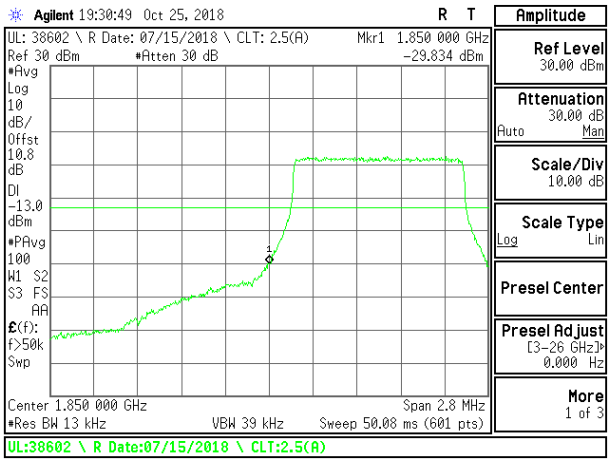


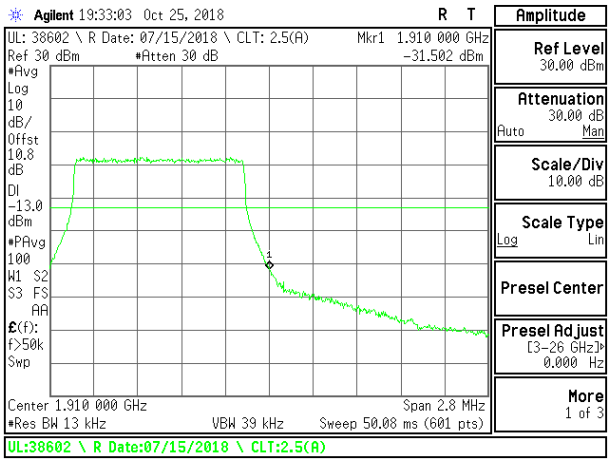

LTE B2 1.4MHz 16QAM Low Channel RB1-0




LTE B2 1.4MHz 16QAM High Channel RB1-5




LTE B2 1.4MHz 16QAM Low Channel RB6-0




LTE B2 1.4MHz 16QAM High Channel RB6-0



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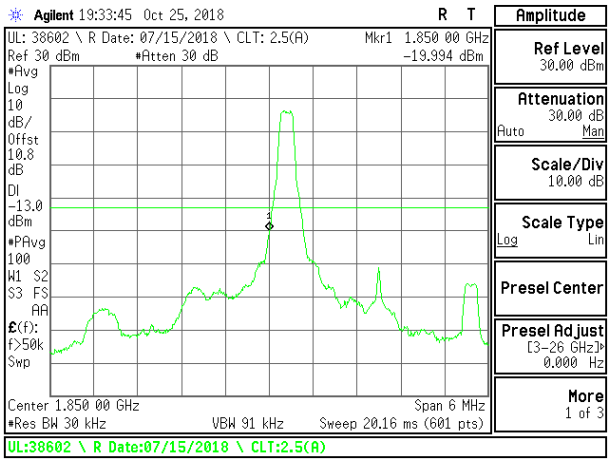
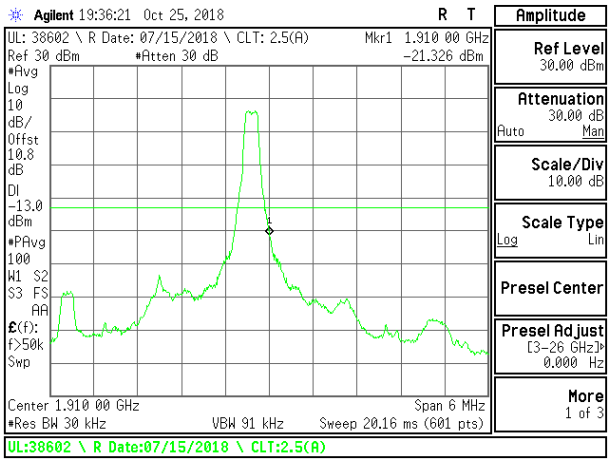
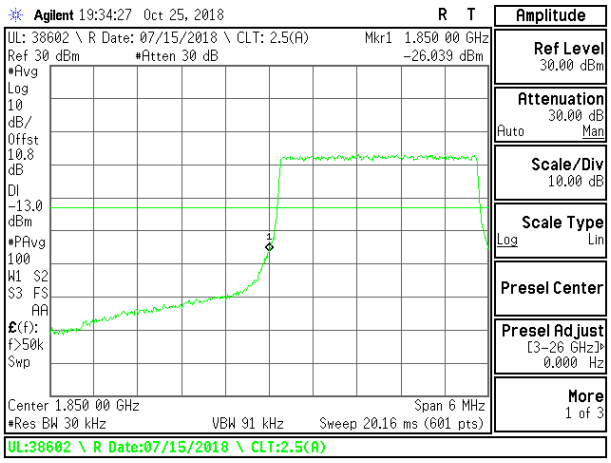


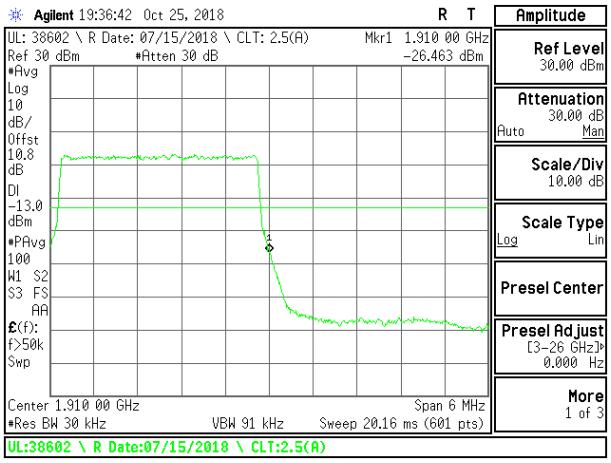

LTE B2 3MHz QPSK Low Channel RB1-0




LTE B2 3MHz QPSK High Channel RB1-14




LTE B2 3MHz QPSK Low Channel RB15-0




LTE B2 3MHz QPSK High Channel RB15-0



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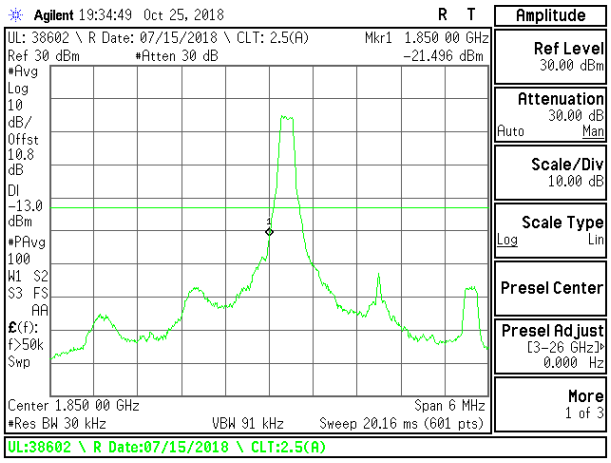
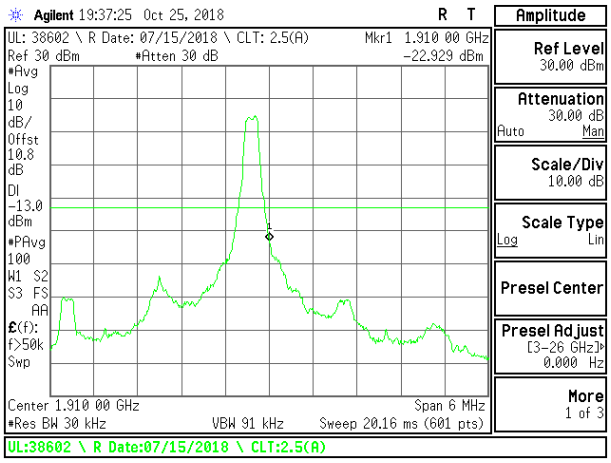
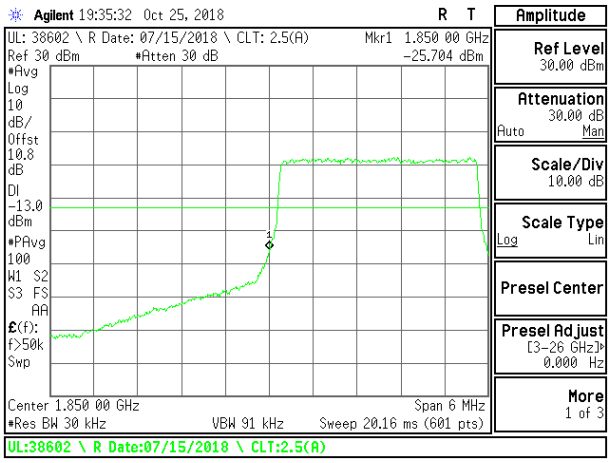


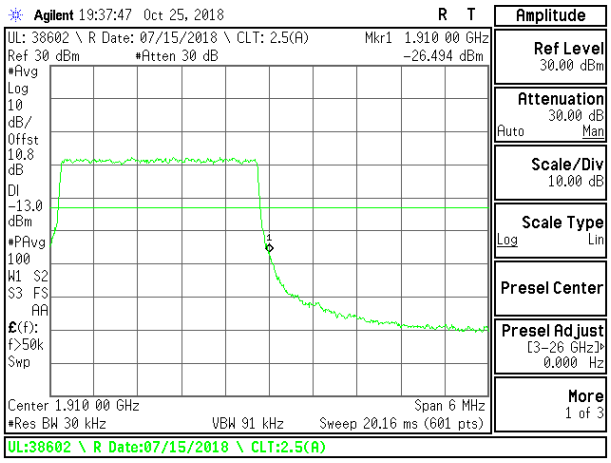

LTE B2 3MHz 16QAM Low Channel RB1-0




LTE B2 3MHz 16QAM High Channel RB1-14




LTE B2 3MHz 16QAM Low Channel RB15-0




LTE B2 3MHz 16QAM High Channel RB15-0



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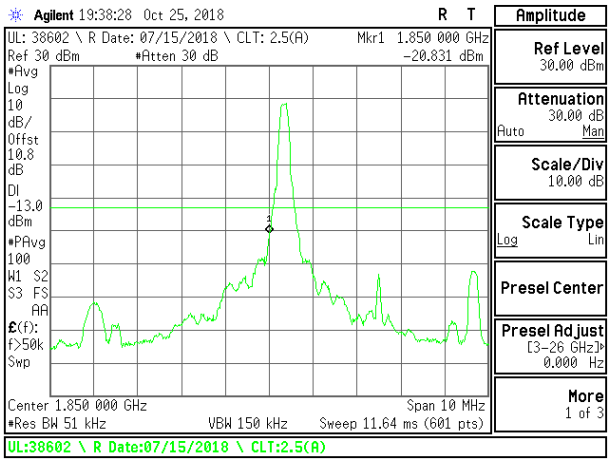
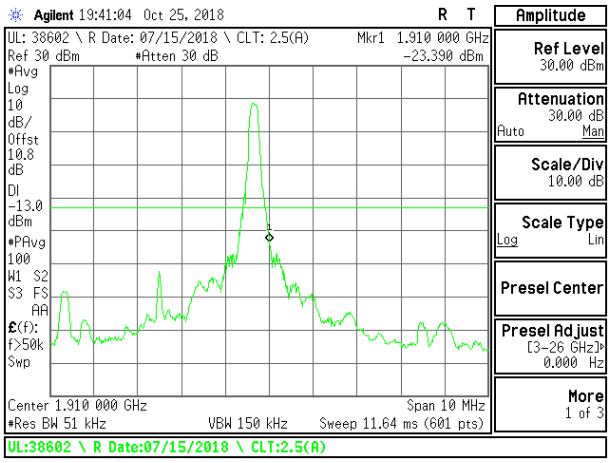
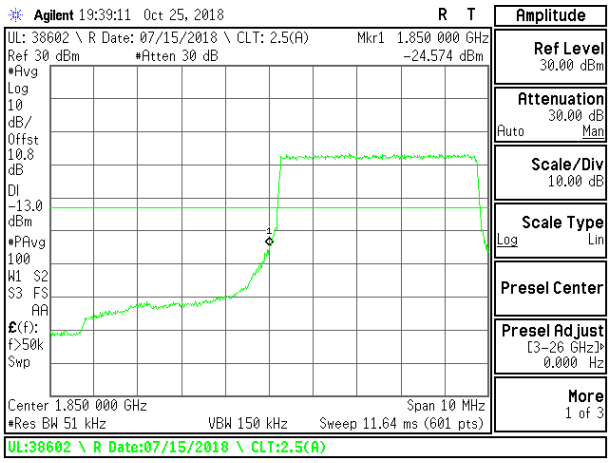


