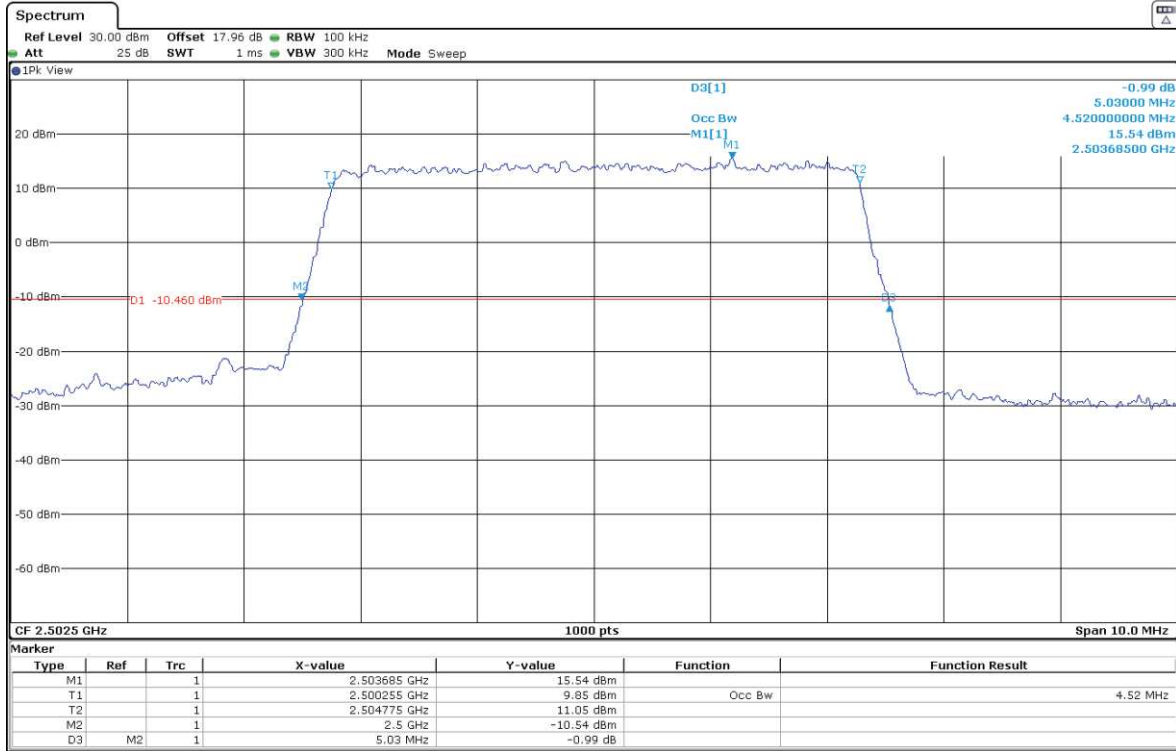
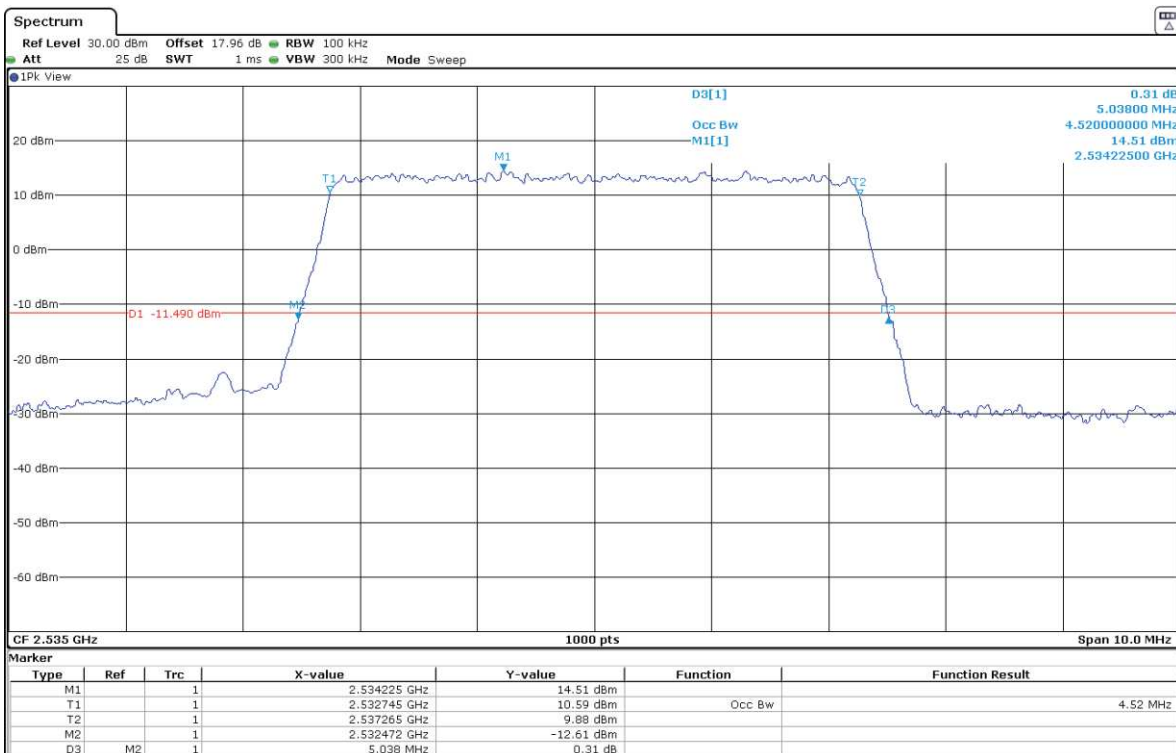


LTE Band 7. BW = 5 MHz. QPSK

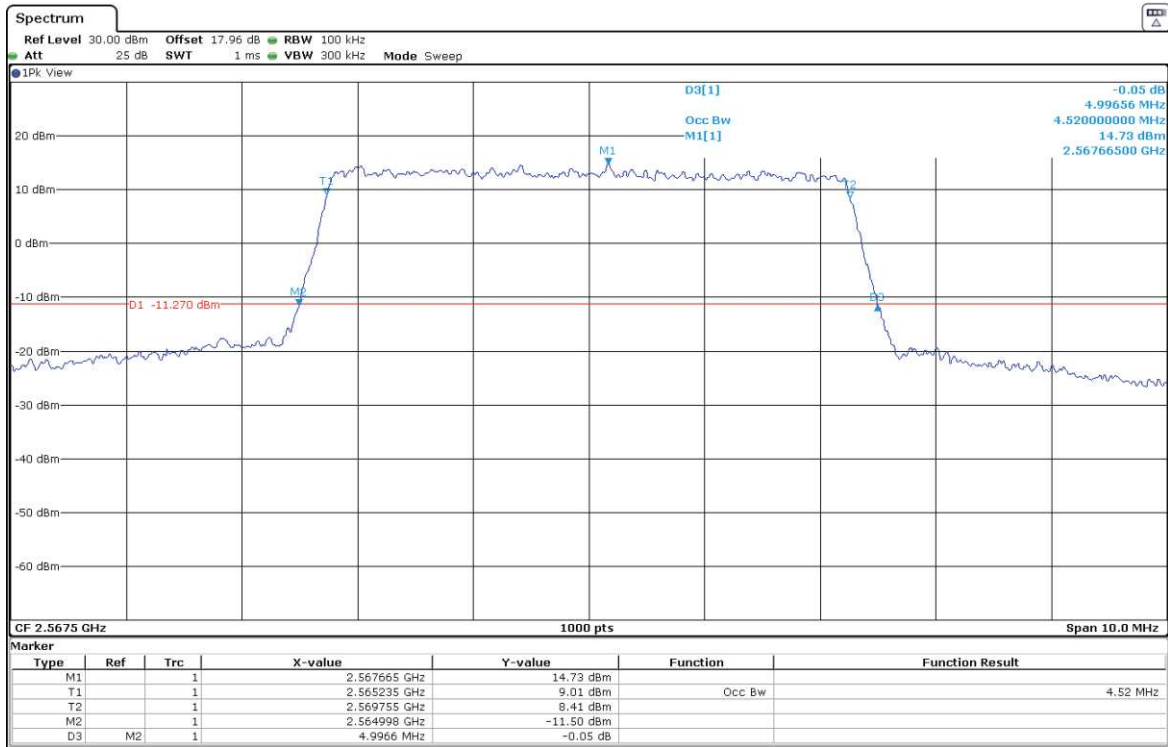
Lowest Channel:



Middle Channel:

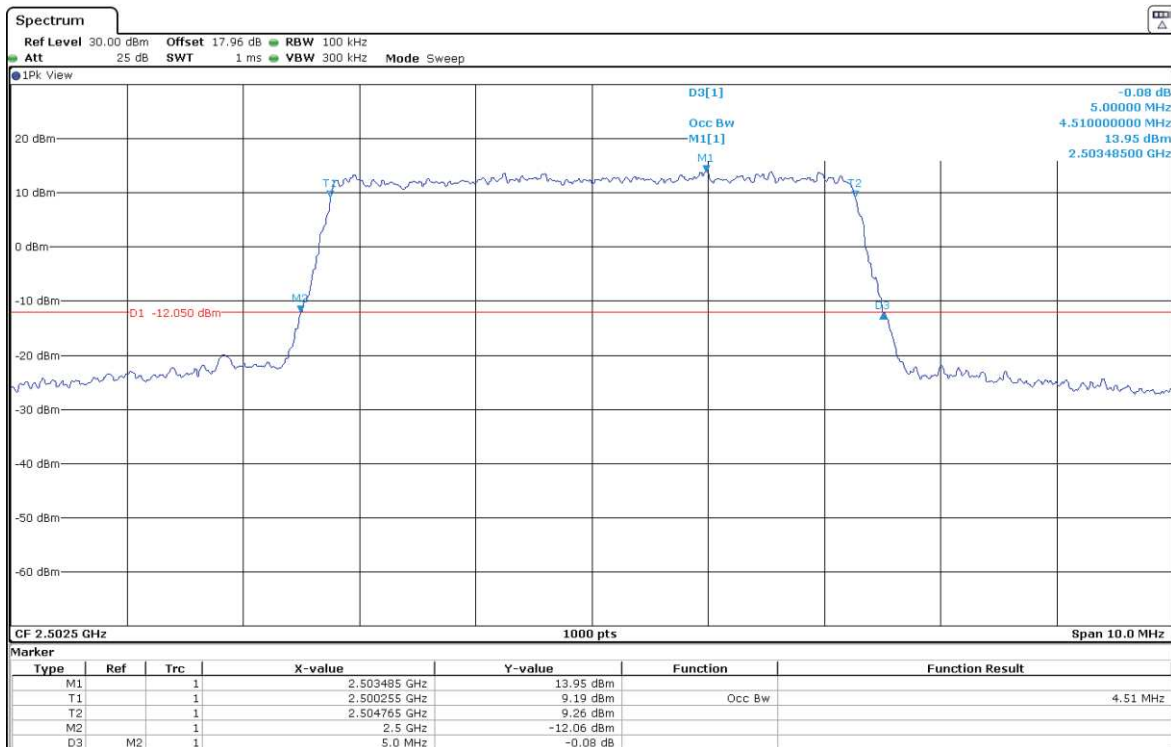


Highest Channel:

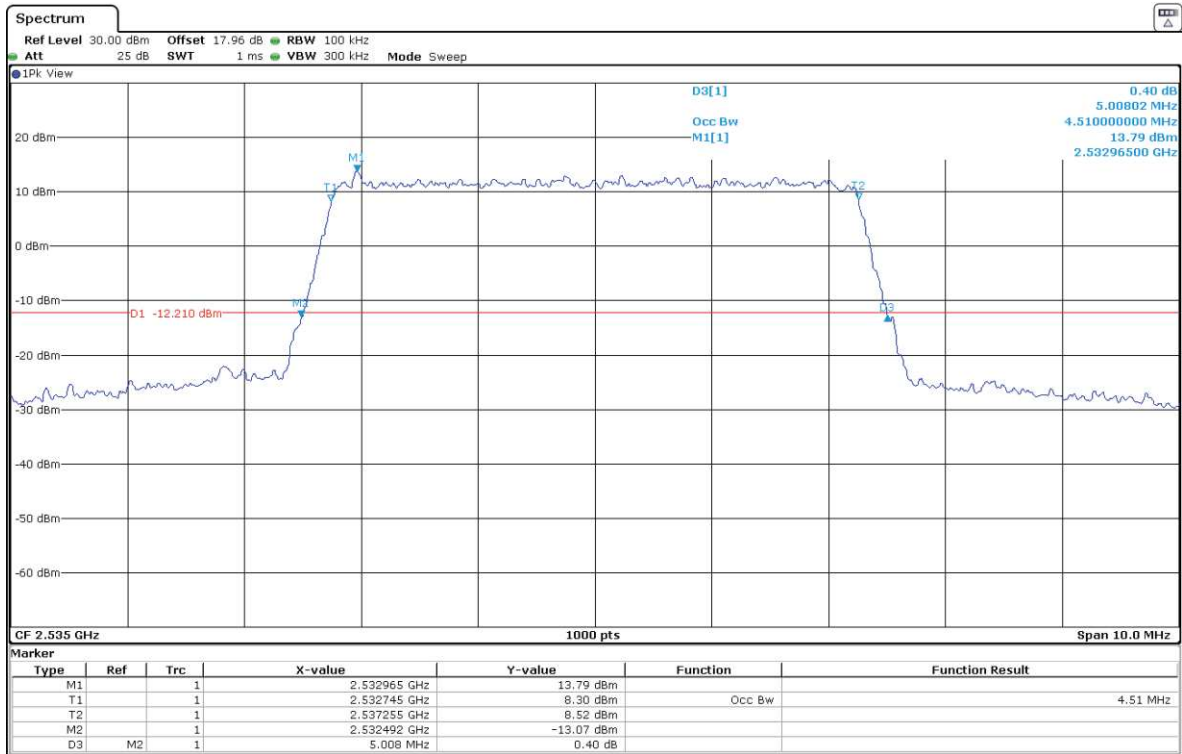


LTE Band 7. BW = 5 MHz. 16QAM.

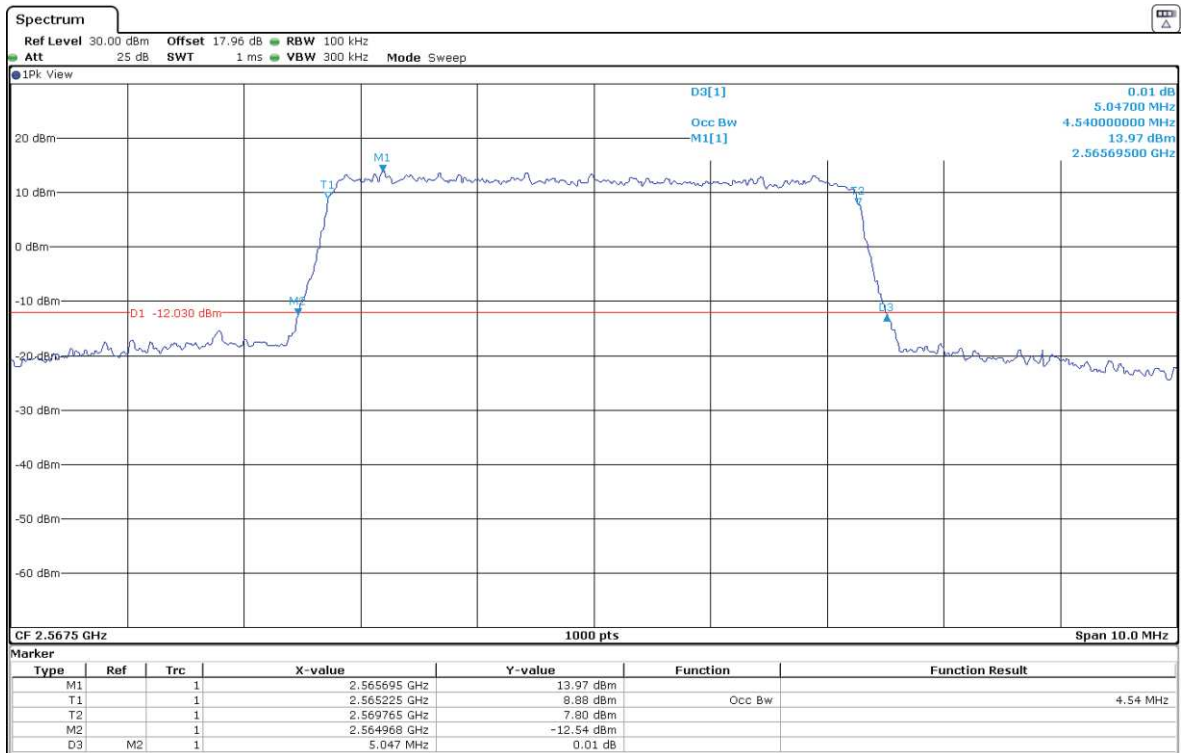
Lowest Channel:



Middle Channel:

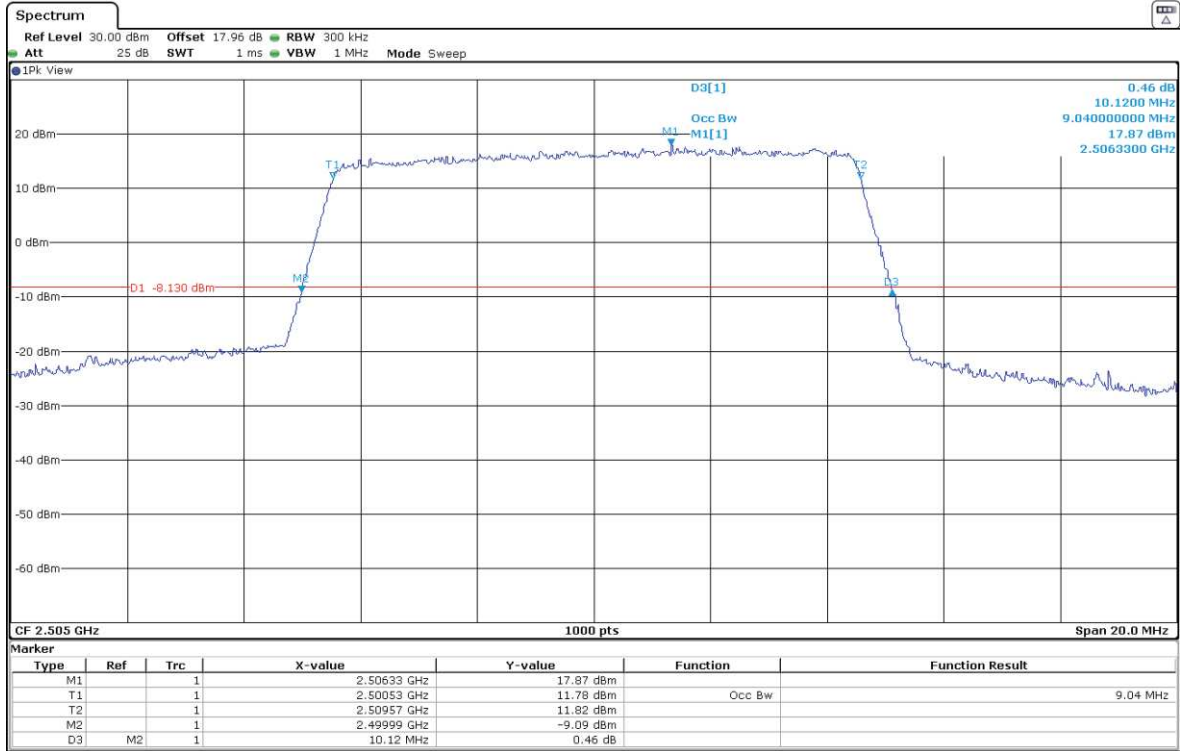


Highest Channel:

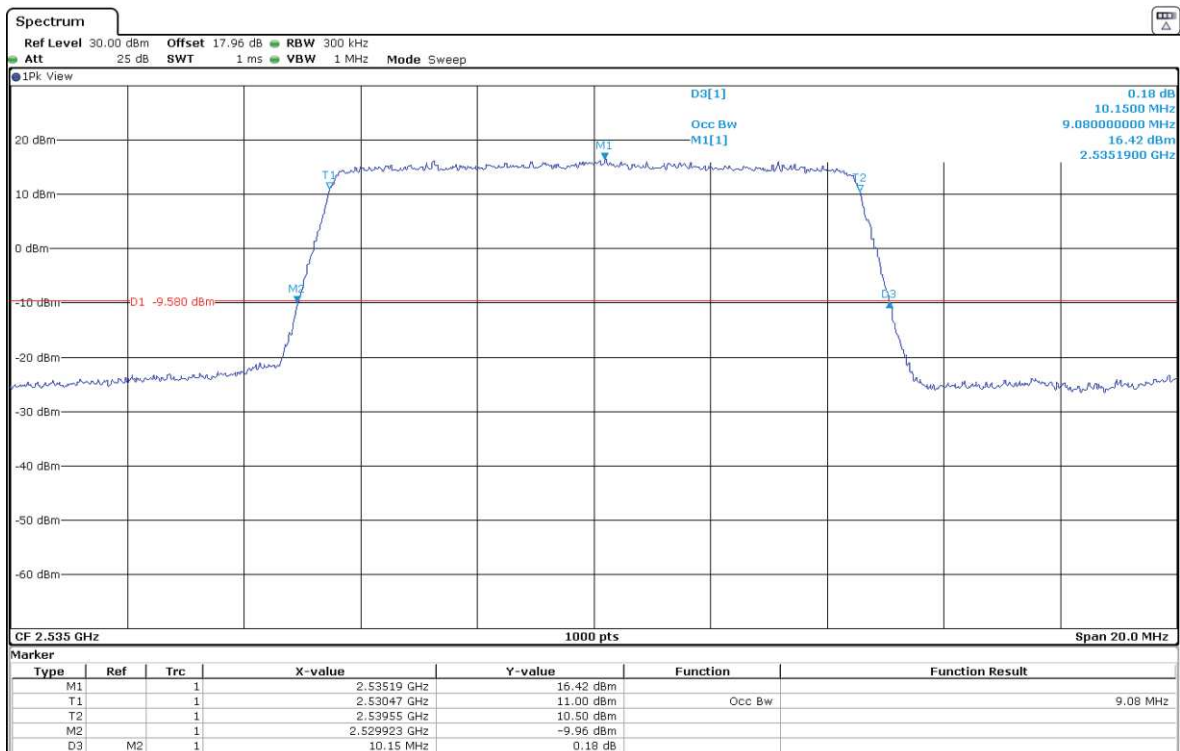


LTE Band 7. BW = 10 MHz. QPSK.

