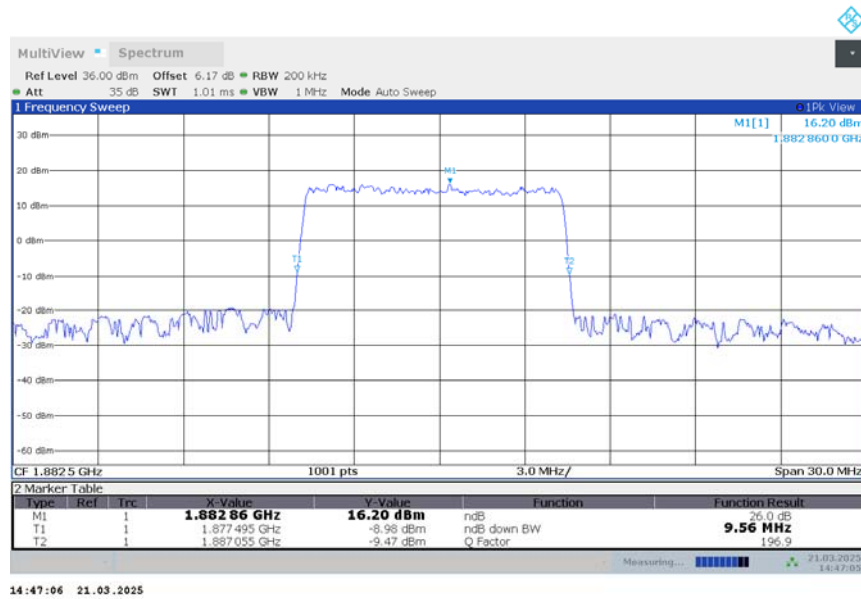


n25,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

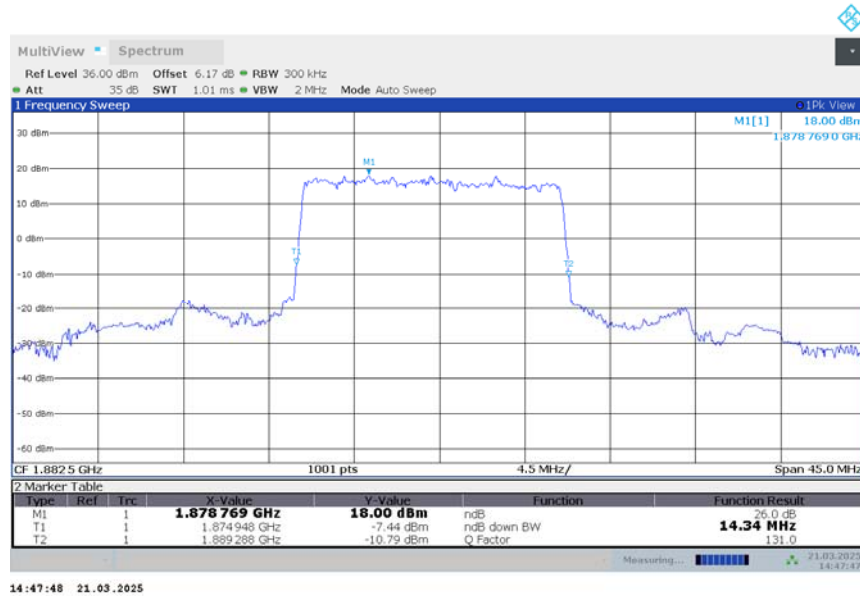


n25

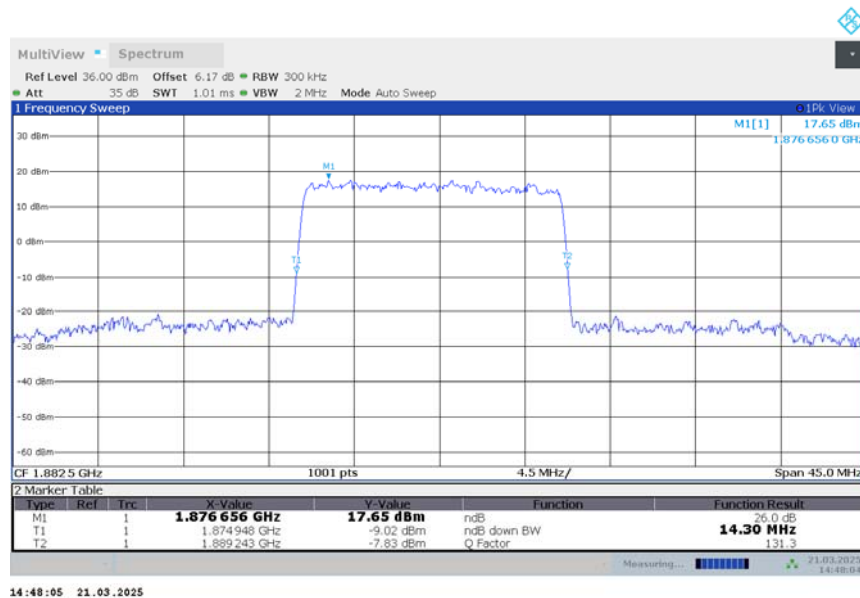
n25,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	14.341	14.296	14.296

