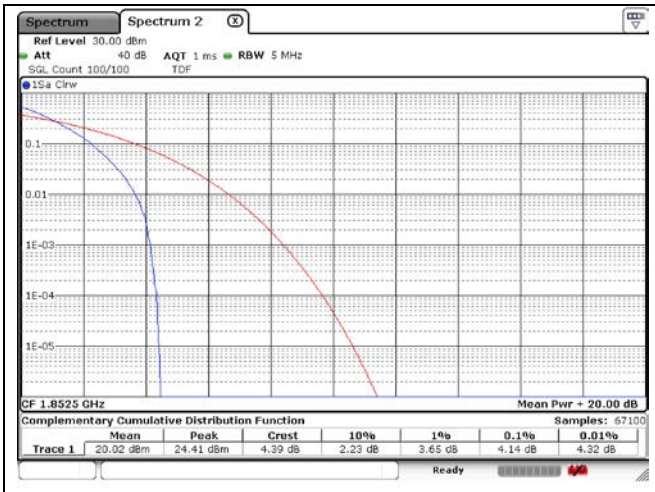
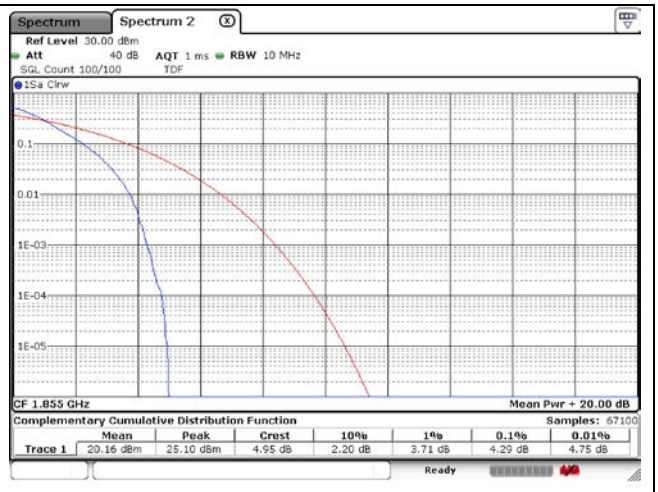
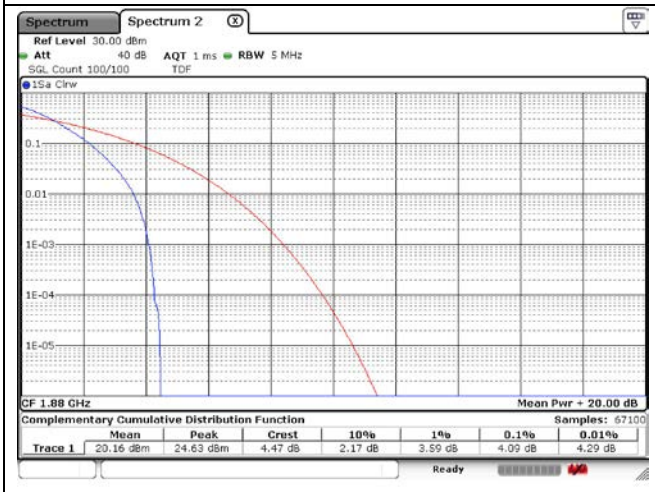
LTE band 2



