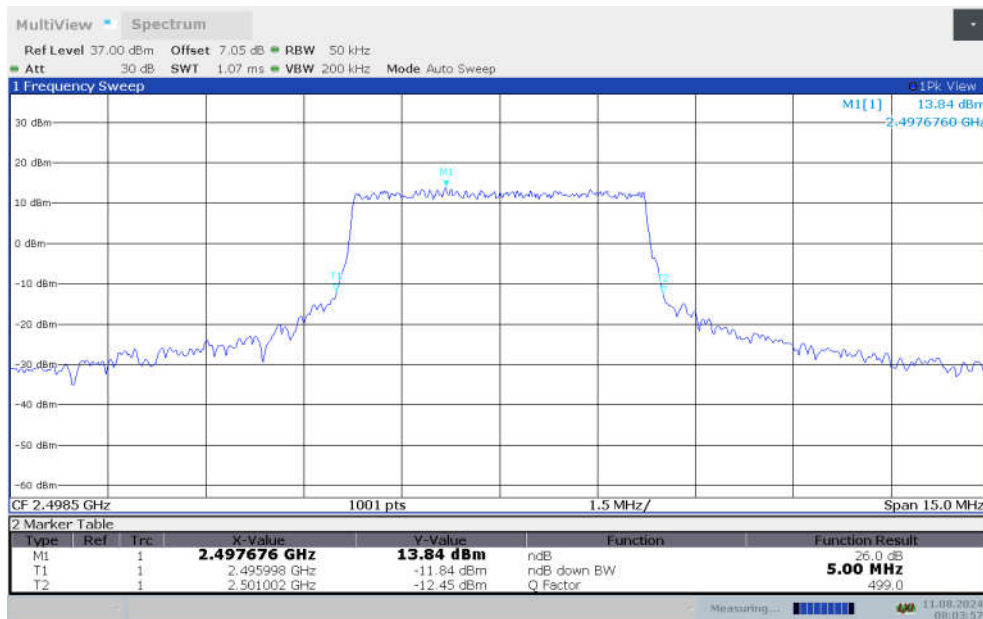




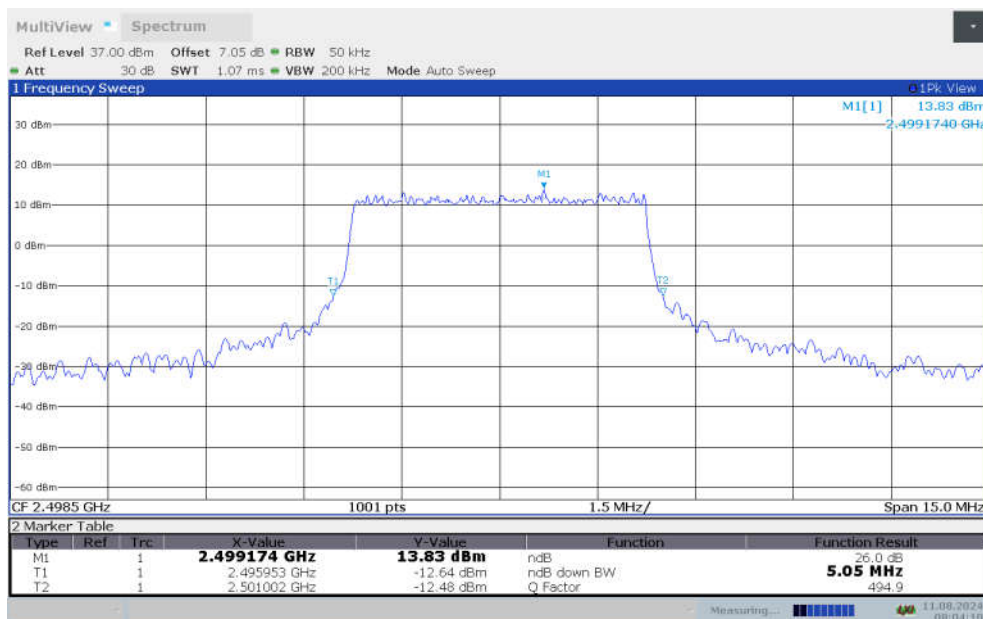
**LTE Band 41,5MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
2498.5	5.005	5.050
2593	5.050	5.080
2687.5	5.050	5.065

**LTE Band 41 , 5MHz Bandwidth,LOW,QPSK (-26dBc BW)**

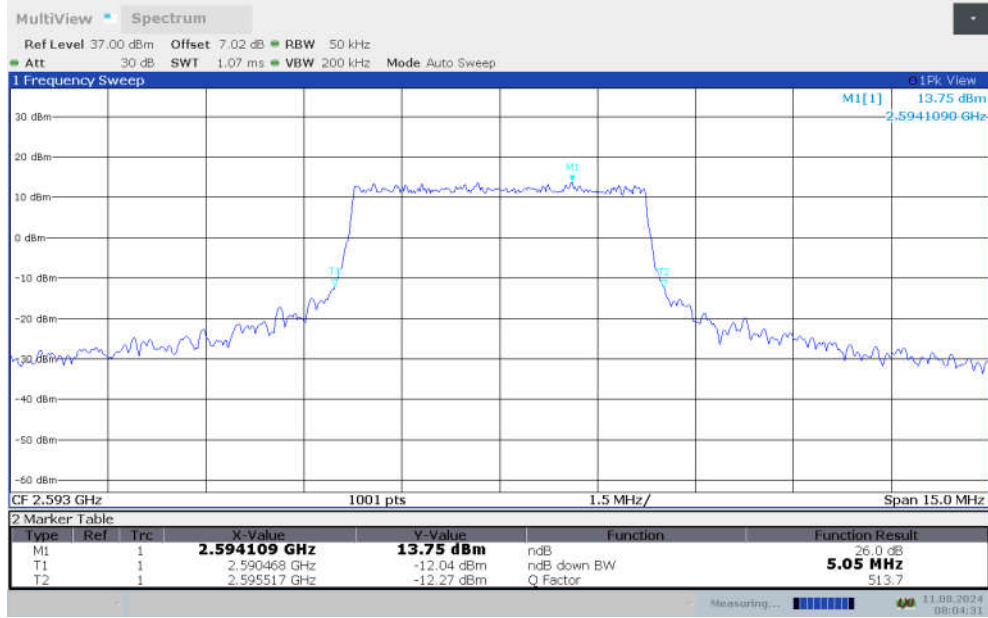


**LTE Band 41 , 5MHz Bandwidth,LOW,16QAM (-26dBc BW)**

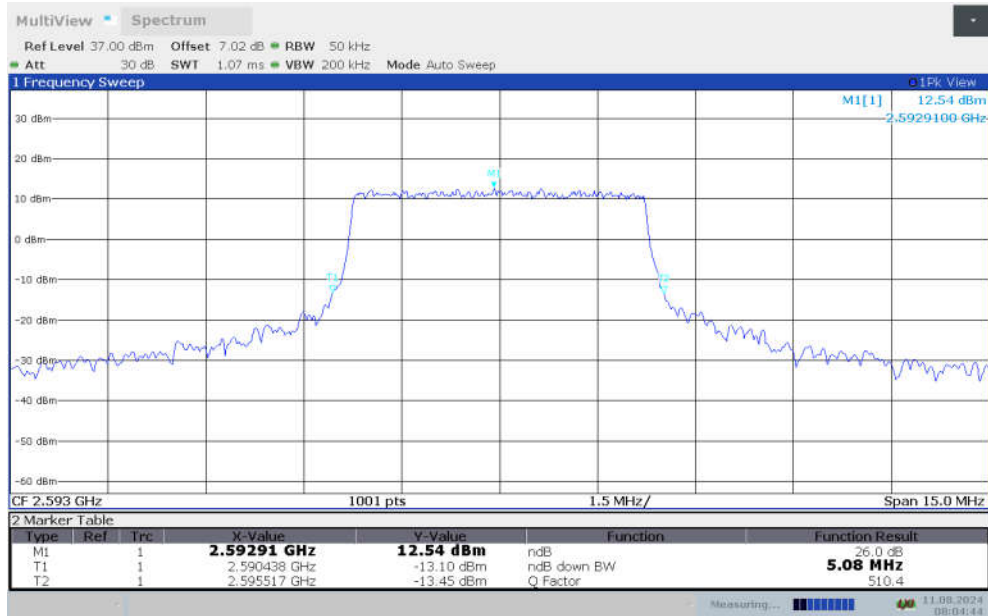




**LTE Band 41 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)**

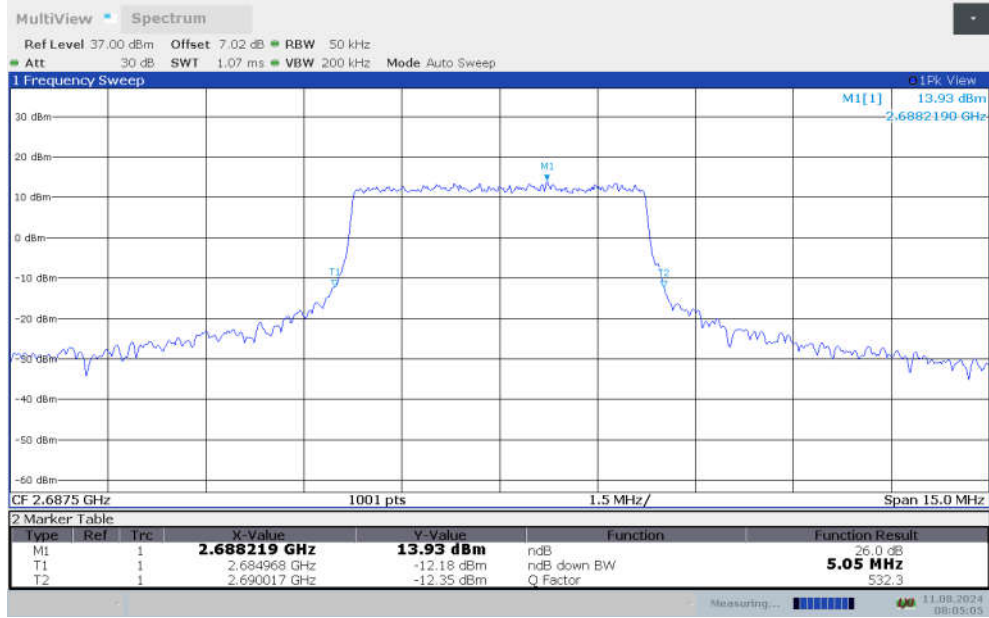


**LTE Band 41 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)**

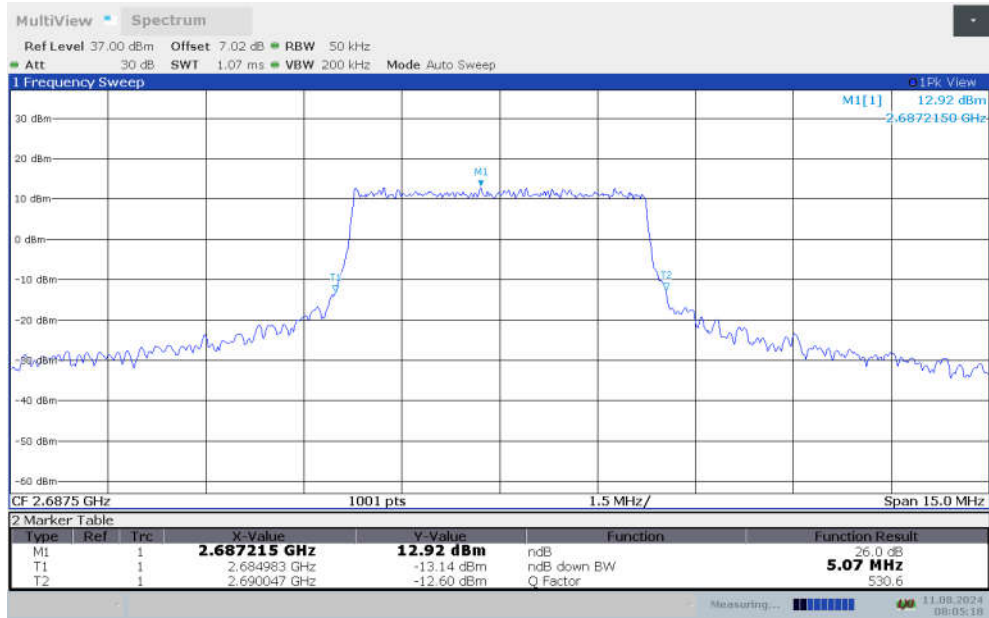




**LTE Band 41 , 5MHz Bandwidth,HIGH,QPSK (-26dBc BW)**



**LTE Band 41 , 5MHz Bandwidth,HIGH,16QAM (-26dBc BW)**

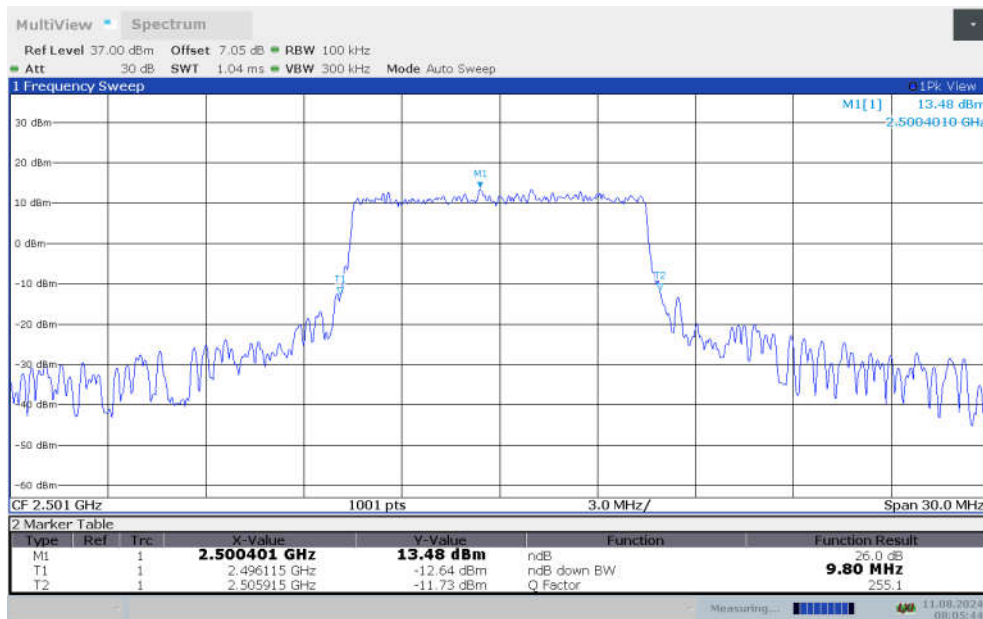




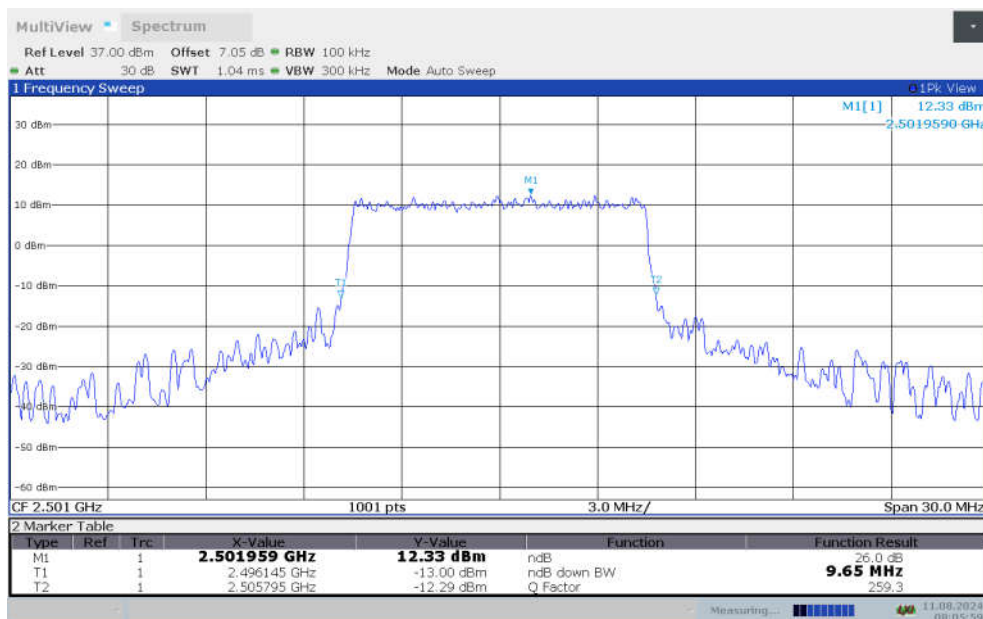
**LTE Band 41,10MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
2501	9.800	9.650
2593	9.680	9.800
2685	9.920	9.860

**LTE Band 41 , 10MHz Bandwidth,LOW,QPSK (-26dBc BW)**

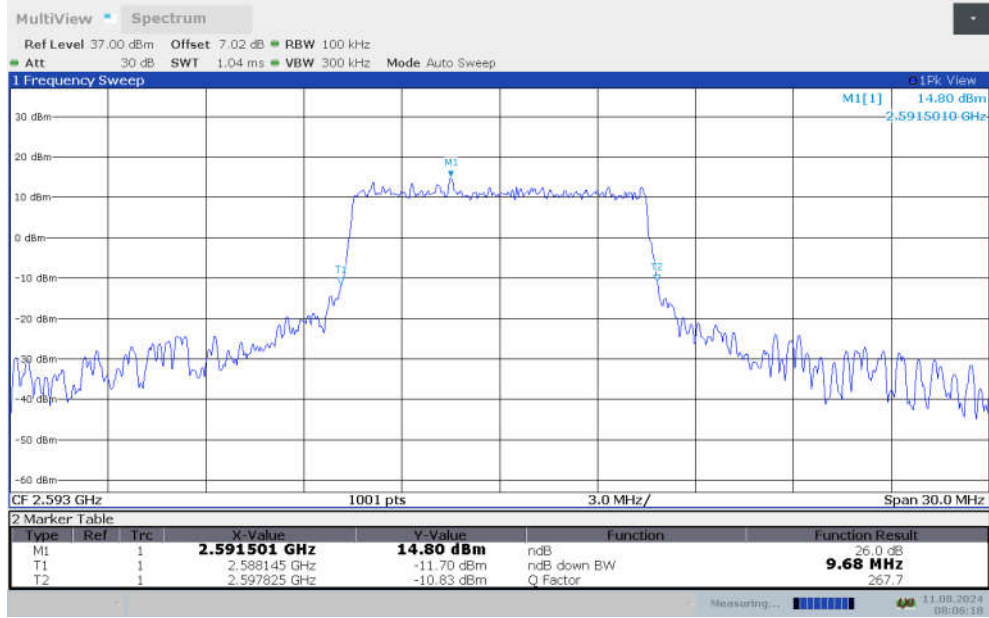


**LTE Band 41 , 10MHz Bandwidth,LOW,16QAM (-26dBc BW)**

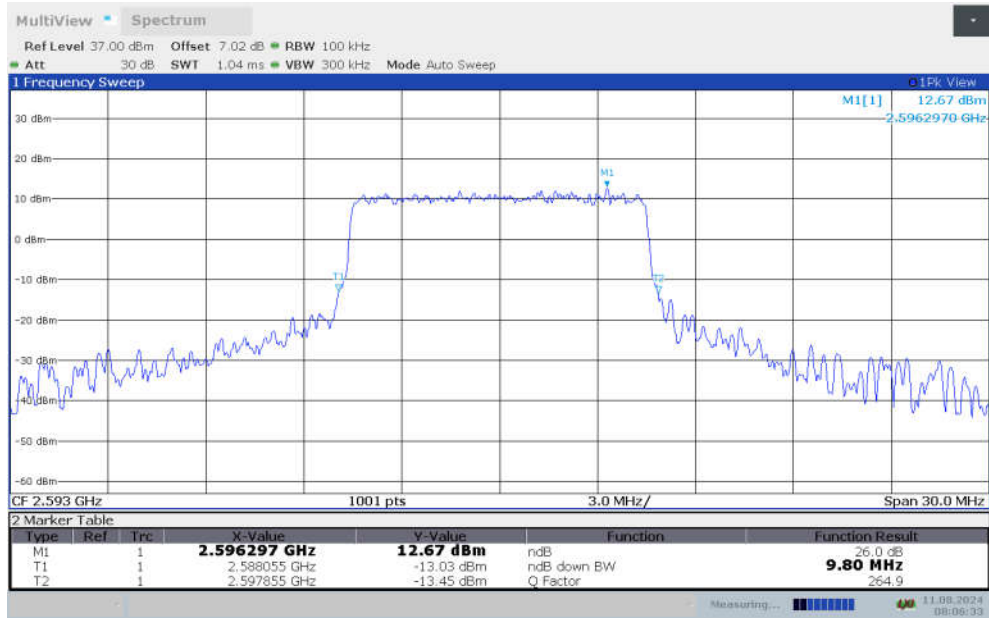




**LTE Band 41 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)**

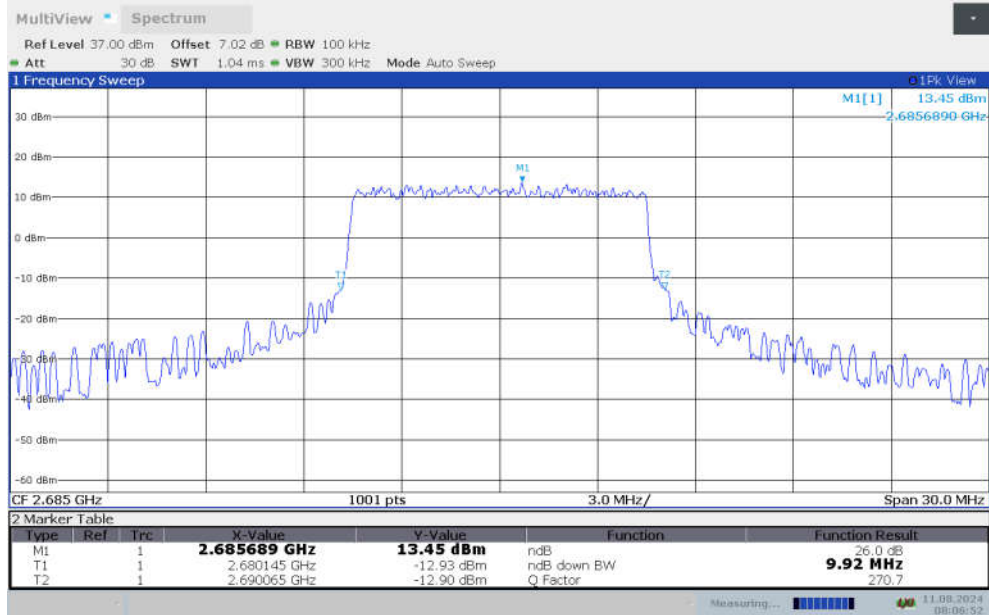


**LTE Band 41 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)**

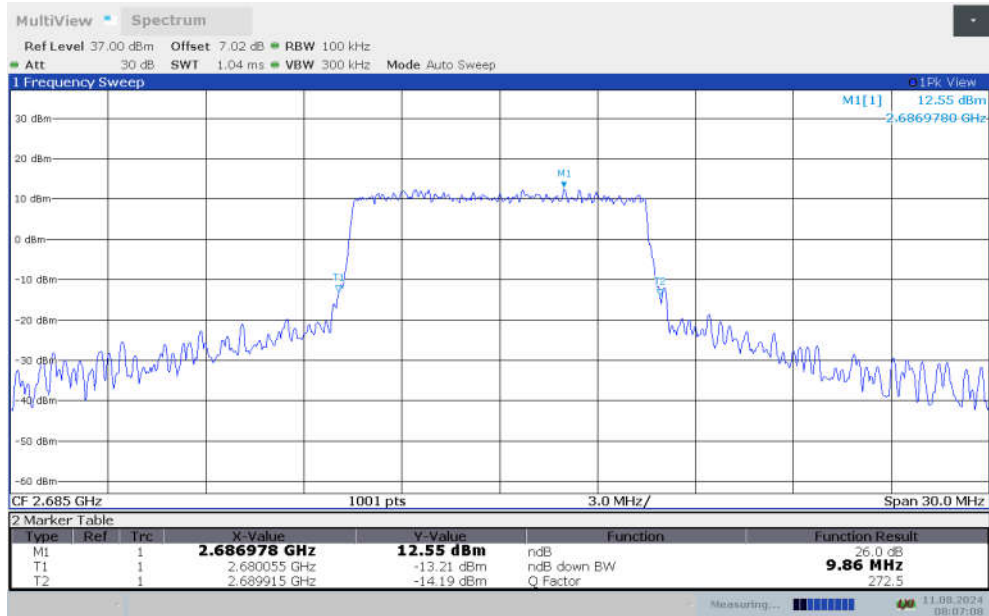




**LTE Band 41 , 10MHz Bandwidth,HIGH,QPSK (-26dBc BW)**



**LTE Band 41 , 10MHz Bandwidth,HIGH,16QAM (-26dBc BW)**

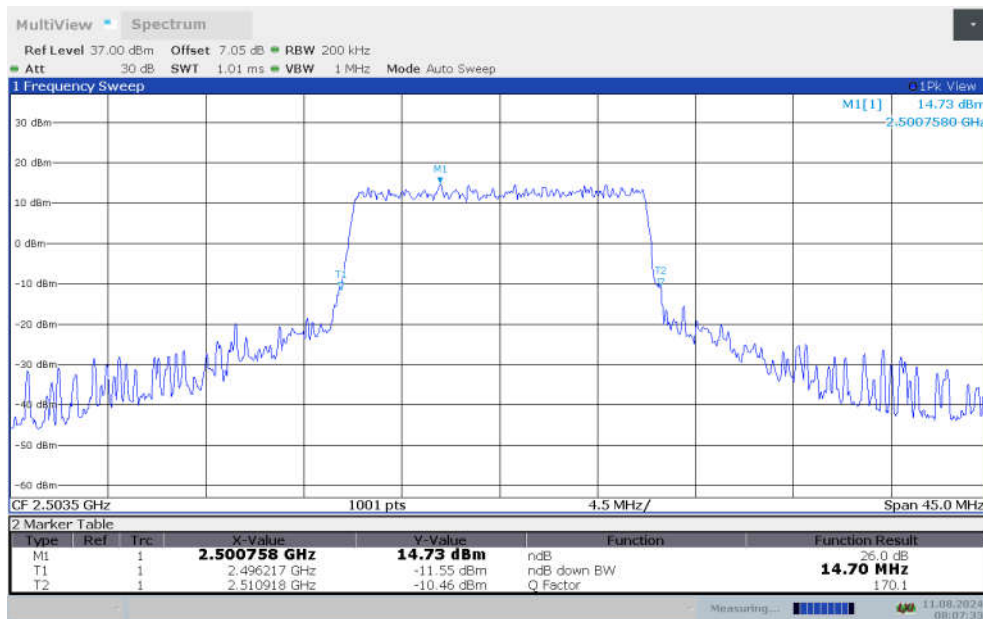




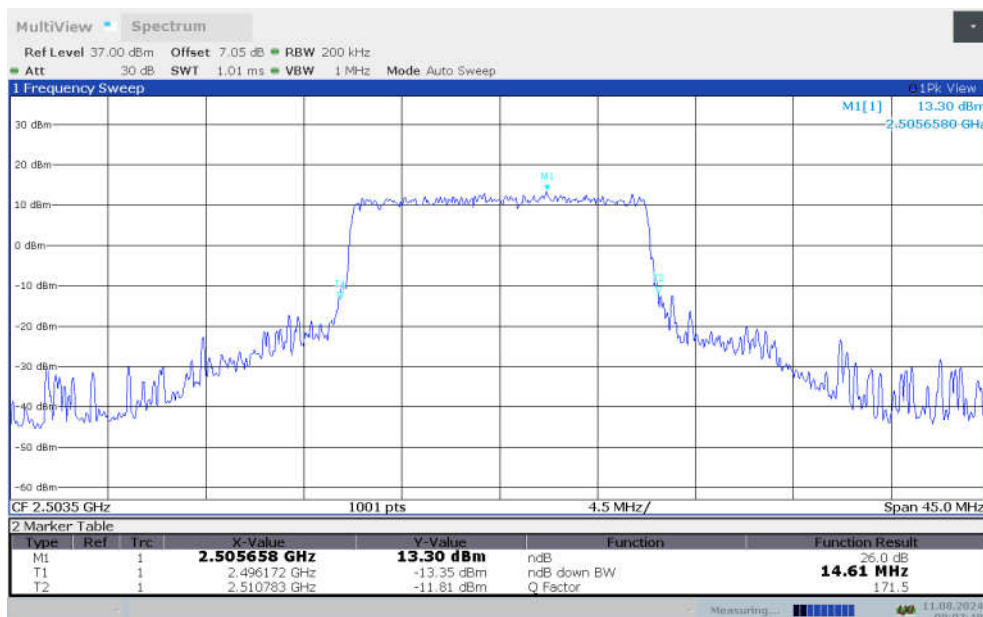
**LTE Band 41,15MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
2503.5	14.700	14.610
2593	14.655	14.745
2682.5	14.790	14.700

