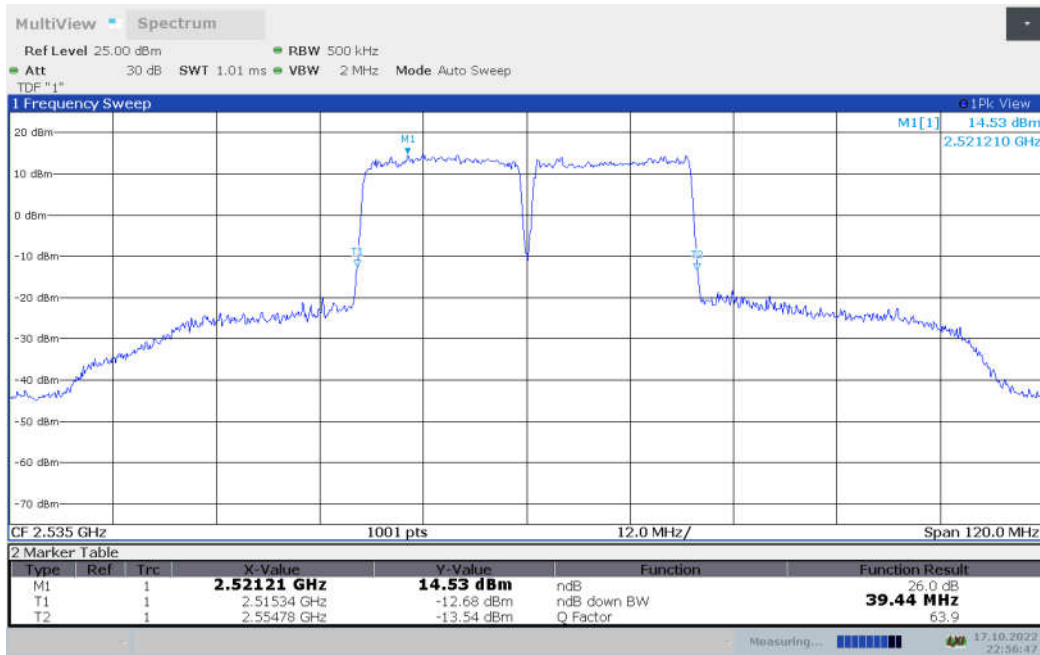




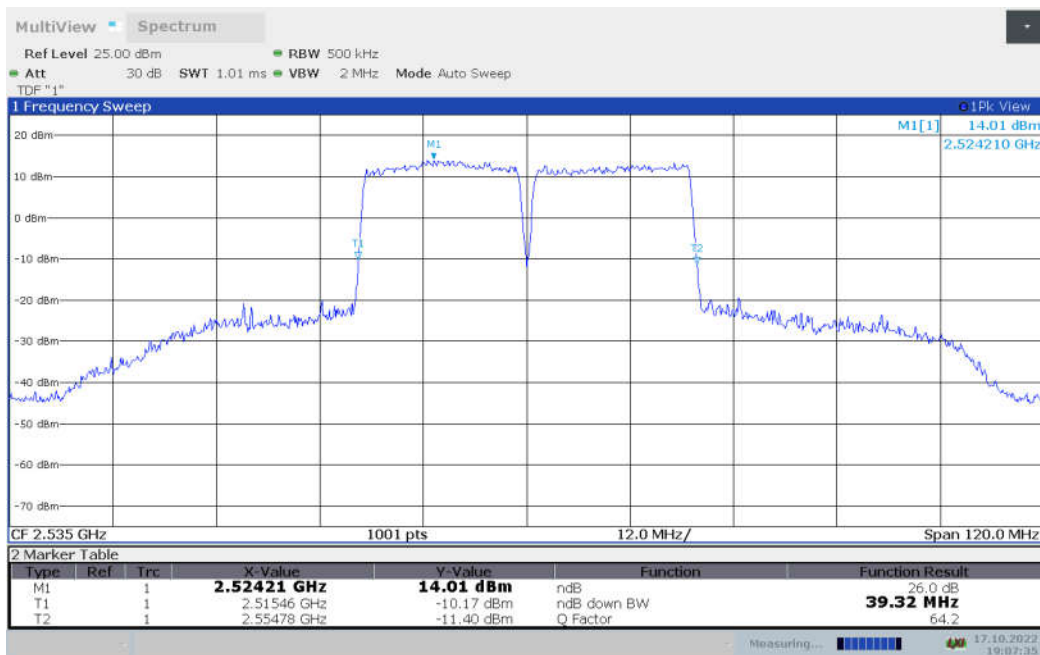
LTE band CA_7C,20MHz+20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2535	39.440	39.320

LTE band CA_7C , 20MHz+20MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_7C , 20MHz+20MHz Bandwidth,16QAM (-26dBc BW)

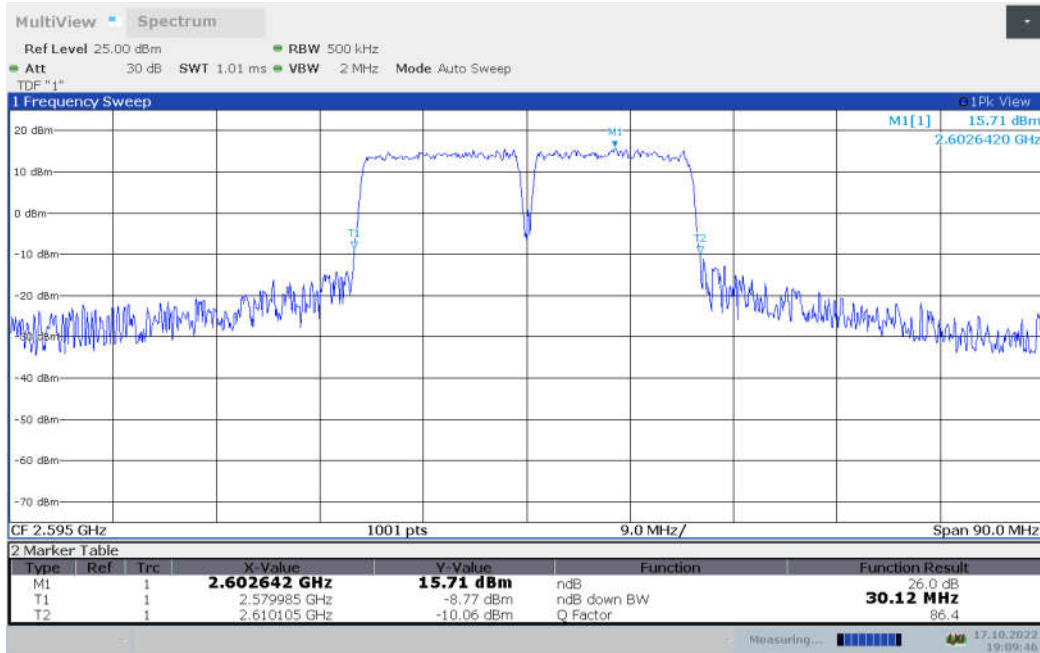




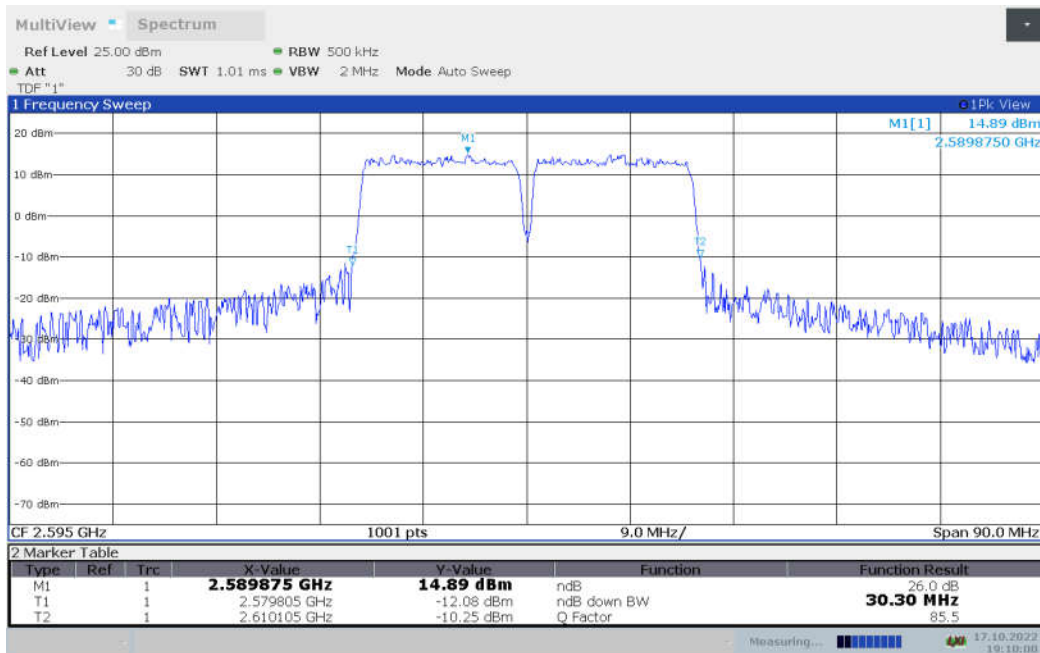
LTE band CA_38C,15MHz+15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	30.120	30.300

LTE band CA_38C , 15MHz+15MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_38C , 15MHz+15MHz Bandwidth,16QAM (-26dBc BW)

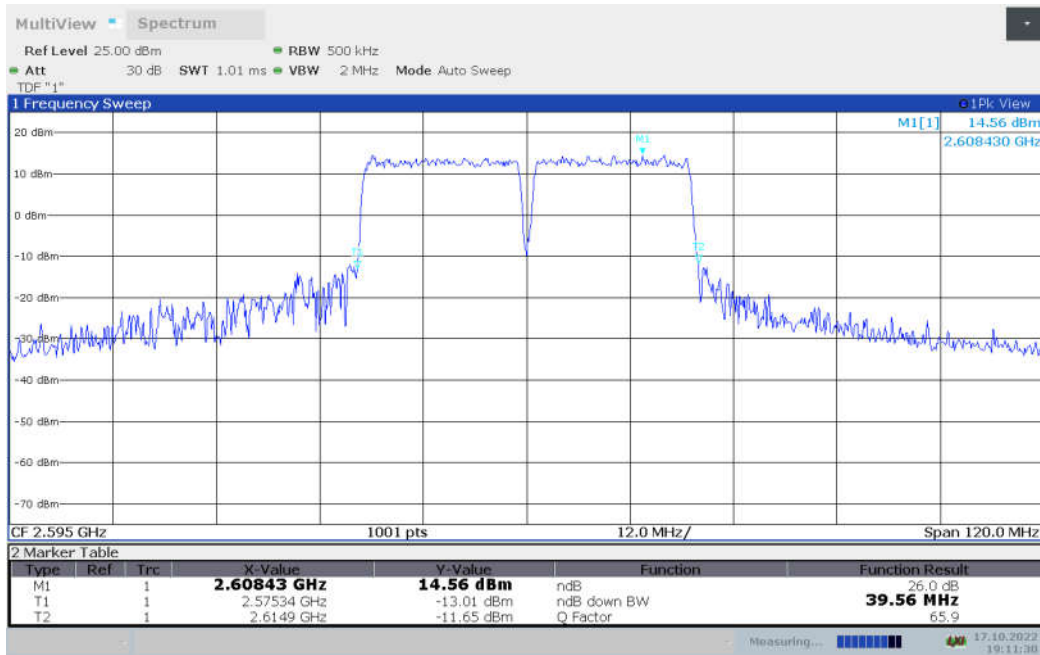




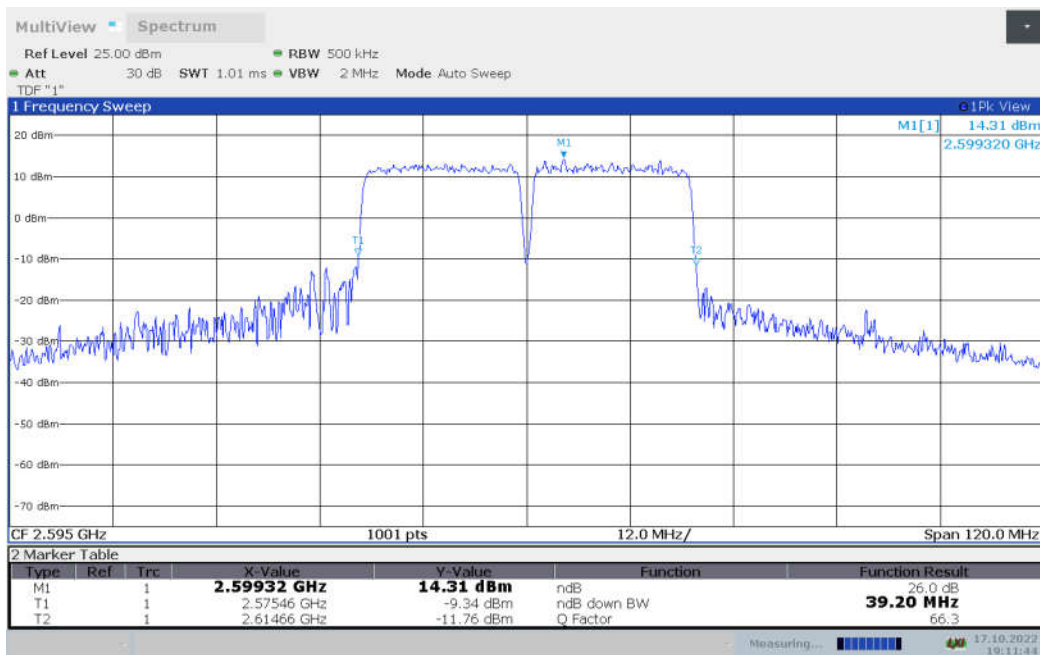
LTE band CA_38C,20MHz+20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	39.560	39.200

LTE band CA_38C , 20MHz+20MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_38C , 20MHz+20MHz Bandwidth,16QAM (-26dBc BW)

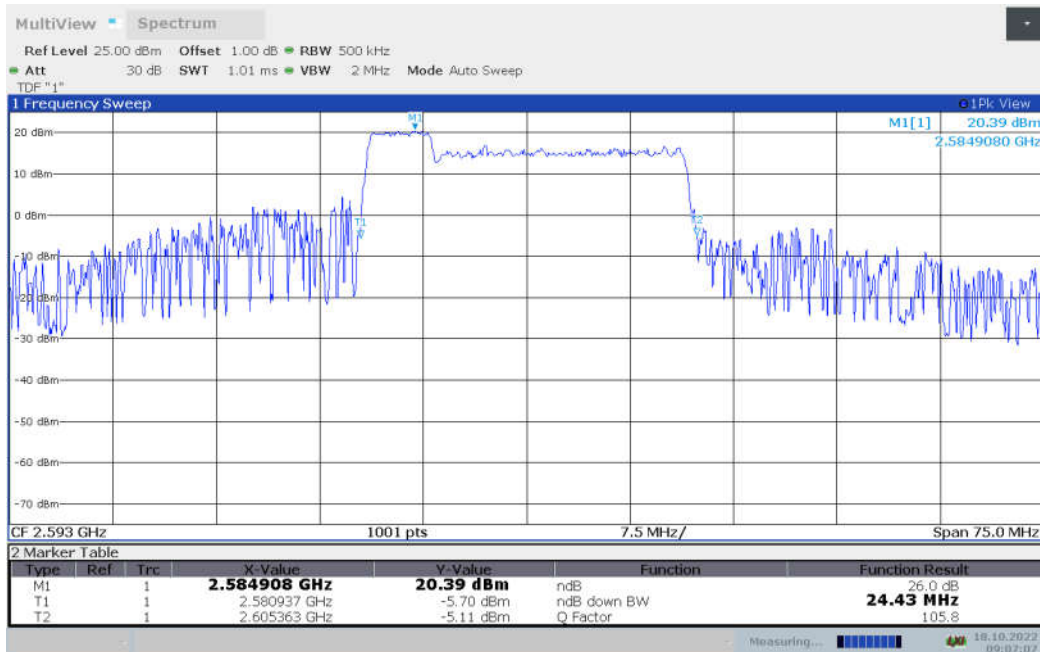




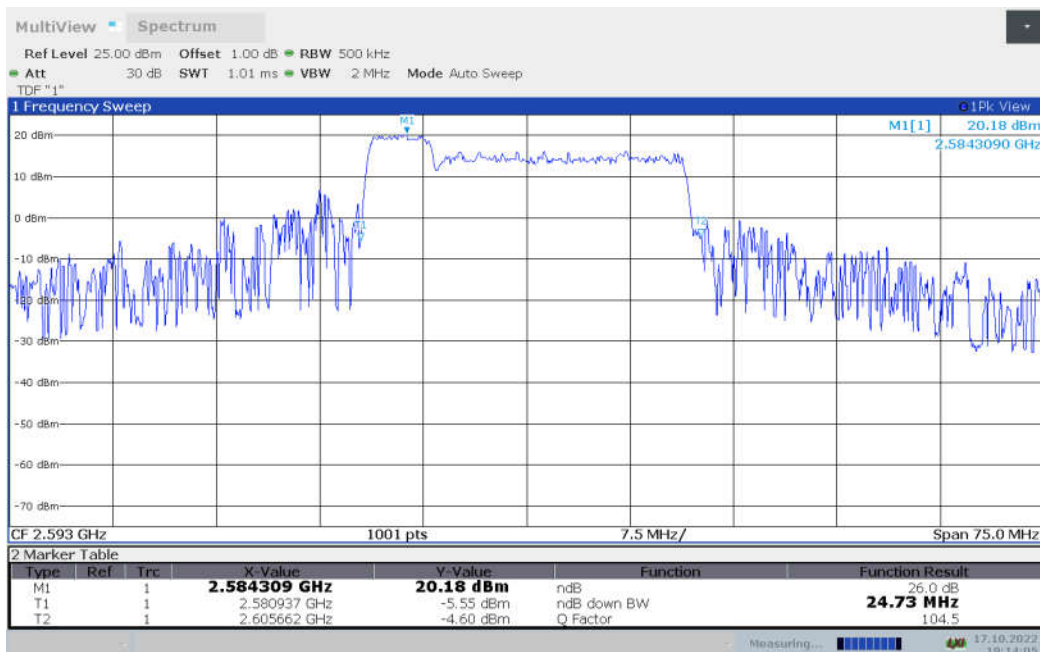
LTE band CA_41C,5MHz+20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	24.426	24.725

LTE band CA_41C , 5MHz+20MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 5MHz+20MHz Bandwidth,16QAM (-26dBc BW)

