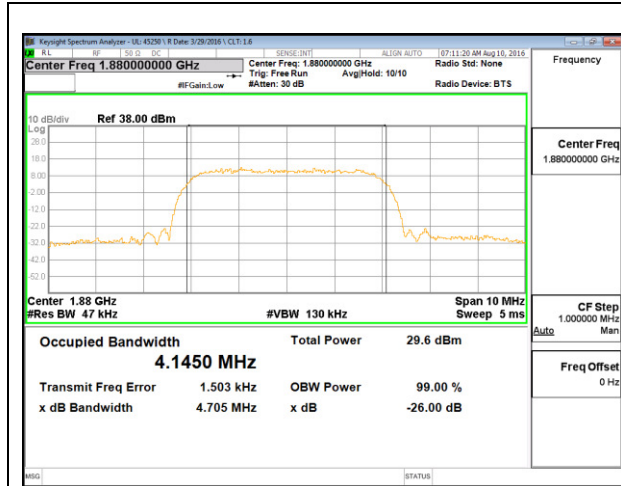
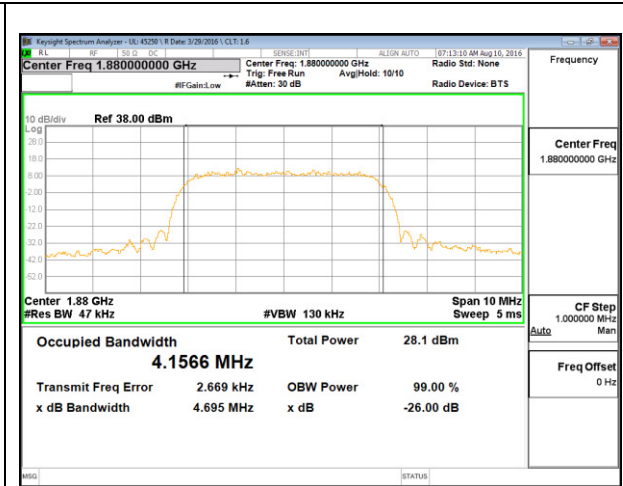


WCDMA

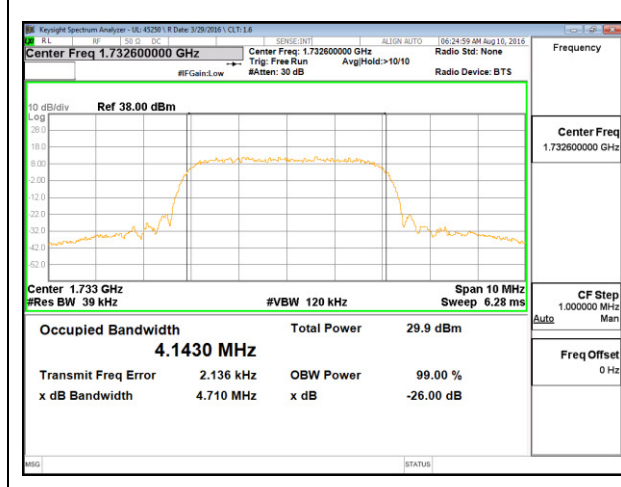
| Band | Mode | Channel | f (MHz) | 99% BW (MHz) | -26dB (MHz) |
|--------|-------|---------|---------|--------------|-------------|
| Band 2 | REL99 | 9262 | 1852.4 | 4.177 | 4.774 |
| | | 9400 | 1880 | 4.145 | 4.705 |
| | | 9538 | 1907.6 | 4.156 | 4.709 |
| | HSDPA | 9262 | 1852.4 | 4.162 | 4.724 |
| | | 9400 | 1880 | 4.157 | 4.695 |
| | | 9538 | 1907.6 | 4.15 | 4.711 |
| Band 4 | REL99 | 9262 | 1712.4 | 4.131 | 4.697 |
| | | 9400 | 1732.6 | 4.143 | 4.71 |
| | | 9538 | 1752.6 | 4.14 | 4.693 |
| | HSDPA | 9262 | 1712.4 | 4.136 | 4.679 |
| | | 9400 | 1732.6 | 4.137 | 4.681 |
| | | 9538 | 1752.6 | 4.136 | 4.674 |
| Band 5 | REL99 | 4132 | 826.4 | 4.132 | 4.7 |
| | | 4183 | 836.6 | 4.13 | 4.697 |
| | | 4233 | 846.6 | 4.132 | 4.697 |
| | HSDPA | 4132 | 826.4 | 4.113 | 4.687 |
| | | 4183 | 836.6 | 4.13 | 4.682 |
| | | 4233 | 846.6 | 4.133 | 4.72 |



