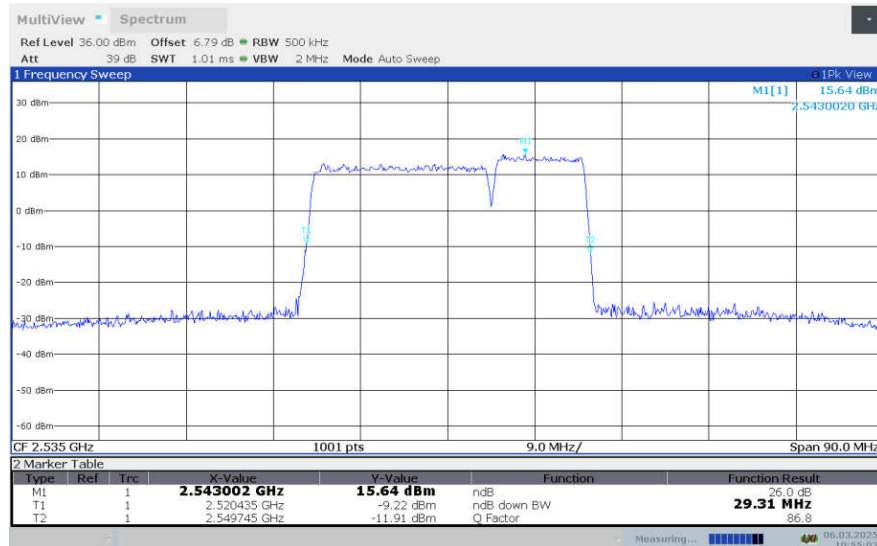


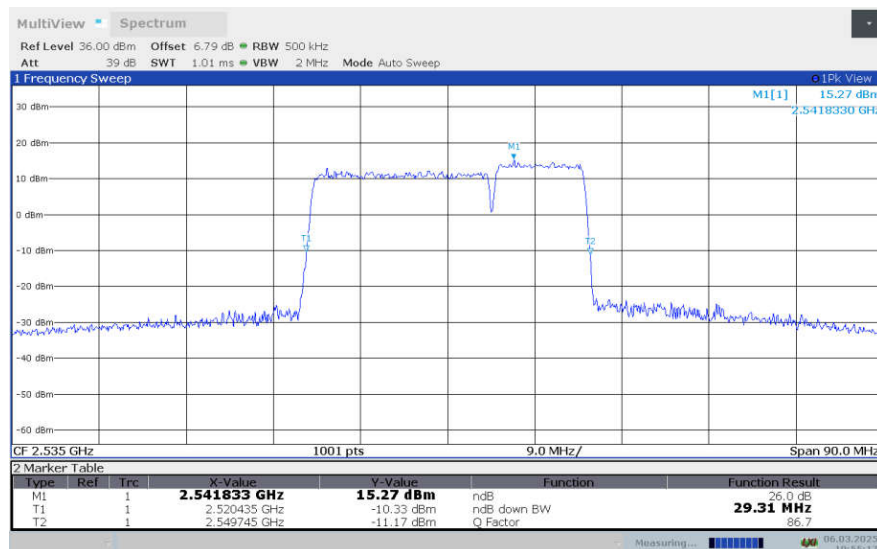
### LTE CA\_7C, 20MHz+10MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2535.0	29.311	29.311

### LTE CA\_7C , 20MHz+10MHz Bandwidth,QPSK (-26dBc OBW)



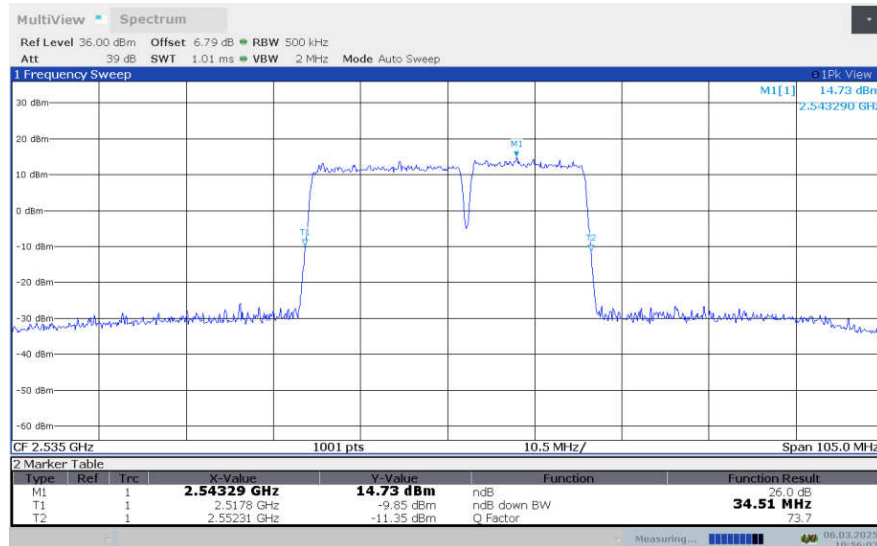
### LTE CA\_7C , 20MHz+10MHz Bandwidth,16QAM (-26dBc OBW)



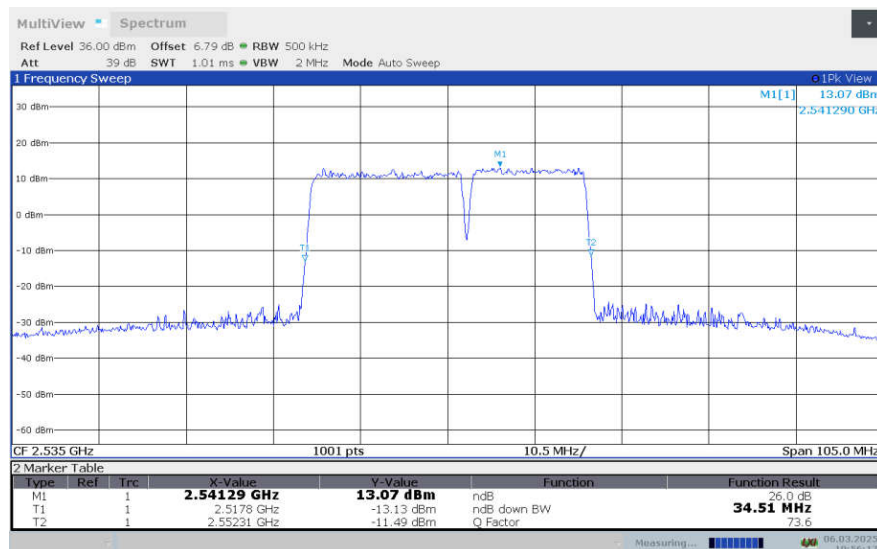
### LTE CA\_7C, 20MHz+15MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2535.0	34.510	34.510

### LTE CA\_7C , 20MHz+15MHz Bandwidth,QPSK (-26dBc OBW)



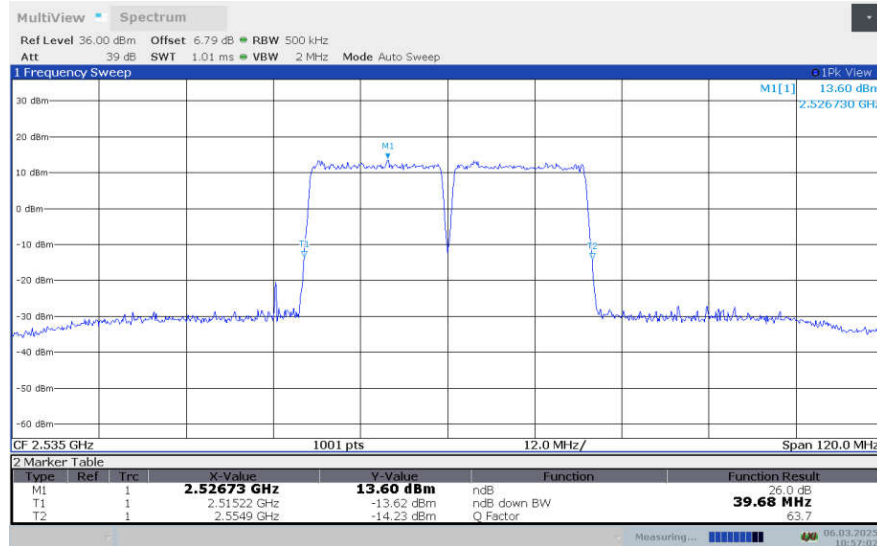
### LTE CA\_7C , 20MHz+15MHz Bandwidth,16QAM (-26dBc OBW)



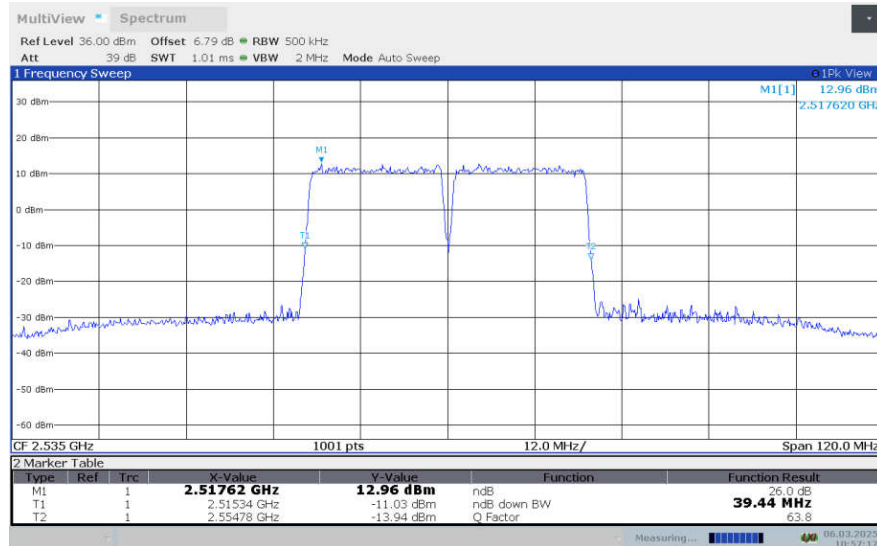
### LTE CA\_7C, 20MHz+20MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2535.0	39.680	39.440

### LTE CA\_7C , 20MHz+20MHz Bandwidth,QPSK (-26dBc OBW)



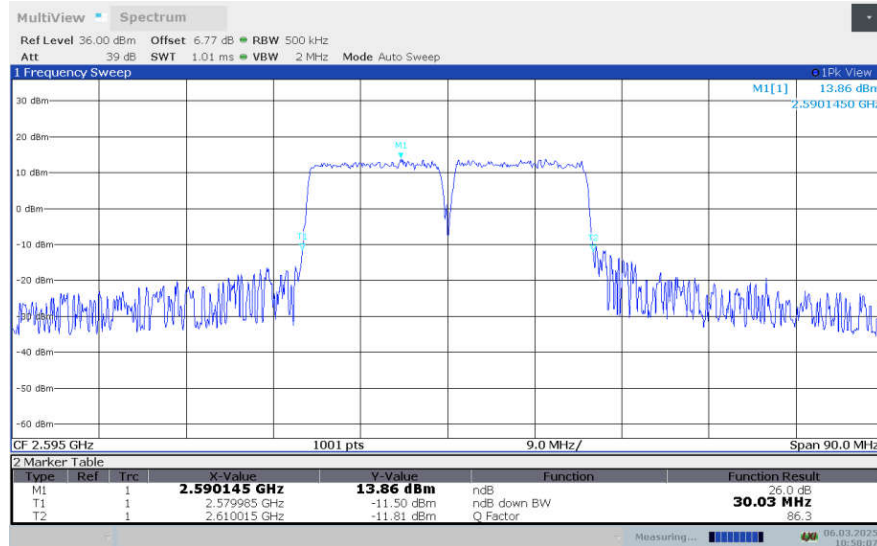
### LTE CA\_7C , 20MHz+20MHz Bandwidth,16QAM (-26dBc OBW)



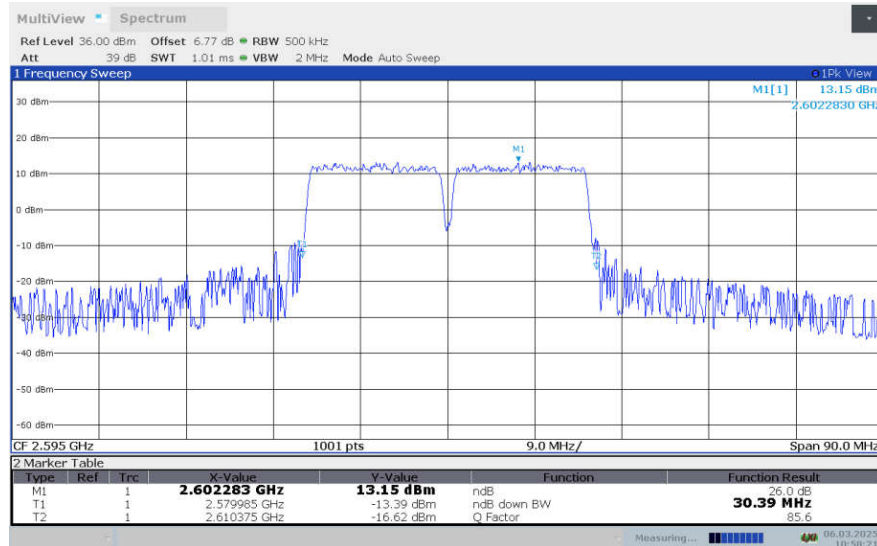
### LTE CA\_38C, 15MHz+15MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2595.0	30.030	30.390

### LTE CA\_38C , 15MHz+15MHz Bandwidth,QPSK (-26dBc OBW)



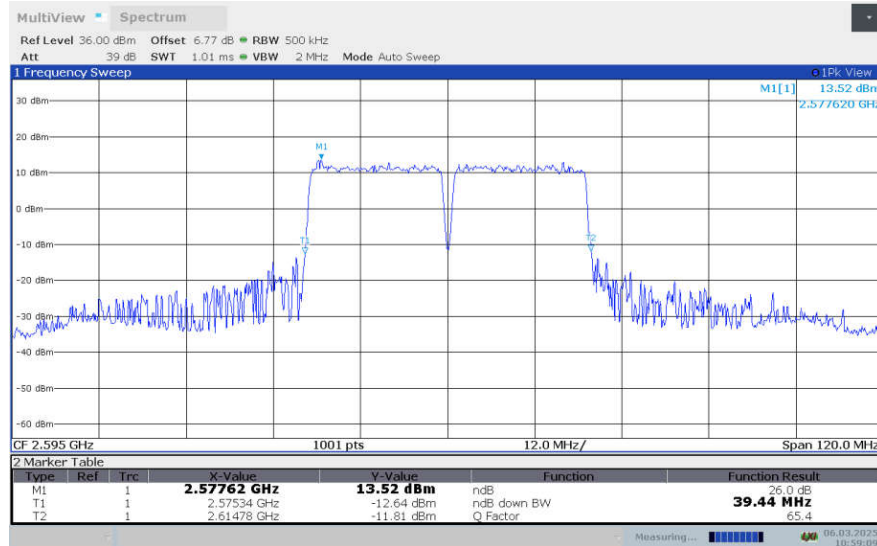
### LTE CA\_38C , 15MHz+15MHz Bandwidth,16QAM (-26dBc OBW)