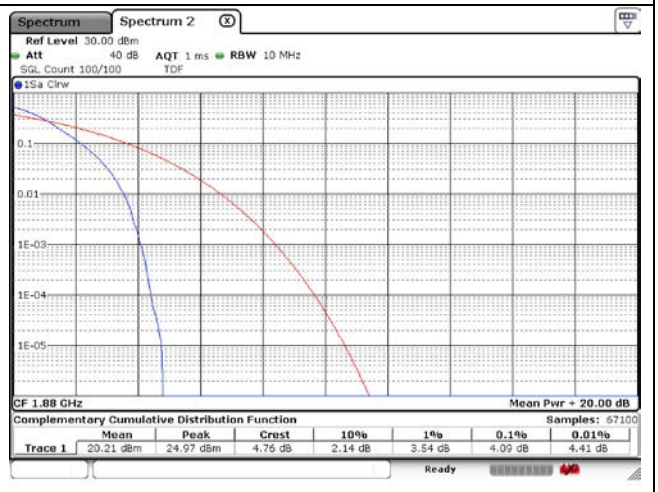
5 ㎒ QPSK Low Channel - Full RB



10 ㎒ QPSK Low Channel - Full RB

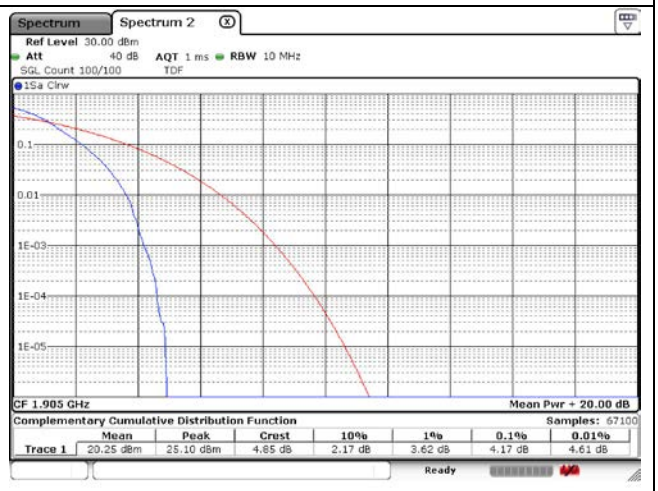


5 ㎒ QPSK Middle Channel - Full RB



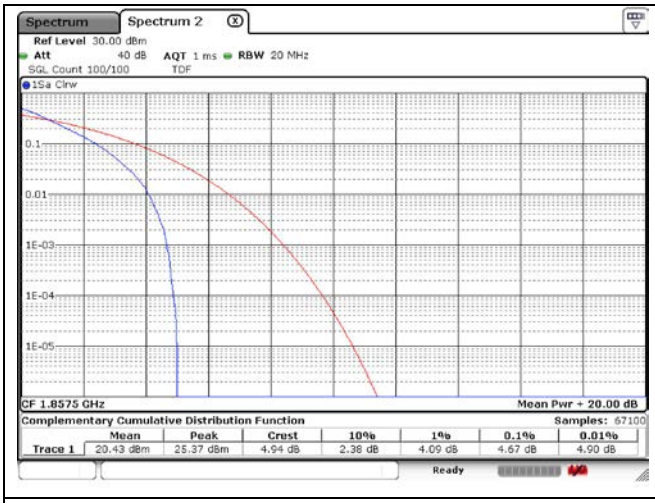
10 ㎒ QPSK Middle Channel - Full RB

5 ㎒ QPSK High Channel - Full RB

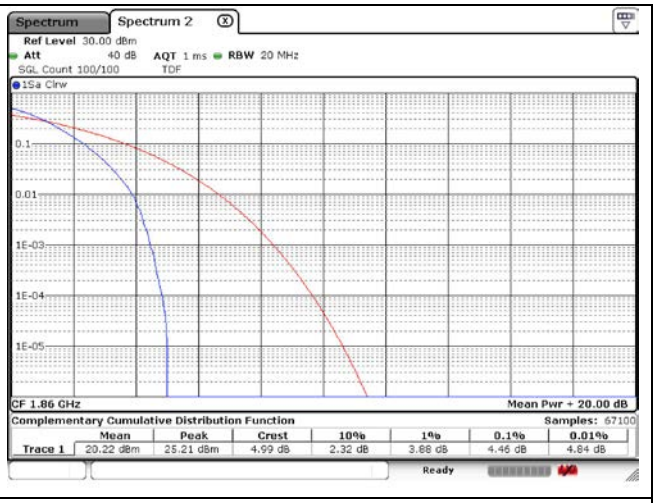


10 ㎒ QPSK High Channel - Full RB

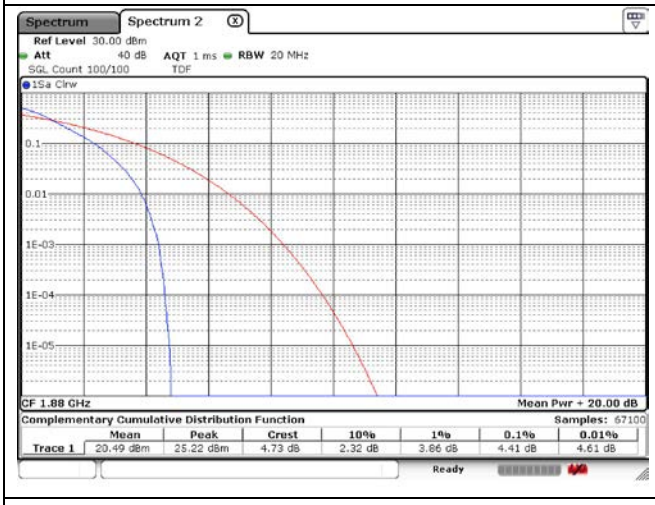
LTE band 2



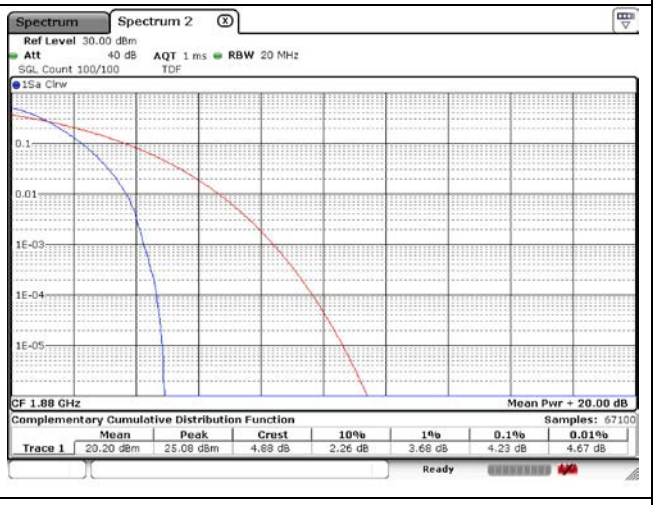
15 ㎒ QPSK Low Channel - Full RB



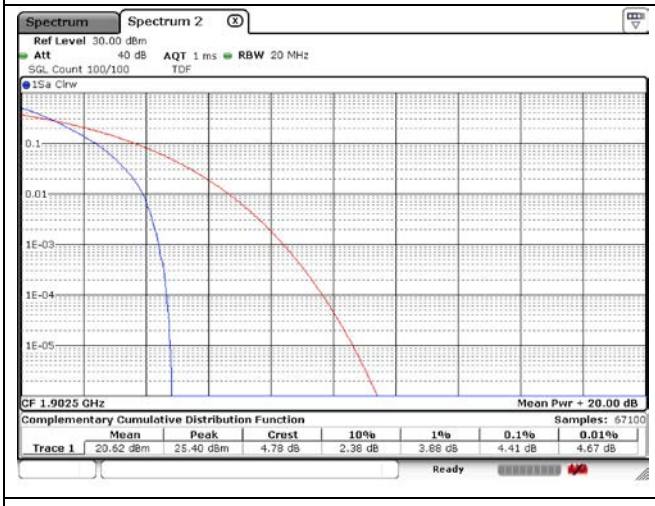
20 ㎒ QPSK Low Channel - Full RB



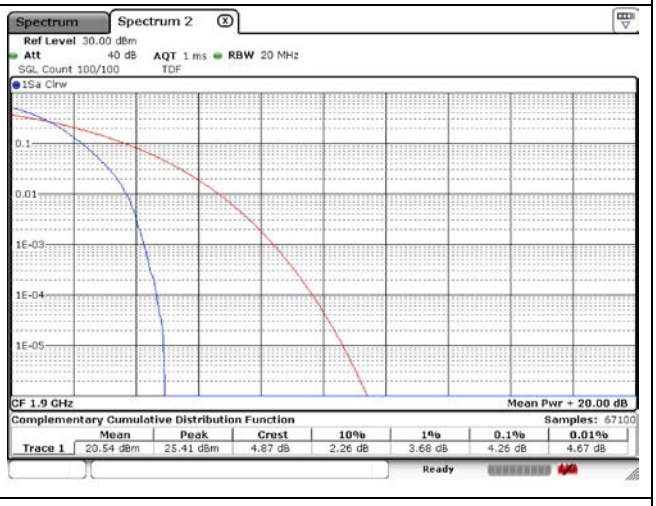
15 ㎒ QPSK Middle Channel - Full RB



20 ㎒ QPSK Middle Channel - Full RB

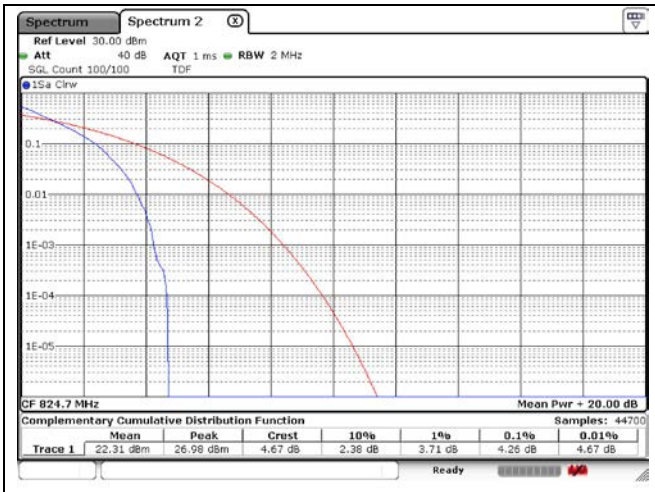


15 ㎒ QPSK High Channel - Full RB

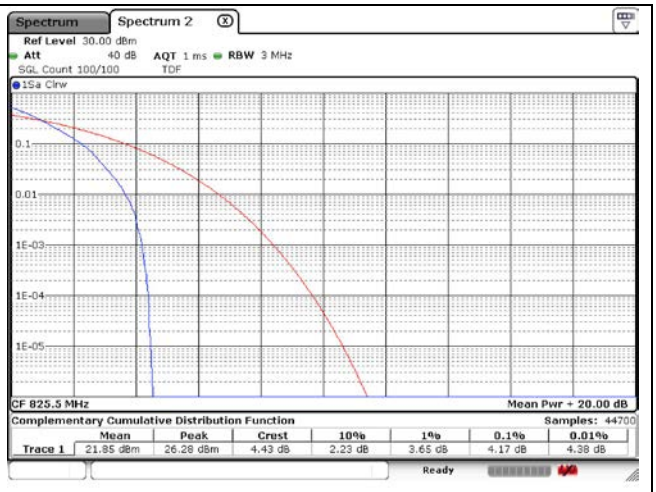


20 ㎒ QPSK High Channel - Full RB

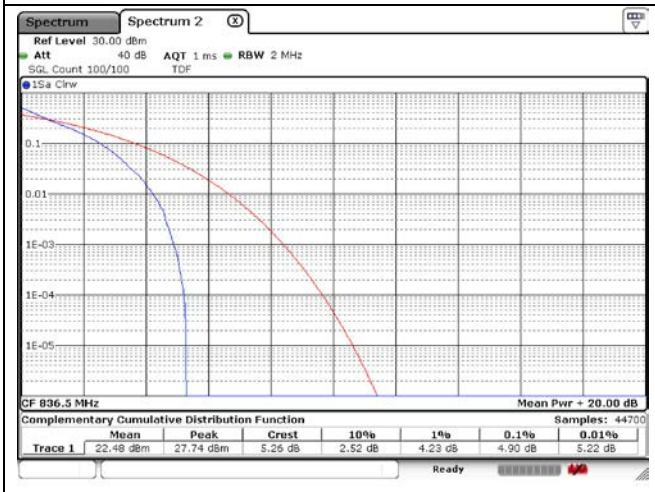
LTE band 5



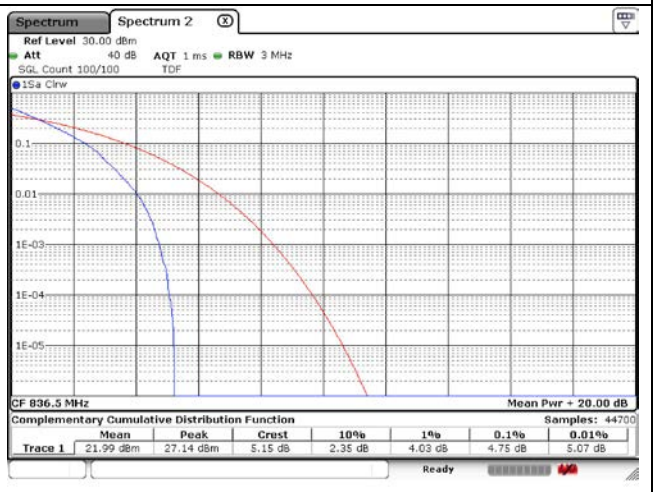
1.4 ㎒ QPSK Low Channel - Full RB



3 ㎒ QPSK Low Channel - Full RB

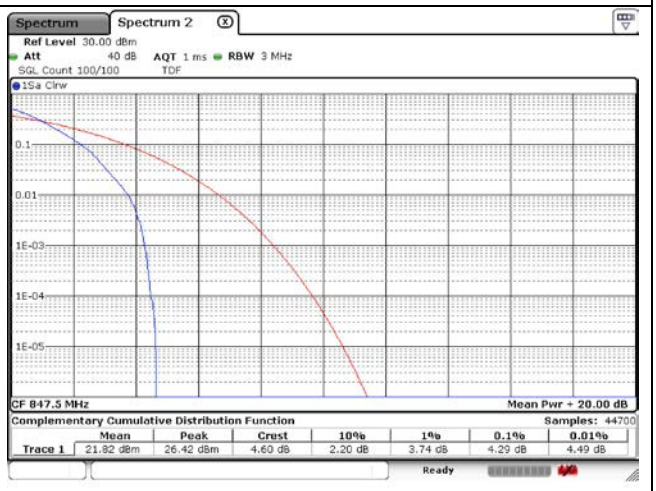


1.4 ㎒ QPSK Middle Channel - Full RB



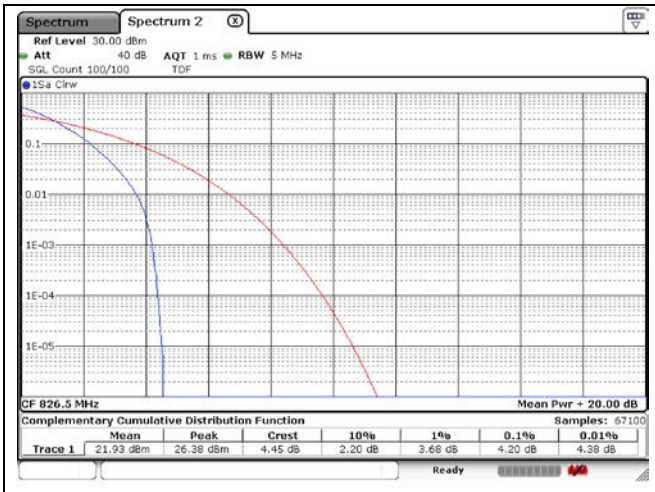
3 ㎒ QPSK Middle Channel - Full RB

1.4 ㎒ QPSK High Channel - Full RB

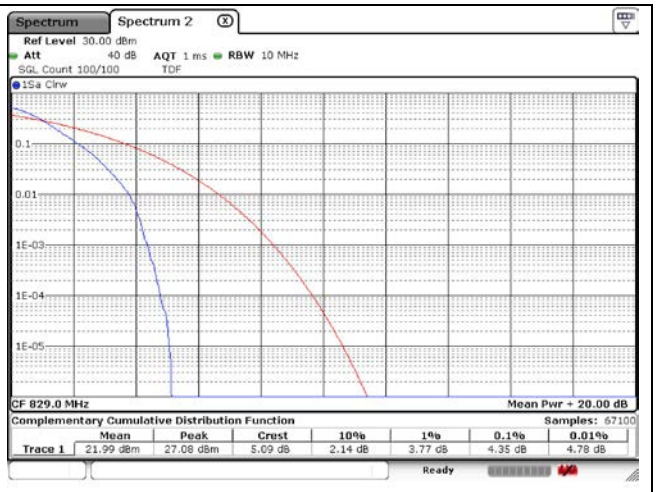


3 ㎒ QPSK High Channel - Full RB

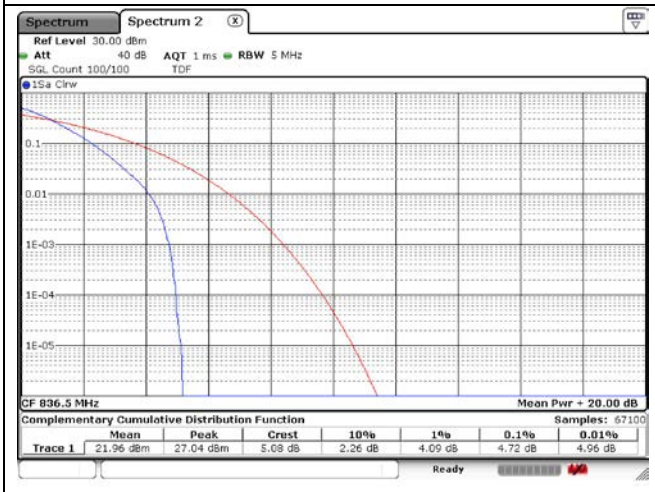
LTE band 5



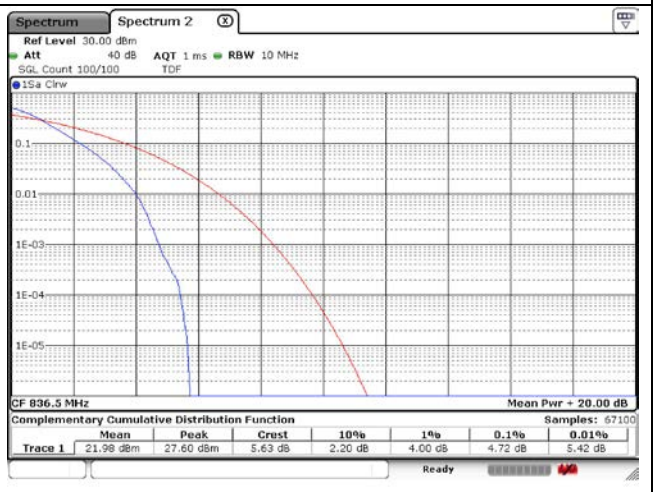
5 ㎒ QPSK Low Channel - Full RB



10 ㎒ QPSK Low Channel - Full RB

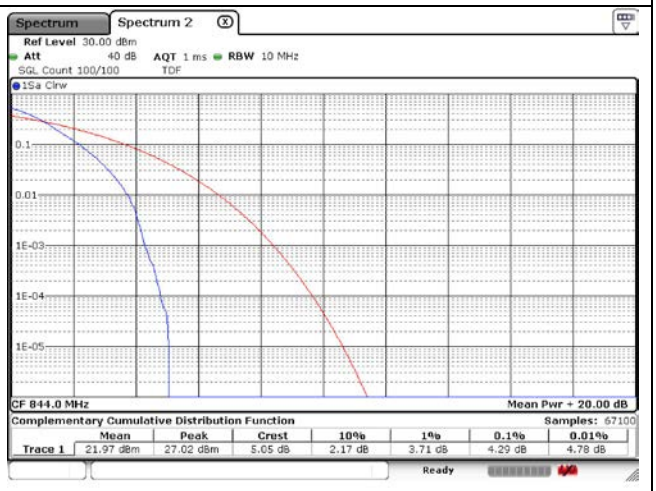


5 ㎒ QPSK Middle Channel - Full RB



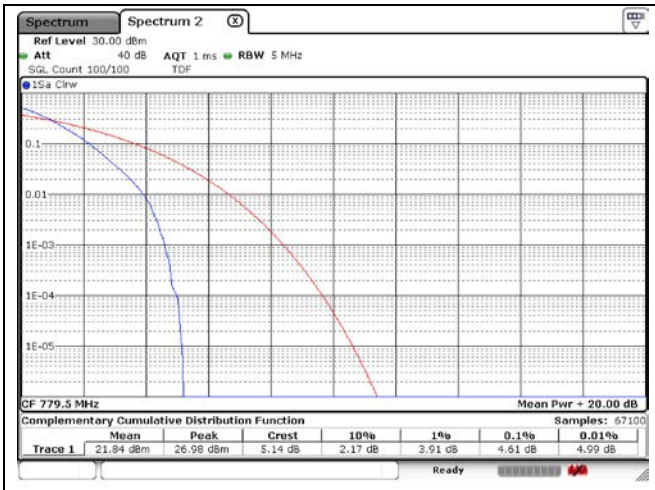
10 ㎒ QPSK Middle Channel - Full RB

