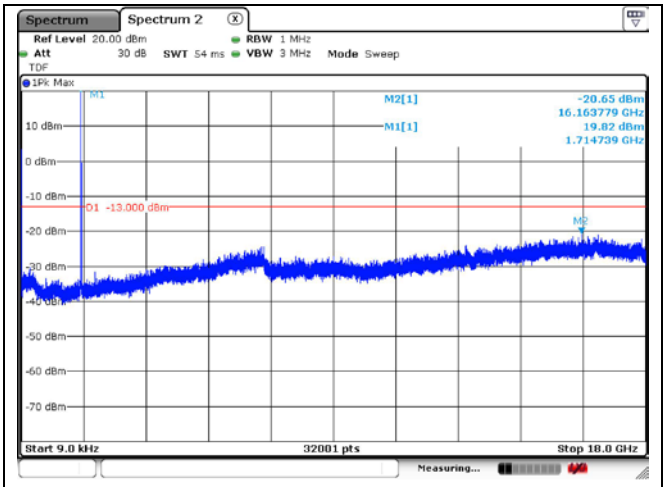
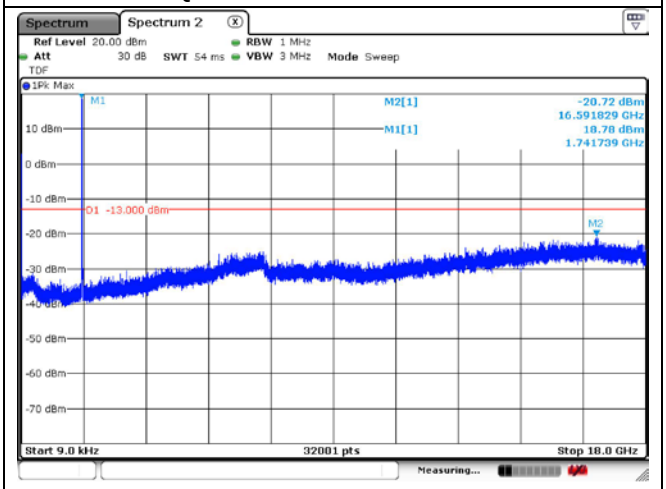
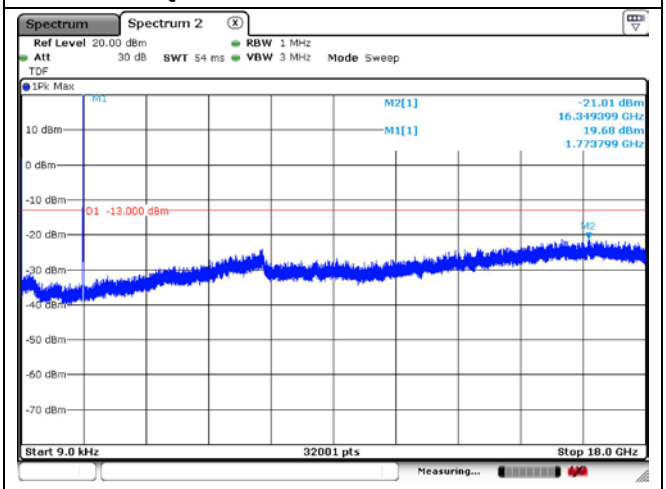
LTE band 66/4 (10 ㎒)



QPSK Low Channel - 1 RB

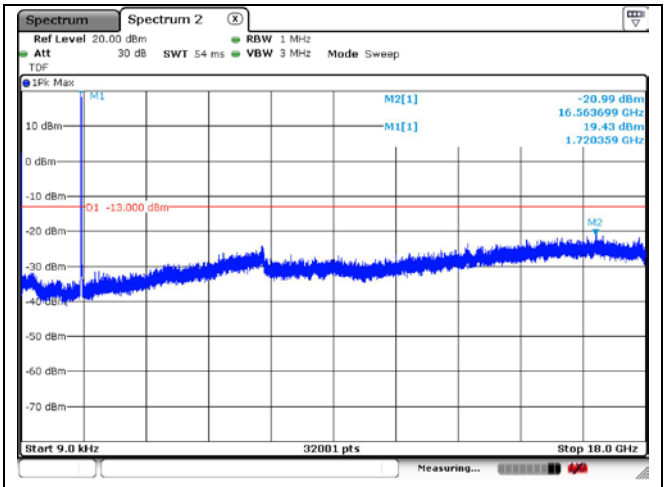


QPSK Middle Channel - 1 RB

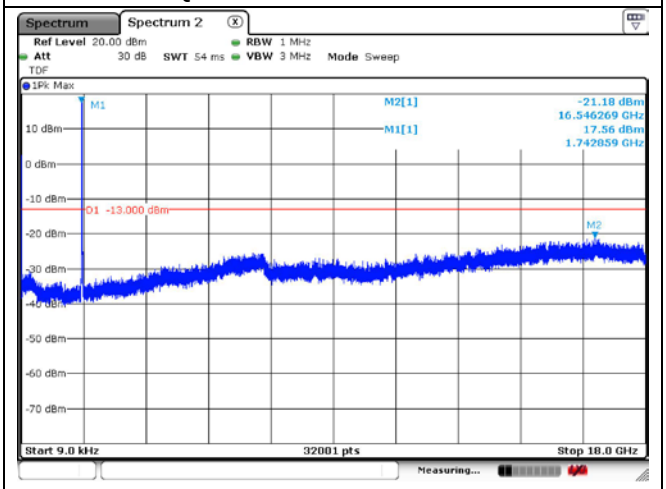


QPSK High Channel - 1 RB

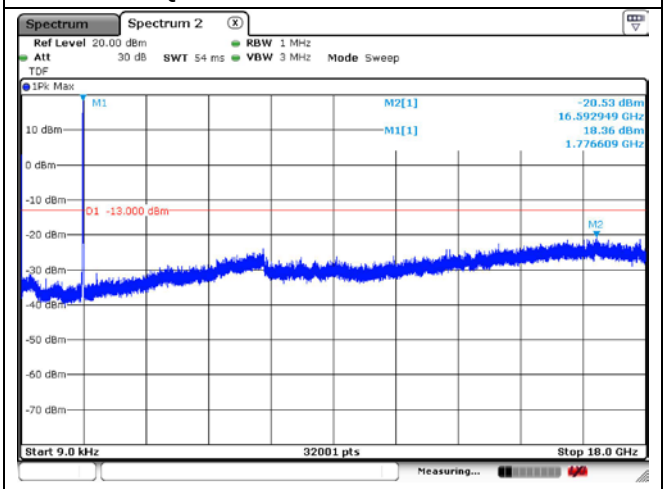
LTE band 66/4 (15 ㎒)



QPSK Low Channel - 1 RB

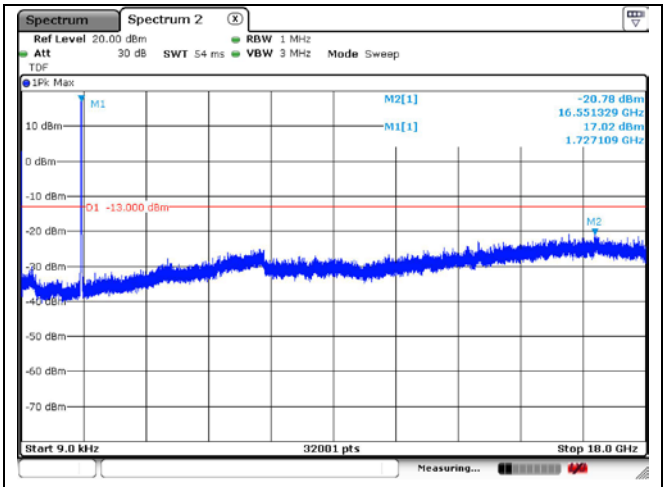


QPSK Middle Channel - 1 RB

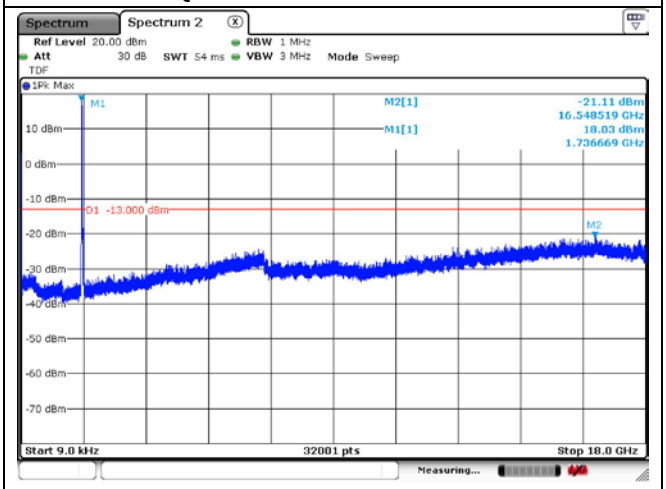


QPSK High Channel - 1 RB

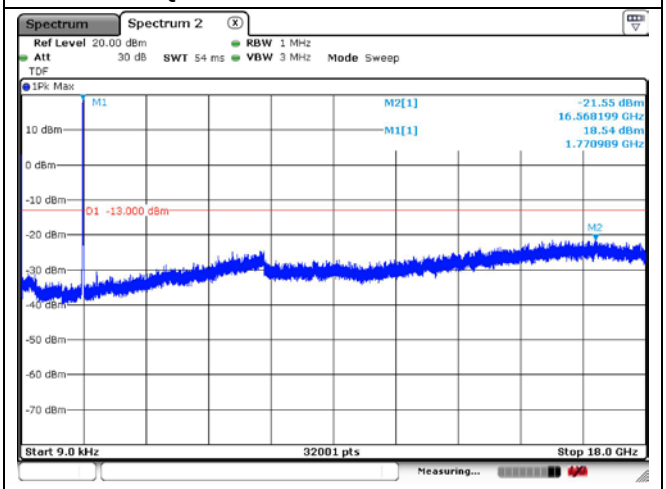
LTE band 66/4 (20 ㎒)



QPSK Low Channel - 1 RB

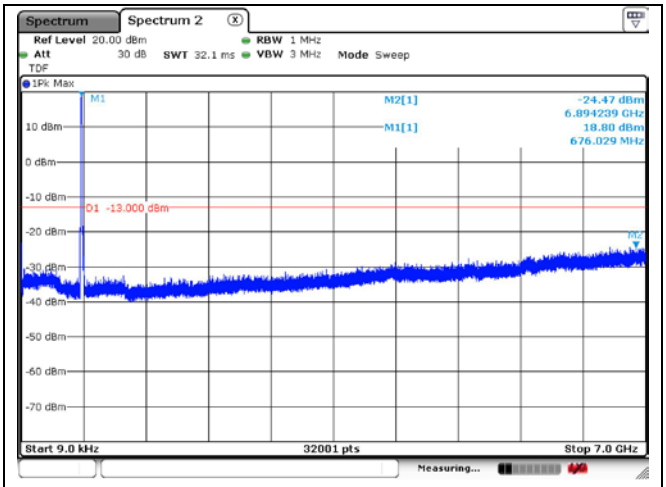


QPSK Middle Channel - 1 RB

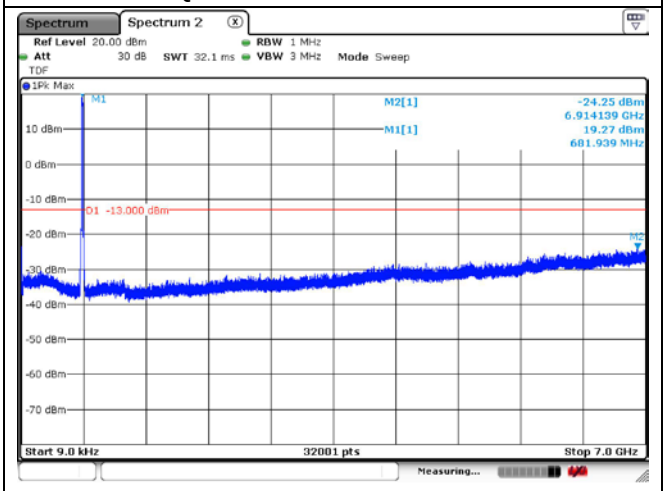


QPSK High Channel - 1 RB

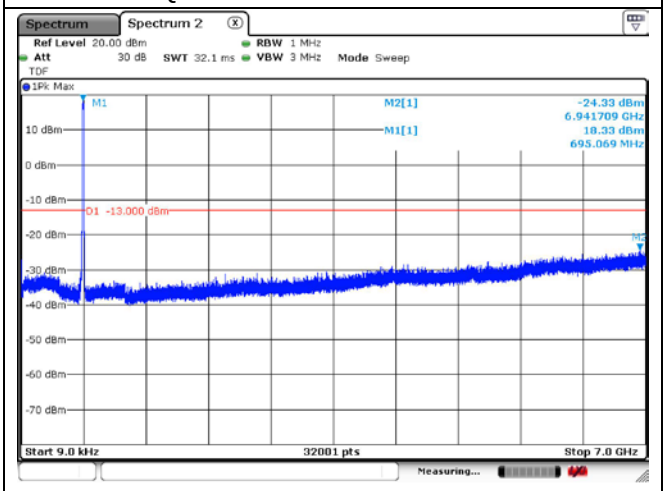
LTE band 71 (5 ㎒)