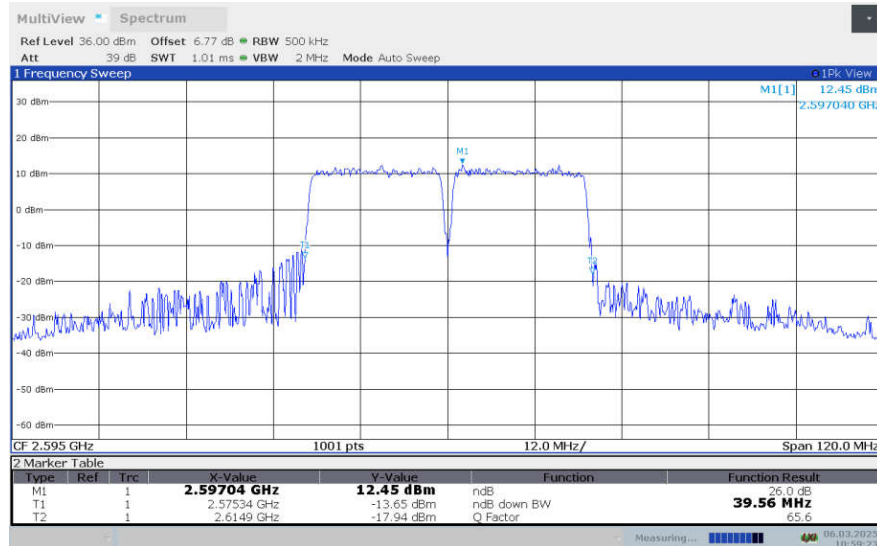
### LTE CA\_38C, 20MHz+20MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2595.0	39.440	39.560

### LTE CA\_38C , 20MHz+20MHz Bandwidth,QPSK (-26dBc OBW)



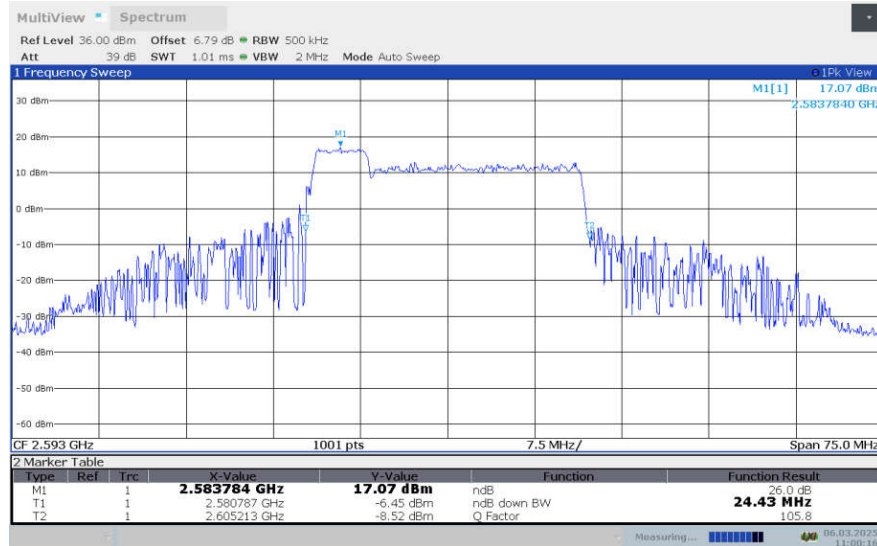
### LTE CA\_38C , 20MHz+20MHz Bandwidth,16QAM (-26dBc OBW)



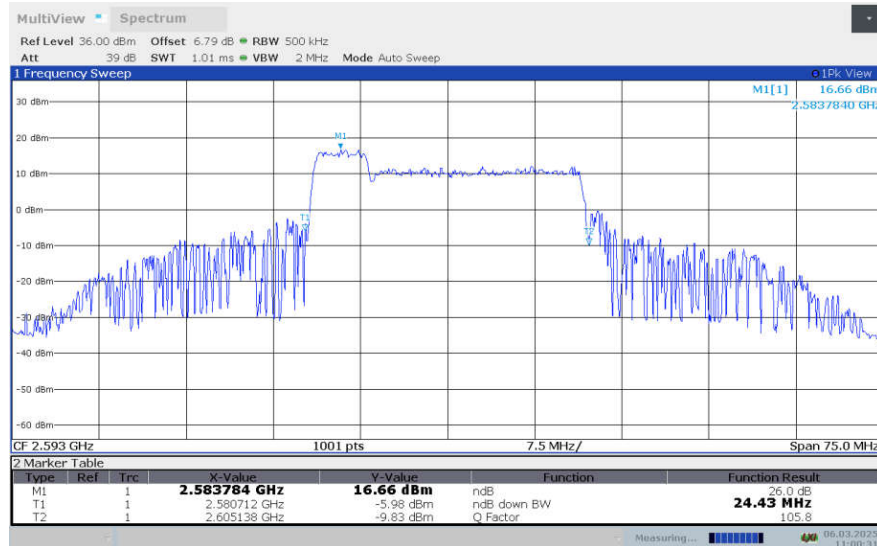
### LTE CA\_41C, 5MHz+20MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	24.426	24.426

### LTE CA\_41C , 5MHz+20MHz Bandwidth,QPSK (-26dBc OBW)



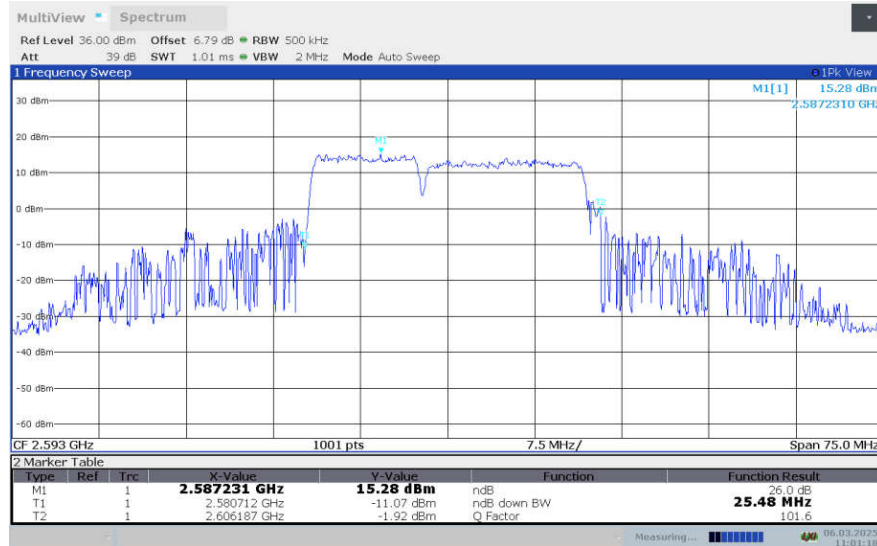
### LTE CA\_41C , 5MHz+20MHz Bandwidth,16QAM (-26dBc OBW)



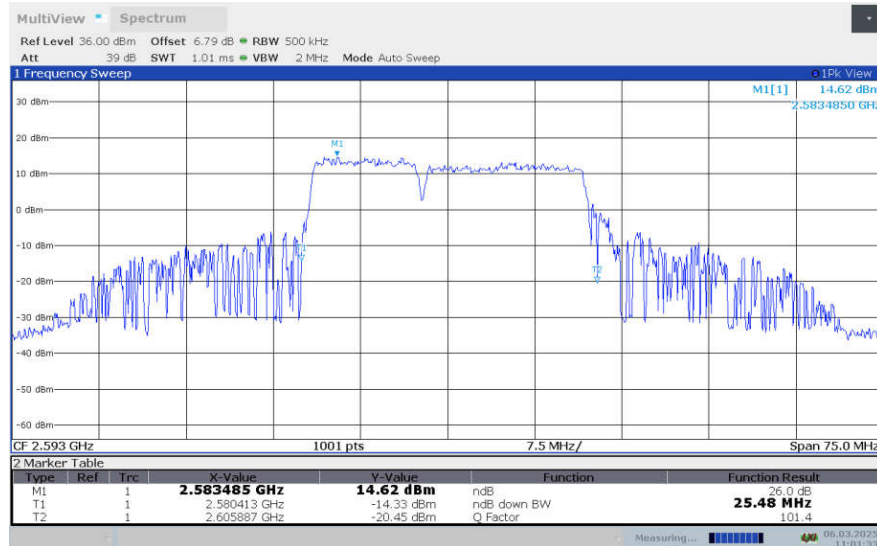
### LTE CA\_41C, 10MHz+15MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	25.475	25.475

### LTE CA\_41C , 10MHz+15MHz Bandwidth,QPSK (-26dBc OBW)



### LTE CA\_41C , 10MHz+15MHz Bandwidth,16QAM (-26dBc OBW)

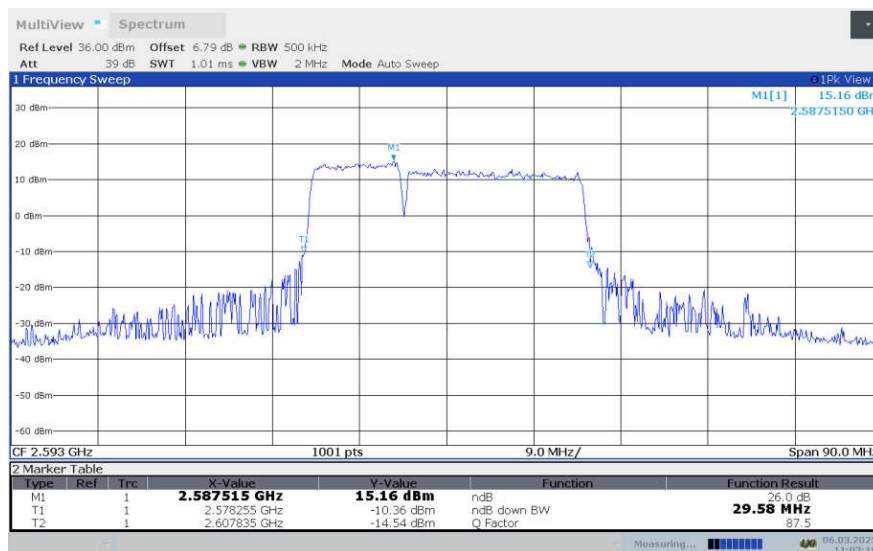




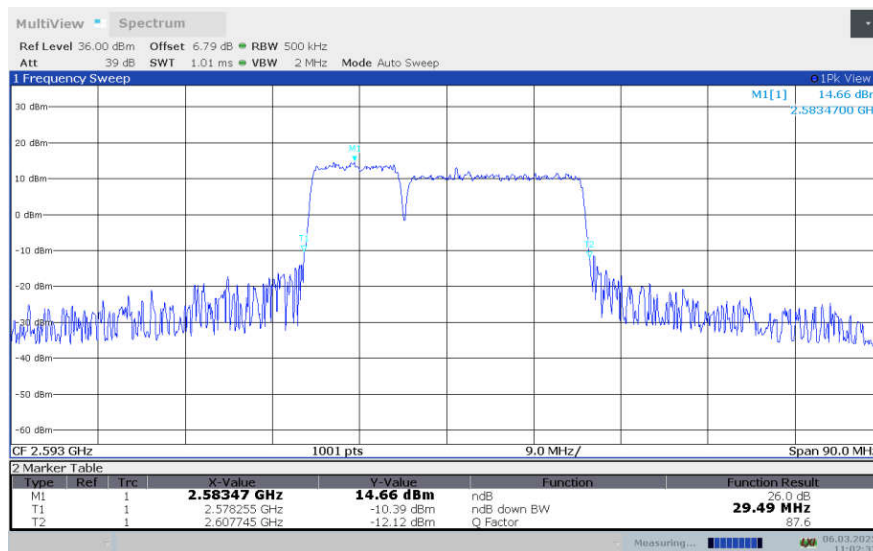
### LTE CA\_41C, 10MHz+20MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	29.580	29.491

### LTE CA\_41C , 10MHz+20MHz Bandwidth,QPSK (-26dBc OBW)



### LTE CA\_41C , 10MHz+20MHz Bandwidth,16QAM (-26dBc OBW)

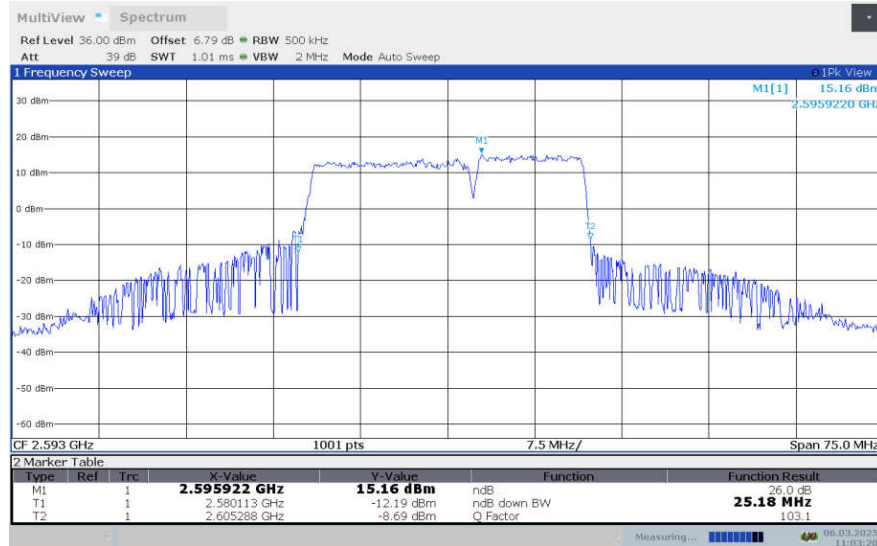




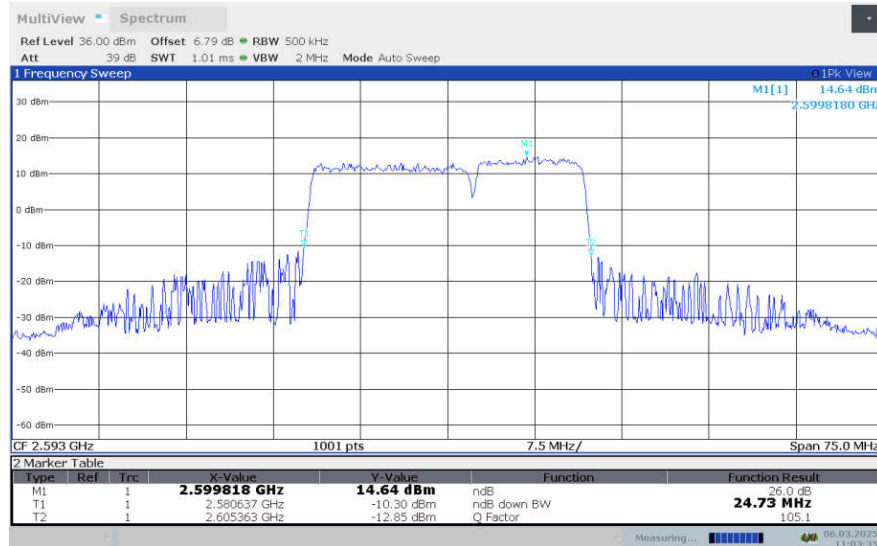
### LTE CA\_41C, 15MHz+10MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	25.175	24.725

