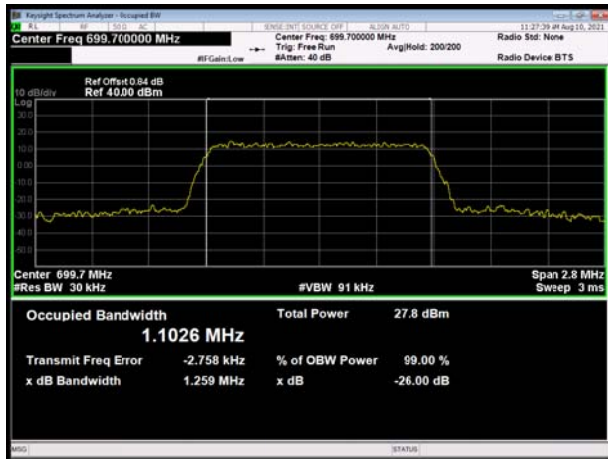
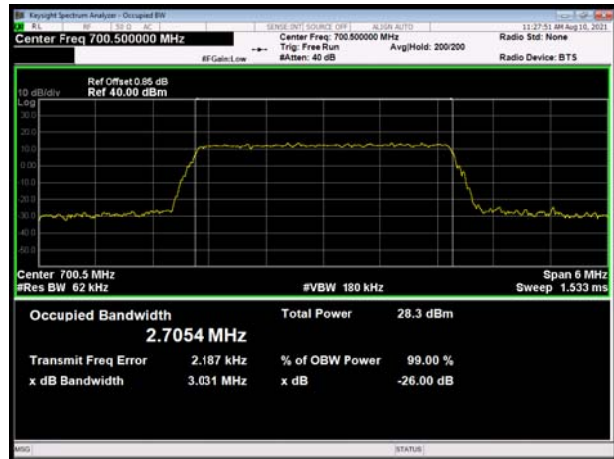




