LTE band 25,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	2.940	2.949

LTE band 25 , 3MHz Bandwidth, MID, QPSK (-26dBc BW)
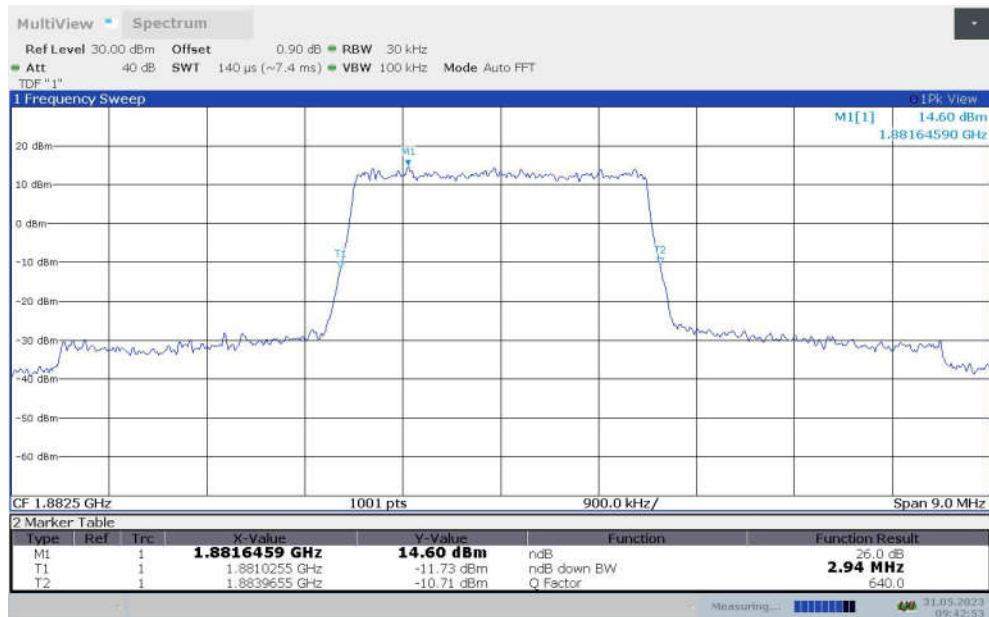
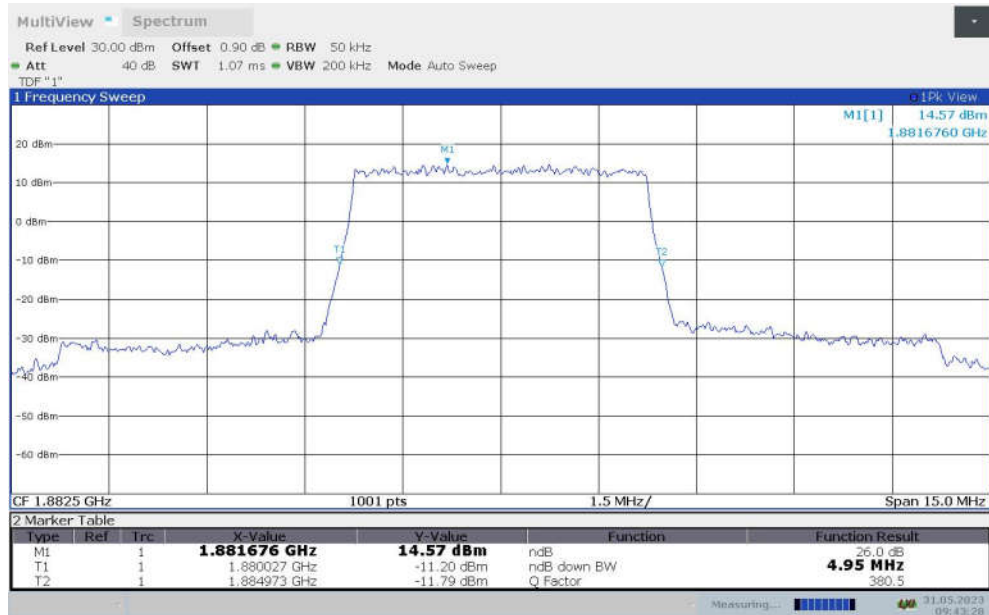**LTE band 25 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)**
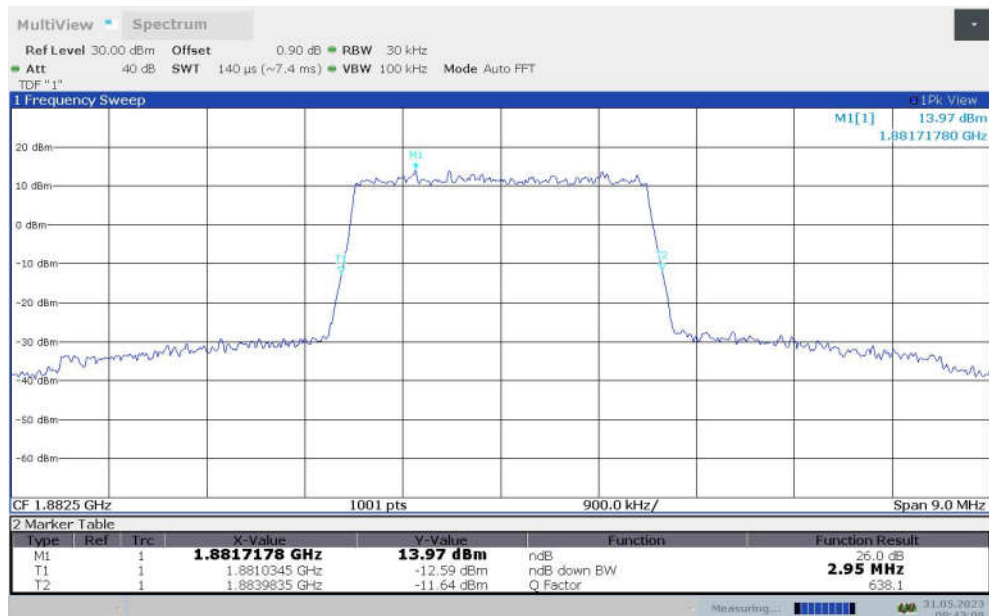
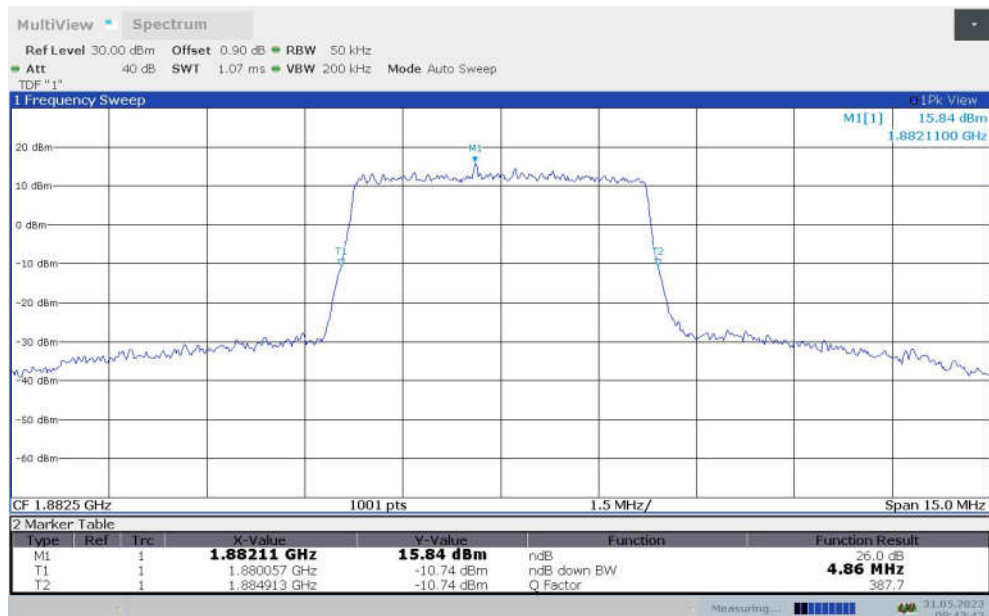**LTE band 25,5MHz(-26dBc)**

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	4.945	4.855

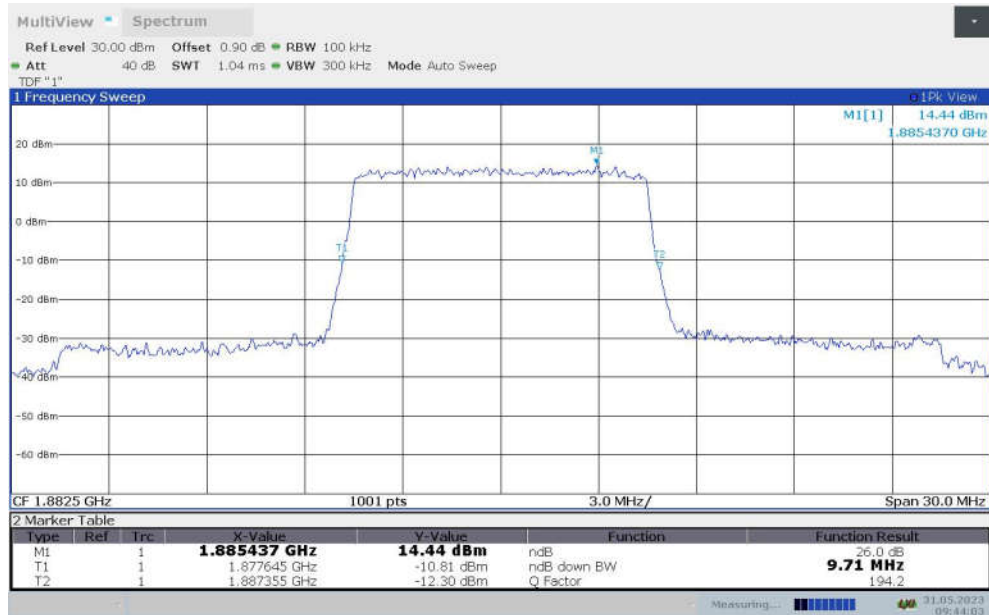**LTE band 25 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)**

LTE band 25 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 25,10MHz(-26dBc)

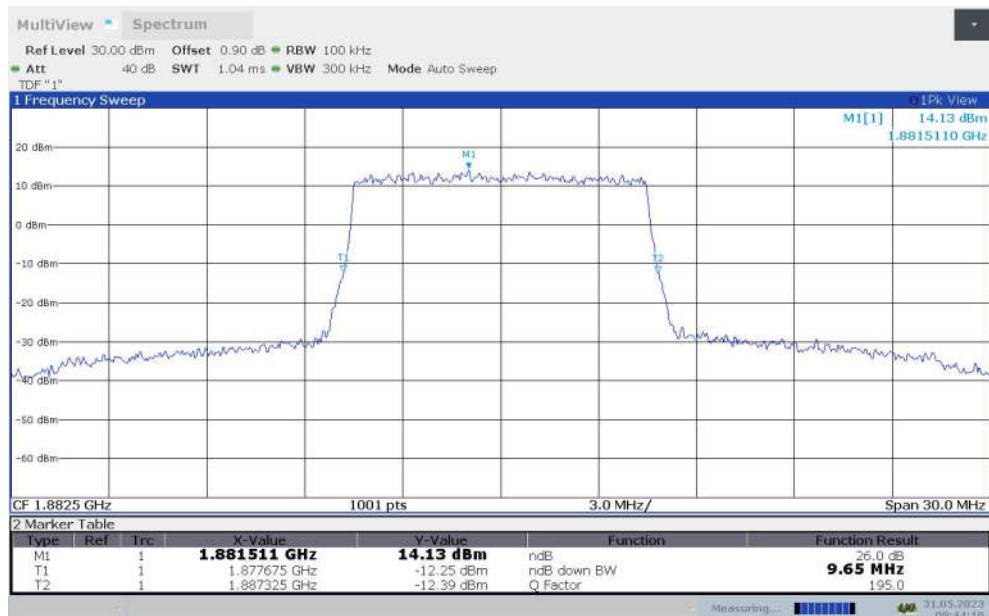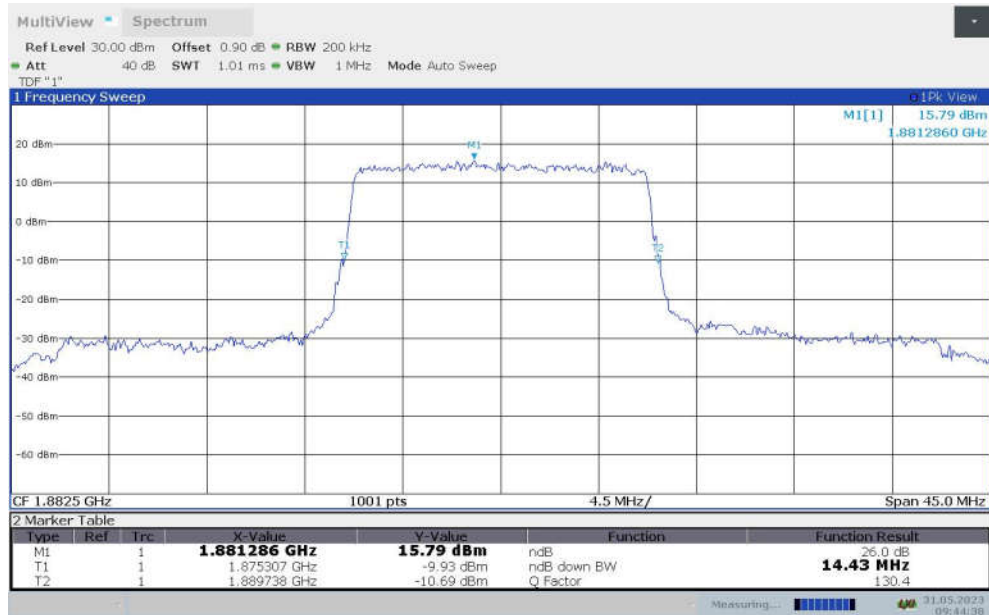| Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	9.710	9.650

LTE band 25 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)

LTE band 25 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 25,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	14.431	14.520

LTE band 25 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)

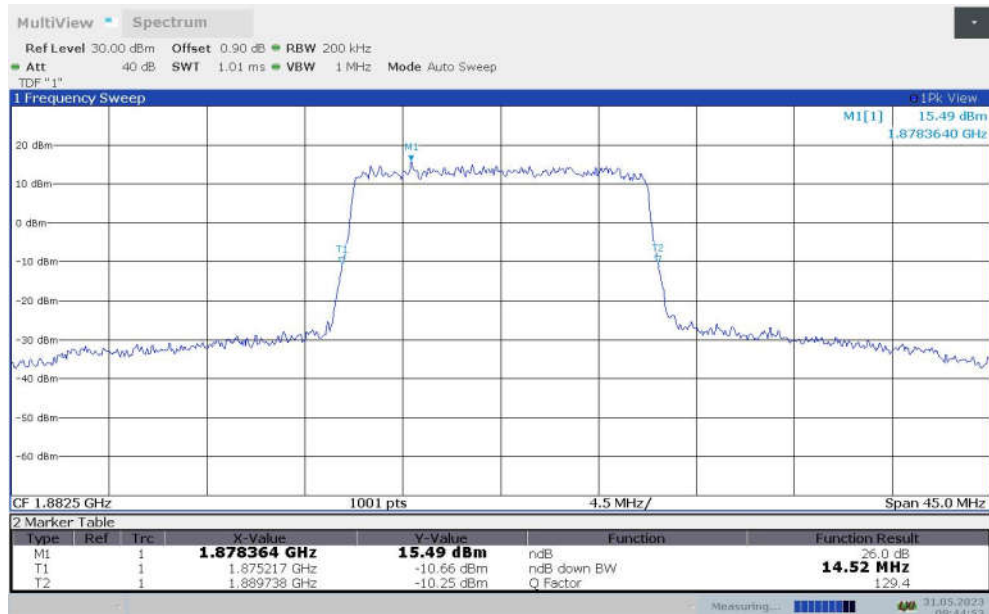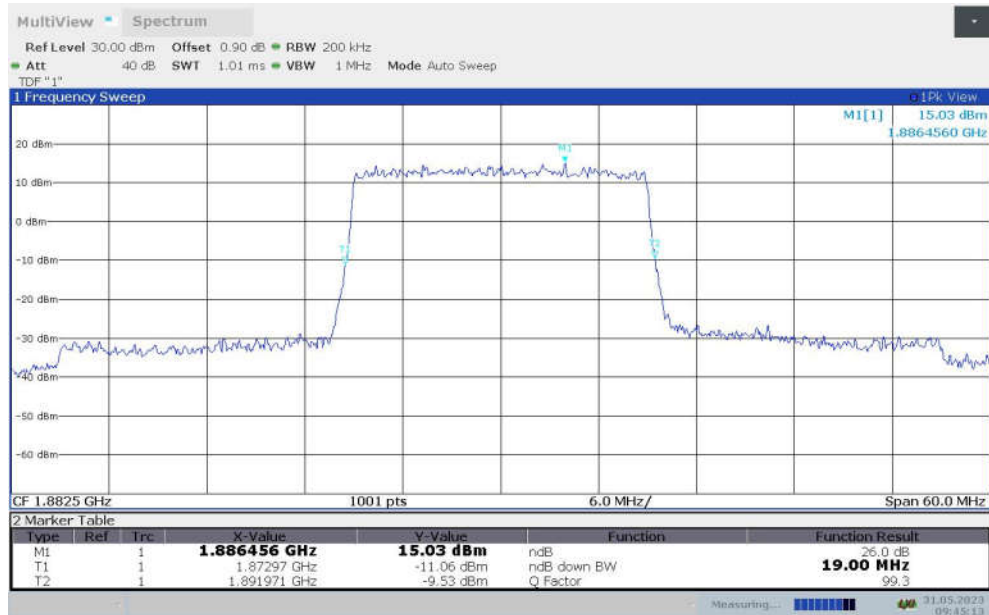
LTE band 25 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 25,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1882.5	19.001	19.061

LTE band 25 , 20MHz Bandwidth, MID, QPSK (-26dBc BW)

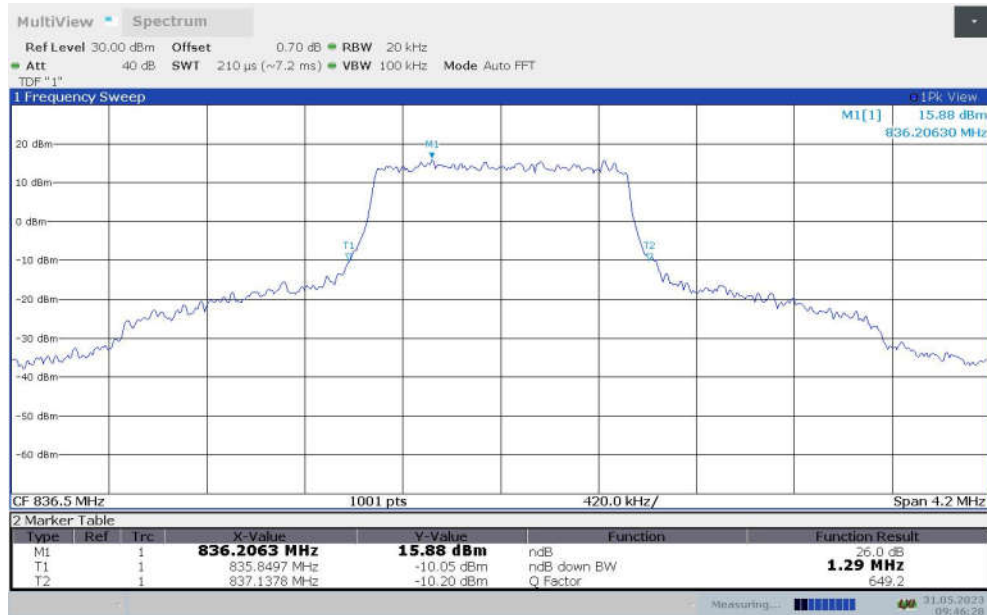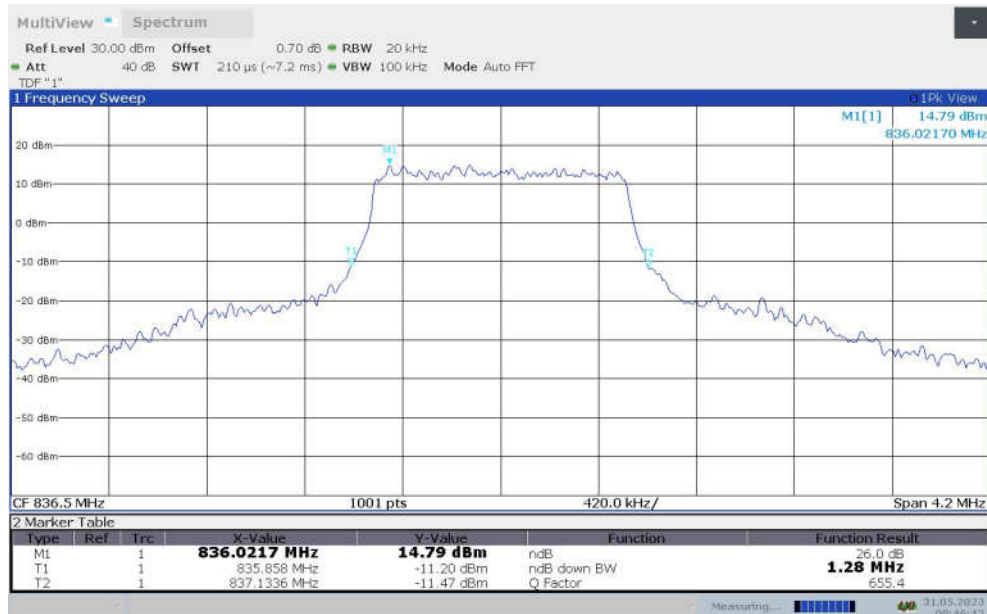**LTE band 25 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)**
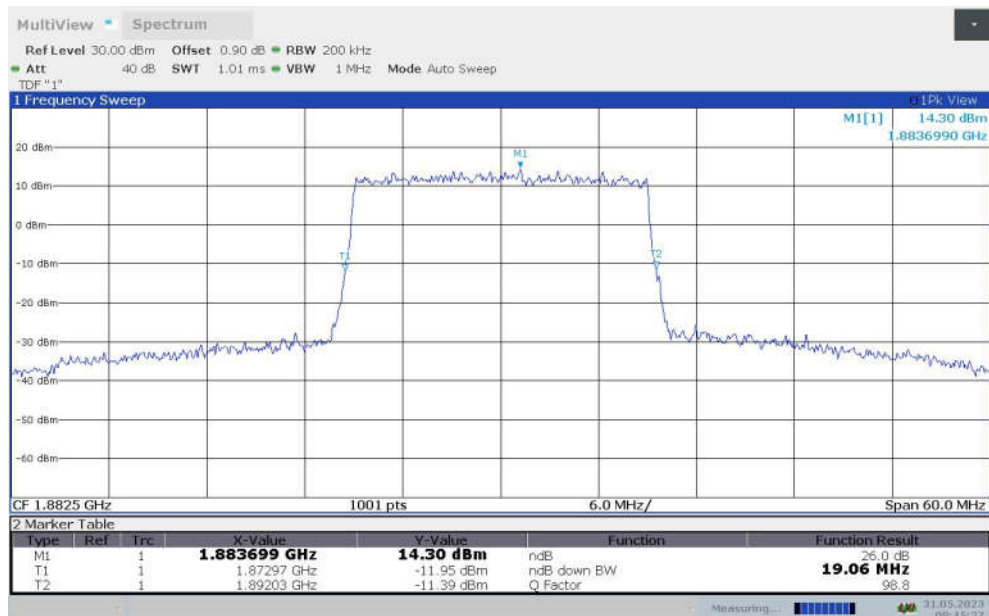
LTE band 26 (824 MHz-849 MHz),1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	1.288	1.276

LTE band 26 , 1.4MHz Bandwidth, MID, QPSK (-26dBc BW)

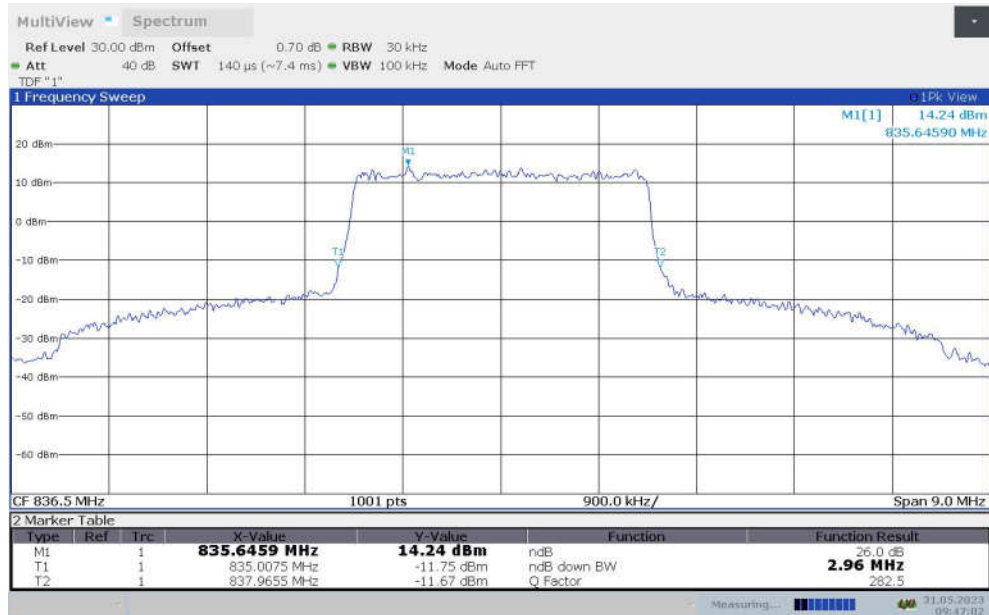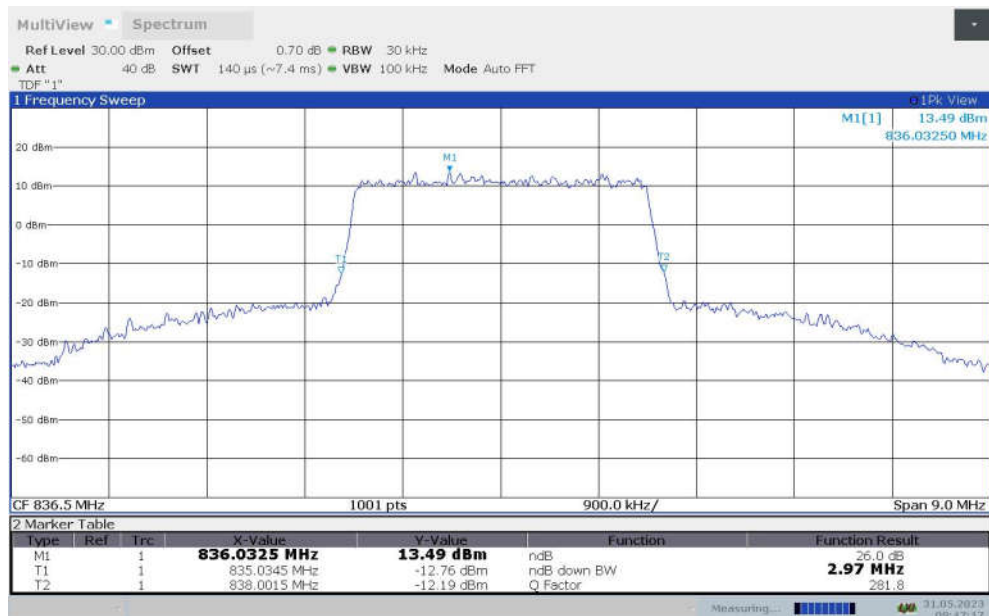**LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)**

