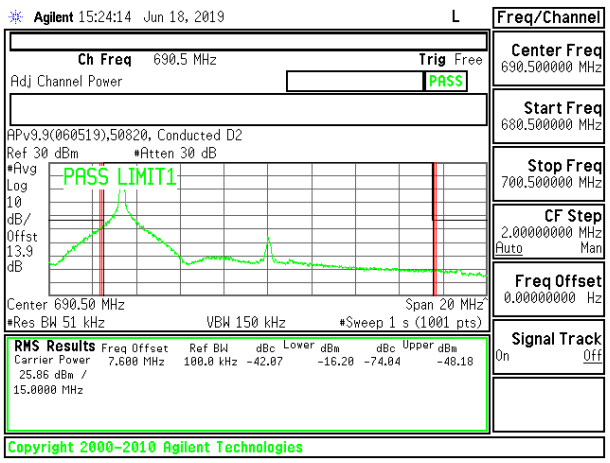
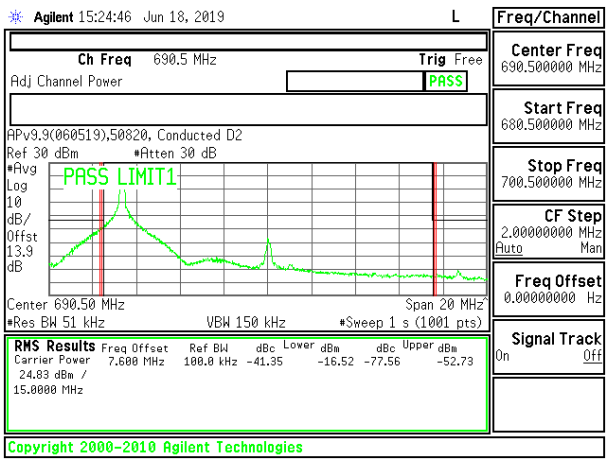
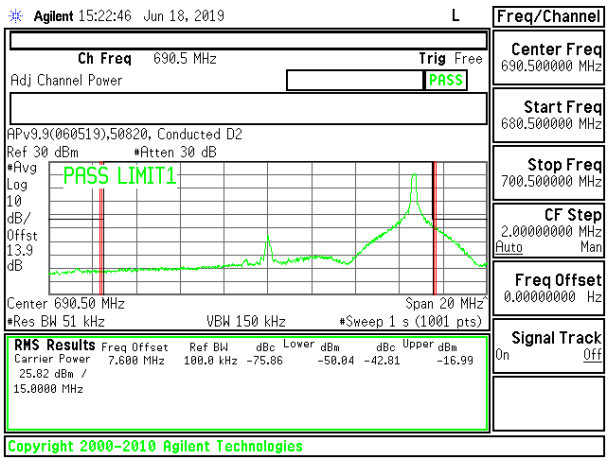


LTE B71 15MHz QPSK High Channel RB1-0



LTE B71 15MHz 16QAM High Channel RB1-0



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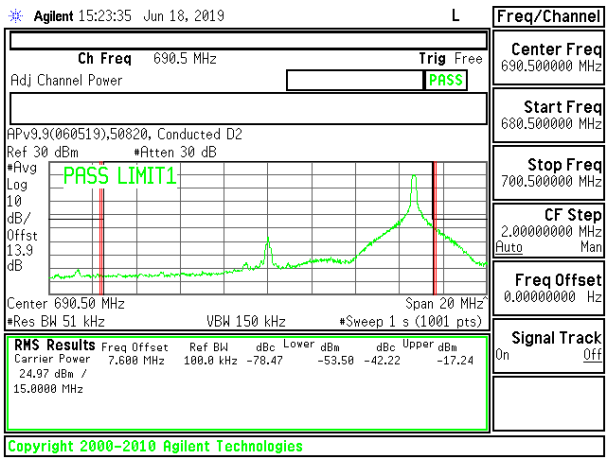

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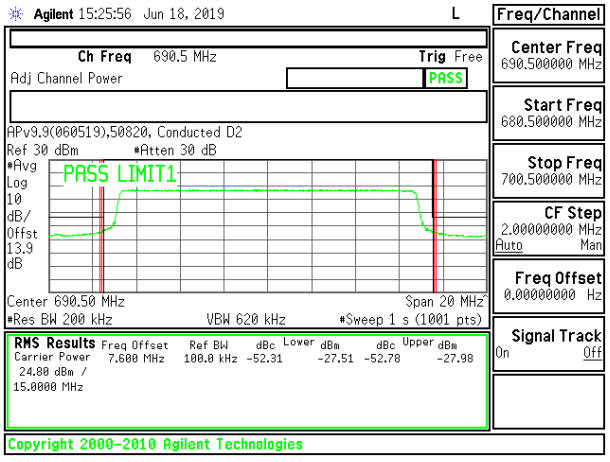
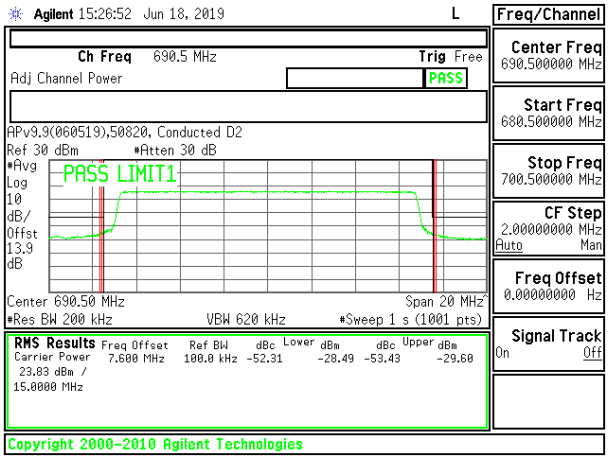


LTE B71 15MHz QPSK High Channel RB75-0



LTE B71 15MHz 16QAM High Channel RB75-0

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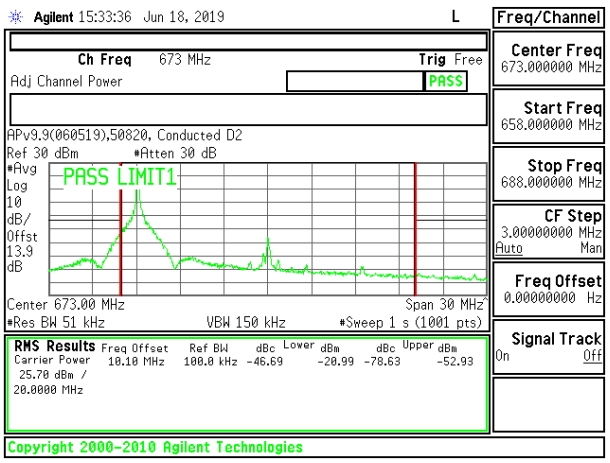
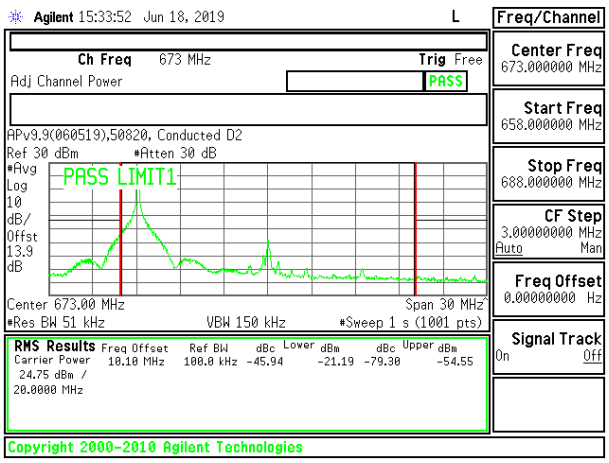


LTE B71 20MHz QPSK Low Channel RB1-0



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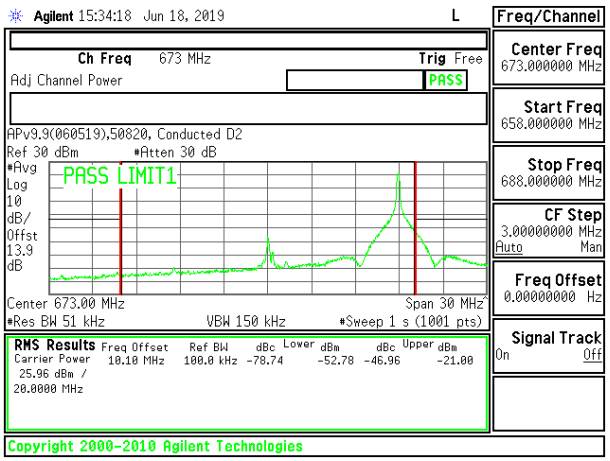
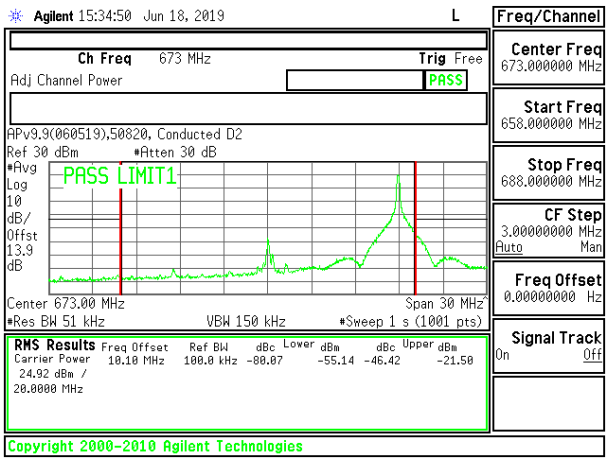
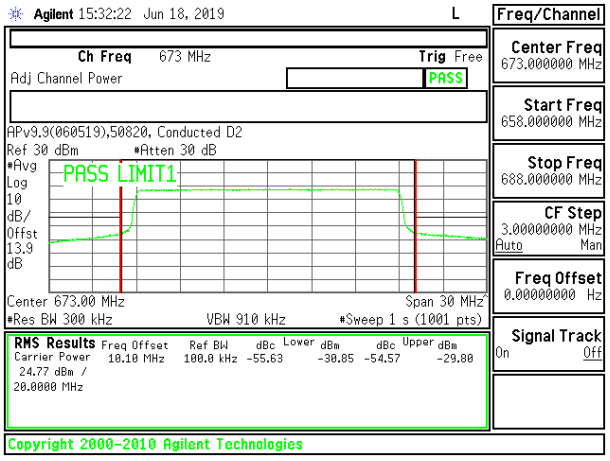


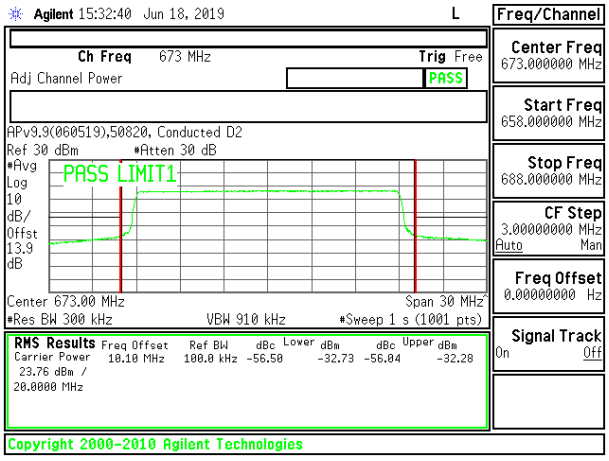
LTE B71 20MHz QPSK Low Channel RB1-99



LTE B71 20MHz 16QAM Low Channel RB1-99



LTE B71 20MHz QPSK Low Channel RB100-0



LTE B71 20MHz 16QAM Low Channel RB100-0

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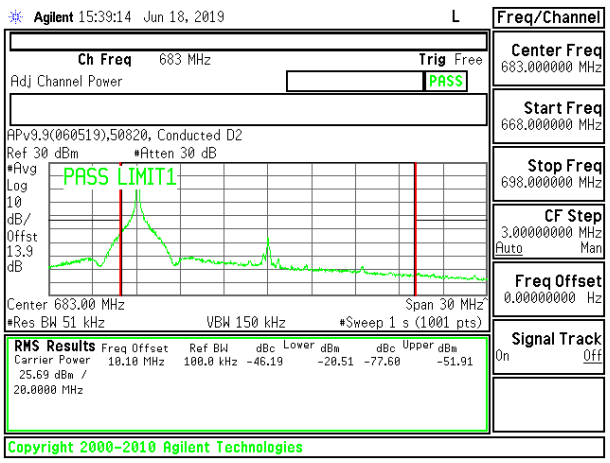
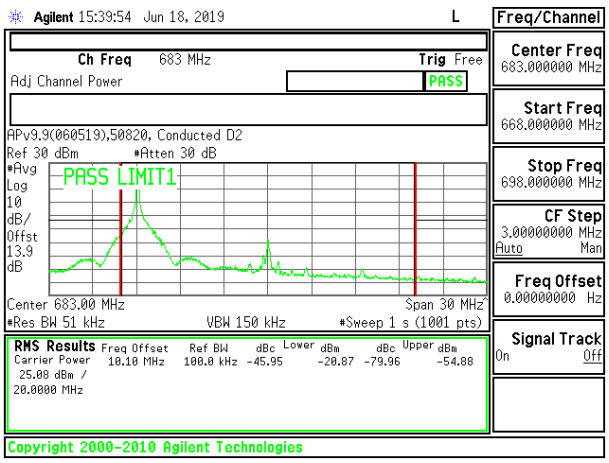
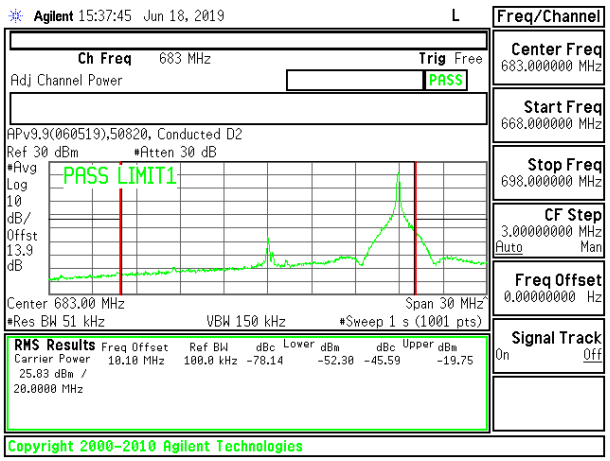


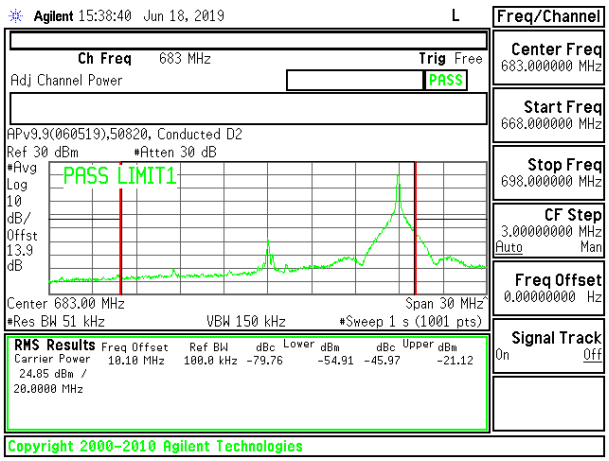
LTE B71 20MHz QPSK Middle Channel RB1-0



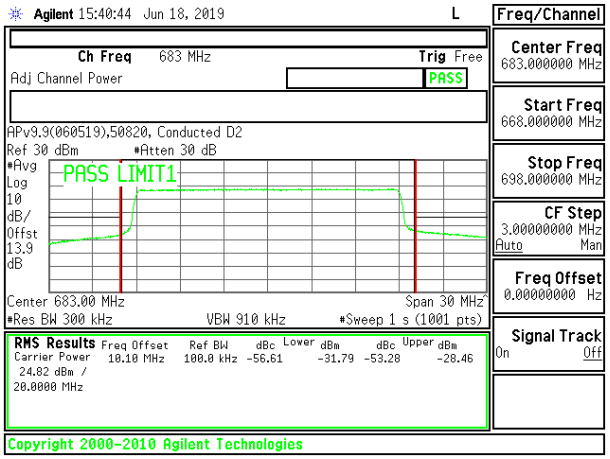
LTE B71 20MHz 16QAM Middle Channel RB1-0



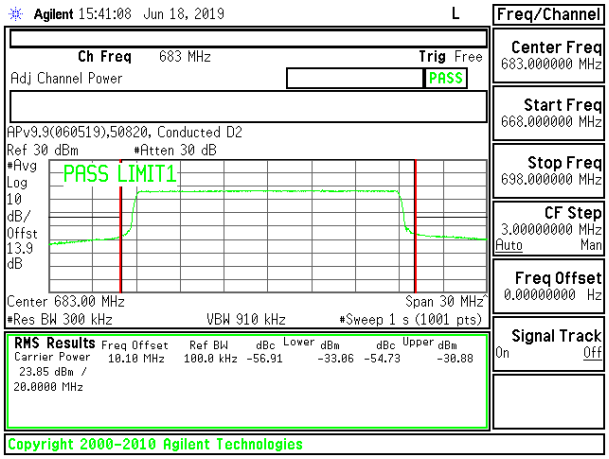
LTE B71 20MHz QPSK Middle Channel RB1-99



LTE B71 20MHz 16QAM Middle Channel RB1-99



LTE B71 20MHz QPSK Middle Channel RB100-0



LTE B71 20MHz 16QAM Middle Channel RB100-0

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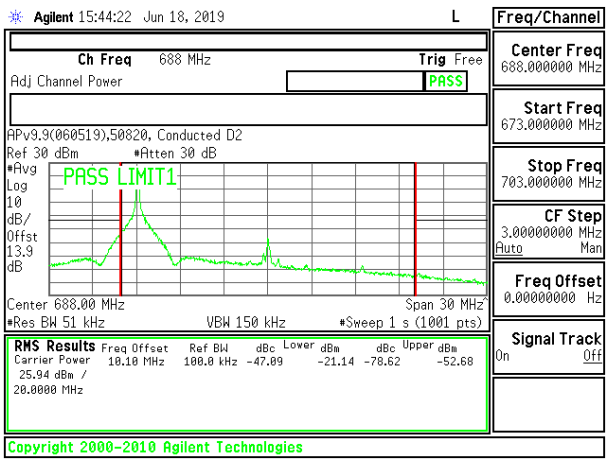
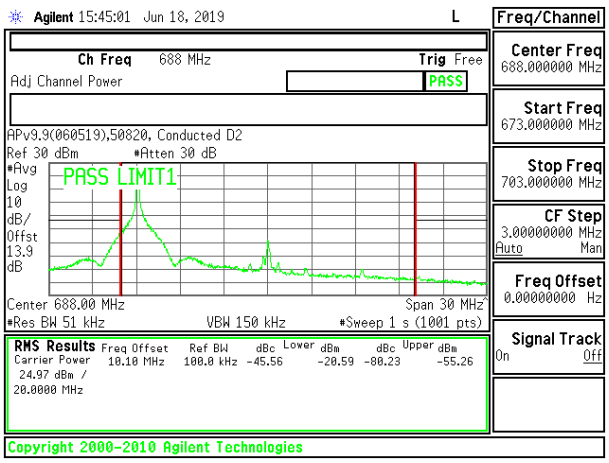
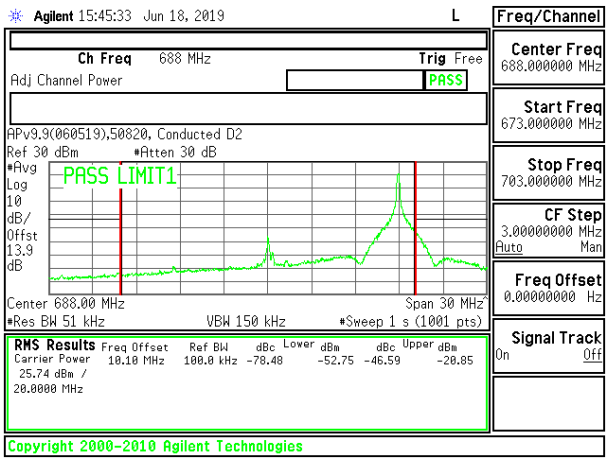


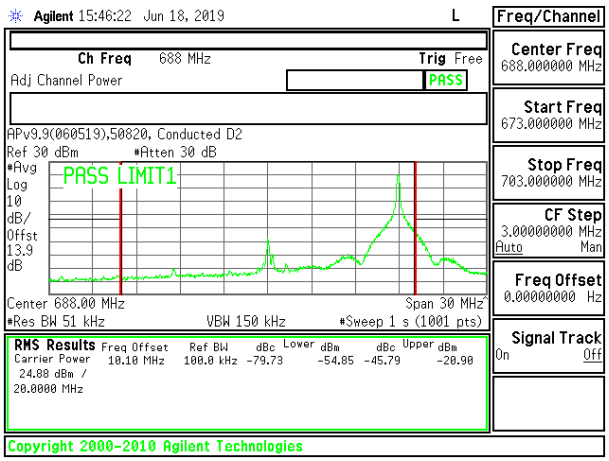
LTE B71 20MHz QPSK High Channel RB1-0



LTE B71 20MHz 16QAM High Channel RB1-0



LTE B71 20MHz QPSK High Channel RB1-99



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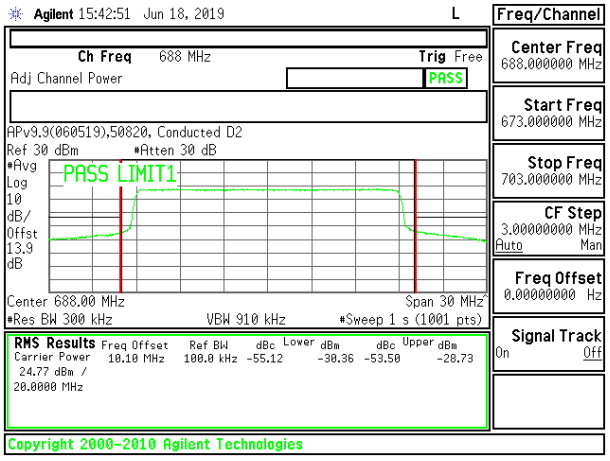
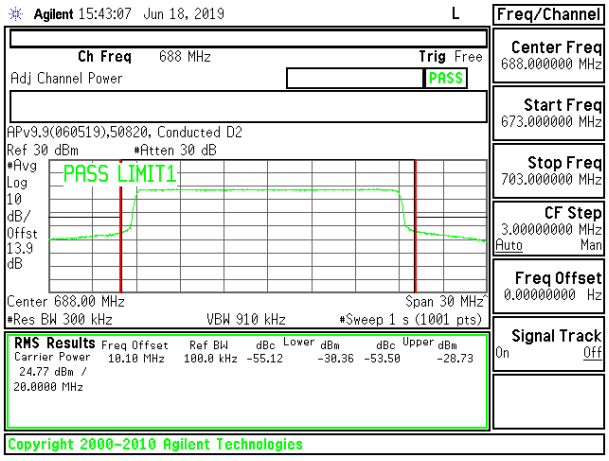


LTE B71 20MHz QPSK High Channel RB100-0



LTE B71 20MHz 16QAM High Channel RB100-0

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8.3. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53, §90.669, §90.691, §90.543 and §96.41

LIMITS

FCC: §22.917, §24.238, §27.53 (c), (g), (h), §90.669, §90.691, §90.543 (Band 14)
The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts.

FCC: §27.53 (a) (Band 30)
The minimum permissible attenuation level of any spurious emissions is 70 + 10 log (P) dB where transmitting power (P) in Watts.

FCC: §27.53 (m) (Band 7, 41)
The minimum permissible attenuation level of any spurious emissions is 55 + 10 log (P) dB where transmitting power (P) in Watts.