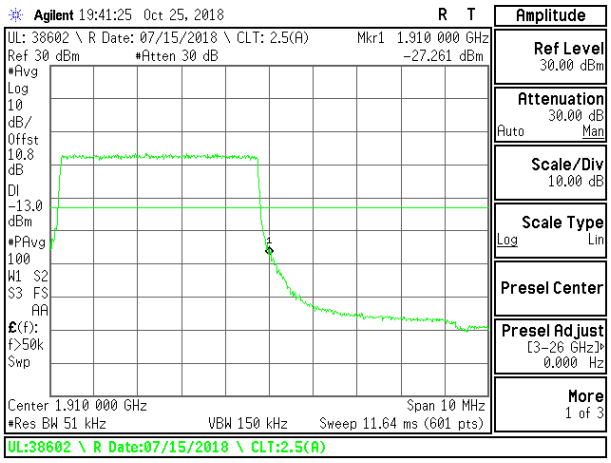

LTE B2 5MHz QPSK Low Channel RB1-0




LTE B2 5MHz QPSK High Channel RB1-24




LTE B2 5MHz QPSK Low Channel RB25-0




LTE B2 5MHz QPSK High Channel RB25-0



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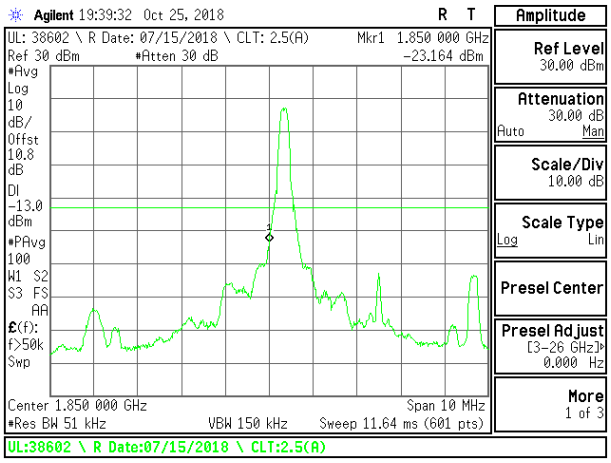
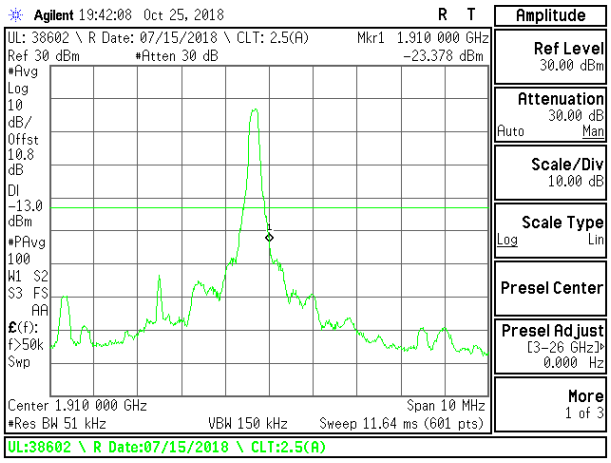
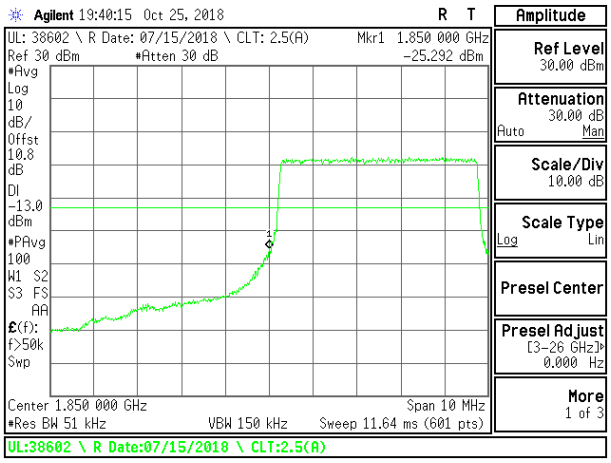


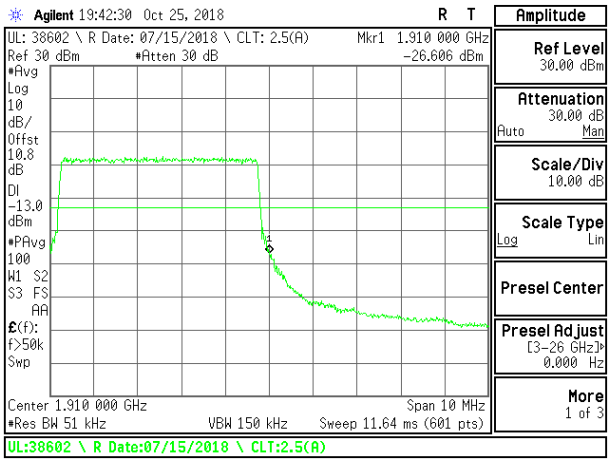

LTE B2 5MHz 16QAM Low Channel RB1-0




LTE B2 5MHz 16QAM High Channel RB1-24




LTE B2 5MHz 16QAM Low Channel RB25-0




LTE B2 5MHz 16QAM High Channel RB25-0



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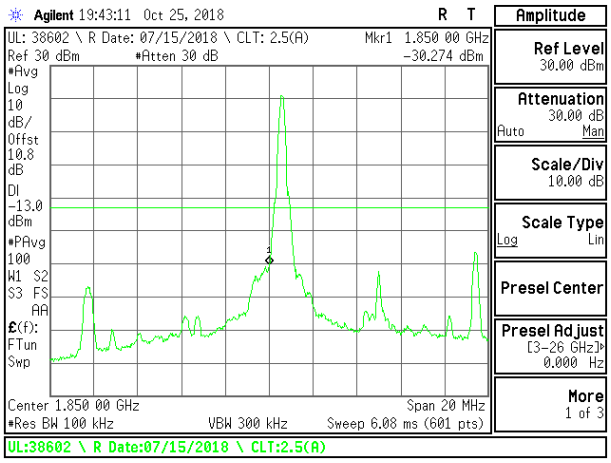
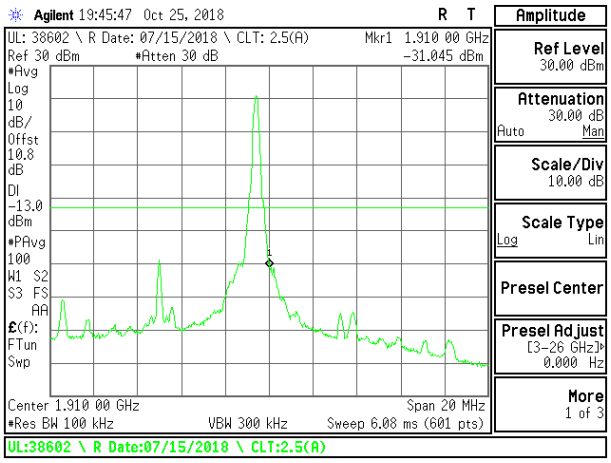
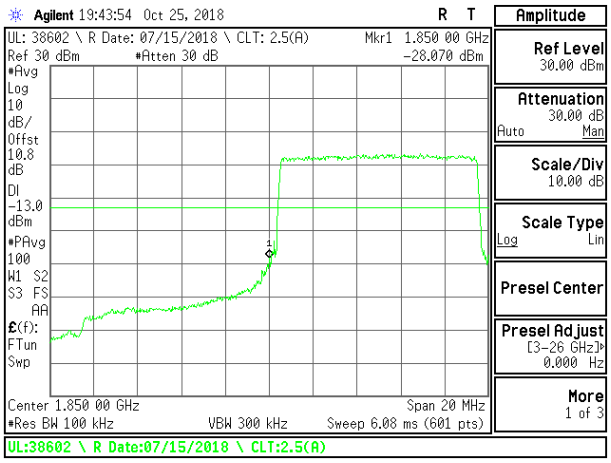


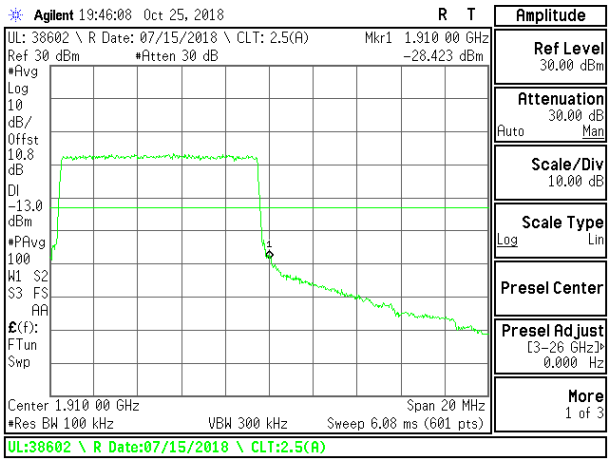

LTE B2 10MHz QPSK Low Channel RB1-0




LTE B2 10MHz QPSK High Channel RB1-49




LTE B2 10MHz QPSK Low Channel RB50-0




LTE B2 10MHz QPSK High Channel RB50-0



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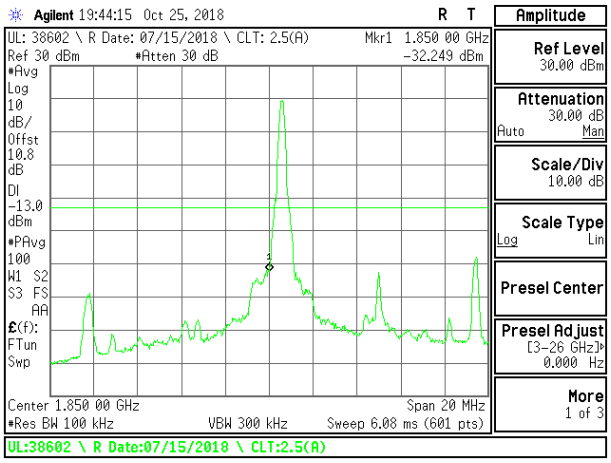
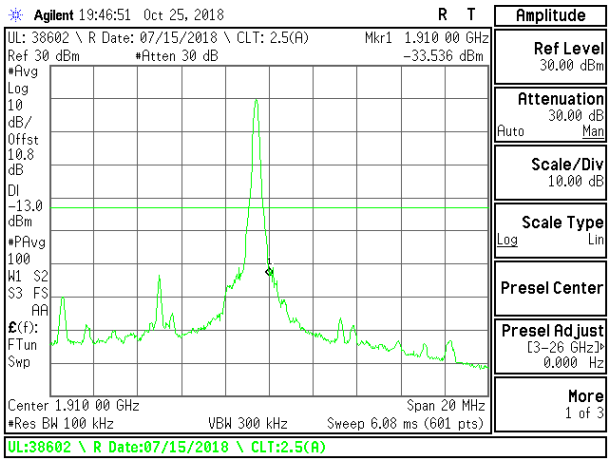
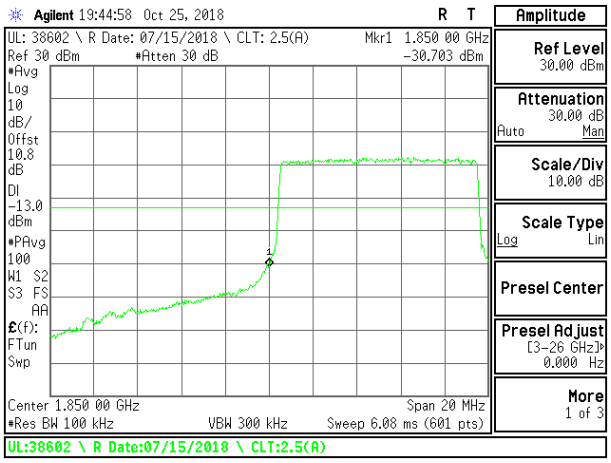


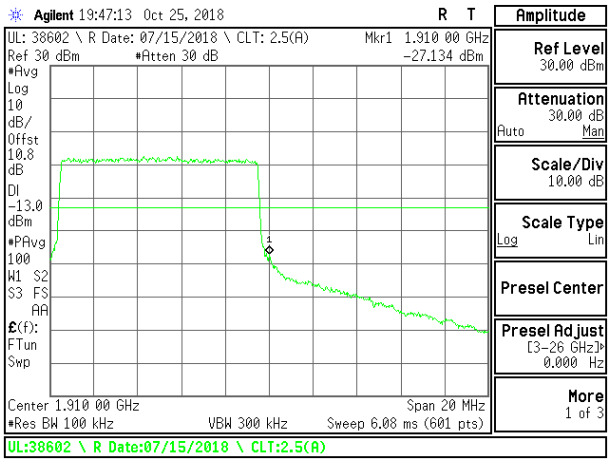

LTE B2 10MHz 16QAM Low Channel RB1-0




LTE B2 10MHz 16QAM High Channel RB1-49




LTE B2 10MHz 16QAM Low Channel RB50-0




LTE B2 10MHz 16QAM High Channel RB50-0



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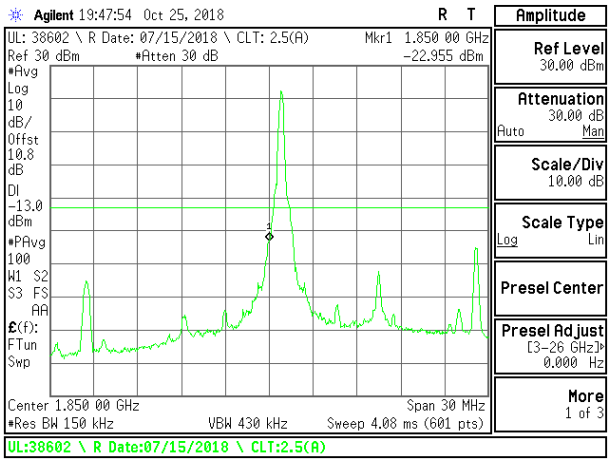
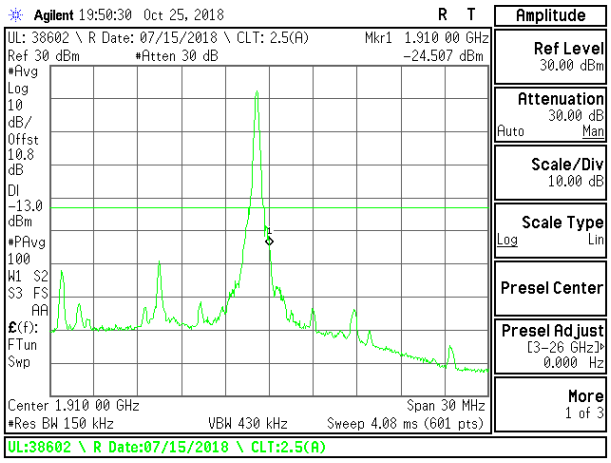
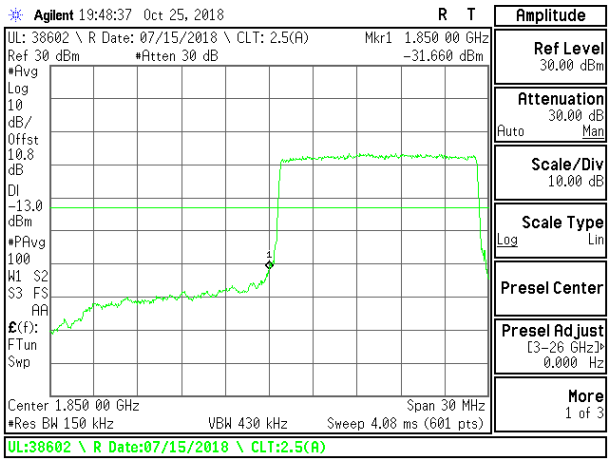