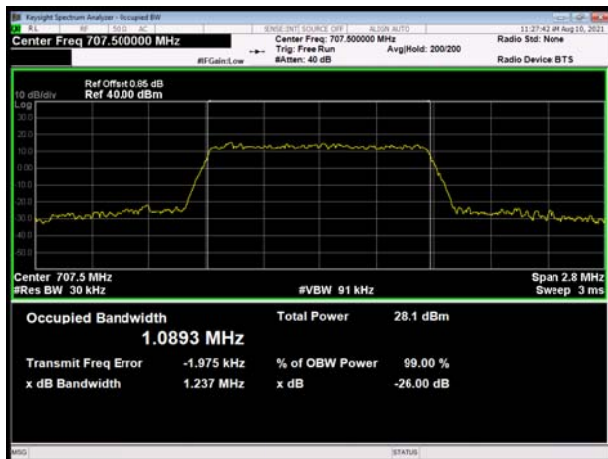
LTE Band 12 64QAM 1.4MHz CH-Low



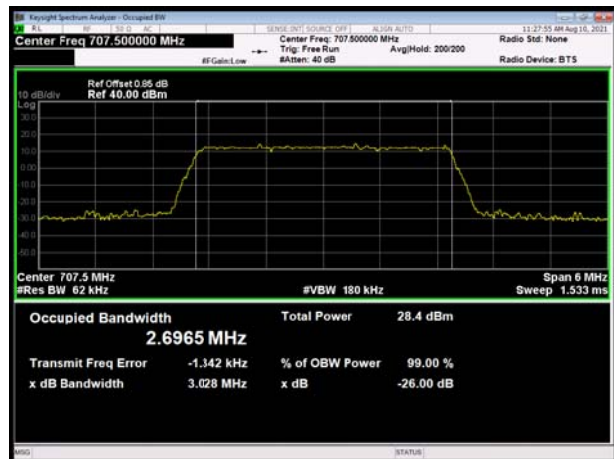
LTE Band 12 64QAM 3MHz CH-Low



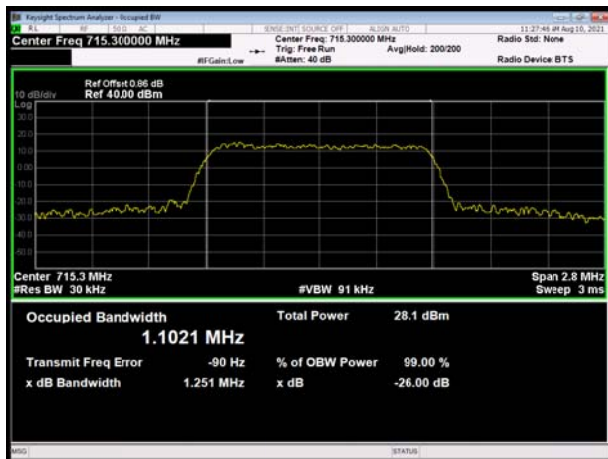
LTE Band 12 64QAM 1.4MHz CH-Middle



LTE Band 12 64QAM 3MHz CH-Middle



LTE Band 12 64QAM 1.4MHz CH-High

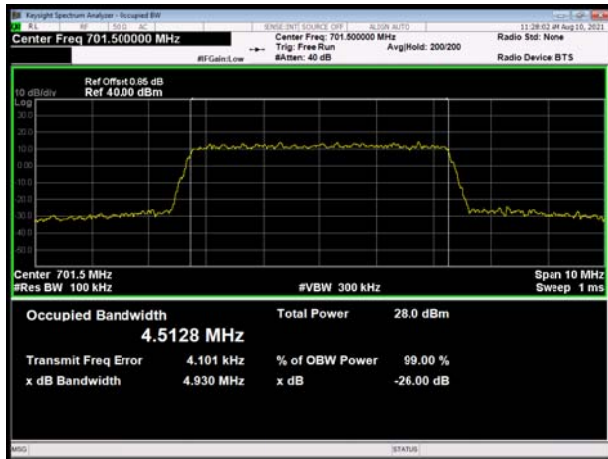


LTE Band 12 64QAM 3MHz CH-High

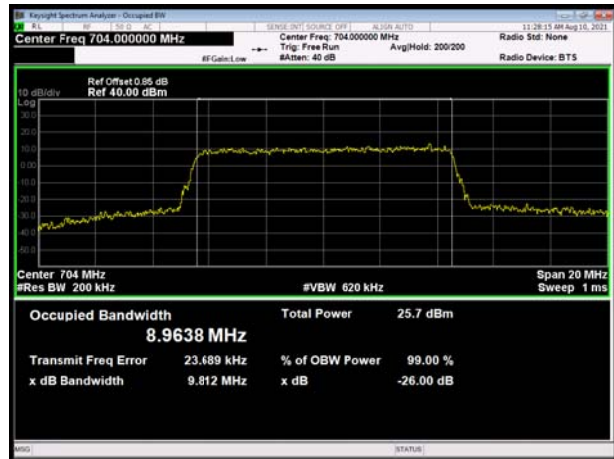




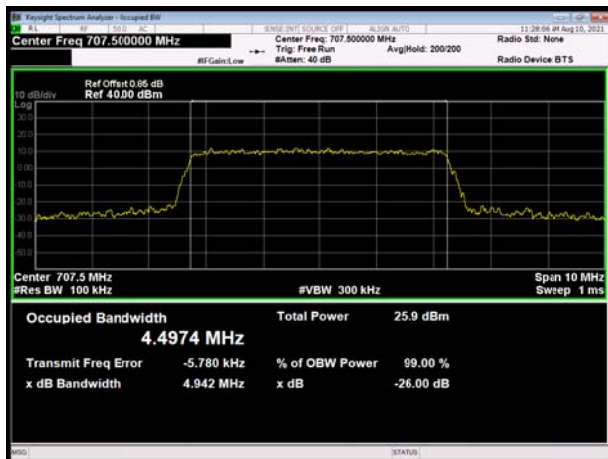
LTE Band 12 64QAM 5MHz CH-Low



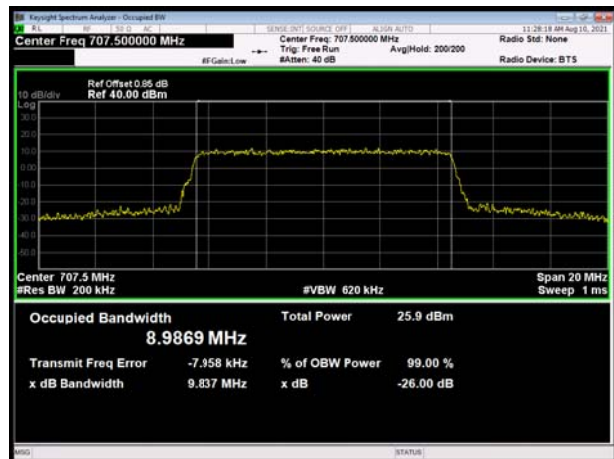
LTE Band 12 64QAM 10MHz CH-Low



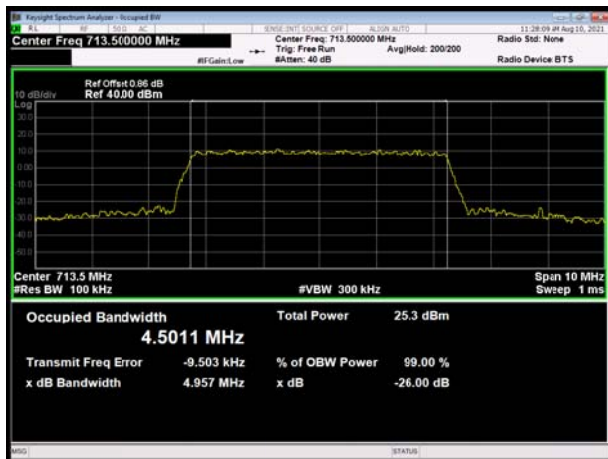
LTE Band 12 64QAM 5MHz CH-Middle



LTE Band 12 64QAM 10MHz CH-Middle



LTE Band 12 64QAM 5MHz CH-High



LTE Band 12 64QAM 10MHz CH-High



LTE Band 17 QPSK 5MHz CH-Low



LTE Band 17 QPSK 10MHz CH-Low



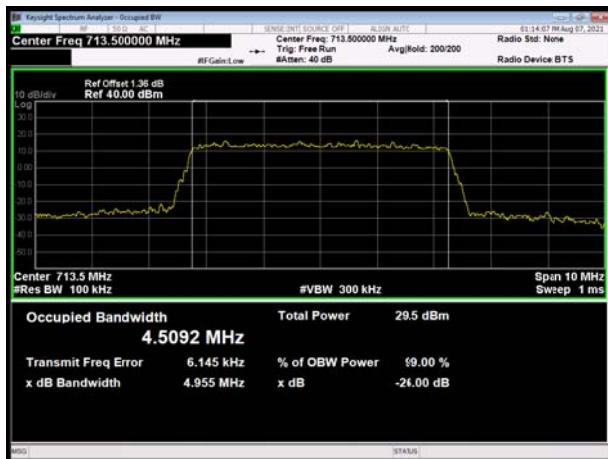
LTE Band 17 QPSK 5MHz CH-Middle



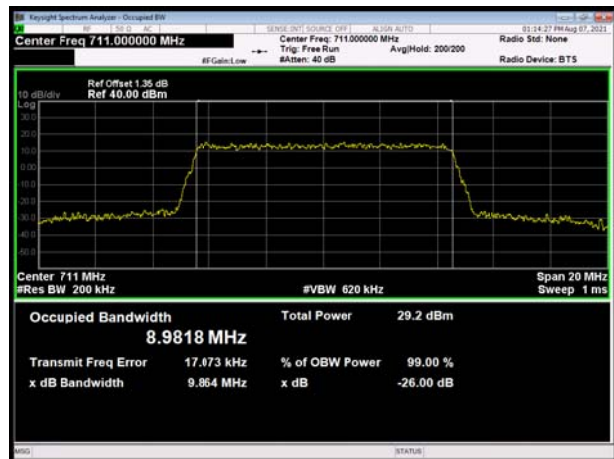
LTE Band 17 QPSK 10MHz CH-Middle



LTE Band 17 QPSK 5MHz CH-High

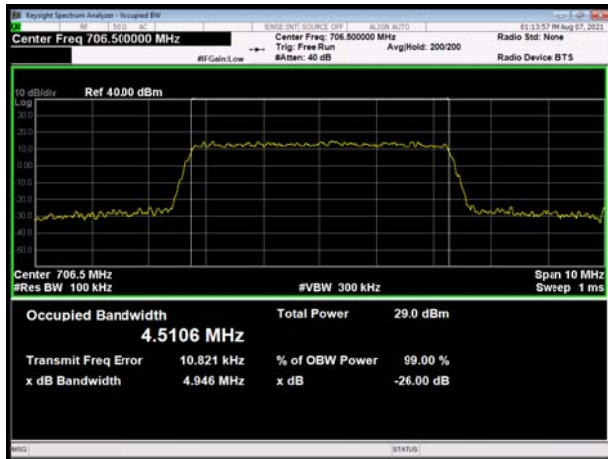


LTE Band 17 QPSK 10MHz CH-High





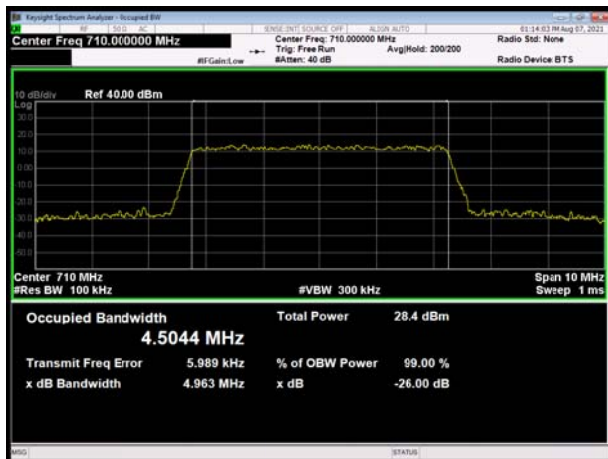
LTE Band 17 16QAM 5MHz CH-Low



LTE Band 17 16QAM 10MHz CH-Low



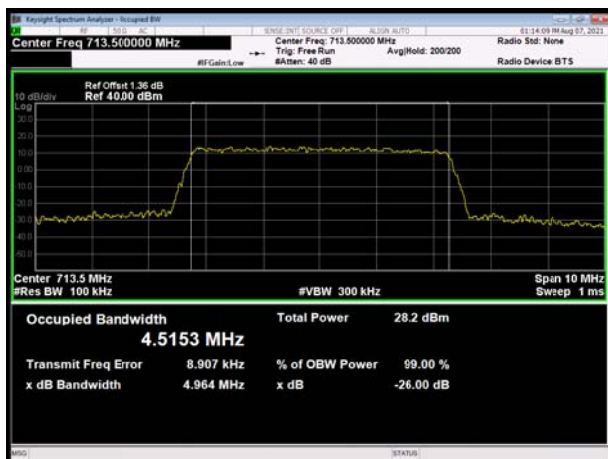
LTE Band 17 16QAM 5MHz CH-Middle