QPSK Low Channel - 1 RB

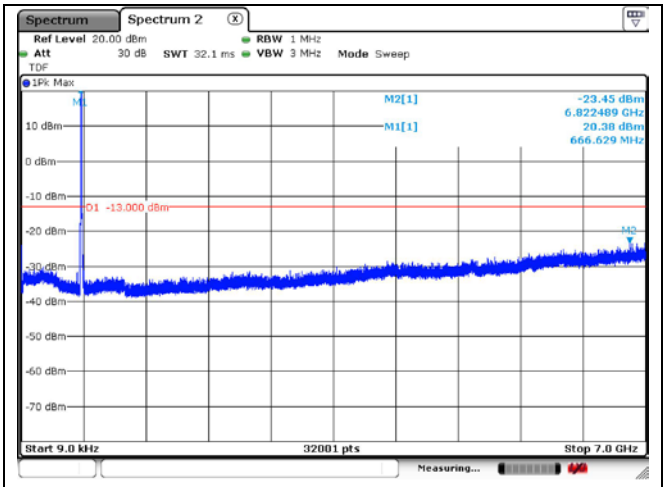


QPSK Middle Channel - 1 RB

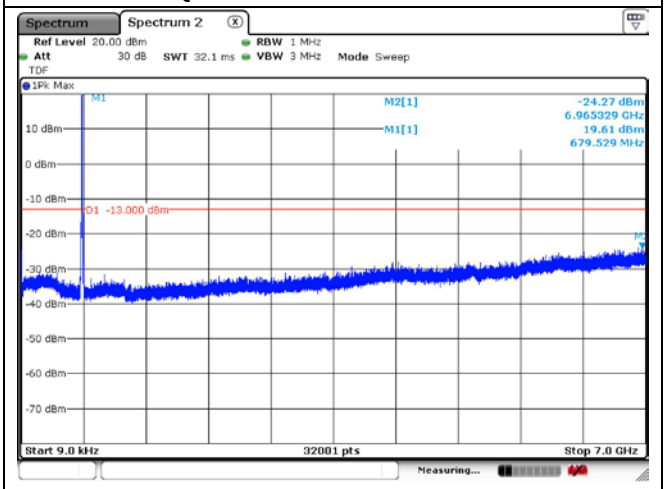


QPSK High Channel - 1 RB

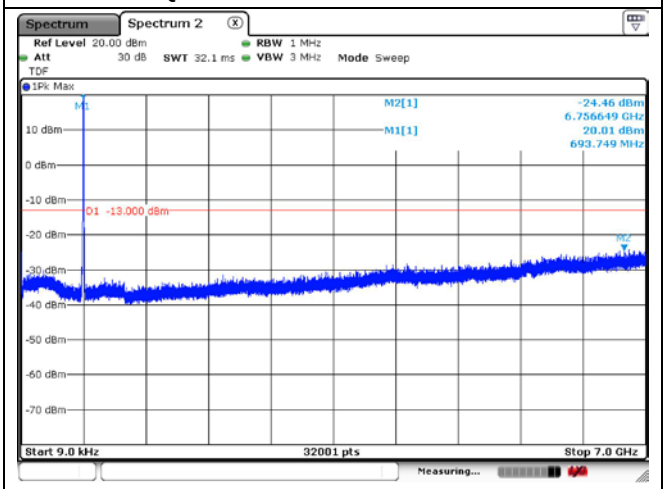
LTE band 71 (10 ㎒)



QPSK Low Channel - 1 RB

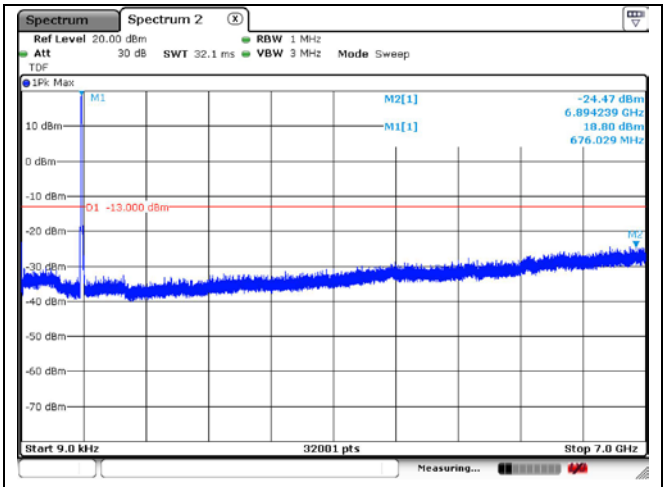


QPSK Middle Channel - 1 RB

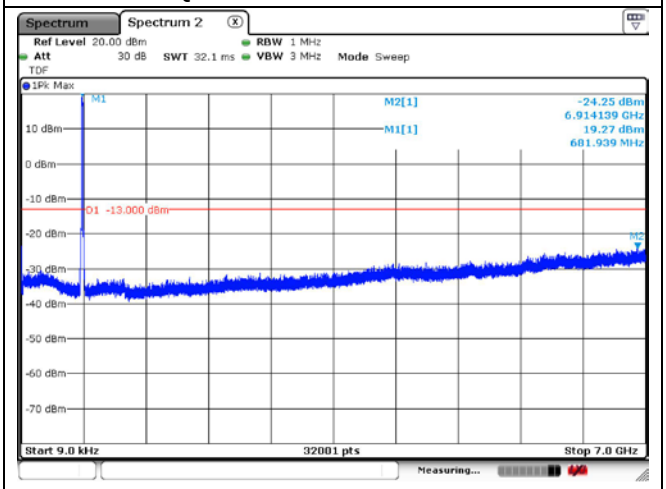


QPSK High Channel - 1 RB

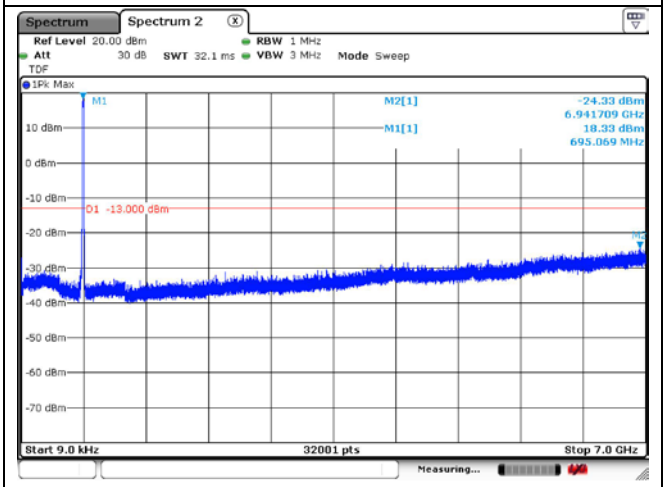
LTE band 71 (15 ㎒)



QPSK Low Channel - 1 RB

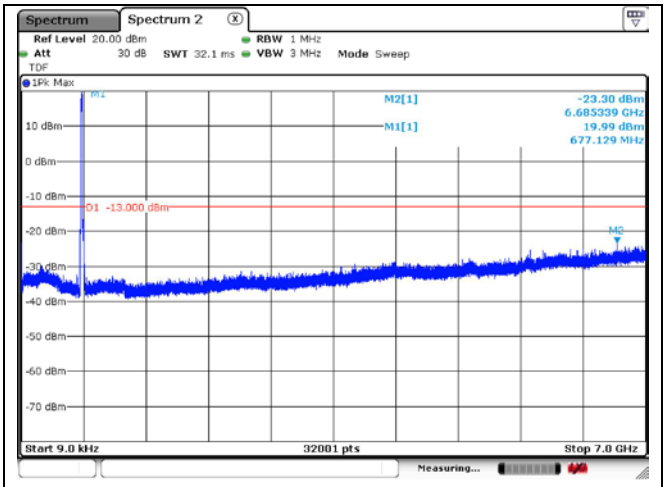


QPSK Middle Channel - 1 RB

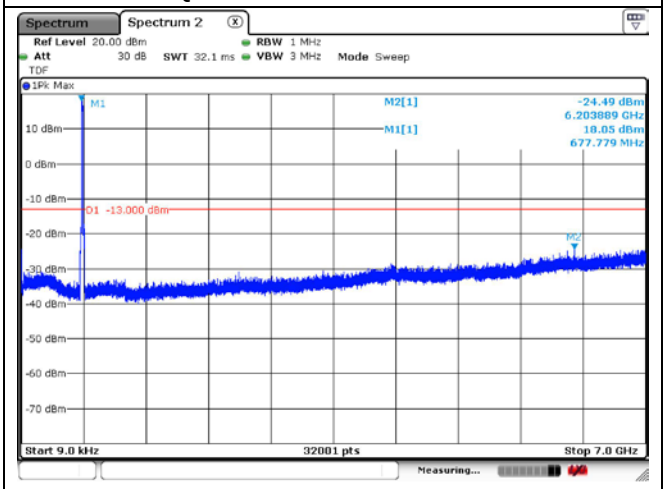


QPSK High Channel - 1 RB

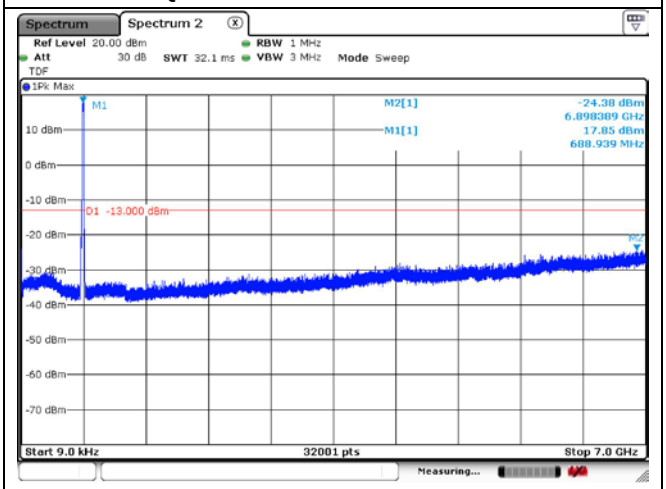
LTE band 71 (20 ㎒)



QPSK Low Channel - 1 RB



QPSK Middle Channel - 1 RB



QPSK High Channel - 1 RB

6. Band Edge

6.1. 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(g), the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) ㎧.

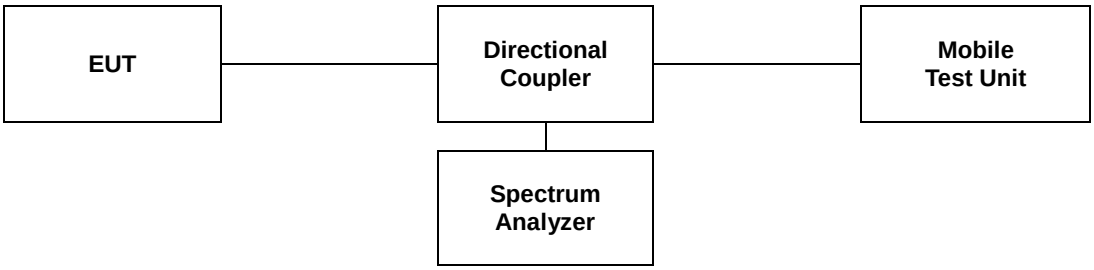
- §27.53(h)(1), for operations in the 1 695-1 710 ㎒, 1 710-1 755 ㎒, 1 755-1 780 ㎒, 1 915-1 920 ㎒, 1 995-2 000 ㎒, 2 000-2 020 ㎒, 2 110-2 155 ㎒, 2 155-2 180 ㎒, and 2 180-2 200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts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

- §27.53(m)(4), For mobile digital stations, the attenuation factor shall be not less than 40 + 10 $\log_{10}$ (P) ㎧ on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 $\log_{10}$ (P) ㎧ on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 $\log_{10}$ (P) ㎧ on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 $\log_{10}$ (P) ㎧ on all frequencies between 2490.5 ㎒ and 2496 ㎒ and 55 + 10 $\log_{10}$ (P) ㎧ at or below 2490.5 ㎒. Mobile Satellite Service licensees operating on frequencies below 2495 ㎒ may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

6.2. Test Procedure

The test follows section 5.7.3 of ANSI C63.26-2015.

a. Span was set large enough so as to capture all out of band emissions near the band edge.
b. RBW ≥ 1 % of OBW.
c. VBW ≥ 3 x RBW.
d. Detector = RMS.
e. Trace mode = Average.
f. Sweep time = Auto.
g. The trace was allowed to stabilize.
h. All path loss of frequency range was investigated and compensated to spectrum analyzer as TDF function.



Note;

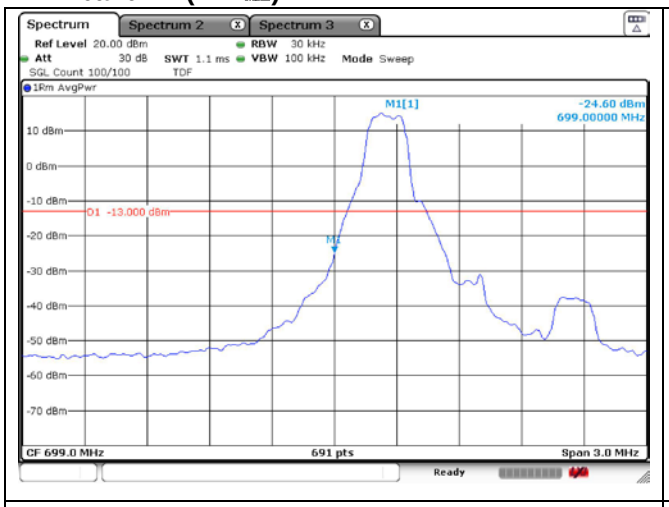
Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 ㎑ or greater for frequencies less than 1 ㎓ and frequencies greater than 1 ㎓. However, in the 1 ㎒ bands immediately outside and adjacent to the frequency block a resolution 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.