5 ㎒ QPSK High Channel - Full RB

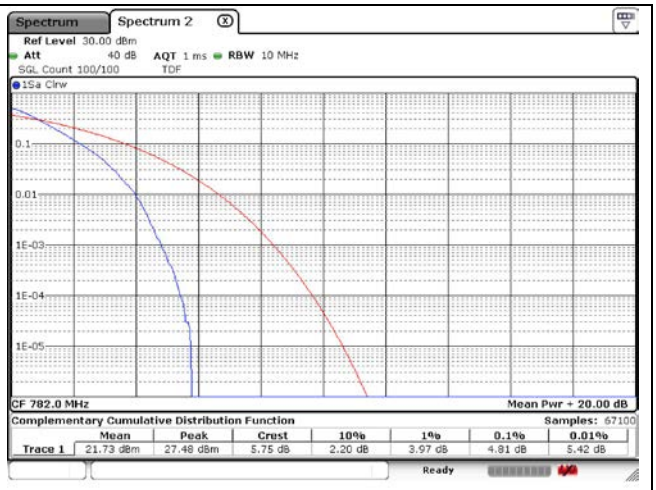


10 ㎒ QPSK High Channel - Full RB

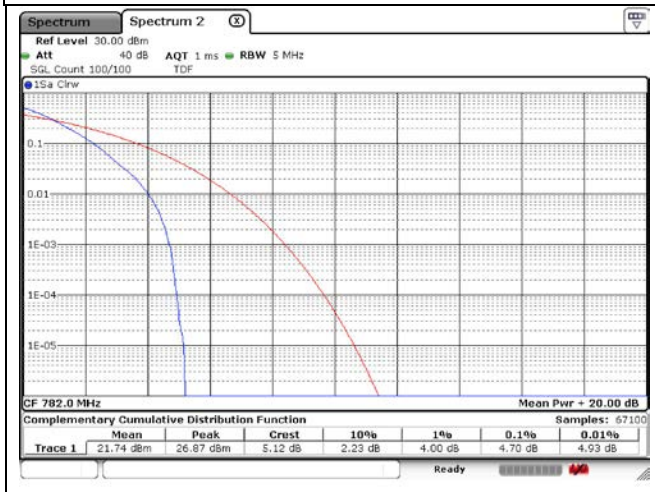
LTE band 13



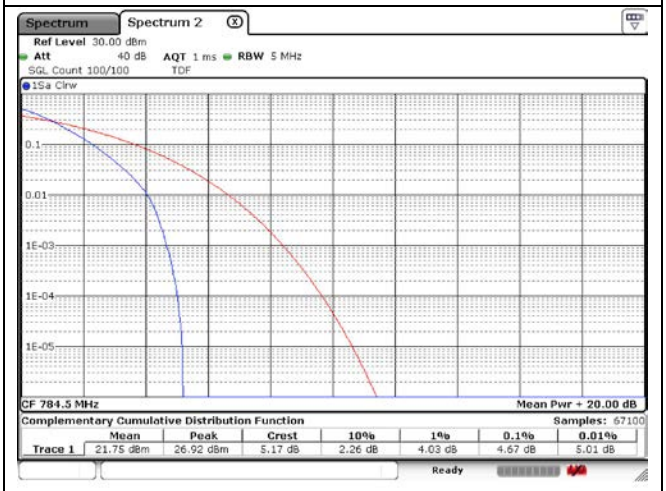
5 ㎒ QPSK Low Channel - Full RB



10 ㎒ QPSK Middle Channel - Full RB

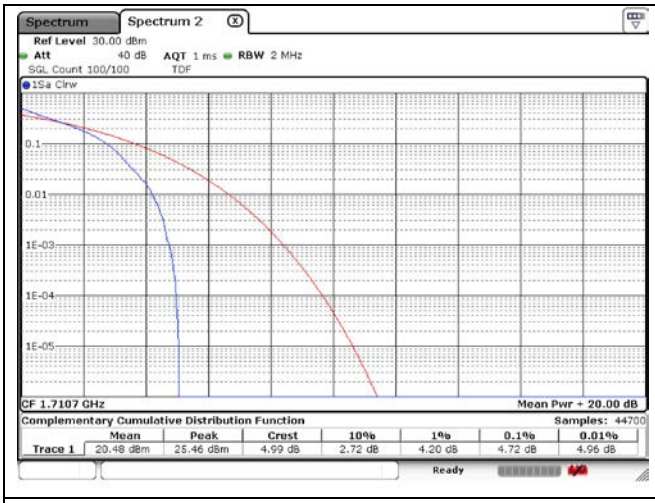


5 ㎒ QPSK Middle Channel - Full RB

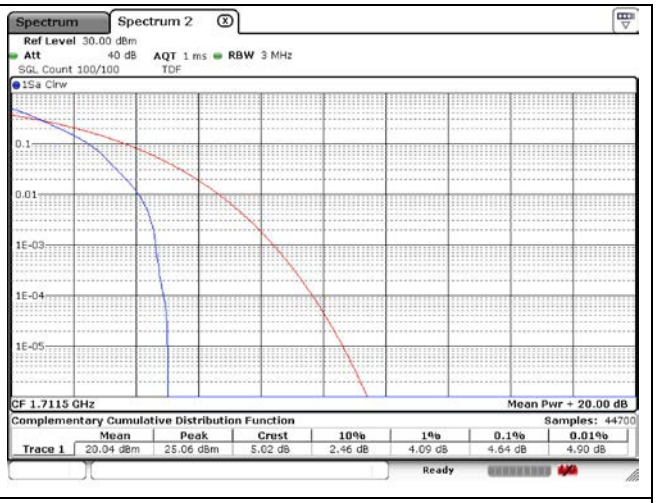


5 ㎒ QPSK High Channel - Full RB

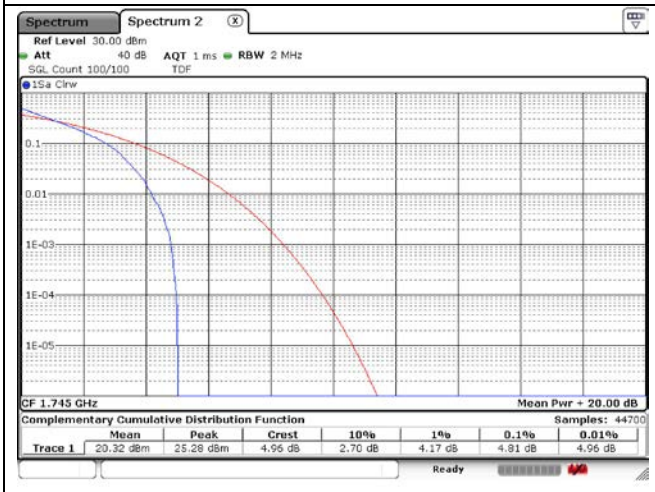
LTE band 66/4



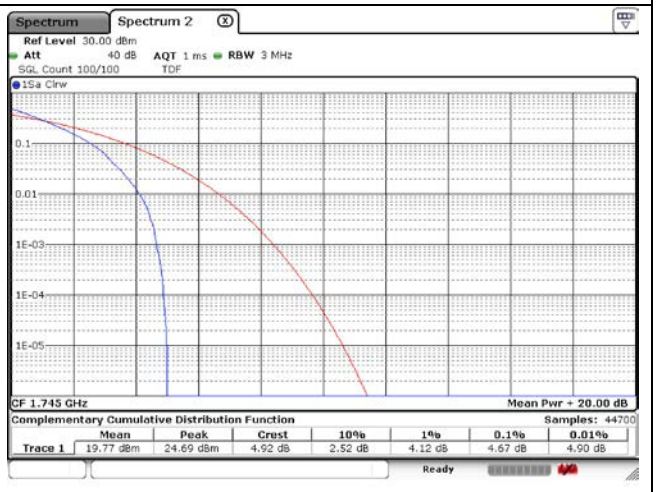
1.4 ㎒ QPSK Low Channel - Full RB



3 ㎒ QPSK Low Channel - Full RB

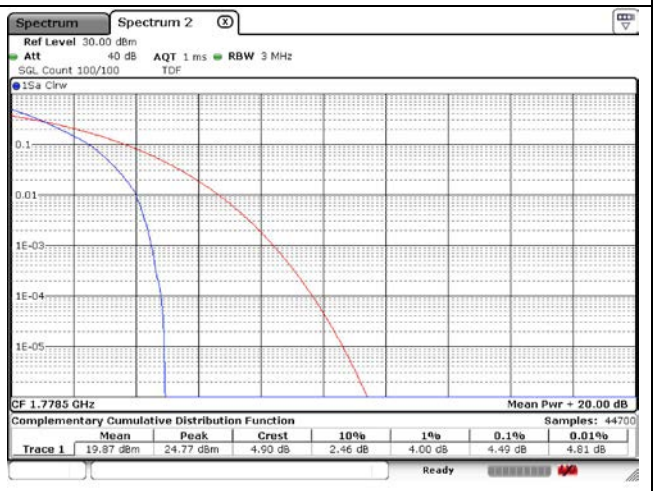


1.4 ㎒ QPSK Middle Channel - Full RB



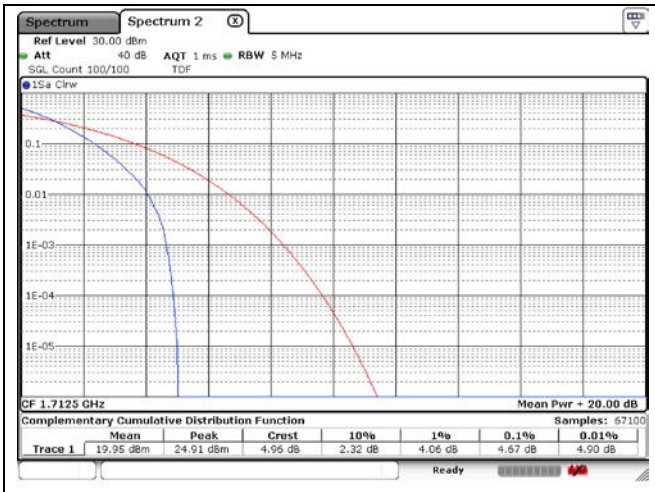
3 ㎒ QPSK Middle Channel - Full RB

1.4 ㎒ QPSK High Channel - Full RB

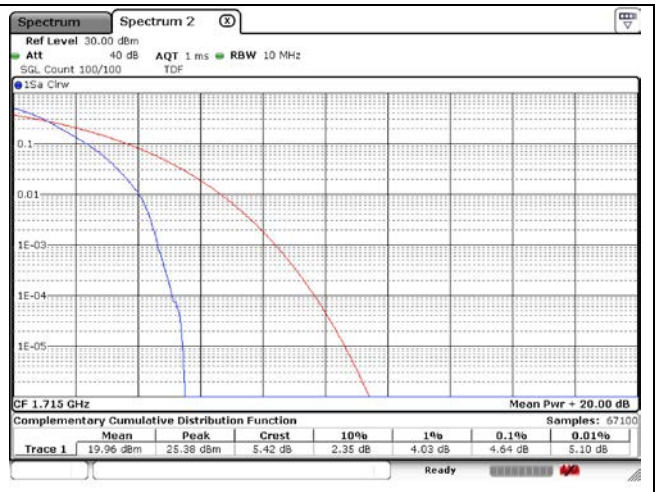


3 ㎒ QPSK High Channel - Full RB

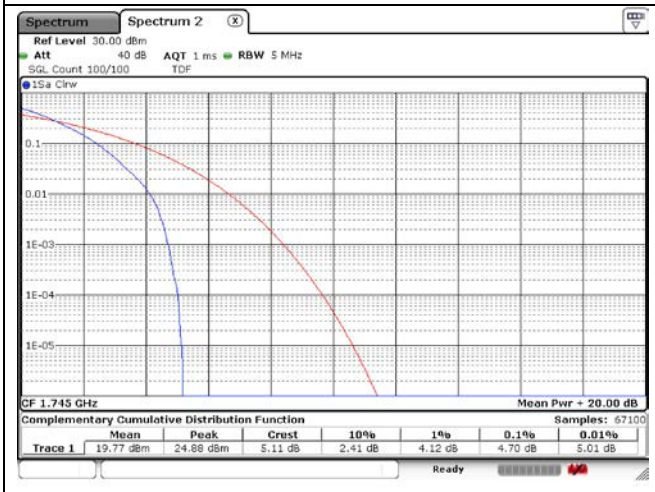
LTE band 66/4



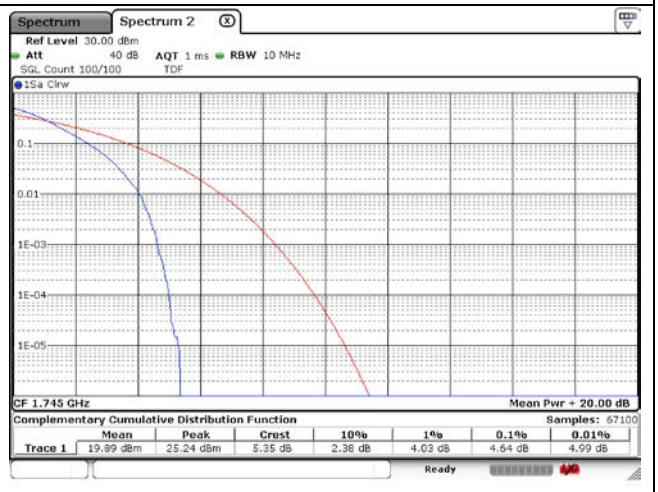
5 ㎒ QPSK Low Channel - Full RB



10 ㎒ QPSK Low Channel - Full RB

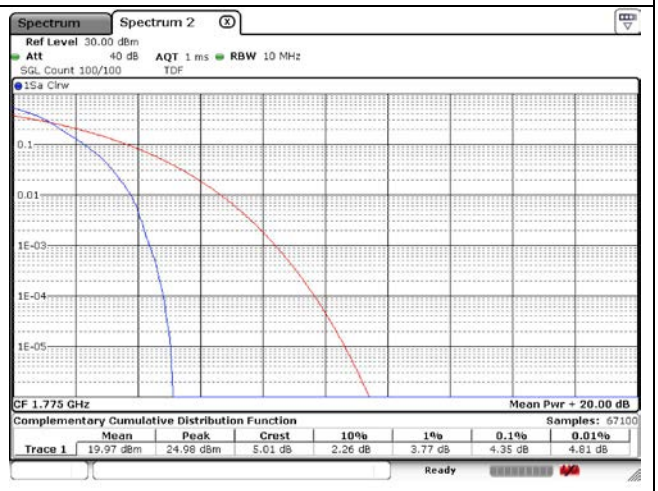


5 ㎒ QPSK Middle Channel - Full RB



10 ㎒ QPSK Middle Channel - Full RB

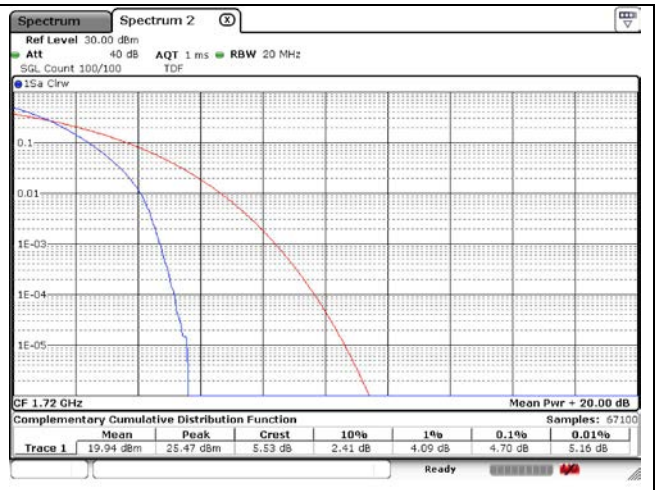
5 ㎒ QPSK High Channel - Full RB



10 ㎒ QPSK High Channel - Full RB

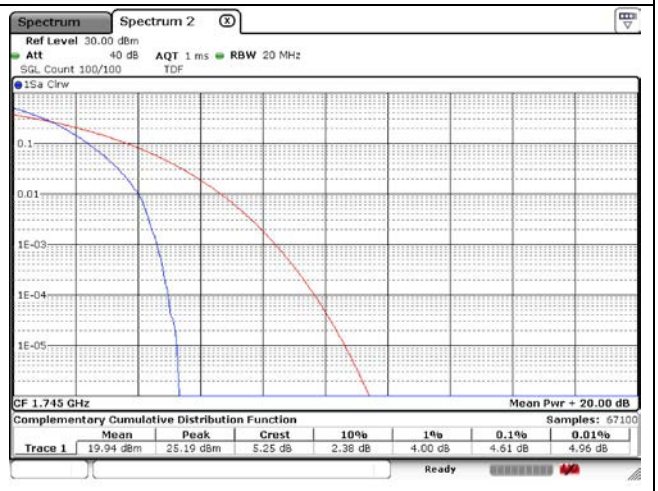
LTE band 66/4

15 ㎒ QPSK Low Channel - Full RB



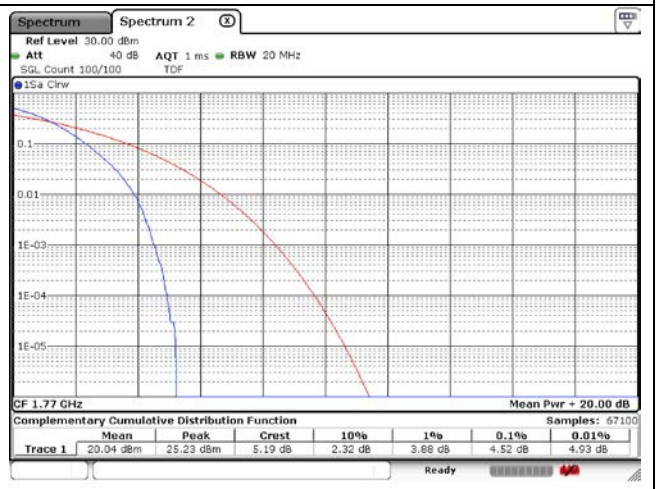
20 ㎒ QPSK Low Channel - Full RB

15 ㎒ QPSK Middle Channel - Full RB



20 ㎒ QPSK Middle Channel - Full RB

15 ㎒ QPSK High Channel - Full RB



20 ㎒ QPSK High Channel - Full RB

5. Spurious Emissions at Antenna Terminal