LTE band 26 (824 MHz-849 MHz),3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	2.958	2.967

LTE band 26 , 3MHz Bandwidth, MID, QPSK (-26dBc BW)

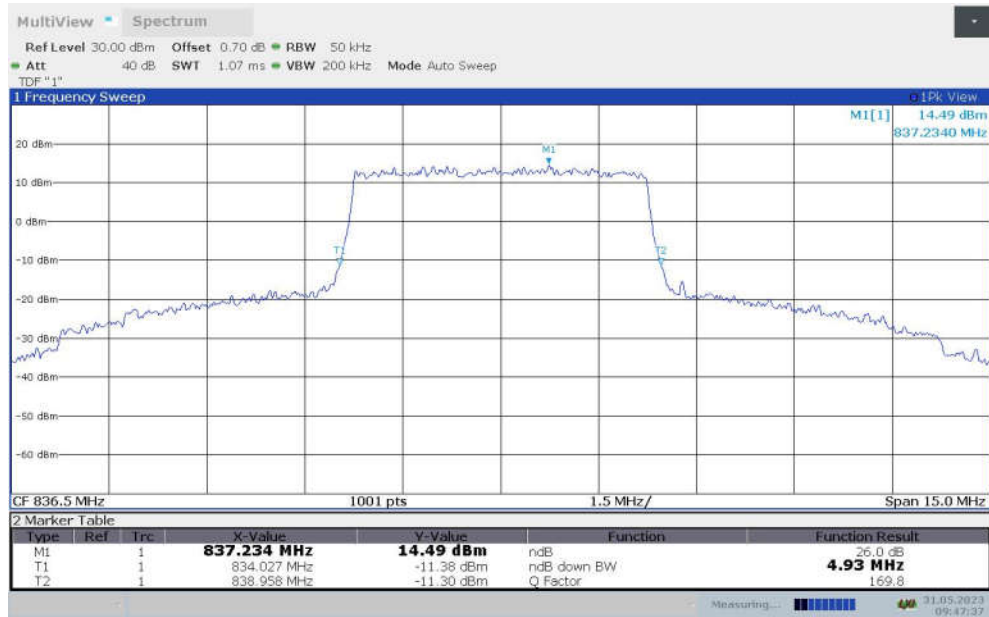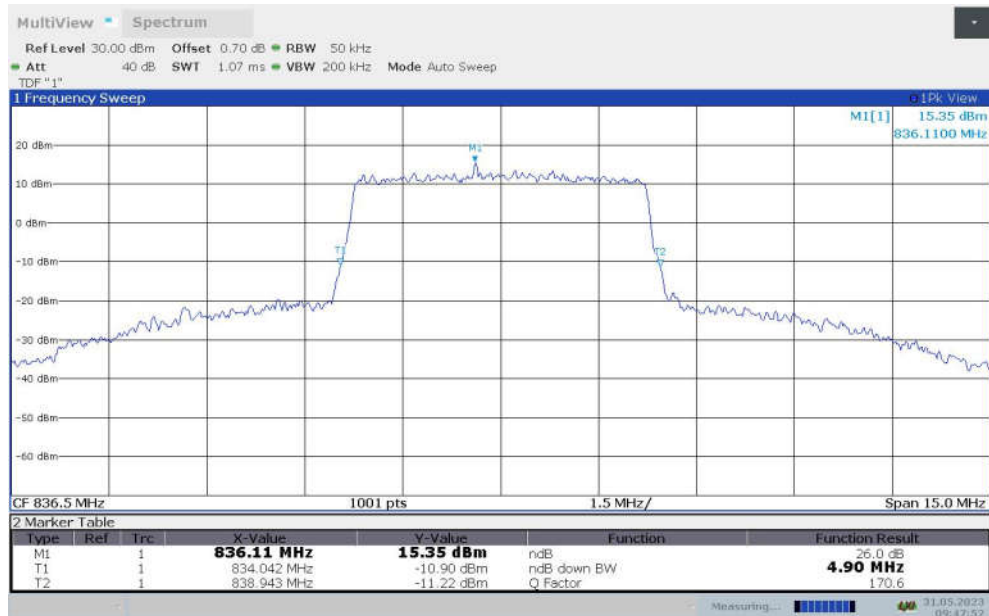**LTE band 26 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)**

LTE band 26 (824 MHz-849 MHz),5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	4.930	4.900

LTE band 26 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)

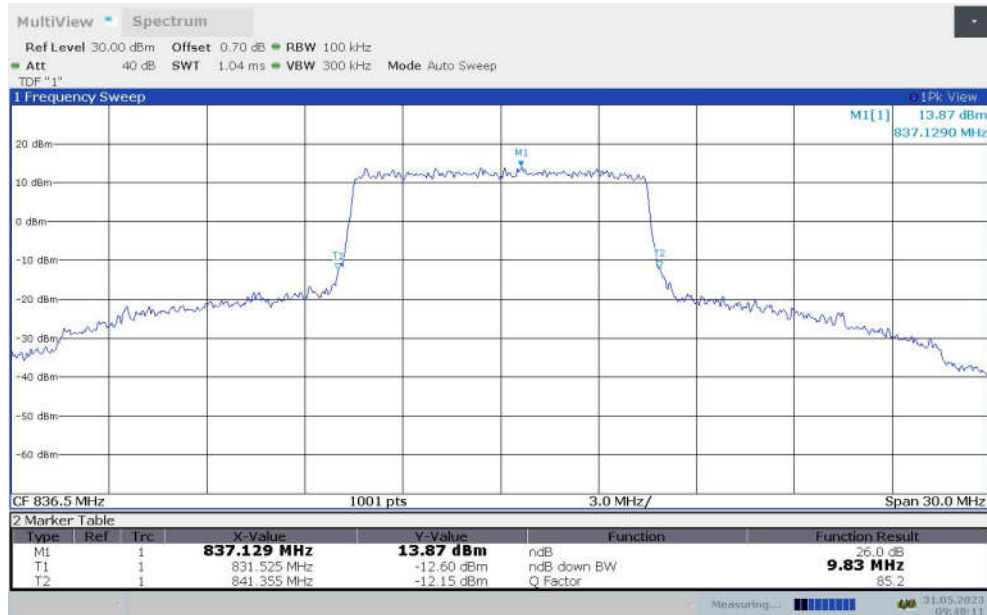**LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)**

LTE band 26 (824 MHz-849 MHz),10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	9.830	9.680

LTE band 26 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)

LTE band 26 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)
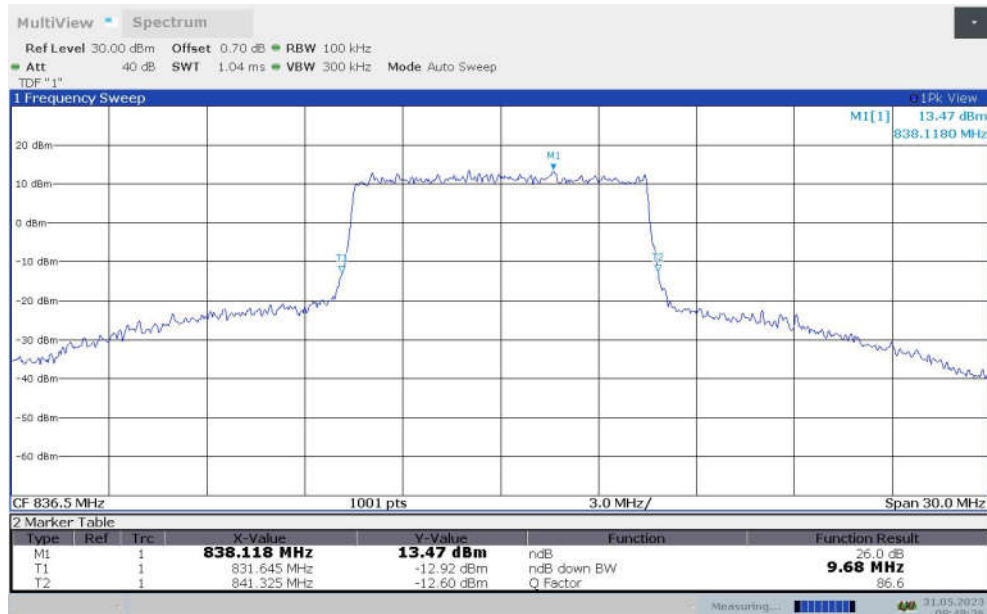
LTE band 26 (824 MHz-849 MHz),15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
836.5	14.610	14.431

LTE band 26 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)

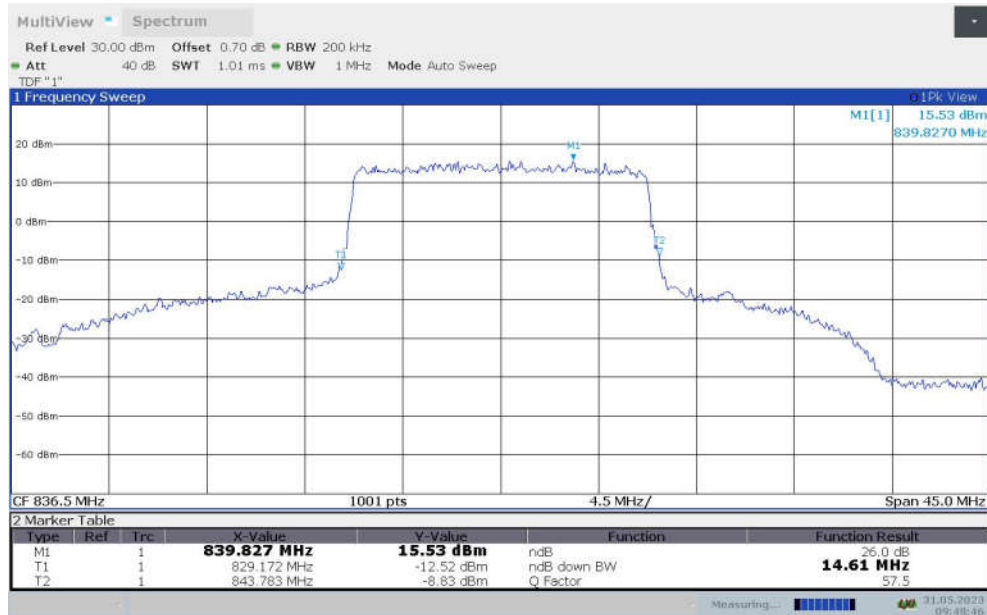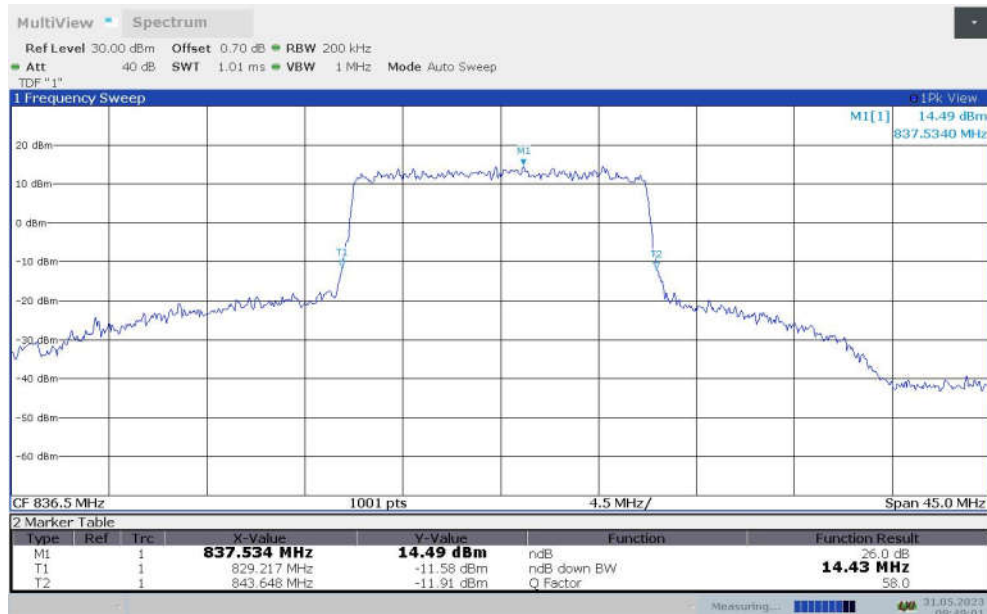**LTE band 26 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)**

LTE band 26 (814 MHz-824 MHz),1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	1.301	1.271

LTE band 26 , 1.4MHz Bandwidth, MID, QPSK (-26dBc BW)
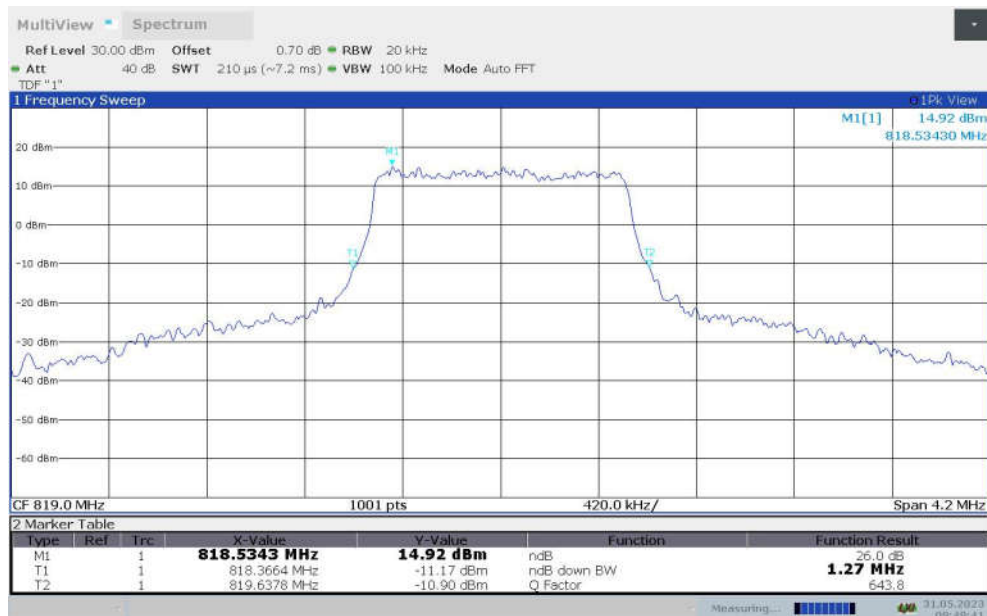
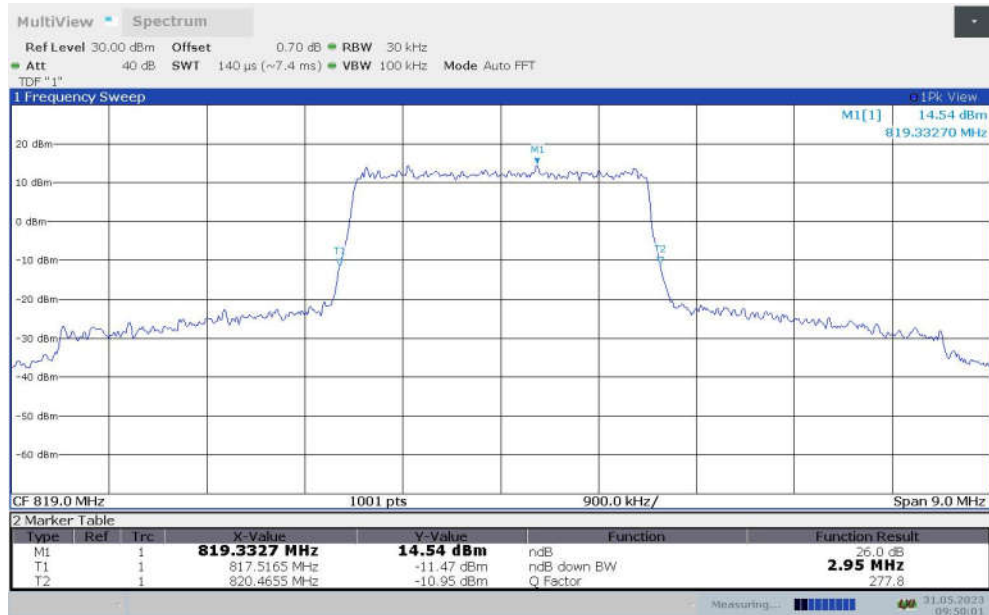**LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)**

LTE band 26 (814 MHz-824 MHz),3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	2.949	2.958

LTE band 26 , 3MHz Bandwidth, MID, QPSK (-26dBc BW)

LTE band 26 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)
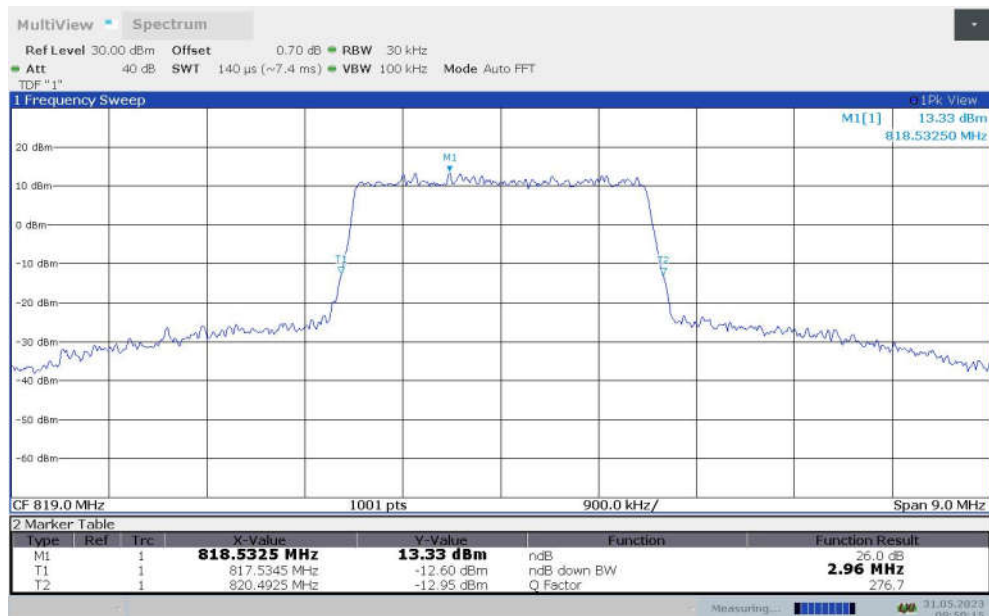
LTE band 26 (814 MHz-824 MHz),5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	4.915	4.885

LTE band 26 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)
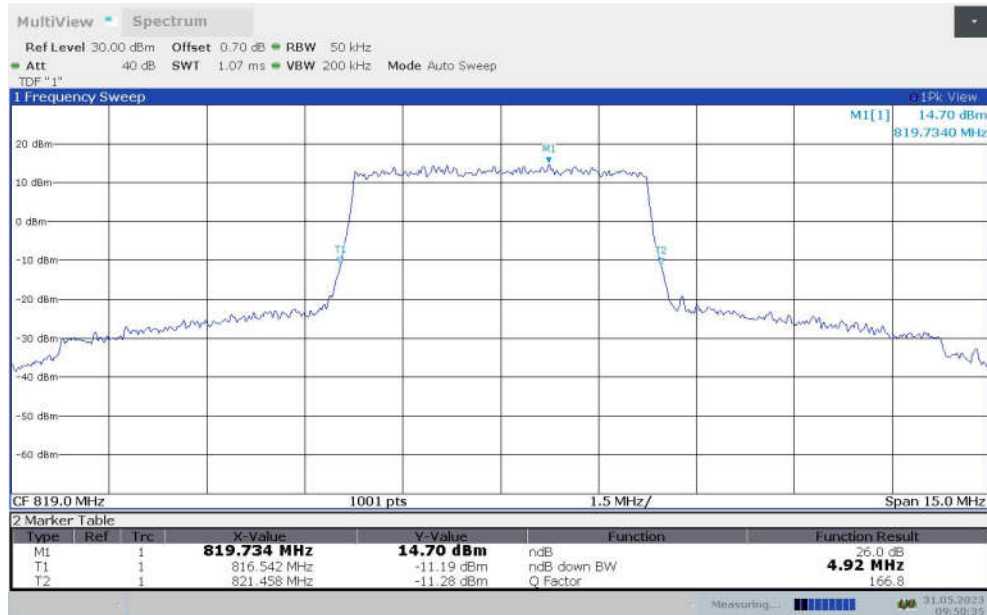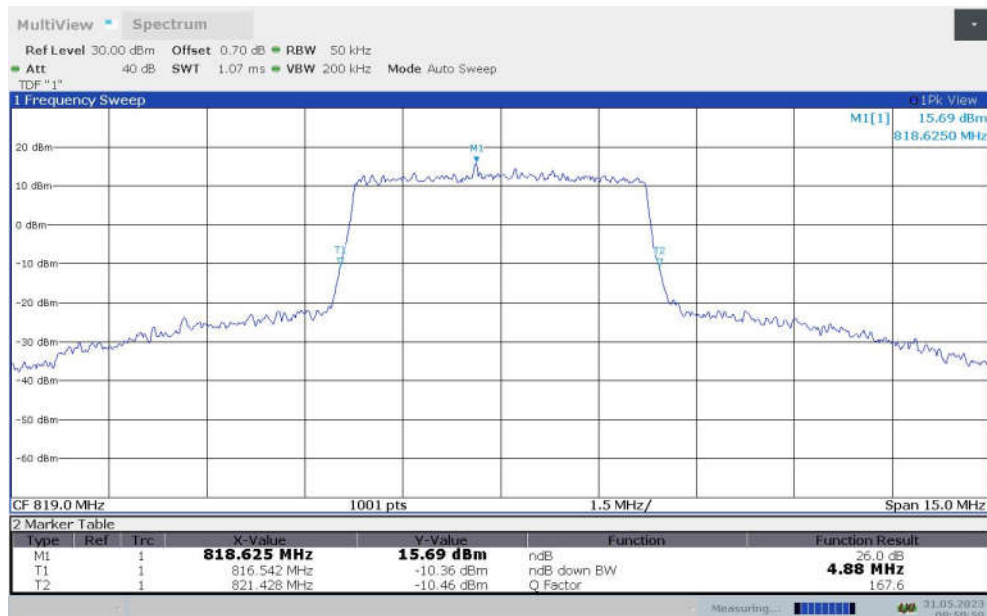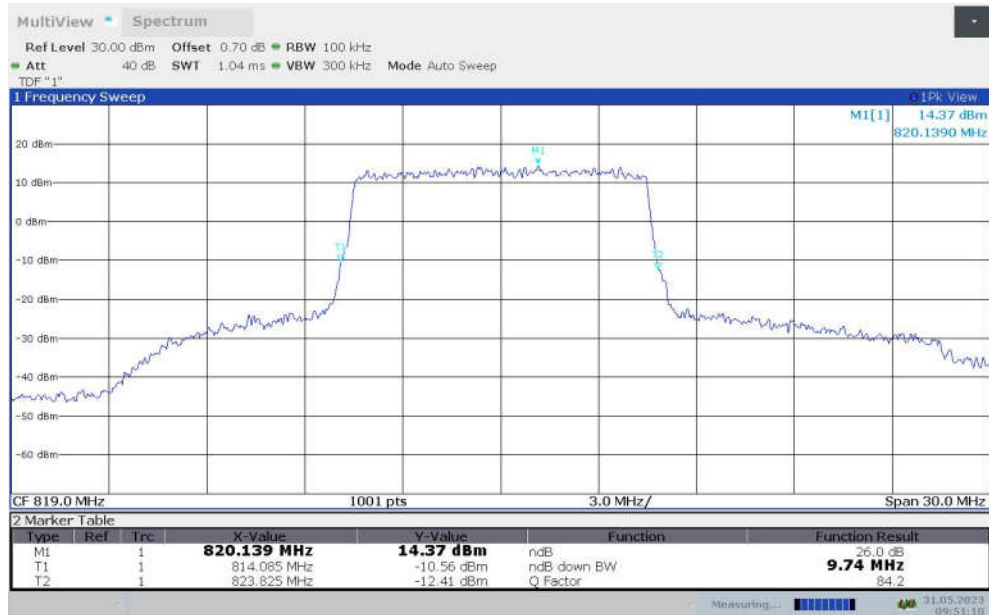

LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 26 (814 MHz-824 MHz),10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
819	9.740	9.650

LTE band 26 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)
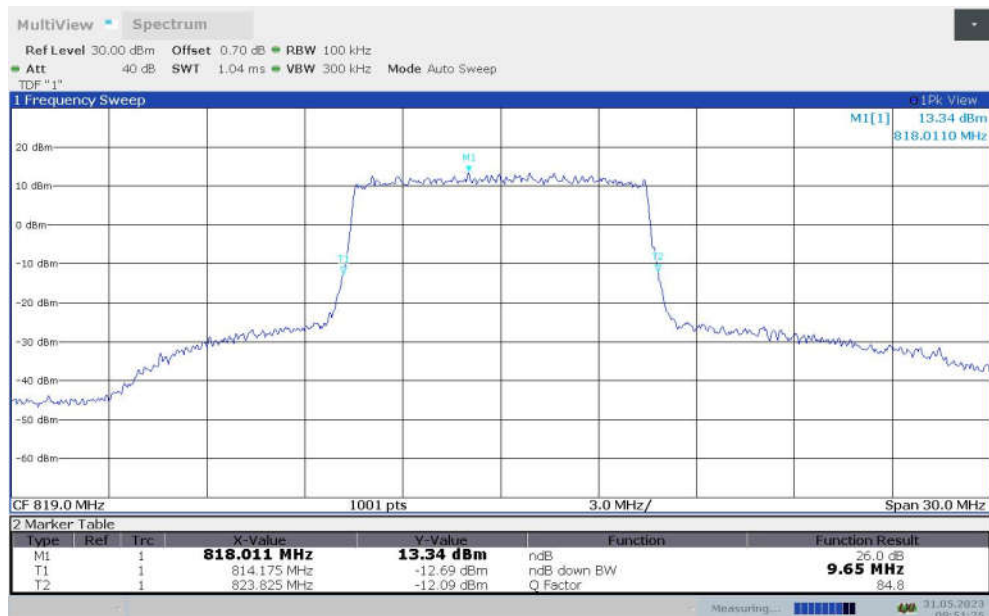
LTE band 26 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 30,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2310	4.960	4.900