LTE Band 17 16QAM 10MHz CH-Middle



LTE Band 17 16QAM 5MHz CH-High

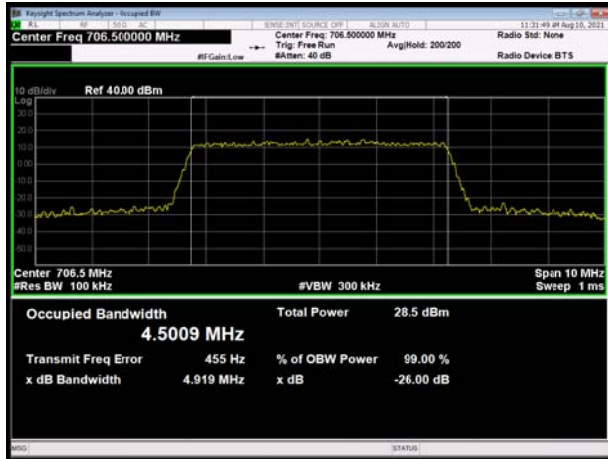


LTE Band 17 16QAM 10MHz CH-High





LTE Band 17 64QAM 5MHz CH-Low



LTE Band 17 64QAM 10MHz CH-Low



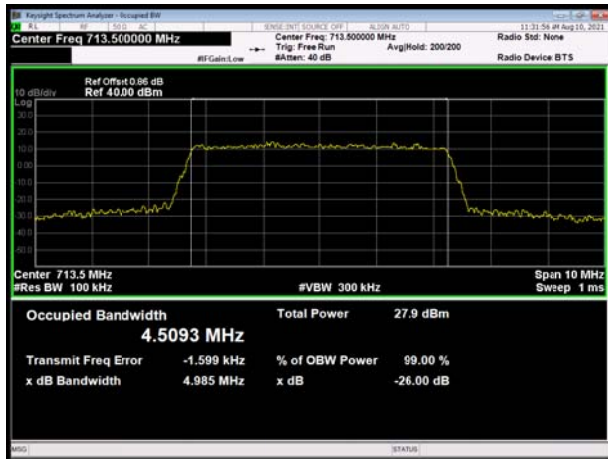
LTE Band 17 64QAM 5MHz CH-Middle



LTE Band 17 64QAM 10MHz CH-Middle



LTE Band 17 64QAM 5MHz CH-High



LTE Band 17 64QAM 10MHz CH-High

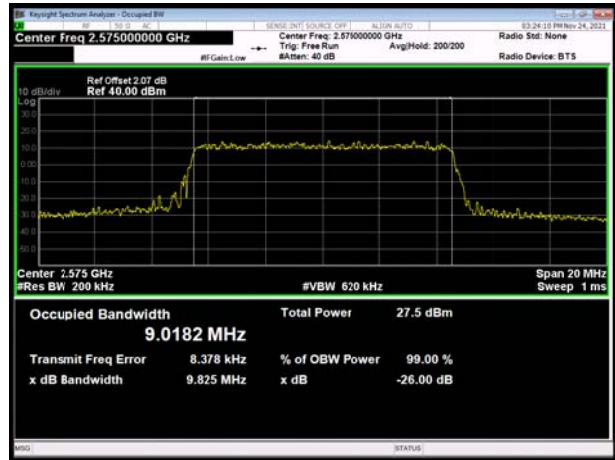




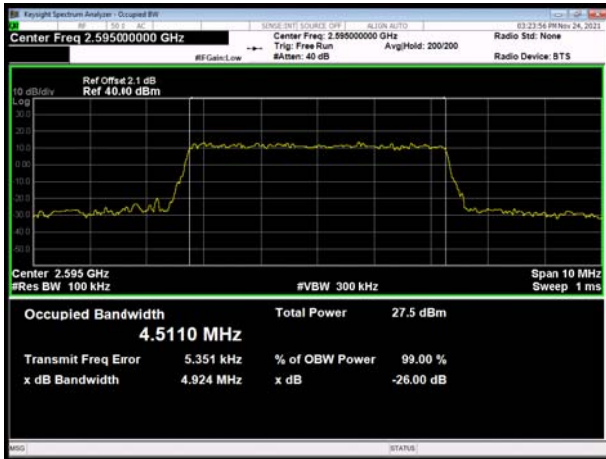
LTE Band 38 QPSK 5MHz CH-Low



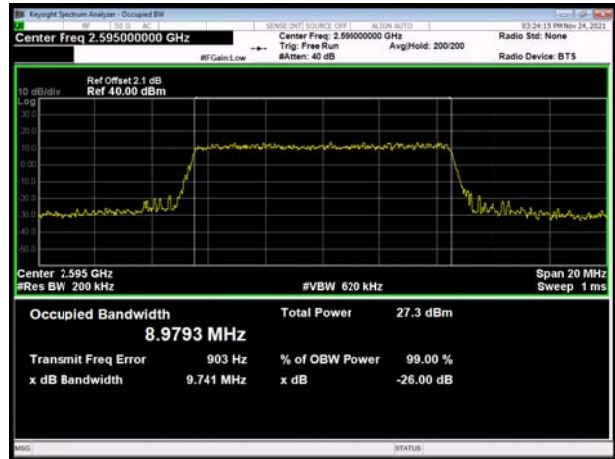
LTE Band 38 QPSK 10MHz CH-Low



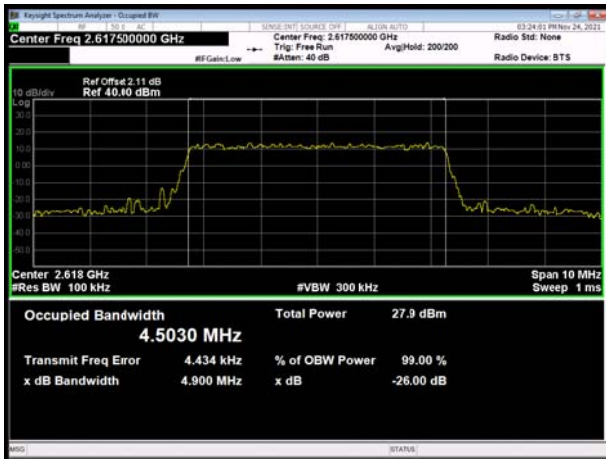
LTE Band 38 QPSK 5MHz CH-Middle



LTE Band 38 QPSK 10MHz CH-Middle



LTE Band 38 QPSK 5MHz CH-High

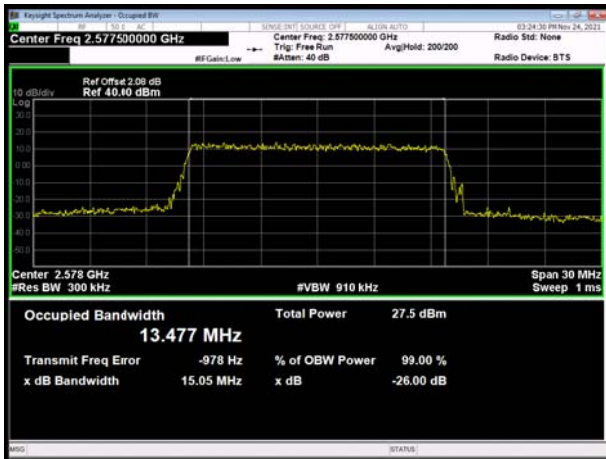


LTE Band 38 QPSK 10MHz CH-High

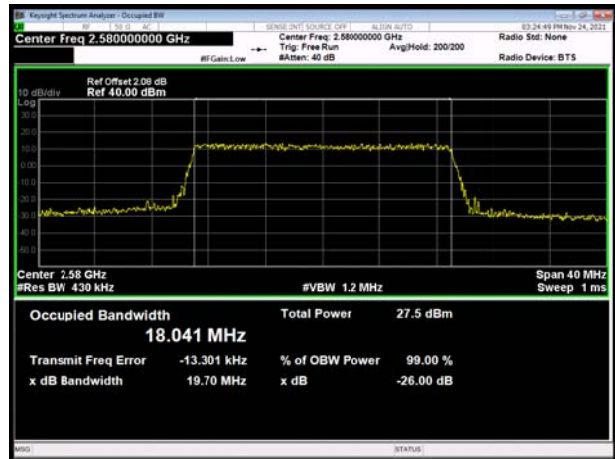




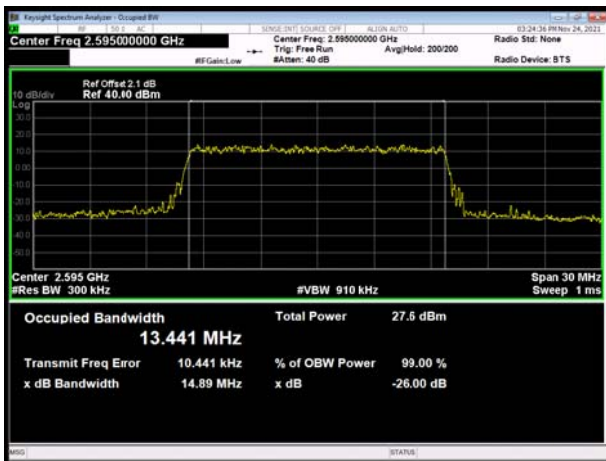
LTE Band 38 QPSK 15MHz CH-Low



LTE Band 38 QPSK 20MHz CH-Low



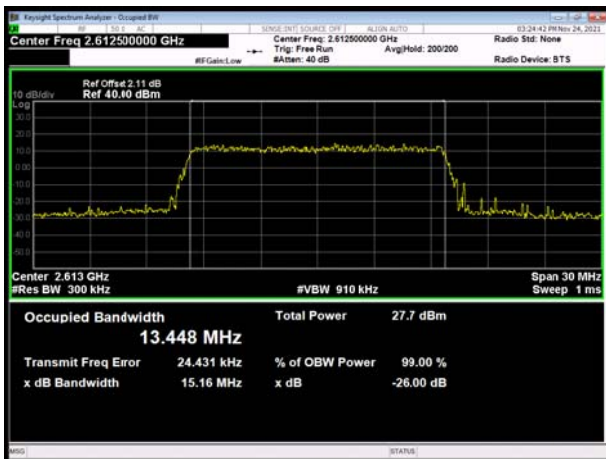
LTE Band 38 QPSK 15MHz CH-Middle



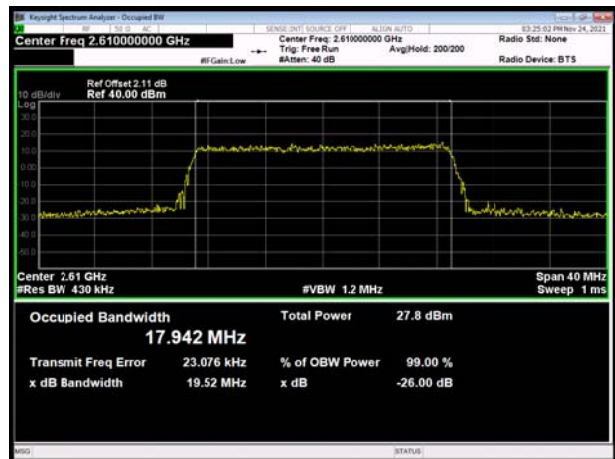
LTE Band 38 QPSK 20MHz CH-Middle



LTE Band 38 QPSK 15MHz CH-High



LTE Band 38 QPSK 20MHz CH-High

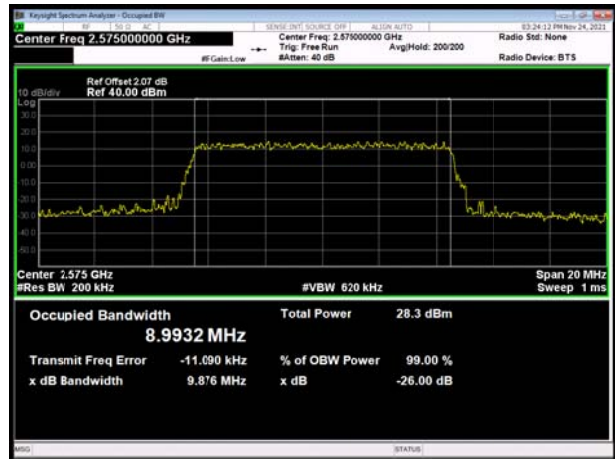




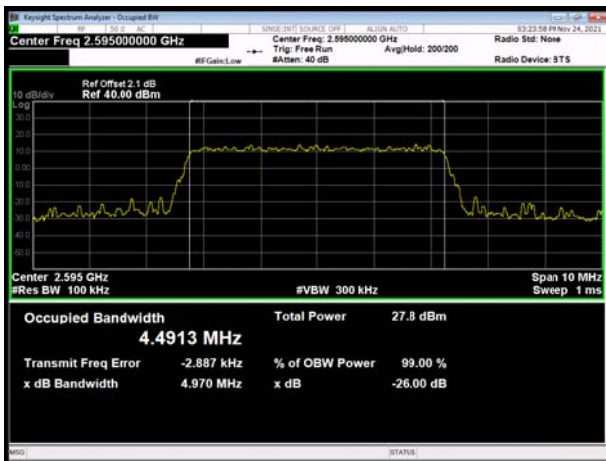