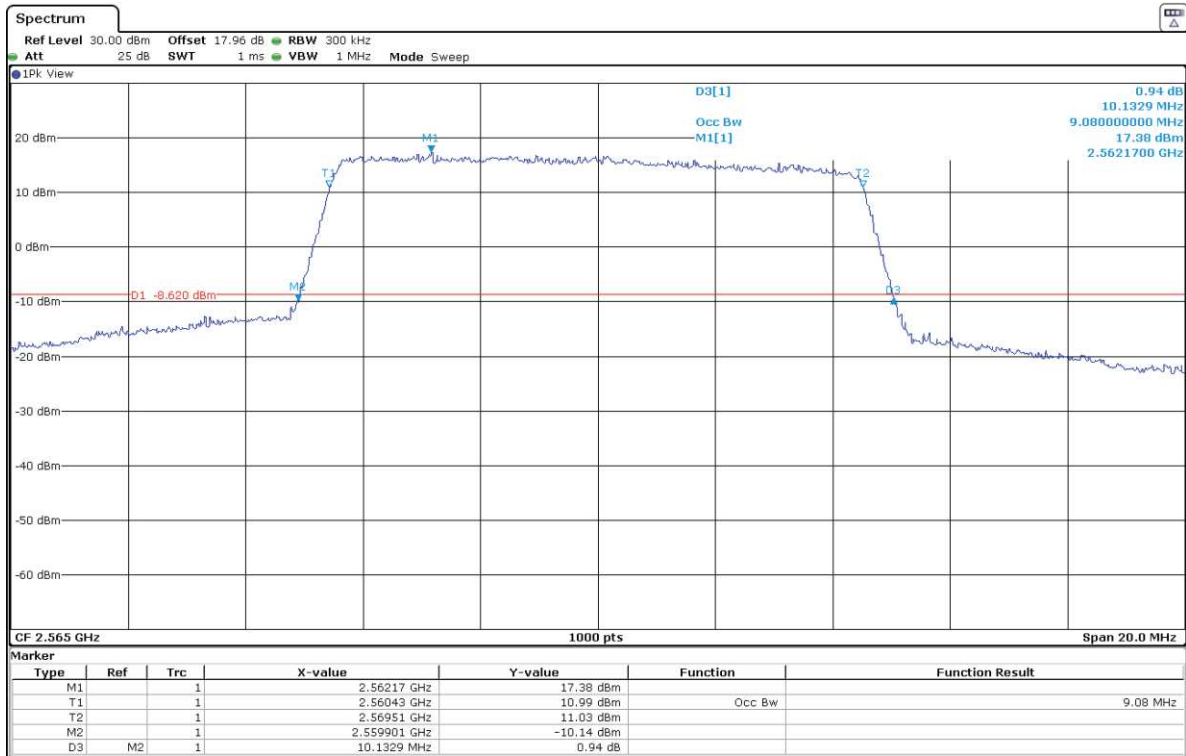
Lowest Channel:



Middle Channel:

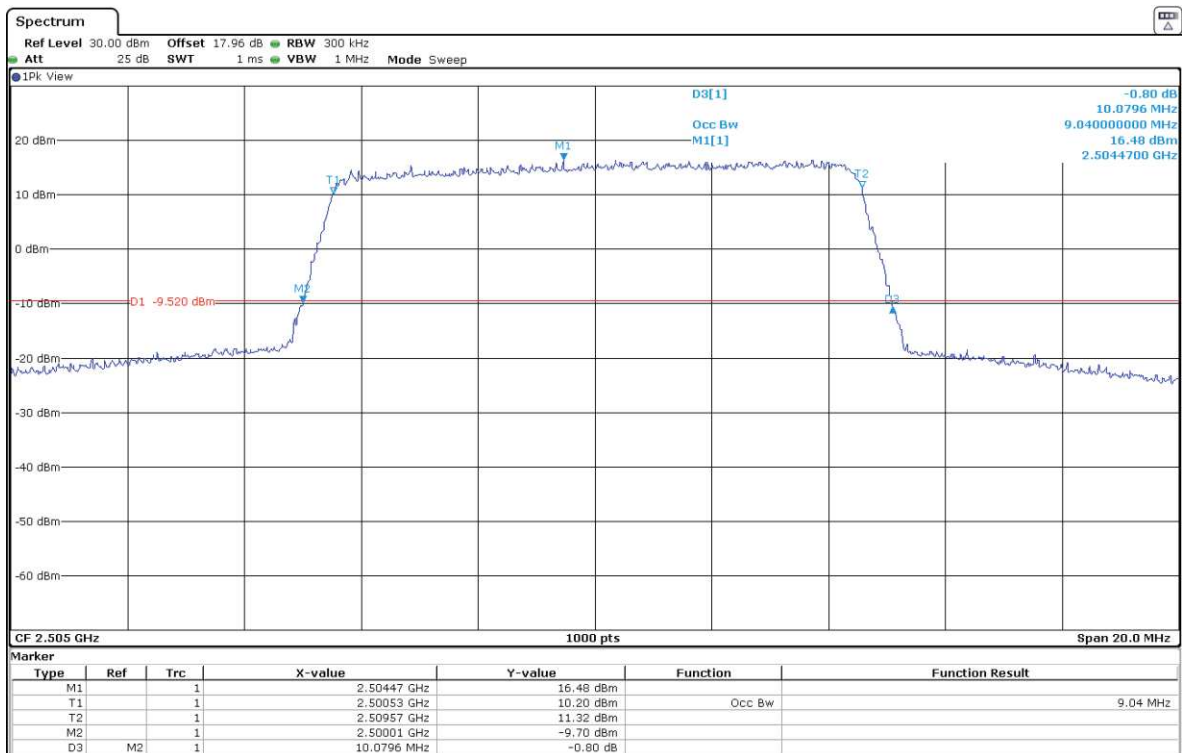


Highest Channel:

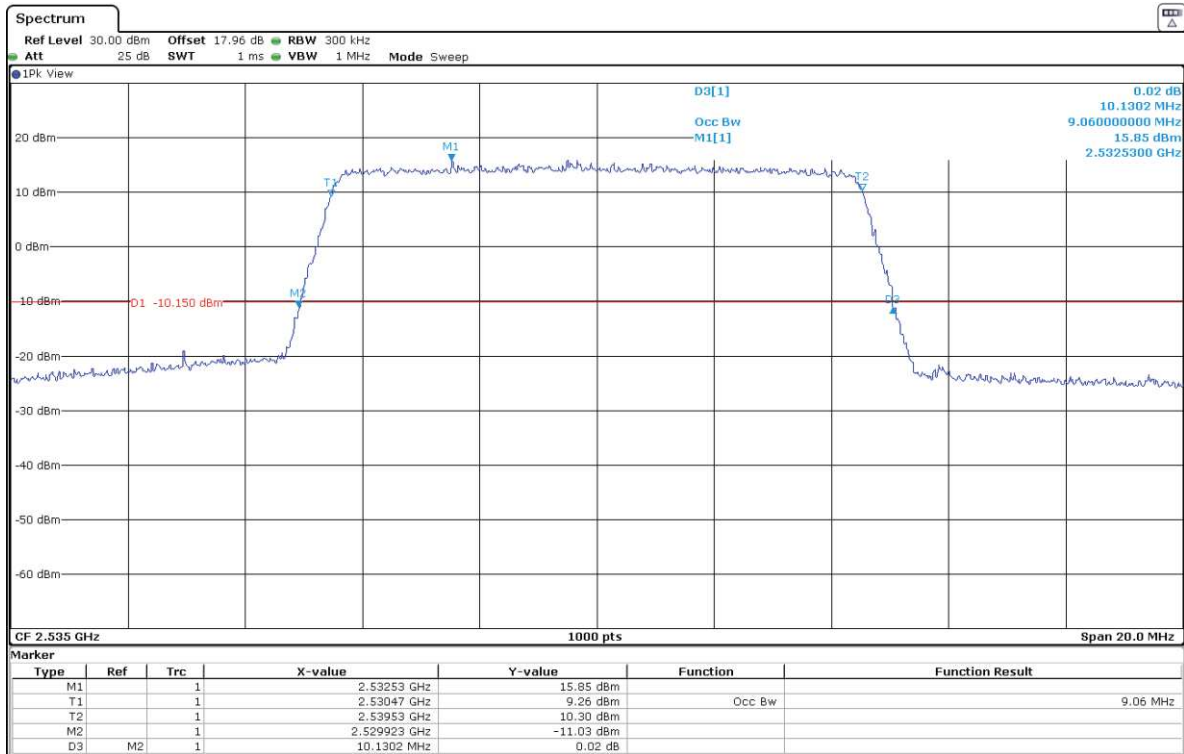


LTE Band 7. BW = 10 MHz. 16QAM.

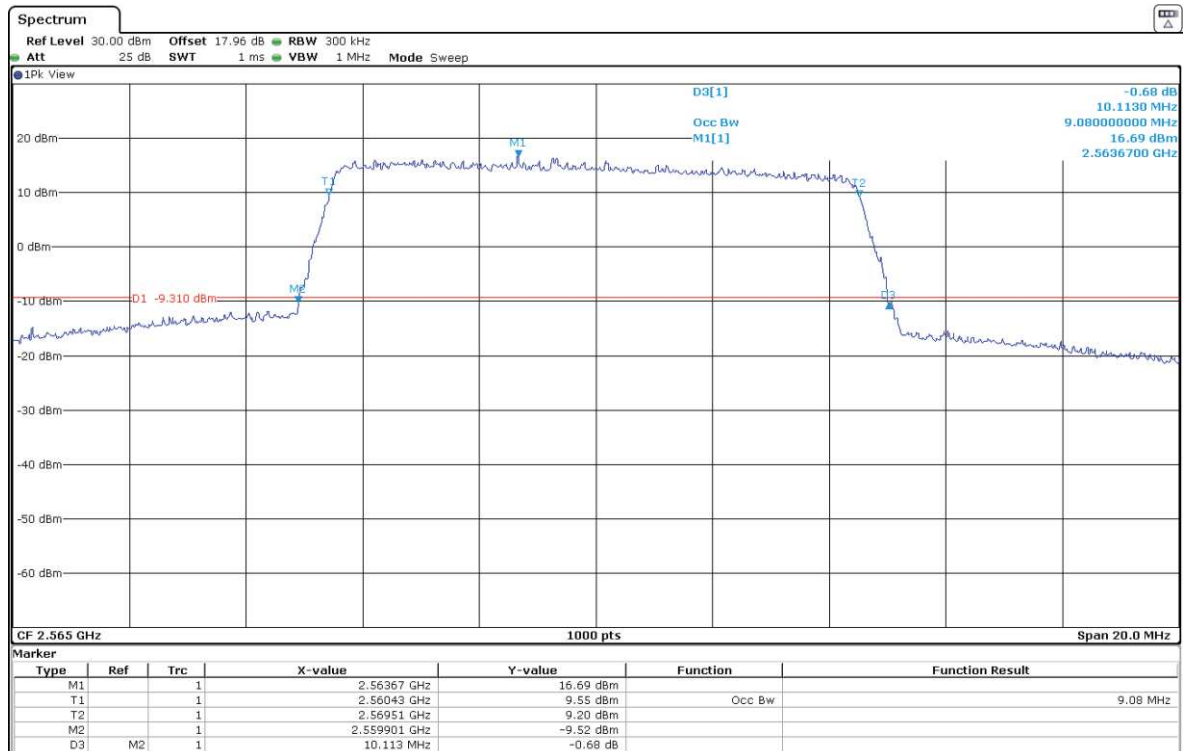
Lowest Channel:



Middle Channel:

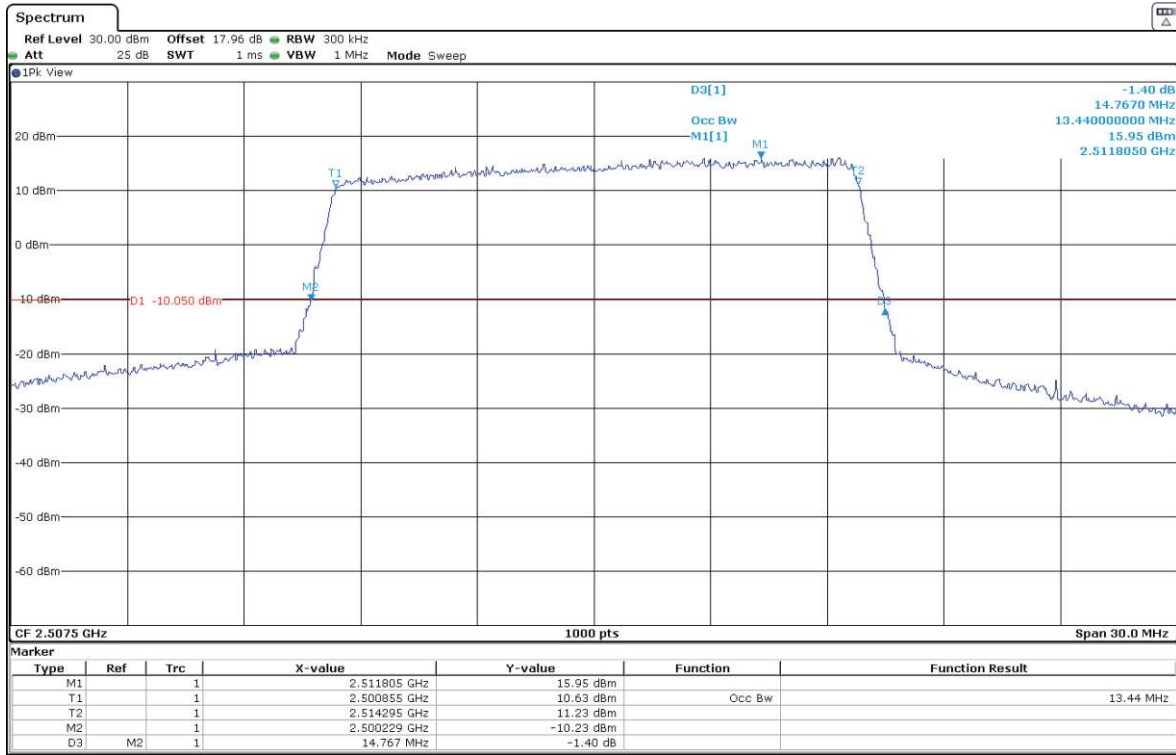


Highest Channel:

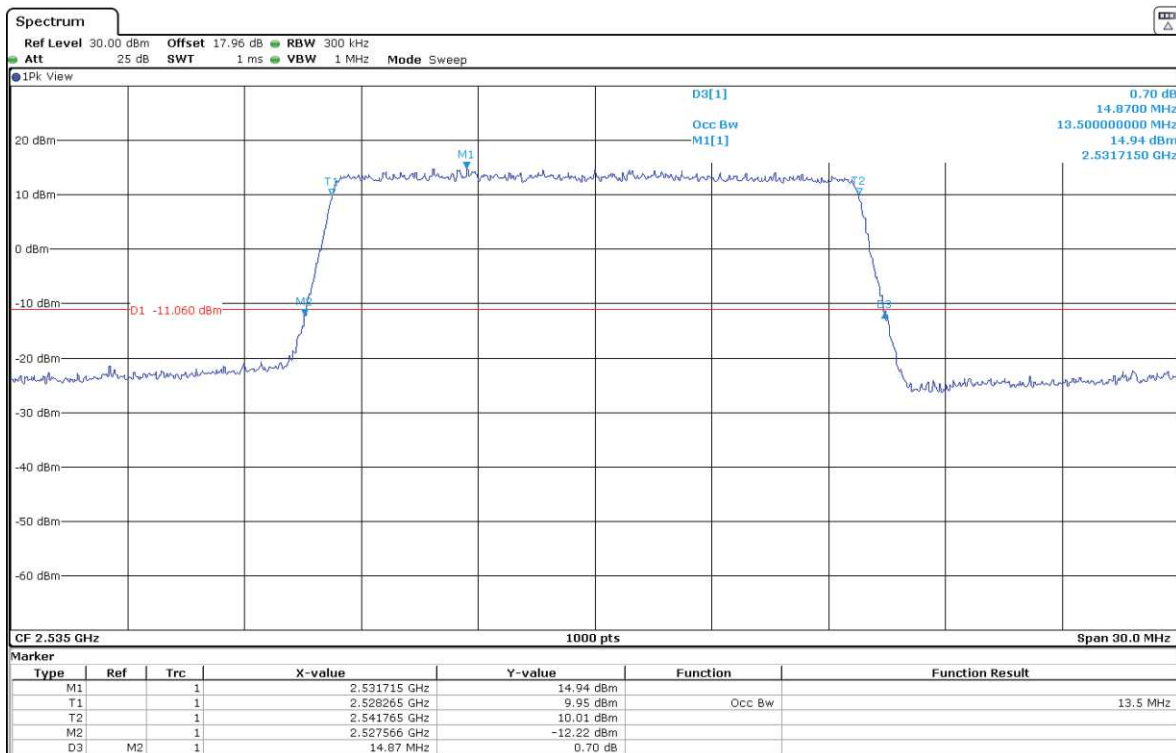


LTE Band 7. BW = 15 MHz. QPSK.