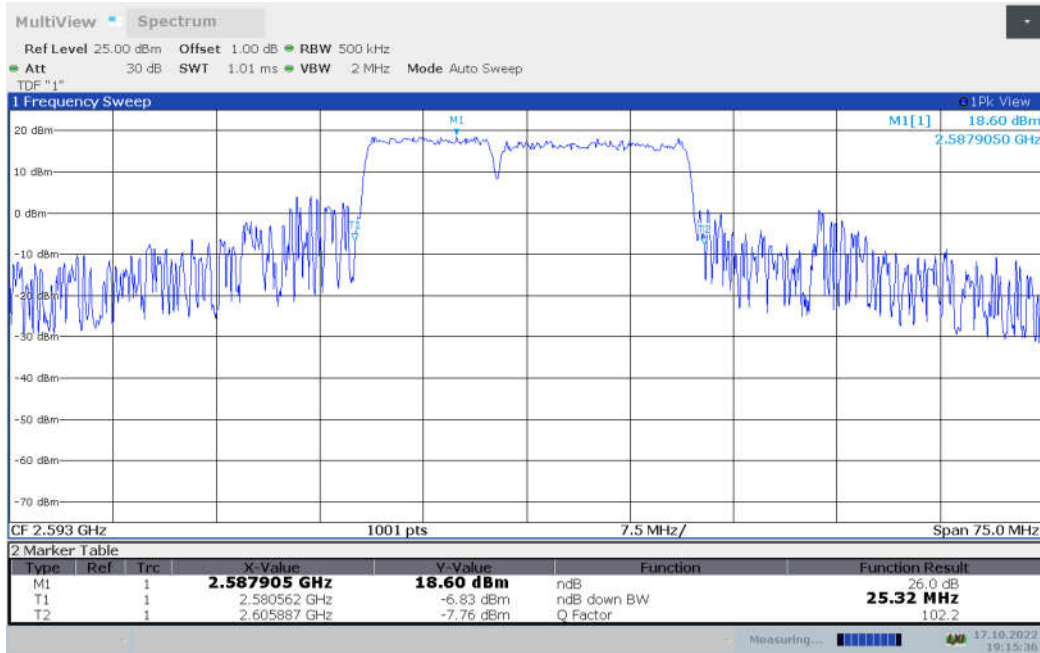




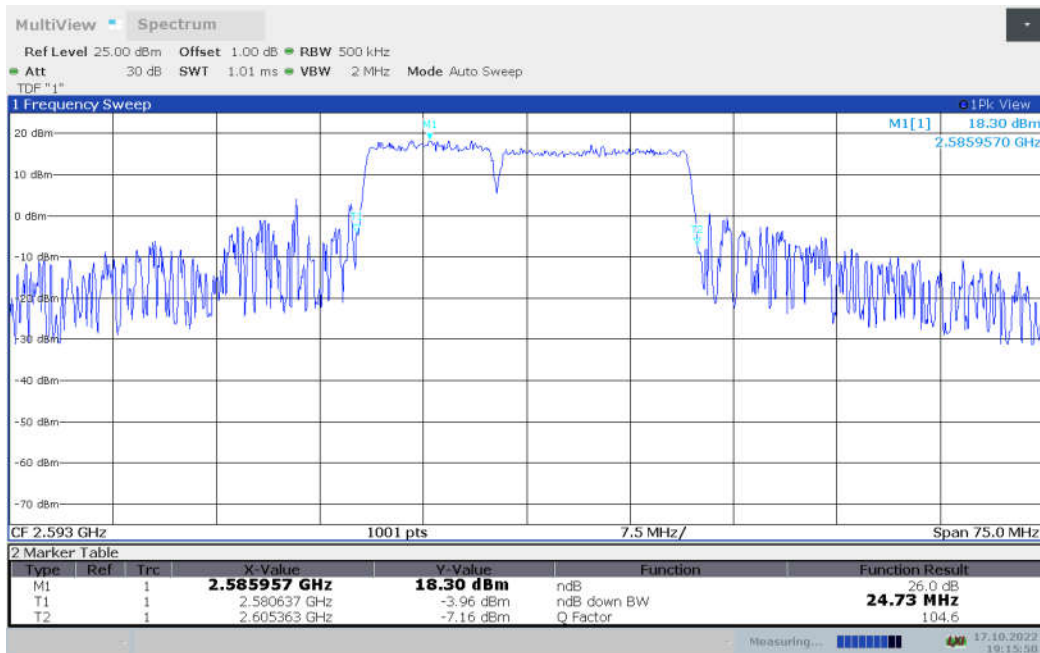
LTE band CA_41C,10MHz+15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	25.325	24.725

LTE band CA_41C , 10MHz+15MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 10MHz+15MHz Bandwidth,16QAM (-26dBc BW)

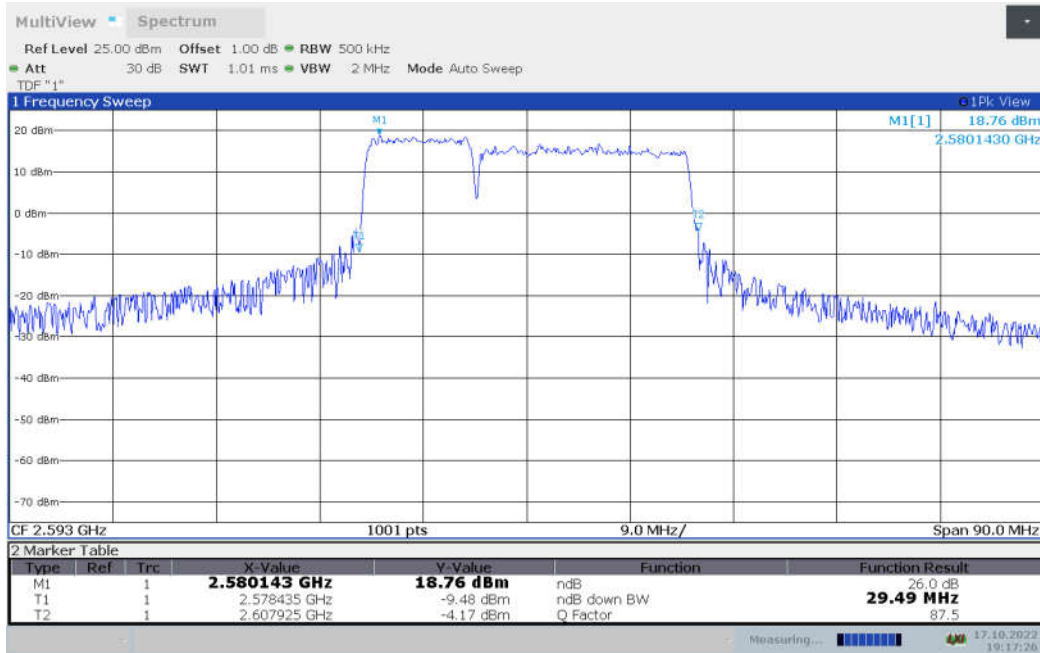




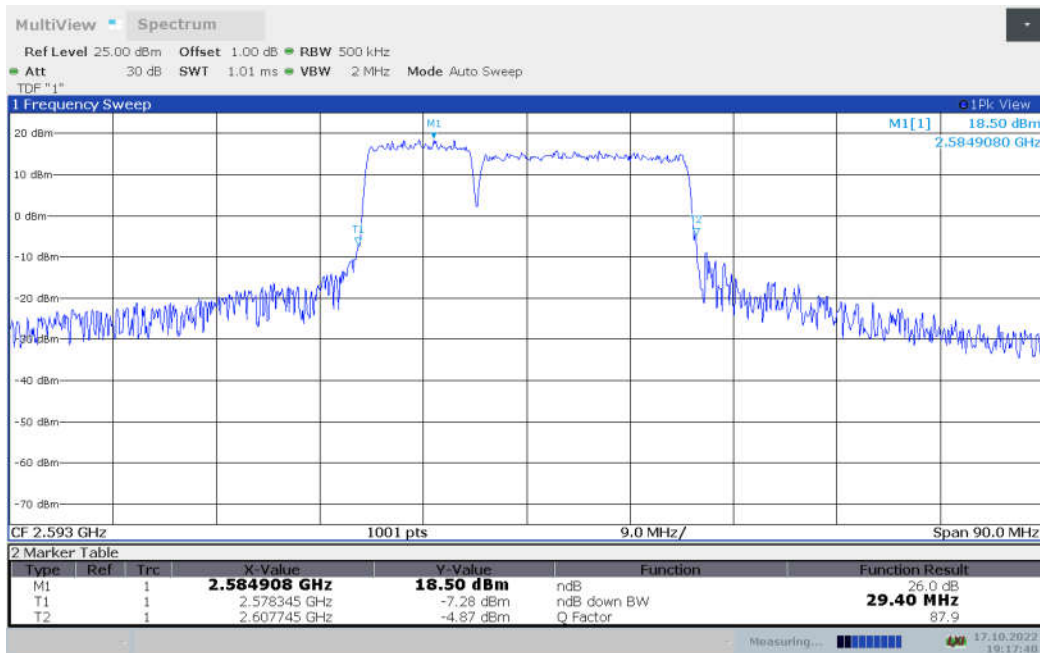
LTE band CA_41C,10MHz+20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	29.491	29.401

LTE band CA_41C , 10MHz+20MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 10MHz+20MHz Bandwidth,16QAM (-26dBc BW)

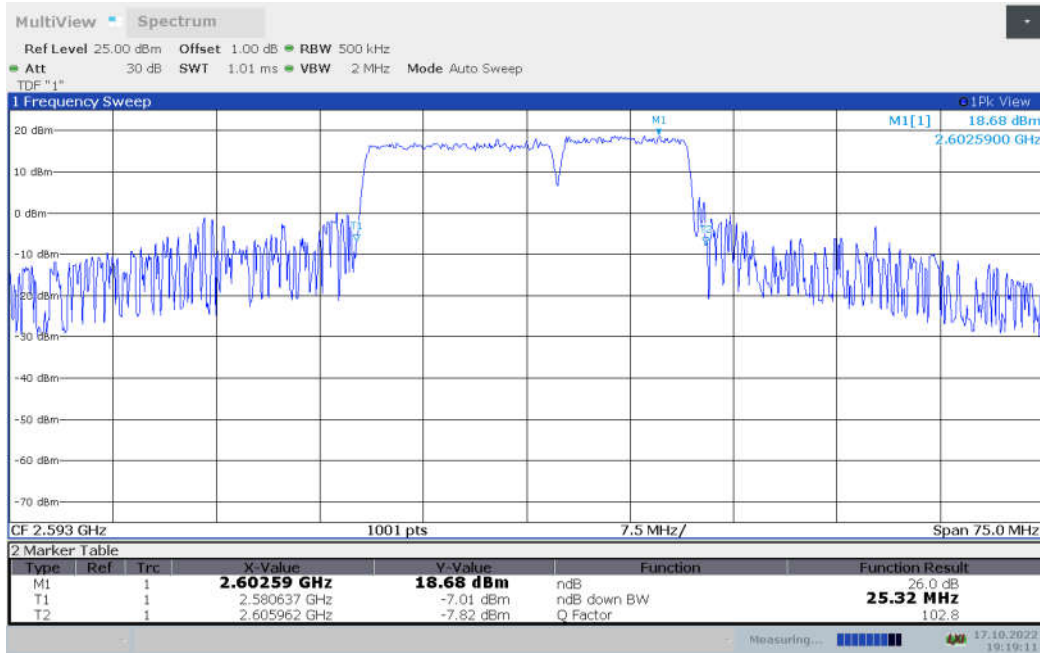




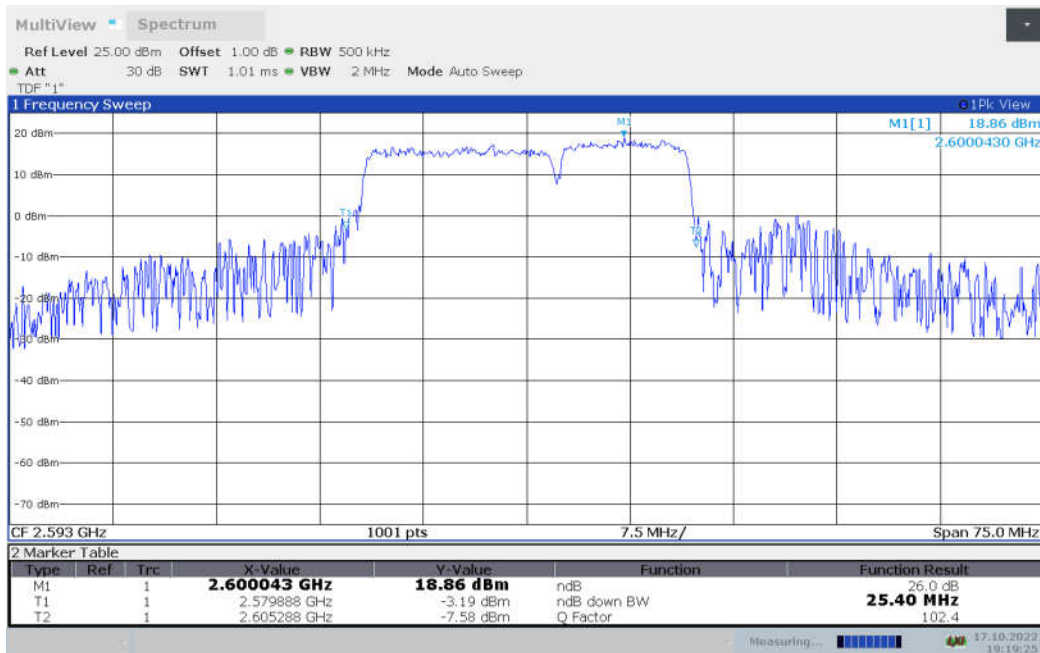
LTE band CA_41C,15MHz+10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	25.325	25.400

LTE band CA_41C , 15MHz+10MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 15MHz+10MHz Bandwidth,16QAM (-26dBc BW)

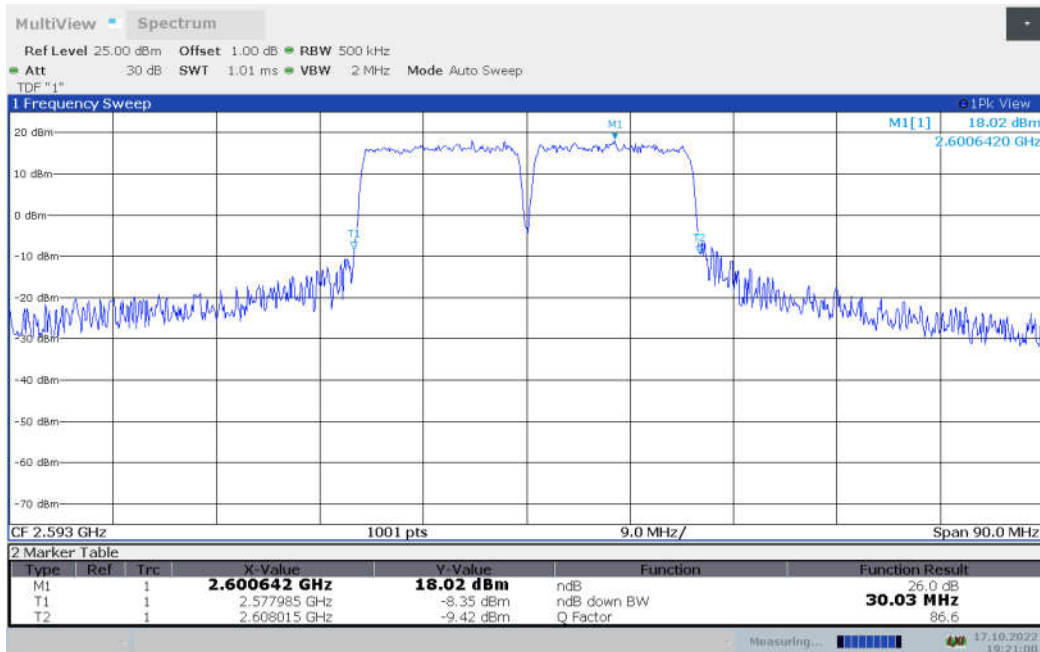




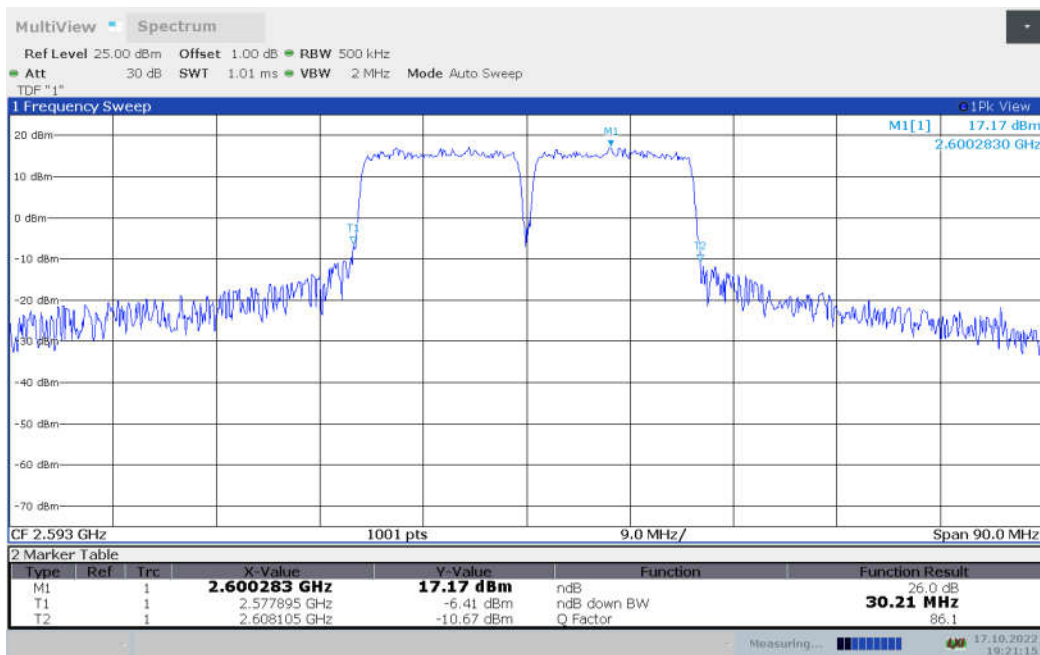
LTE band CA_41C,15MHz+15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	30.030	30.210

LTE band CA_41C , 15MHz+15MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 15MHz+15MHz Bandwidth,16QAM (-26dBc BW)