LTE Band 38 16QAM 5MHz CH-Low



LTE Band 38 16QAM 10MHz CH-Low



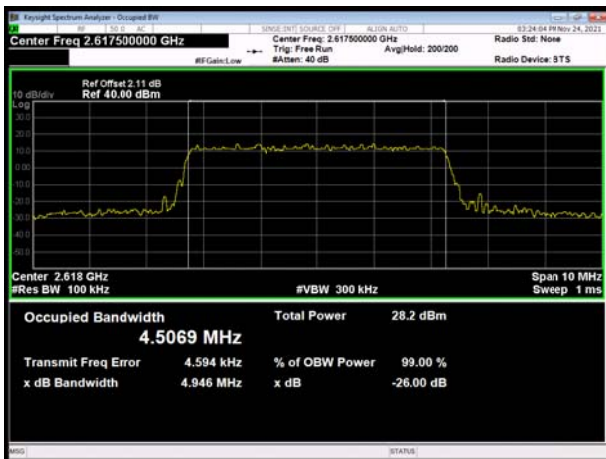
LTE Band 38 16QAM 5MHz CH-Middle



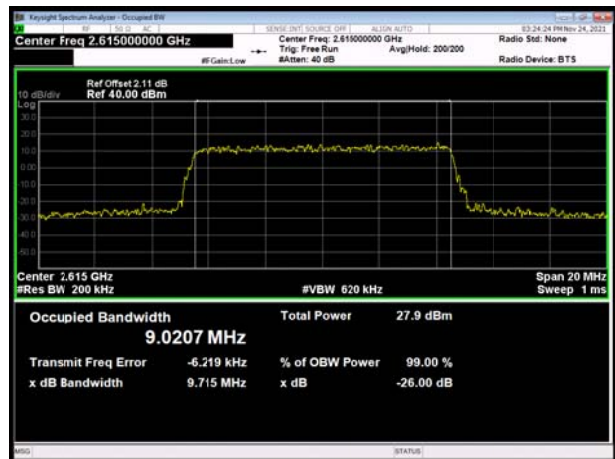
LTE Band 38 16QAM 10MHz CH-Middle



LTE Band 38 16QAM 5MHz CH-High



LTE Band 38 16QAM 10MHz CH-High





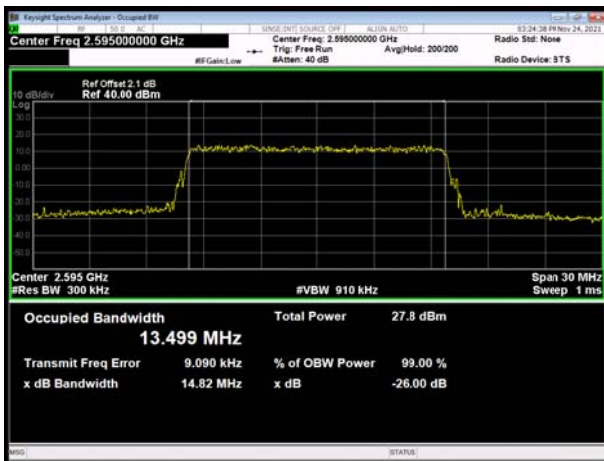
LTE Band 38 16QAM 15MHz CH-Low



LTE Band 38 16QAM 20MHz CH-Low



LTE Band 38 16QAM 15MHz CH-Middle



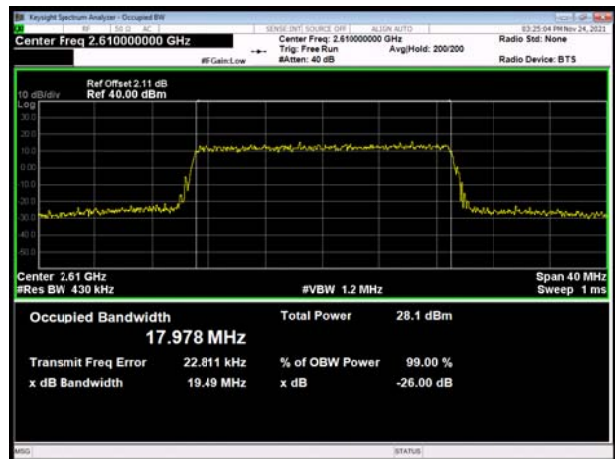
LTE Band 38 16QAM 20MHz CH-Middle



LTE Band 38 16QAM 15MHz CH-High



LTE Band 38 16QAM 20MHz CH-High





LTE Band 38 64QAM 5MHz CH-Low



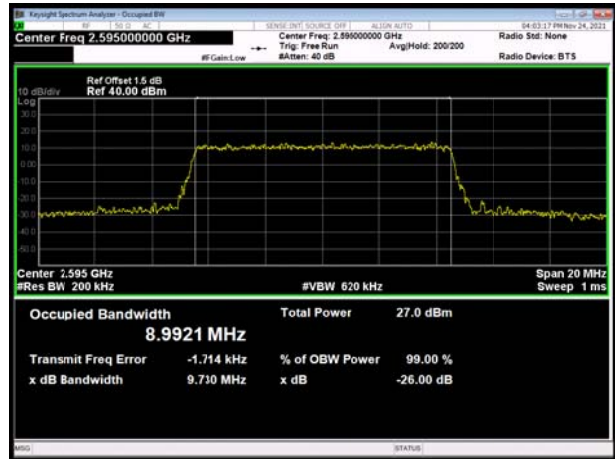
LTE Band 38 64QAM 10MHz CH-Low



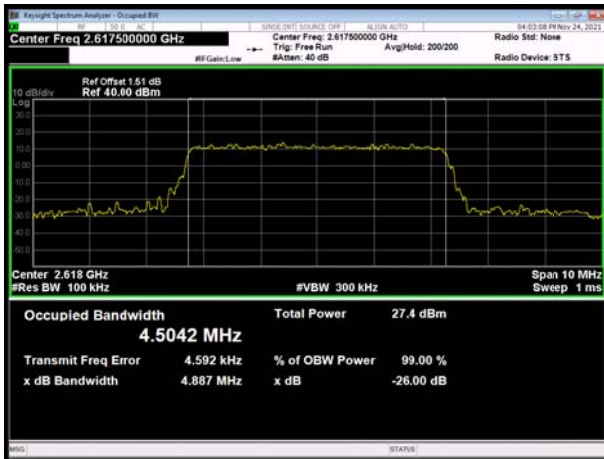
LTE Band 38 64QAM 5MHz CH-Middle



LTE Band 38 64QAM 10MHz CH-Middle



LTE Band 38 64QAM 5MHz CH-High

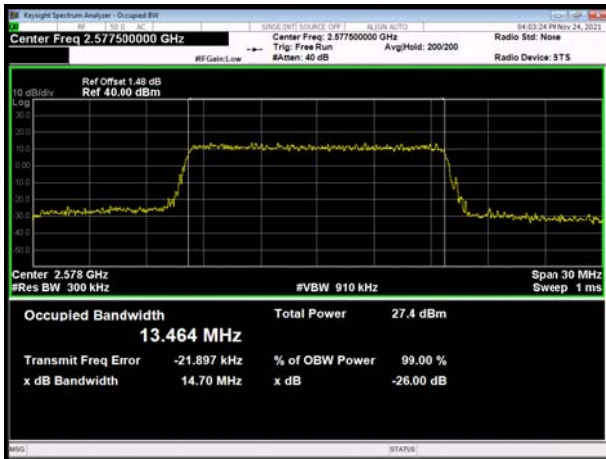


LTE Band 38 64QAM 10MHz CH-High





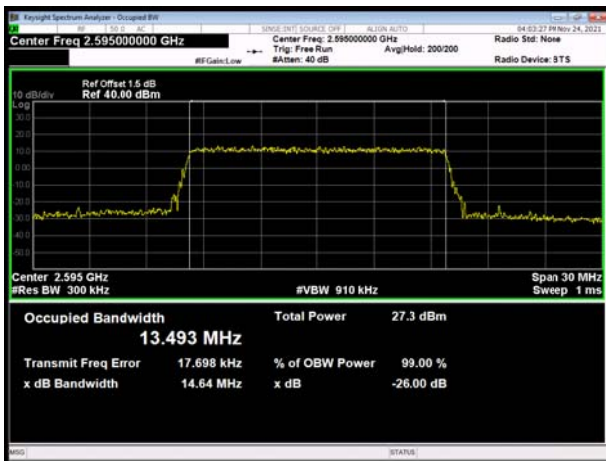
LTE Band 38 64QAM 15MHz CH-Low



LTE Band 38 64QAM 20MHz CH-Low



LTE Band 38 64QAM 15MHz CH-Middle



LTE Band 38 64QAM 20MHz CH-Middle



LTE Band 38 64QAM 15MHz CH-High

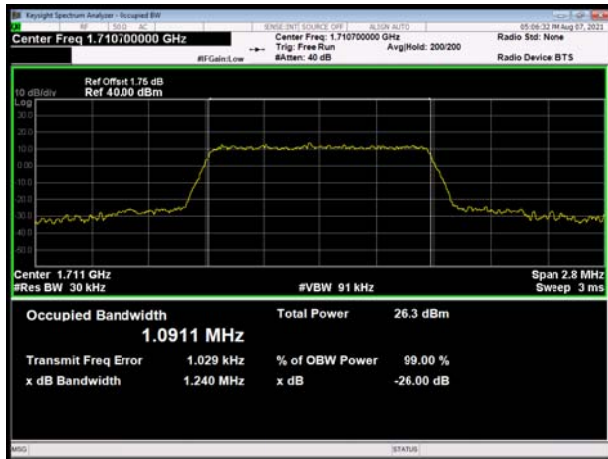


LTE Band 38 64QAM 20MHz CH-High

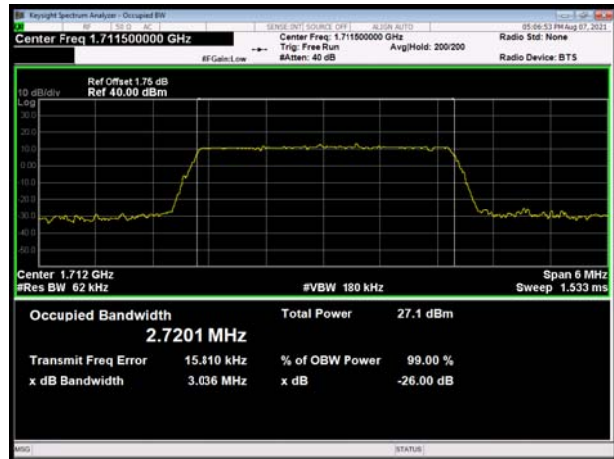




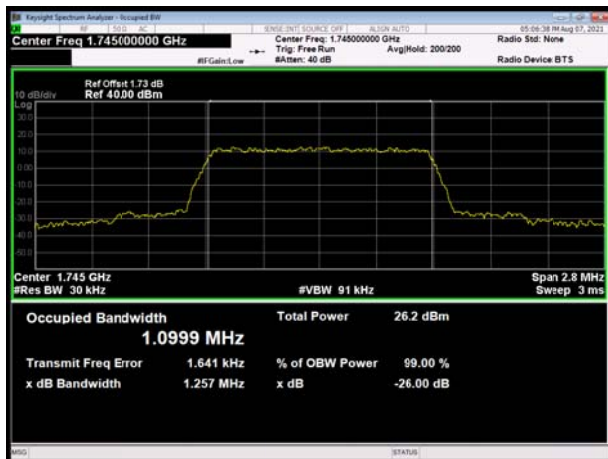
