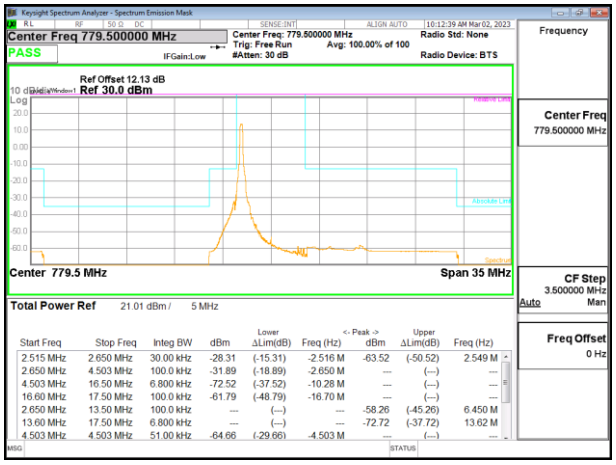
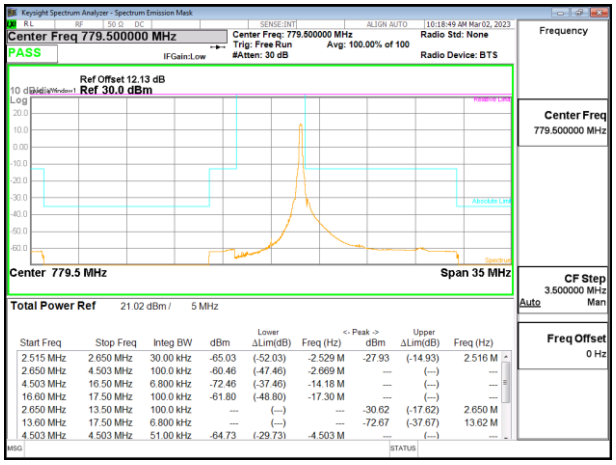
10.2.3. LTE13

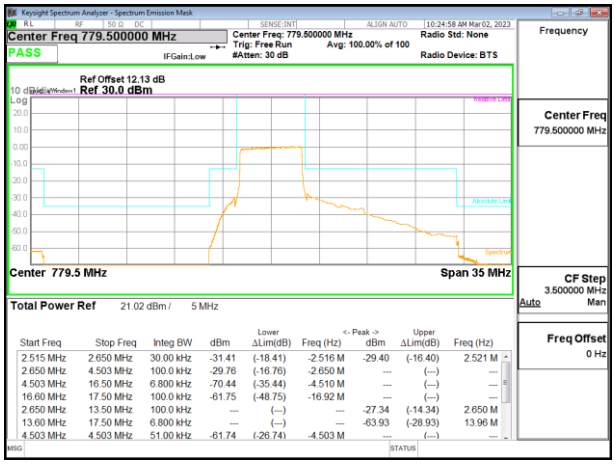
Test Engineer ID:	27465/44389	Test Date:	2023-03-02	Sample Used:	QV7700ADFR