5.1. Limit

- §22.917(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10log(P) ㏈.

- §24.238(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) ㏈.

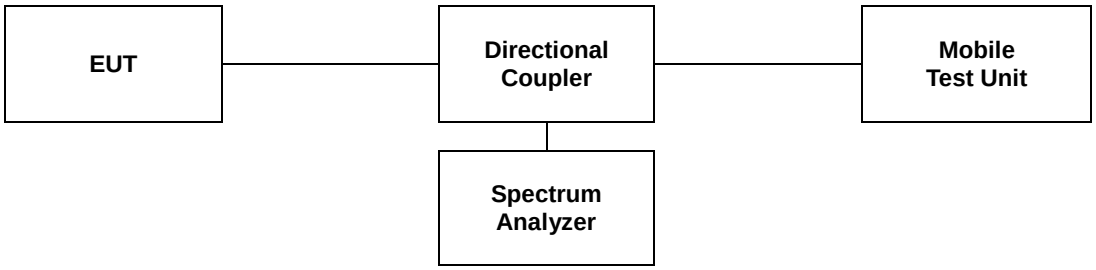
- §27.53(c)(2), on any frequency outside the 776-788 ㎒ band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) ㏈.

- §27.53(h)(1), for operations in the 1 695-1 710 ㎒, 1 710-1 755 ㎒, 1 755-1 780 ㎒, 1 915-1 920 ㎒, 1 995-2 000 ㎒, 2 000-2 020 ㎒, 2 110-2 155 ㎒, 2 155-2 180 ㎒, and 2 180-2 200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$ (P) ㏈.

5.2. Test Procedure

The test follows section 5.7 of ANSI C63.26-2015.

1. Start frequency was set to 9 ㎑ and stop frequency was set to at least 10* the fundamental frequency.
2. Detector = Peak.
3. Trace mode = Max hold.
4. Sweep time = Auto couple.
5. The trace was allowed to stabilize.
6. Please see notes below for RBW and VBW settings.
7. For plots showing conducted spurious emissions from 9 ㎑ to 20 ㎓, all path loss of wide frequency range was investigated and compensated to spectrum analyzer as TDF function.



Note;

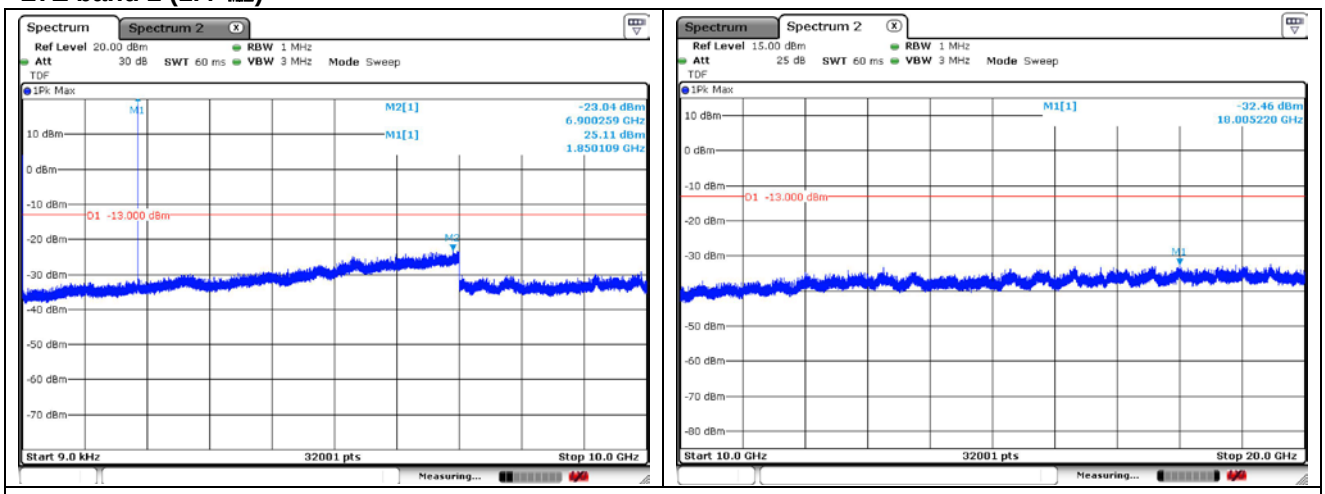
Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 ㎑ or greater for frequencies less than 1 ㎓ and frequencies greater than 1 ㎓. However, in the 1 ㎒ bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two point, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 ㏈ below the transmitter power.

5.3. Test Results

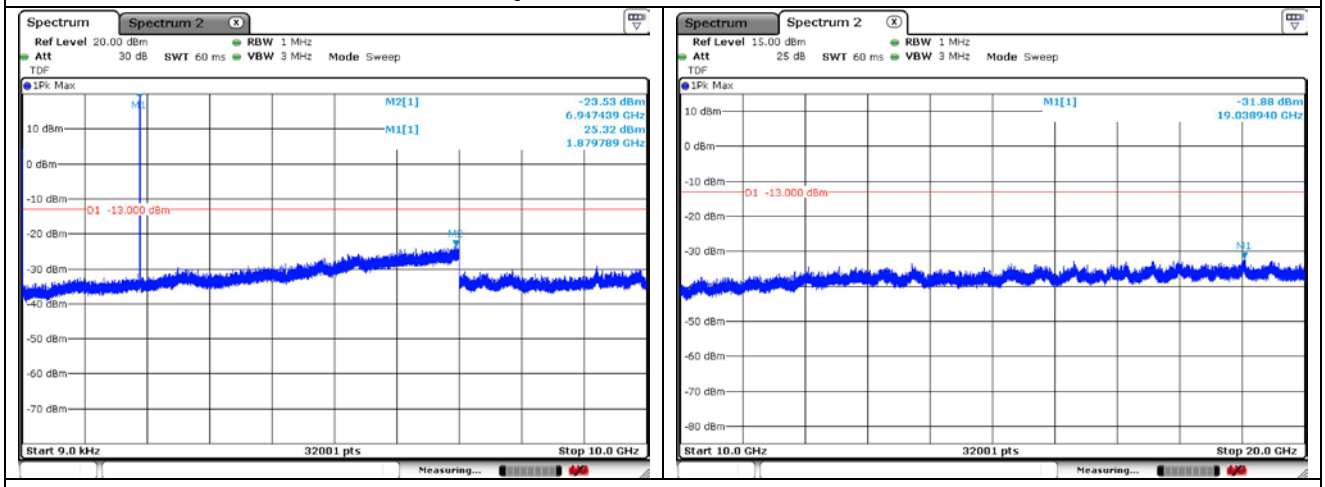
Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

- Test plots

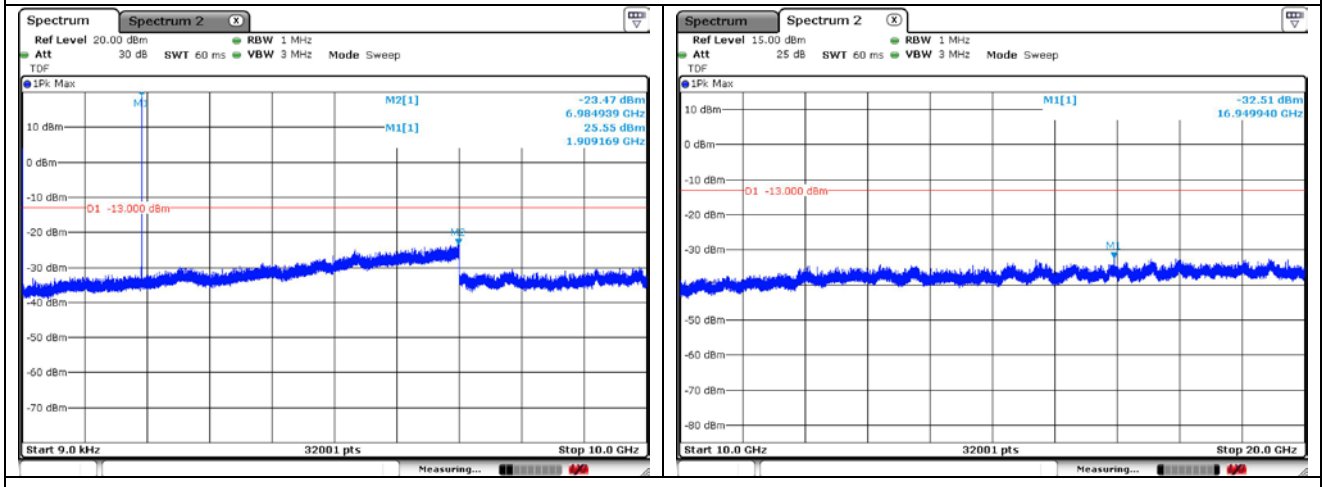
LTE band 2 (1.4 ㎒)