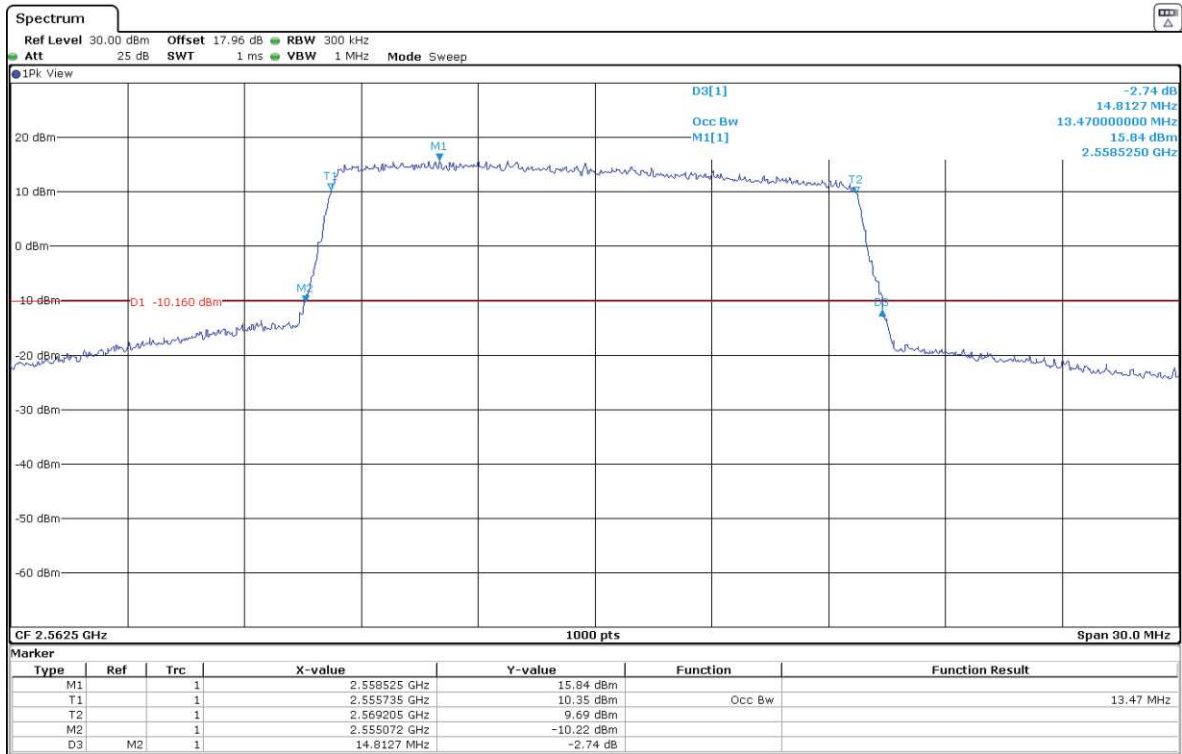
Lowest Channel:



Middle Channel:

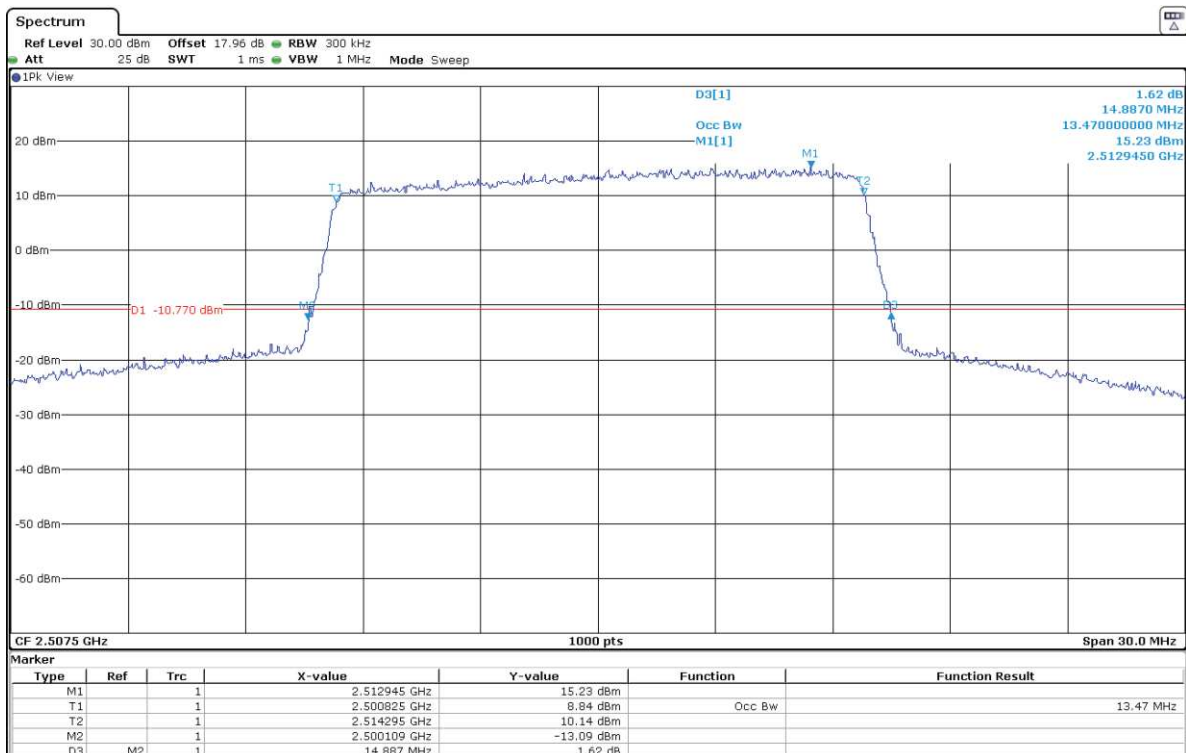


Highest Channel:

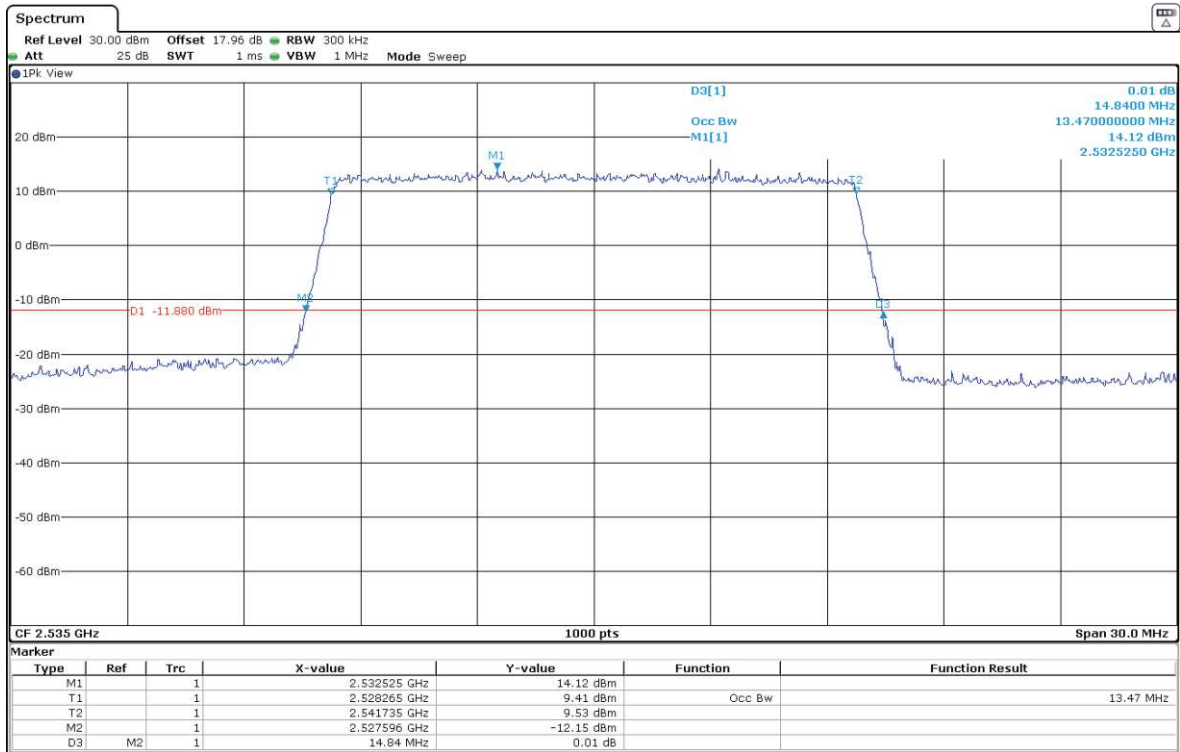


LTE Band 7. BW = 15 MHz. 16QAM.

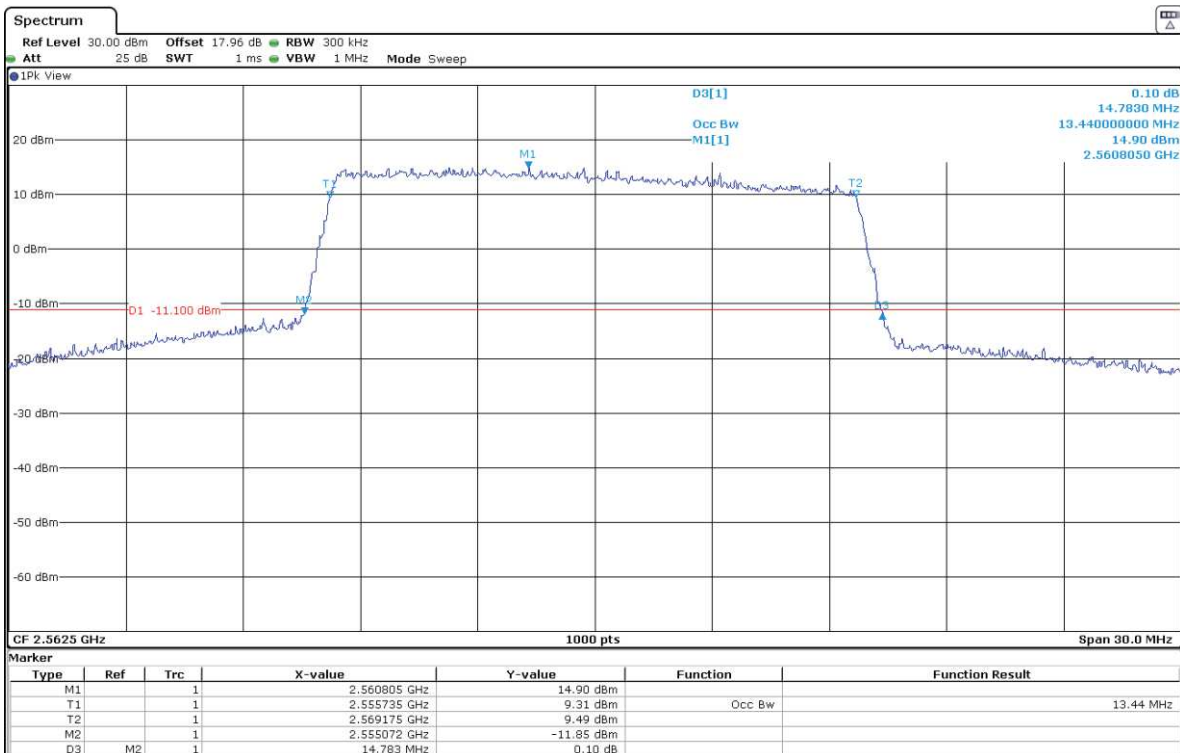
Lowest Channel:



Middle Channel:

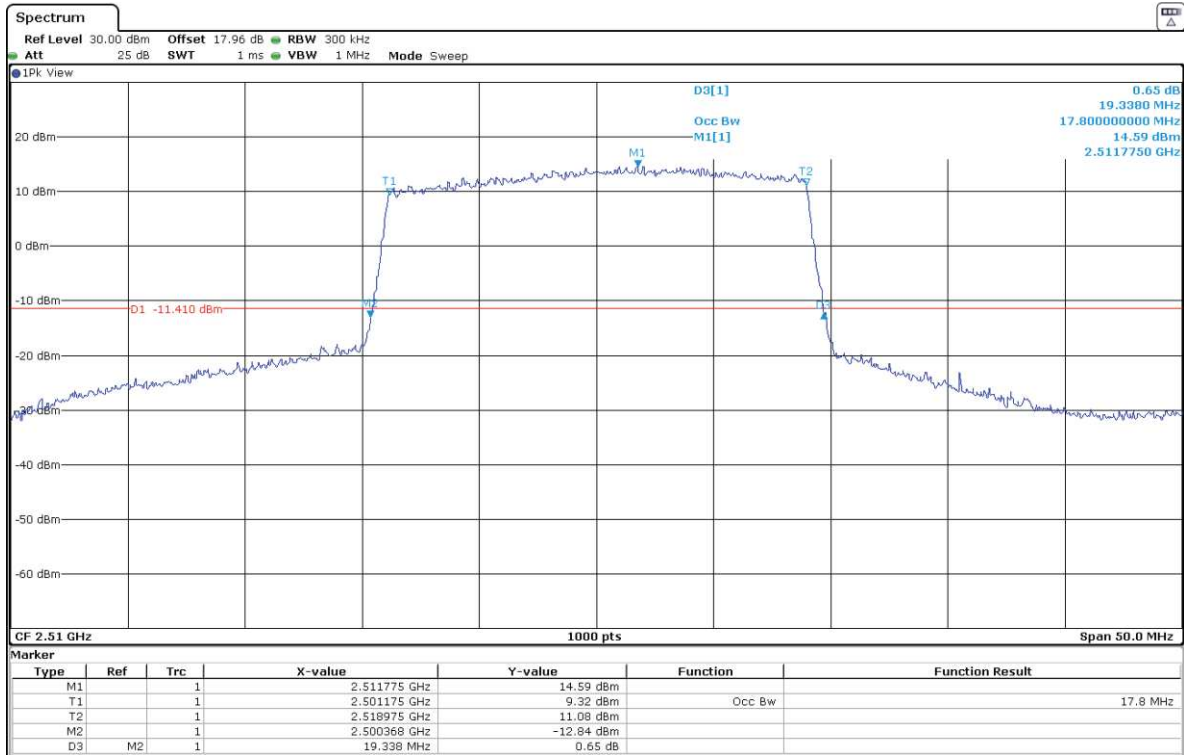


Highest Channel:

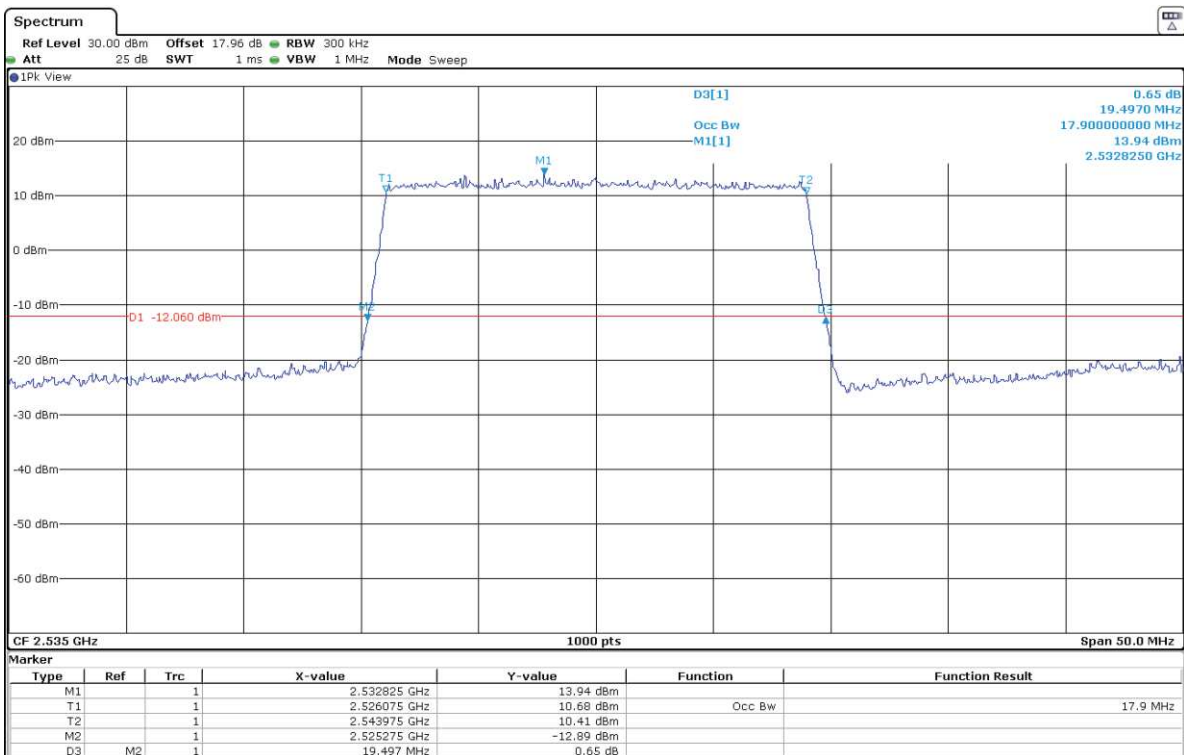


LTE Band 7. BW = 20 MHz. QPSK.

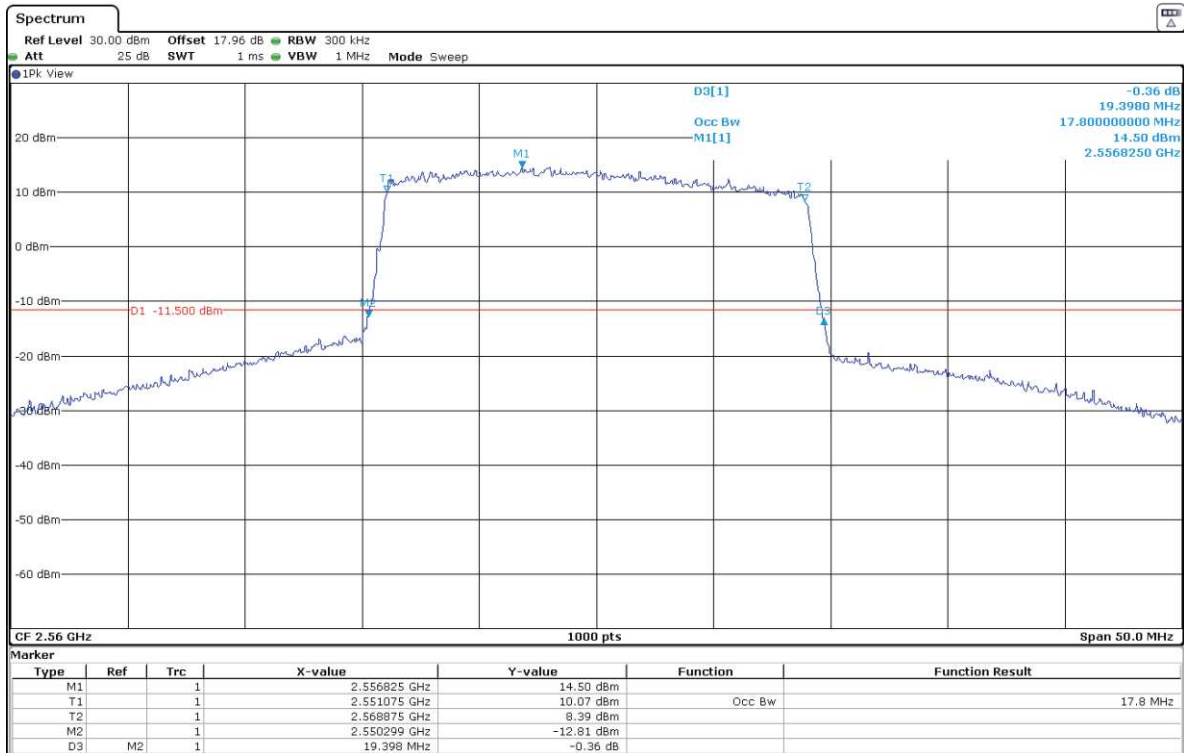
Lowest Channel:



Middle Channel:

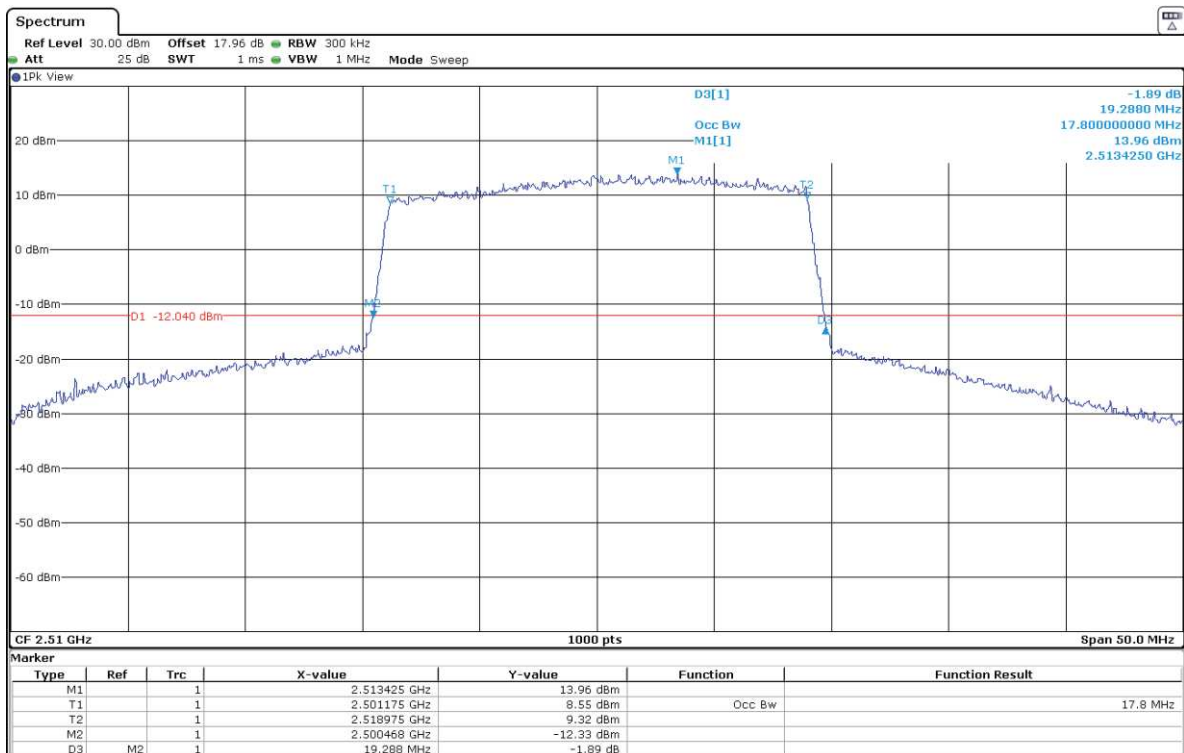


Highest Channel:

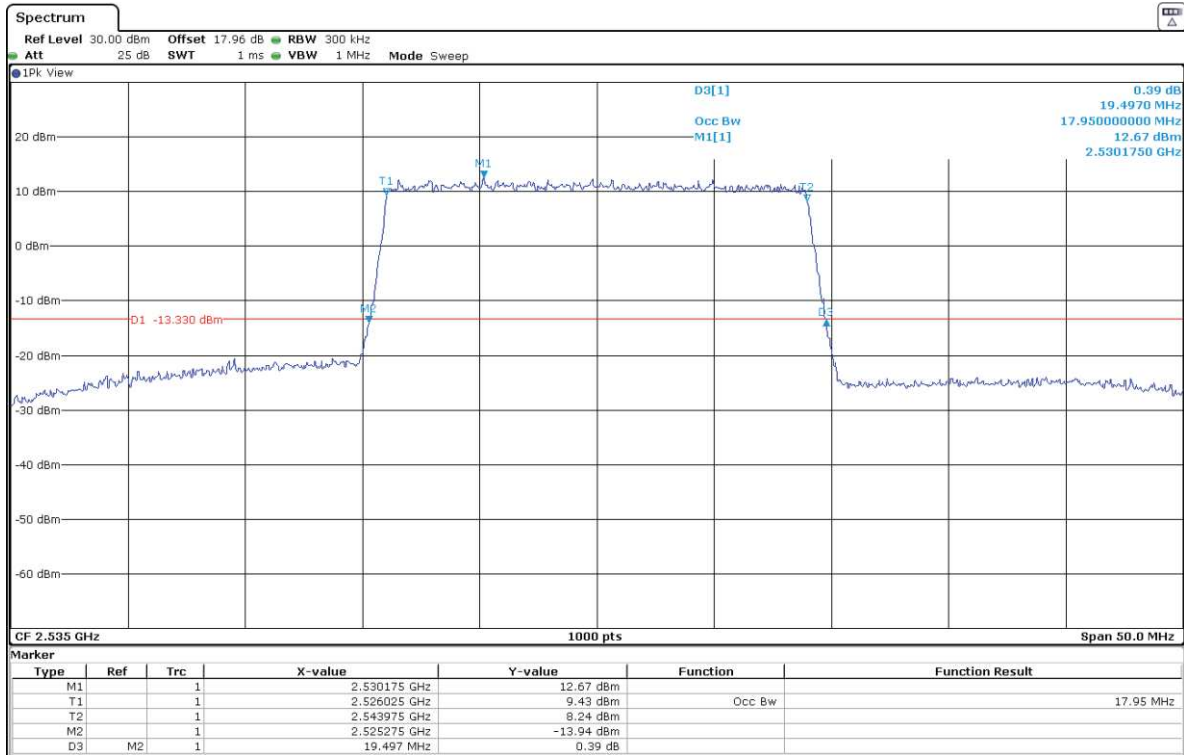


LTE Band 7. BW = 20 MHz. 16QAM.

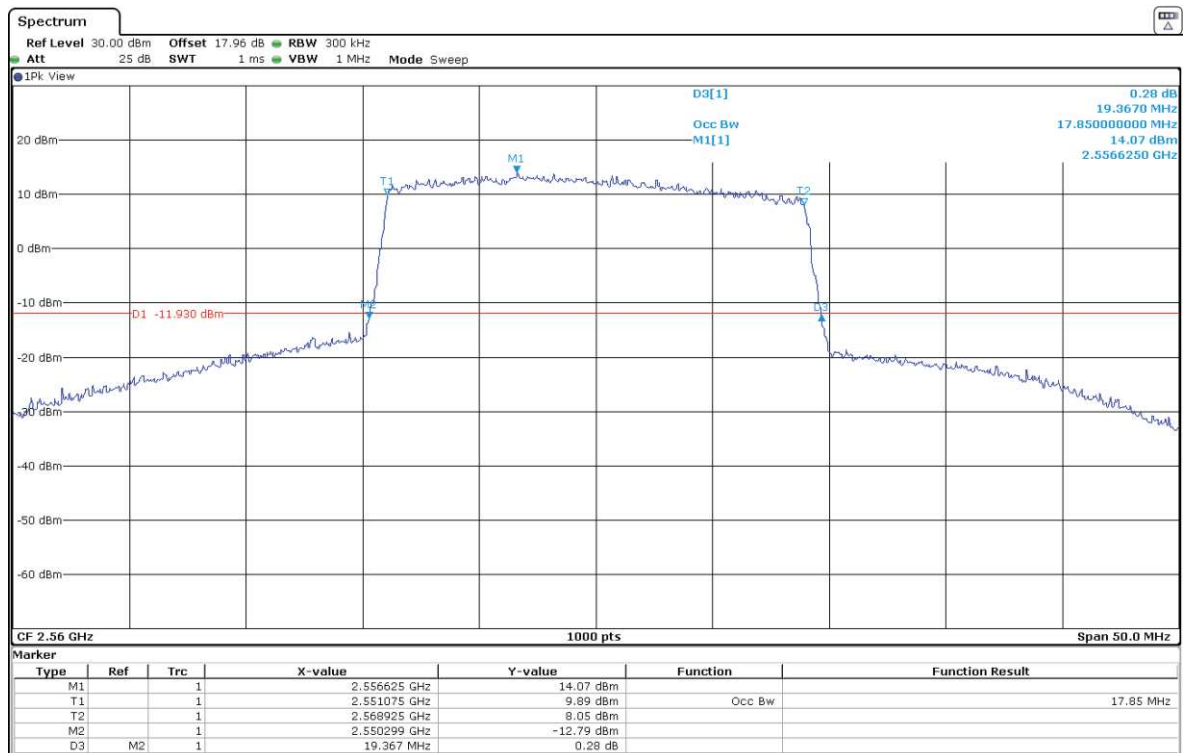
Lowest Channel:



Middle Channel:

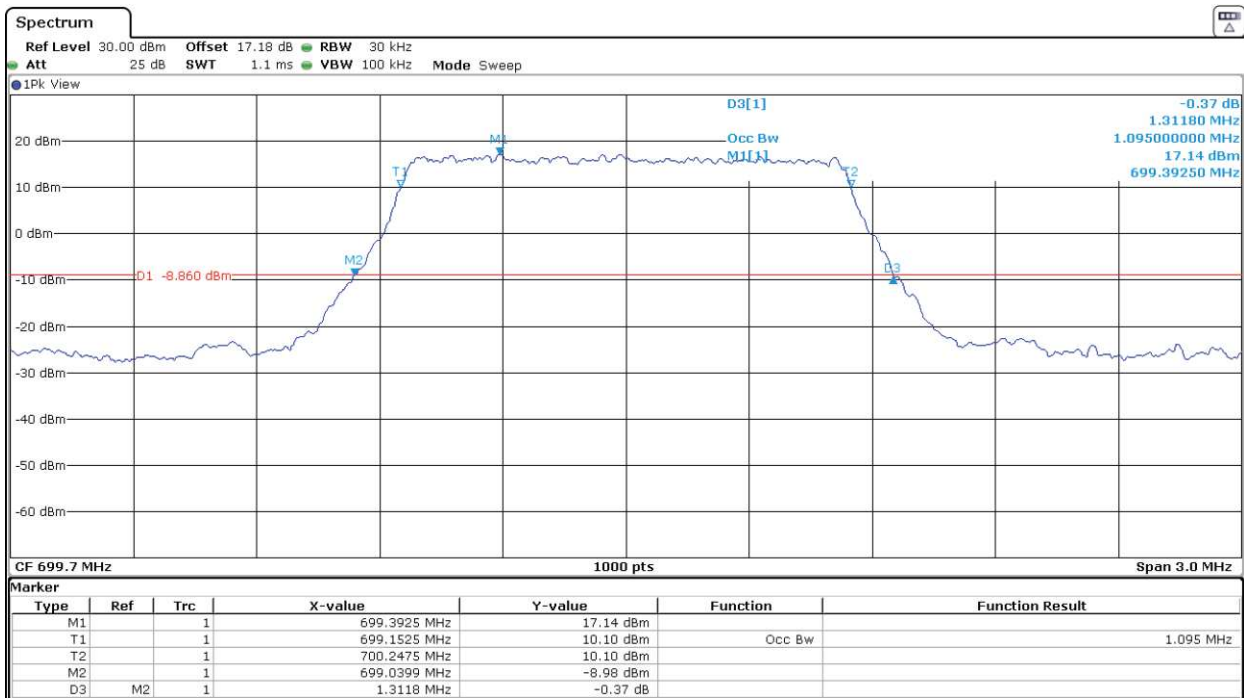


Highest Channel:

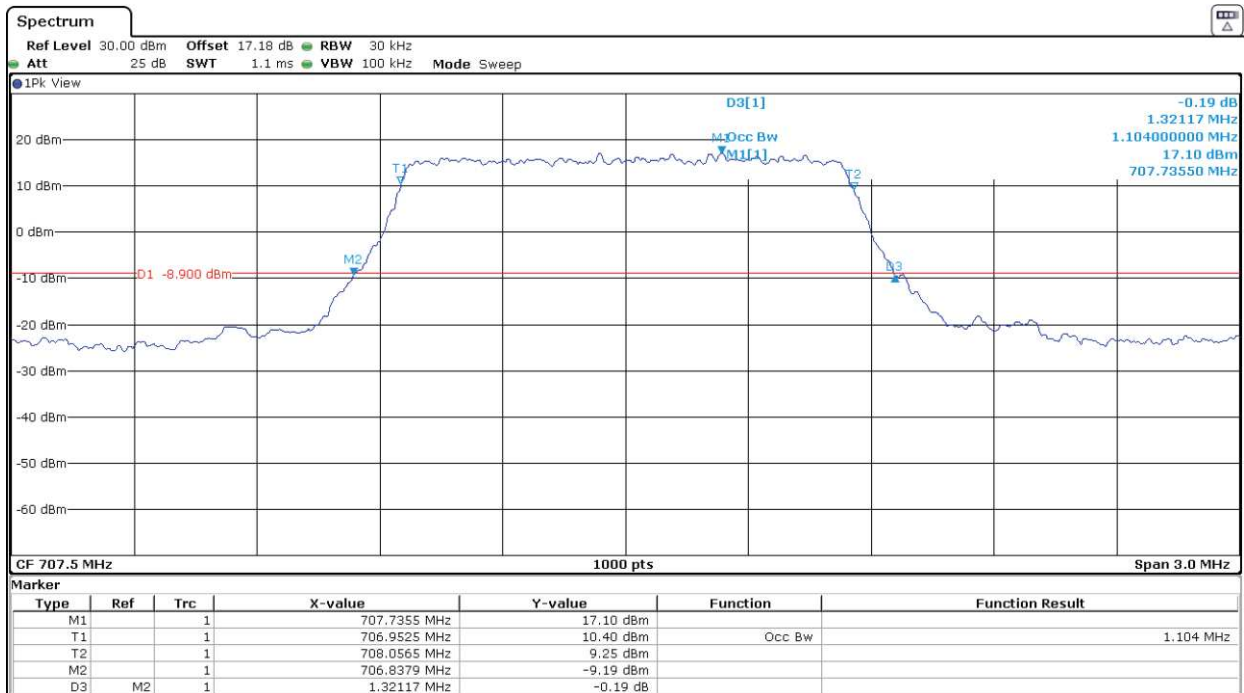


LTE Band 12. BW = 1.4 MHz. QPSK.

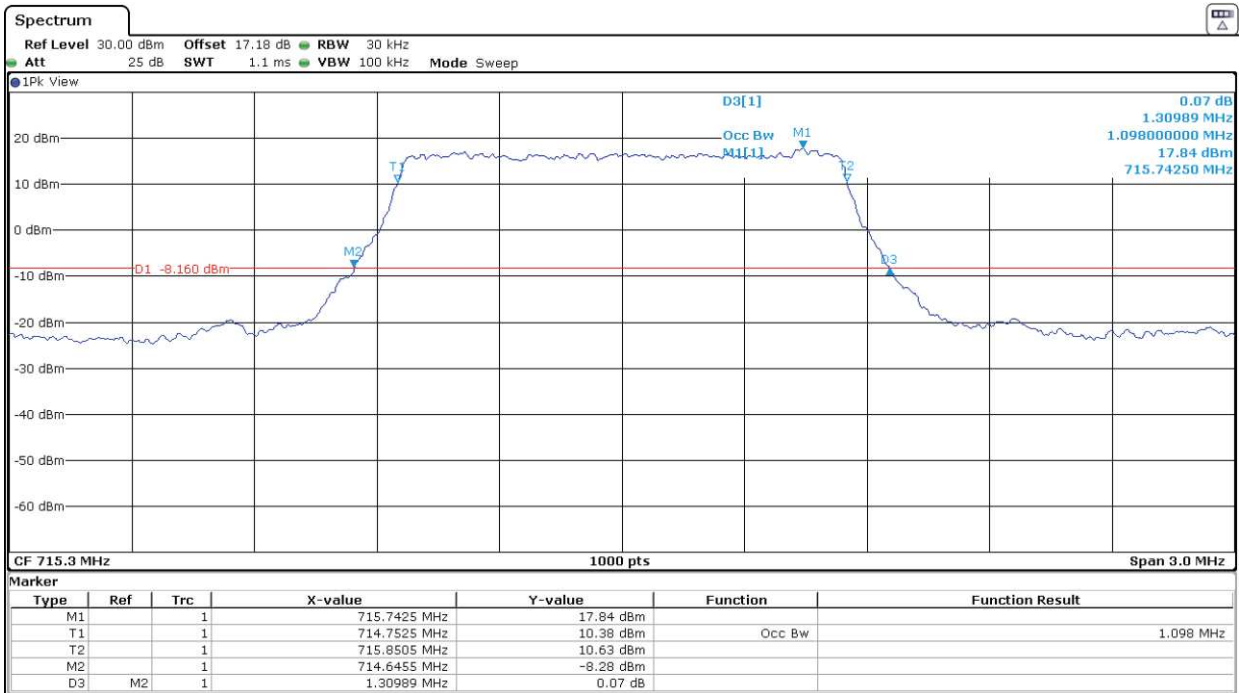
Lowest Channel:



Middle Channel:

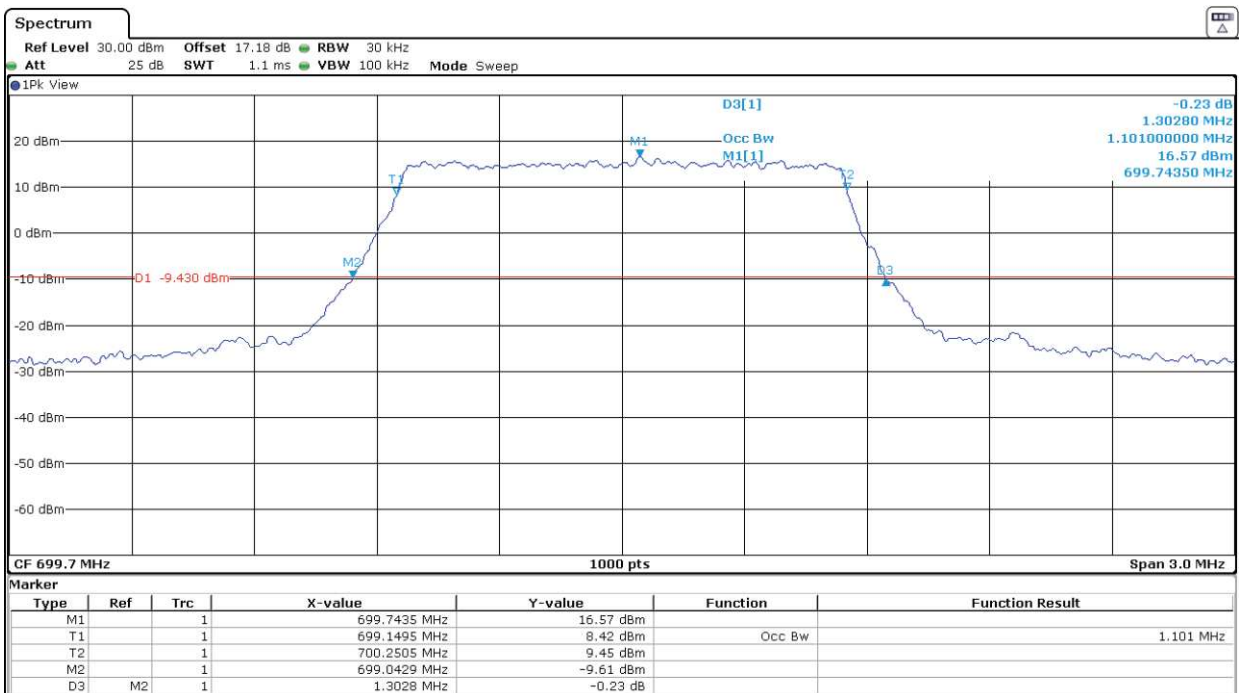


Highest Channel:

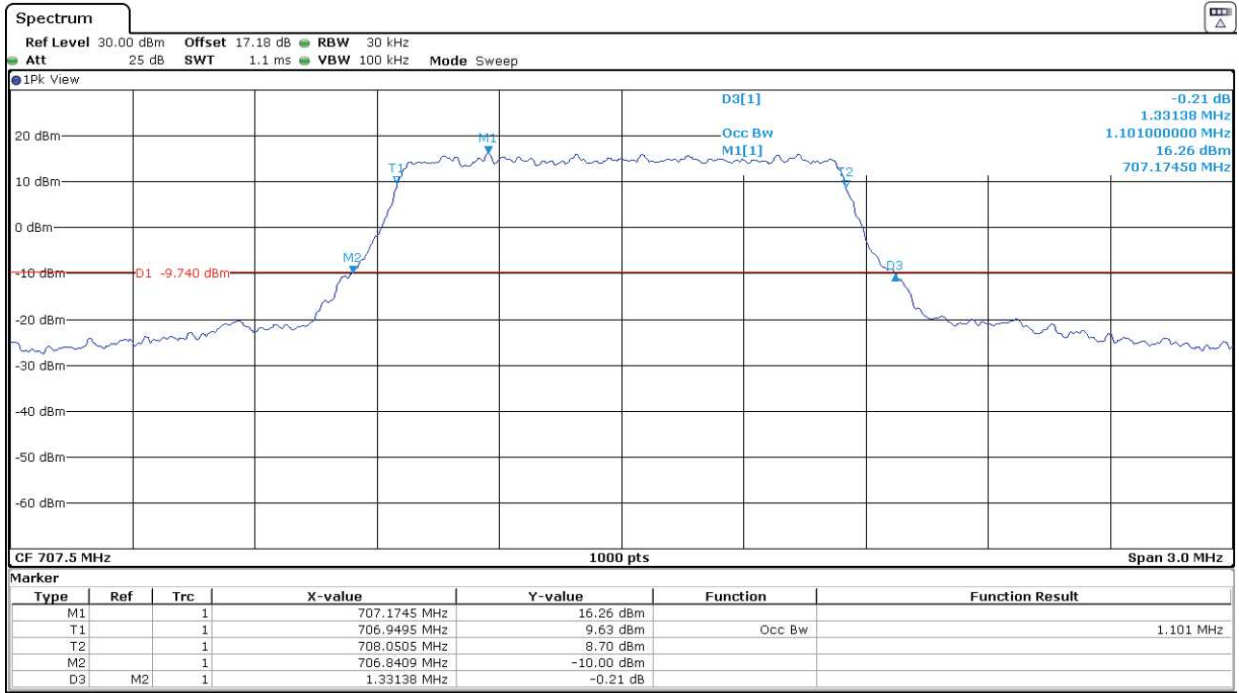


LTE Band 12. BW = 1.4 MHz. 16QAM.