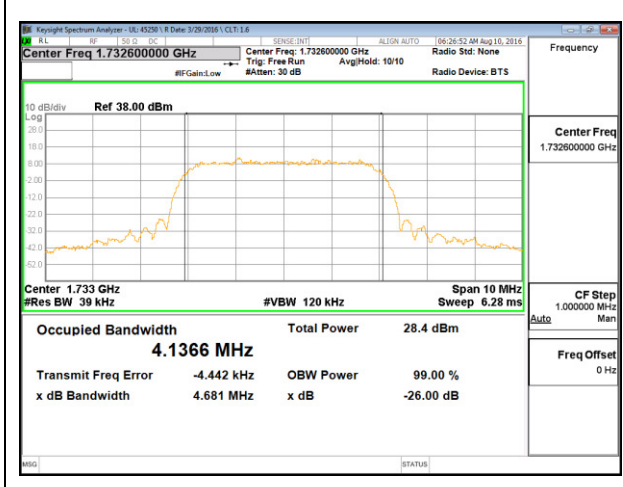
B2 REL99 Middle Channel



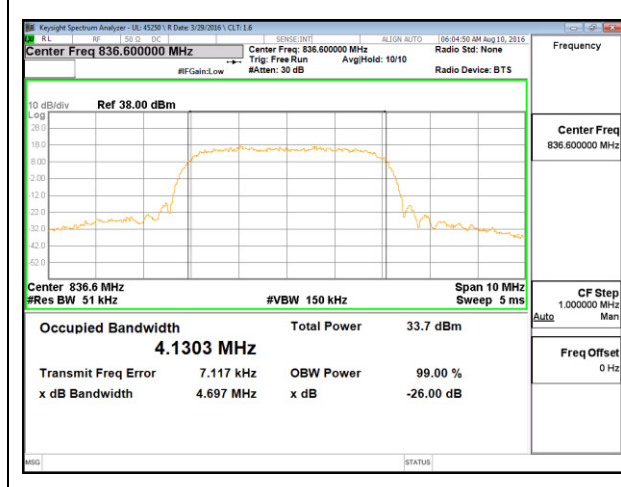
B2 HSDPA Middle Channel



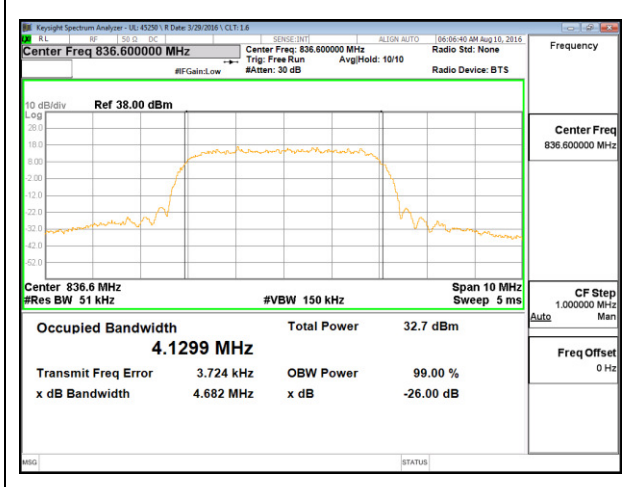
B4 REL99 Middle Channel



B4 HSDPA Middle Channel



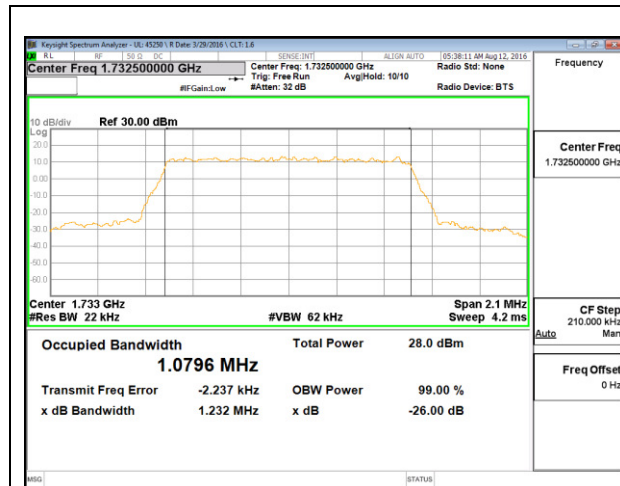
B5 REL99 Middle Channel



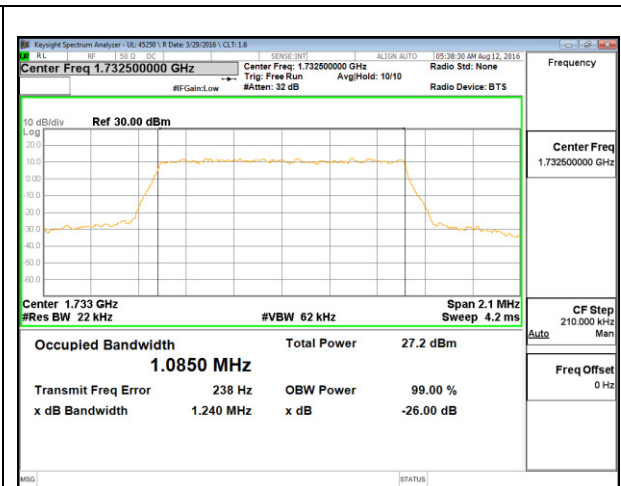
B5 HSDPA Middle Channel

LTE Band 4

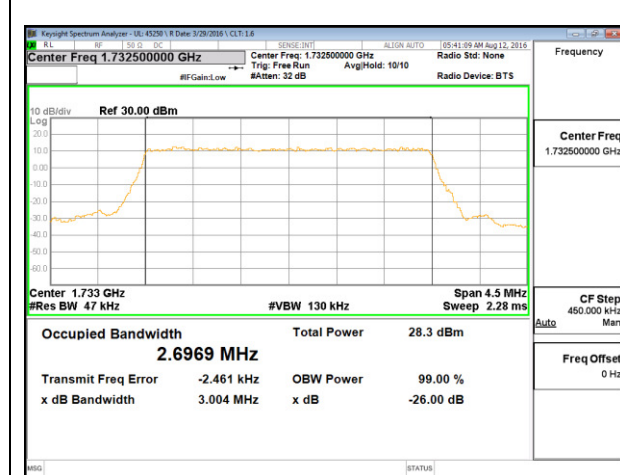
| BW(MHz) | Mode | RB/RB Size | f (MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-------|------------|---------|--------------|----------------|
| 1.4 | QPSK | 6/0 | 1710.7 | 1.09 | 1.24 |
| | | 6/0 | 1732.5 | 1.08 | 1.23 |
| | | 6/0 | 1754.3 | 1.08 | 1.24 |
| | 16QAM | 6/0 | 1710.7 | 1.08 | 1.24 |
| | | 6/0 | 1732.5 | 1.08 | 1.24 |
| | | 6/0 | 1754.3 | 1.09 | 1.24 |
| 3 | QPSK | 15/0 | 1711.5 | 2.7 | 2.98 |
| | | 15/0 | 1732.5 | 2.7 | 3 |
| | | 15/0 | 1753.5 | 2.7 | 3.01 |
| | 16QAM | 15/0 | 1711.5 | 2.7 | 3.01 |
| | | 15/0 | 1732.5 | 2.7 | 3 |
| | | 15/0 | 1753.5 | 2.69 | 3 |
| 5 | QPSK | 25/0 | 1712.5 | 4.5 | 4.94 |
| | | 25/0 | 1732.5 | 4.5 | 4.97 |
| | | 25/0 | 1752.5 | 4.48 | 4.94 |
| | 16QAM | 25/0 | 1712.5 | 4.49 | 4.98 |
| | | 25/0 | 1732.5 | 4.49 | 4.93 |
| | | 25/0 | 1752.5 | 4.48 | 4.93 |
| 10 | QPSK | 50/0 | 1715 | 8.97 | 9.77 |
| | | 50/0 | 1732.5 | 8.96 | 9.75 |
| | | 50/0 | 1750 | 8.95 | 9.79 |
| | 16QAM | 50/0 | 1715 | 8.98 | 9.77 |
| | | 50/0 | 1732.5 | 8.95 | 9.83 |
| | | 50/0 | 1750 | 8.98 | 9.79 |
| 15 | QPSK | 75/0 | 1717.5 | 13.46 | 14.65 |
| | | 75/0 | 1732.5 | 13.46 | 14.63 |
| | | 75/0 | 1747.5 | 13.46 | 14.71 |
| | 16QAM | 75/0 | 1717.5 | 13.44 | 14.58 |
| | | 75/0 | 1732.5 | 13.45 | 14.66 |
| | | 75/0 | 1747.5 | 13.43 | 14.52 |
| 20 | QPSK | 100/0 | 1720 | 17.93 | 19.25 |
| | | 100/0 | 1732.5 | 17.93 | 19.38 |
| | | 100/0 | 1745 | 17.92 | 19.58 |
| | 16QAM | 100/0 | 1720 | 17.9 | 19.38 |
| | | 100/0 | 1732.5 | 17.9 | 19.42 |
| | | 100/0 | 1745 | 17.93 | 19.46 |