LTE band 30 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)
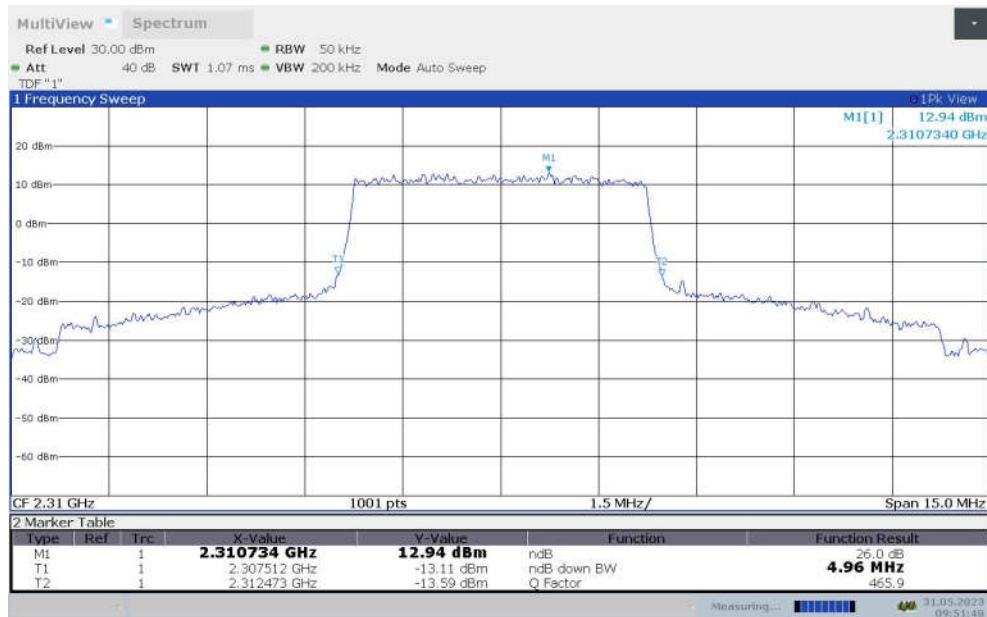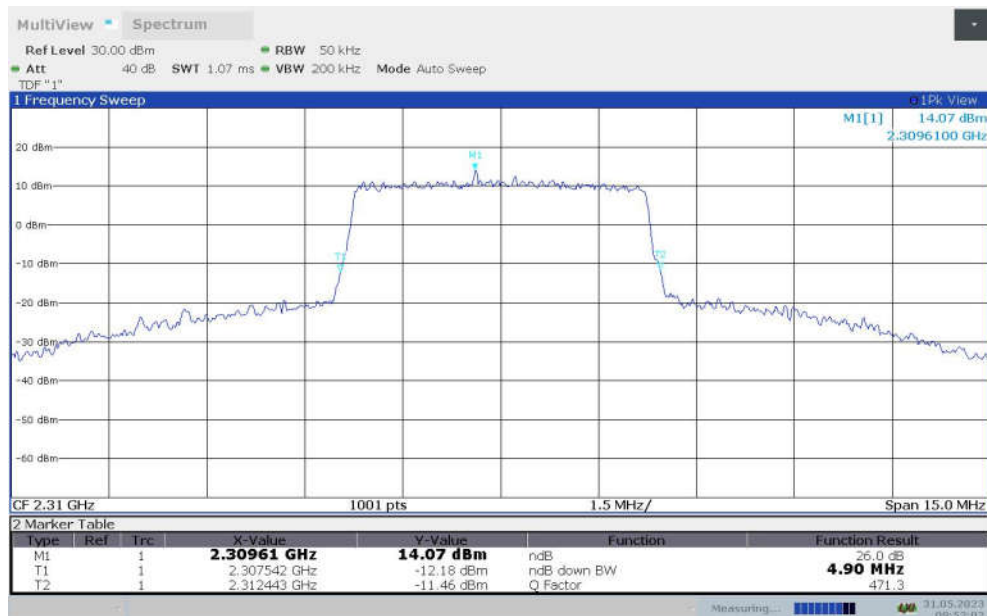

LTE band 30 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 30,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2310	9.860	9.680

LTE band 30 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)
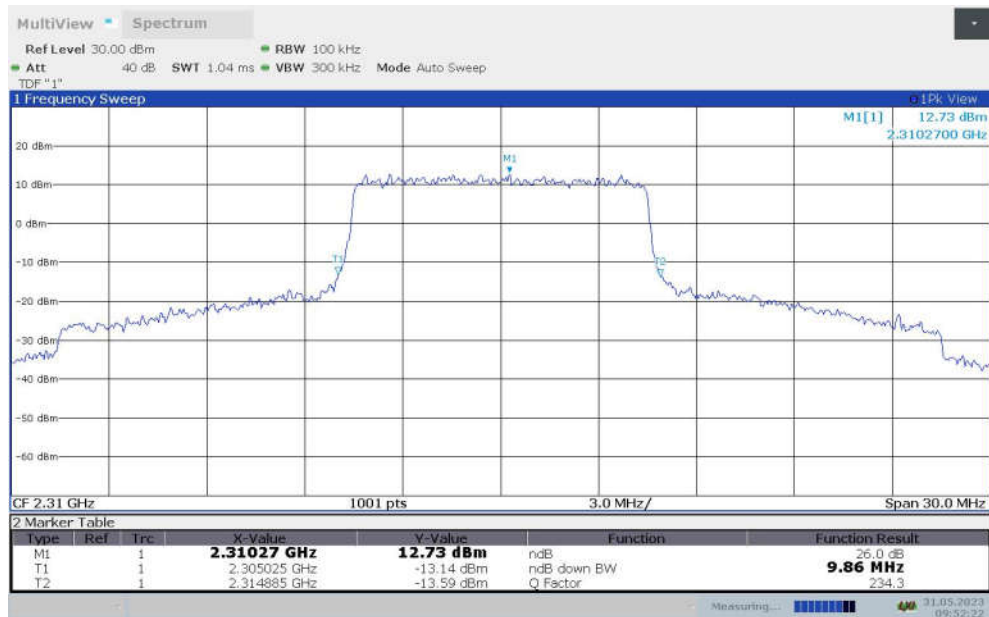
LTE band 30 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)
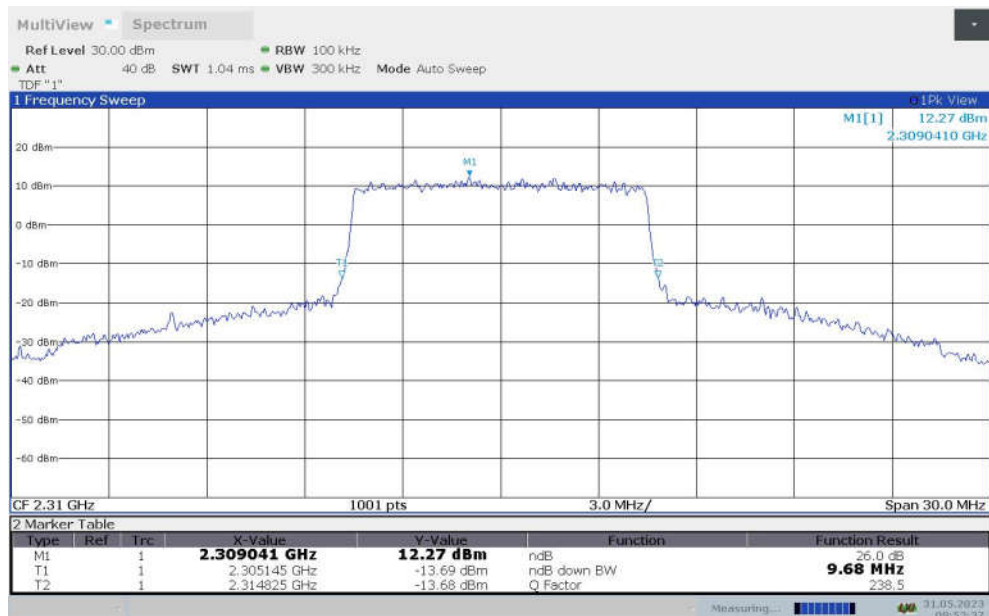
LTE band 38,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2595	4.855	4.900

LTE band 38 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)
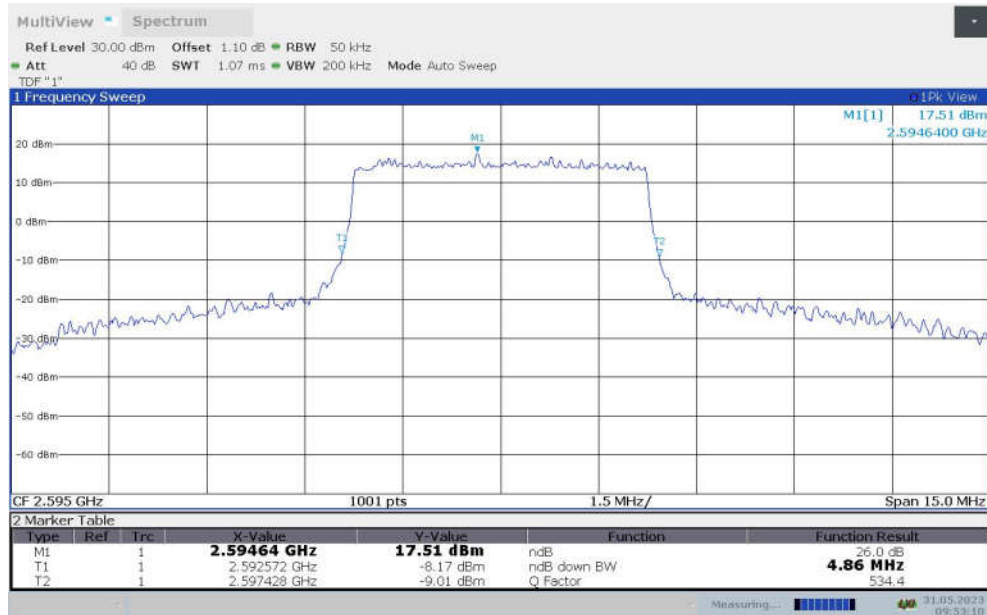
LTE band 38 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 38,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2595	9.740	9.590

LTE band 38 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)
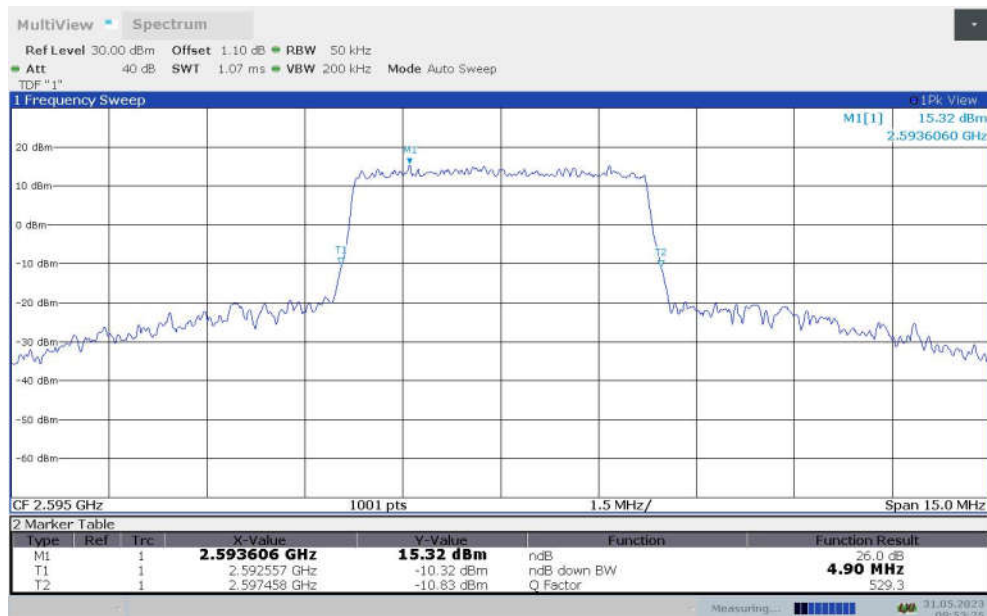

LTE band 38 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 38,15MHz(-26dBc)

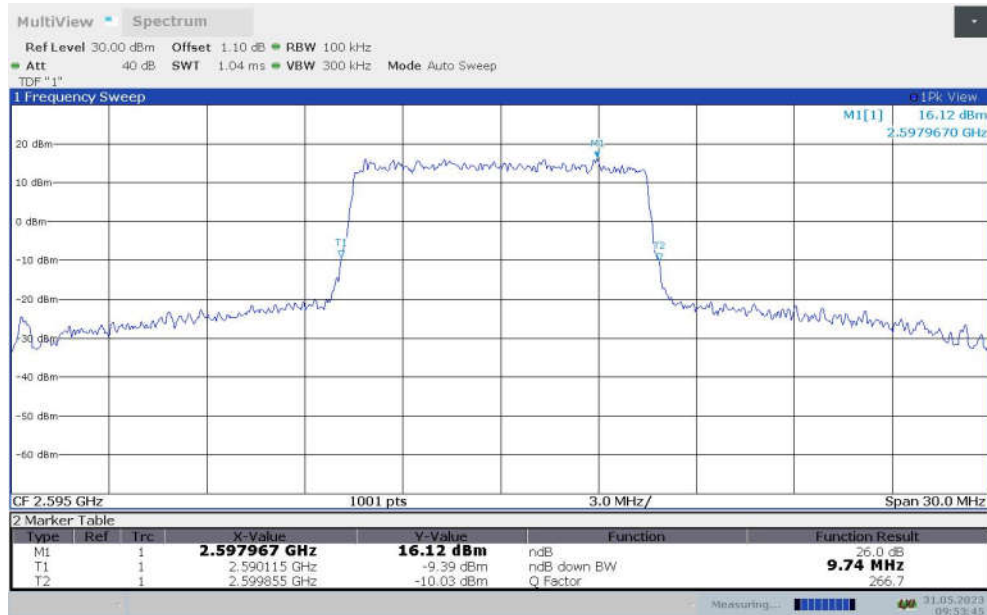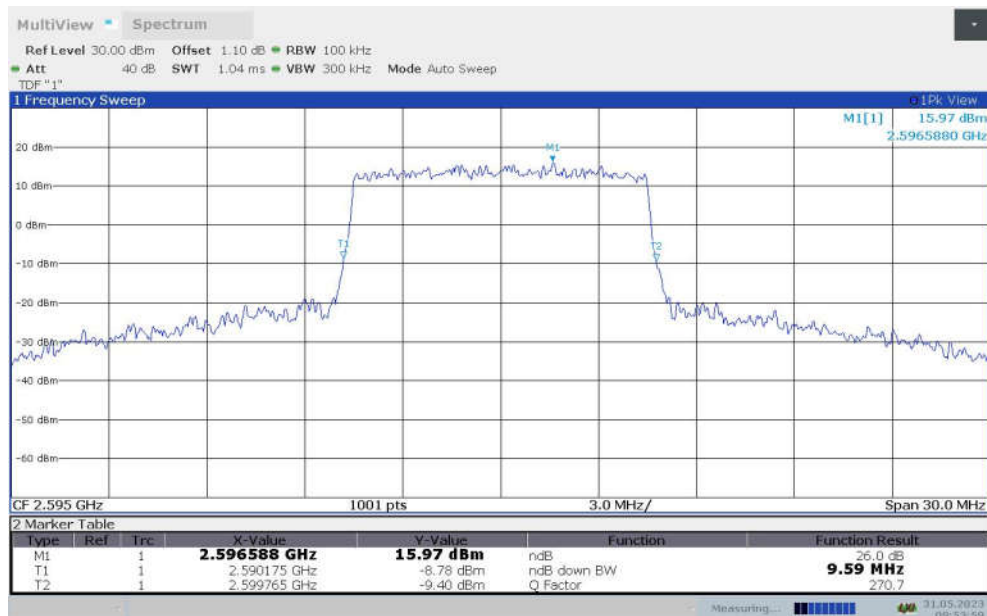| Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2595	14.476	14.386

LTE band 38 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)

LTE band 38 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)
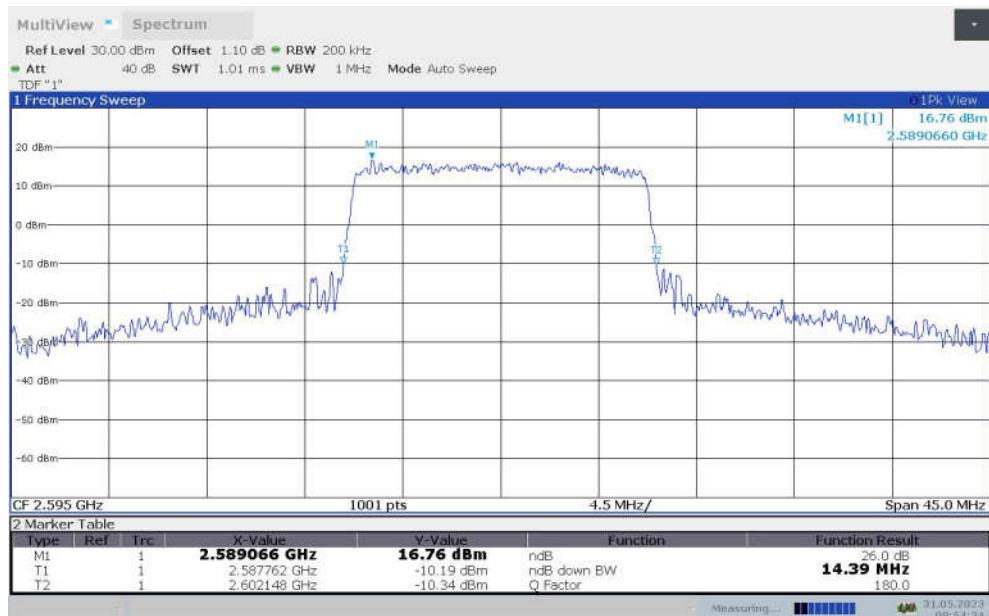
LTE band 38,20MHz(-26dBc)

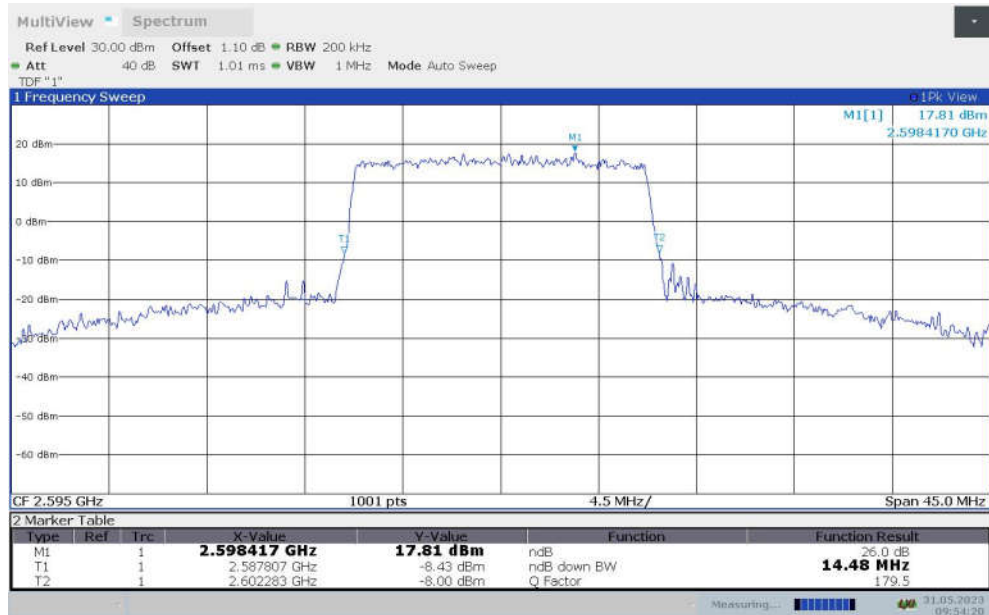| Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2595	19.121	19.181

LTE band 38 , 20MHz Bandwidth, MID, QPSK (-26dBc BW)

LTE band 38 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 41,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	4.915	4.885

LTE band 41 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)

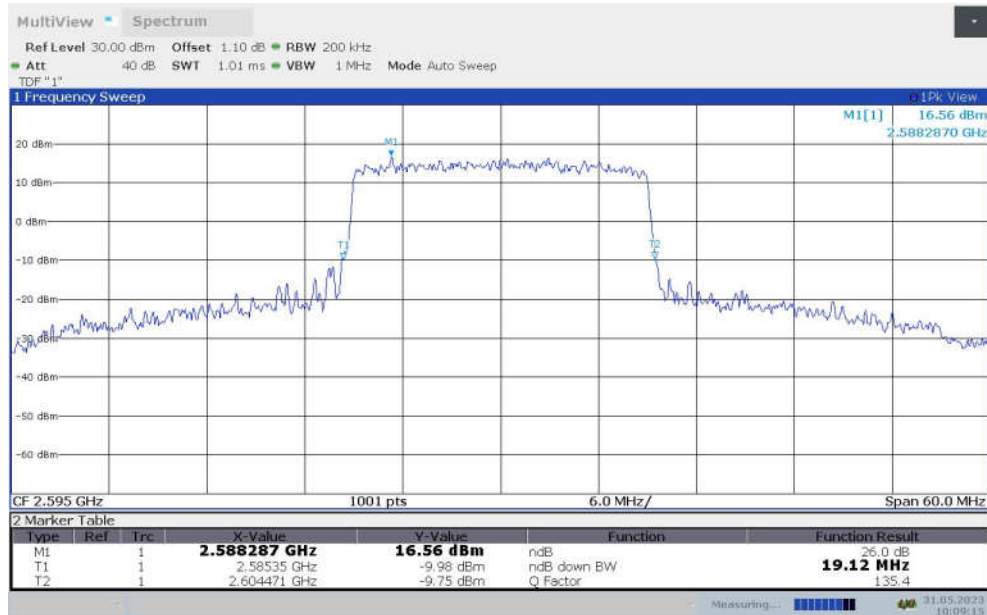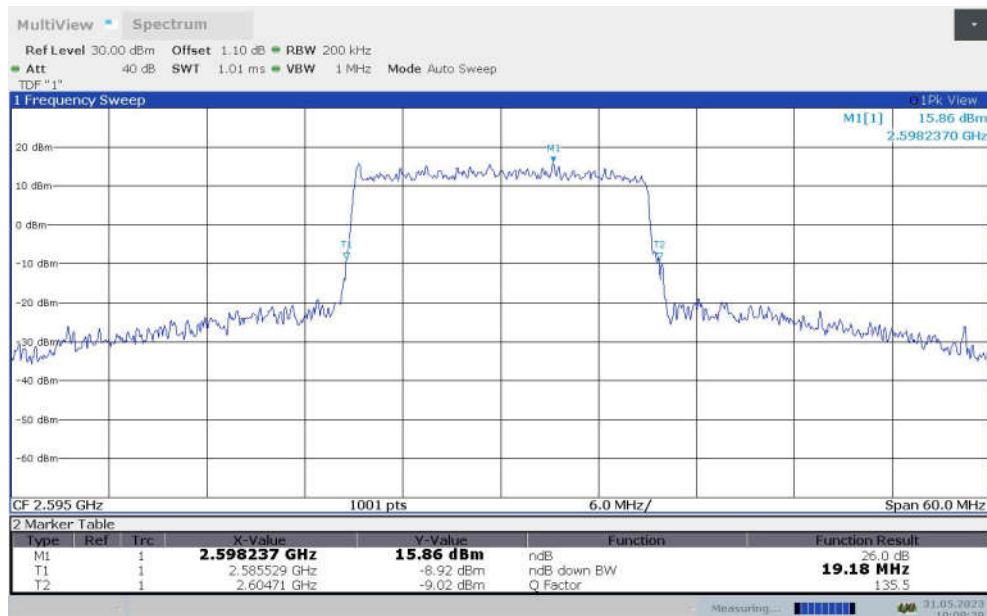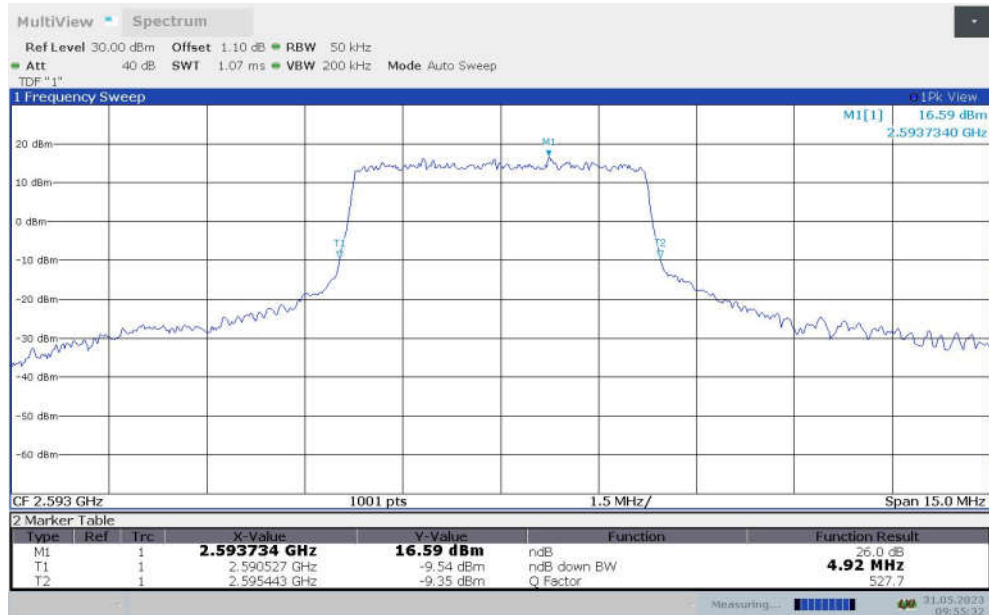**LTE band 41 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)**