FCC: §96.41
(e) 3.5 GHz Emissions and Interference Limits—
(2) Additional protection levels. Notwithstanding paragraph (d)(1) of this section, the conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

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:

- Set display line at -13 dBm, -25dBm and -40dBm according to the band Limit
- 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)

MODES TESTED

- LTE Band 2
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 14
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 30
- LTE Band 41
- LTE Band 66
- LTE Band 71

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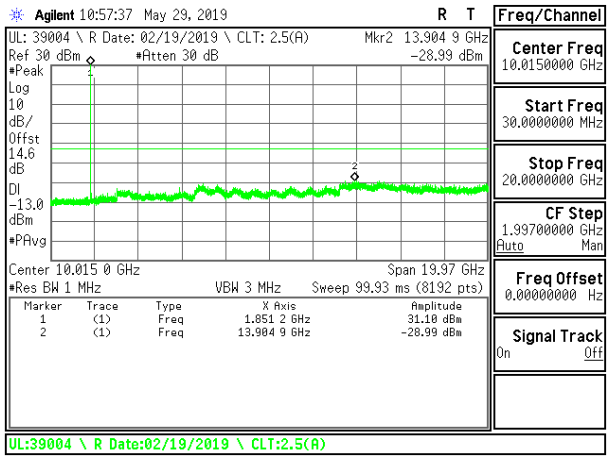
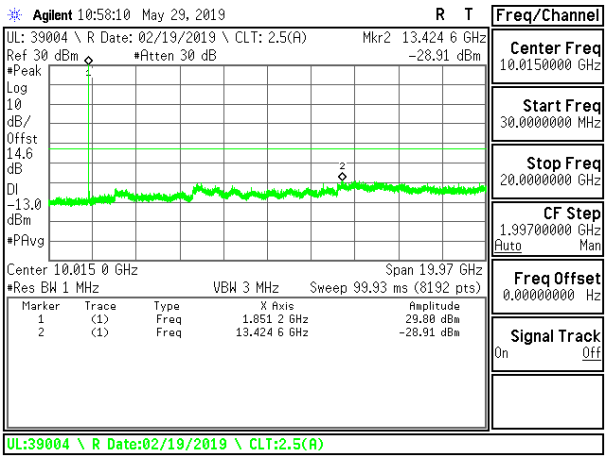
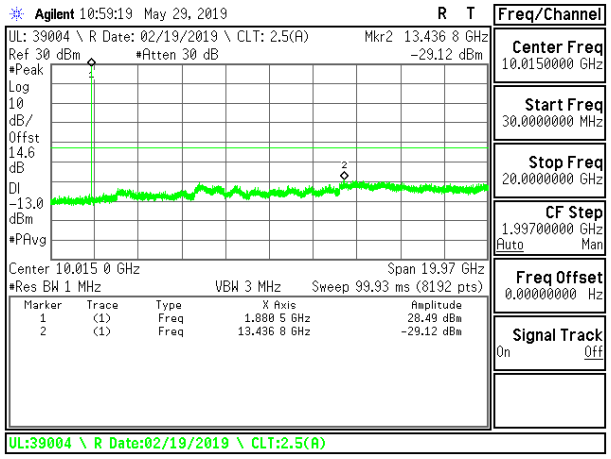
8.3.1. LTE BAND 2



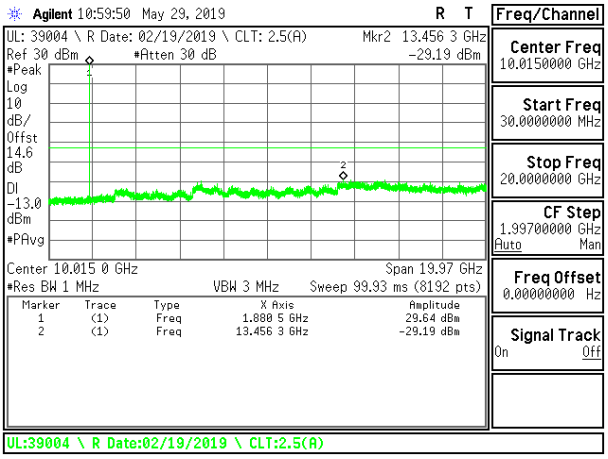
LTE B2 1.4MHz QPSK Low Channel RB1-0



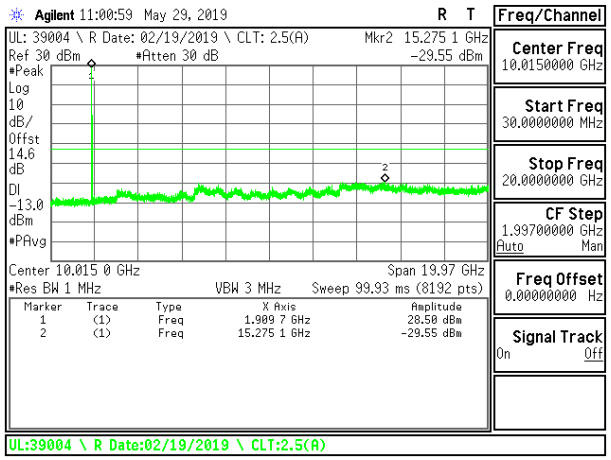
LTE B2 1.4MHz 16QAM Low Channel RB1-0



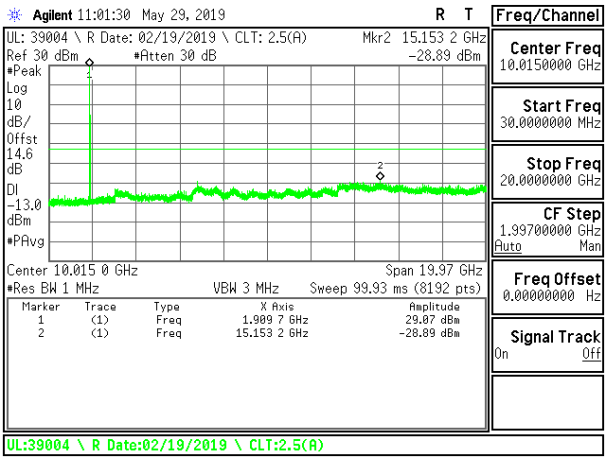
LTE B2 1.4MHz QPSK Middle Channel RB1-0



LTE B2 1.4MHz 16QAM Middle Channel RB1-0



LTE B2 1.4MHz QPSK High Channel RB1-0



LTE B2 1.4MHz 16QAM High Channel RB1-0

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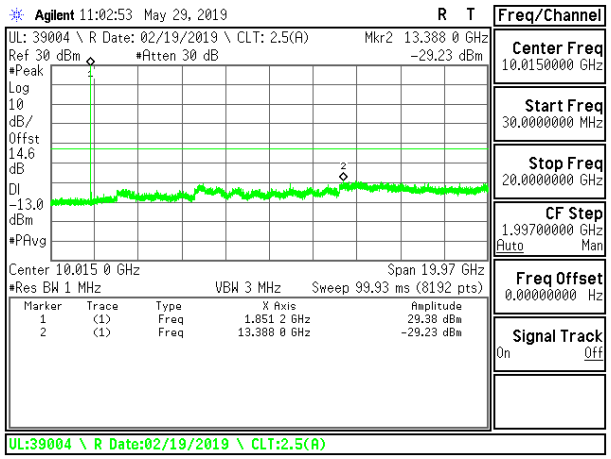
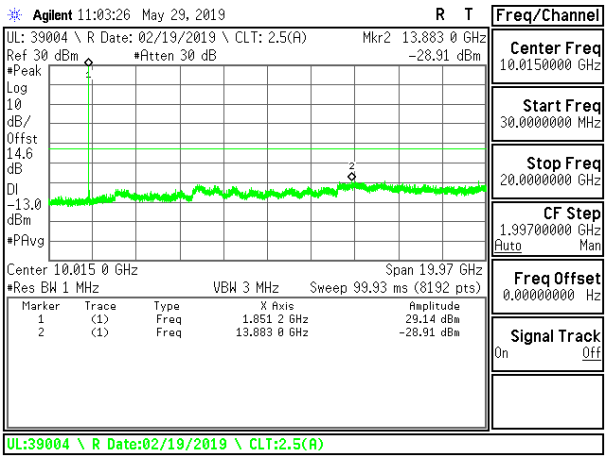
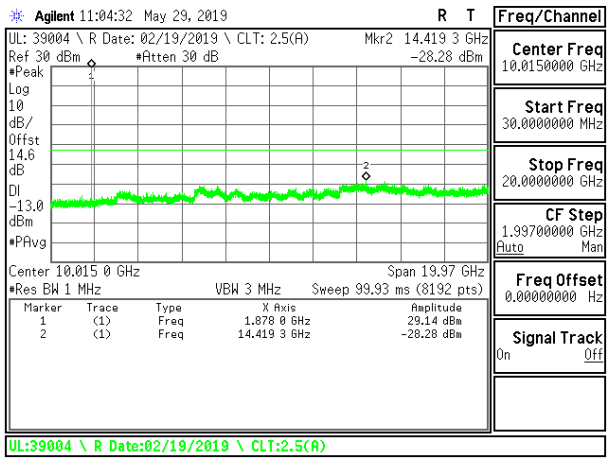


LTE B2 3MHz QPSK Low Channel RB1-0



LTE B2 3MHz 16QAM Low Channel RB1-0



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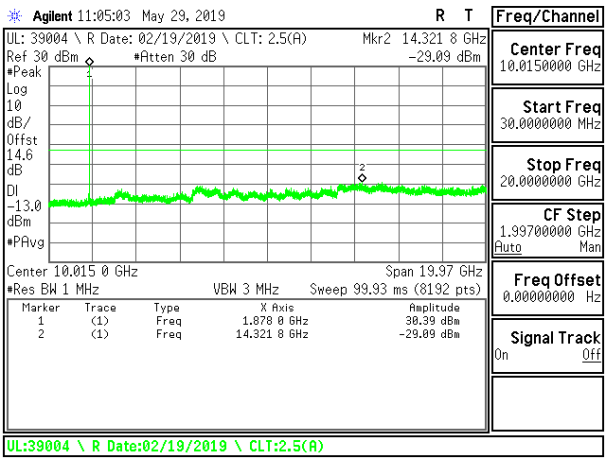
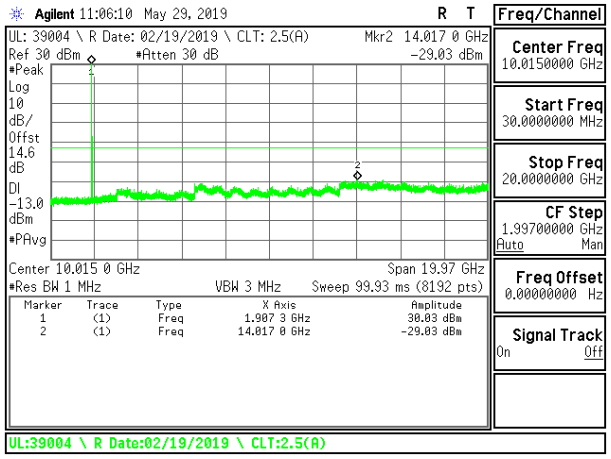
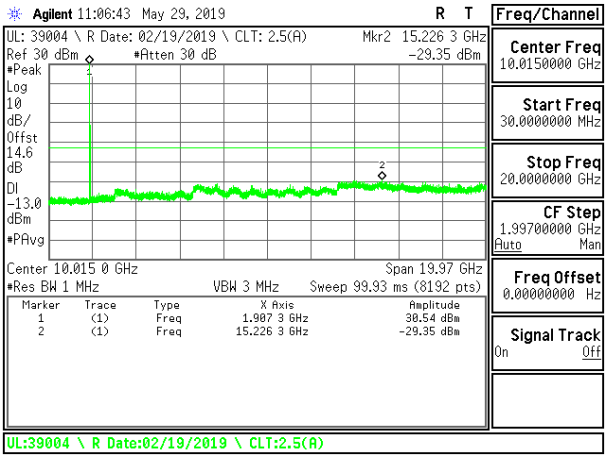


LTE B2 3MHz 16QAM Middle Channel RB1-0



LTE B2 3MHz QPSK High Channel RB1-0



LTE B2 3MHz 16QAM High Channel RB1-0

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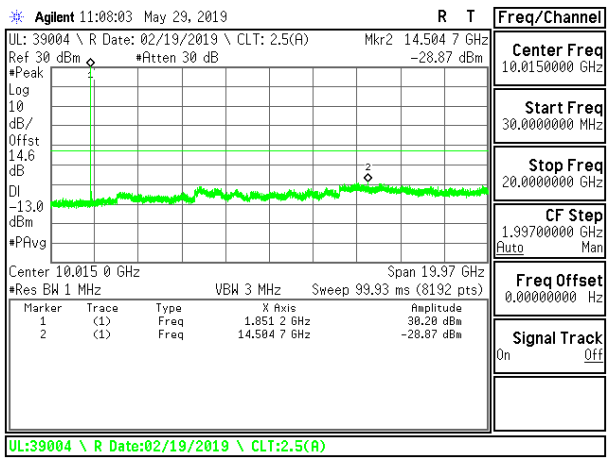
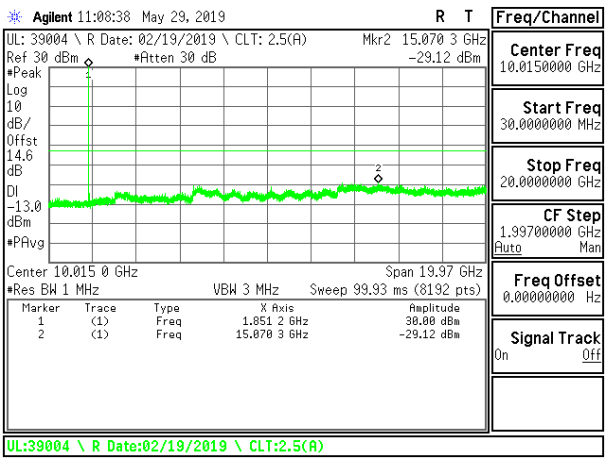
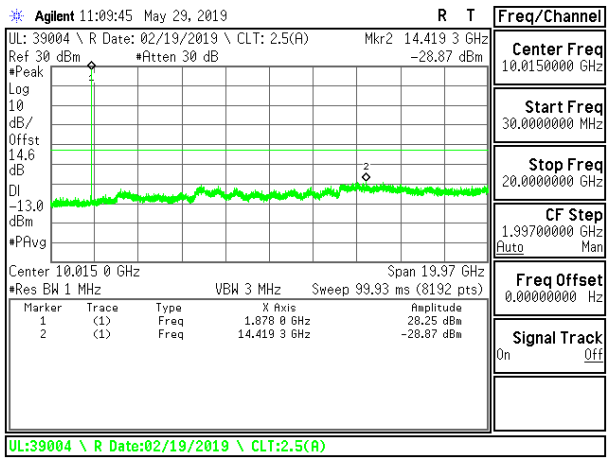


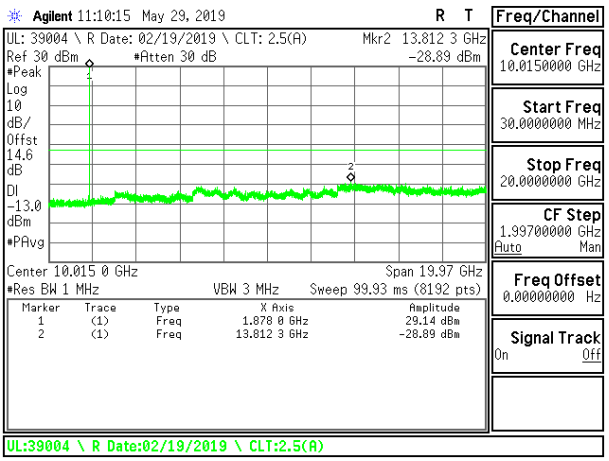
LTE B2 5MHz QPSK Low Channel RB1-0



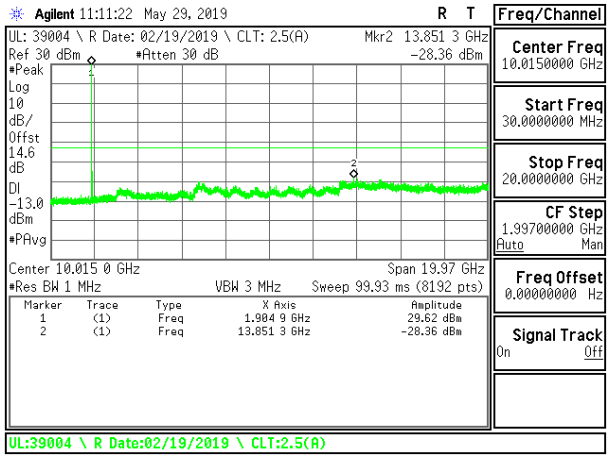
LTE B2 5MHz 16QAM Low Channel RB1-0



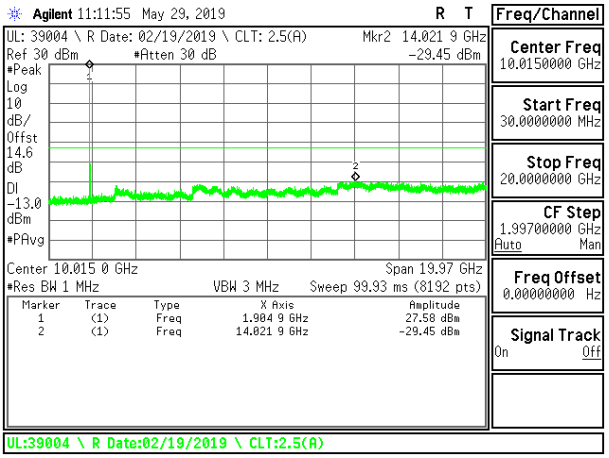
LTE B2 5MHz QPSK Middle Channel RB1-0



LTE B2 5MHz 16QAM Middle Channel RB1-0



LTE B2 5MHz QPSK High Channel RB1-0



LTE B2 5MHz 16QAM High Channel RB1-0

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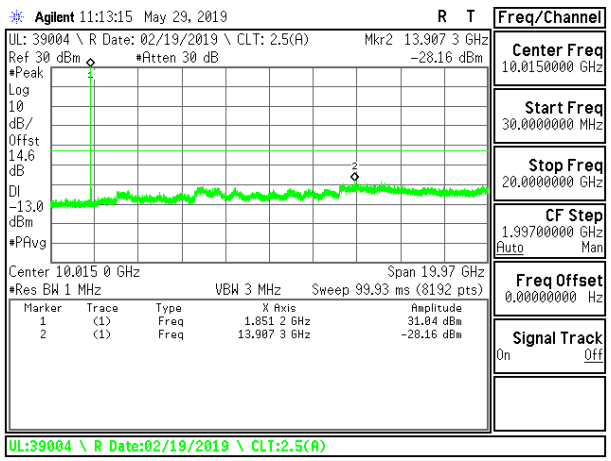
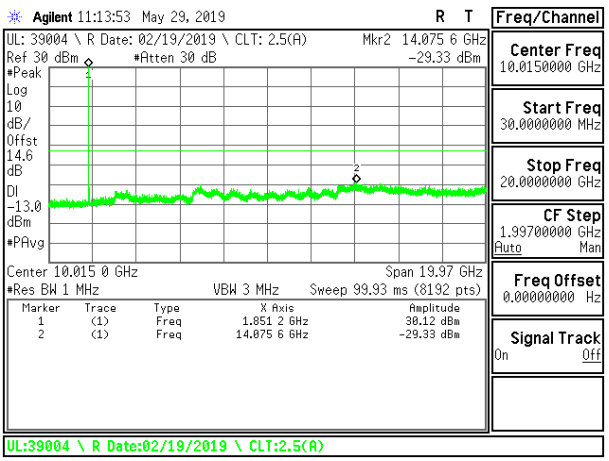
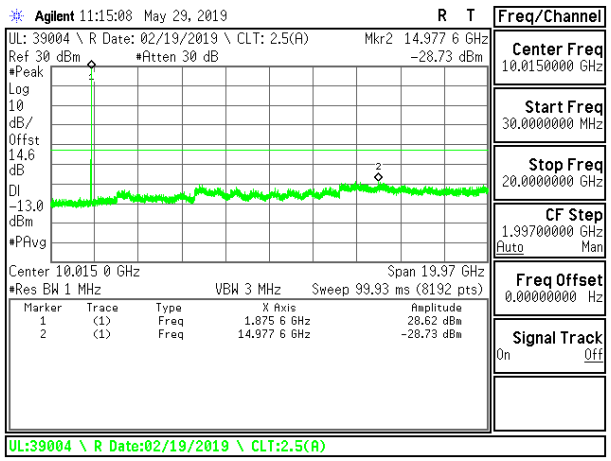


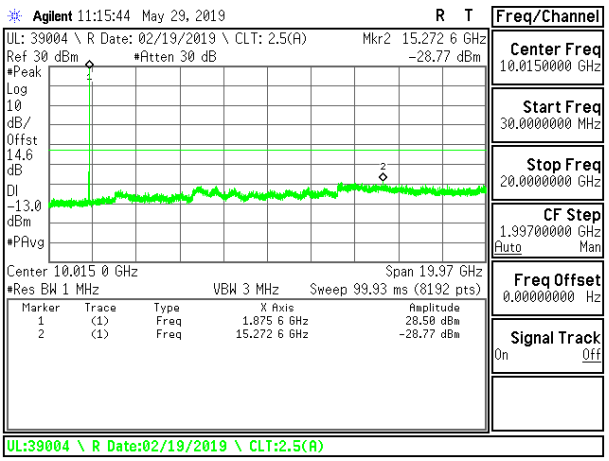
LTE B2 10MHz QPSK Low Channel RB1-0



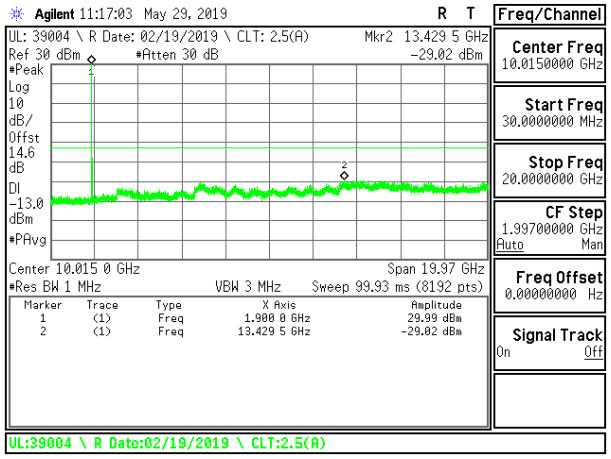
LTE B2 10MHz 16QAM Low Channel RB1-0



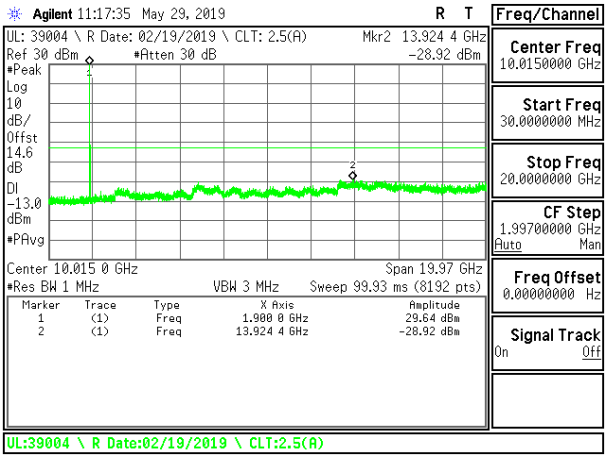
LTE B2 10MHz QPSK Middle Channel RB1-0



LTE B2 10MHz 16QAM Middle Channel RB1-0



LTE B2 10MHz QPSK High Channel RB1-0



LTE B2 10MHz 16QAM High Channel RB1-0

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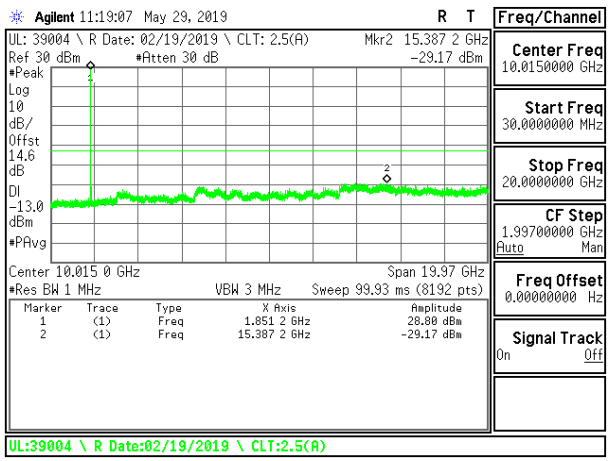
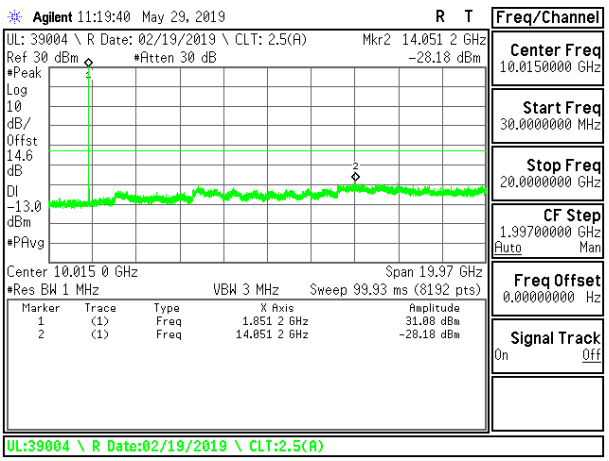
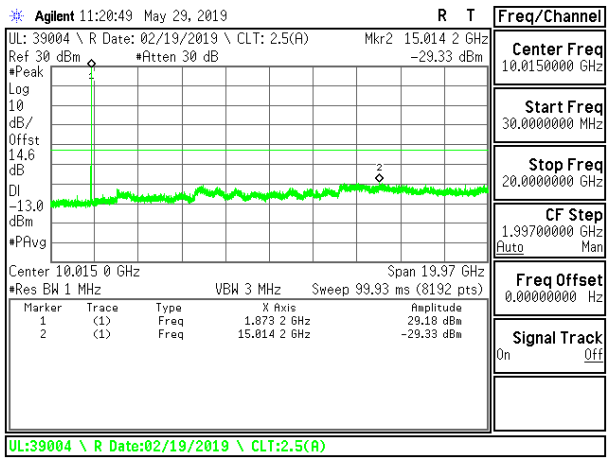


LTE B2 15MHz QPSK Low Channel RB1-0



LTE B2 15MHz 16QAM Low Channel RB1-0



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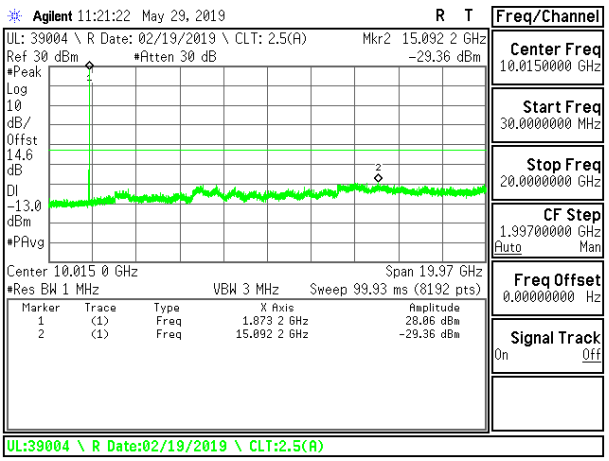

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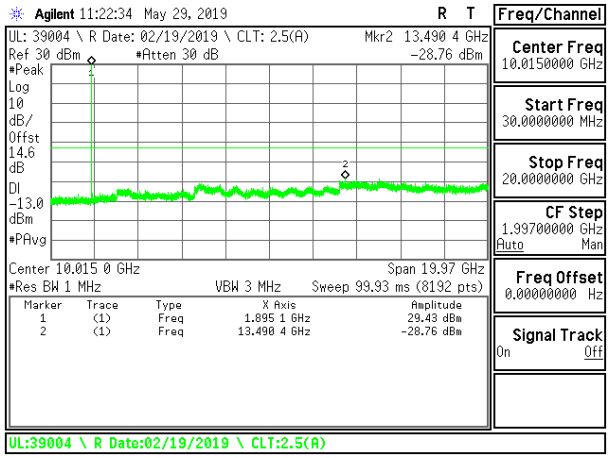
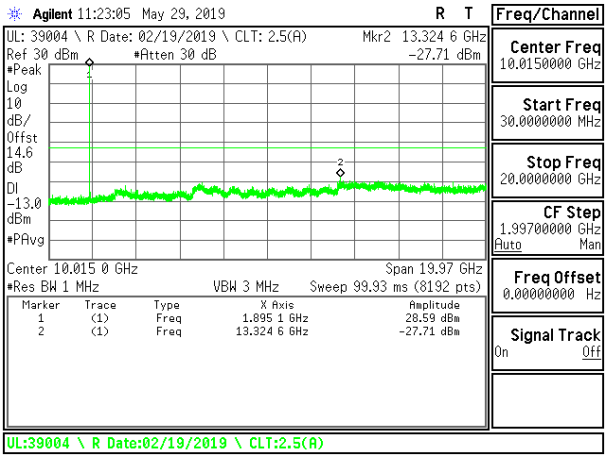