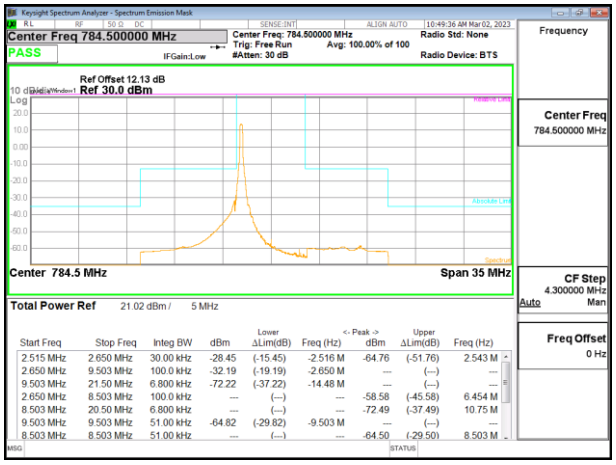
LTE13 5MHz QPSK LOW Ch RB1-0



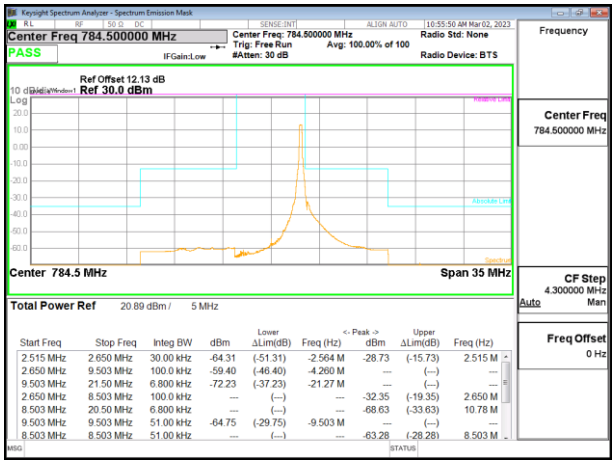
LTE13 5MHz QPSK LOW Ch RB1-24



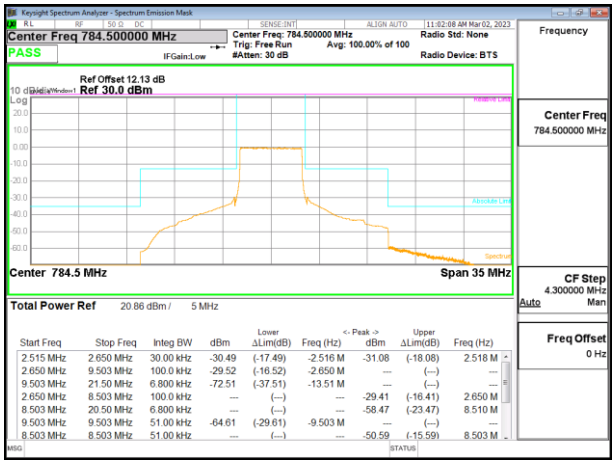
LTE13 5MHz QPSK LOW Ch RB25-0



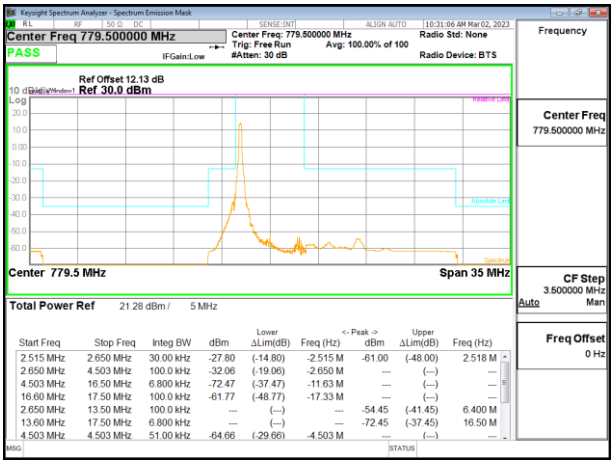
LTE13 5MHz QPSK HIGH Ch RB1-0



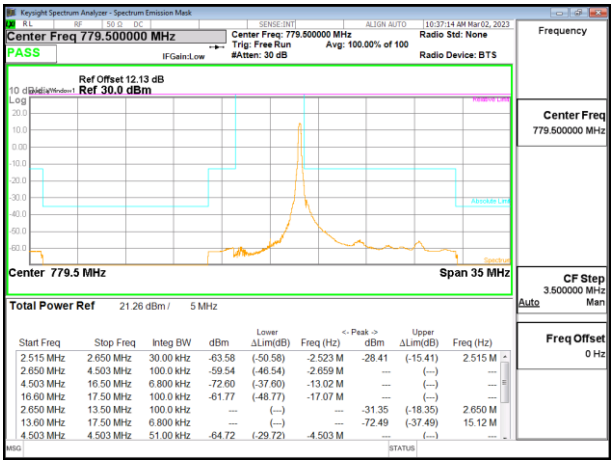
LTE13 5MHz QPSK HIGH Ch RB1-24



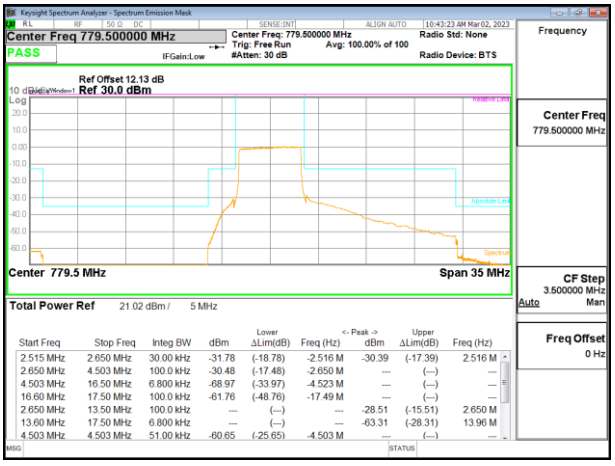
LTE13 5MHz QPSK HIGH Ch RB25-0



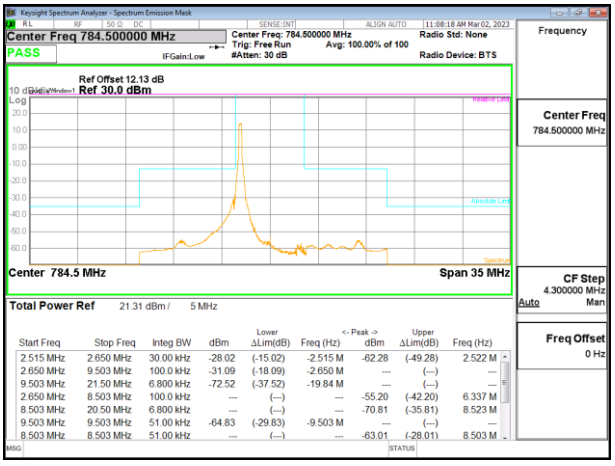
LTE13 5MHz 16QAM LOW Ch RB1-0



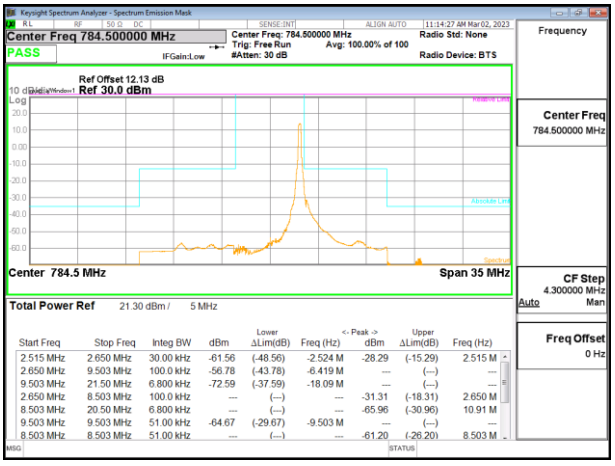
LTE13 5MHz 16QAM LOW Ch RB1-24



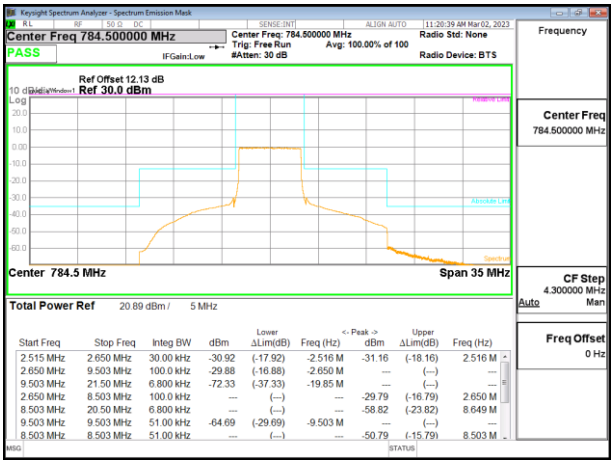
LTE13 5MHz 16QAM LOW Ch RB25-0



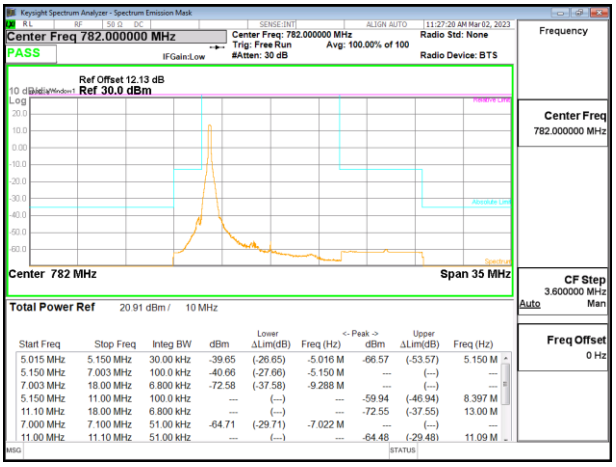
LTE13 5MHz 16QAM HIGH Ch RB1-0