### LTE CA\_41C , 15MHz+10MHz Bandwidth,QPSK (-26dBc OBW)



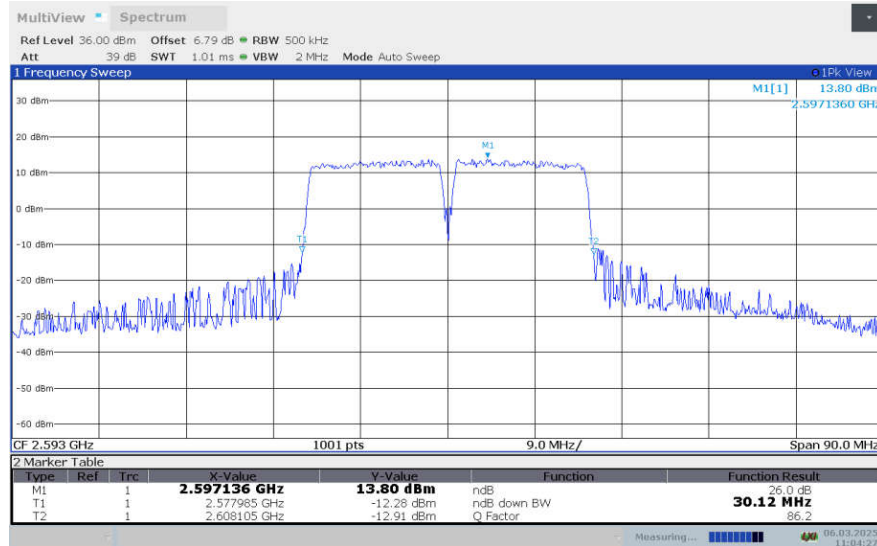
### LTE CA\_41C , 15MHz+10MHz Bandwidth,16QAM (-26dBc OBW)



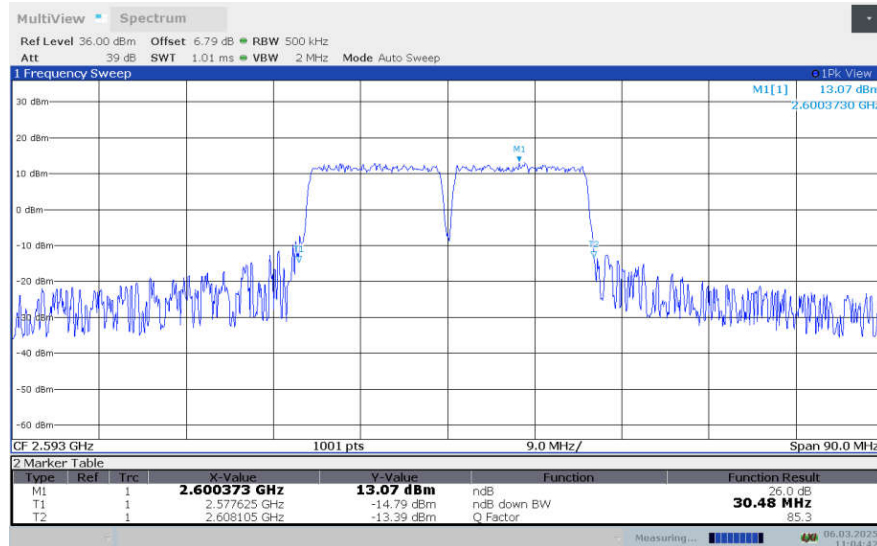
### LTE CA\_41C, 15MHz+15MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	30.120	30.480

### LTE CA\_41C , 15MHz+15MHz Bandwidth,QPSK (-26dBc OBW)



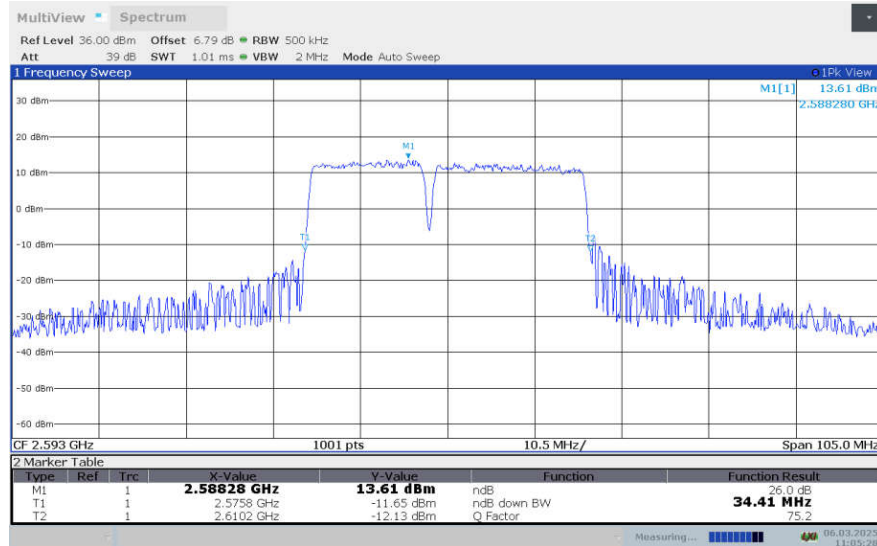
### LTE CA\_41C , 15MHz+15MHz Bandwidth,16QAM (-26dBc OBW)



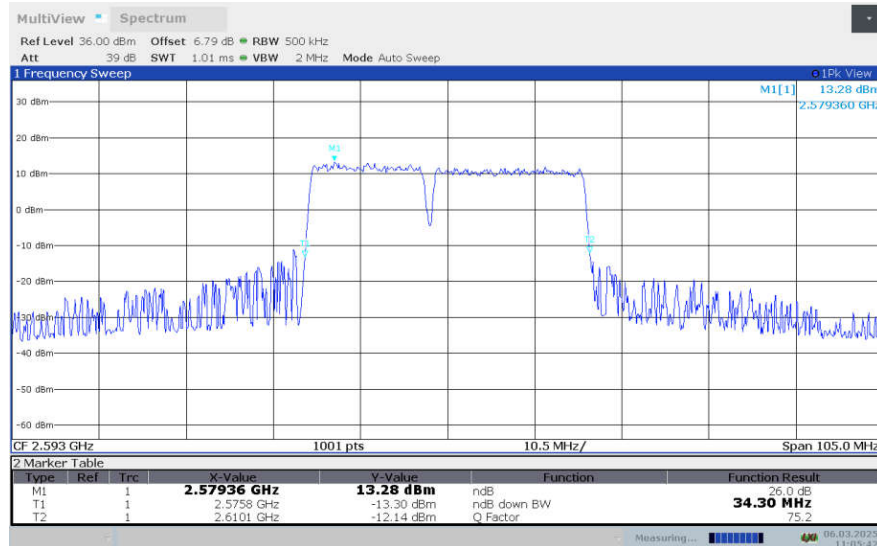
### LTE CA\_41C, 15MHz+20MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	34.410	34.300

### LTE CA\_41C , 15MHz+20MHz Bandwidth,QPSK (-26dBc OBW)



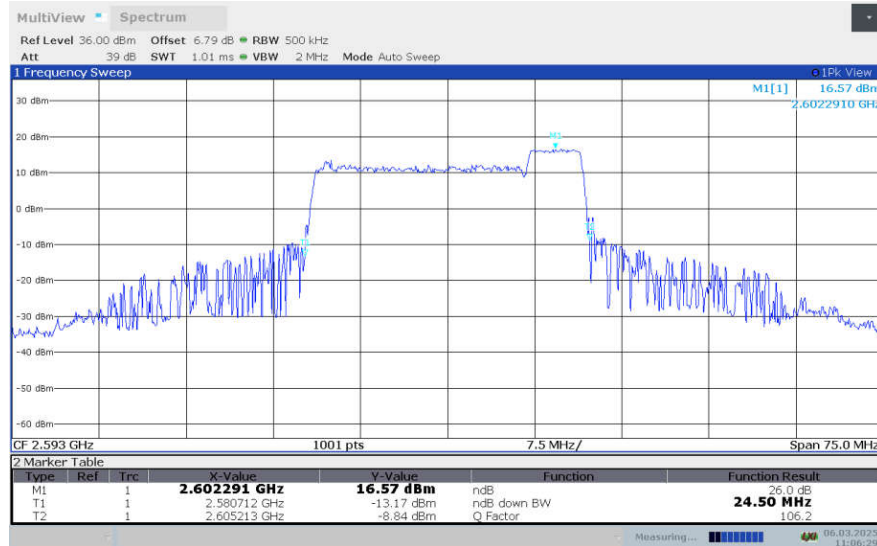
### LTE CA\_41C , 15MHz+20MHz Bandwidth,16QAM (-26dBc OBW)



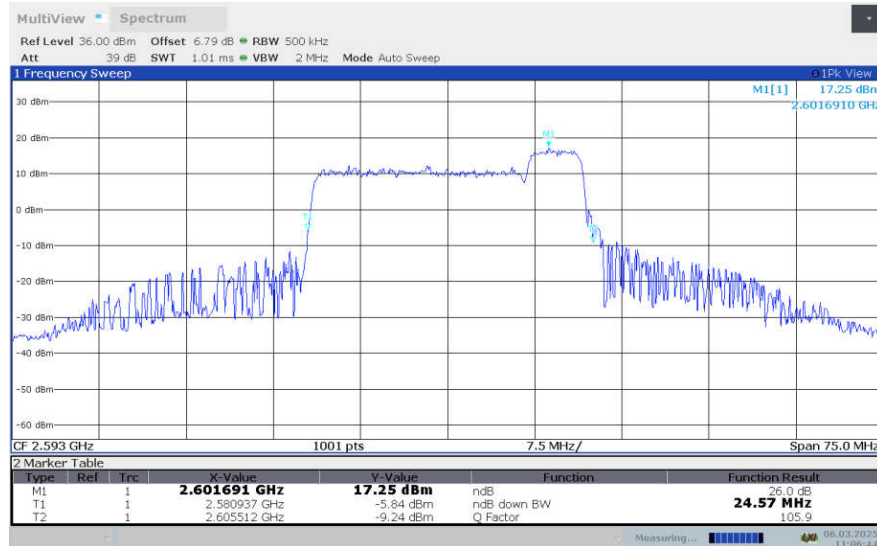
### LTE CA\_41C, 20MHz+5MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	24.500	24.575

### LTE CA\_41C , 20MHz+5MHz Bandwidth,QPSK (-26dBc OBW)



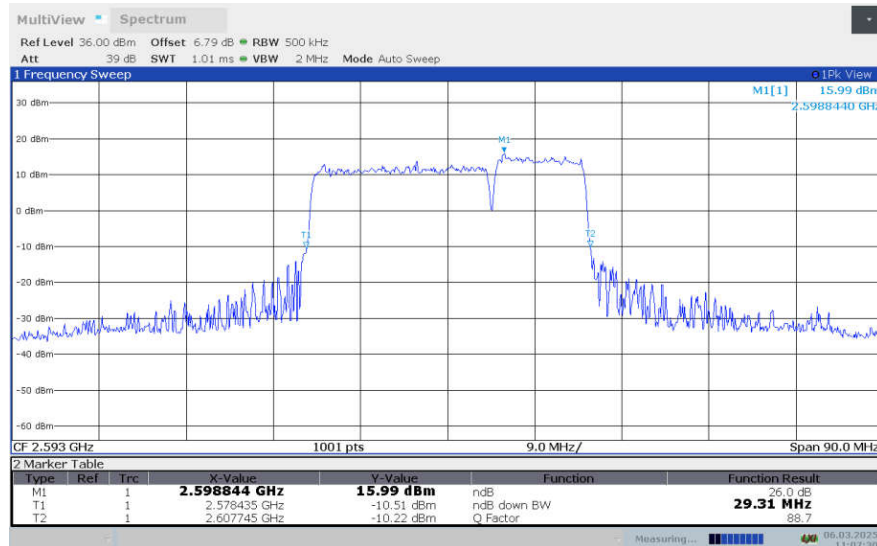
### LTE CA\_41C , 20MHz+5MHz Bandwidth,16QAM (-26dBc OBW)



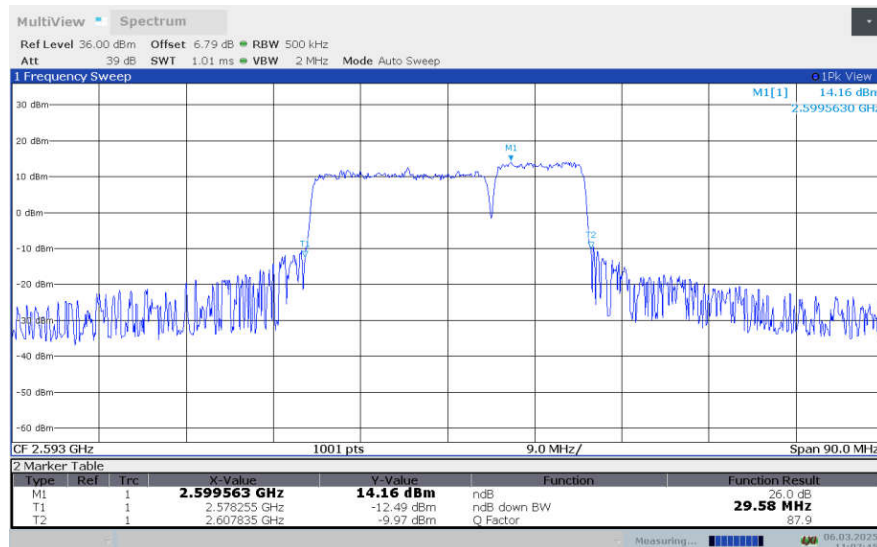
### LTE CA\_41C, 20MHz+10MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	29.311	29.580

### LTE CA\_41C , 20MHz+10MHz Bandwidth,QPSK (-26dBc OBW)



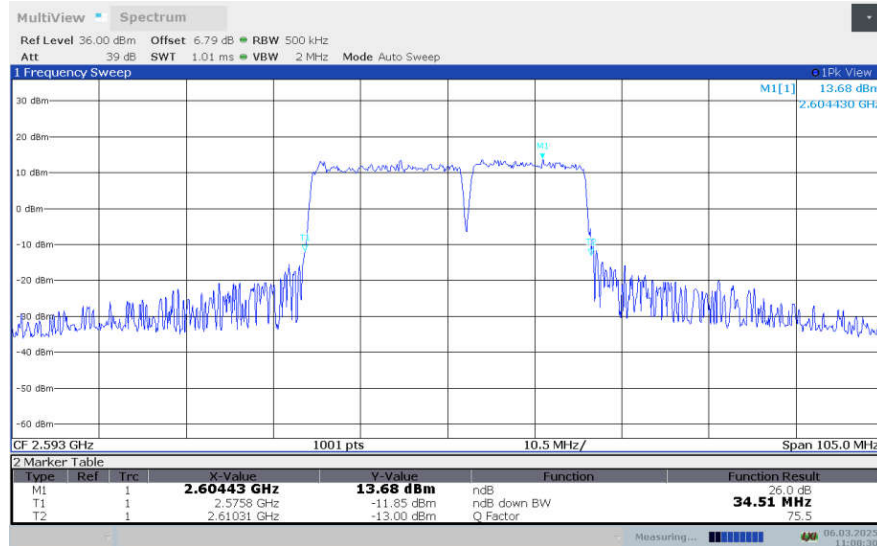
### LTE CA\_41C , 20MHz+10MHz Bandwidth,16QAM (-26dBc OBW)