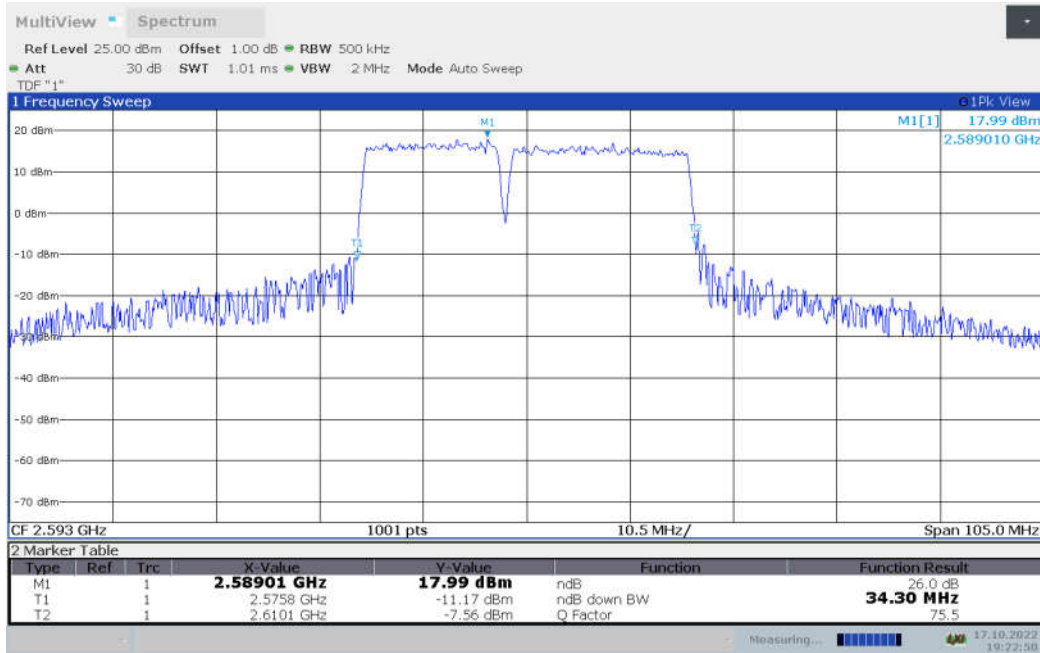




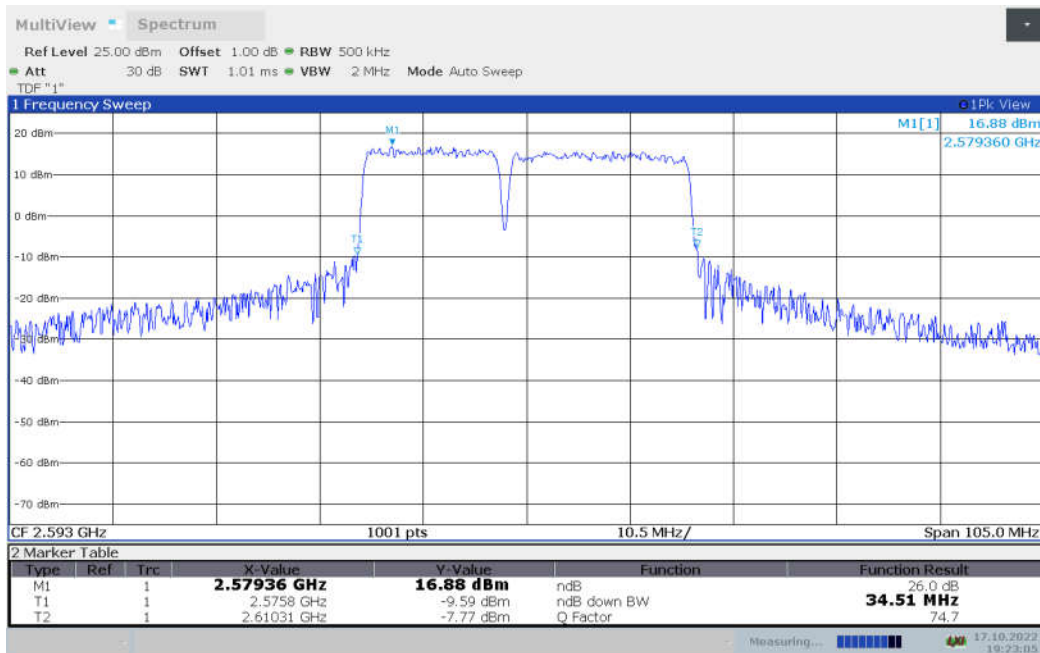
LTE band CA_41C,15MHz+20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	34.300	34.510

LTE band CA_41C , 15MHz+20MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 15MHz+20MHz Bandwidth,16QAM (-26dBc BW)

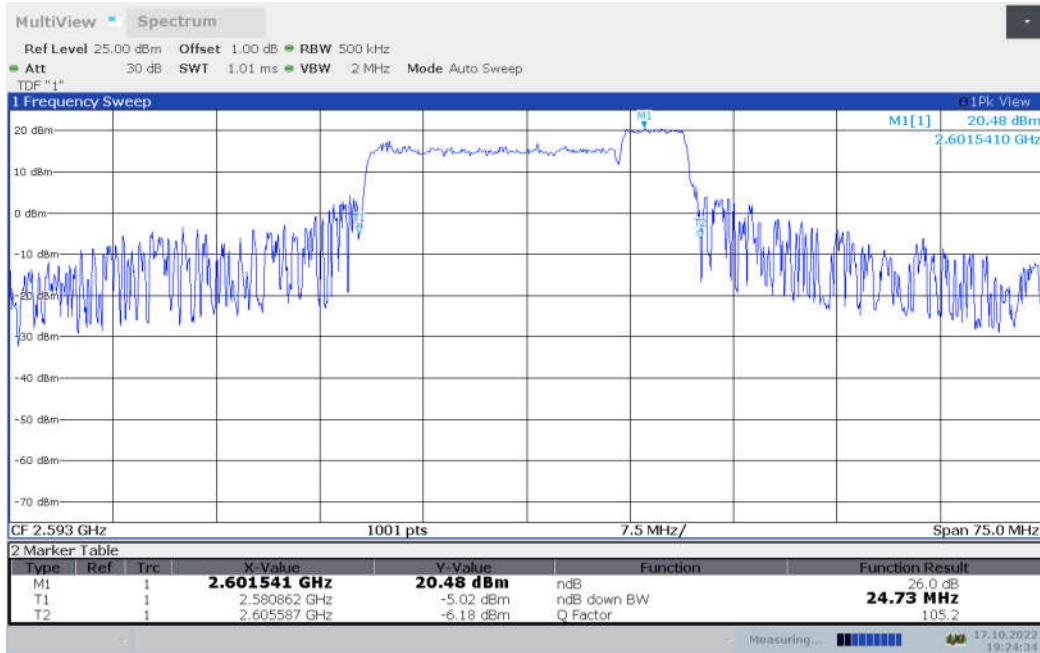




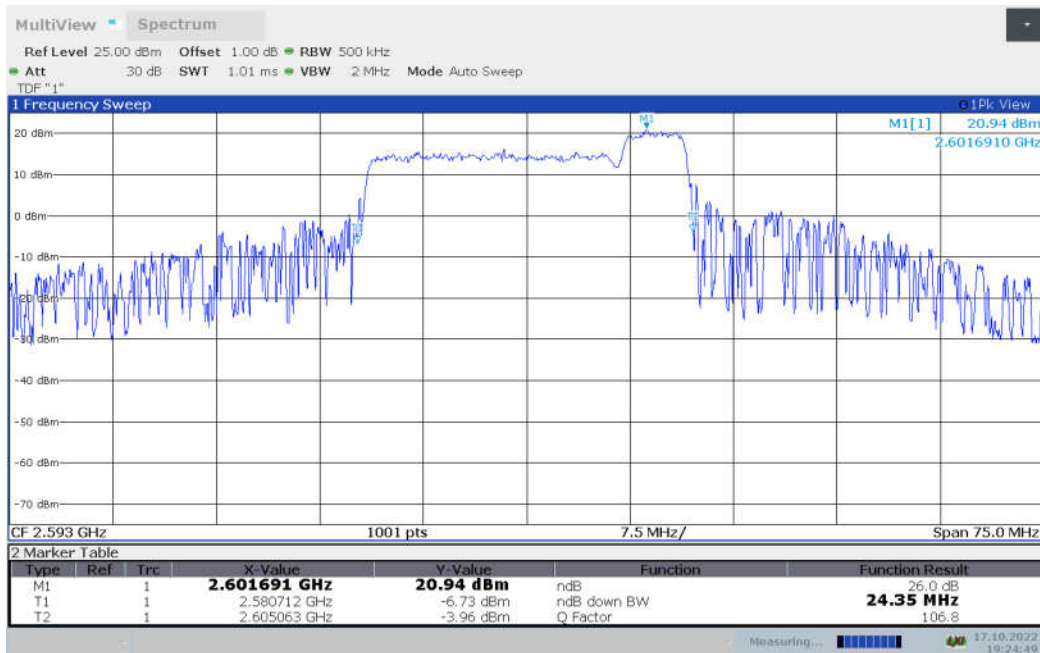
LTE band CA_41C,20MHz+5MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	24.725	24.351

LTE band CA_41C , 20MHz+5MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 20MHz+5MHz Bandwidth,16QAM (-26dBc BW)

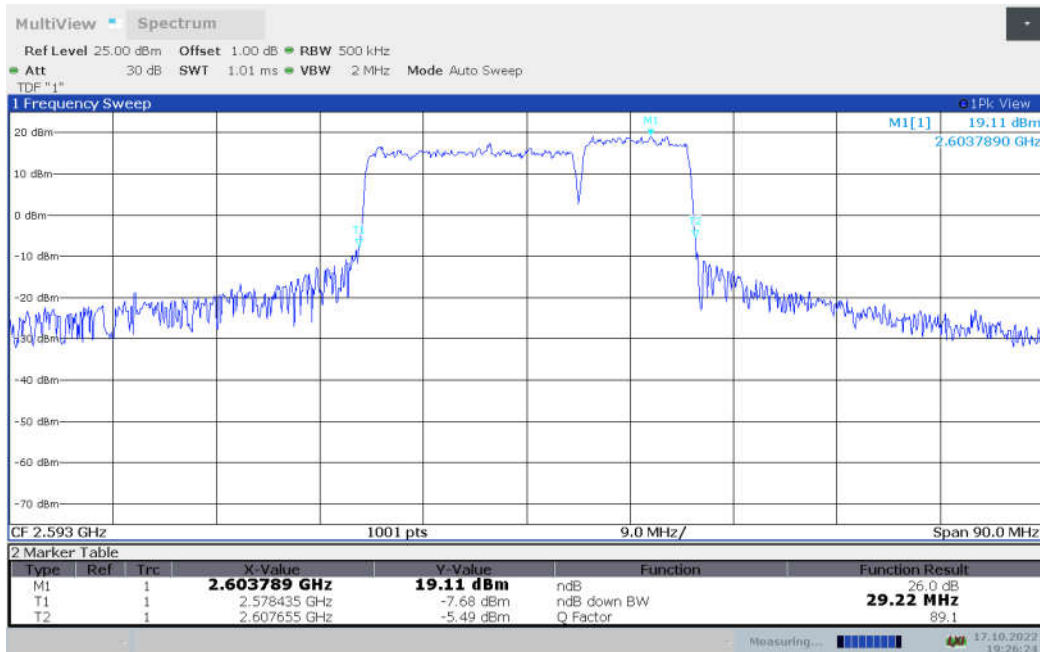




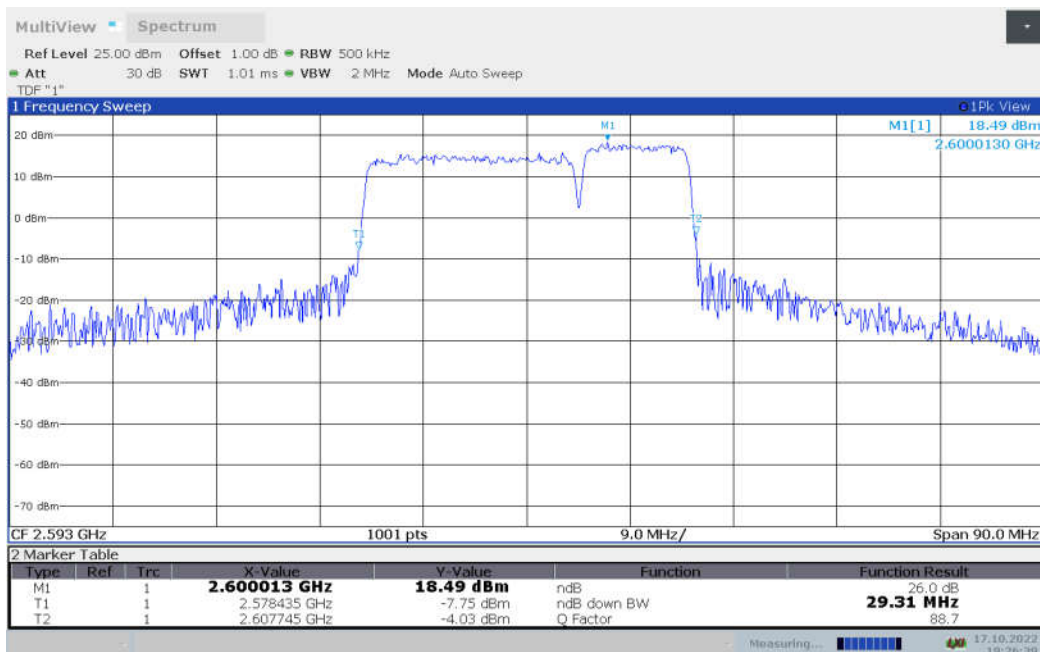
LTE band CA_41C,20MHz+10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	29.221	29.311

LTE band CA_41C , 20MHz+10MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 20MHz+10MHz Bandwidth,16QAM (-26dBc BW)

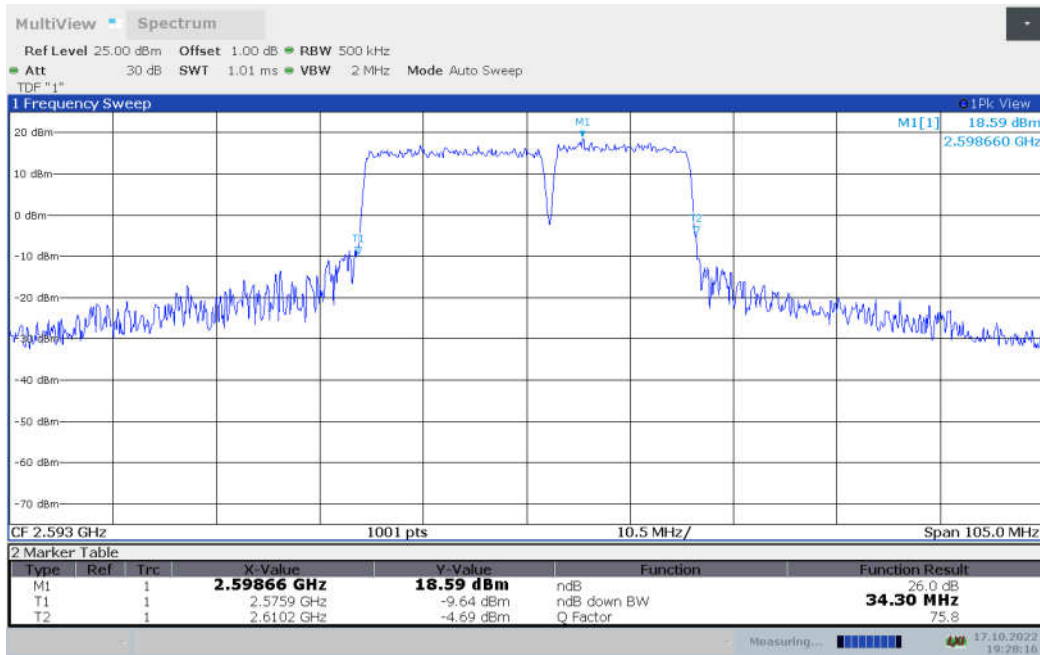




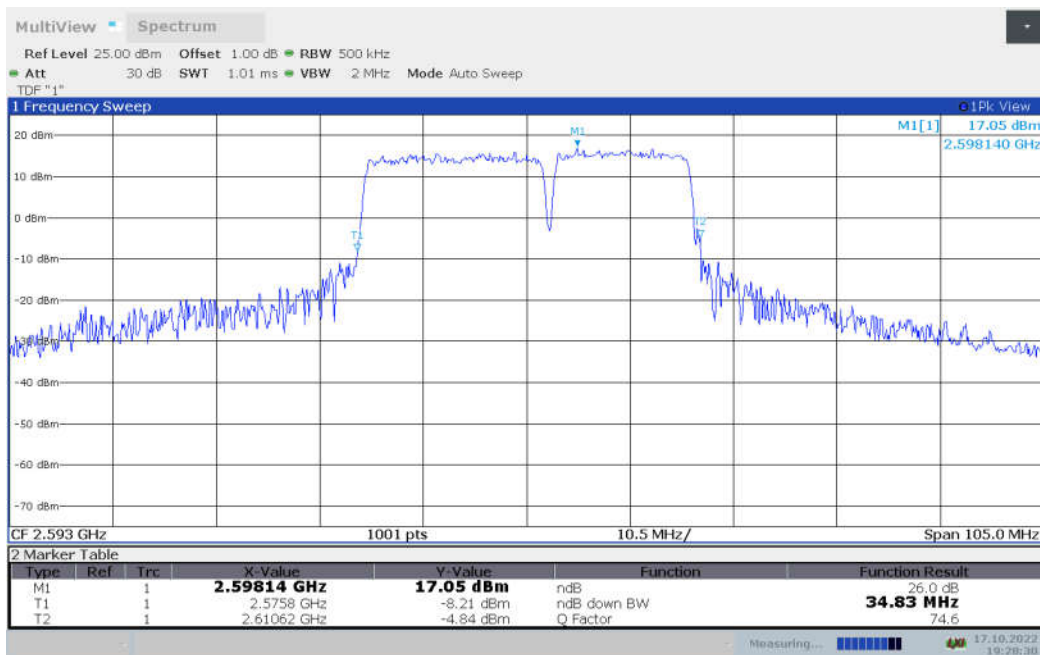
LTE band CA_41C,20MHz+15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	34.300	34.830

LTE band CA_41C , 20MHz+15MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 20MHz+15MHz Bandwidth,16QAM (-26dBc BW)