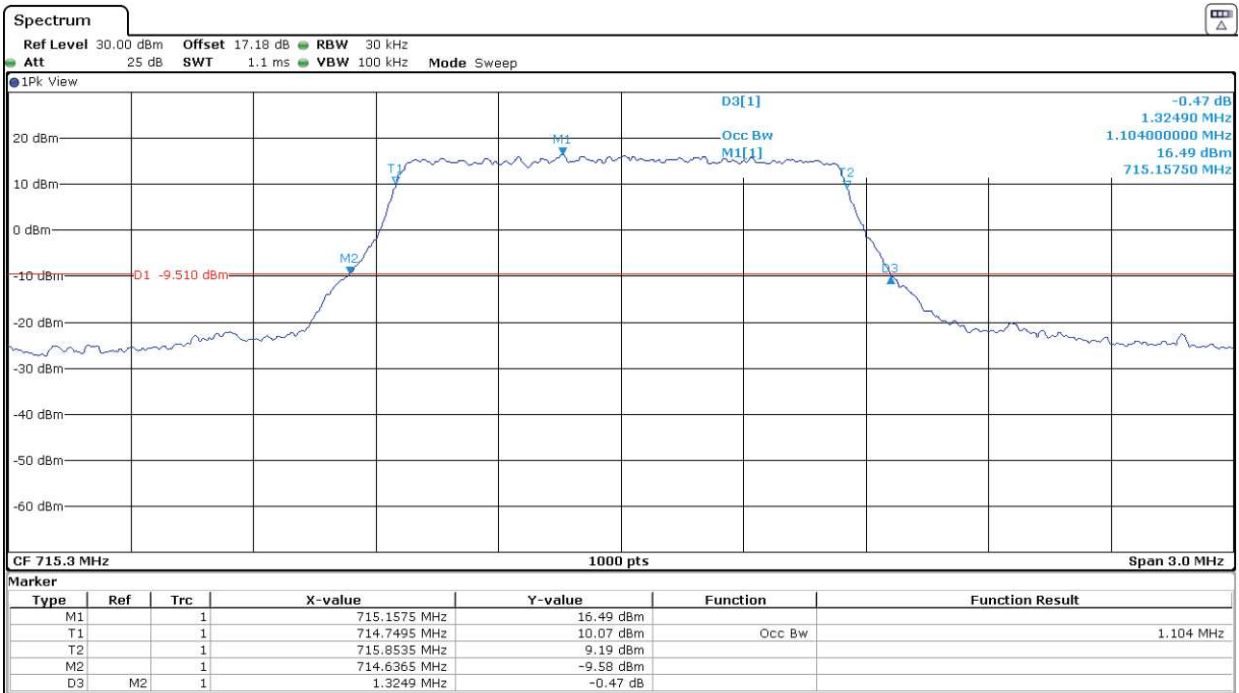
Lowest Channel:



Middle Channel:

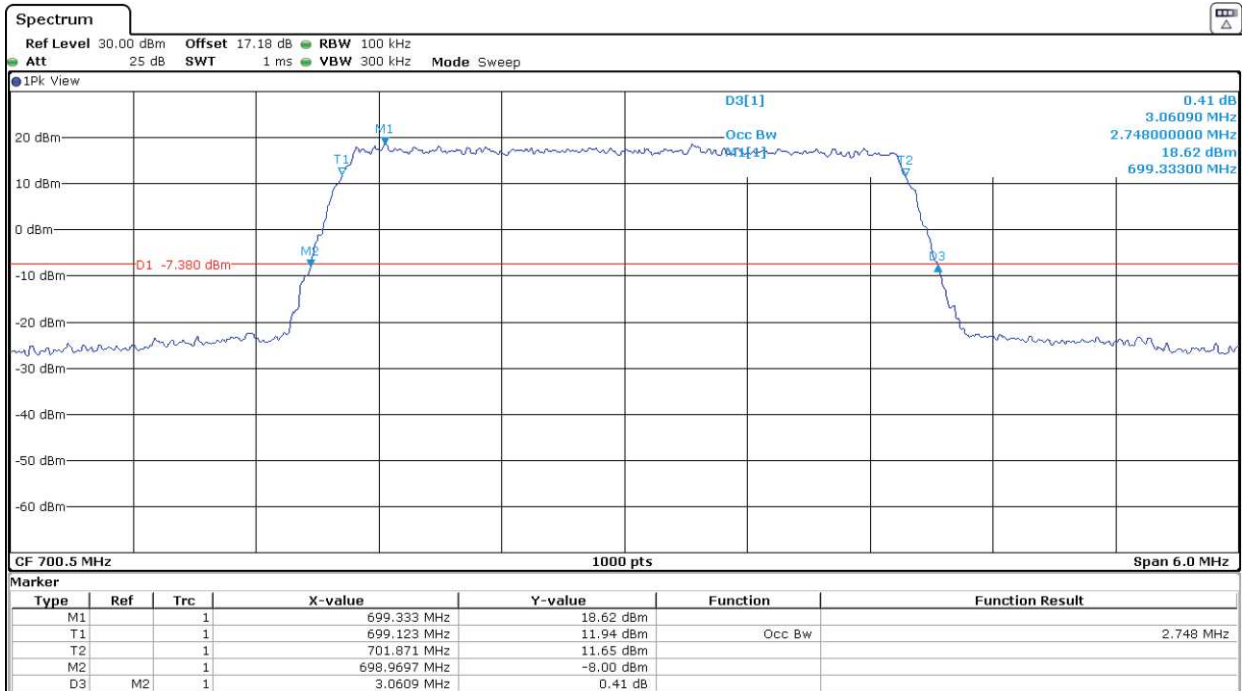


Highest Channel:

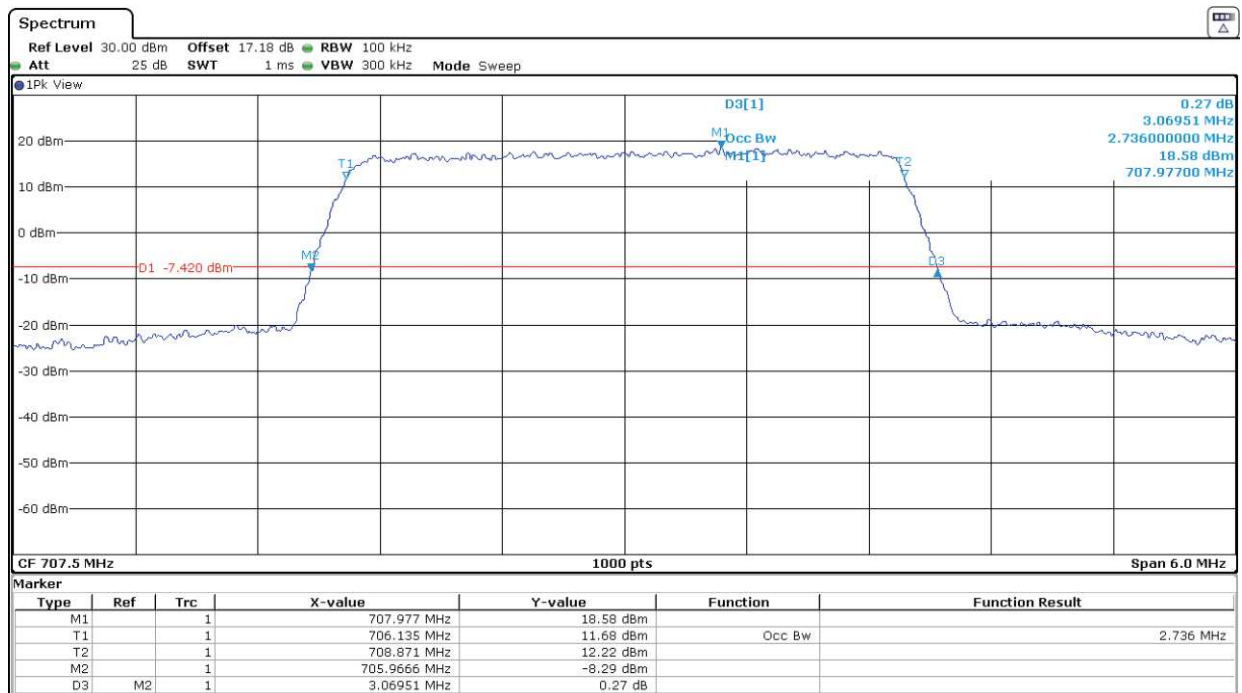


LTE Band 12. BW = 3 MHz. QPSK.

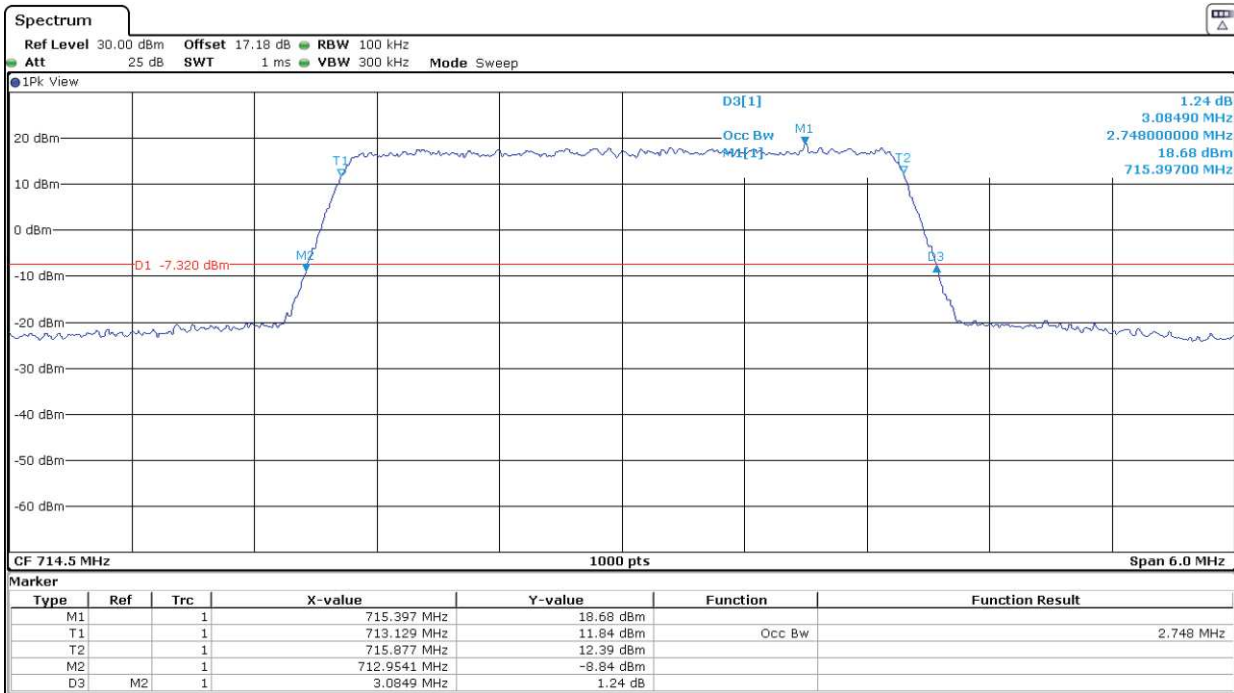
Lowest Channel:



Middle Channel:

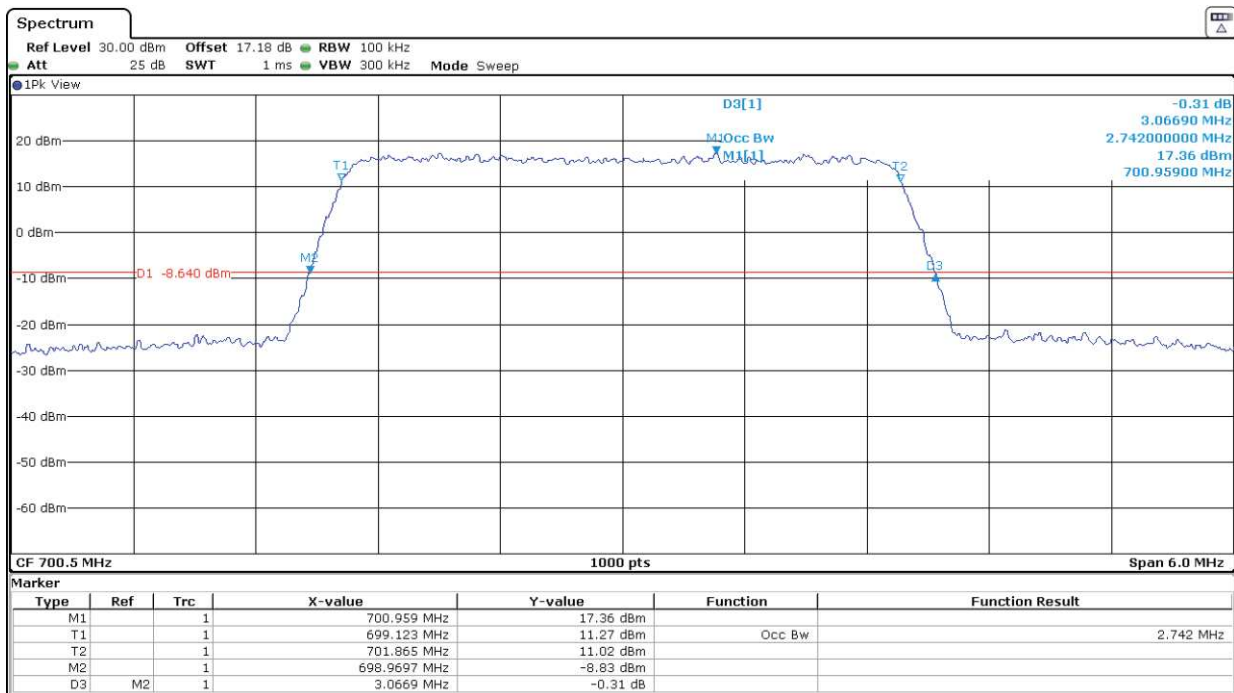


Highest Channel:

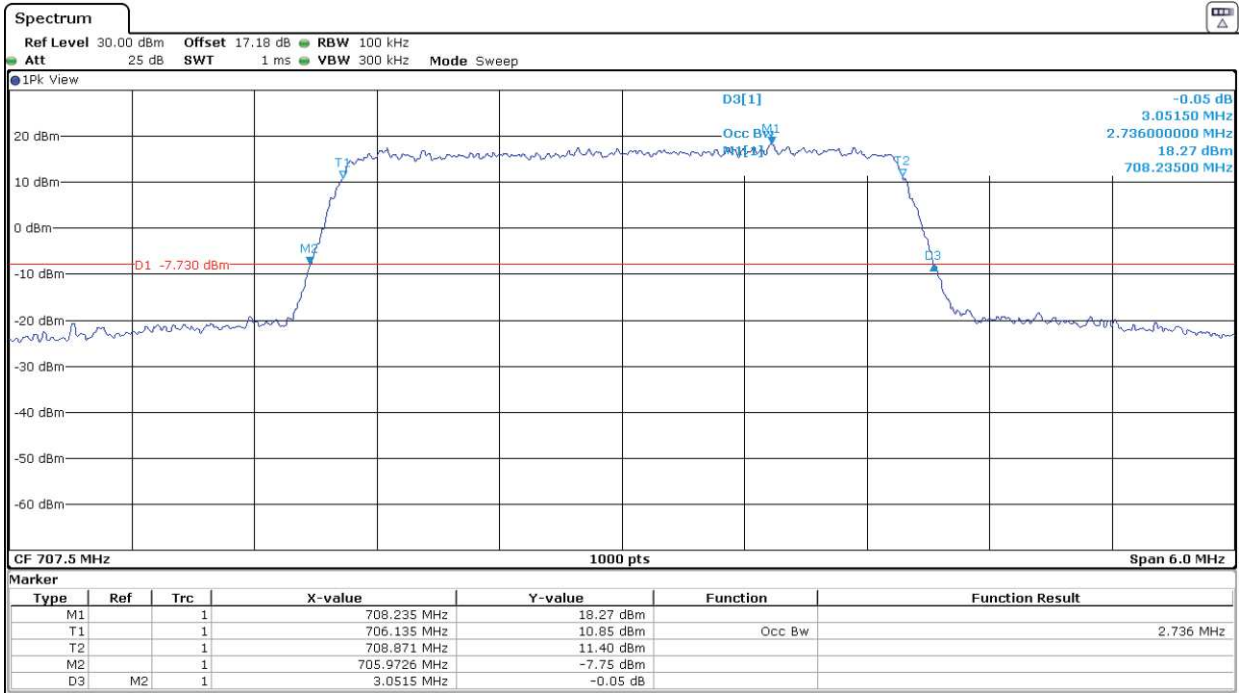


LTE Band 12. BW = 3 MHz. 16QAM.