**LTE Band 41 , 15MHz Bandwidth,LOW,QPSK (-26dBc BW)**

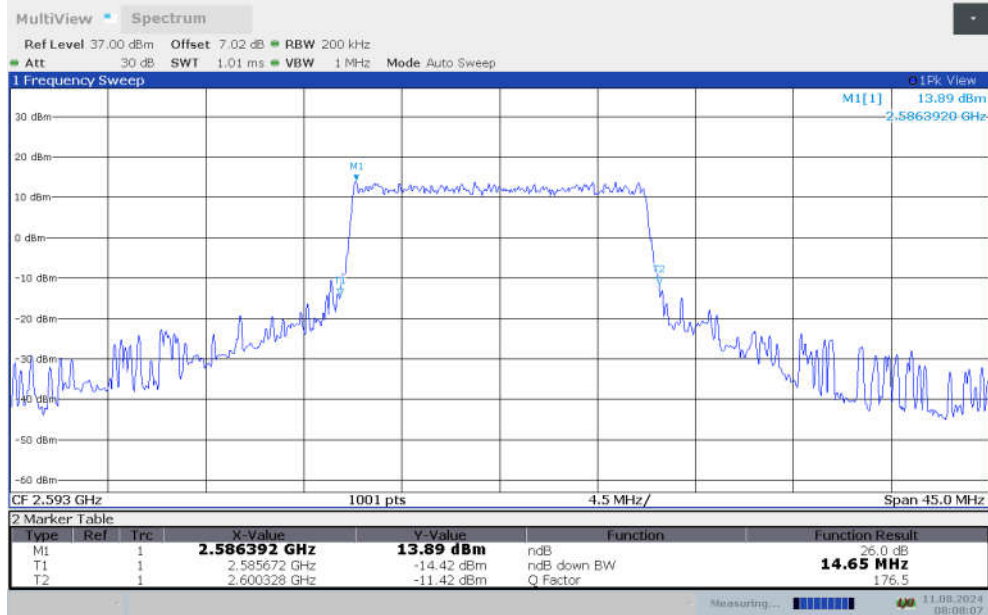


**LTE Band 41 , 15MHz Bandwidth,LOW,16QAM (-26dBc BW)**

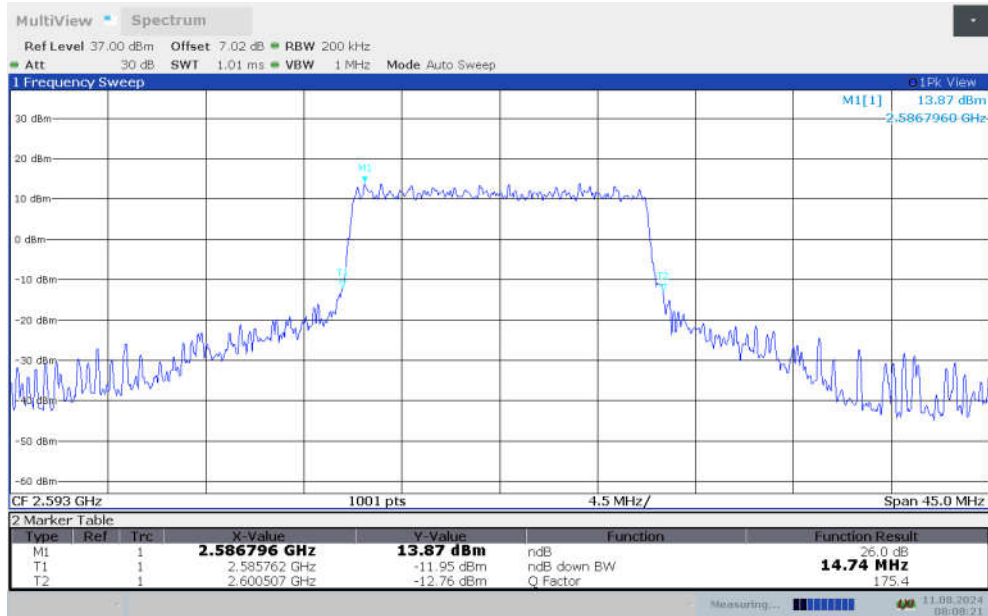




**LTE Band 41 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)**



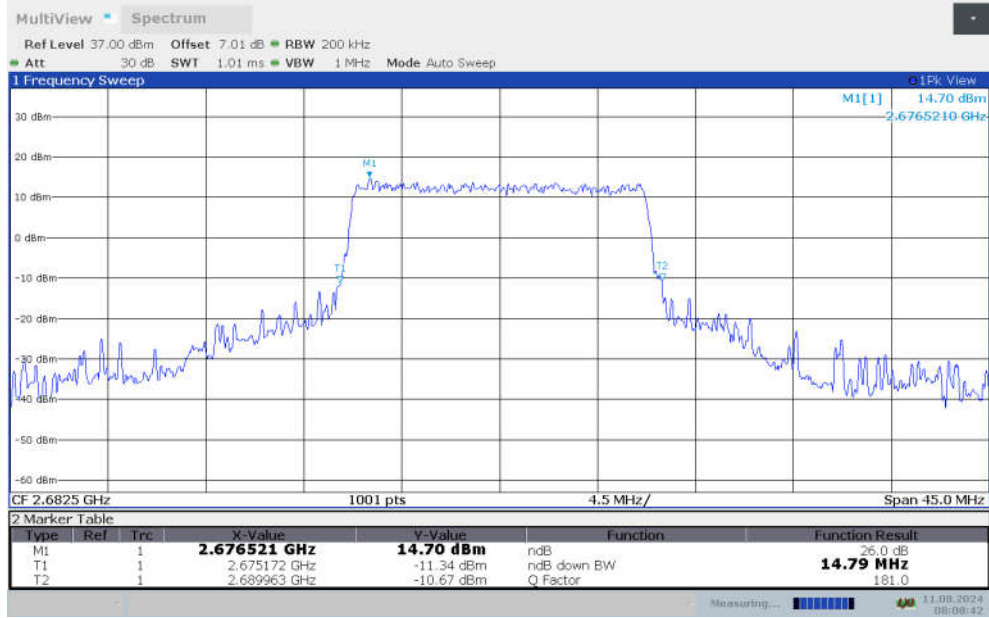
**LTE Band 41 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)**



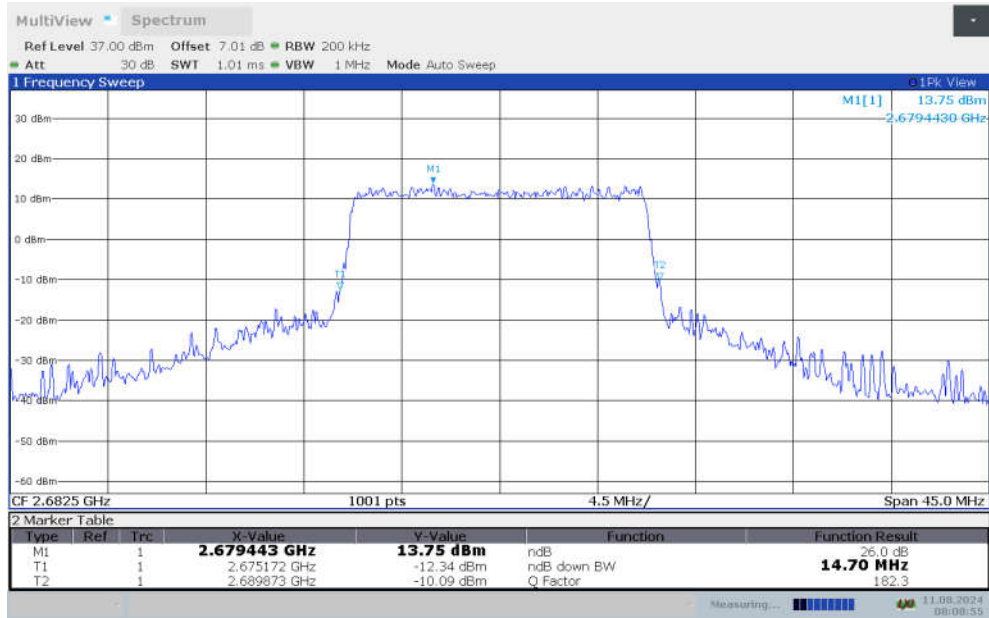




**LTE Band 41 , 15MHz Bandwidth,HIGH,QPSK (-26dBc BW)**



**LTE Band 41 , 15MHz Bandwidth,HIGH,16QAM (-26dBc BW)**

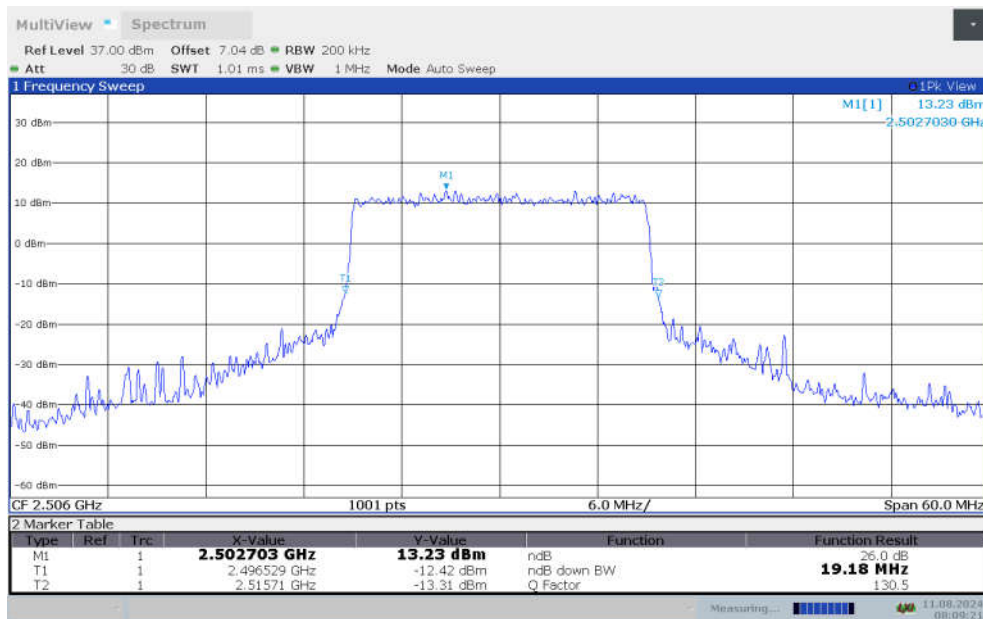




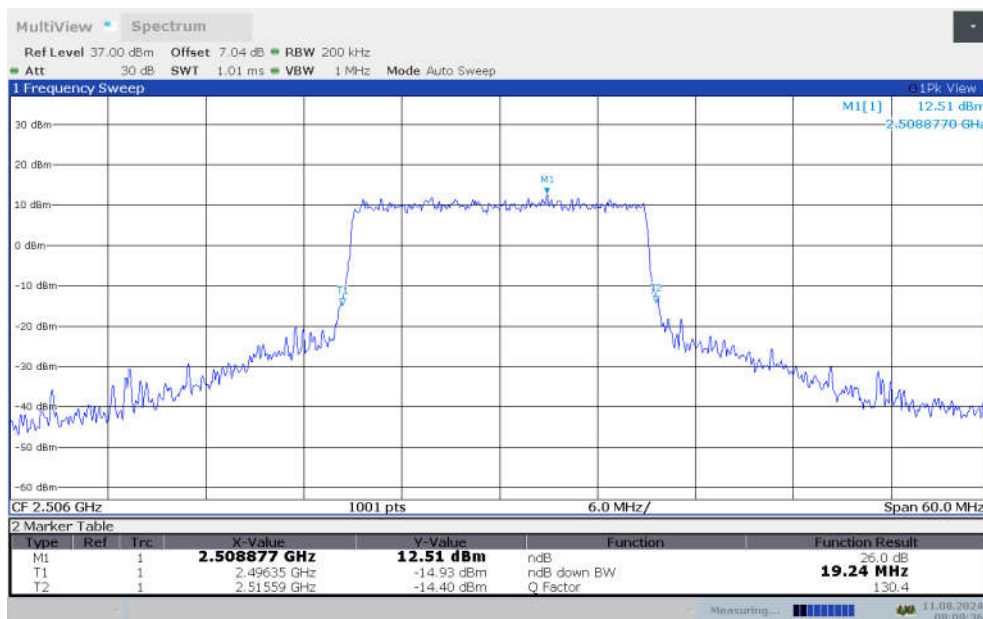
**LTE Band 41,20MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
2506	19.181	19.241
2593	19.061	19.421
2680	19.181	19.361

**LTE Band 41 , 20MHz Bandwidth,LOW,QPSK (-26dBc BW)**

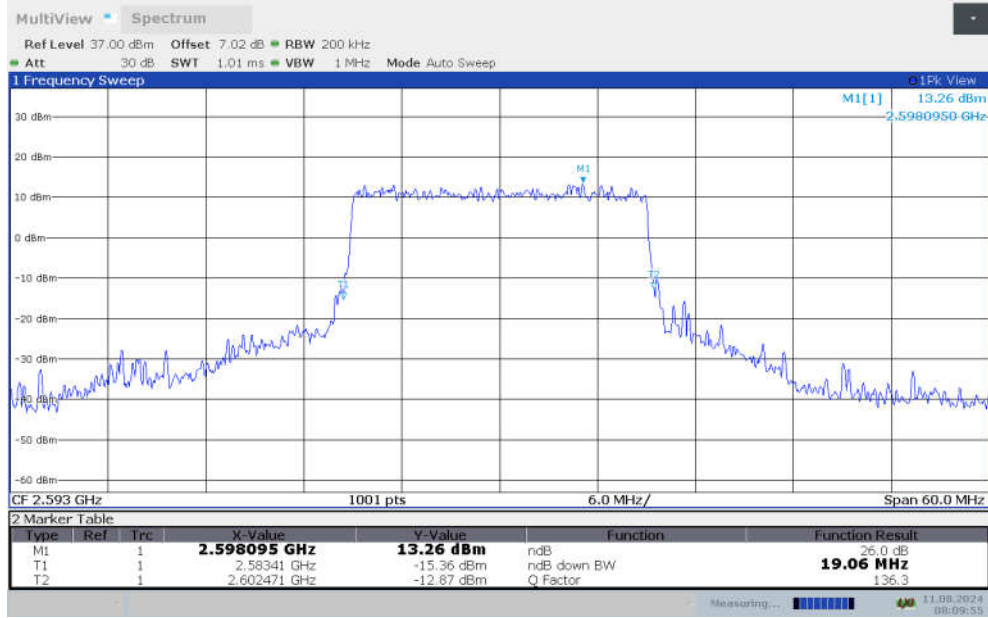


**LTE Band 41 , 20MHz Bandwidth,LOW,16QAM (-26dBc BW)**

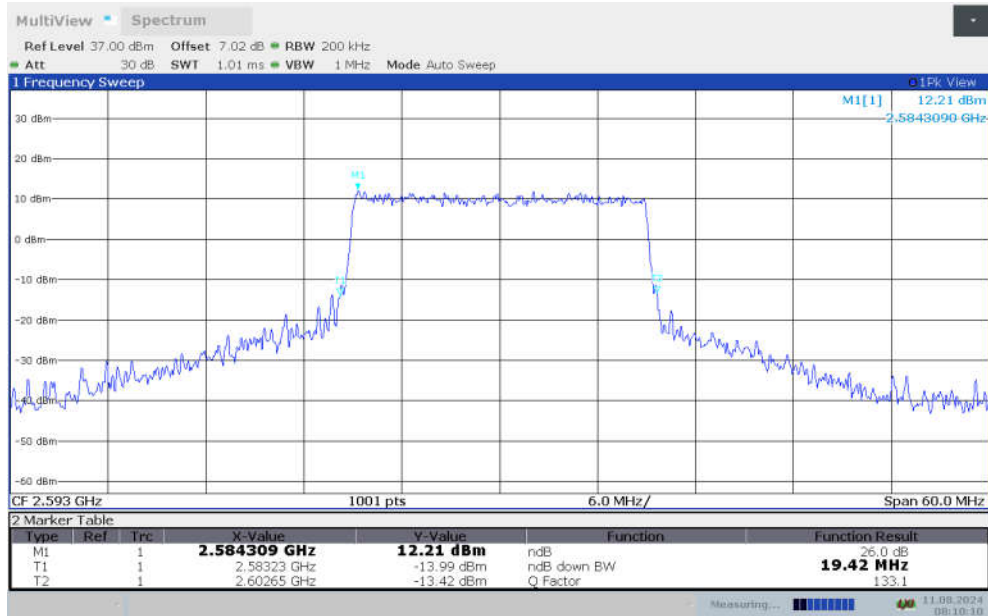




**LTE Band 41 , 20MHz Bandwidth,MID,QPSK (-26dBc BW)**

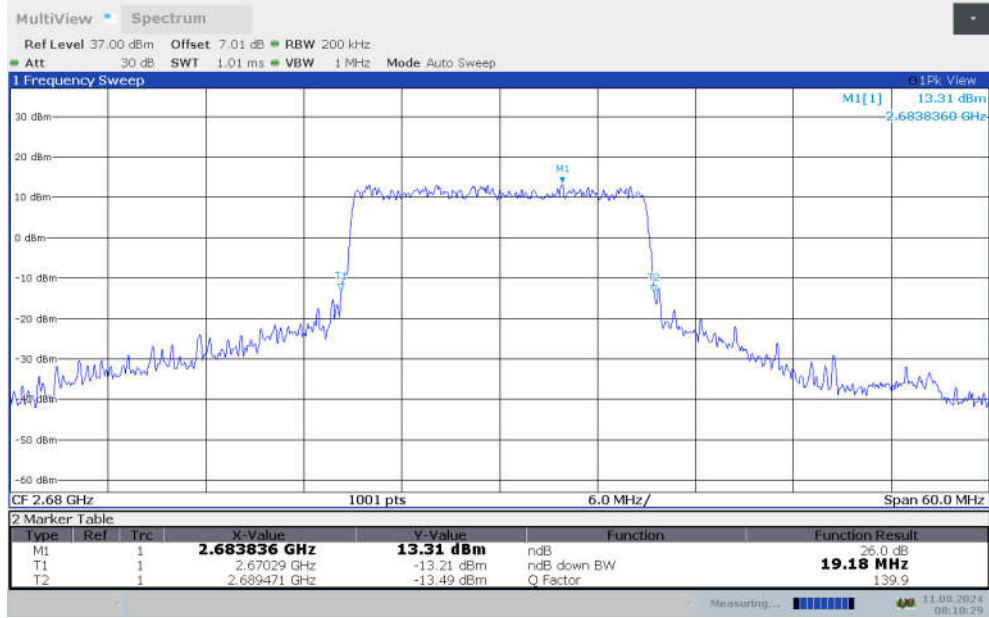


**LTE Band 41 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)**

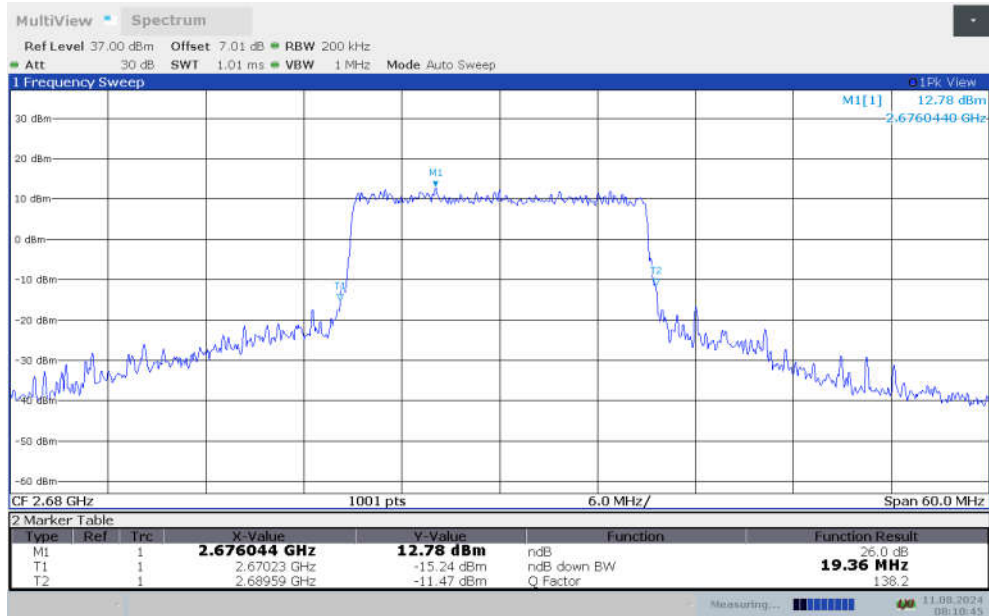




**LTE Band 41 , 20MHz Bandwidth,HIGH,QPSK (-26dBc BW)**



**LTE Band 41 , 20MHz Bandwidth,HIGH,16QAM (-26dBc BW)**

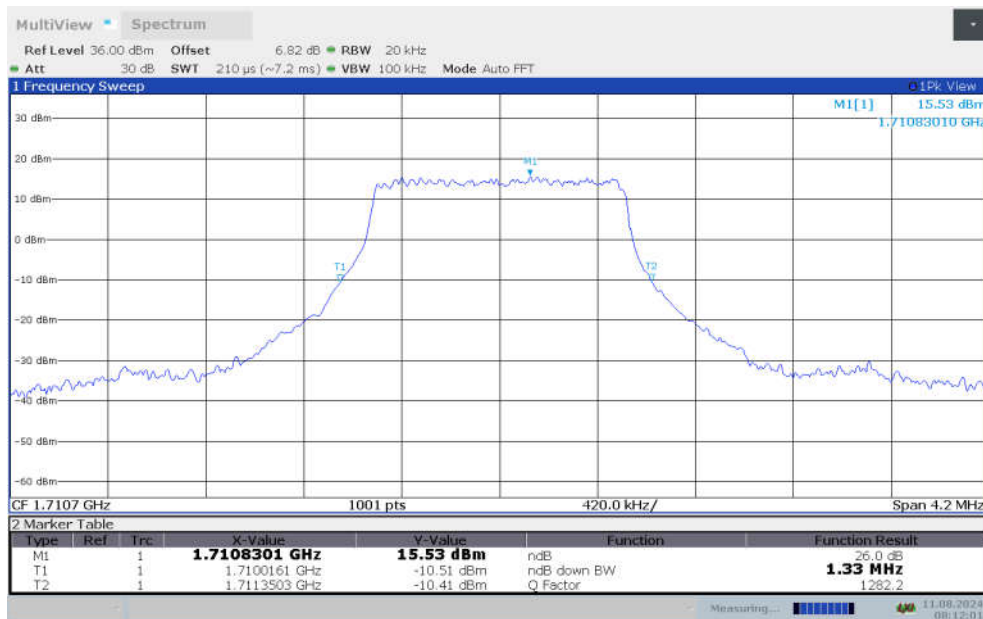




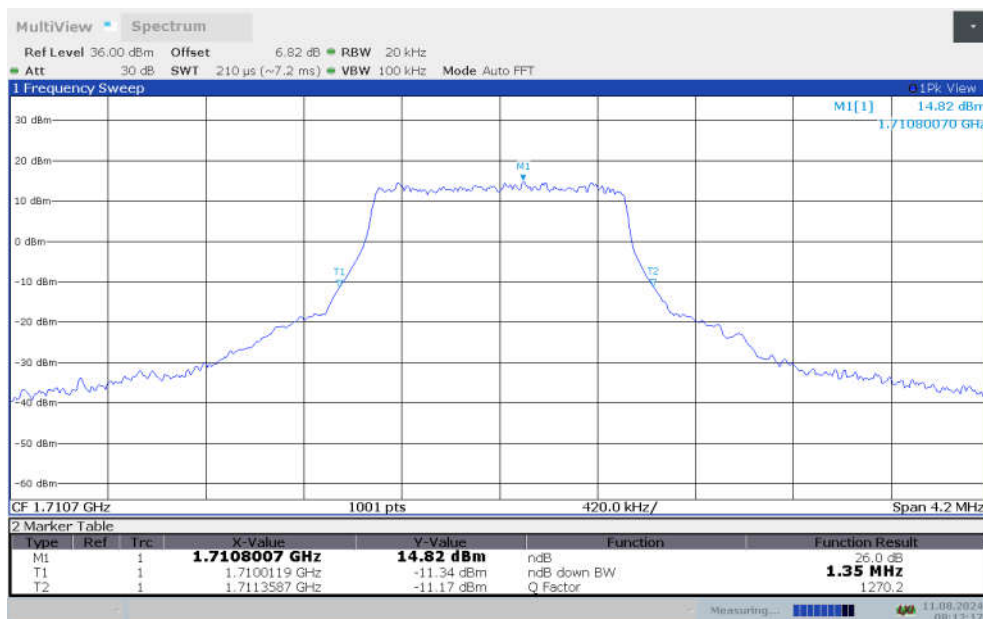
**LTE Band 66,1.4MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
1710.7	1.334	1.347
1745	1.318	1.347
1779.3	1.359	1.326