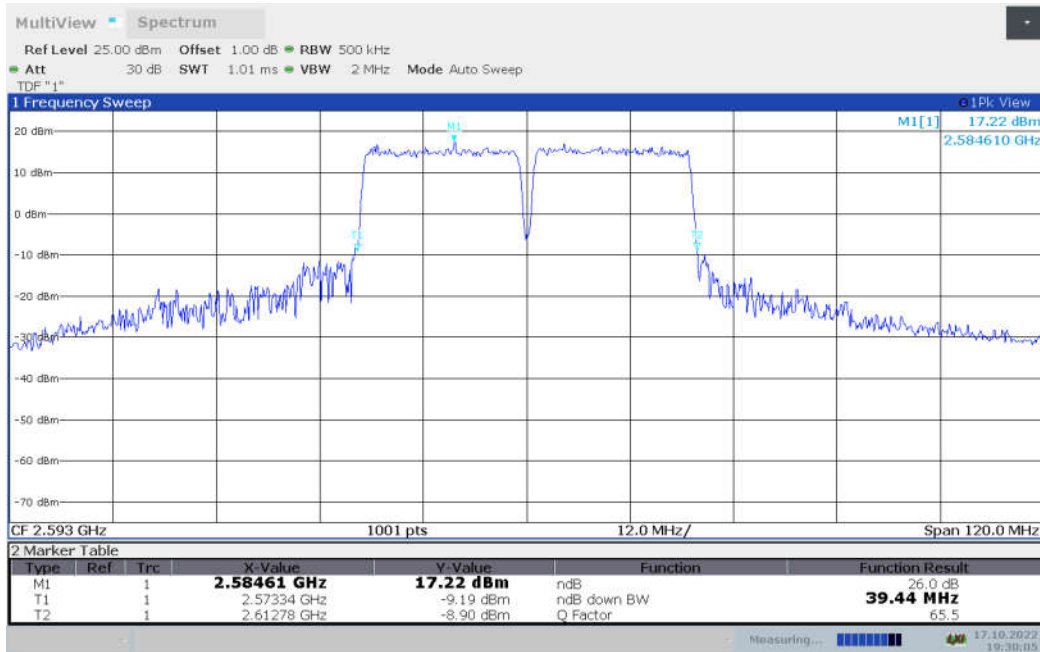




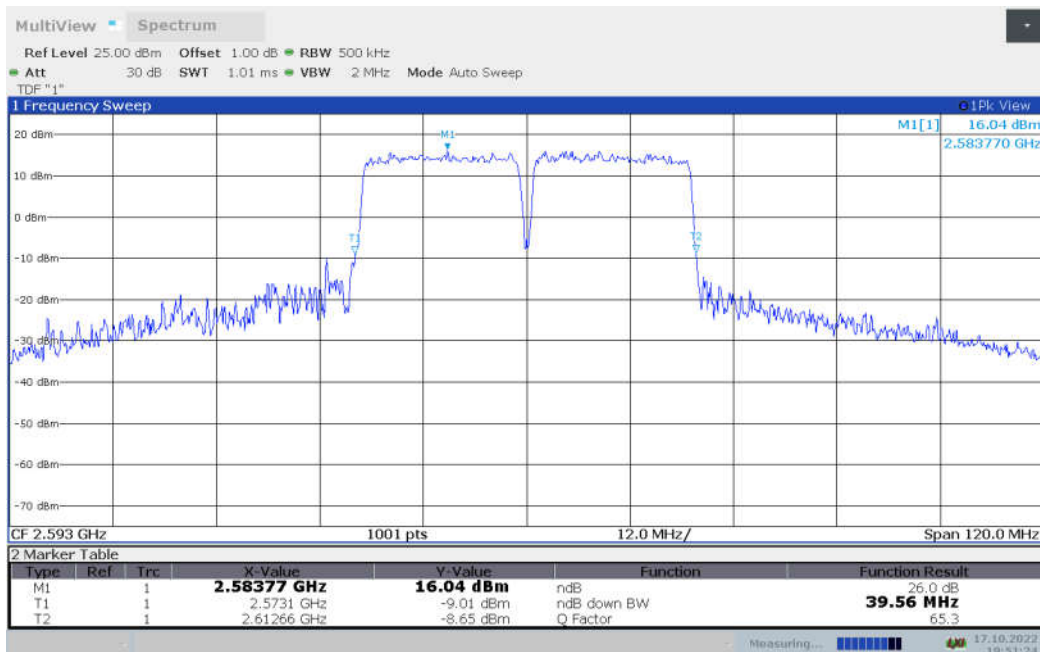
LTE band CA_41C,20MHz+20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2595	39.440	39.560

LTE band CA_41C , 20MHz+20MHz Bandwidth,QPSK (-26dBc BW)



LTE band CA_41C , 20MHz+20MHz Bandwidth,16QAM (-26dBc BW)



Note: Expanded measurement uncertainty is $U = 3428 \text{ Hz}$, $k = 2$



A.6 BAND EDGE COMPLIANCE

Reference

FCC: CFR Part 2.1051, 22.917, 24.238, 27.53, 90.691.

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(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 $43 + 10 \log (P)$ 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.

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 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 $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ 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 $43 + 10 \log_{10}(P)$ 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.6.2 Measurement 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 \geq 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.

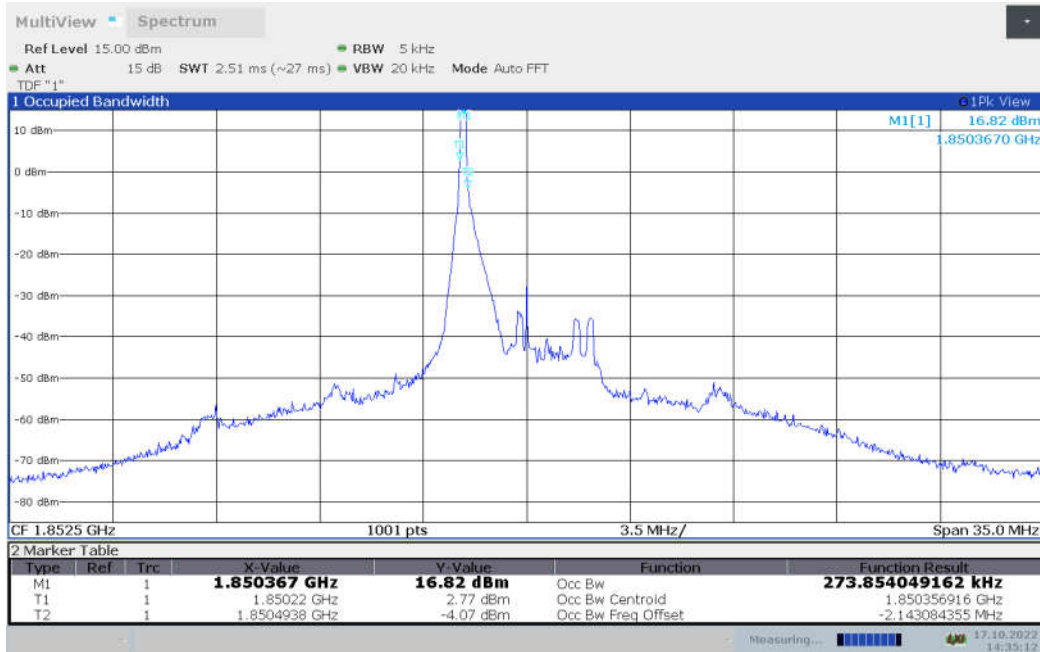
A.6.3 Measurement result

Only worst case result is given below

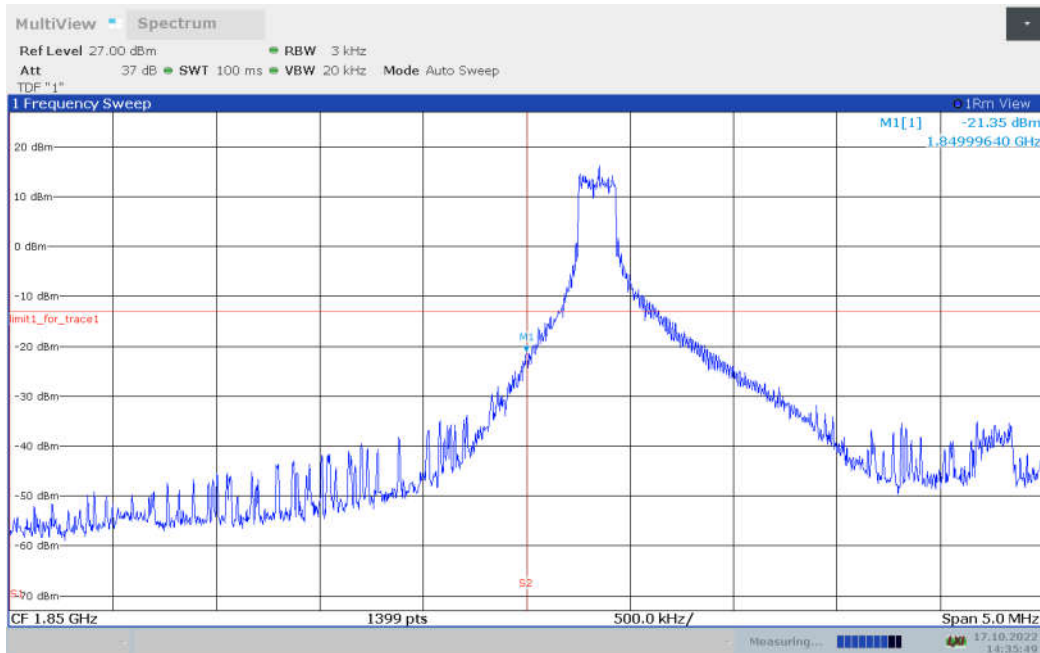


LTE band 2

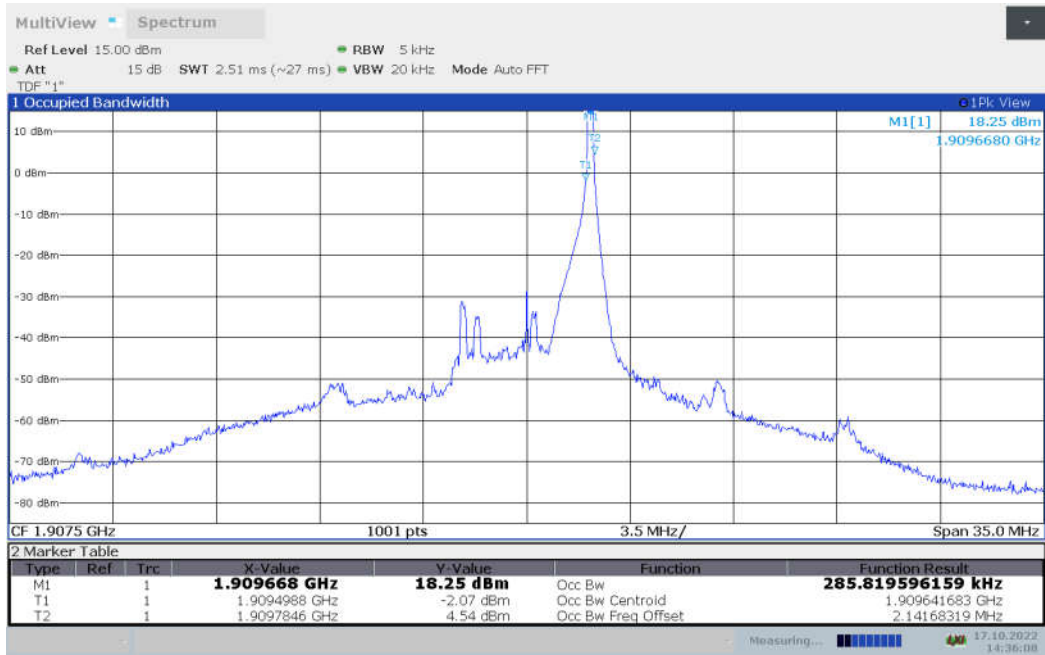
OBW: 1RB-LOW_offset



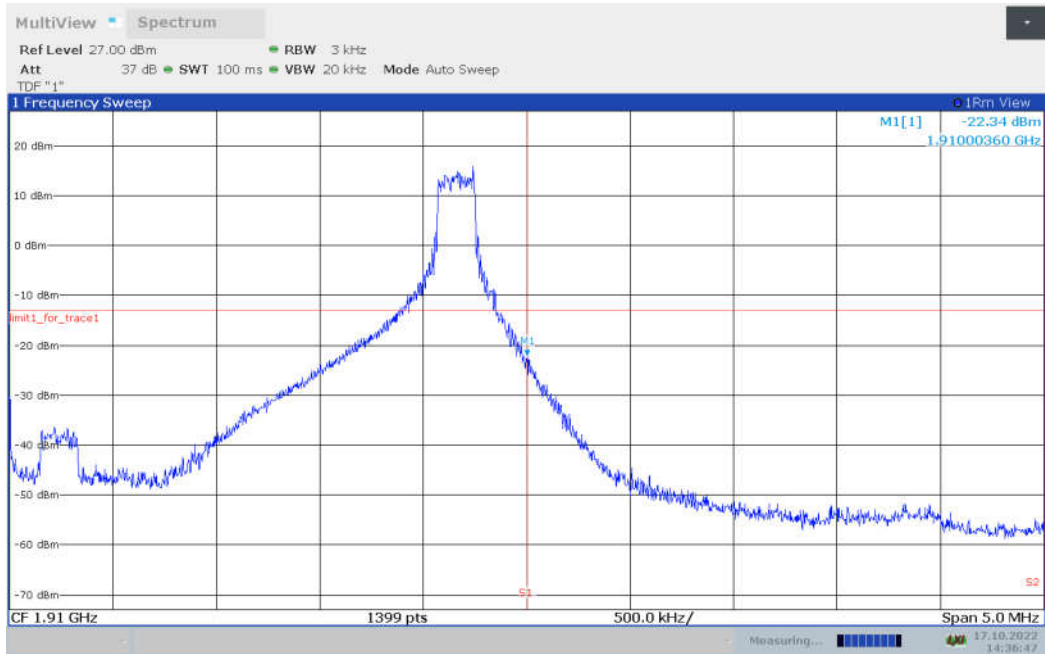
LOW BAND EDGE BLOCK-1RB-LOW_offset



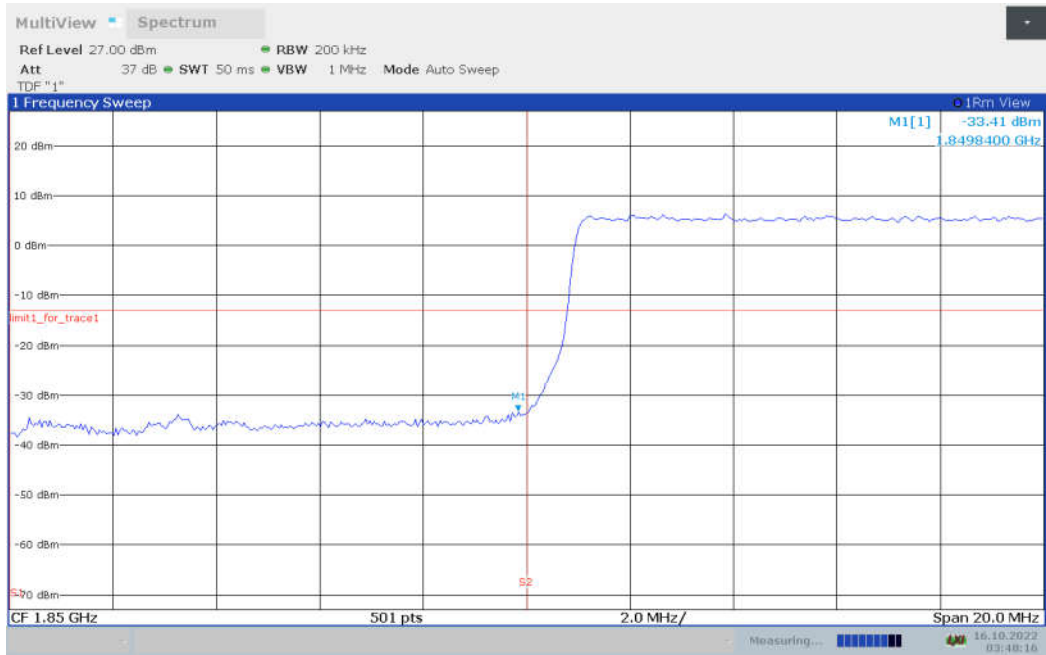
OBW: 1RB-HIGH_offset



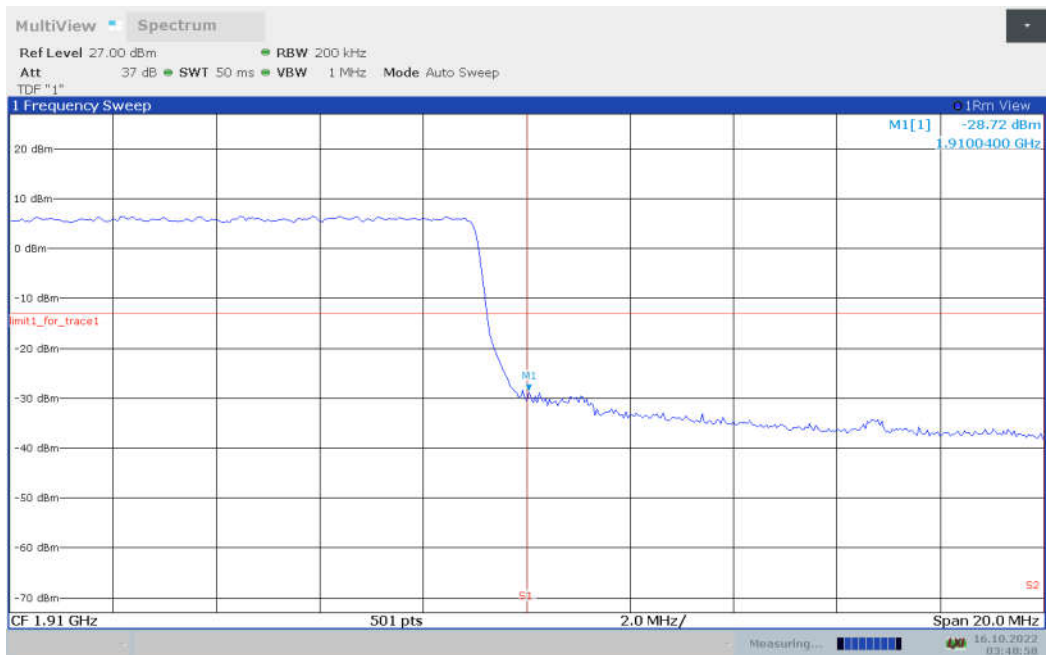
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20M-100%RB