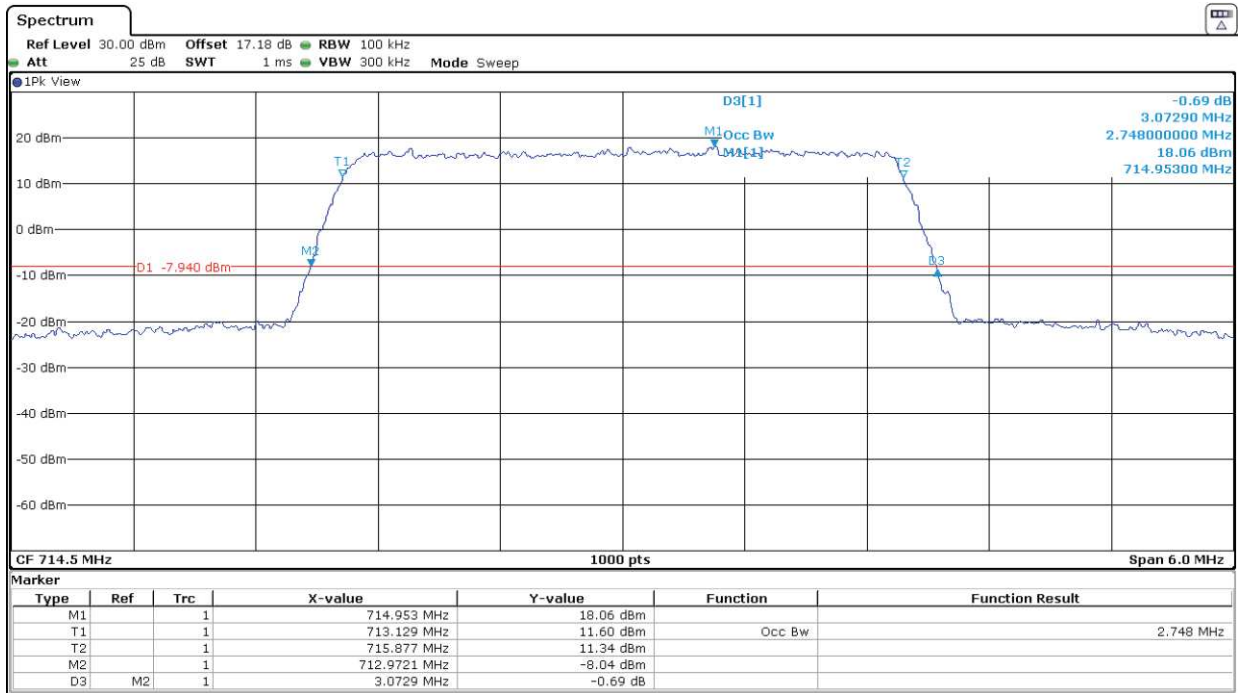
Lowest Channel:



Middle Channel:

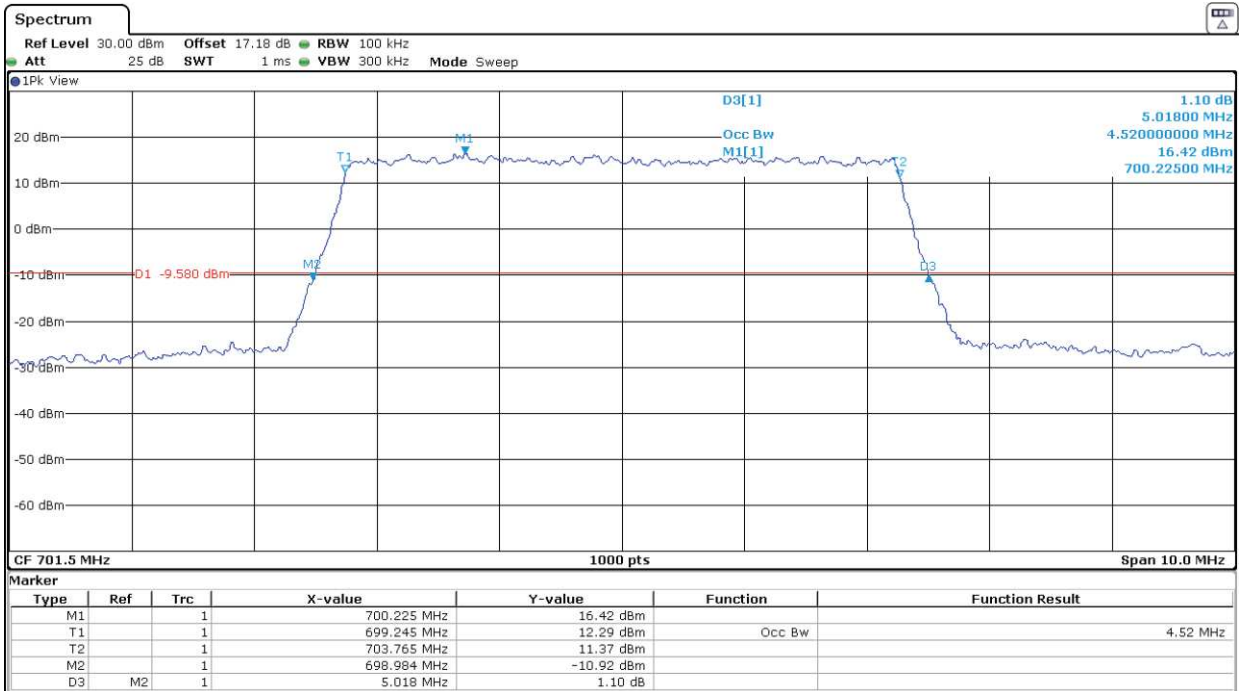


Highest Channel:

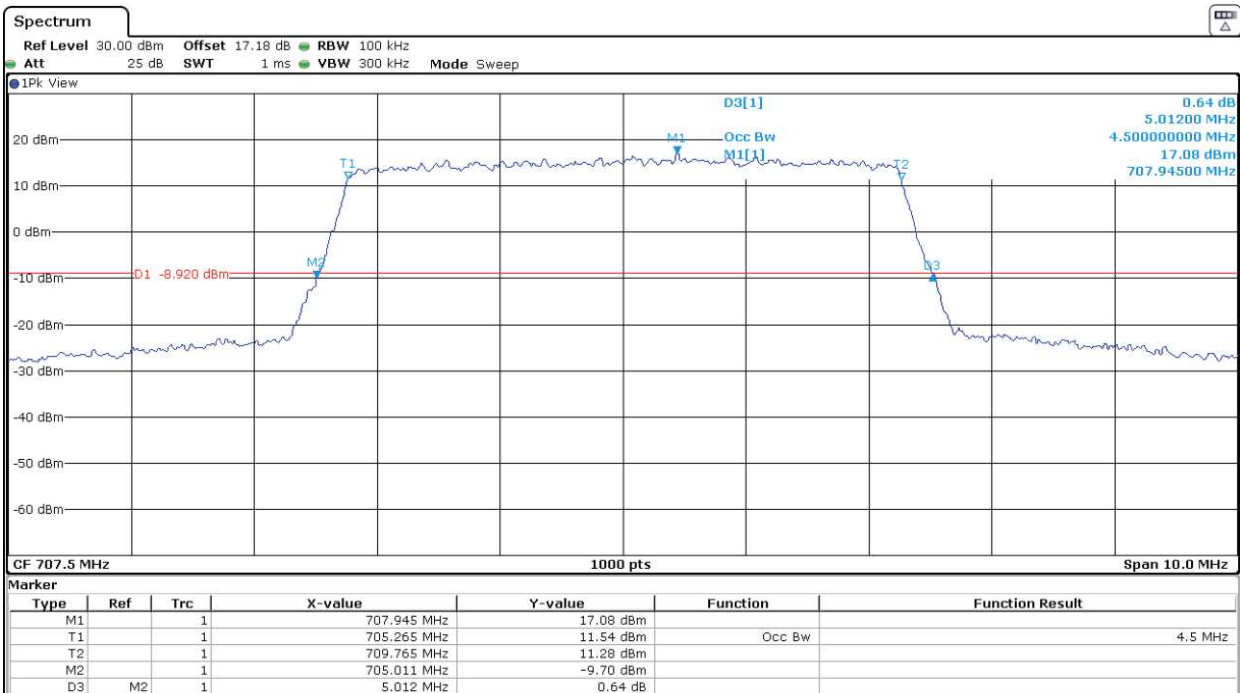


LTE Band 12. BW = 5 MHz. QPSK.

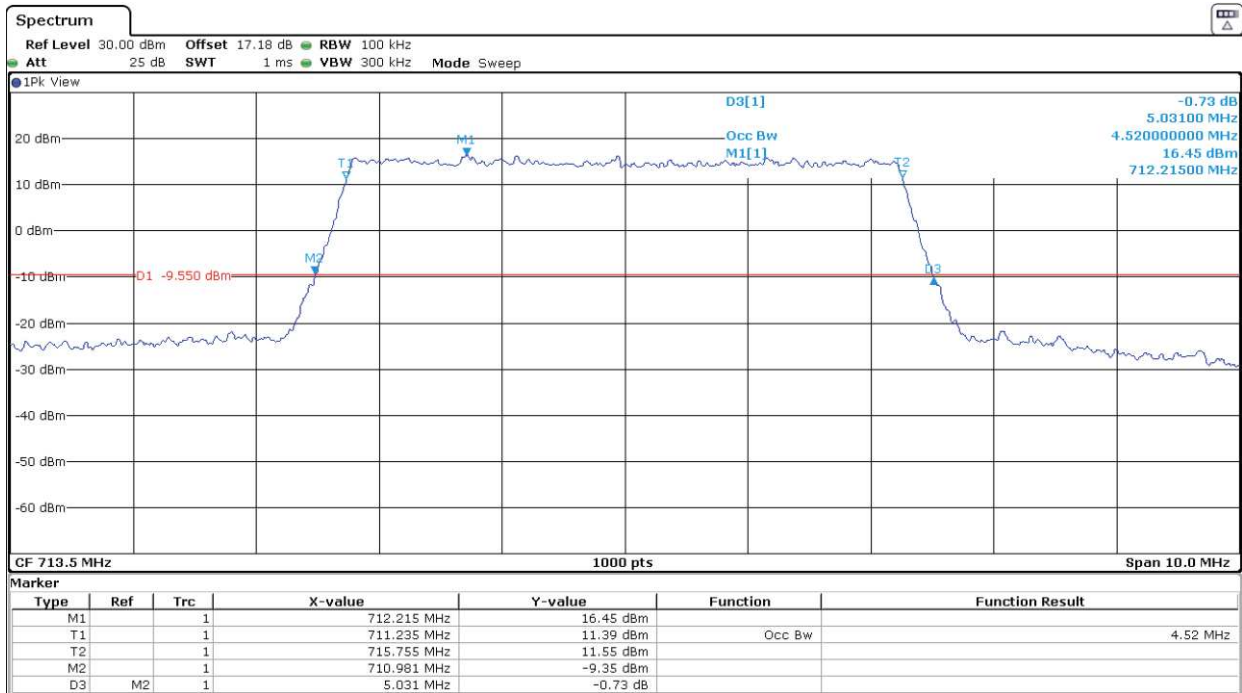
Lowest Channel:



Middle Channel:

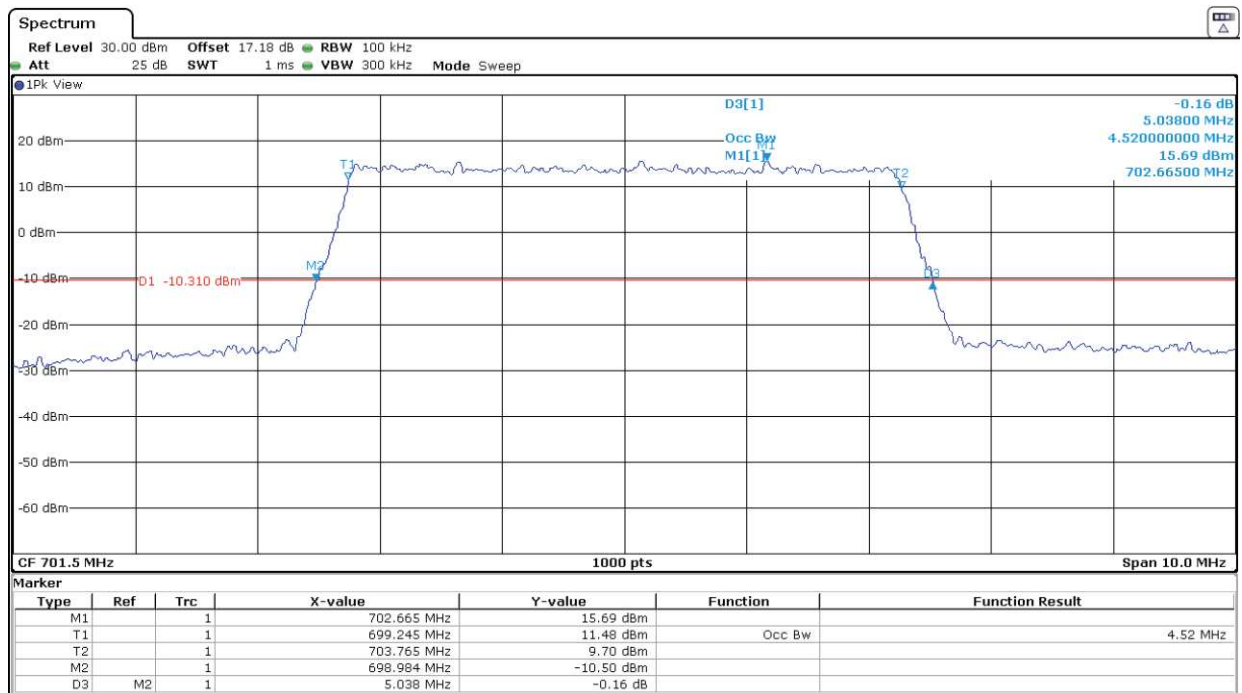


Highest Channel:

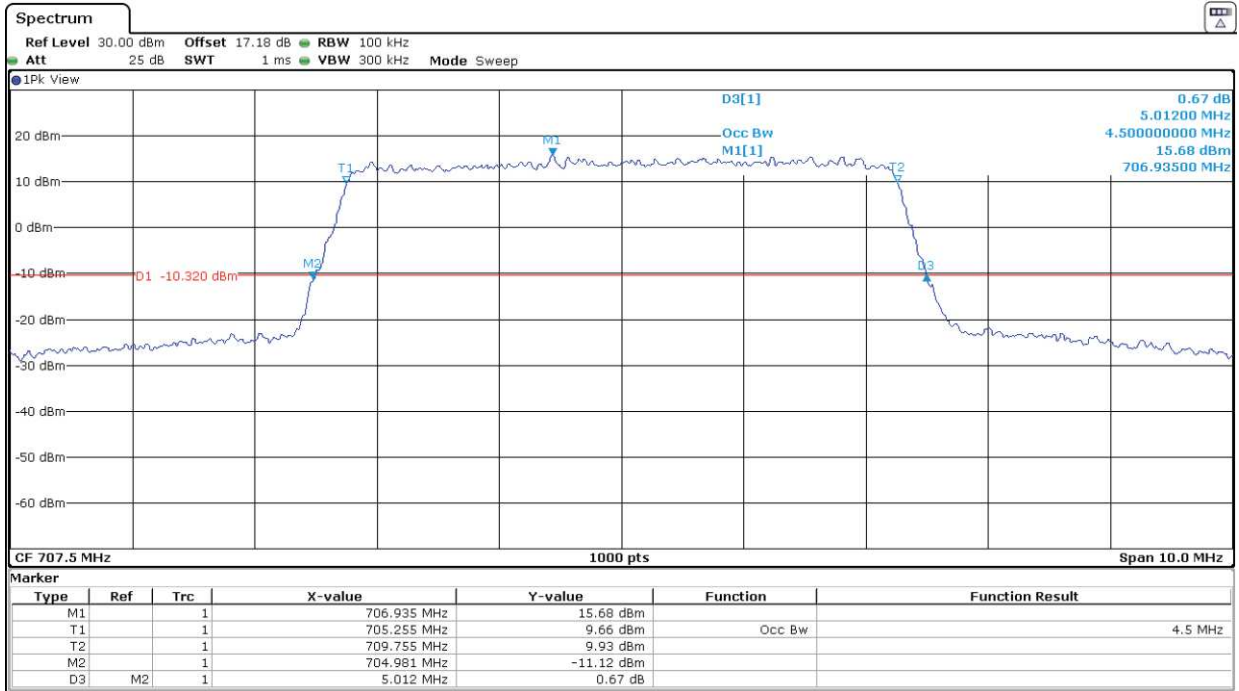


LTE Band 12. BW = 5 MHz. 16QAM.

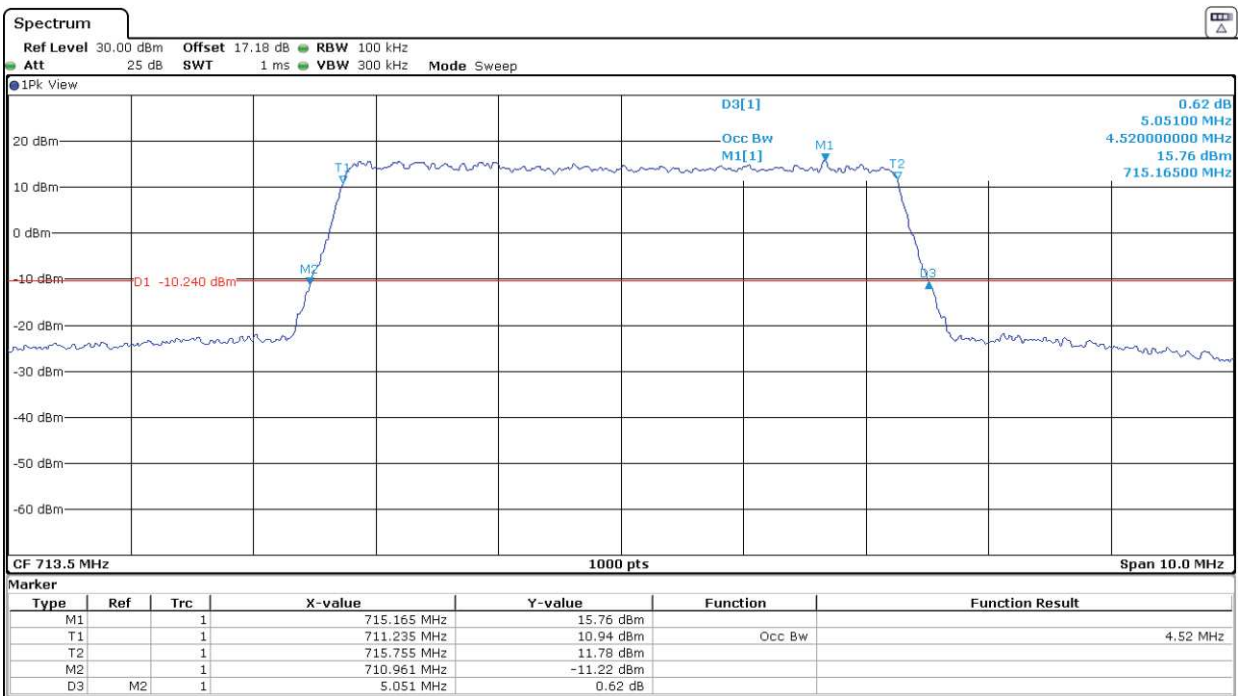
Lowest Channel:



Middle Channel:

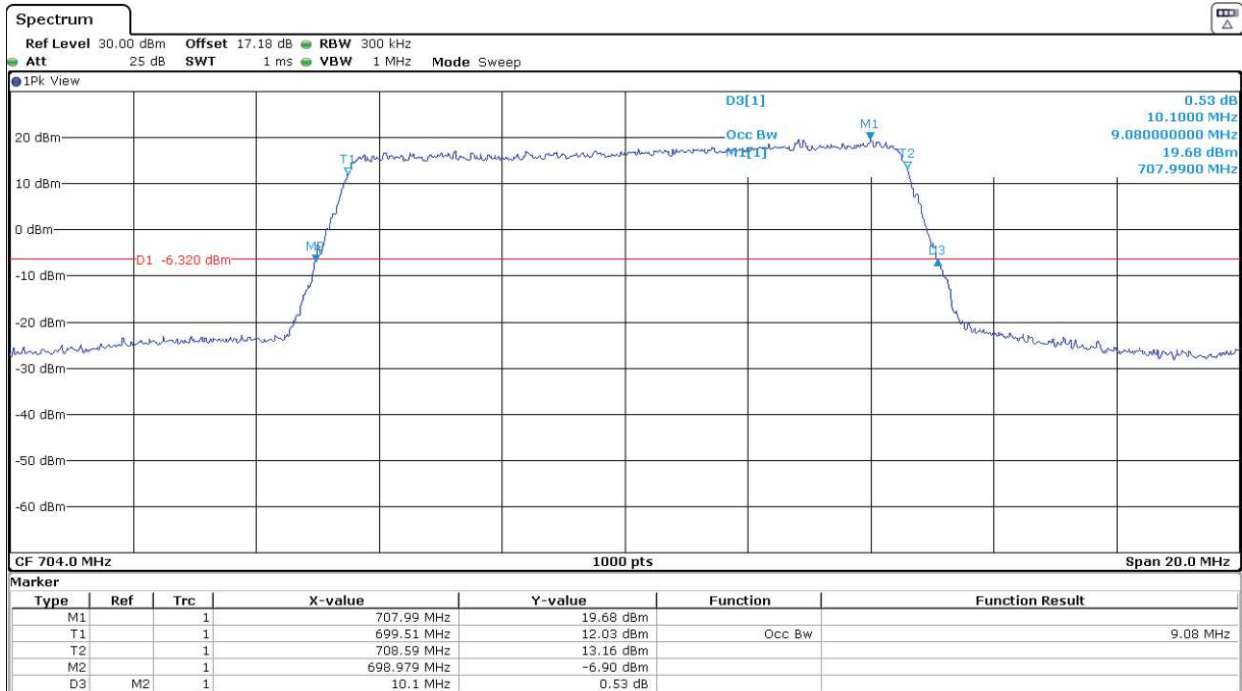


Highest Channel:

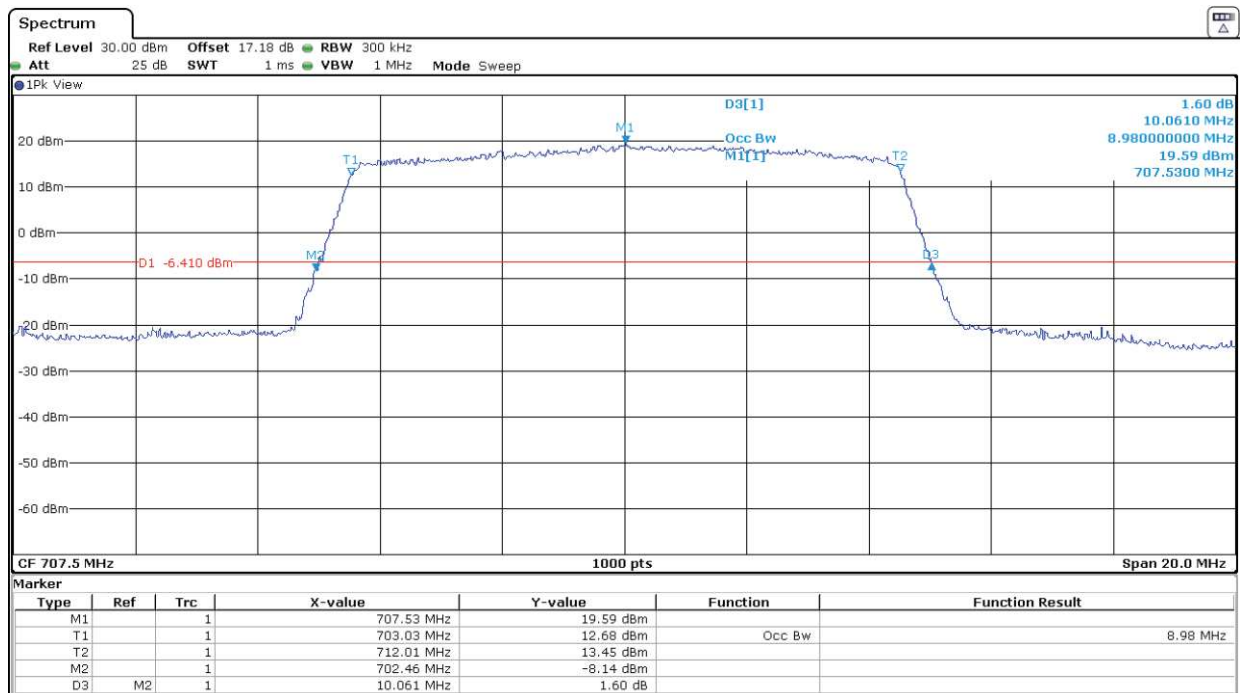


LTE Band 12. BW = 10 MHz. QPSK.

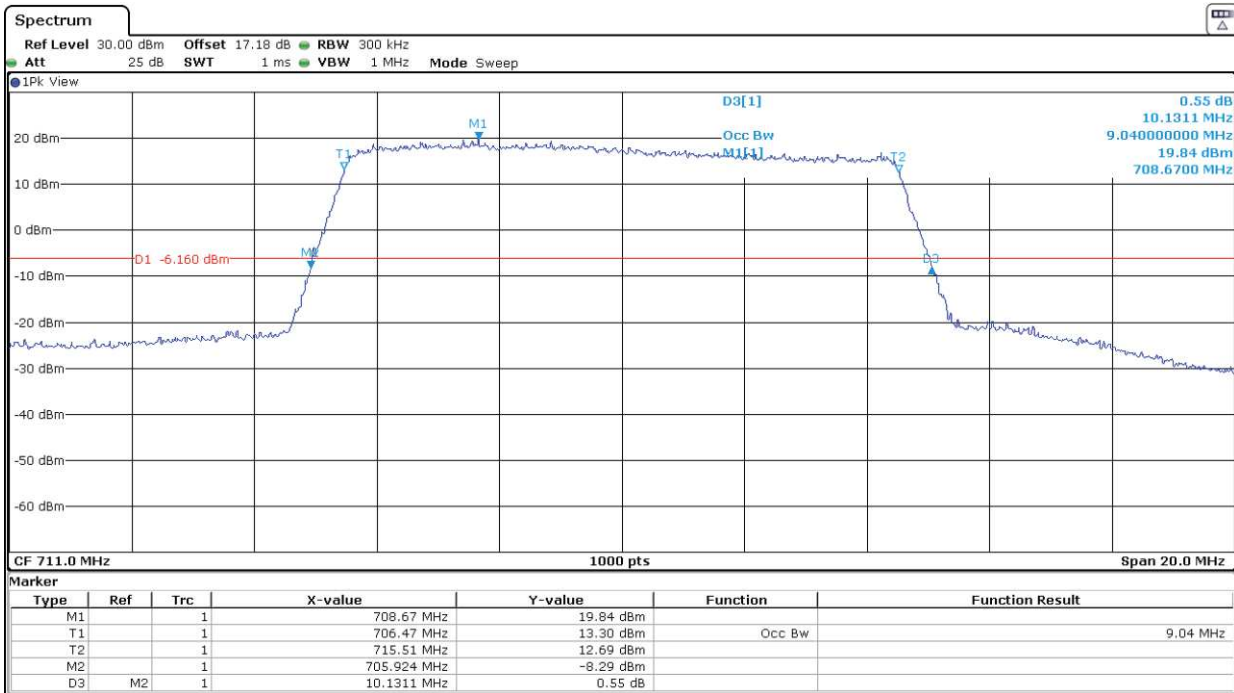
Lowest Channel:



Middle Channel:

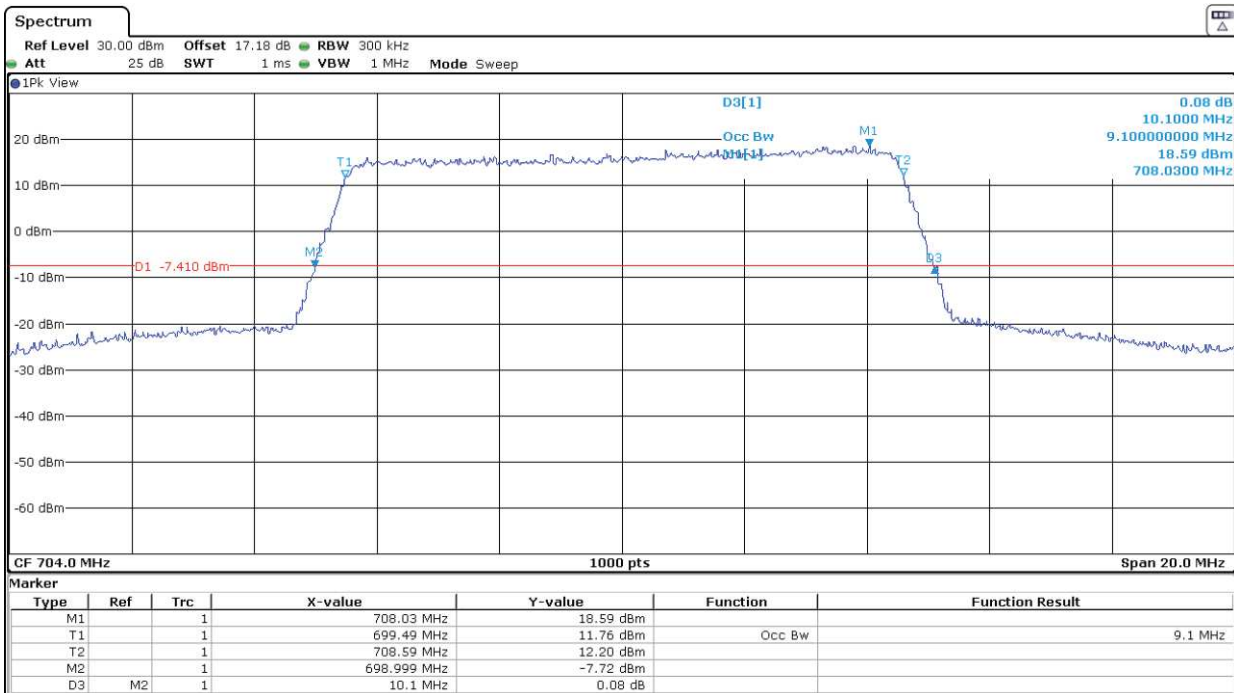


Highest Channel:

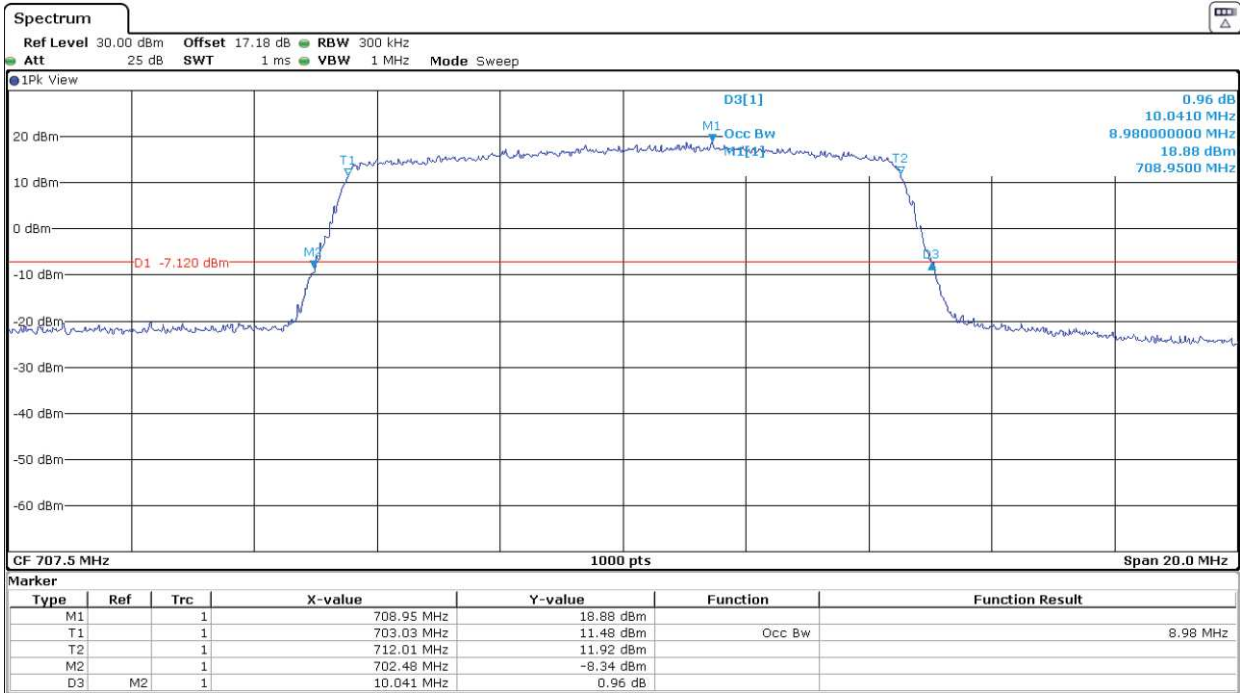


LTE Band 12. BW = 10 MHz. 16QAM.

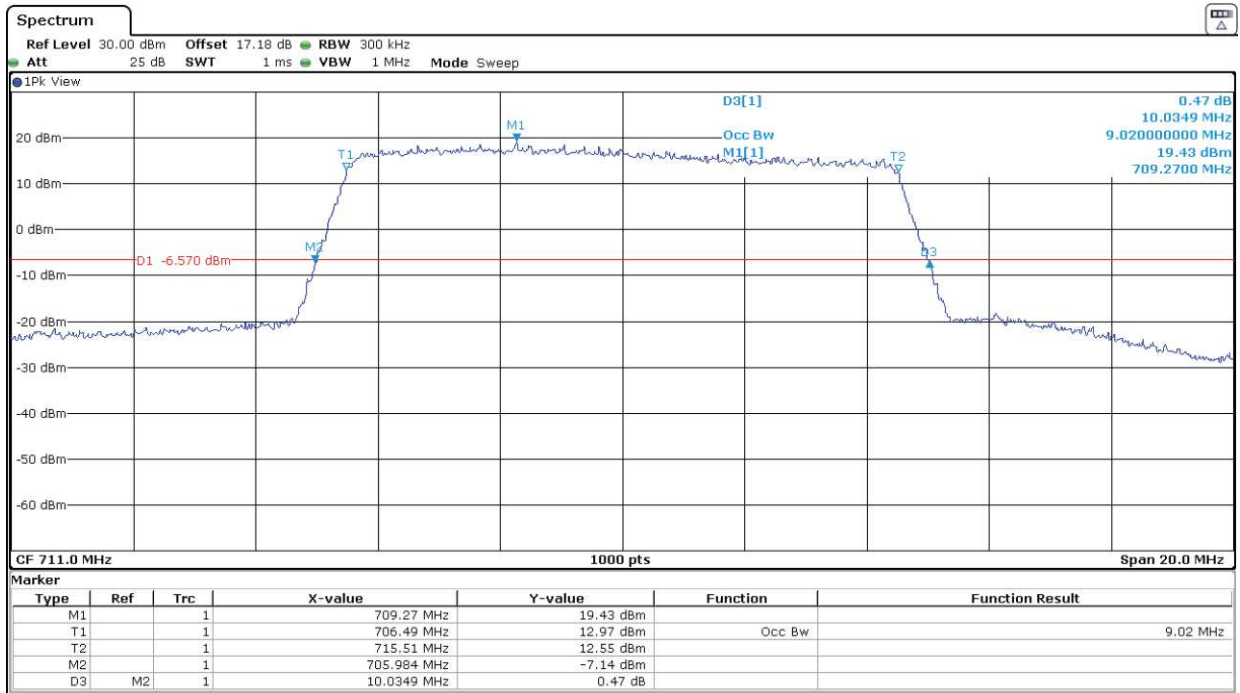
Lowest Channel:



Middle Channel:

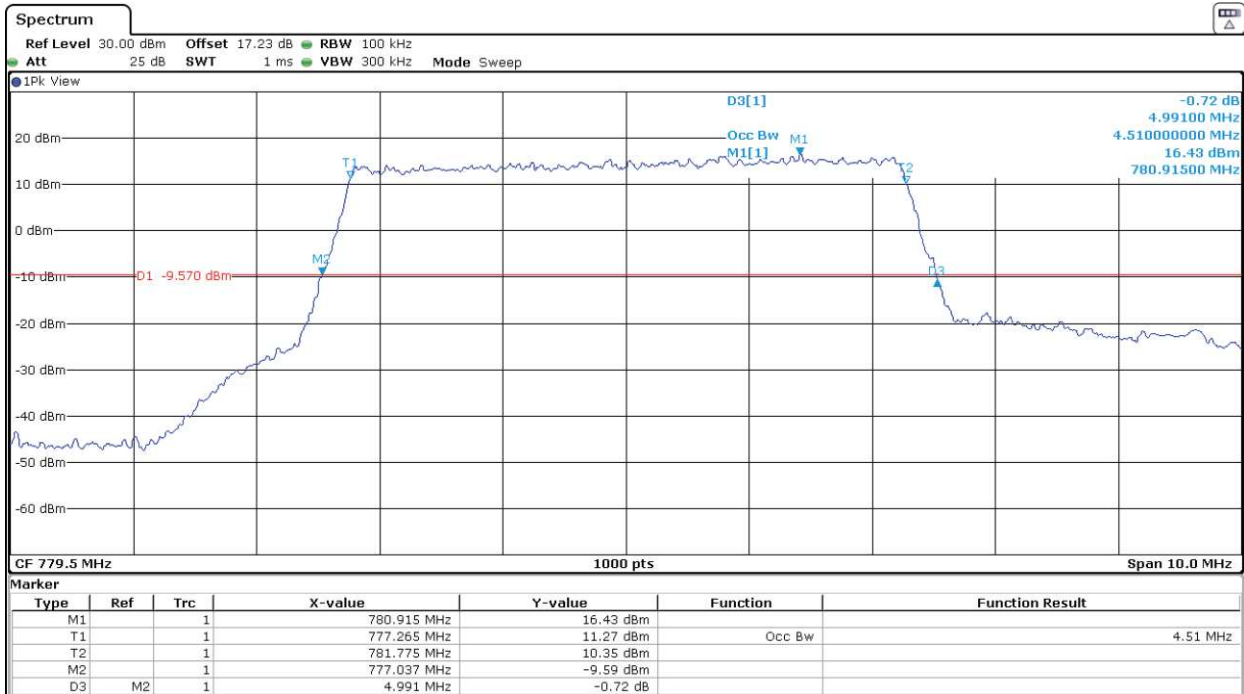


Highest Channel:

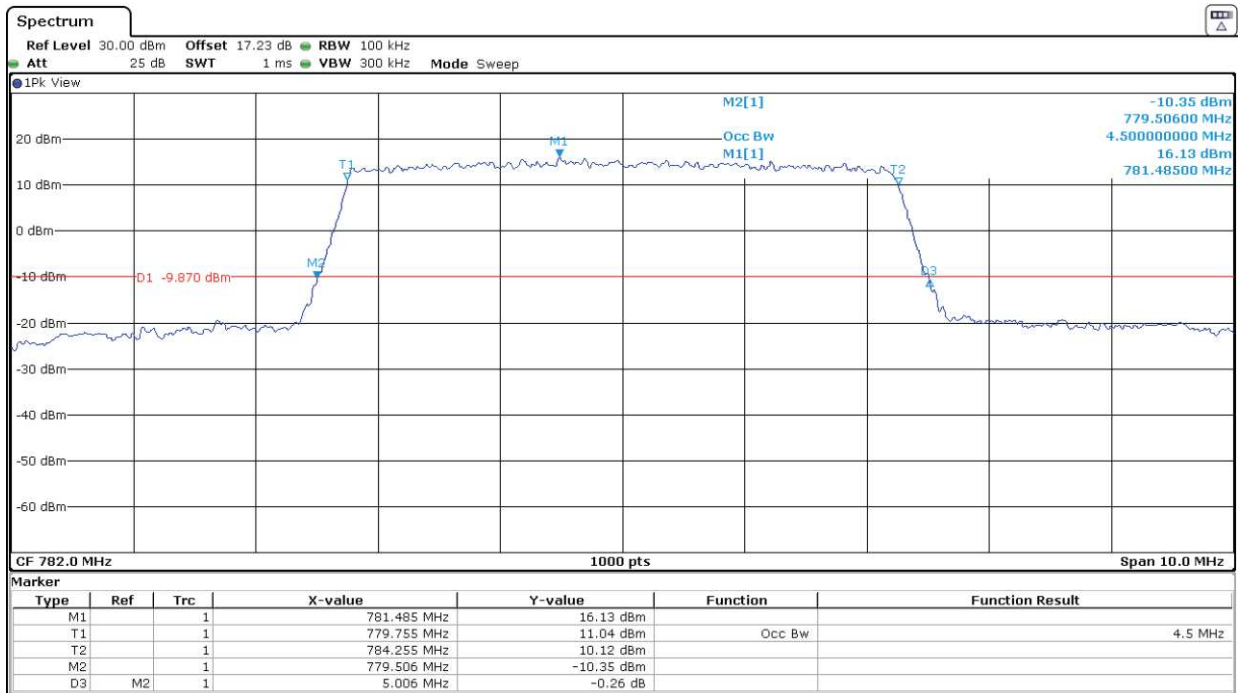


LTE Band 13. BW = 5 MHz. QPSK.