QPSK Low Channel - 1 RB

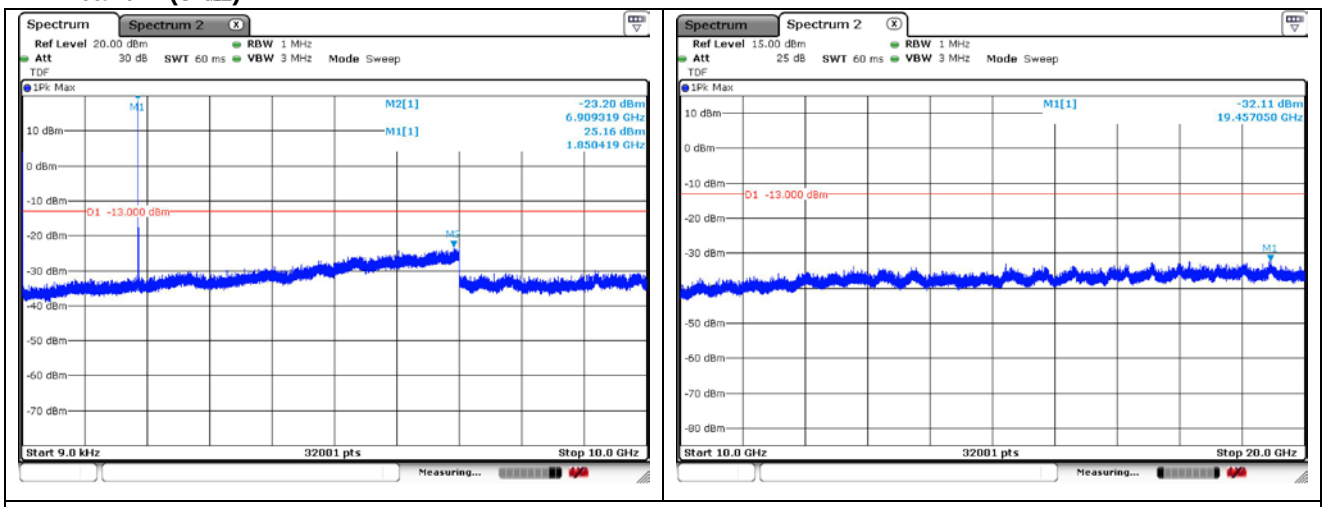


QPSK Middle Channel - 1 RB

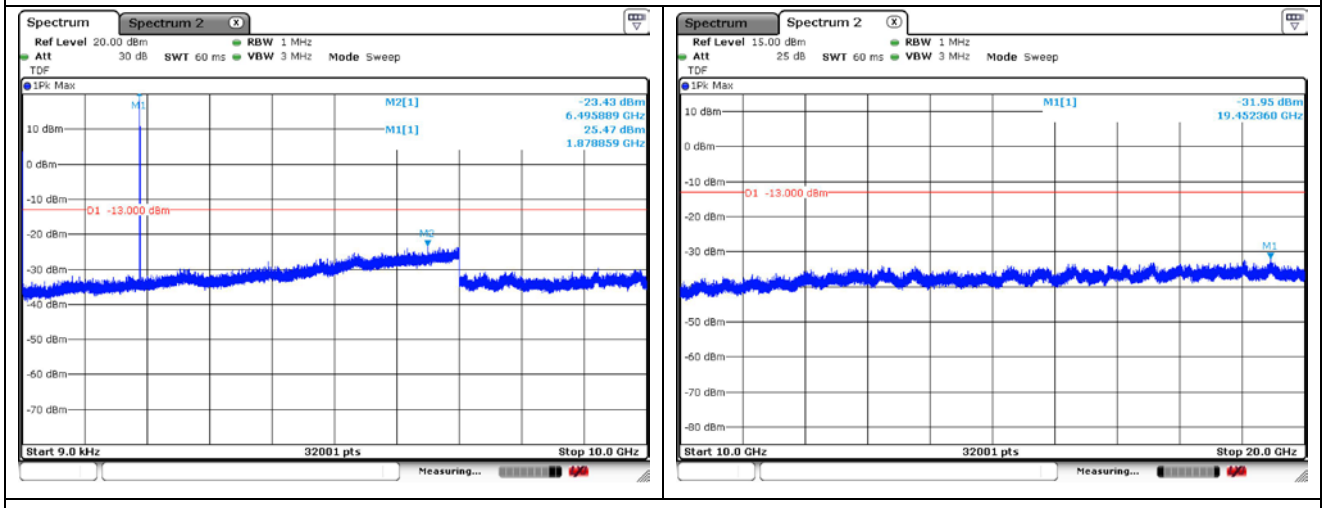


QPSK High Channel - 1 RB

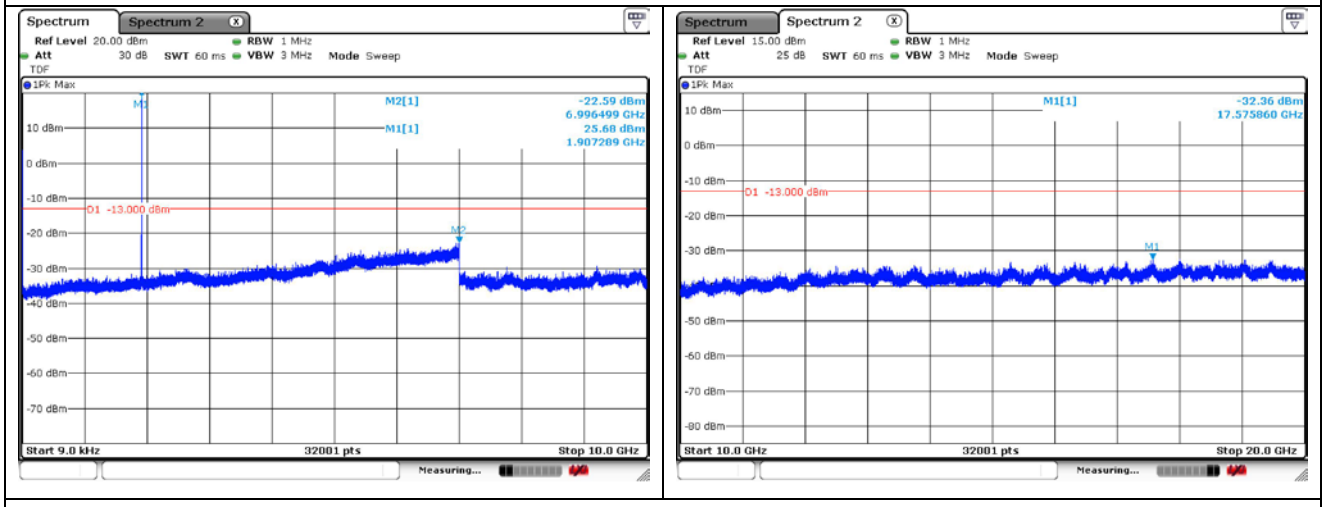
LTE band 2 (3 ㎒)



QPSK Low Channel - 1 RB

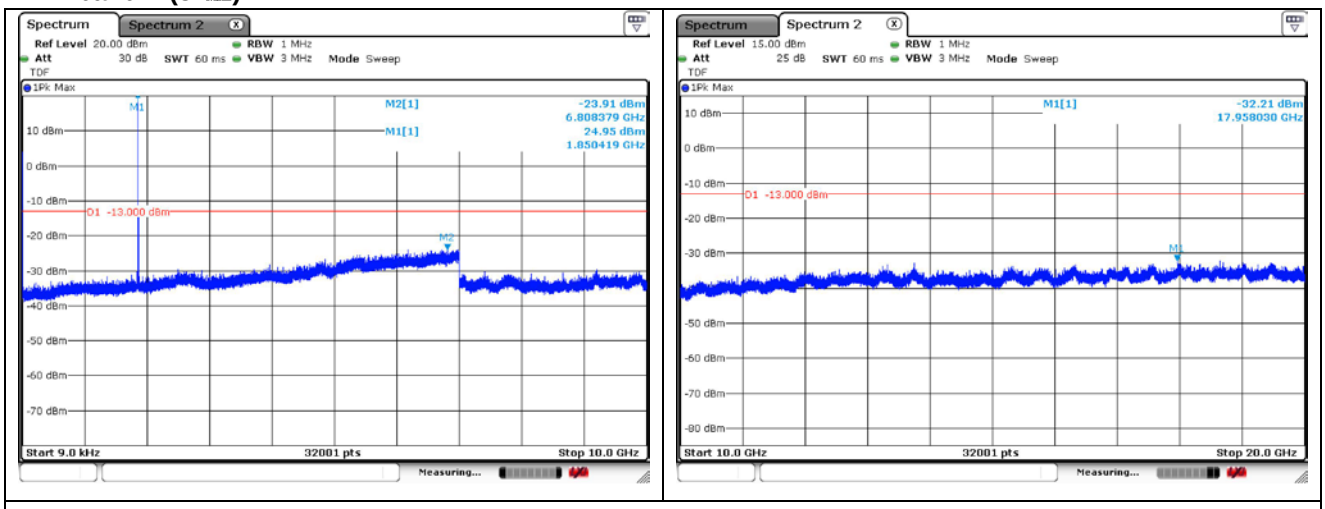


QPSK Middle Channel - 1 RB

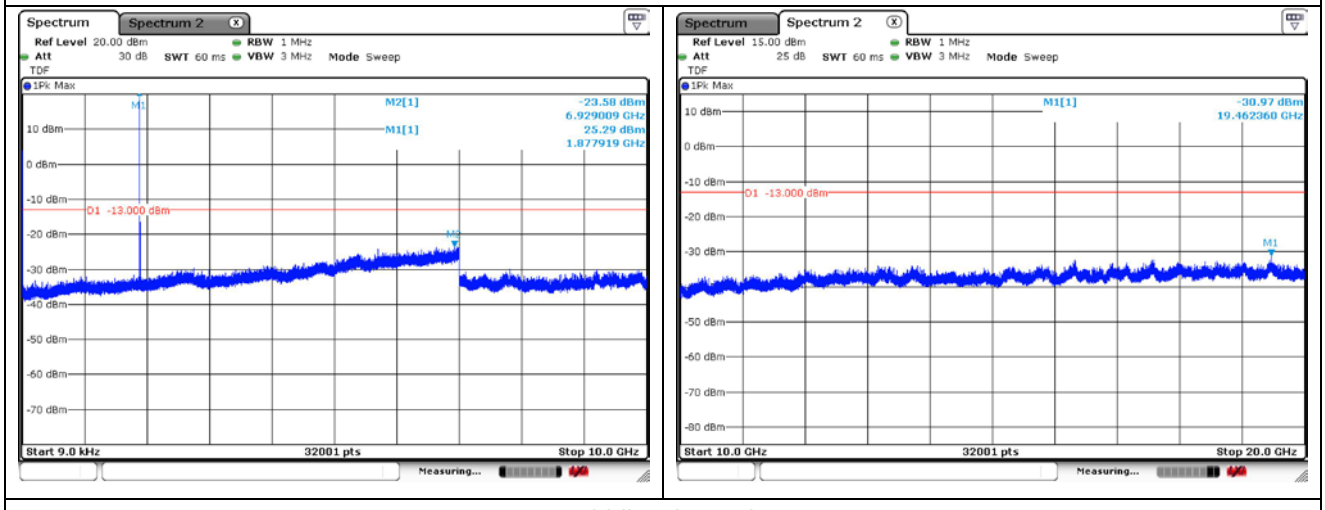


QPSK High Channel - 1 RB

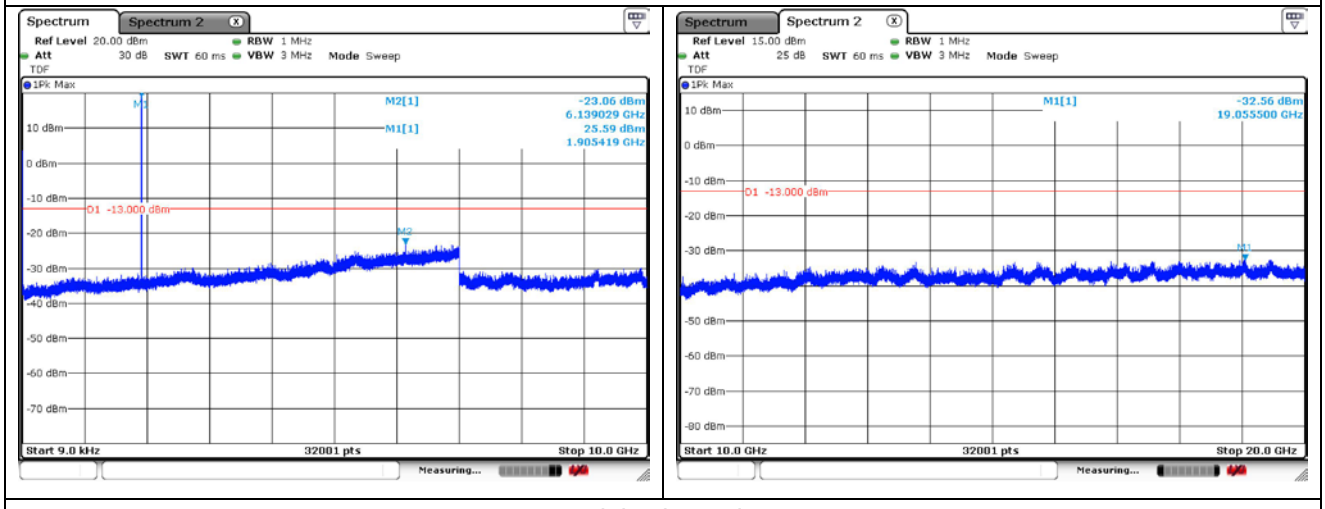
LTE band 2 (5 ㎒)