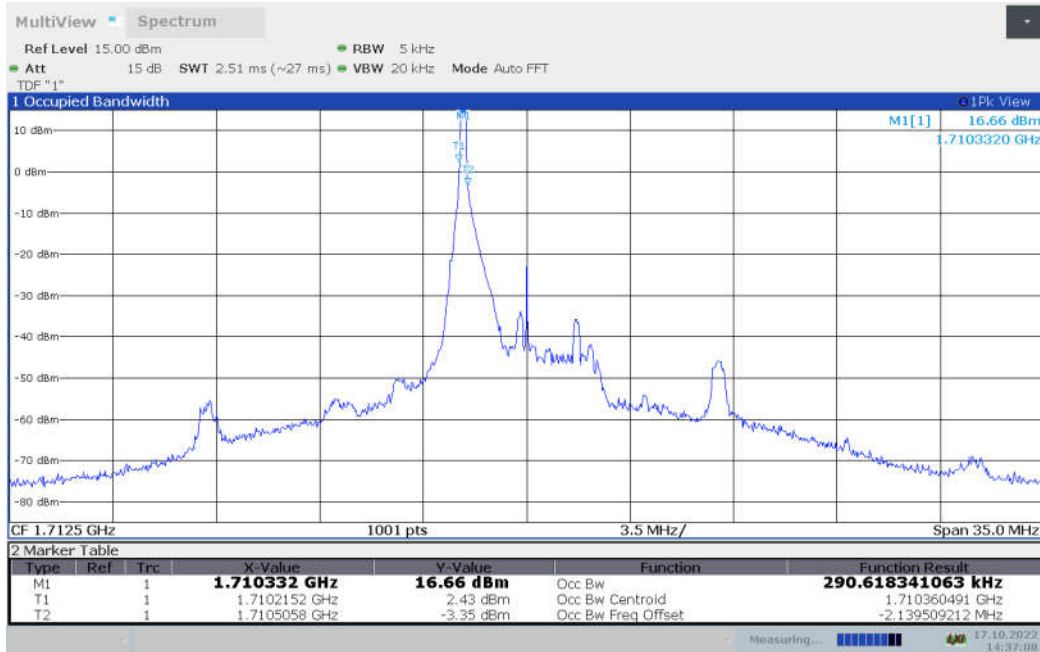
HIGH BAND EDGE BLOCK-20M-100%RB



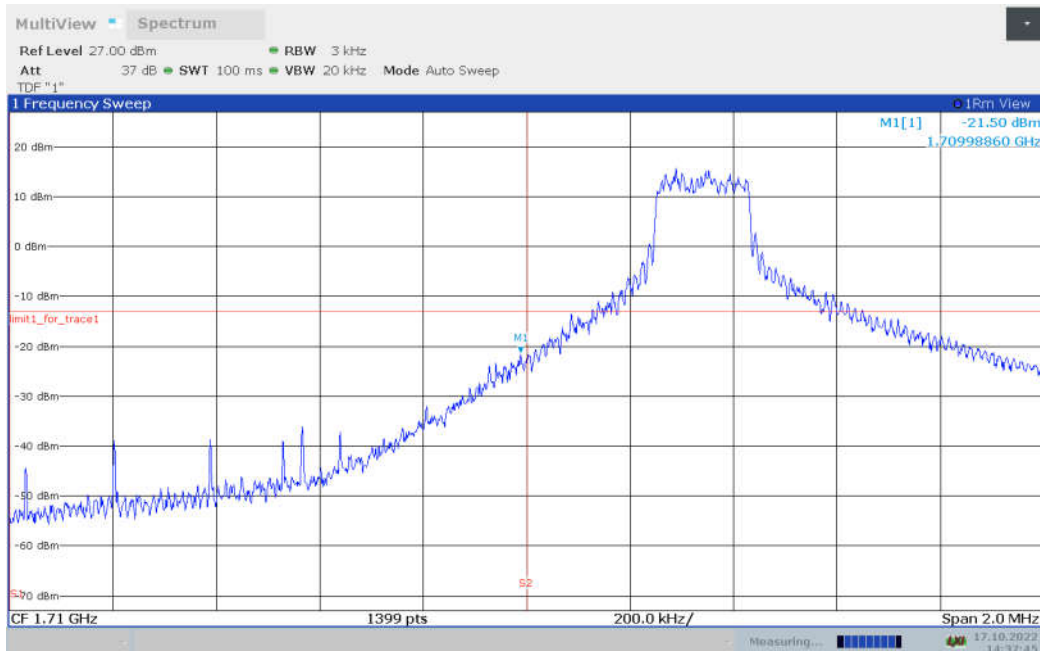


LTE band 4

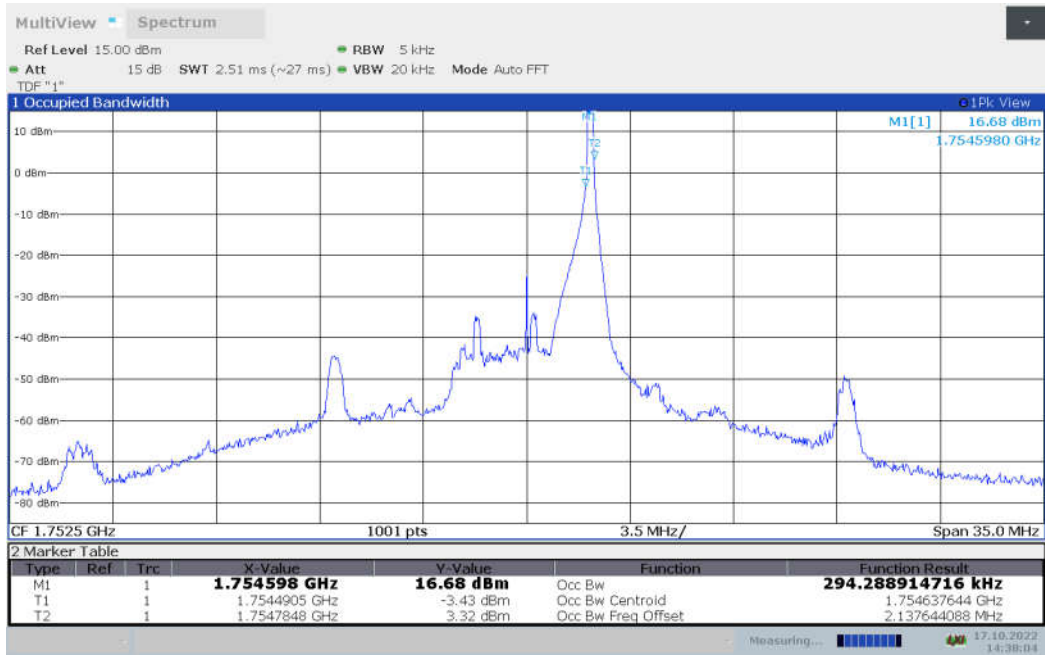
OBW: 1RB-LOW_offset



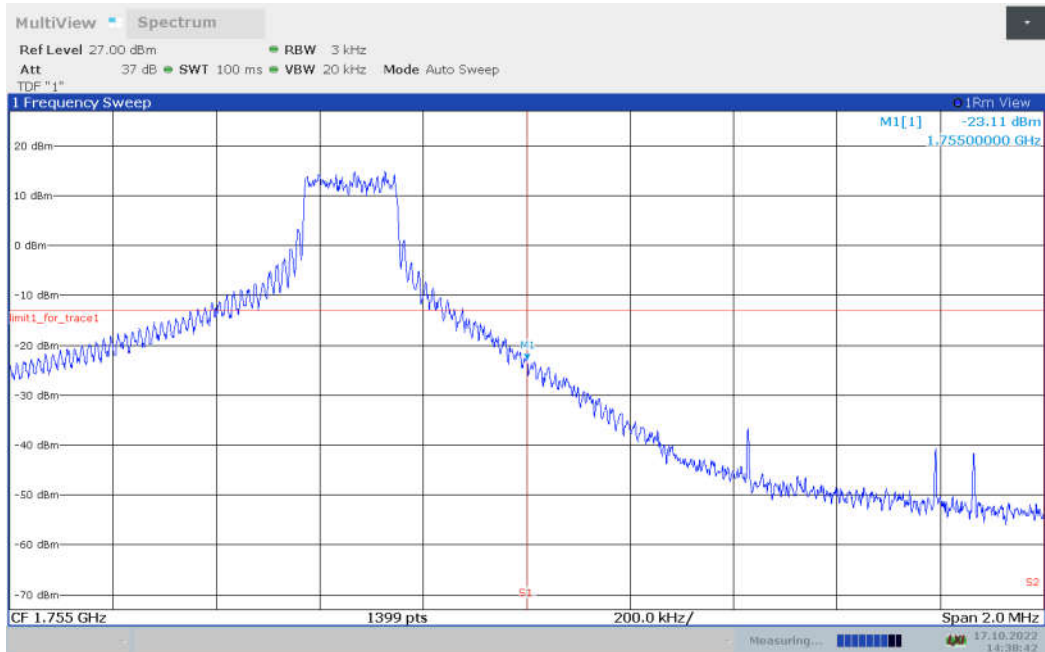
LOW BAND EDGE BLOCK-1RB-LOW_offset



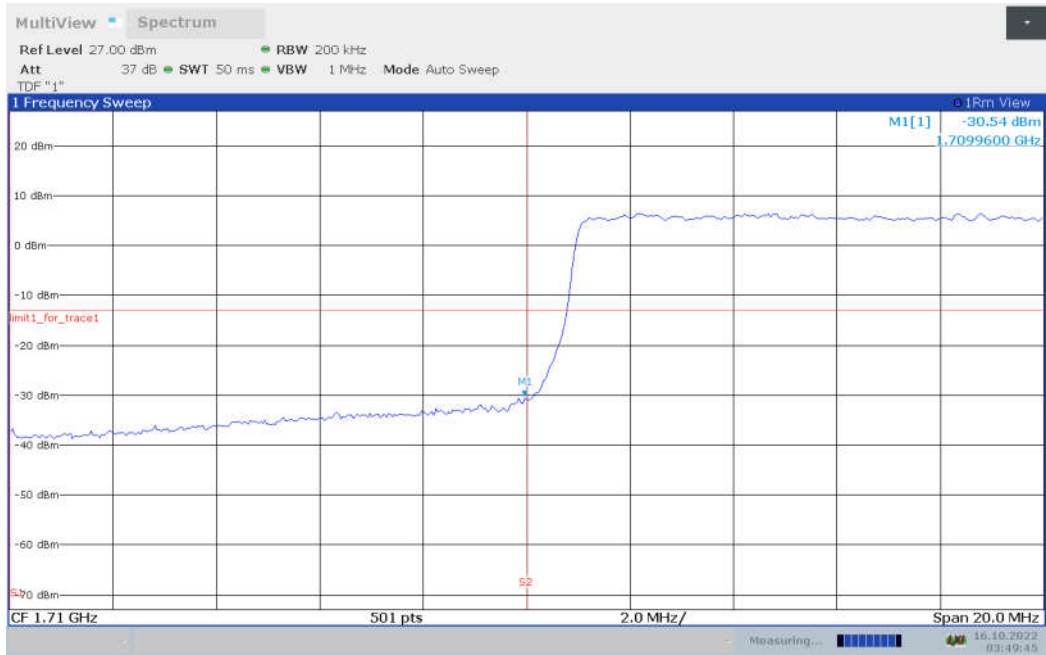
OBW: 1RB-HIGH_offset



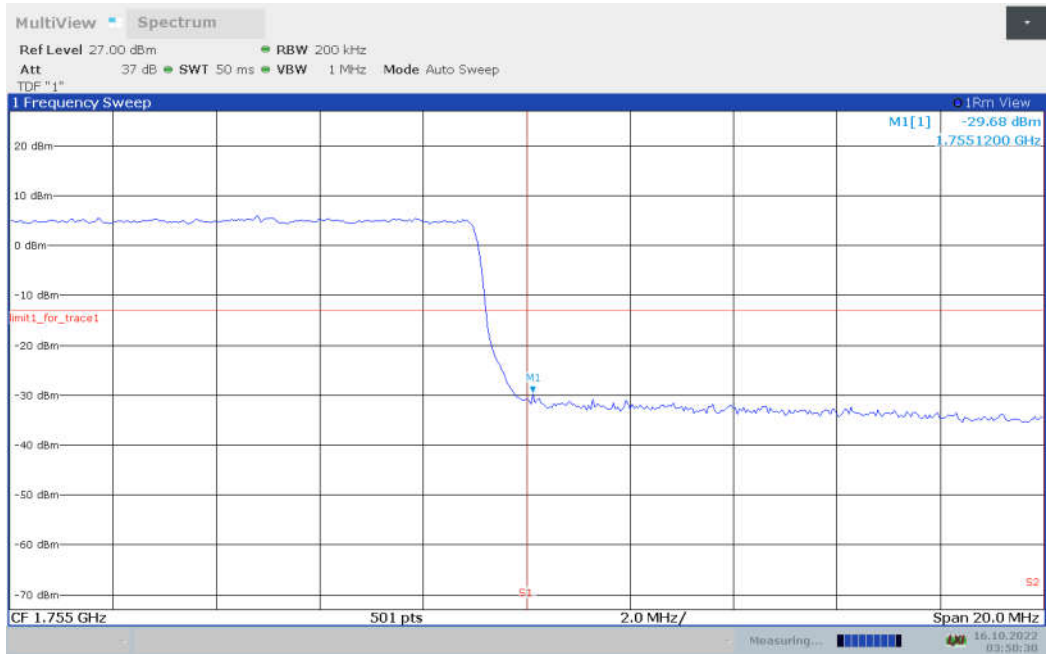
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20M-100%RB