LTE B2 15MHz QPSK High Channel RB1-0



LTE B2 15MHz 16QAM High Channel RB1-0

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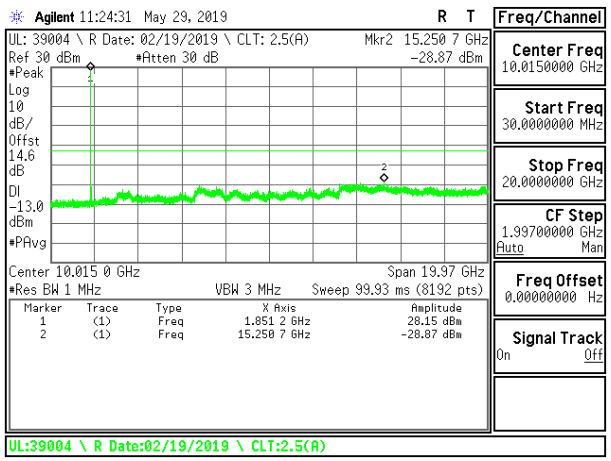
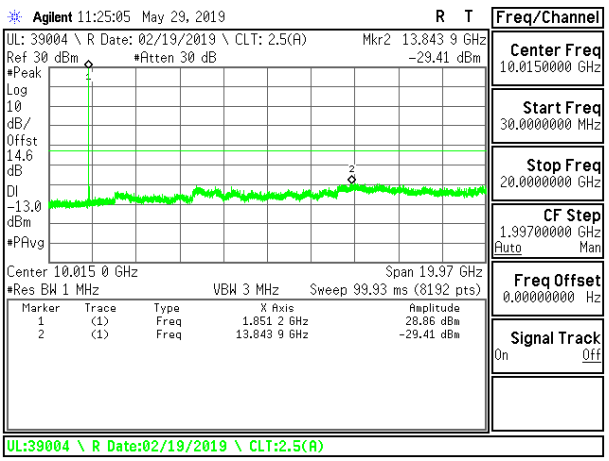
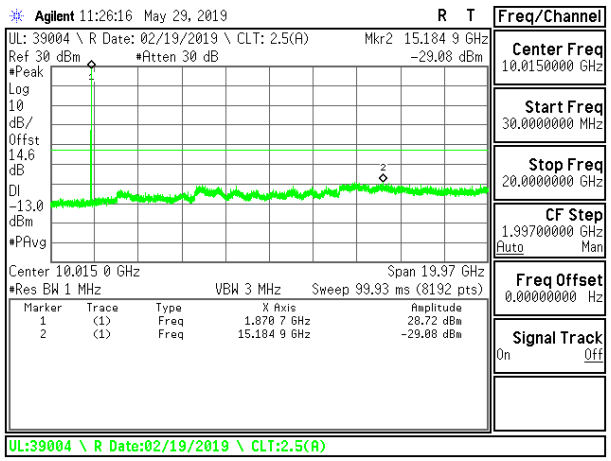


LTE B2 20MHz QPSK Low Channel RB1-0



LTE B2 20MHz 16QAM Low Channel RB1-0



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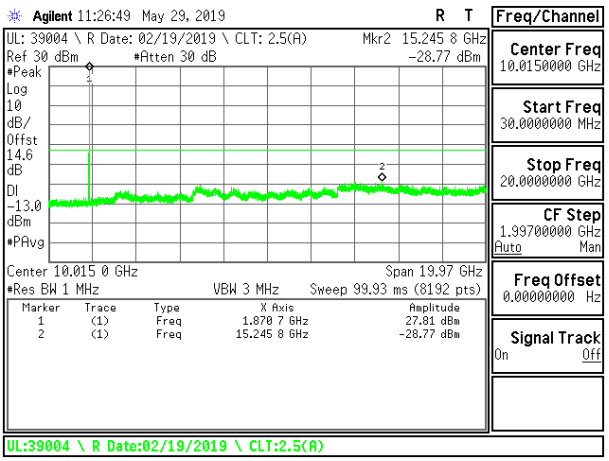

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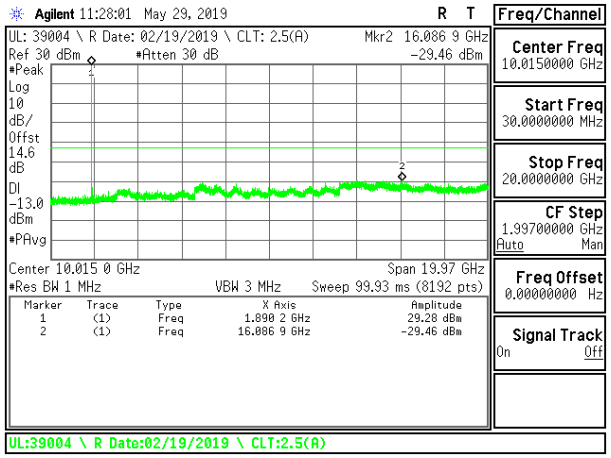
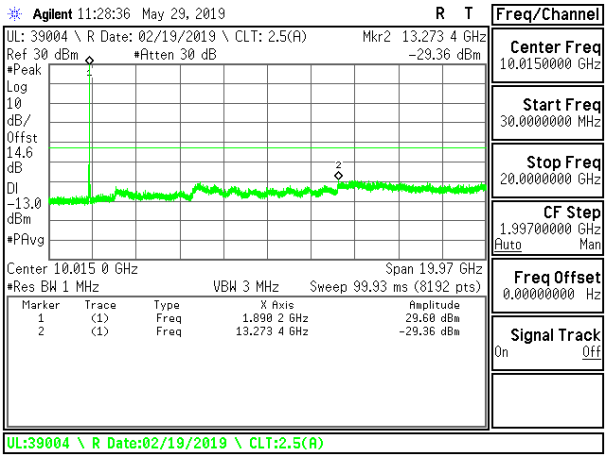


LTE B2 20MHz QPSK High Channel RB1-0



LTE B2 20MHz 16QAM High Channel RB1-0

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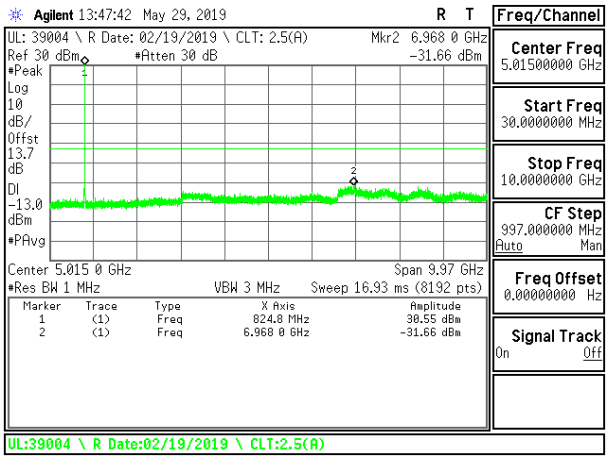
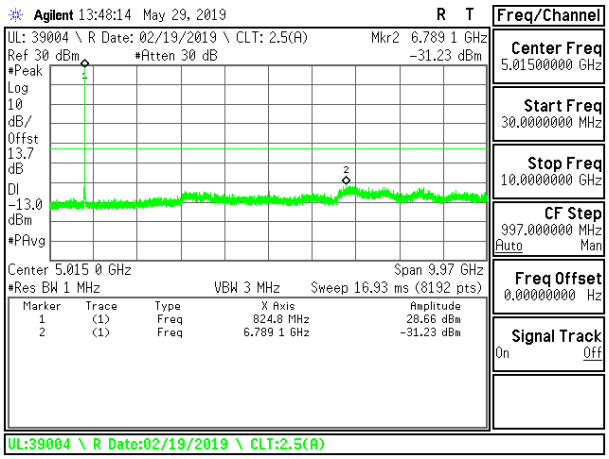
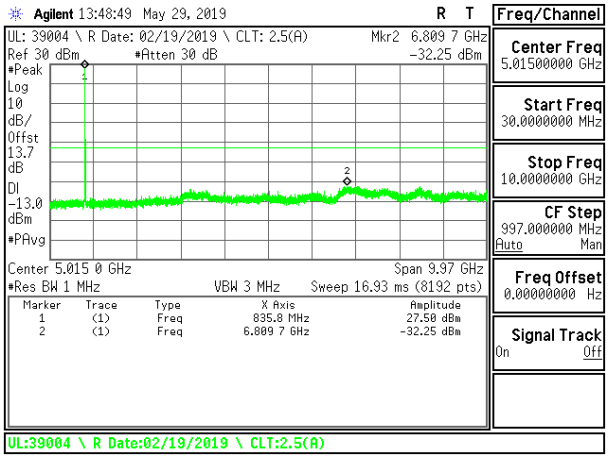
8.3.2. LTE BAND 5



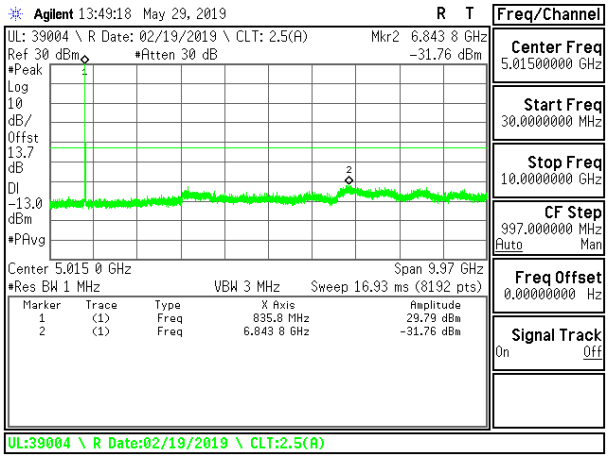
LTE B5 1.4MHz QPSK Low Channel RB1-0



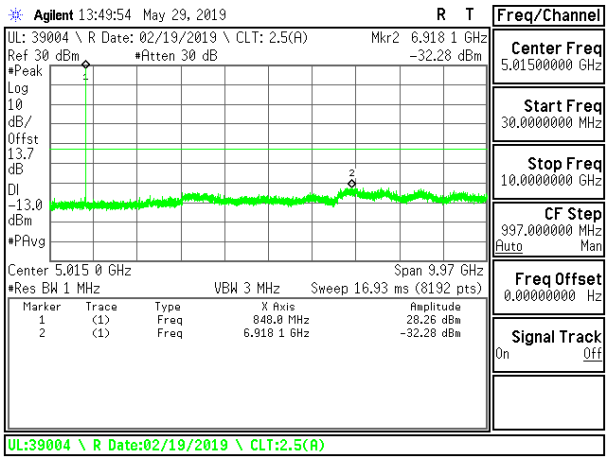
LTE B5 1.4MHz 16QAM Low Channel RB1-0



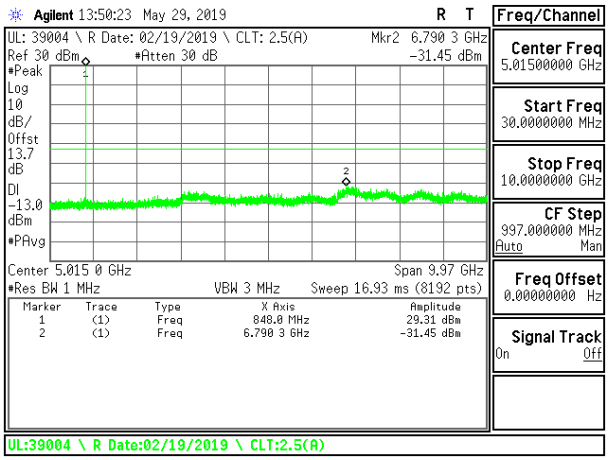
LTE B5 1.4MHz QPSK Middle Channel RB1-0



LTE B5 1.4MHz 16QAM Middle Channel RB1-0



LTE B5 1.4MHz QPSK High Channel RB1-0



LTE B5 1.4MHz 16QAM High Channel RB1-0

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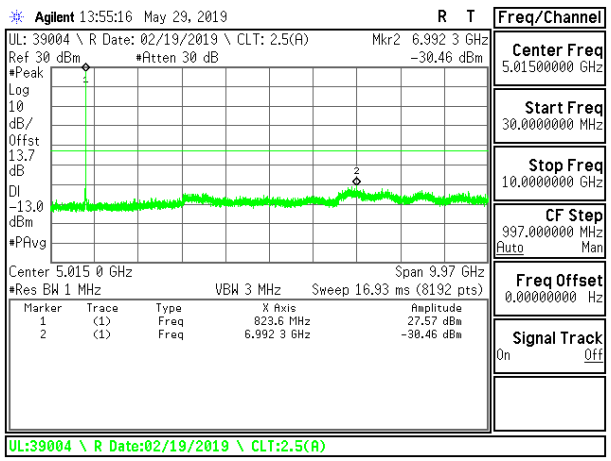
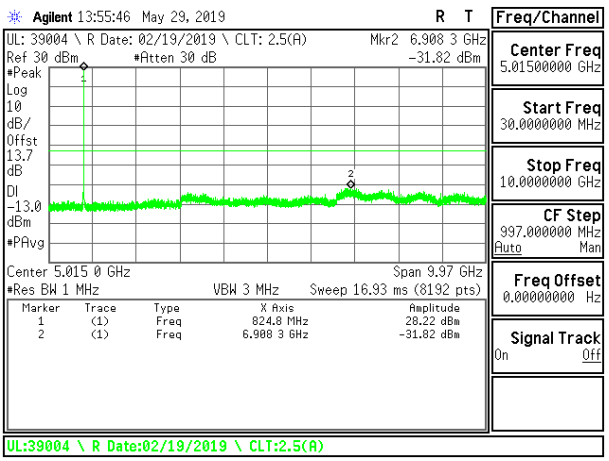
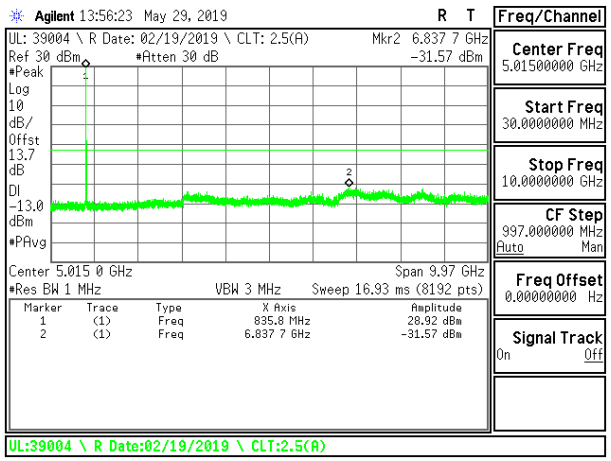


LTE B5 3MHz QPSK Low Channel RB1-0



LTE B5 3MHz 16QAM Low Channel RB1-0



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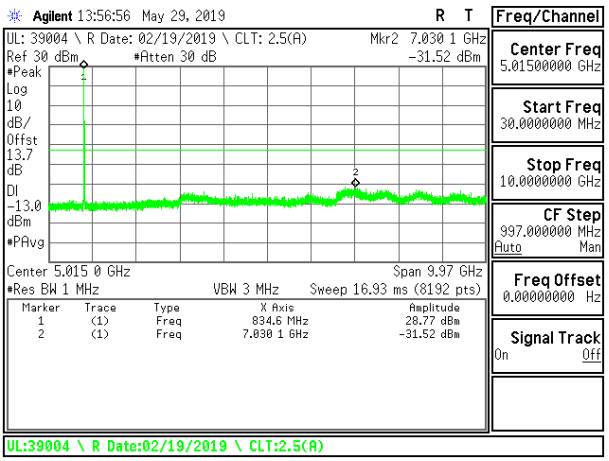
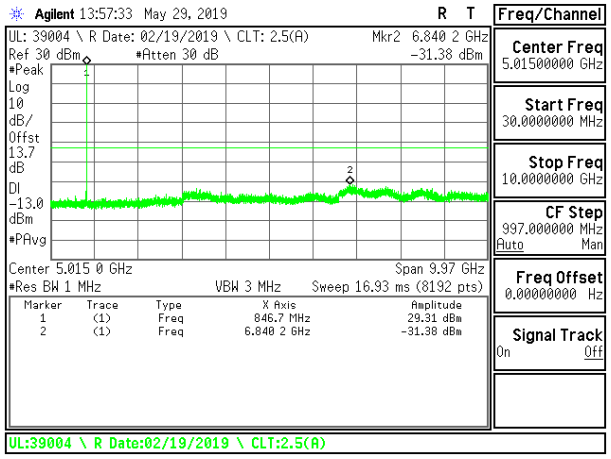
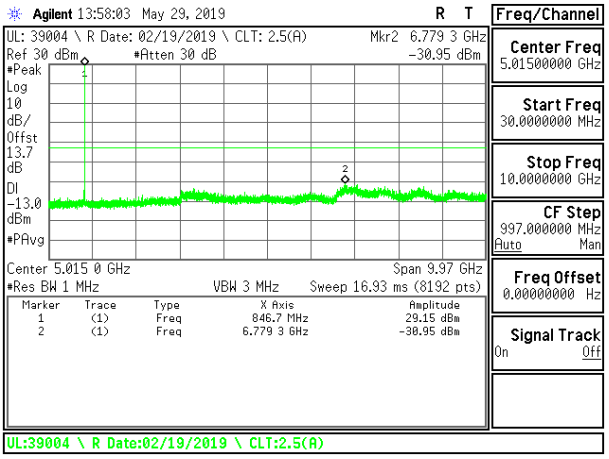


LTE B5 3MHz 16QAM Middle Channel RB1-0



LTE B5 3MHz QPSK High Channel RB1-0



LTE B5 3MHz 16QAM High Channel RB1-0

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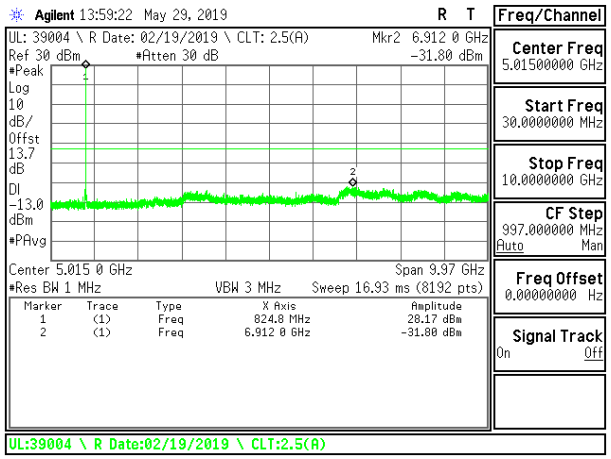
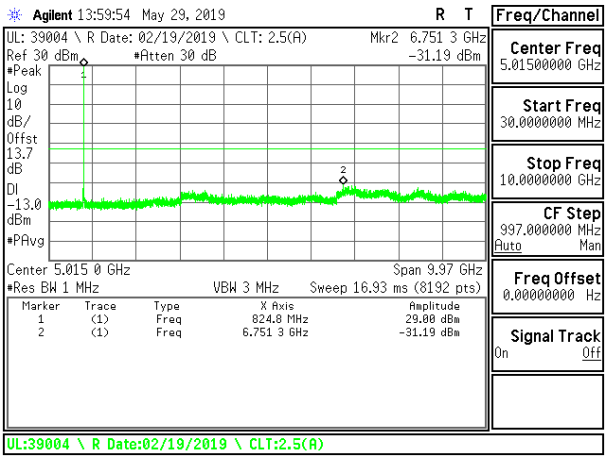
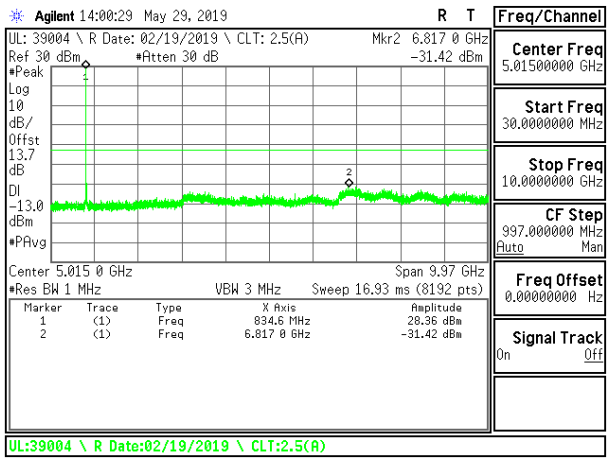


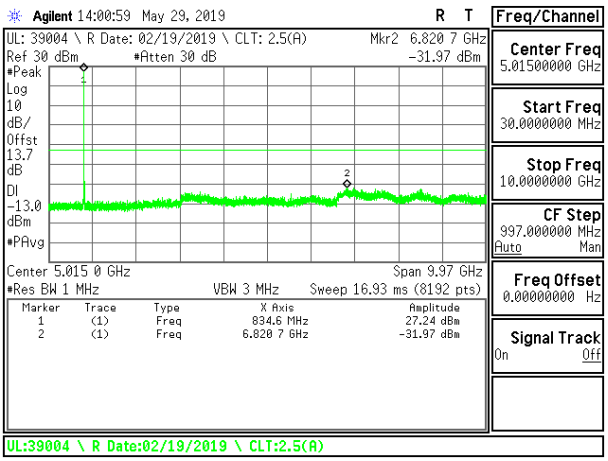
LTE B5 5MHz QPSK Low Channel RB1-0



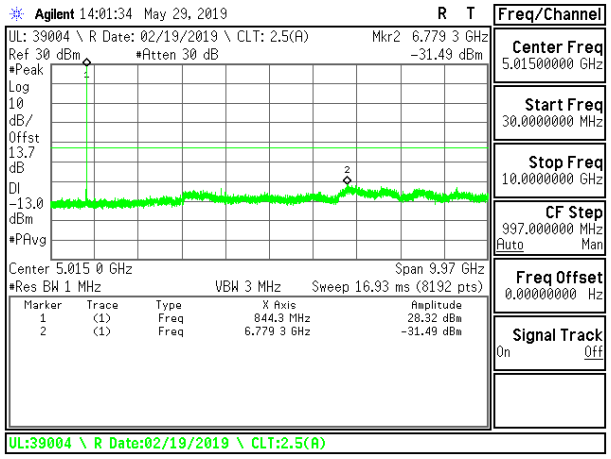
LTE B5 5MHz 16QAM Low Channel RB1-0



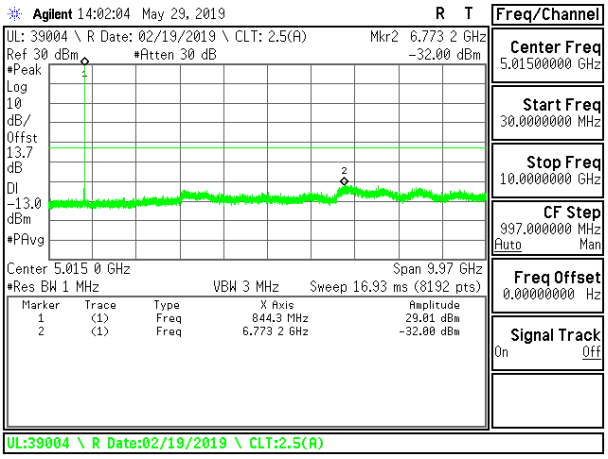
LTE B5 5MHz QPSK Middle Channel RB1-0



LTE B5 5MHz 16QAM Middle Channel RB1-0



LTE B5 5MHz QPSK High Channel RB1-0



LTE B5 5MHz 16QAM High Channel RB1-0

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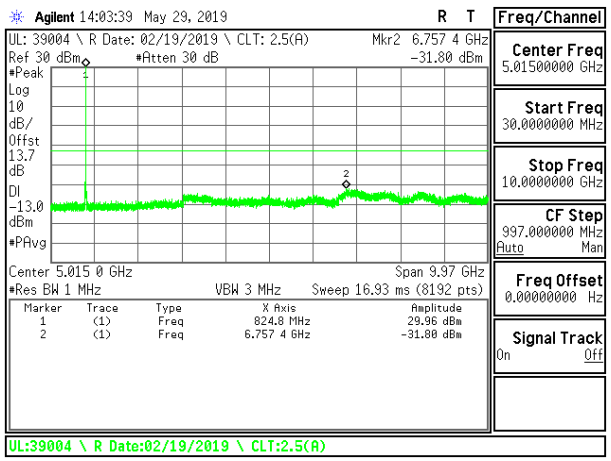
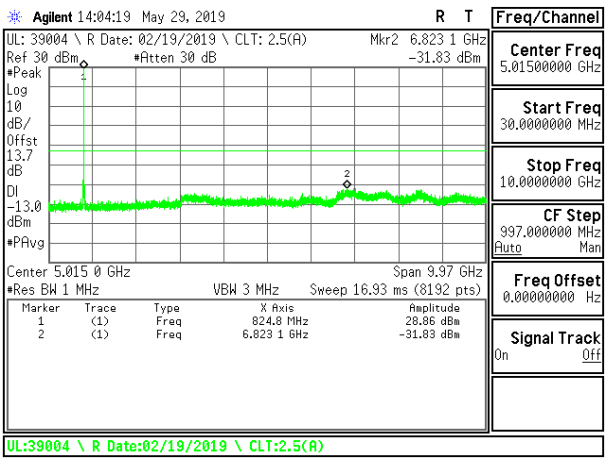
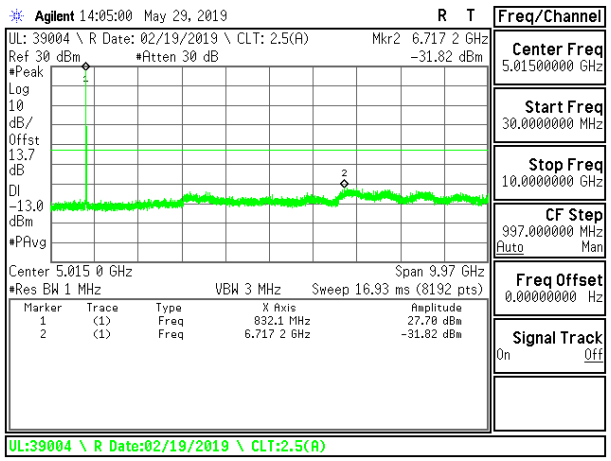