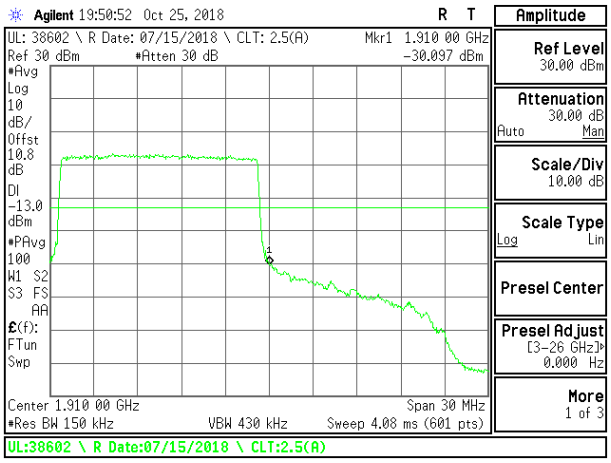

LTE B2 15MHz QPSK Low Channel RB1-0




LTE B2 15MHz QPSK High Channel RB1-74




LTE B2 15MHz QPSK Low Channel RB75-0




LTE B2 15MHz QPSK High Channel RB75-0



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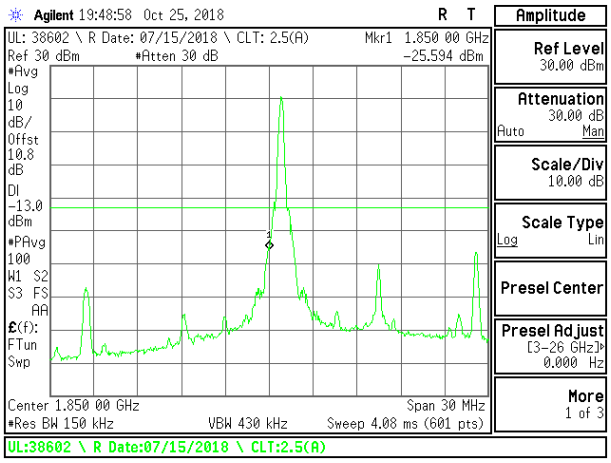
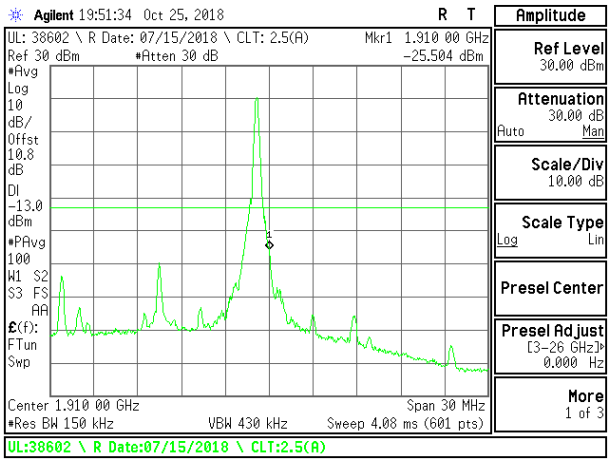
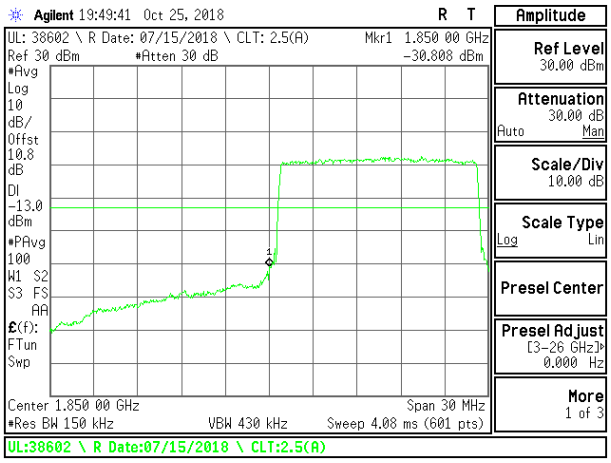


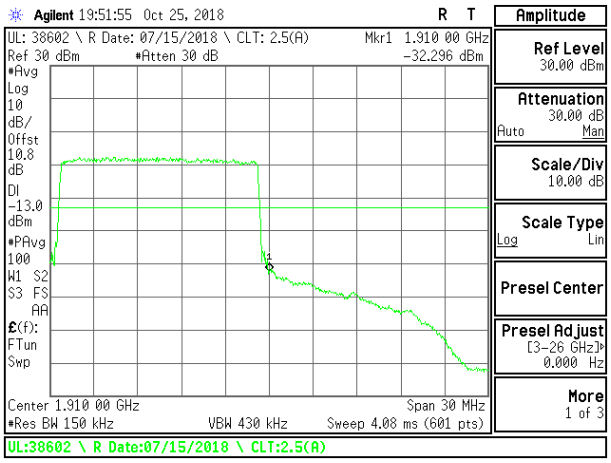

LTE B2 15MHz 16QAM Low Channel RB1-0




LTE B2 15MHz 16QAM High Channel RB1-74




LTE B2 15MHz 16QAM Low Channel RB75-0




LTE B2 15MHz 16QAM High Channel RB75-0



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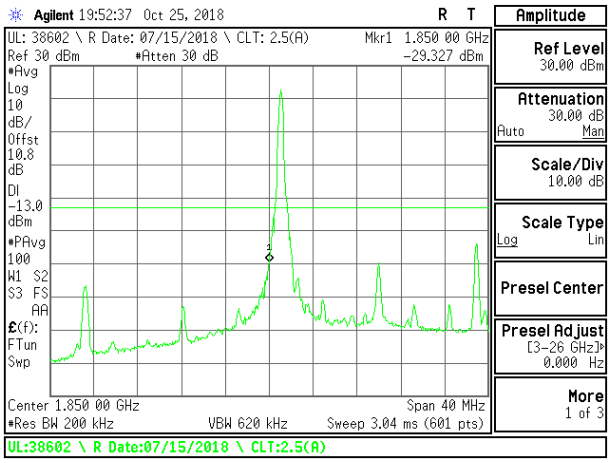
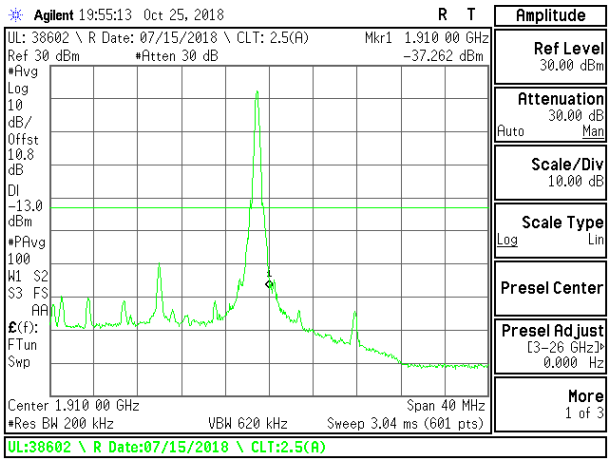
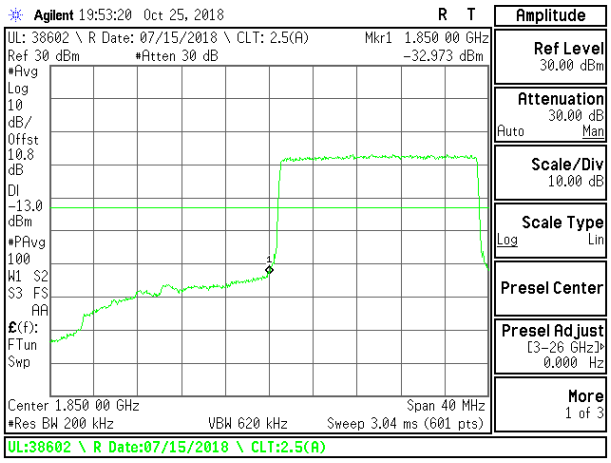


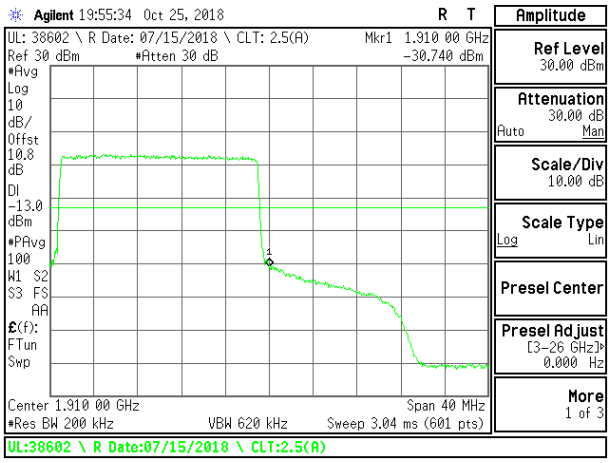

LTE B2 20MHz QPSK Low Channel RB1-0




LTE B2 20MHz QPSK High Channel RB1-99




LTE B2 20MHz QPSK Low Channel RB100-0




LTE B2 20MHz QPSK High Channel RB100-0



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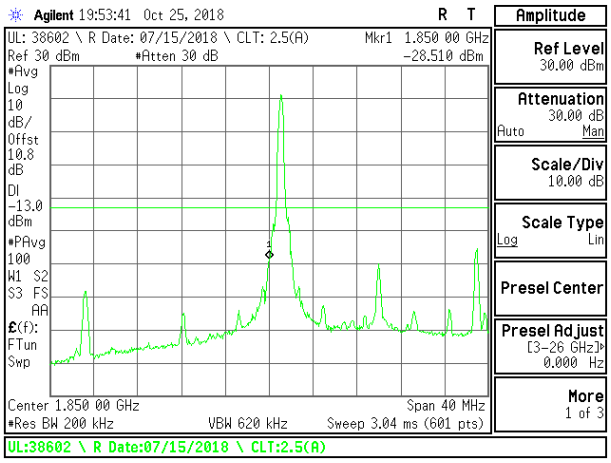
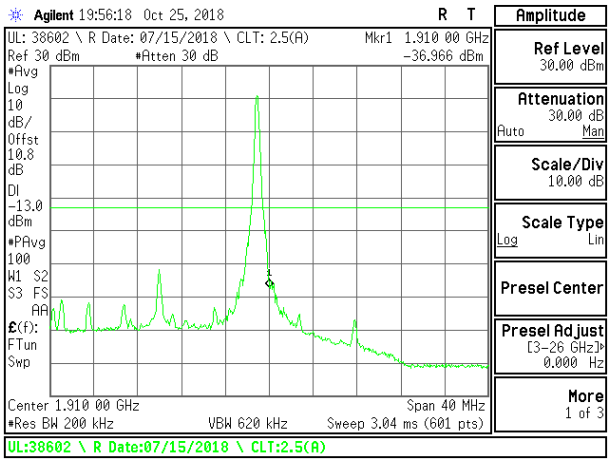
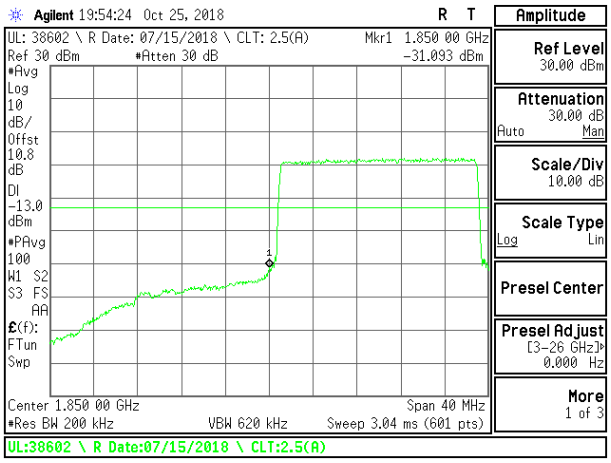


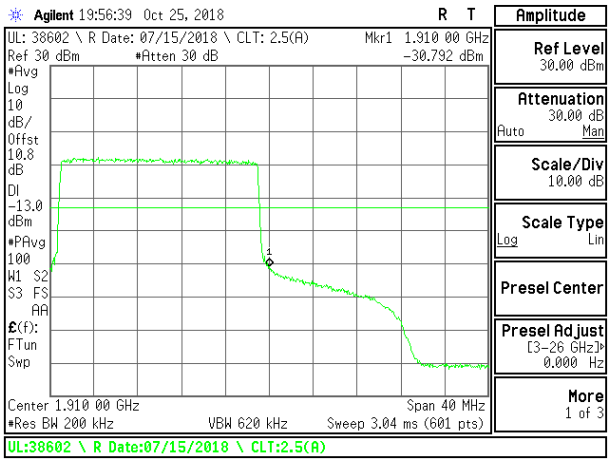

LTE B2 20MHz 16QAM Low Channel RB1-0




LTE B2 20MHz 16QAM High Channel RB1-99




LTE B2 20MHz 16QAM Low Channel RB100-0




LTE B2 20MHz 16QAM High Channel RB100-0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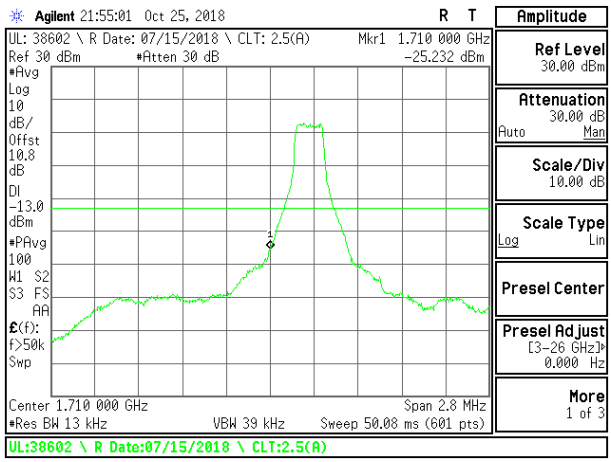
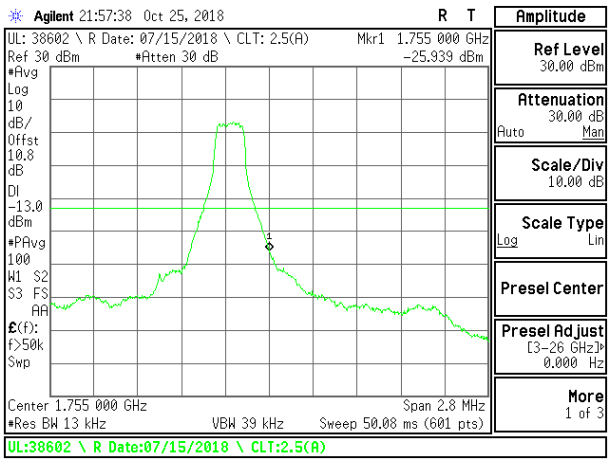
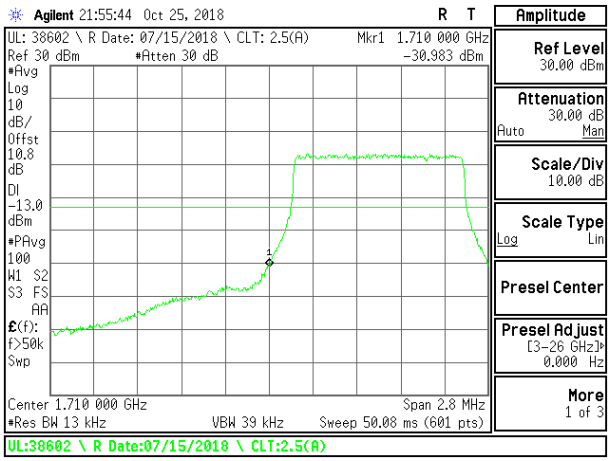
## 9.2.7. **LTE BAND 4 BANDEDGE**