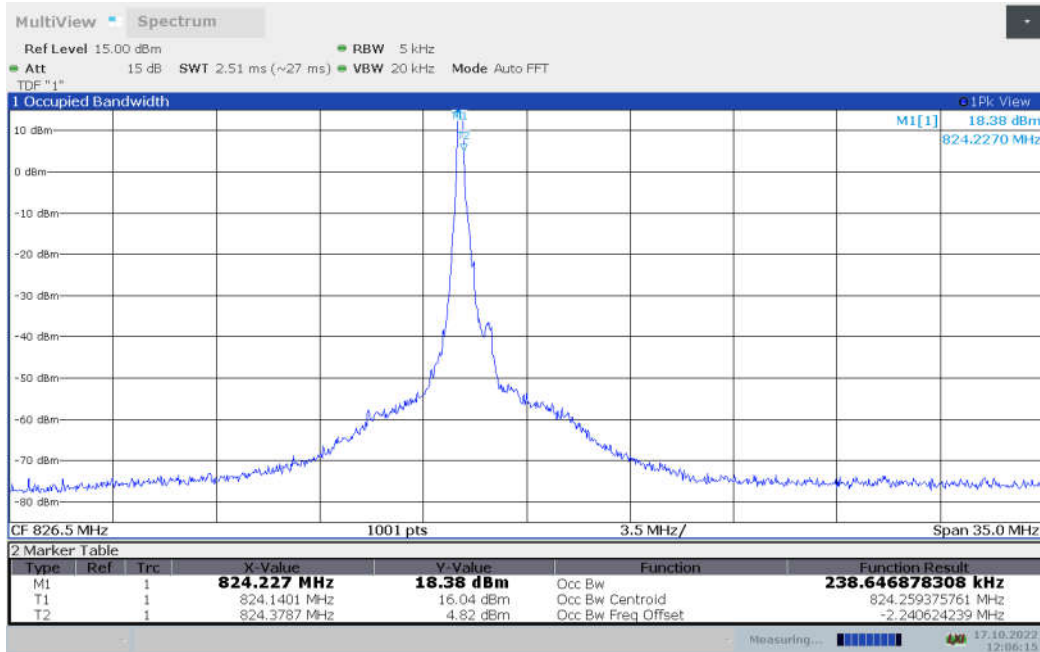
HIGH BAND EDGE BLOCK-20M-100%RB



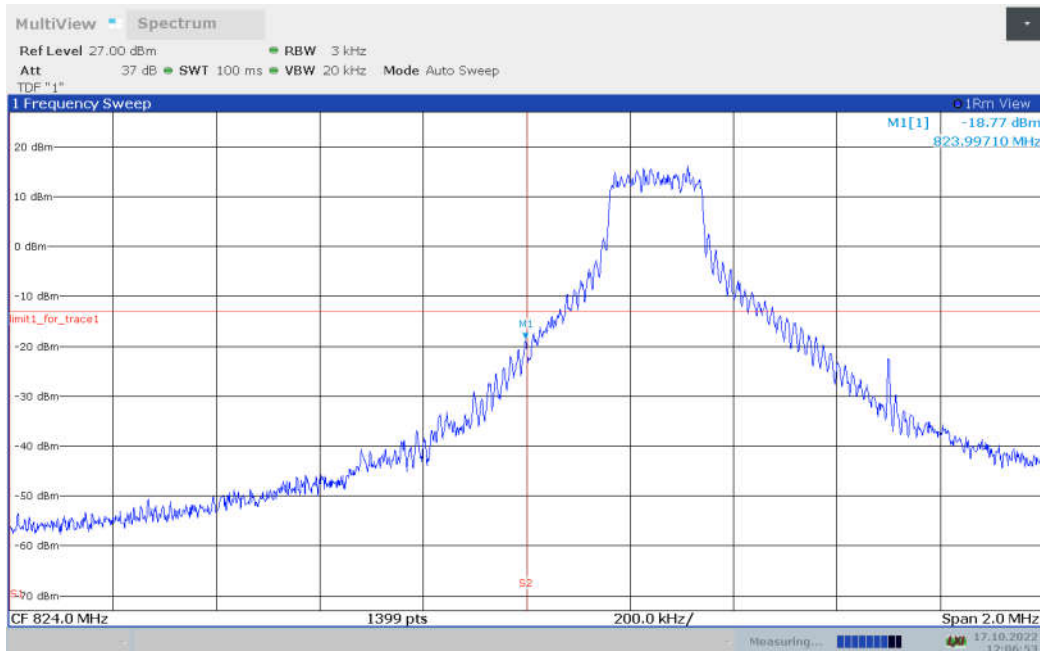


LTE band 5

OBW: 1RB-LOW_offset



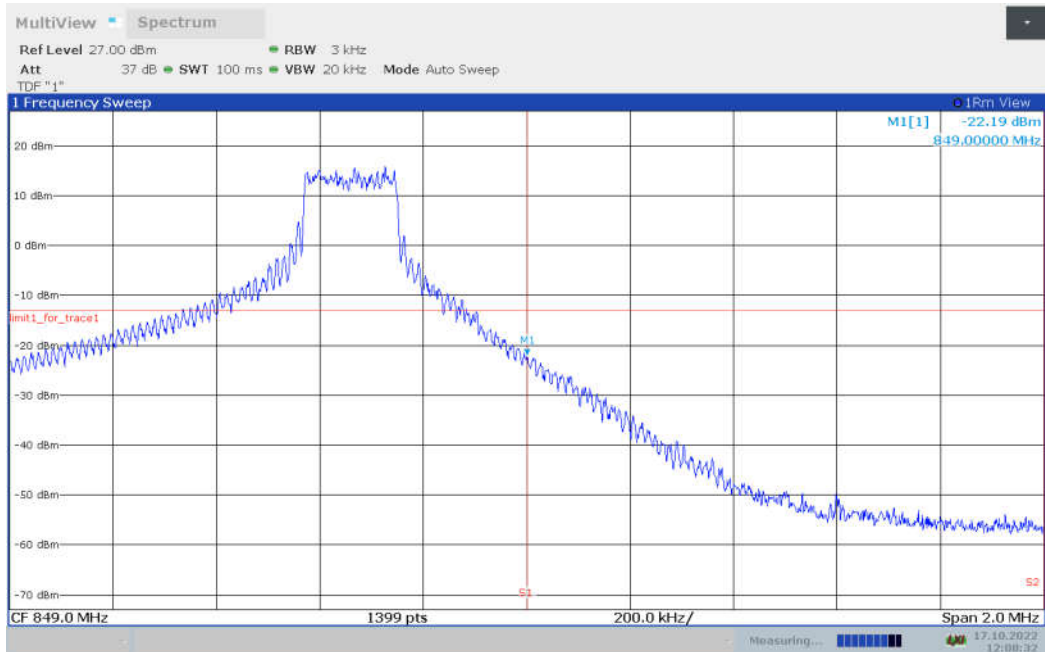
LOW BAND EDGE BLOCK-1RB-LOW_offset



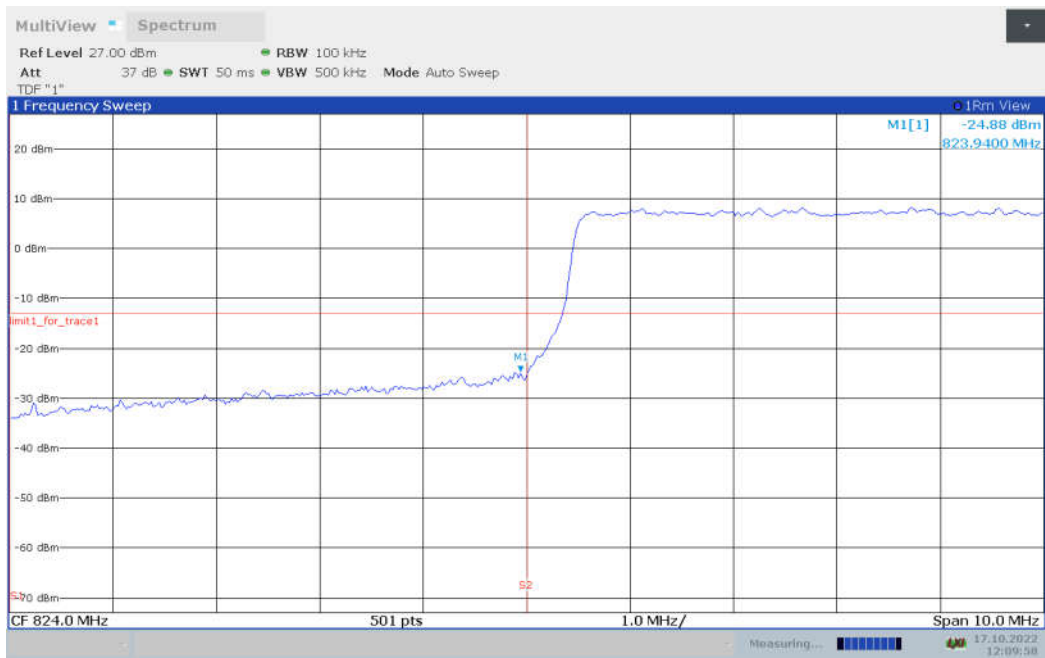
OBW: 1RB-HIGH_offset



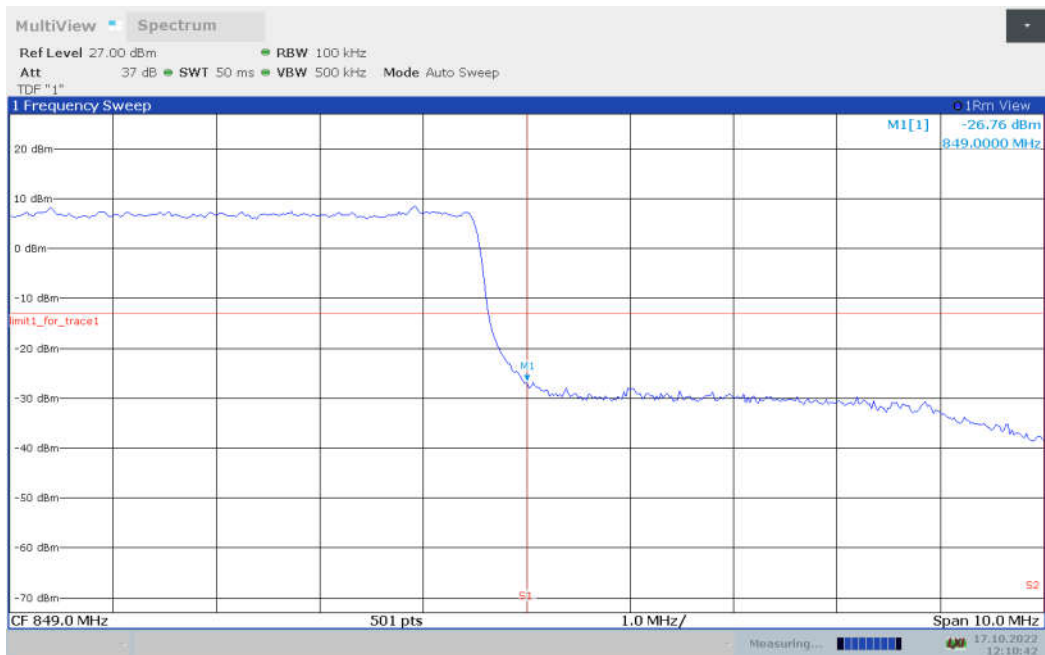
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-10M-100%RB



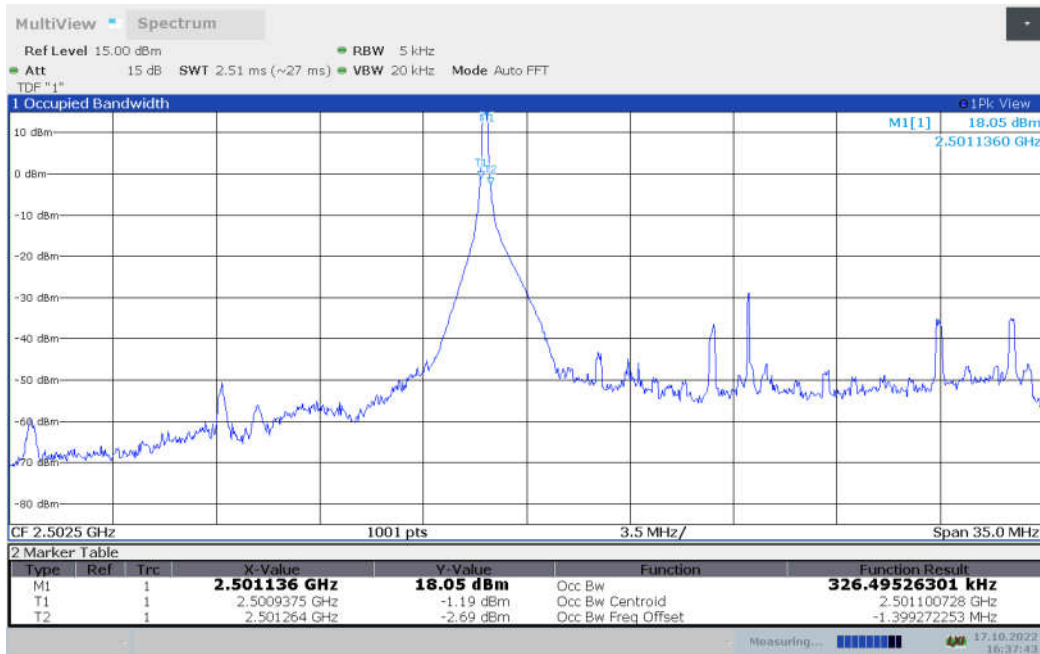
HIGH BAND EDGE BLOCK-10M-100%RB



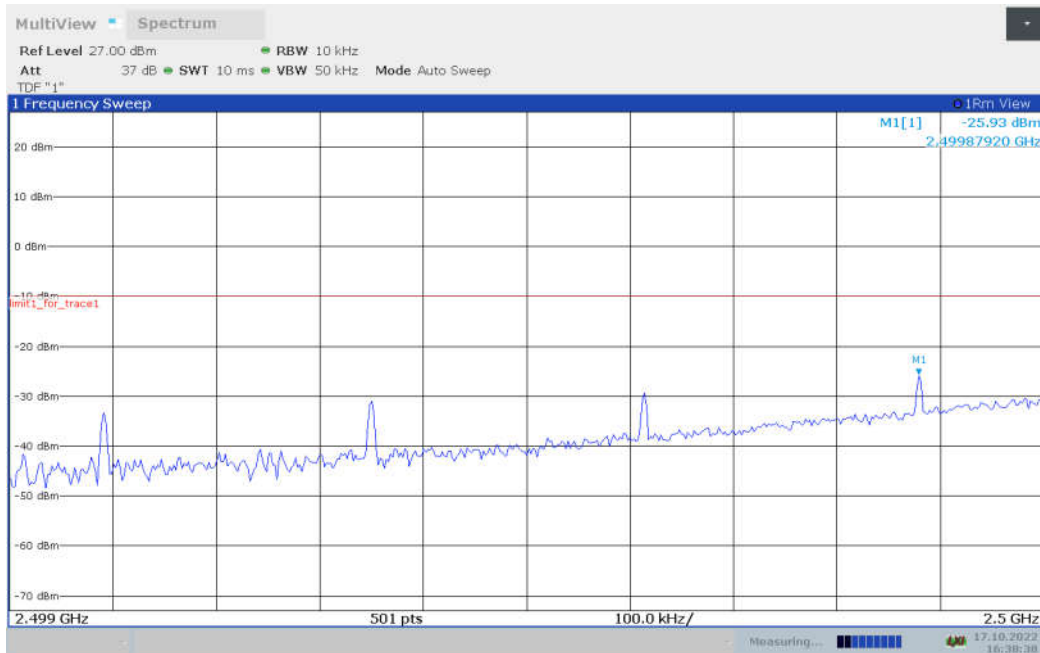


LTE band 7

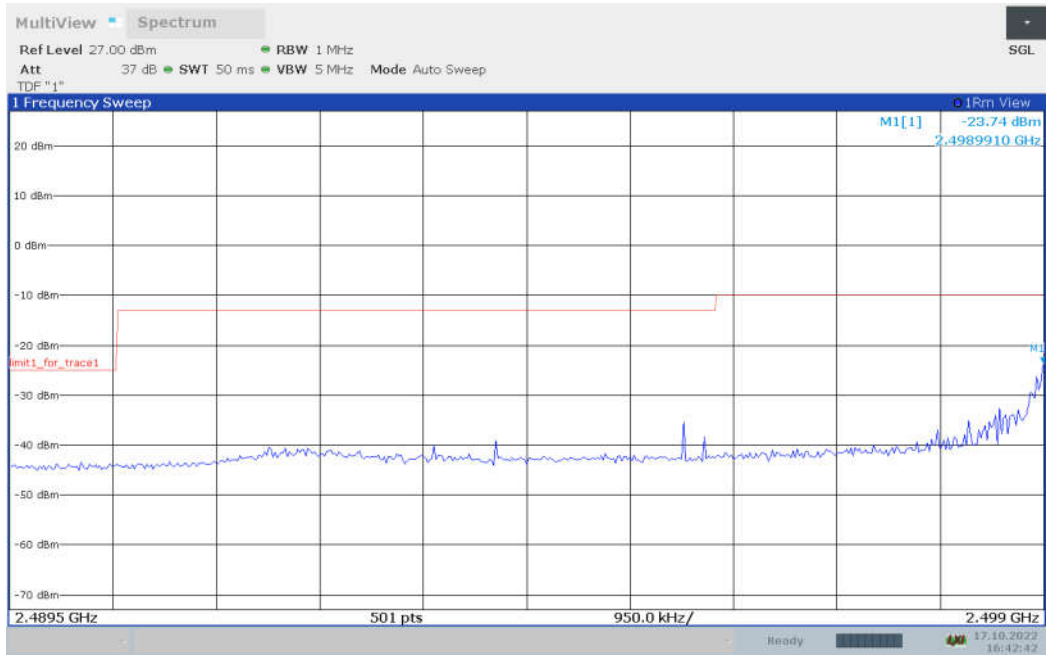
OBW: 1RB-LOW_offset



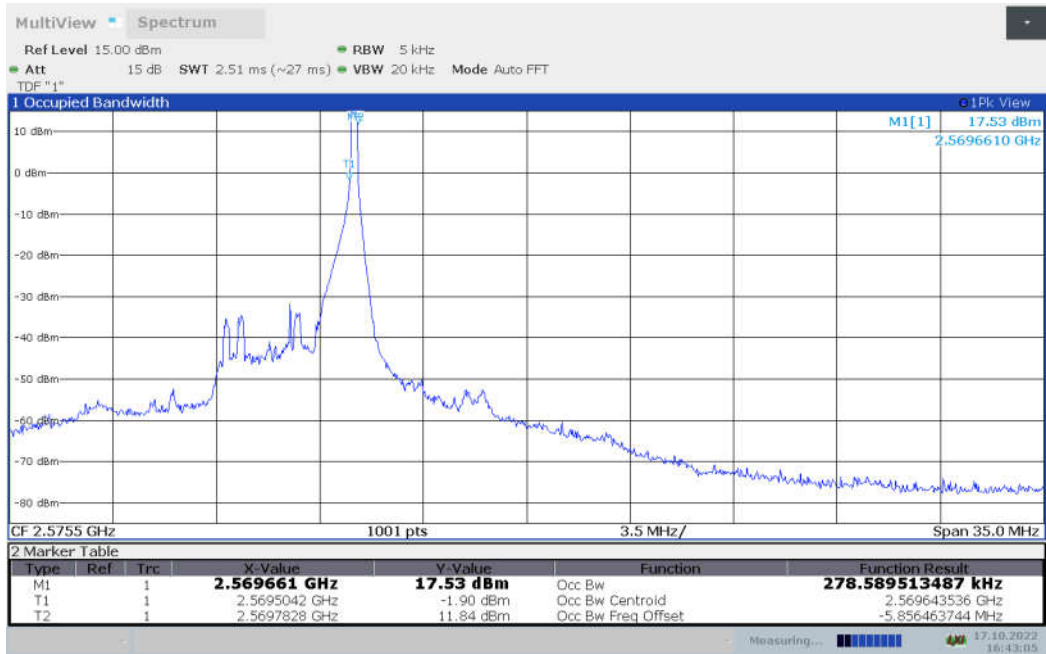
LOW BAND EDGE BLOCK-1RB-LOW_offset



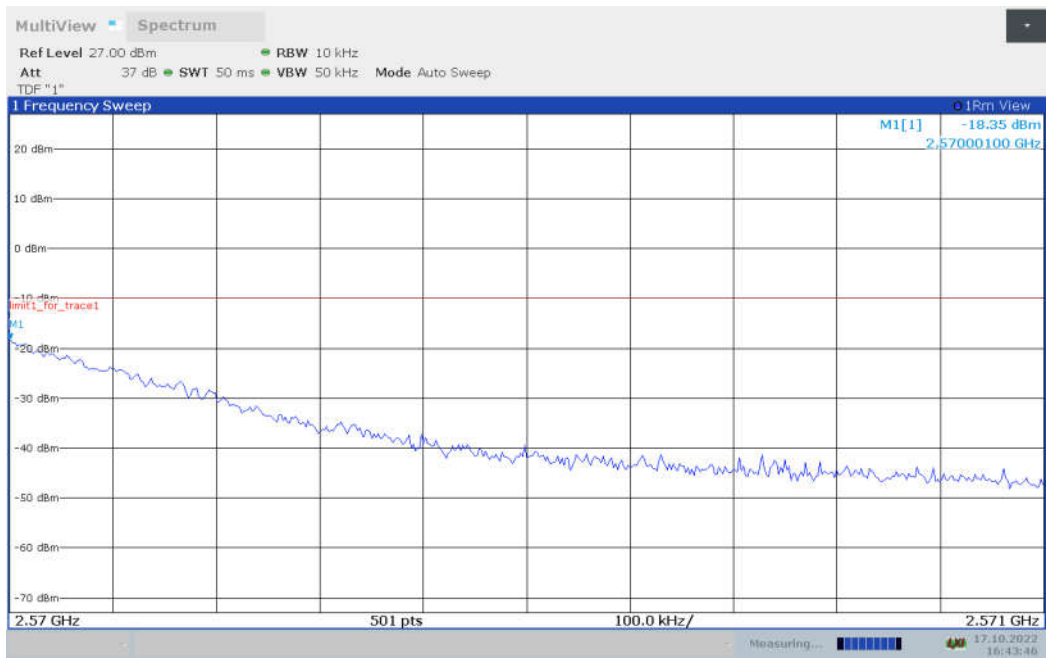
LOW BAND EDGE BLOCK-1RB-LOW_offset



OBW: 1RB-HIGH_offset



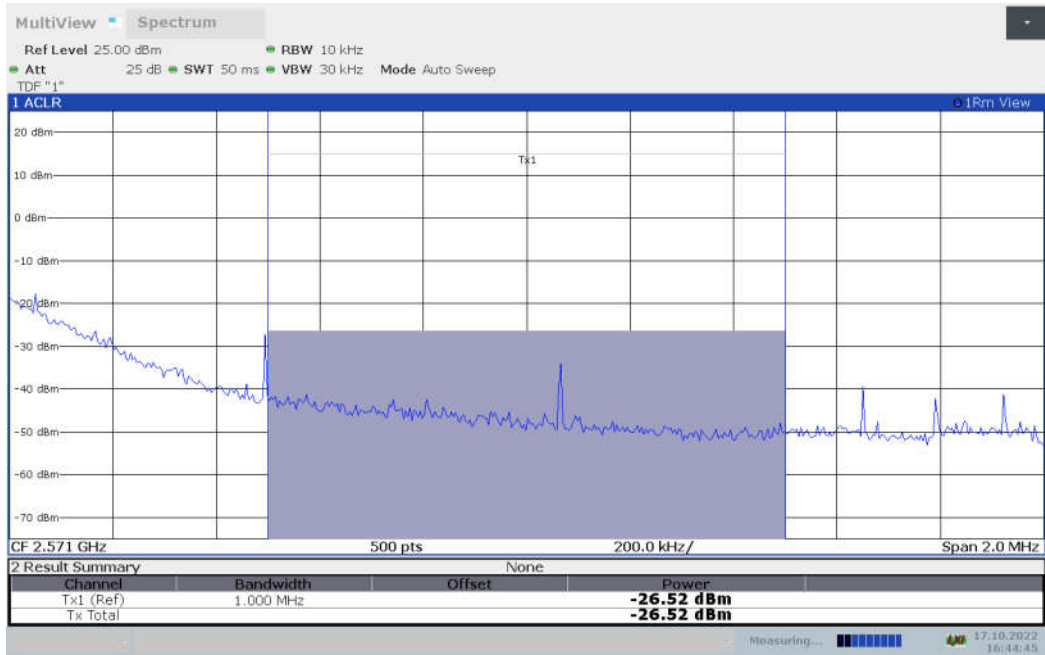
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



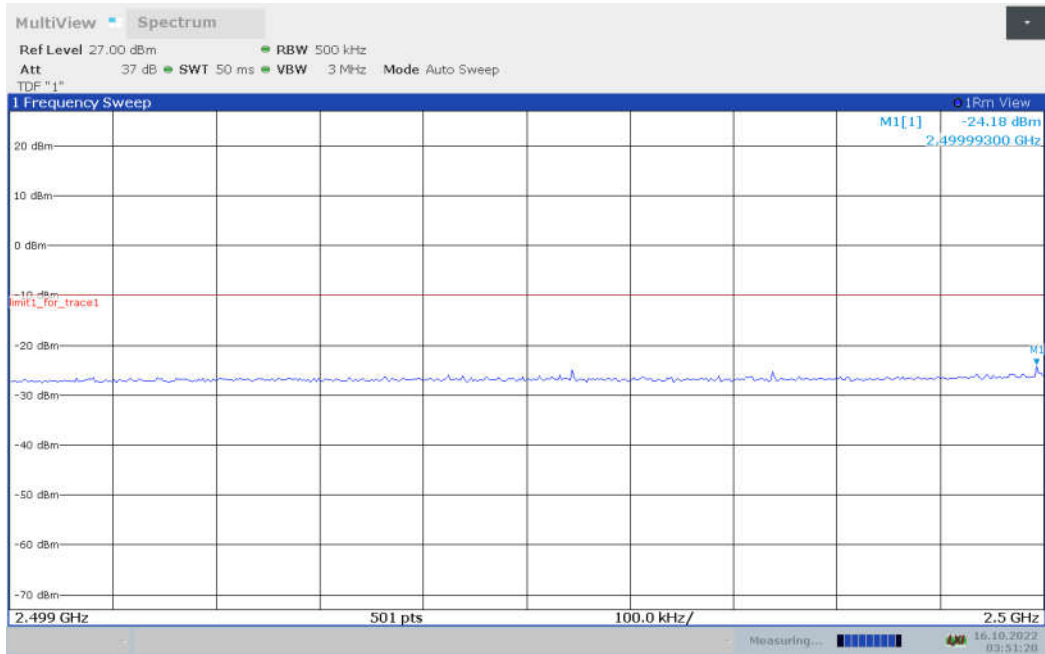
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