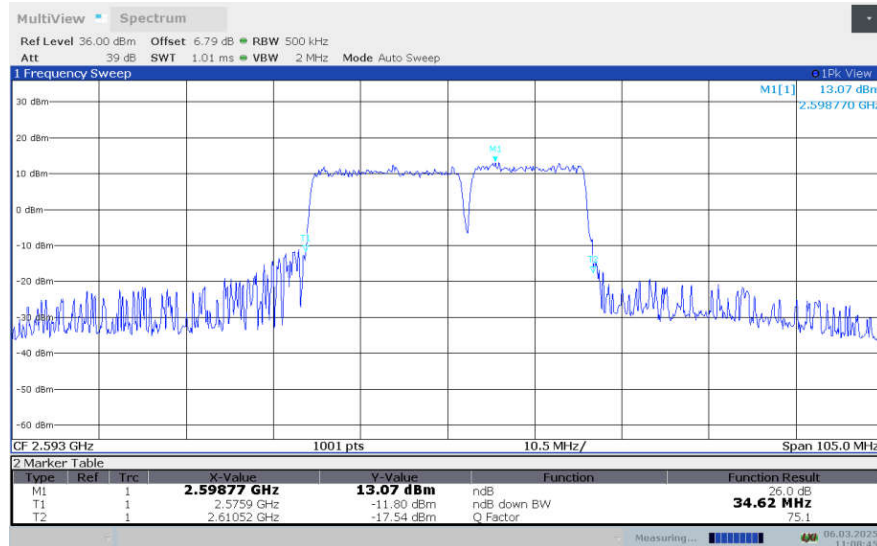
### LTE CA\_41C, 20MHz+15MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	34.510	34.620

### LTE CA\_41C , 20MHz+15MHz Bandwidth,QPSK (-26dBc OBW)



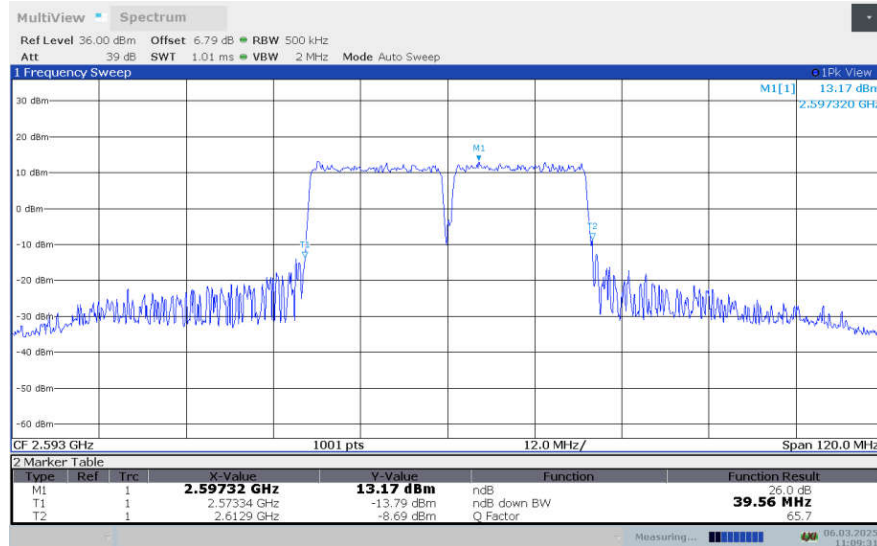
### LTE CA\_41C , 20MHz+15MHz Bandwidth,16QAM (-26dBc OBW)



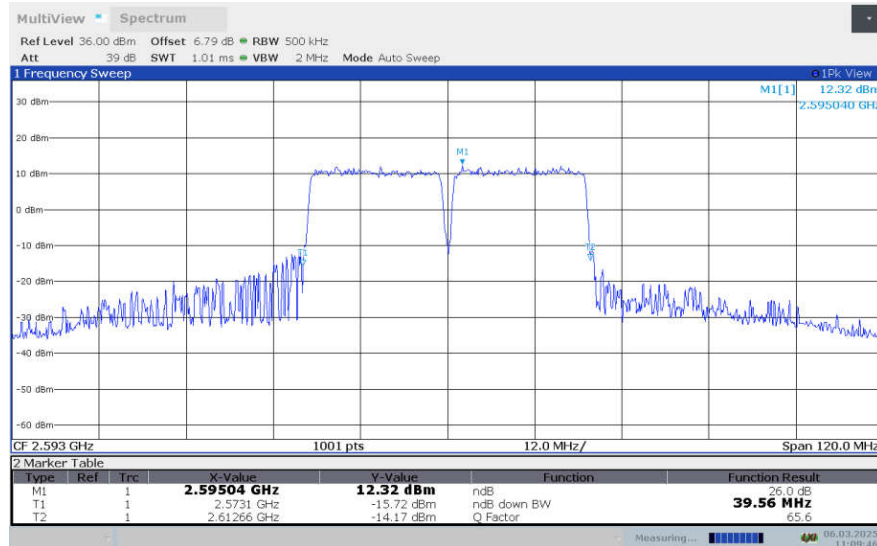
### LTE CA\_41C, 20MHz+20MHz(-26dBc OBW)

Frequency (MHz)	Emission Bandwidth (-26dBc OBW) (MHz)	
	QPSK	16QAM
2593.0	39.560	39.560

### LTE CA\_41C , 20MHz+20MHz Bandwidth,QPSK (-26dBc OBW)



### LTE CA\_41C , 20MHz+20MHz Bandwidth,16QAM (-26dBc OBW)





## **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(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 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 2490.5MHz. 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.

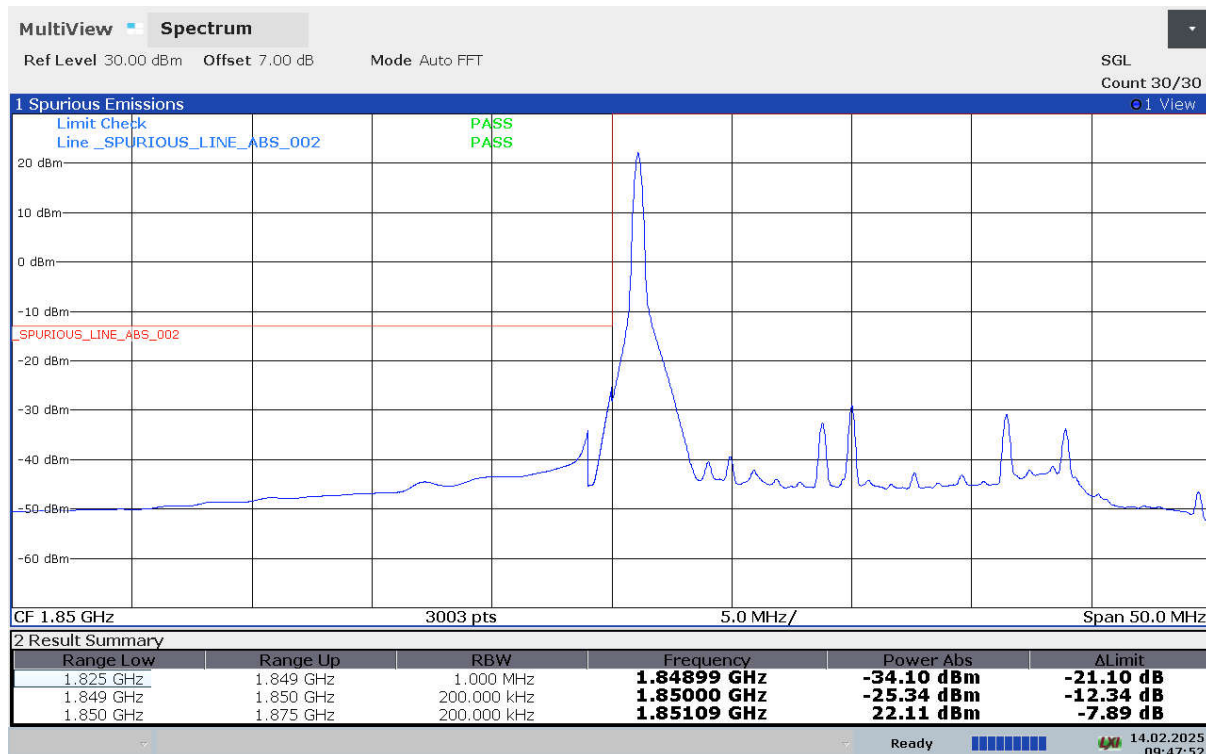
The spectrum analyzer readings are corrected by  $[10 \log (1/\text{duty cycle})]$  for the non-continuous transmitting scenario.

### **A.6.2 Measurement result**

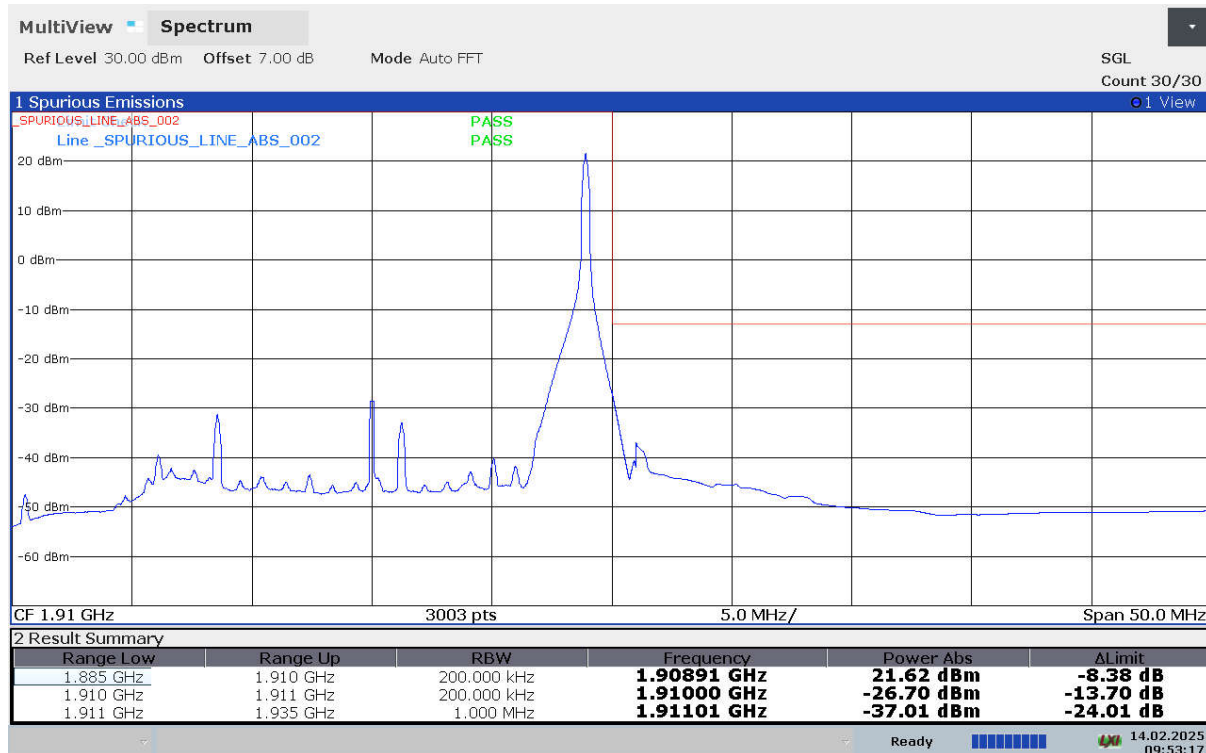
**Only worst case result is given below**

