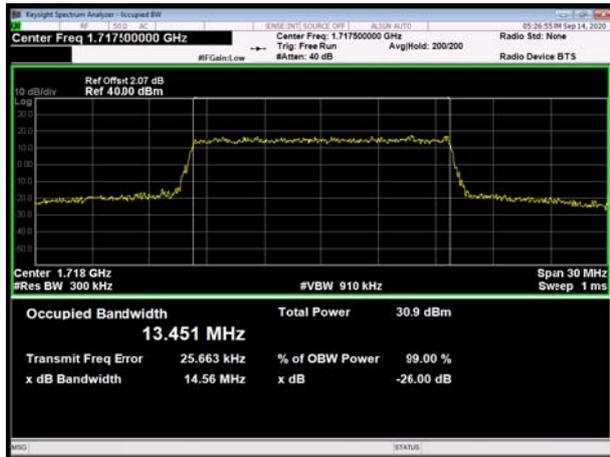




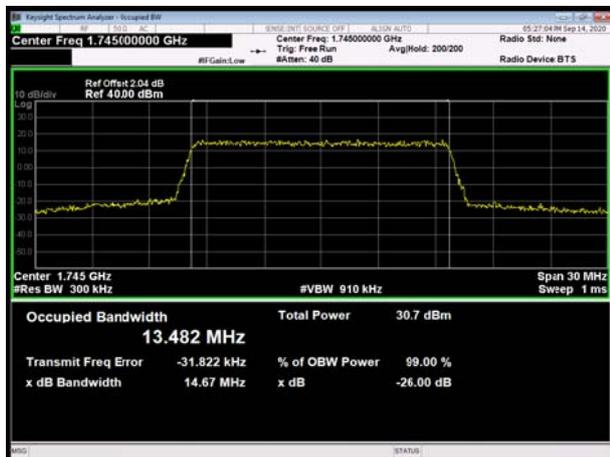
LTE Band 66 16QAM 15MHz CH-Low



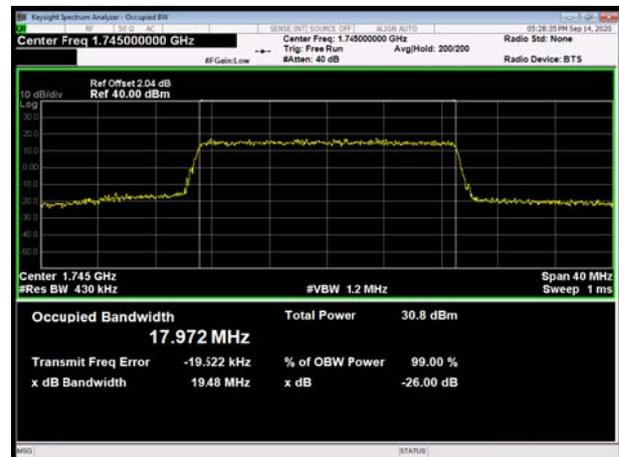
LTE Band 66 16QAM 20MHz CH-Low



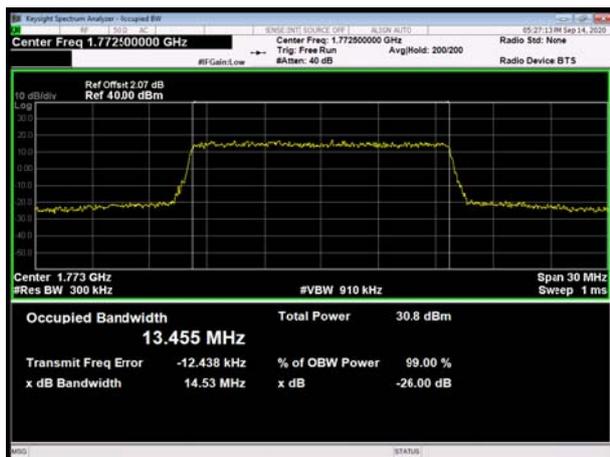
LTE Band 66 16QAM 15MHz CH-Middle



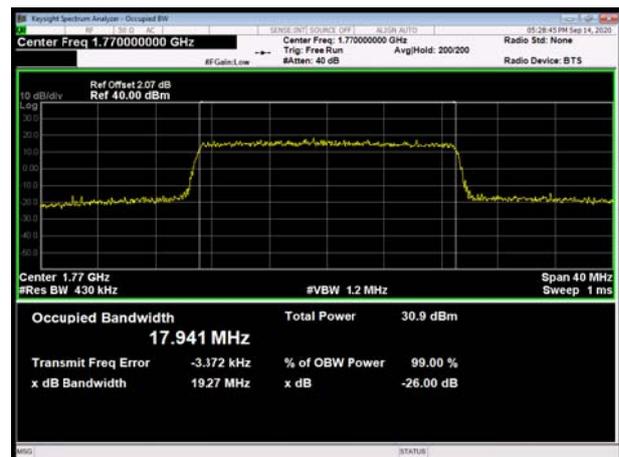
LTE Band 66 16QAM 20MHz CH-Middle



LTE Band 66 16QAM 15MHz CH-High



LTE Band 66 16QAM 20MHz CH-High

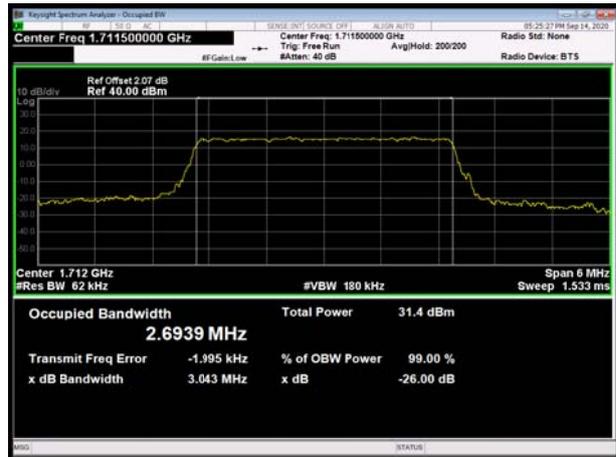




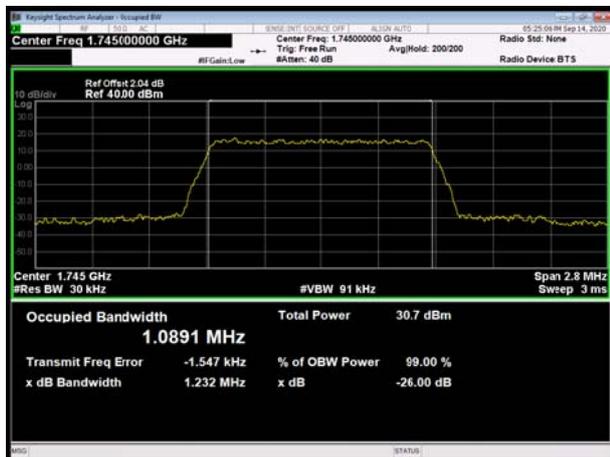
LTE Band 66 64QAM 1.4MHz CH-Low



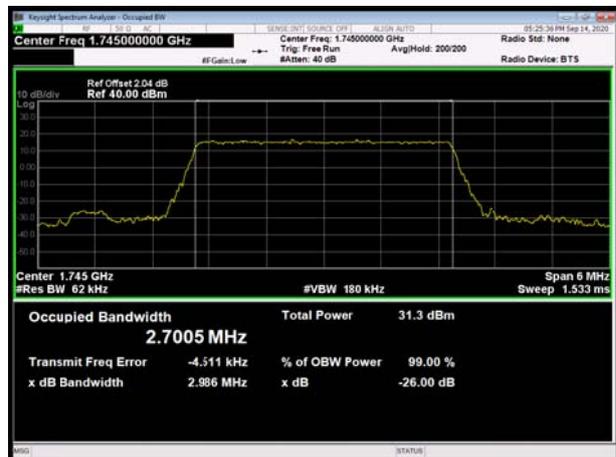
LTE Band 66 64QAM 3MHz CH-Low



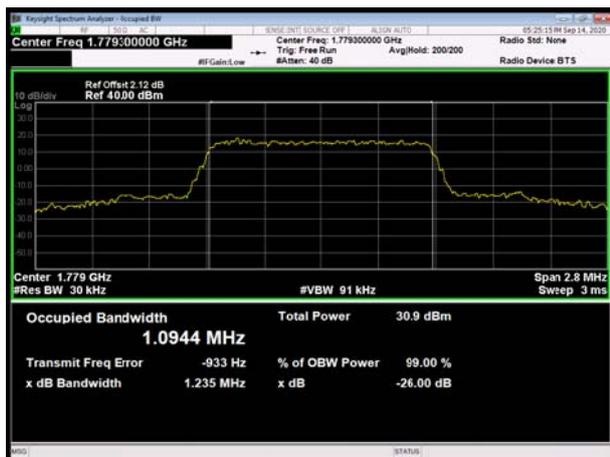
LTE Band 66 64QAM 1.4MHz CH-Middle



LTE Band 66 64QAM 3MHz CH-Middle



LTE Band 66 64QAM 1.4MHz CH-High



LTE Band 66 64QAM 3MHz CH-High

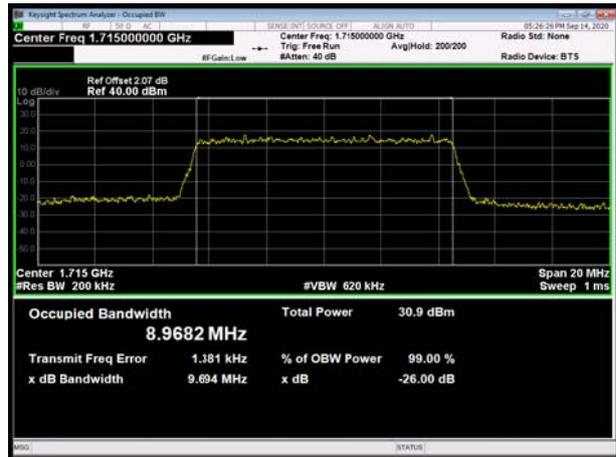




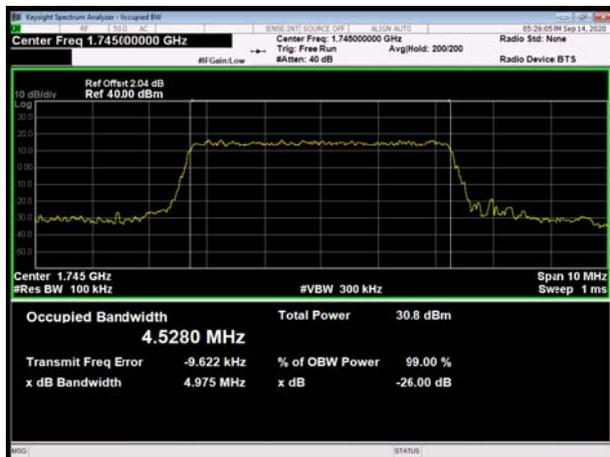
LTE Band 66 64QAM 5MHz CH-Low



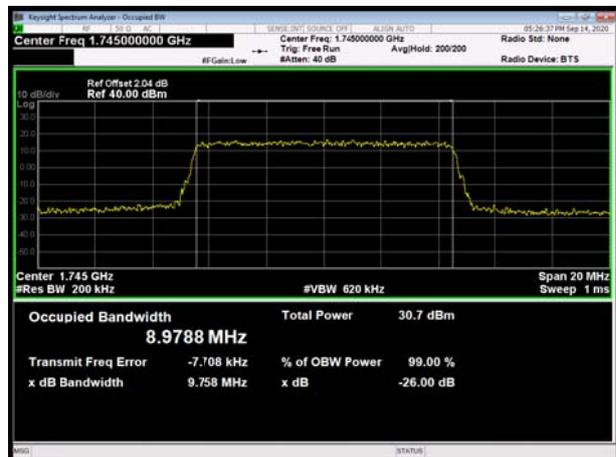
LTE Band 66 64QAM 10MHz CH-Low



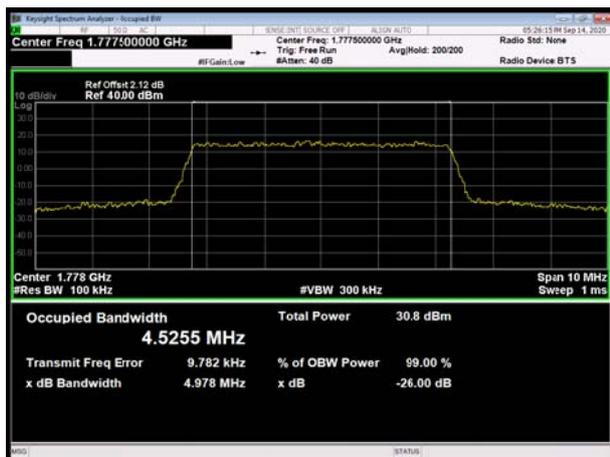
LTE Band 66 64QAM 5MHz CH-Middle



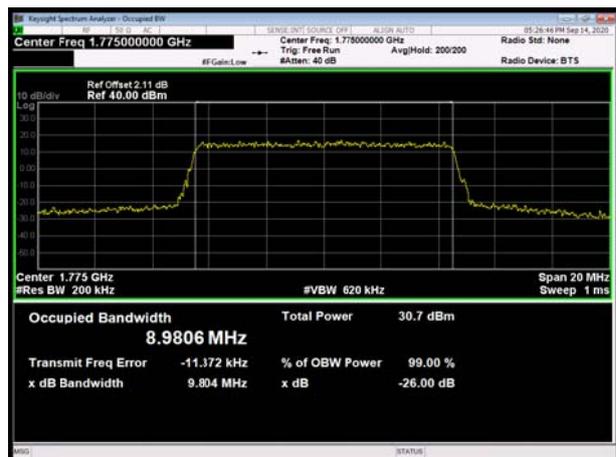
LTE Band 66 64QAM 10MHz CH-Middle