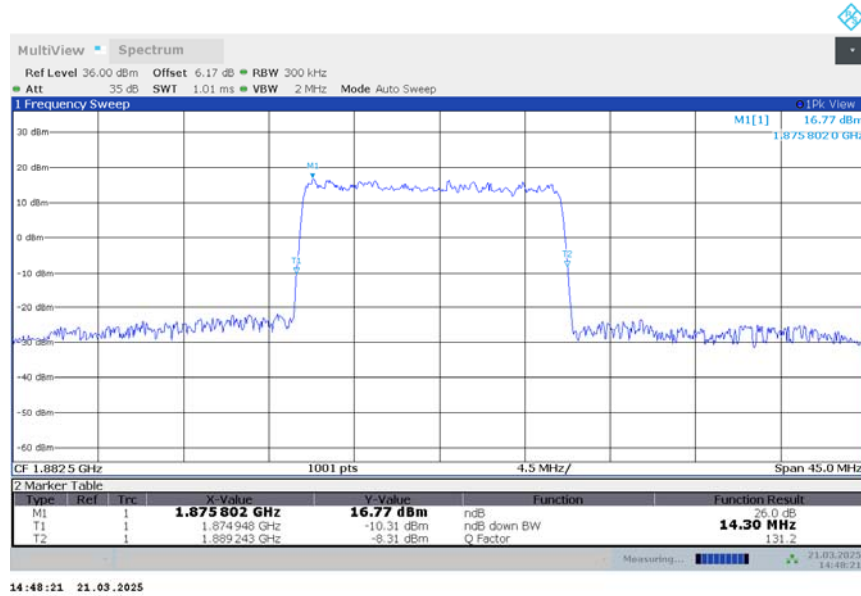
n25,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n25,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n25,15MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

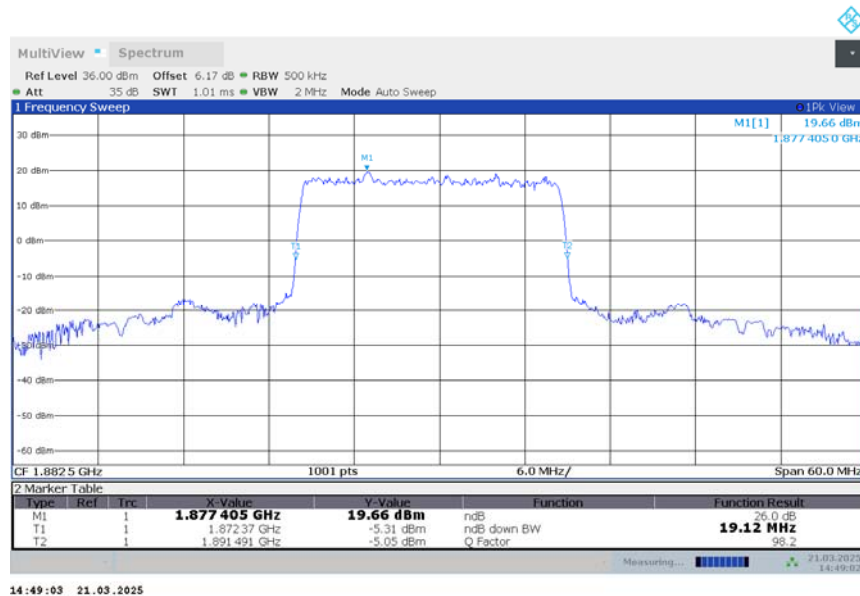


n25

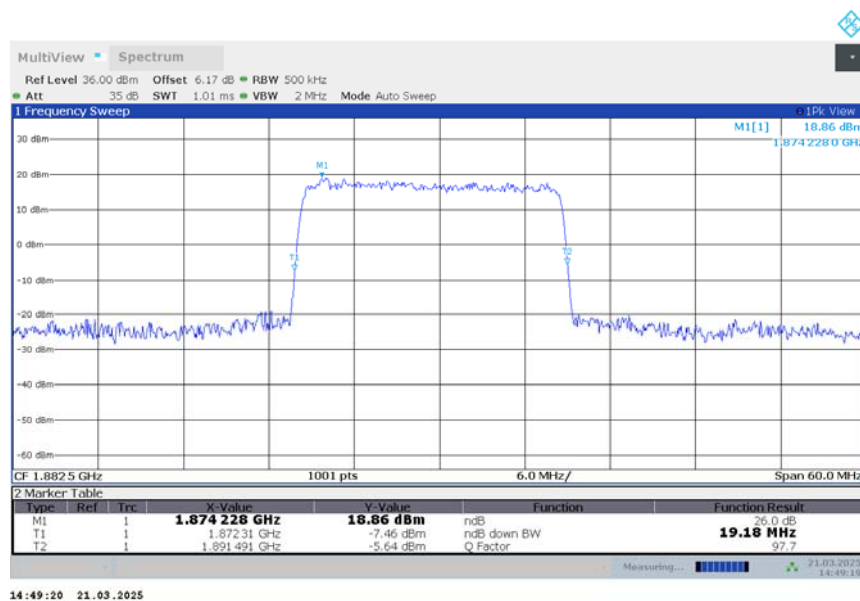
n25,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1882.5	19.121	19.181	19.181

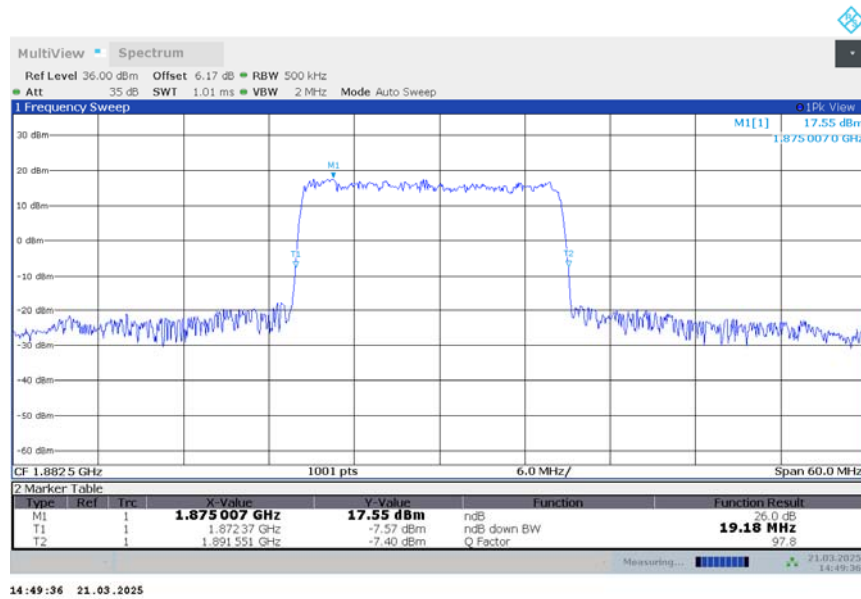
n25,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n25,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n25,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