## LTE Band 2

### LOW BAND EDGE BLOCK-1RB-low\_offset

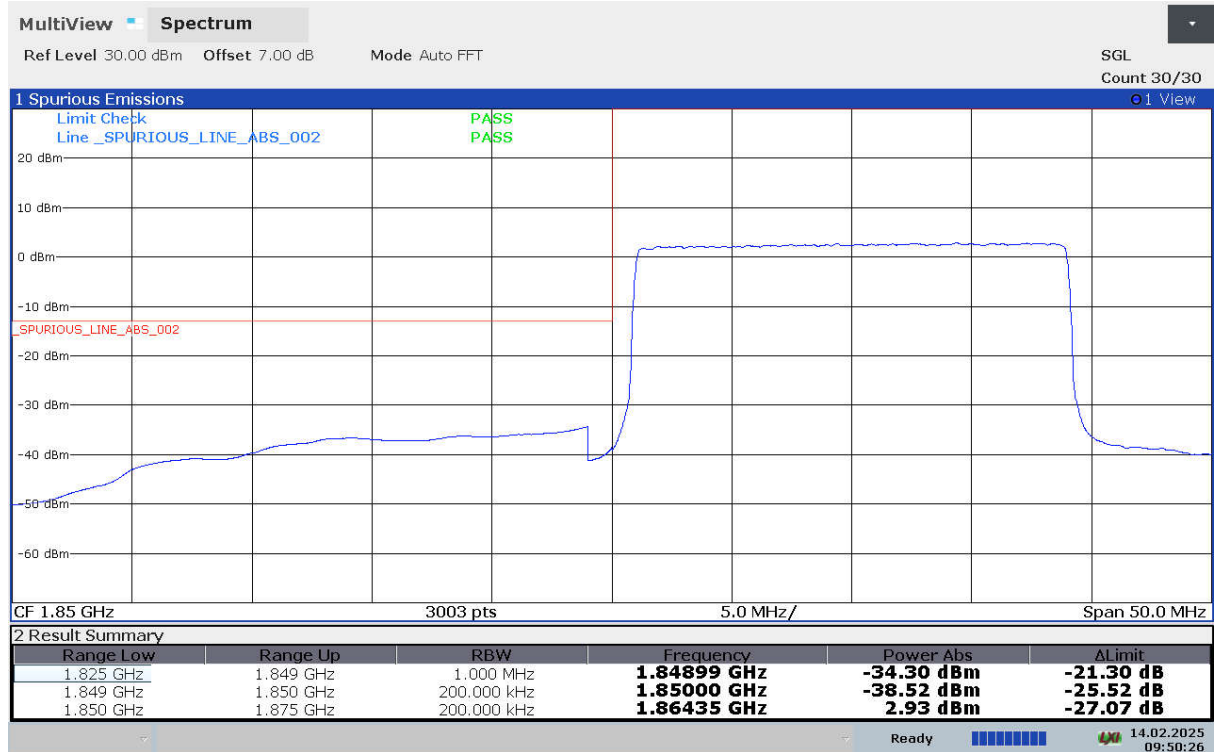


### HIGH BAND EDGE BLOCK-1RB-high\_offset

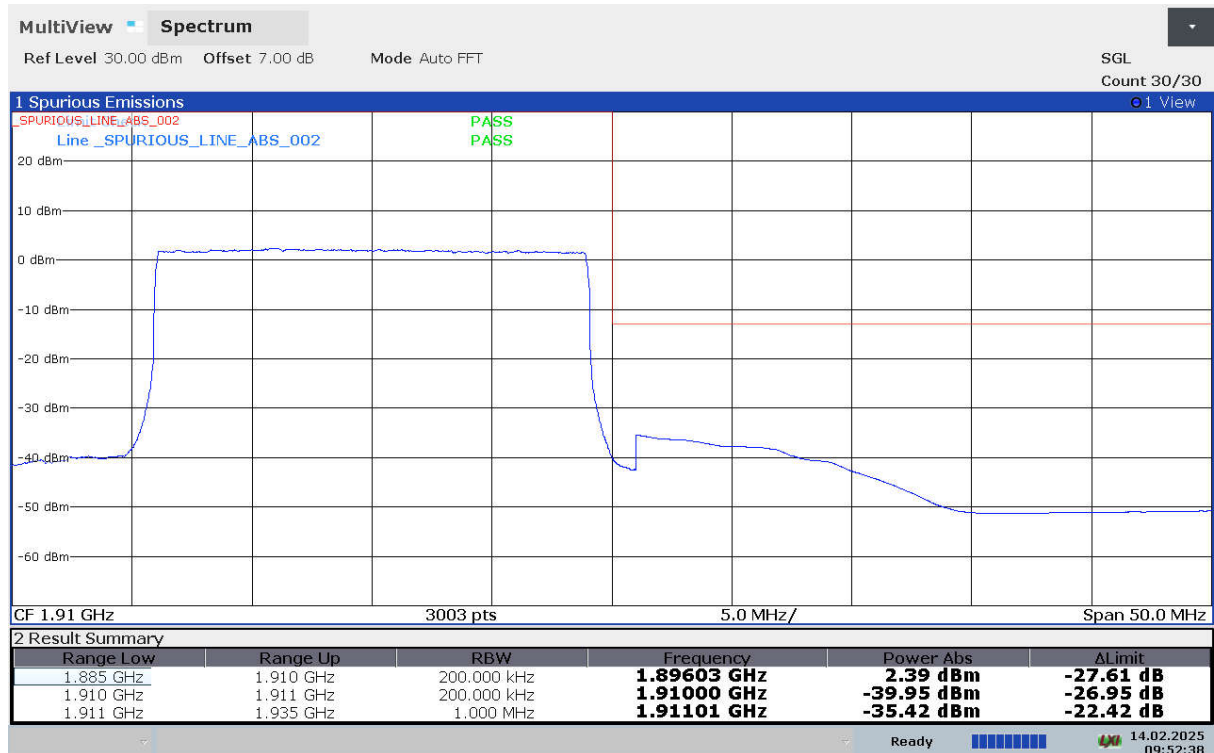




## LOW BAND EDGE BLOCK-20MHz-100%RB

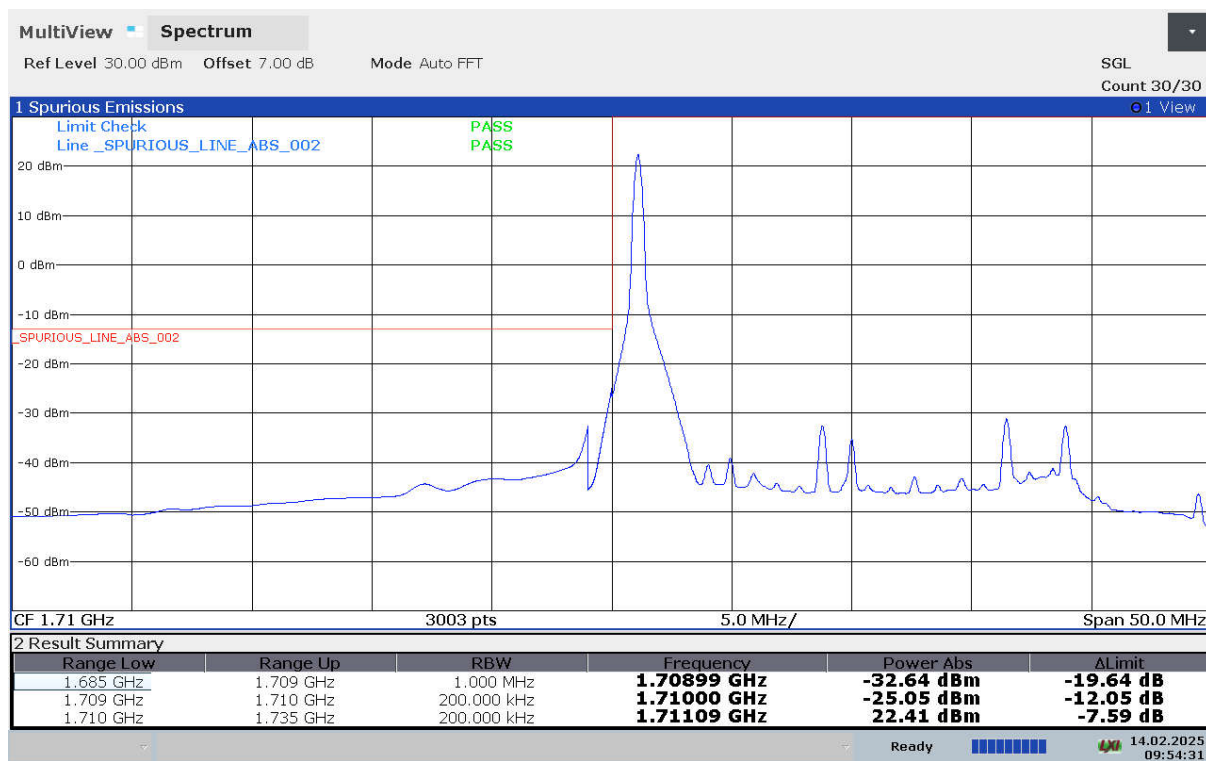


## HIGH BAND EDGE BLOCK-20MHz-100%RB

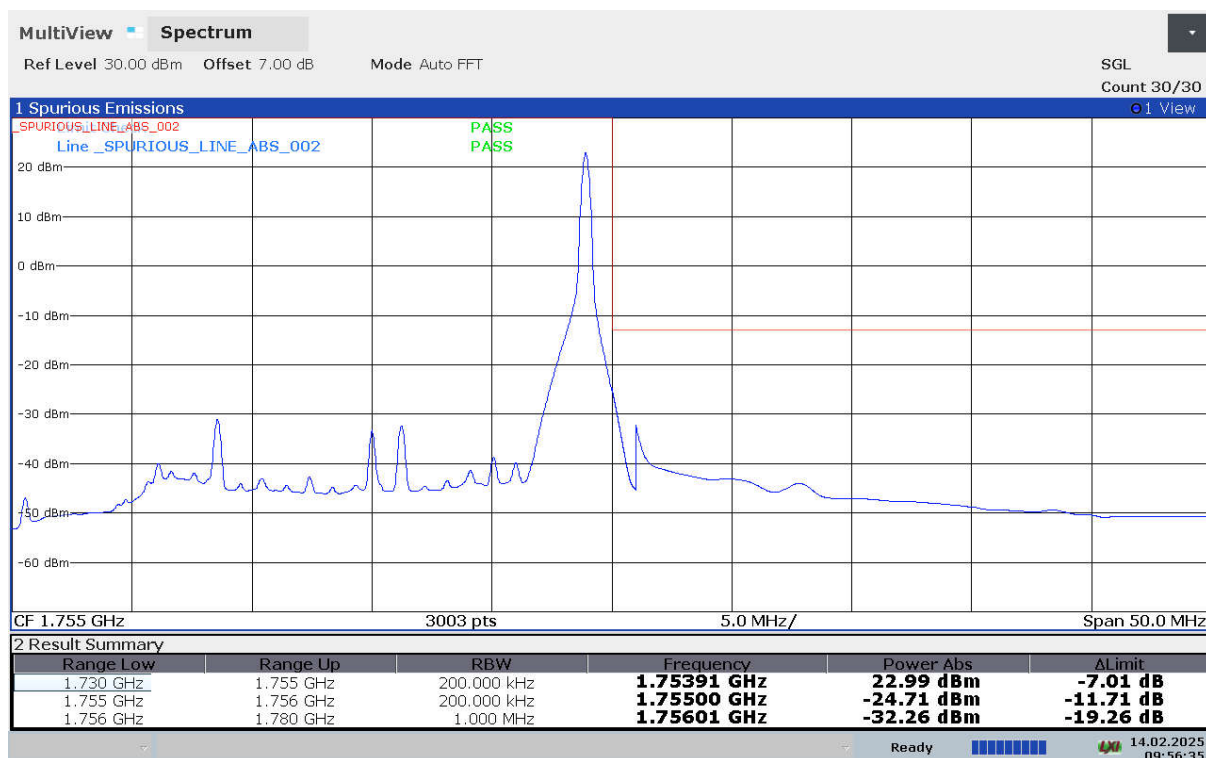


## LTE Band 4

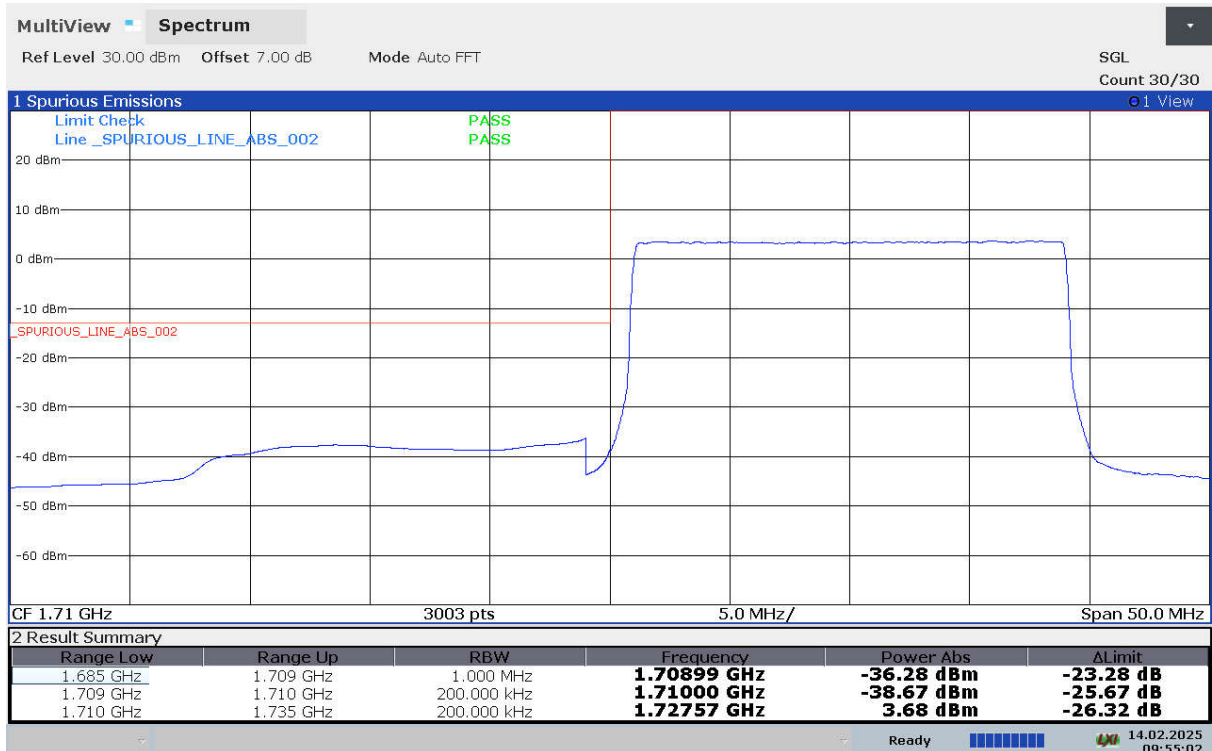
### LOW BAND EDGE BLOCK-1RB-low\_offset



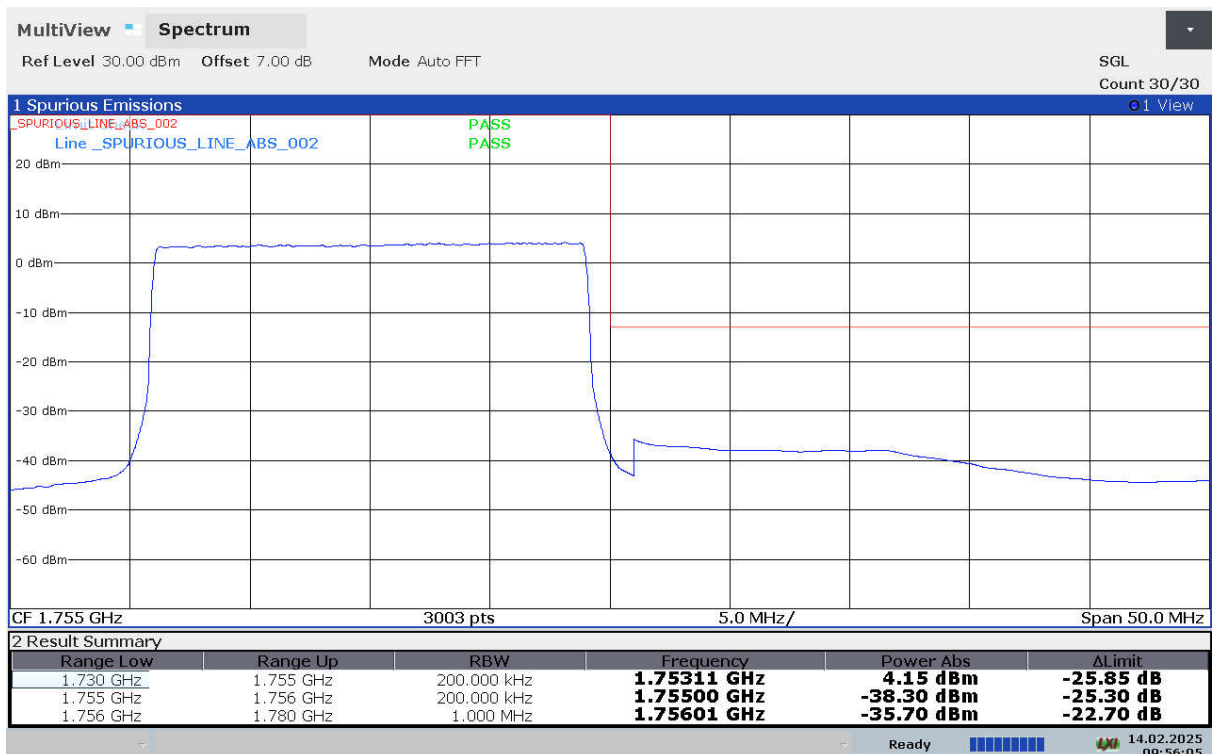
### HIGH BAND EDGE BLOCK-1RB-high\_offset