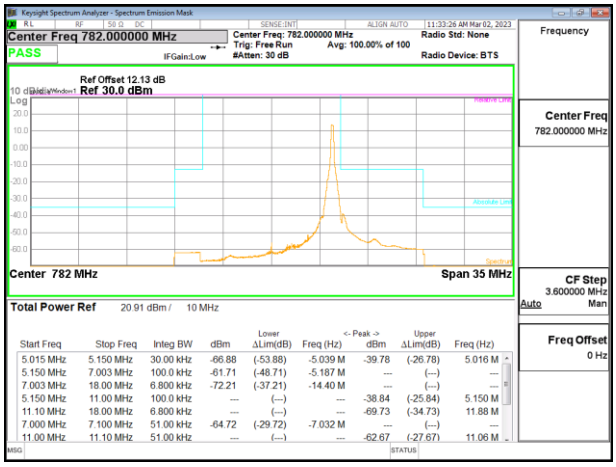
LTE13 5MHz 16QAM HIGH Ch RB1-24



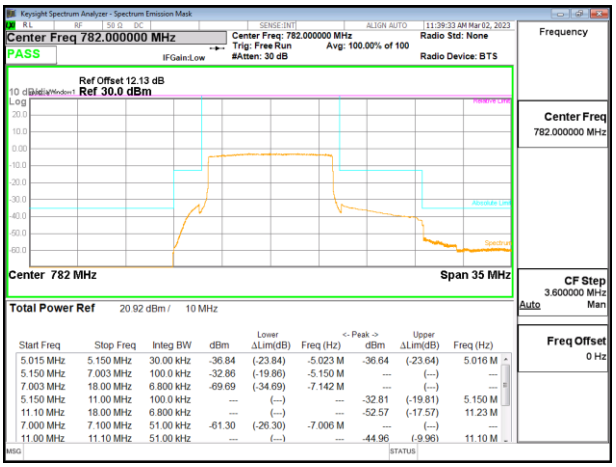
LTE13 5MHz 16QAM HIGH Ch RB25-0



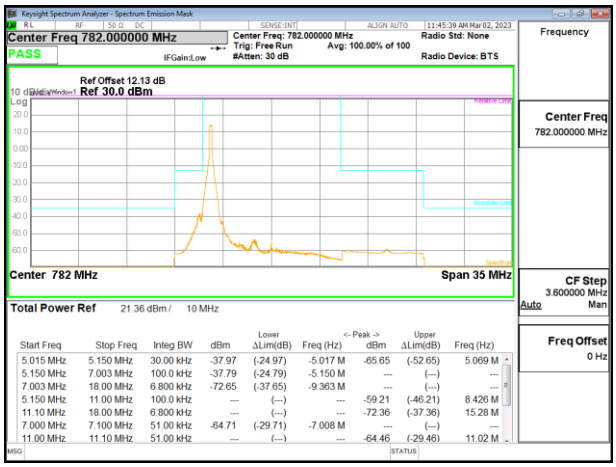
LTE13 10MHz QPSK MID Ch RB1-0



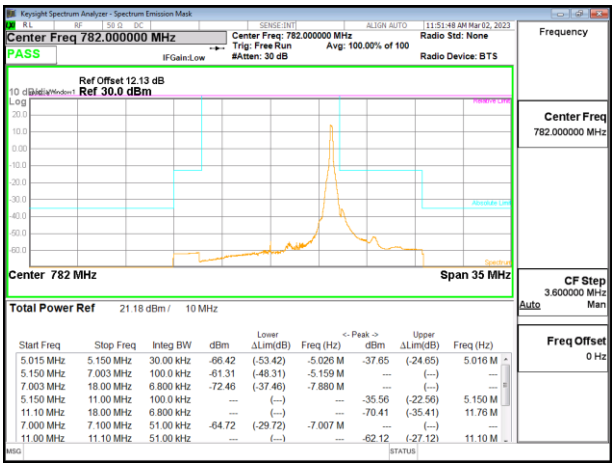
LTE13 10MHz QPSK MID Ch RB1-49



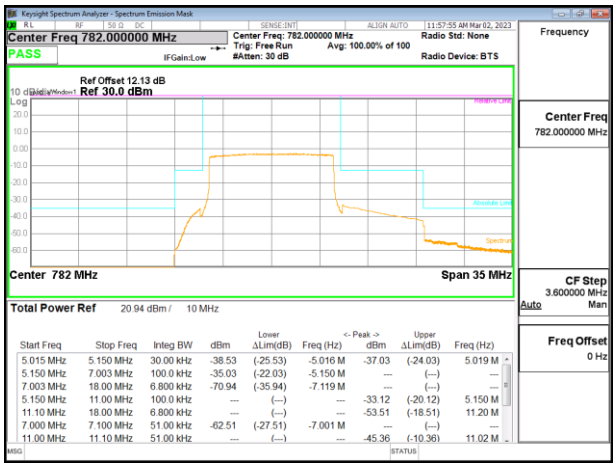
LTE13 10MHz QPSK MID Ch RB50-0



LTE13 10MHz 16QAM MID Ch RB1-0



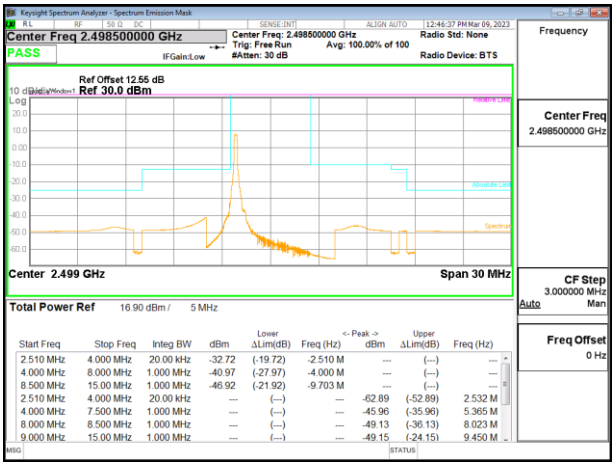
LTE13 10MHz 16QAM MID Ch RB1-49



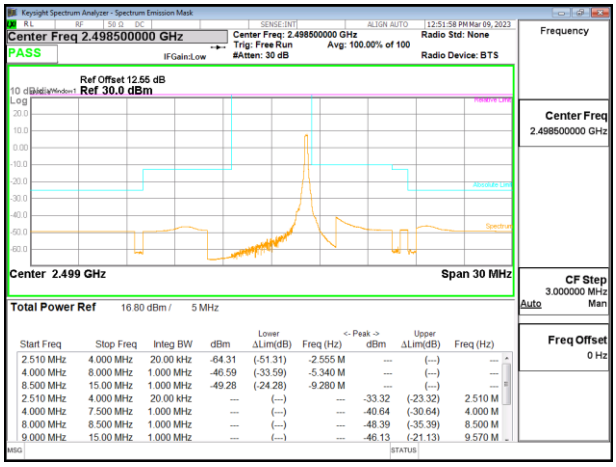
LTE13 10MHz 16QAM MID Ch RB50-0

10.2.4. LTE41

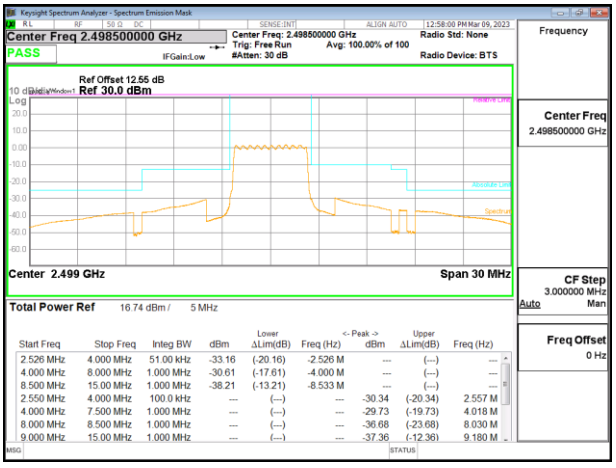
Test Engineer ID:	24765/44389 84740/44389	Test Date:	2023-03-02 2023-03-04	Sample Used:	QV7700ADFR