6.3. Test Results

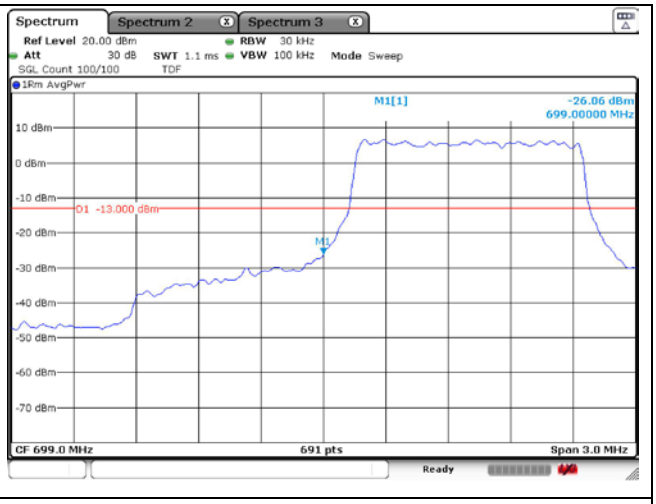
Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

- Test plots

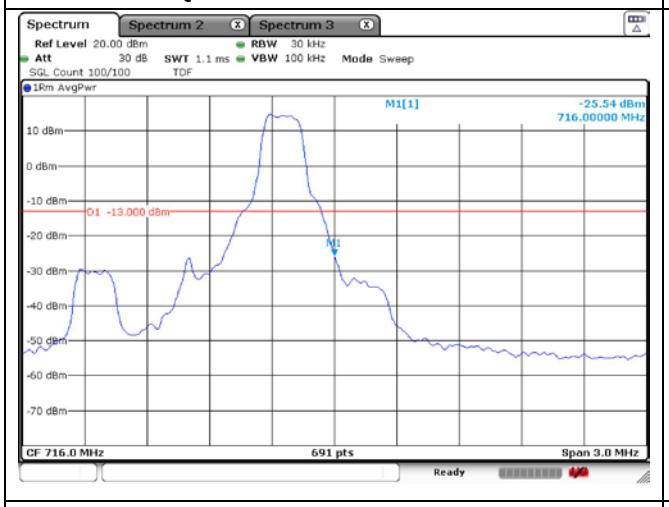
LTE band 12 (1.4 ㎒)



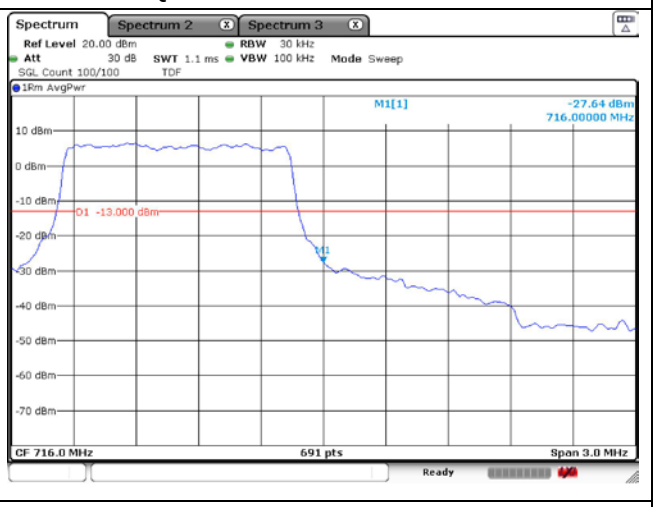
QPSK Low Channel - 1 RB



QPSK Low Channel - Full RB

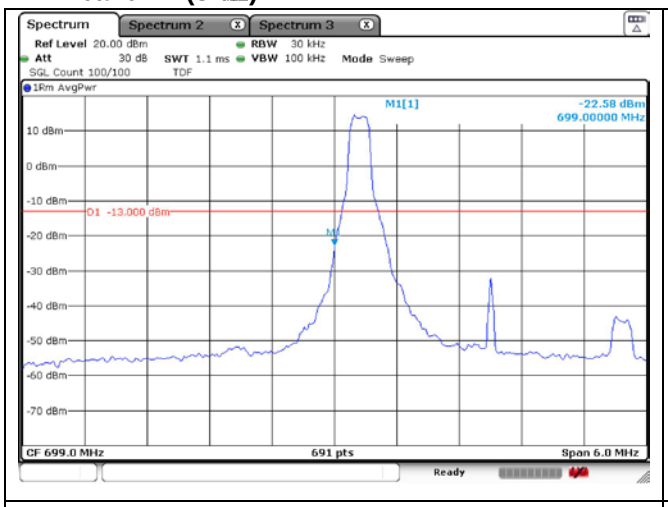


QPSK High Channel - 1 RB

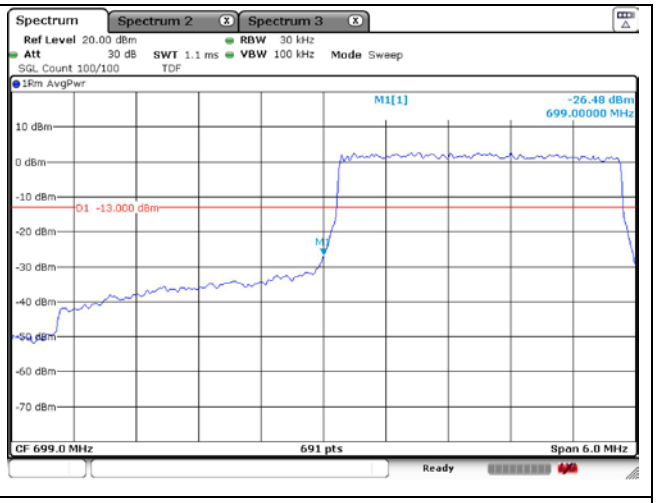


QPSK High Channel - Full RB

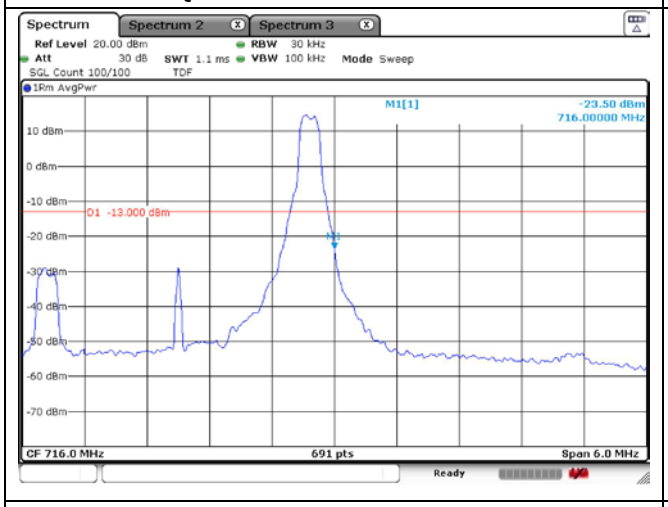
LTE band 12 (3 ㎒)



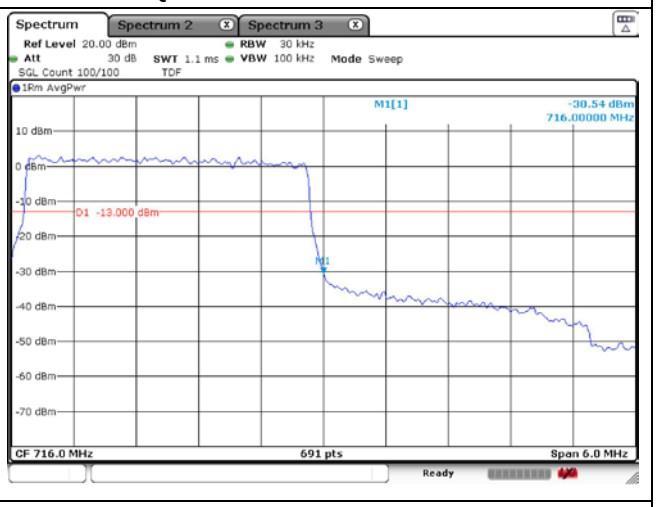
QPSK Low Channel - 1 RB



QPSK Low Channel - Full RB

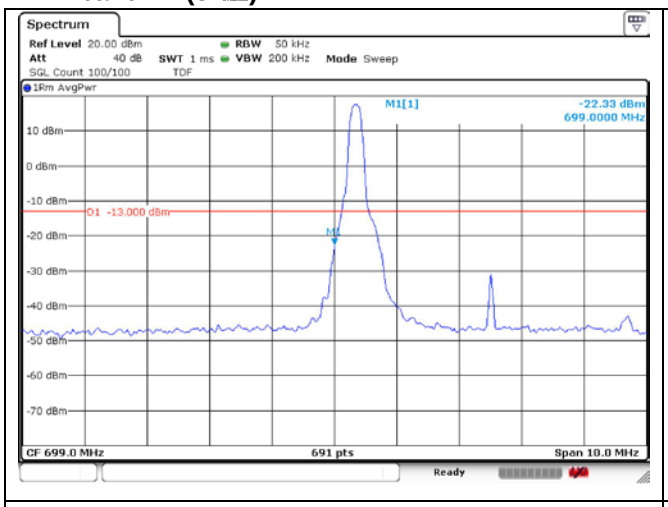


QPSK High Channel - 1 RB

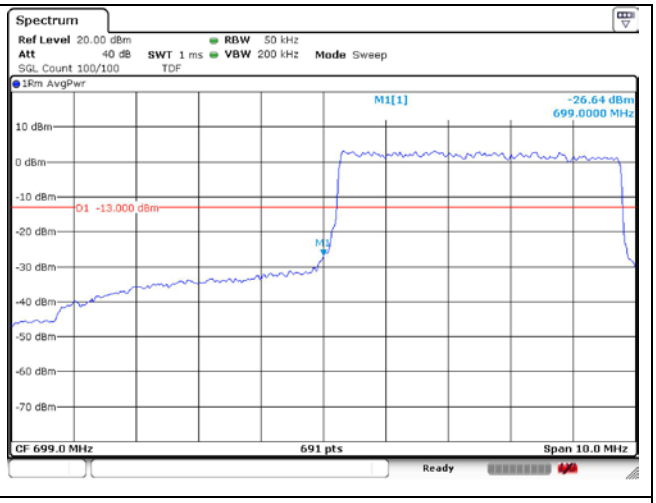


QPSK High Channel - Full RB

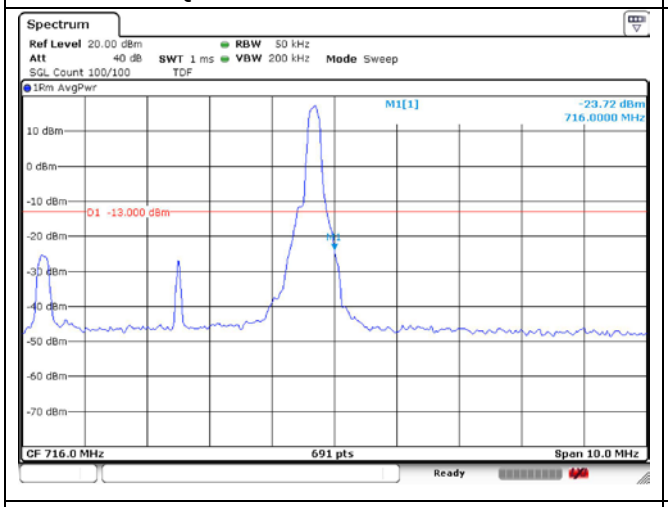
LTE band 12 (5 ㎒)