## LOW BAND EDGE BLOCK-20MHz-100%RB



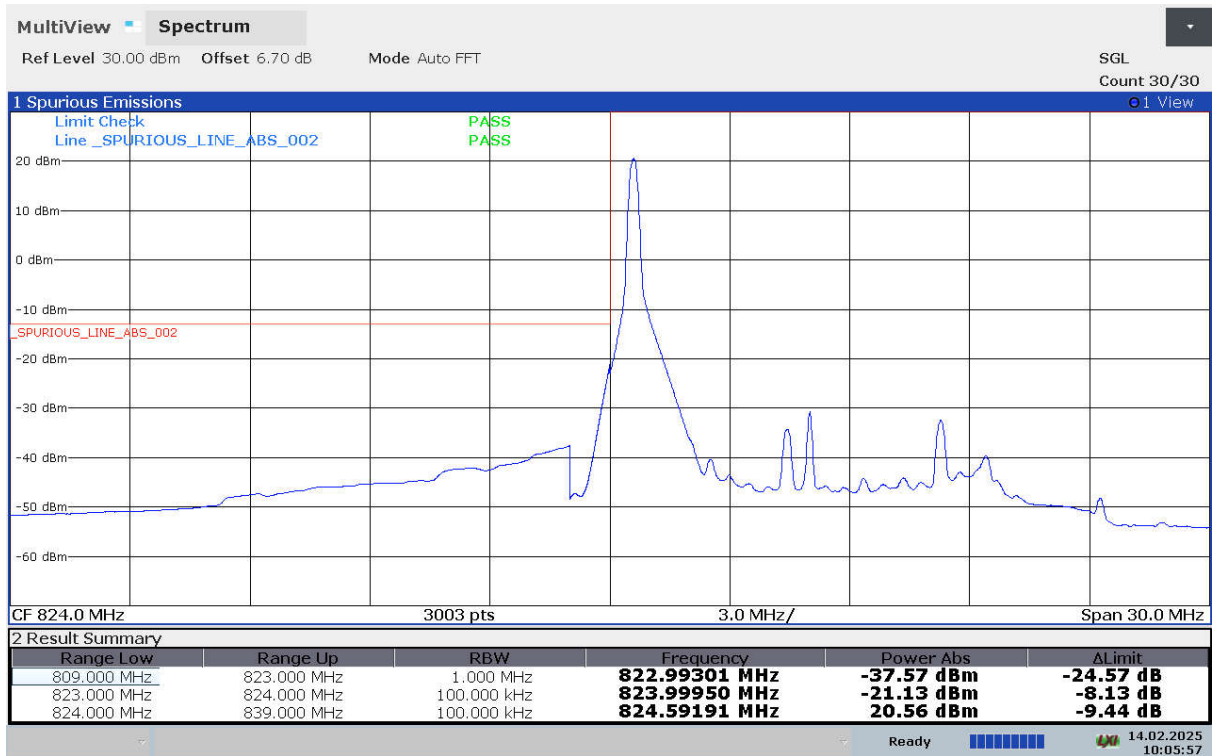
## HIGH BAND EDGE BLOCK-20MHz-100%RB



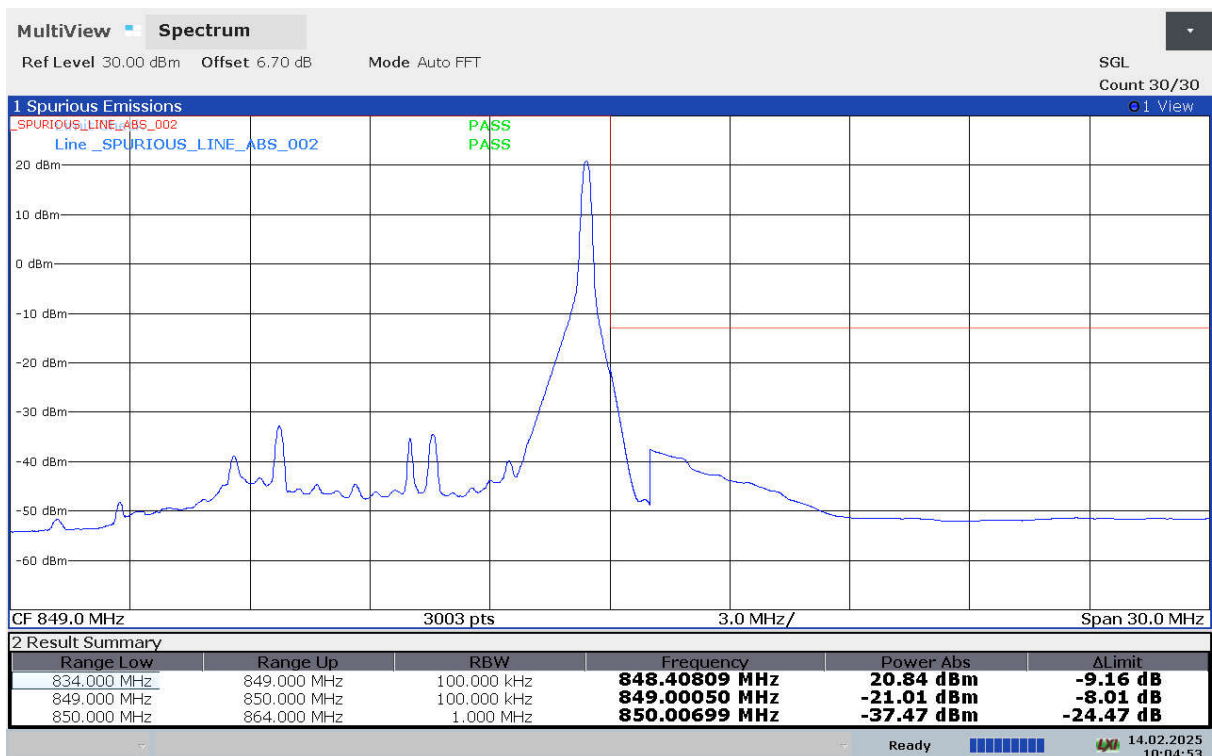


## LTE Band 5

## LOW BAND EDGE BLOCK-1RB-low\_offset

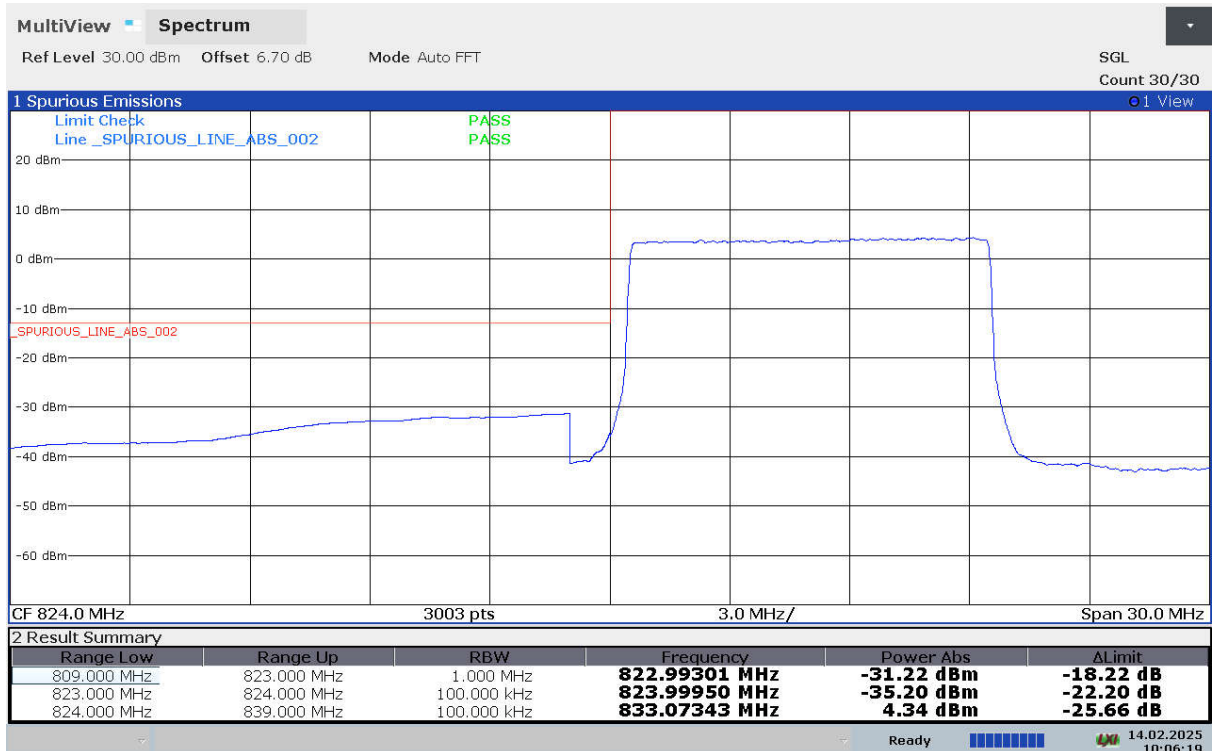


## HIGH BAND EDGE BLOCK-1RB-high\_offset

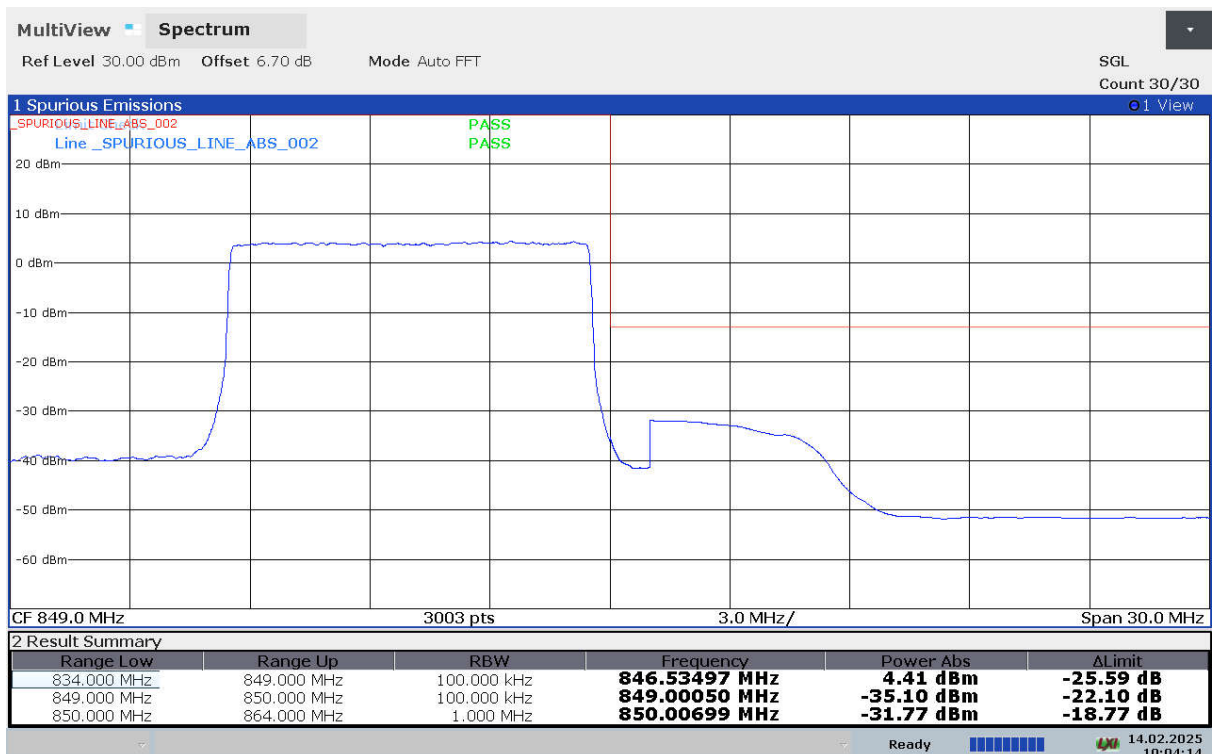




## LOW BAND EDGE BLOCK-10MHz-100%RB



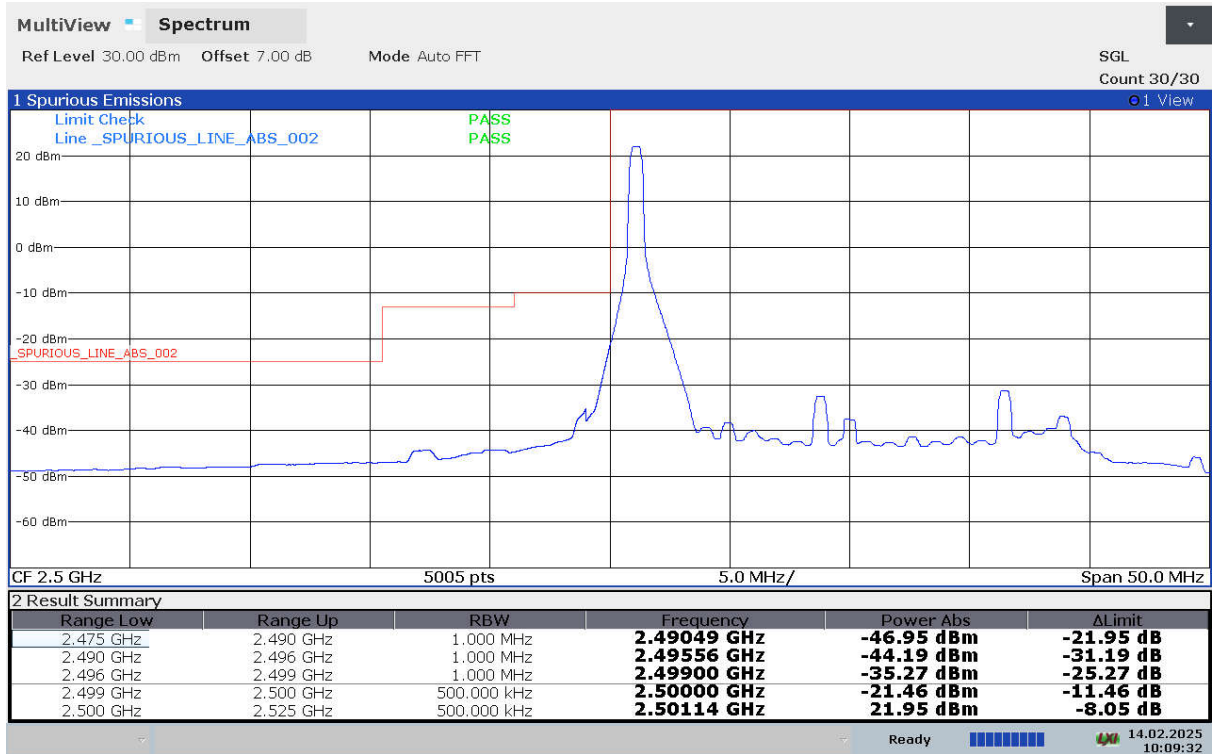
## HIGH BAND EDGE BLOCK-10MHz-100%RB



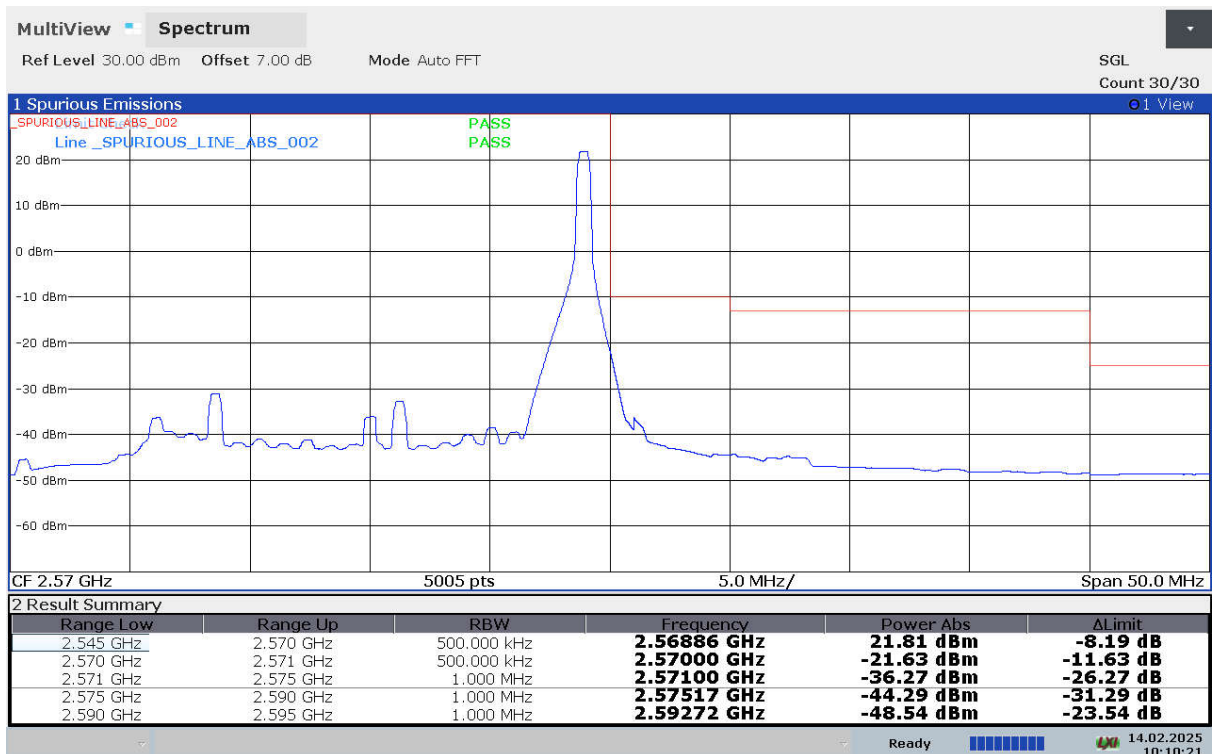