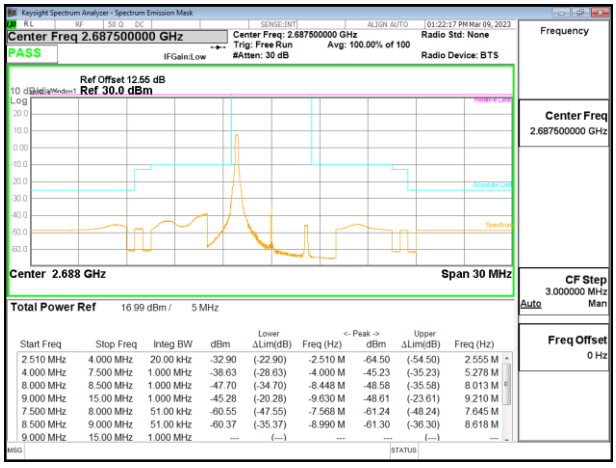
LTE41 5MHz QPSK LOW Ch RB1-0



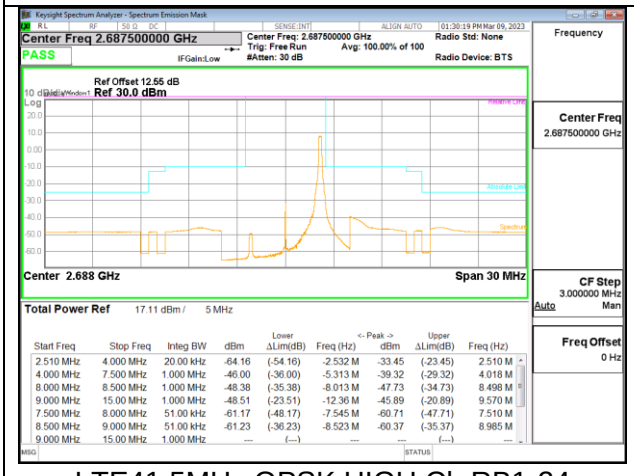
LTE41 5MHz QPSK LOW Ch RB1-24



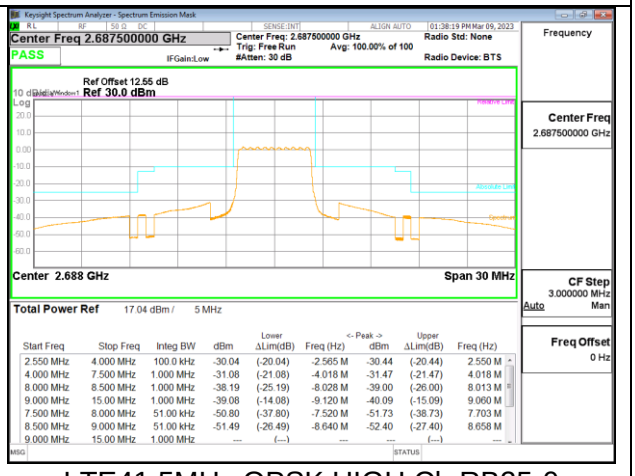
LTE41 5MHz QPSK LOW Ch RB25-0



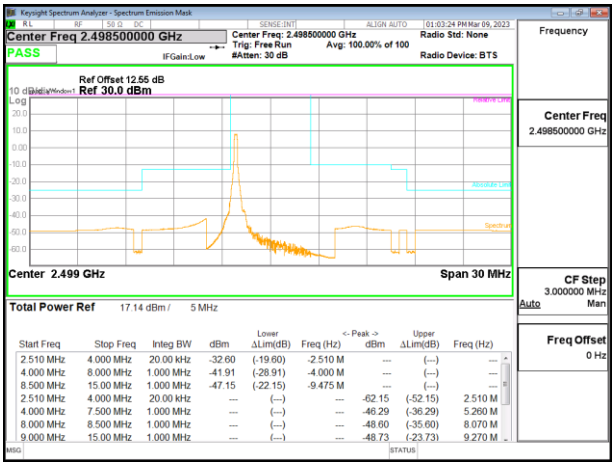
LTE41 5MHz QPSK HIGH Ch RB1-0



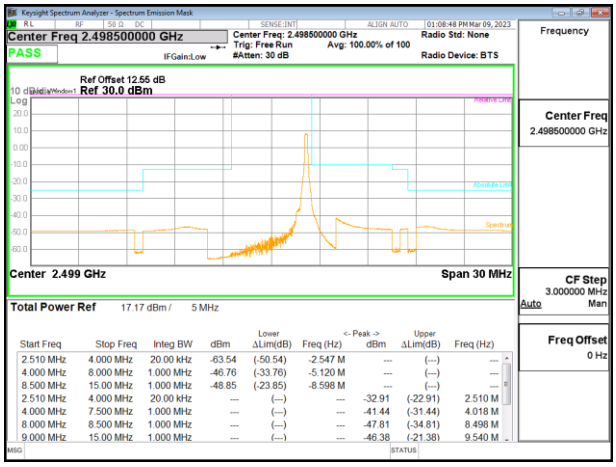
LTE41 5MHz QPSK HIGH Ch RB1-24



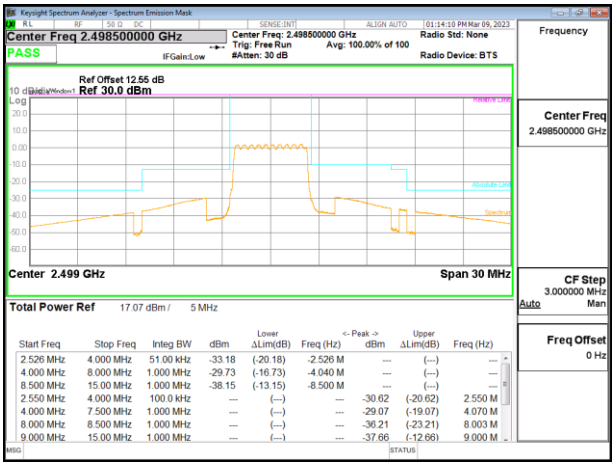
LTE41 5MHz QPSK HIGH Ch RB25-0



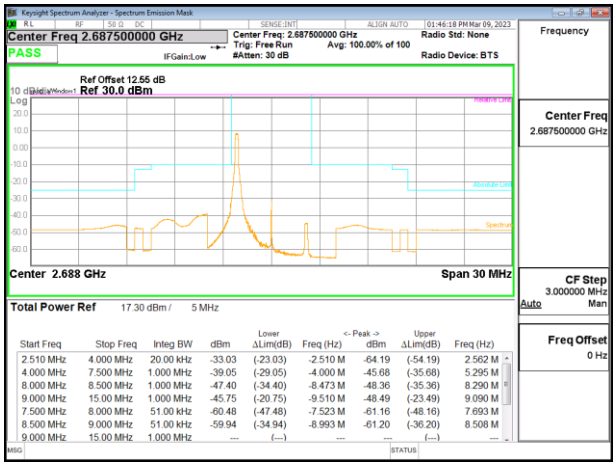
LTE41 5MHz 16QAM LOW Ch RB1-0



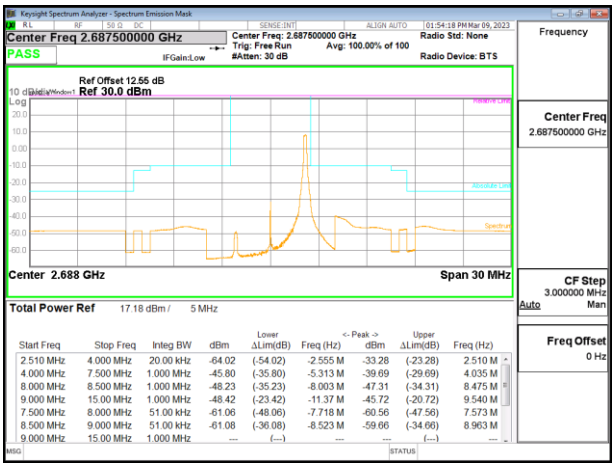
LTE41 5MHz 16QAM LOW Ch RB1-24



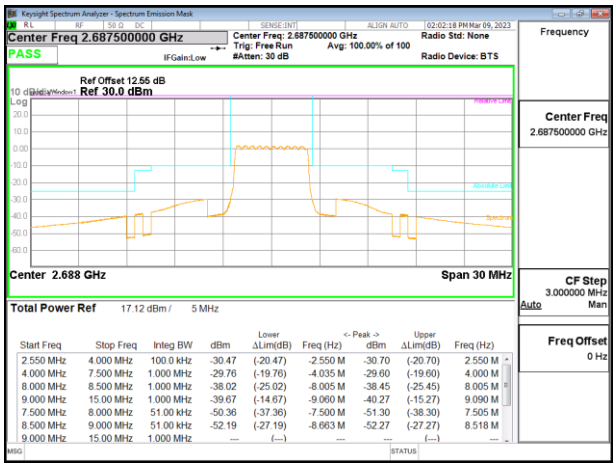
LTE41 5MHz 16QAM LOW Ch RB25-0



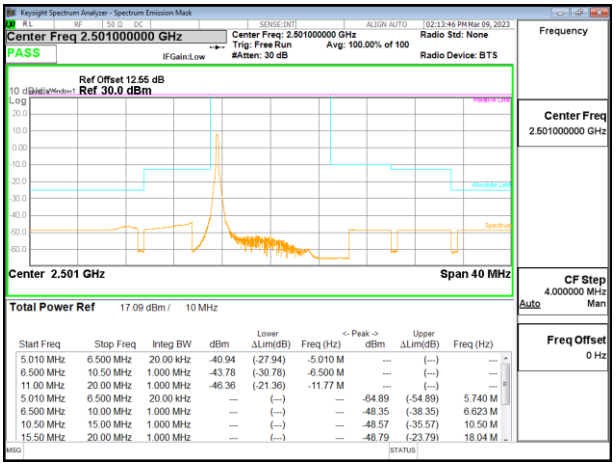
LTE41 5MHz 16QAM HIGH Ch RB1-0



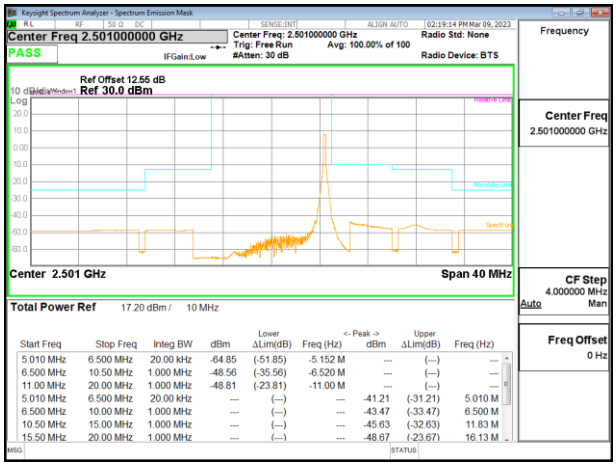
LTE41 5MHz 16QAM HIGH Ch RB1-24



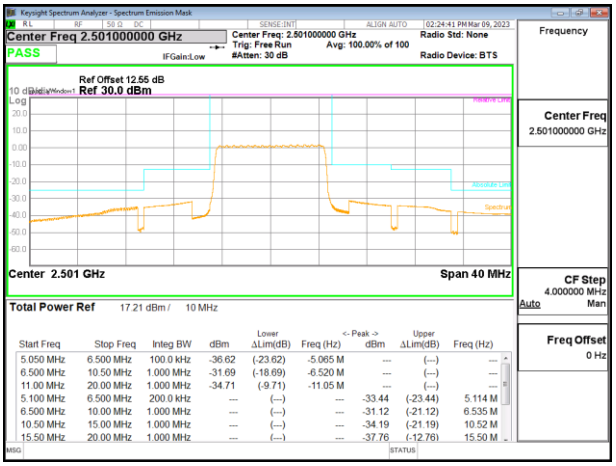
LTE41 5MHz 16QAM HIGH Ch RB25-0



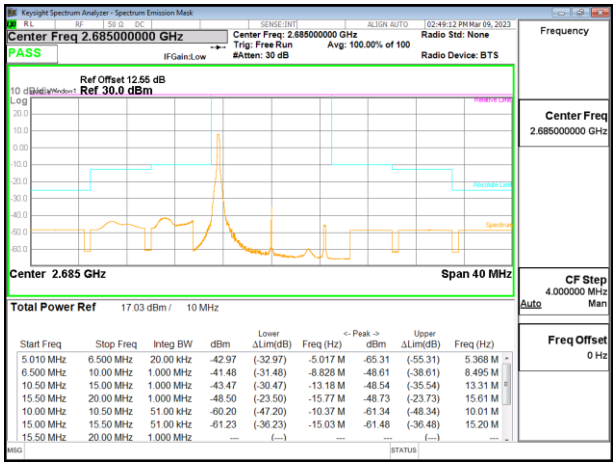
LTE41 10MHz QPSK LOW Ch RB1-0