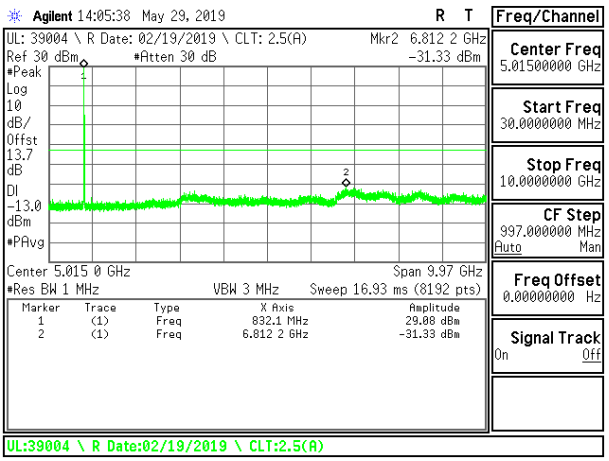
LTE B5 10MHz QPSK Low Channel RB1-0



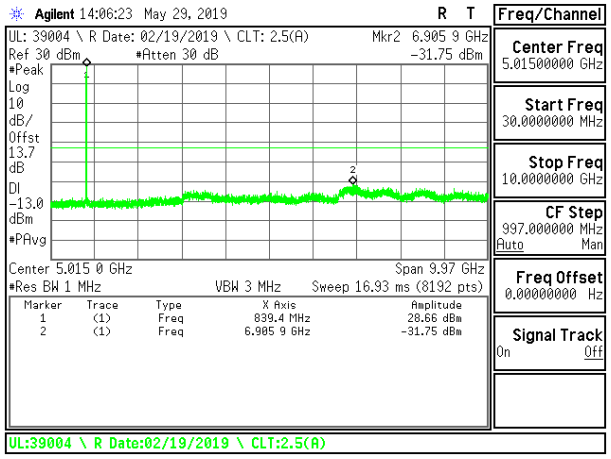
LTE B5 10MHz 16QAM Low Channel RB1-0



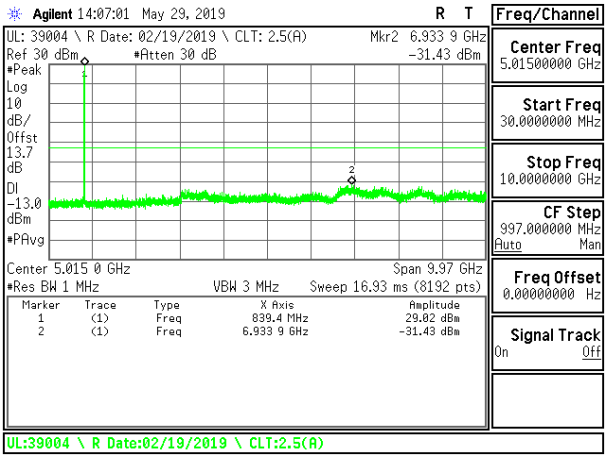
LTE B5 10MHz QPSK Middle Channel RB1-0



LTE B5 10MHz 16QAM Middle Channel RB1-0



LTE B5 10MHz QPSK High Channel RB1-0



LTE B5 10MHz 16QAM High Channel RB1-0

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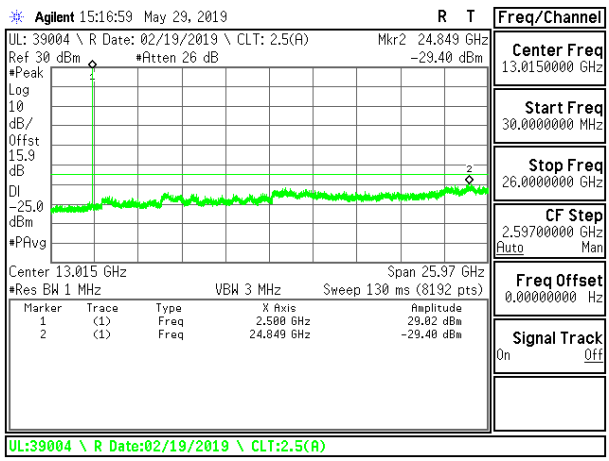
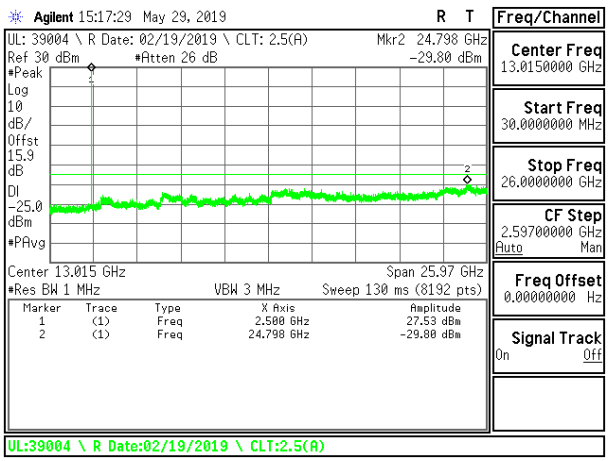
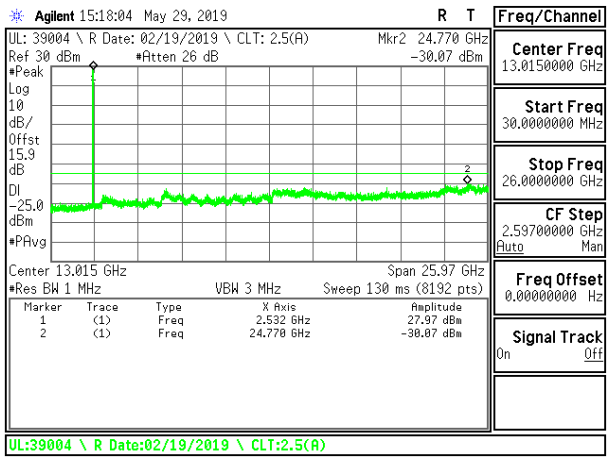
8.3.3. LTE BAND 7



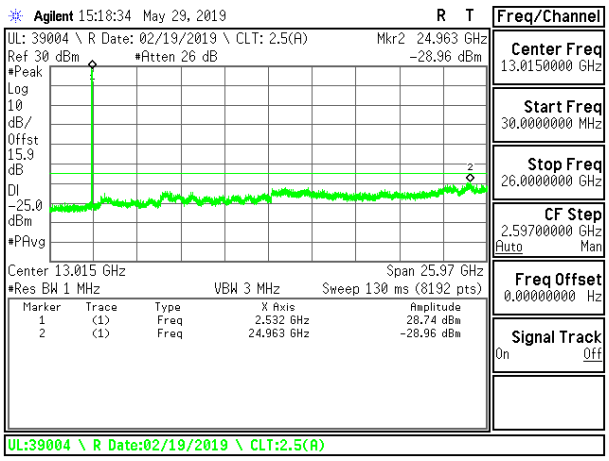
LTE B7 5MHz QPSK Low Channel RB1-0



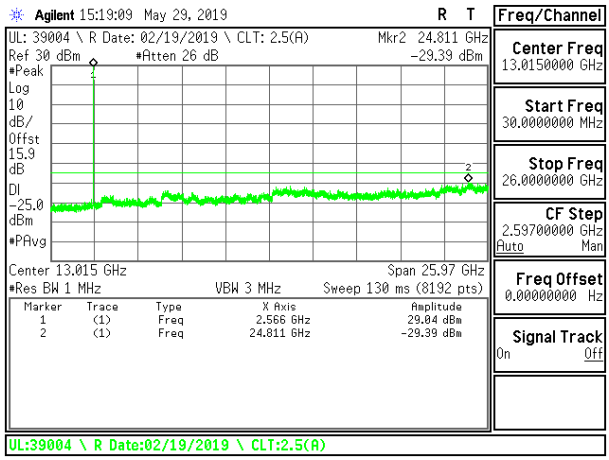
LTE B7 5MHz 16QAM Low Channel RB1-0



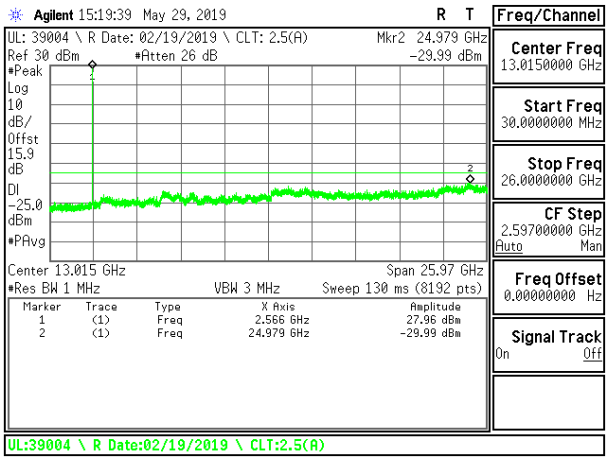
LTE B7 5MHz QPSK Middle Channel RB1-0



LTE B7 5MHz 16QAM Middle Channel RB1-0



LTE B7 5MHz QPSK High Channel RB1-0



LTE B7 5MHz 16QAM High Channel RB1-0

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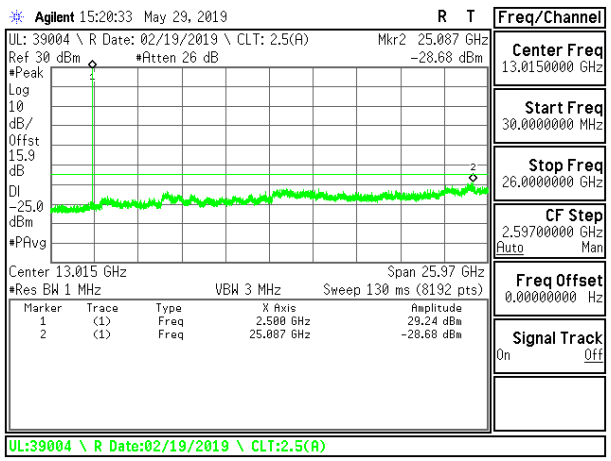
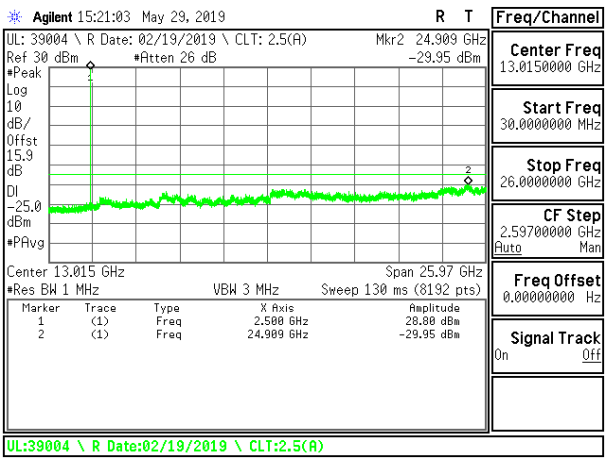
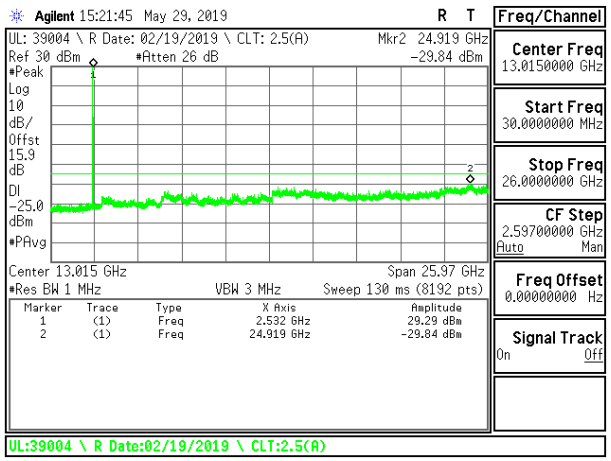


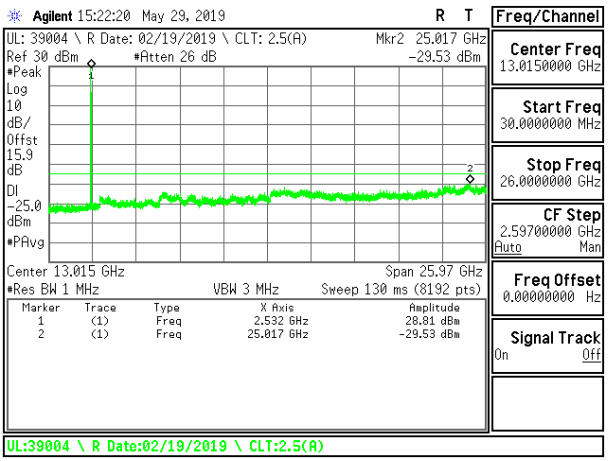
LTE B7 10MHz QPSK Low Channel RB1-0



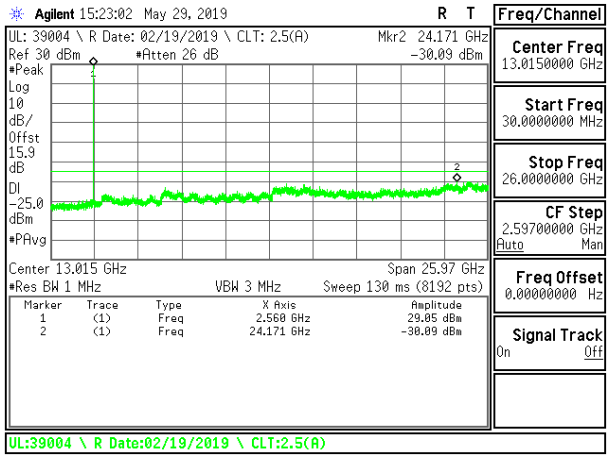
LTE B7 10MHz 16QAM Low Channel RB1-0



LTE B7 10MHz QPSK Middle Channel RB1-0



LTE B7 10MHz 16QAM Middle Channel RB1-0



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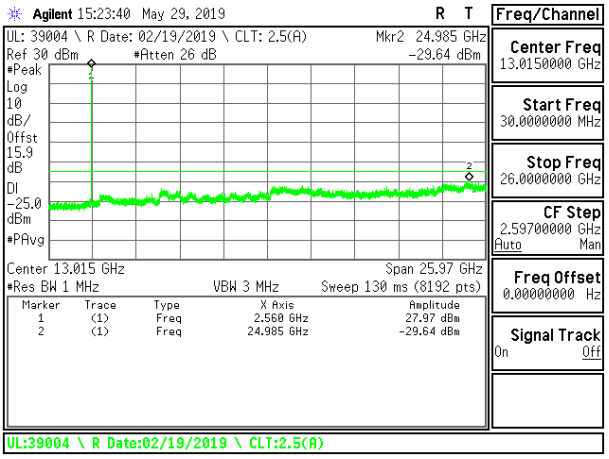

LTE B7 10MHz 16QAM High Channel RB1-0

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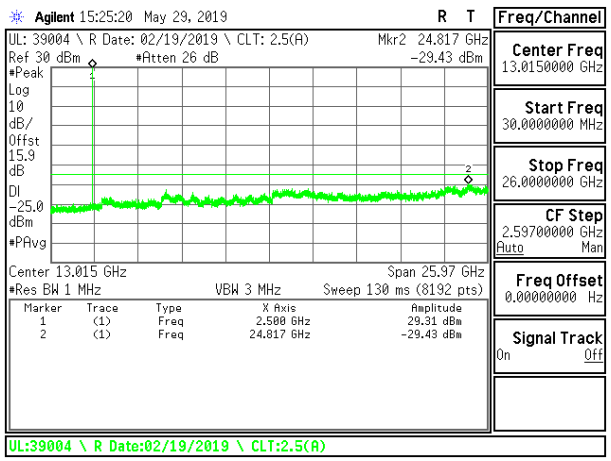

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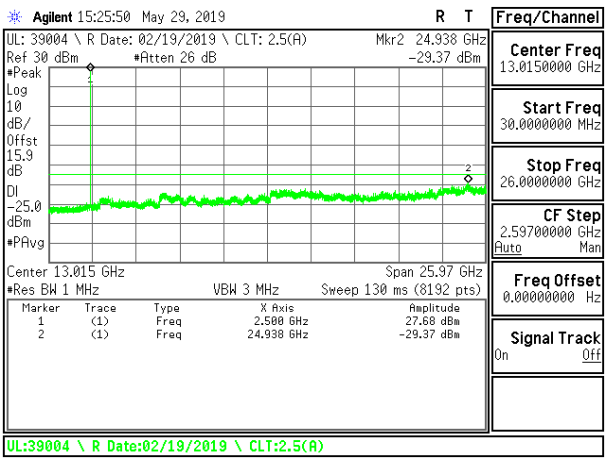

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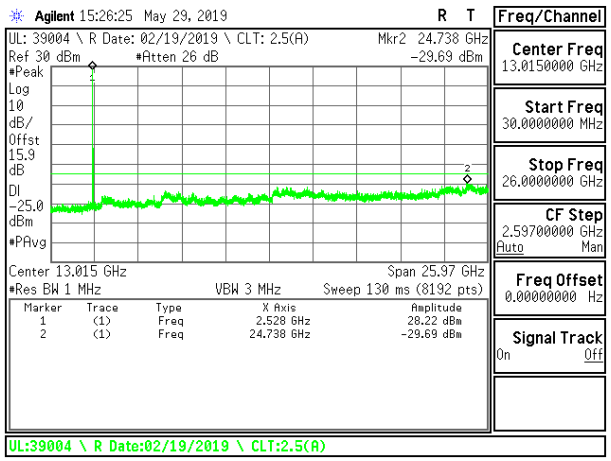

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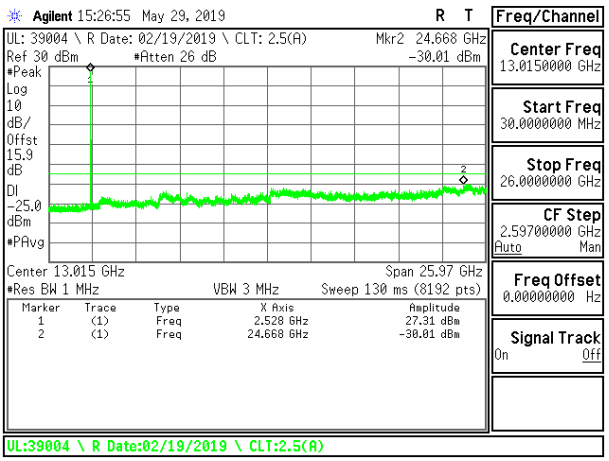

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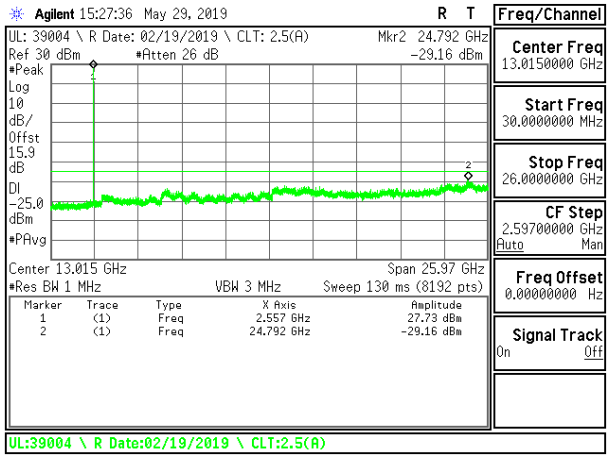

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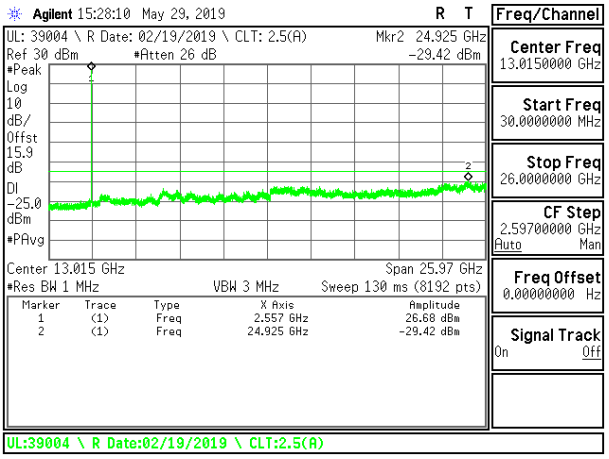

LTE B7 15MHz 16QAM High Channel RB1-0

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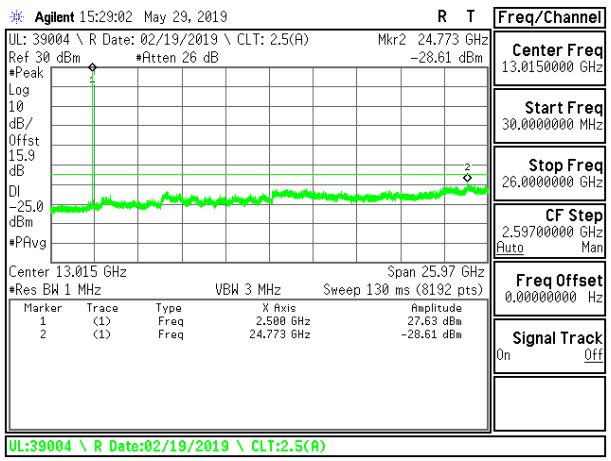
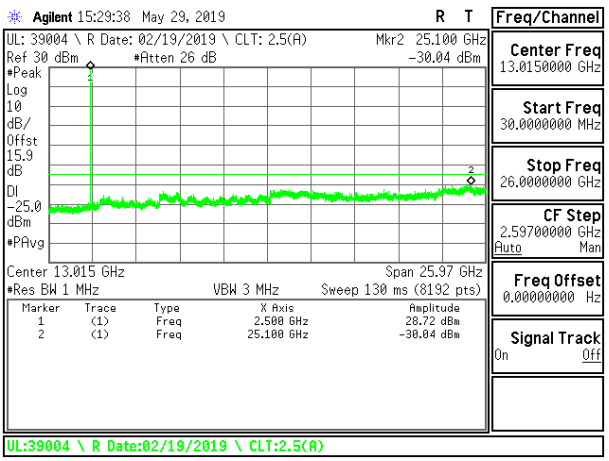
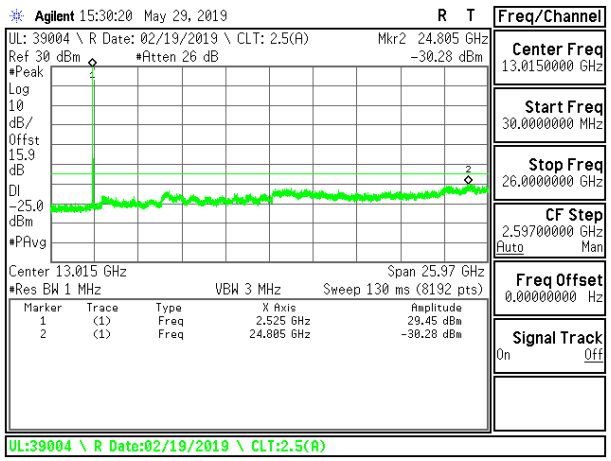


LTE B7 20MHz QPSK Low Channel RB1-0



LTE B7 20MHz 16QAM Low Channel RB1-0



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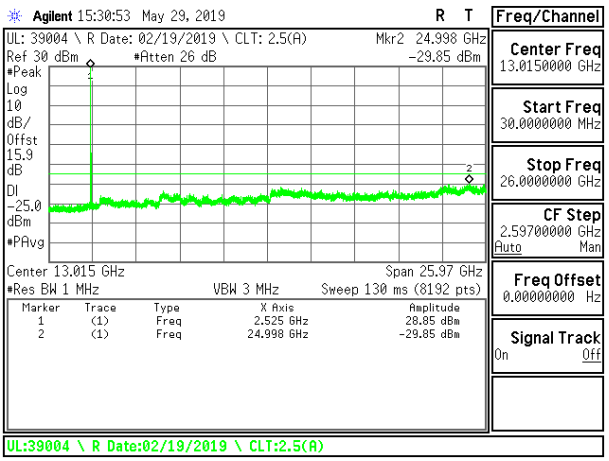

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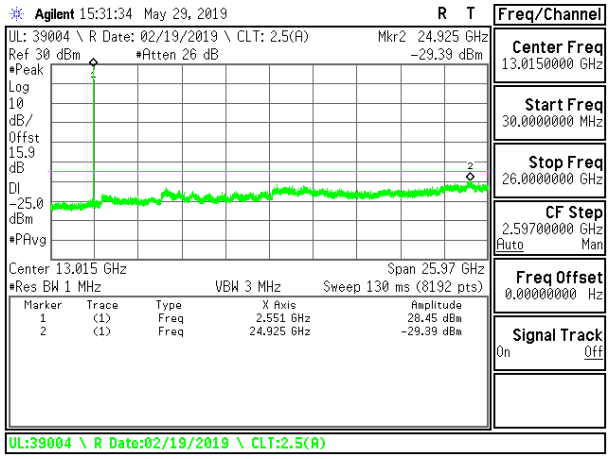
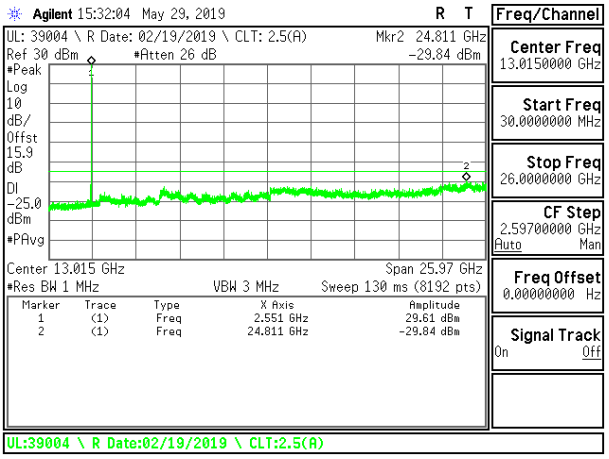


LTE B7 20MHz QPSK High Channel RB1-0



LTE B7 20MHz 16QAM High Channel RB1-0

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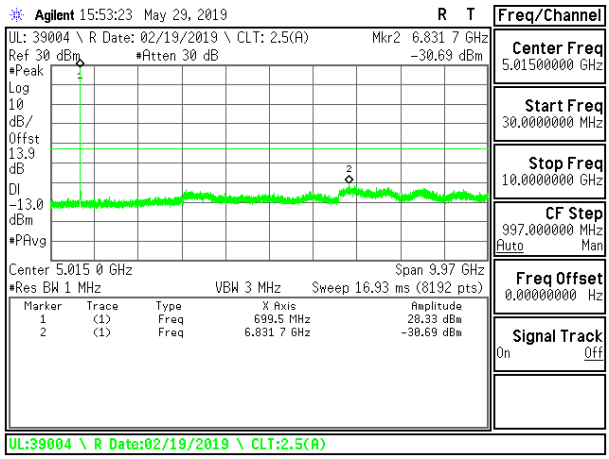
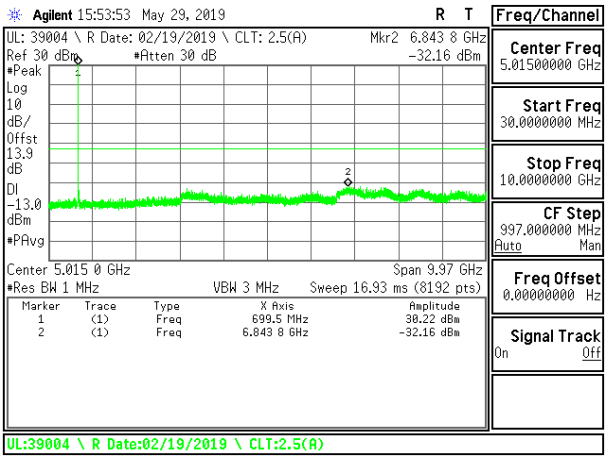
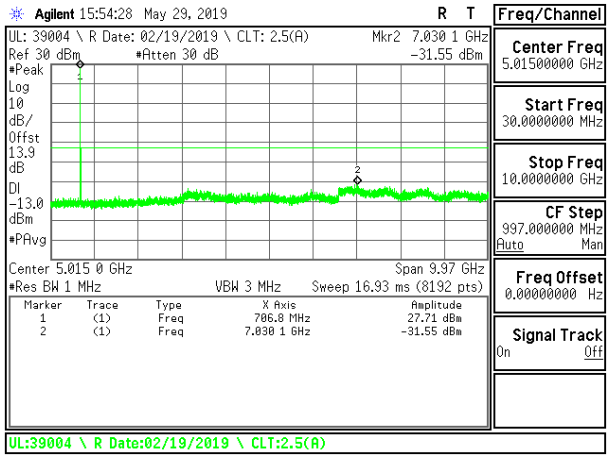
8.3.4. LTE BAND 12