QPSK Low Channel - 1 RB

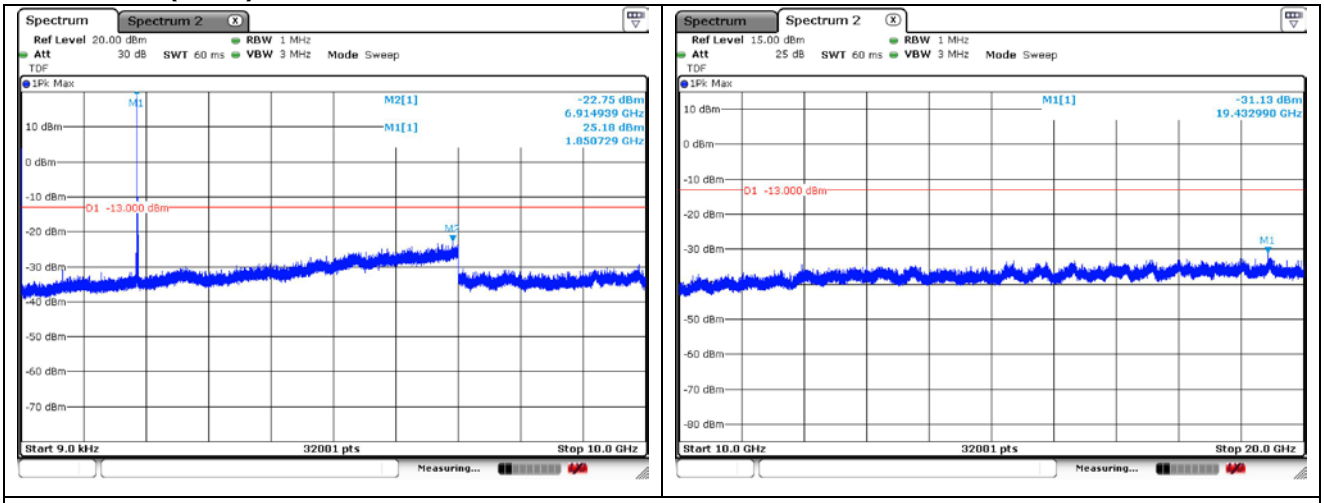


QPSK Middle Channel - 1 RB

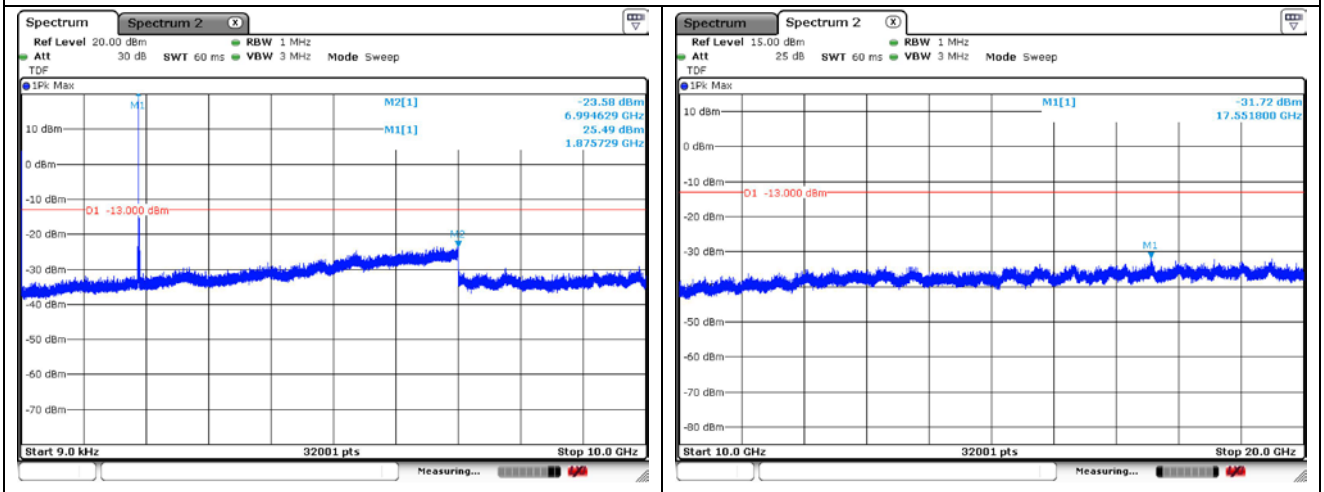


QPSK High Channel - 1 RB

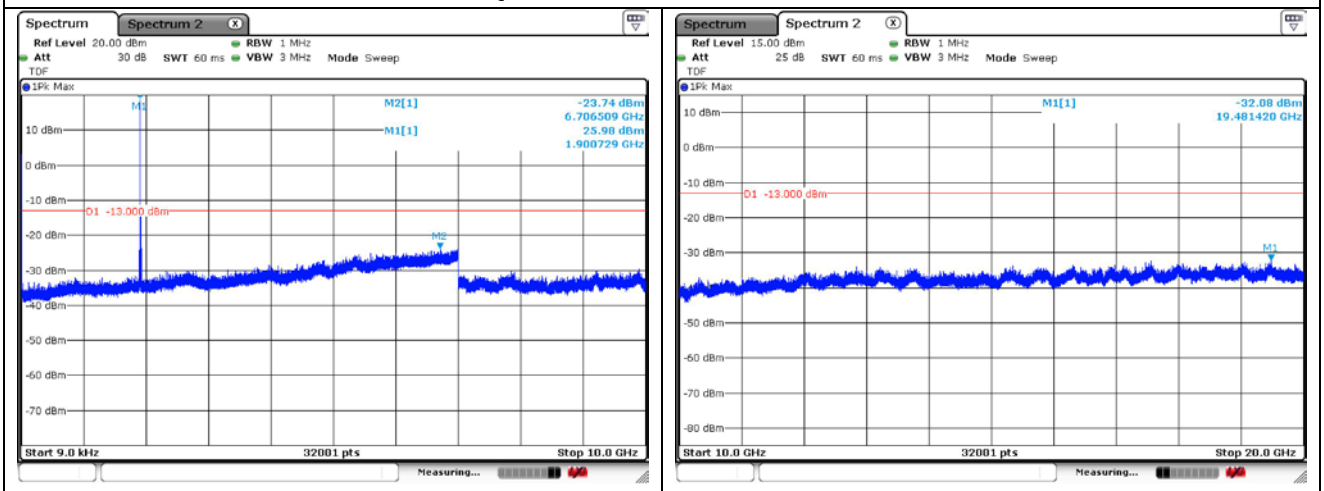
LTE band 2 (10 ㎒)



QPSK Low Channel - 1 RB

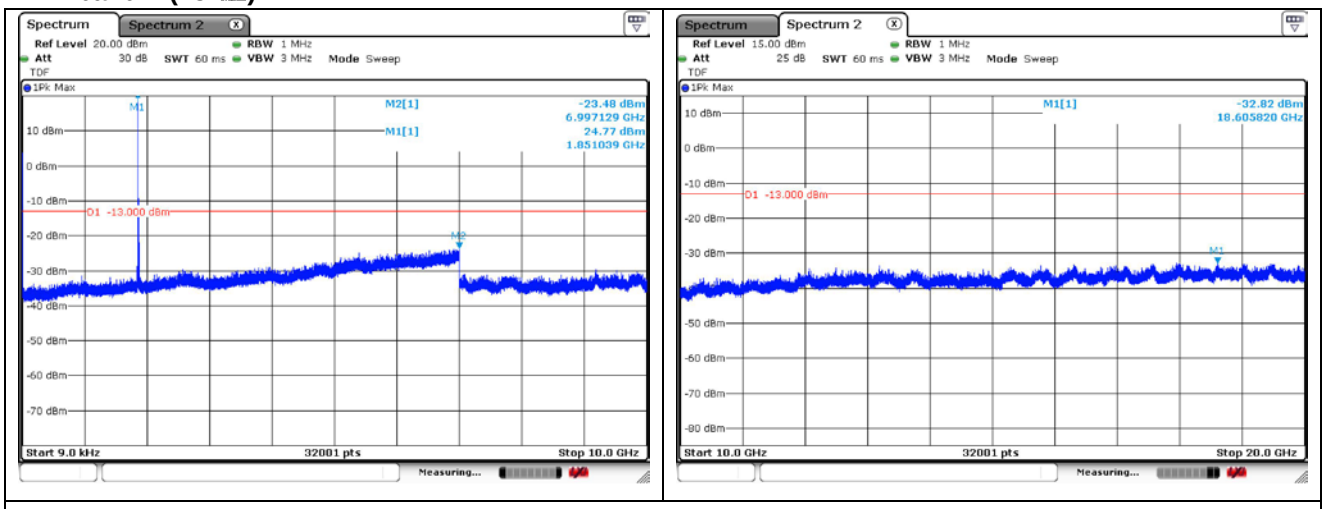


QPSK Middle Channel - 1 RB

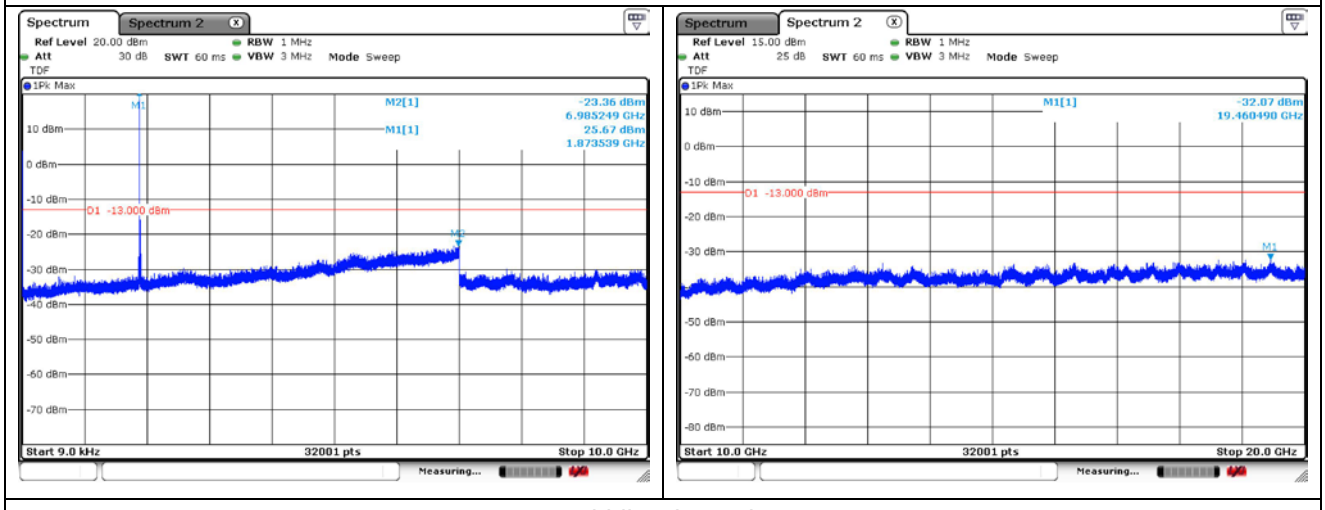


QPSK High Channel - 1 RB

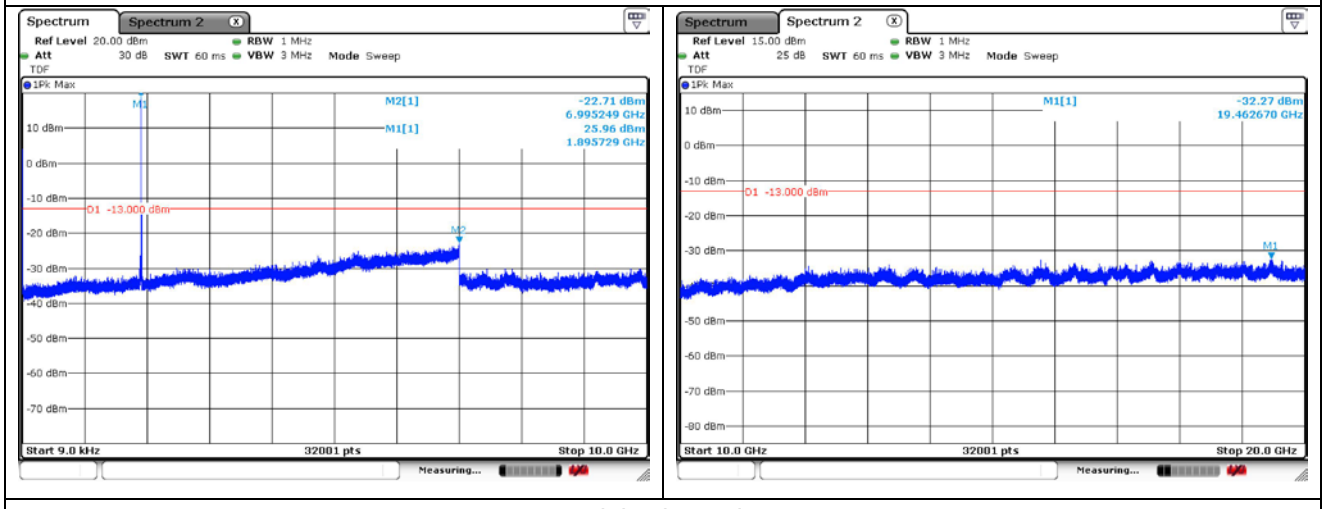
LTE band 2 (15 ㎒)