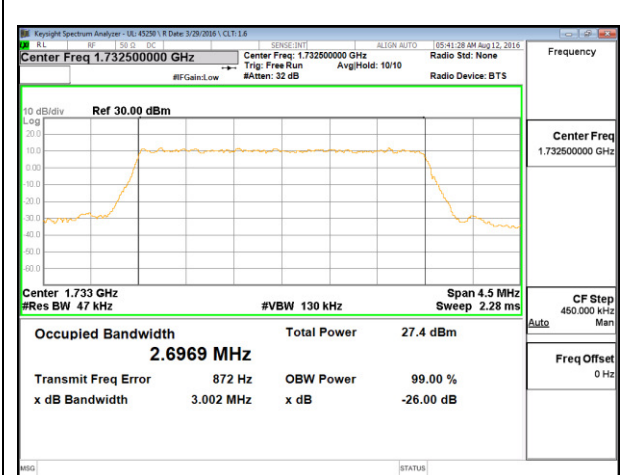
LTE B4 1.4MHz QPSK Middle Channel



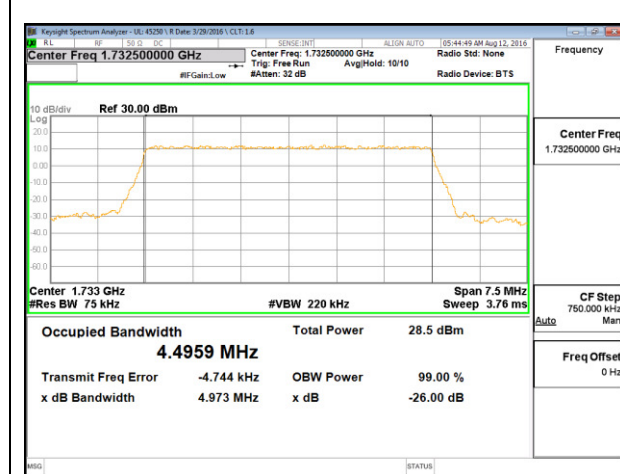
LTE B4 1.4MHz 16QAM Middle Channel



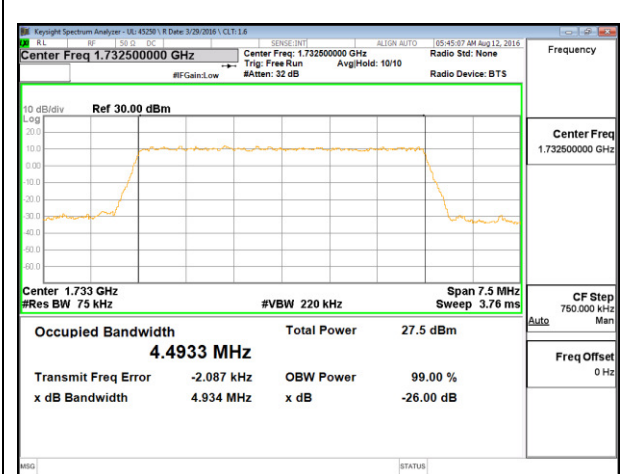
LTE B4 3MHz QPSK Middle Channel



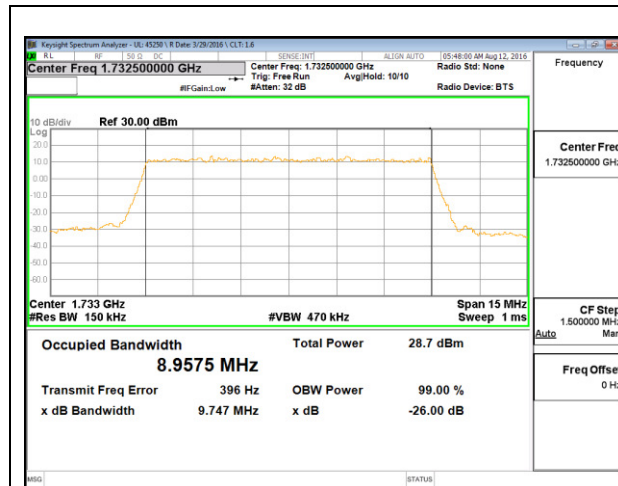
LTE B4 3MHz 16QAM Middle Channel



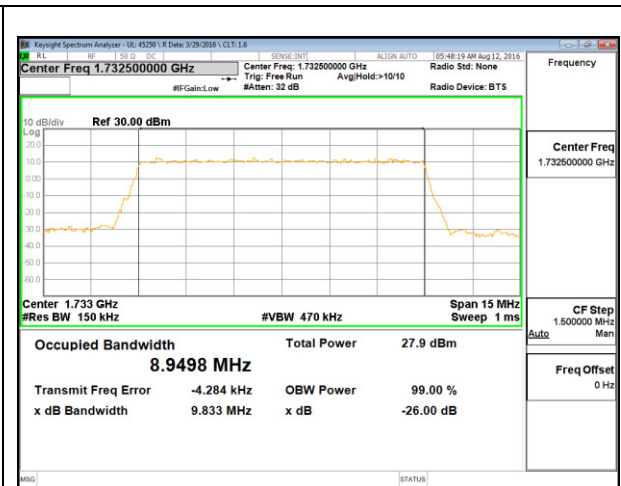
LTE B4 5MHz QPSK Middle Channel



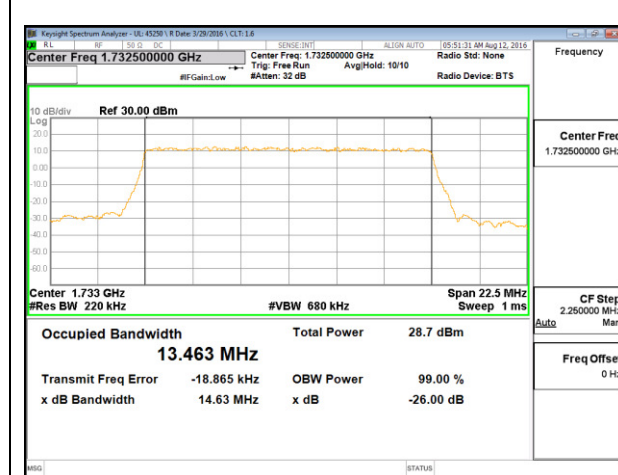
LTE B4 5MHz 16QAM Middle Channel



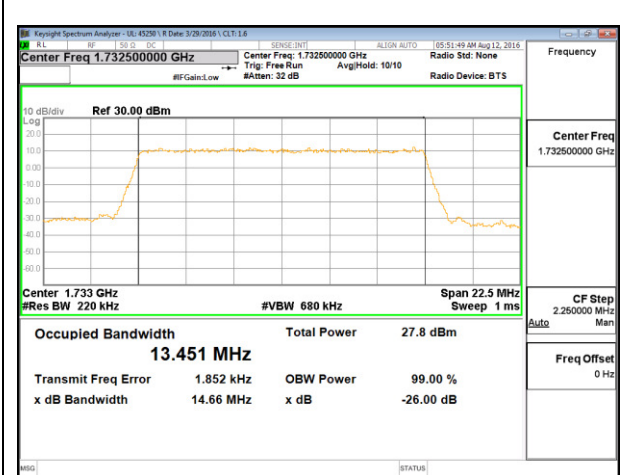
LTE B4 10MHz QPSK Middle Channel



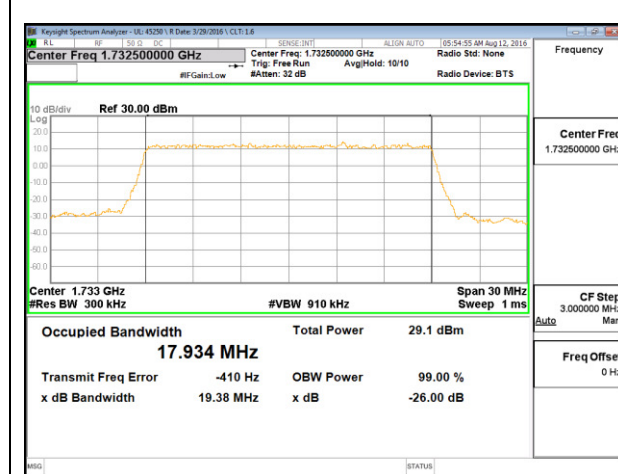
LTE B4 10MHz 16QAM Middle Channel



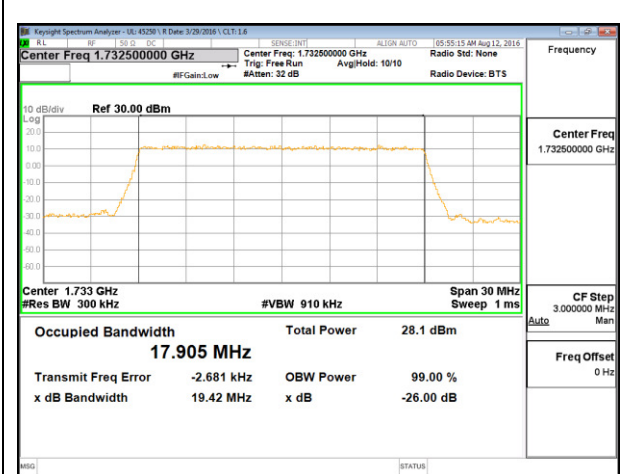
LTE B4 15MHz QPSK Middle Channel



LTE B4 15MHz 16QAM Middle Channel



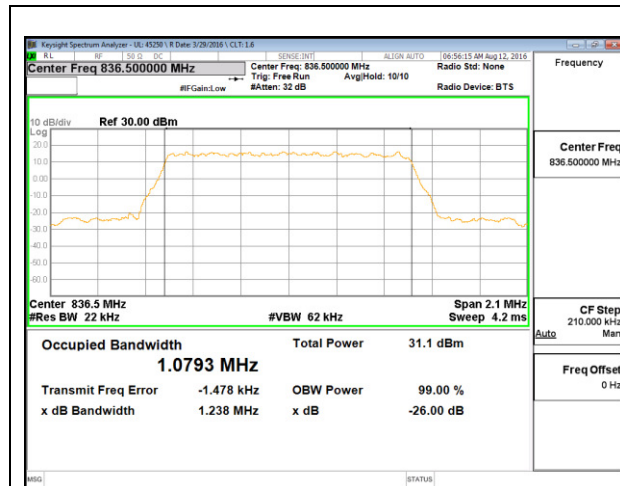
LTE B4 20MHz QPSK Middle Channel



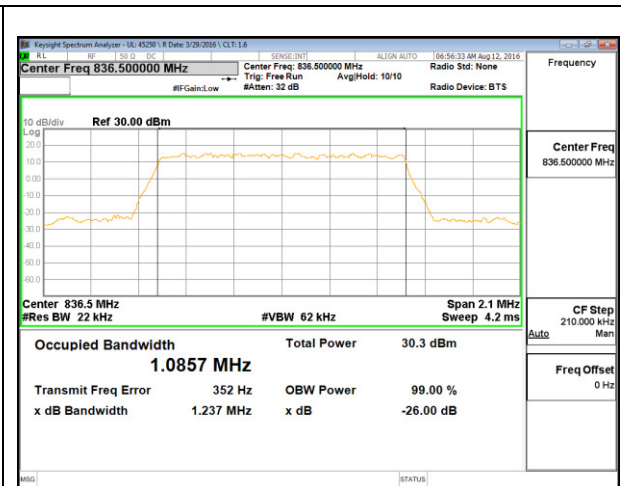
LTE B4 20MHz 16QAM Middle Channel

LTE Band 5

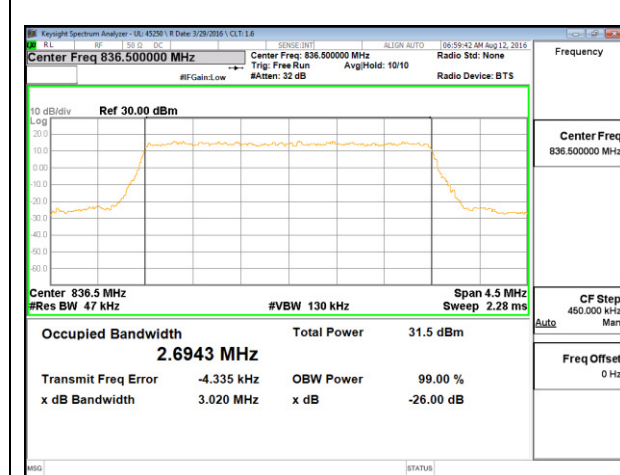
| BW(MHz) | Mode | RB/RB Size | f (MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-------|------------|---------|--------------|----------------|
| 1.4 | QPSK | 6/0 | 824.7 | 1.09 | 1.24 |
| | | 6/0 | 836.5 | 1.08 | 1.24 |
| | | 6/0 | 848.3 | 1.08 | 1.24 |
| | 16QAM | 6/0 | 824.7 | 1.08 | 1.24 |
| | | 6/0 | 836.5 | 1.09 | 1.24 |
| | | 6/0 | 848.3 | 1.09 | 1.24 |
| 3 | QPSK | 15/0 | 825.5 | 2.7 | 3 |
| | | 15/0 | 836.5 | 2.69 | 3.02 |
| | | 15/0 | 847.5 | 2.71 | 3.03 |
| | 16QAM | 15/0 | 825.5 | 2.7 | 3 |
| | | 15/0 | 836.5 | 2.7 | 2.98 |
| | | 15/0 | 847.5 | 2.7 | 3.02 |
| 5 | QPSK | 25/0 | 826.5 | 4.51 | 4.94 |
| | | 25/0 | 836.5 | 4.5 | 4.98 |
| | | 25/0 | 846.5 | 4.49 | 4.95 |
| | 16QAM | 25/0 | 826.5 | 4.5 | 4.96 |
| | | 25/0 | 836.5 | 4.5 | 4.93 |
| | | 25/0 | 846.5 | 4.48 | 4.91 |
| 10 | QPSK | 50/0 | 829 | 8.97 | 9.79 |
| | | 50/0 | 836.5 | 8.98 | 9.79 |
| | | 50/0 | 844 | 8.95 | 9.82 |
| | 16QAM | 50/0 | 829 | 8.97 | 9.75 |
| | | 50/0 | 836.5 | 8.95 | 9.76 |
| | | 50/0 | 844 | 8.97 | 9.77 |