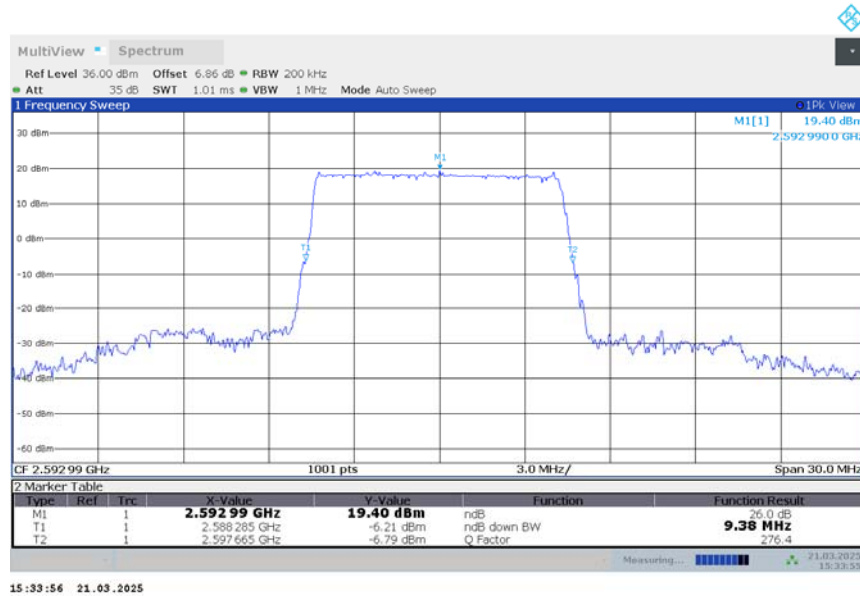


n41

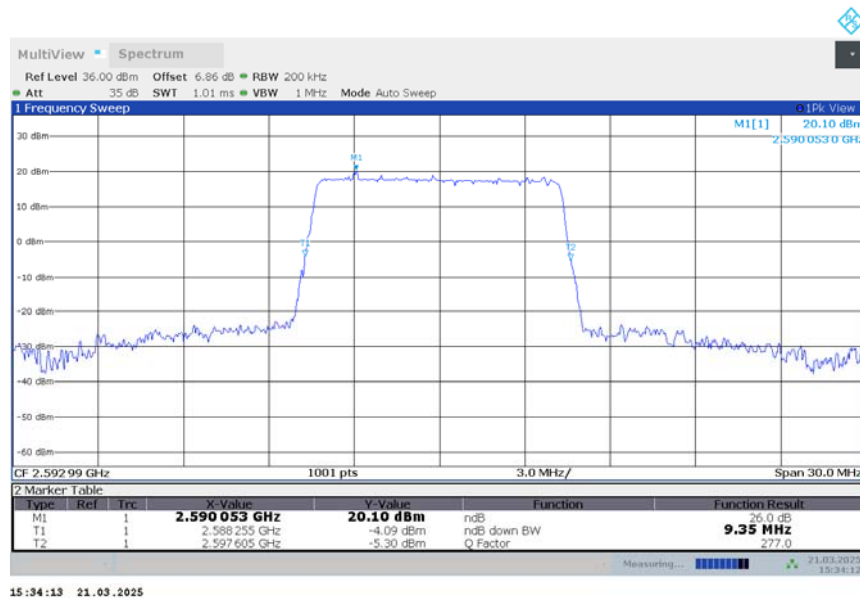
n41,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	9.381	9.351	9.441

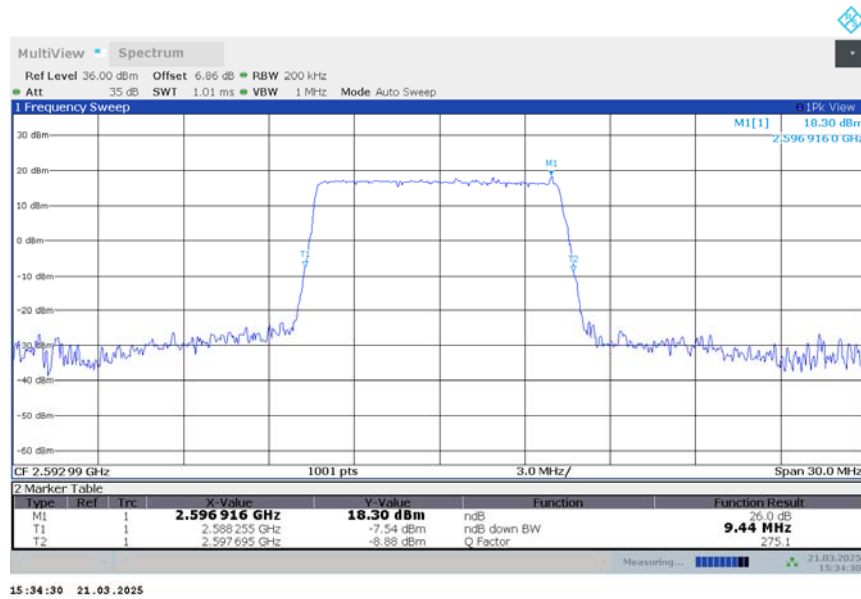
n41,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