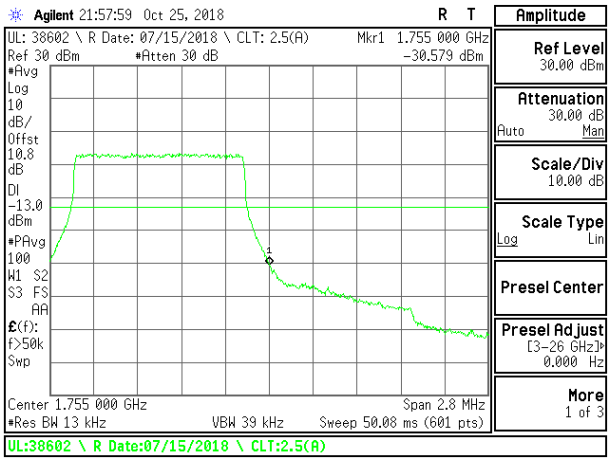

LTE B4 1.4MHz QPSK Low Channel RB1-0




LTE B4 1.4MHz QPSK High Channel RB1-5




LTE B4 1.4MHz QPSK Low Channel RB6-0




LTE B4 1.4MHz QPSK High Channel RB6-0



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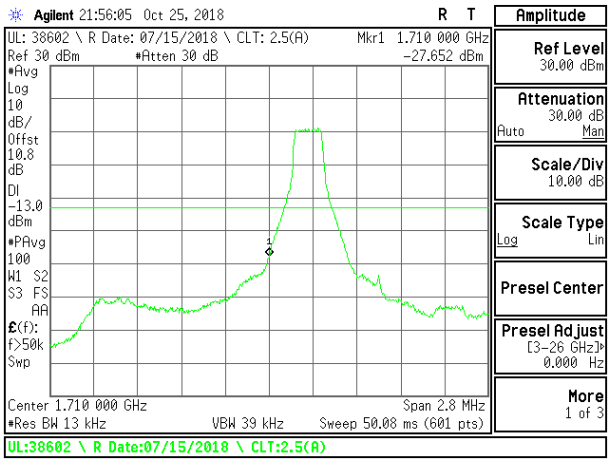
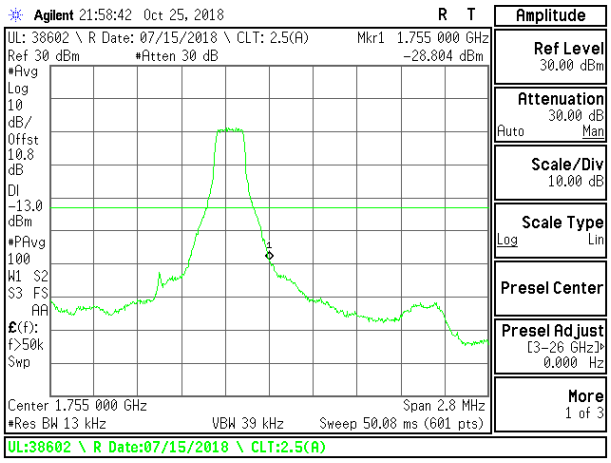
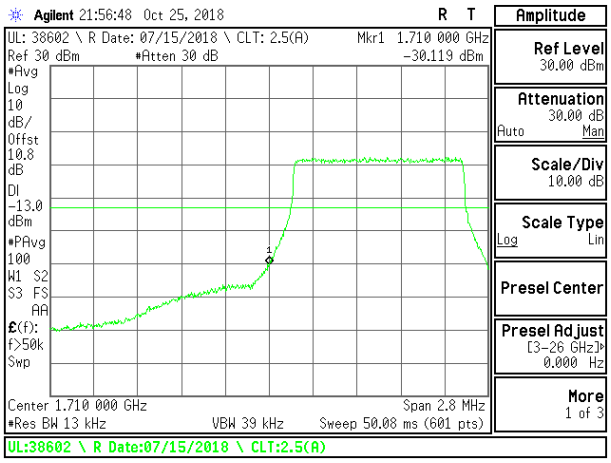


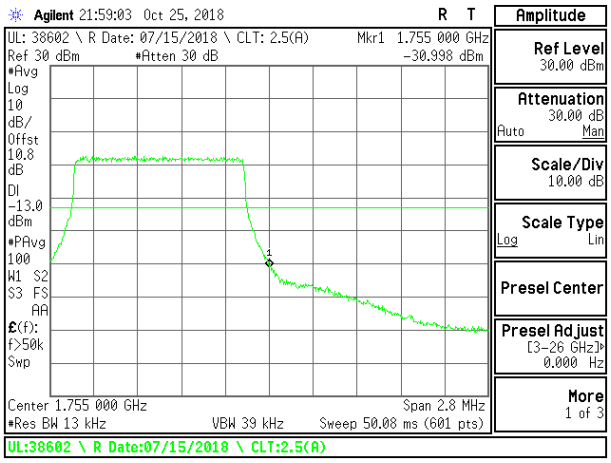

LTE B4 1.4MHz 16QAM Low Channel RB1-0




LTE B4 1.4MHz 16QAM High Channel RB1-5




LTE B4 1.4MHz 16QAM Low Channel RB6-0




LTE B4 1.4MHz 16QAM High Channel RB6-0



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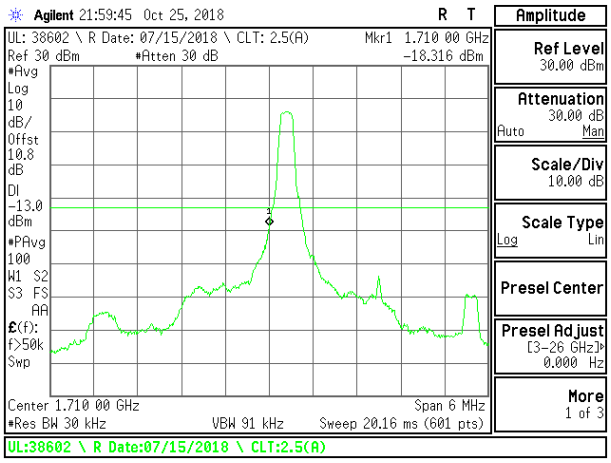
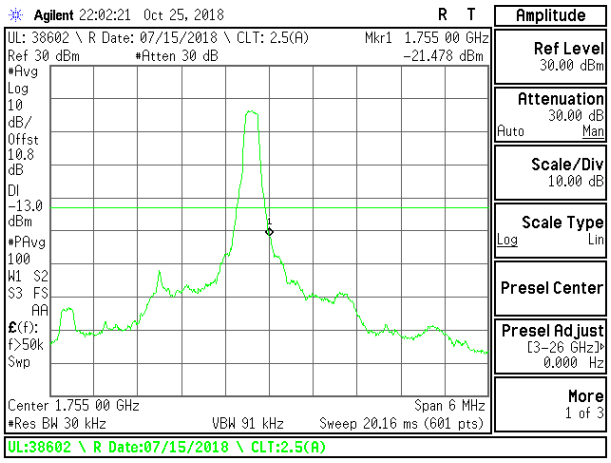
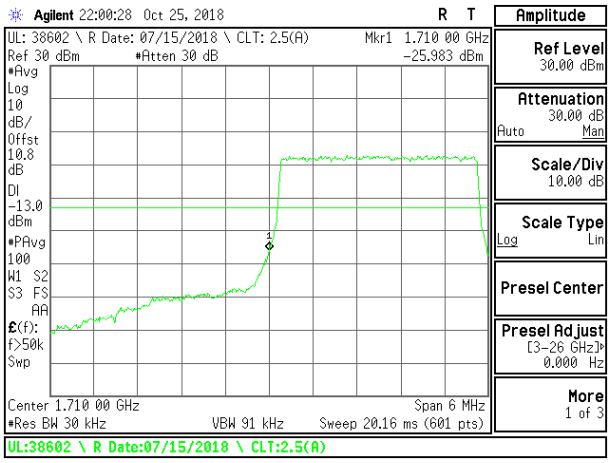


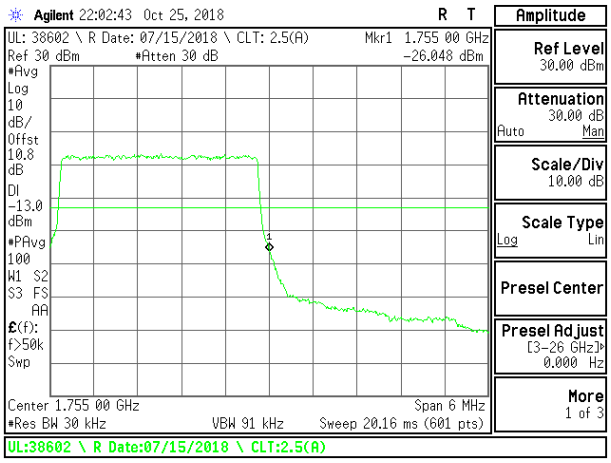

LTE B4 3MHz QPSK Low Channel RB1-0




LTE B4 3MHz QPSK High Channel RB1-14




LTE B4 3MHz QPSK Low Channel RB15-0




LTE B4 3MHz QPSK High Channel RB15-0



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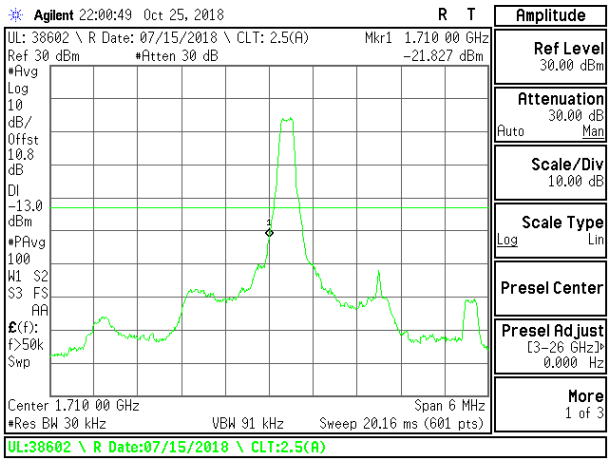
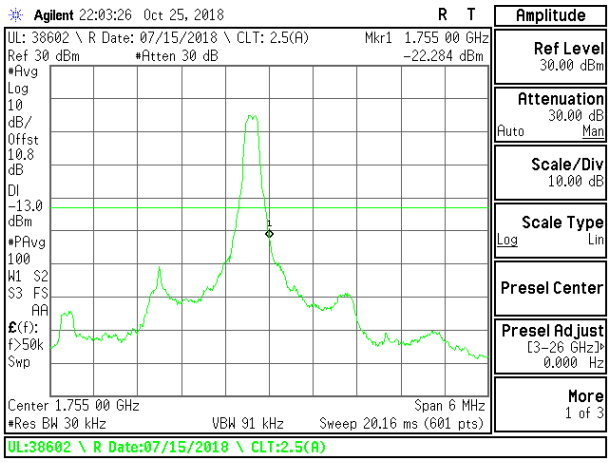
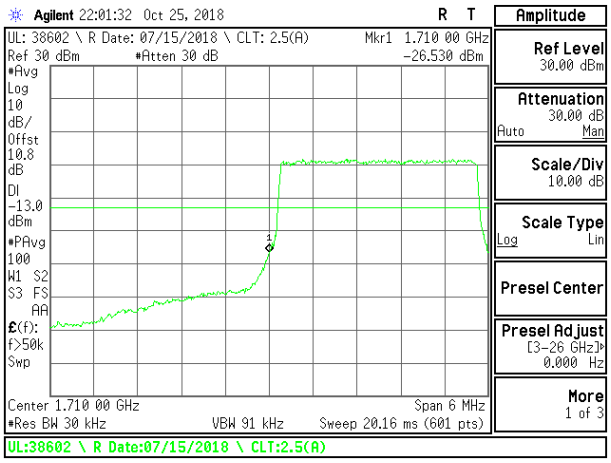


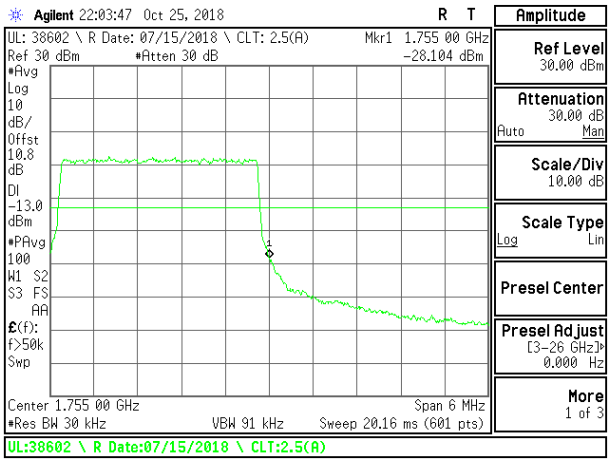

LTE B4 3MHz 16QAM Low Channel RB1-0




LTE B4 3MHz 16QAM High Channel RB1-14




LTE B4 3MHz 16QAM Low Channel RB15-0




LTE B4 3MHz 16QAM High Channel RB15-0



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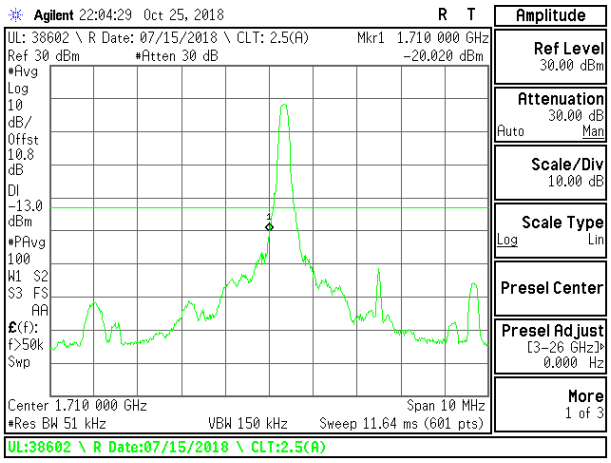
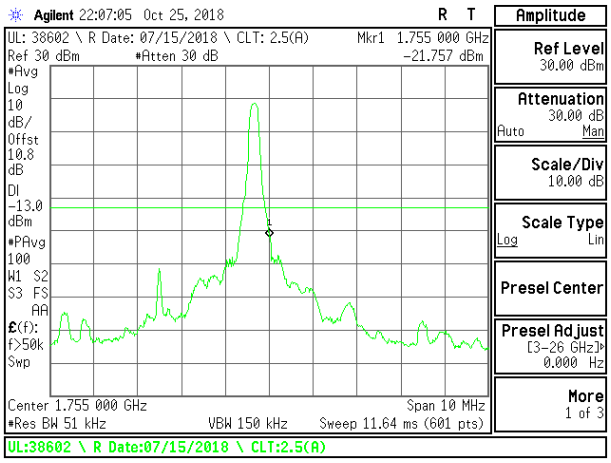
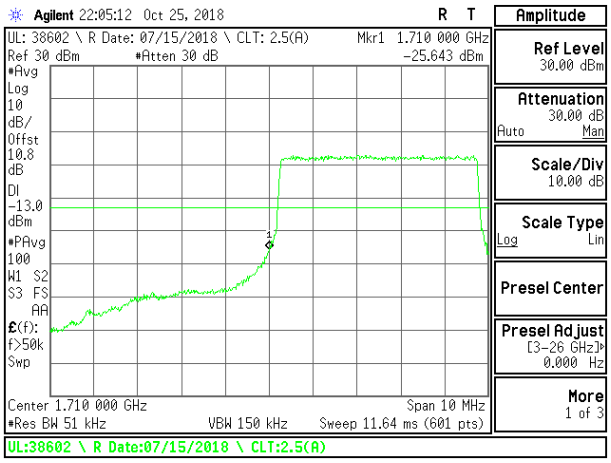