**LTE Band 66 , 1.4MHz Bandwidth,LOW,QPSK (-26dBc BW)**

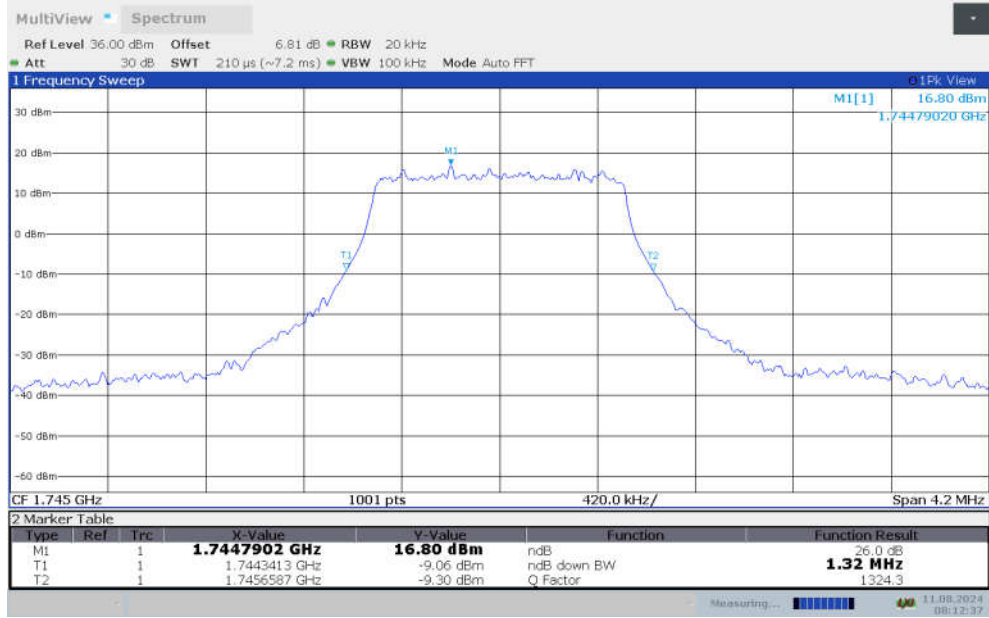


**LTE Band 66 , 1.4MHz Bandwidth,LOW,16QAM (-26dBc BW)**

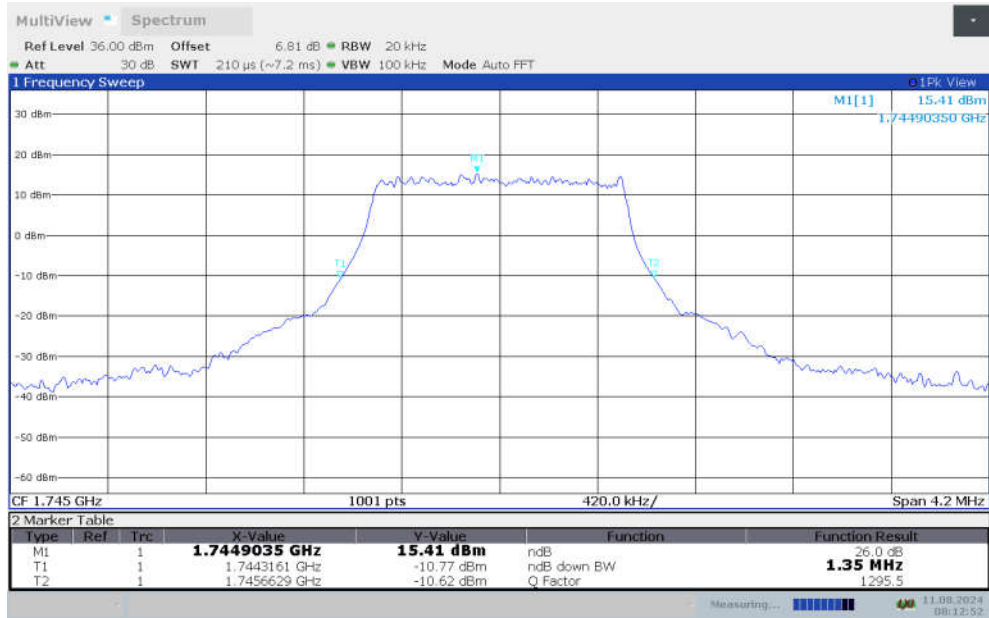




**LTE Band 66 , 1.4MHz Bandwidth,MID,QPSK (-26dBc BW)**

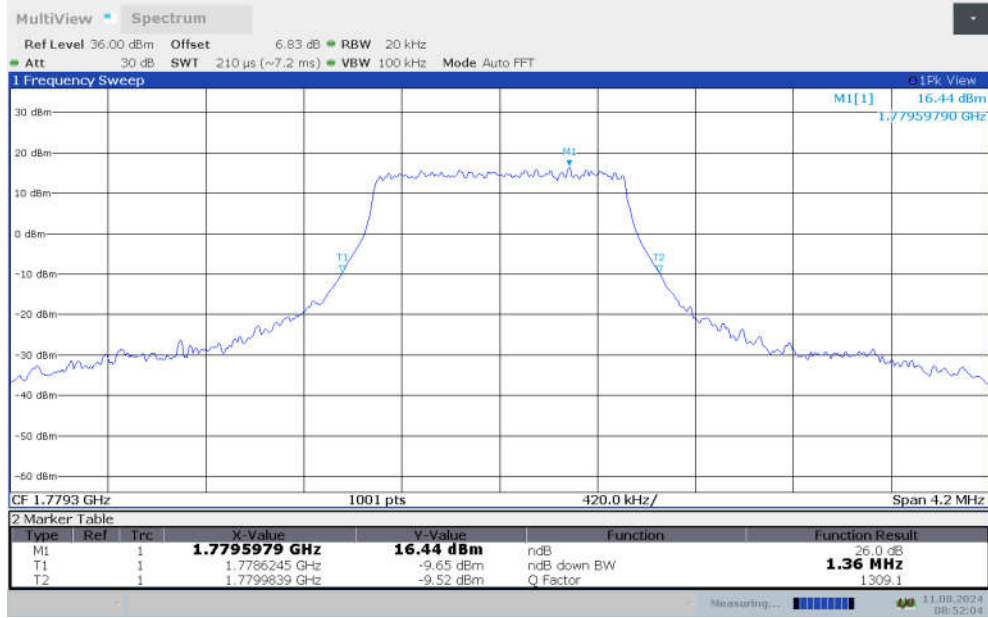


**LTE Band 66 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)**

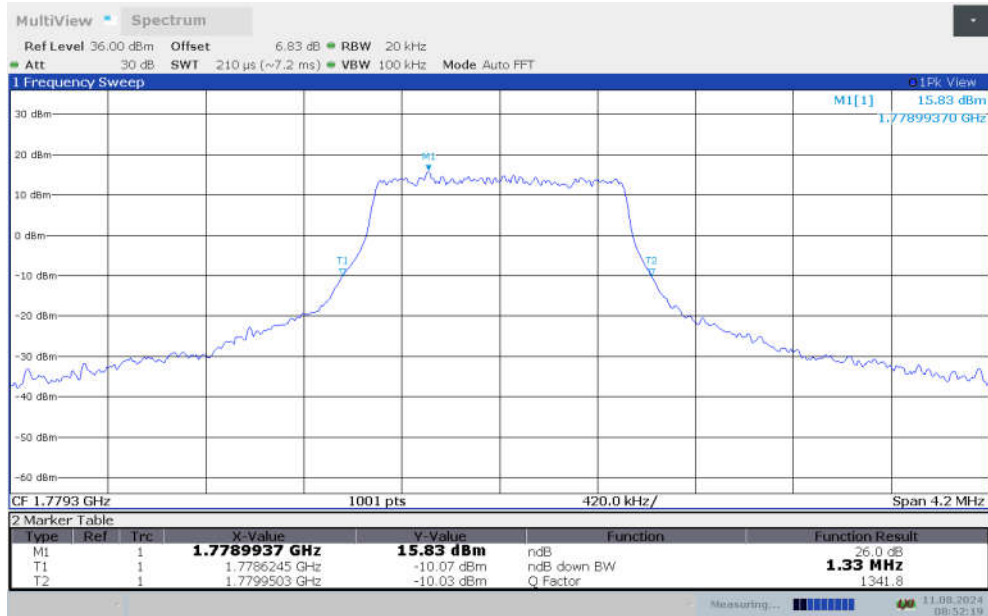




LTE Band 66 , 1.4MHz Bandwidth,HIGH,QPSK (-26dBc BW)



LTE Band 66 , 1.4MHz Bandwidth,HIGH,16QAM (-26dBc BW)

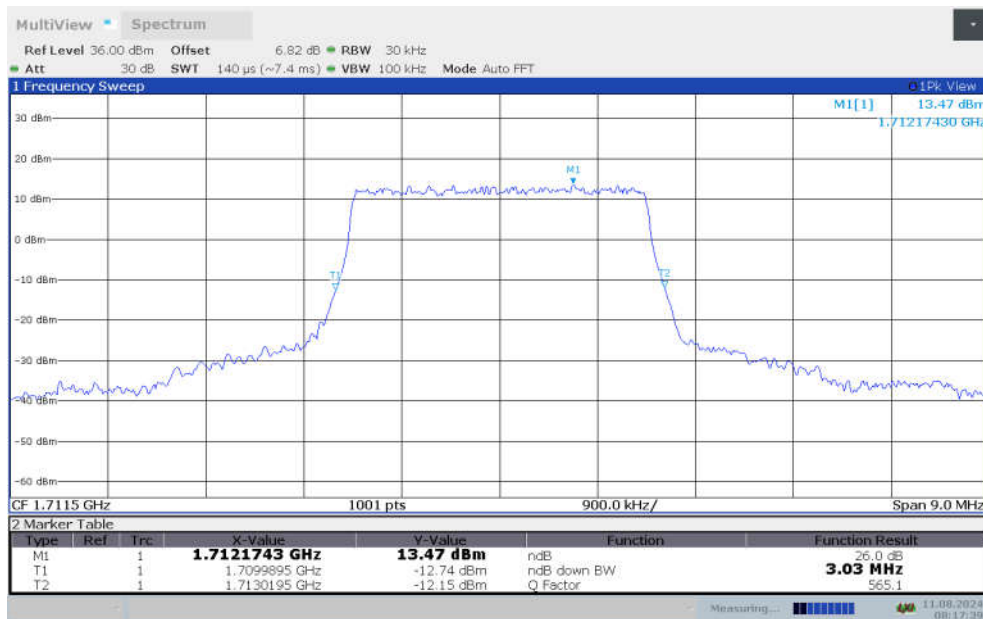




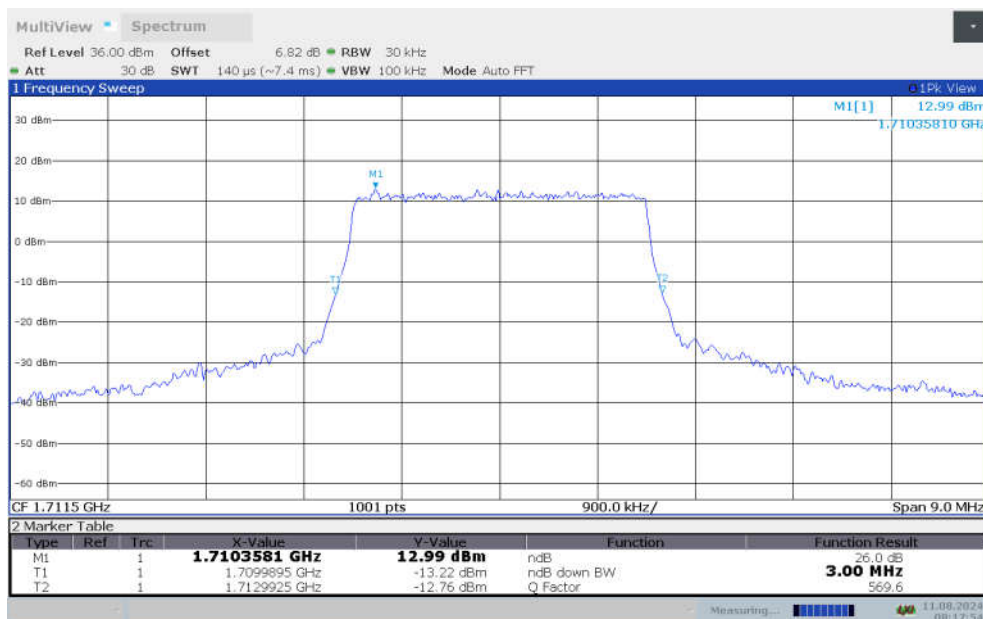
**LTE Band 66,3MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
1711.5	3.030	3.003
1745	3.021	2.967
1778.5	2.994	3.030

**LTE Band 66 , 3MHz Bandwidth,LOW,QPSK (-26dBc BW)**



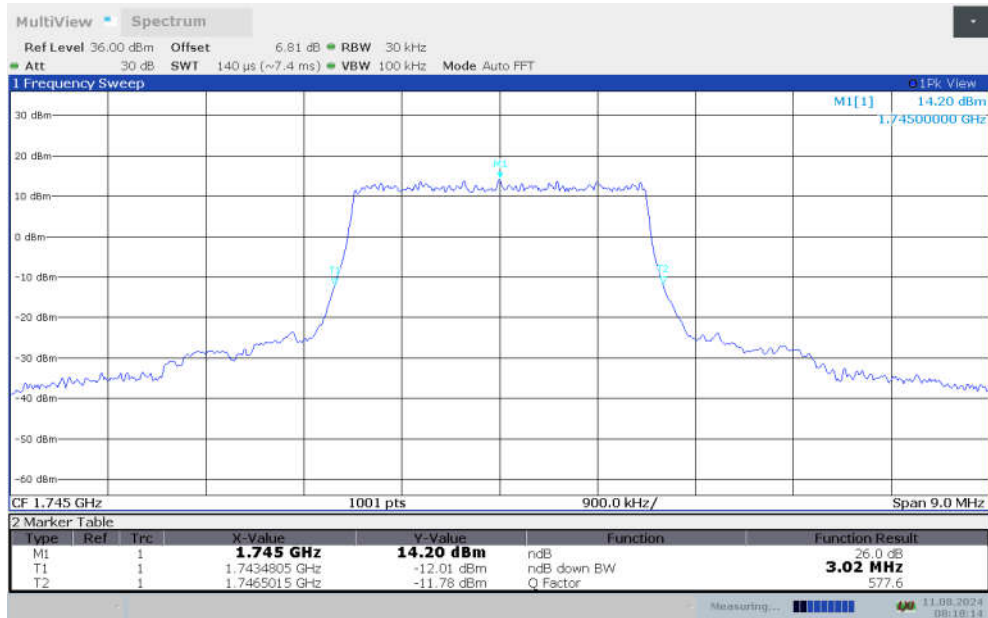
**LTE Band 66 , 3MHz Bandwidth,LOW,16QAM (-26dBc BW)**



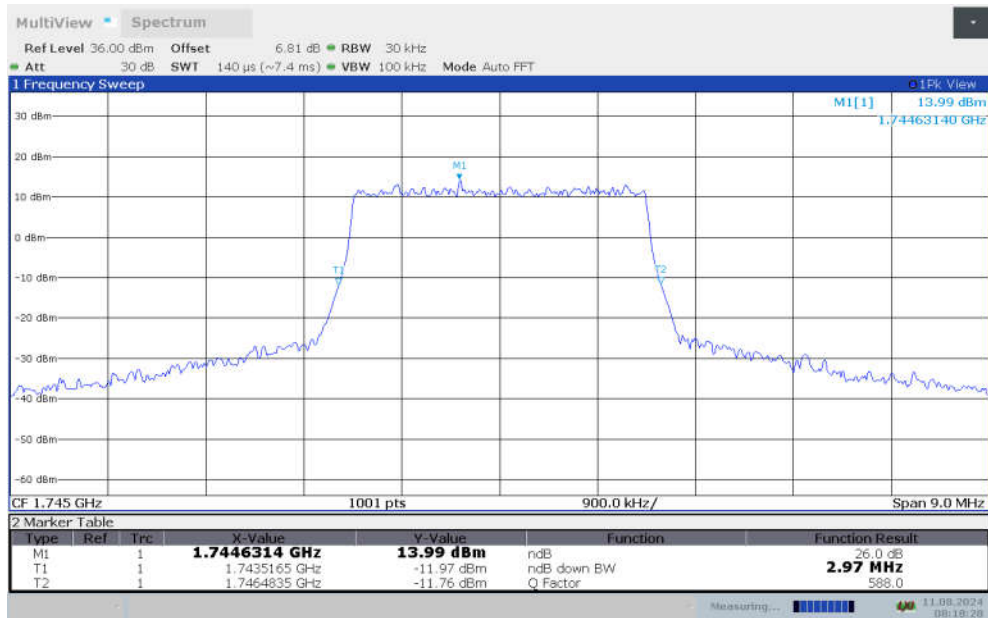




**LTE Band 66 , 3MHz Bandwidth,MID,QPSK (-26dBc BW)**

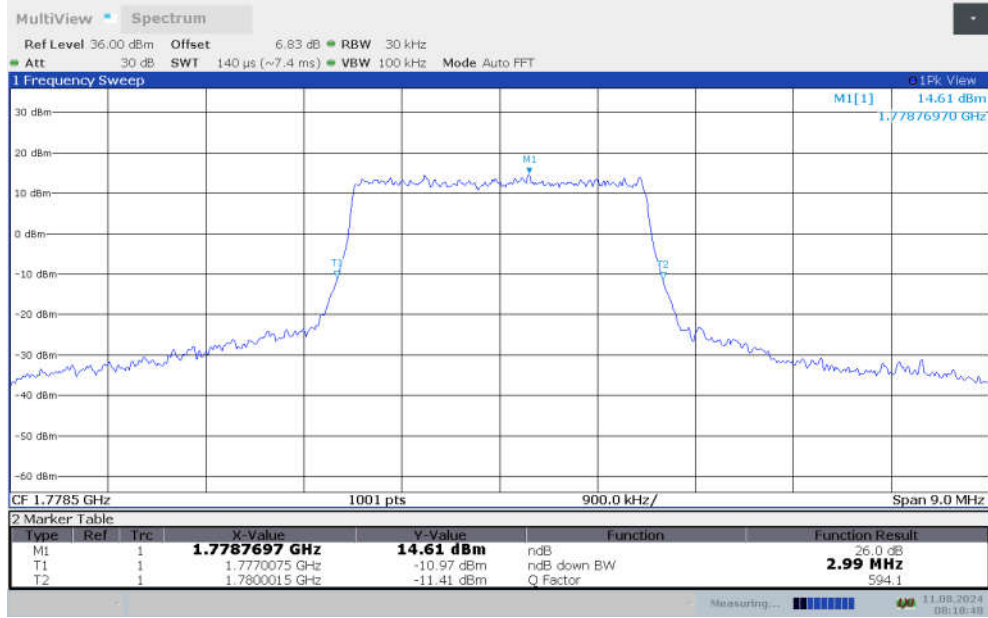


**LTE Band 66 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)**

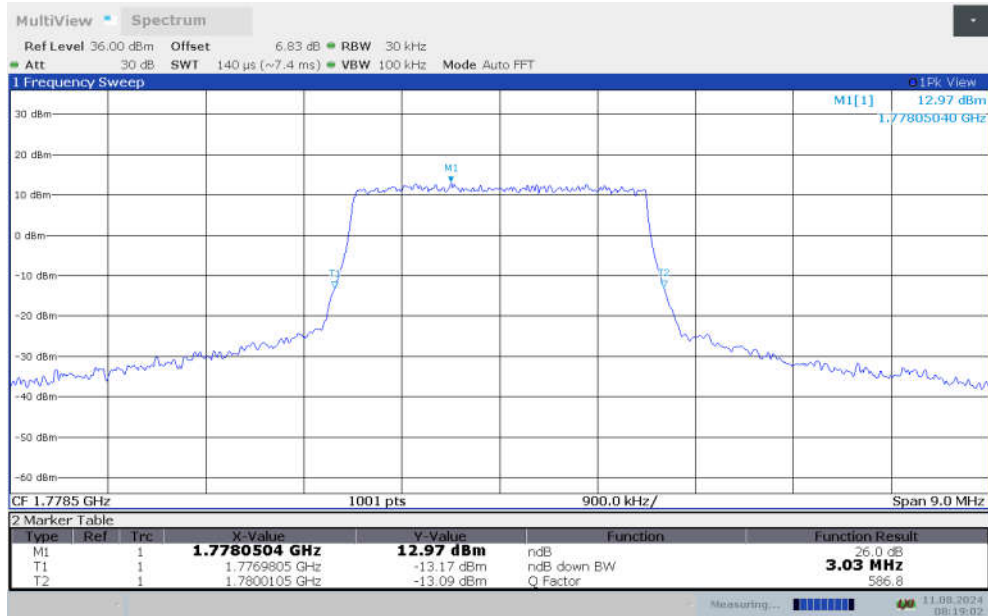




**LTE Band 66 , 3MHz Bandwidth,HIGH,QPSK (-26dBc BW)**



**LTE Band 66 , 3MHz Bandwidth,HIGH,16QAM (-26dBc BW)**

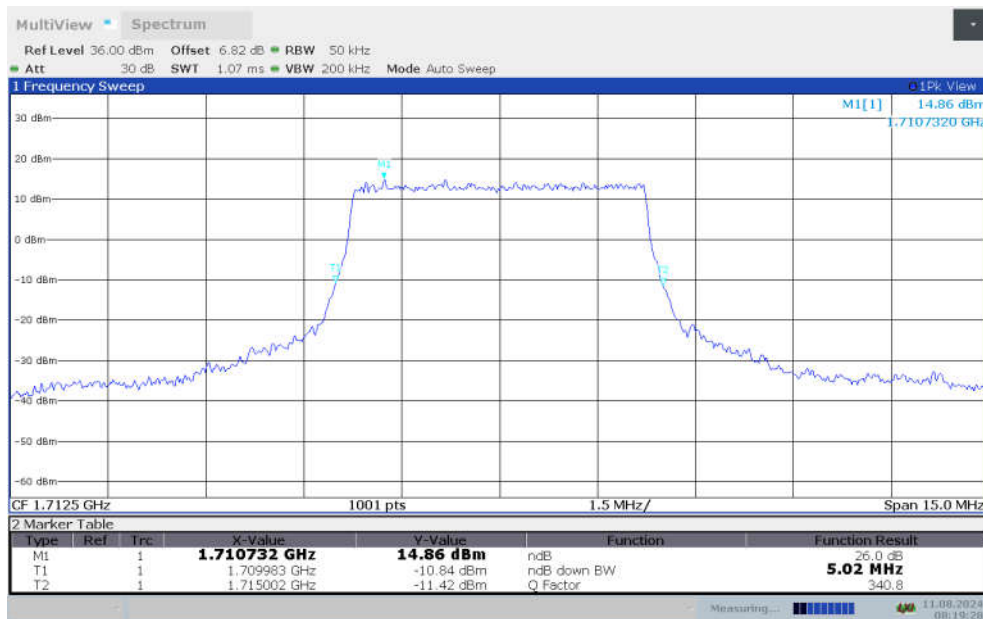




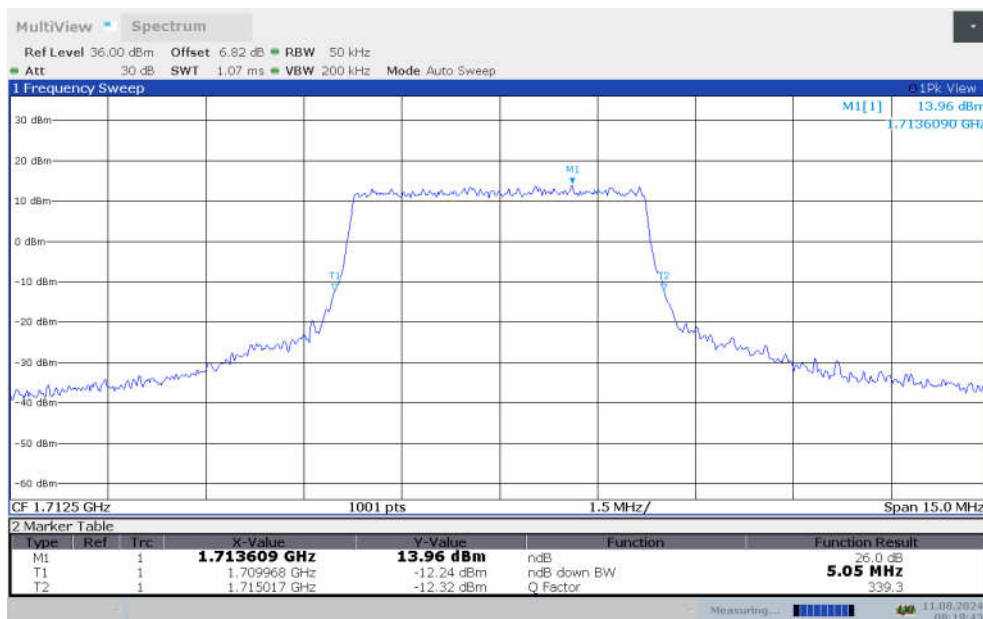
**LTE Band 66,5MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
1712.5	5.020	5.050
1745	5.035	5.005
1777.5	5.080	5.035