LTE Band 66 QPSK 1.4MHz CH-Low



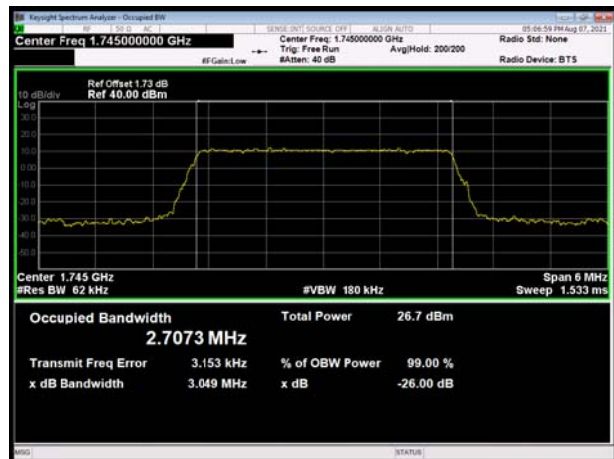
LTE Band 66 QPSK 3MHz CH-Low



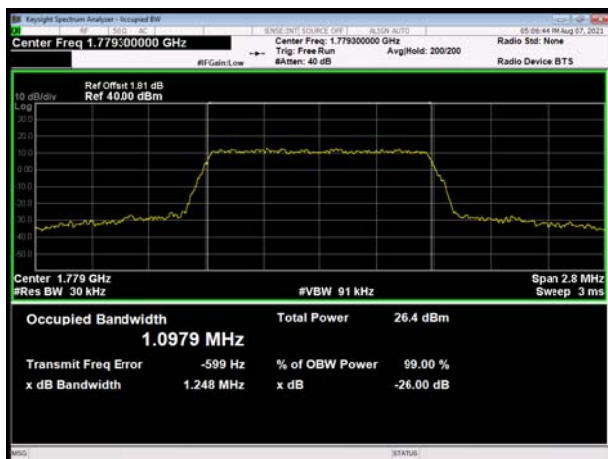
LTE Band 66 QPSK 1.4MHz CH-Middle



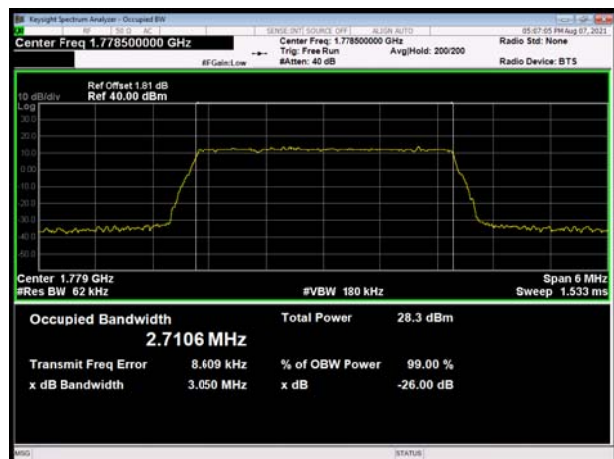
LTE Band 66 QPSK 3MHz CH-Middle



LTE Band 66 QPSK 1.4MHz CH-High



LTE Band 66 QPSK 3MHz CH-High

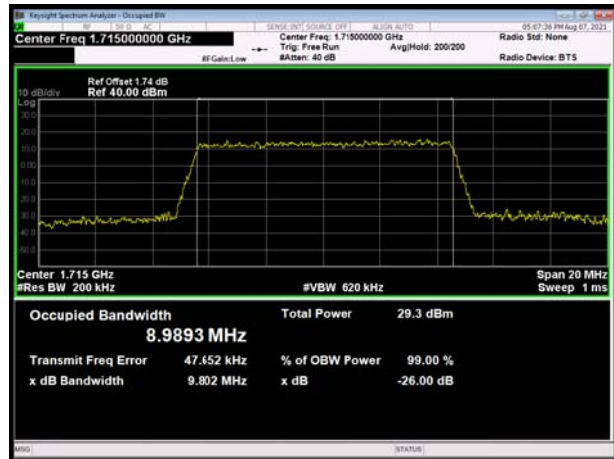




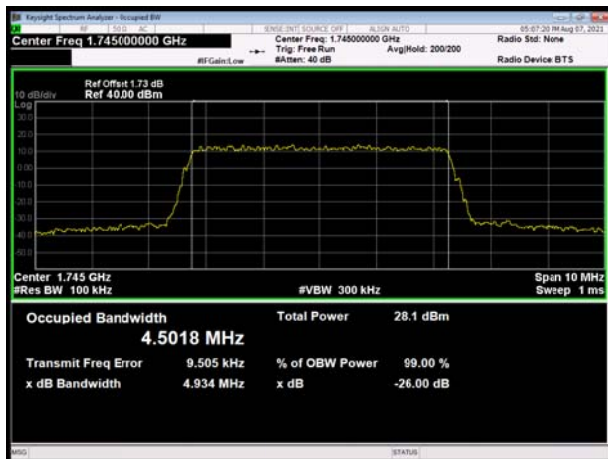
LTE Band 66 QPSK 5MHz CH-Low



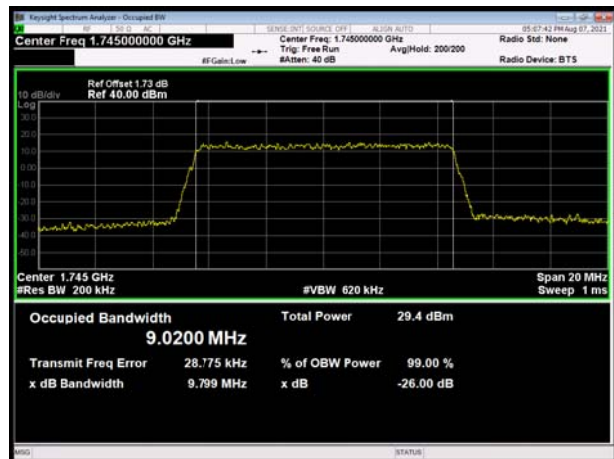
LTE Band 66 QPSK 10MHz CH-Low



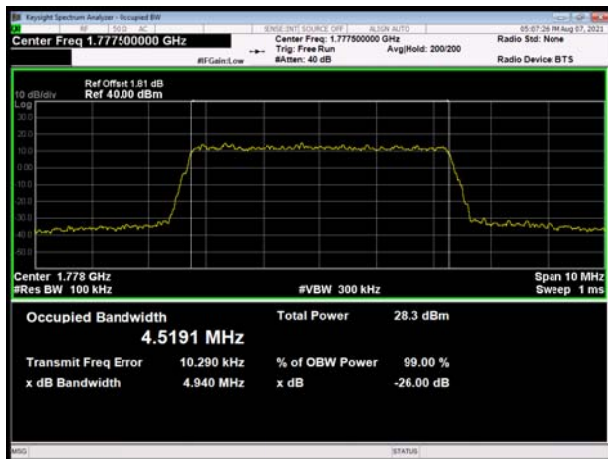
LTE Band 66 QPSK 5MHz CH-Middle



LTE Band 66 QPSK 10MHz CH-Middle



LTE Band 66 QPSK 5MHz CH-High

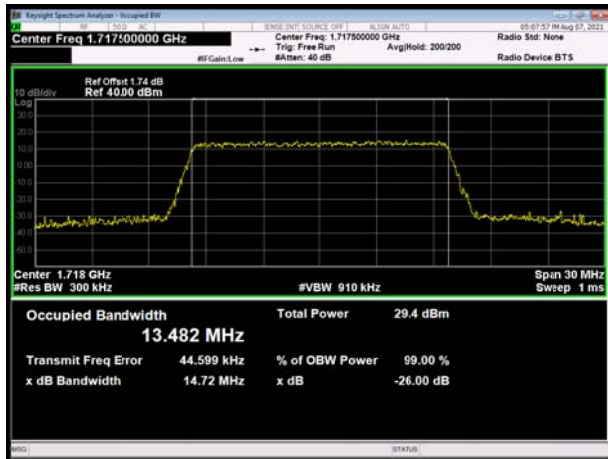


LTE Band 66 QPSK 10MHz CH-High

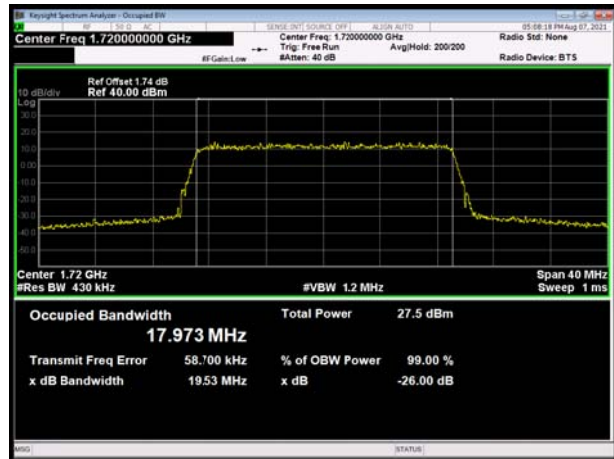




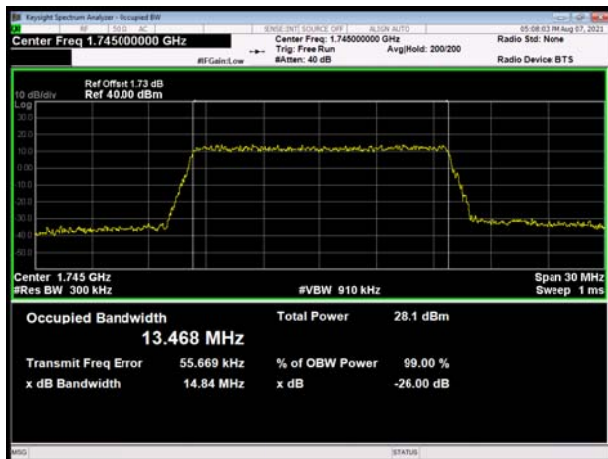
LTE Band 66 QPSK 15MHz CH-Low



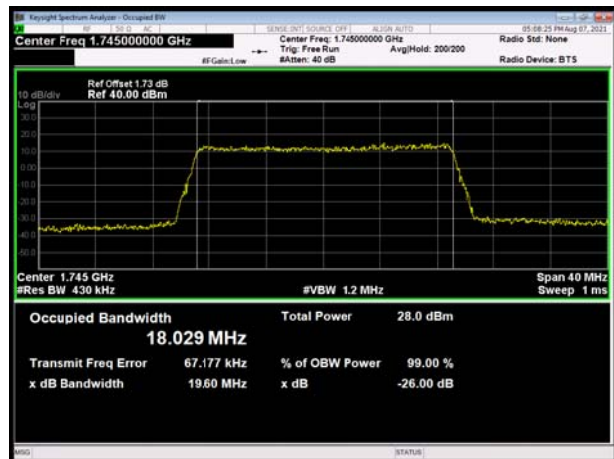
LTE Band 66 QPSK 20MHz CH-Low



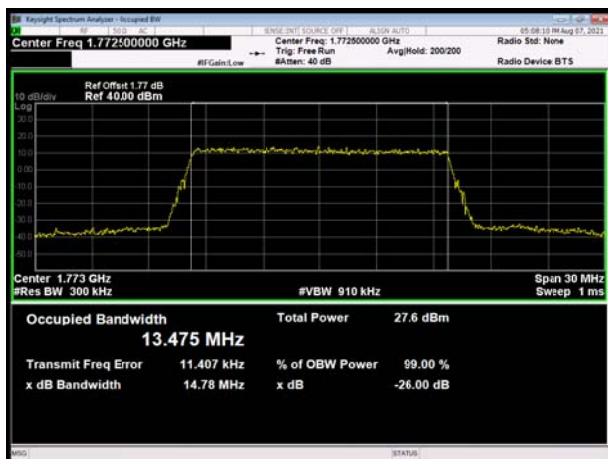
LTE Band 66 QPSK 15MHz CH-Middle



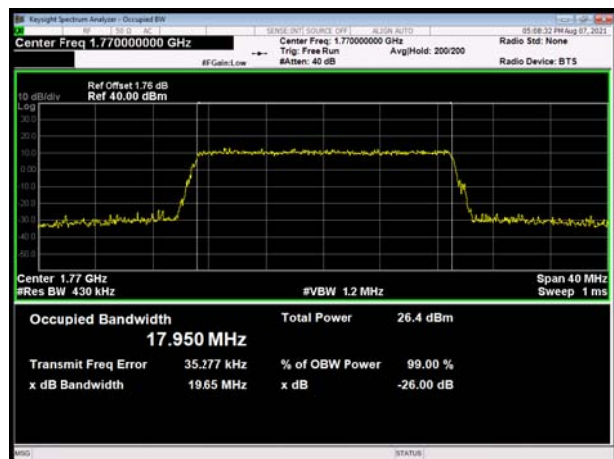
LTE Band 66 QPSK 20MHz CH-Middle



LTE Band 66 QPSK 15MHz CH-High

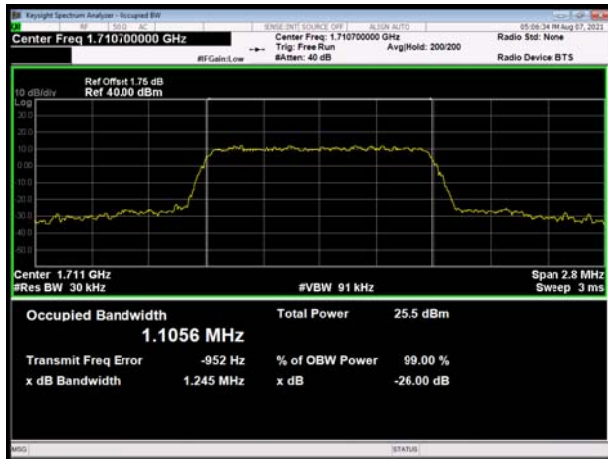


LTE Band 66 QPSK 20MHz CH-High





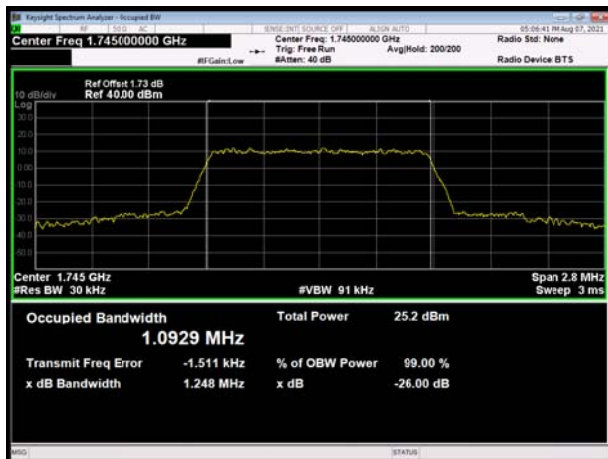
LTE Band 66 64QAM 1.4MHz CH-Low