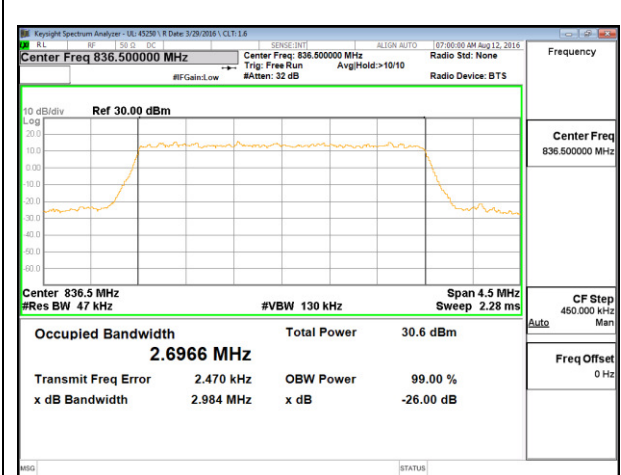
LTE B5 1.4MHz QPSK Middle Channel



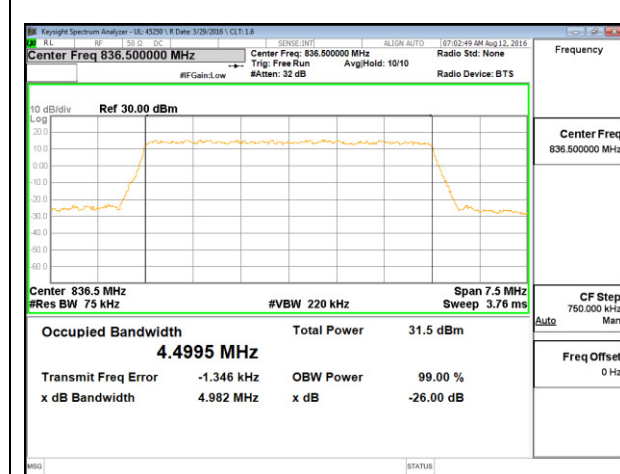
LTE B5 1.4MHz 16QAM Middle Channel



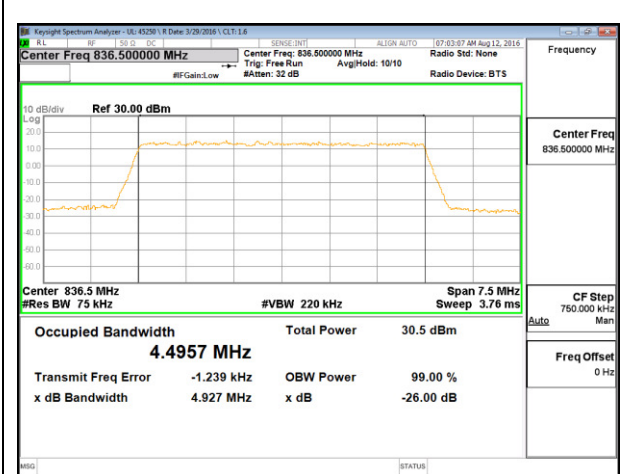
LTE B5 3MHz QPSK Middle Channel



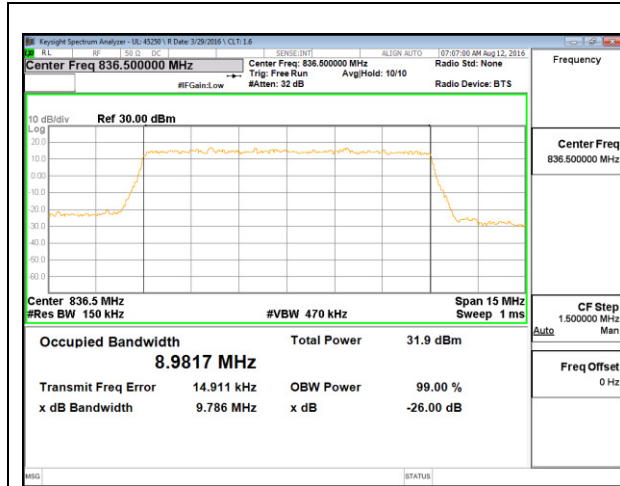
LTE B5 3MHz 16QAM Middle Channel



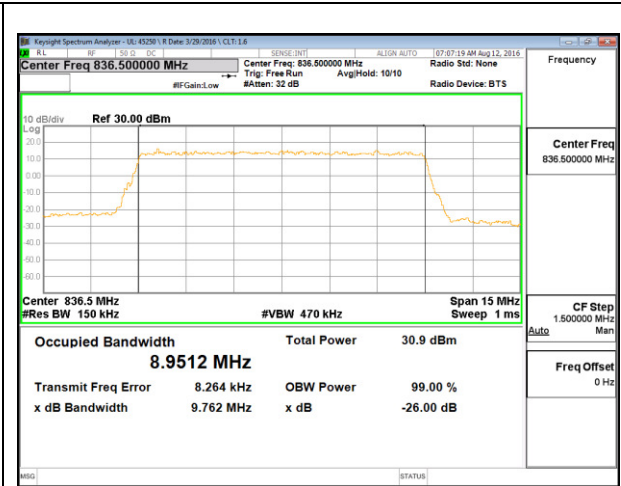
LTE B5 5MHz QPSK Middle Channel



LTE B5 5MHz 16QAM Middle Channel



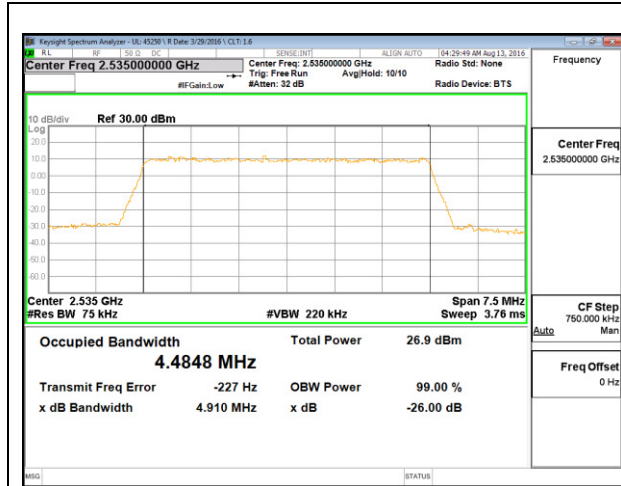
LTE B5 10MHz QPSK Middle Channel



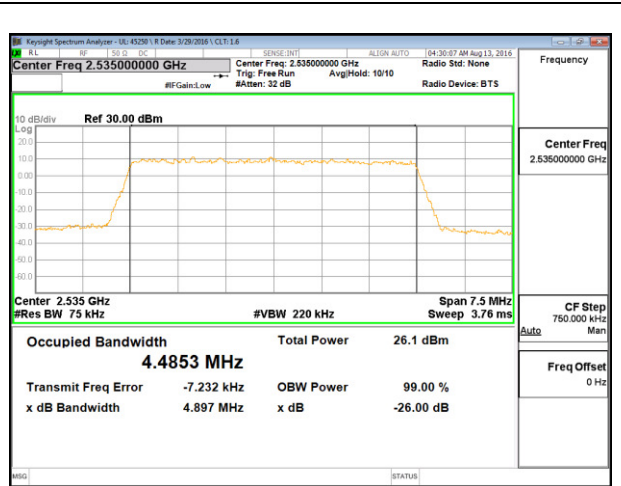
LTE B5 10MHz 16QAM Middle Channel

LTE Band 7

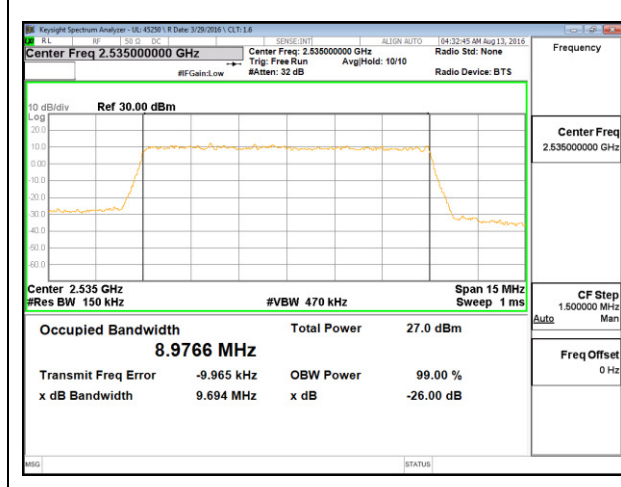
| BW(MHz) | Mode | RB/RB Size | f (MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-------|------------|---------|--------------|----------------|
| 5 | QPSK | 25/0 | 2502.5 | 4.49 | 4.94 |
| | | 25/0 | 2535 | 4.49 | 4.91 |
| | | 25/0 | 2567.5 | 4.5 | 4.94 |
| | 16QAM | 25/0 | 2502.5 | 4.5 | 4.93 |
| | | 25/0 | 2535 | 4.49 | 4.90 |
| | | 25/0 | 2567.5 | 4.49 | 4.95 |
| 10 | QPSK | 50/0 | 2505 | 8.97 | 9.78 |
| | | 50/0 | 2535 | 8.98 | 9.70 |
| | | 50/0 | 2565 | 8.95 | 9.70 |
| | 16QAM | 50/0 | 2505 | 8.97 | 9.78 |
| | | 50/0 | 2535 | 8.96 | 9.69 |
| | | 50/0 | 2565 | 8.97 | 9.74 |
| 15 | QPSK | 75/0 | 2507.5 | 13.45 | 14.58 |
| | | 75/0 | 2535 | 13.47 | 14.63 |
| | | 75/0 | 2562.5 | 13.4 | 14.47 |
| | 16QAM | 75/0 | 2507.5 | 13.44 | 14.58 |
| | | 75/0 | 2535 | 13.44 | 14.61 |
| | | 75/0 | 2562.5 | 13.40 | 14.49 |
| 20 | QPSK | 100/0 | 2510 | 17.92 | 19.28 |
| | | 100/0 | 2535 | 17.95 | 19.30 |
| | | 100/0 | 2560 | 17.89 | 19.35 |
| | 16QAM | 100/0 | 2510 | 17.90 | 19.27 |
| | | 100/0 | 2535 | 17.91 | 18.70 |
| | | 100/0 | 2560 | 17.82 | 19.26 |