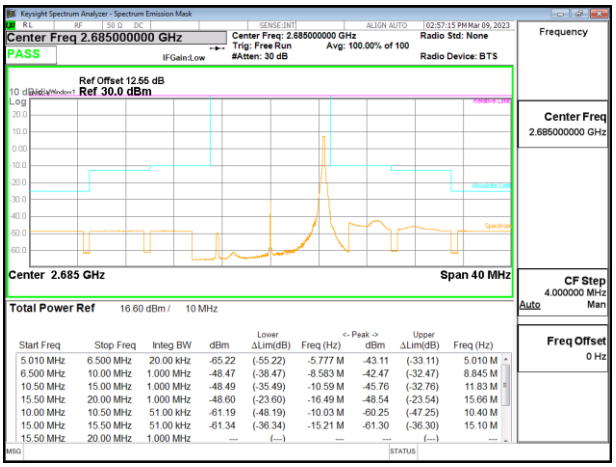
LTE41 10MHz QPSK LOW Ch RB1-49



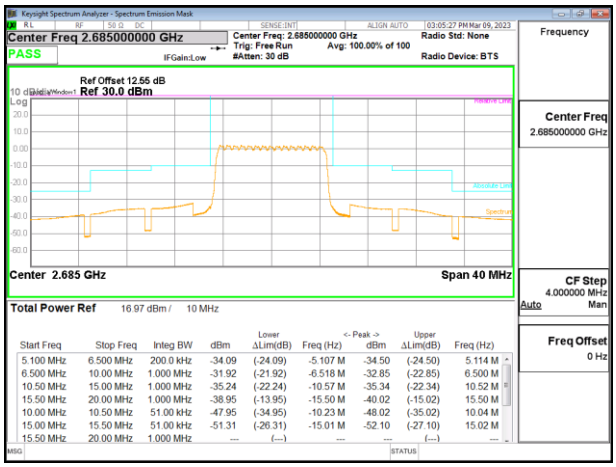
LTE41 10MHz QPSK LOW Ch RB50-0



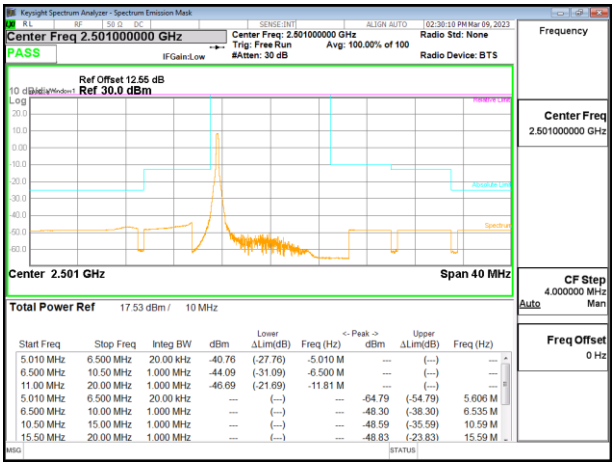
LTE41 10MHz QPSK HIGH Ch RB1-0



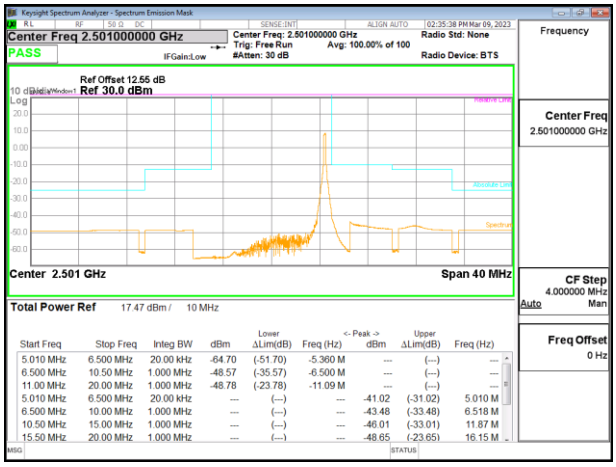
LTE41 10MHz QPSK HIGH Ch RB1-49



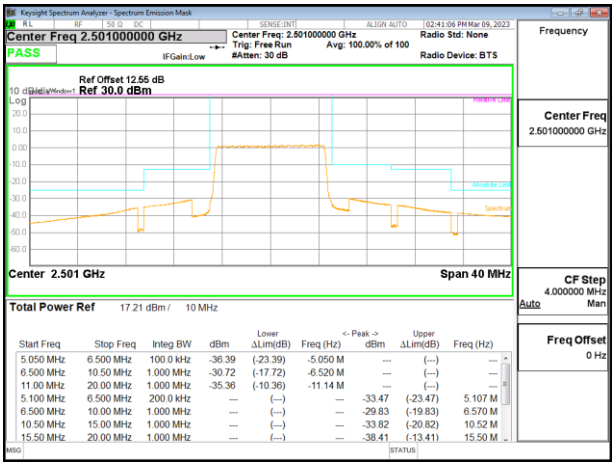
LTE41 10MHz QPSK HIGH Ch RB50-0



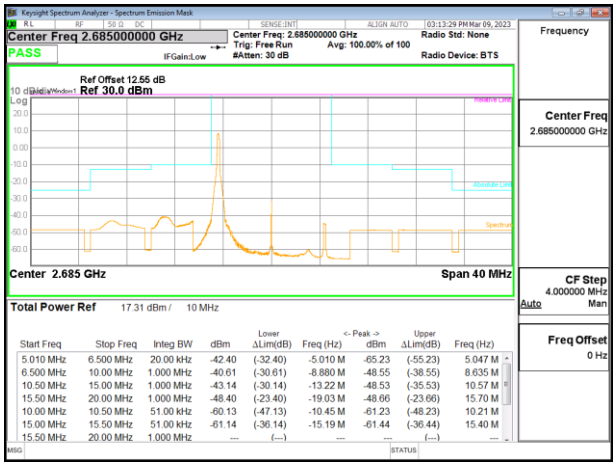
LTE41 10MHz 16QAM LOW Ch RB1-0



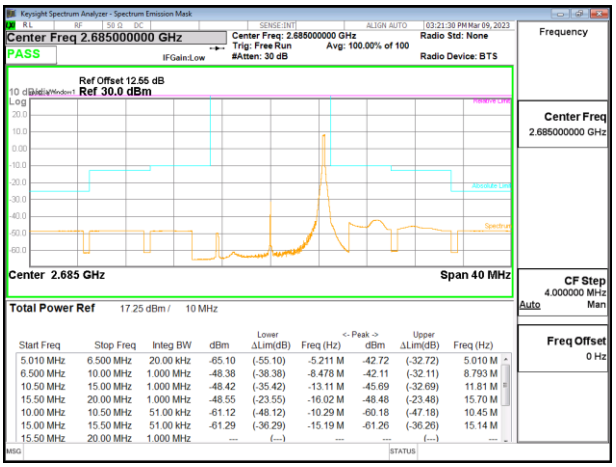
LTE41 10MHz 16QAM LOW Ch RB1-49



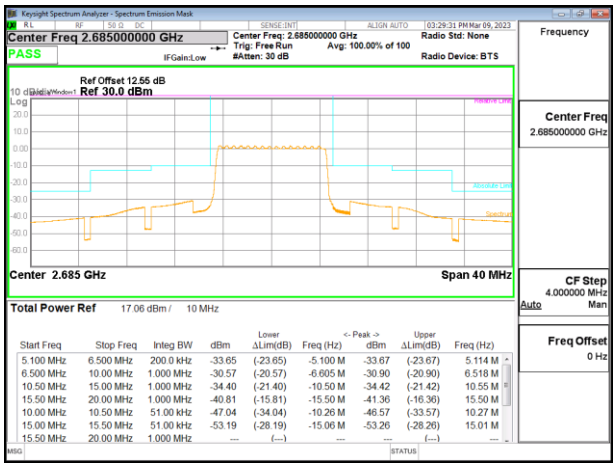
LTE41 10MHz 16QAM LOW Ch RB50-0



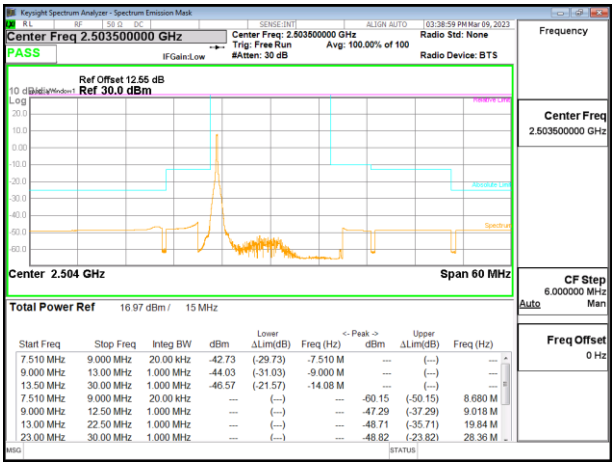
LTE41 10MHz 16QAM HIGH Ch RB1-0



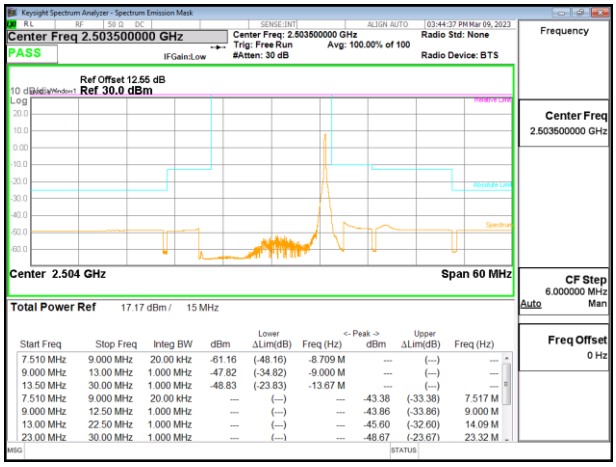
LTE41 10MHz 16QAM HIGH Ch RB1-49



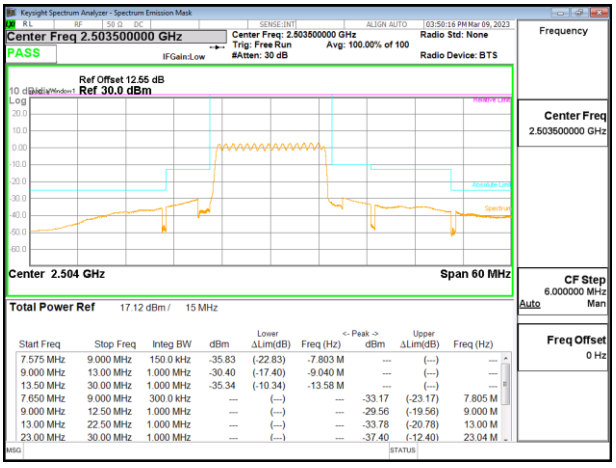
LTE41 10MHz 16QAM HIGH Ch RB50-0



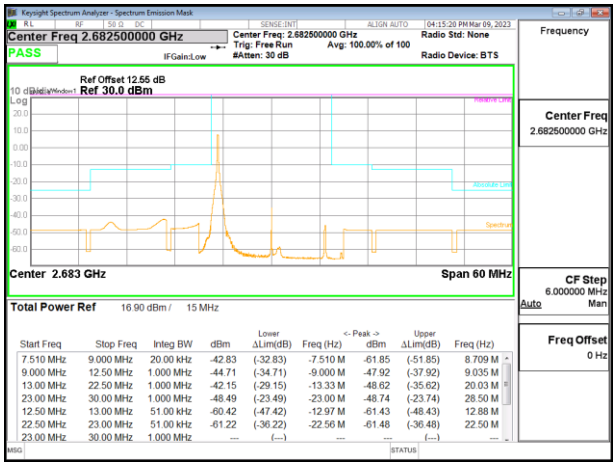
LTE41 15MHz QPSK LOW Ch RB1-0



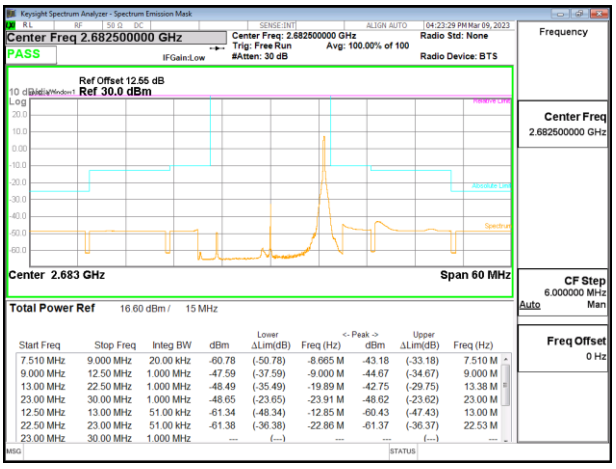
LTE41 15MHz QPSK LOW Ch RB1-74