LTE Band 66 64QAM 5MHz CH-High



LTE Band 66 64QAM 10MHz CH-High

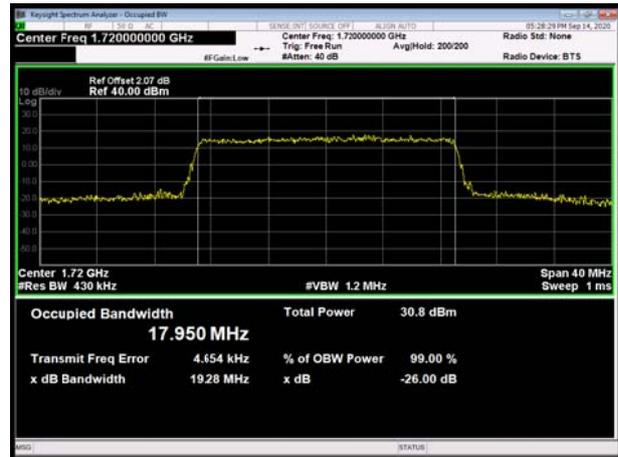




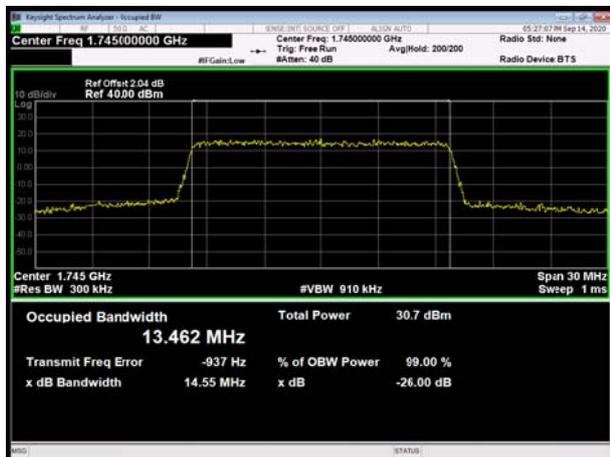
LTE Band 66 64QAM 15MHz CH-Low



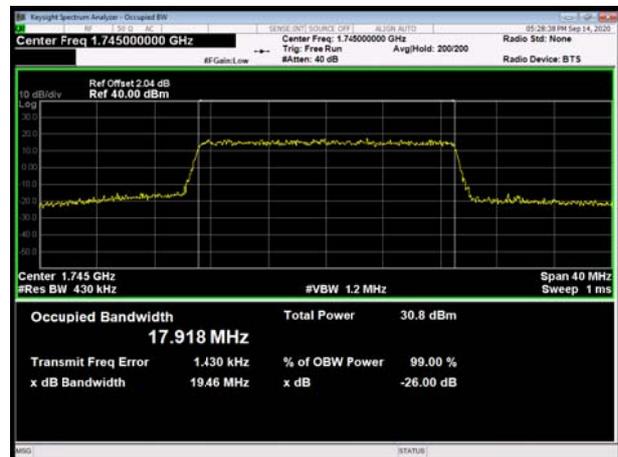
LTE Band 66 64QAM 20MHz CH-Low



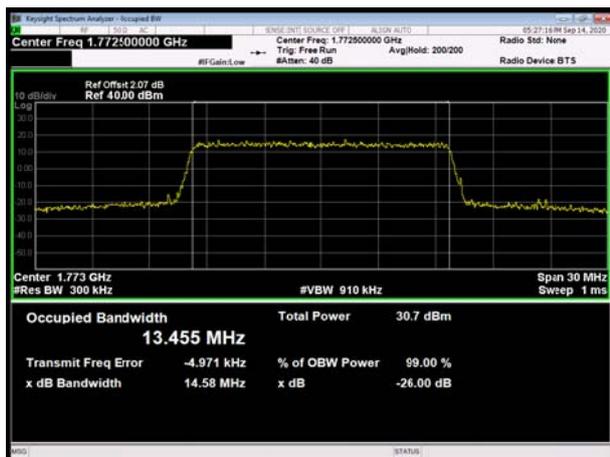
LTE Band 66 64QAM 15MHz CH-Middle



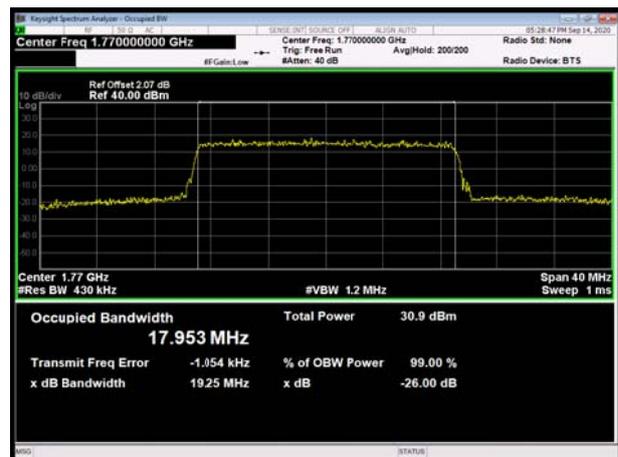
LTE Band 66 64QAM 20MHz CH-Middle



LTE Band 66 64QAM 15MHz CH-High

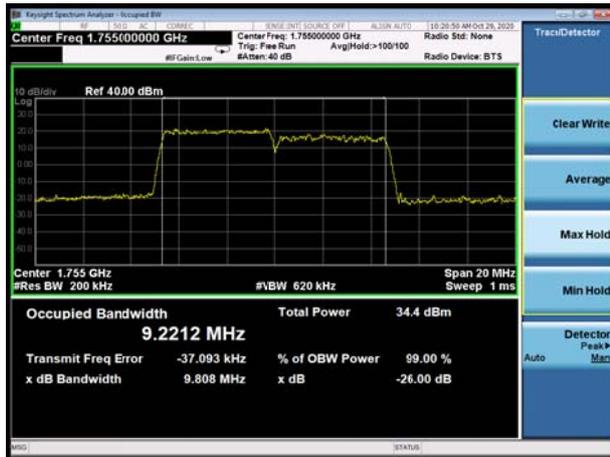


LTE Band 66 64QAM 20MHz CH-High

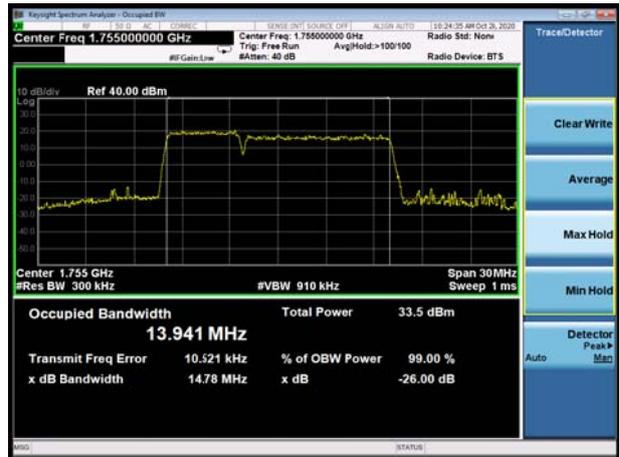




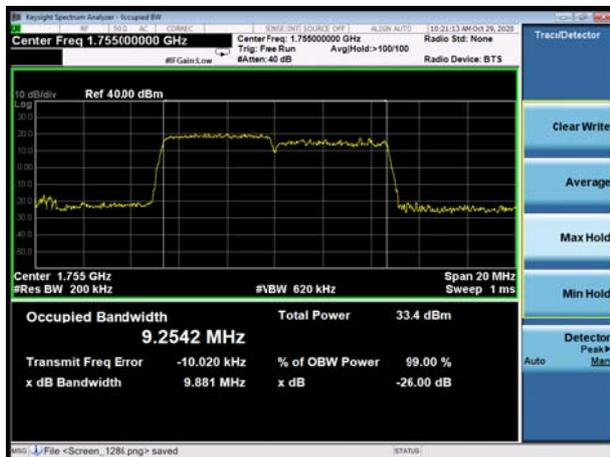
CA_66B_5MHz+5MHz_QPSK



CA_66B_5MHz+10MHz_QPSK



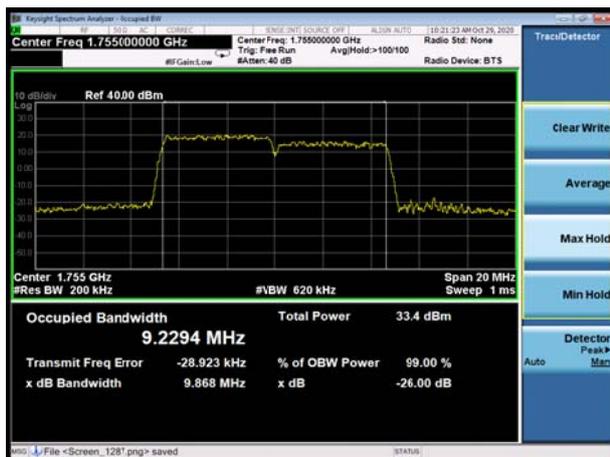
CA_66B_5MHz+5MHz_16QAM



CA_66B_5MHz+10MHz_16QAM



CA_66B_5MHz+5MHz_64QAM

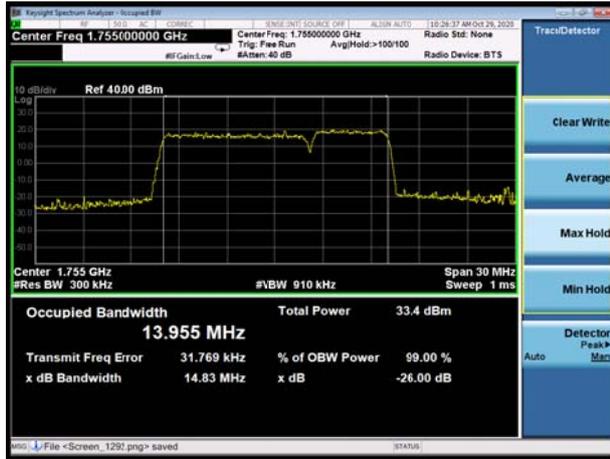


CA_66B_5MHz+10MHz_64QAM





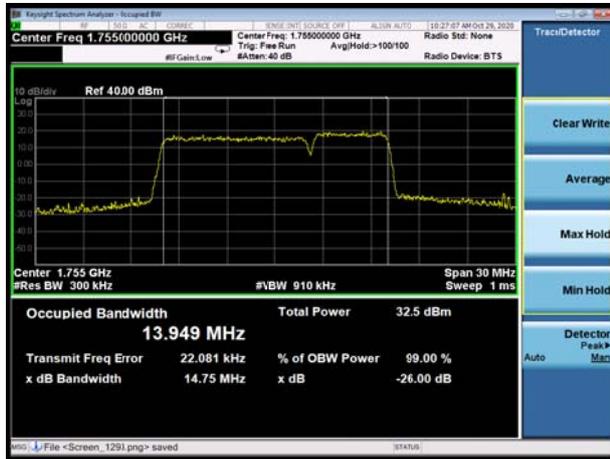
CA_66B_10MHz+5MHz_QPSK



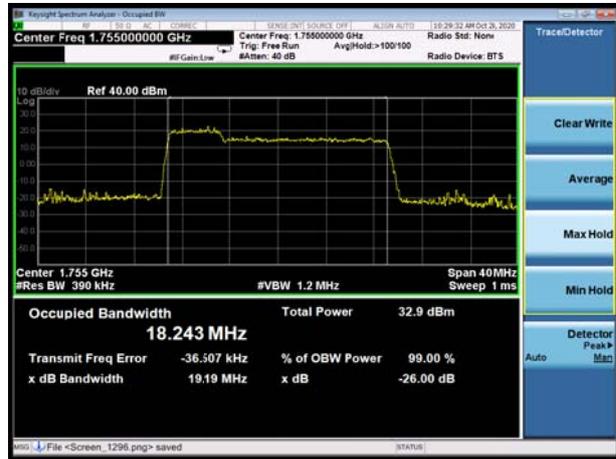
CA_66B_5MHz+15MHz_QPSK



CA_66B_10MHz+5MHz_16QAM



CA_66B_5MHz+15MHz_16QAM



CA_66B_10MHz+5MHz_64QAM



CA_66B_5MHz+15MHz_64QAM





CA_66B_15MHz+5MHz_QPSK



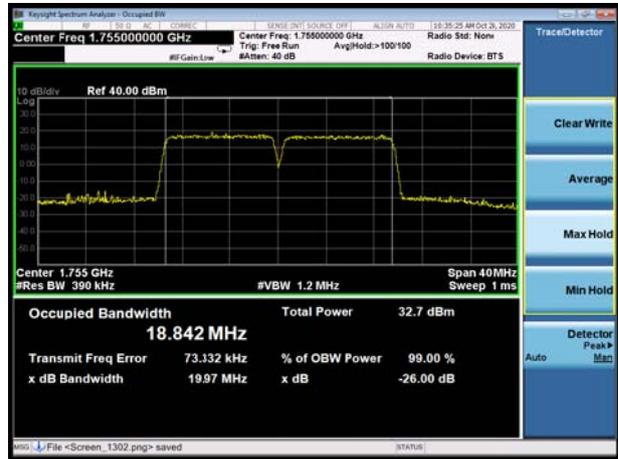