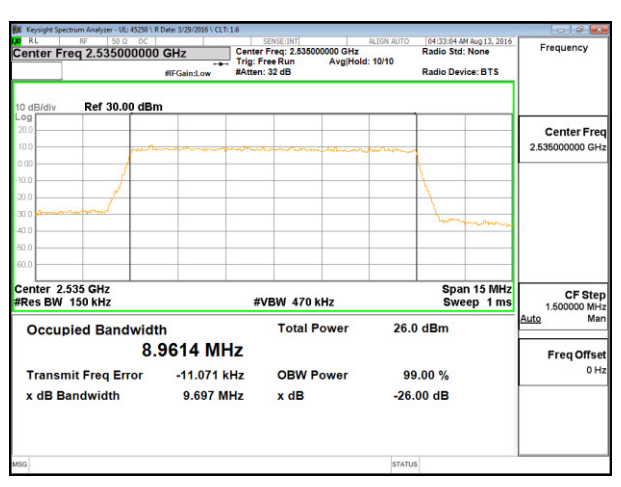
LTE B7 5MHz QPSK Middle Channel



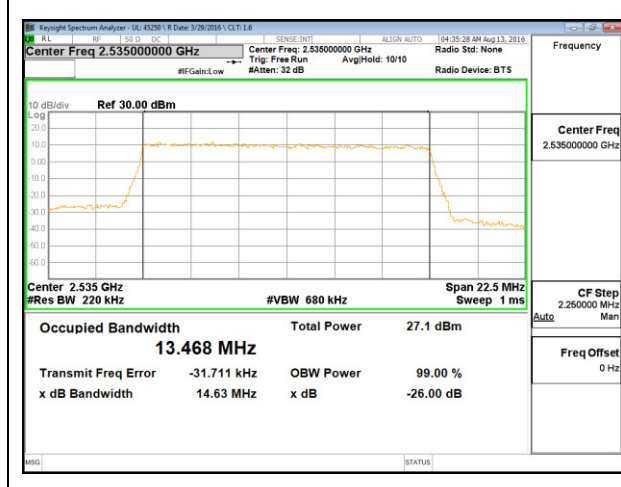
LTE B7 5MHz 16QAM Middle Channel



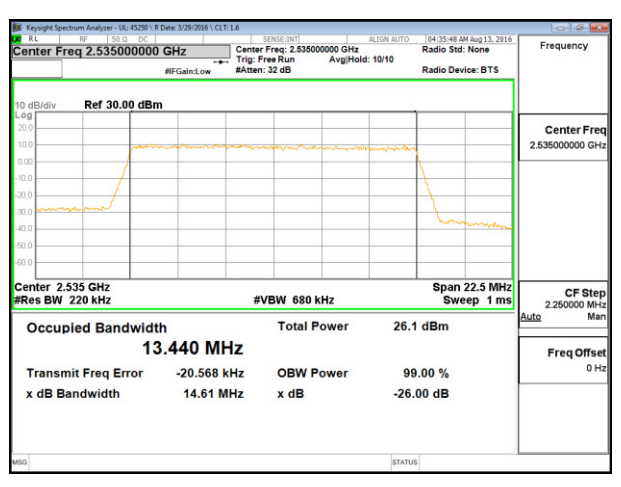
LTE B7 10MHz QPSK Middle Channel



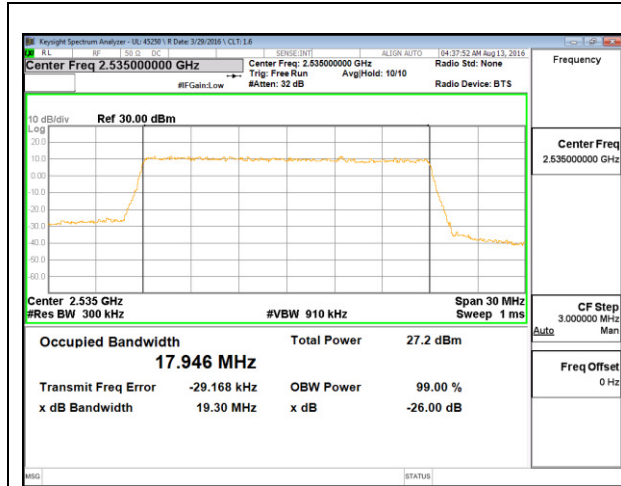
LTE B7 10MHz 16QAM Middle Channel



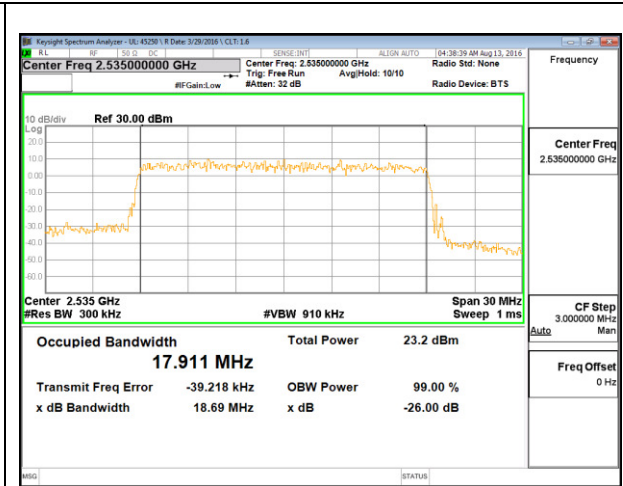
LTE B7 15MHz QPSK Middle Channel



LTE B7 15MHz 16QAM Middle Channel



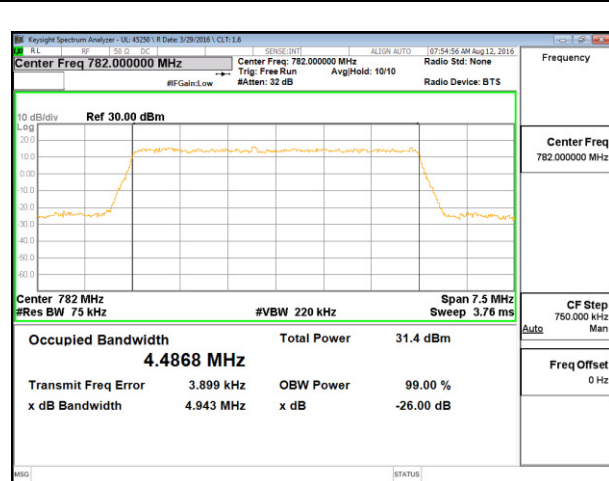
LTE B7 20MHz QPSK Middle Channel



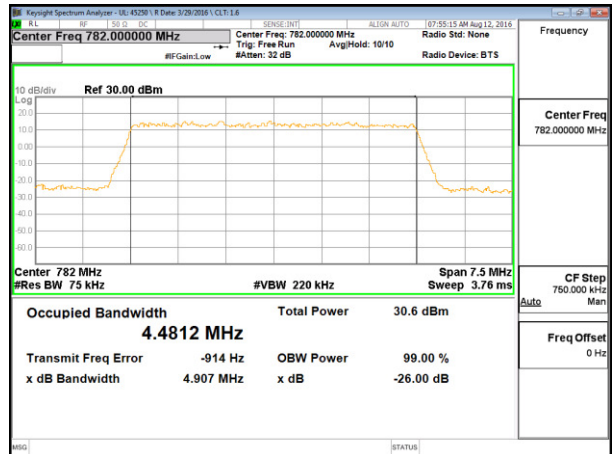
LTE B7 20MHz 16QAM Middle Channel

LTE Band 13

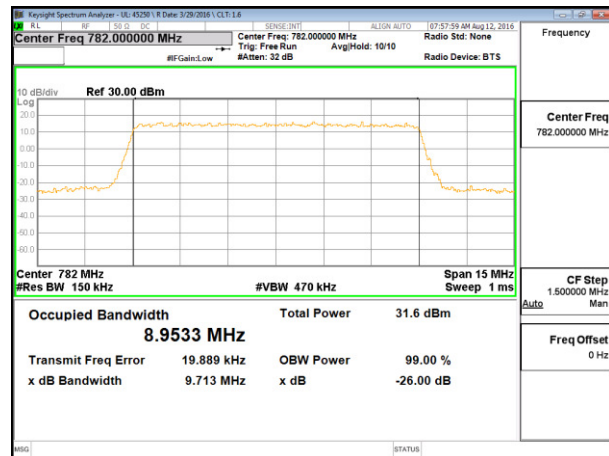
| BW(MHz) | Mode | RB/RB Size | f (MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-------|------------|---------|--------------|----------------|
| 5 | QPSK | 25/0 | 779.5 | 4.49 | 4.93 |
| | | 25/0 | 782 | 4.49 | 4.94 |
| | | 25/0 | 784.5 | 4.5 | 4.94 |
| | 16QAM | 25/0 | 779.5 | 4.49 | 4.93 |
| | | 25/0 | 782 | 4.48 | 4.91 |
| | | 25/0 | 784.5 | 4.5 | 4.94 |
| 10 | QPSK | 50/0 | - | - | - |
| | | 50/0 | 782 | 8.95 | 9.71 |
| | | 50/0 | - | - | - |
| | 16QAM | 50/0 | - | - | - |
| | | 50/0 | 782 | 8.97 | 9.78 |
| | | 50/0 | - | - | - |



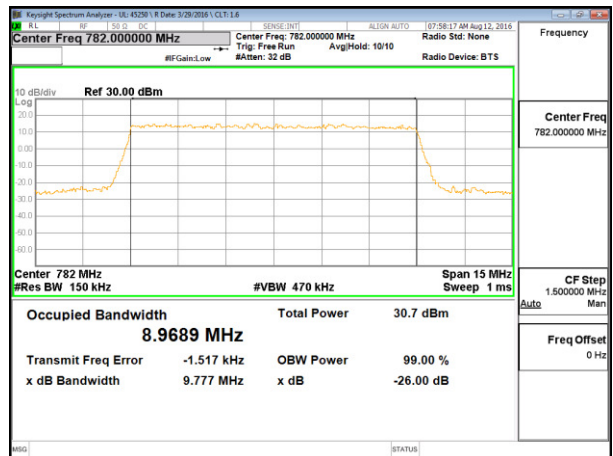
LTE B13 5MHz QPSK Middle Channel



LTE B13 5MHz 16QAM Middle Channel



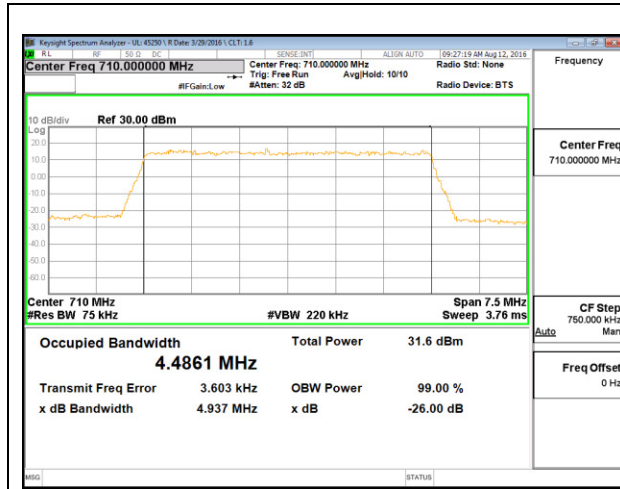
LTE B13 10MHz QPSK Middle Channel



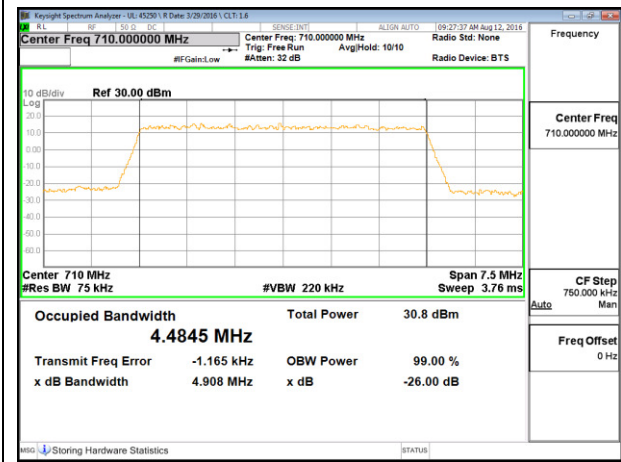
LTE B13 10MHz 16QAM Middle Channel

LTE Band 17

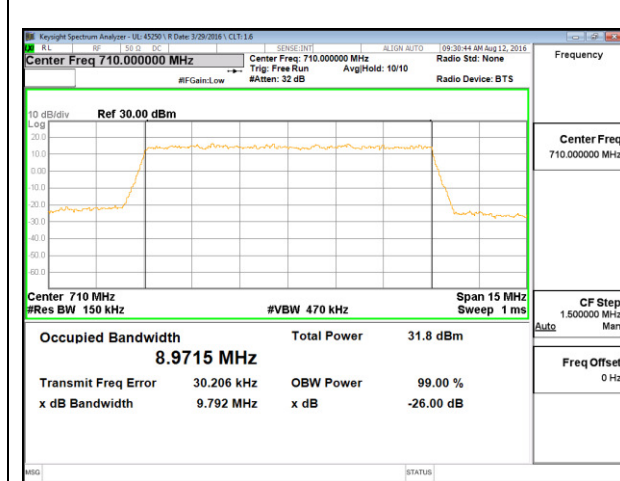
| BW(MHz) | Mode | RB/RB Size | f (MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-------|------------|---------|--------------|----------------|
| 5 | QPSK | 25/0 | 706.5 | 4.49 | 4.94 |
| | | 25/0 | 710 | 4.49 | 4.94 |
| | | 25/0 | 713.5 | 4.51 | 4.96 |
| | 16QAM | 25/0 | 706.5 | 4.49 | 4.92 |
| | | 25/0 | 710 | 4.48 | 4.91 |
| | | 25/0 | 713.5 | 4.5 | 4.97 |
| 10 | QPSK | 50/0 | 709 | 8.96 | 9.7 |
| | | 50/0 | 710 | 8.97 | 9.79 |
| | | 50/0 | 711 | 8.98 | 9.76 |
| | 16QAM | 50/0 | 709 | 8.96 | 9.77 |
| | | 50/0 | 710 | 8.96 | 9.78 |
| | | 50/0 | 711 | 9 | 9.8 |