QPSK Low Channel - 1 RB

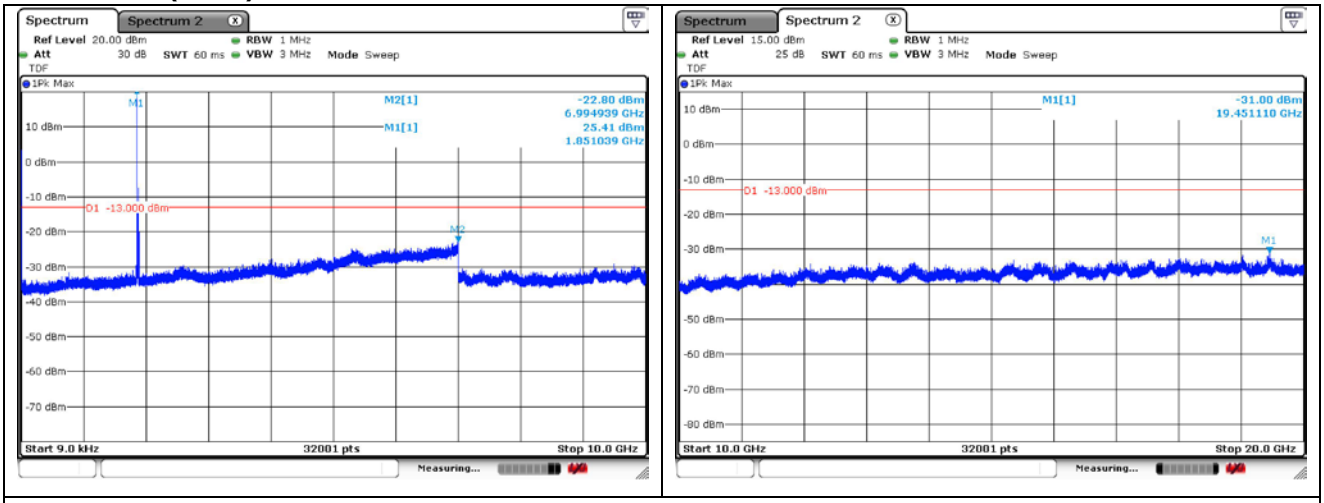


QPSK Middle Channel - 1 RB

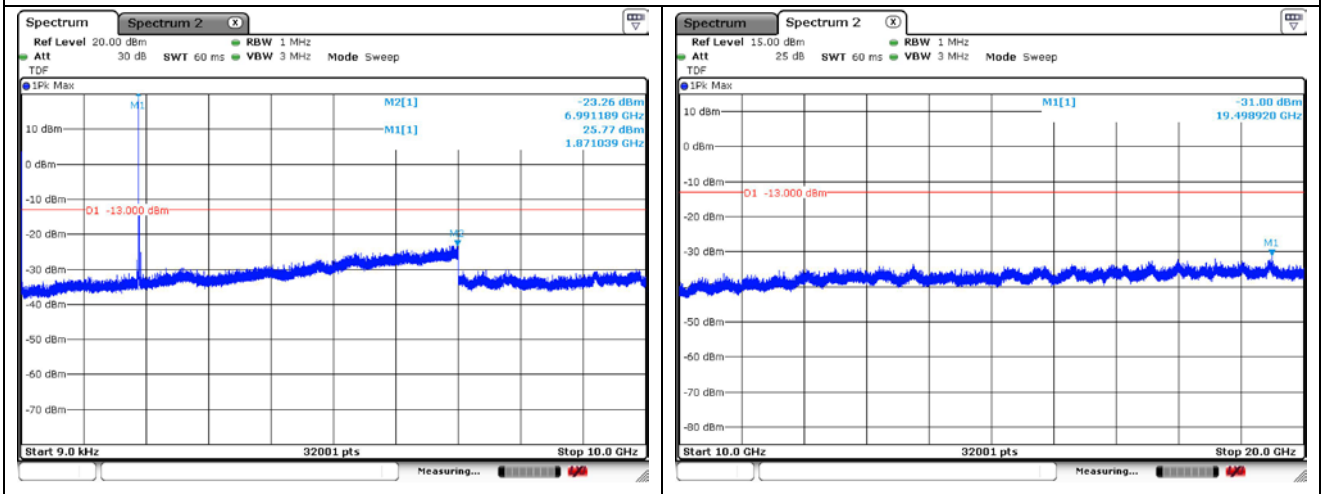


QPSK High Channel - 1 RB

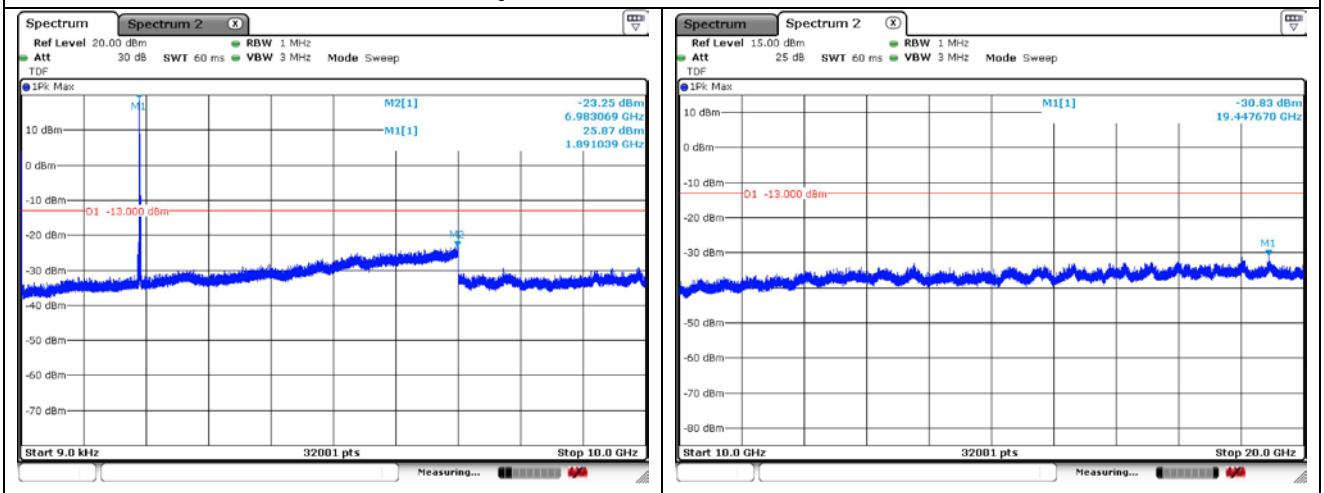
LTE band 2 (20 ㎒)



QPSK Low Channel - 1 RB

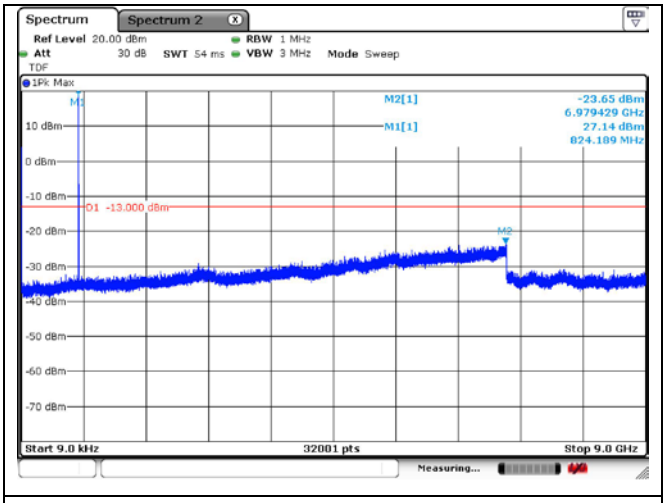


QPSK Middle Channel - 1 RB

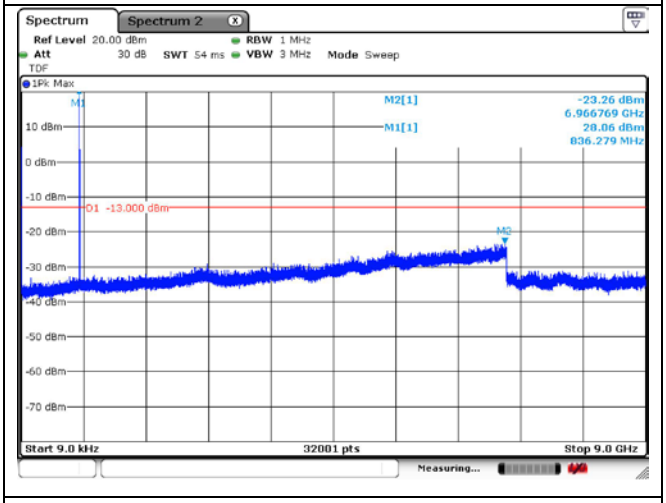


QPSK High Channel - 1 RB

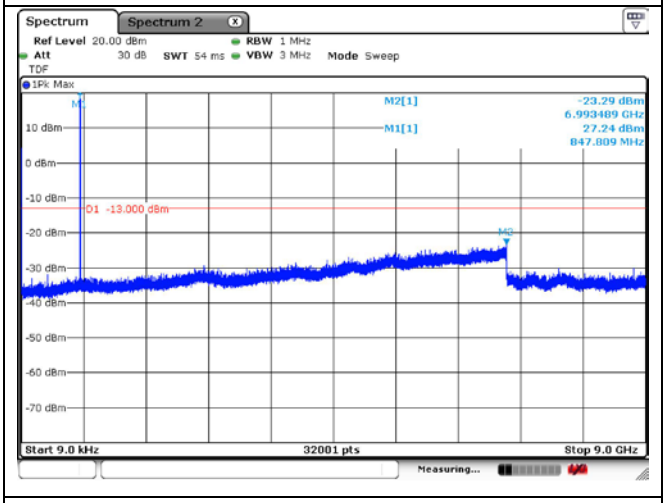
LTE band 5 (1.4 ㎒)



QPSK Low Channel - 1 RB

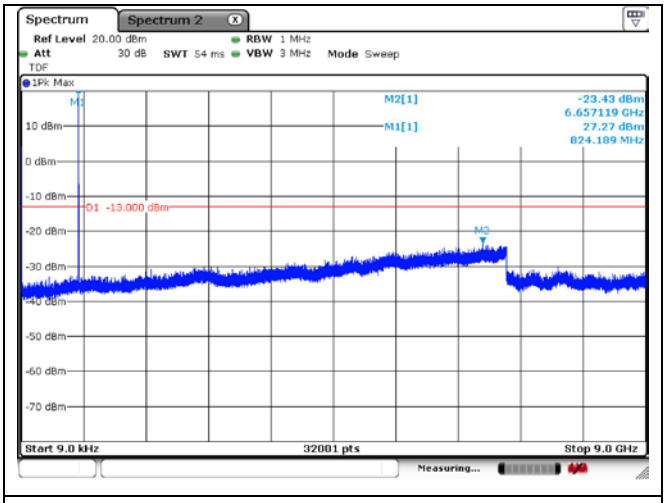


QPSK Middle Channel - 1 RB

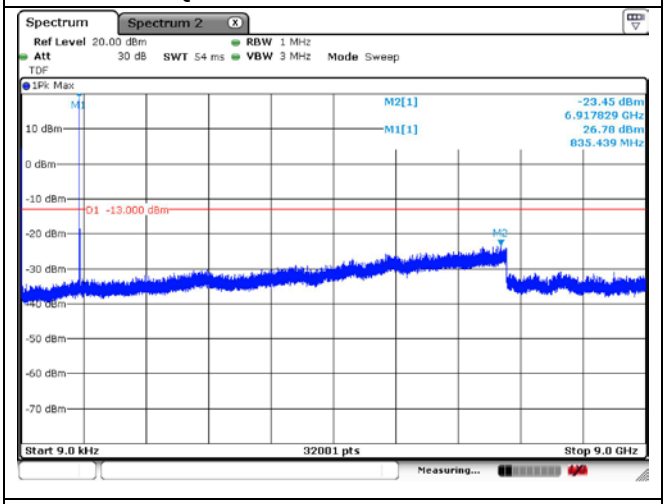


QPSK High Channel - 1 RB

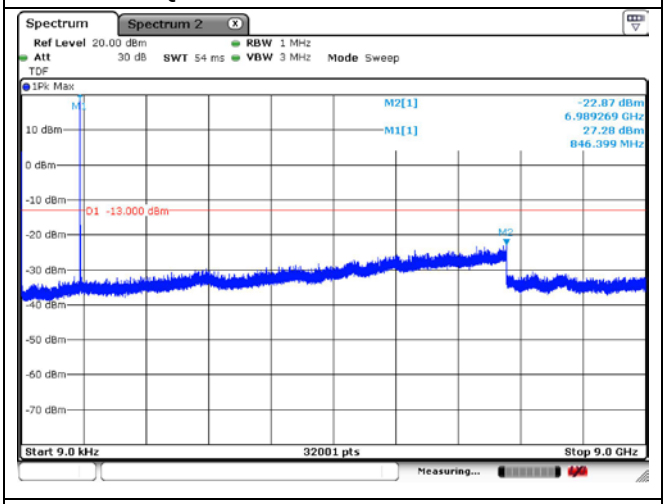
LTE band 5 (3 ㎒)