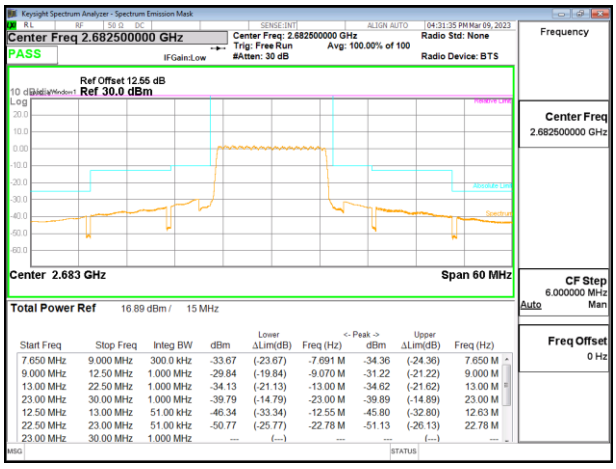
LTE41 15MHz QPSK LOW Ch RB75-0



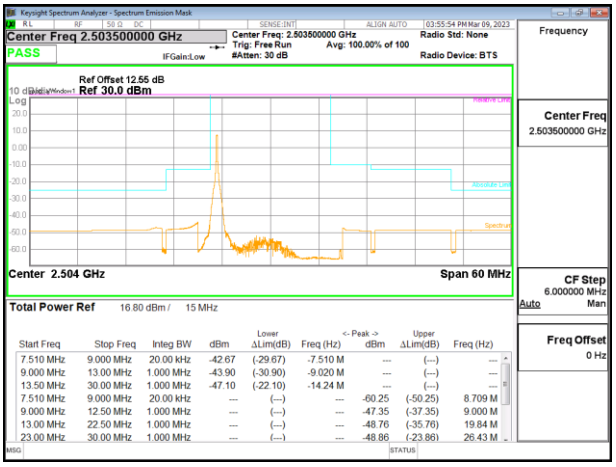
LTE41 15MHz QPSK HIGH Ch RB1-0



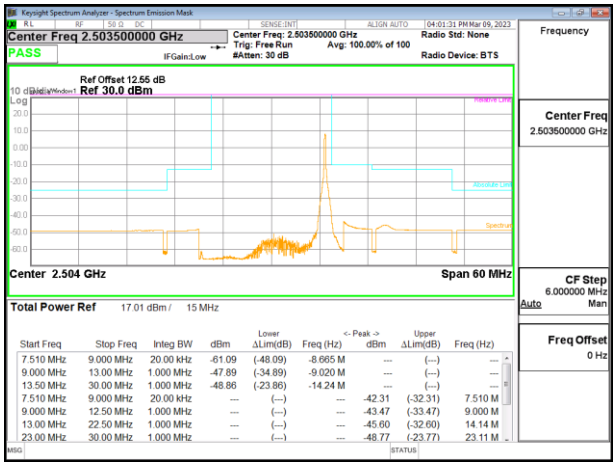
LTE41 15MHz QPSK HIGH Ch RB1-74



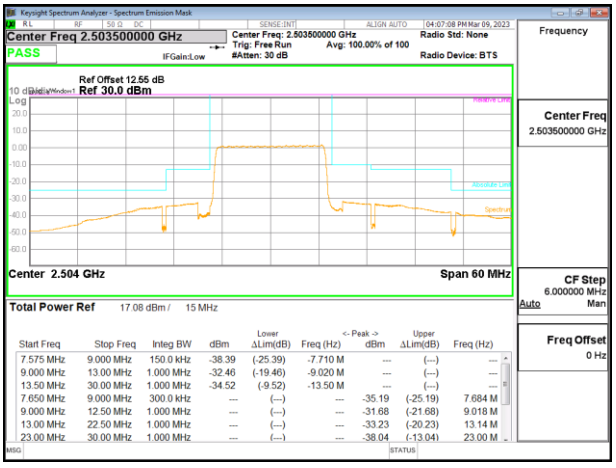
LTE41 15MHz QPSK HIGH Ch RB75-0



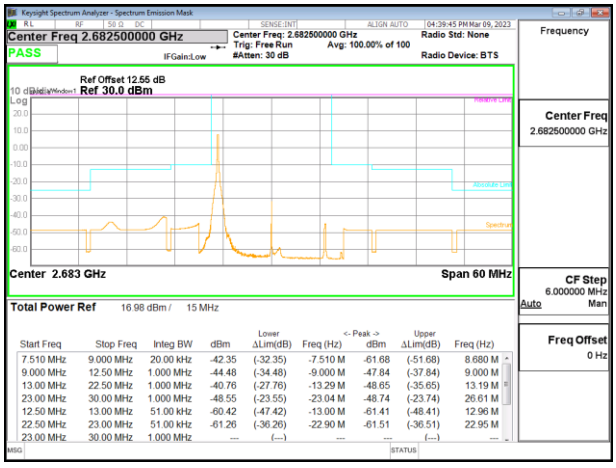
LTE41 15MHz 16QAM LOW Ch RB1-0



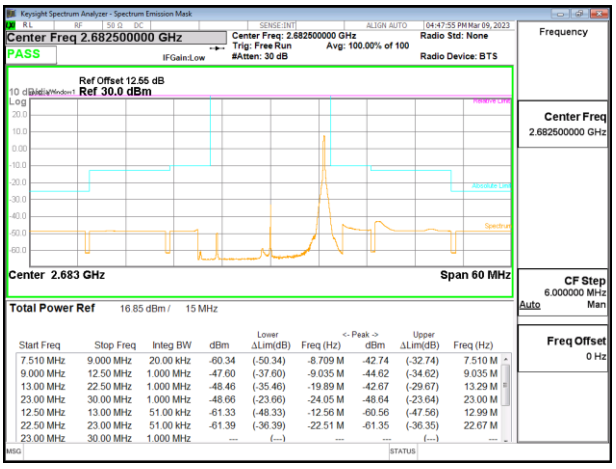
LTE41 15MHz 16QAM LOW Ch RB1-74



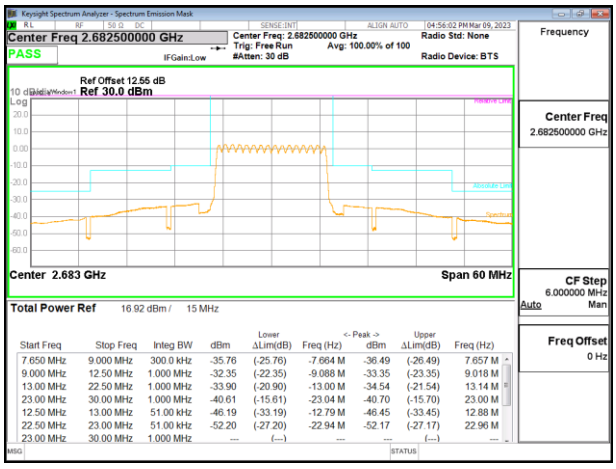
LTE41 15MHz 16QAM LOW Ch RB75-0



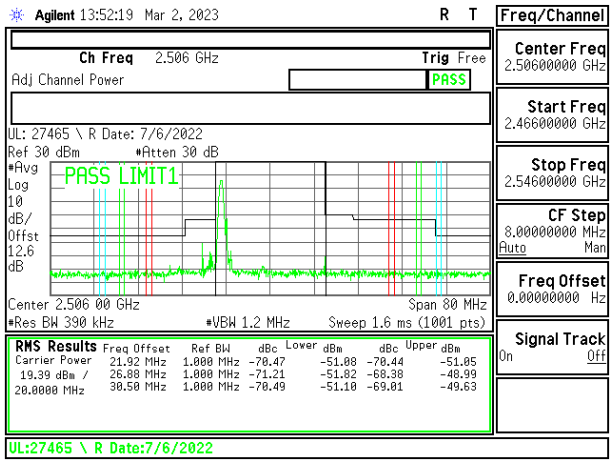
LTE41 15MHz 16QAM HIGH Ch RB1-0



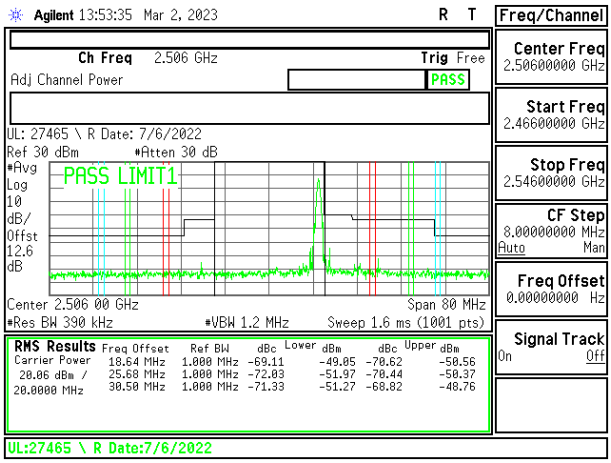
LTE41 15MHz 16QAM HIGH Ch RB1-74



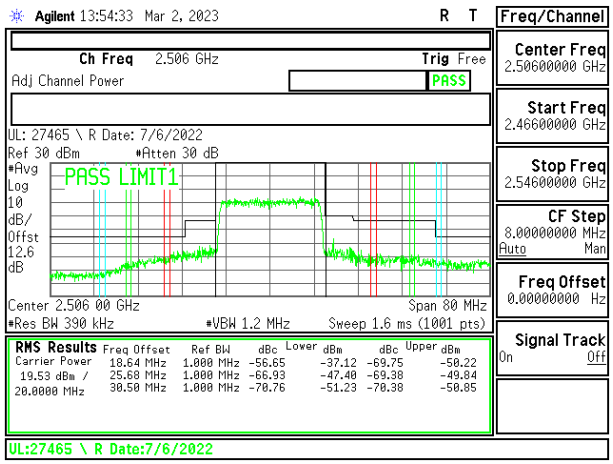
LTE41 15MHz 16QAM HIGH Ch RB75-0



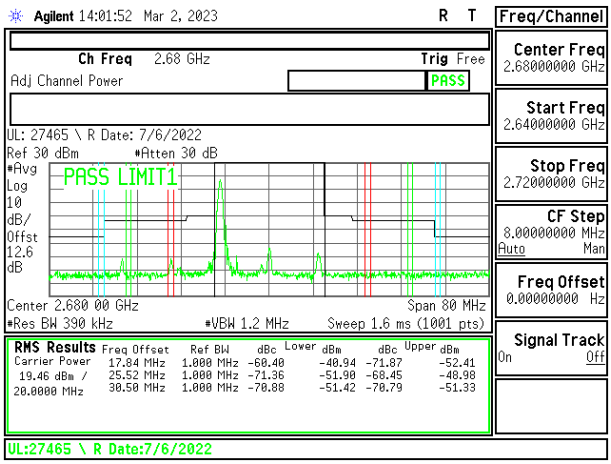
LTE41 20MHz QPSK LOW Ch RB1-0



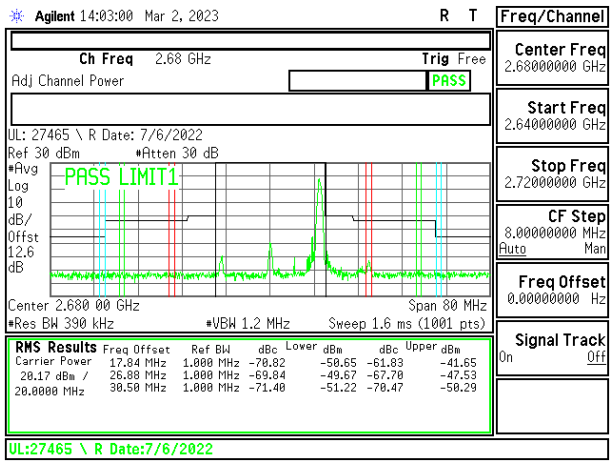
LTE41 20MHz QPSK LOW Ch RB1-99



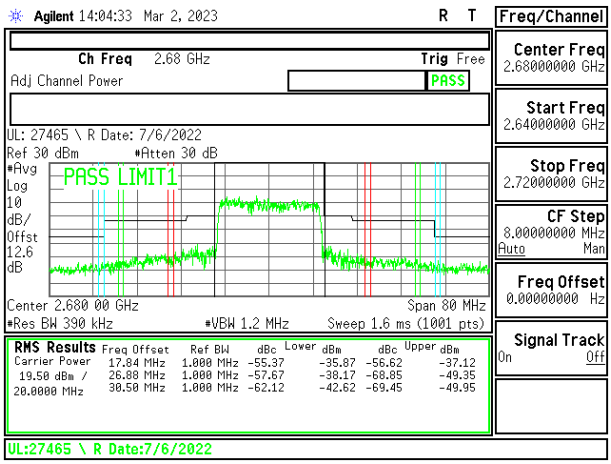
LTE41 20MHz QPSK LOW Ch RB100-0