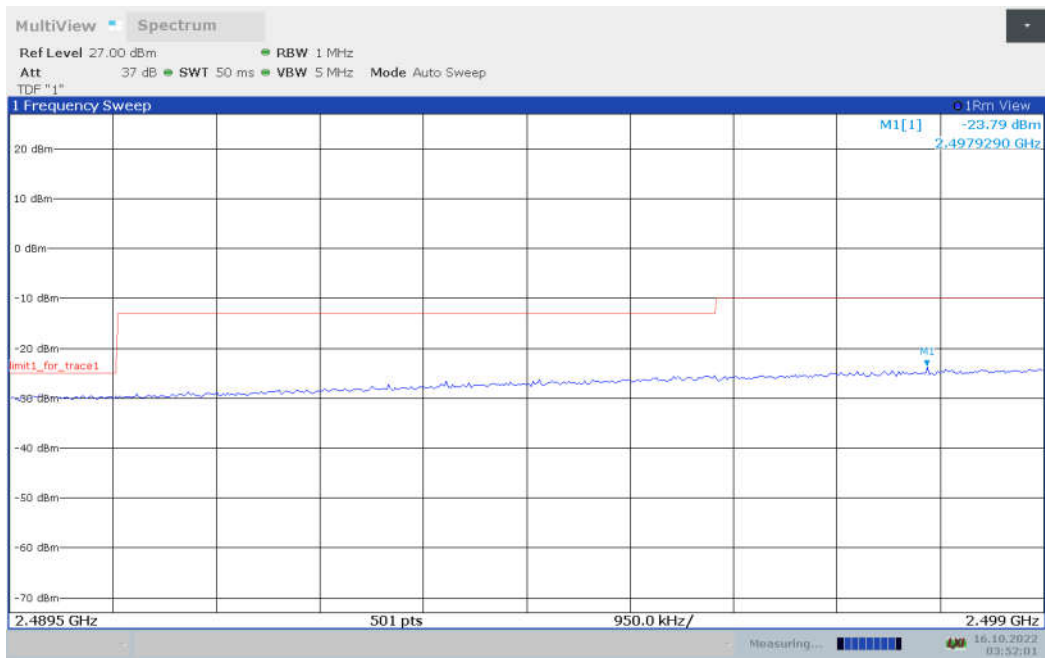
Channel power



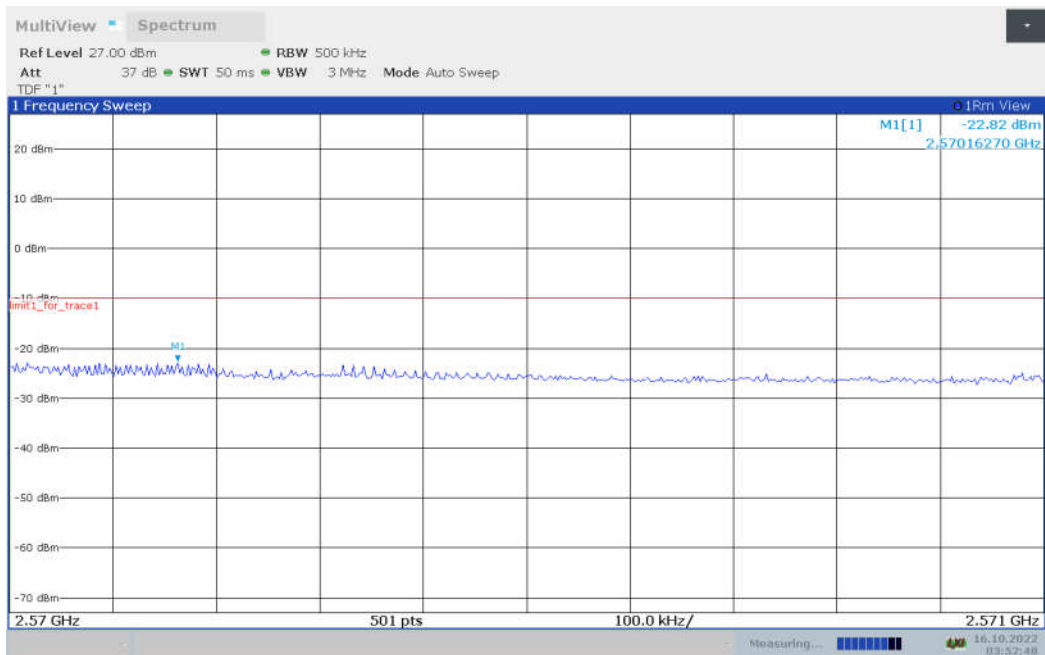
LOW BAND EDGE BLOCK-20M-100%RB



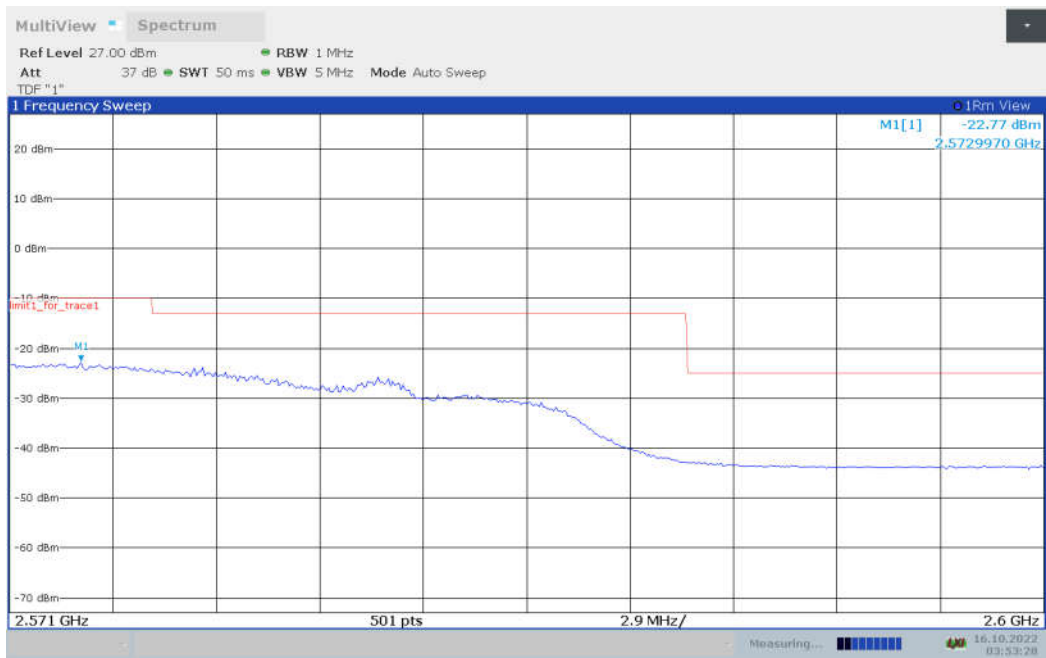
LOW BAND EDGE BLOCK-20M-100%RB



HIGH BAND EDGE BLOCK-20M-100%RB



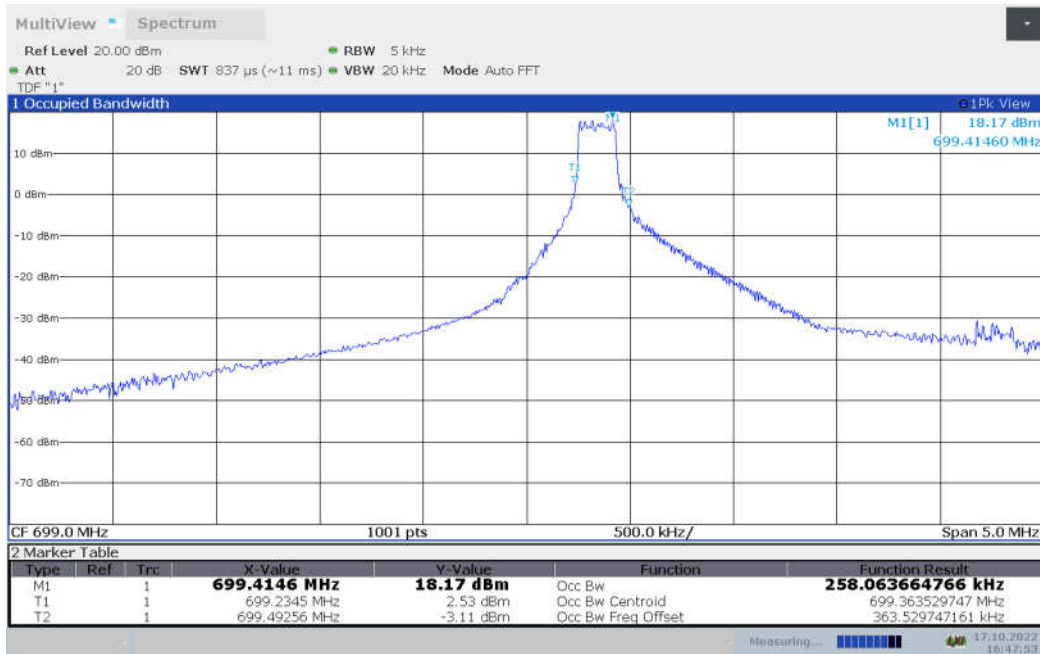
HIGH BAND EDGE BLOCK-20M-100%RB



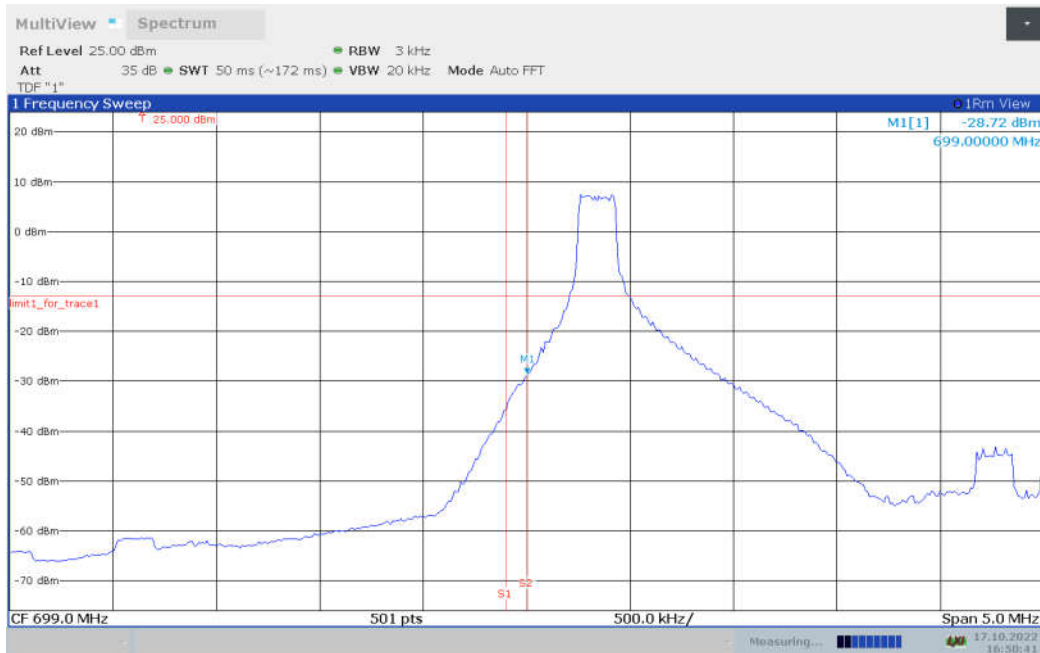


LTE band 12

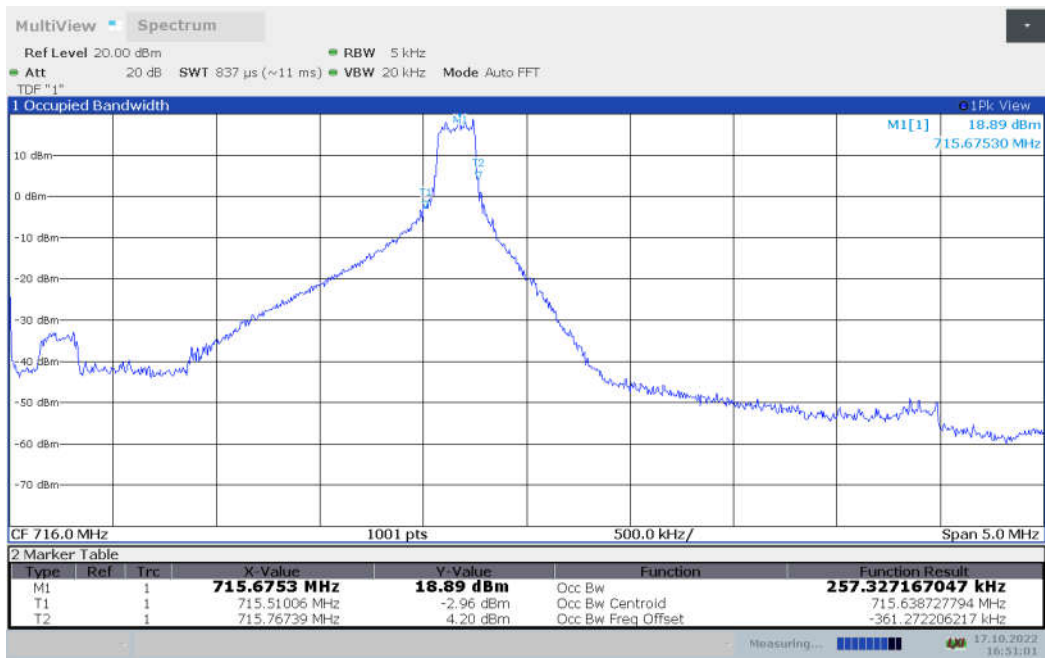
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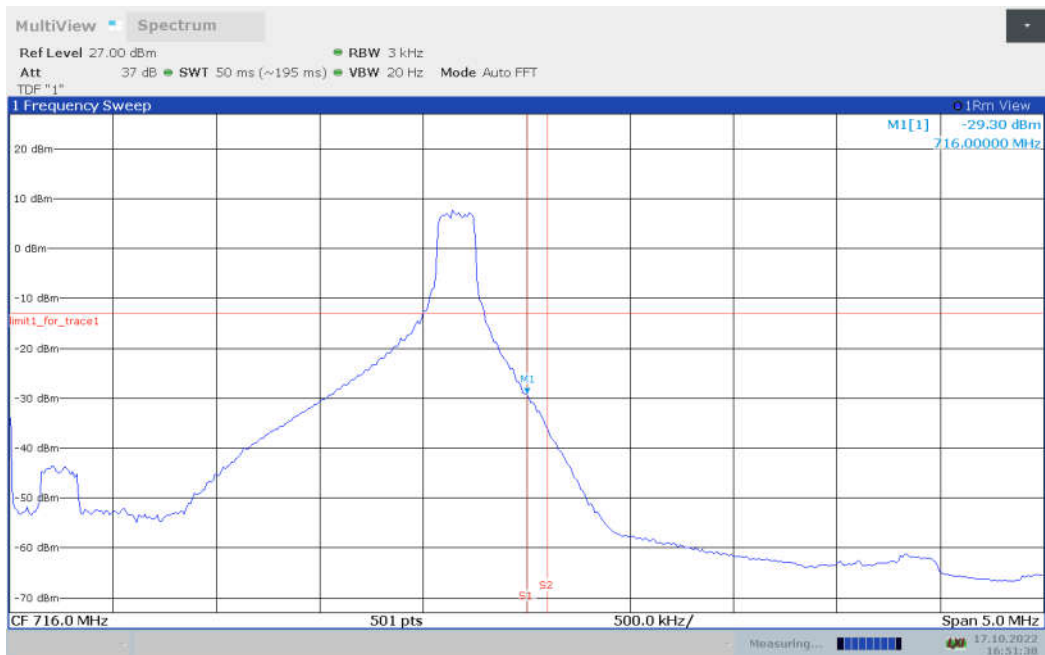
LOW BAND EDGE BLOCK-1RB-LOW_offset



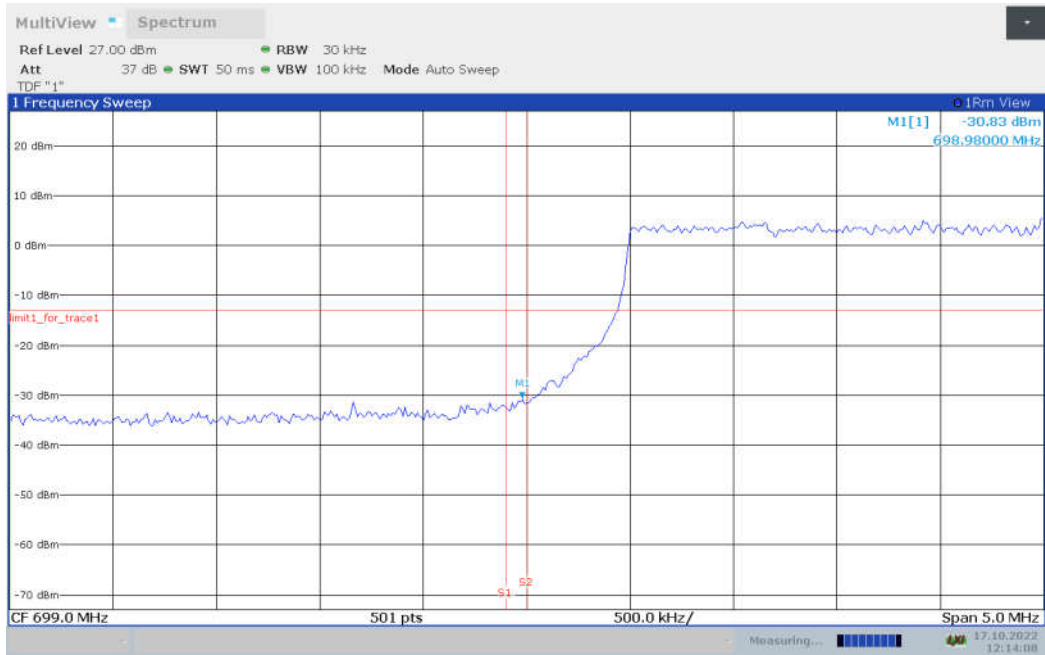
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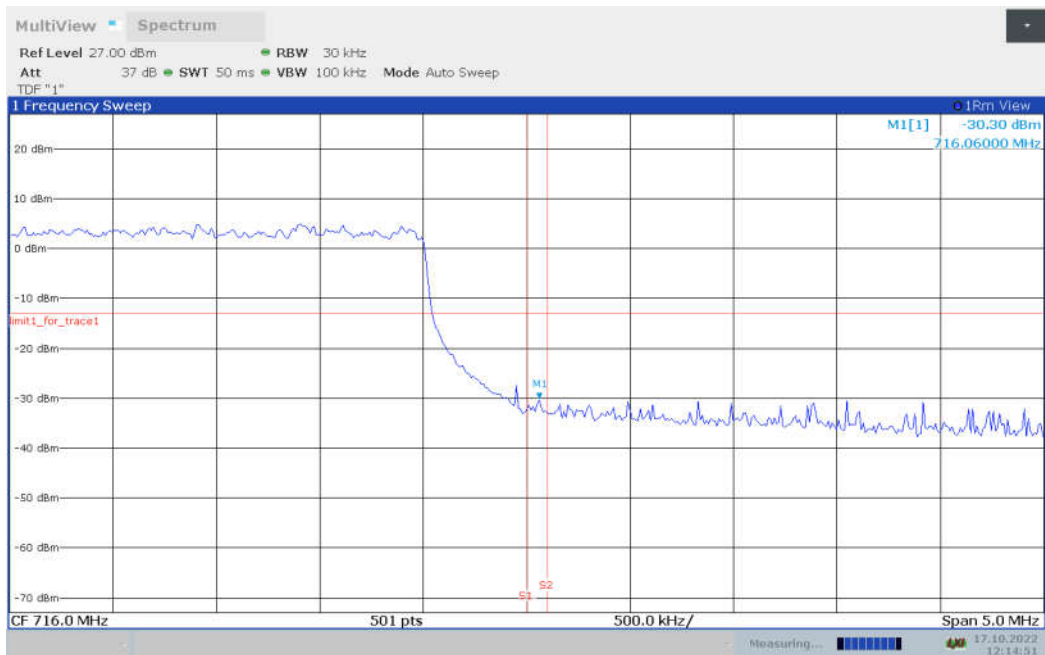
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-10M-100%RB