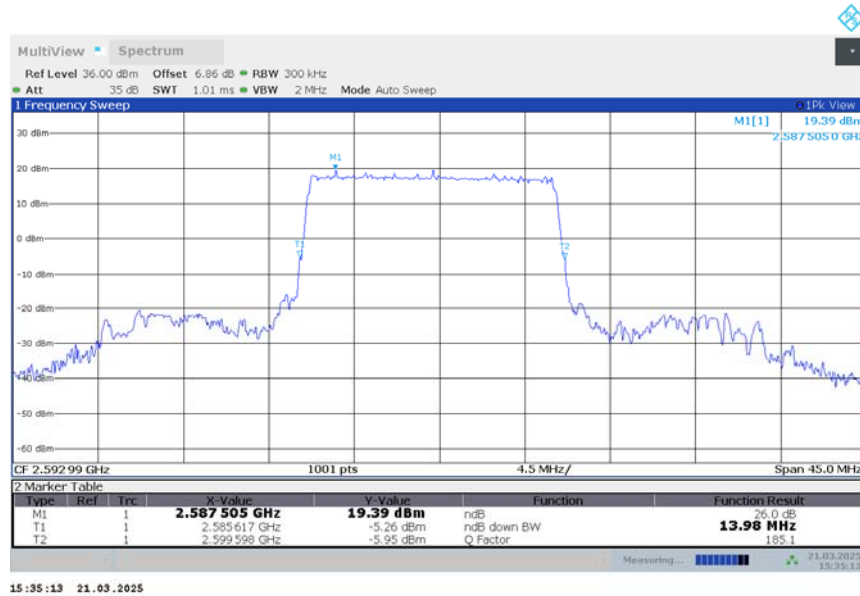


n41

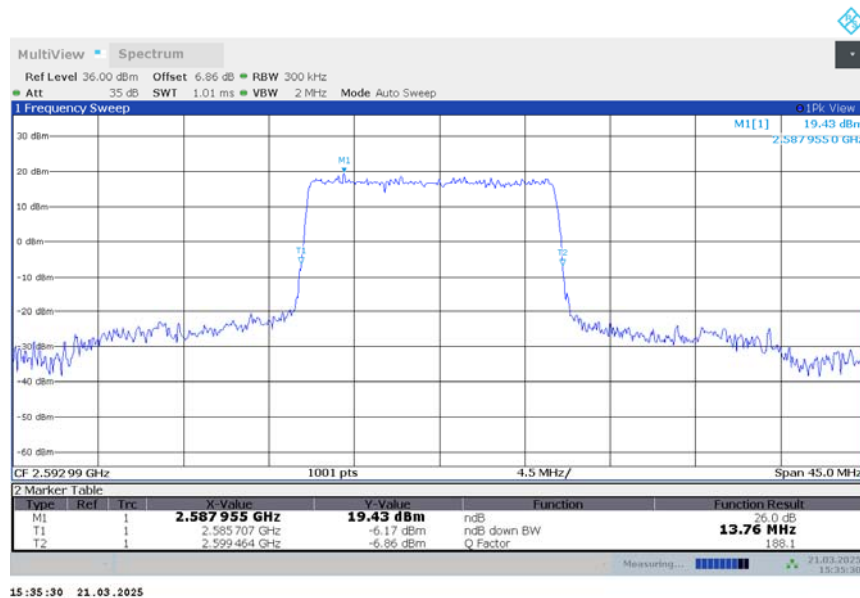
n41,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	13.981	13.756	13.891

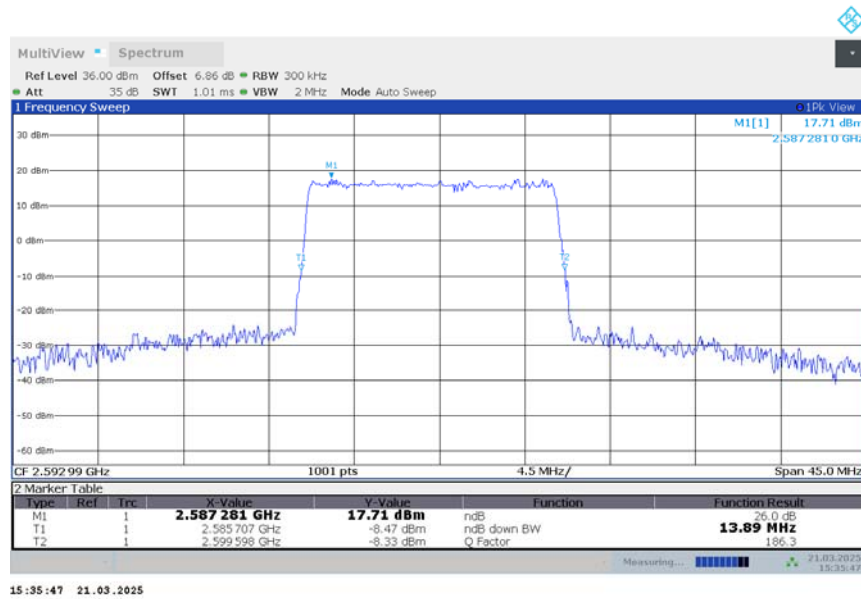
n41,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,15MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