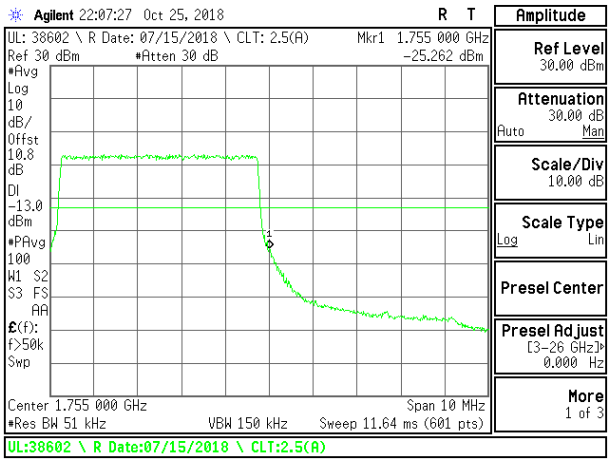

LTE B4 5MHz QPSK Low Channel RB1-0




LTE B4 5MHz QPSK High Channel RB1-24




LTE B4 5MHz QPSK Low Channel RB25-0




LTE B4 5MHz QPSK High Channel RB25-0



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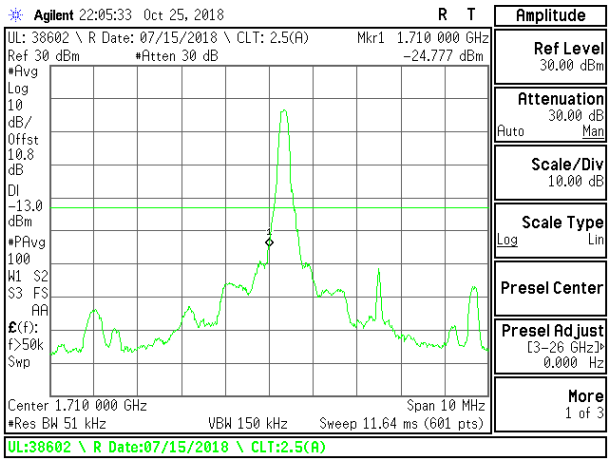
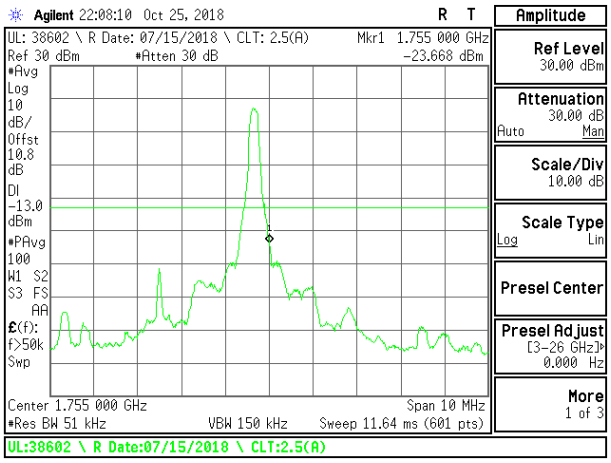
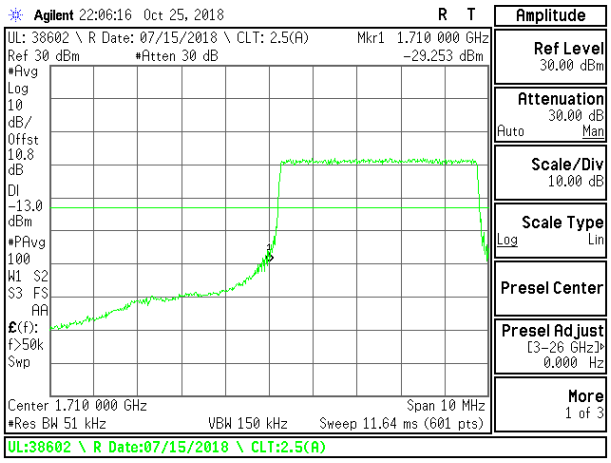


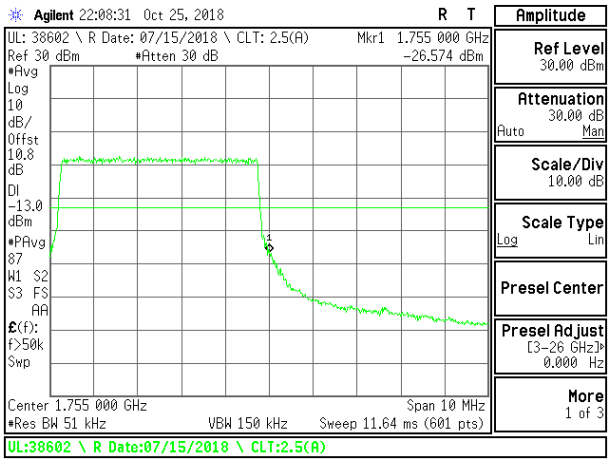

LTE B4 5MHz 16QAM Low Channel RB1-0




LTE B4 5MHz 16QAM High Channel RB1-24




LTE B4 5MHz 16QAM Low Channel RB25-0




LTE B4 5MHz 16QAM High Channel RB25-0



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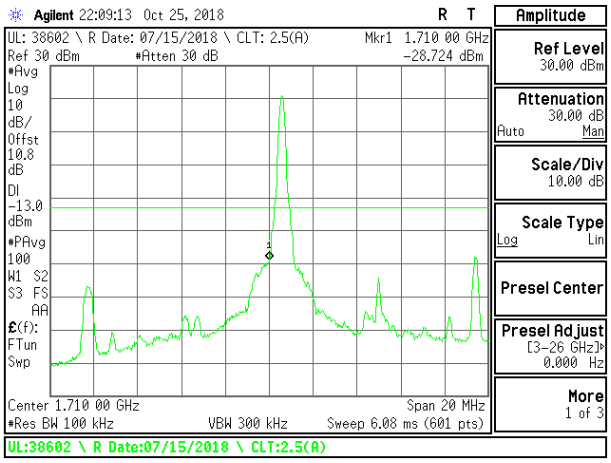
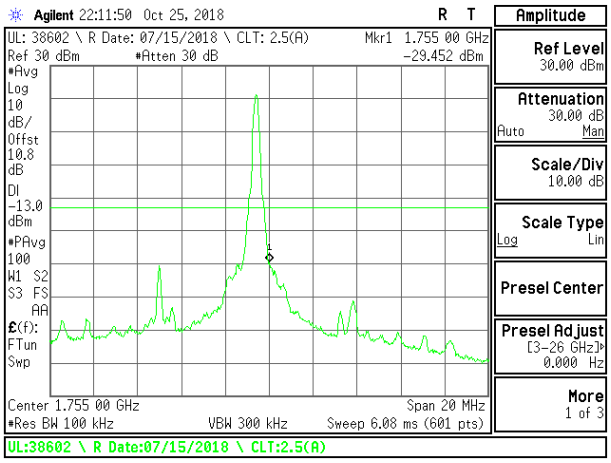
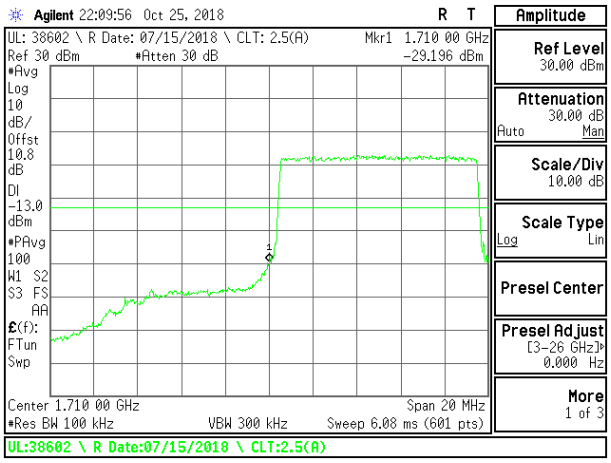


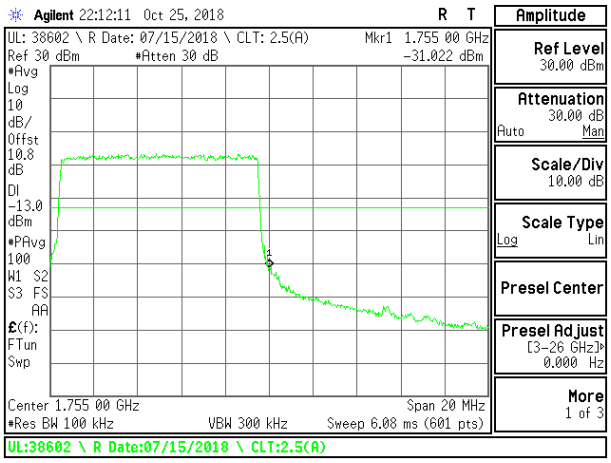

LTE B4 10MHz QPSK Low Channel RB1-0




LTE B4 10MHz QPSK High Channel RB1-49




LTE B4 10MHz QPSK Low Channel RB50-0




LTE B4 10MHz QPSK High Channel RB50-0



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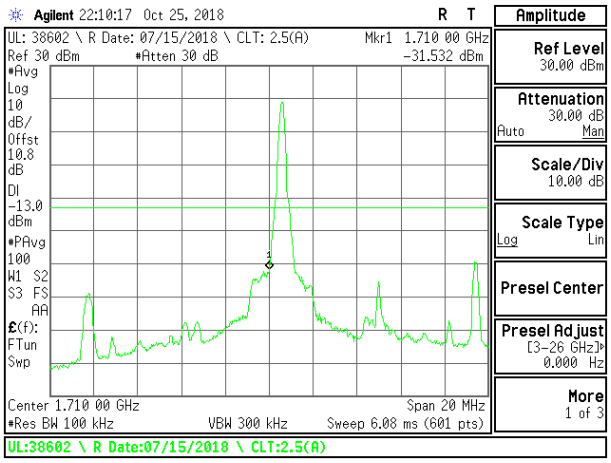
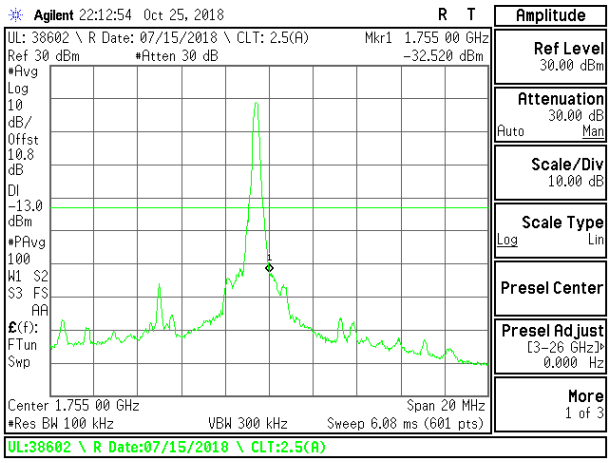
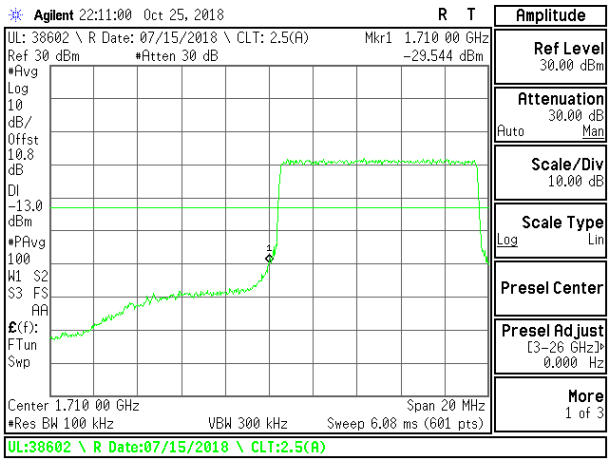