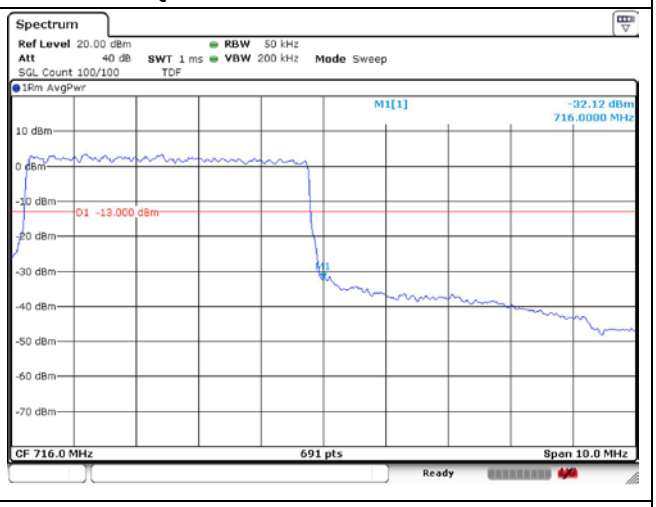
QPSK Low Channel - 1 RB



QPSK Low Channel - Full RB

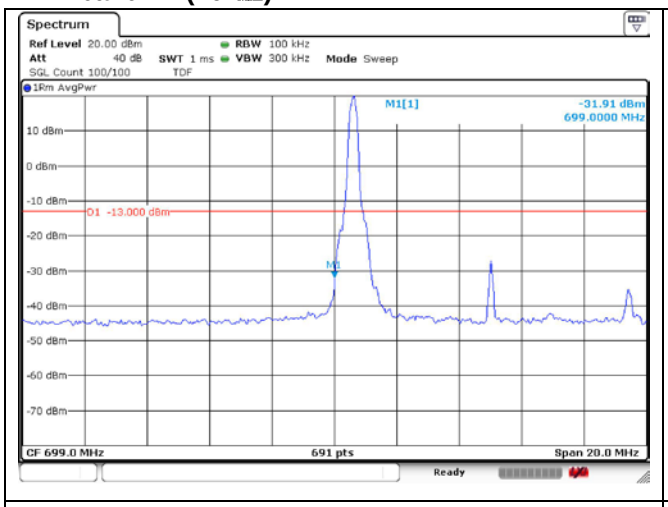


QPSK High Channel - 1 RB

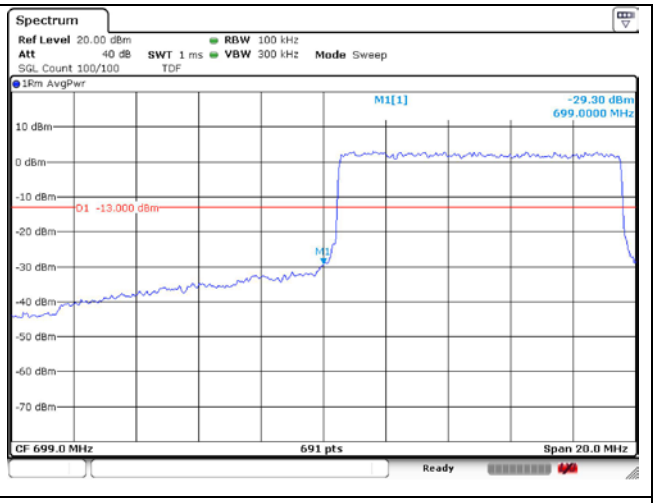


QPSK High Channel - Full RB

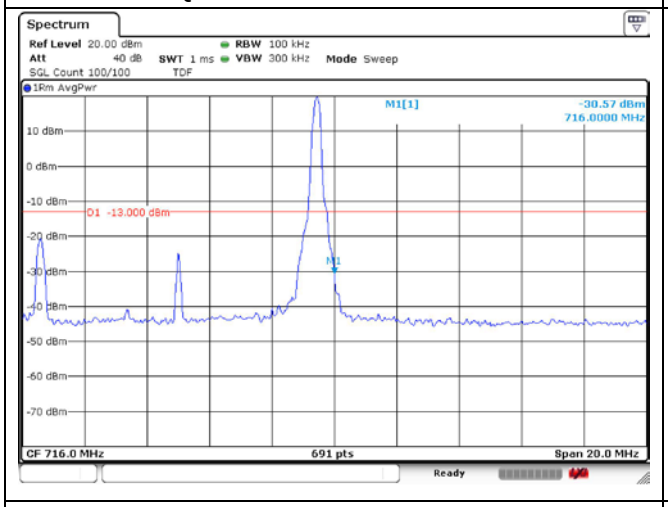
LTE band 12 (10 ㎒)



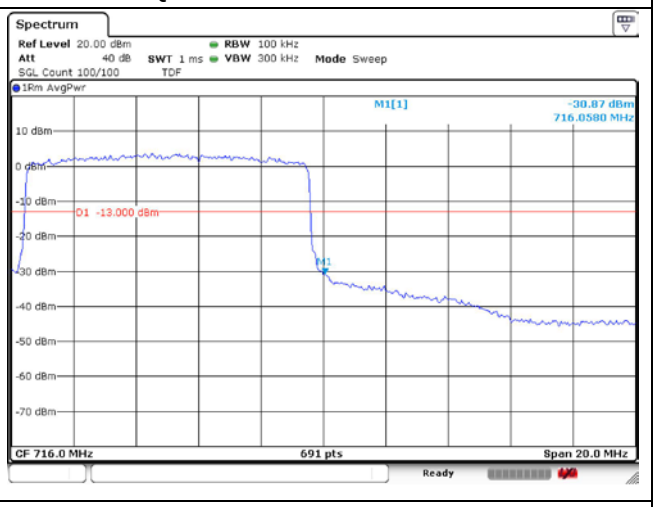
QPSK Low Channel - 1 RB



QPSK Low Channel - Full RB

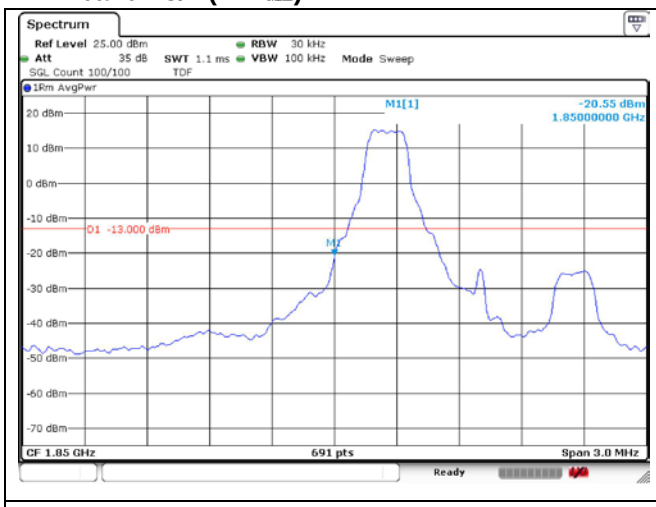


QPSK High Channel - 1 RB

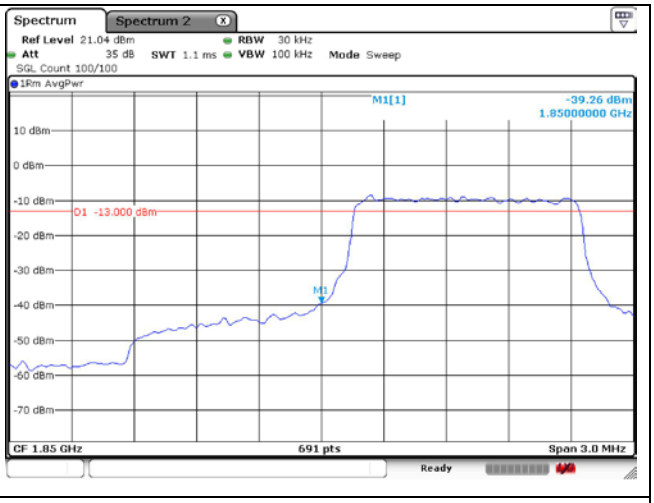


QPSK High Channel - Full RB

LTE band 25/2 (1.4 ㎒)

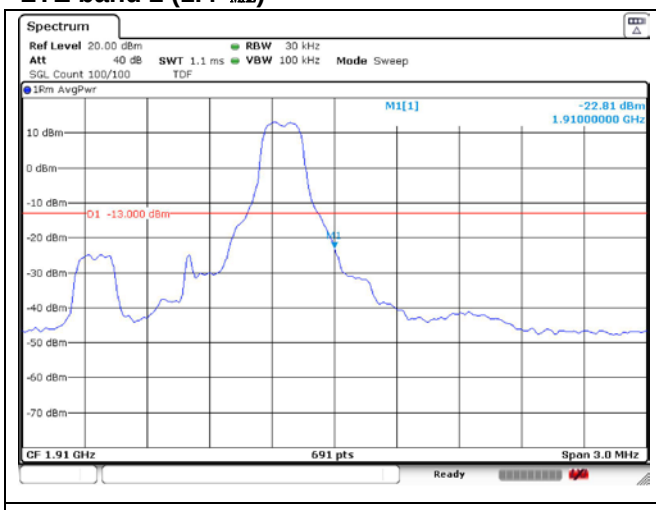


QPSK Low Channel - 1 RB

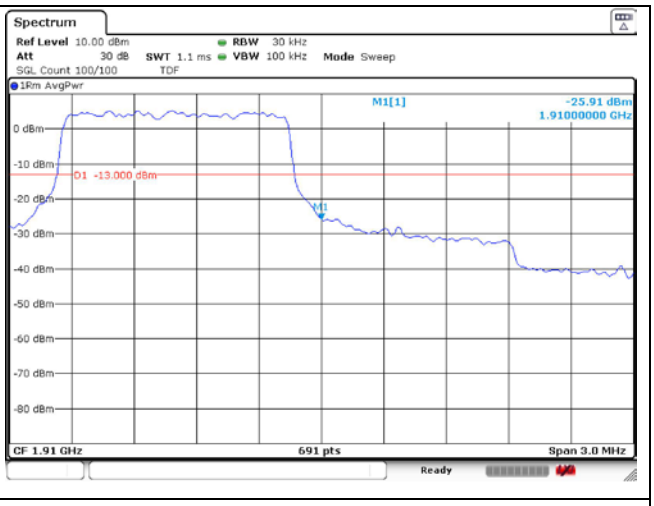


QPSK Low Channel - Full RB

LTE band 2 (1.4 ㎒)

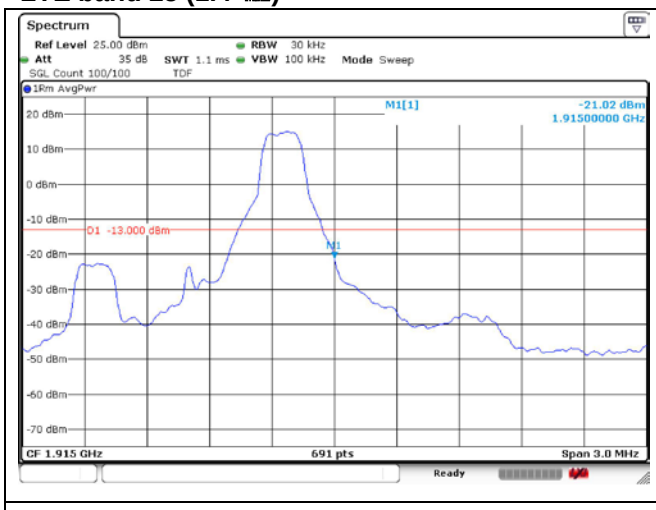


QPSK High Channel - 1 RB

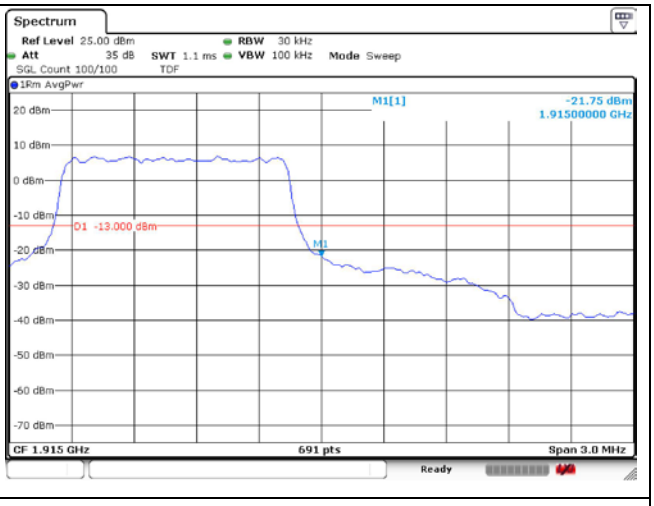


QPSK High Channel - Full RB

LTE band 25 (1.4 ㎒)

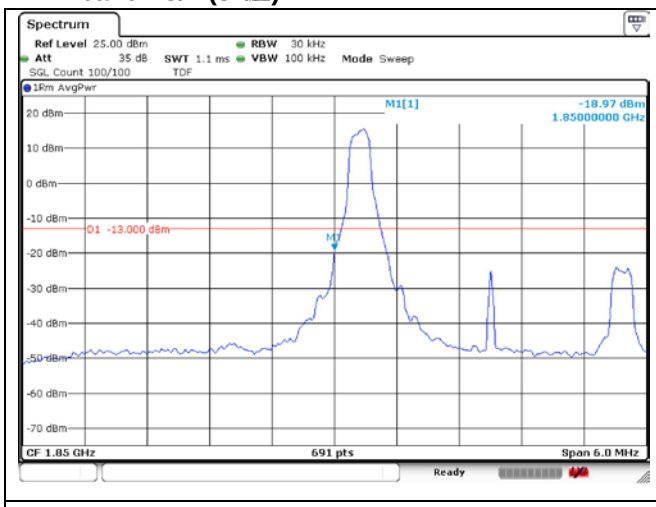


QPSK High Channel - 1 RB

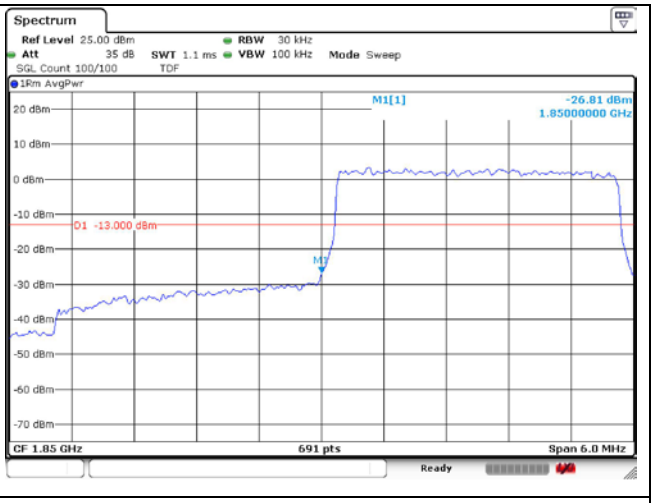


QPSK High Channel - Full RB

LTE band 25/2 (3 ㎒)