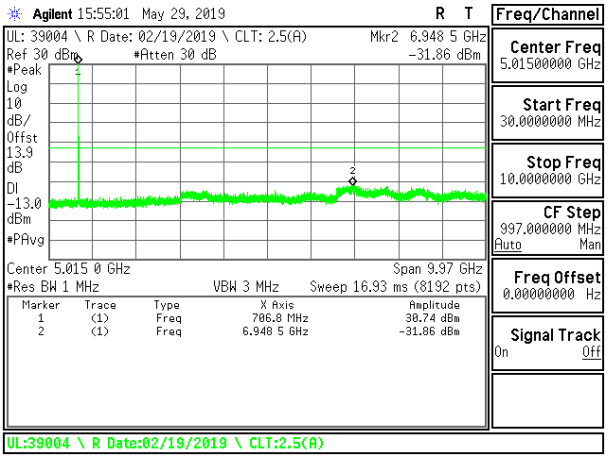
LTE B12 1.4MHz QPSK Low Channel RB1-0



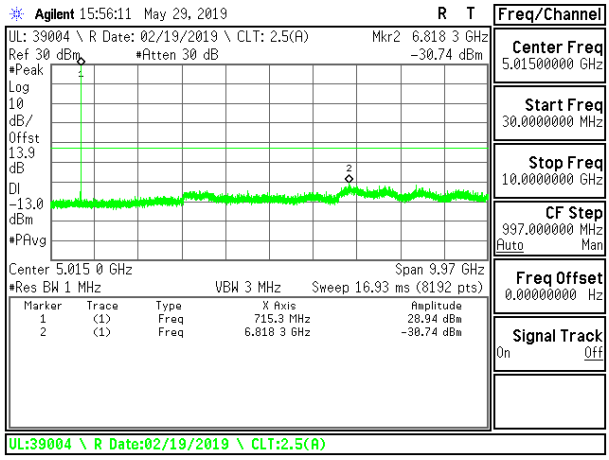
LTE B12 1.4MHz 16QAM Low Channel RB1-0



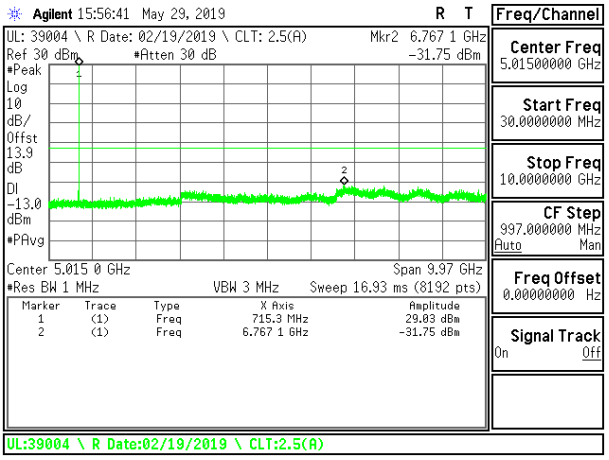
LTE B12 1.4MHz QPSK Middle Channel RB1-0



LTE B12 1.4MHz 16QAM Middle Channel RB1-0



LTE B12 1.4MHz QPSK High Channel RB1-0



LTE B12 1.4MHz 16QAM High Channel RB1-0

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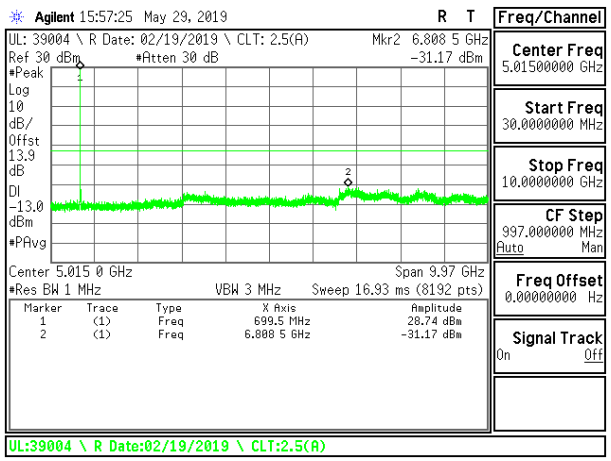
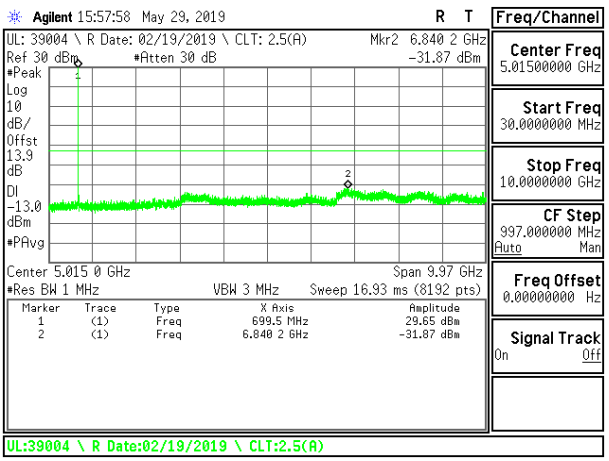
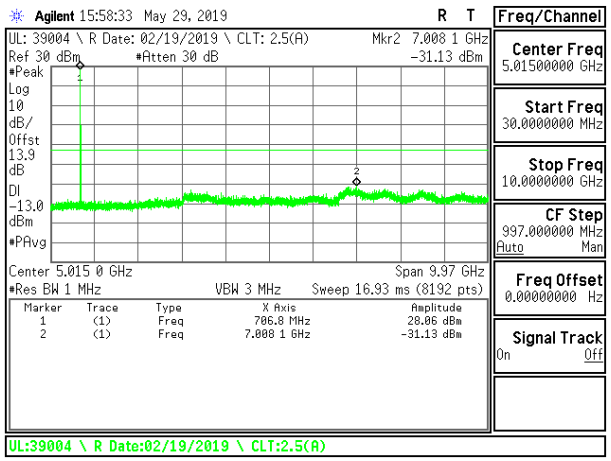


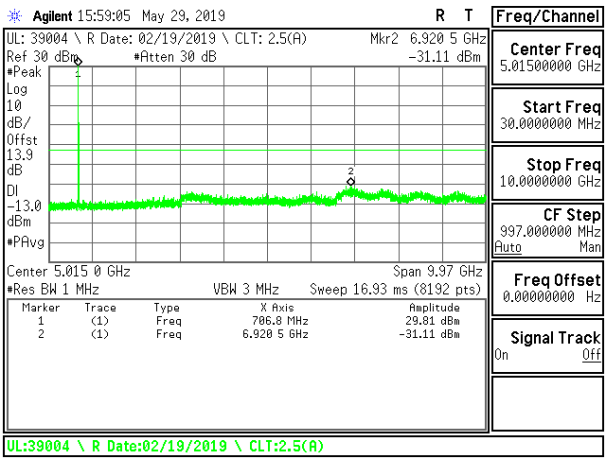
LTE B12 3MHz QPSK Low Channel RB1-0



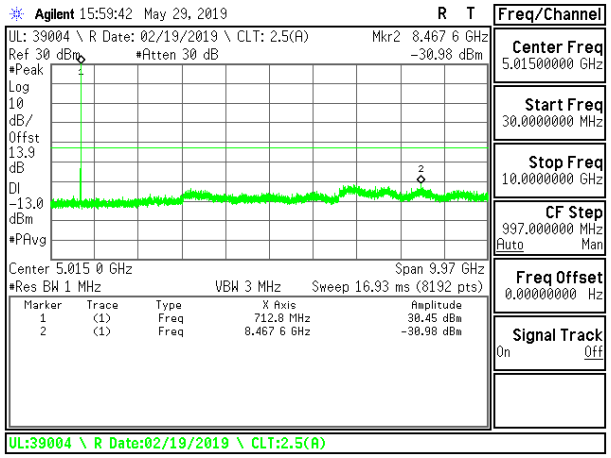
LTE B12 3MHz 16QAM Low Channel RB1-0



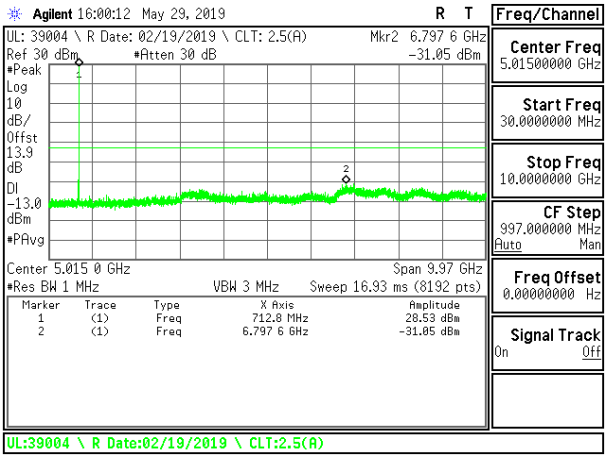
LTE B12 3MHz QPSK Middle Channel RB1-0



LTE B12 3MHz 16QAM Middle Channel RB1-0



LTE B12 3MHz QPSK High Channel RB1-0



LTE B12 3MHz 16QAM High Channel RB1-0

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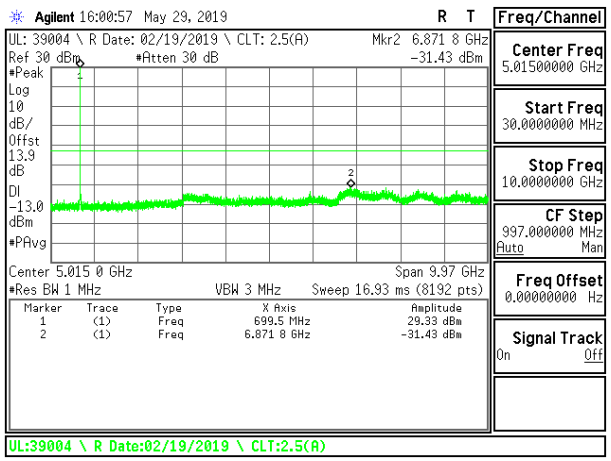
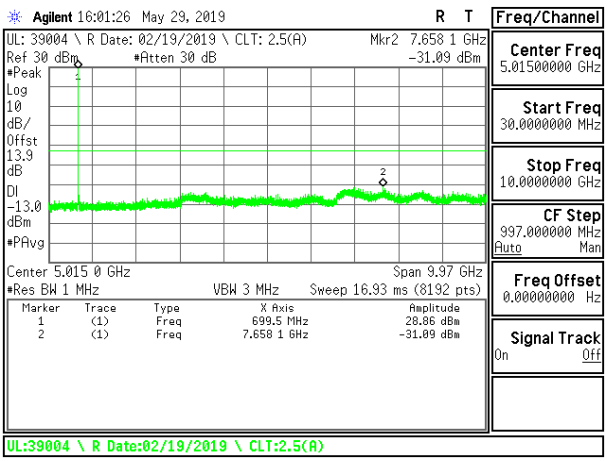
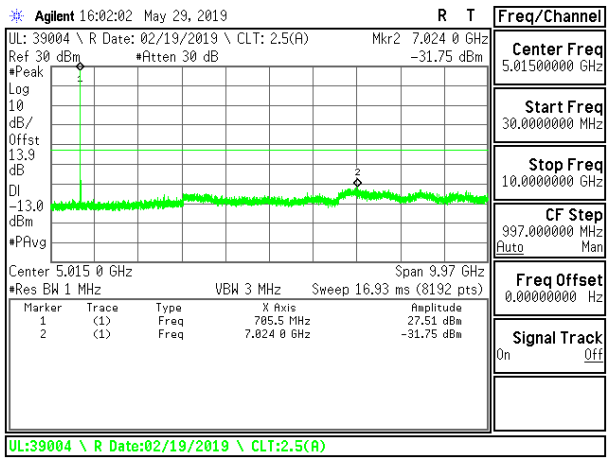


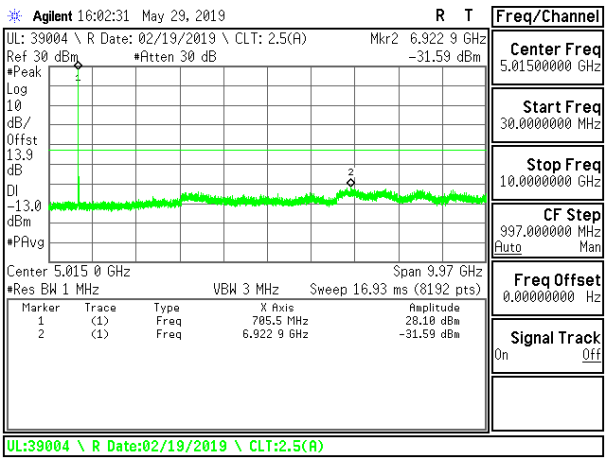
LTE B12 5MHz QPSK Low Channel RB1-0



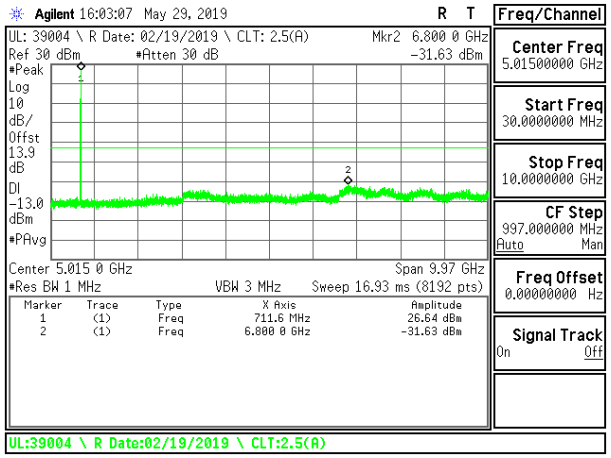
LTE B12 5MHz 16QAM Low Channel RB1-0



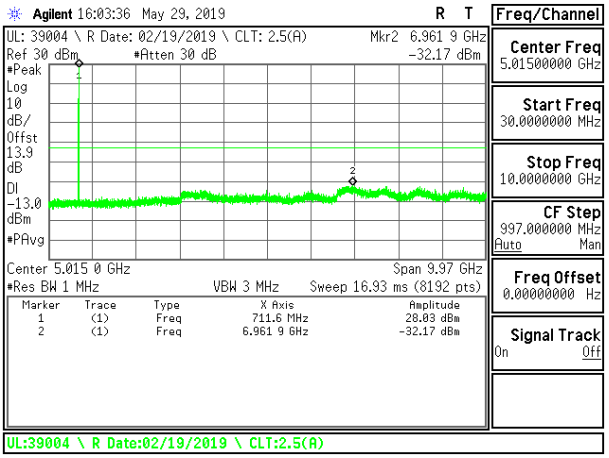
LTE B12 5MHz QPSK Middle Channel RB1-0



LTE B12 5MHz 16QAM Middle Channel RB1-0



LTE B12 5MHz QPSK High Channel RB1-0



LTE B12 5MHz 16QAM High Channel RB1-0

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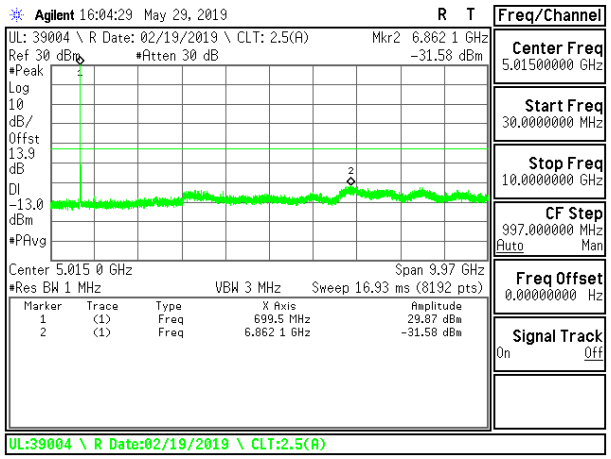
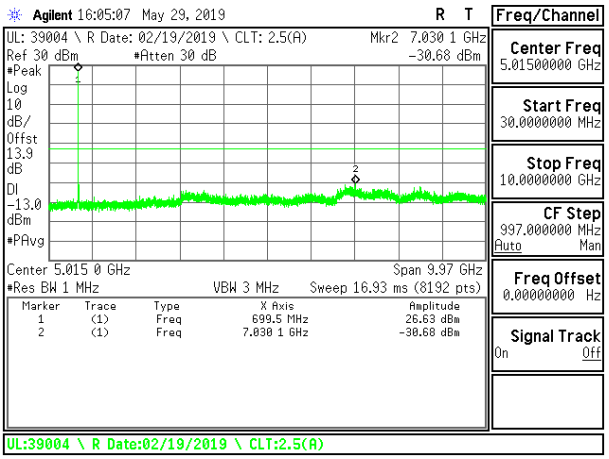
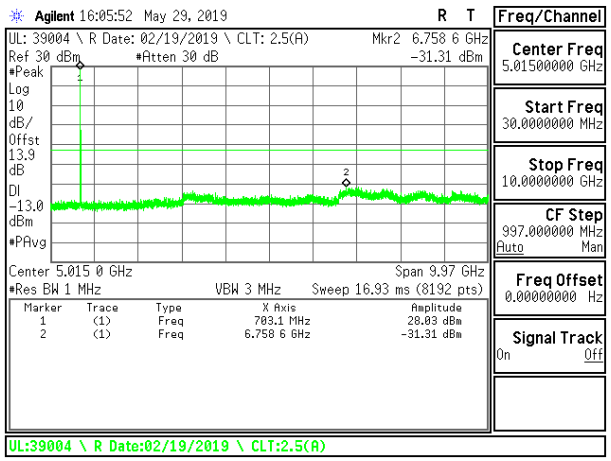


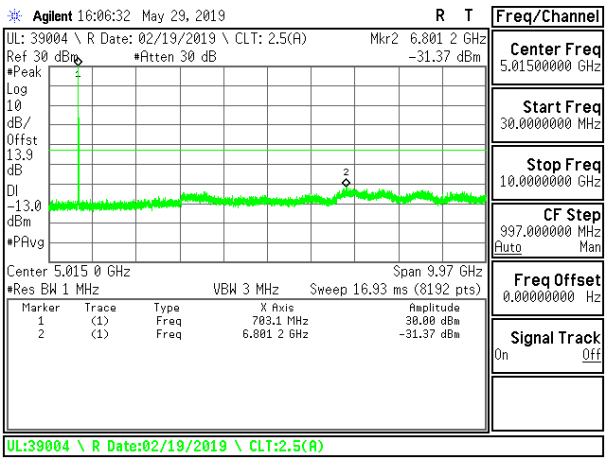
LTE B12 10MHz QPSK Low Channel RB1-0



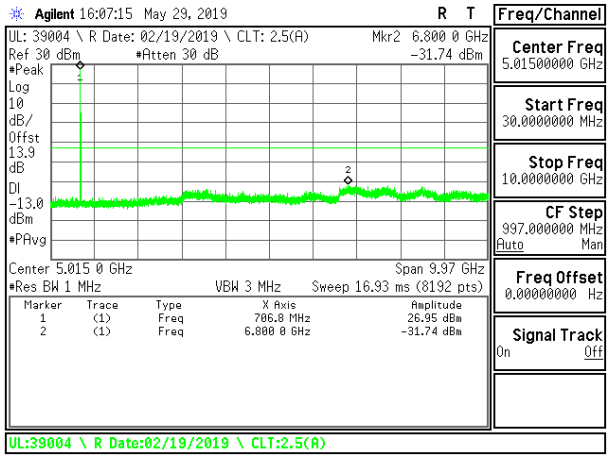
LTE B12 10MHz 16QAM Low Channel RB1-0



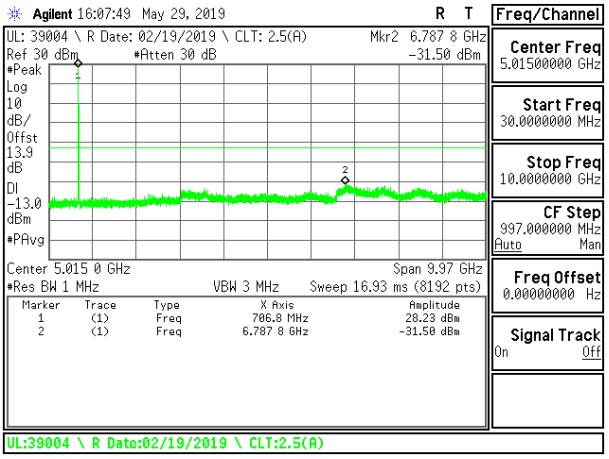
LTE B12 10MHz QPSK Middle Channel RB1-0



LTE B12 10MHz 16QAM Middle Channel RB1-0



LTE B12 10MHz QPSK High Channel RB1-0



LTE B12 10MHz 16QAM High Channel RB1-0

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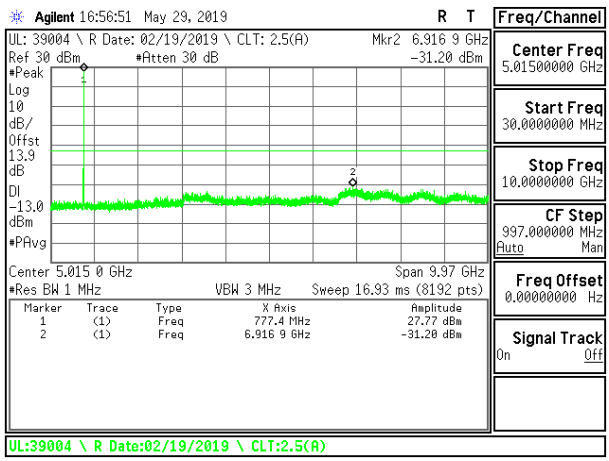
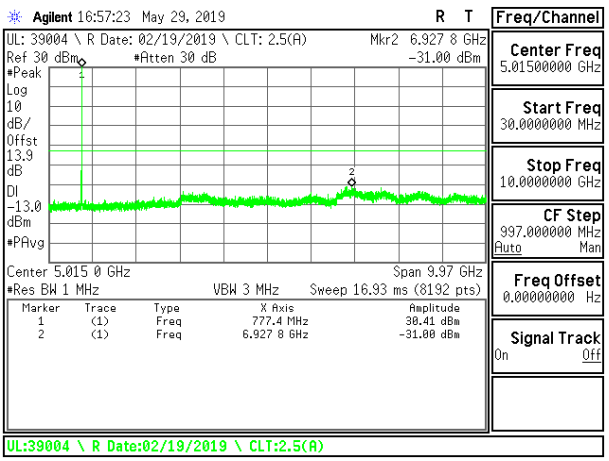
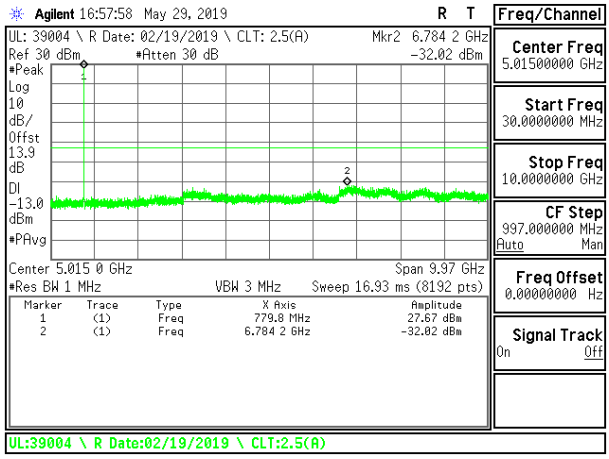
8.3.5. LTE BAND 13



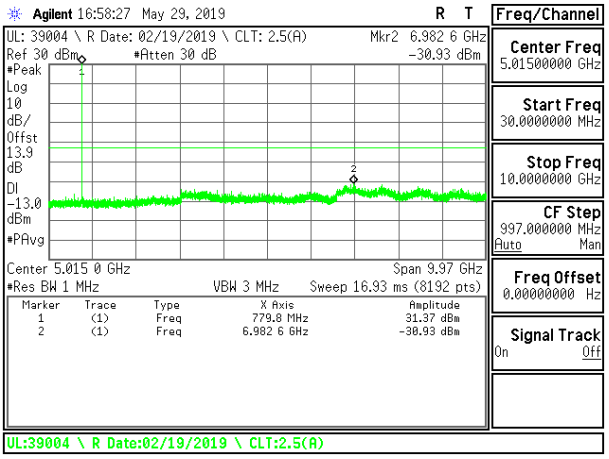
LTE B13 5MHz QPSK Low Channel RB1-0



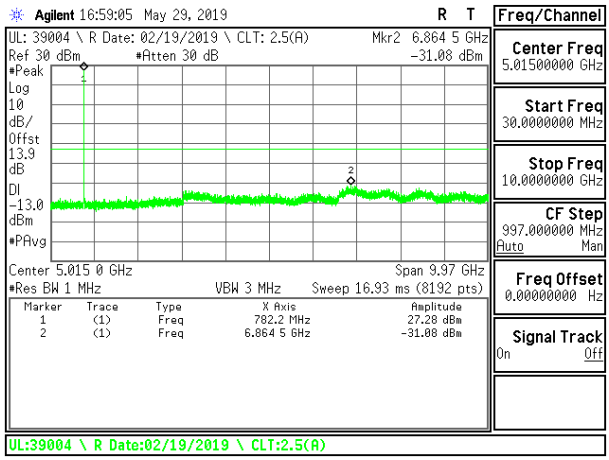
LTE B13 5MHz 16QAM Low Channel RB1-0



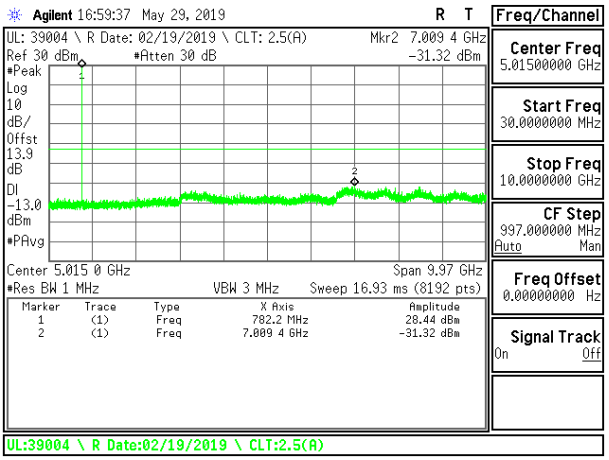
LTE B13 5MHz QPSK Middle Channel RB1-0



LTE B13 5MHz 16QAM Middle Channel RB1-0



LTE B13 5MHz QPSK High Channel RB1-0



LTE B13 5MHz 16QAM High Channel RB1-0

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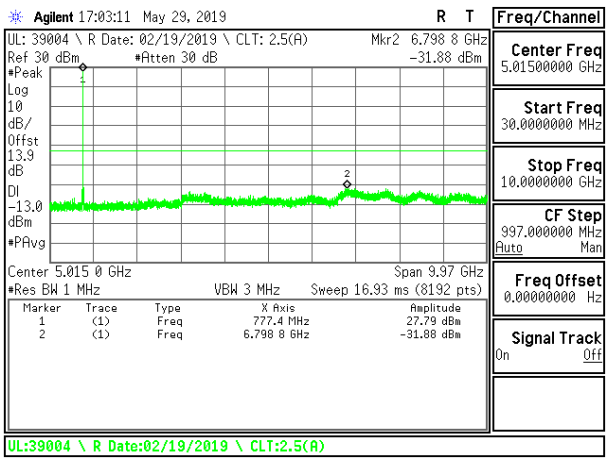
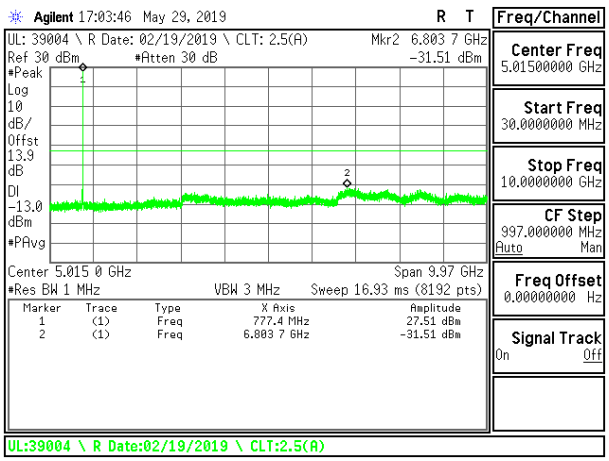