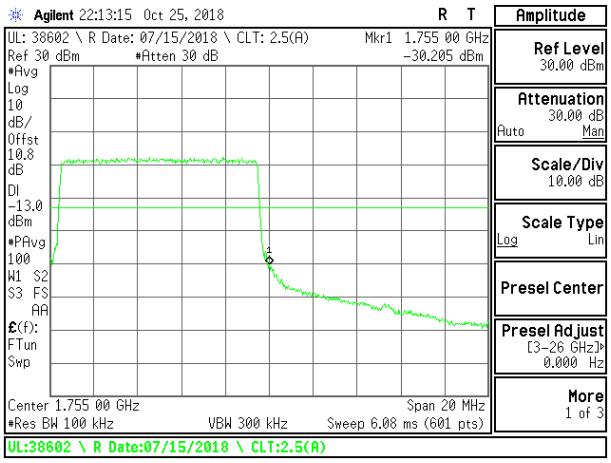

LTE B4 10MHz 16QAM Low Channel RB1-0




LTE B4 10MHz 16QAM High Channel RB1-49




LTE B4 10MHz 16QAM Low Channel RB50-0




LTE B4 10MHz 16QAM High Channel RB50-0



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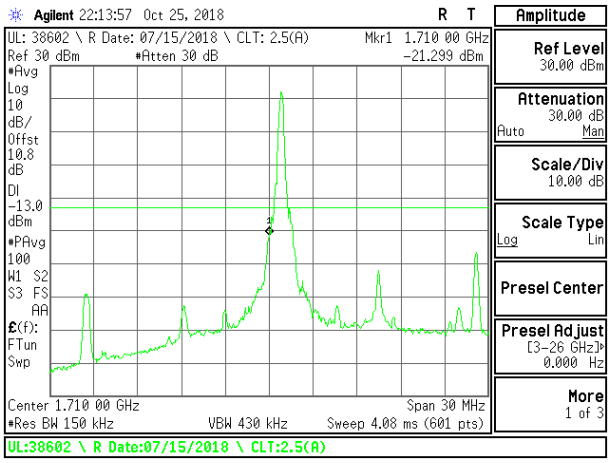
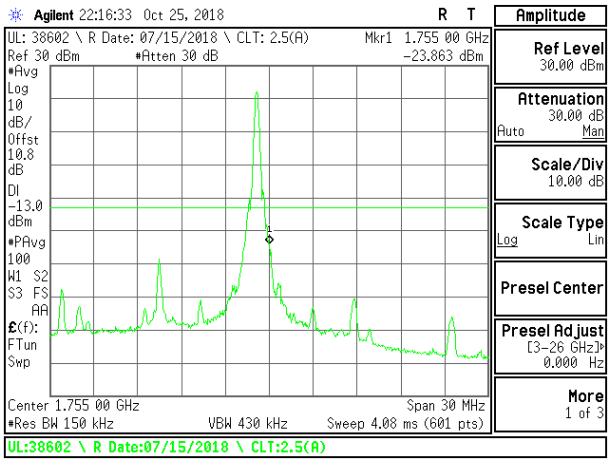
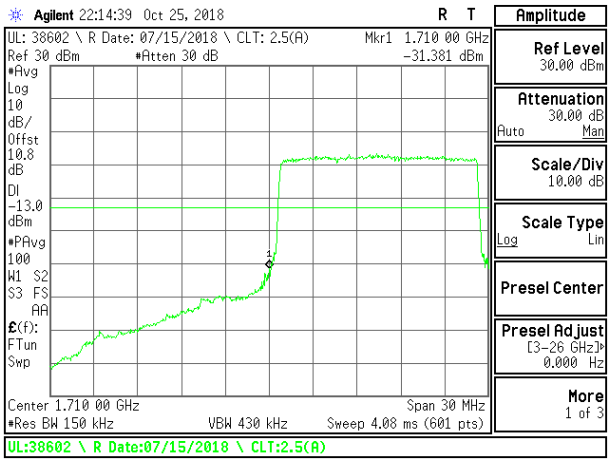


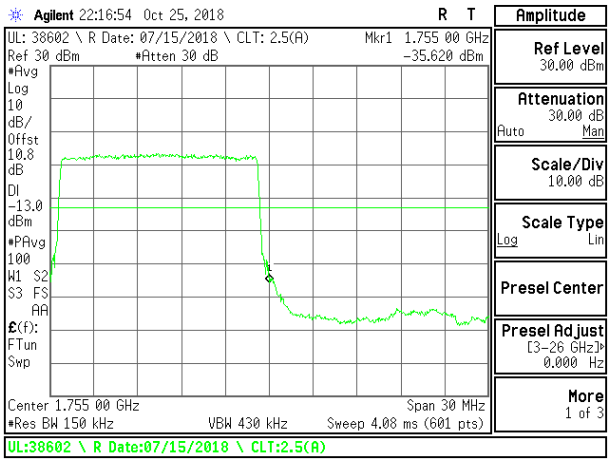

LTE B4 15MHz QPSK Low Channel RB1-0




LTE B4 15MHz QPSK High Channel RB1-74




LTE B4 15MHz QPSK Low Channel RB75-0




LTE B4 15MHz QPSK High Channel RB75-0



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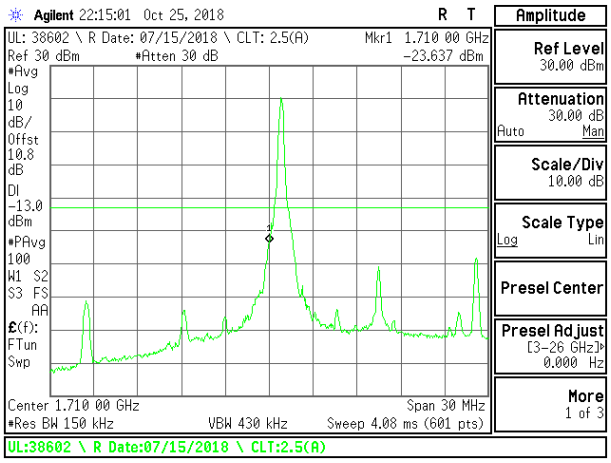
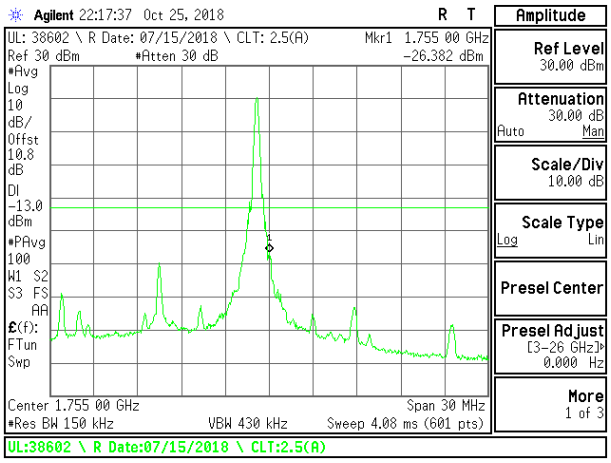
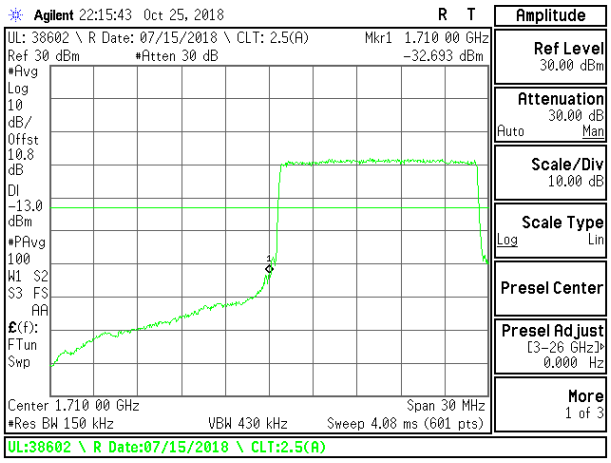


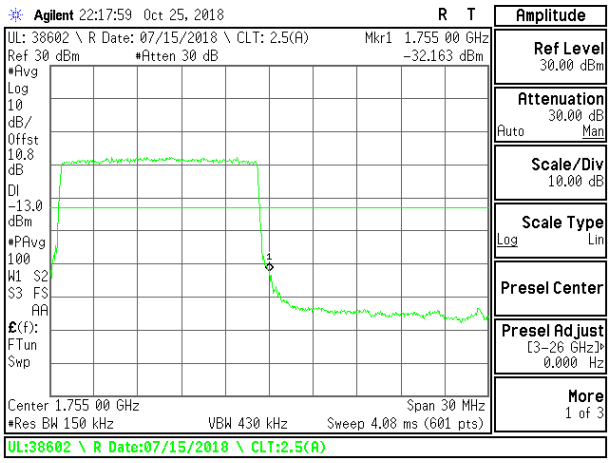

LTE B4 15MHz 16QAM Low Channel RB1-0




LTE B4 15MHz 16QAM High Channel RB1-74




LTE B4 15MHz 16QAM Low Channel RB75-0




LTE B4 15MHz 16QAM High Channel RB75-0



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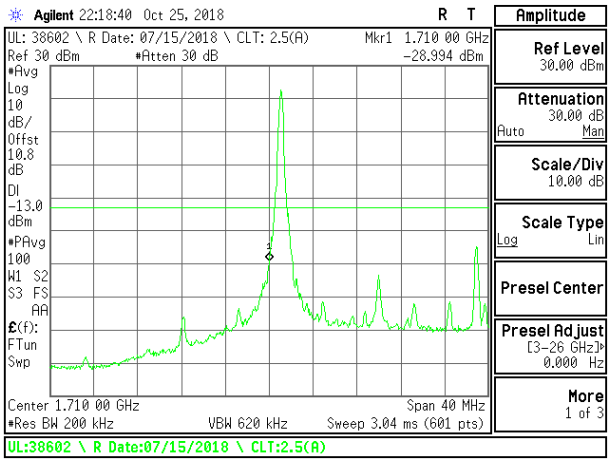
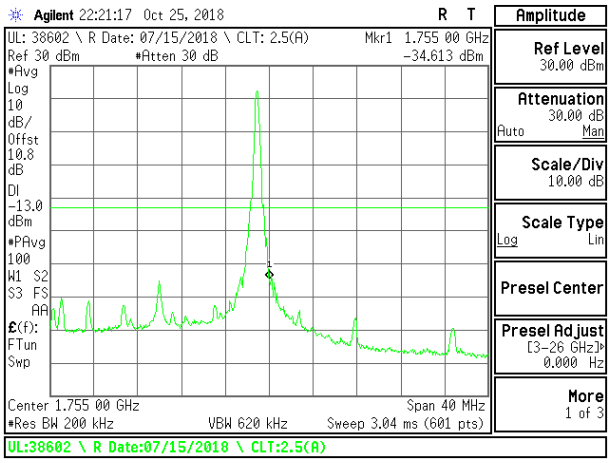



LTE B4 20MHz QPSK Low Channel RB1-0

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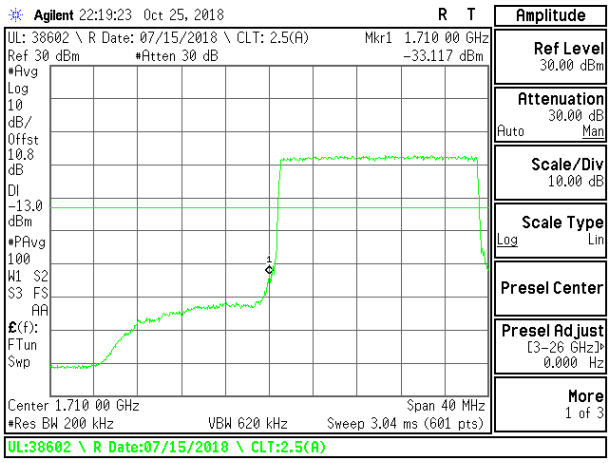
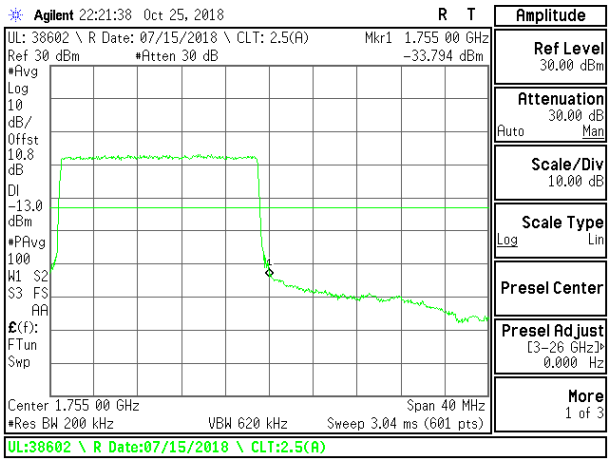



LTE B4 20MHz QPSK Low Channel RB100-0




LTE B4 20MHz QPSK High Channel RB100-0



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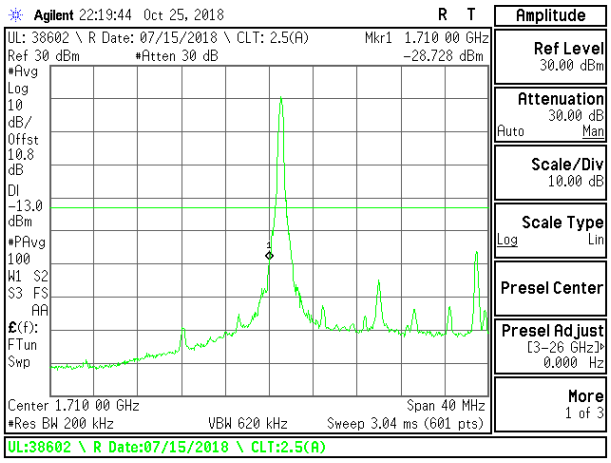
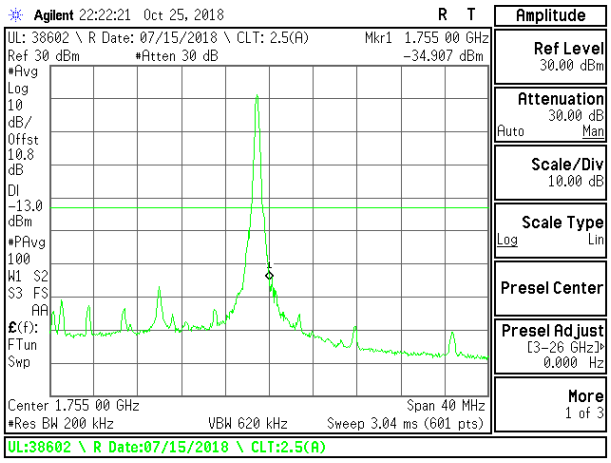
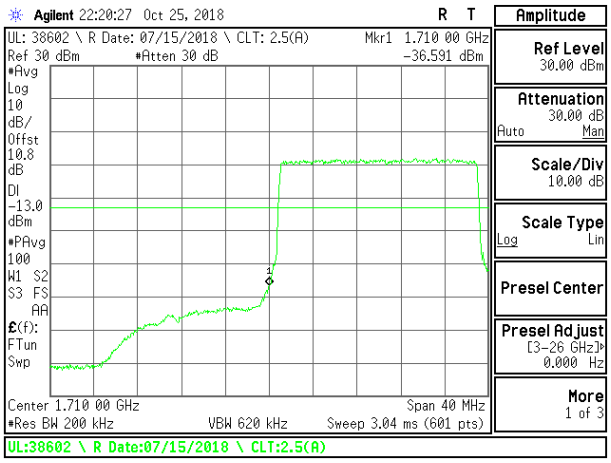