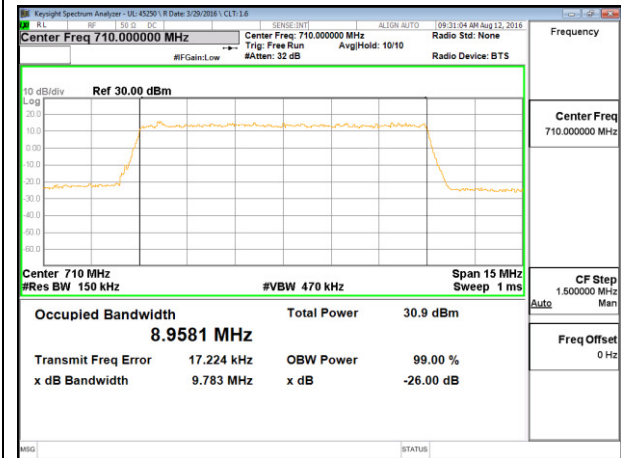
LTE B17 5MHz QPSK Middle Channel



LTE B17 5MHz 16QAM Middle Channel



LTE B17 10MHz QPSK Middle Channel



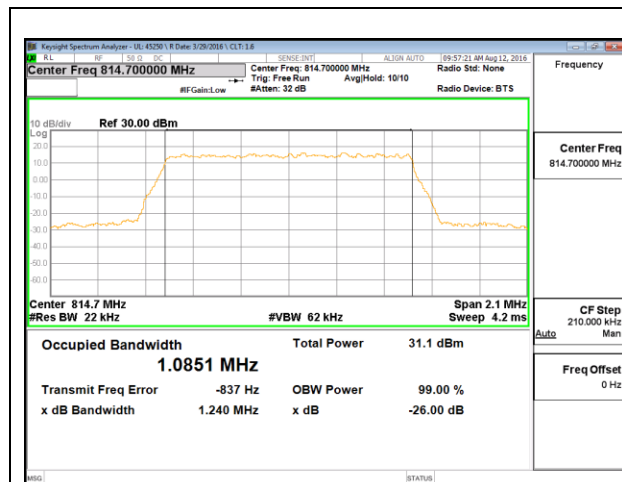
LTE B17 10MHz 16QAM Middle Channel

LTE Band 26-Part 90

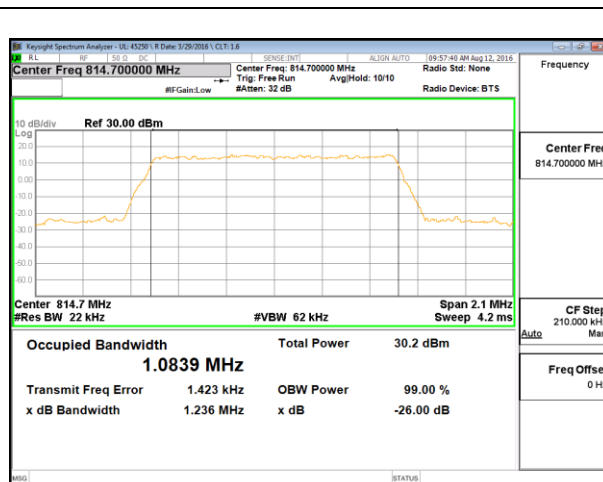
| BW(MHz) | Mode | RB/RB Size | f (MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-------|------------|---------|--------------|----------------|
| 1.4 | QPSK | 6/0 | 814.7 | 1.08 | 1.24 |
| | 16QAM | 6/0 | 814.7 | 1.08 | 1.24 |
| 3 | QPSK | 15/0 | 815.5 | 2.7 | 2.99 |
| | 16QAM | 15/0 | 815.5 | 2.7 | 3.04 |
| 5 | QPSK | 25/0 | 816.5 | 4.51 | 5.62 |
| | 16QAM | 25/0 | 816.5 | 4.5 | 4.97 |
| 10 | QPSK | 50/0 | 819 | 8.96 | 9.68 |
| | 16QAM | 50/0 | 819 | 8.96 | 9.79 |

LTE Band 26-Part 22

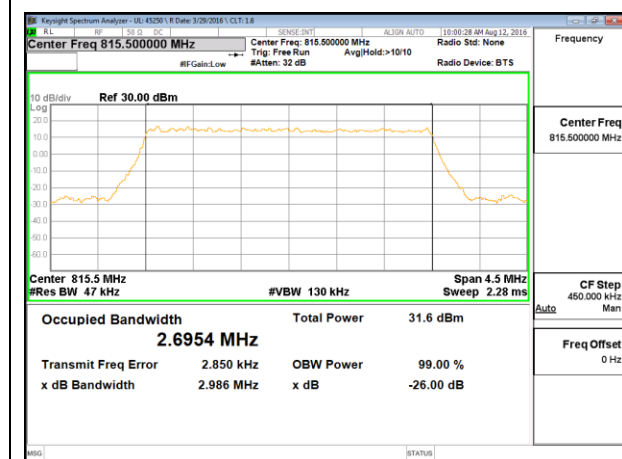
| BW(MHz) | Mode | RB/RB Size | f (MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-------|------------|---------|--------------|----------------|
| 1.4 | QPSK | 6/0 | 831.5 | 1.08 | 1.24 |
| | | 6/0 | 848.3 | 1.08 | 1.24 |
| | 16QAM | 6/0 | 831.5 | 1.09 | 1.24 |
| | | 6/0 | 848.3 | 1.09 | 1.24 |
| 3 | QPSK | 15/0 | 831.5 | 2.7 | 3 |
| | | 15/0 | 847.5 | 2.71 | 3.12 |
| | 16QAM | 15/0 | 831.5 | 2.7 | 3 |
| | | 15/0 | 847.5 | 2.7 | 3.02 |
| 5 | QPSK | 25/0 | 831.5 | 4.5 | 4.95 |
| | | 25/0 | 846.5 | 4.48 | 4.93 |
| | 16QAM | 25/0 | 831.5 | 4.49 | 4.94 |
| | | 25/0 | 846.5 | 4.49 | 4.89 |
| 10 | QPSK | 50/0 | 831.5 | 8.98 | 9.74 |
| | | 50/0 | 844 | 8.95 | 9.78 |
| | 16QAM | 50/0 | 831.5 | 8.97 | 9.73 |
| | | 50/0 | 844 | 8.99 | 9.78 |
| 15 | QPSK | 75/0 | 836.5 | 13.43 | 14.63 |
| | | 75/0 | 841.5 | 13.43 | 14.66 |
| | 16QAM | 75/0 | 836.5 | 13.45 | 14.68 |
| | | 75/0 | 841.5 | 13.45 | 14.59 |