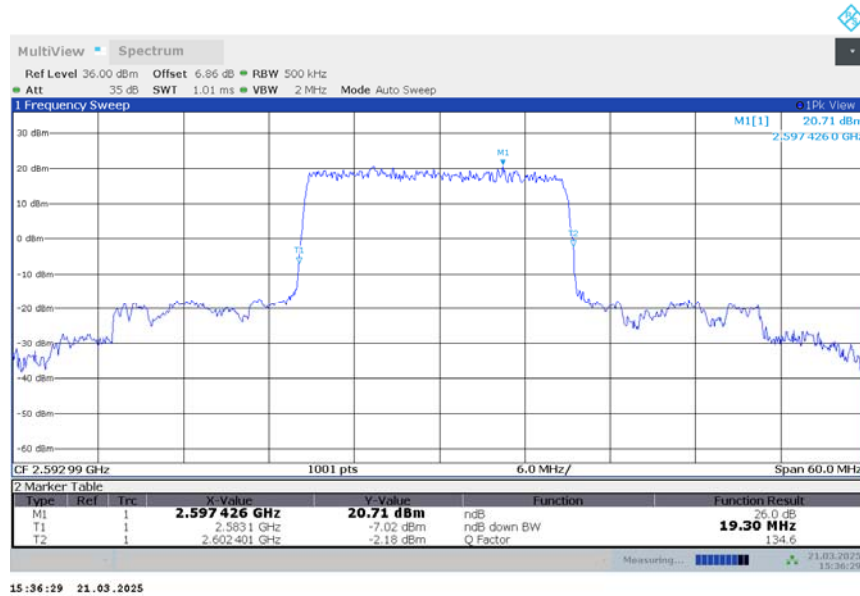


n41

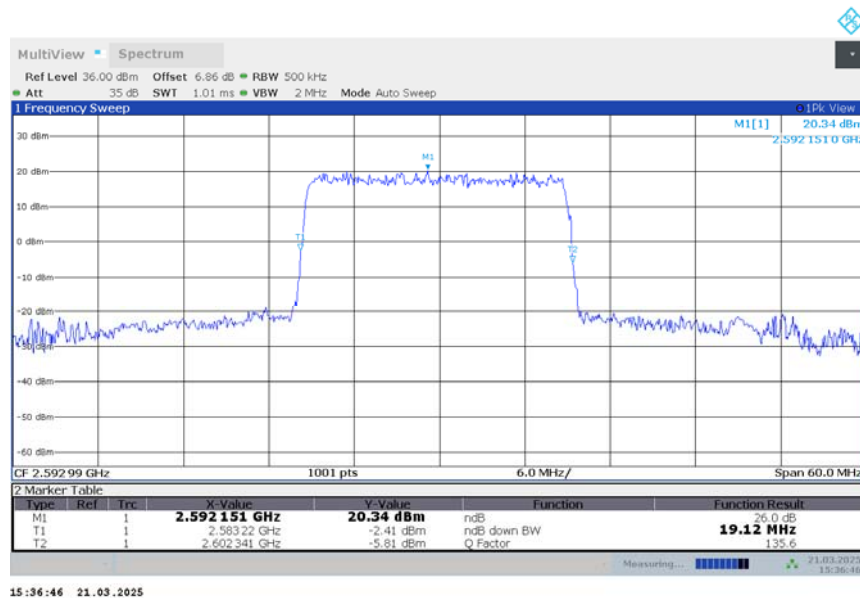
n41,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	19.301	19.121	19.361

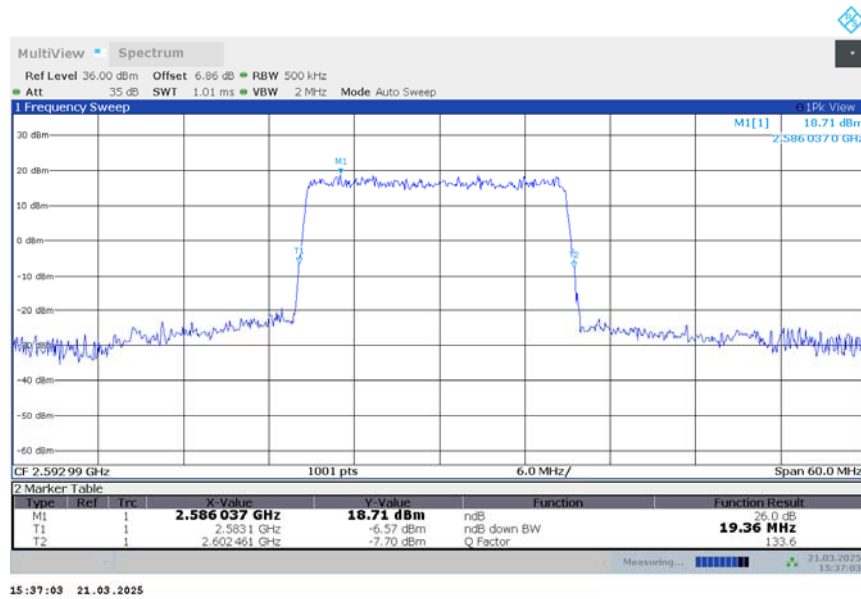
n41,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