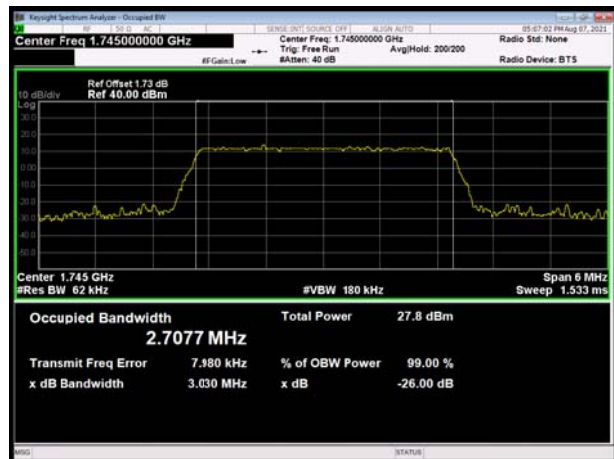
LTE Band 66 64QAM 3MHz CH-Low



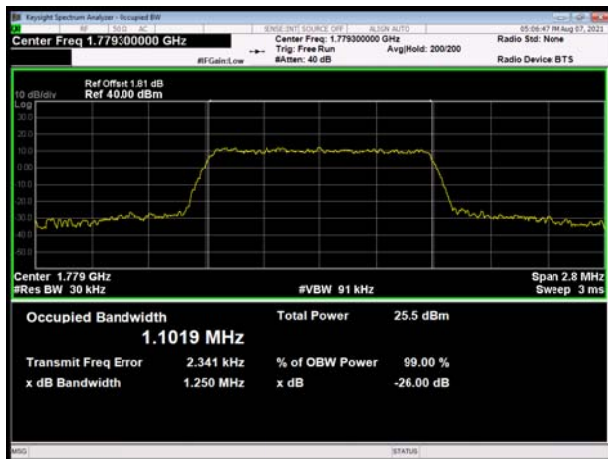
LTE Band 66 64QAM 1.4MHz CH-Middle



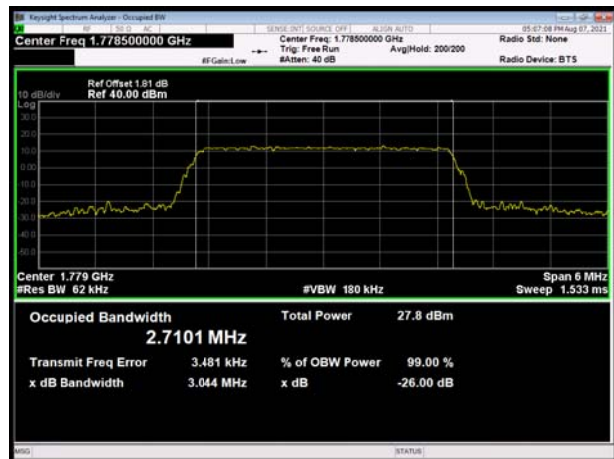
LTE Band 66 64QAM 3MHz CH-Middle



LTE Band 66 64QAM 1.4MHz CH-High

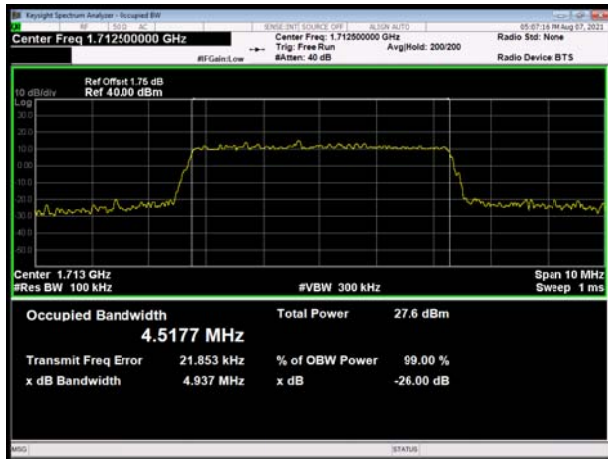


LTE Band 66 64QAM 3MHz CH-High

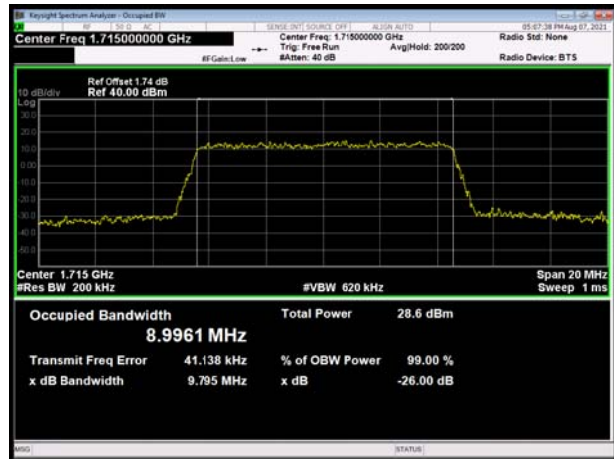




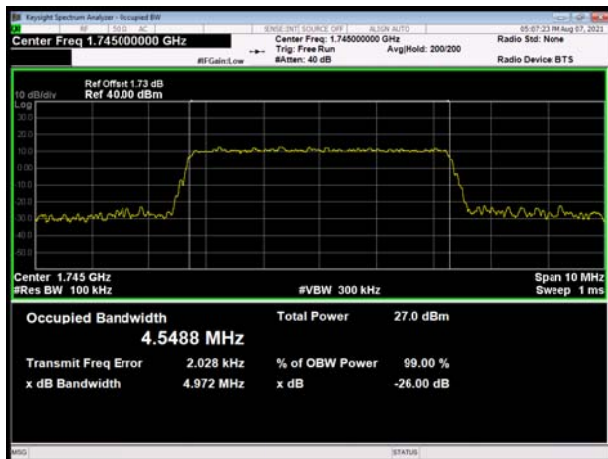
LTE Band 66 64QAM 5MHz CH-Low



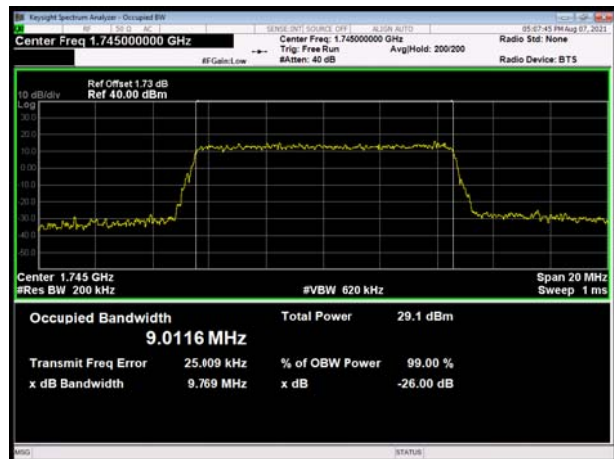
LTE Band 66 64QAM 10MHz CH-Low



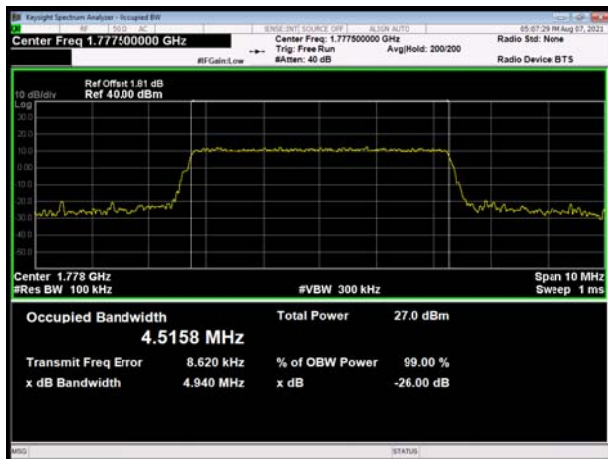
LTE Band 66 64QAM 5MHz CH-Middle



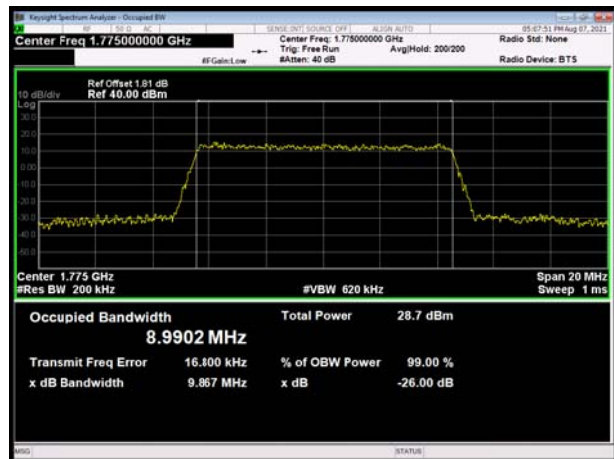
LTE Band 66 64QAM 10MHz CH-Middle



LTE Band 66 64QAM 5MHz CH-High

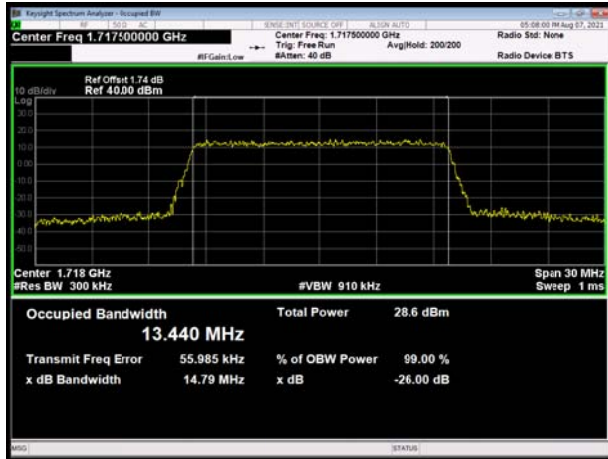


LTE Band 66 64QAM 10MHz CH-High





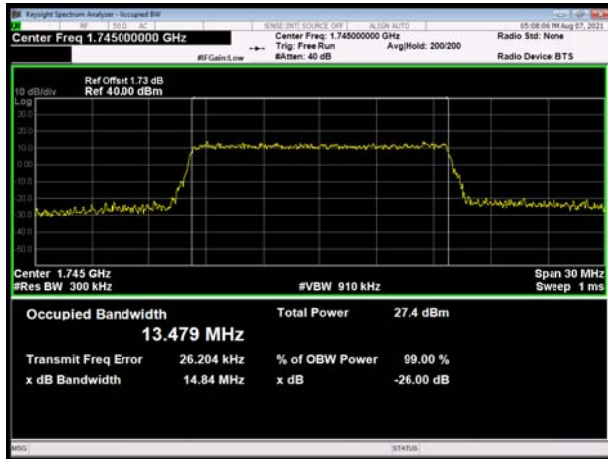
LTE Band 66 64QAM 15MHz CH-Low



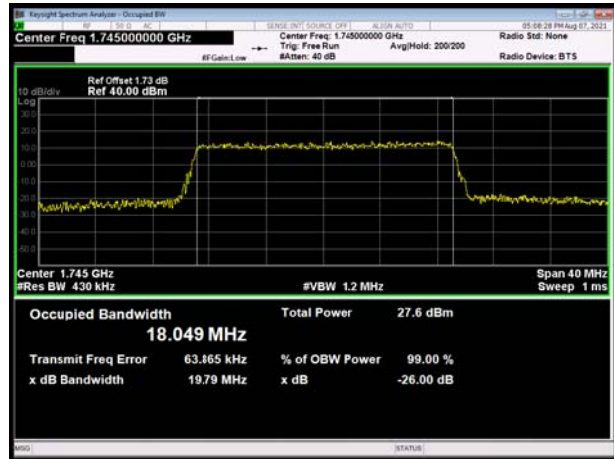
LTE Band 66 64QAM 20MHz CH-Low



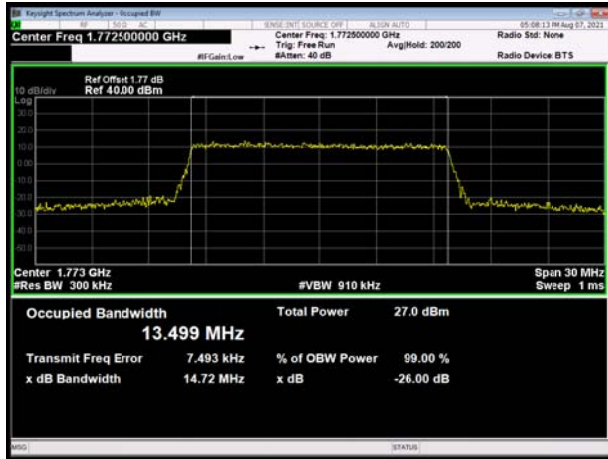
LTE Band 66 64QAM 15MHz CH-Middle



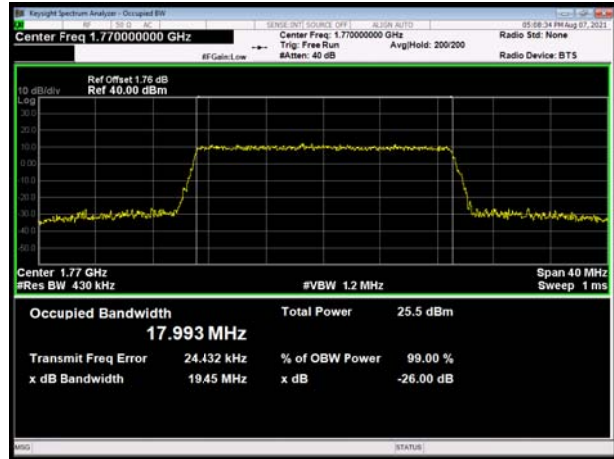
LTE Band 66 64QAM 20MHz CH-Middle



LTE Band 66 64QAM 15MHz CH-High

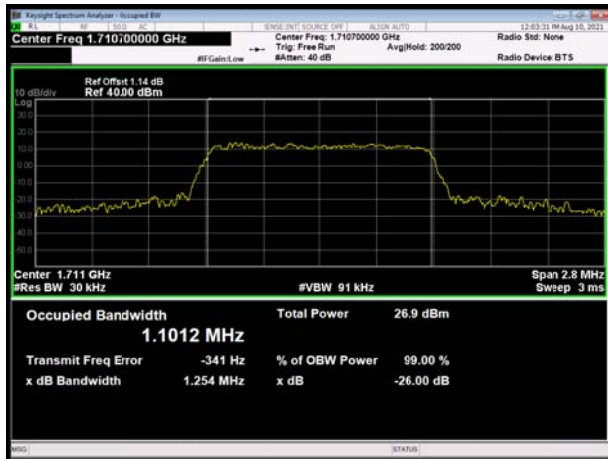


LTE Band 66 64QAM 20MHz CH-High

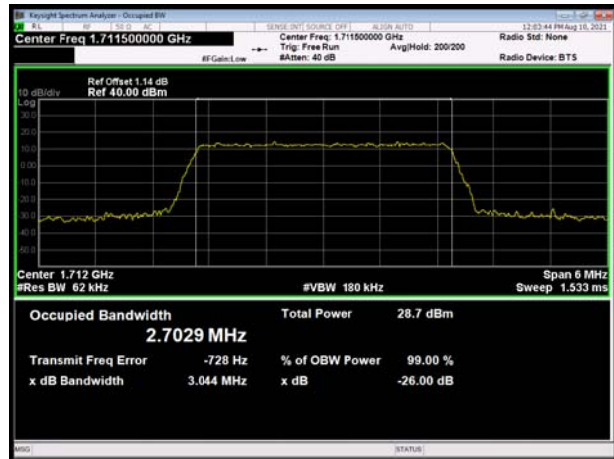