CA_66B_10MHz+10MHz_QPSK



CA_66B_15MHz+5MHz_16QAM



CA_66B_10MHz+10MHz_16QAM



CA_66B_15MHz+5MHz_64QAM



CA_66B_10MHz+10MHz_64QAM

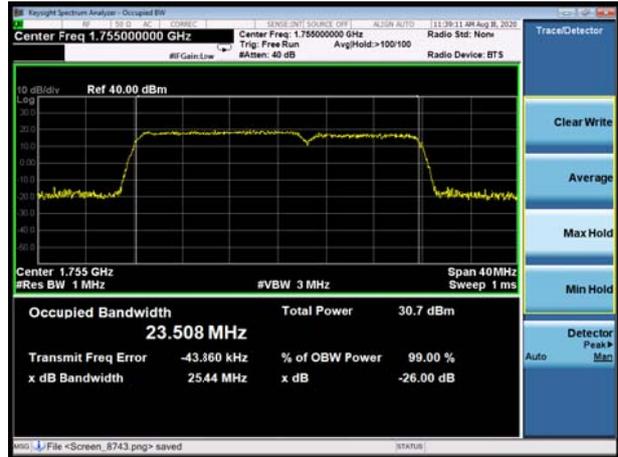




CA_66C_10MHz+15MHz_QPSK



CA_66C_15MHz+10MHz_QPSK



CA_66C_10MHz+15MHz_16QAM



CA_66C_15MHz+10MHz_16QAM



CA_66C_10MHz+15MHz_64QAM



CA_66C_15MHz+10MHz_64QAM

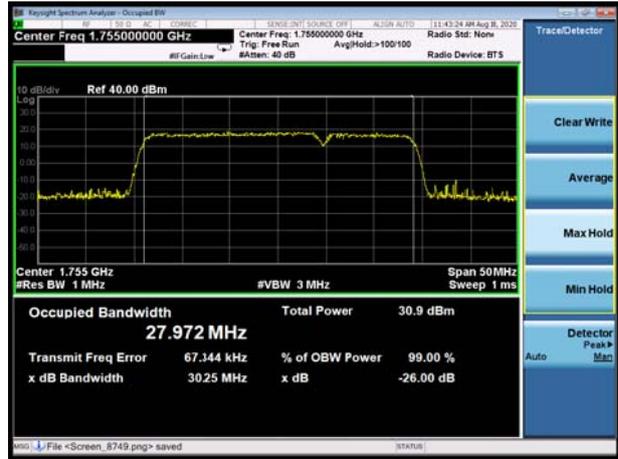




CA_66C_10MHz+20MHz_QPSK



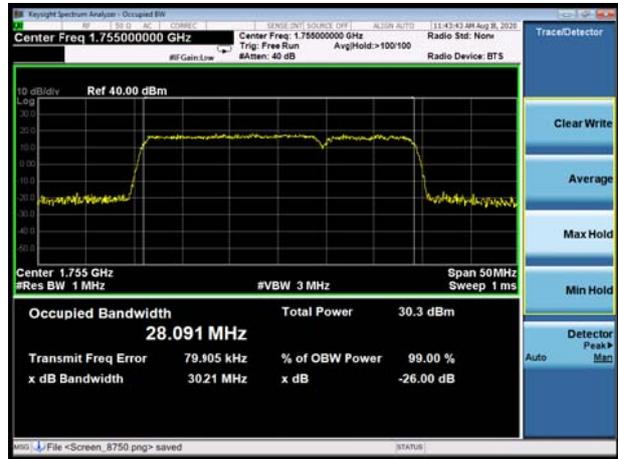
CA_66C_20MHz+10MHz_QPSK



CA_66C_10MHz+20MHz_16QAM



CA_66C_20MHz+10MHz_16QAM



CA_66C_10MHz+20MHz_64QAM

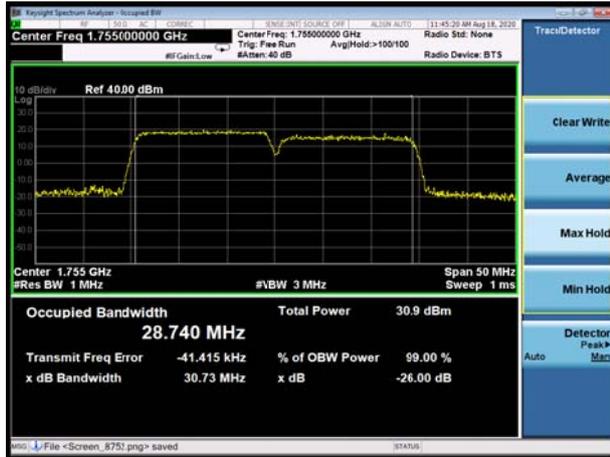


CA_66C_20MHz+10MHz_64QAM





CA_66C_15MHz+15MHz_QPSK



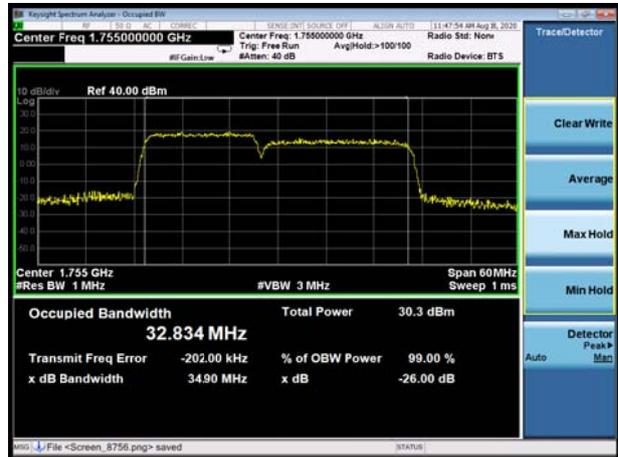
CA_66C_15MHz+20MHz_QPSK



CA_66C_15MHz+15MHz_16QAM



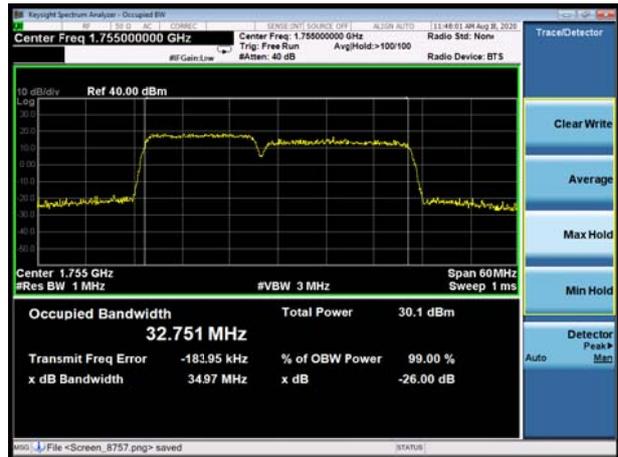
CA_66C_15MHz+20MHz_16QAM



CA_66C_15MHz+15MHz_64QAM

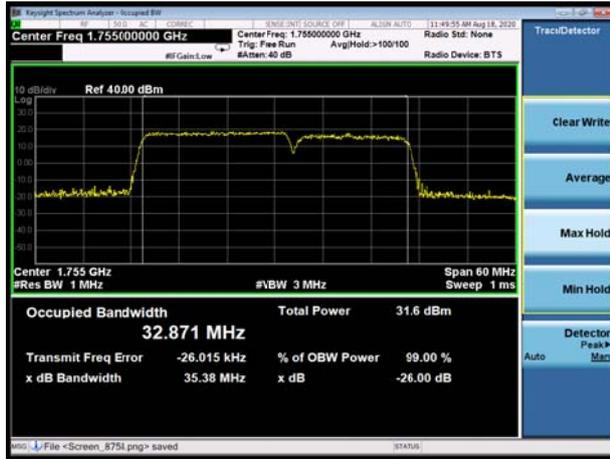


CA_66C_15MHz+20MHz_64QAM

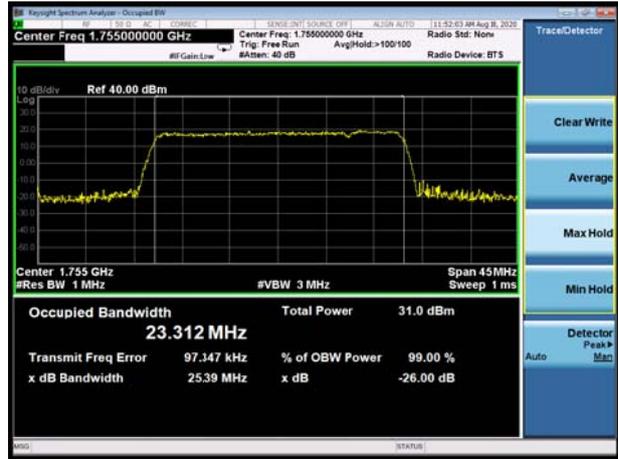




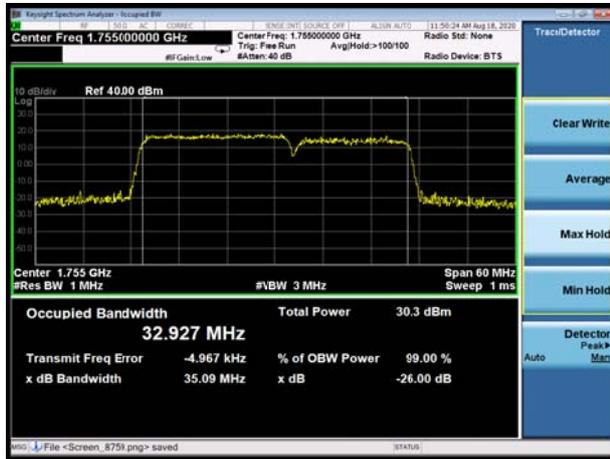
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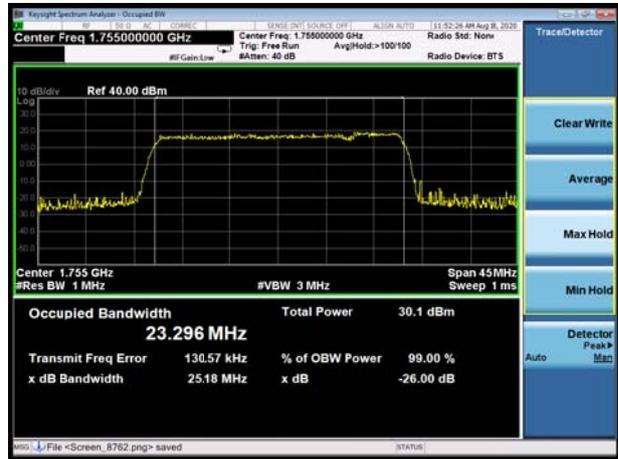
CA_66C_20MHz+5MHz_QPSK