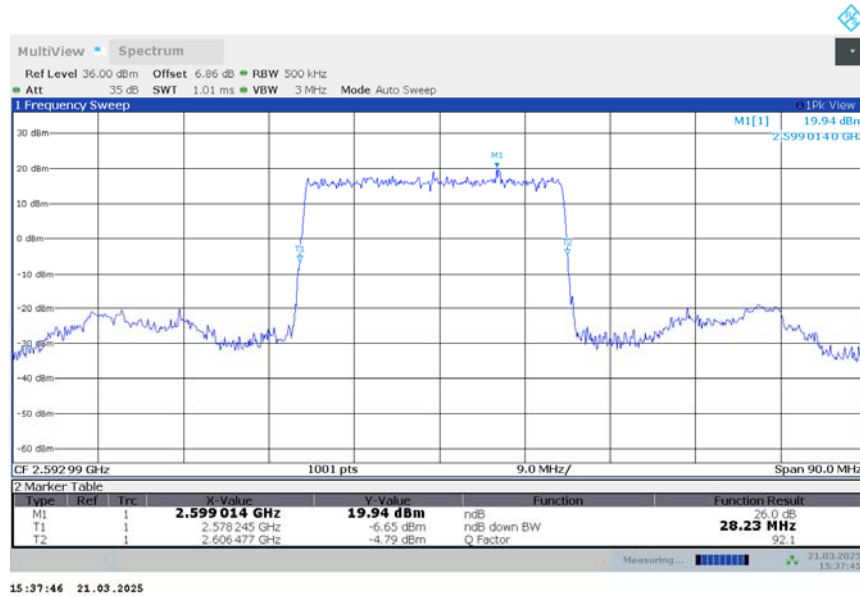


n41

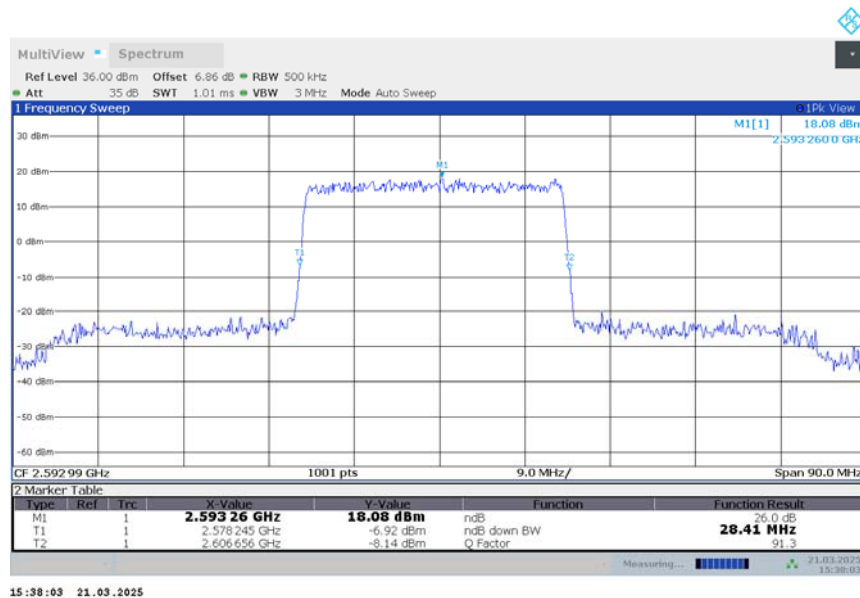
n41,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	28.232	28.412	28.232

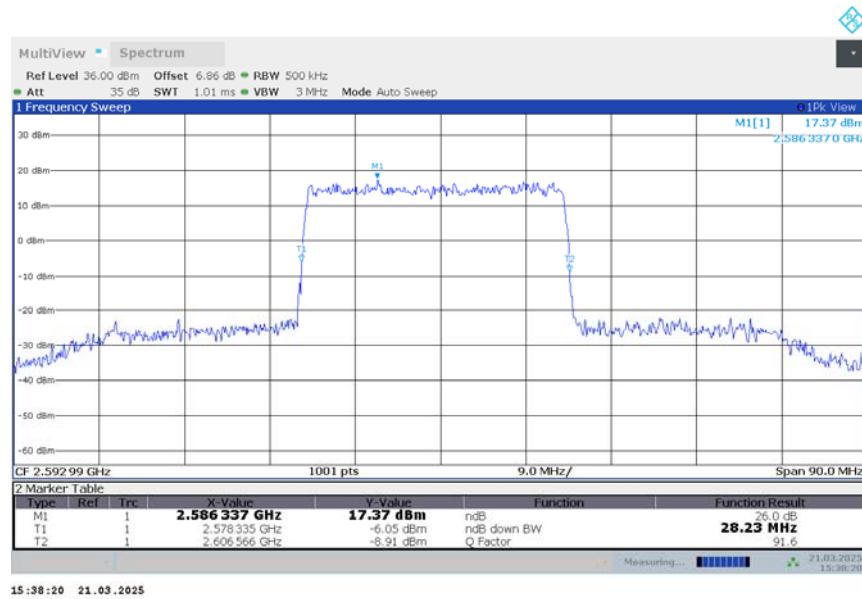
n41,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