QPSK Low Channel - 1 RB

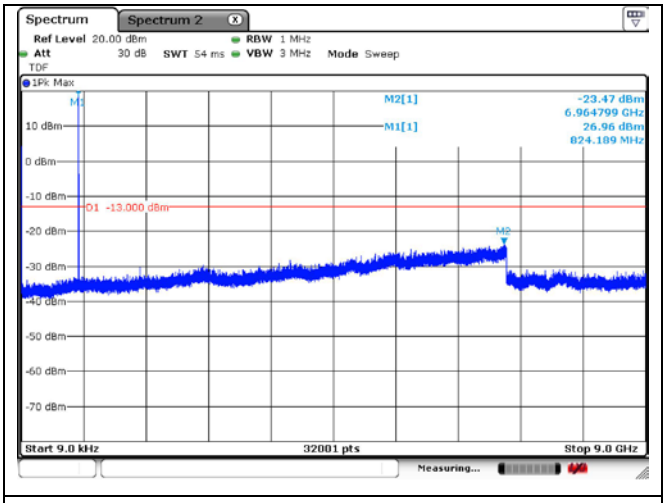


QPSK Middle Channel - 1 RB

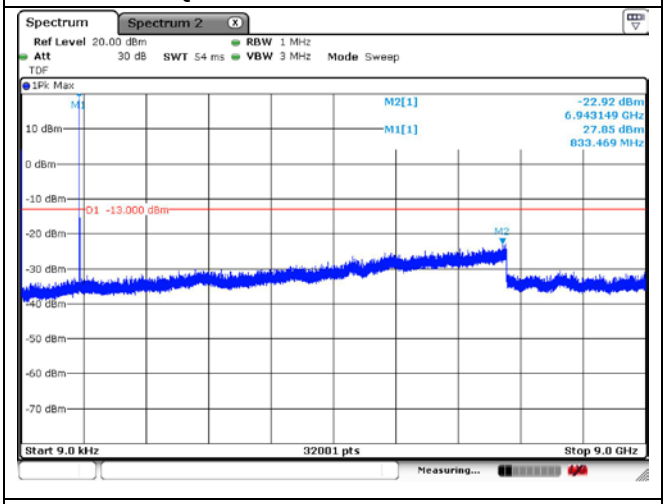


QPSK High Channel - 1 RB

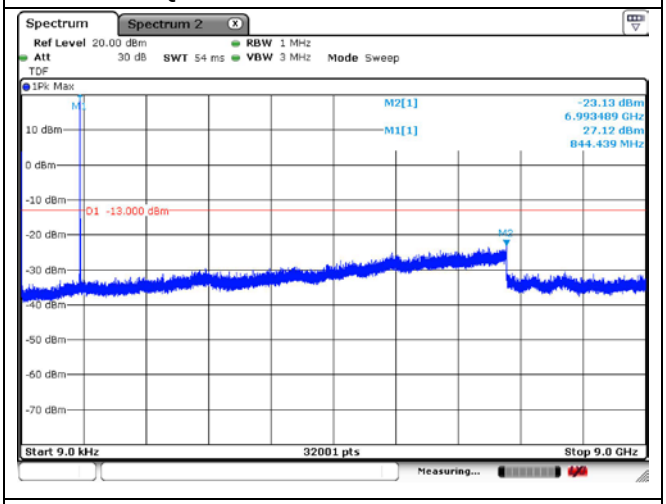
LTE band 5 (5 ㎒)



QPSK Low Channel - 1 RB

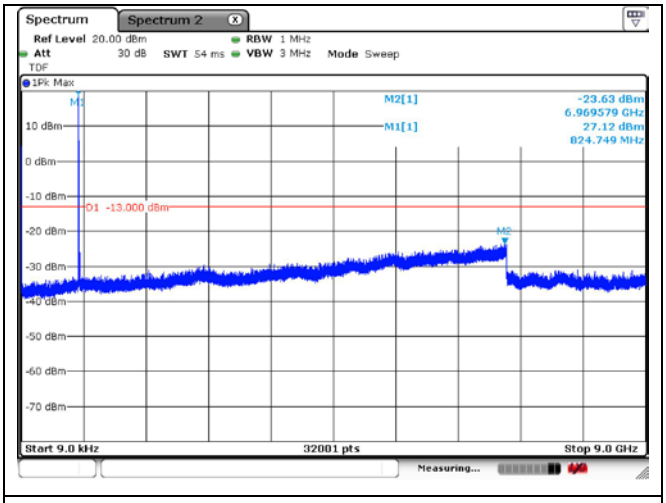


QPSK Middle Channel - 1 RB

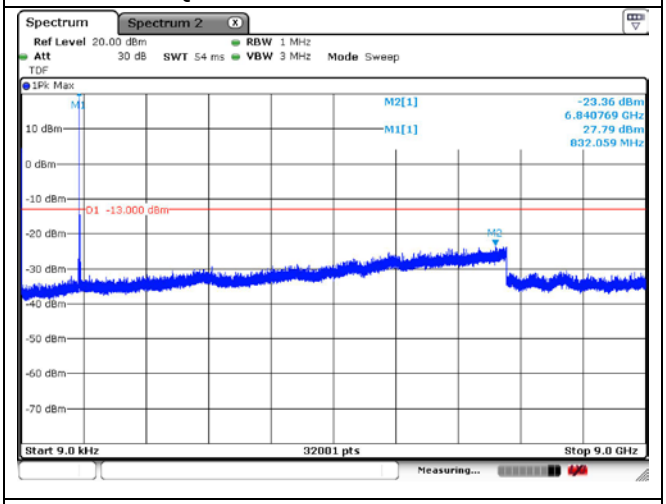


QPSK High Channel - 1 RB

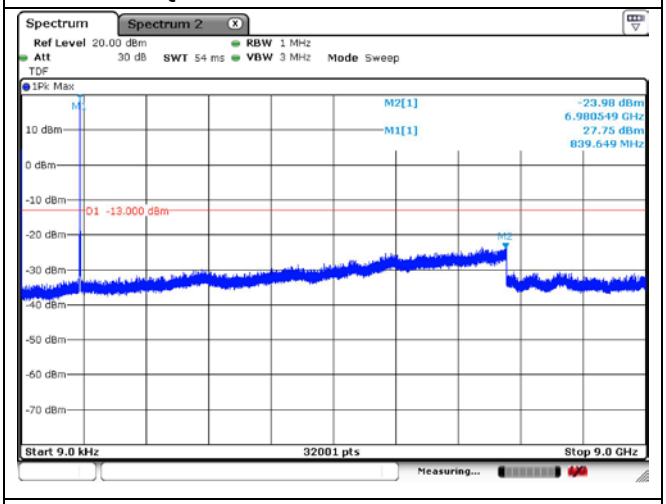
LTE band 5 (10 ㎒)



QPSK Low Channel - 1 RB

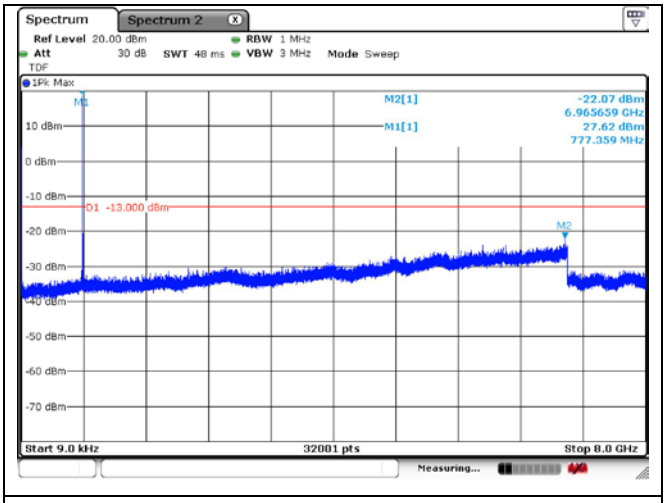


QPSK Middle Channel - 1 RB

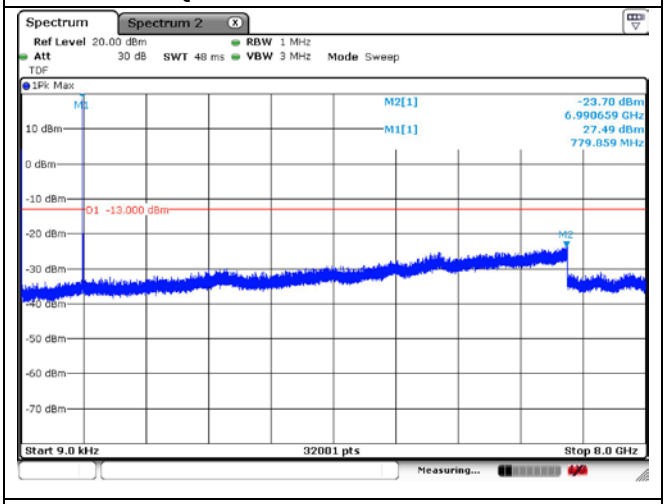


QPSK High Channel - 1 RB

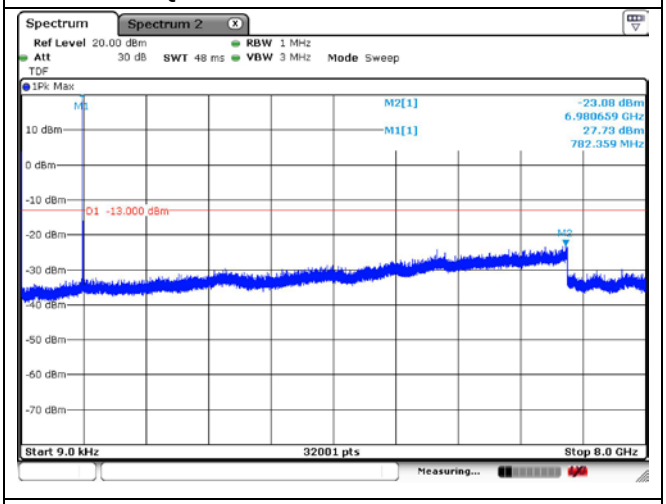
LTE band 13 (5 ㎒)



QPSK Low Channel - 1 RB

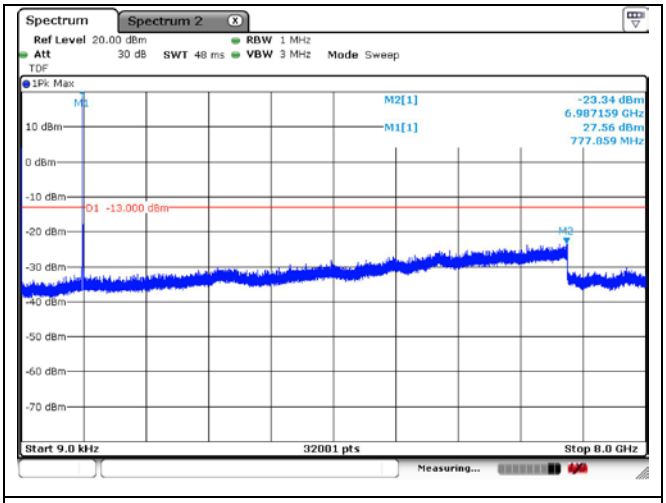


QPSK Middle Channel - 1 RB



QPSK High Channel - 1 RB

LTE band 13 (10 ㎒)



QPSK Middle Channel - 1 RB