## LTE Band 7

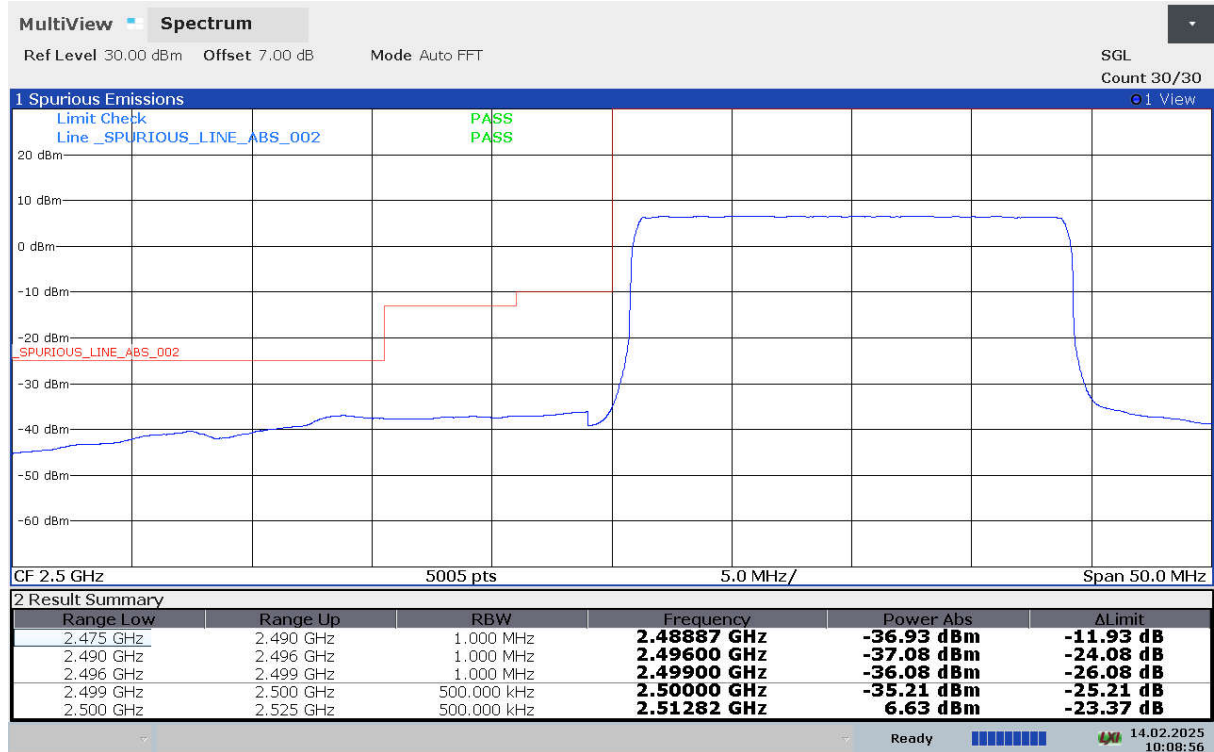
### LOW BAND EDGE BLOCK-1RB-low\_offset



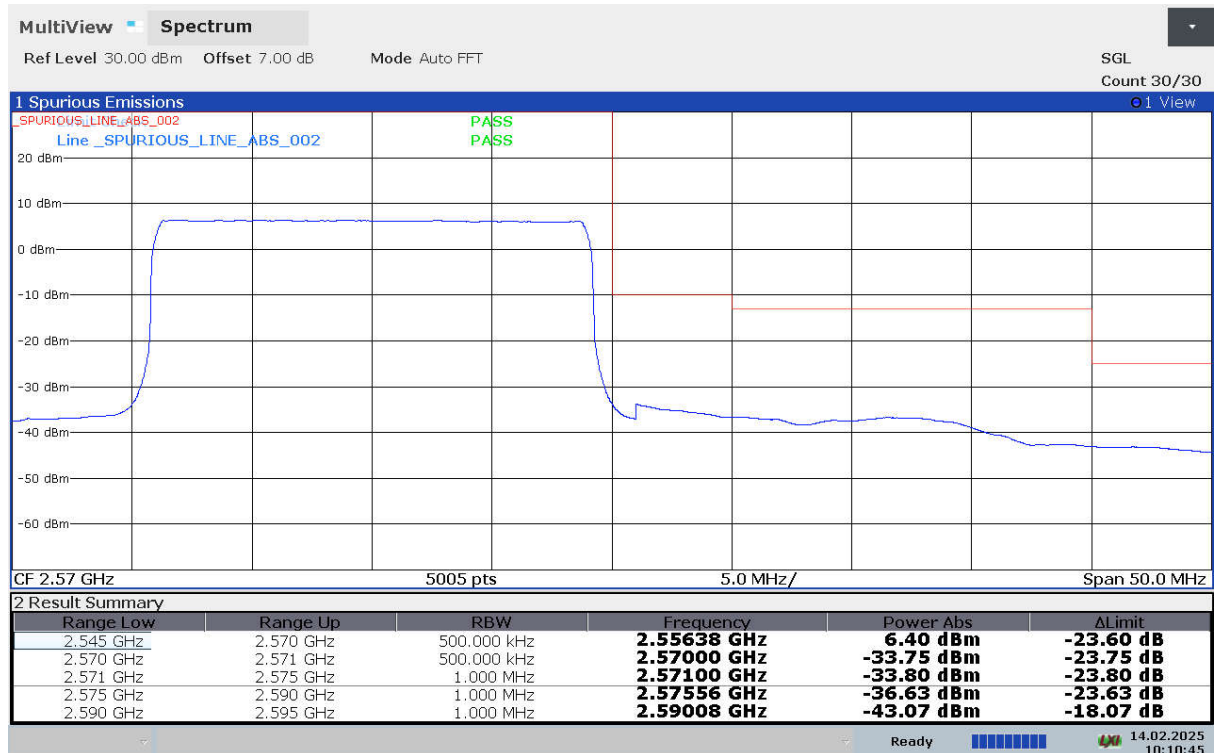
### HIGH BAND EDGE BLOCK-1RB-high\_offset



## LOW BAND EDGE BLOCK-20MHz-100%RB



## HIGH BAND EDGE BLOCK-20MHz-100%RB

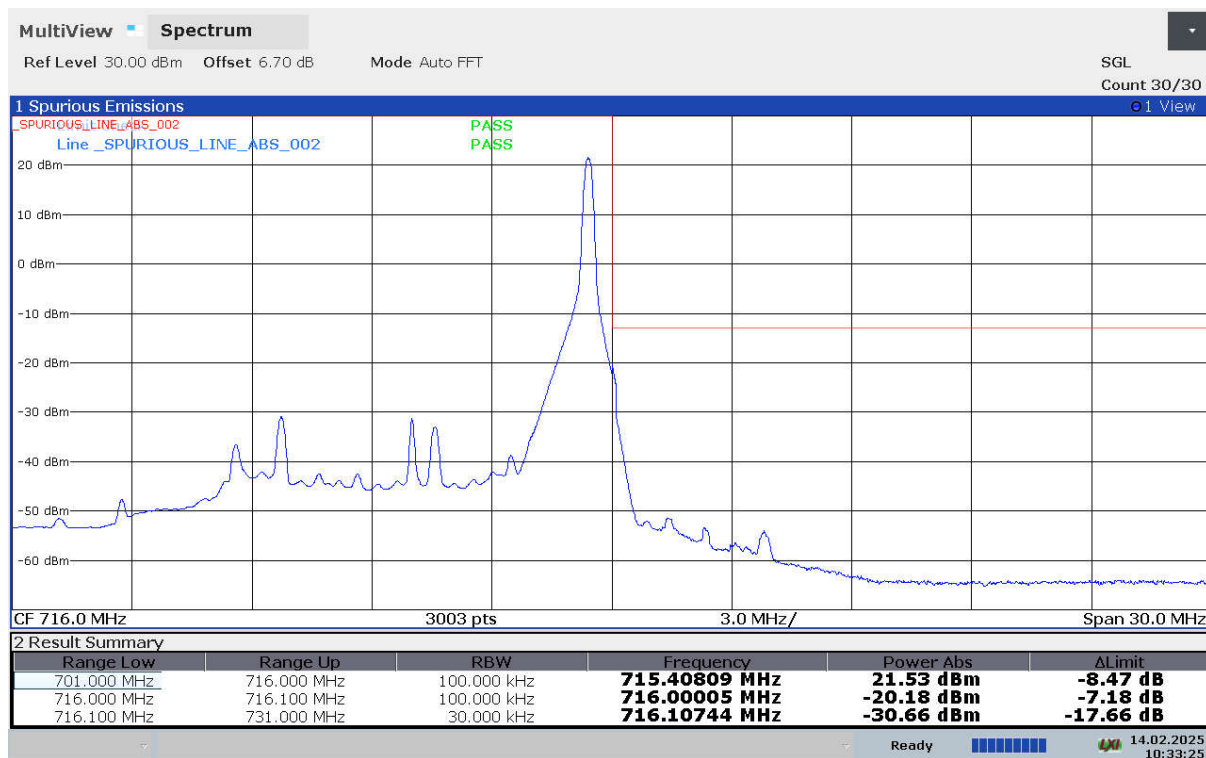


## LTE Band 12

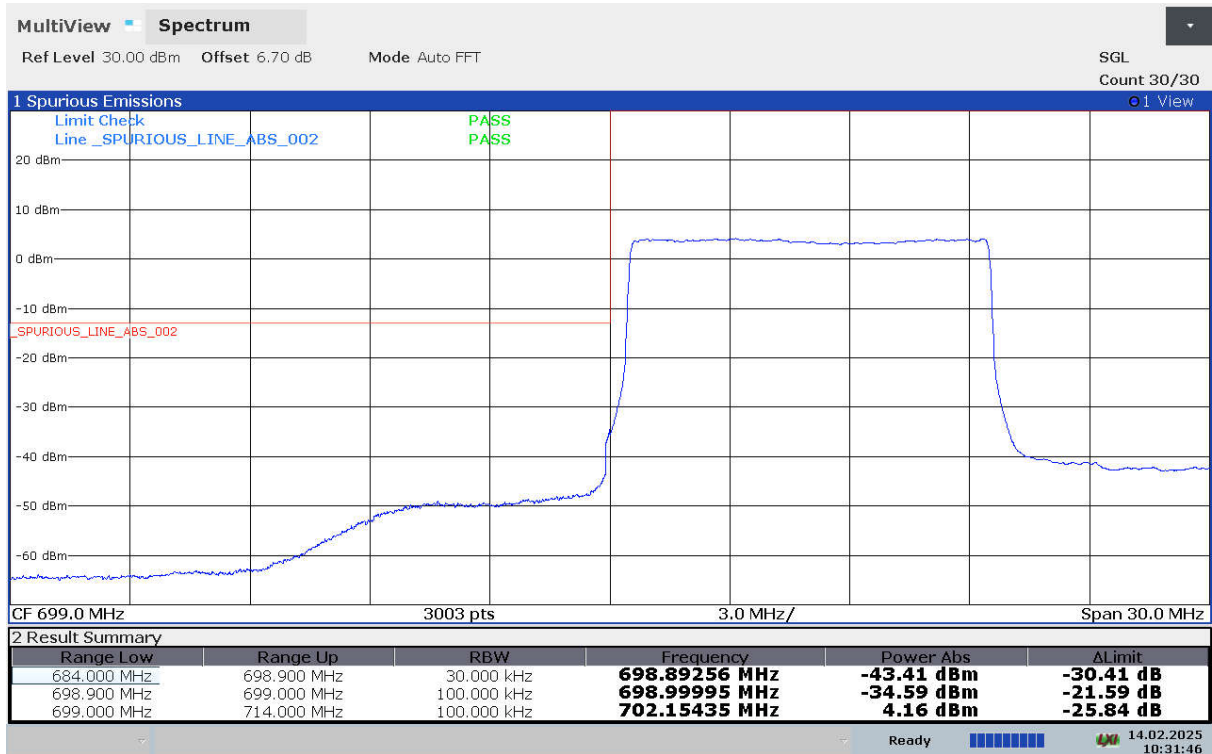
### LOW BAND EDGE BLOCK-1RB-low\_offset



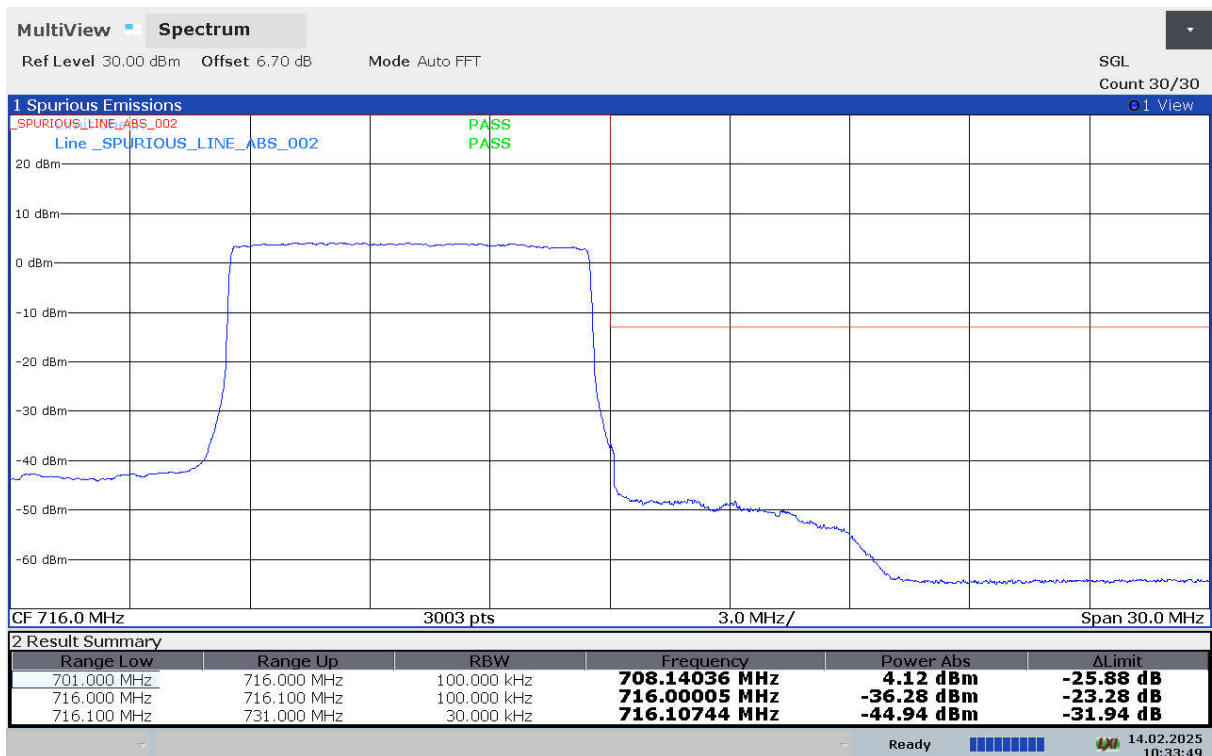
### HIGH BAND EDGE BLOCK-1RB-high\_offset