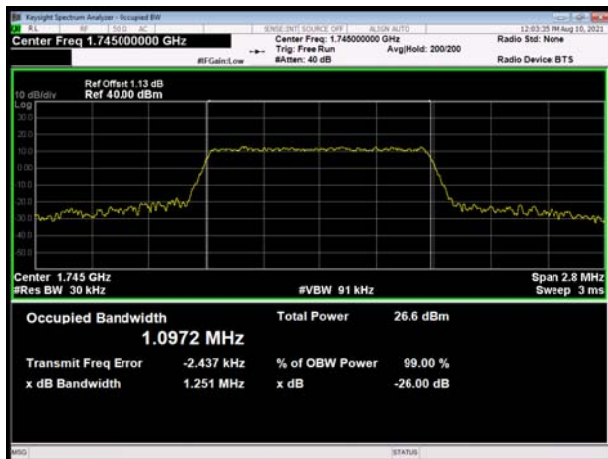
LTE Band 66 64QAM 1.4MHz CH-Low



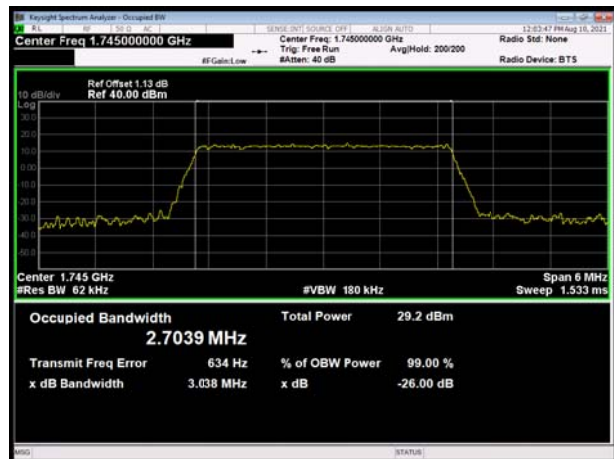
LTE Band 66 64QAM 3MHz CH-Low



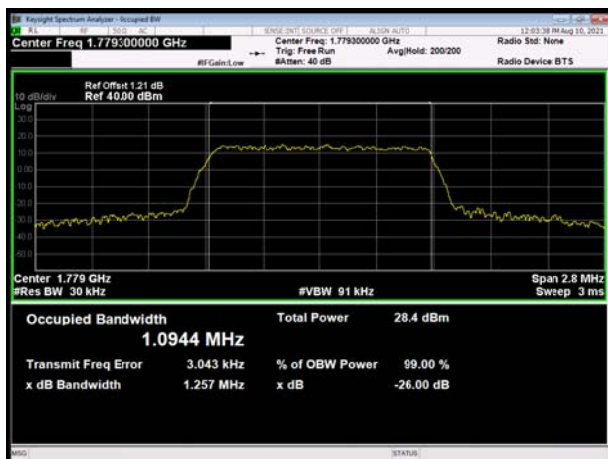
LTE Band 66 64QAM 1.4MHz CH-Middle



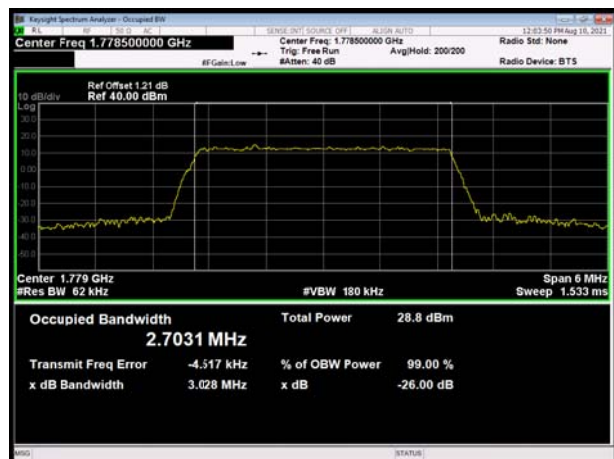
LTE Band 66 64QAM 3MHz CH-Middle



LTE Band 66 64QAM 1.4MHz CH-High

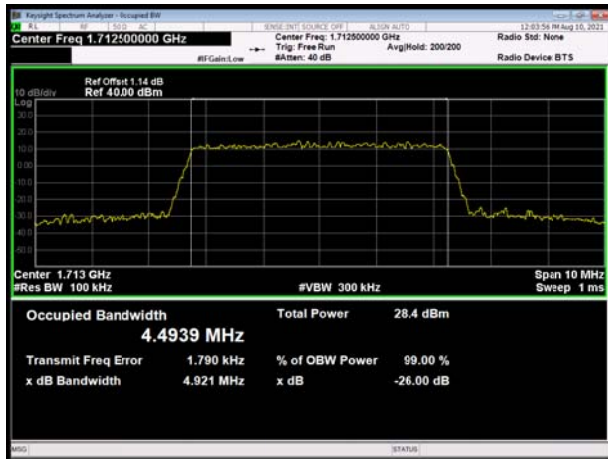


LTE Band 66 64QAM 3MHz CH-High

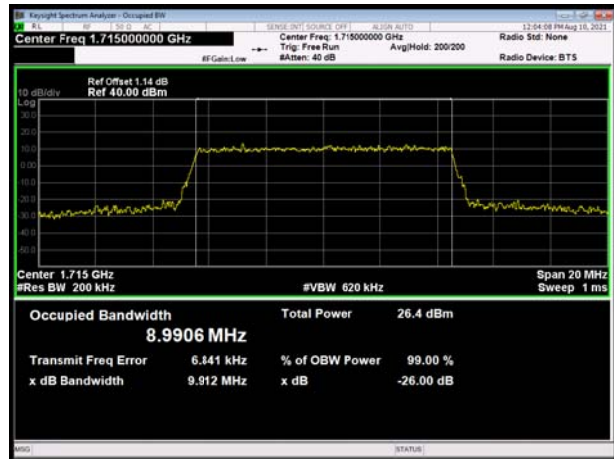




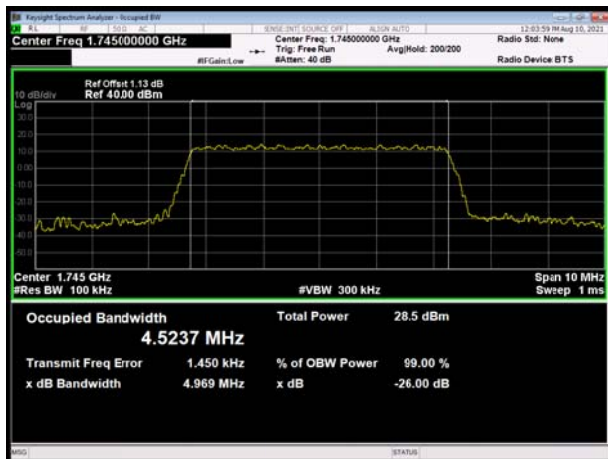
LTE Band 66 64QAM 5MHz CH-Low



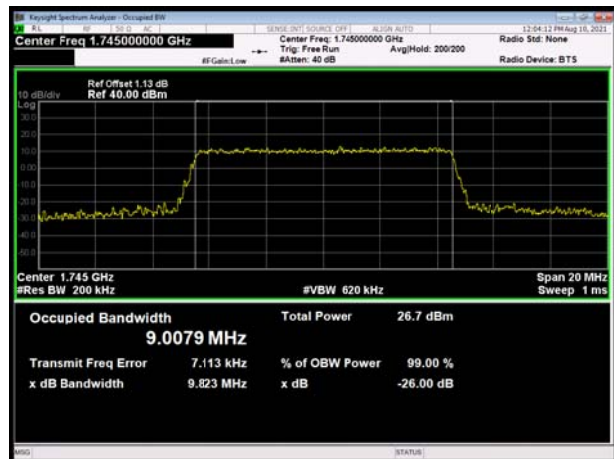
LTE Band 66 64QAM 10MHz CH-Low



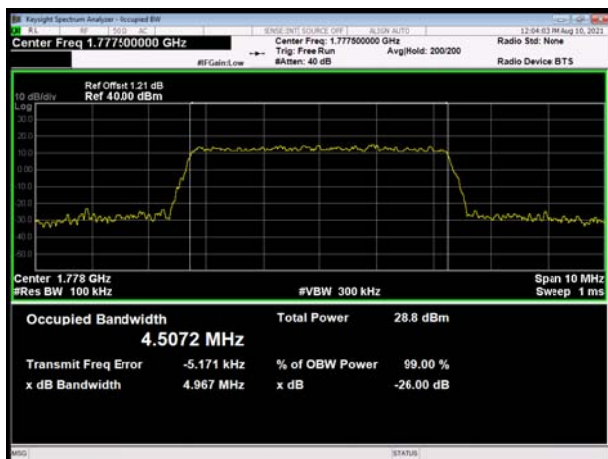
LTE Band 66 64QAM 5MHz CH-Middle



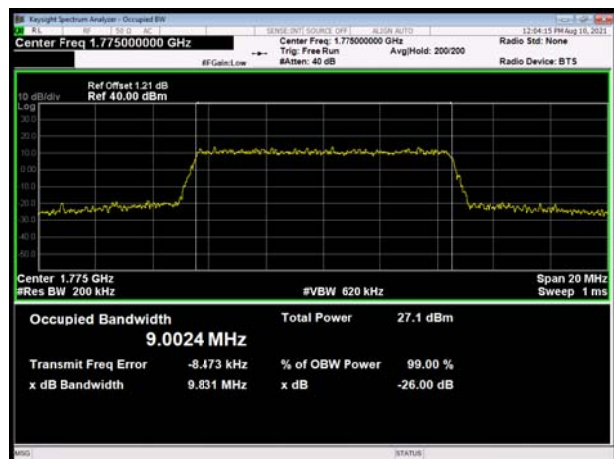
LTE Band 66 64QAM 10MHz CH-Middle



LTE Band 66 64QAM 5MHz CH-High



LTE Band 66 64QAM 10MHz CH-High

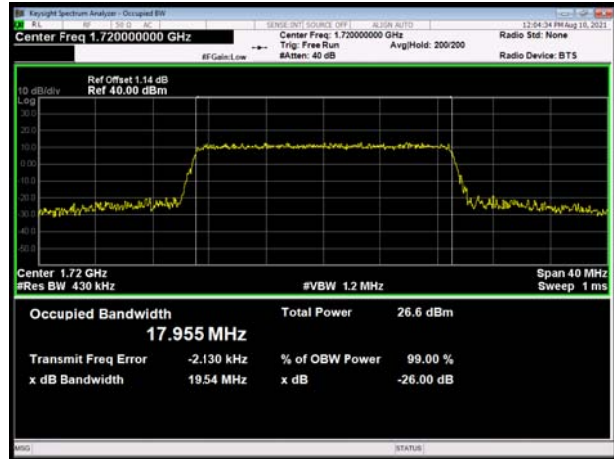




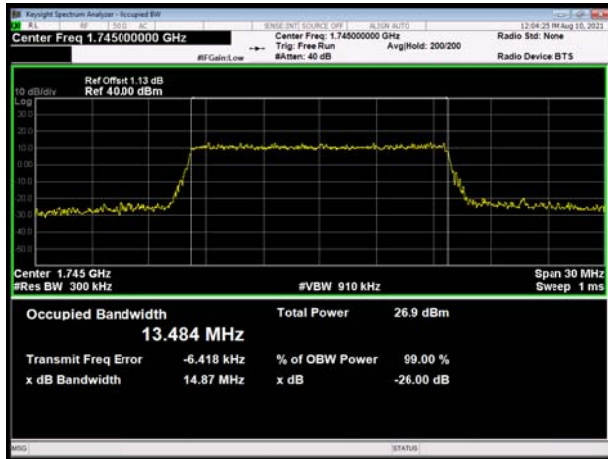
LTE Band 66 64QAM 15MHz CH-Low



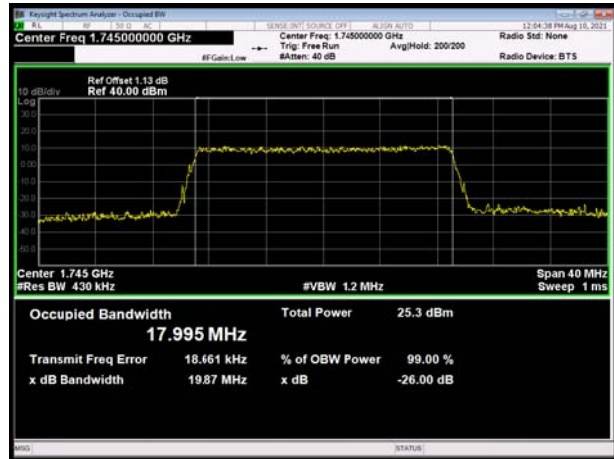
LTE Band 66 64QAM 20MHz CH-Low



LTE Band 66 64QAM 15MHz CH-Middle



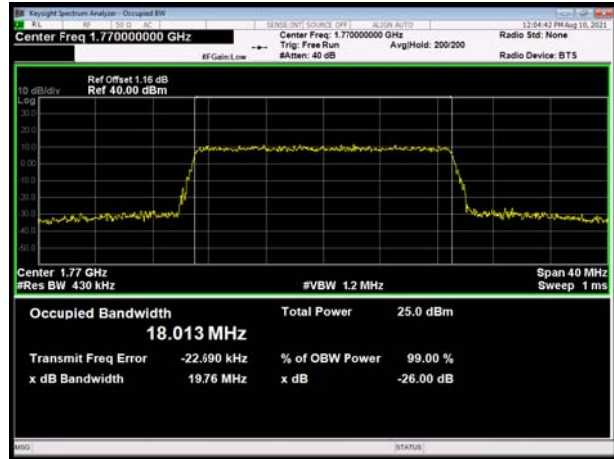
LTE Band 66 64QAM 20MHz CH-Middle



LTE Band 66 64QAM 15MHz CH-High



LTE Band 66 64QAM 20MHz CH-High



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.