CA_66C_20MHz+15MHz_16QAM



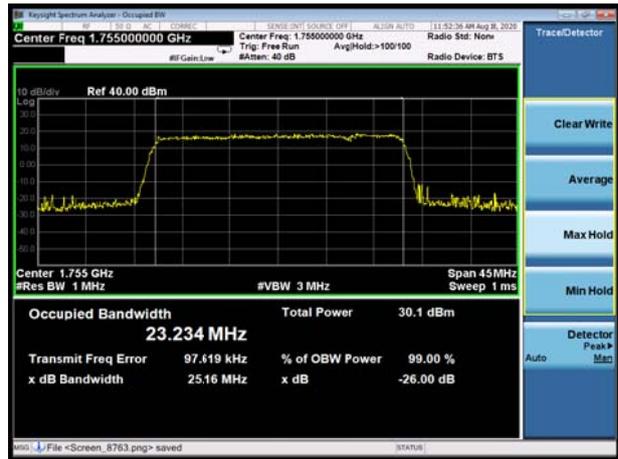
CA_66C_20MHz+5MHz_16QAM



CA_66C_20MHz+15MHz_64QAM



CA_66C_20MHz+5MHz_64QAM

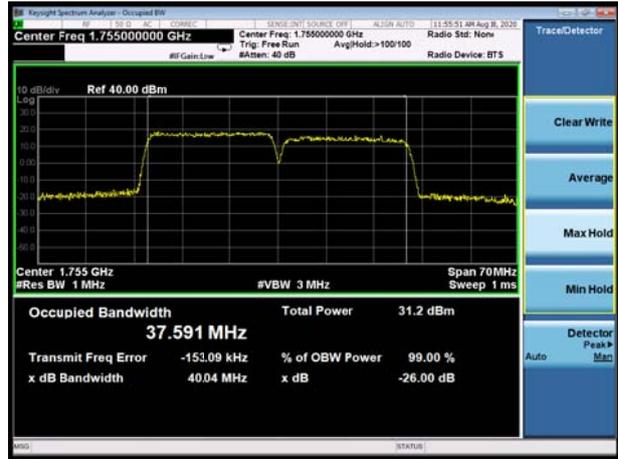




CA_66C_5MHz+20MHz_QPSK



CA_66C_20MHz+20MHz_QPSK



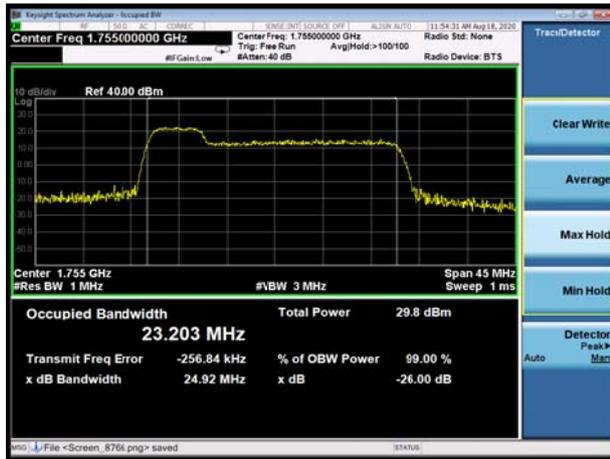
CA_66C_5MHz+20MHz_16QAM



CA_66C_20MHz+20MHz_16QAM



CA_66C_5MHz+20MHz_64QAM



CA_66C_20MHz+20Hz_64QAM





5.3 Band Edge Compliance

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured.

The testing follows KDB 971168 D01 v03r01 Section 6.0

The EUT was connected to spectrum analyzer and system simulator via a power divider.

The band edges of low and high channels for the highest RF powers were measured.

RBW is set to 15 kHz, VBW is set to 51 kHz for LTE Band 4/66 (1.4MHz).

RBW is set to 30 kHz, VBW is set to 91 kHz for LTE Band 4/66 (3MHz).

RBW is set to 51 kHz, VBW is set to 150 kHz for LTE Band 4/13/66 (5MHz).

RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 4/13/66 (10MHz).

RBW is set to 150 kHz, VBW is set to 470 kHz for LTE Band 4/66 (15MHz).

RBW is set to 200 kHz, VBW is set to 620 kHz for LTE Band 4/66 (20MHz)

RBW is set to 30 kHz, VBW is set to 100kHz for LTE Band 12(1.4MHz/3MHz/5MHz/10MHz).

RBW is set to 6.8 kHz for LTE Band 13 (763MHz~775MHz).

RBW is set to 100 kHz for LTE Band 13 (775MHz~776.9MHz).

RBW is set to 30kHz for LTE Band 13 (776.9MHz~787.1MHz).

RBW is set to 100kHz for LTE Band 13 (787.1MHz~793MHz).

RBW is set to 6.8kHz for LTE Band 13 (793MHz~805MHz).

RBW is set to 130kHz, VBW is set to 390 kHz for CA_66B 5MHz+5MHz.

RBW is set to 220kHz, VBW is set to 680 kHz for CA_66B 10MHz+10MHz.

RBW is set to 300kHz, VBW is set to 910 kHz for CA_66C 10MHz+15MHz.

RBW is set to 430kHz, VBW is set to 1.3MHz for CA_66C 20MHz+20MHz.

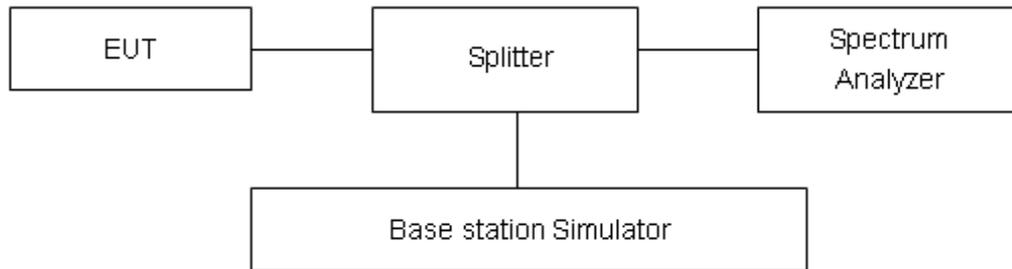
on spectrum analyzer.

Set spectrum analyzer with RMS detector.

The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

Checked that all the results comply with the emission limit line.

Test Setup



Limits

Rule Part 27.53(h) specifies that “ for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB”

Rule Part 27.53(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 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.

Rule Part 27.53(f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

Rule Part 27.53 (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:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in



the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

Measurement Uncertainty

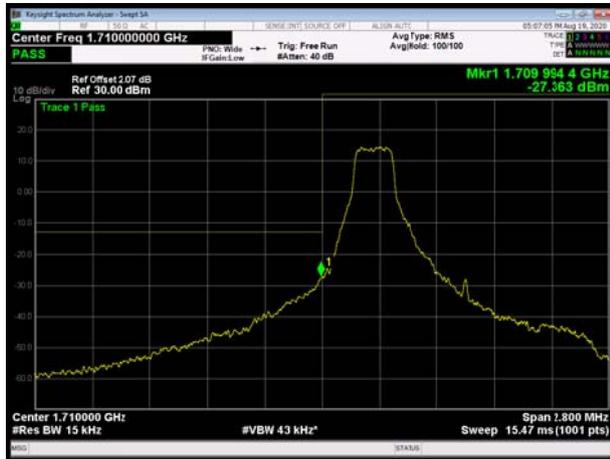
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U=0.684\text{dB}$.



Test Result

All the test traces in the plots shows the test results clearly.