LTE B13 10MHz QPSK Middle Channel RB1-0



LTE B13 10MHz 16QAM Middle Channel RB1-0

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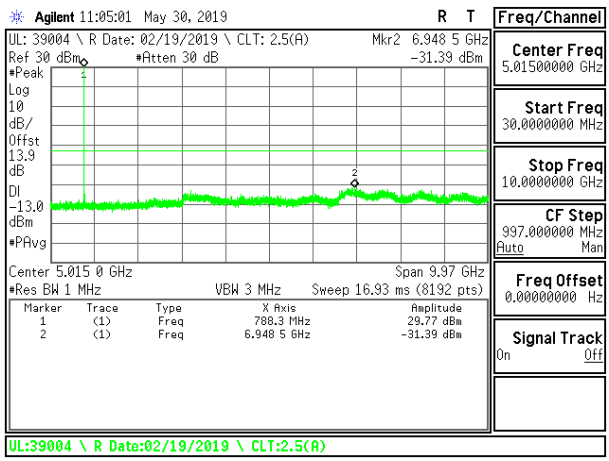
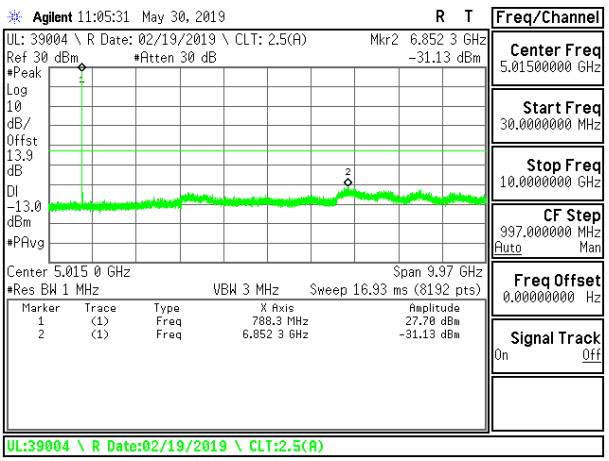
8.3.6. LTE BAND 14



LTE B14 5MHz QPSK Low Channel RB1-0



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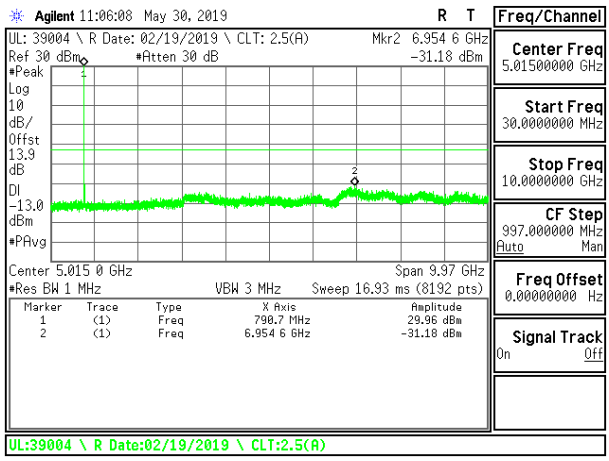

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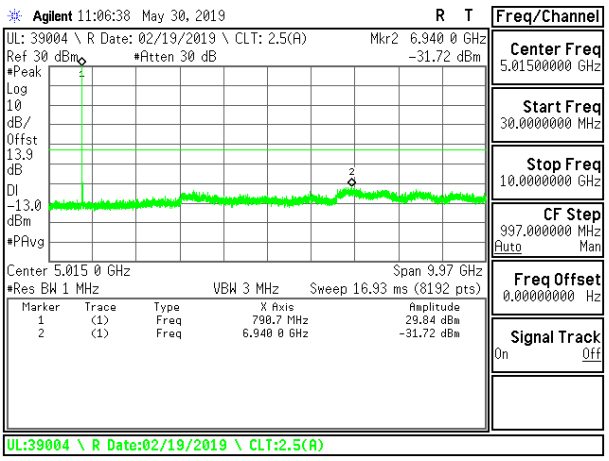
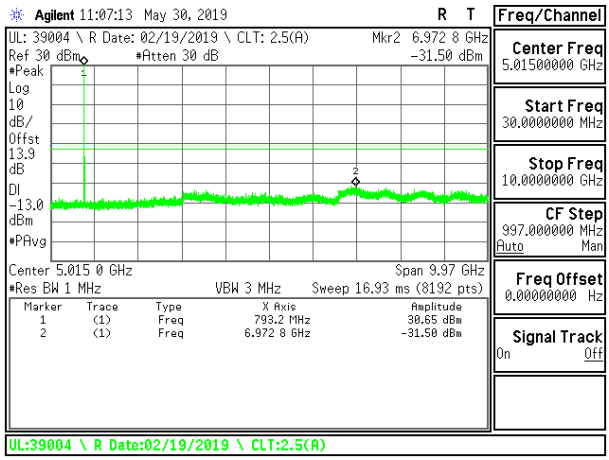
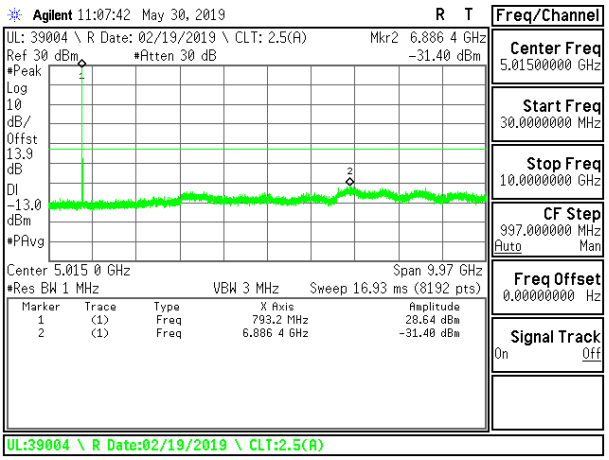


LTE B14 5MHz 16QAM Middle Channel RB1-0



LTE B14 5MHz QPSK High Channel RB1-0



LTE B14 5MHz 16QAM High Channel RB1-0

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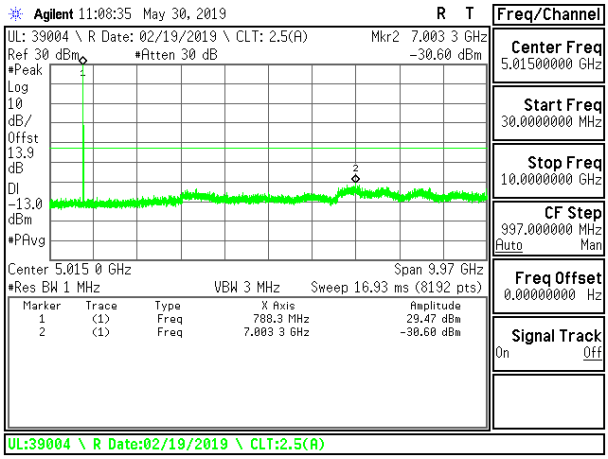
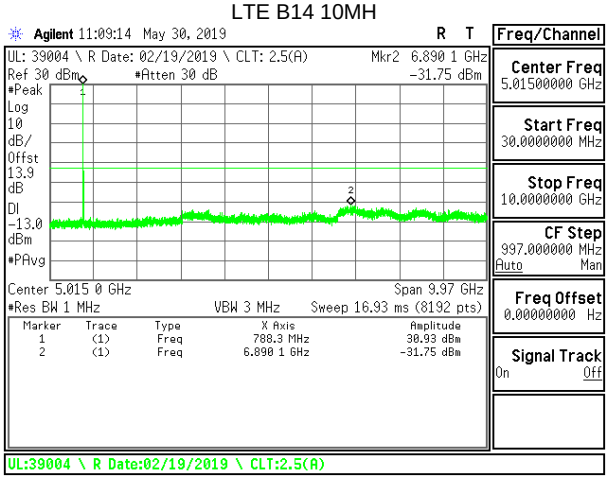


LTE B14 10MHz QPSK Middle Channel RB1-0

LTE B14 10MH



z 16QAM Middle Channel RB1-0

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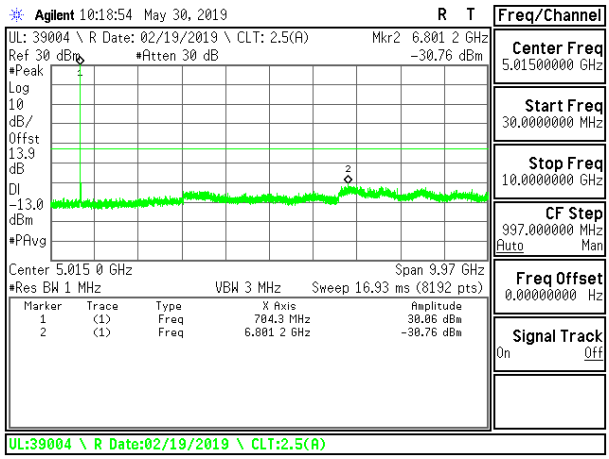
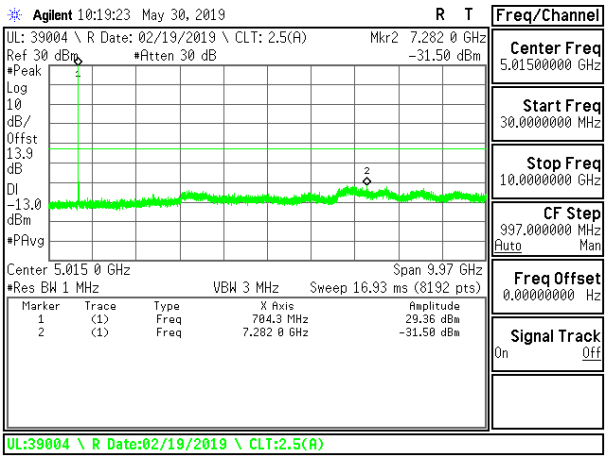
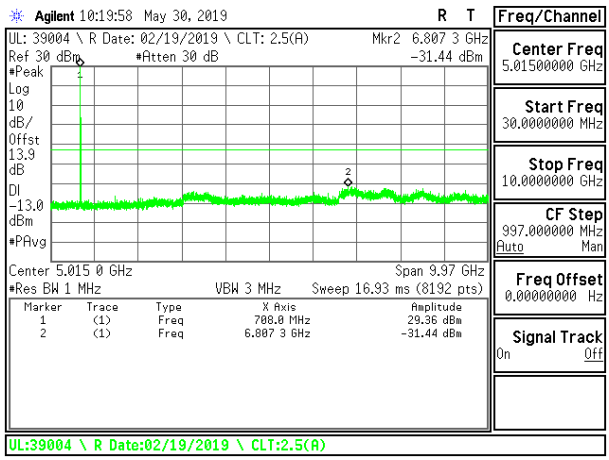
8.3.7. LTE BAND 17



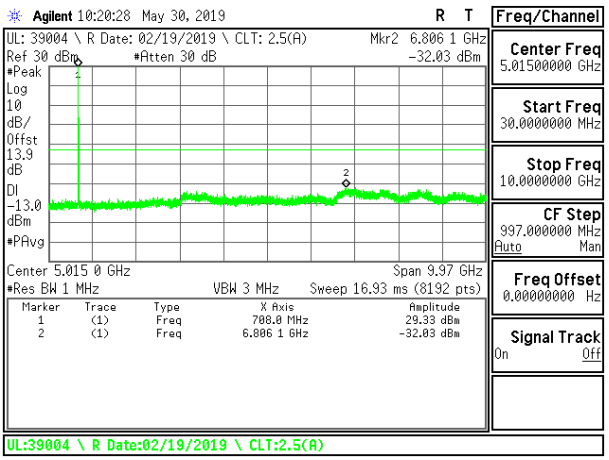
LTE B17 5MHz QPSK Low Channel RB1-0



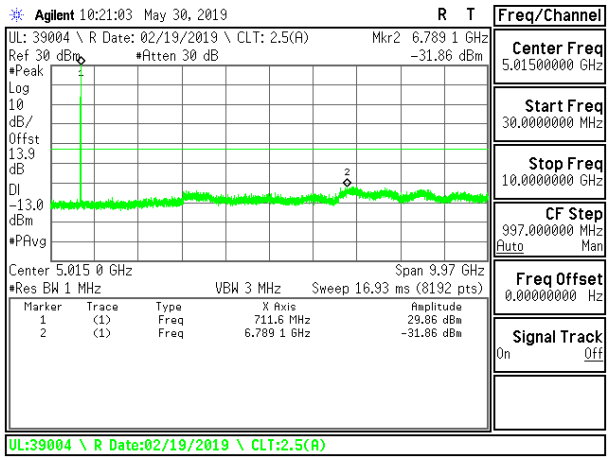
LTE B17 5MHz 16QAM Low Channel RB1-0



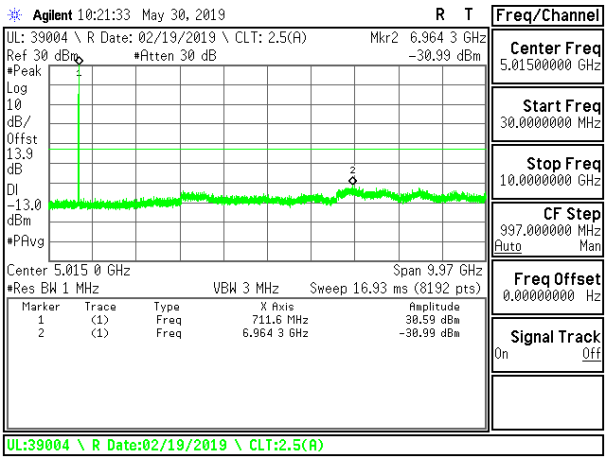
LTE B17 5MHz QPSK Middle Channel RB1-0



LTE B17 5MHz 16QAM Middle Channel RB1-0



LTE B17 5MHz QPSK High Channel RB1-0



LTE B17 5MHz 16QAM High Channel RB1-0

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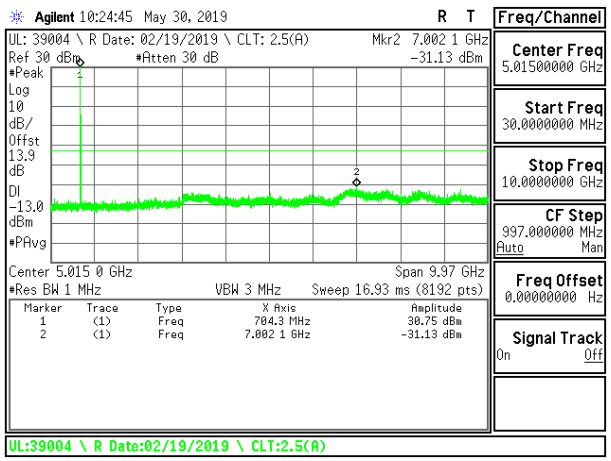
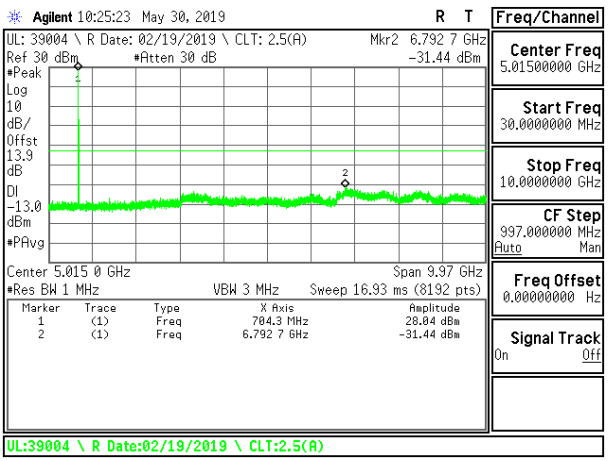
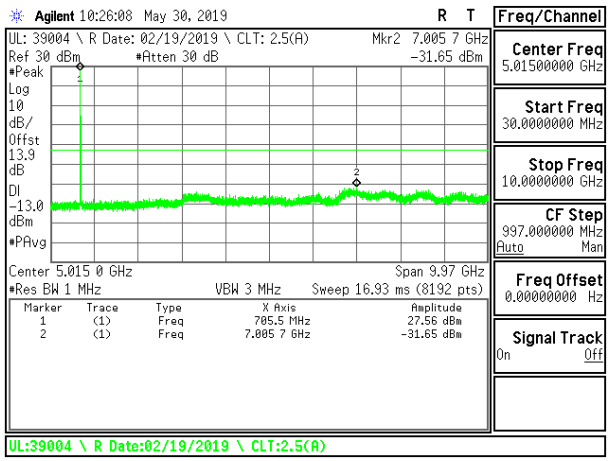


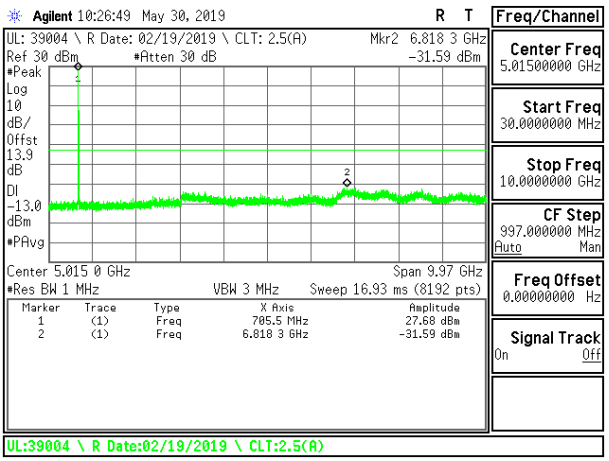
LTE B17 10MHz QPSK Low Channel RB1-0



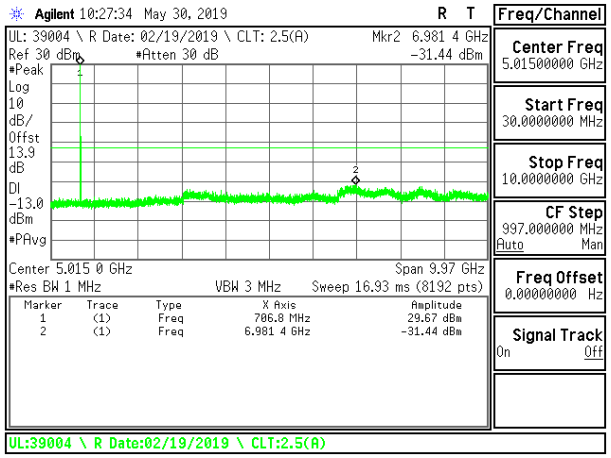
LTE B17 10MHz 16QAM Low Channel RB1-0



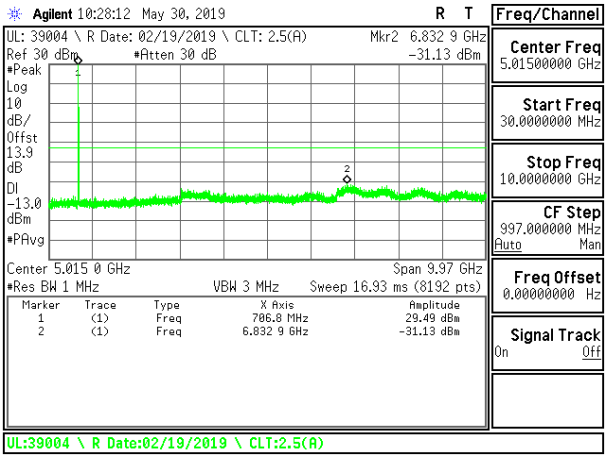
LTE B17 10MHz QPSK Middle Channel RB1-0



LTE B17 10MHz 16QAM Middle Channel RB1-0



LTE B17 10MHz QPSK High Channel RB1-0



LTE B17 10MHz 16QAM High Channel RB1-0

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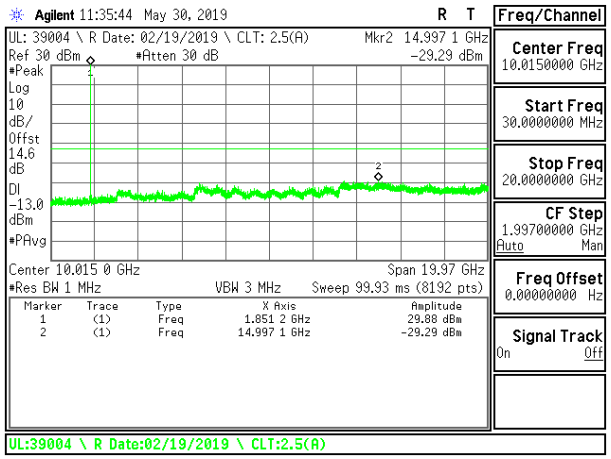
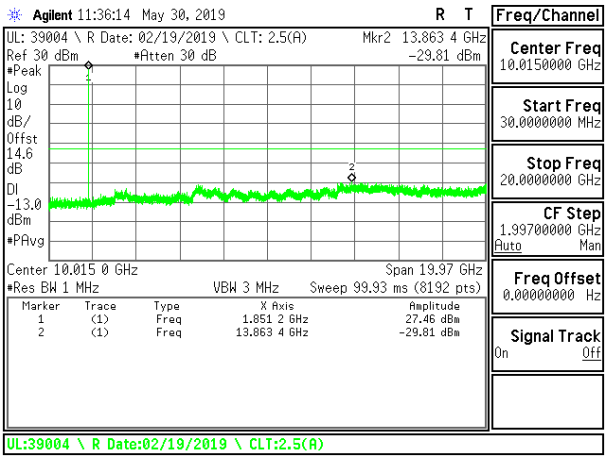
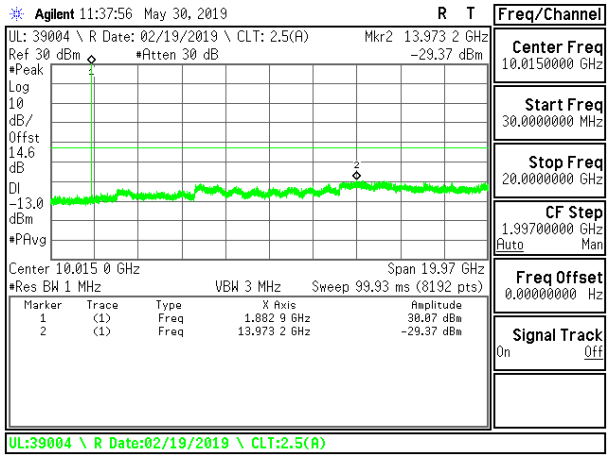
8.3.8. LTE BAND 25



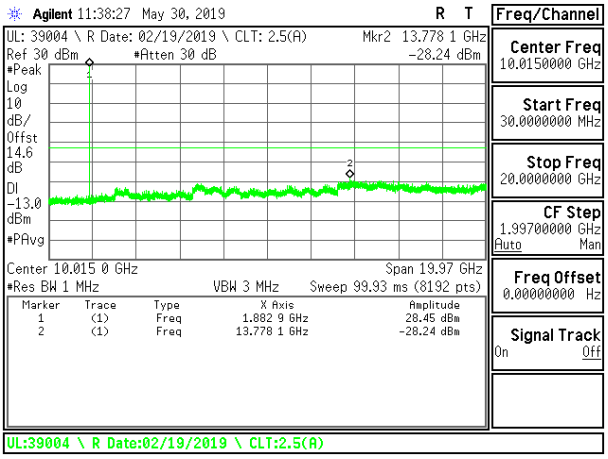
LTE B25 1.4MHz QPSK Low Channel RB1-0



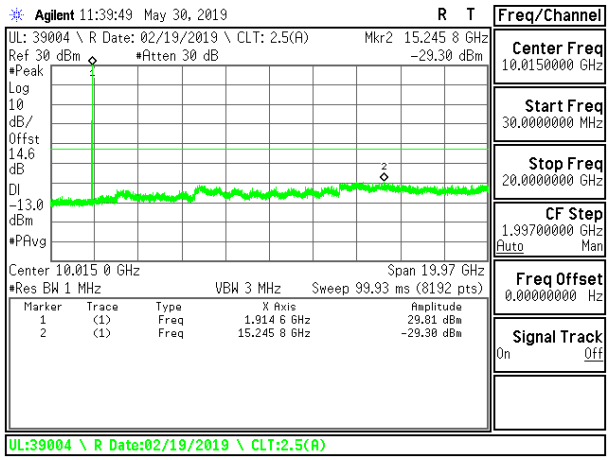
LTE B25 1.4MHz 16QAM Low Channel RB1-0



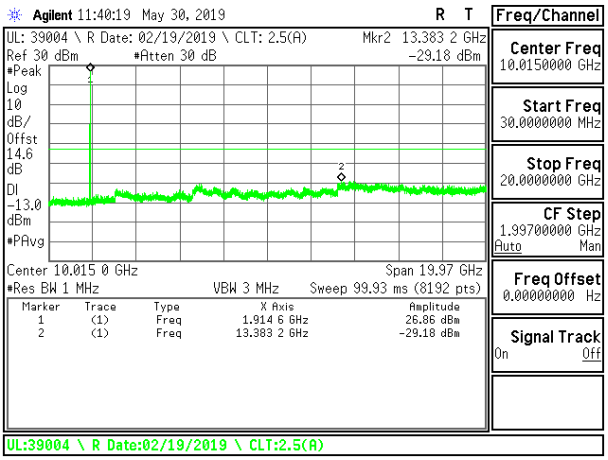
LTE B25 1.4MHz QPSK Middle Channel RB1-0