**LTE Band 66 , 5MHz Bandwidth,LOW,QPSK (-26dBc BW)**

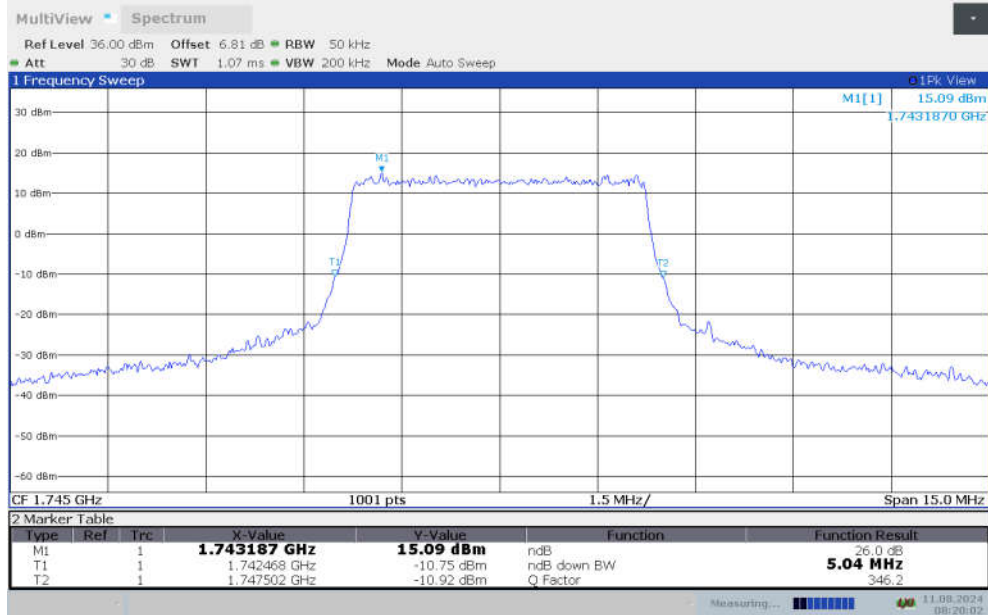


**LTE Band 66 , 5MHz Bandwidth,LOW,16QAM (-26dBc BW)**

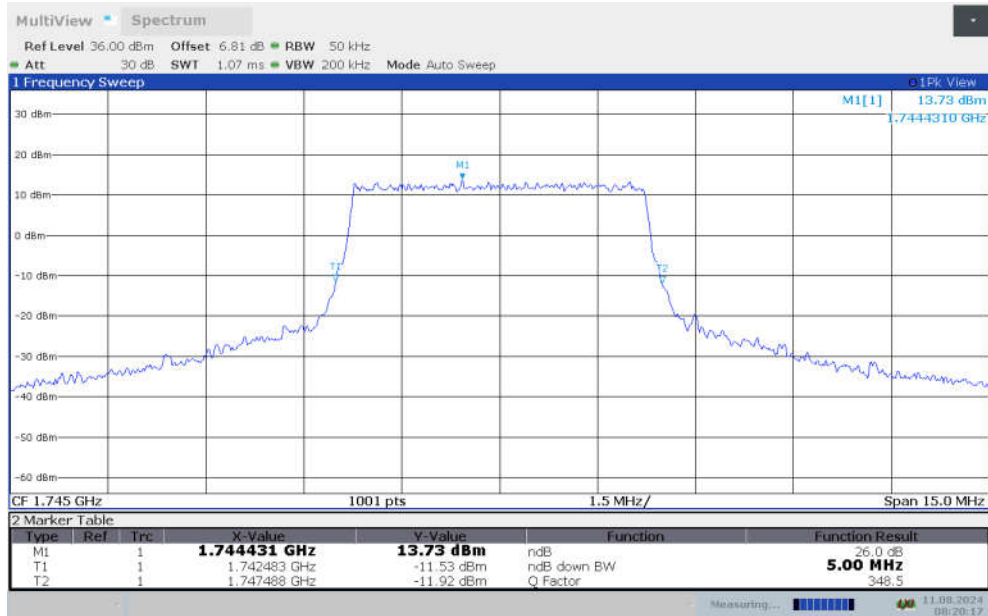




**LTE Band 66 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)**

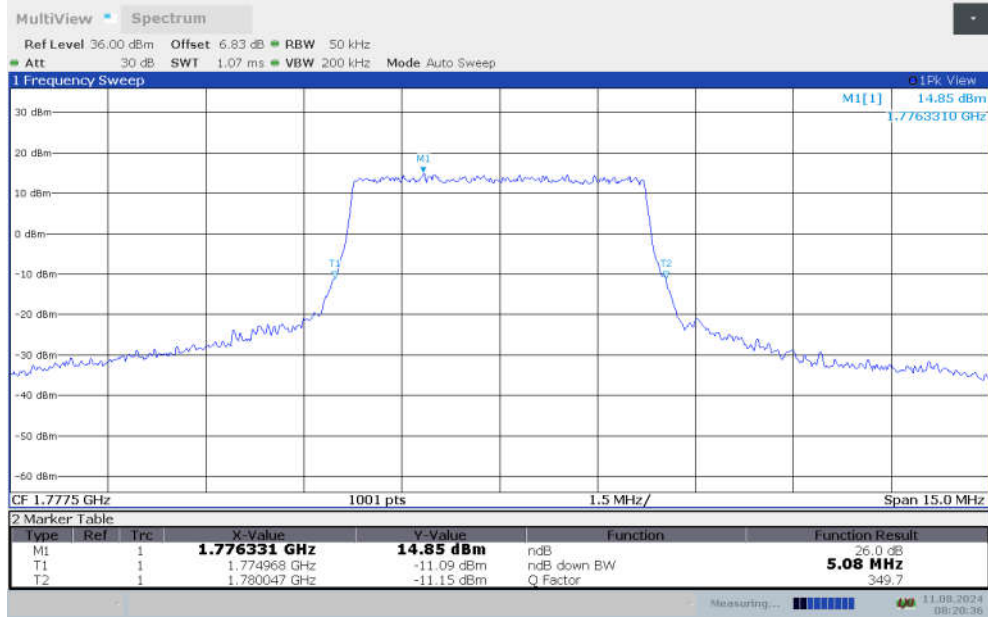


**LTE Band 66 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)**

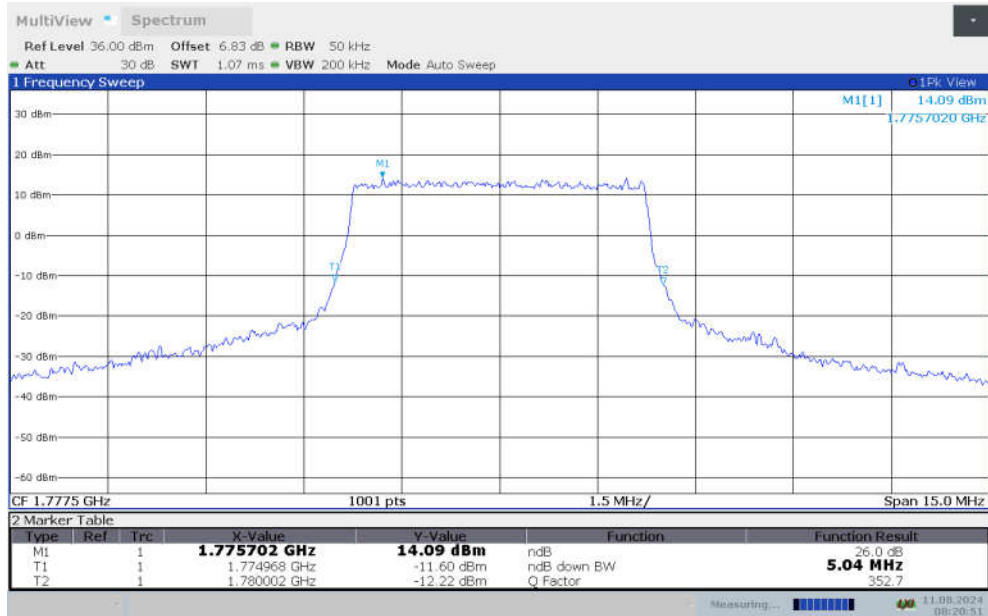




**LTE Band 66 , 5MHz Bandwidth,HIGH,QPSK (-26dBc BW)**



**LTE Band 66 , 5MHz Bandwidth,HIGH,16QAM (-26dBc BW)**

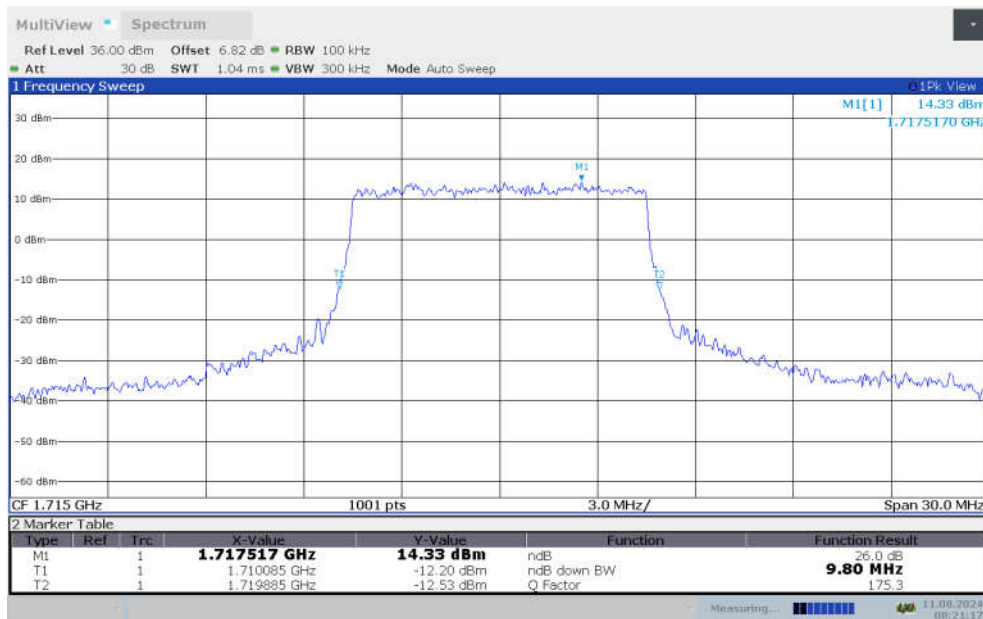




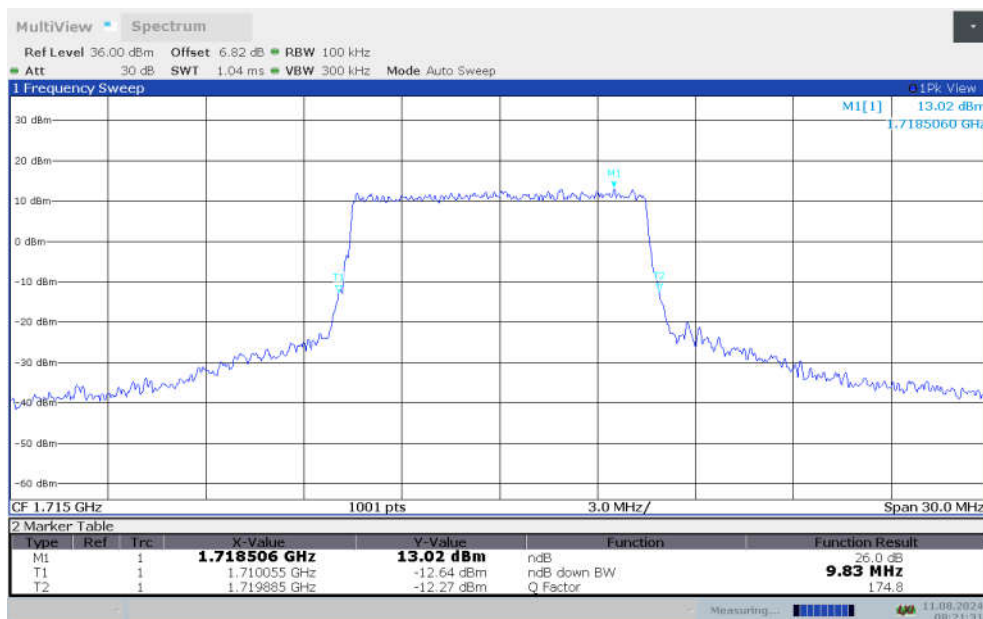
**LTE Band 66,10MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
1715	9.800	9.830
1745	9.800	9.830
1775	9.740	9.860

**LTE Band 66 , 10MHz Bandwidth,LOW,QPSK (-26dBc BW)**

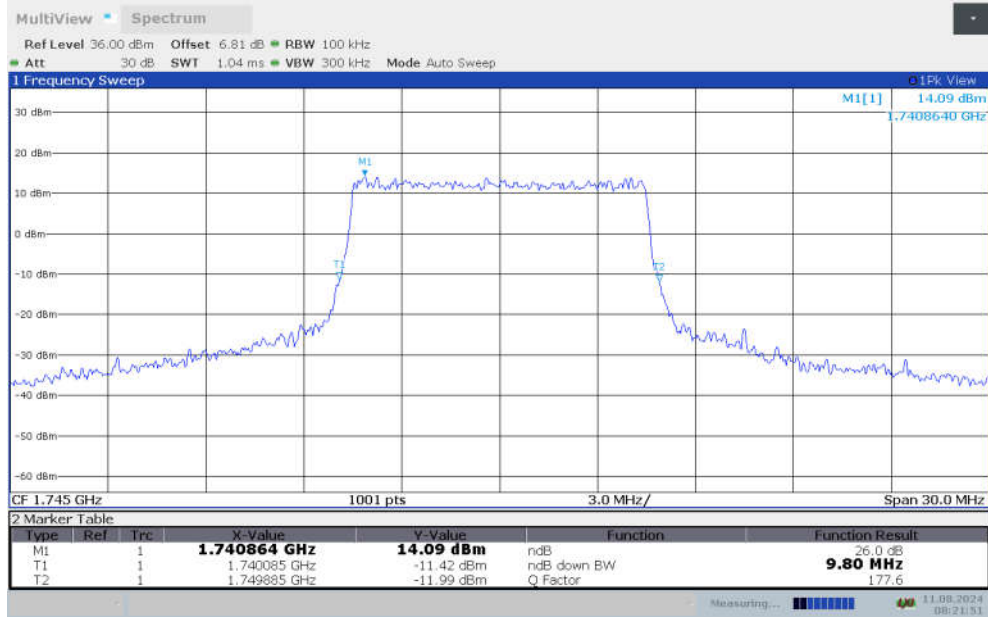


**LTE Band 66 , 10MHz Bandwidth,LOW,16QAM (-26dBc BW)**

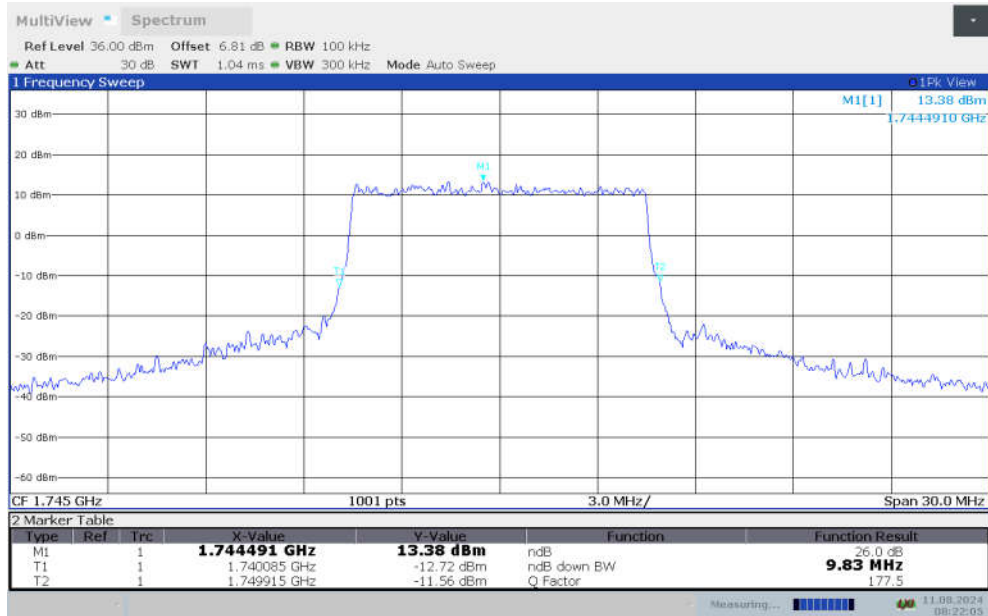




**LTE Band 66 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)**

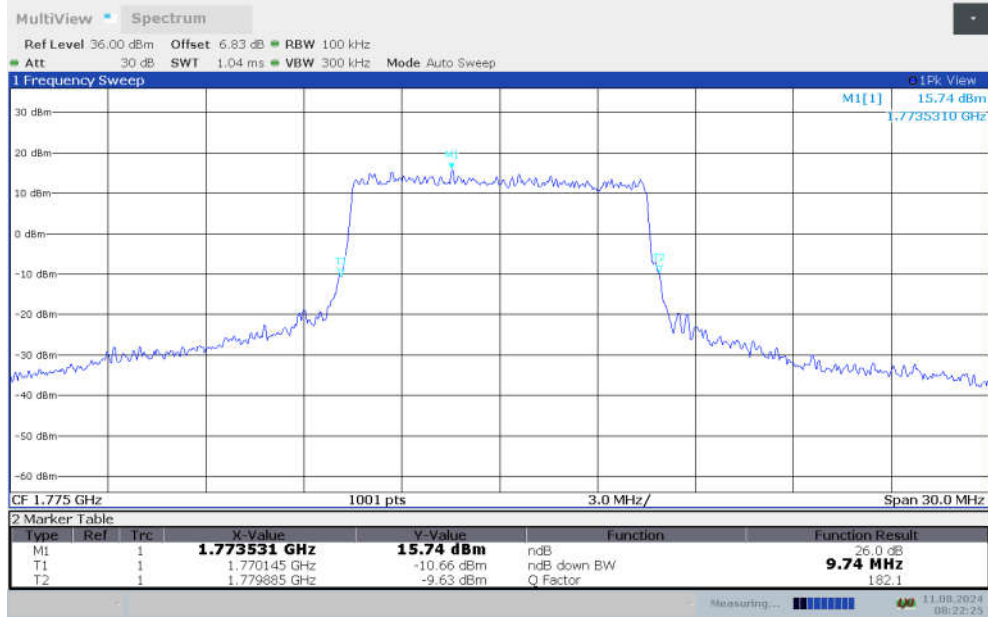


**LTE Band 66 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)**

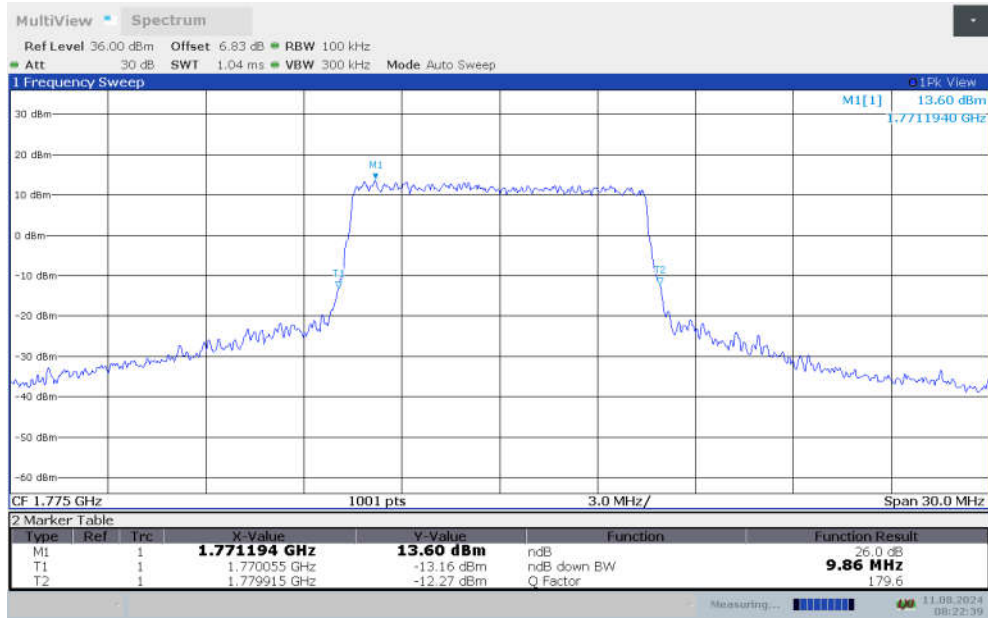




**LTE Band 66 , 10MHz Bandwidth,HIGH,QPSK (-26dBc BW)**



**LTE Band 66 , 10MHz Bandwidth,HIGH,16QAM (-26dBc BW)**



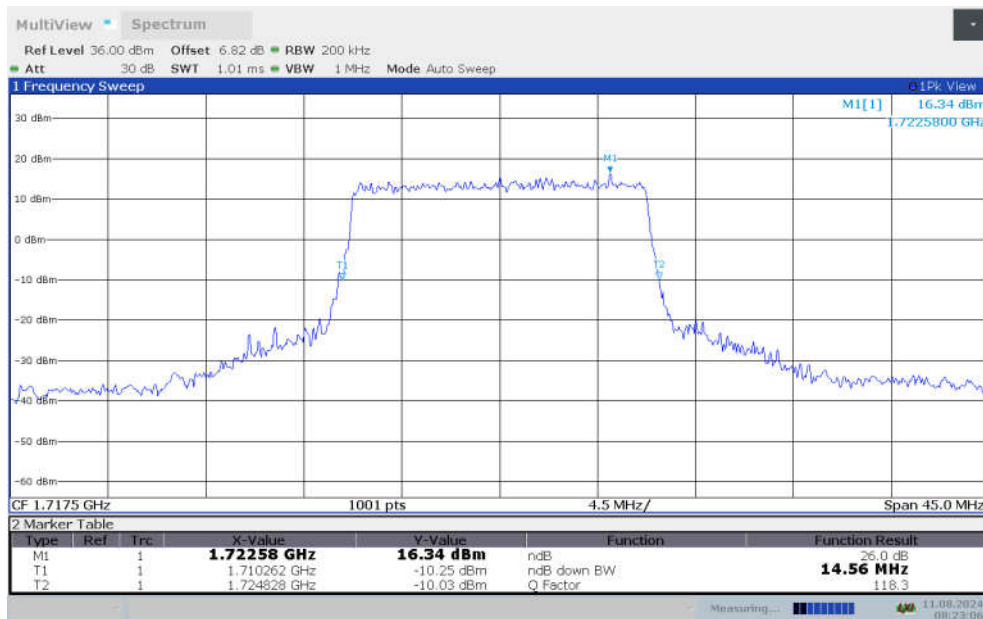




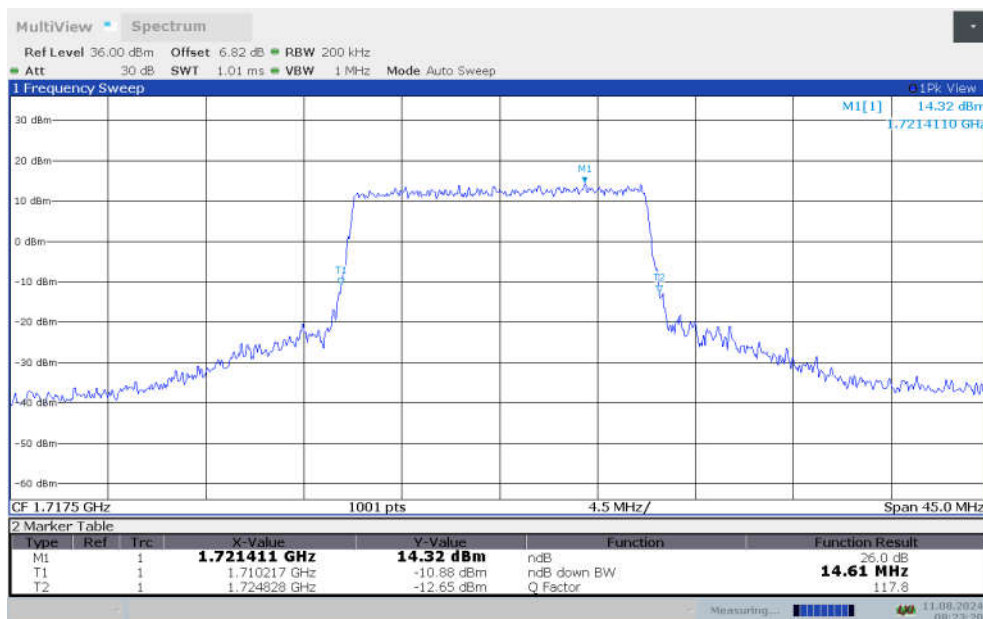
**LTE Band 66,15MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
1717.5	14.565	14.610
1745	14.565	14.610
1772.5	14.655	14.700