LTE Band 4 QPSK 1.4MHz CH-Low, 1 RB



LTE Band 4 QPSK 1.4MHz CH-High, 1 RB



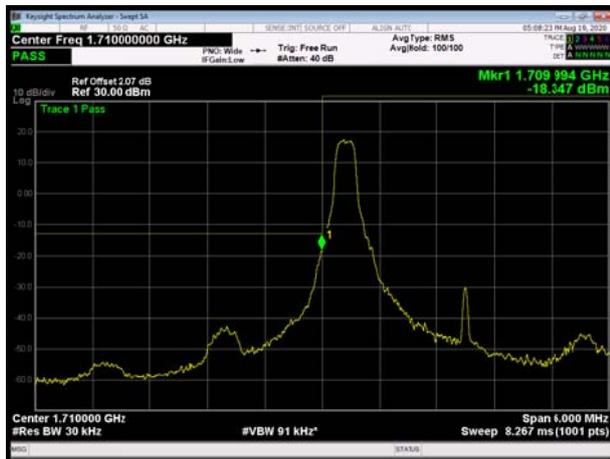
LTE Band 4 QPSK 1.4MHz CH-Low, 100%RB



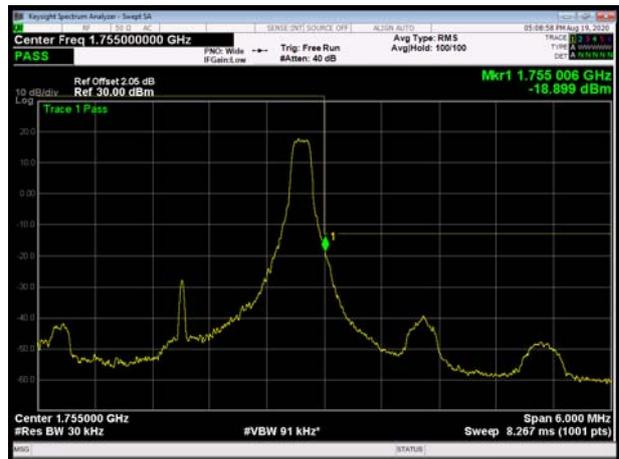
LTE Band 4 QPSK 1.4MHz CH-High, 100%RB



LTE Band 4 QPSK 3MHz CH-Low, 1 RB



LTE Band 4 QPSK 3MHz CH-High, 1 RB

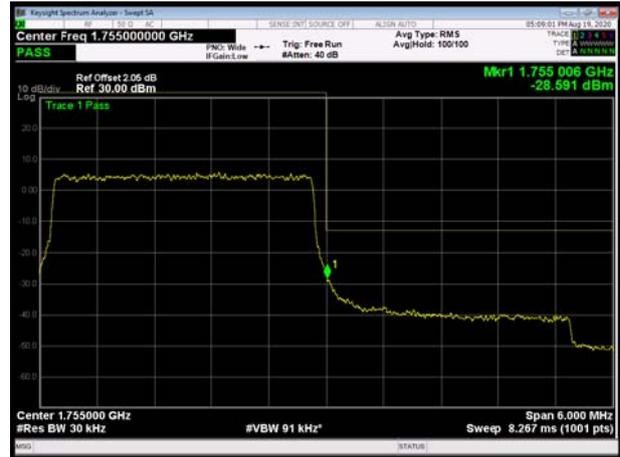




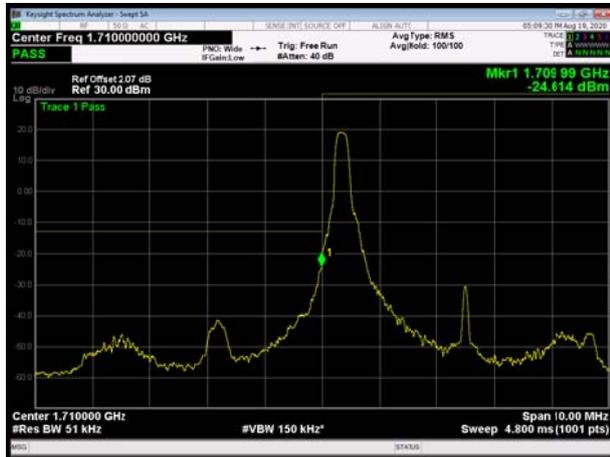
LTE Band 4 QPSK 3MHz CH-Low, 100%RB



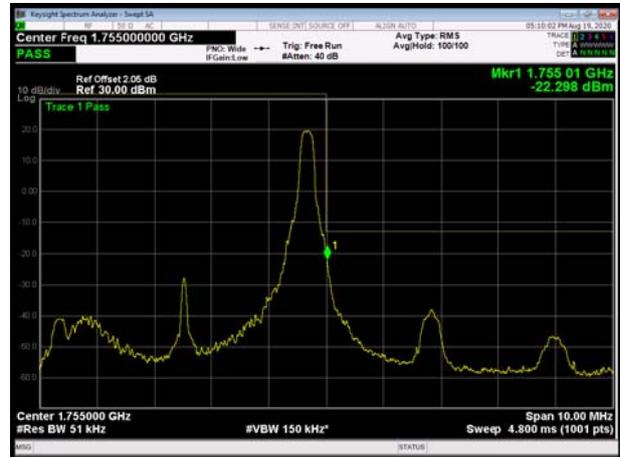
LTE Band 4 QPSK 3MHz CH-High, 100%RB



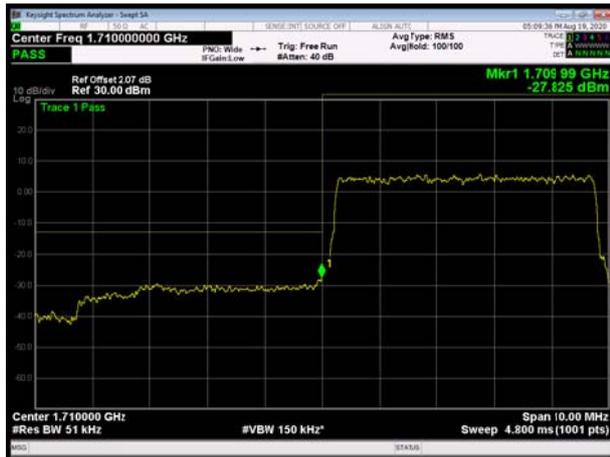
LTE Band 4 QPSK 5MHz CH-Low, 1 RB



LTE Band 4 QPSK 5MHz CH-High, 1 RB



LTE Band 4 QPSK 5MHz CH-Low, 100%RB

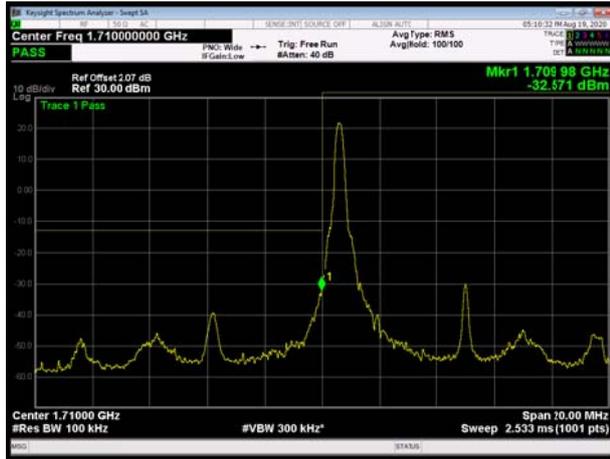


LTE Band 4 QPSK 5MHz CH-High, 100%RB

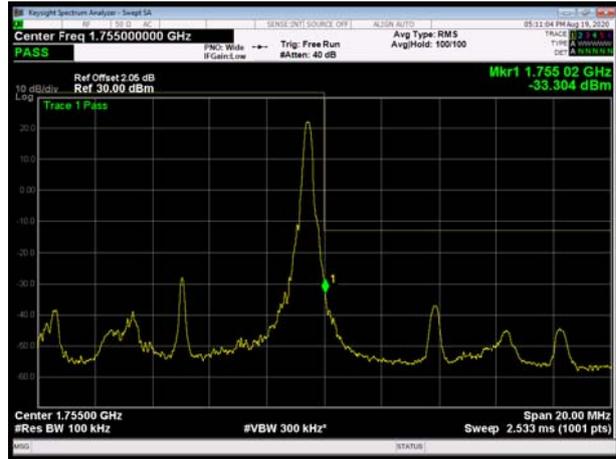




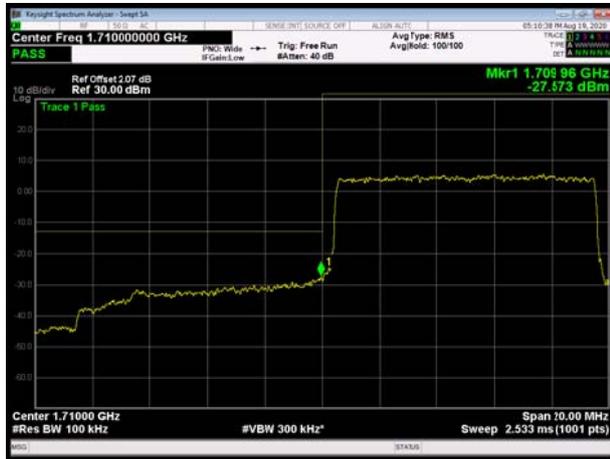
LTE Band 4 QPSK 10MHz CH-Low, 1 RB



LTE Band 4 QPSK 10MHz CH-High, 1 RB



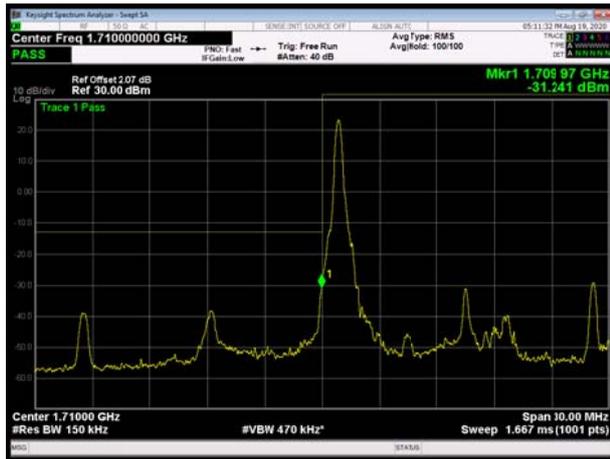
LTE Band 4 QPSK 10MHz CH-Low, 100%RB



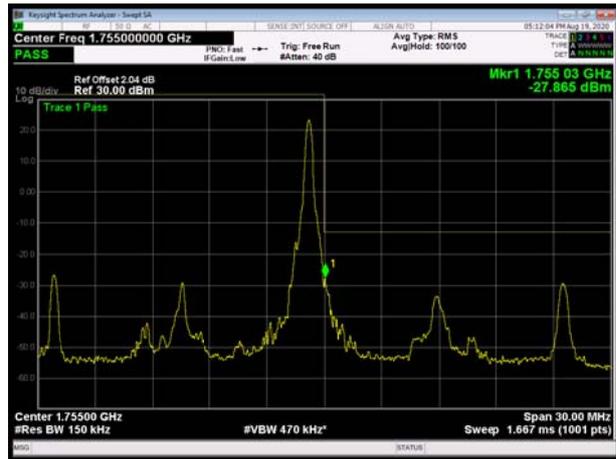
LTE Band 4 QPSK 10MHz CH-High, 100%RB



LTE Band 4 QPSK 15MHz CH-Low, 1 RB

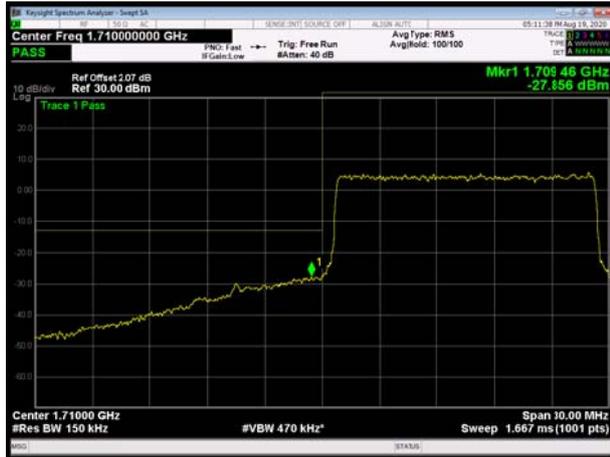


LTE Band 4 QPSK 15MHz CH-High, 1 RB

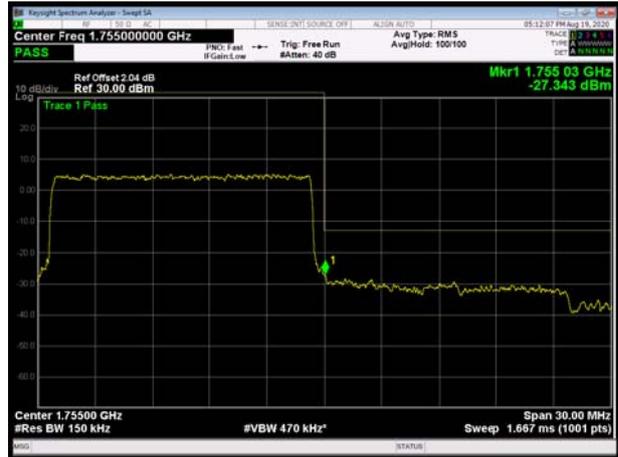




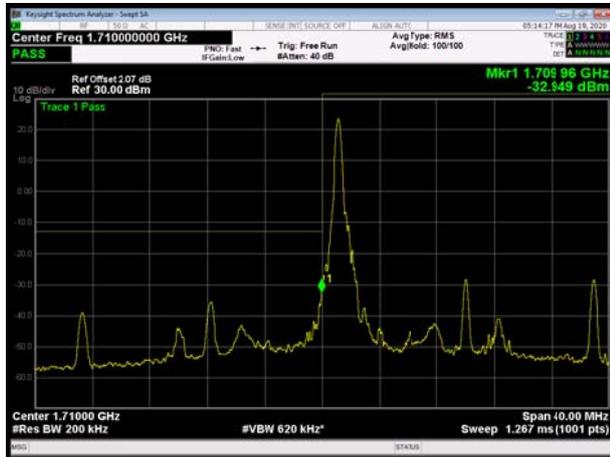