LTE B25 1.4MHz 16QAM Middle Channel RB1-0



LTE B25 1.4MHz QPSK High Channel RB1-0



LTE B25 1.4MHz 16QAM High Channel RB1-0

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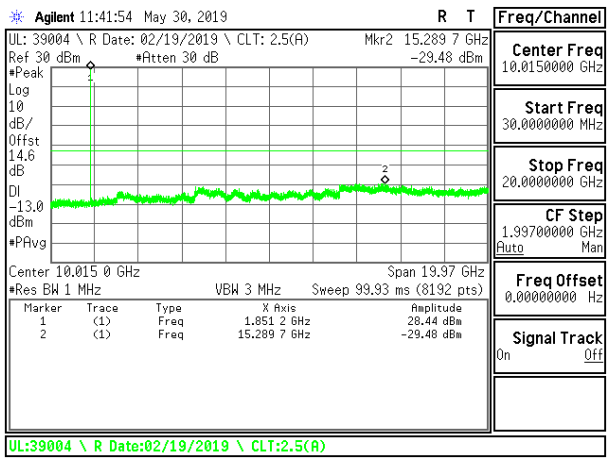
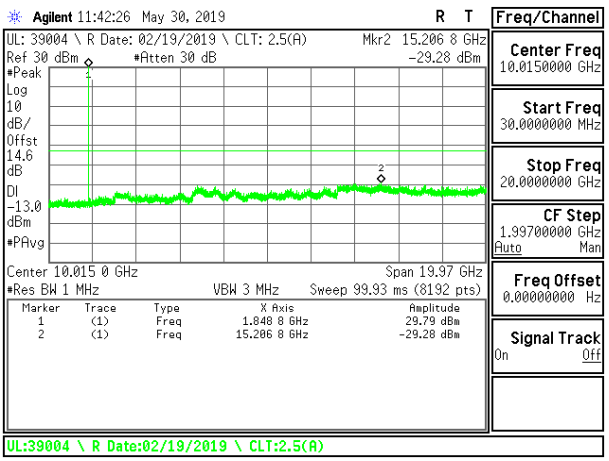
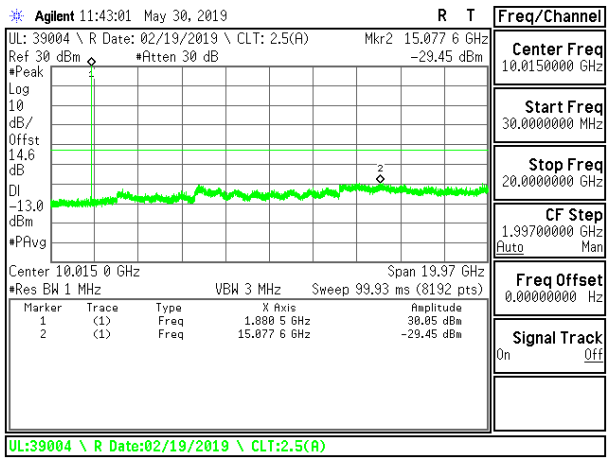


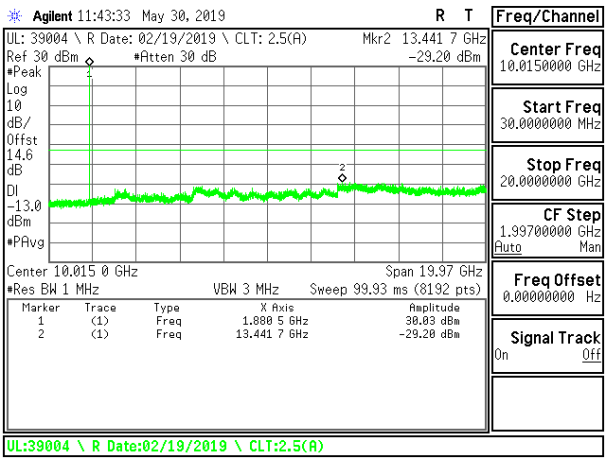
LTE B25 3MHz QPSK Low Channel RB1-0



LTE B25 3MHz 16QAM Low Channel RB1-0



LTE B25 3MHz QPSK Middle Channel RB1-0



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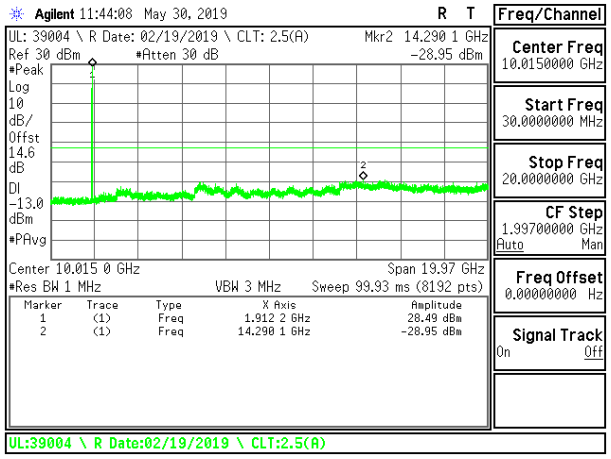

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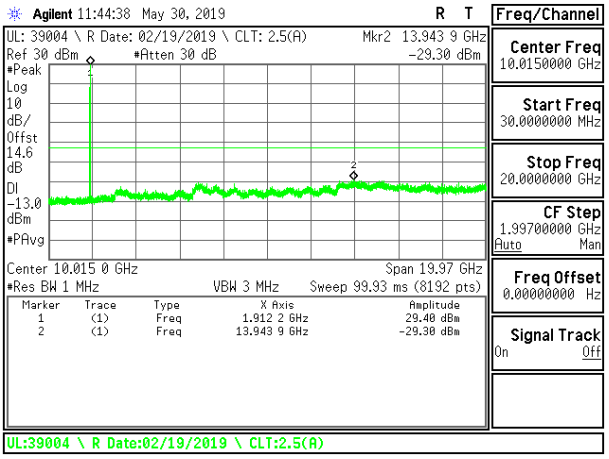

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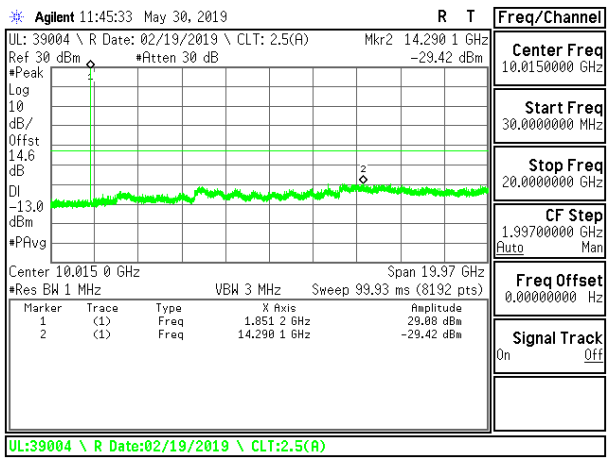
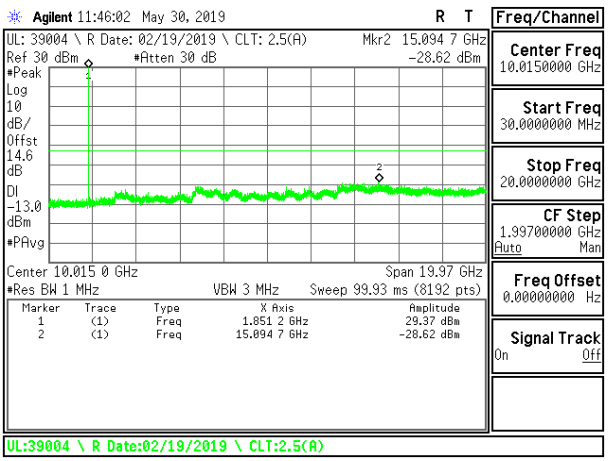
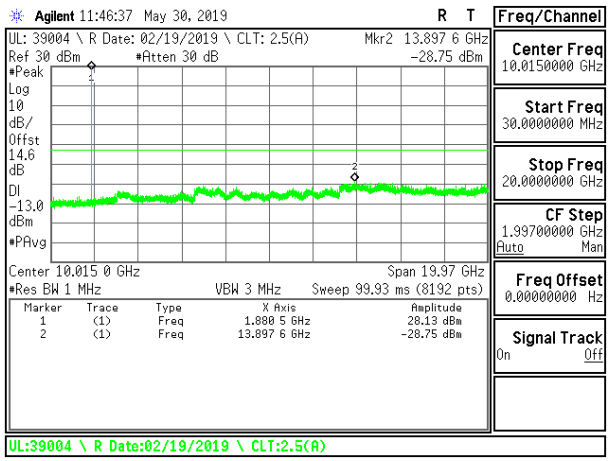


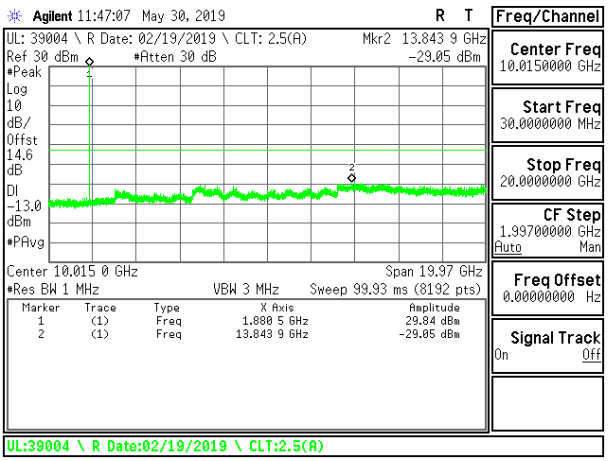
LTE B25 5MHz QPSK Low Channel RB1-0



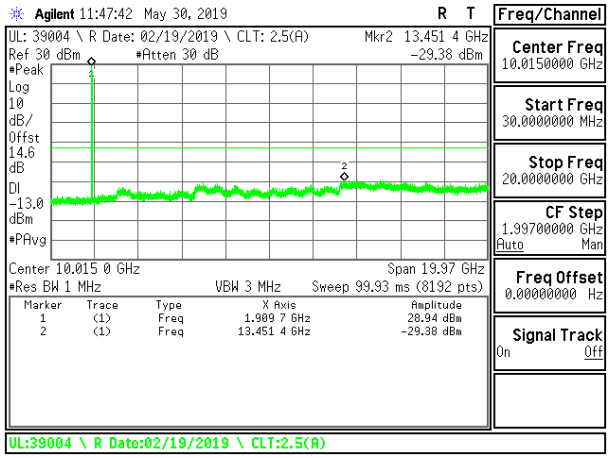
LTE B25 5MHz 16QAM Low Channel RB1-0



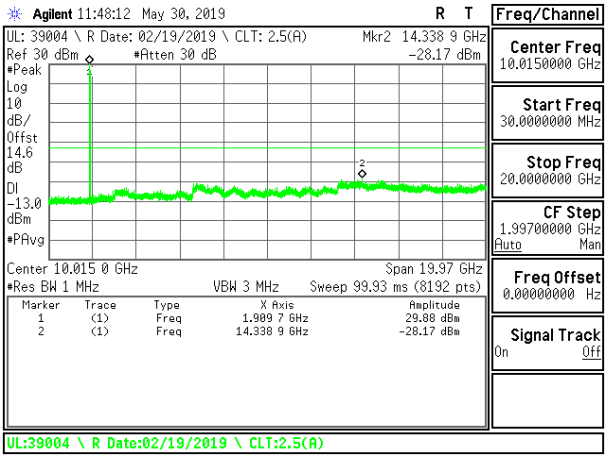
LTE B25 5MHz QPSK Middle Channel RB1-0



LTE B25 5MHz 16QAM Middle Channel RB1-0



LTE B25 5MHz QPSK High Channel RB1-0



LTE B25 5MHz 16QAM High Channel RB1-0

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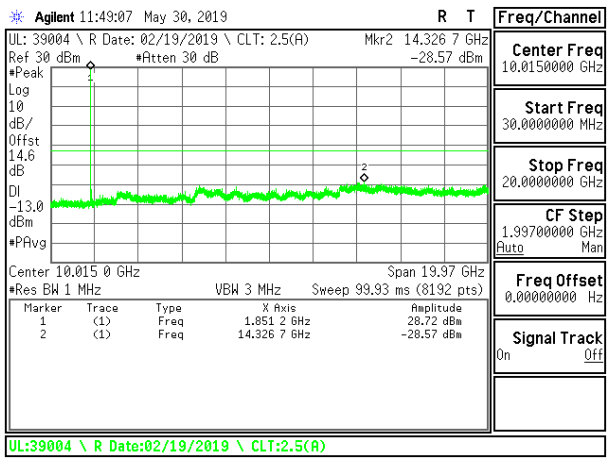
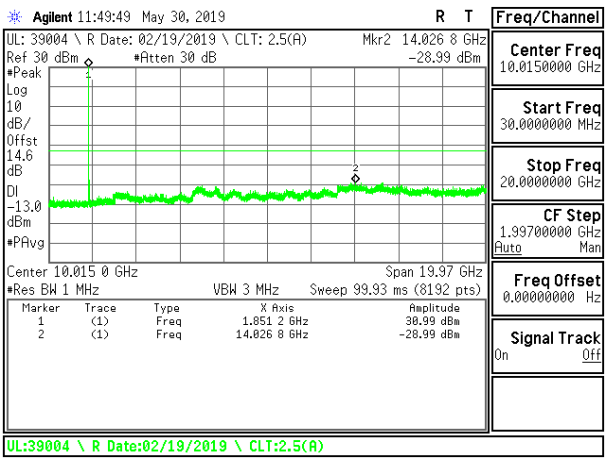
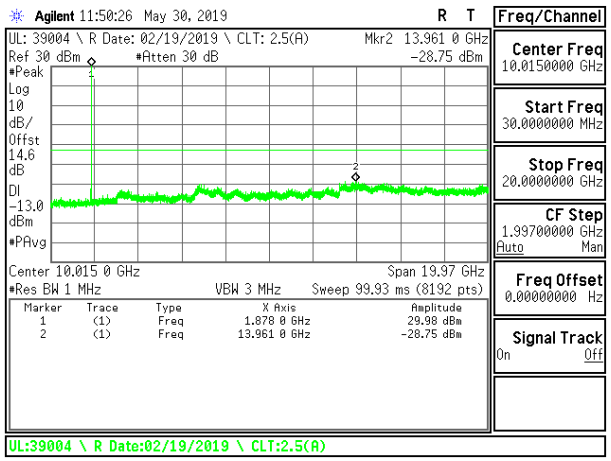


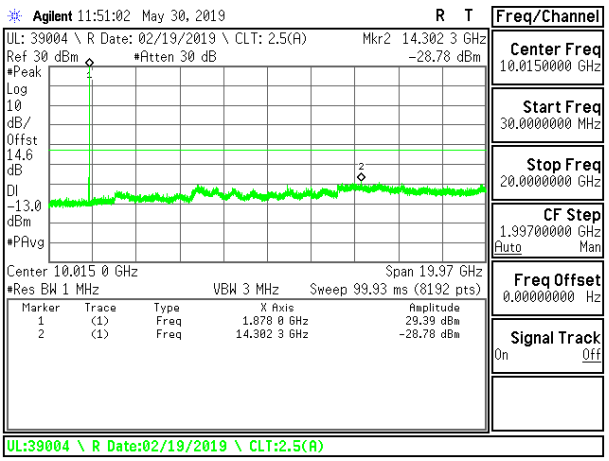
LTE B25 10MHz QPSK Low Channel RB1-0



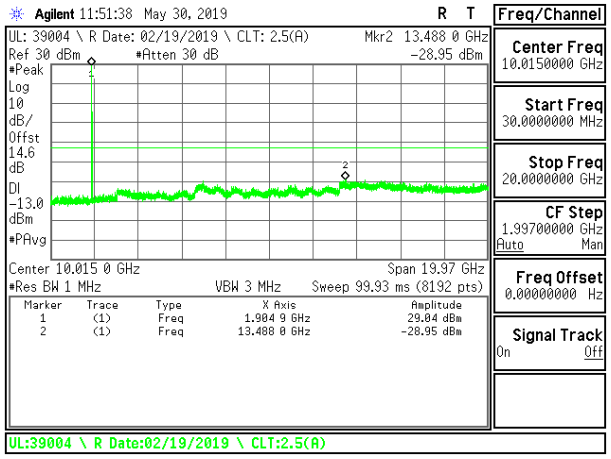
LTE B25 10MHz 16QAM Low Channel RB1-0



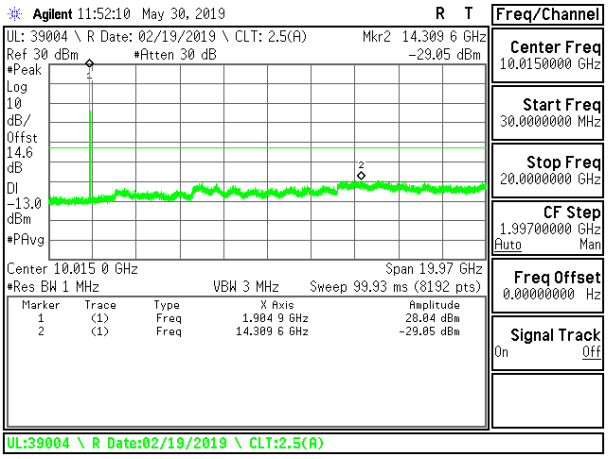
LTE B25 10MHz QPSK Middle Channel RB1-0



LTE B25 10MHz 16QAM Middle Channel RB1-0



LTE B25 10MHz QPSK High Channel RB1-0



LTE B25 10MHz 16QAM High Channel RB1-0

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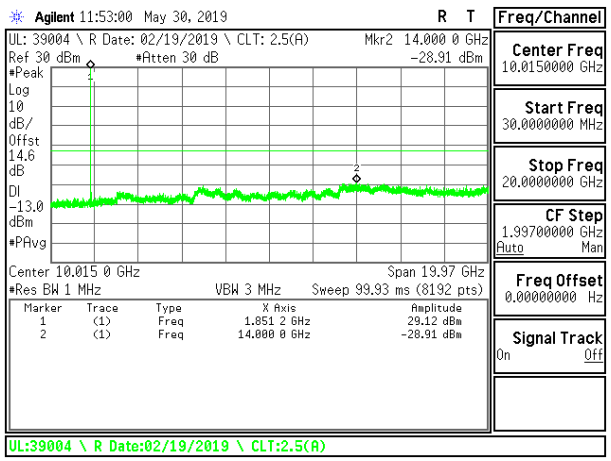
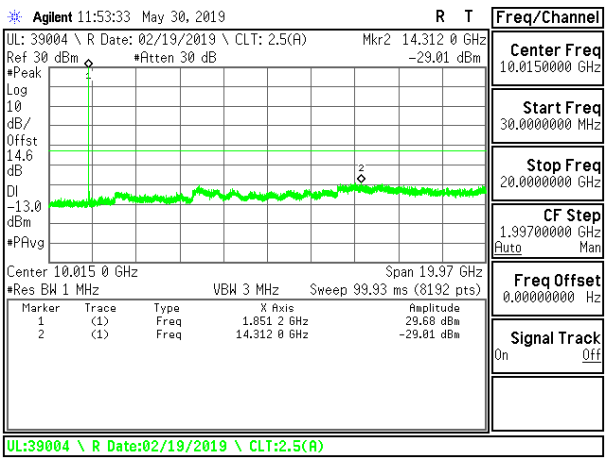
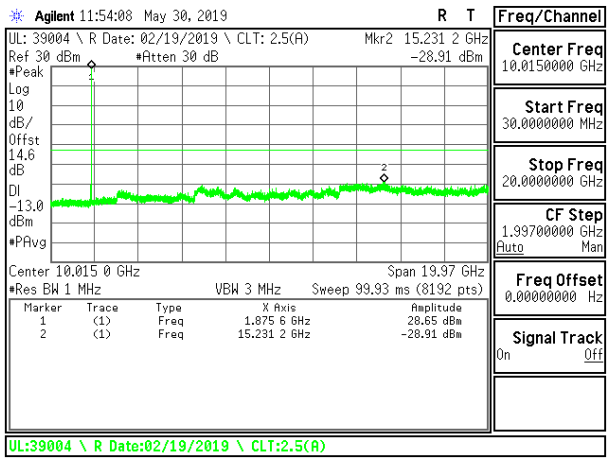


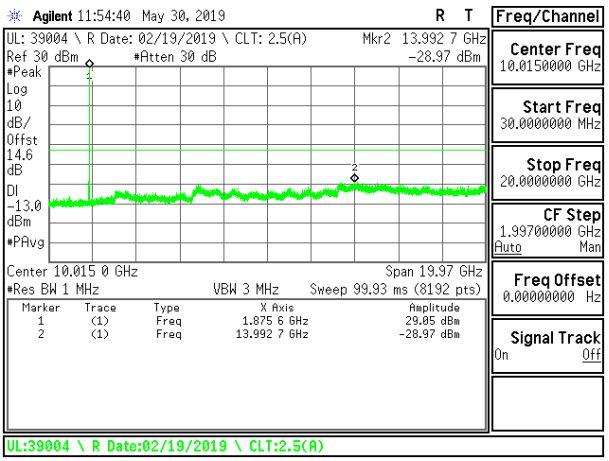
LTE B25 15MHz QPSK Low Channel RB1-0



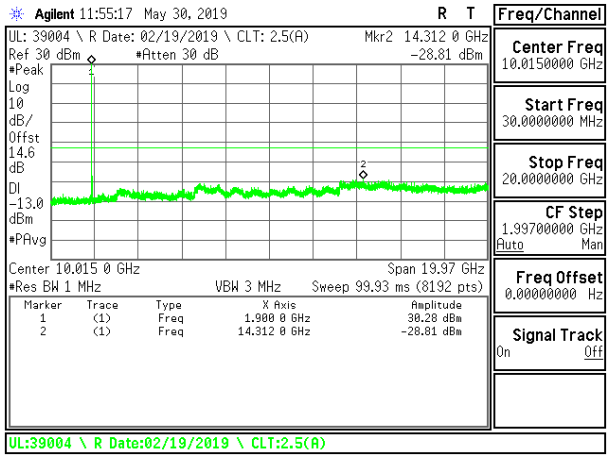
LTE B25 15MHz 16QAM Low Channel RB1-0



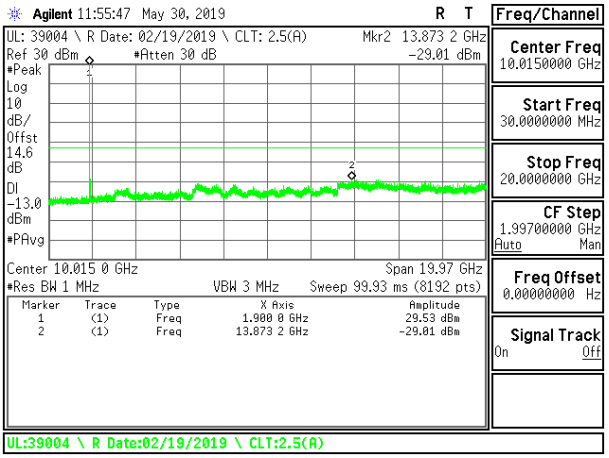
LTE B25 15MHz QPSK Middle Channel RB1-0



LTE B25 15MHz 16QAM Middle Channel RB1-0



LTE B25 15MHz QPSK High Channel RB1-0



LTE B25 15MHz 16QAM High Channel RB1-0

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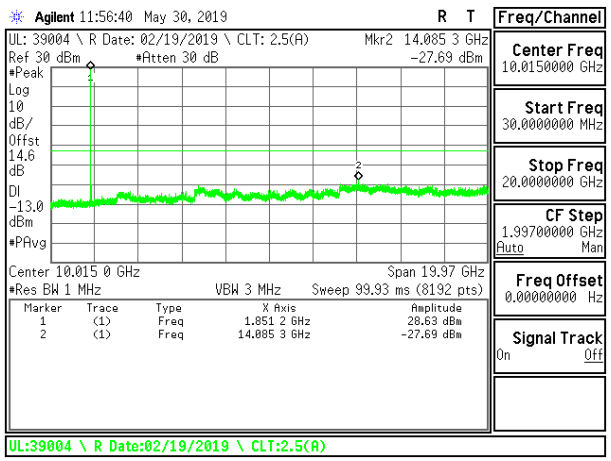

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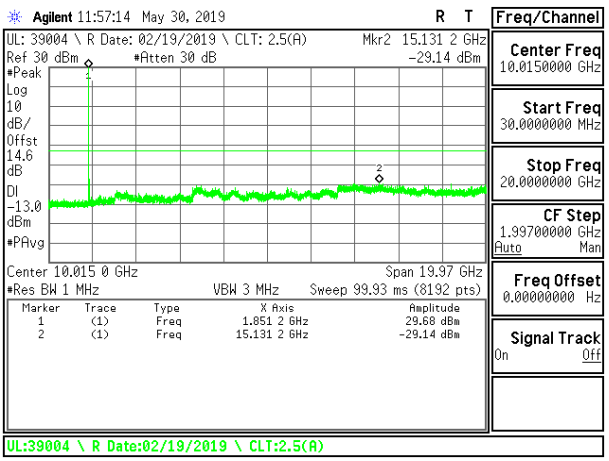
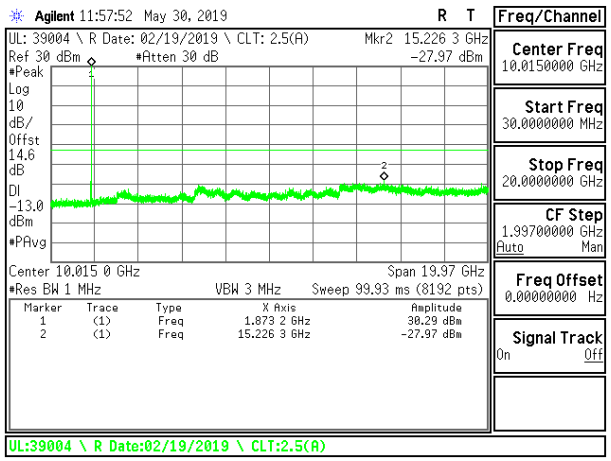
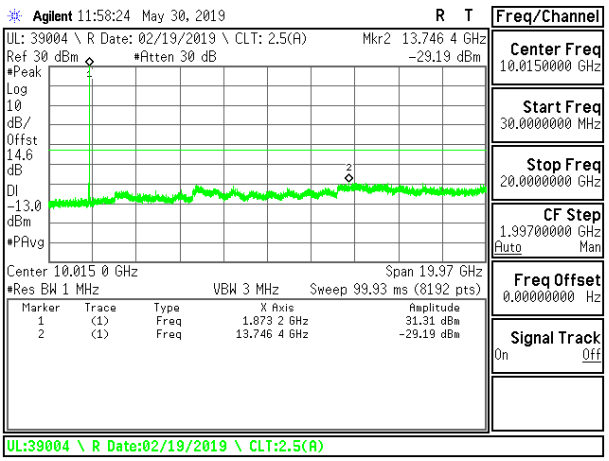