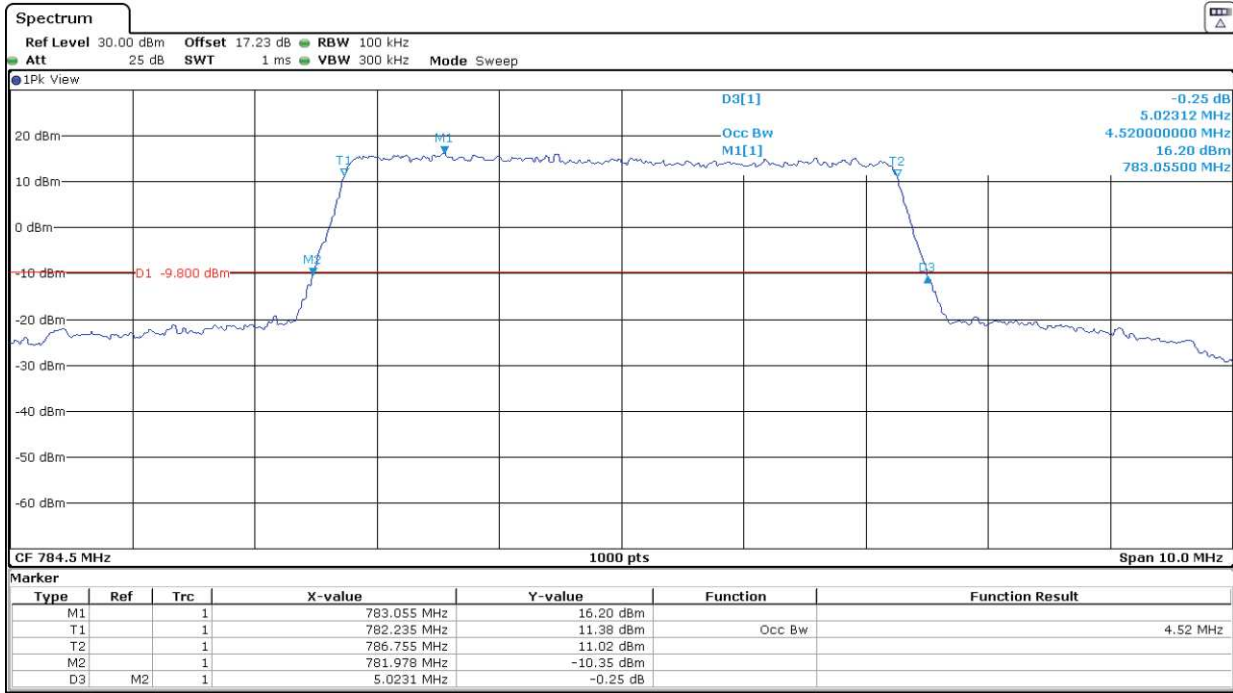
Lowest Channel:



Middle Channel:

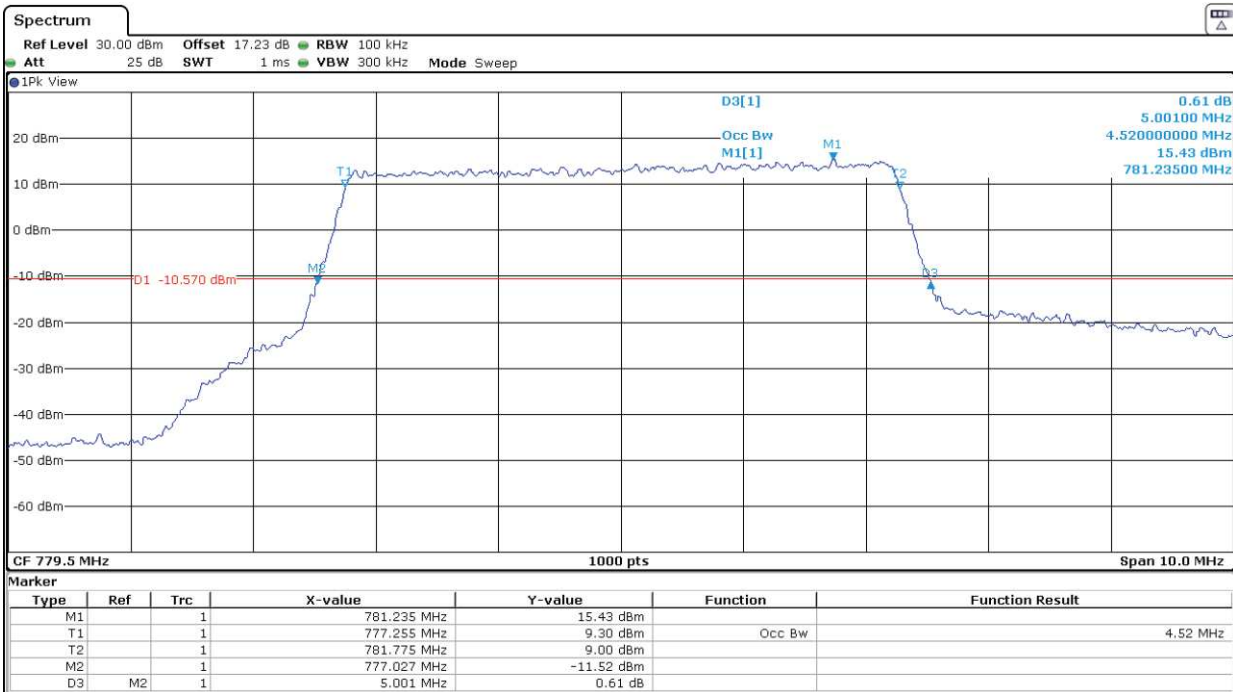


Highest Channel:

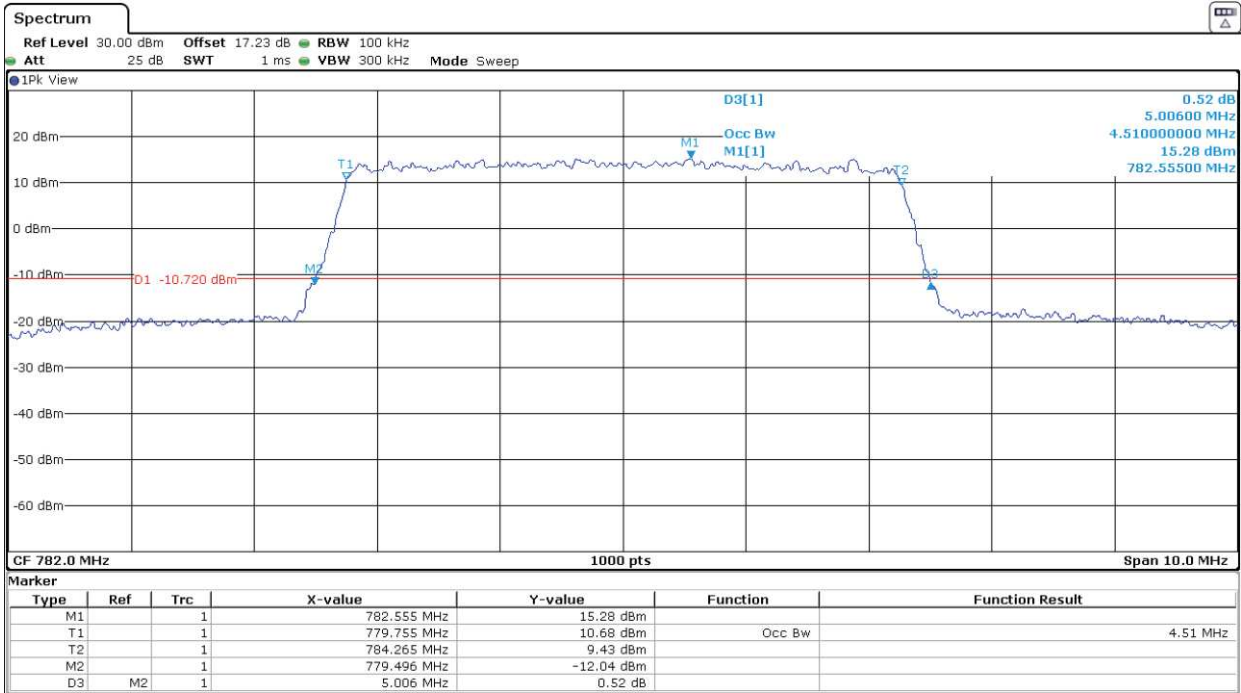


LTE Band 13. BW = 5 MHz. 16QAM.

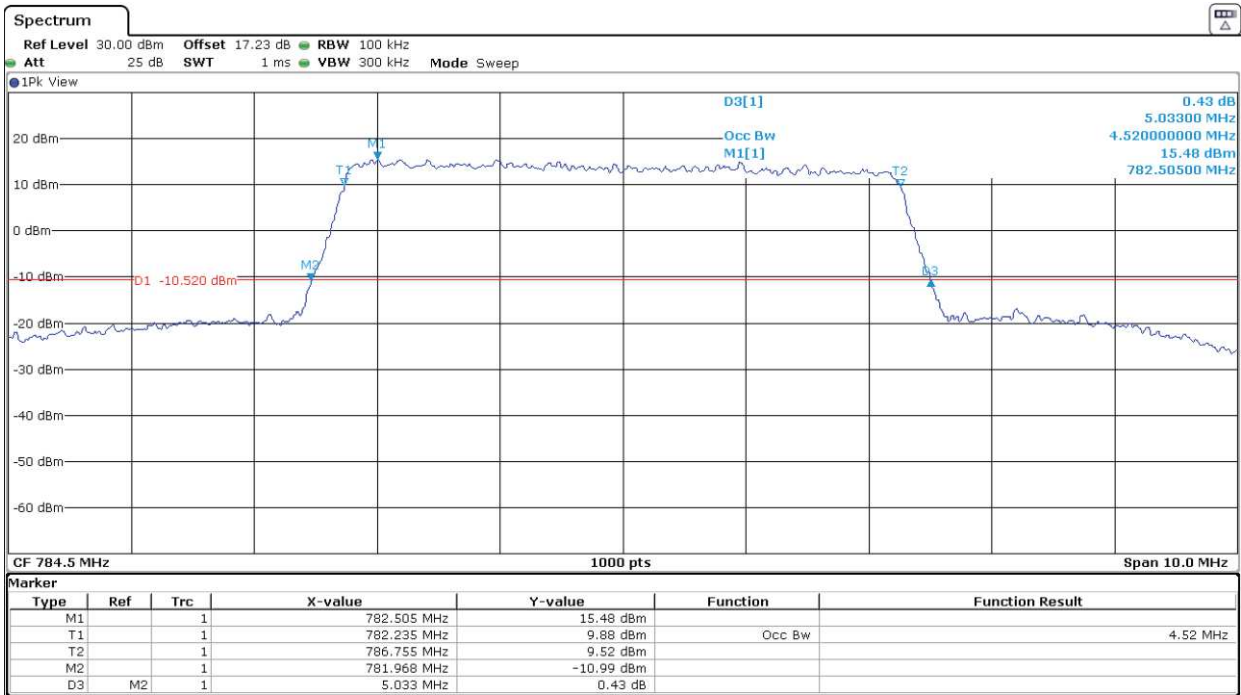
Lowest Channel:



Middle Channel:

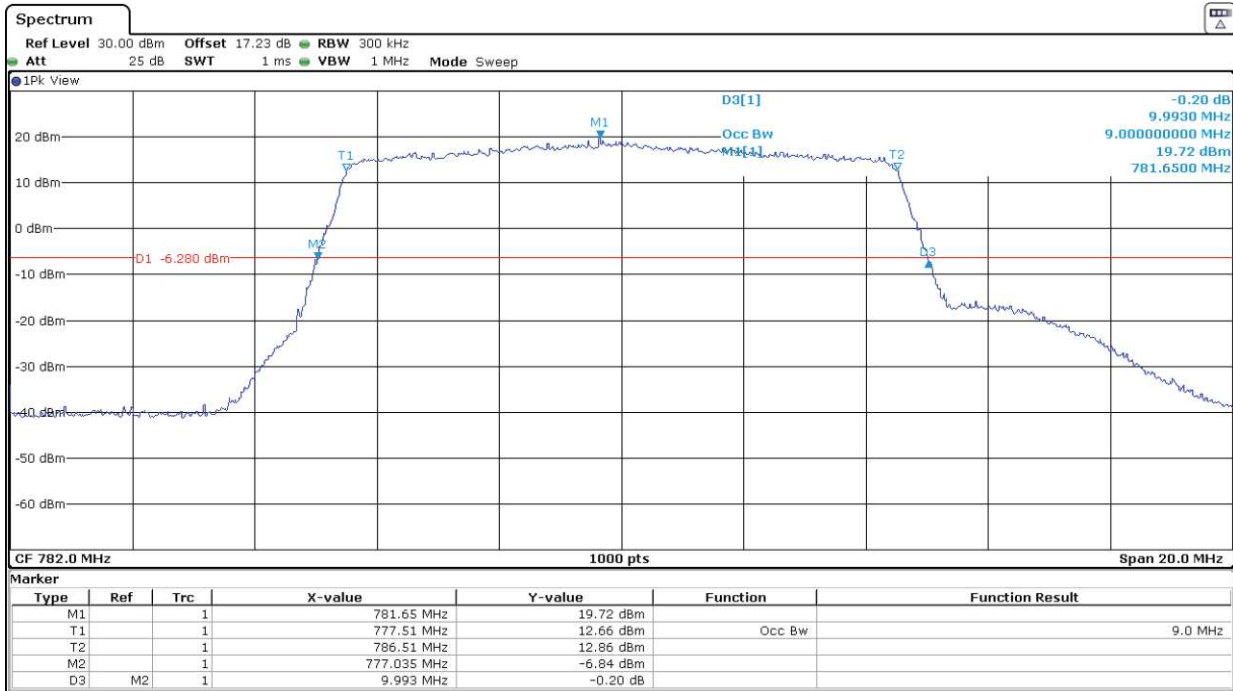


Highest Channel:



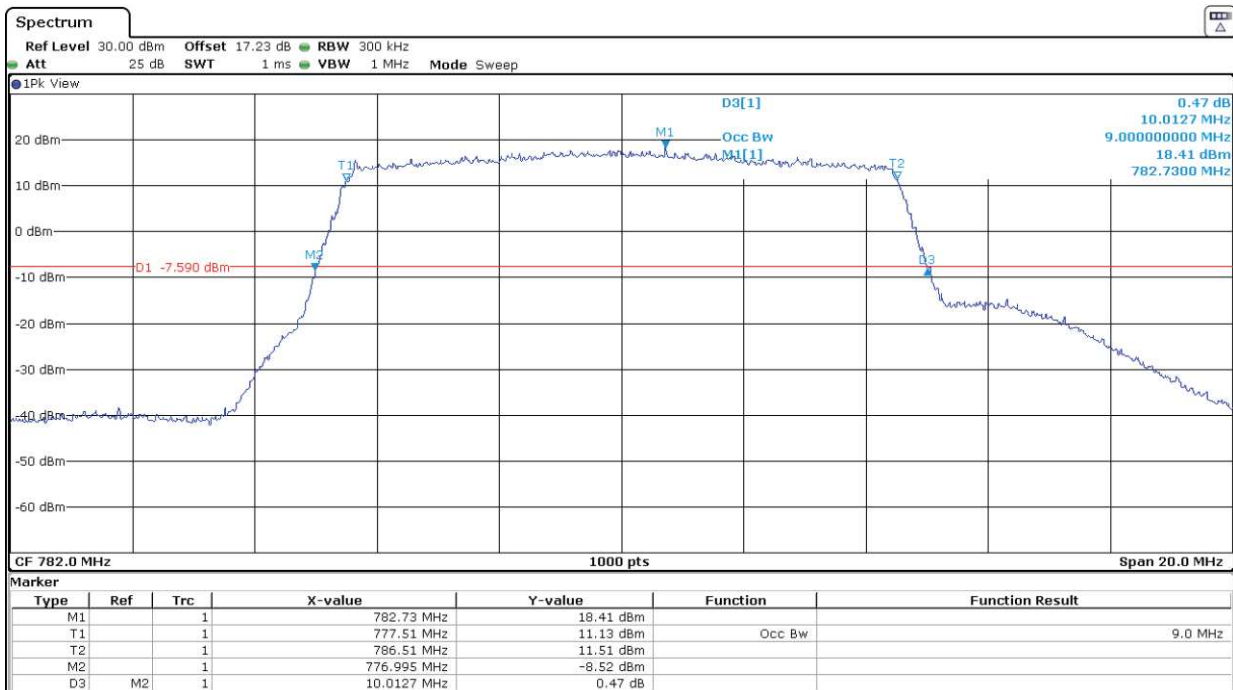
LTE Band 13. BW = 10 MHz. QPSK.

Middle Channel:



LTE Band 13. BW = 10 MHz. 16QAM.

Middle Channel:



Spurious emissions at antenna terminals

SPECIFICATION:

FCC §27.53 (c):

(c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following:

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

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations.

FCC §27.53 (g):

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

FCC §27.53 (h):

According to specification, the power of emissions shall be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. P in watts.

FCC §27.53 (m) (4) & (6):

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

(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz 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; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

RSS-130 Clause 4.7:

4.7.1: The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least $43 + 10 \log_{10} p$ (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

RSS-139 Clause 6.6:

According to specification, the power of emissions shall be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. P in watts.

RSS-199 Clause 4.5:

In the 1 MHz band immediately outside and adjacent to the channel edge, the unwanted emission power shall be measured with a resolution bandwidth of at least 1% of the occupied bandwidth for base station and fixed subscriber equipment, and 2% for mobile subscriber equipment. Beyond the 1 MHz band, a resolution bandwidth of 1 MHz shall be used. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full required measurement bandwidth of 1 MHz, or 1% or 2% of the occupied bandwidth, as applicable.

Equipment shall comply with the following unwanted emission limits:

- a. for base station and fixed subscriber equipment, the power of any unwanted emissions measured as above shall be attenuated (in dB) below the transmitter power, P (dBW), by at least $43 + 10 \log_{10} p$
- b. for mobile subscriber equipment, the power of any unwanted emissions measured as above shall be attenuated (in dB) below the transmitter power, P (dBW), by at least:

$40 + 10 \log_{10} p$ from the channel edges to 5 MHz away
 $43 + 10 \log_{10} p$ between 5 MHz and X MHz from the channel edges, and
 $55 + 10 \log_{10} p$ at X MHz and beyond from the channel edges

In addition, the attenuation shall not be less than $43 + 10 \log_{10} p$ on all frequencies between 2490.5 MHz and 2496 MHz, and $55 + 10 \log_{10} p$ at or below 2490.5 MHz.

In (a) and (b), p is the transmitter power measured in watts and X is 6 MHz or the equipment occupied bandwidth, whichever is greater.

At P_o transmitting power, the specified minimum attenuation becomes $43 + 10 \log (P_o)$, and the level in dBm relative P_o becomes:

P_o (dBm) – $[43 + 10 \log (P_o \text{ in mwatts}) - 30] = -13$ dBm.
 P_o (dBm) – $[55 + 10 \log (P_o \text{ in mwatts}) - 30] = -25$ dBm.
 P_o (dBm) – $[65 + 10 \log (P_o \text{ in mwatts}) - 30] = -35$ dBm.