LTE Band 4 QPSK 15MHz CH-Low, 100%RB



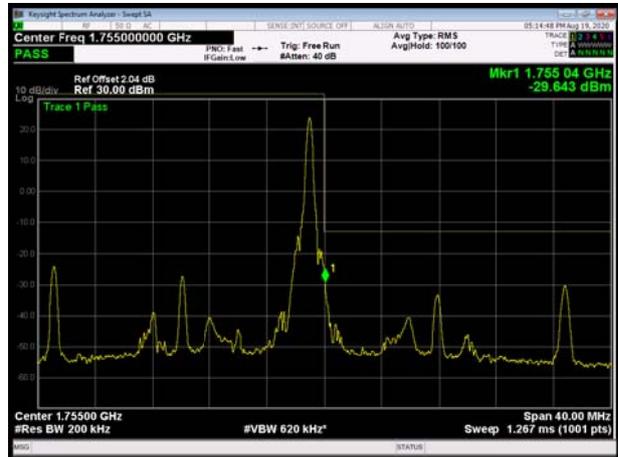
LTE Band 4 QPSK 15MHz CH-High, 100%RB



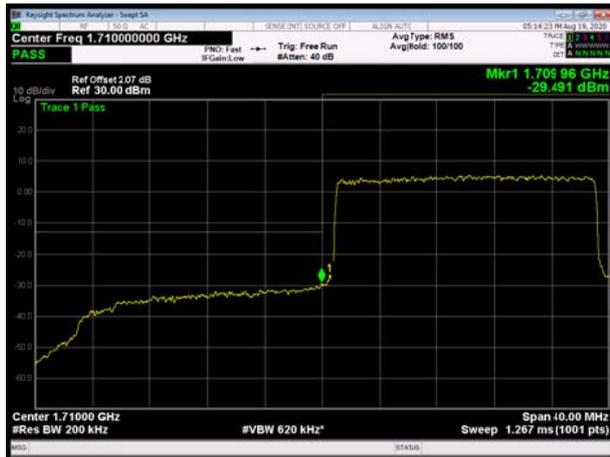
LTE Band 4 QPSK 20MHz CH-Low, 1 RB



LTE Band 4 QPSK 20MHz CH-High, 1 RB



LTE Band 4 QPSK 20MHz CH-Low, 100%RB

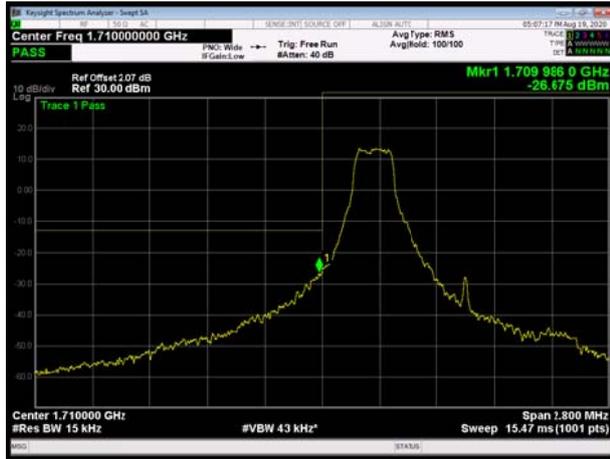


LTE Band 4 QPSK 20MHz CH-High, 100%RB

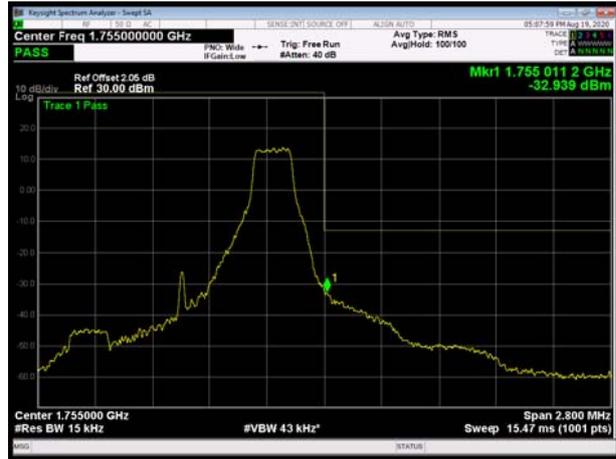




LTE Band 4 16QAM 1.4MHz CH-Low, 1 RB



LTE Band 4 16QAM 1.4MHz CH-High, 1 RB



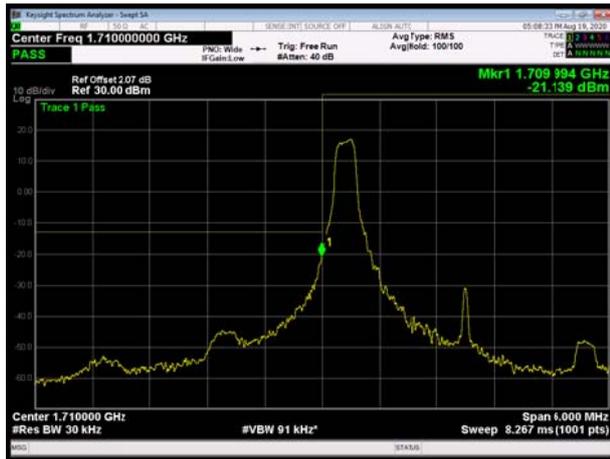
LTE Band 4 16QAM 1.4MHz CH-Low, 100%RB



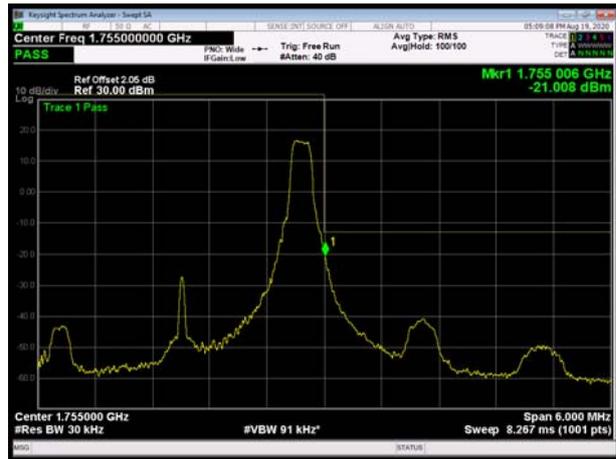
LTE Band 4 16QAM 1.4MHz CH-High, 100%RB



LTE Band 4 16QAM 3MHz CH-Low, 1 RB

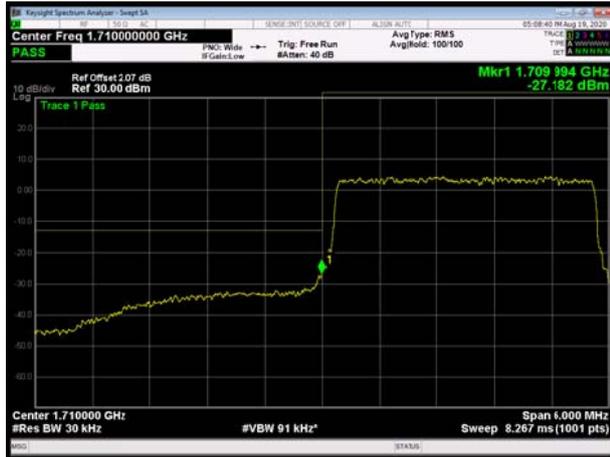


LTE Band 4 16QAM 3MHz CH-High, 1 RB

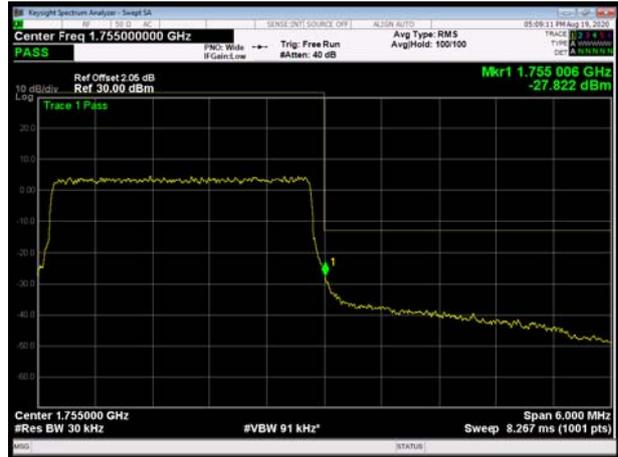




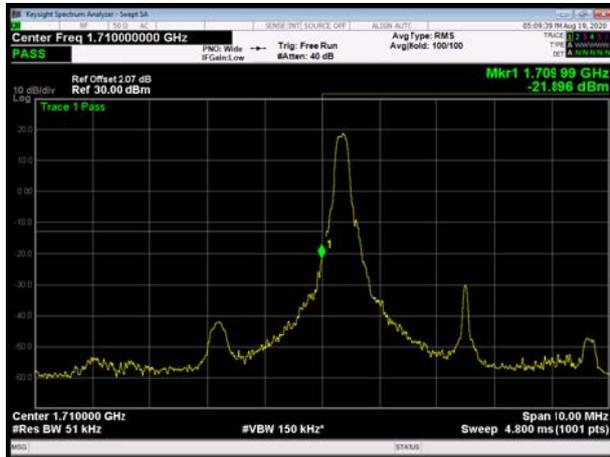
LTE Band 4 16QAM 3MHz CH-Low, 100%RB



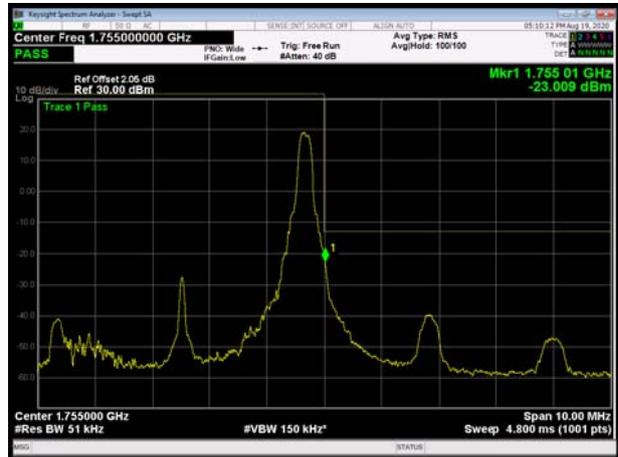
LTE Band 4 16QAM 3MHz CH-High, 100%RB



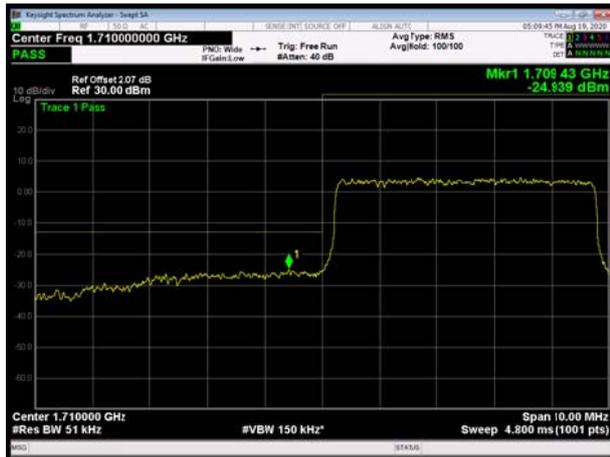
LTE Band 4 16QAM 5MHz CH-Low, 1 RB



LTE Band 4 16QAM 5MHz CH-High, 1 RB



LTE Band 4 16QAM 5MHz CH-Low, 100%RB

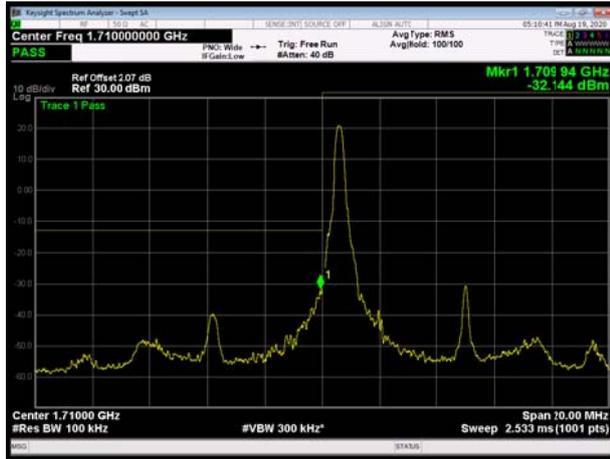


LTE Band 4 16QAM 5MHz CH-High, 100%RB

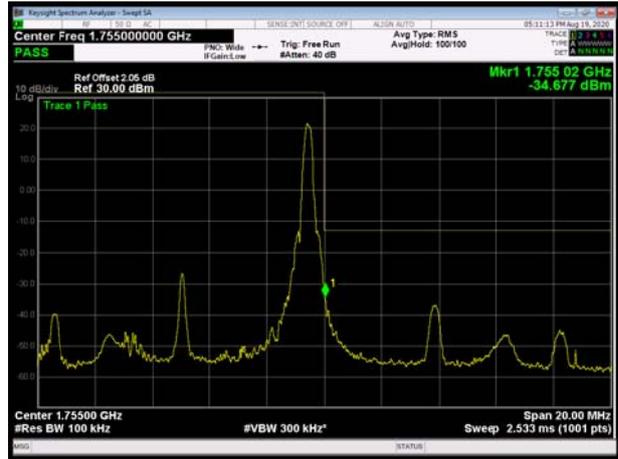