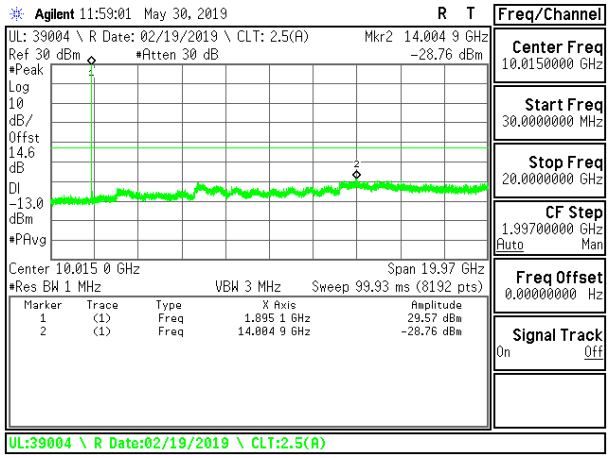
LTE B25 20MHz 16QAM Low Channel RB1-0



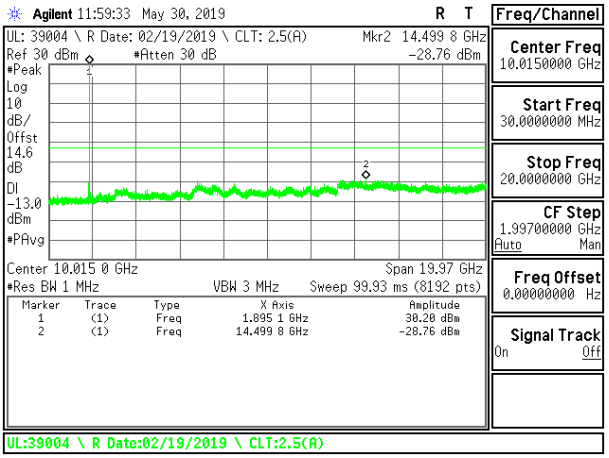
LTE B25 20MHz QPSK Middle Channel RB1-0



LTE B25 20MHz 16QAM Middle Channel RB1-0



LTE B25 20MHz QPSK High Channel RB1-0



LTE B25 20MHz 16QAM High Channel RB1-0

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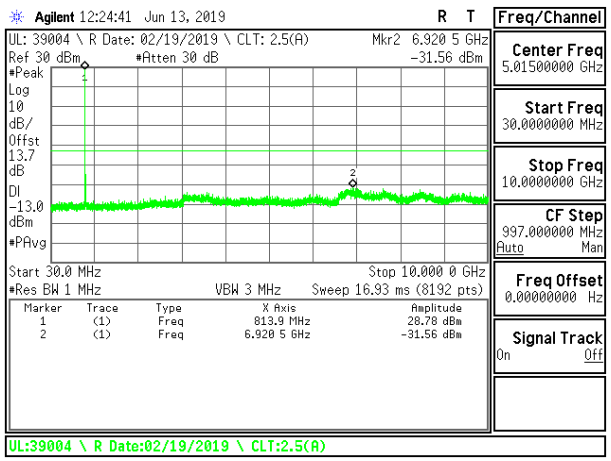
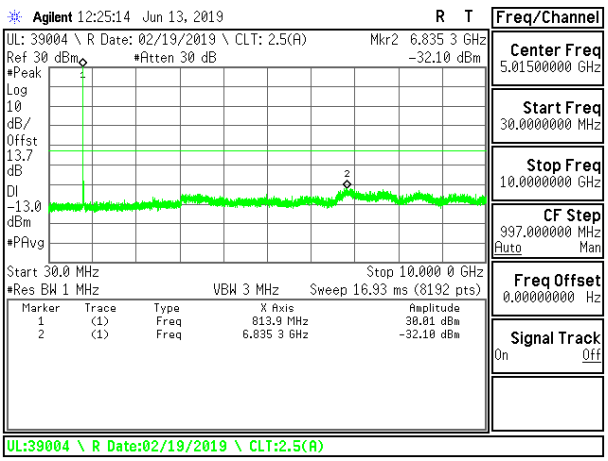
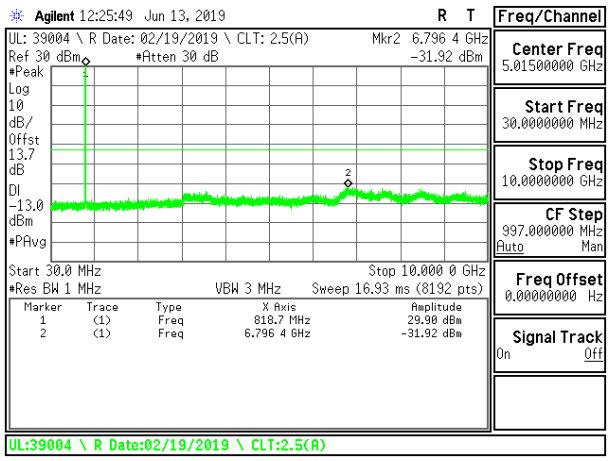
8.3.9. LTE BAND 26 (PART 90S)



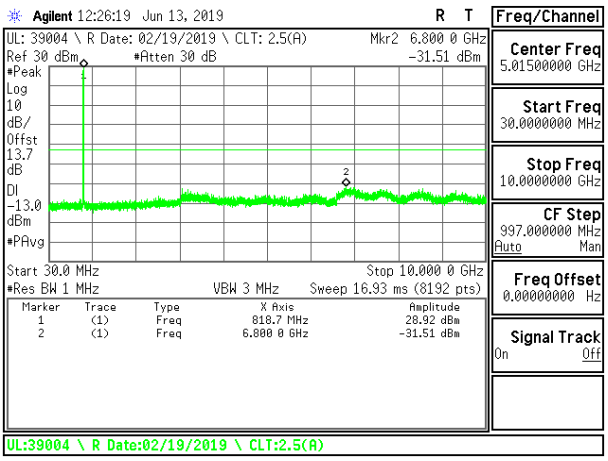
LTE B26 1.4MHz QPSK Low Channel RB1-0



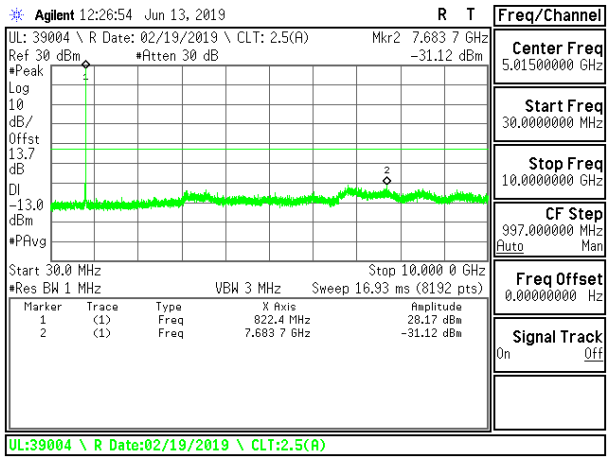
LTE B26 1.4MHz 16QAM Low Channel RB1-0



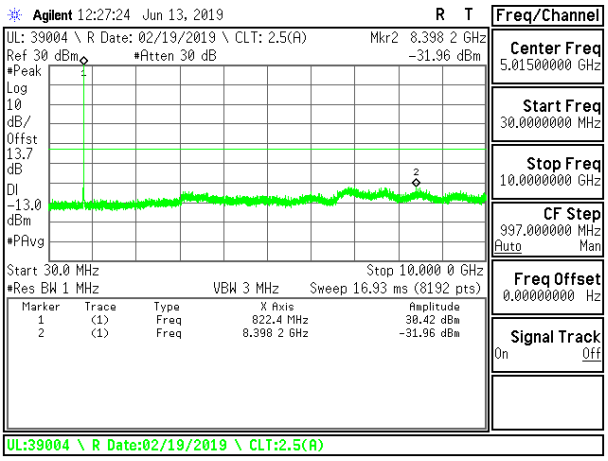
LTE B26 1.4MHz QPSK Middle Channel RB1-0



LTE B26 1.4MHz 16QAM Middle Channel RB1-0



LTE B26 1.4MHz QPSK High Channel RB1-0



LTE B26 1.4MHz 16QAM High Channel RB1-0

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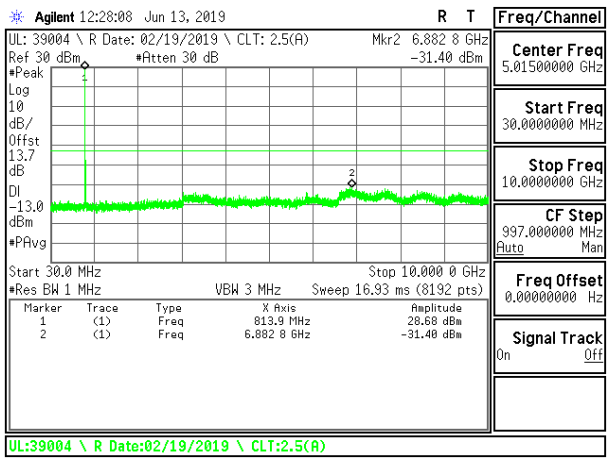
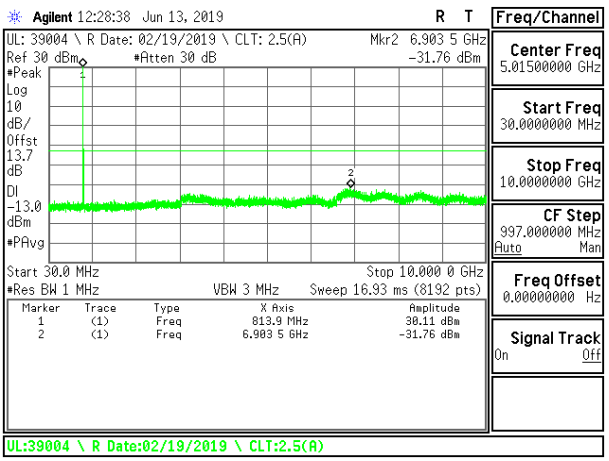
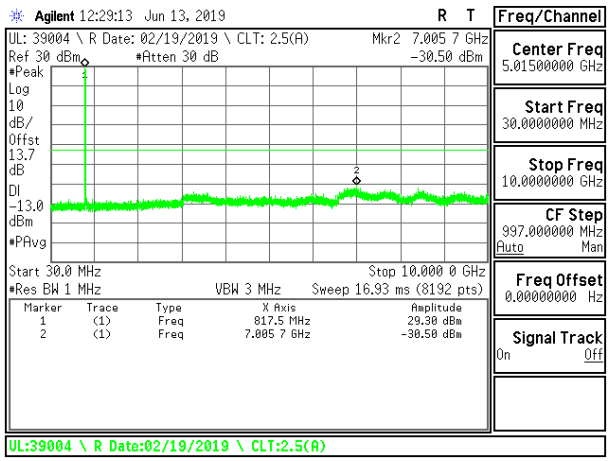


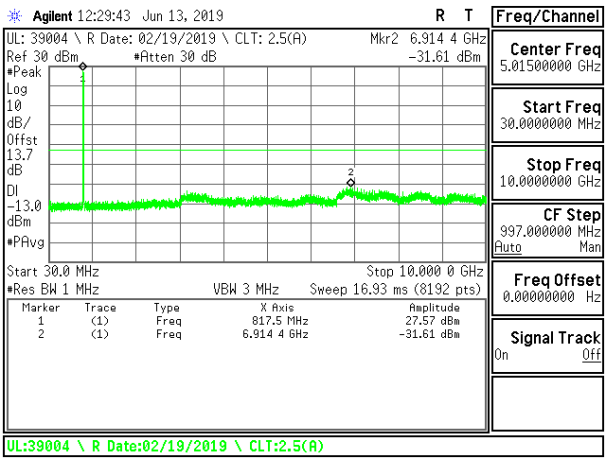
LTE B26 3MHz QPSK Low Channel RB1-0



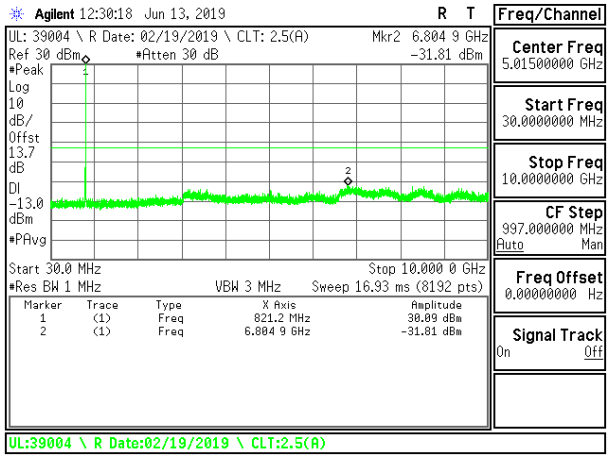
LTE B26 3MHz 16QAM Low Channel RB1-0



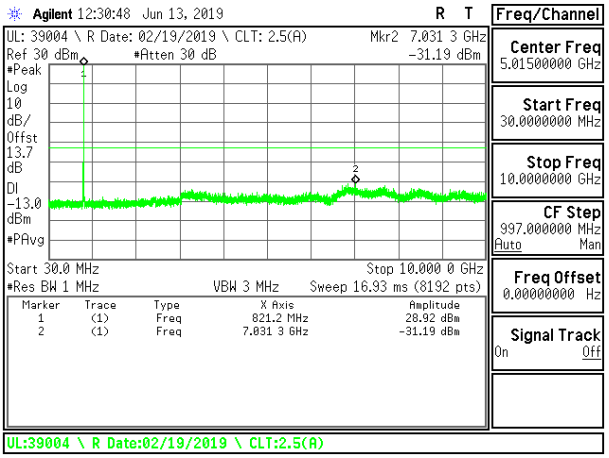
LTE B26 3MHz QPSK Middle Channel RB1-0



LTE B26 3MHz 16QAM Middle Channel RB1-0



LTE B26 3MHz QPSK High Channel RB1-0



LTE B26 3MHz 16QAM High Channel RB1-0

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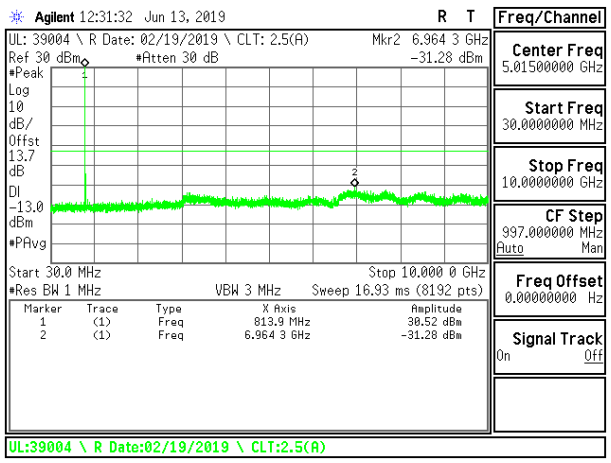
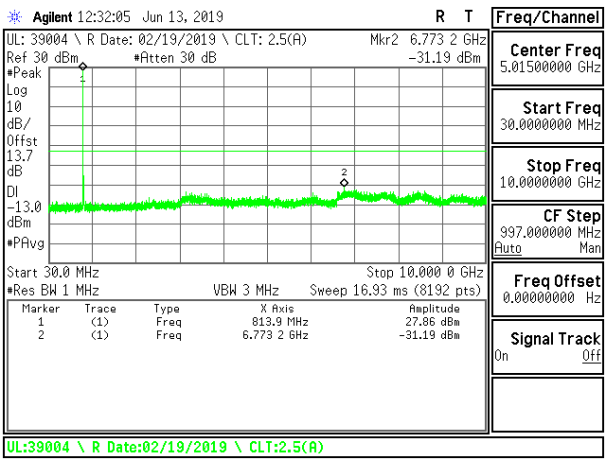
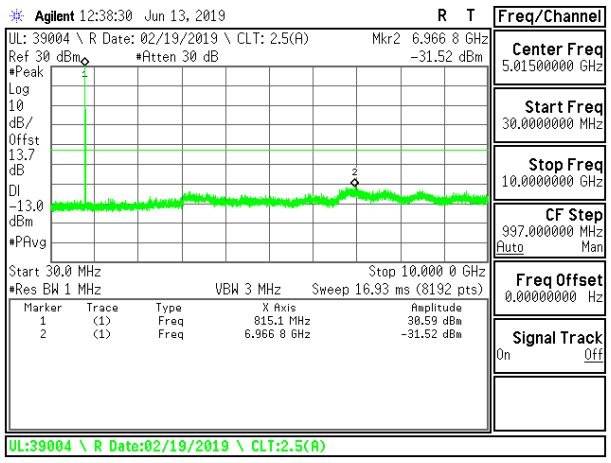


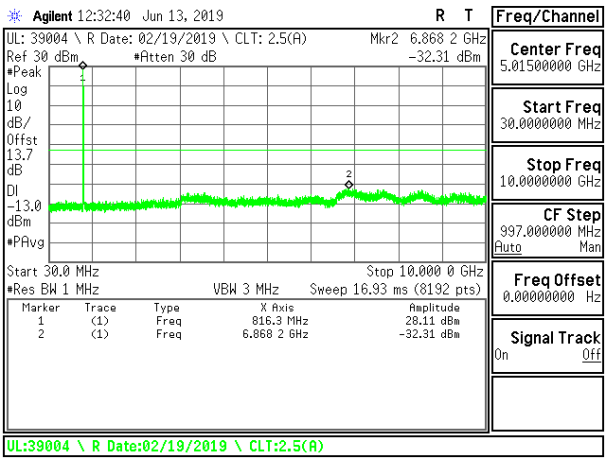
LTE B26 5MHz QPSK Low Channel RB1-0



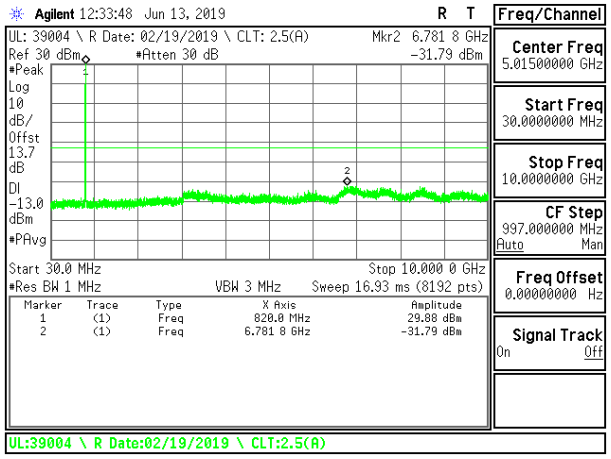
LTE B26 5MHz 16QAM Low Channel RB1-0



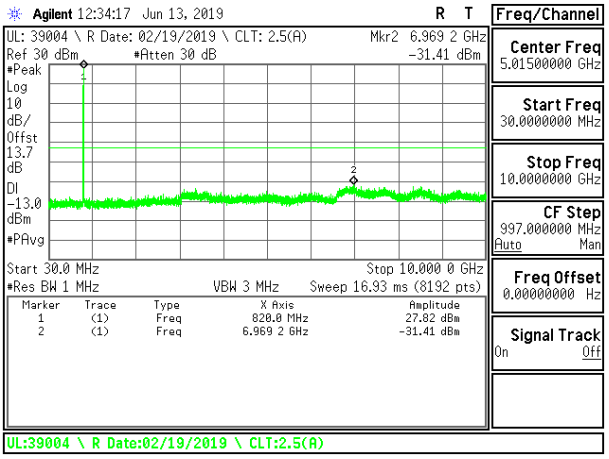
LTE B26 5MHz QPSK Middle Channel RB1-0



LTE B26 5MHz 16QAM Middle Channel RB1-0



LTE B26 5MHz QPSK High Channel RB1-0



LTE B26 5MHz 16QAM High Channel RB1-0

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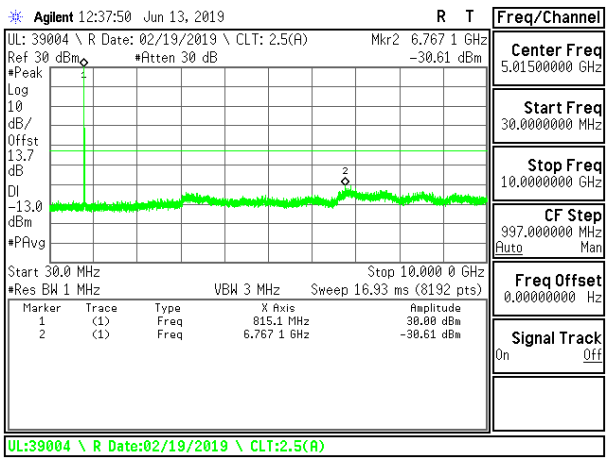
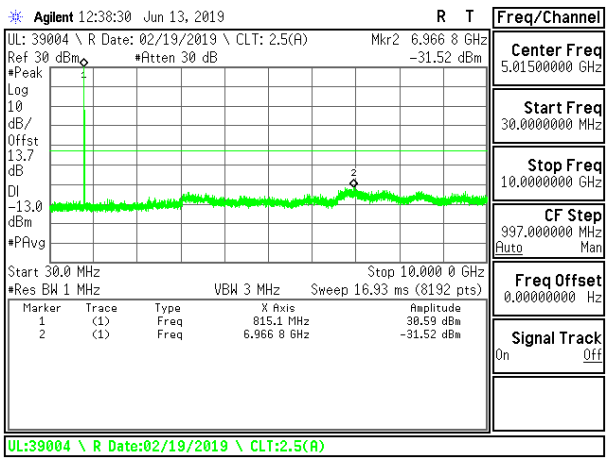


LTE B26 10MHz QPSK Middle Channel RB1-0



LTE B26 10MHz 16QAM Middle Channel RB1-0

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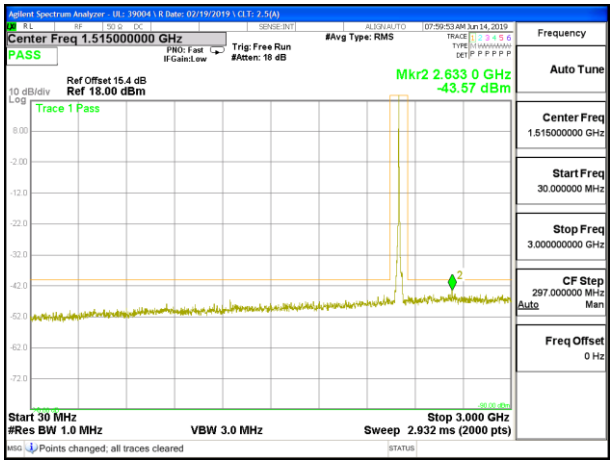
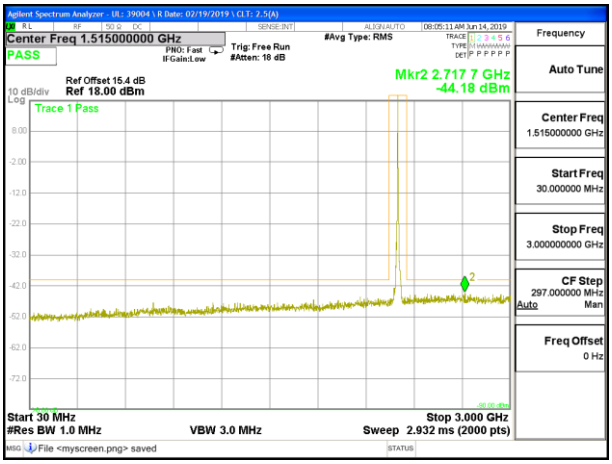
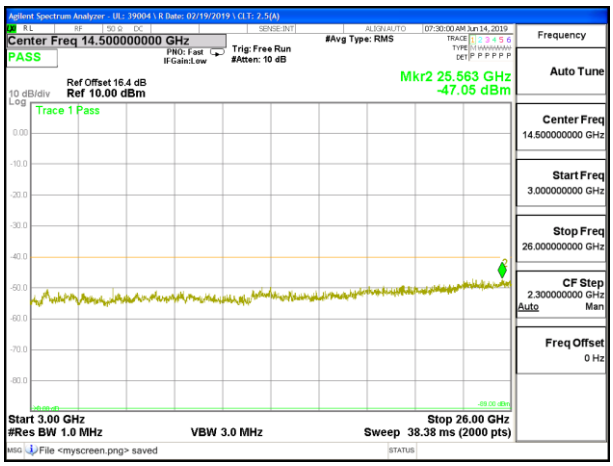
8.3.10. LTE BAND 30



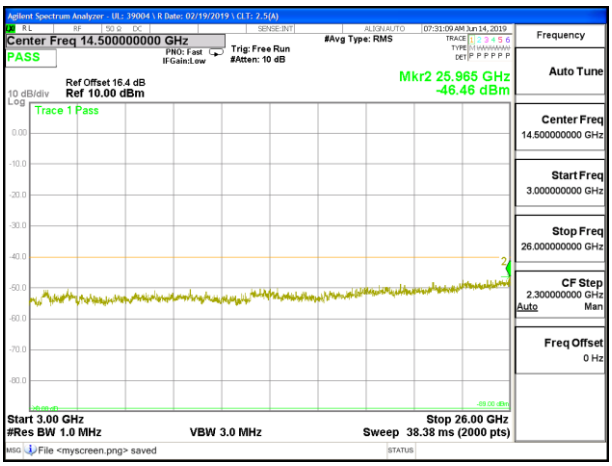
LTE B30 5MHz QPSK Low Channel RB1-0



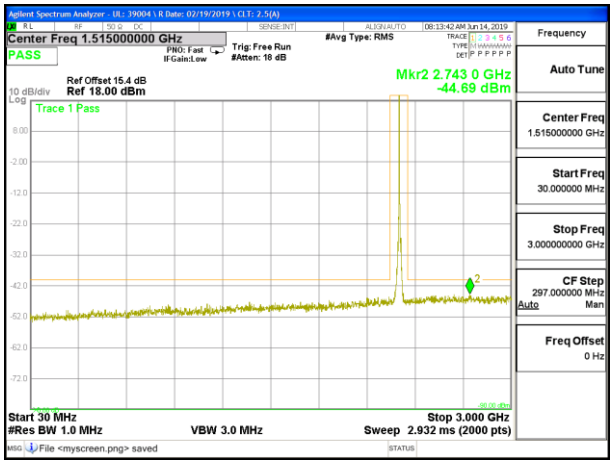
LTE B30 5MHz 16QAM Low Channel RB1-0



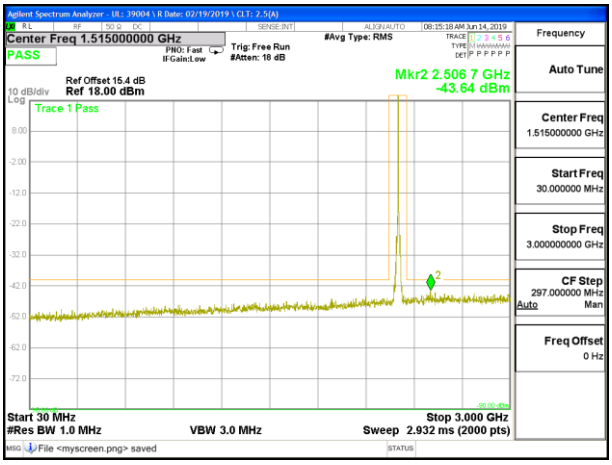
LTE B30 5MHz QPSK Low Channel RB1-0



LTE B30 5MHz 16QAM Low Channel RB1-0



LTE B30 5MHz QPSK Middle Channel RB1-0



LTE B30 5MHz 16QAM Middle Channel RB1-0

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