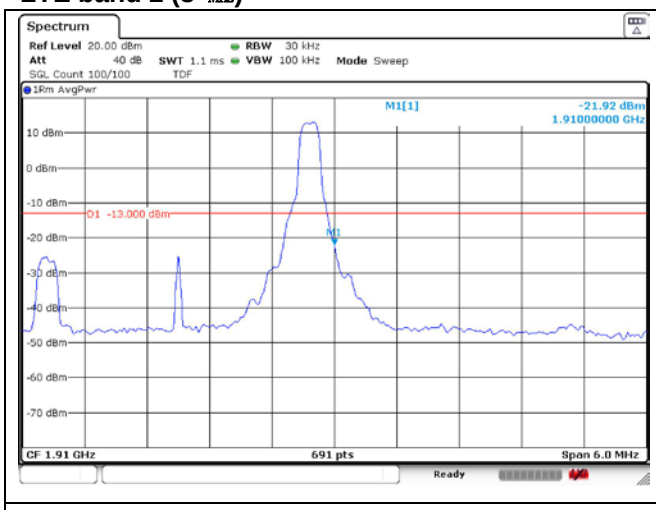


QPSK Low Channel - 1 RB

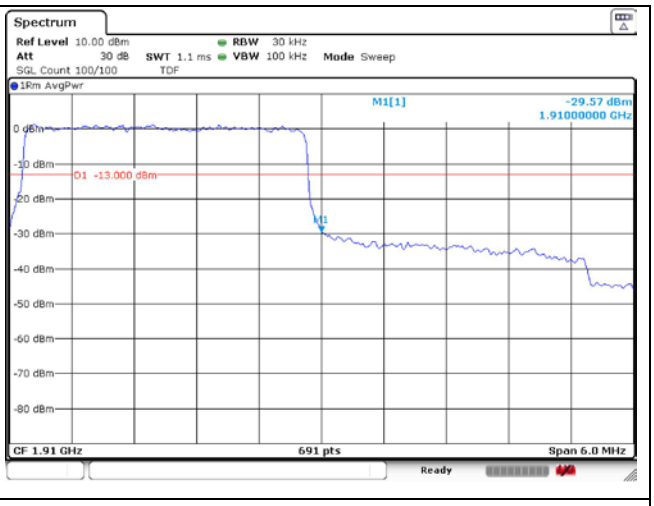


QPSK Low Channel - Full RB

LTE band 2 (3 ㎒)

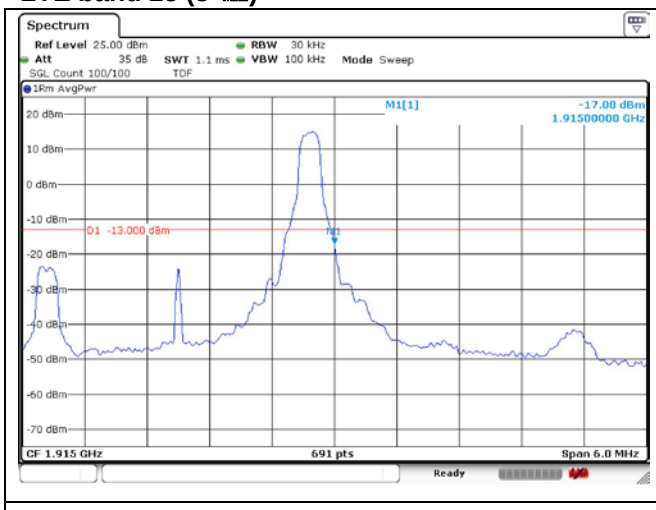


QPSK High Channel - 1 RB

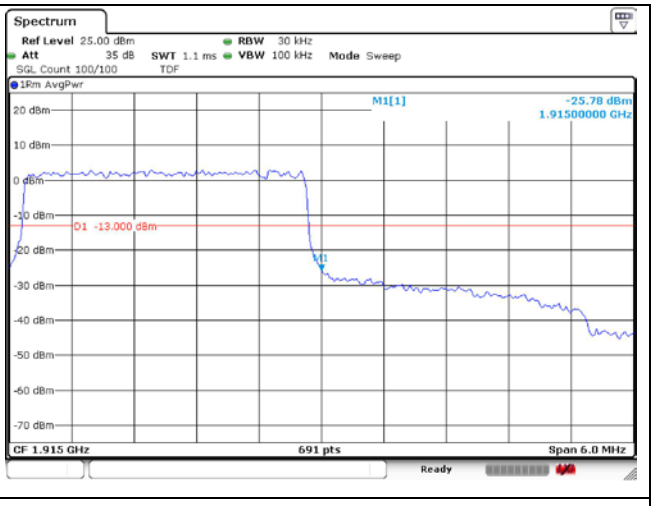


QPSK High Channel - Full RB

LTE band 25 (3 ㎒)

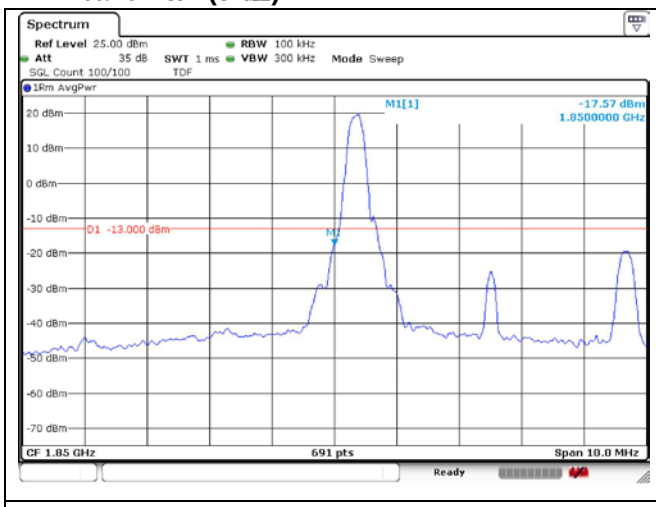


QPSK High Channel - 1 RB

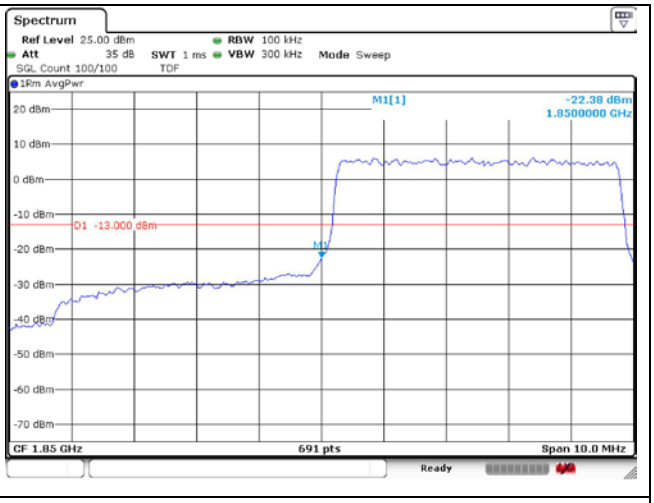


QPSK High Channel - Full RB

LTE band 25/2 (5 ㎒)

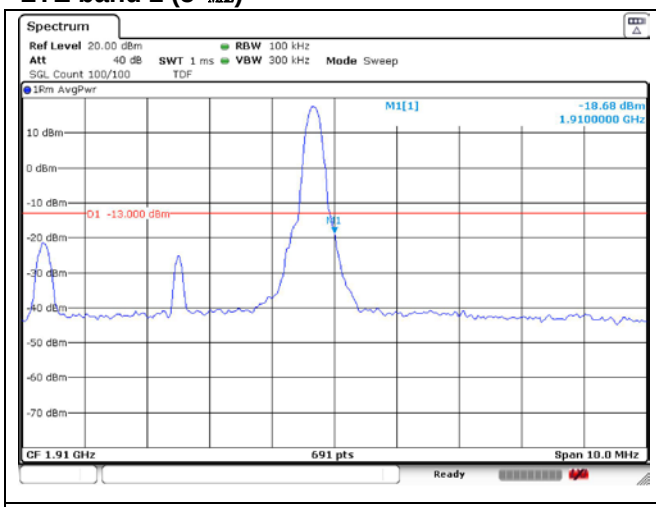


QPSK Low Channel - 1 RB

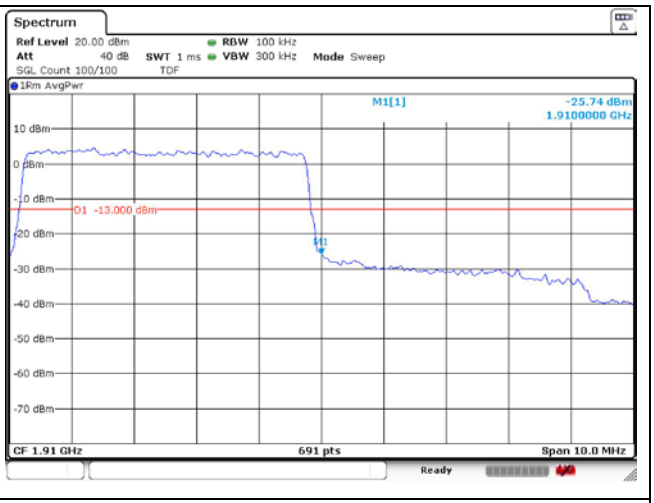


QPSK Low Channel - Full RB

LTE band 2 (5 ㎒)

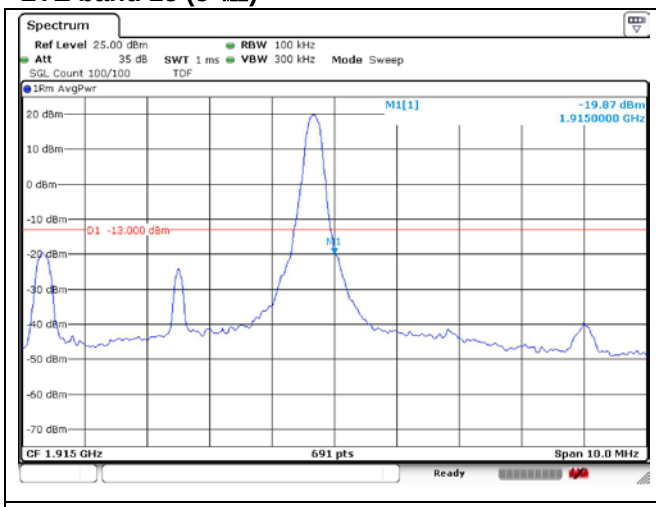


QPSK High Channel - 1 RB

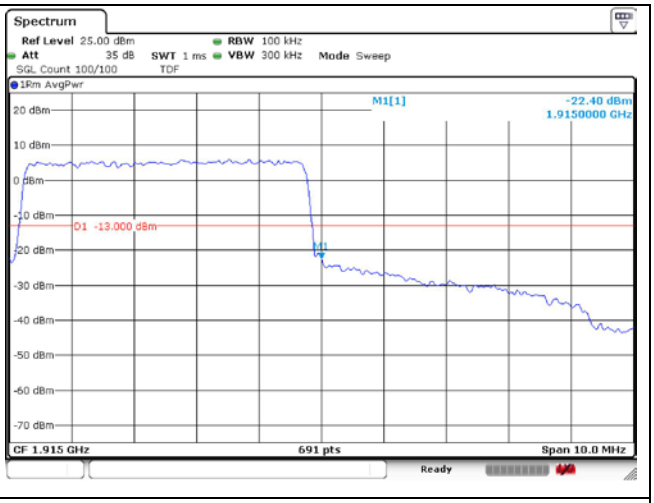


QPSK High Channel - Full RB

LTE band 25 (5 ㎒)

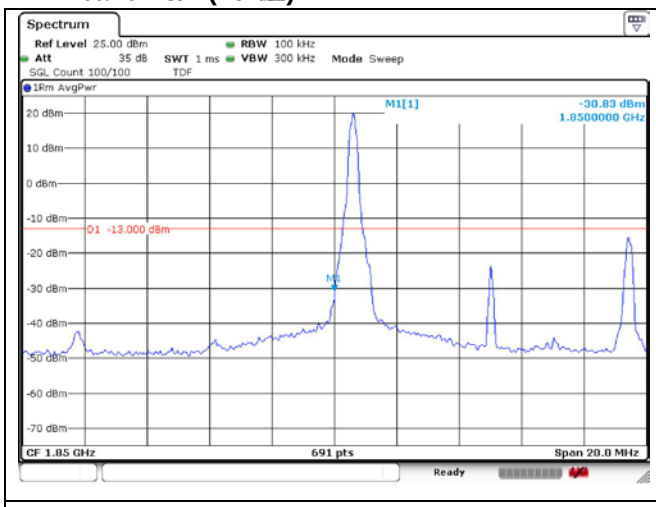


QPSK High Channel - 1 RB

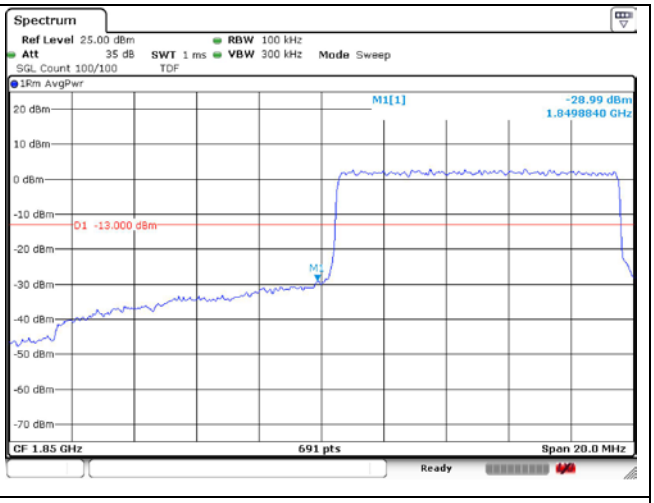


QPSK High Channel - Full RB

LTE band 25/2 (10 ㎒)