LTE Band 4 16QAM 10MHz CH-Low, 1 RB



LTE Band 4 16QAM 10MHz CH-High, 1 RB



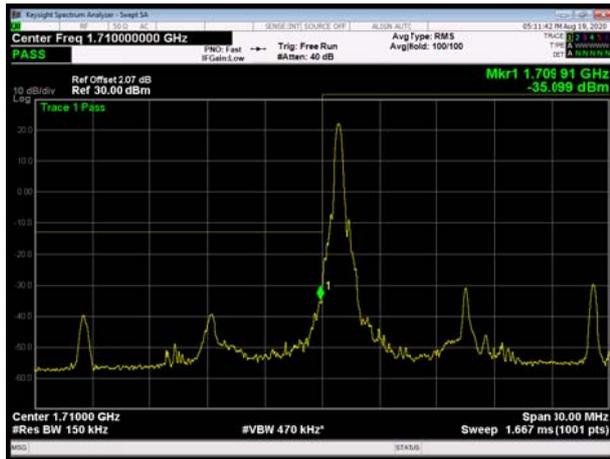
LTE Band 4 16QAM 10MHz CH-Low, 100%RB



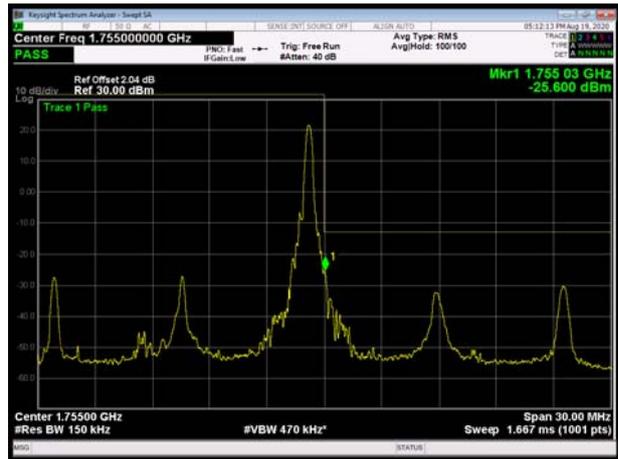
LTE Band 4 16QAM 10MHz CH-High, 100%RB



LTE Band 4 16QAM 15MHz CH-Low, 1 RB

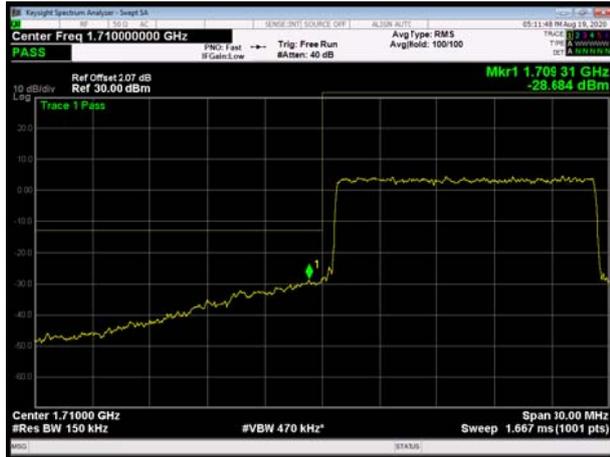


LTE Band 4 16QAM 15MHz CH-High, 1 RB

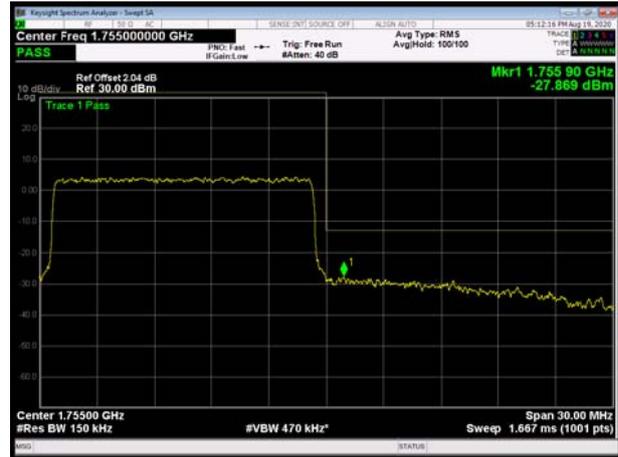




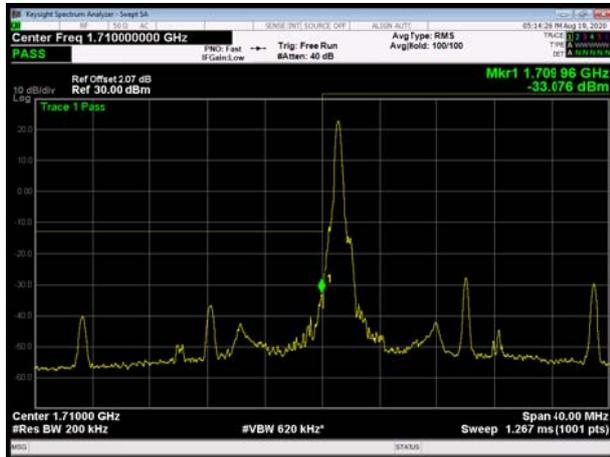
LTE Band 4 16QAM 15MHz CH-Low, 100%RB



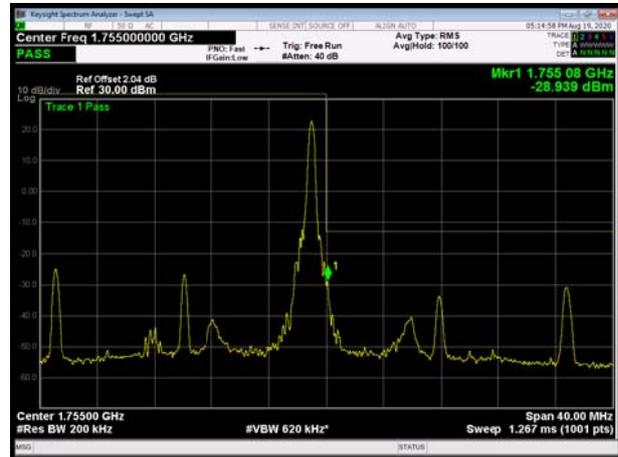
LTE Band 4 16QAM 15MHz CH-High, 100%RB



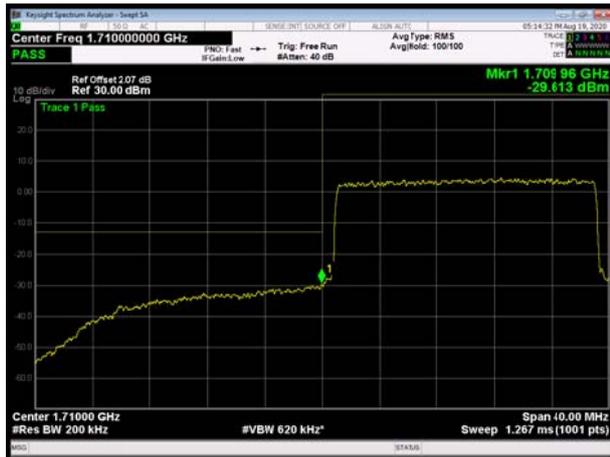
LTE Band 4 16QAM 20MHz CH-Low, 1 RB



LTE Band 4 16QAM 20MHz CH-High, 1 RB



LTE Band 4 16QAM 20MHz CH-Low, 100%RB

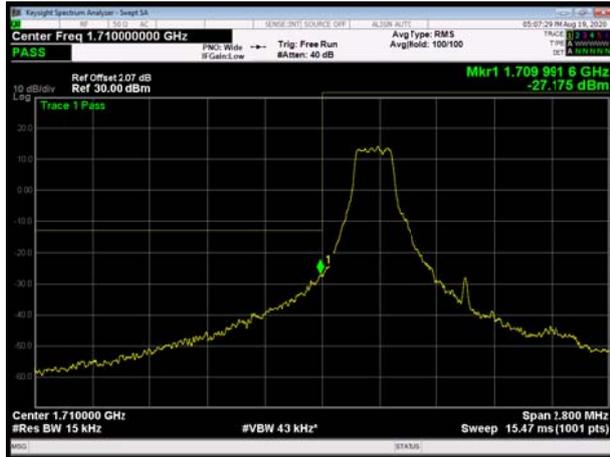


LTE Band 4 16QAM 20MHz CH-High, 100%RB

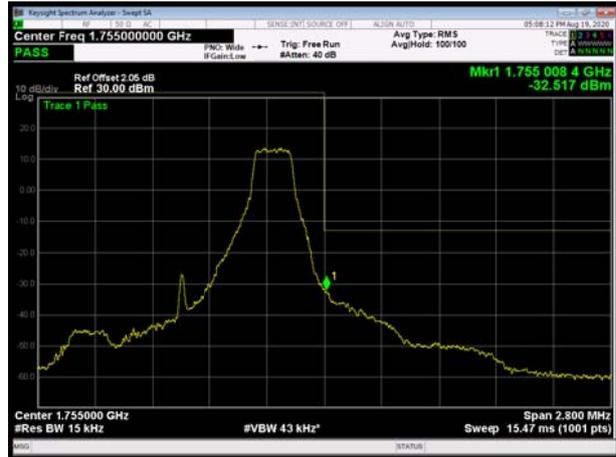




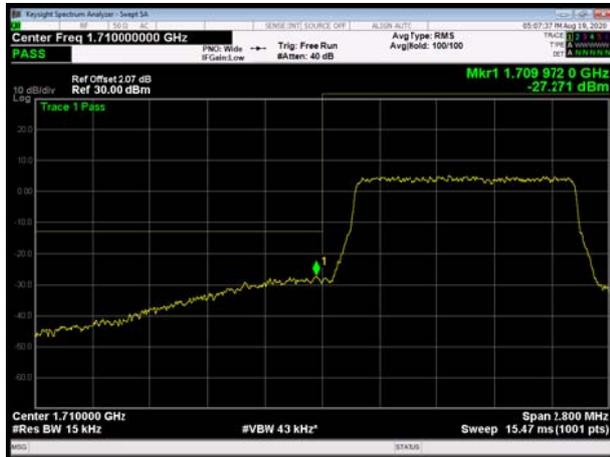
LTE Band 4 64QAM 1.4MHz CH-Low, 1 RB



LTE Band 4 64QAM 1.4MHz CH-High, 1 RB



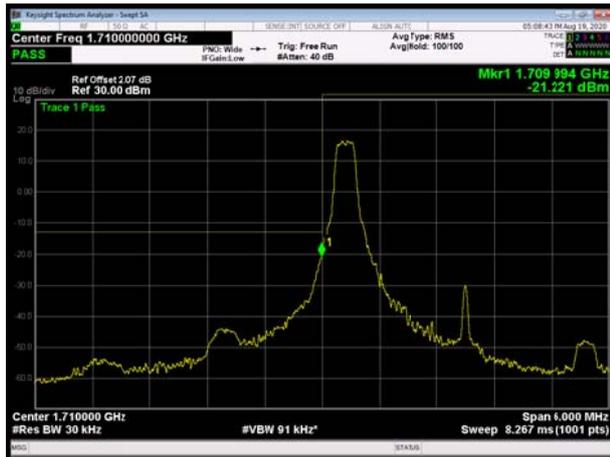
LTE Band 4 64QAM 1.4MHz CH-Low, 100%RB



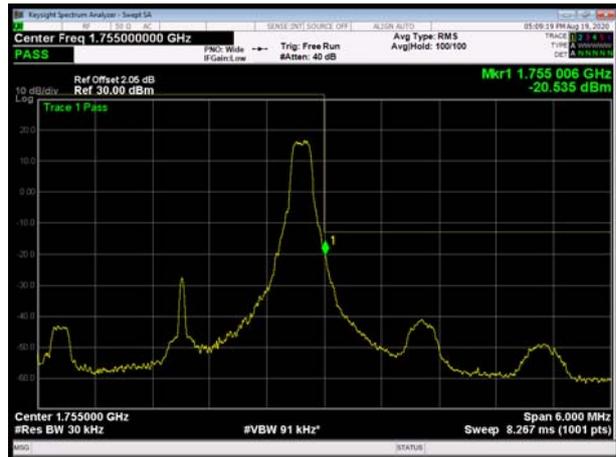
LTE Band 4 64QAM 1.4MHz CH-High, 100%RB



LTE Band 4 64QAM 3MHz CH-Low, 1 RB

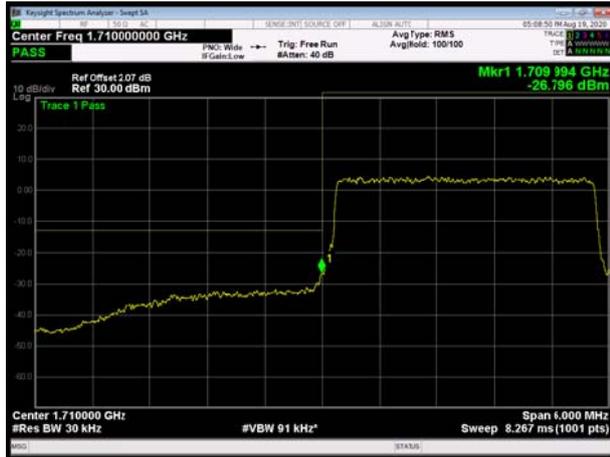


LTE Band 4 64QAM 3MHz CH-High, 1 RB