**LTE Band 66 , 15MHz Bandwidth,LOW,QPSK (-26dBc BW)**

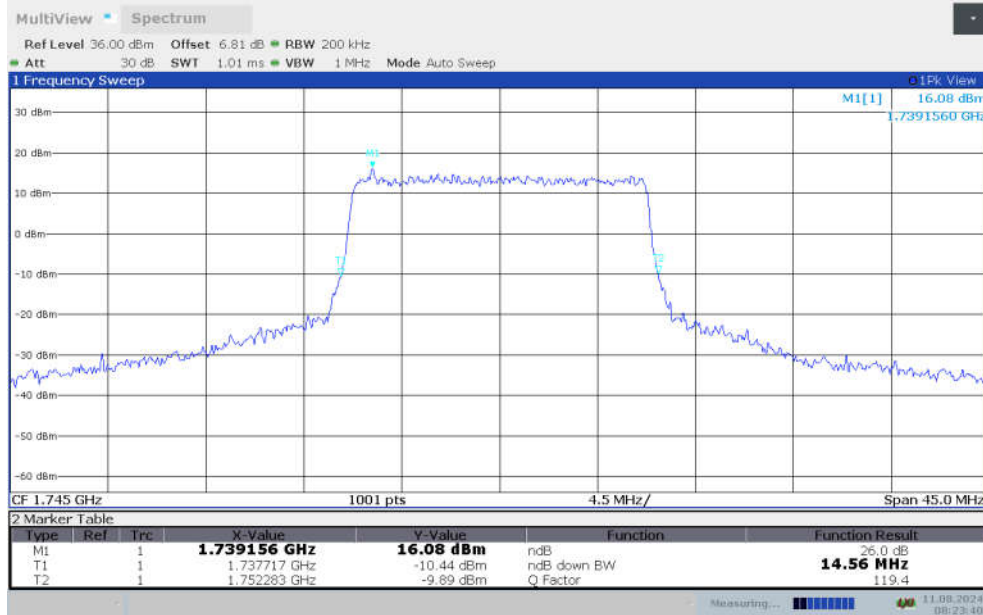


**LTE Band 66 , 15MHz Bandwidth,LOW,16QAM (-26dBc BW)**

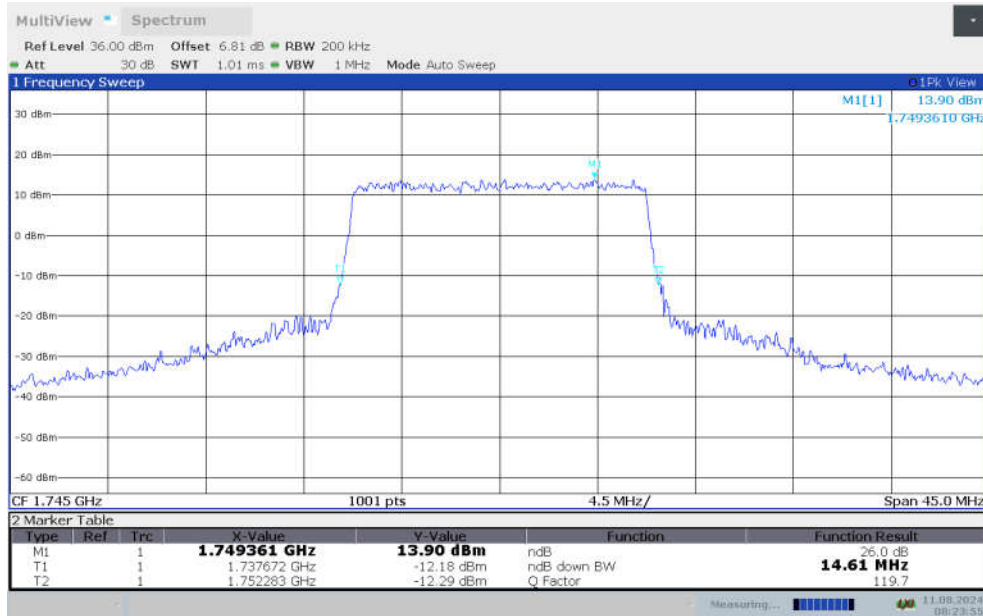




**LTE Band 66 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)**

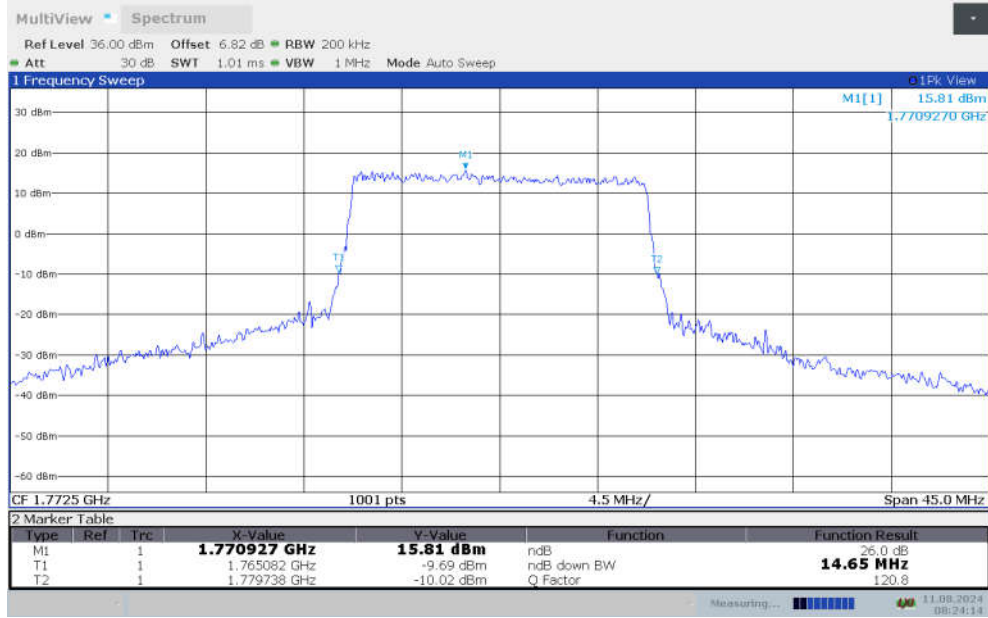


**LTE Band 66 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)**

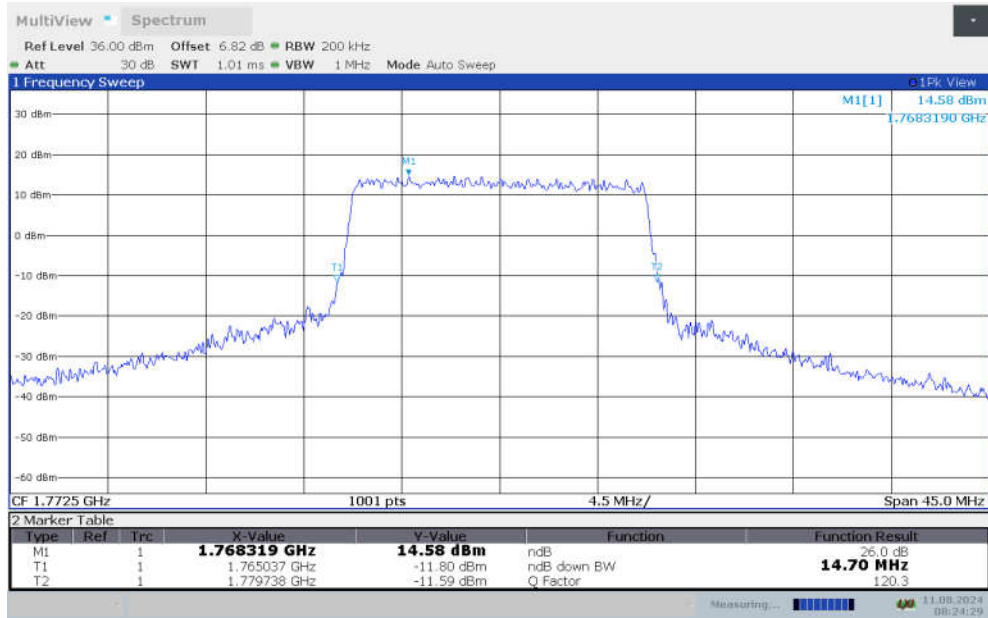




**LTE Band 66 , 15MHz Bandwidth,HIGH,QPSK (-26dBc BW)**



**LTE Band 66 , 15MHz Bandwidth,HIGH,16QAM (-26dBc BW)**

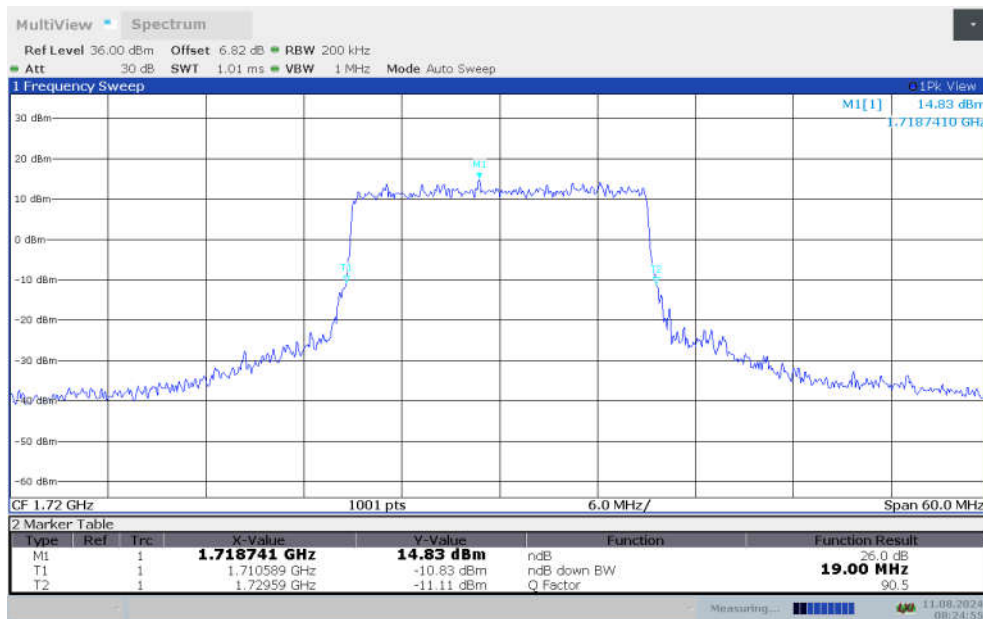




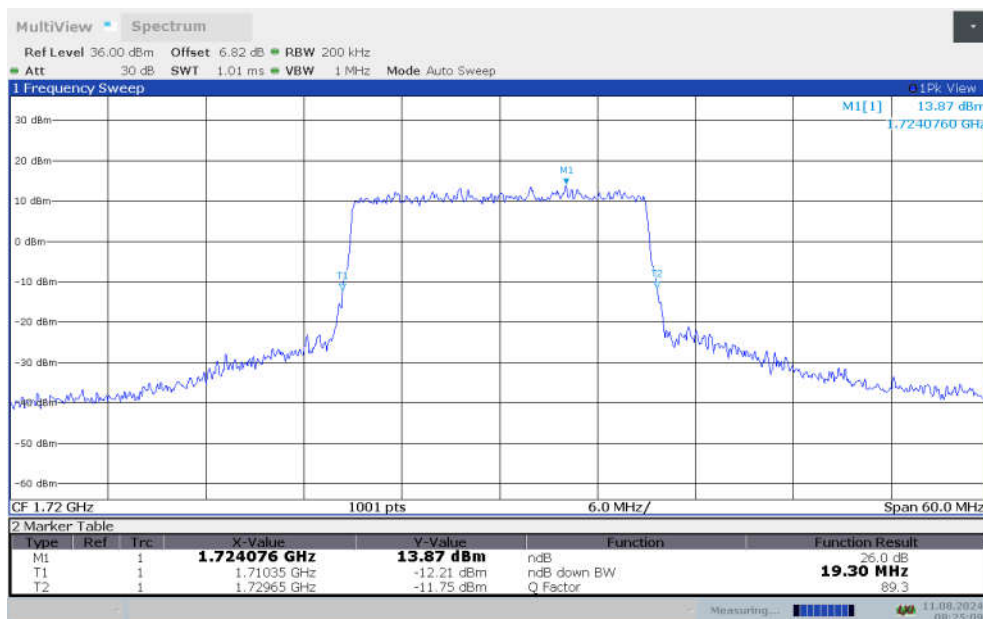
**LTE Band 66,20MHz(-26dBc BW)**

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
1720	19.001	19.301
1745	19.421	19.121
1770	19.181	19.421

**LTE Band 66 , 20MHz Bandwidth,LOW,QPSK (-26dBc BW)**

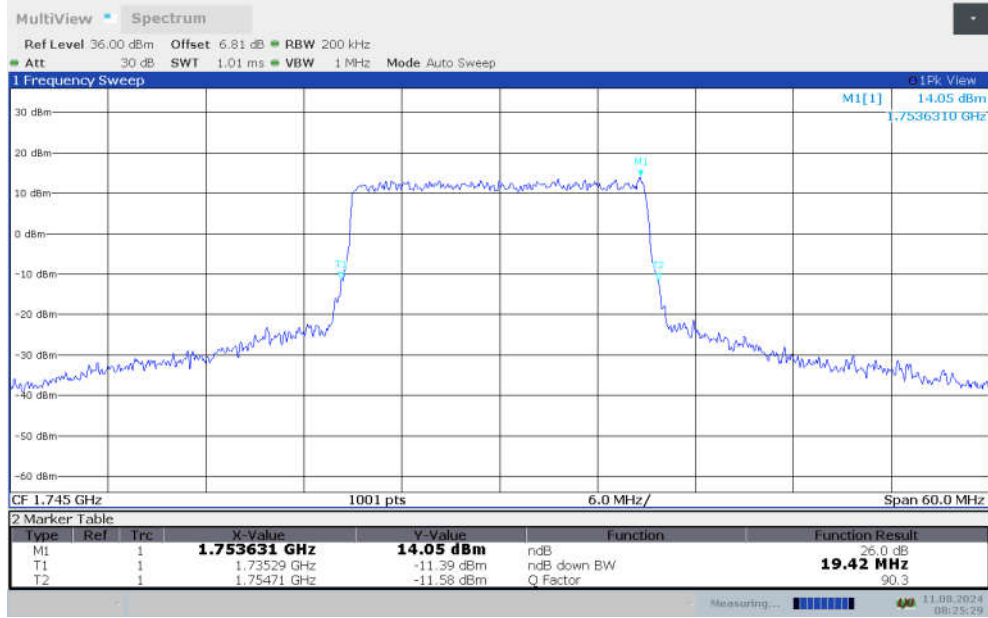


**LTE Band 66 , 20MHz Bandwidth,LOW,16QAM (-26dBc BW)**

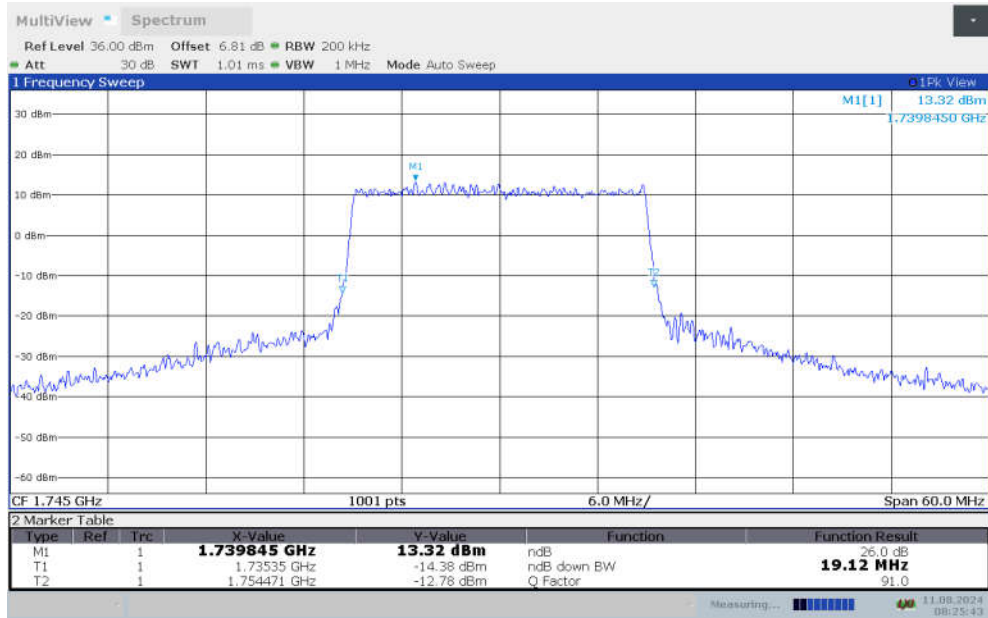




**LTE Band 66 , 20MHz Bandwidth,MID,QPSK (-26dBc BW)**

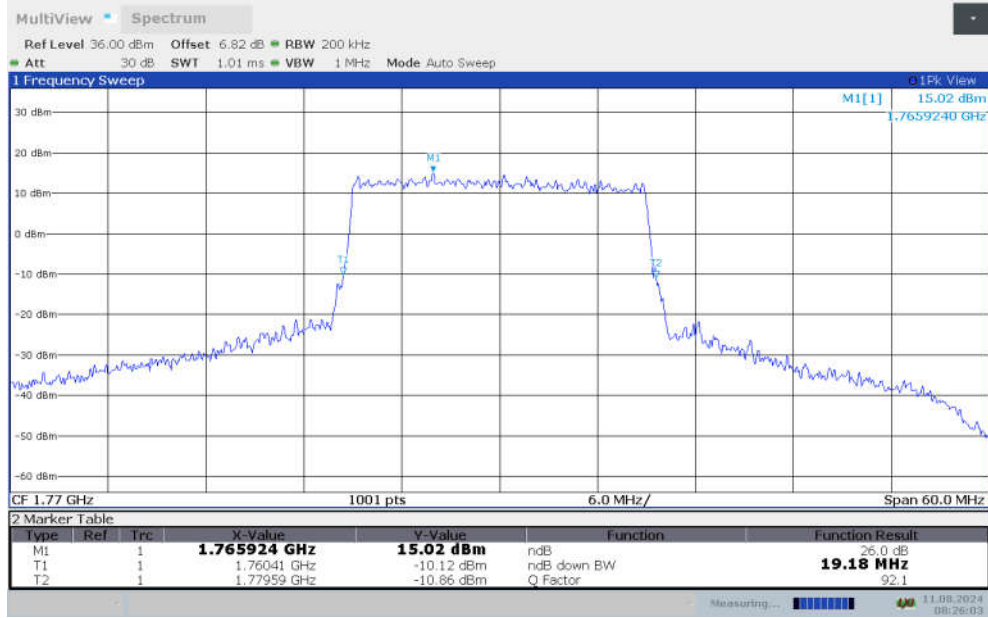


**LTE Band 66 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)**

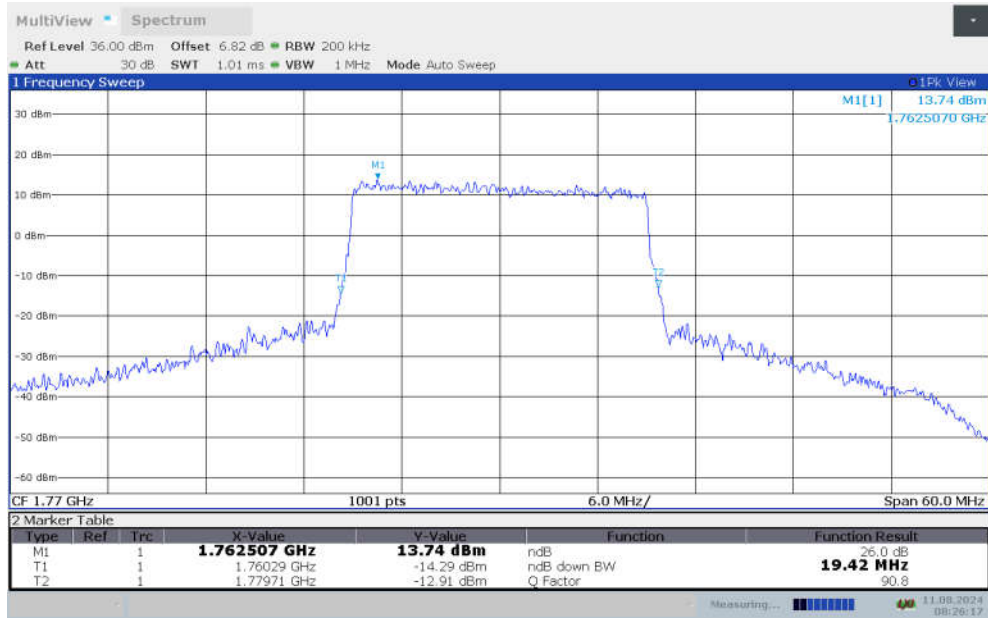




**LTE Band 66 , 20MHz Bandwidth,HIGH,QPSK (-26dBc BW)**



**LTE Band 66 , 20MHz Bandwidth,HIGH,16QAM (-26dBc BW)**

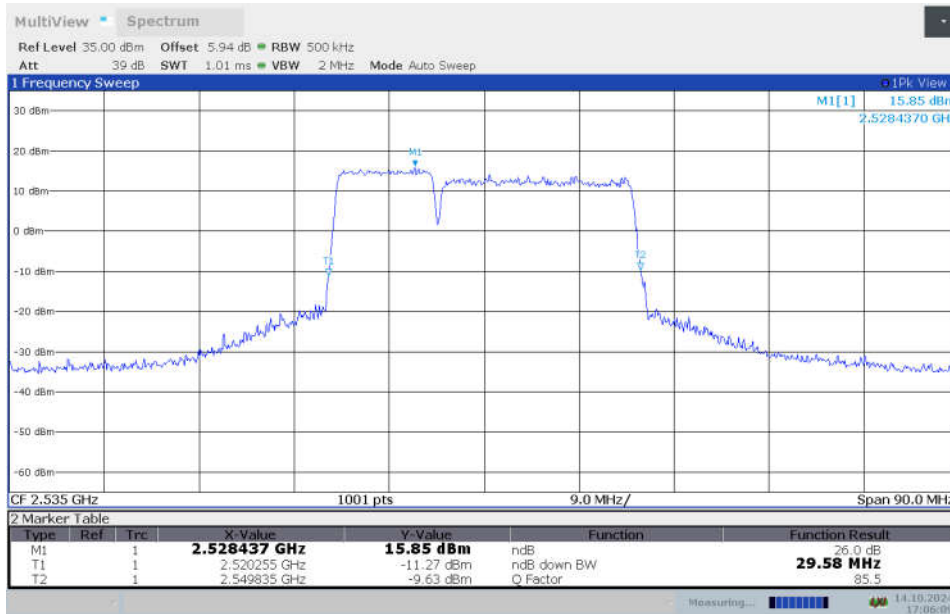




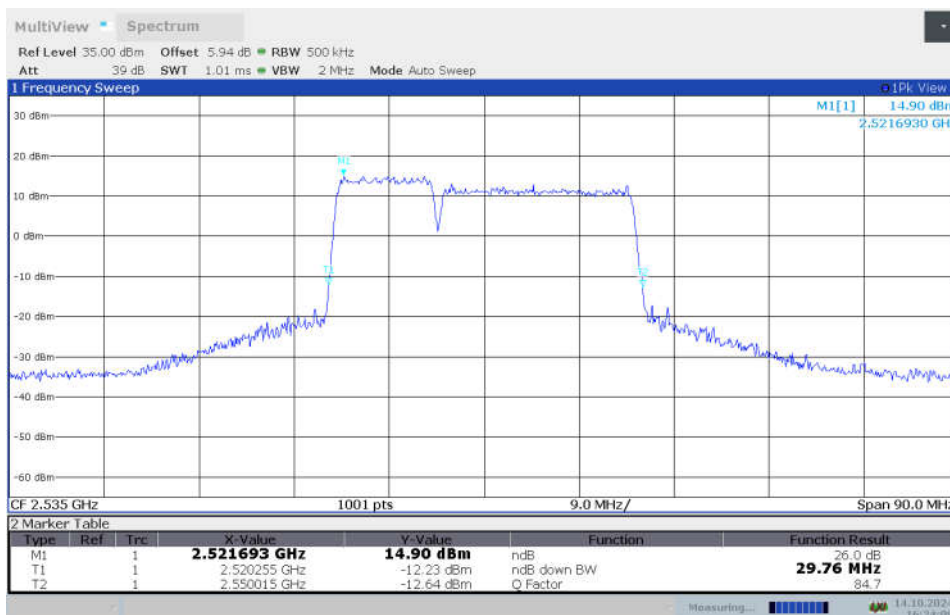
**LTE CA\_7C, 10MHz+20MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2535.0	29.580	29.760