LTE band 41,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	9.650	9.590

LTE band 41 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)
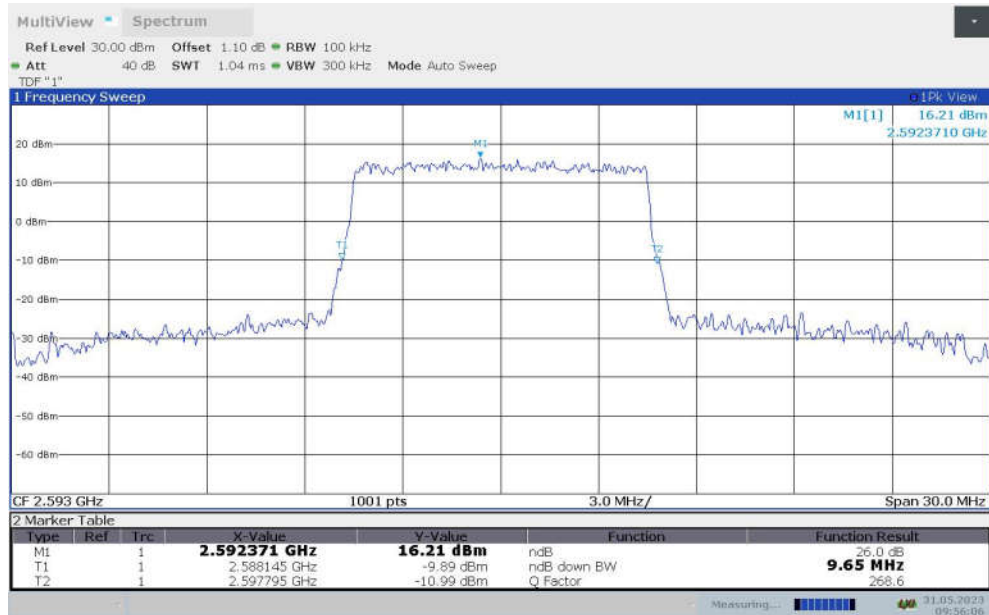
LTE band 41 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)
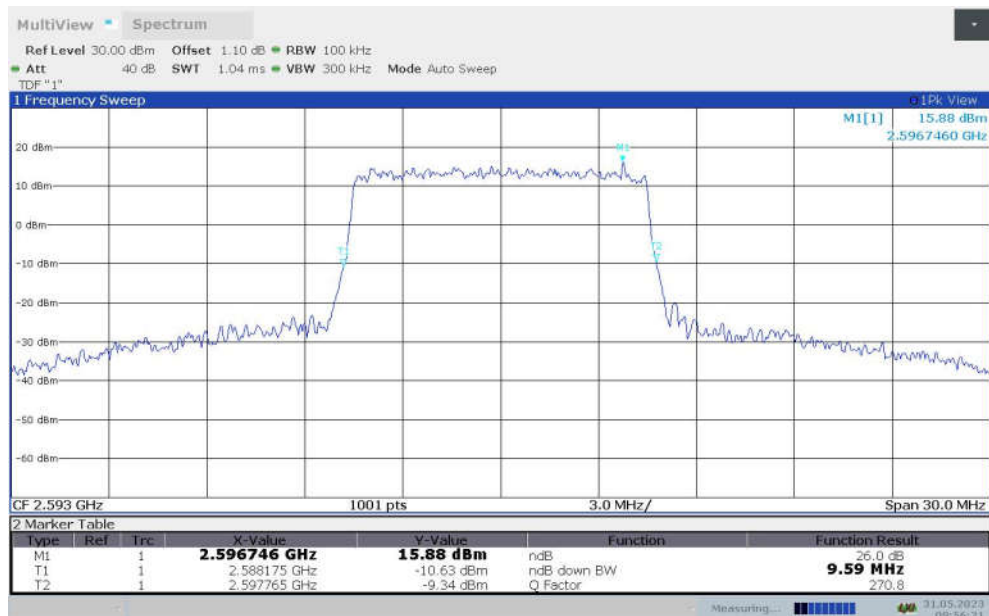
LTE band 41,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	14.341	14.386

LTE band 41 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)
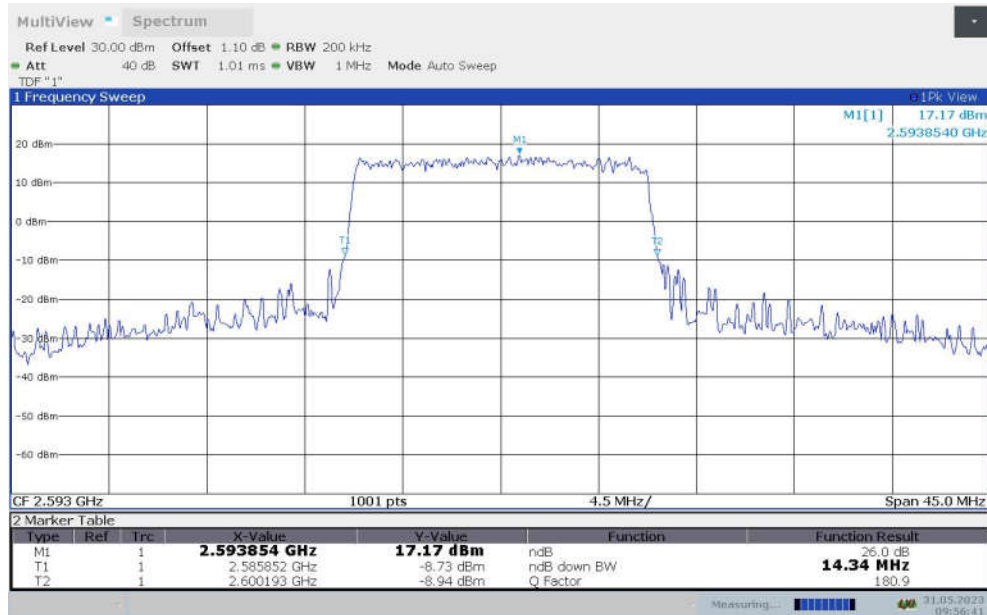
LTE band 41 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)
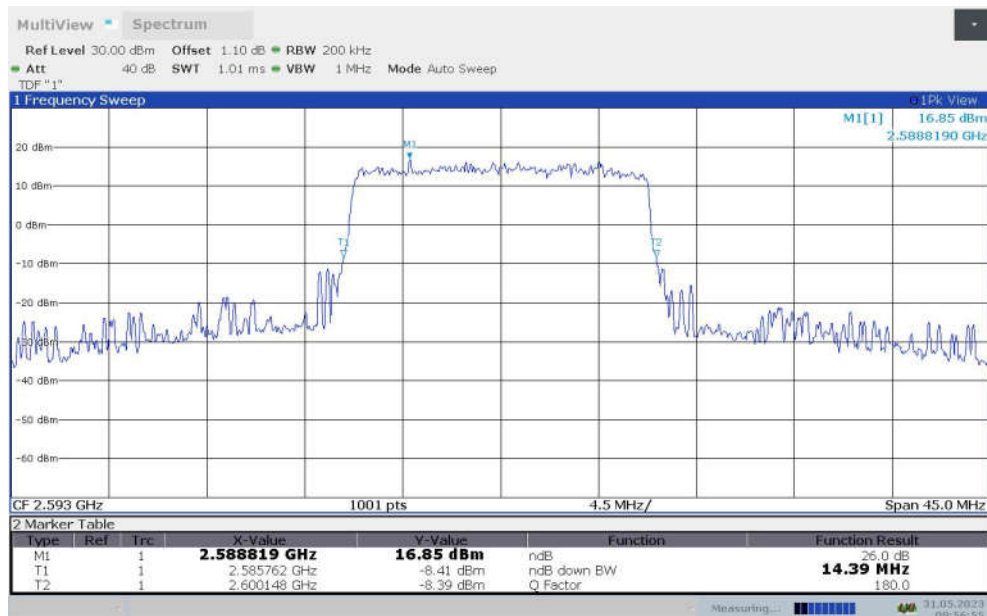
LTE band 41,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
2593	19.121	19.061

LTE band 41 , 20MHz Bandwidth, MID, QPSK (-26dBc BW)
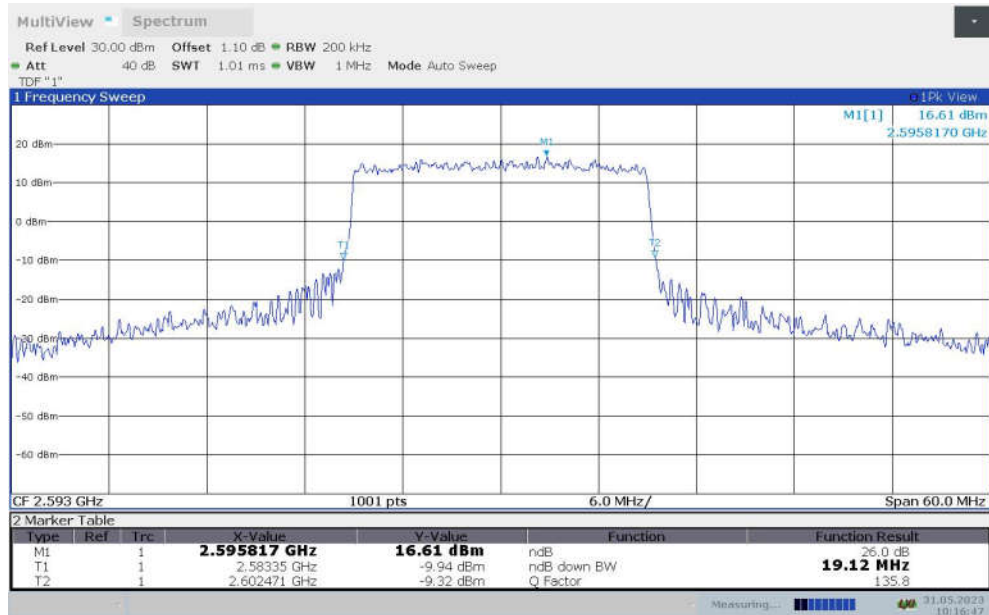

LTE band 41 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 66,1.4MHz(-26dBc)

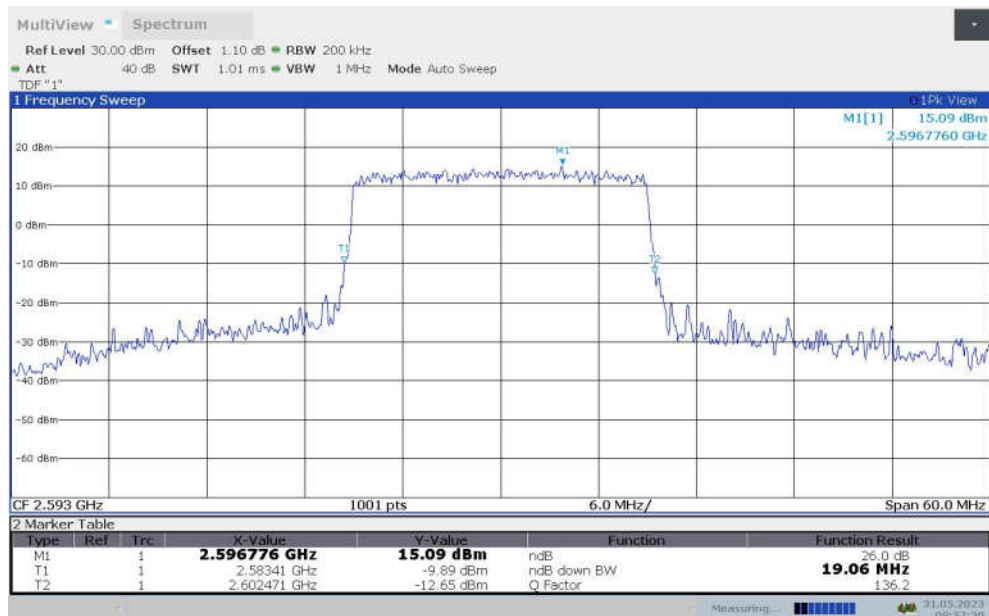| Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	1.267	1.284

LTE band 66 , 1.4MHz Bandwidth, MID, QPSK (-26dBc BW)
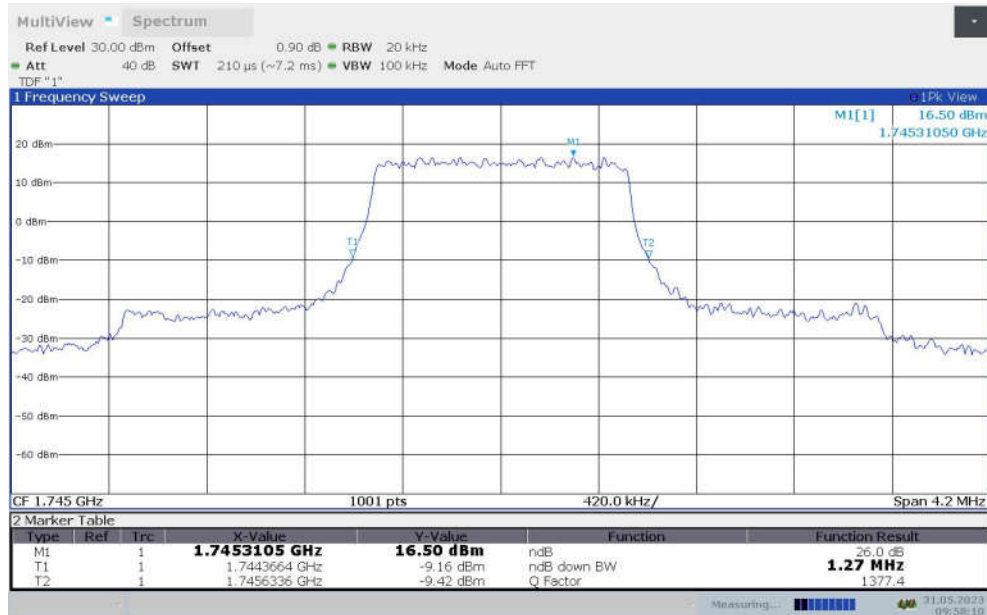
LTE band 66 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 66,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	2.967	2.922

LTE band 66 , 3MHz Bandwidth, MID, QPSK (-26dBc BW)
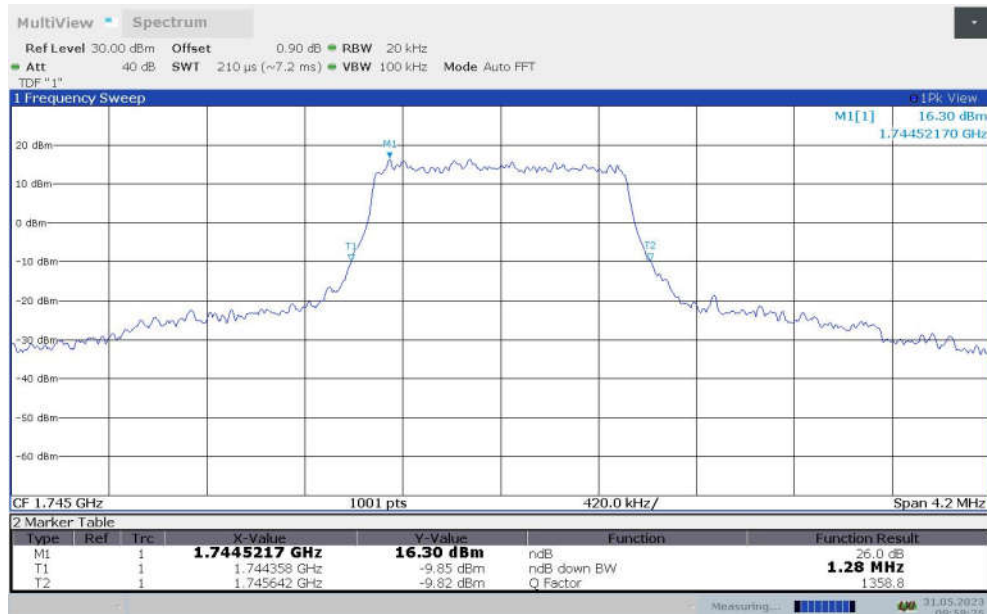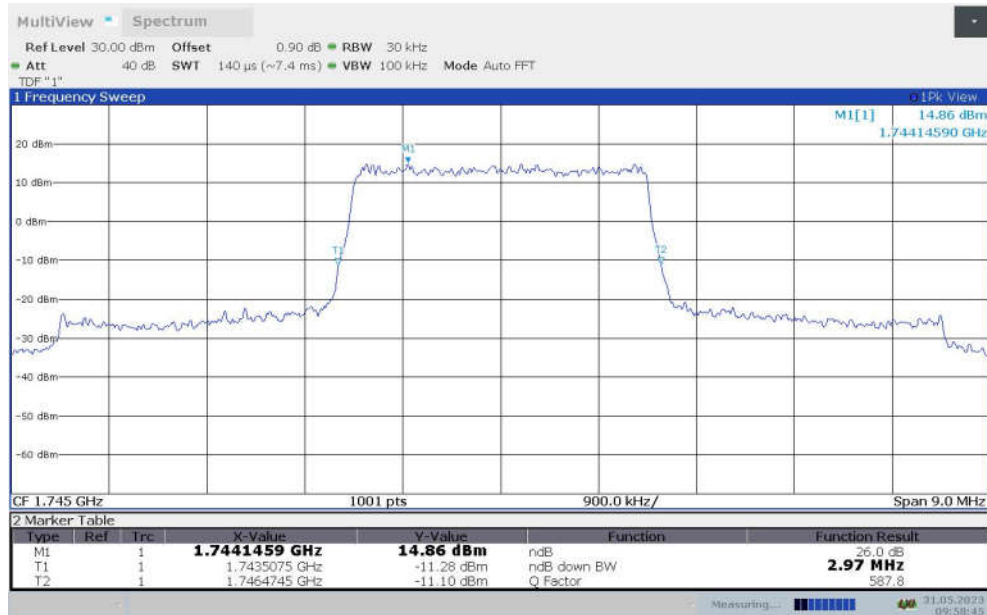

LTE band 66 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)
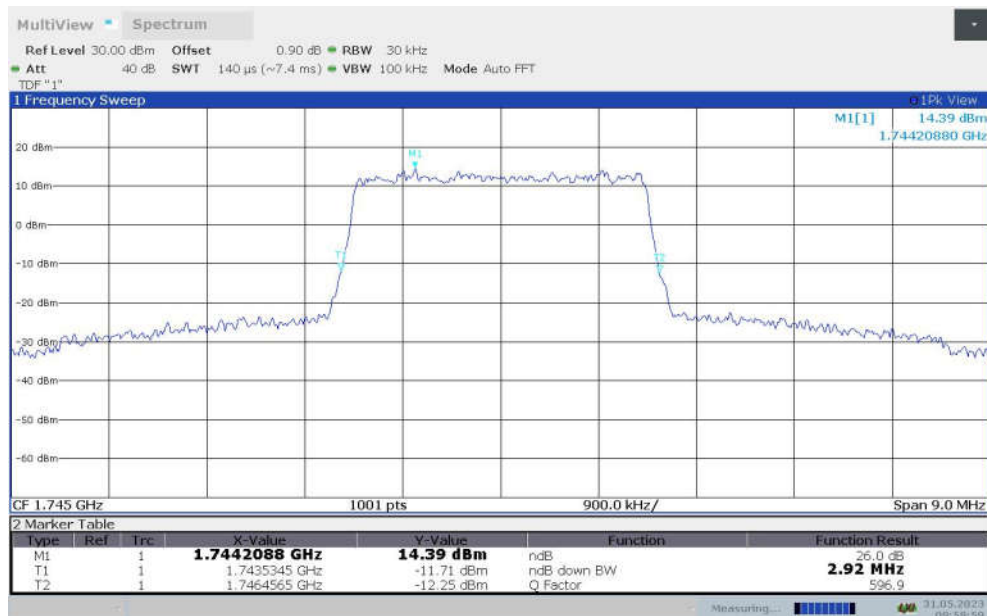
LTE band 66,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	4.915	4.885

LTE band 66 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)
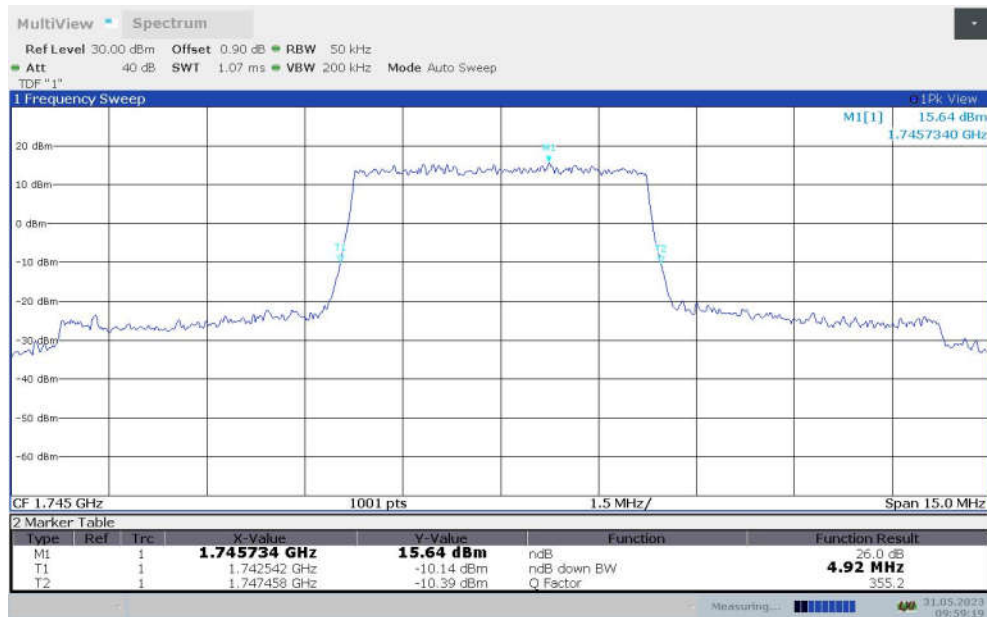
LTE band 66 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)
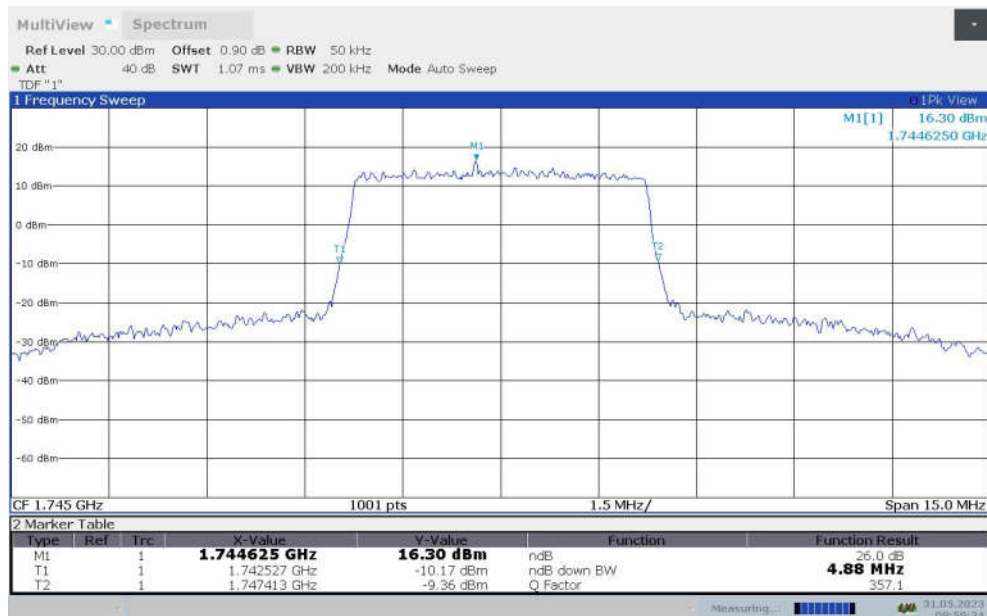
LTE band 66,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	9.710	9.680

LTE band 66 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)

LTE band 66 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 66,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	14.341	14.520

LTE band 66 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)