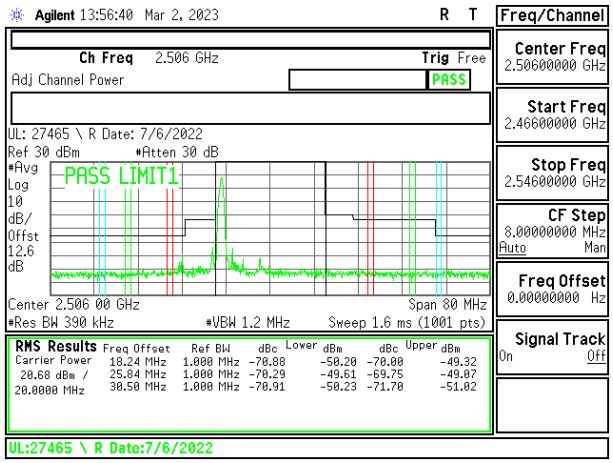
LTE41 20MHz QPSK HIGH Ch RB1-0



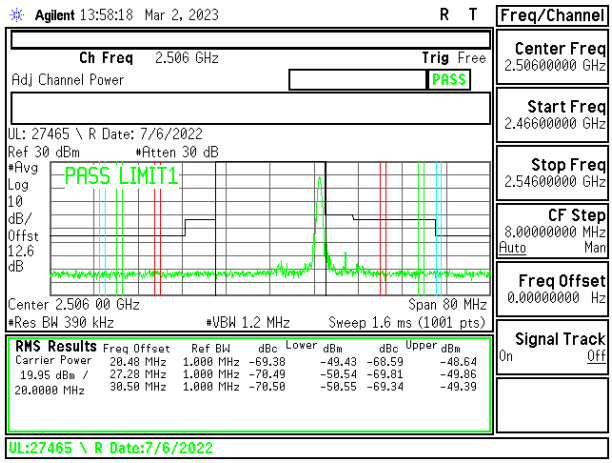
LTE41 20MHz QPSK HIGH Ch RB1-99



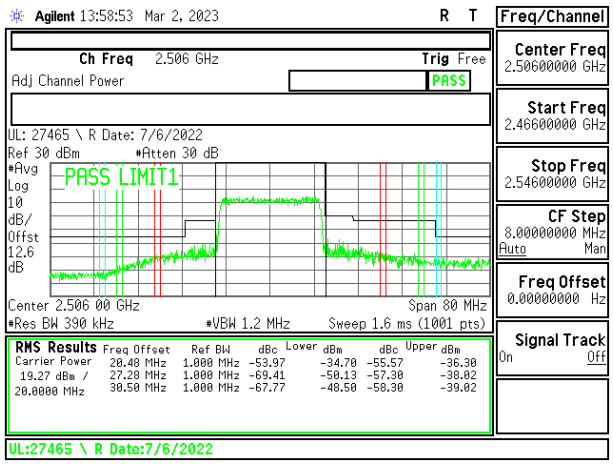
LTE41 20MHz QPSK HIGH Ch RB100-0



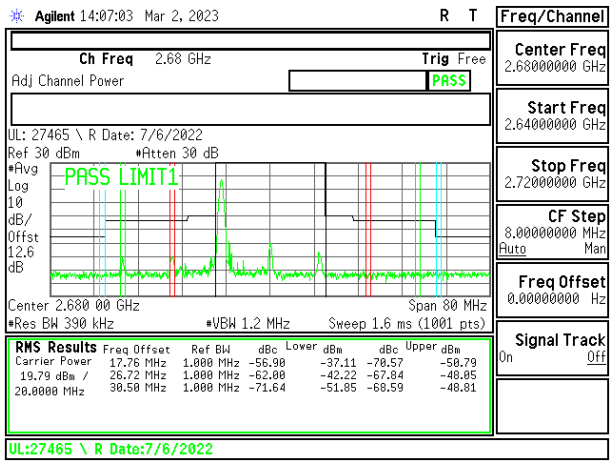
LTE41 20MHz 16QAM LOW Ch RB1-0



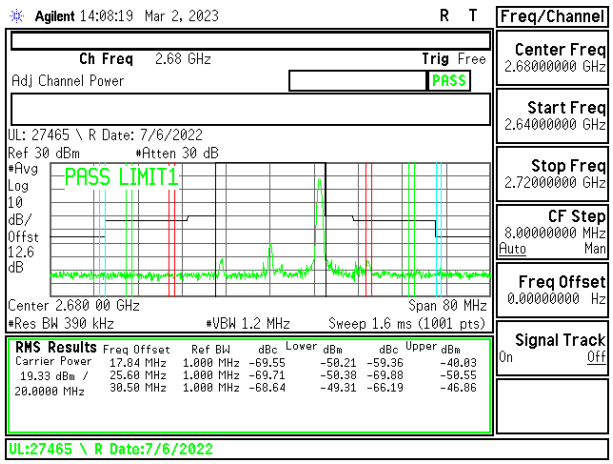
LTE41 20MHz 16QAM LOW Ch RB1-99



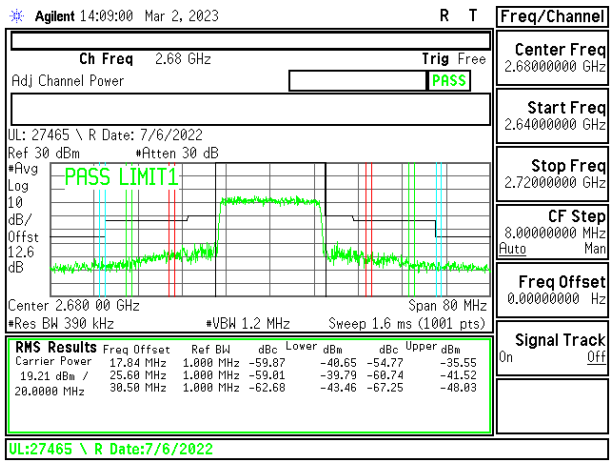
LTE41 20MHz 16QAM LOW Ch RB100-0



LTE41 20MHz 16QAM HIGH Ch RB1-0



LTE41 20MHz 16QAM HIGH Ch RB1-99



LTE41 20MHz 16QAM HIGH Ch RB100-0

10.3. OUT OF BAND EMISSIONS

LIMITS

FCC: §22.917; §27.53 (m), (g), (c), (f)
The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts.

TEST PROCEDURE

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.
For each out of band emissions measurement:

(v) Set display line at -13 dBm, -25dBm and -40dBm according to the band Limit
(vi) Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz. (NOTE: Worst case set RBW/VBW to 1MHz/3MHz)