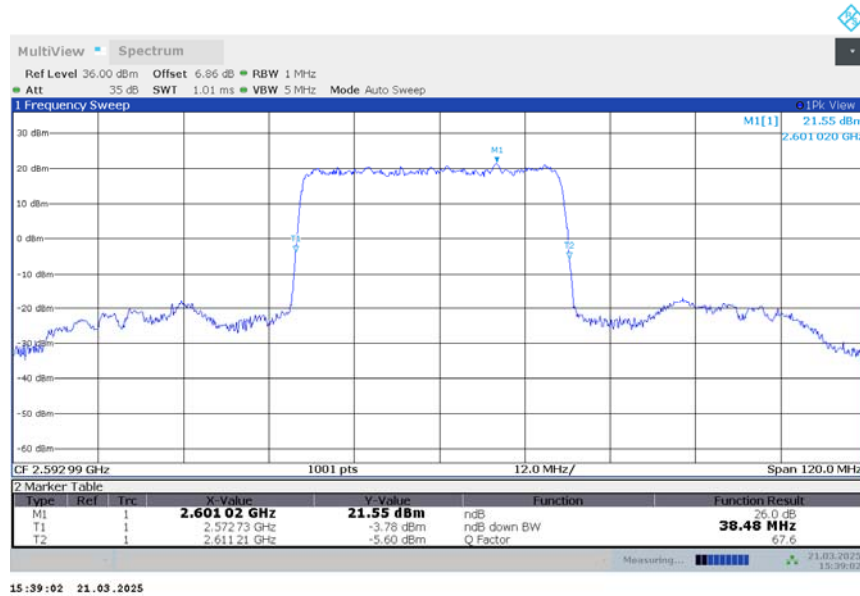


n41

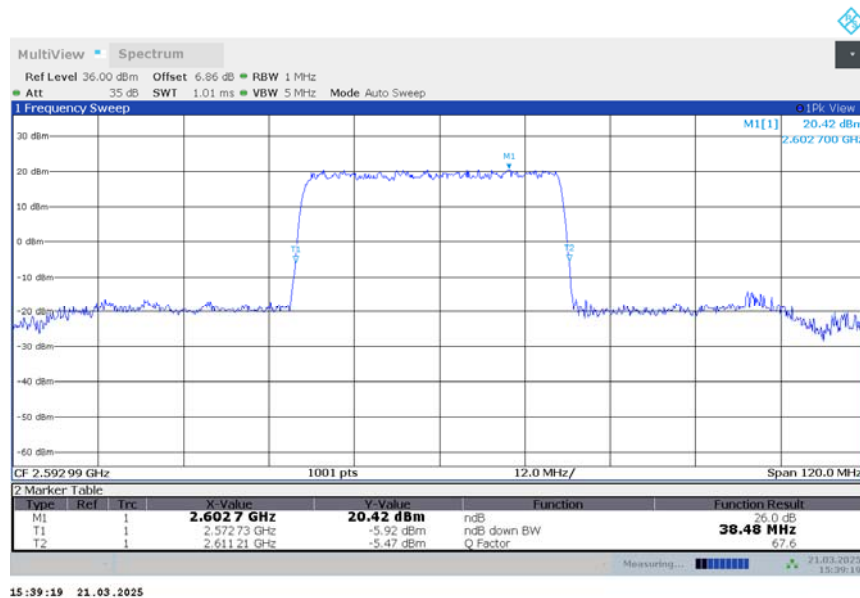
n41,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	38.480	38.480	38.480

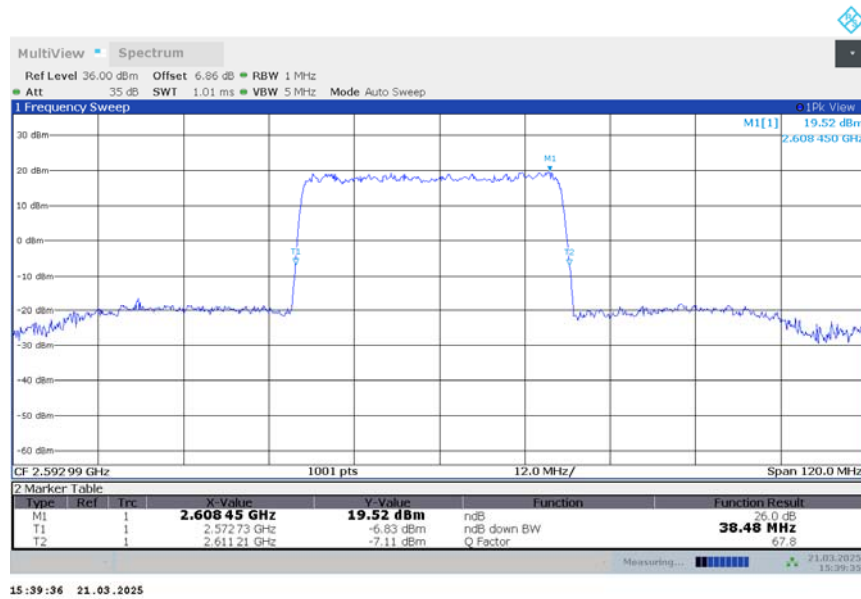
n41,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

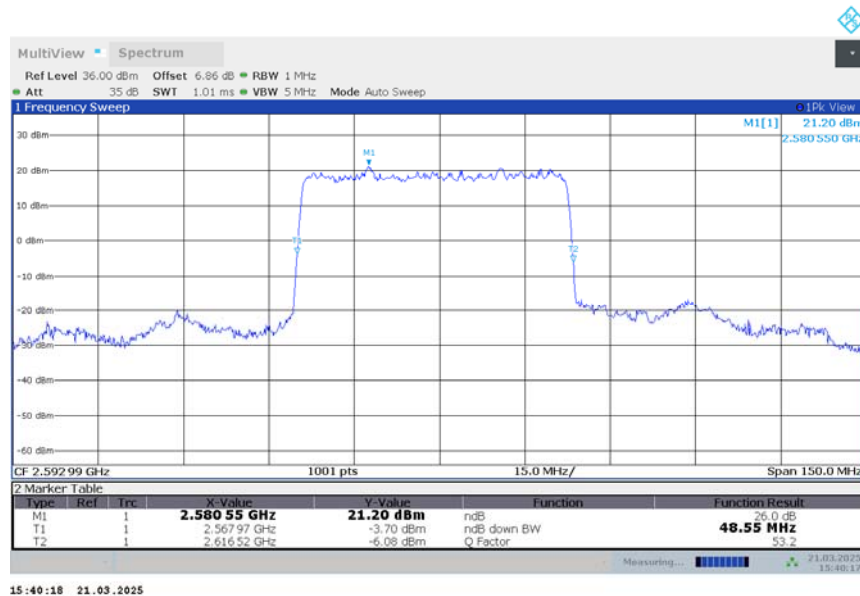


n41

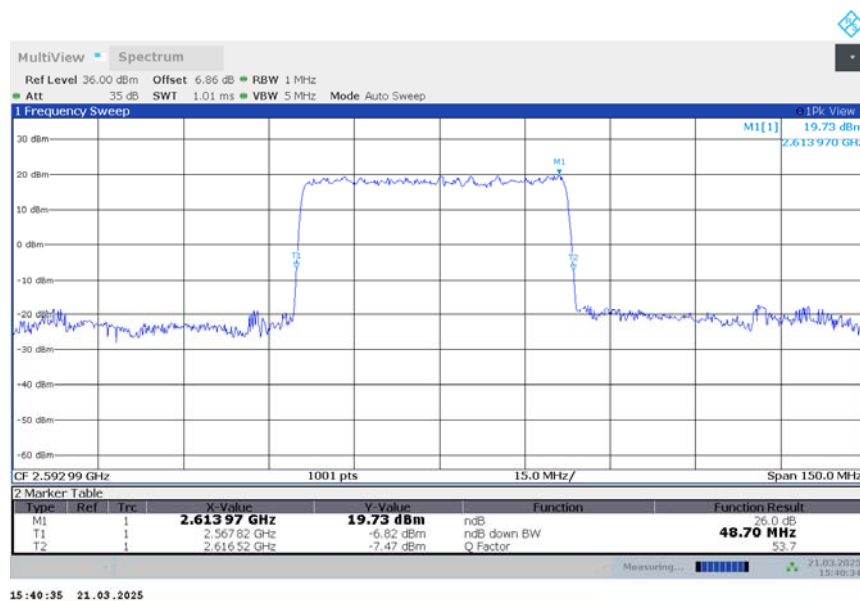
n41,50MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	48.550	48.700	48.550