LTE band 66 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)
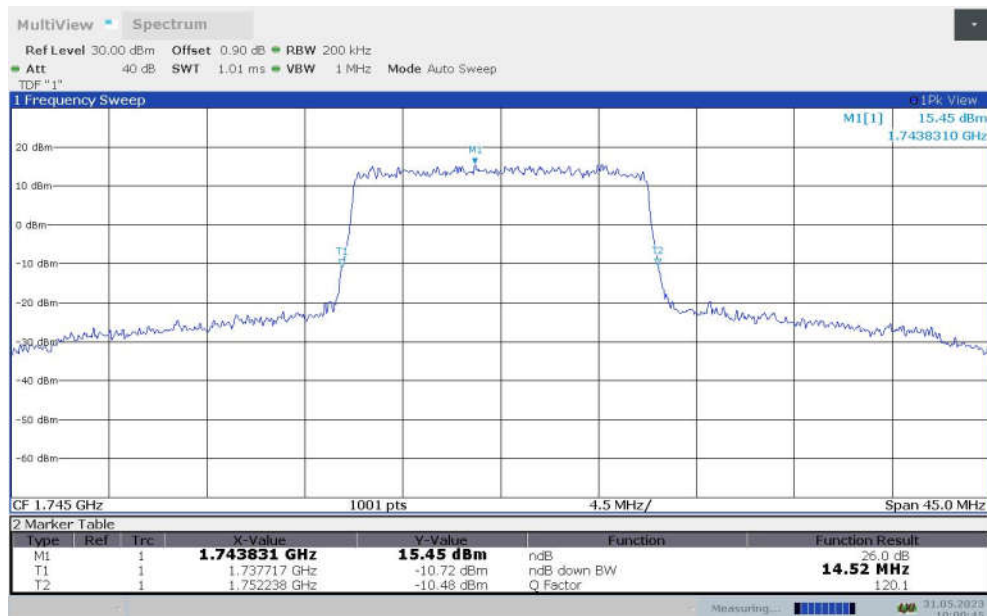
LTE band 66,20MHz(-26dBc)
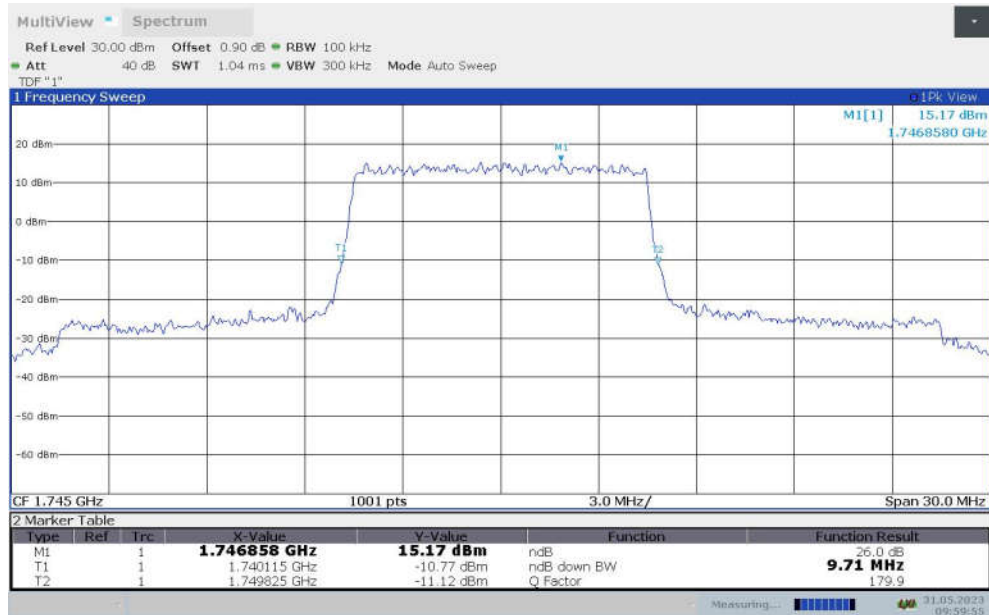
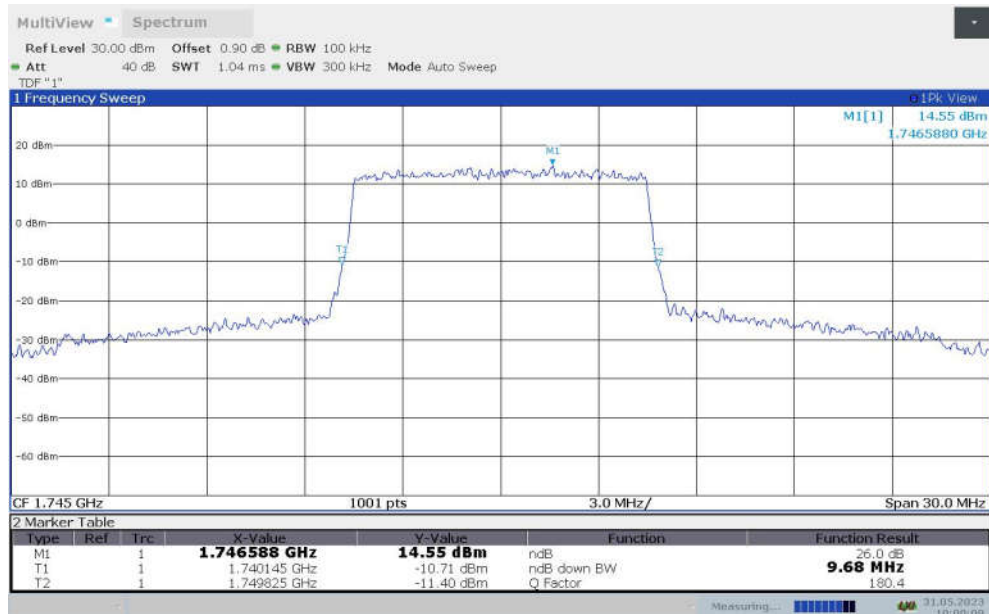| Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1745	19.001	19.001

LTE band 66 , 20MHz Bandwidth, MID, QPSK (-26dBc BW)
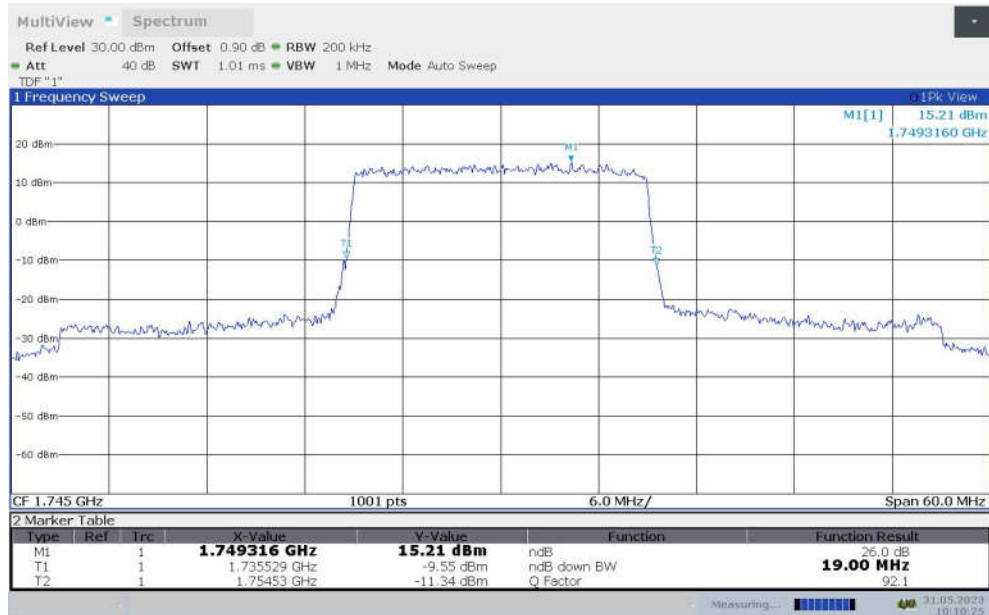
LTE band 66 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)
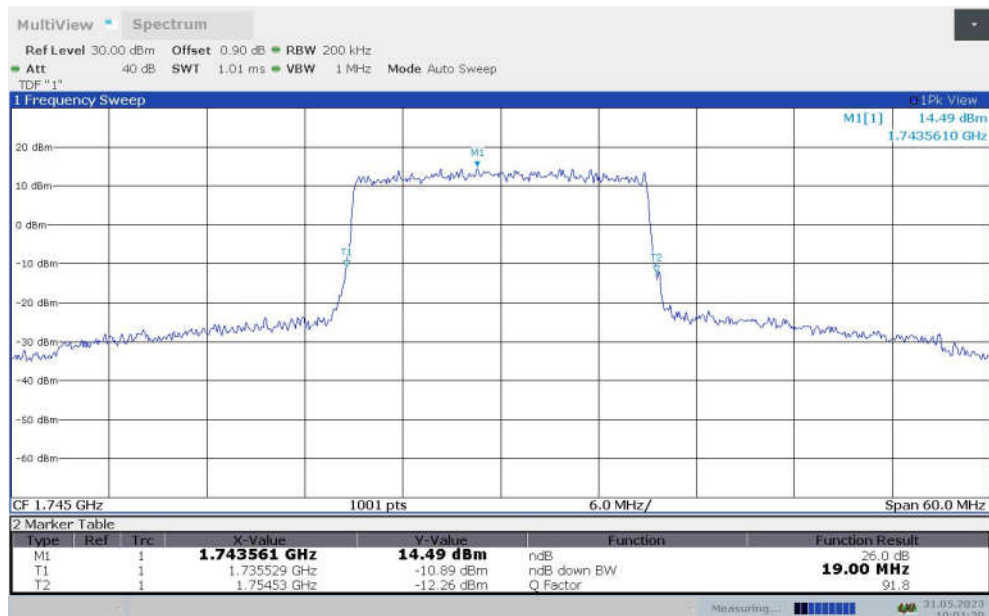
LTE band 71,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
680.5	4.915	4.855

LTE band 71 , 5MHz Bandwidth, MID, QPSK (-26dBc BW)
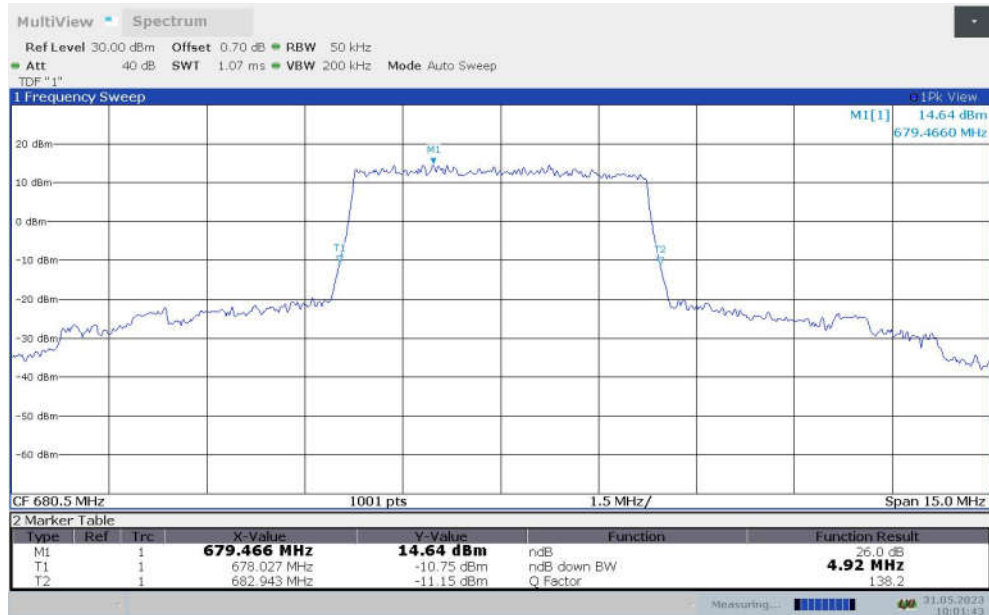
LTE band 71 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 71,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
680.5	9.710	9.710

LTE band 71 , 10MHz Bandwidth, MID, QPSK (-26dBc BW)

LTE band 71 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 71,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
680.5	14.431	14.476

LTE band 71 , 15MHz Bandwidth, MID, QPSK (-26dBc BW)
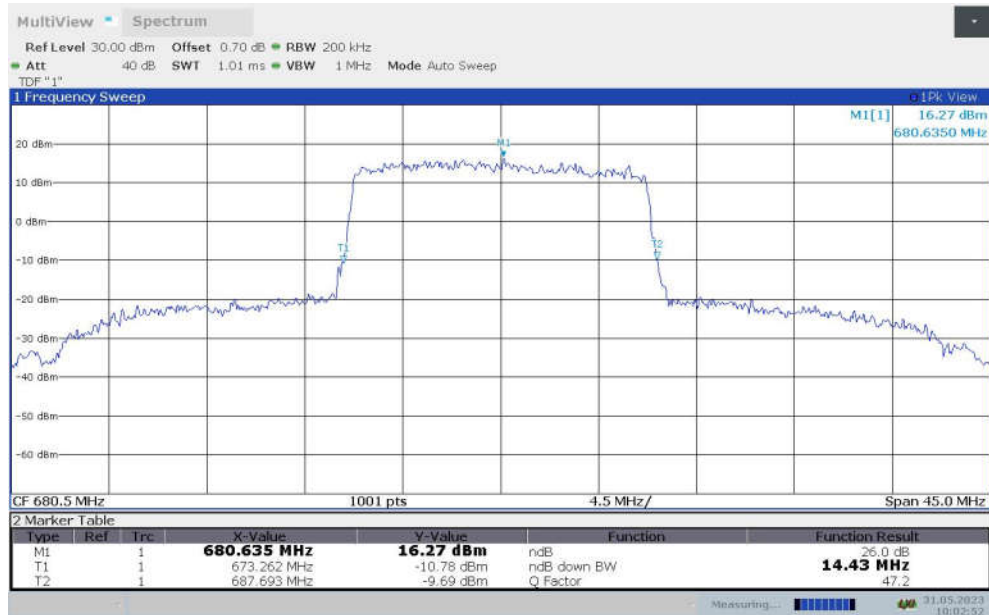
LTE band 71 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)

LTE band 71,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
683	19.061	19.001

LTE band 71 , 20MHz Bandwidth, MID, QPSK (-26dBc BW)

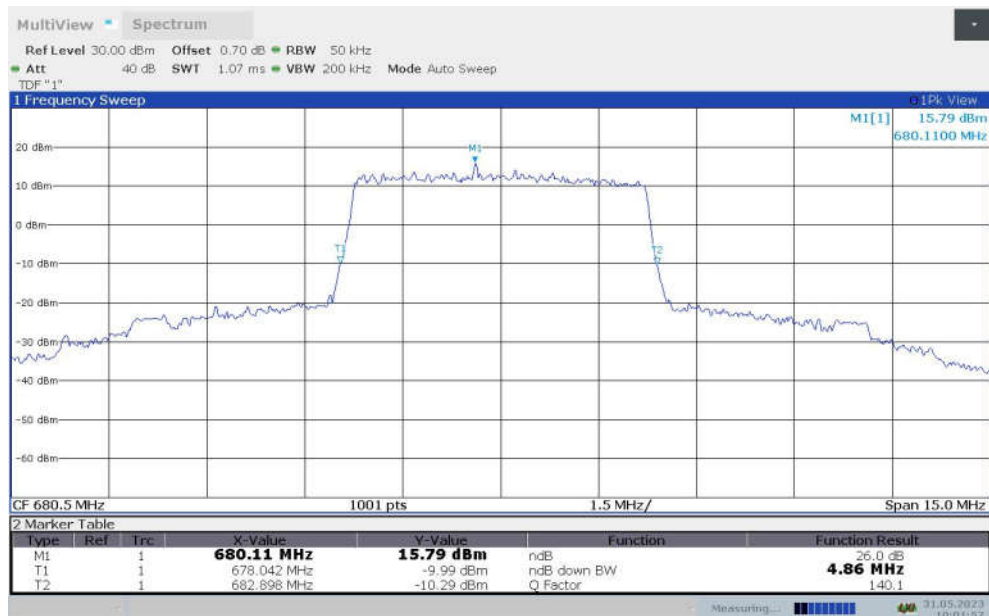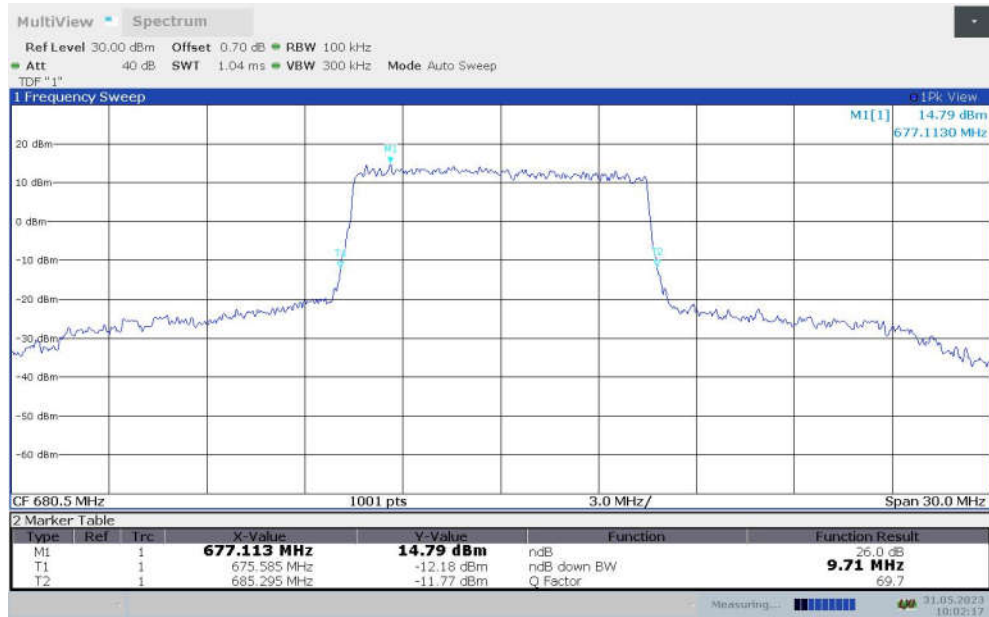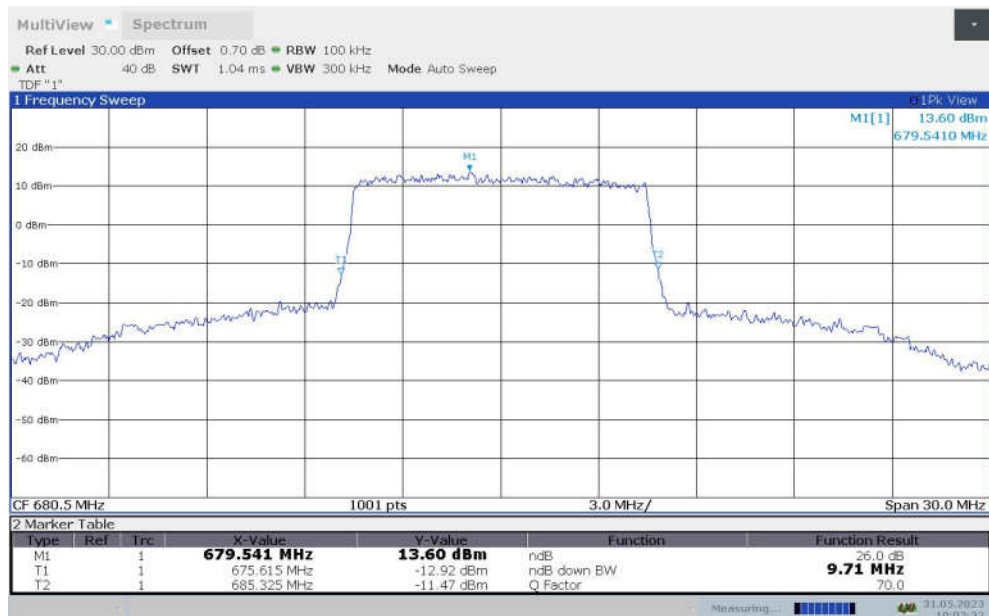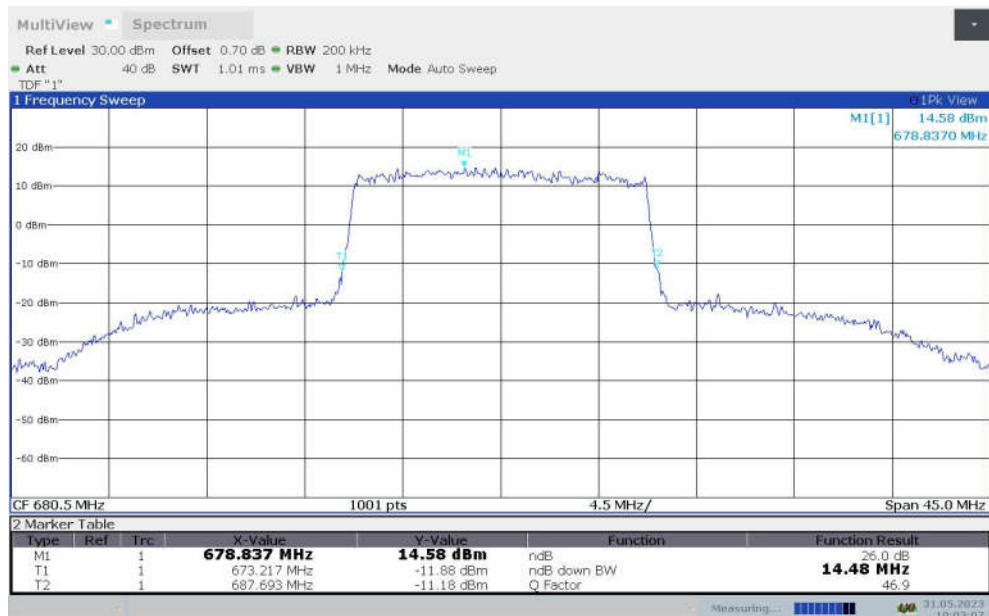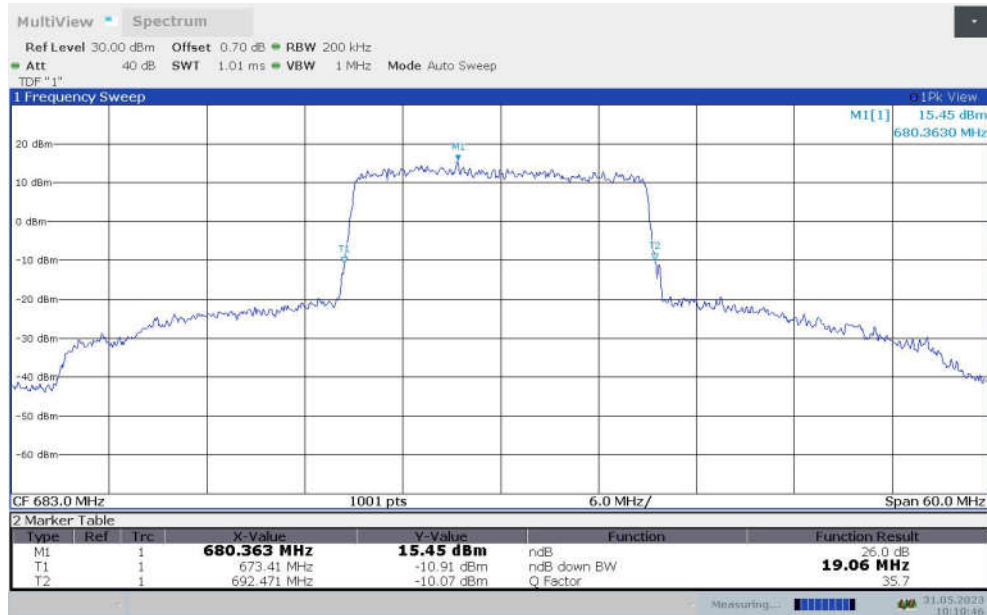**LTE band 71 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)**
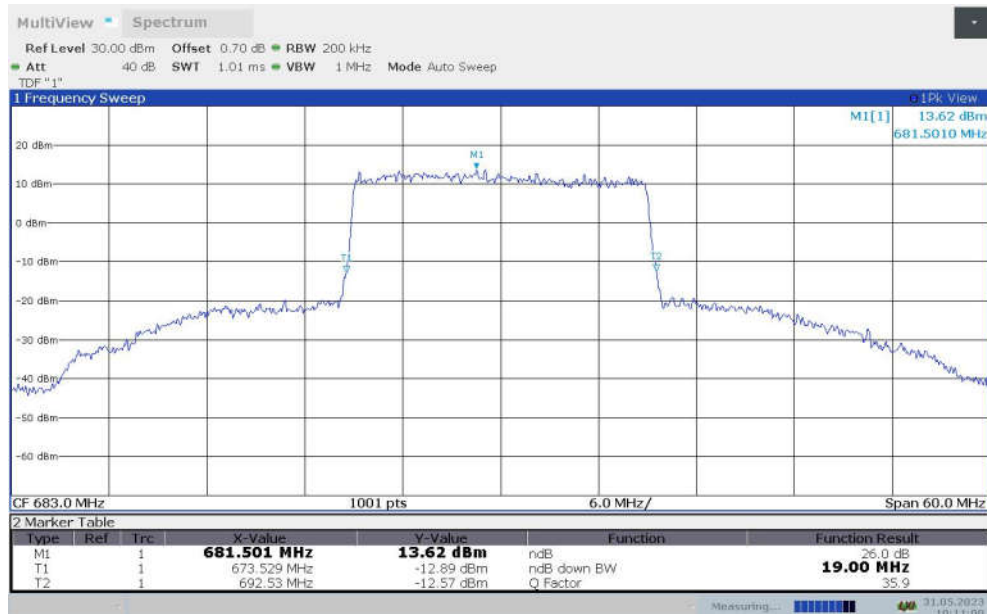
Note: Expanded measurement uncertainty is *U* = 3428 Hz, *k* = 2

A.6 BAND EDGE COMPLIANCE

A.6.1 Measurement limit

Part 22.917 For operations in the 824–849MHz band, the FCC limit is 43 +10 log (P)dB below the transmitter power(P) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

Part 24.238 and Part 27.53(h) specify that 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) dB.

Part 27.53(a) states for mobile and portable stations operating in the 2305–2315 MHz and 2350–2360 MHz bands: (i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz; (ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz; (iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

Part 27.53(c) states 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: (1) On any frequency outside the 746–758 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; (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; (3) 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; (4) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed; (5) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

Part 27.53(g) states 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.

Part 27.53(m) specifies 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 that 43 + 10log (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.

Part 90.543 states For operations in the 758–768 MHz and the 788–798 MHz bands, 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: (1) On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations. (2) On any frequency between 775–788 MHz, above 805 MHz, and below 758 MHz, by at least 43 + 10 log (P) dB. (3) Compliance with the provisions of paragraphs (e)(1) and (2) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment. (4) Compliance with the provisions of paragraph (e)(3) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of 30 kHz may be employed.