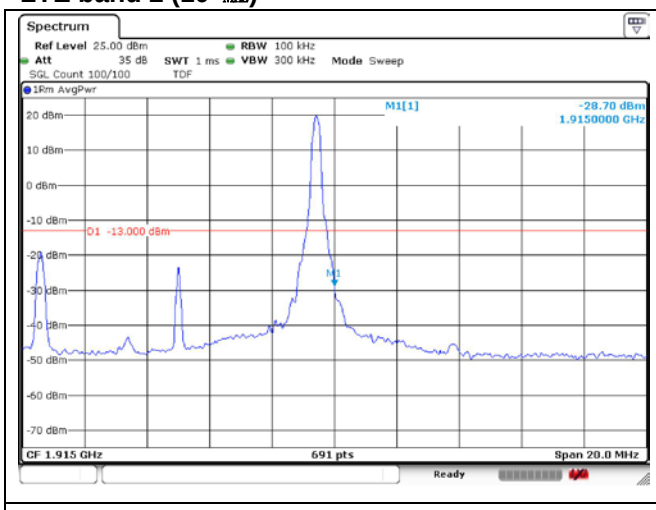


QPSK Low Channel - 1 RB

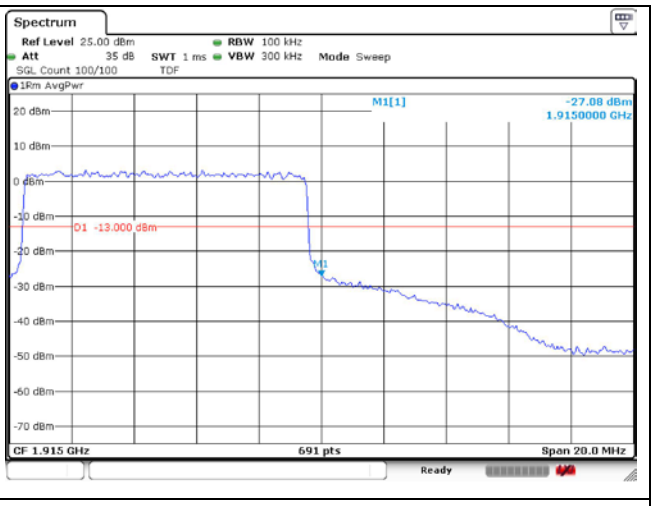


QPSK Low Channel - Full RB

LTE band 2 (10 ㎒)

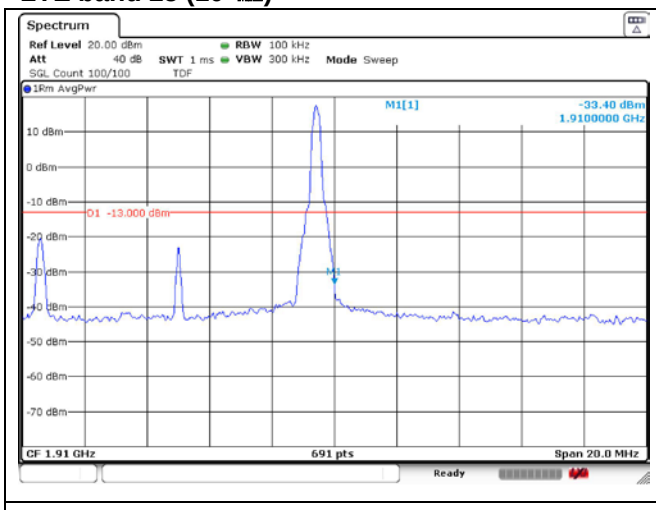


QPSK High Channel - 1 RB

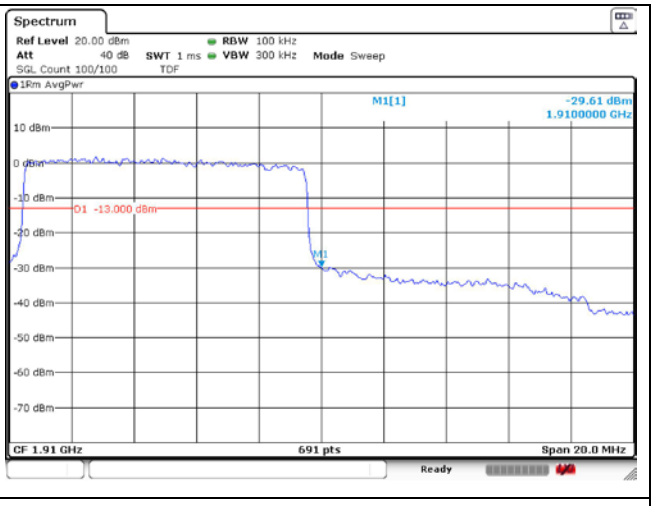


QPSK High Channel - Full RB

LTE band 25 (10 ㎒)

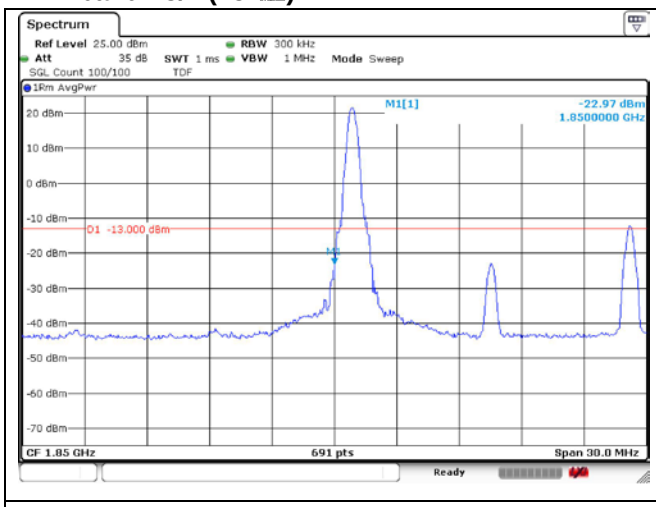


QPSK High Channel - 1 RB

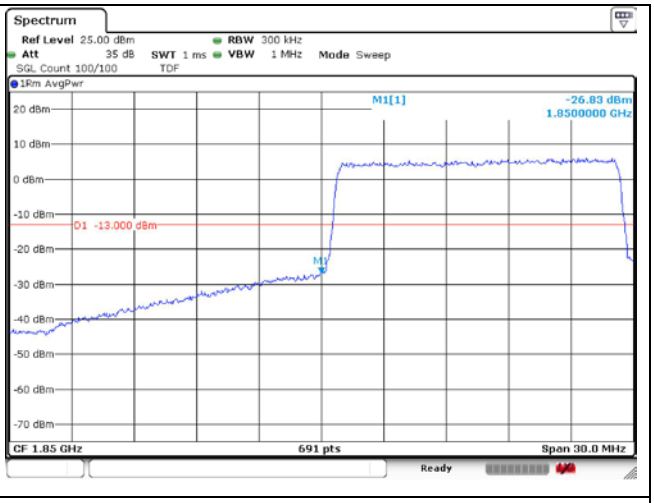


QPSK High Channel - Full RB

LTE band 25/2 (15 ㎒)

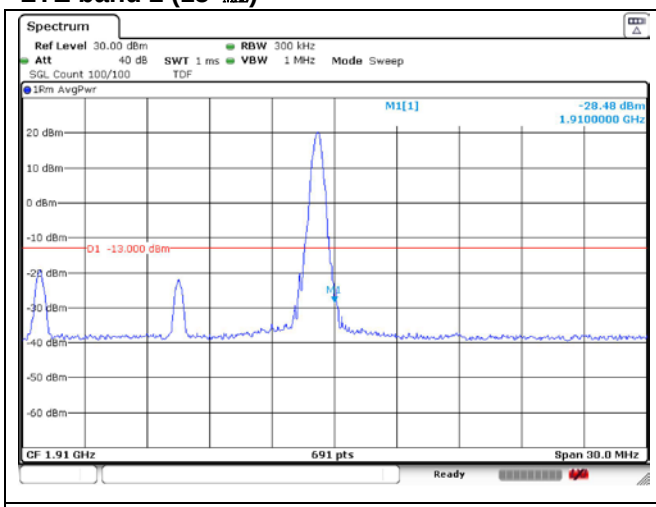


QPSK Low Channel - 1 RB

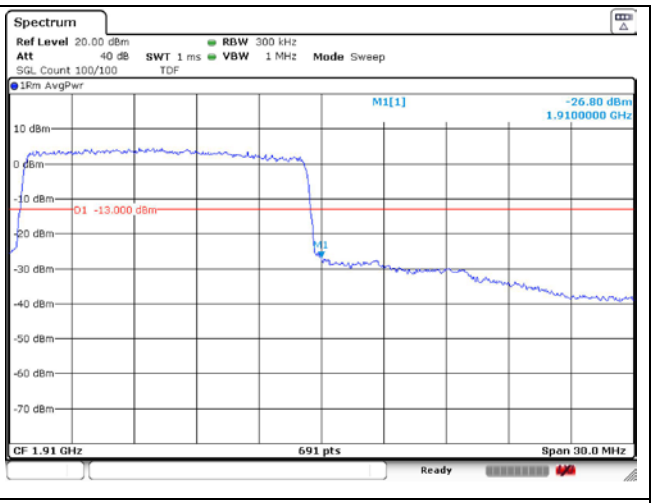


QPSK Low Channel - Full RB

LTE band 2 (15 ㎒)

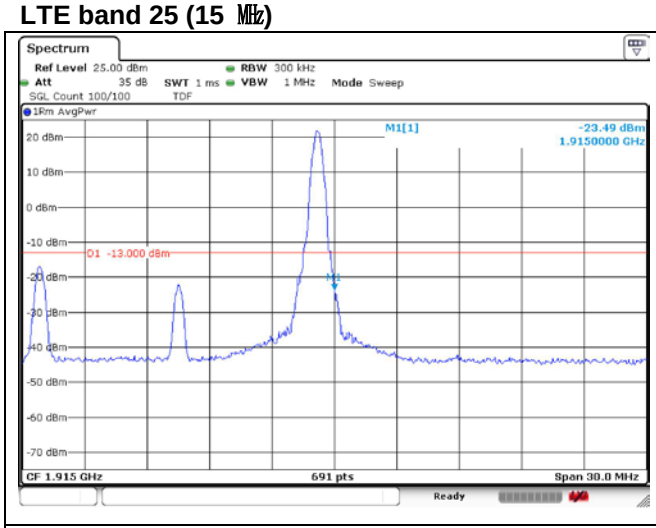


QPSK High Channel - 1 RB

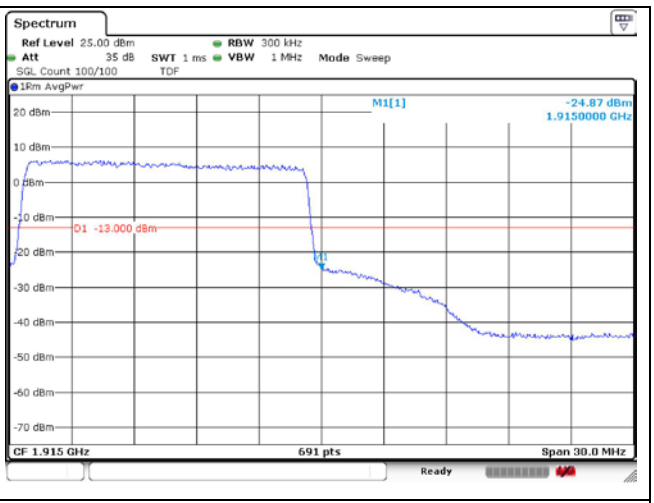


QPSK High Channel - Full RB

LTE band 25 (15 ㎒)

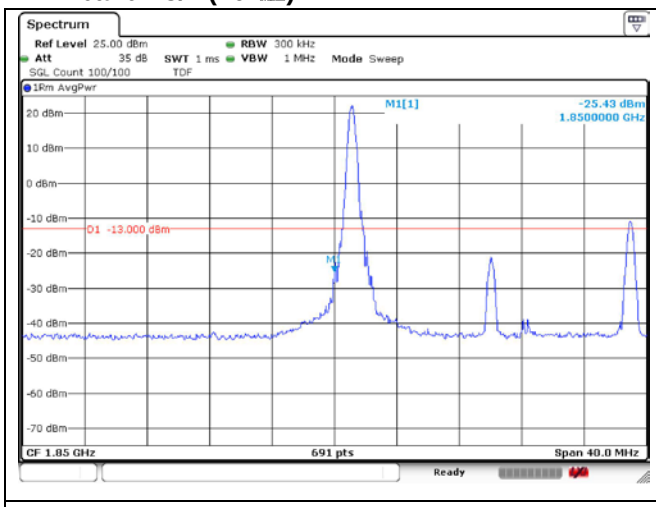


QPSK High Channel - 1 RB

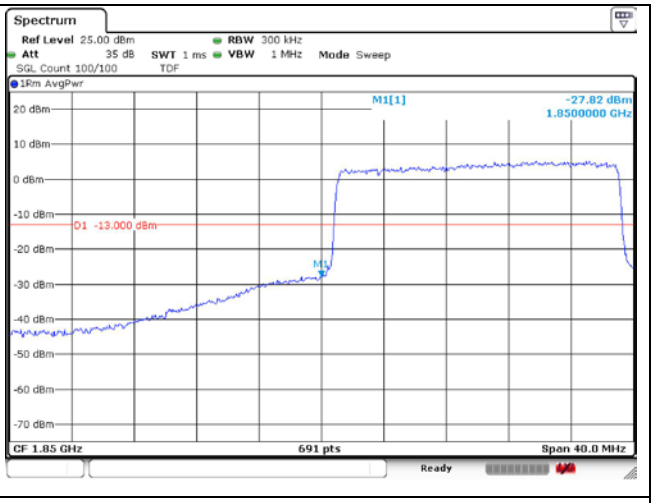


QPSK High Channel - Full RB

LTE band 25/2 (20 ㎒)