TEST PROCEDURE (LTE BAND 13)

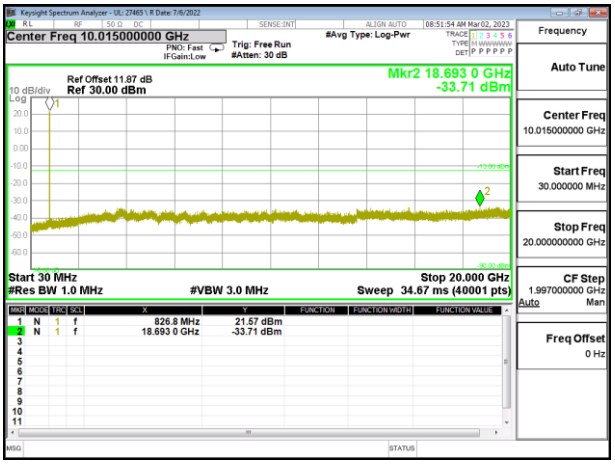
FCC: §27.53 (c), (f)
The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts. Emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotopically radiated power (EIRP) for wideband signals. (-70 dBW/MHz = -40dBm/MHz).

Radiated data in section 11.1.4 confirms a compliance for the emissions in GPS 1559-1610MHz band where wideband, therefore the -40dBm/MHz limit was used.

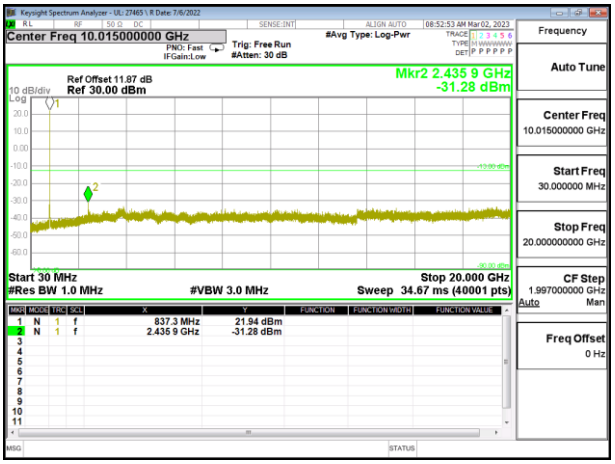
RESULTS

10.3.1. WCDMA BAND 5

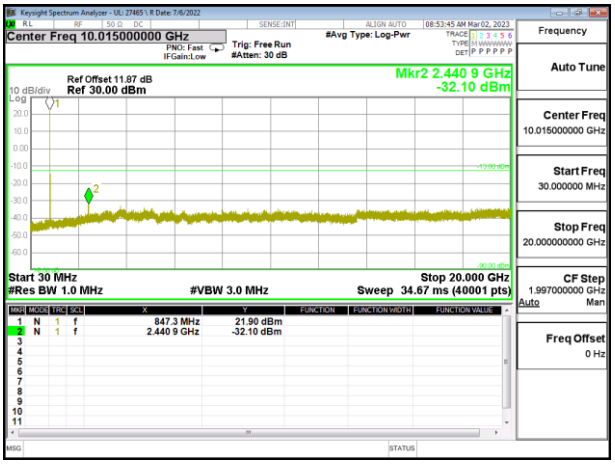
Test Engineer ID:	27465/44389	Test Date:	2023-03-02	Sample Used:	QV770090FR



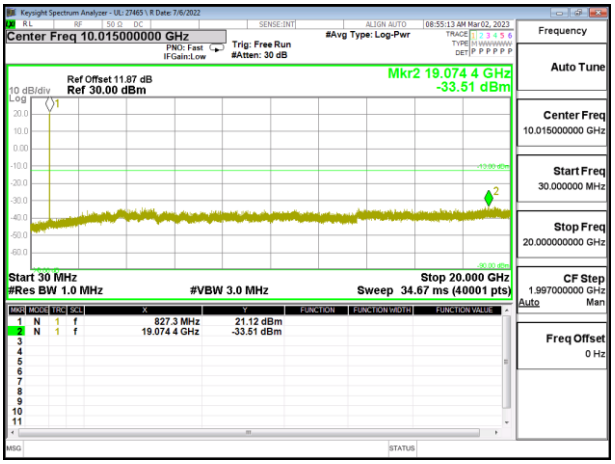
BAND 5 Rel 99 LOW Channel



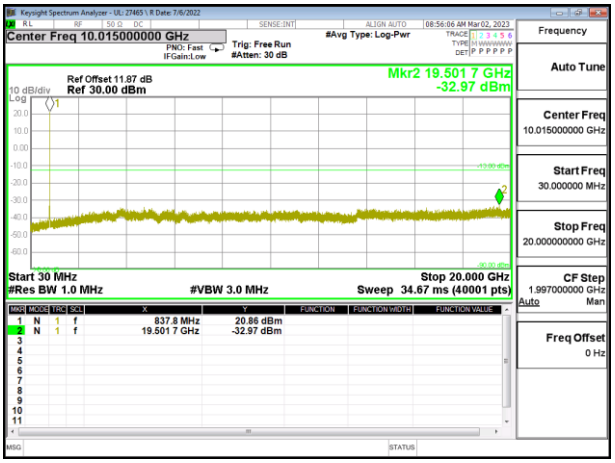
BAND 5 Rel 99 MID Channel



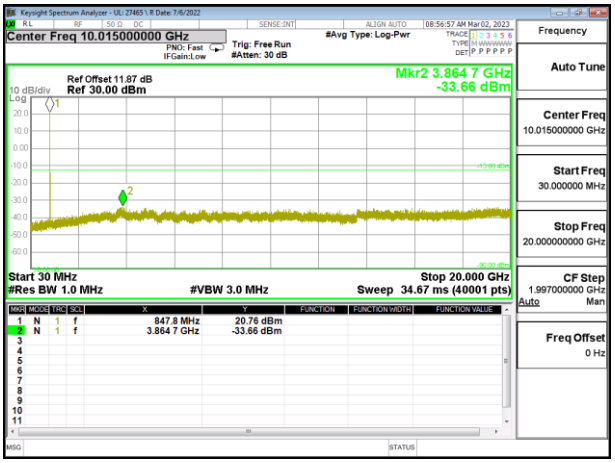
BAND 5 Rel 99 HIGH Channel



BAND 5 HSDPA LOW Channel



BAND 5 HSDPA MID Channel



BAND 5 HSDPA HIGH Channel