Part 90.691 states that out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

A.6.2Measurement Procedure

The testing follows ANSI C63.26

a) The EUT was connected to spectrum analyzer and system simulator via a power divider.

b) The band edges of low and high channels for the highest RF powers were measured.

c) Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

d) Set spectrum analyzer with RMS detector.

e) The RF fundamental frequency should be excluded against the limit line in the operating

frequency band.

f) Checked that all the results comply with the emission limit line.
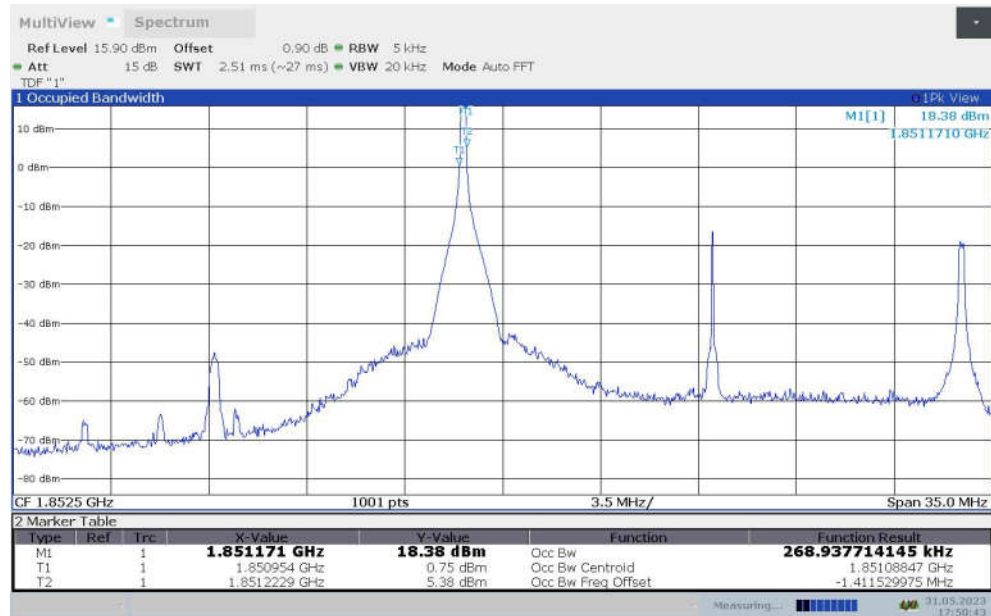
A.6.3 Measurement result
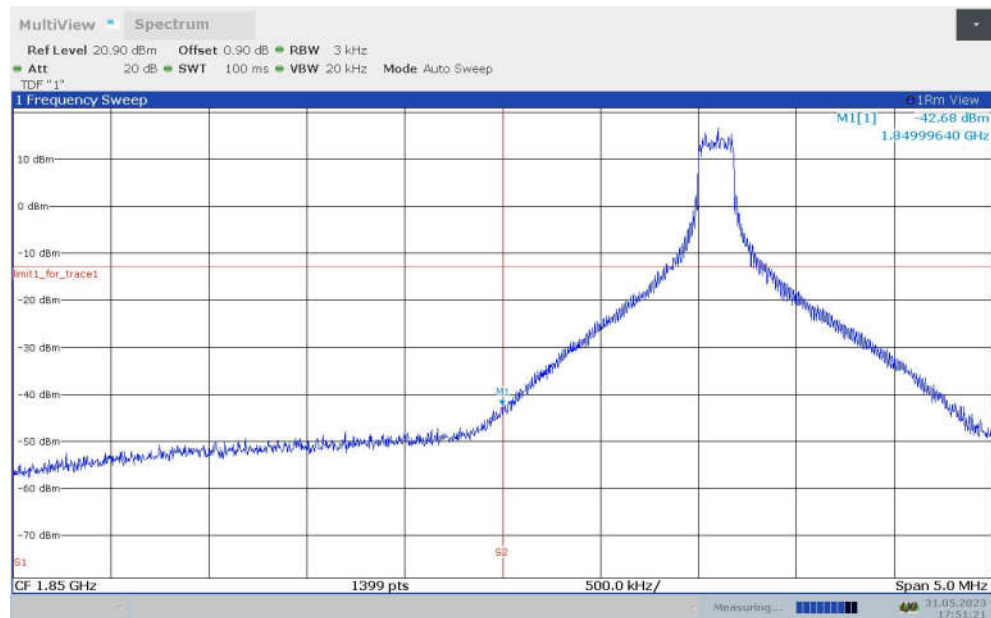
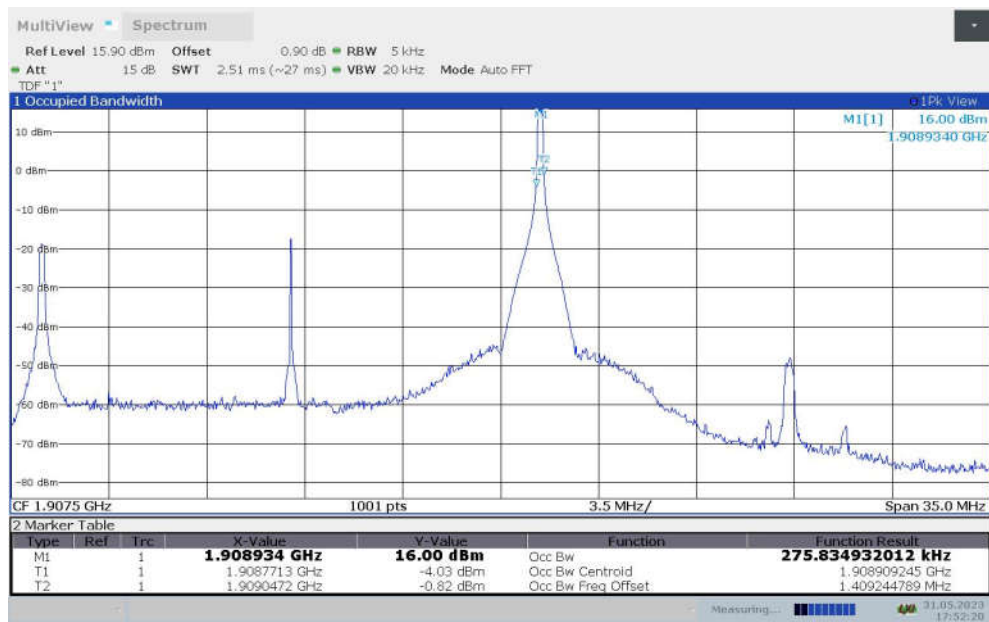**Only worst case result is given below**

LTE band 2
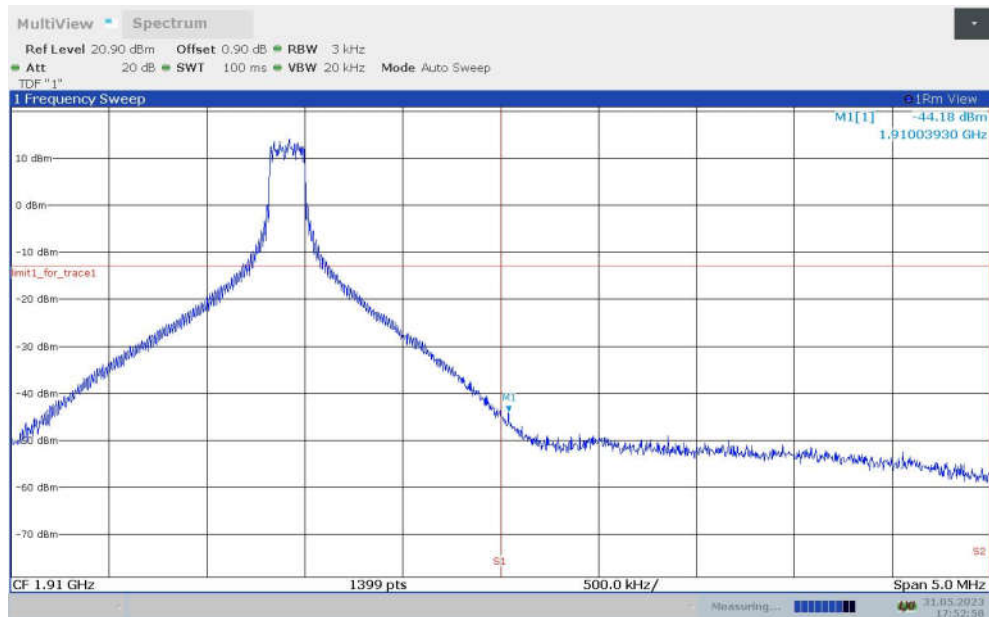**OBW: 1RB-LOW_offset**

LOW BAND EDGE BLOCK-1RB-LOW_offset
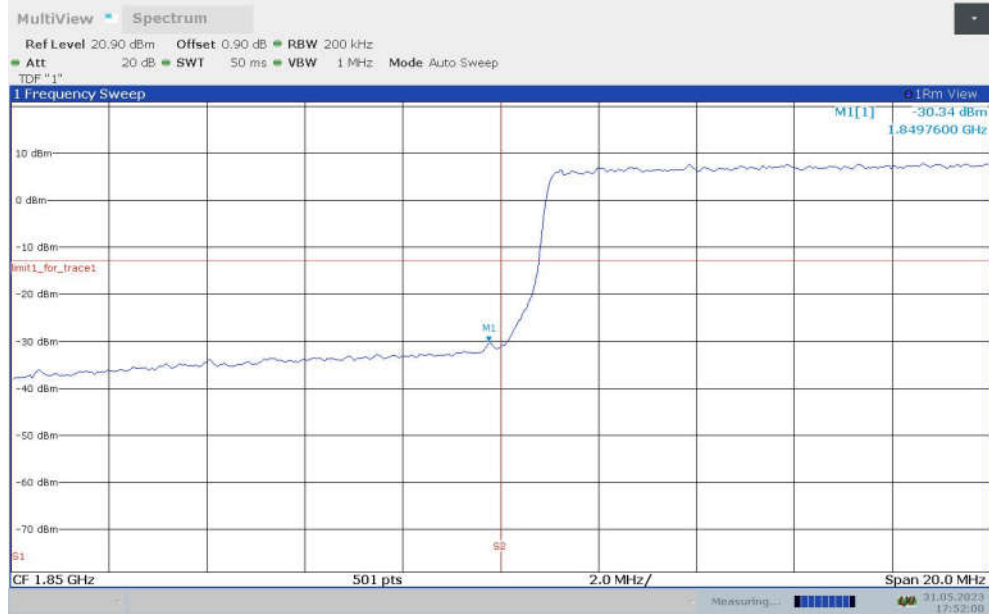

OBW: 1RB-HIGH_offset

HIGH BAND EDGE BLOCK-1RB-HIGH_offset

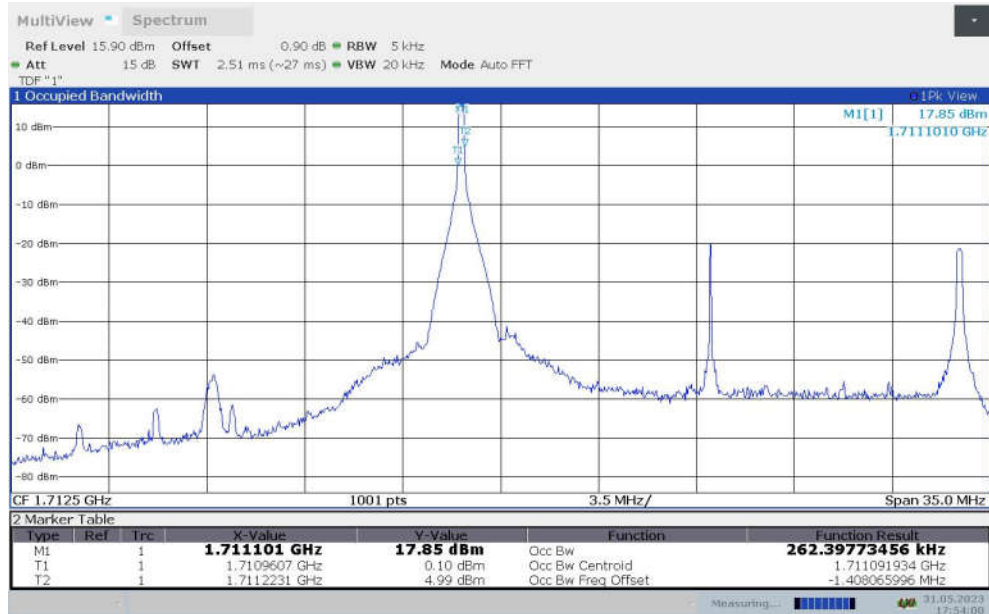**LOW BAND EDGE BLOCK-20M-100%RB**
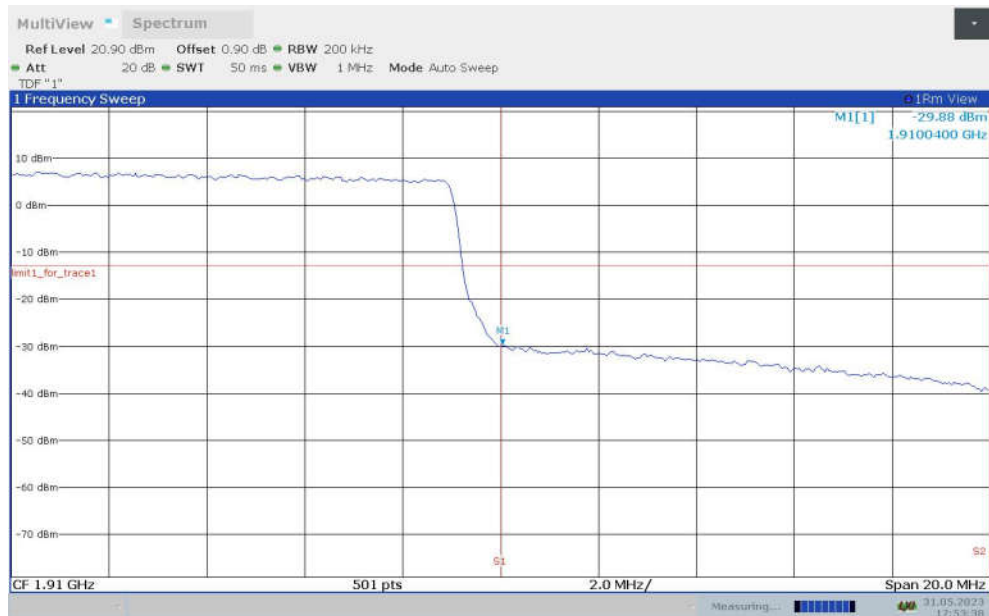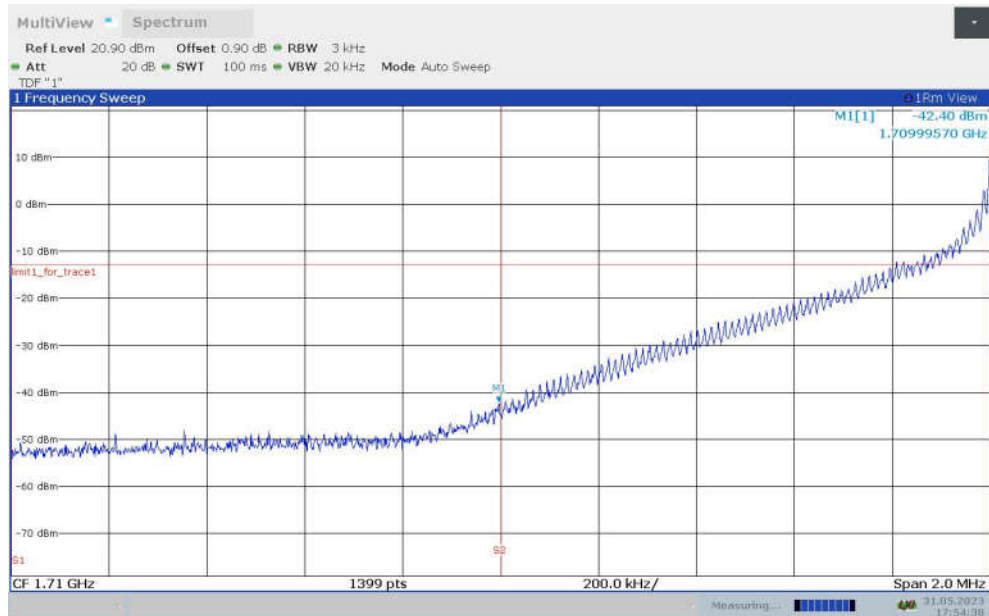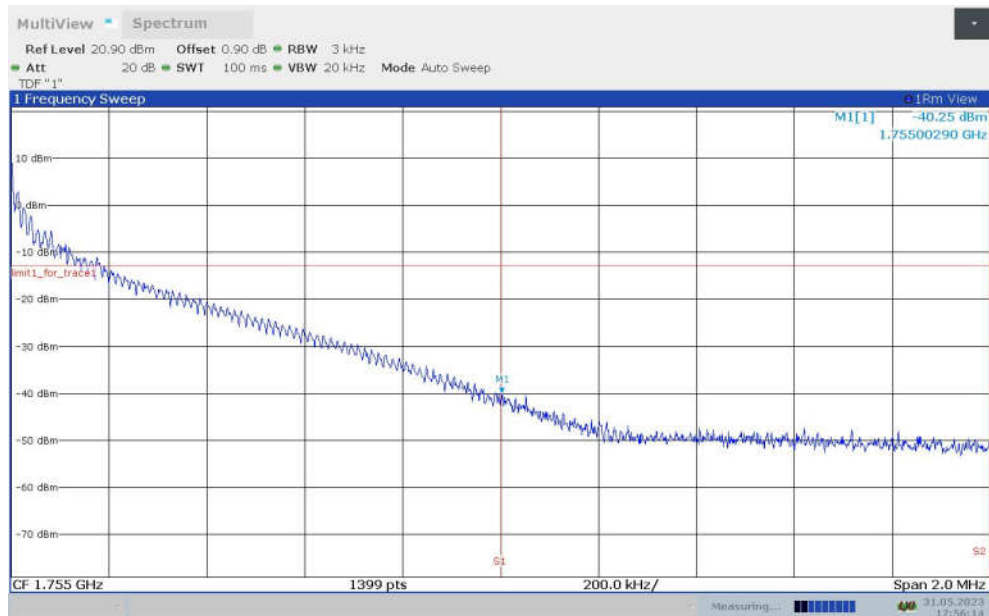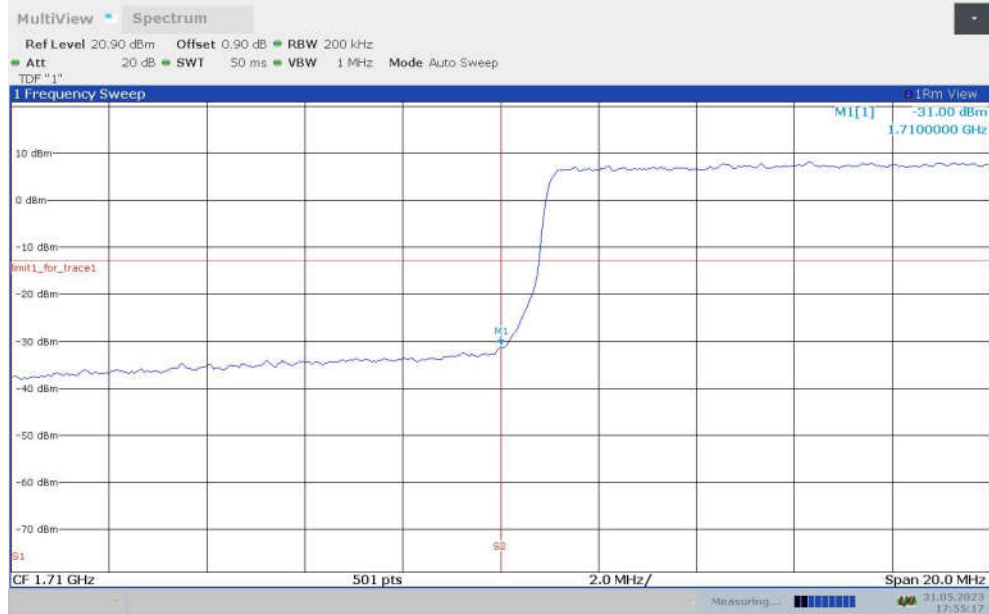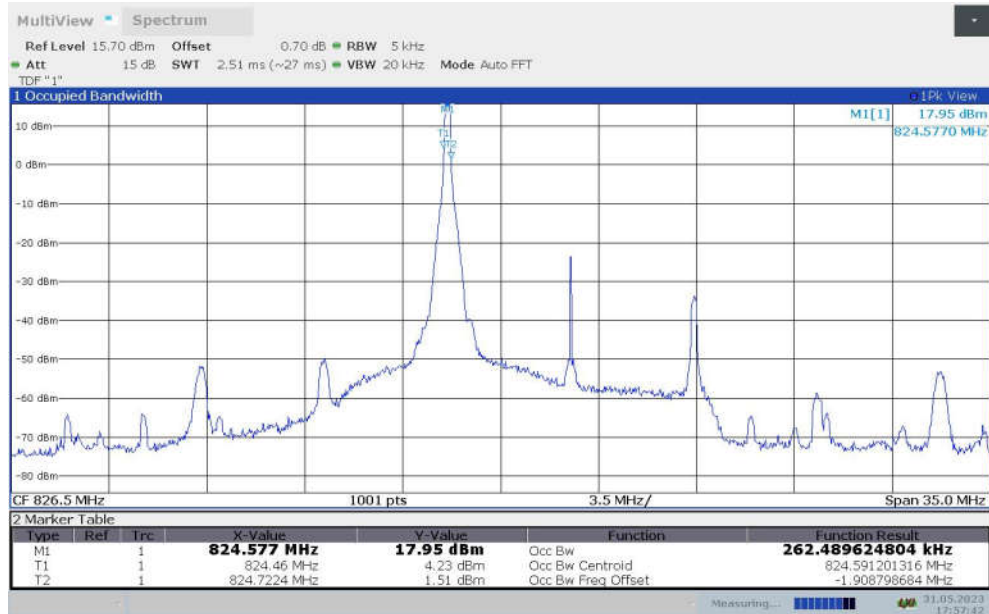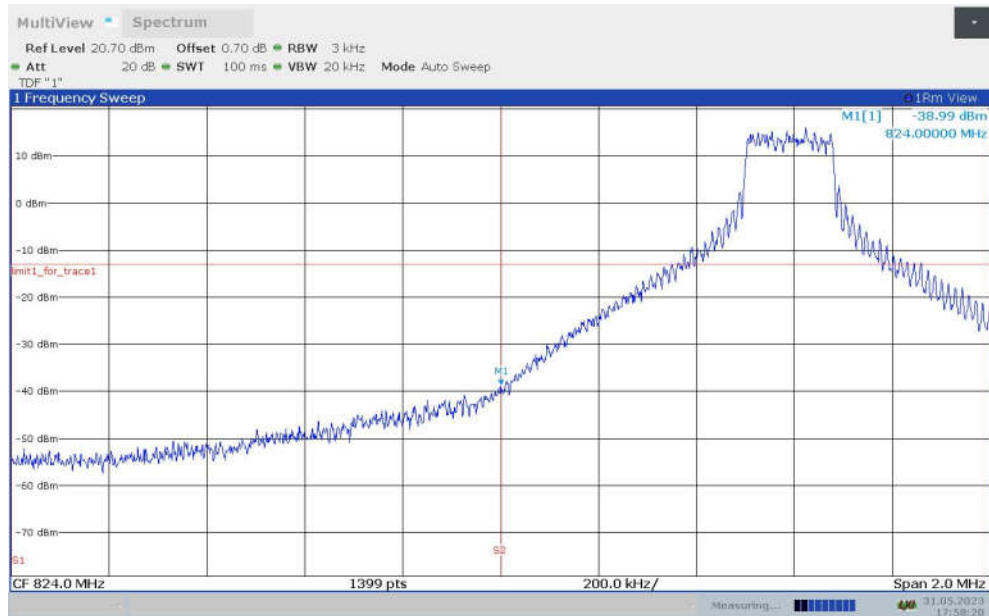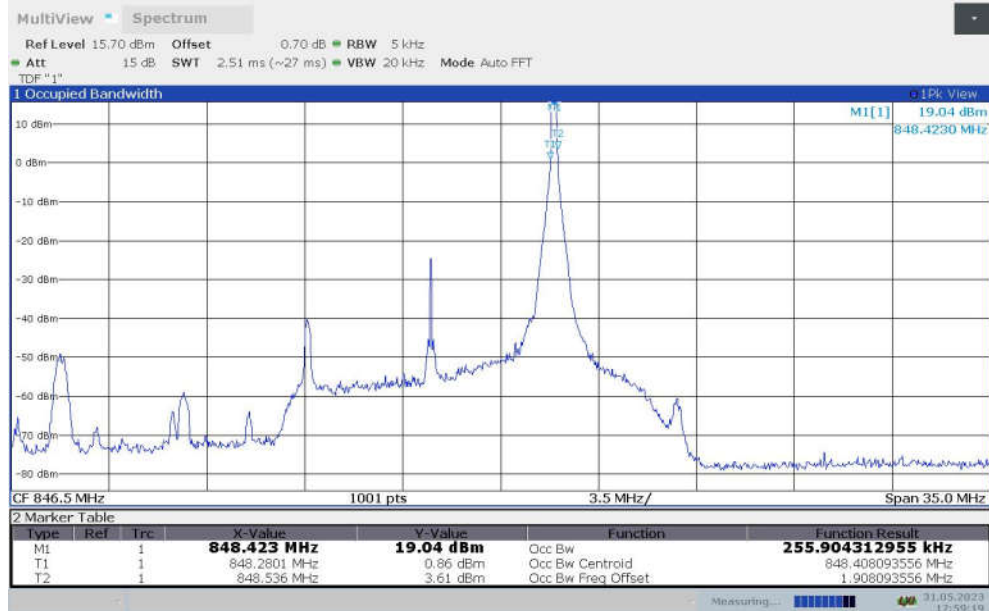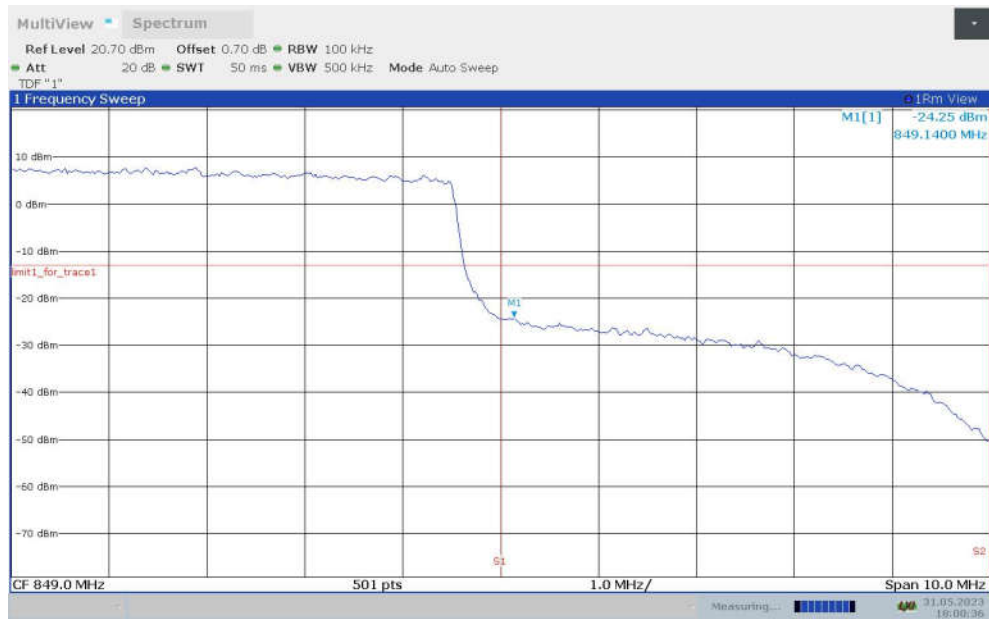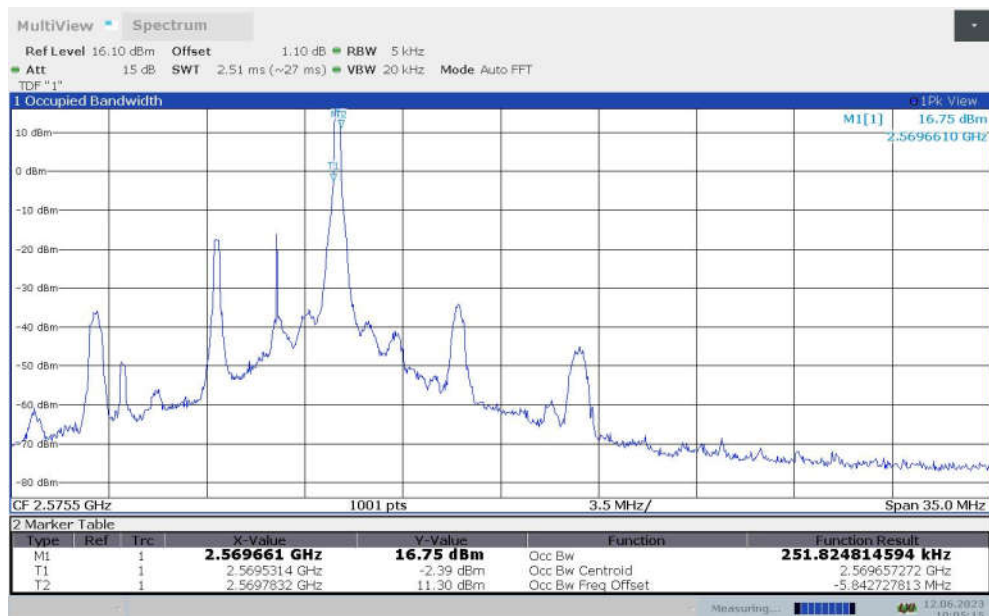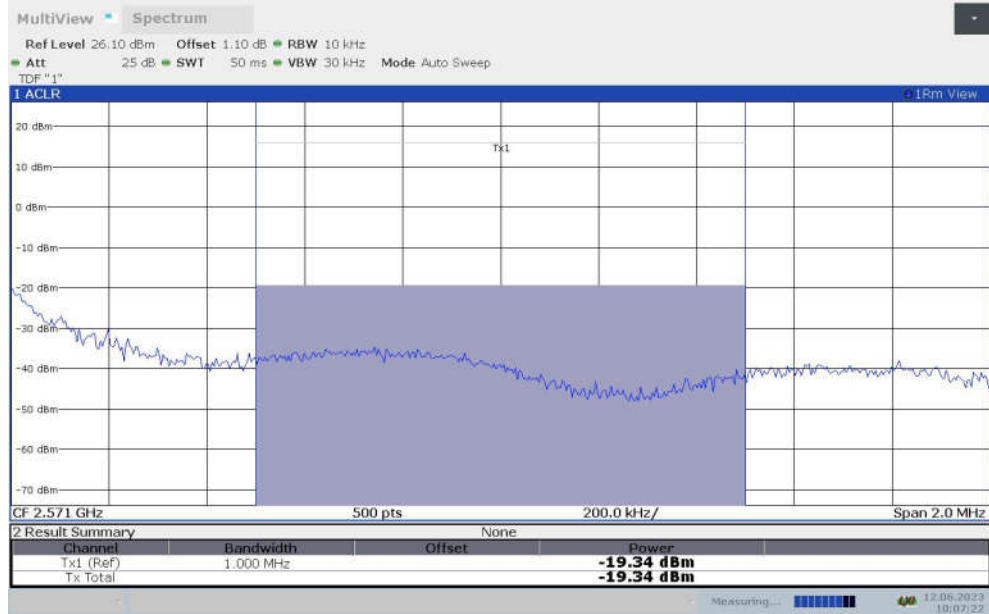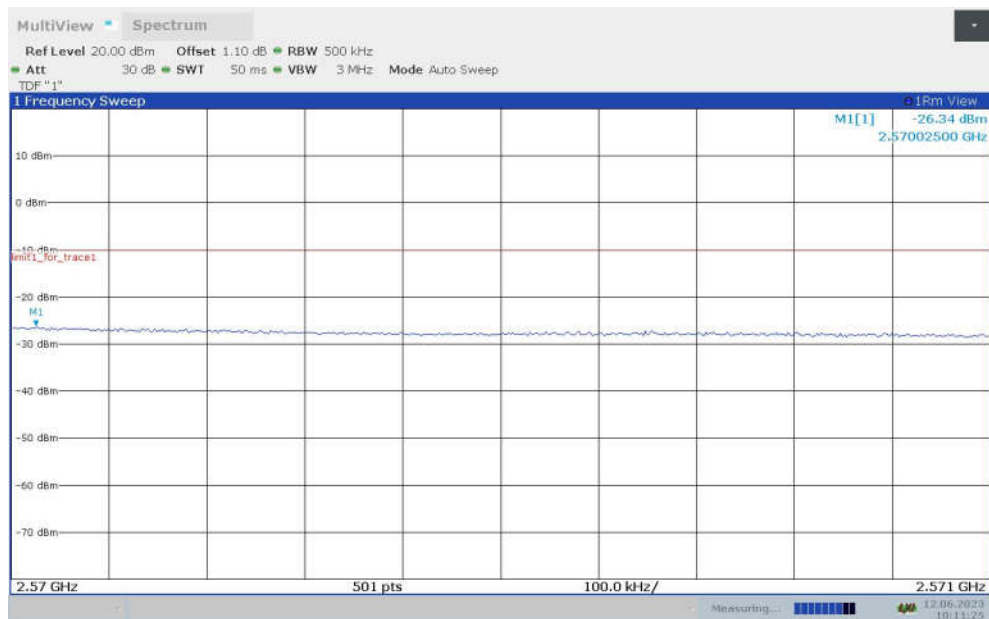