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



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

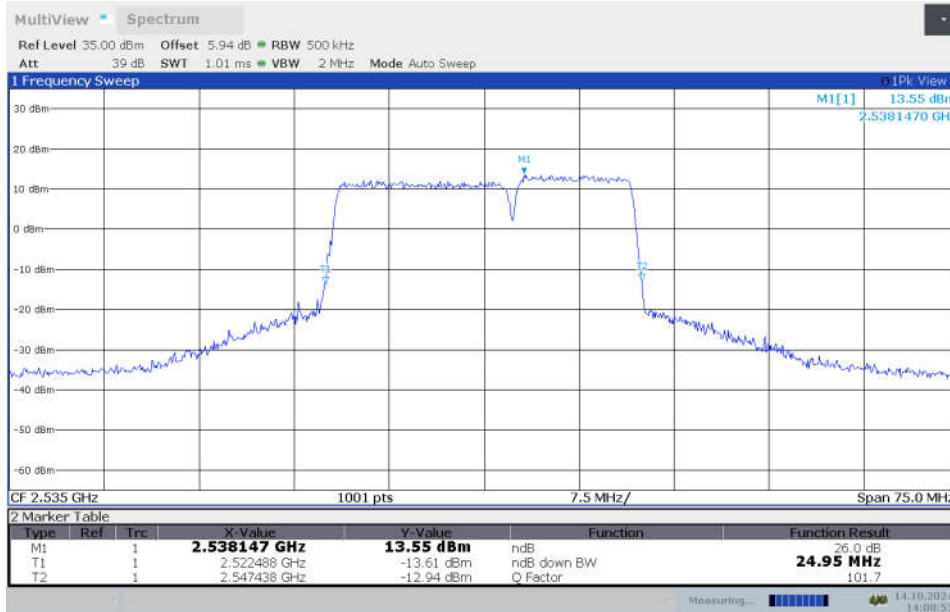




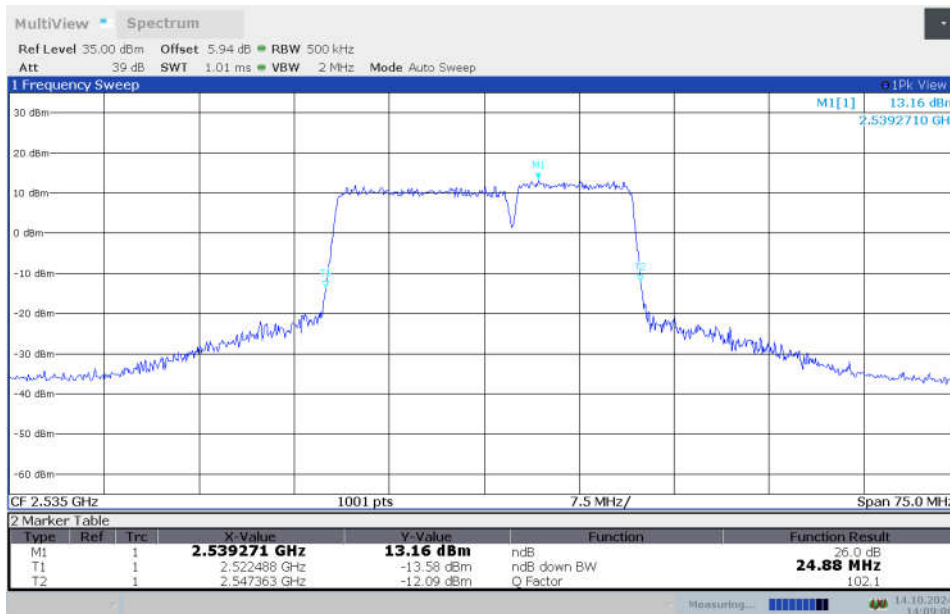
**LTE CA\_7C, 15MHz+10MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2535.0	24.950	24.875

**LTE CA\_7C , 15MHz+10MHz Bandwidth,QPSK (-26dBc BW)**



**LTE CA\_7C , 15MHz+10MHz Bandwidth,16QAM (-26dBc BW)**



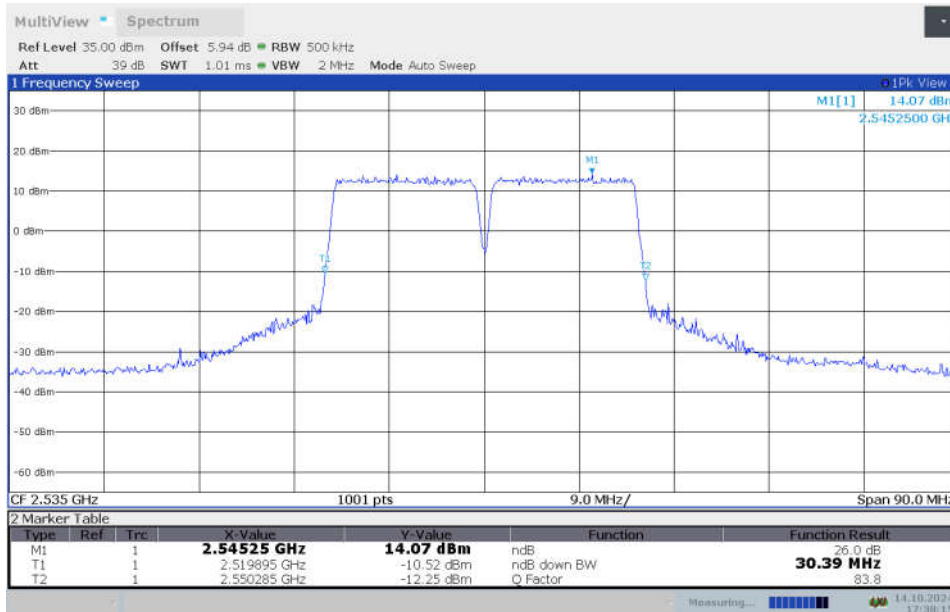




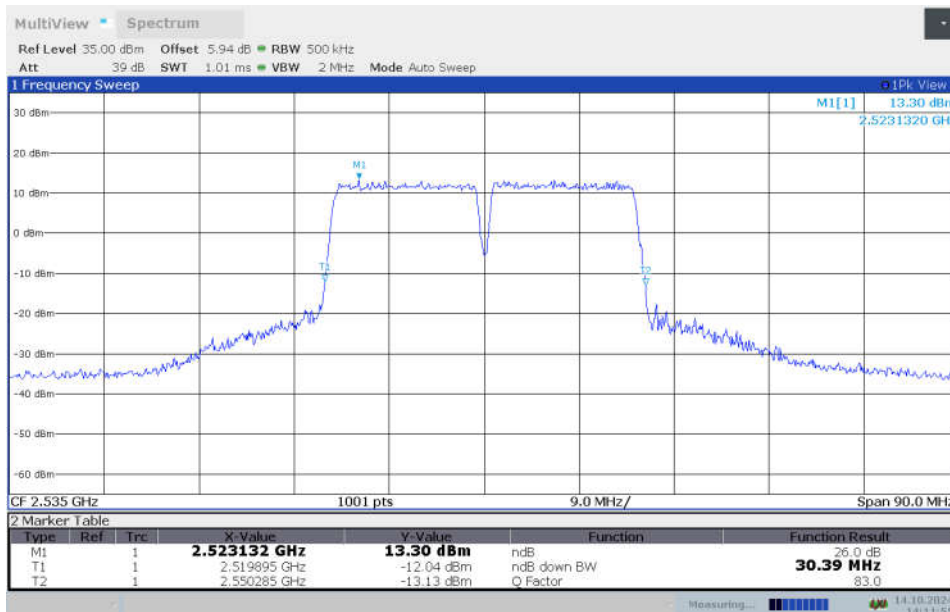
**LTE CA\_7C, 15MHz+15MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2535.0	30.390	30.390

**LTE CA\_7C , 15MHz+15MHz Bandwidth,QPSK (-26dBc BW)**



**LTE CA\_7C , 15MHz+15MHz Bandwidth,16QAM (-26dBc BW)**

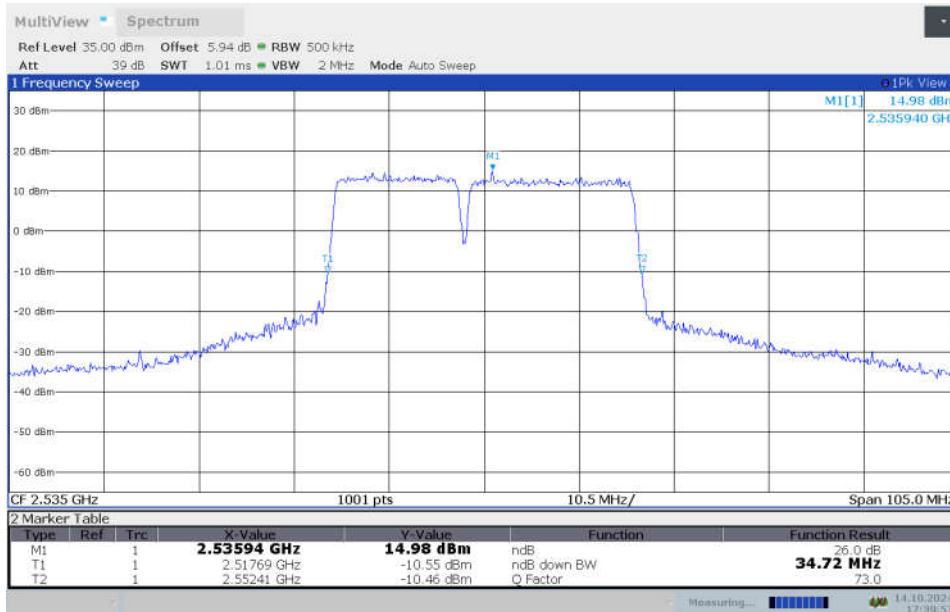




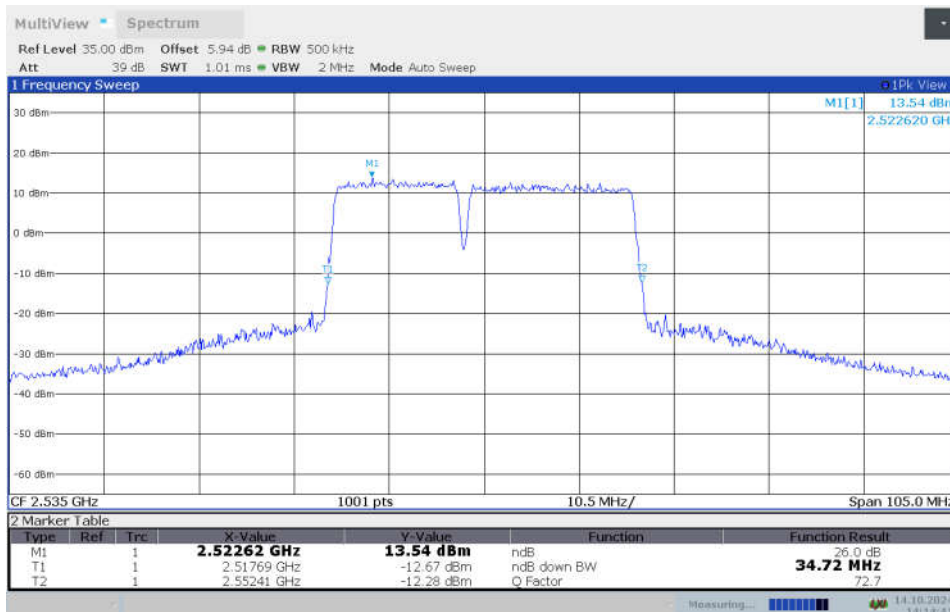
**LTE CA\_7C, 15MHz+20MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2535.0	34.720	34.720

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



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

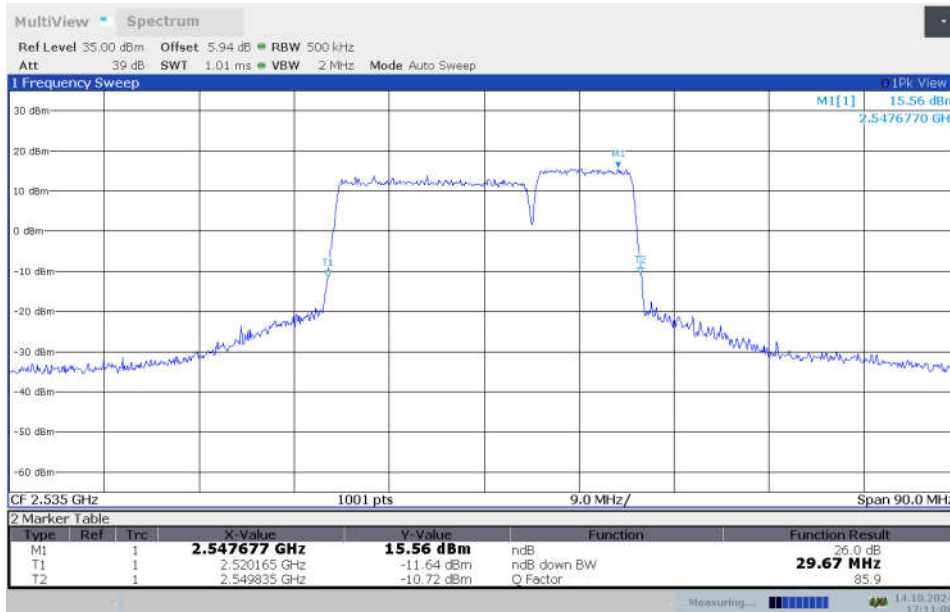




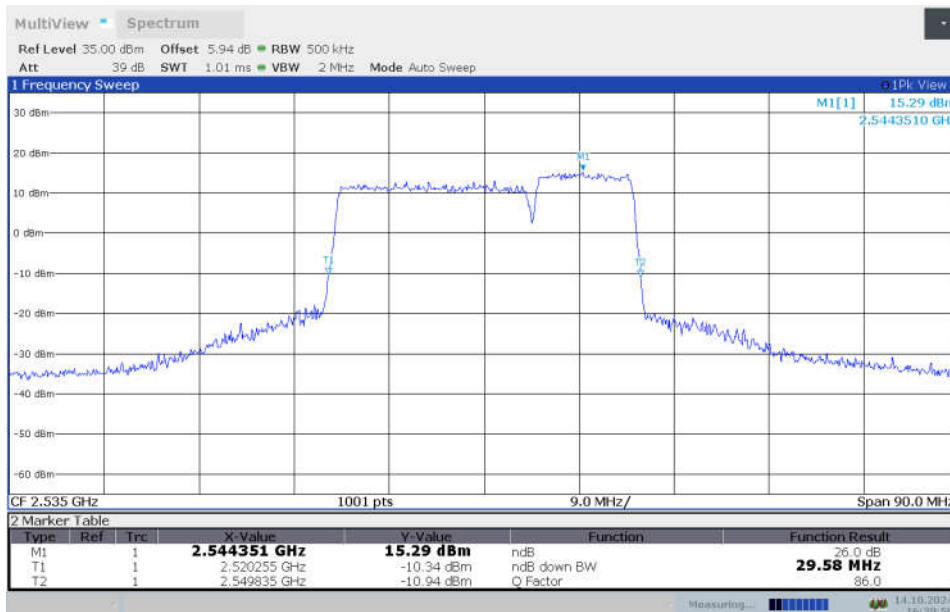
**LTE CA\_7C, 20MHz+10MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2535.0	29.670	29.580

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



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

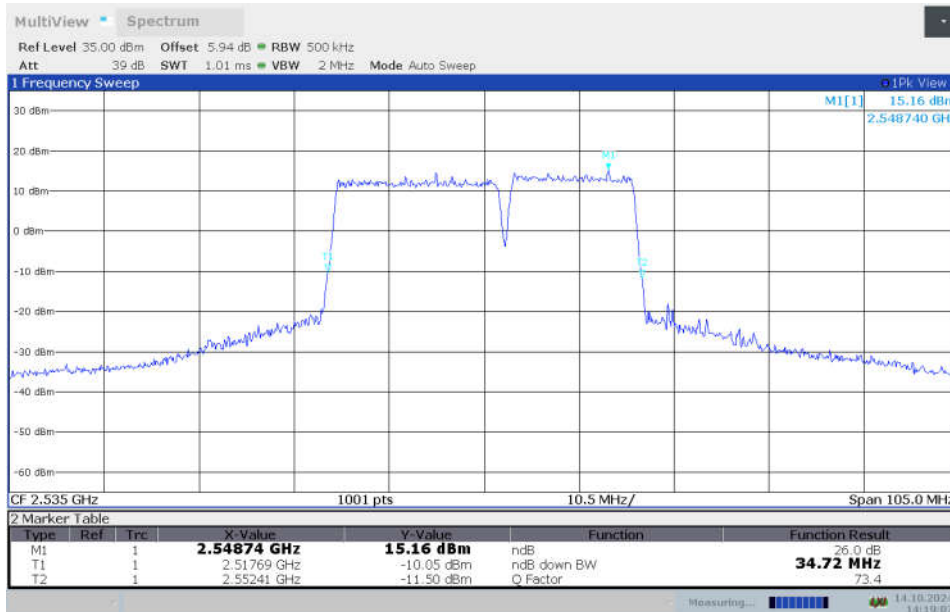




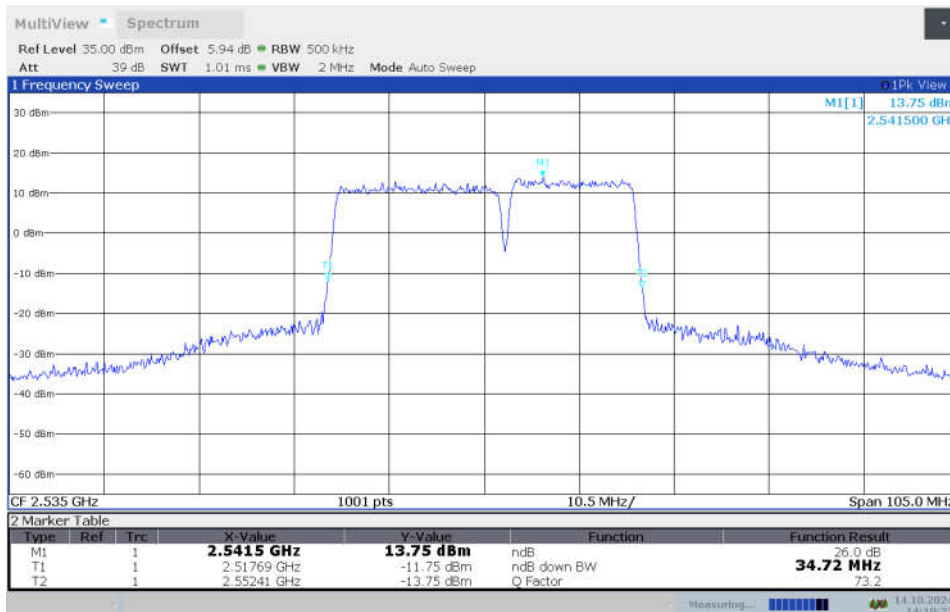
**LTE CA\_7C, 20MHz+15MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2535.0	34.720	34.720

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



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

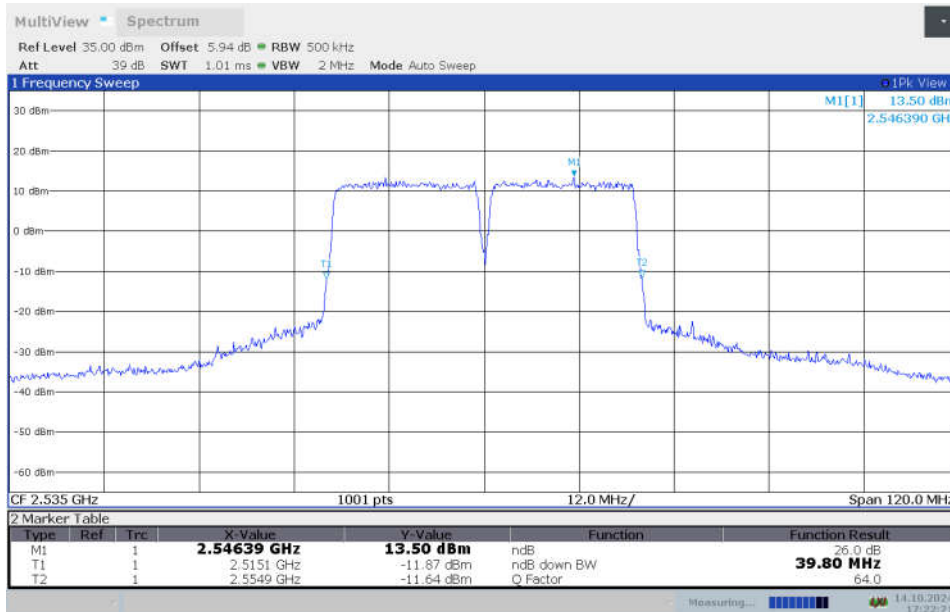




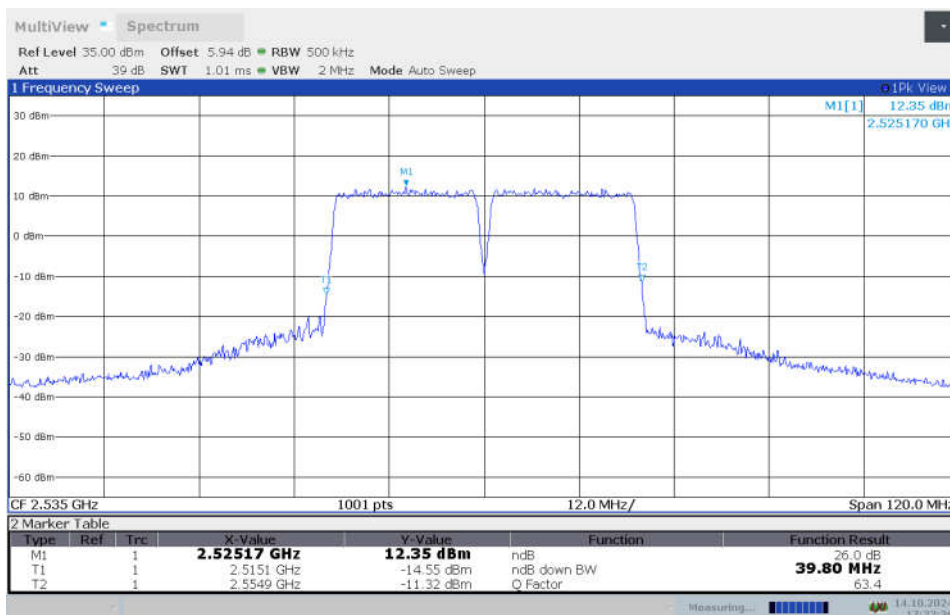
**LTE CA\_7C, 20MHz+20MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2535.0	39.800	39.800