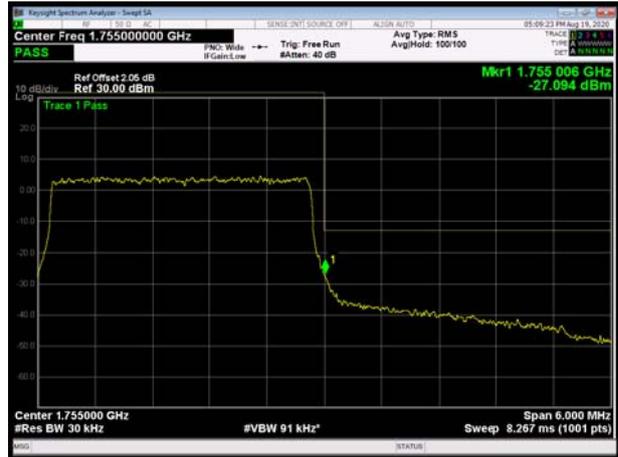




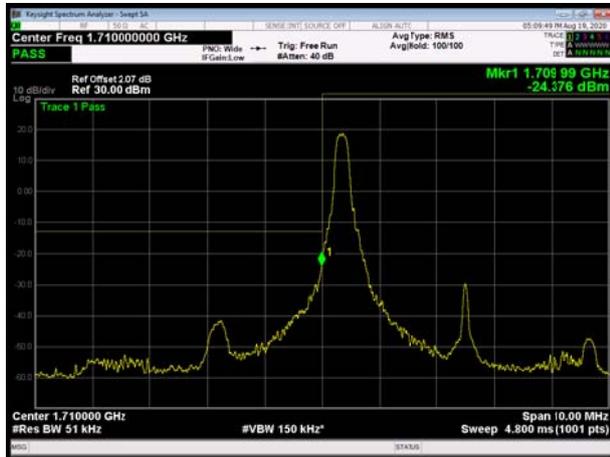
LTE Band 4 64QAM 3MHz CH-Low, 100%RB



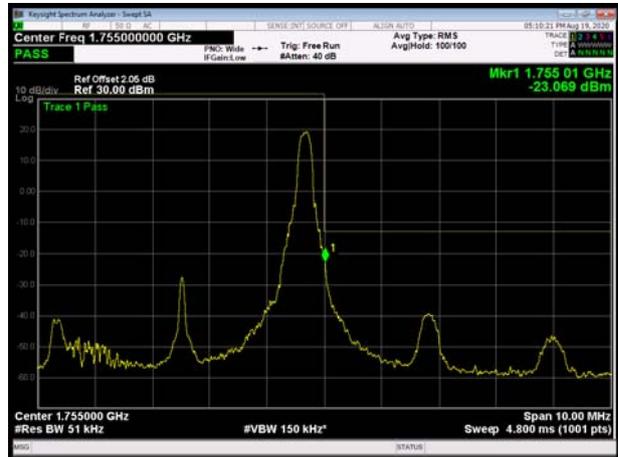
LTE Band 4 64QAM 3MHz CH-High, 100%RB



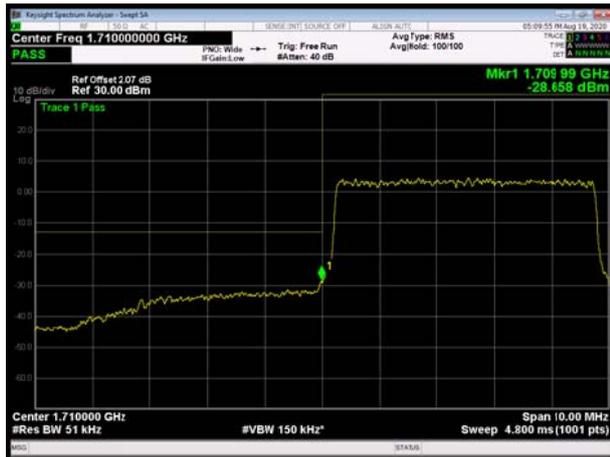
LTE Band 4 64QAM 5MHz CH-Low, 1 RB



LTE Band 4 64QAM 5MHz CH-High, 1 RB



LTE Band 4 64QAM 5MHz CH-Low, 100%RB

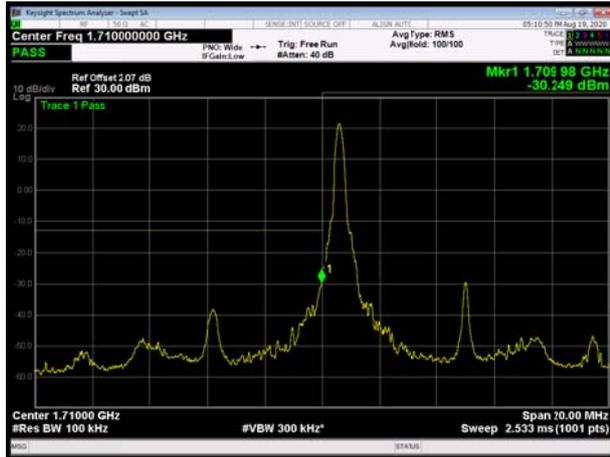


LTE Band 4 64QAM 5MHz CH-High, 100%RB

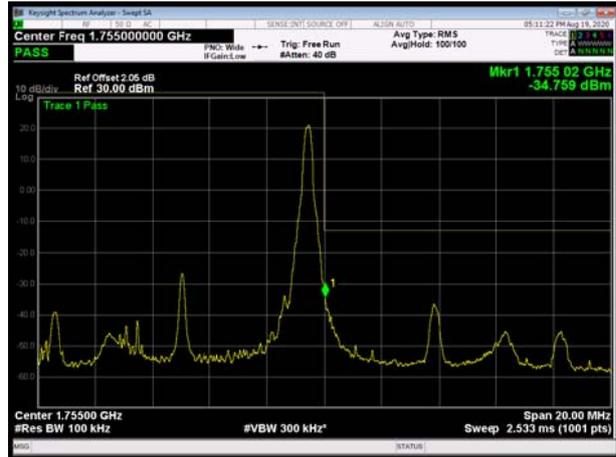




LTE Band 4 64QAM 10MHz CH-Low, 1 RB



LTE Band 4 64QAM 10MHz CH-High, 1 RB



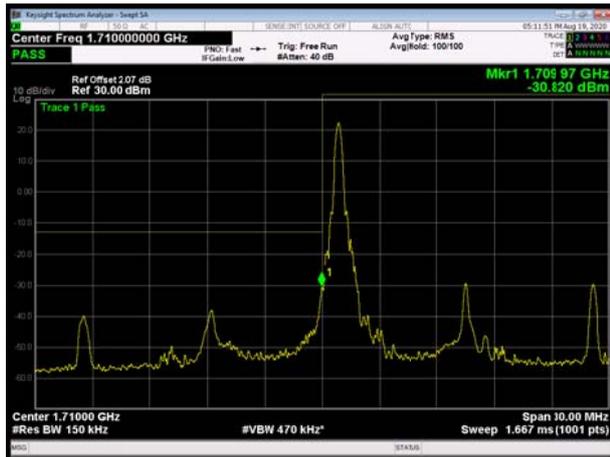
LTE Band 4 64QAM 10MHz CH-Low, 100%RB



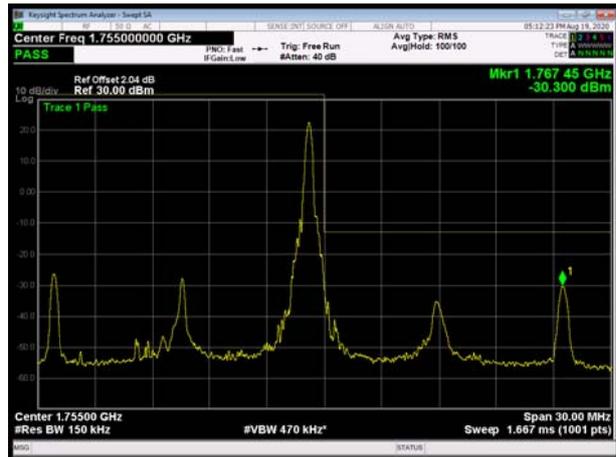
LTE Band 4 64QAM 10MHz CH-High, 100%RB



LTE Band 4 64QAM 15MHz CH-Low, 1 RB

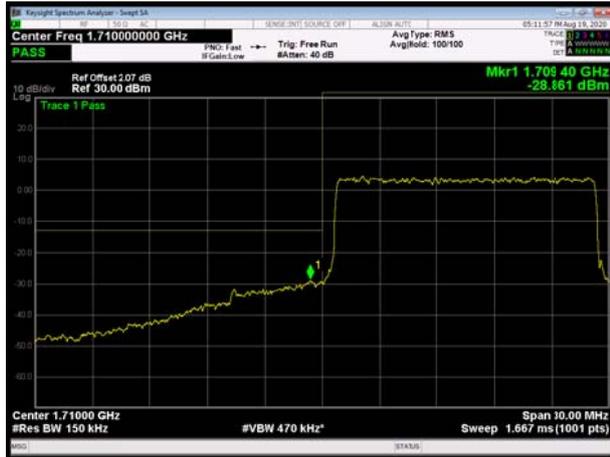


LTE Band 4 64QAM 15MHz CH-High, 1 RB

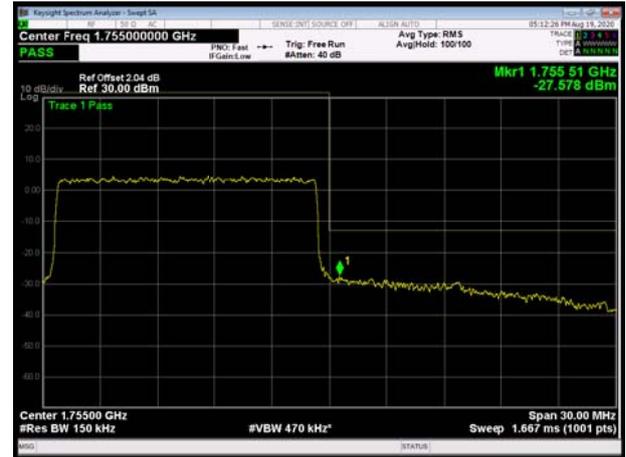




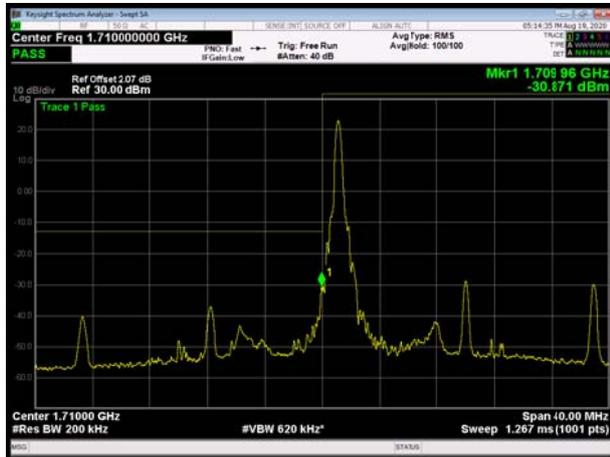
LTE Band 4 64QAM 15MHz CH-Low, 100%RB



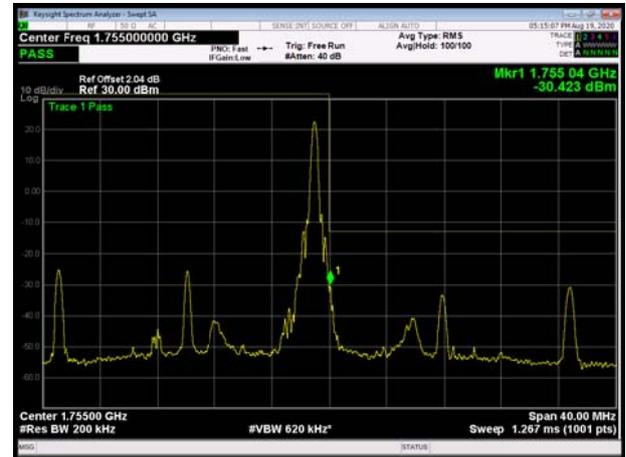
LTE Band 4 64QAM 15MHz CH-High, 100%RB



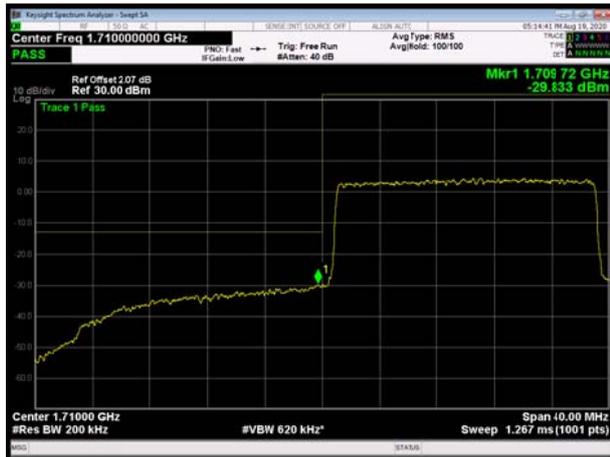
LTE Band 4 64QAM 20MHz CH-Low, 1 RB



LTE Band 4 64QAM 20MHz CH-High, 1 RB



LTE Band 4 64QAM 20MHz CH-Low, 100%RB



LTE Band 4 64QAM 20MHz CH-High, 100%RB