HIGH BAND EDGE BLOCK-20M-100%RB

LTE band 4

OBW: 1RB-LOW_offset

LOW BAND EDGE BLOCK-1RB-LOW_offset
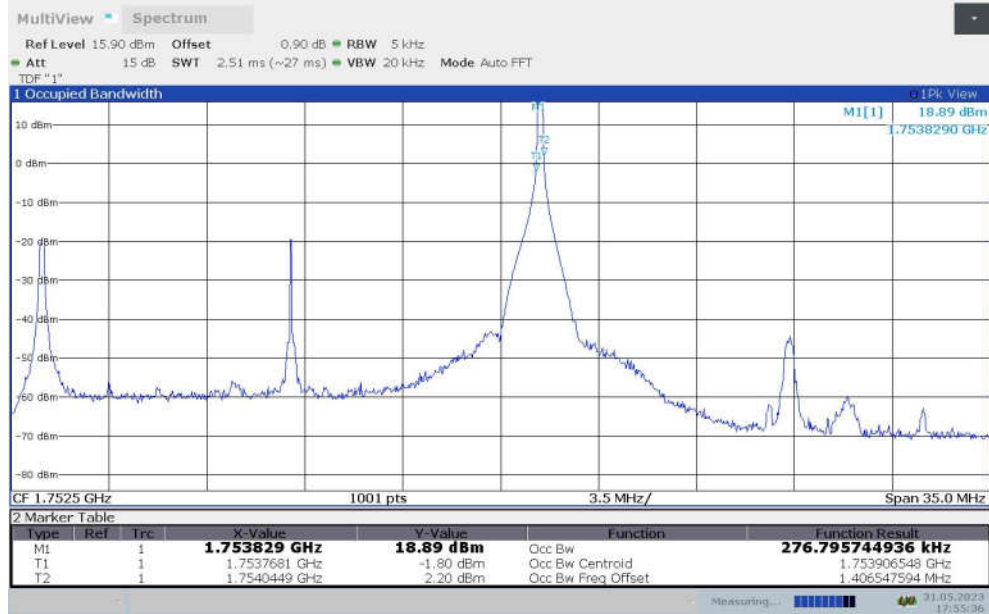
OBW: 1RB-HIGH_offset

HIGH BAND EDGE BLOCK-1RB-HIGH_offset

LOW BAND EDGE BLOCK-20M-100%RB
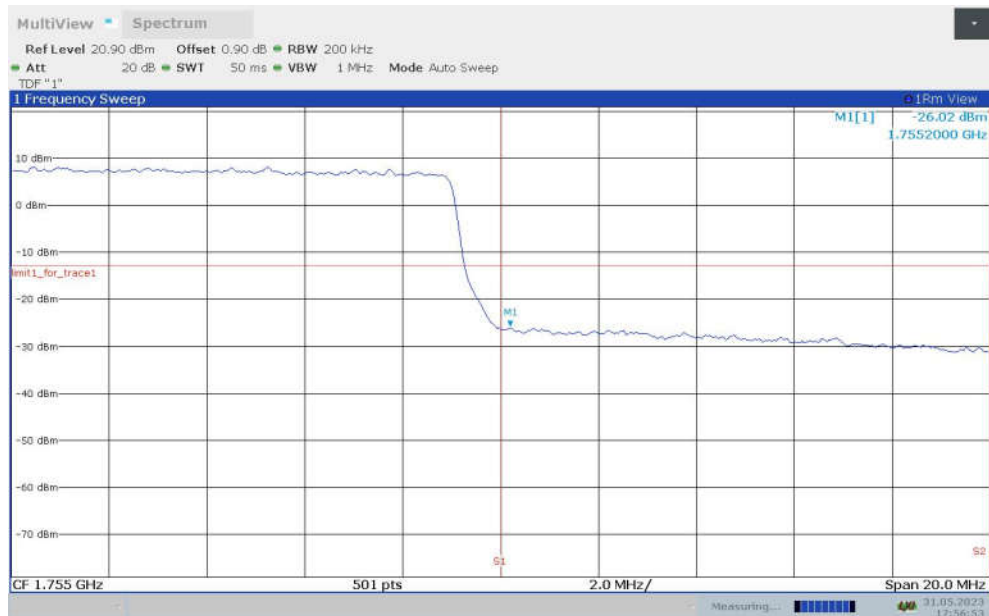
HIGH BAND EDGE BLOCK-20M-100%RB

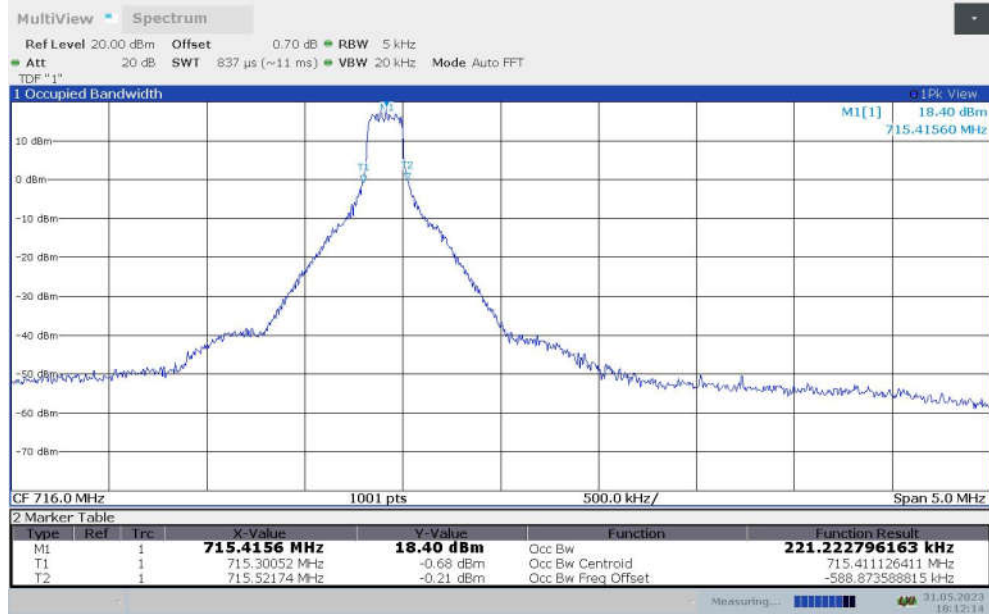**LTE band 5**

OBW: 1RB-LOW_offset

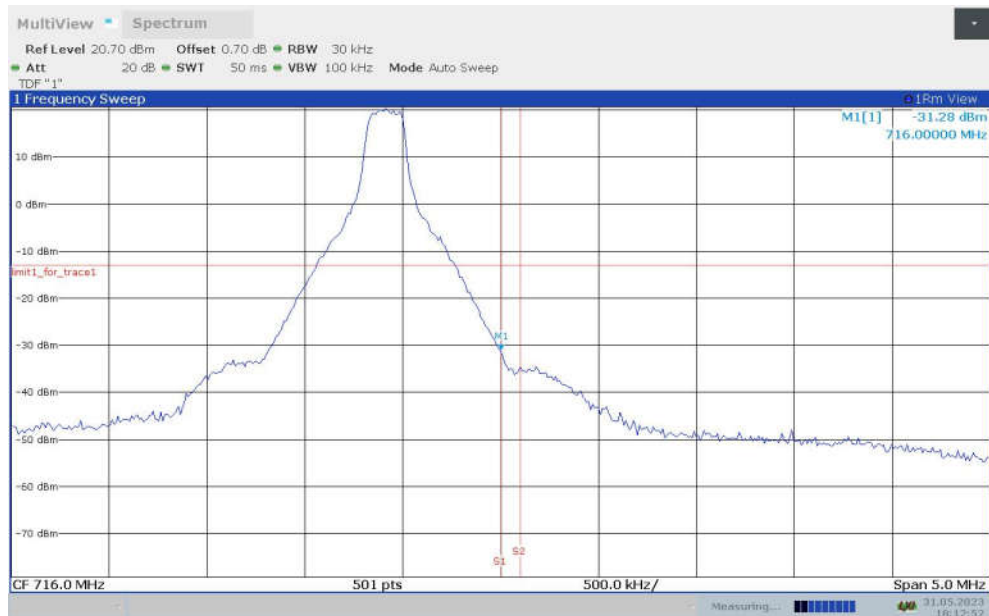**LOW BAND EDGE BLOCK-1RB-LOW_offset**
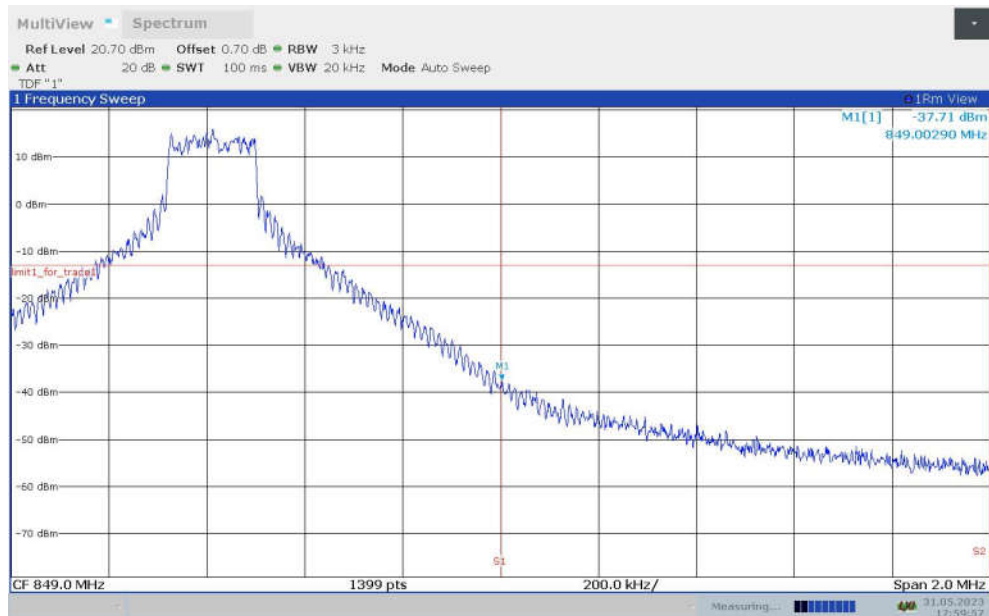
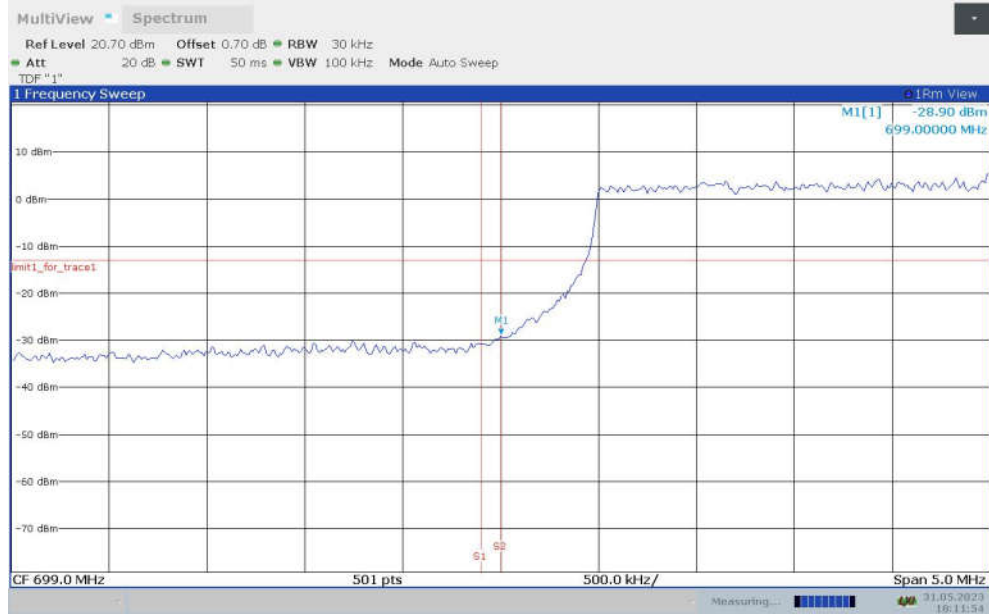**OBW: 1RB-HIGH_offset**

HIGH BAND EDGE BLOCK-1RB-HIGH_offset
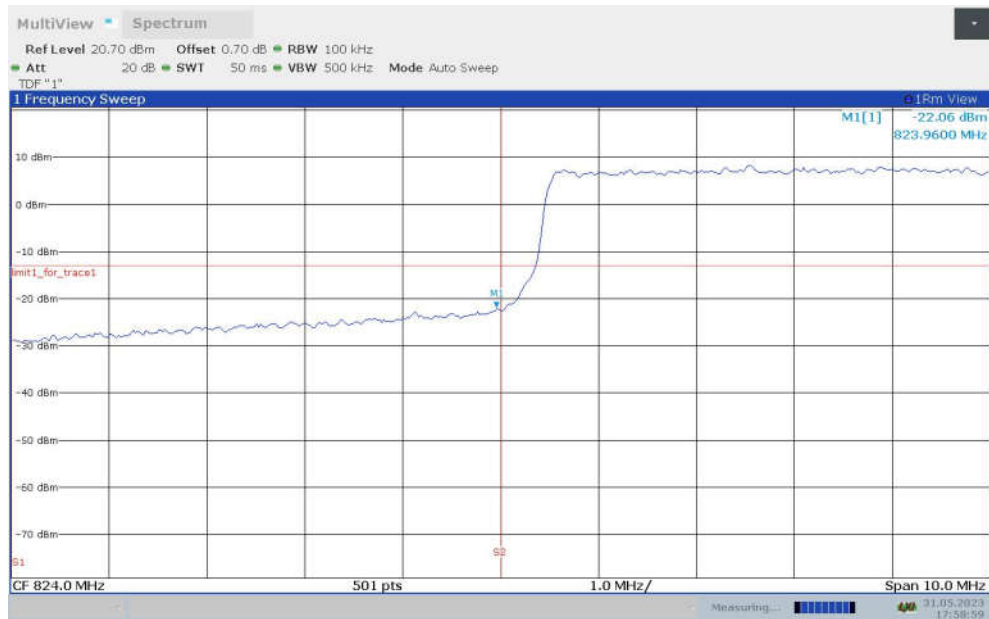
LOW BAND EDGE BLOCK-10M-100%RB

HIGH BAND EDGE BLOCK-10M-100%RB

LTE band 7

OBW: 1RB-LOW_offset
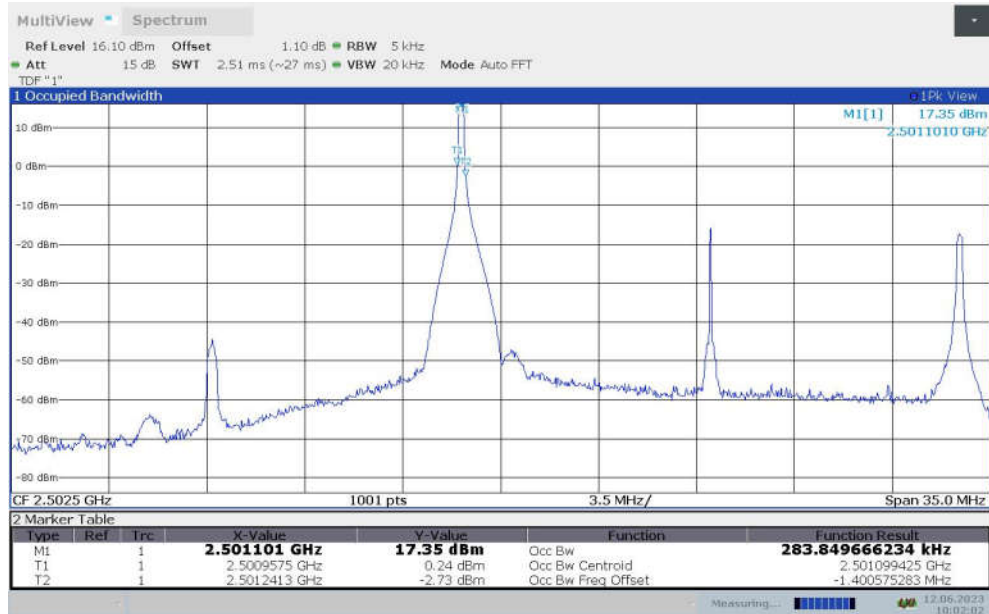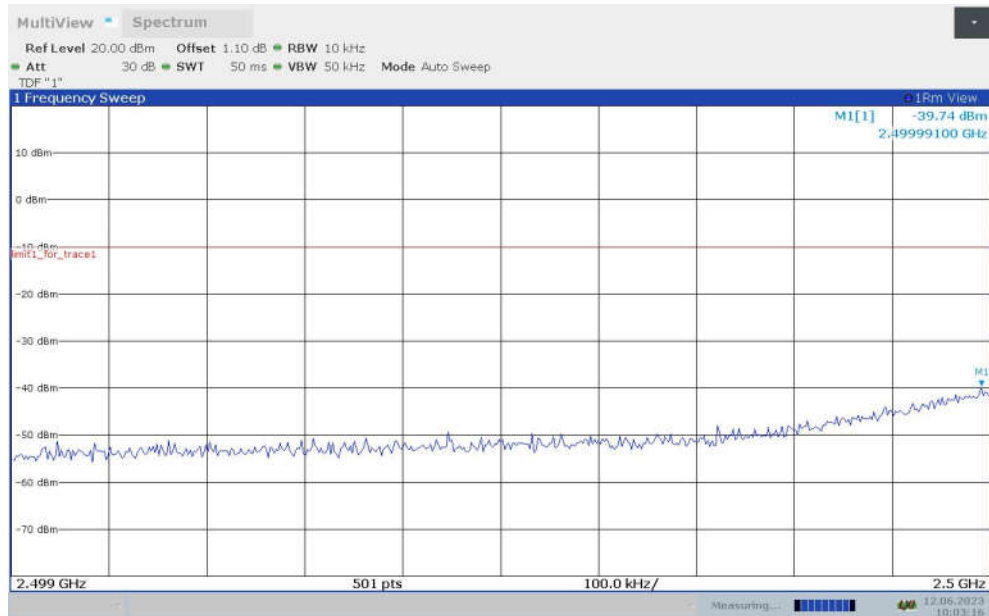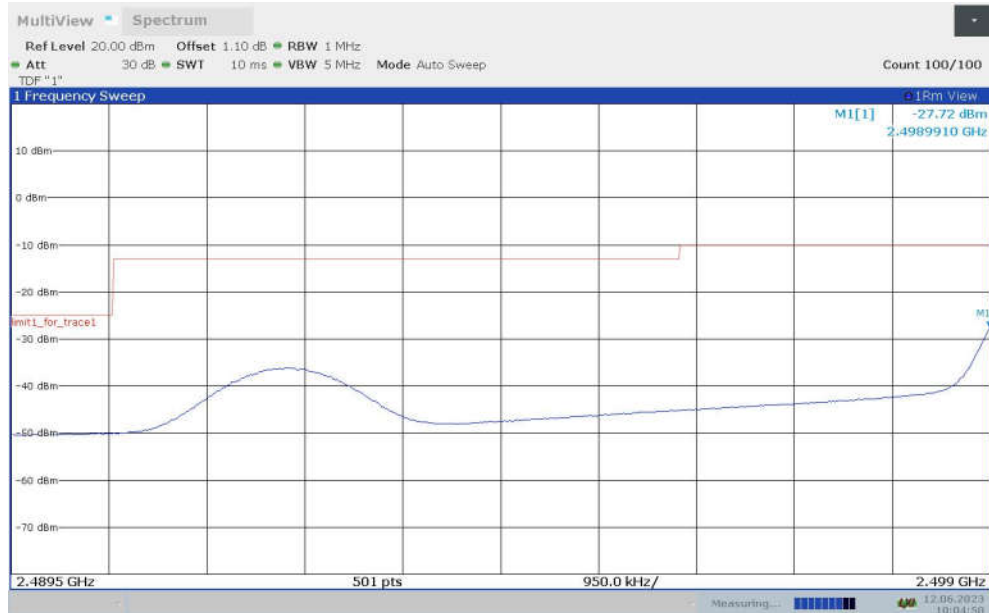
LOW BAND EDGE BLOCK-1RB-LOW_offset