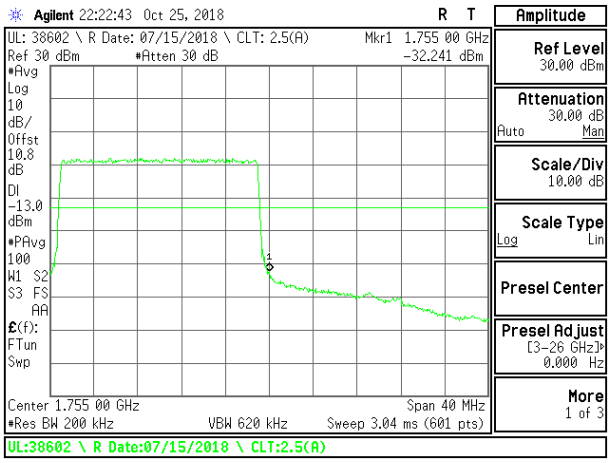

LTE B4 20MHz 16QAM Low Channel RB1-0




LTE B4 20MHz 16QAM High Channel RB1-99




LTE B4 20MHz 16QAM Low Channel RB100-0




LTE B4 20MHz 16QAM High Channel RB100-0



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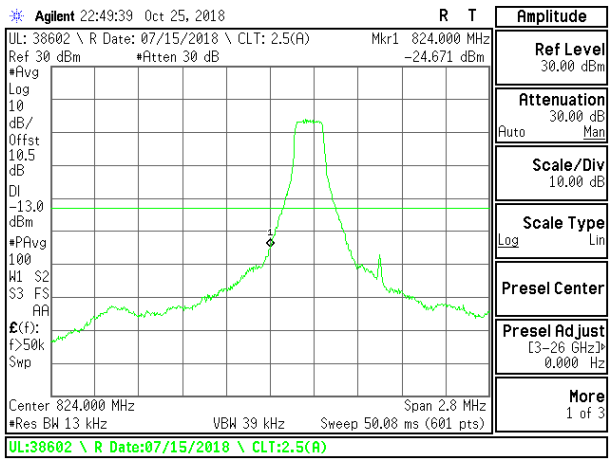
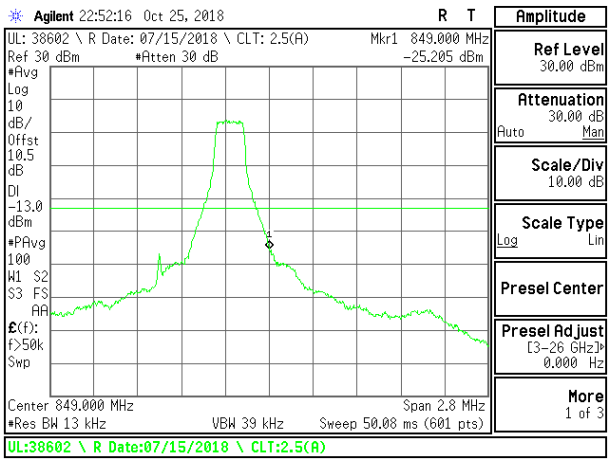
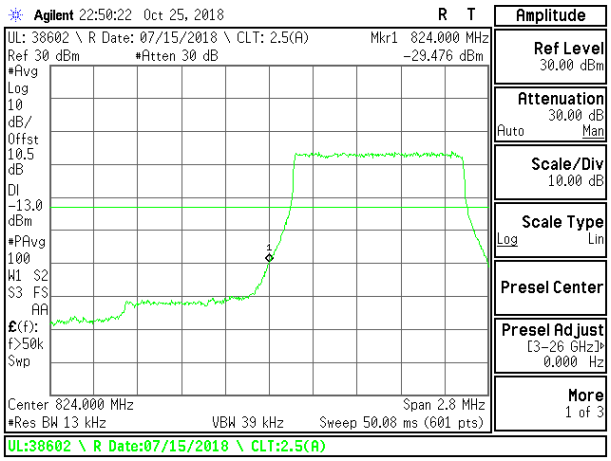
## 9.2.8. **LTE BAND 5 BANDEDGE**



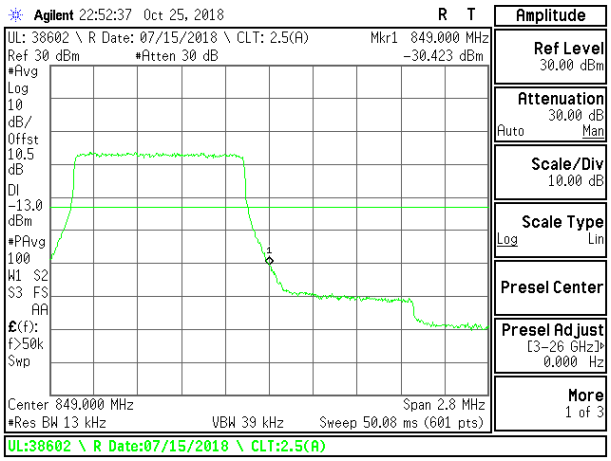

LTE B5 1.4MHz QPSK Low Channel RB1-0




LTE B5 1.4MHz QPSK High Channel RB1-5




LTE B5 1.4MHz QPSK Low Channel RB6-0




LTE B5 1.4MHz QPSK High Channel RB6-0



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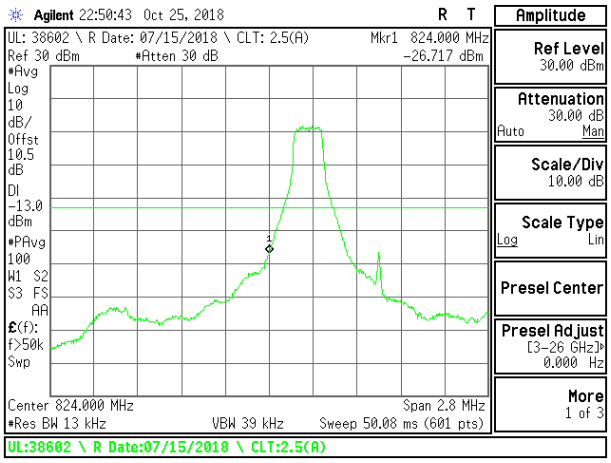
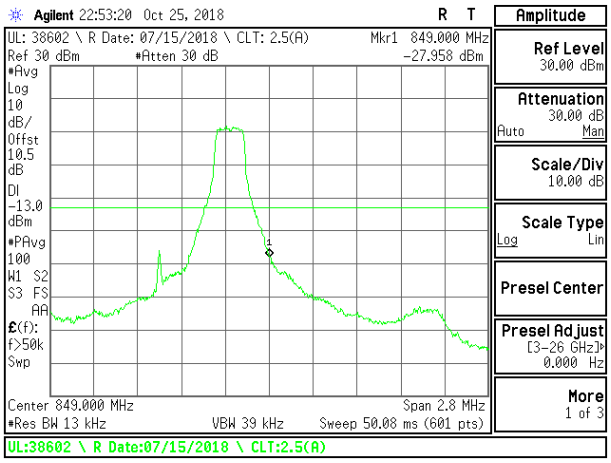
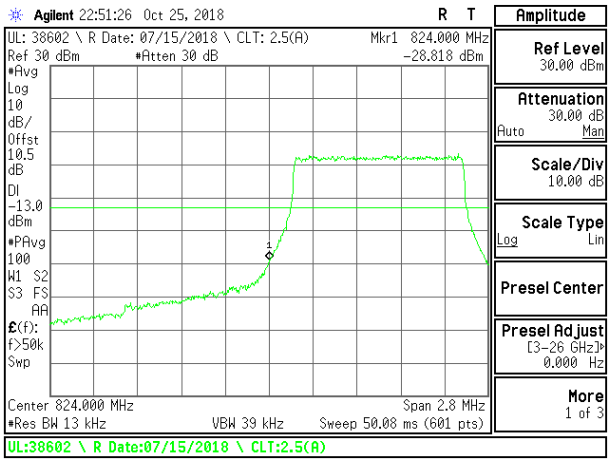


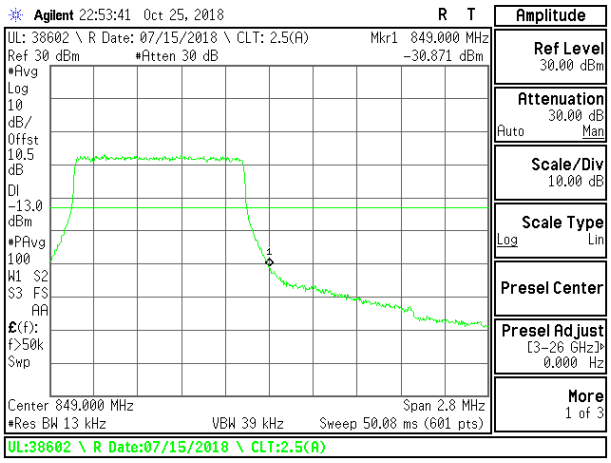

LTE B5 1.4MHz 16QAM Low Channel RB1-0




LTE B5 1.4MHz 16QAM High Channel RB1-5




LTE B5 1.4MHz 16QAM Low Channel RB6-0




LTE B5 1.4MHz 16QAM High Channel RB6-0



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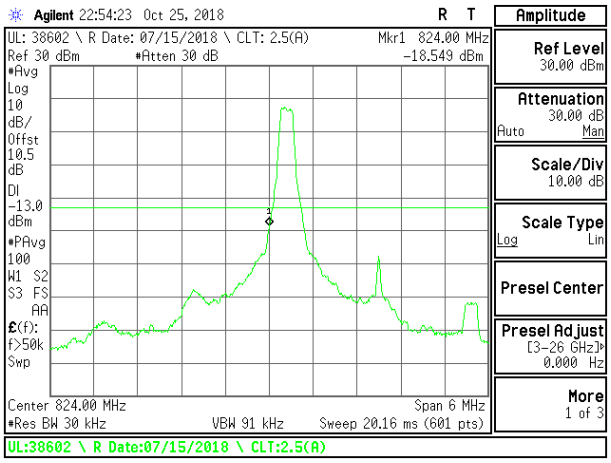
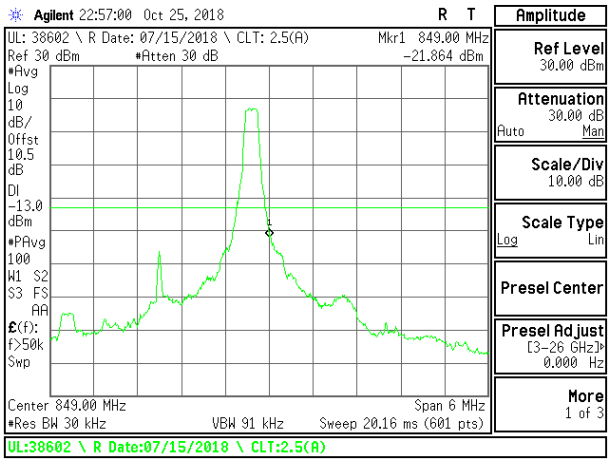
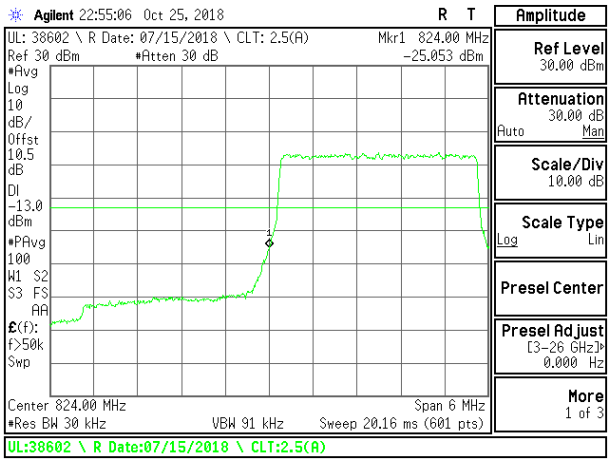


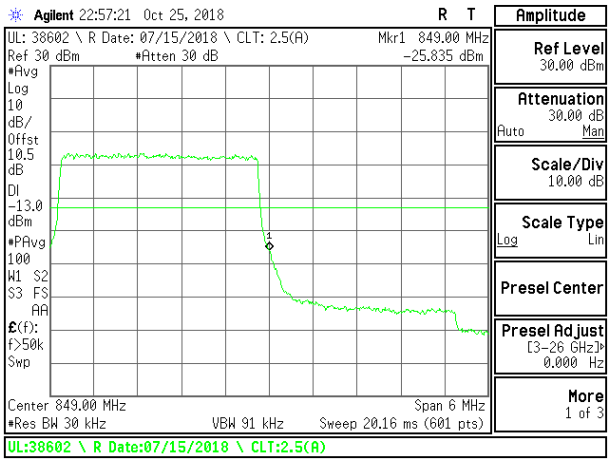

LTE B5 3MHz QPSK Low Channel RB1-0




LTE B5 3MHz QPSK High Channel RB1-14




LTE B5 3MHz QPSK Low Channel RB15-0




LTE B5 3MHz QPSK High Channel RB15-0



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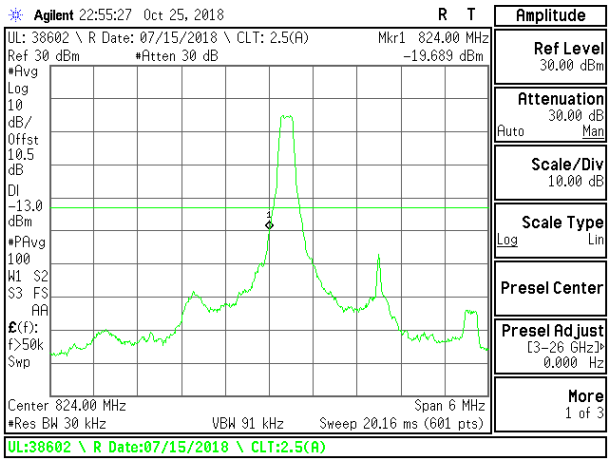
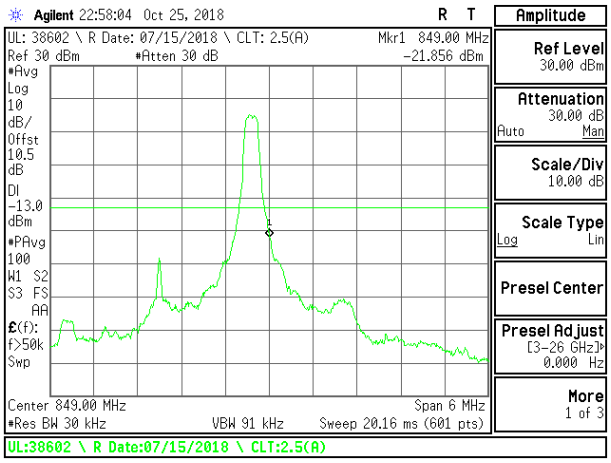
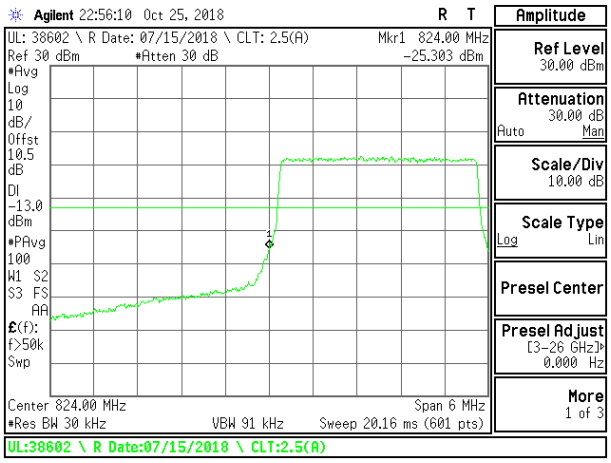