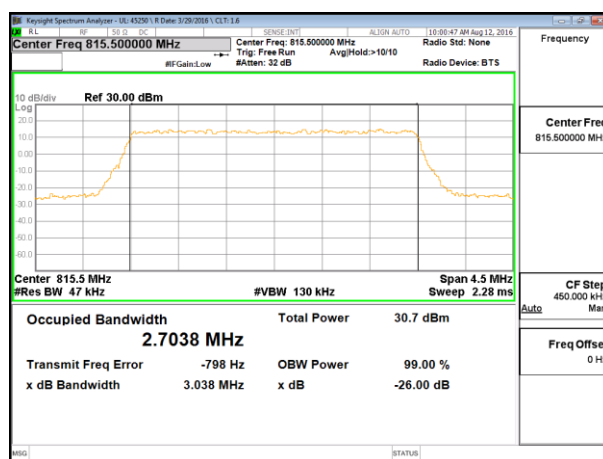
LTE B26 1.4MHz QPSK Middle Channel



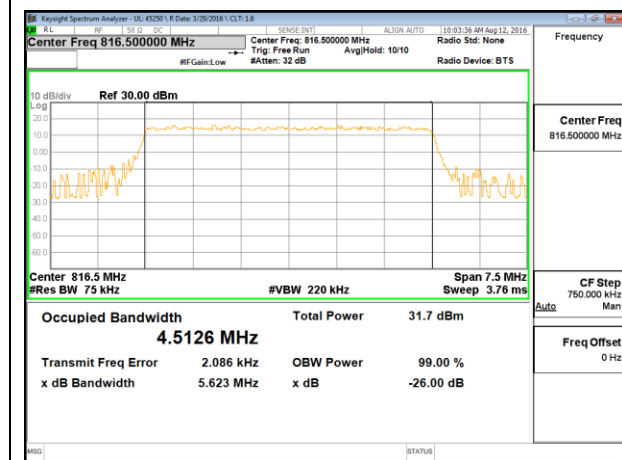
LTE B26 1.4MHz 16QAM Middle Channel



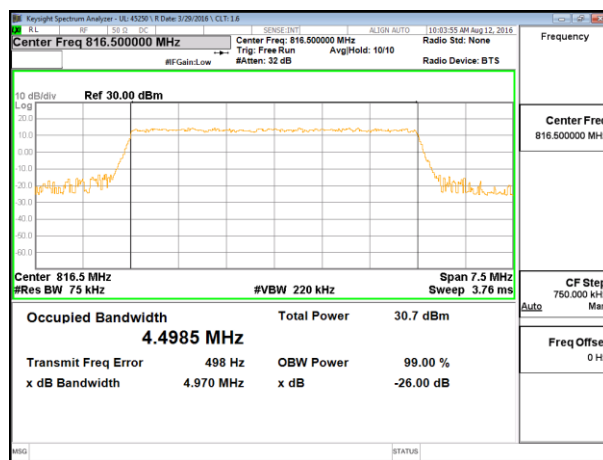
LTE B26 3MHz QPSK Middle Channel



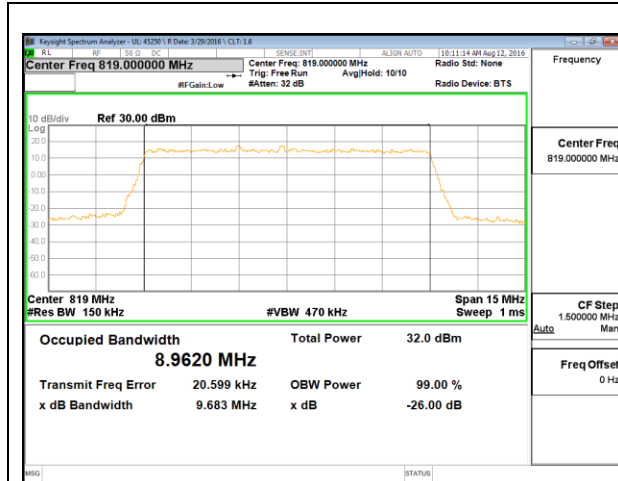
LTE B26 3MHz 16QAM Middle Channel



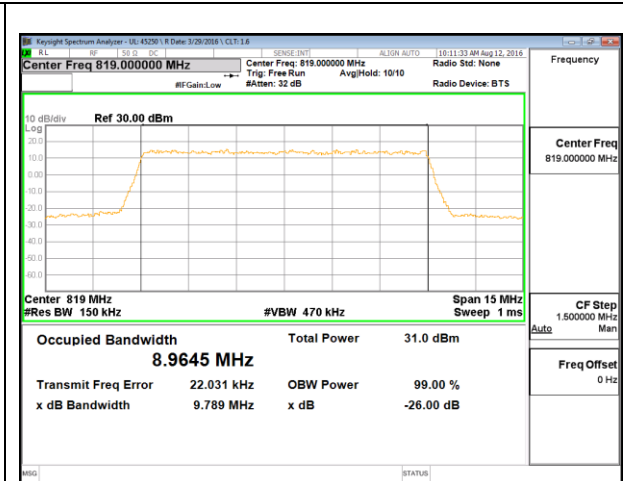
LTE B26 5MHz QPSK Middle Channel



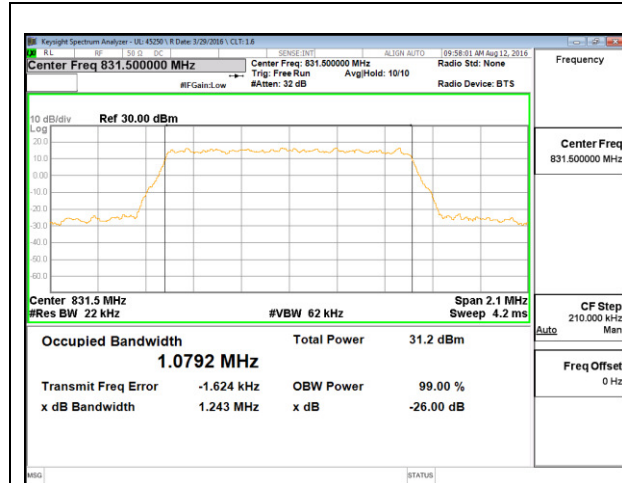
LTE B26 5MHz 16QAM Middle Channel



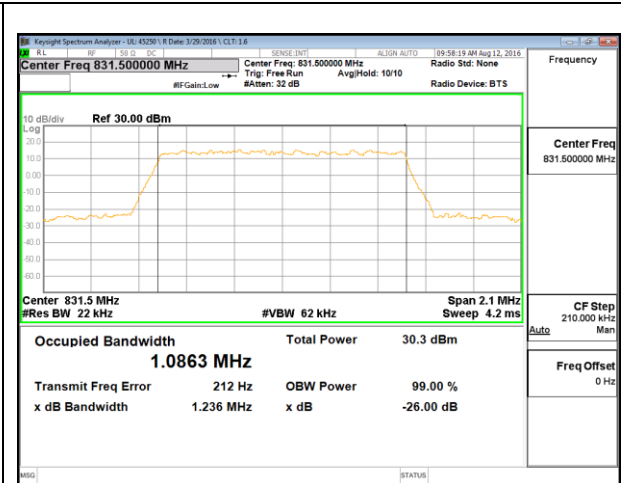
LTE B26 10MHz QPSK Middle Channel



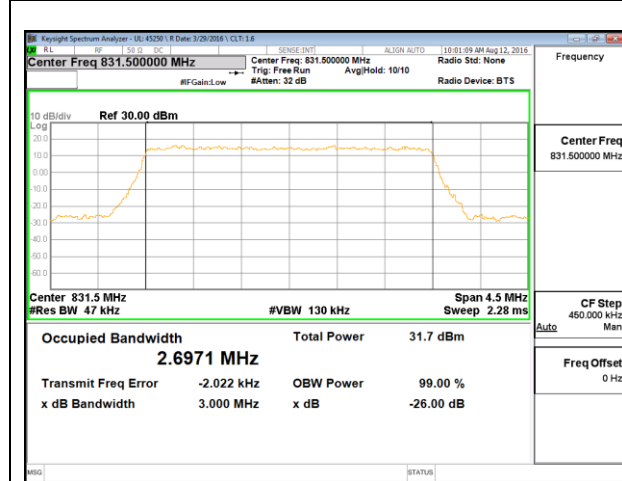
LTE B26 10MHz 16QAM Middle Channel



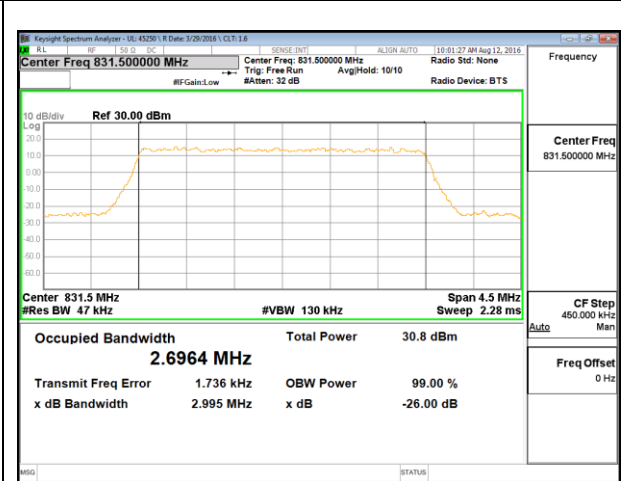
LTE B26 1.4MHz QPSK Middle Channel



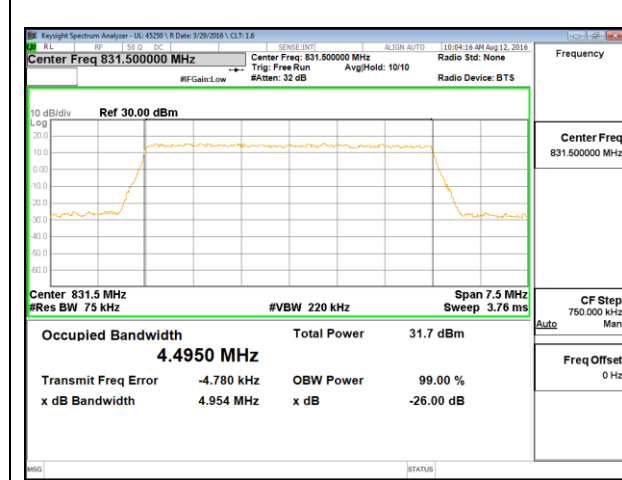
LTE B26 1.4MHz 16QAM Middle Channel



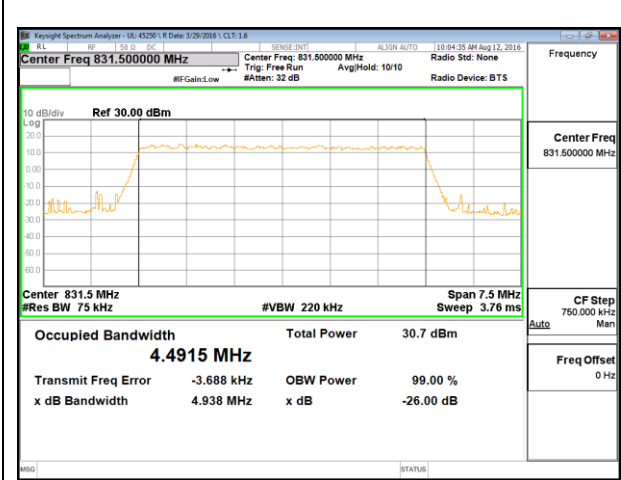
LTE B26 3MHz QPSK Middle Channel



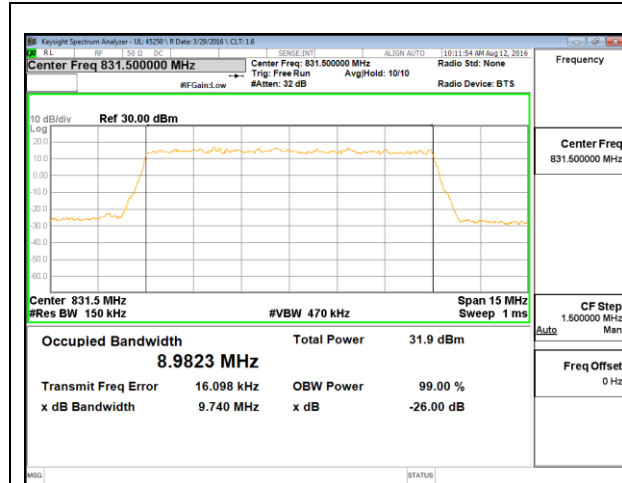
LTE B26 3MHz 16QAM Middle Channel



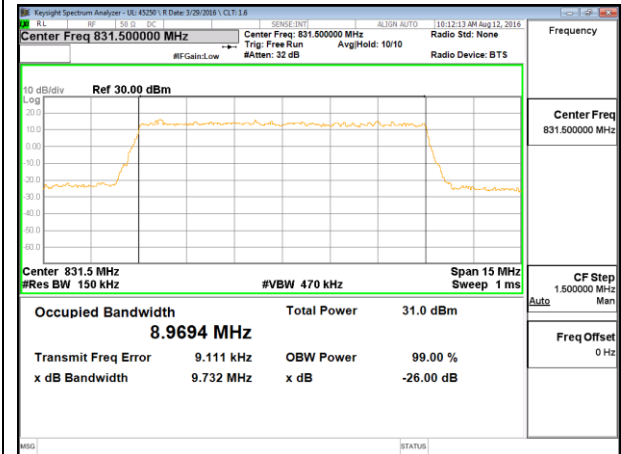
LTE B26 5MHz QPSK Middle Channel



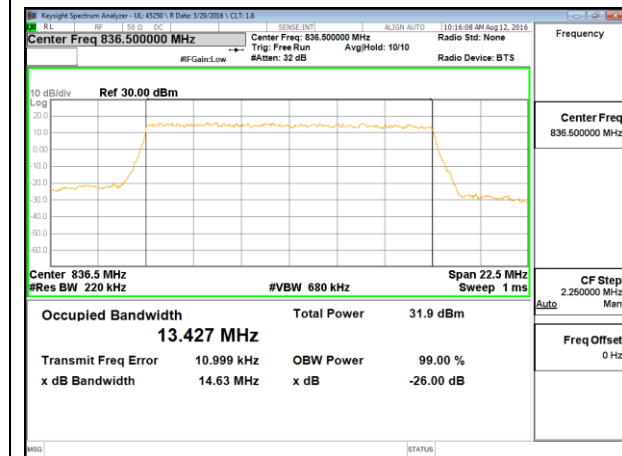
LTE B26 5MHz 16QAM Middle Channel



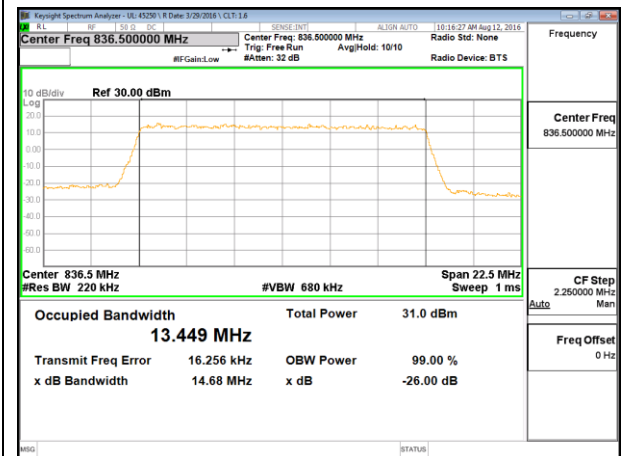
LTE B26 10MHz QPSK Middle Channel



LTE B26 10MHz 16QAM Middle Channel



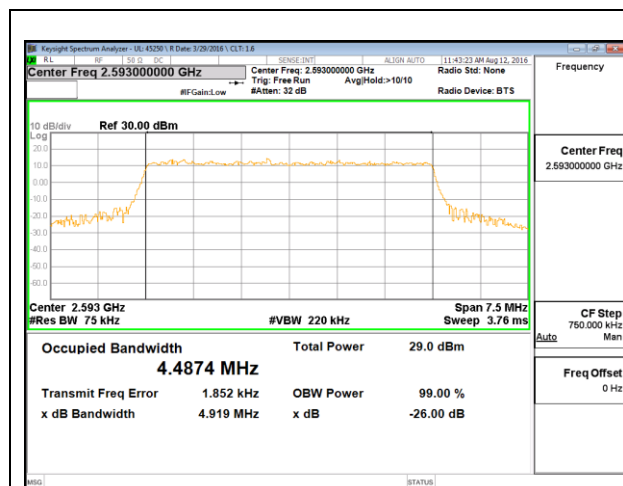
LTE B26 15MHz QPSK Middle Channel



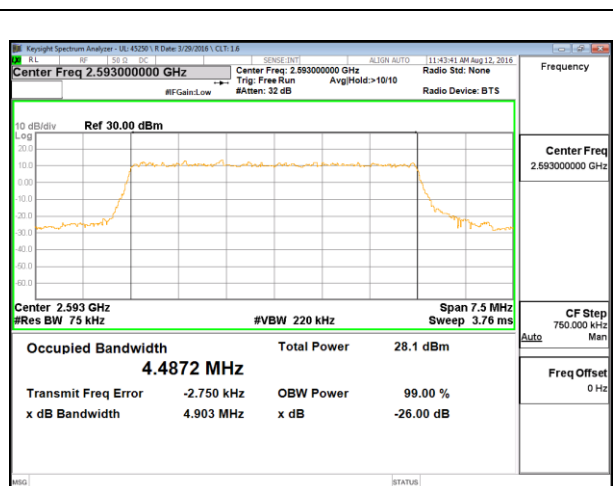
LTE B26 15MHz 16QAM Middle Channel

LTE Band 41

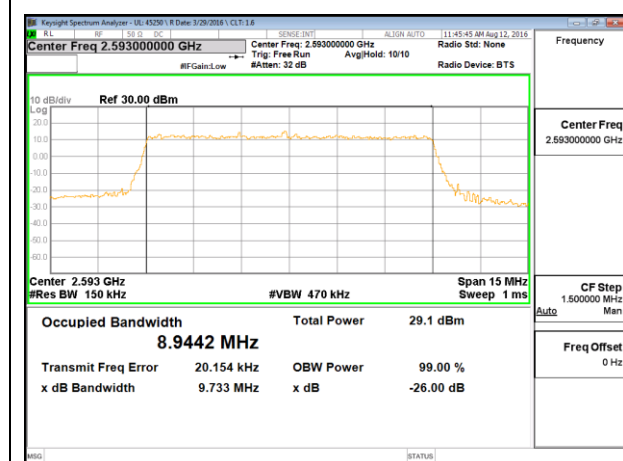
| BW(MHz) | Mode | RB/RB Size | f (MHz) | 99% BW (MHz) | -26dB BW (MHz) |
|---------|-------|------------|---------|--------------|----------------|
| 5 | QPSK | 25/0 | 2498.5 | 4.5 | 4.89 |
| | | 25/0 | 2593 | 4.49 | 4.92 |
| | | 25/0 | 2687.5 | 4.49 | 4.96 |
| | 16QAM | 25/0 | 2498.5 | 4.49 | 4.92 |
| | | 25/0 | 2593 | 4.49 | 4.9 |
| | | 25/0 | 2687.5 | 4.49 | 4.97 |
| 10 | QPSK | 50/0 | 2501 | 8.96 | 9.72 |