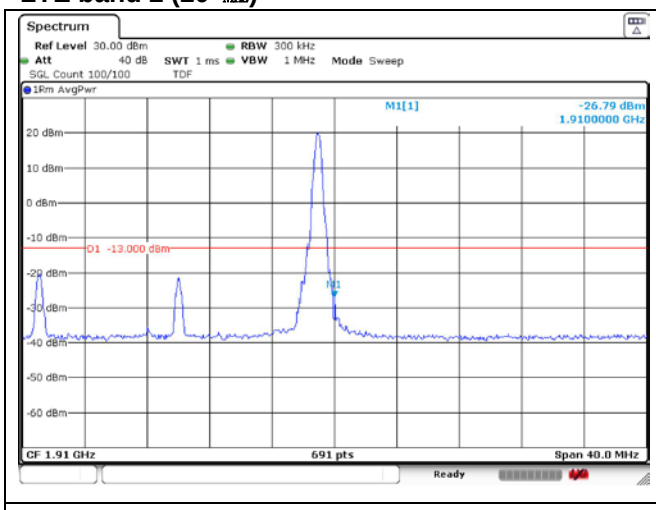


QPSK Low Channel - 1 RB

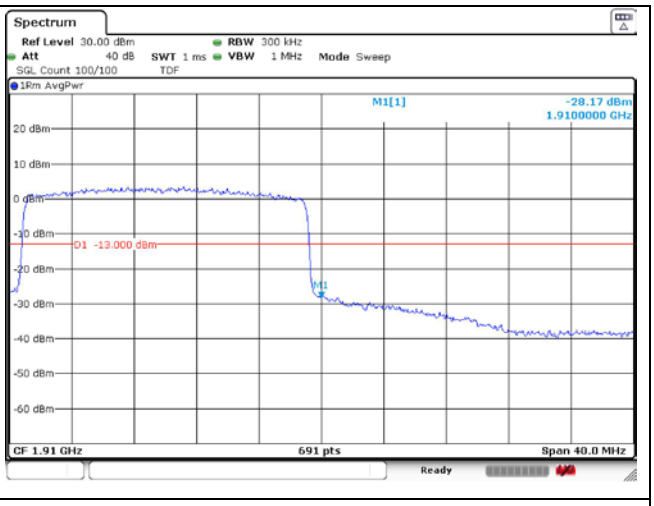


QPSK Low Channel - Full RB

LTE band 2 (20 ㎒)

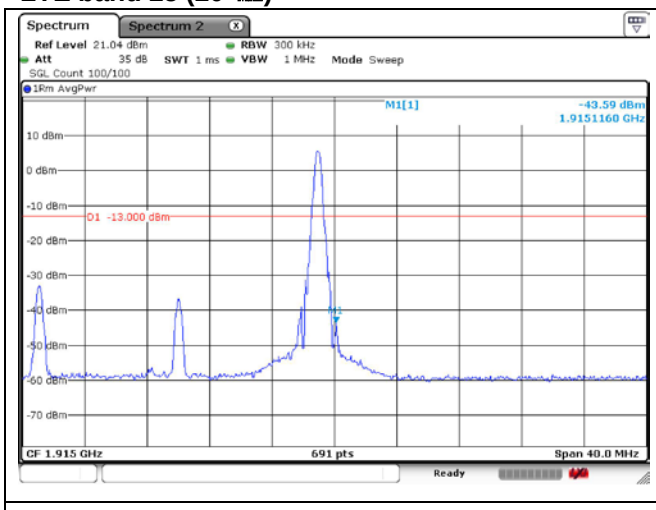


QPSK High Channel - 1 RB

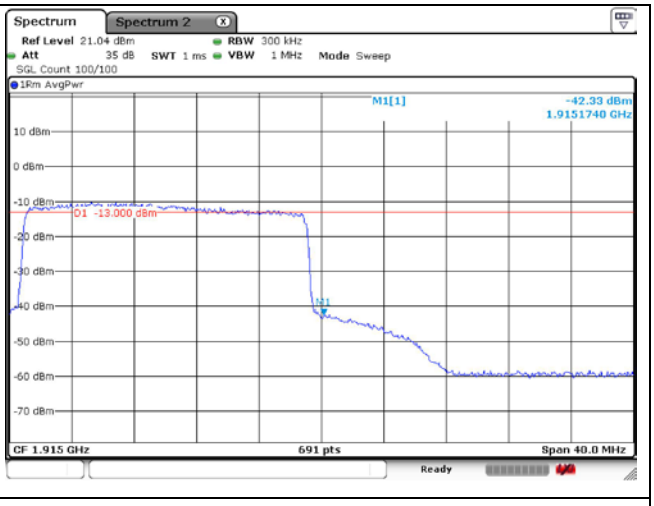


QPSK High Channel - Full RB

LTE band 25 (20 ㎒)

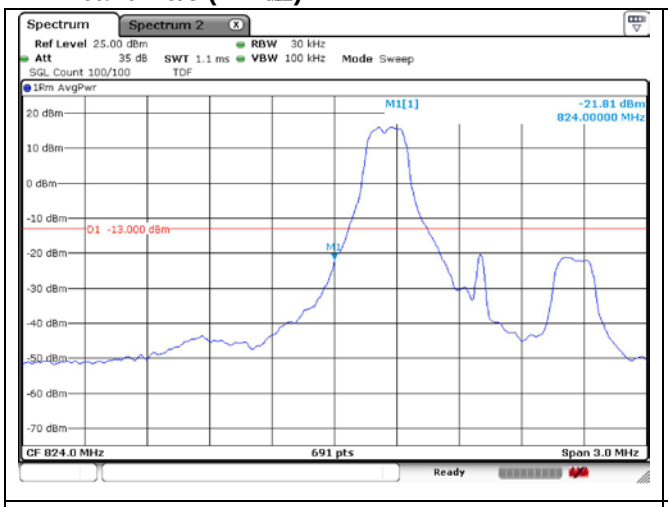


QPSK High Channel - 1 RB

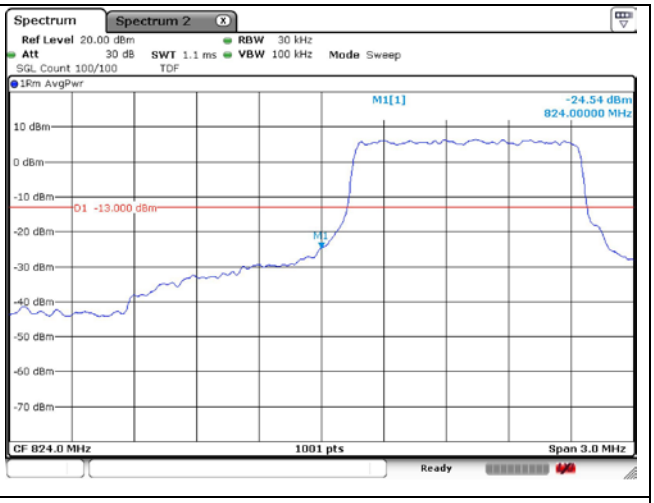


QPSK High Channel - Full RB

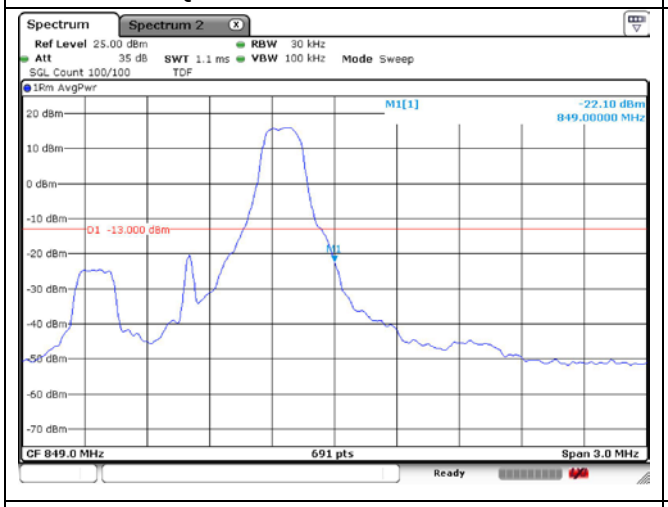
LTE band 26/5 (1.4 ㎒)



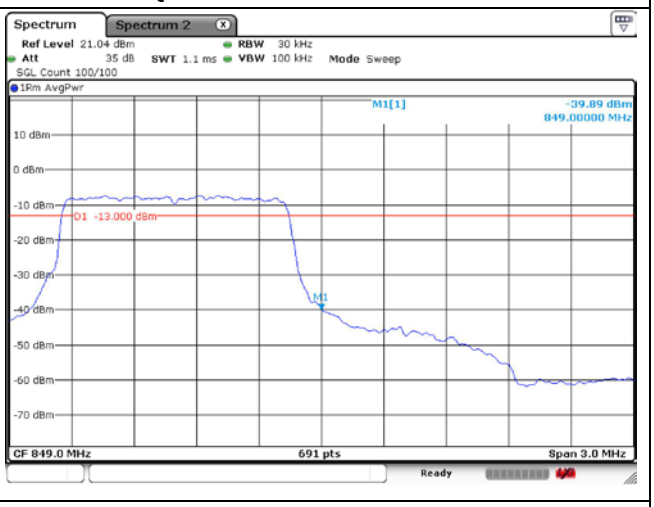
QPSK Low Channel - 1 RB



QPSK Low Channel - Full RB

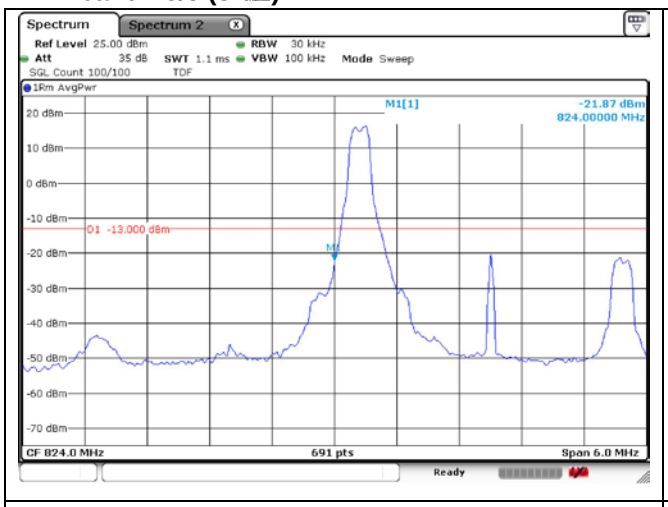


QPSK High Channel - 1 RB

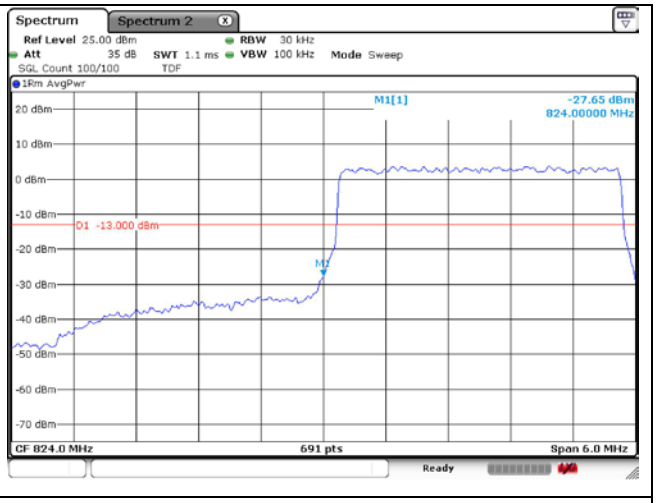


QPSK High Channel - Full RB

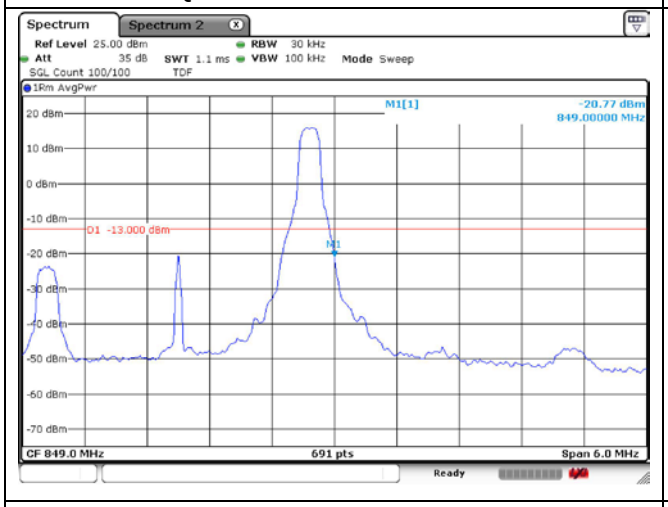
LTE band 26/5 (3 ㎒)