LOW BAND EDGE BLOCK-1RB-LOW_offset

OBW: 1RB-HIGH_offset
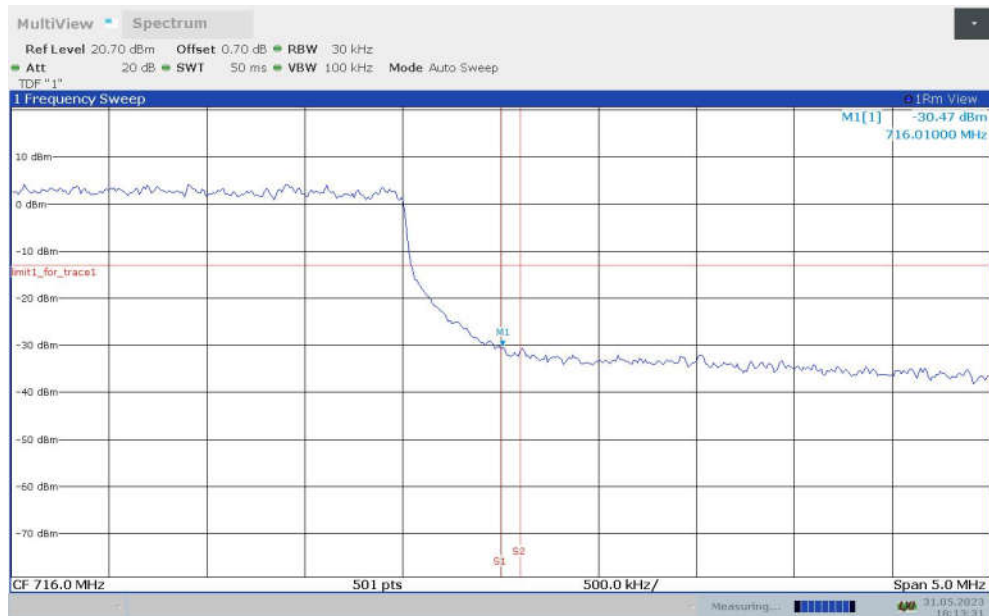
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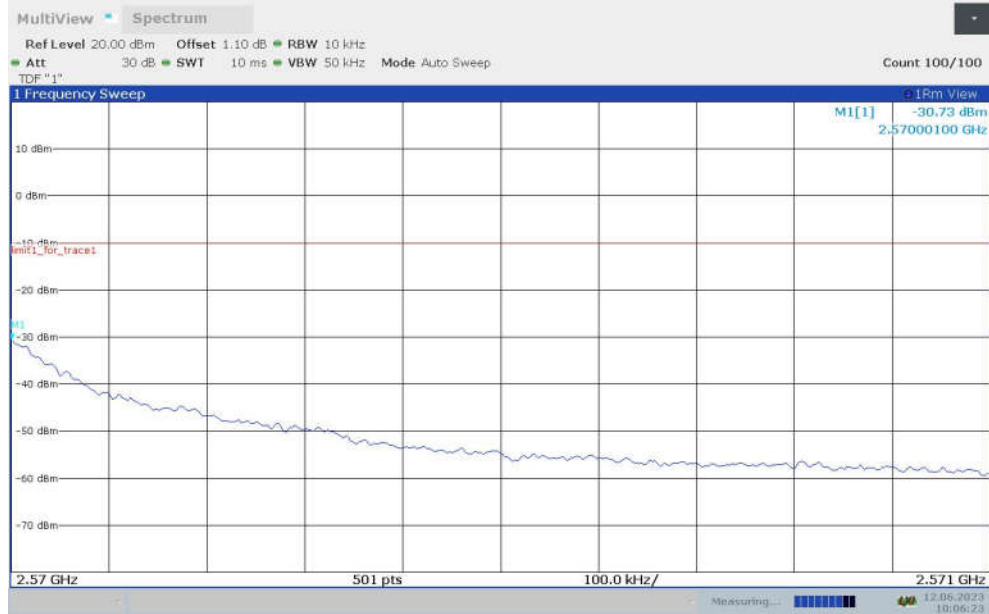
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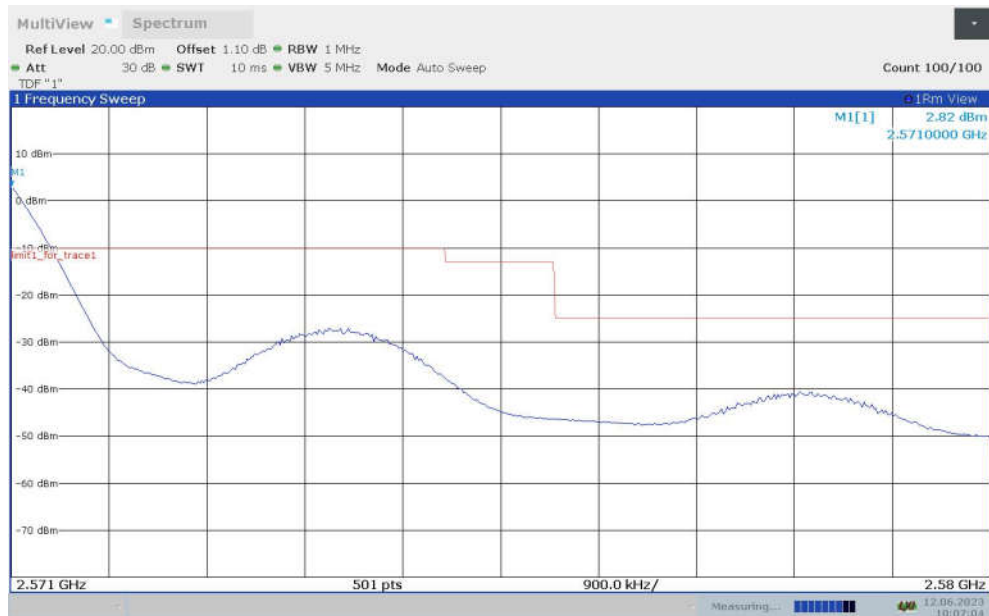
Channel power

LOW BAND EDGE BLOCK-20M-100%RB
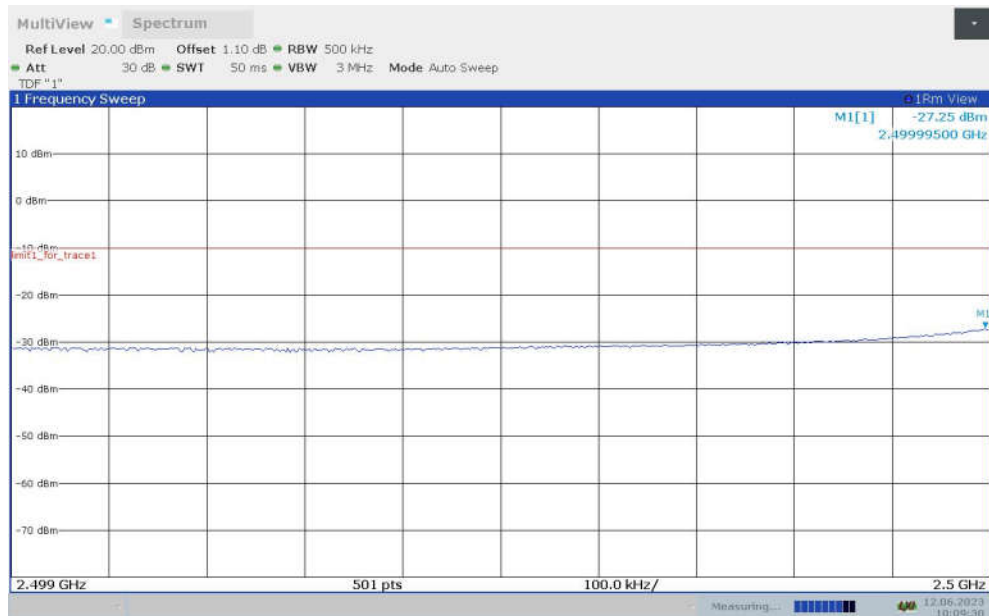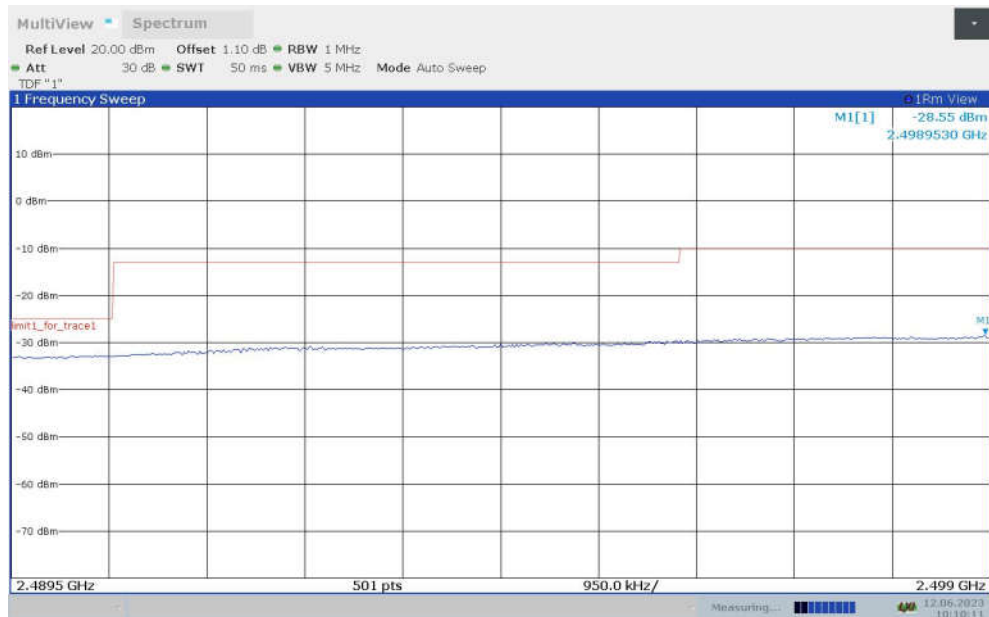
LOW BAND EDGE BLOCK-20M-100%RB

HIGH BAND EDGE BLOCK-20M-100%RB
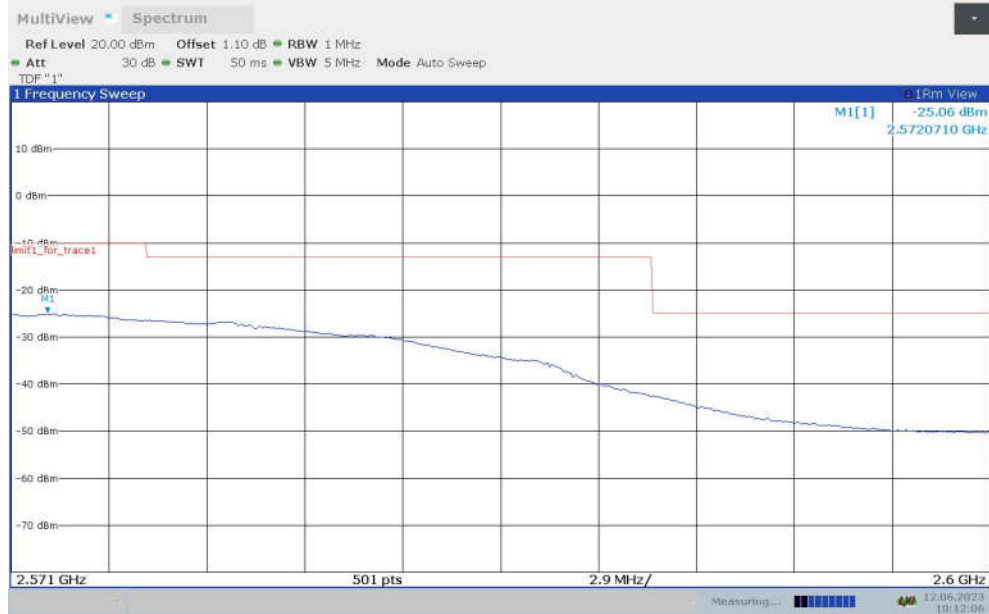
HIGH BAND EDGE BLOCK-20M-100%RB

LTE band 12

OBW: 1RB-LOW_offset
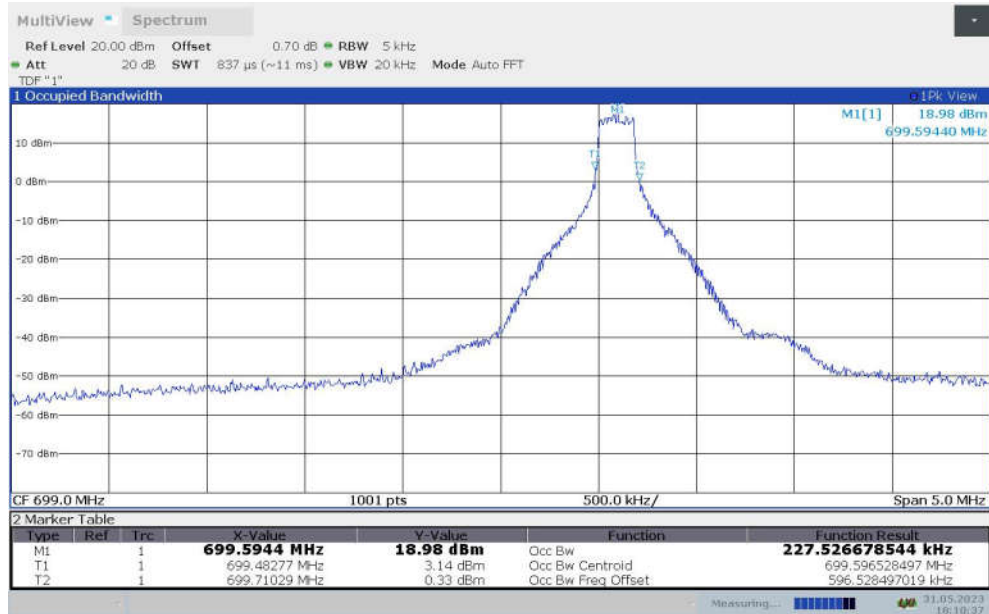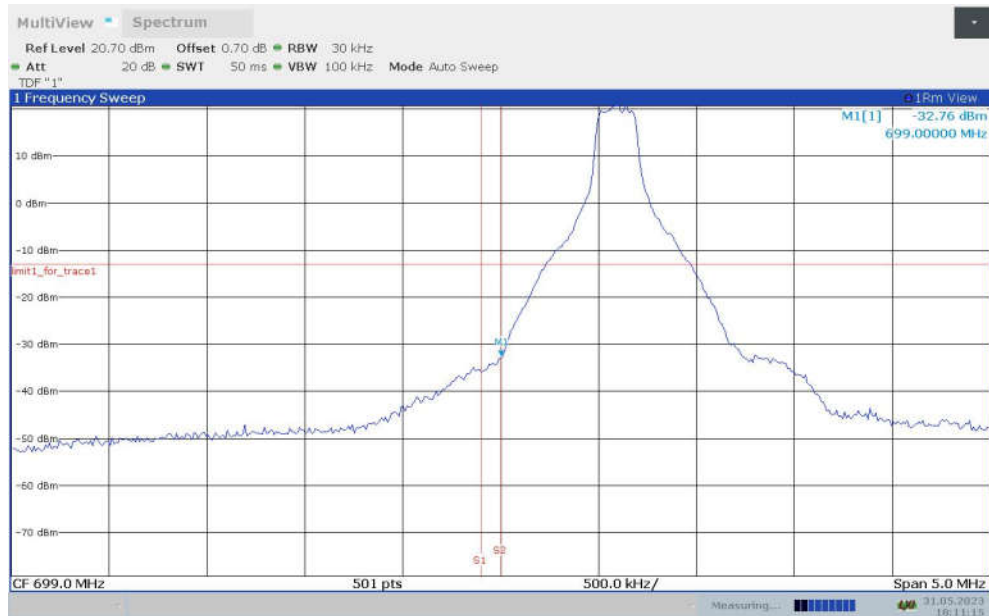
LOW BAND EDGE BLOCK-1RB-LOW_offset

OBW: 1RB-HIGH_offset

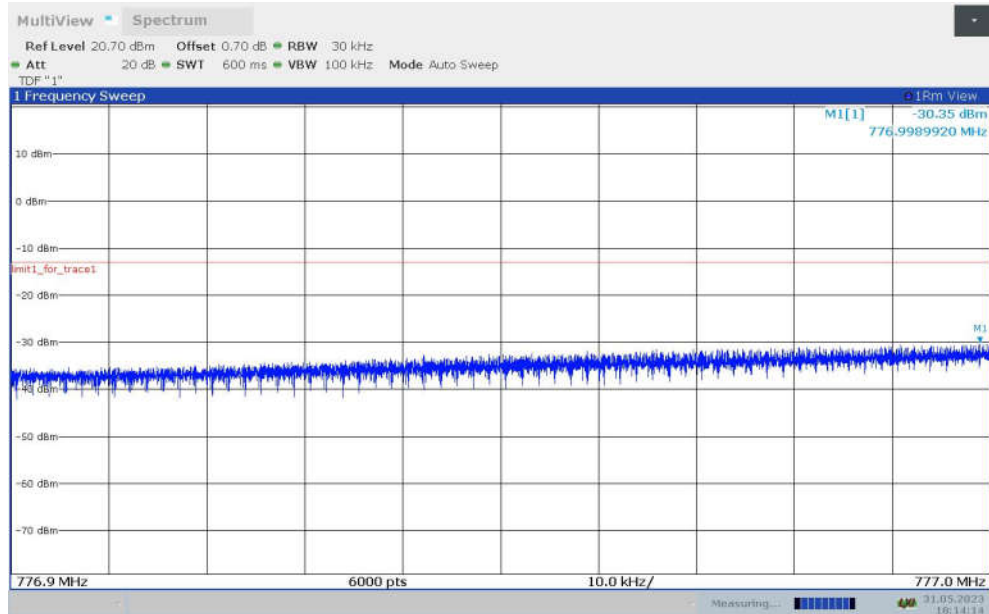**HIGH BAND EDGE BLOCK-1RB-HIGH_offset**

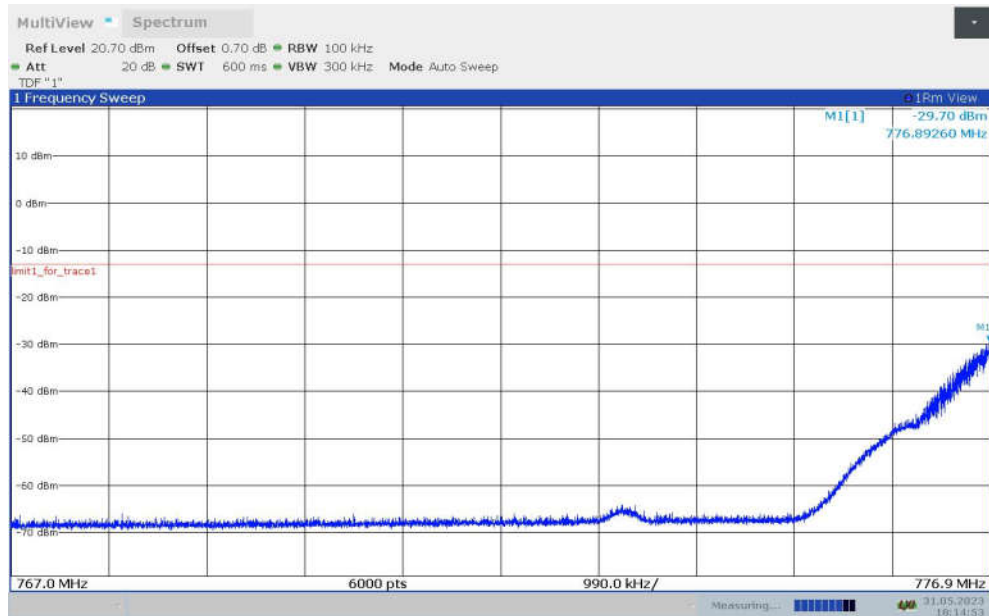**LOW BAND EDGE BLOCK-10M-100%RB**

HIGH BAND EDGE BLOCK-10M-100%RB

LTE band 13

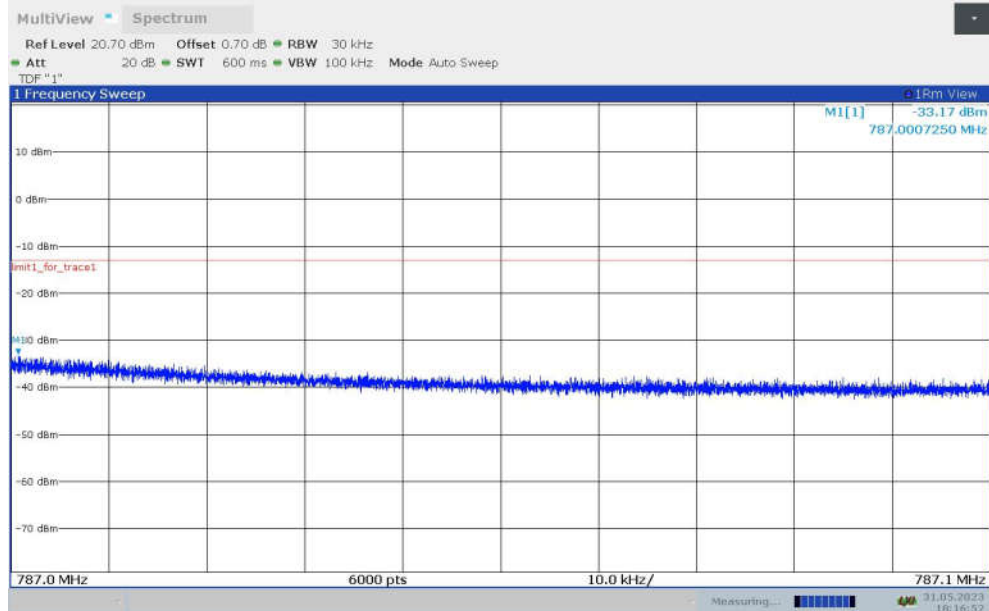**LOW BAND EDGE BLOCK-1RB-LOW_offset**
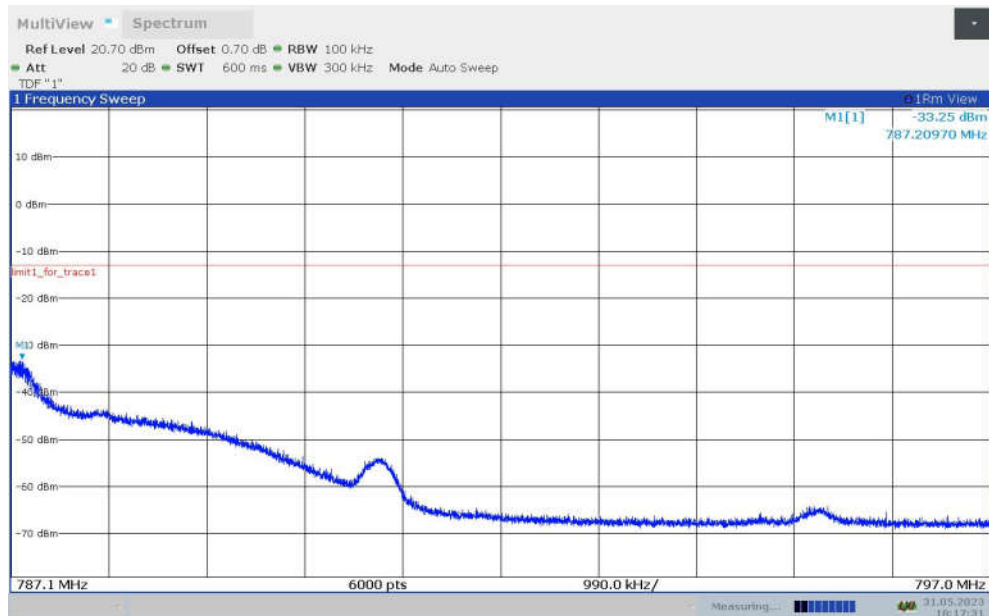

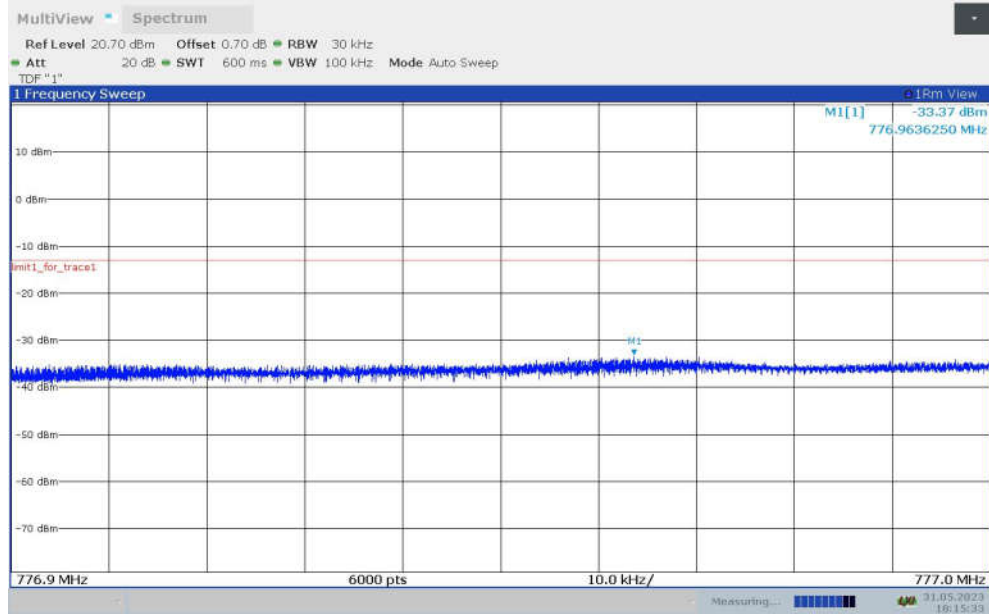**LOW BAND EDGE BLOCK-1RB-LOW_offset**

HIGH BAND EDGE BLOCK-1RB-HIGH_offset
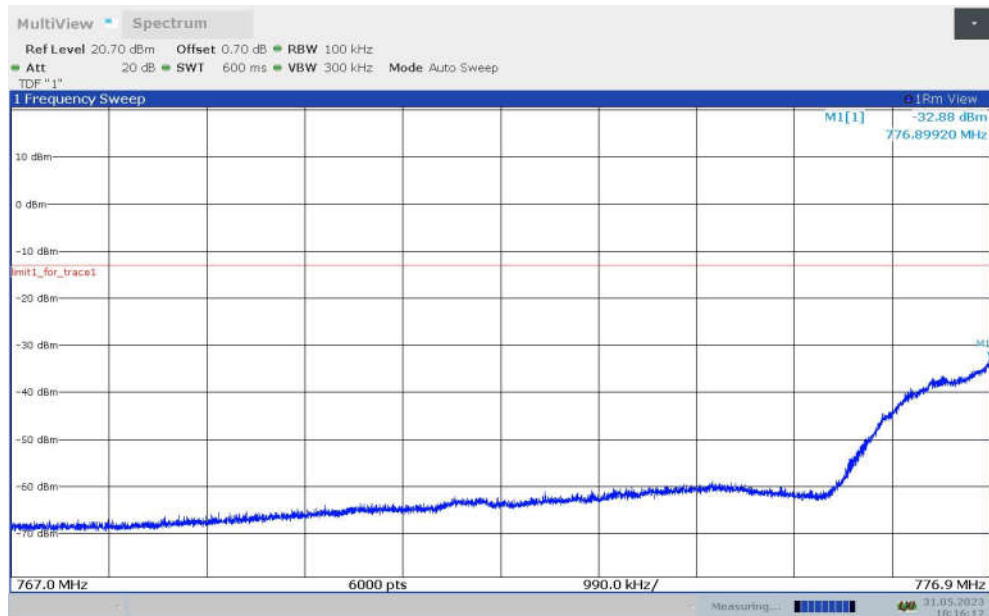

HIGH BAND EDGE BLOCK-1RB-HIGH_offset

LOW BAND EDGE BLOCK-10M-100%RB

LOW BAND EDGE BLOCK-10M-100%RB

HIGH BAND EDGE BLOCK-10M-100%RB

HIGH BAND EDGE BLOCK-10M-100%RB