For LTE Band 7/38 the middle channel, high channel of LTE Band 41 set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.

RBW is set to $\geq 1\%$ EBW, VBW is set to 3x RBW.

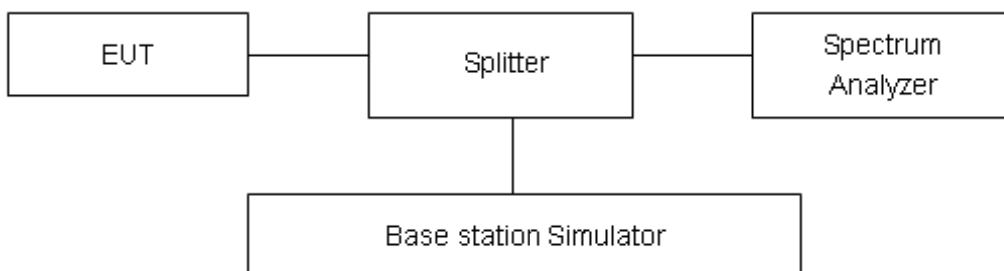
on spectrum analyzer.

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(m) (4) specifies that “for BRS and EBS stations. 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)(4) 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.

Example:

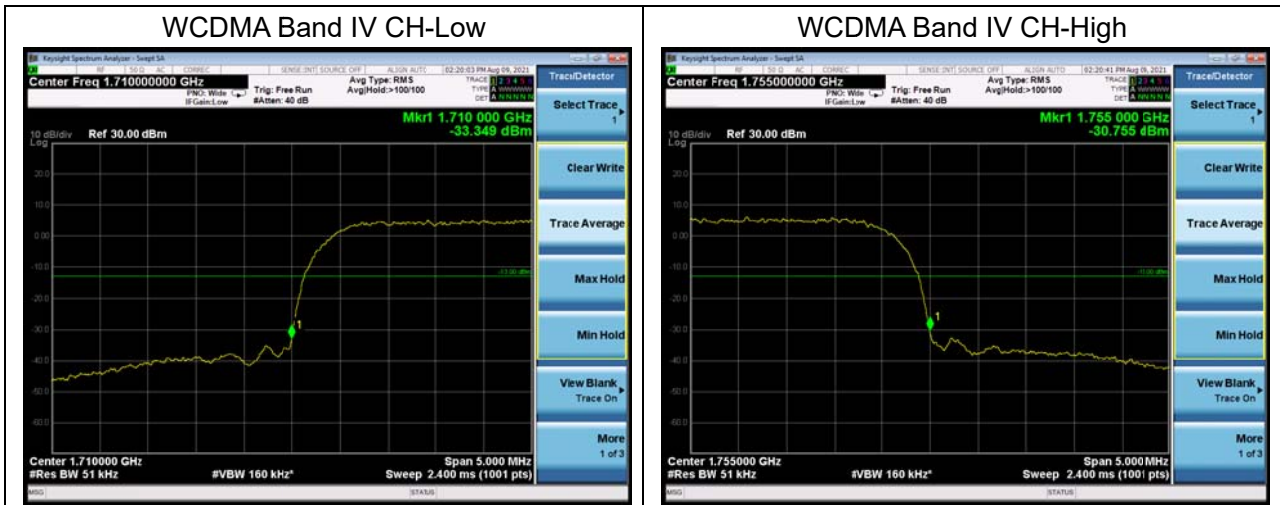
The limit line is derived from $43 + 10 \log (P)$ dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log (P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

Measurement Uncertainty

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

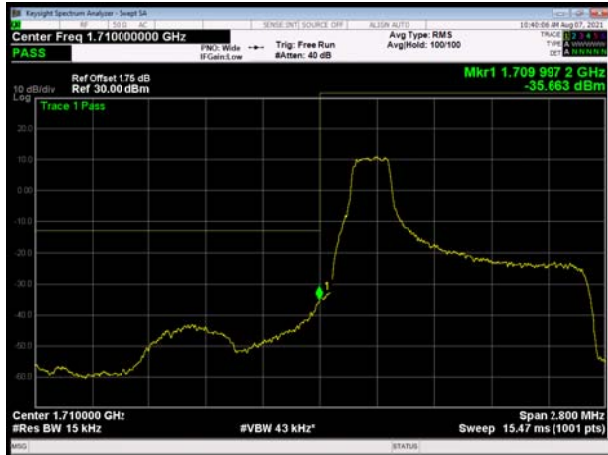
Test Result

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



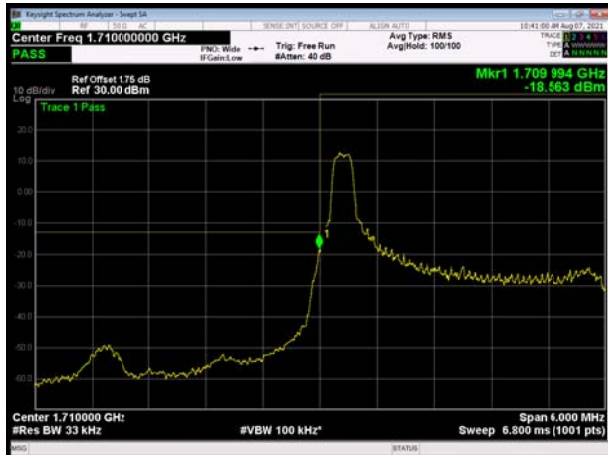
LTE Band 4 QPSK 1.4MHz CH-Low, 100%RB



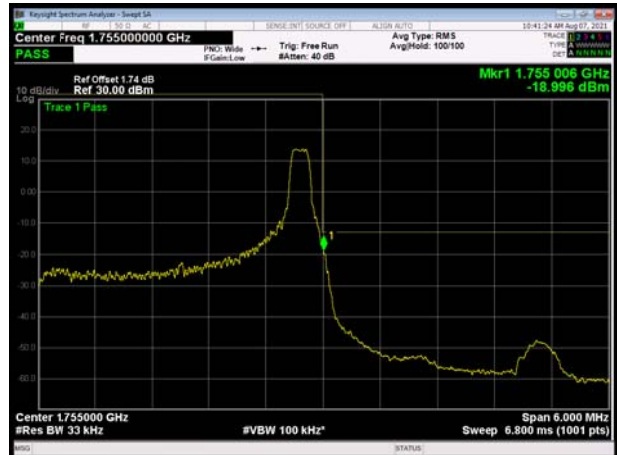
LTE Band 4 QPSK 1.4MHz CH-High, 100%RB



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

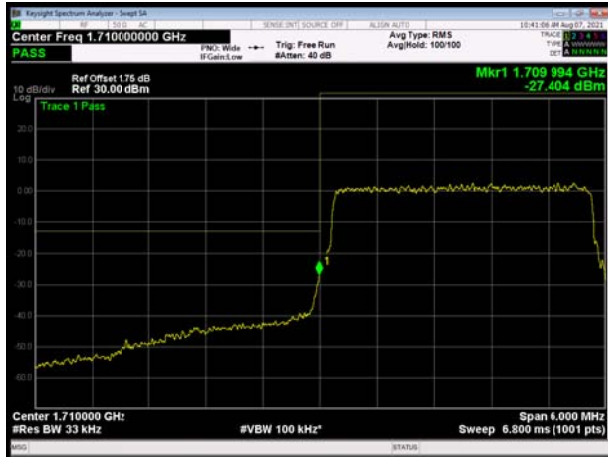


LTE Band 4 QPSK 3MHz CH-High, 1 RB





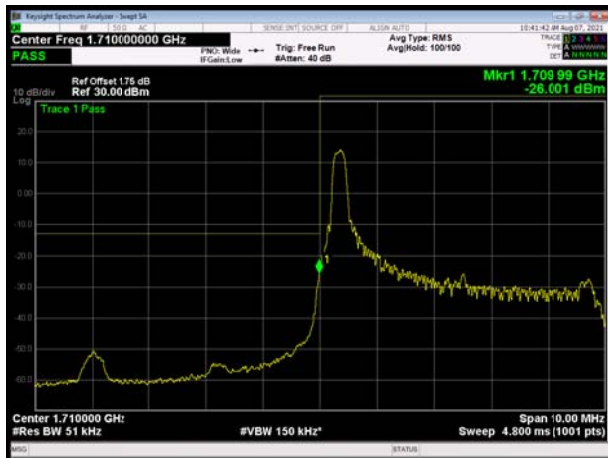
LTE Band 4 QPSK 3MHz CH-Low, 100%RB



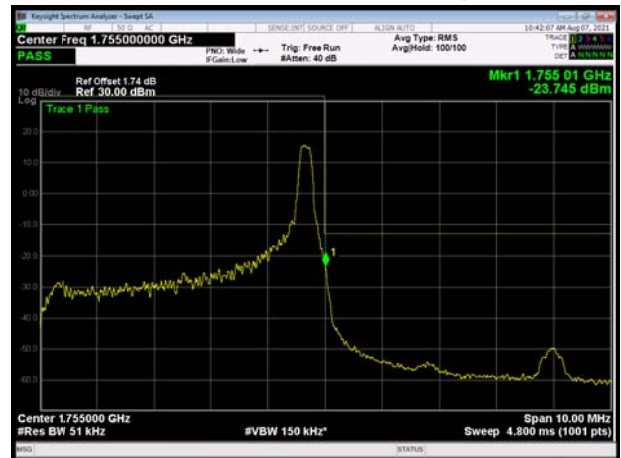
LTE Band 4 QPSK 3MHz CH-High, 100%RB



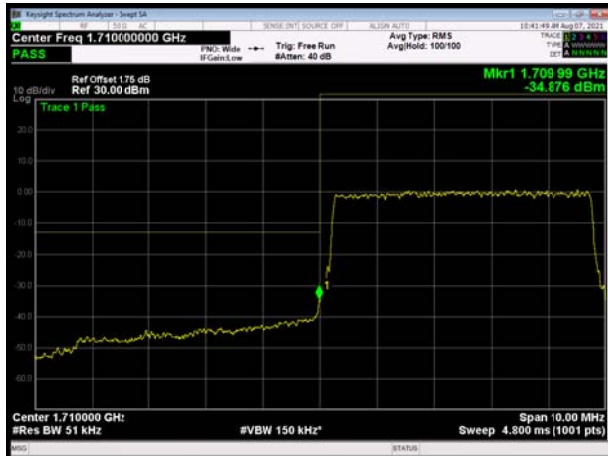
LTE Band 4 QPSK 5MHz CH-Low, 1 RB



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