**LTE CA\_7C , 20MHz+20MHz Bandwidth,QPSK (-26dBc BW)**



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

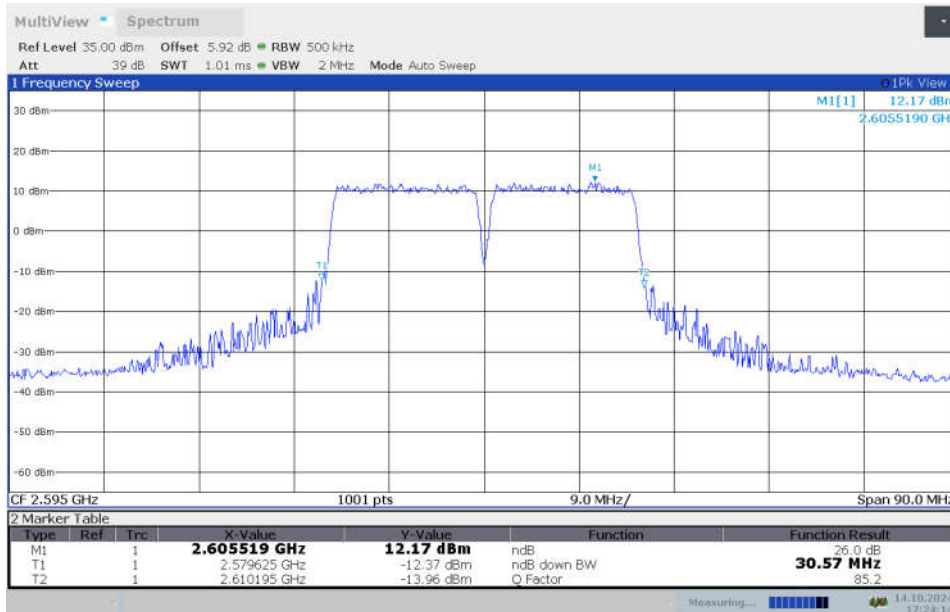




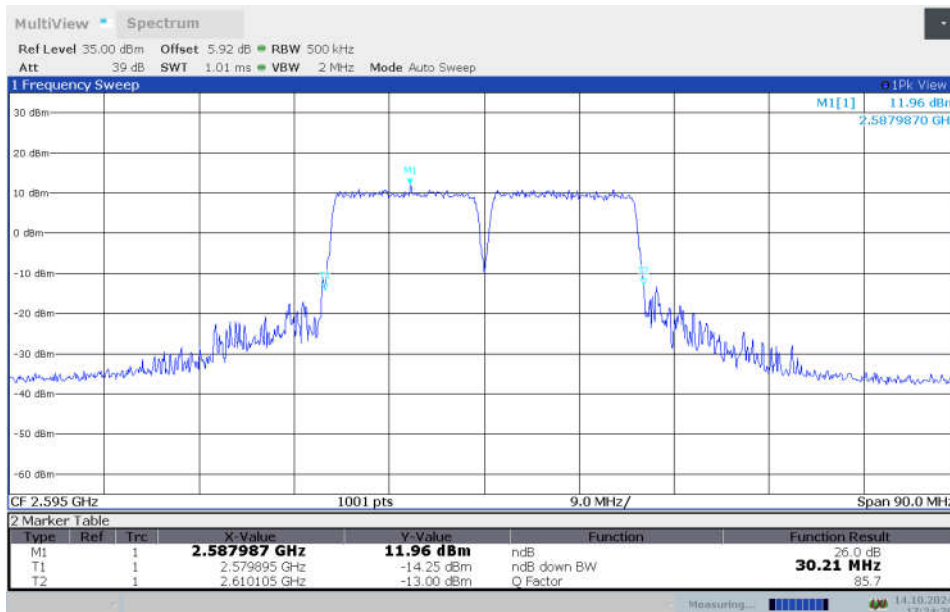
**LTE CA\_38C, 15MHz+15MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2595.0	30.569	30.210

**LTE CA\_38C , 15MHz+15MHz Bandwidth,QPSK (-26dBc BW)**



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

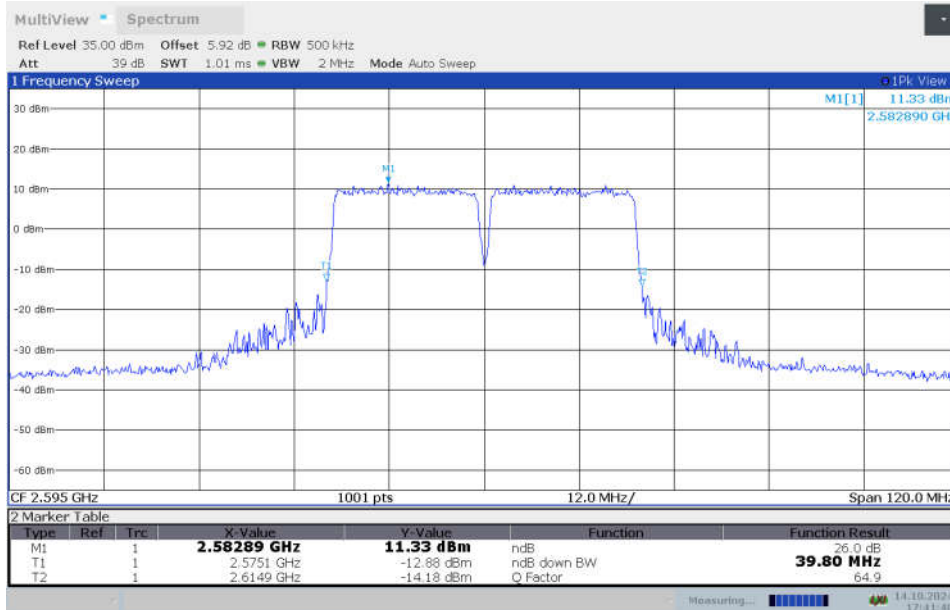




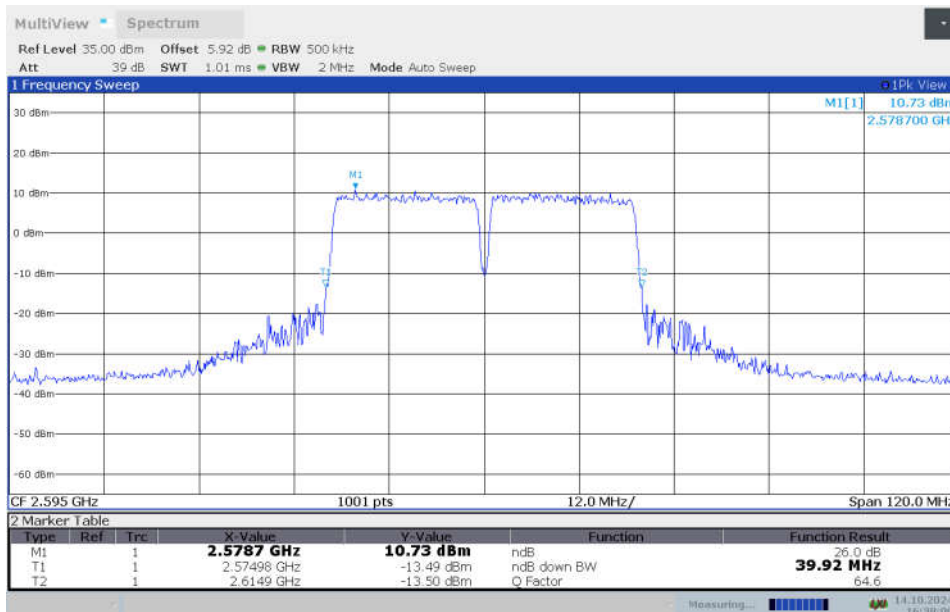
**LTE CA\_38C, 20MHz+20MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2595.0	39.800	39.920

**LTE CA\_38C , 20MHz+20MHz Bandwidth,QPSK (-26dBc BW)**



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

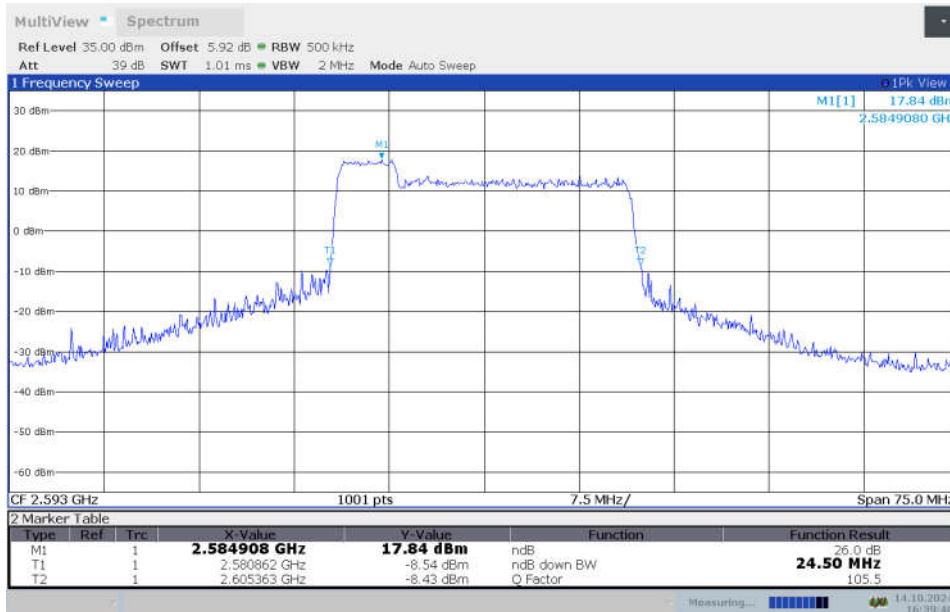




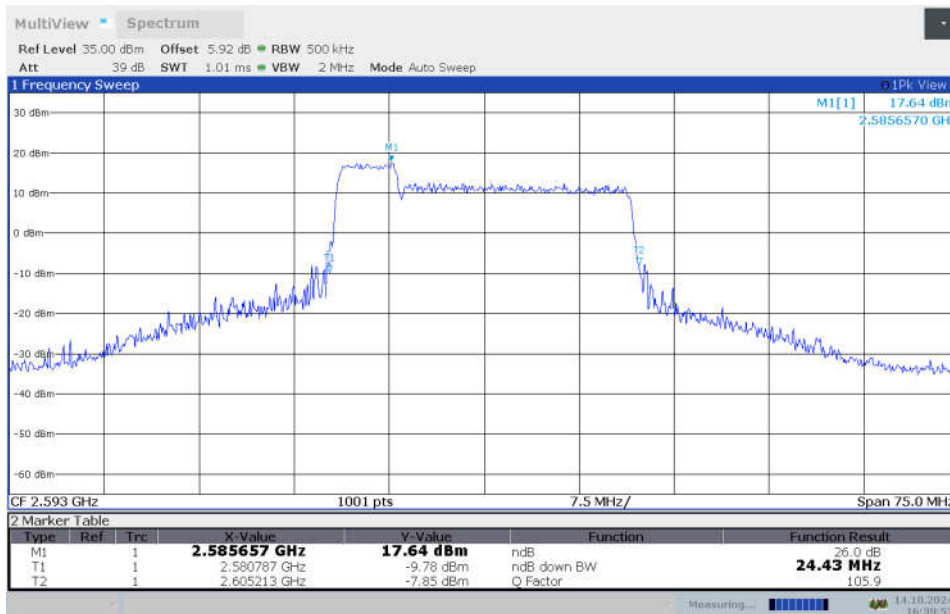
**LTE CA\_41C, 5MHz+20MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	24.500	24.426

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



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



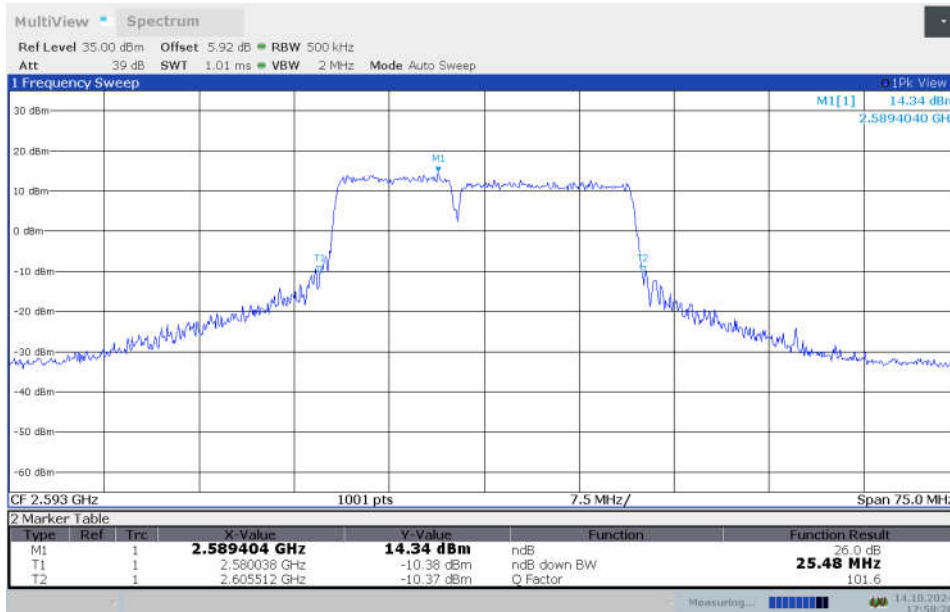




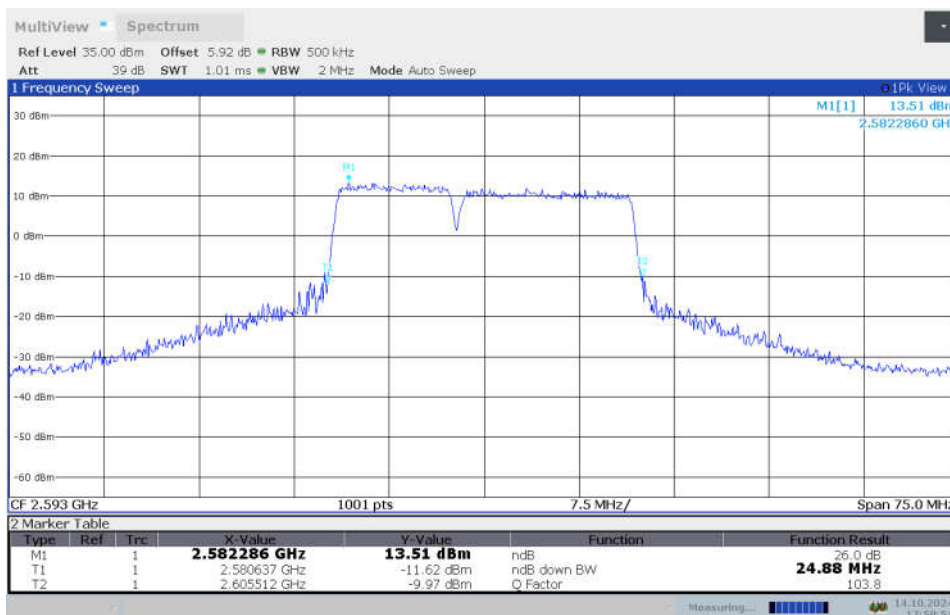
**LTE CA\_41C, 10MHz+15MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	25.475	24.875

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



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

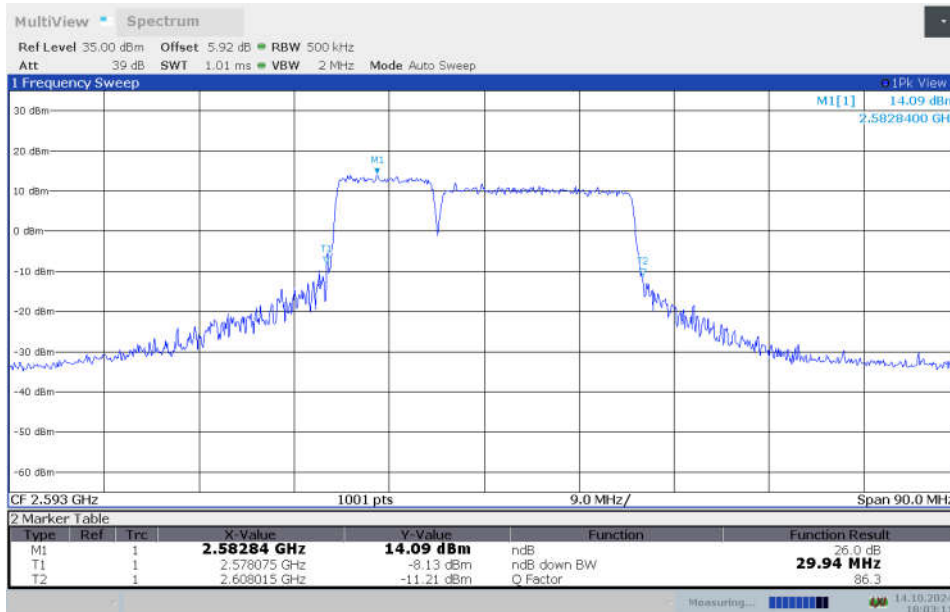




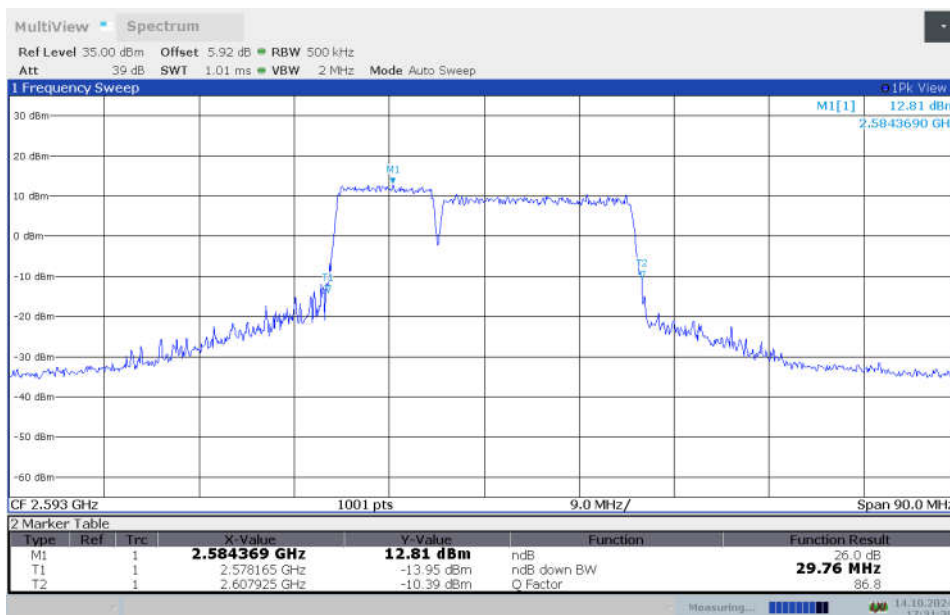
**LTE CA\_41C, 10MHz+20MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	29.940	29.760

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



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

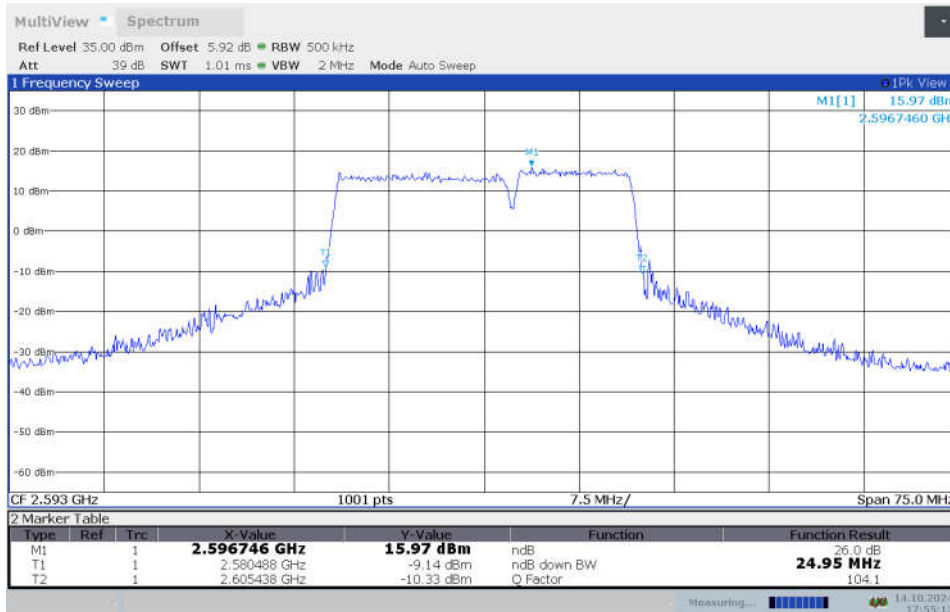




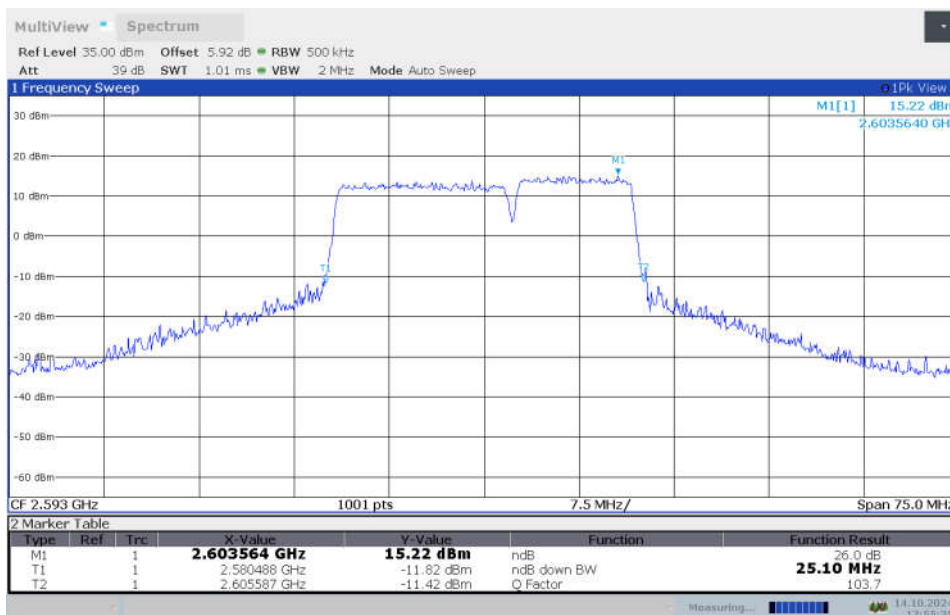
**LTE CA\_41C, 15MHz+10MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	24.950	25.100

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



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

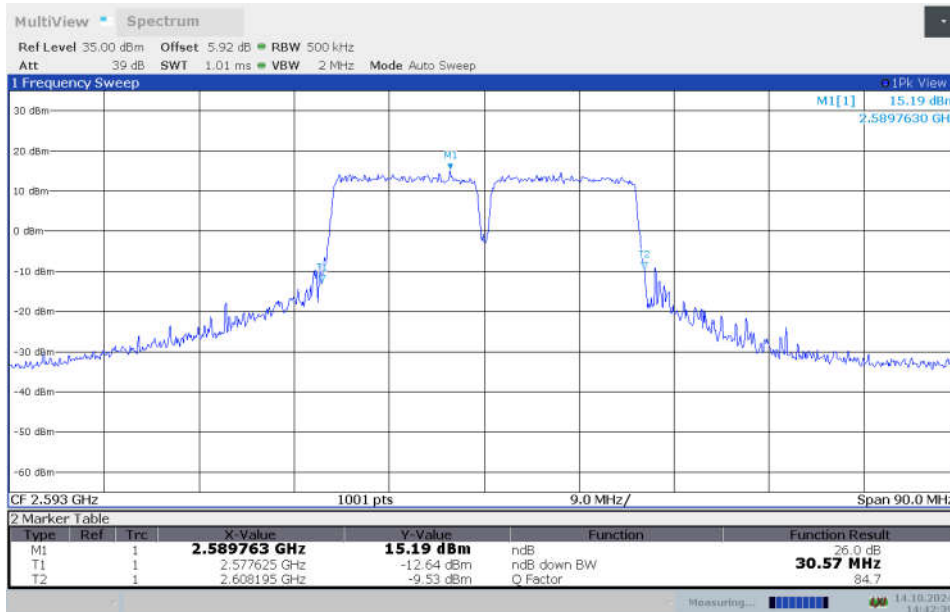




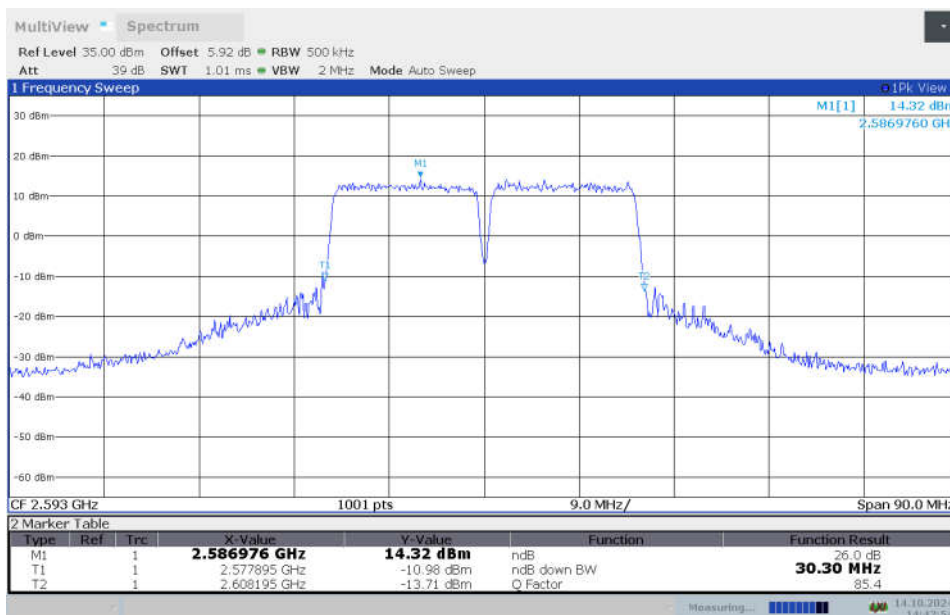
**LTE CA\_41C, 15MHz+15MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	30.569	30.300