## LOW BAND EDGE BLOCK-10MHz-100%RB

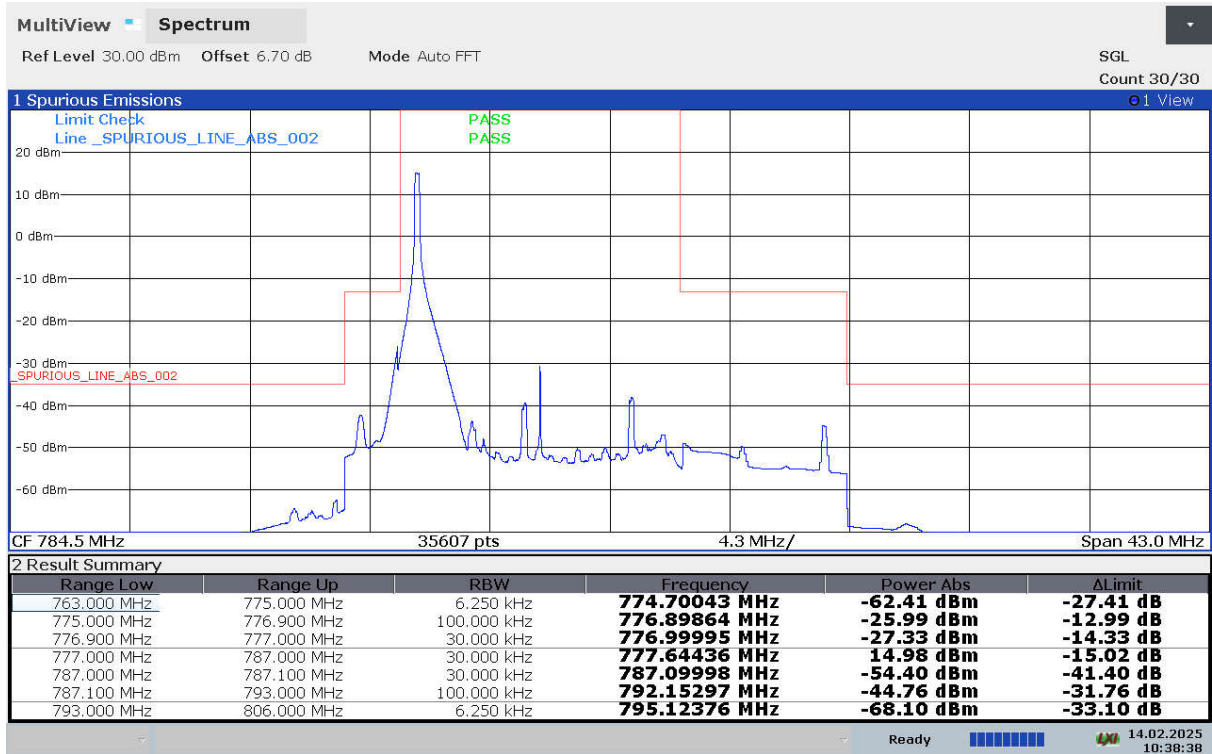


## HIGH BAND EDGE BLOCK-10MHz-100%RB

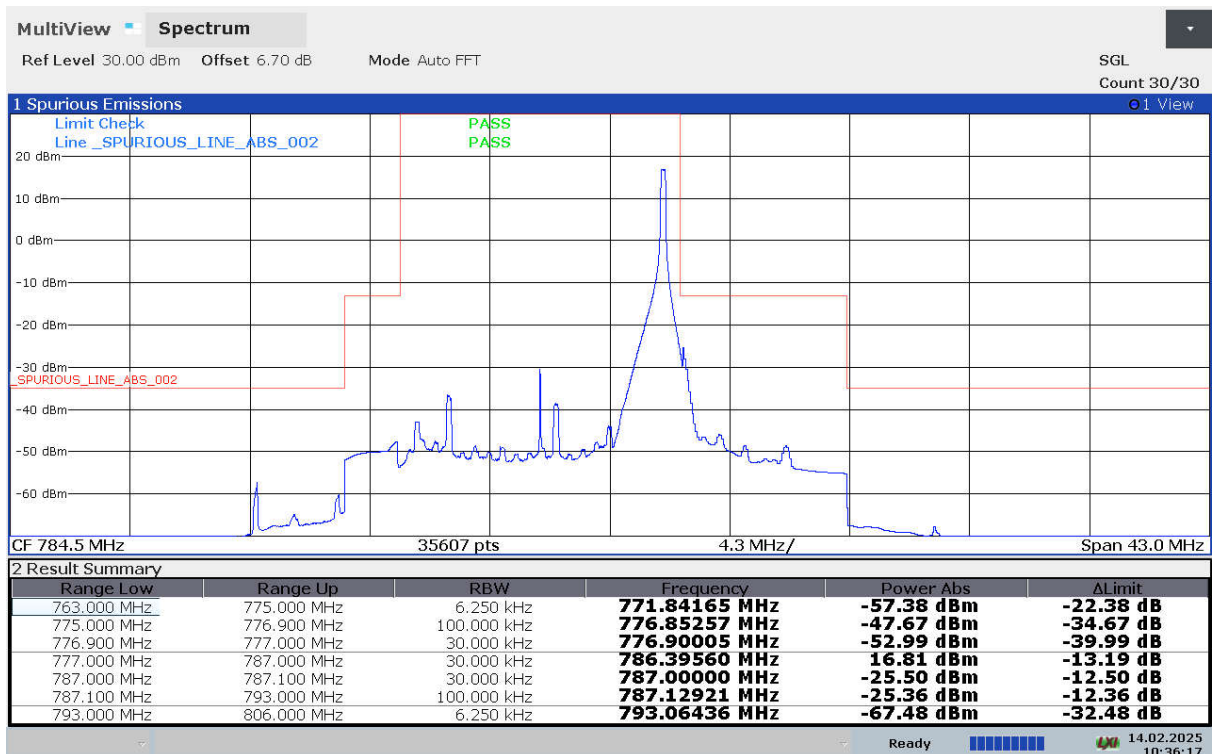


## LTE Band 13

### LOW BAND EDGE BLOCK-1RB-low\_offset

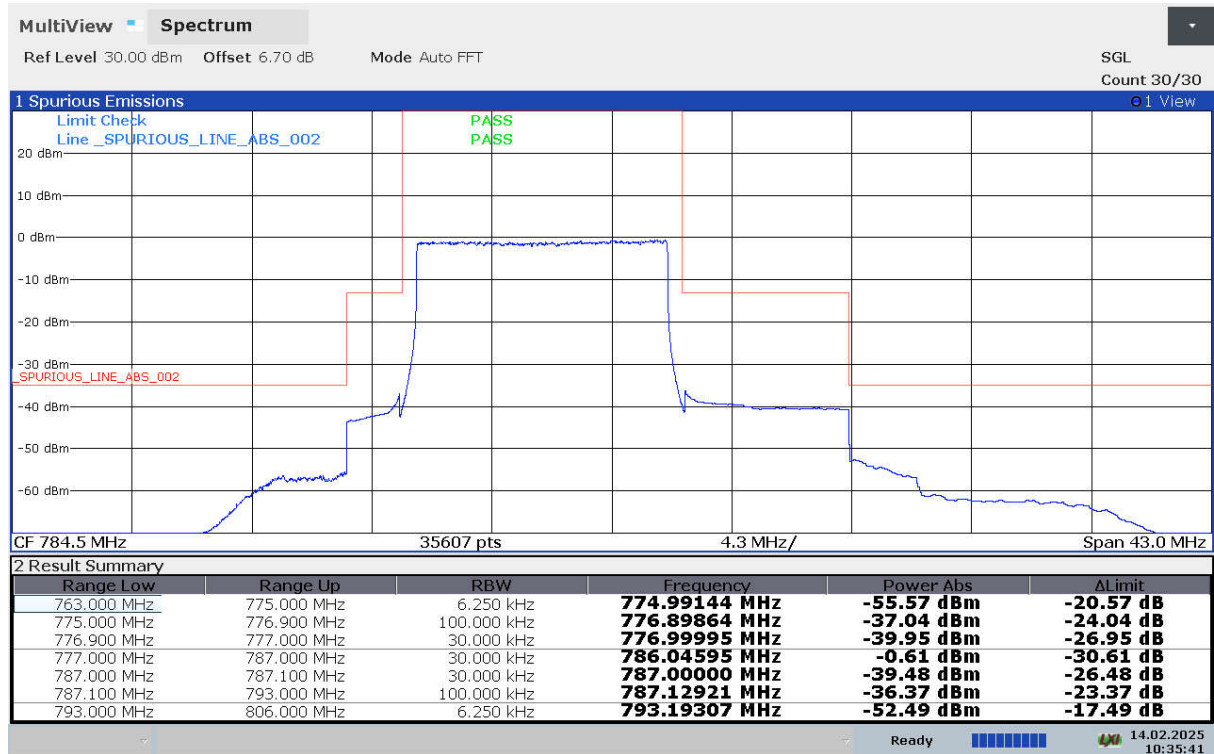


### HIGH BAND EDGE BLOCK-1RB-high\_offset

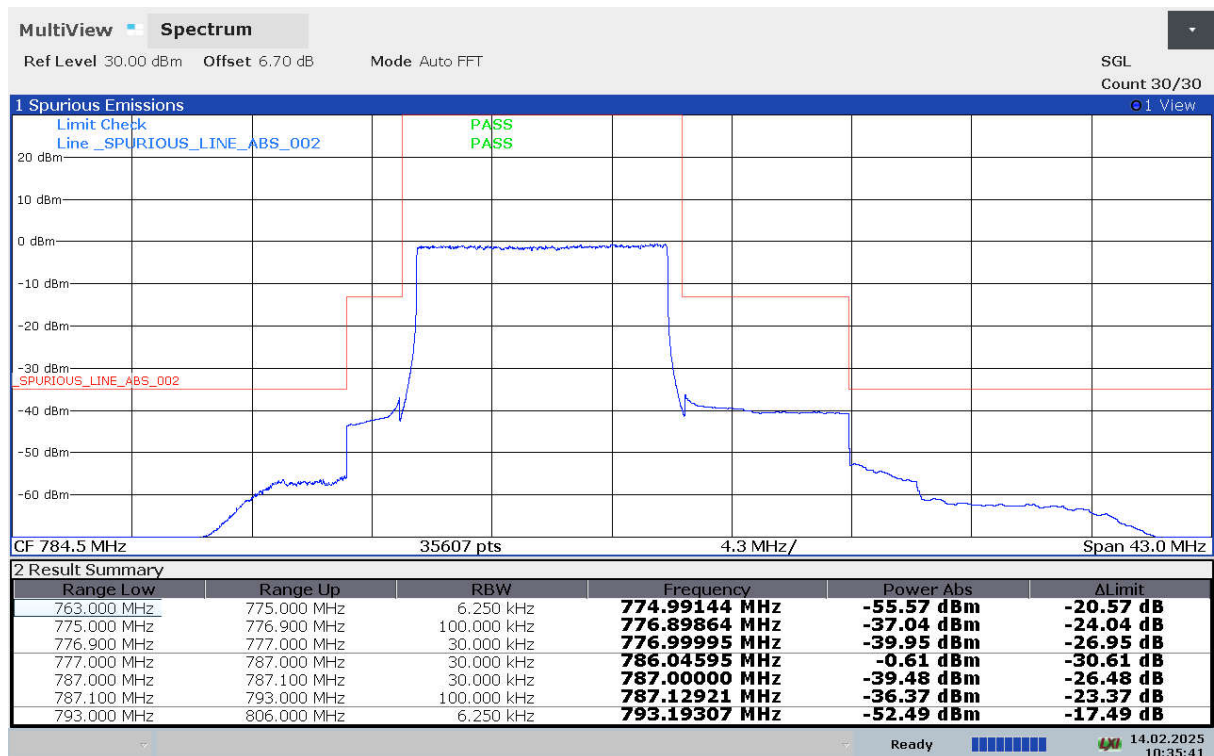




## LOW BAND EDGE BLOCK-10MHz-100%RB

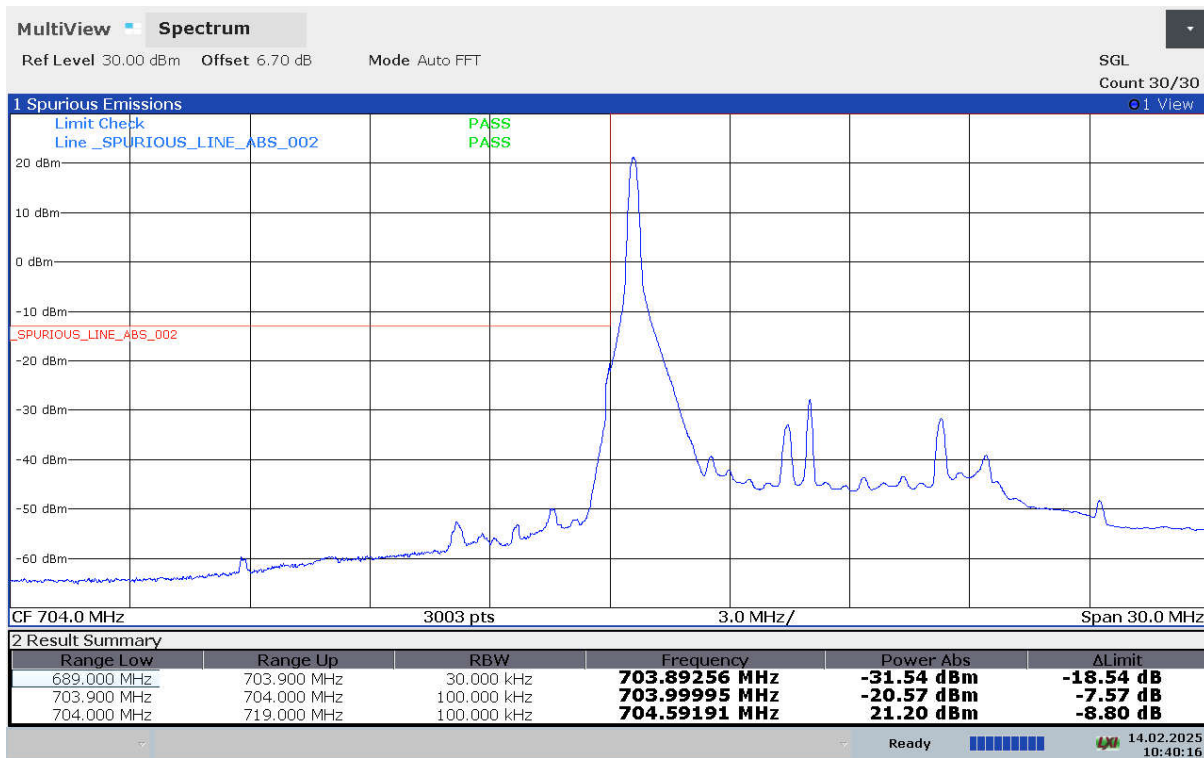


## HIGH BAND EDGE BLOCK-10MHz-100%RB



## LTE Band 17

### LOW BAND EDGE BLOCK-1RB-low\_offset



### HIGH BAND EDGE BLOCK-1RB-high\_offset