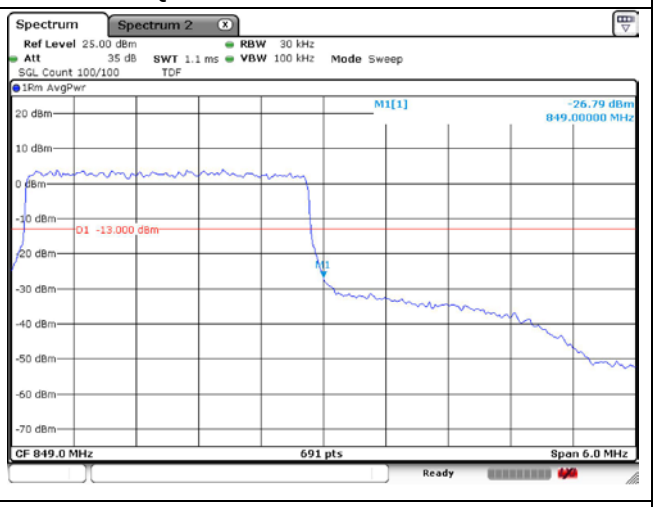
QPSK Low Channel - 1 RB



QPSK Low Channel - Full RB

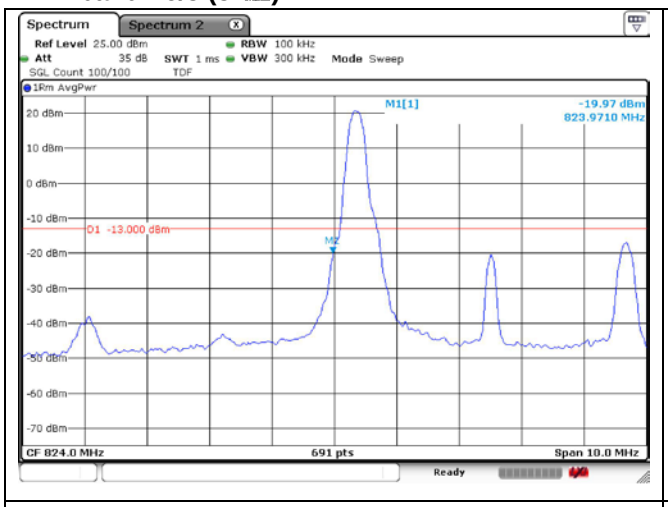


QPSK High Channel - 1 RB

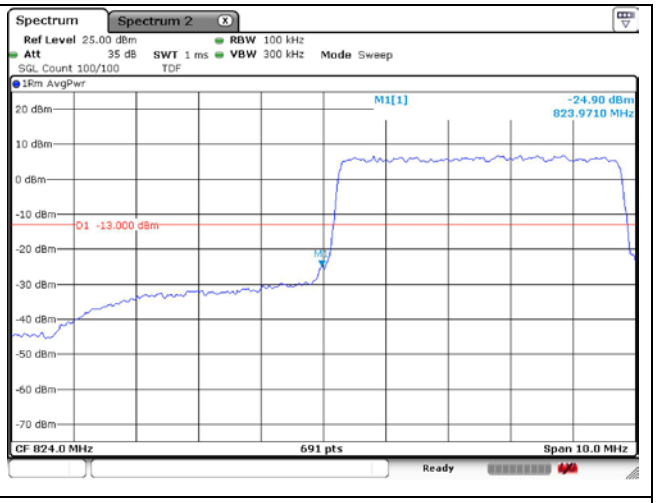


QPSK High Channel - Full RB

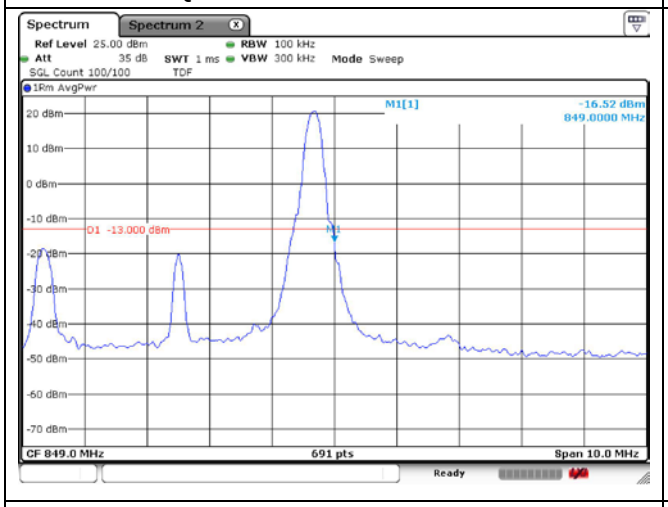
LTE band 26/5 (5 ㎒)



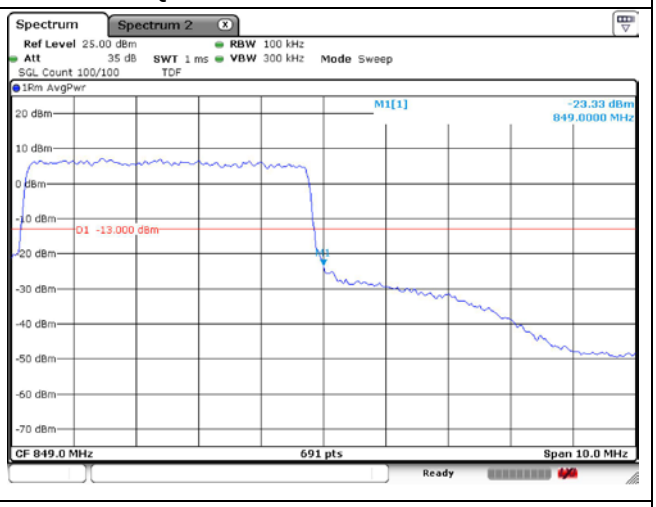
QPSK Low Channel - 1 RB



QPSK Low Channel - Full RB

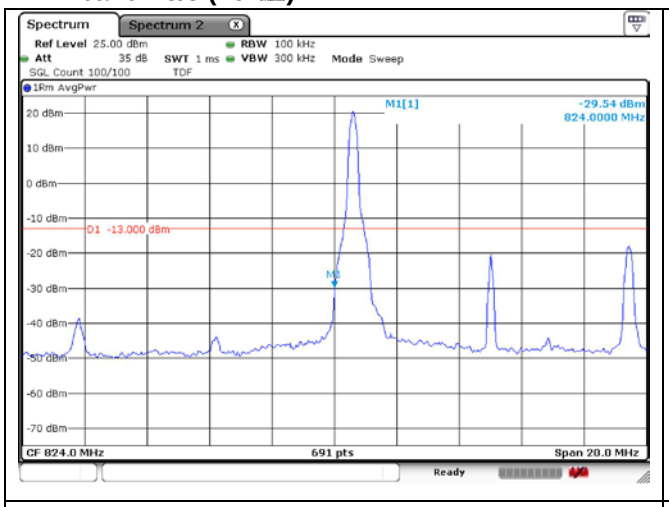


QPSK High Channel - 1 RB

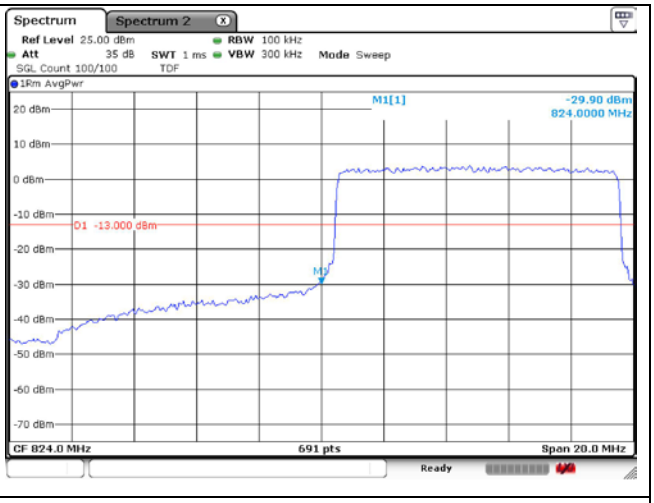


QPSK High Channel - Full RB

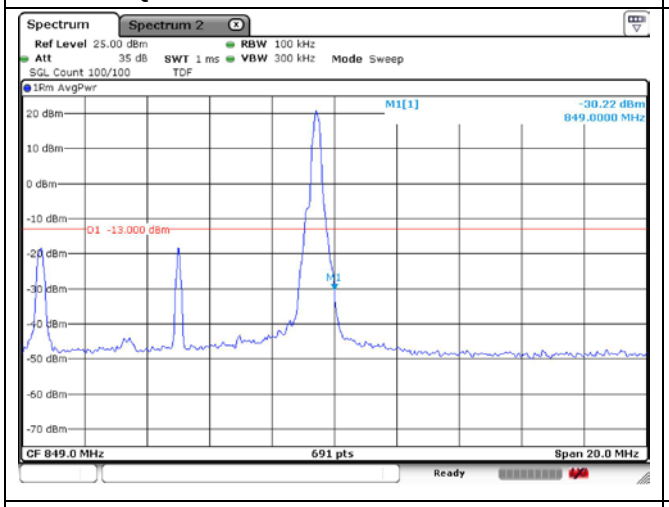
LTE band 26/5 (10 ㎒)



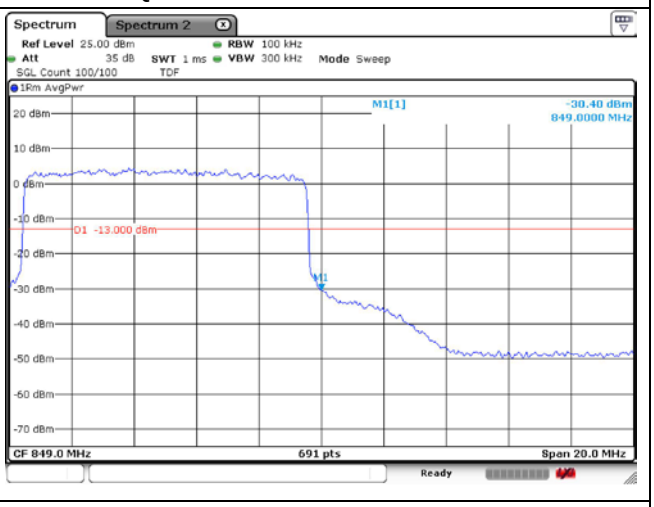
QPSK Middle Channel - 1 RB Low



QPSK Middle Channel - Full RB

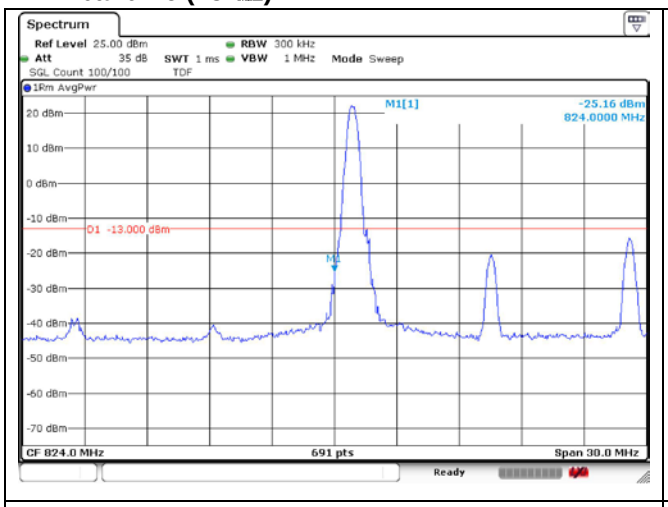


QPSK Middle Channel - 1 RB High

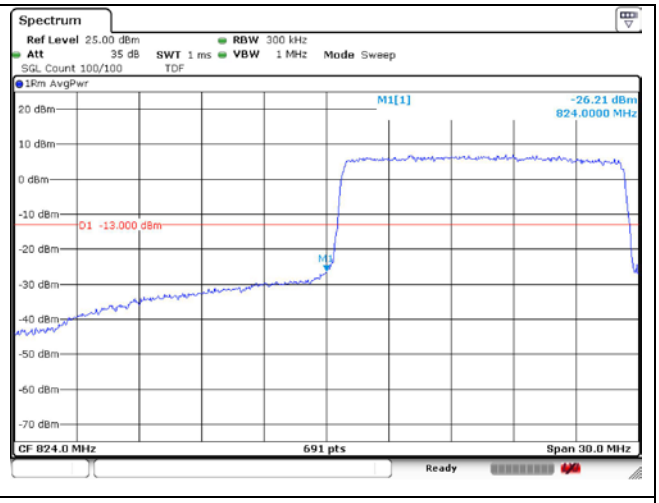


QPSK Middle Channel - Full RB

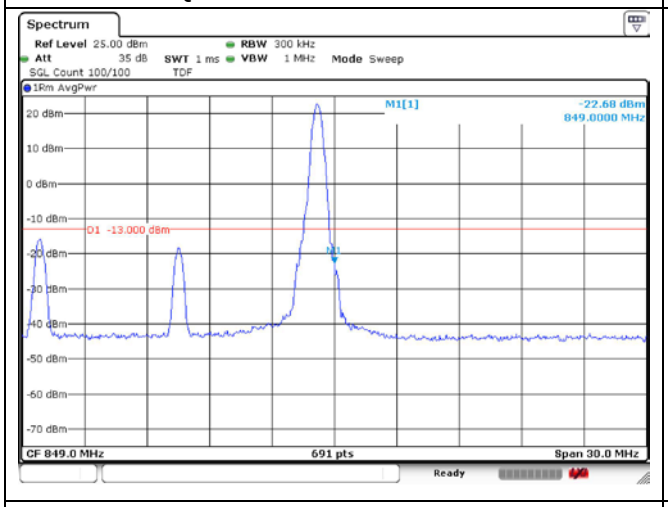
LTE band 26 (15 ㎒)



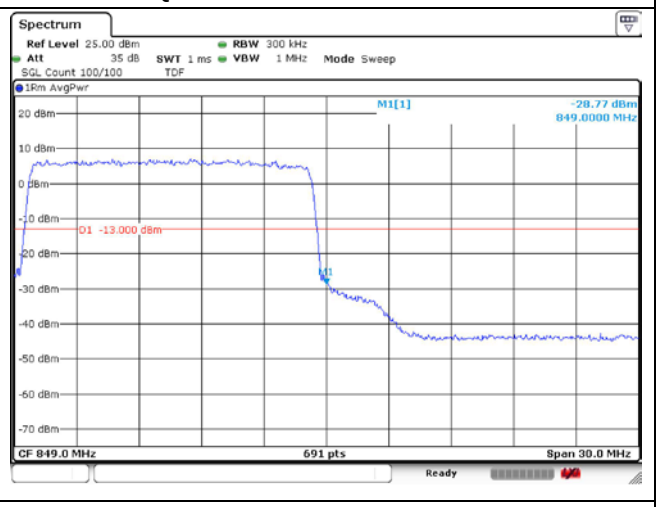
QPSK Low Channel - 1 RB



QPSK Low Channel - Full RB



QPSK High Channel - 1 RB



QPSK High Channel - Full RB