| | | 50/0 | 2593 | 8.94 | 9.73 |
| | | 50/0 | 2685 | 8.97 | 9.77 |
| | 16QAM | 50/0 | 2501 | 8.98 | 9.89 |
| | | 50/0 | 2593 | 8.99 | 9.82 |
| | | 50/0 | 2685 | 8.96 | 9.97 |
| 15 | QPSK | 75/0 | 2503.5 | 13.46 | 14.61 |
| | | 75/0 | 2593 | 13.46 | 14.98 |
| | | 75/0 | 2682.5 | 13.45 | 14.67 |
| | 16QAM | 75/0 | 2503.5 | 13.48 | 15.11 |
| | | 75/0 | 2593 | 13.47 | 15.08 |
| | | 75/0 | 2682.5 | 13.45 | 14.49 |
| 20 | QPSK | 100/0 | 2506 | 17.94 | 19.6 |
| | | 100/0 | 2593 | 17.95 | 19.7 |
| | | 100/0 | 2680 | 17.9 | 19.76 |
| | 16QAM | 100/0 | 2506 | 17.93 | 20.18 |
| | | 100/0 | 2593 | 17.94 | 20.89 |
| | | 100/0 | 2680 | 17.92 | 19.5 |



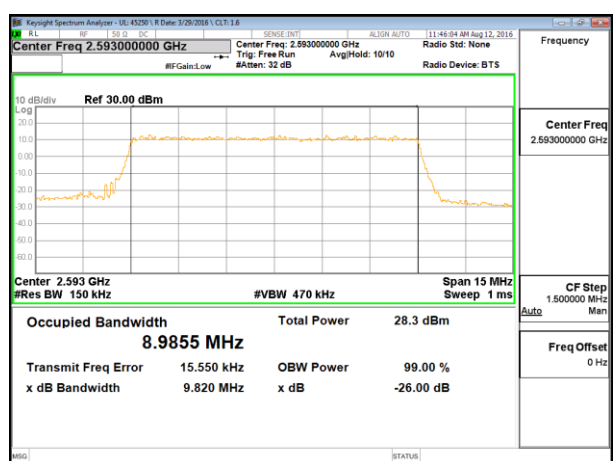
LTE B41 5MHz QPSK Middle Channel



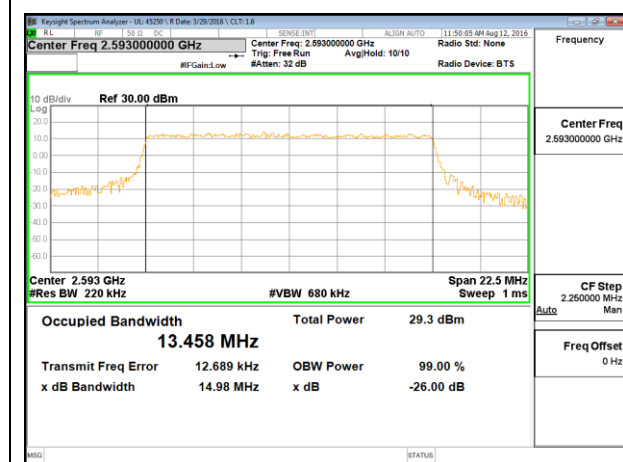
LTE B41 5MHz 16QAM Middle Channel



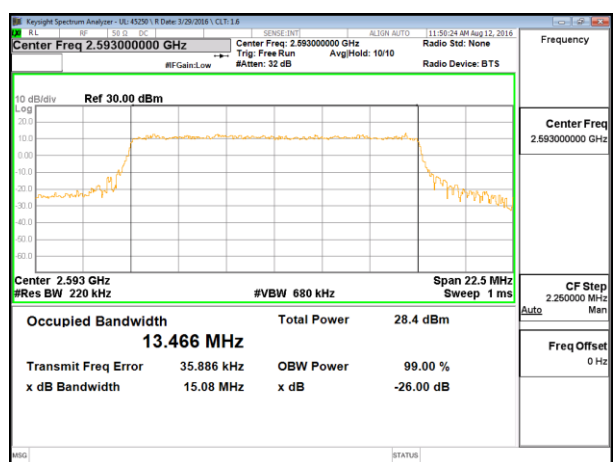
LTE B41 10MHz QPSK Middle Channel



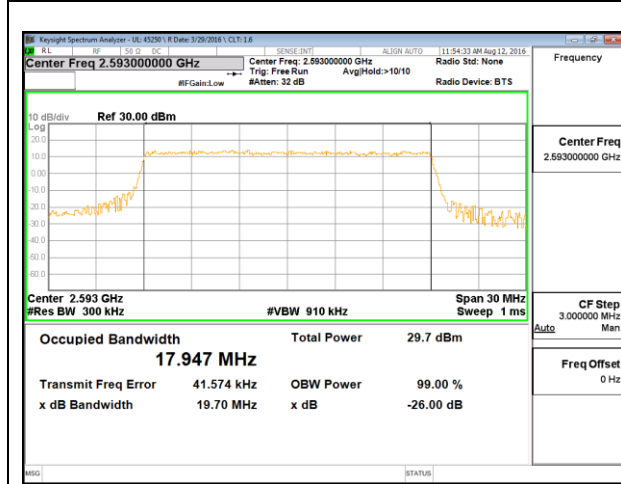
LTE B41 10MHz 16QAM Middle Channel



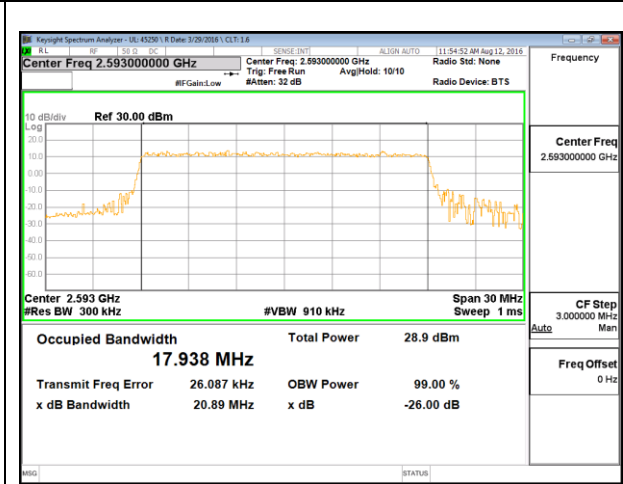
LTE B41 15MHz QPSK Middle Channel



LTE B41 15MHz 16QAM Middle Channel



LTE B41 20MHz QPSK Middle Channel



LTE B41 20MHz 16QAM Middle Channel

11. BAND EDGE EMISSIONS

RULE PART(S)

FCC: §22.359, §24.238, §27.53 and § 90.691

LIMITS

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.

Part 27: (m)(4) (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 than $43 + 10 \log (P)$ 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.

Part 90:

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

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

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

The transmitter output was connected to an Agilent 8960 or a CMW500 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

Note : LTE B41 Emission plot

1. RBW: 1MHz for Blue Trace
2. RBW: 2% of OBW for Red Trace

11.1. BAND EDGE PLOTS

GSM