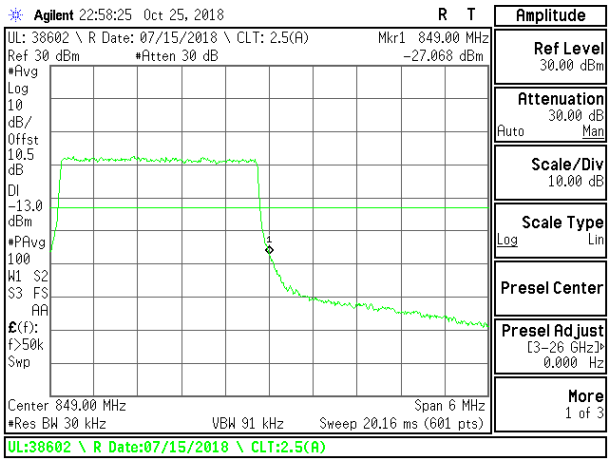

LTE B5 3MHz 16QAM Low Channel RB1-0




LTE B5 3MHz 16QAM High Channel RB1-14




LTE B5 3MHz 16QAM Low Channel RB15-0




LTE B5 3MHz 16QAM High Channel RB15-0



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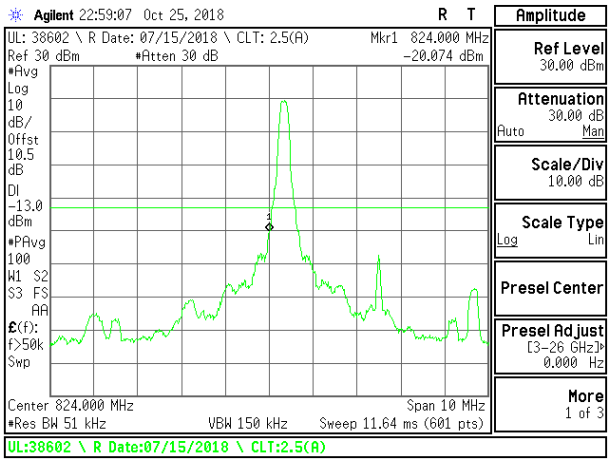
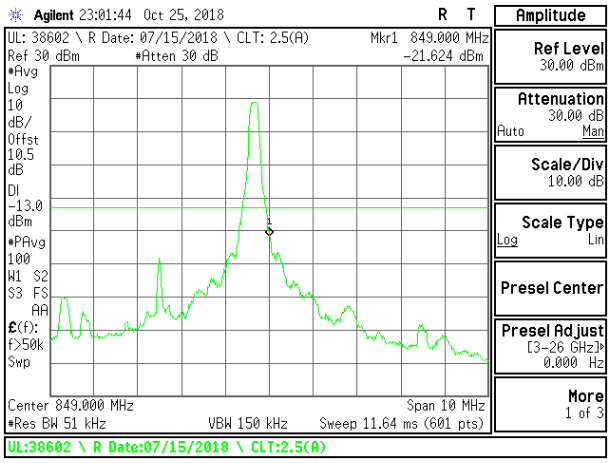
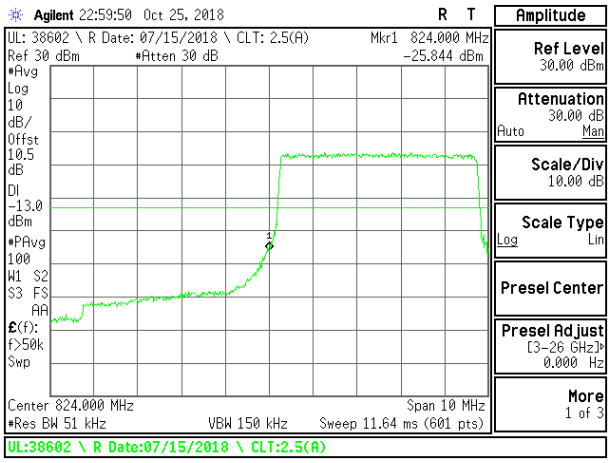


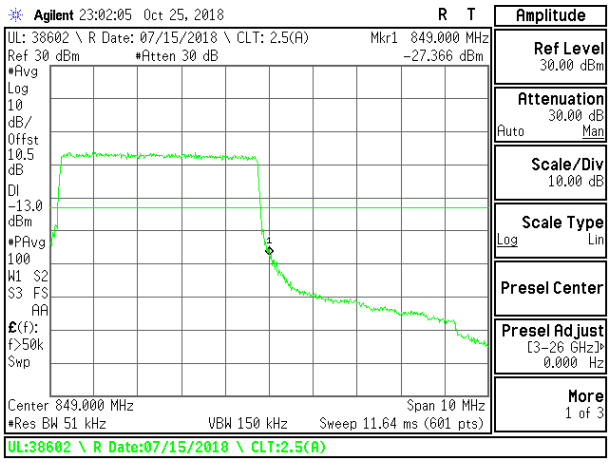

LTE B5 5MHz QPSK Low Channel RB1-0




LTE B5 5MHz QPSK High Channel RB1-24




LTE B5 5MHz QPSK Low Channel RB25-0




LTE B5 5MHz QPSK High Channel RB25-0



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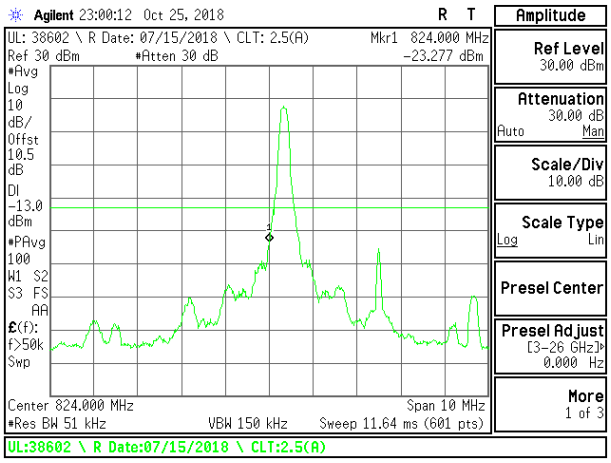
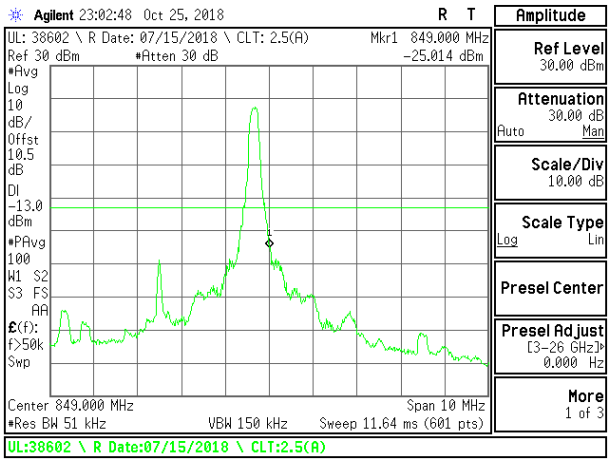
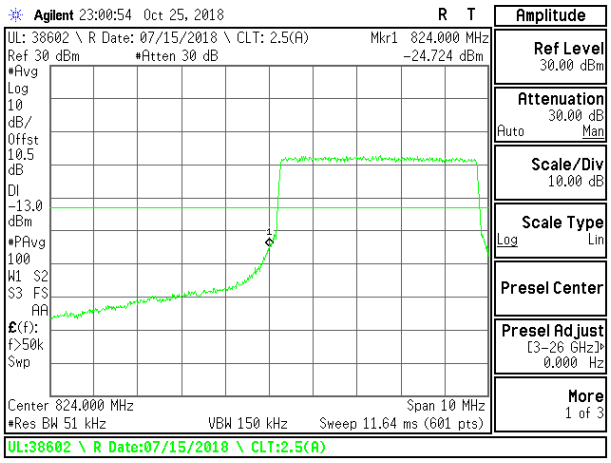


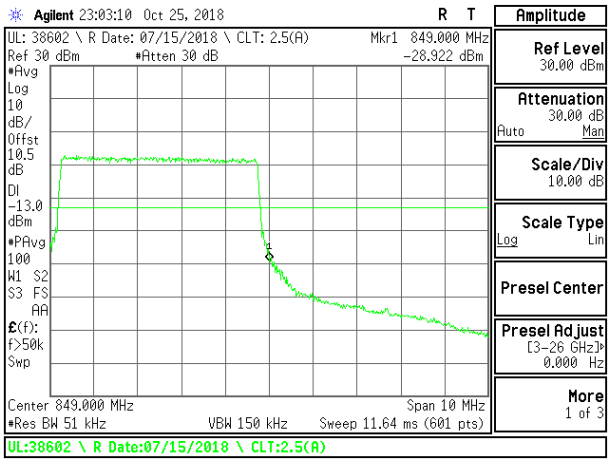

LTE B5 5MHz 16QAM Low Channel RB1-0




LTE B5 5MHz 16QAM High Channel RB1-24




LTE B5 5MHz 16QAM Low Channel RB25-0




LTE B5 5MHz 16QAM High Channel RB25-0



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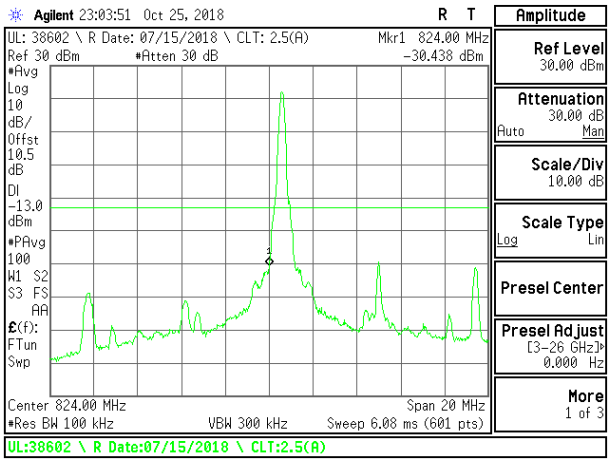
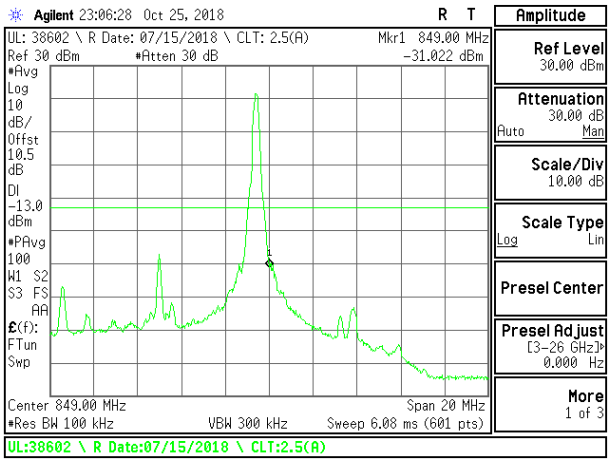
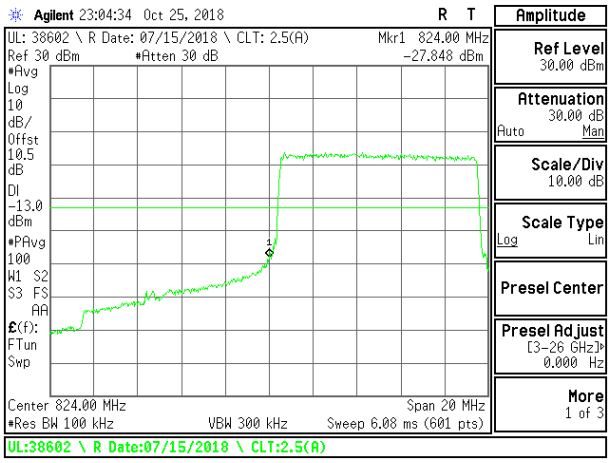


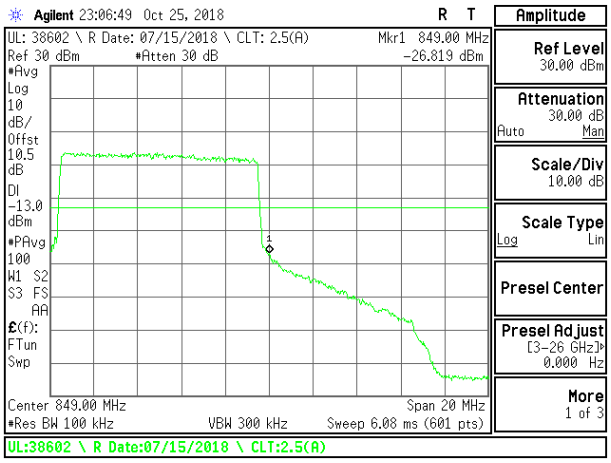

LTE B5 10MHz QPSK Low Channel RB1-0




LTE B5 10MHz QPSK High Channel RB1-49




LTE B5 10MHz QPSK Low Channel RB50-0




LTE B5 10MHz QPSK High Channel RB50-0



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