HIGH BAND EDGE BLOCK-10M-100%RB



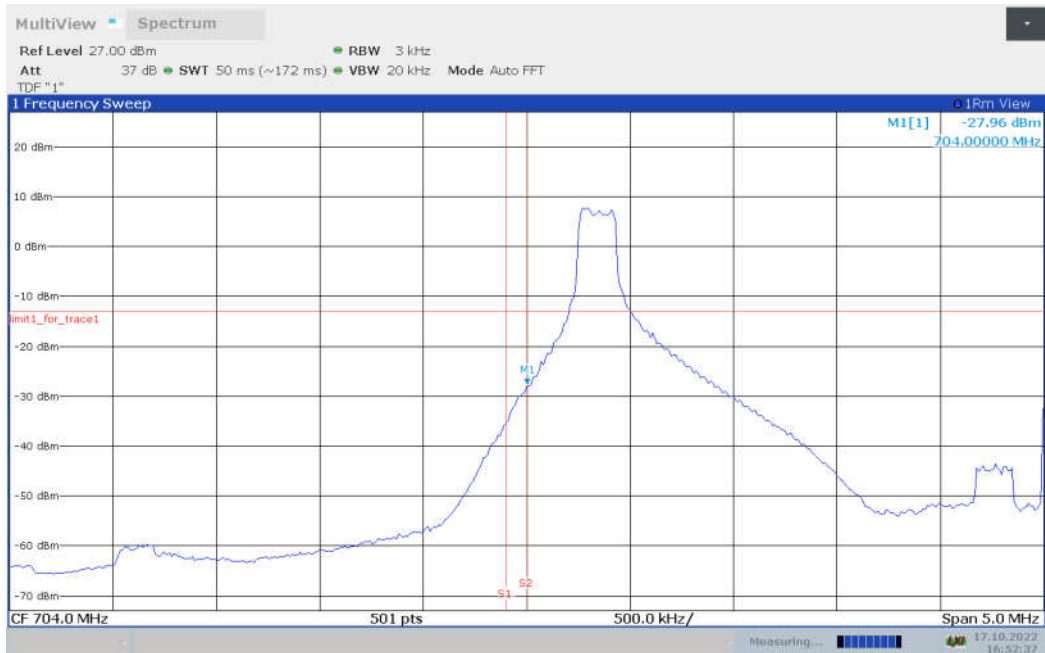


LTE band 17

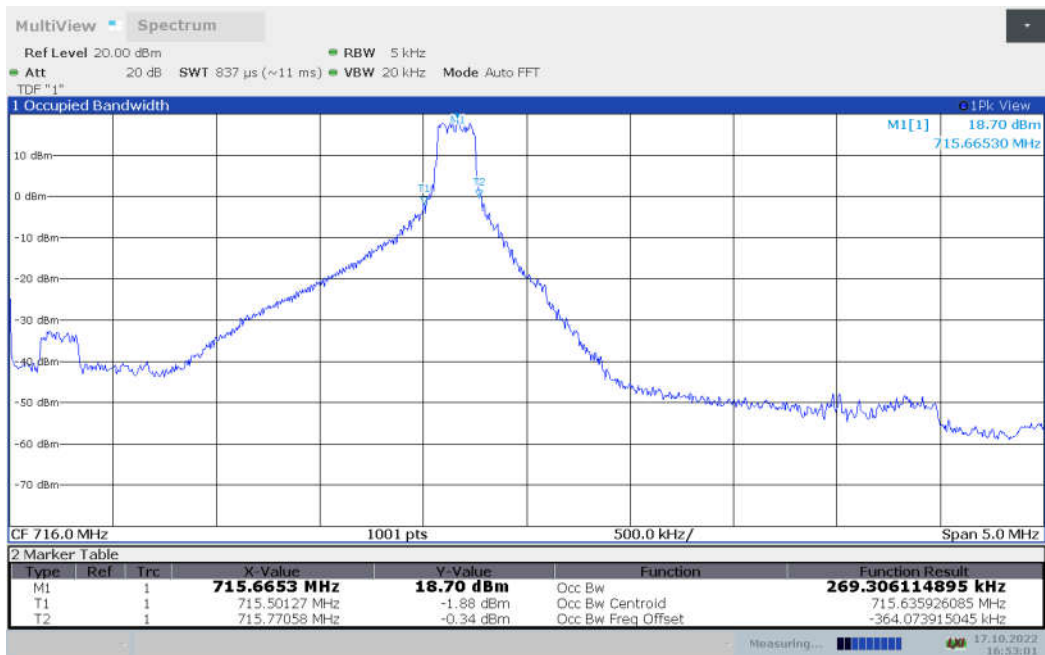
OBW: 1RB-LOW_offset



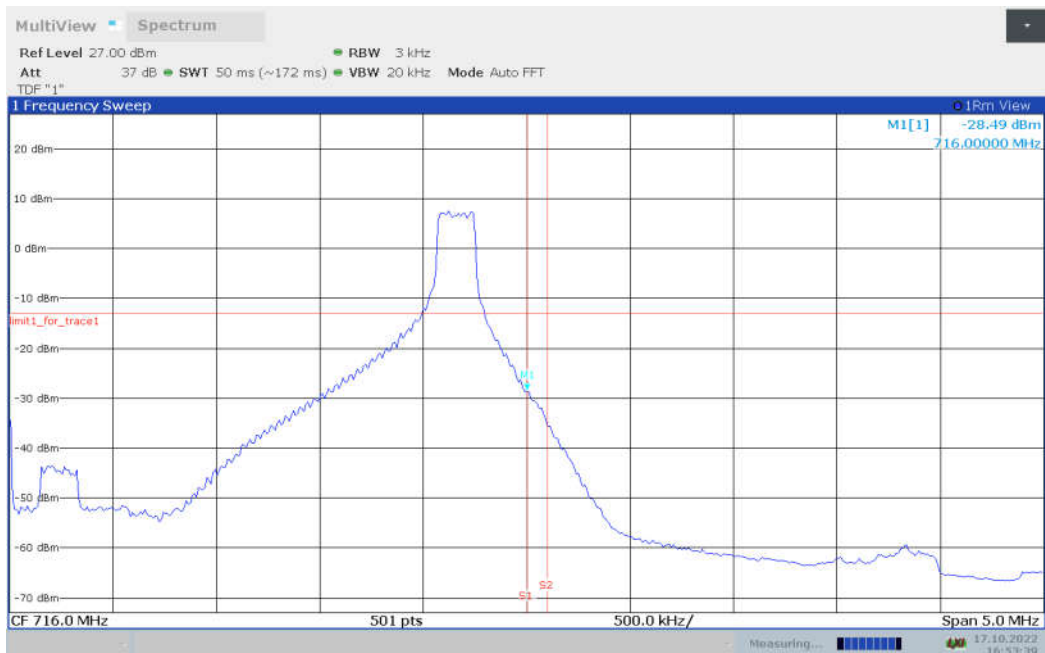
LOW BAND EDGE BLOCK-1RB-LOW_offset



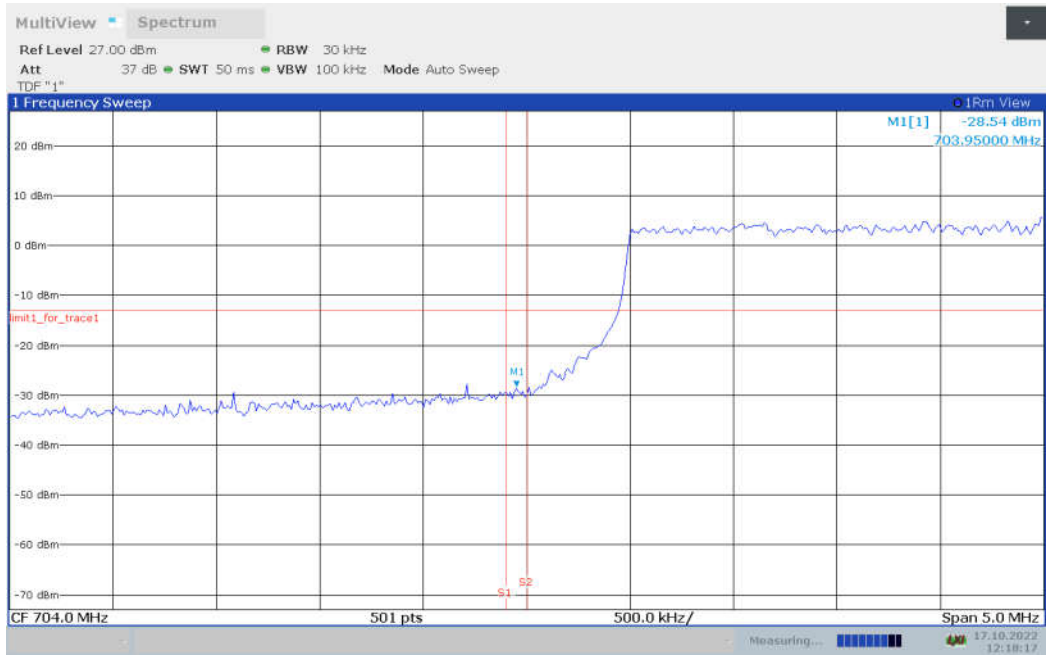
OBW: 1RB-HIGH_offset



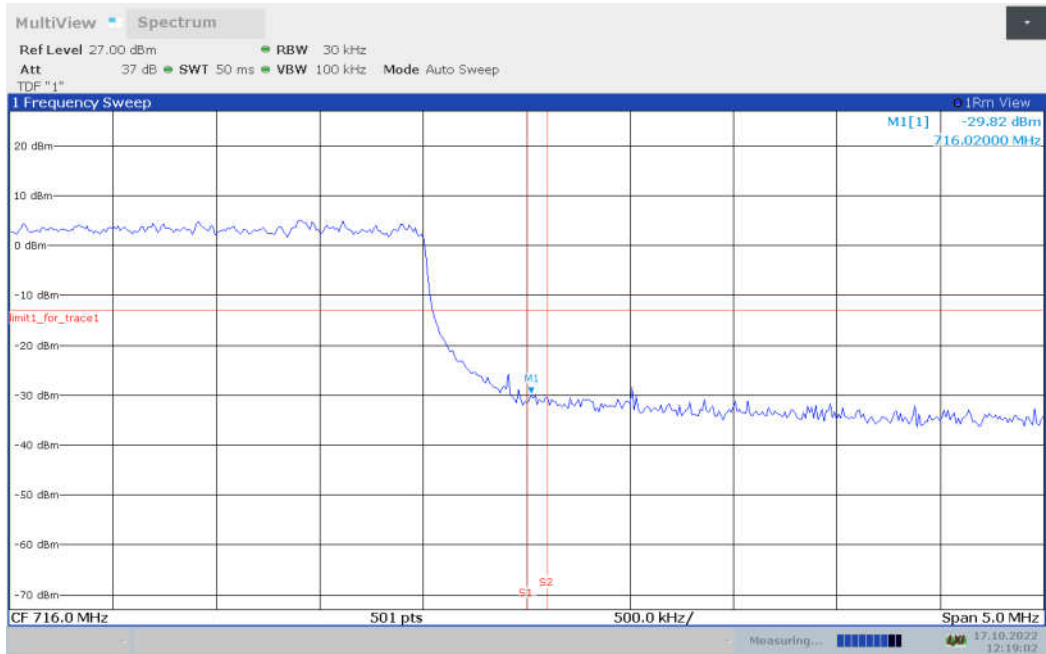
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-10M-100%RB



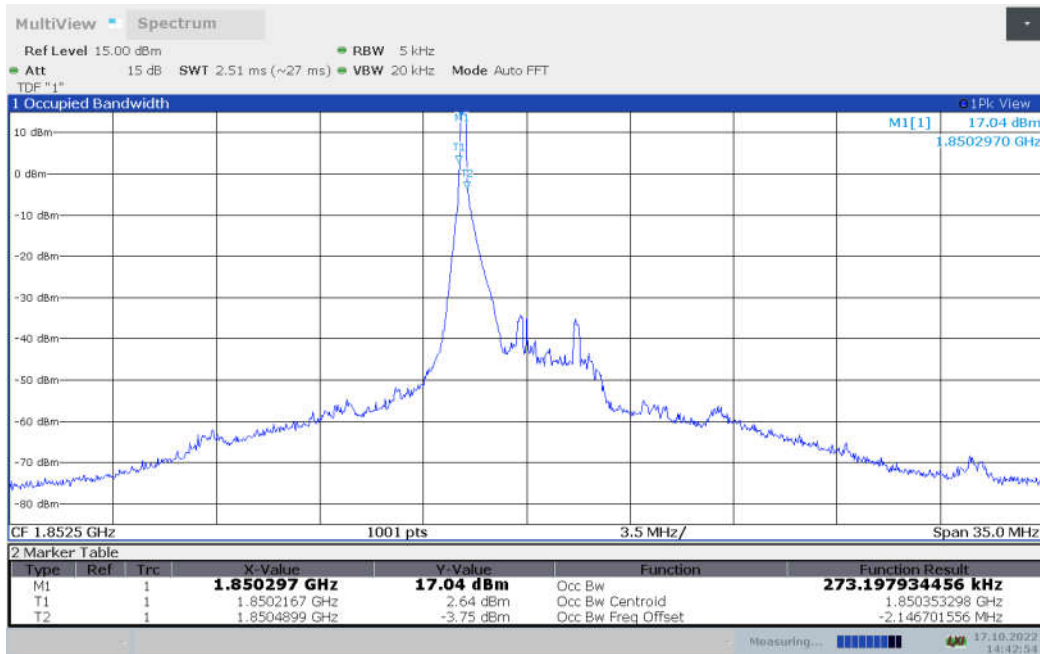
HIGH BAND EDGE BLOCK-10M-100%RB



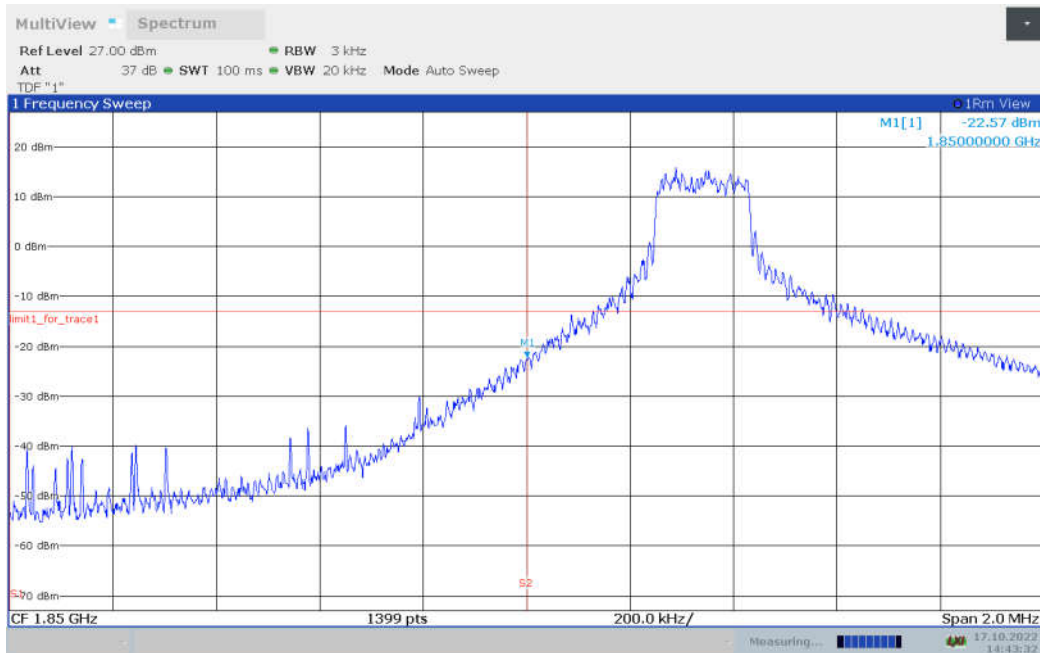


LTE band 25

OBW: 1RB-LOW_offset



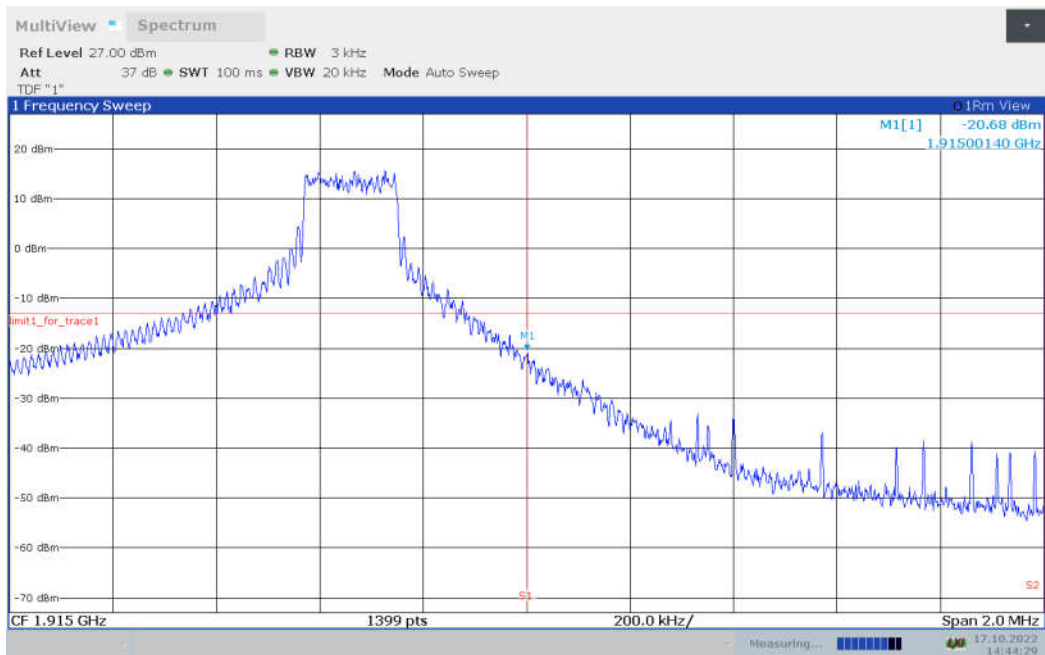
LOW BAND EDGE BLOCK-1RB-LOW_offset



OBW: 1RB-HIGH_offset



HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20M-100%RB