**LTE CA\_41C , 15MHz+15MHz Bandwidth,QPSK (-26dBc BW)**



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

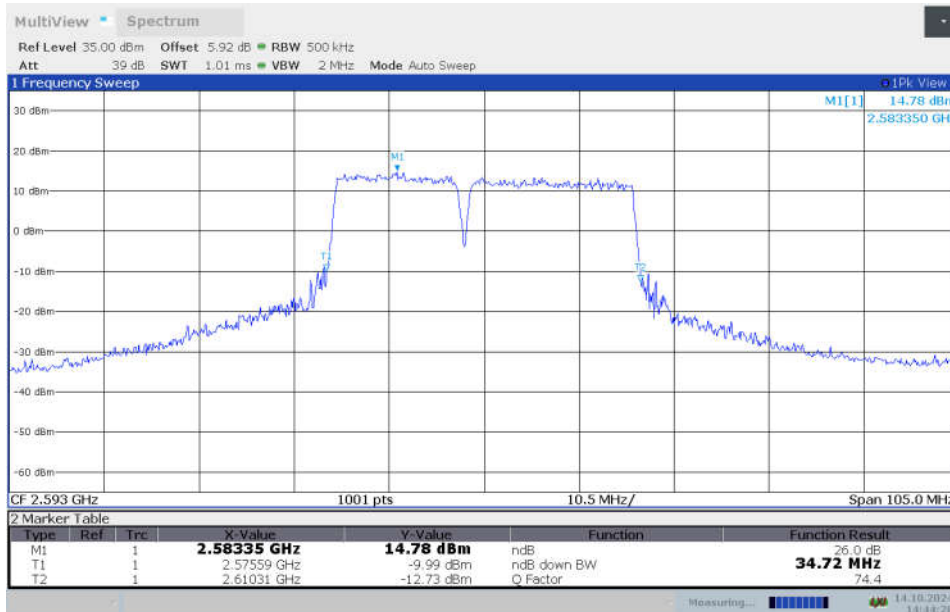




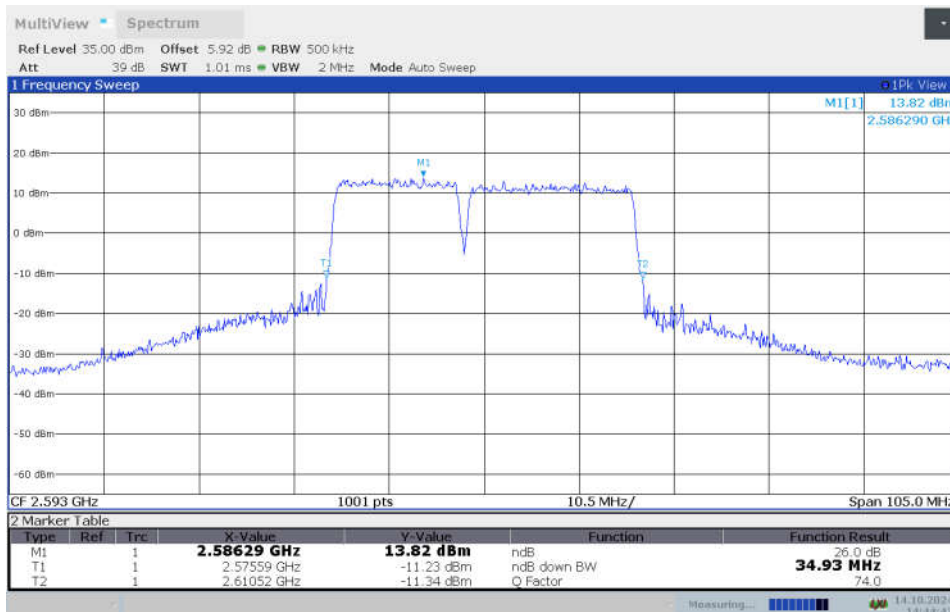
**LTE CA\_41C, 15MHz+20MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	34.720	34.930

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



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

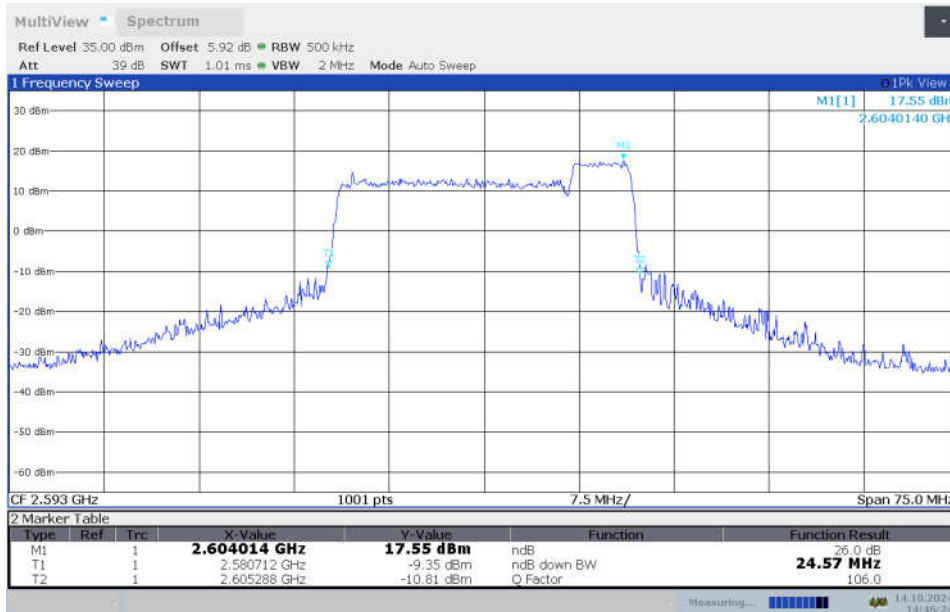




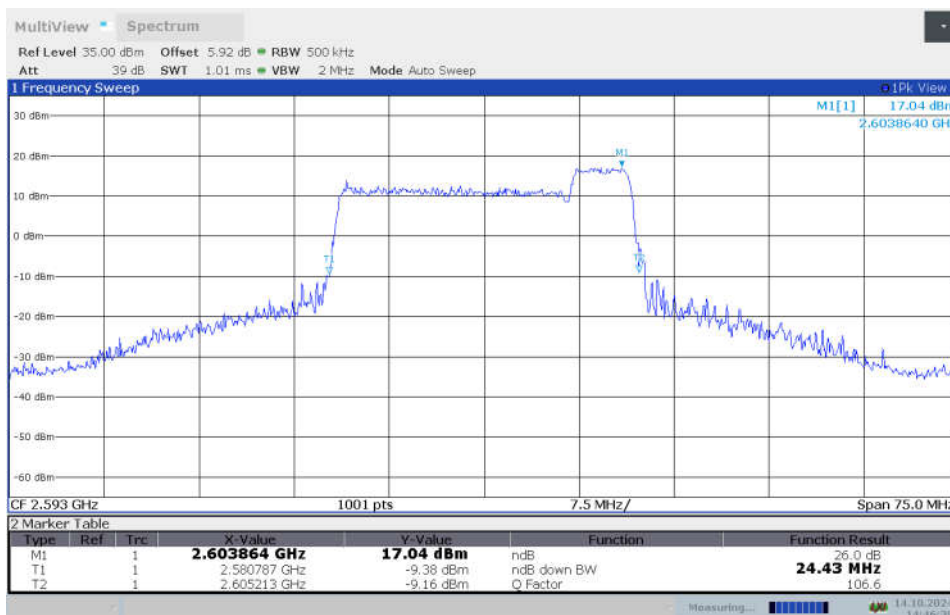
**LTE CA\_41C, 20MHz+5MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	24.575	24.426

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



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

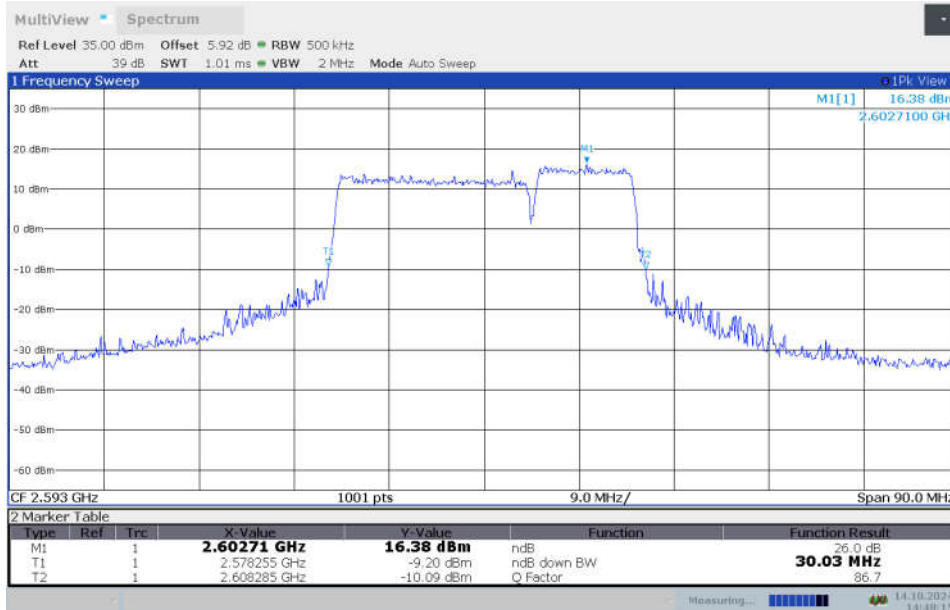




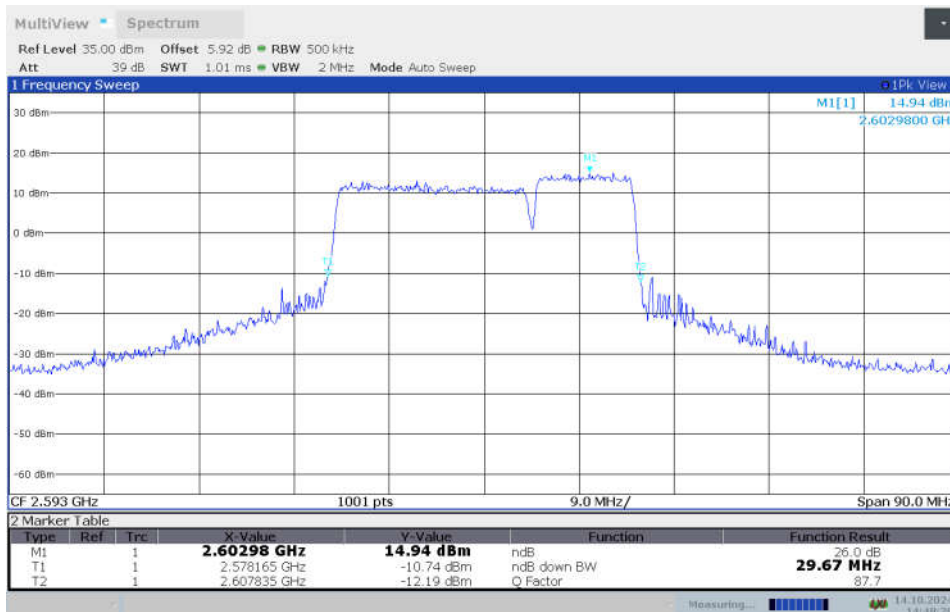
**LTE CA\_41C, 20MHz+10MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	30.030	29.670

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



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

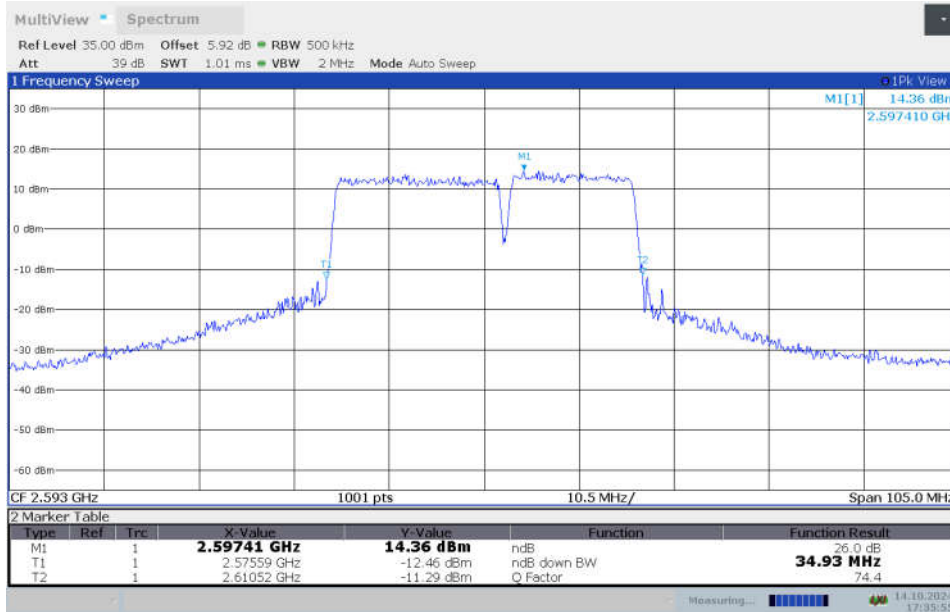




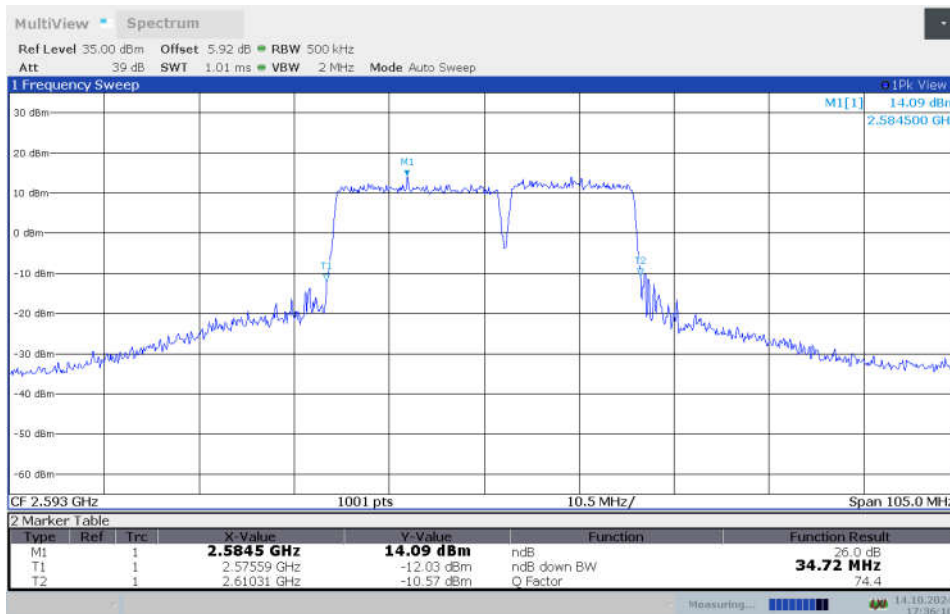
**LTE CA\_41C, 20MHz+15MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	34.930	34.720

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



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



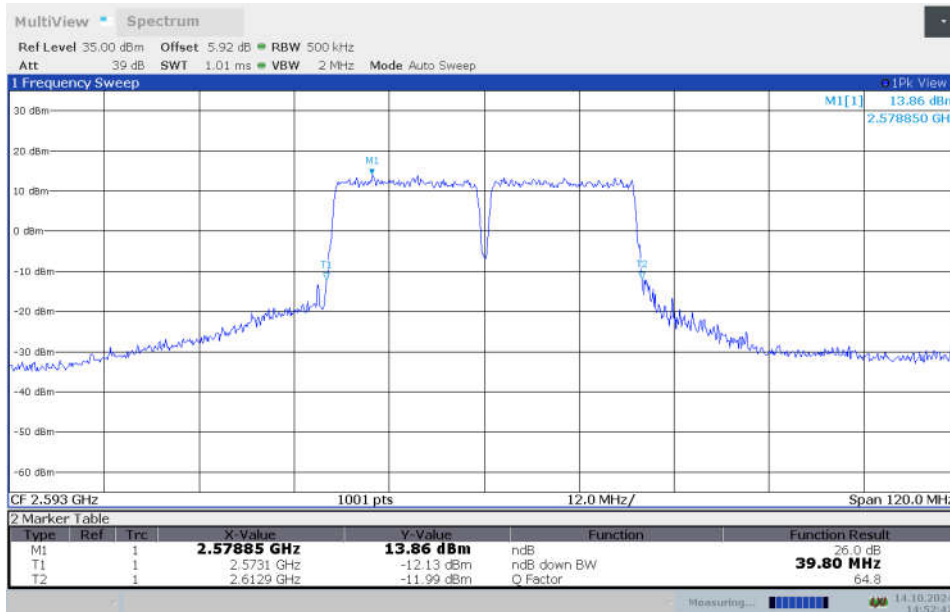




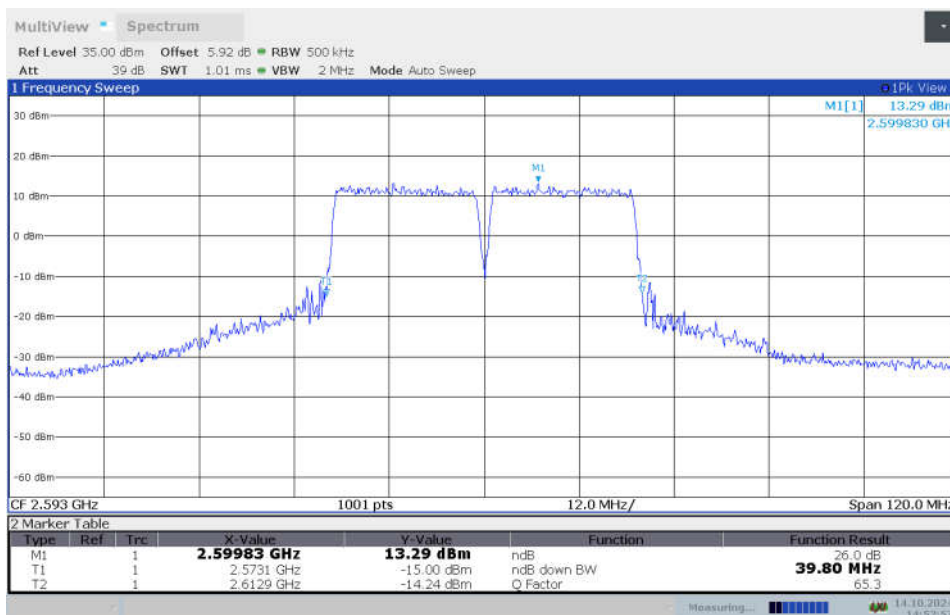
**LTE CA\_41C, 20MHz+20MHz(-26dBc BW)**

Frequency (MHz)	Emission Bandwidth (-26dBc BW) (MHz)	
	QPSK	16QAM
2593.0	39.800	39.800

**LTE CA\_41C , 20MHz+20MHz Bandwidth,QPSK (-26dBc BW)**



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



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



## **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(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.

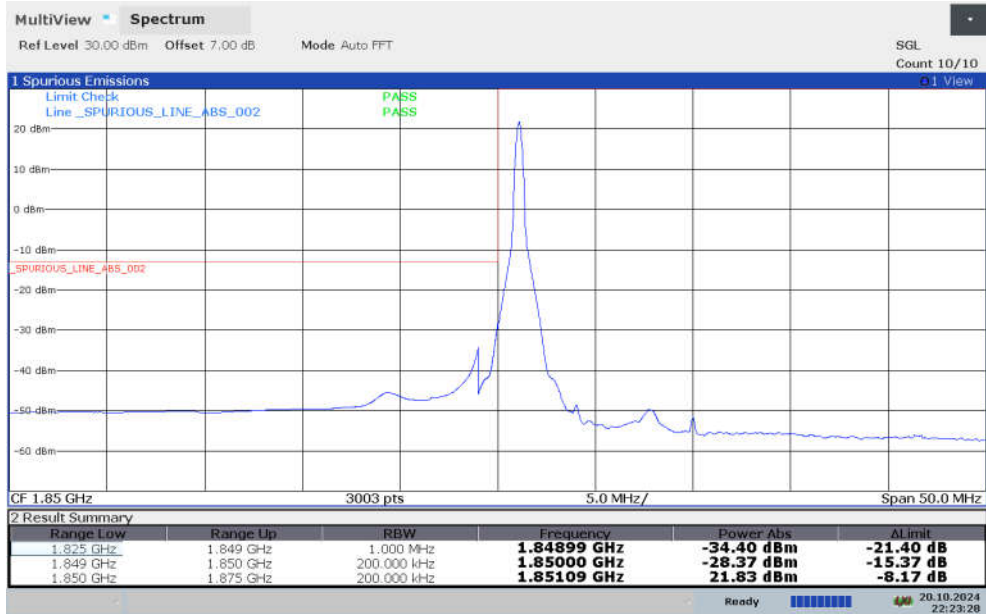
### **A.6.2 Measurement result**

**Only worst case result is given below**

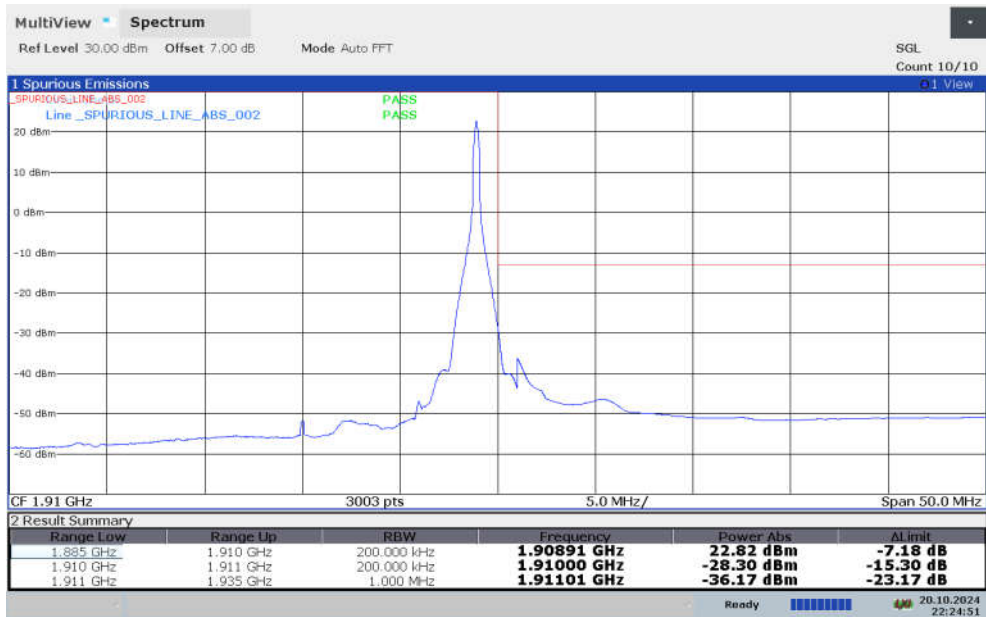


LTE Band 2

LOW BAND EDGE BLOCK-1RB-low\_offset



HIGH BAND EDGE BLOCK-1RB-high\_offset





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



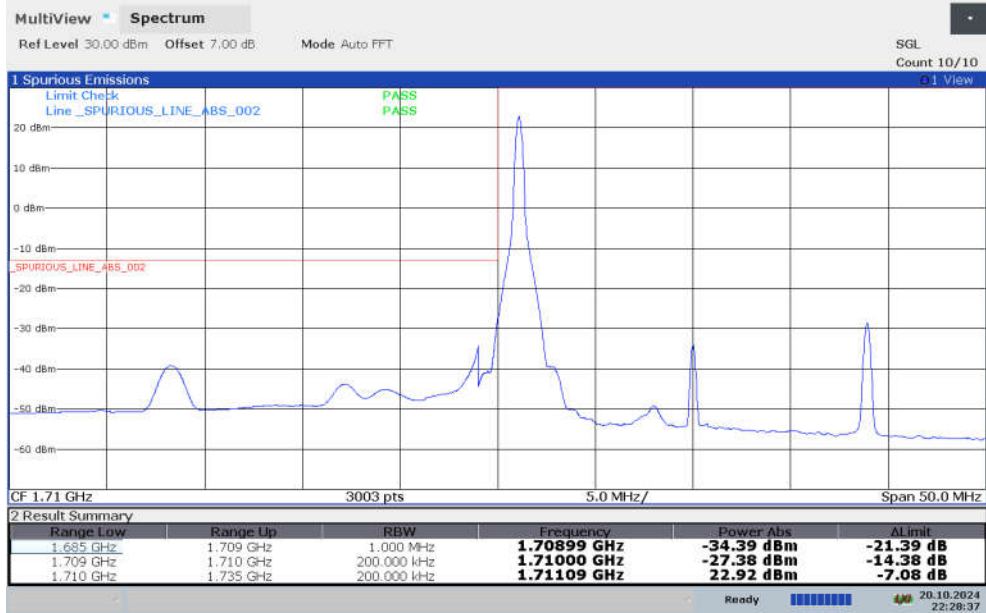
**HIGH BAND EDGE BLOCK-20MHz-100%RB**





### LTE Band 4

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



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