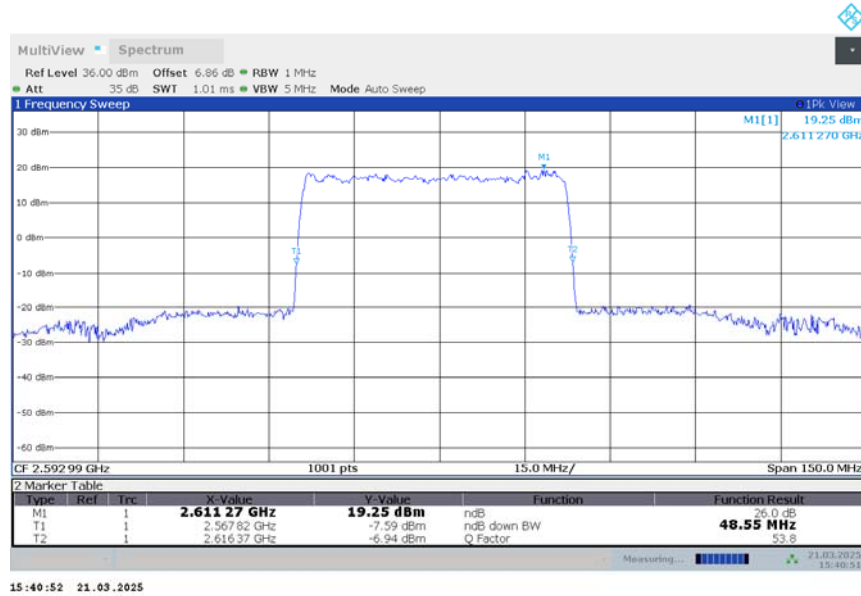
n41,50MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,50MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,50MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

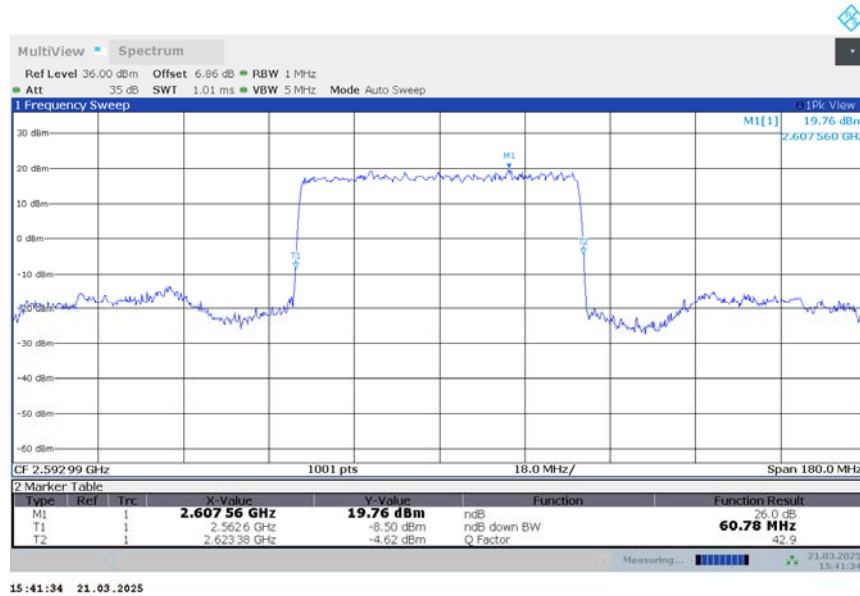


n41

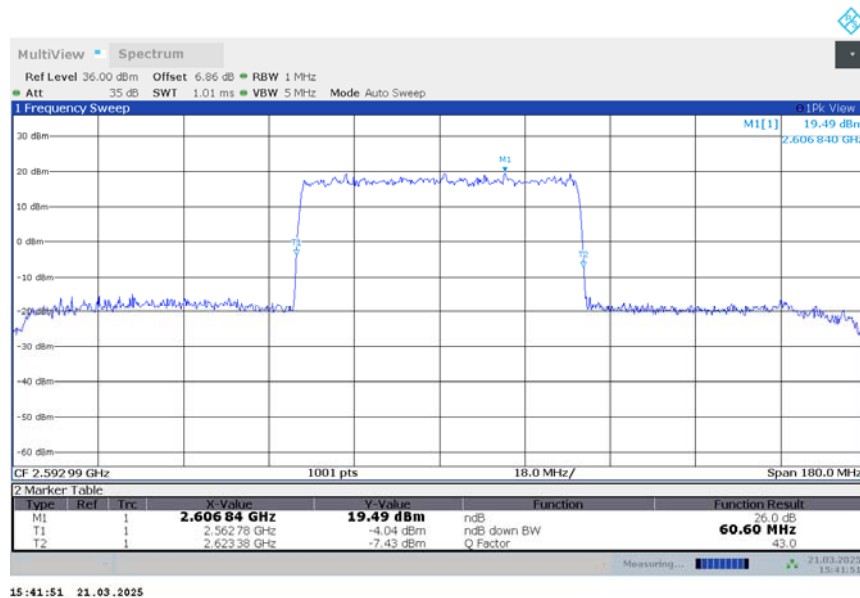
n41,60MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	60.780	60.600	60.780

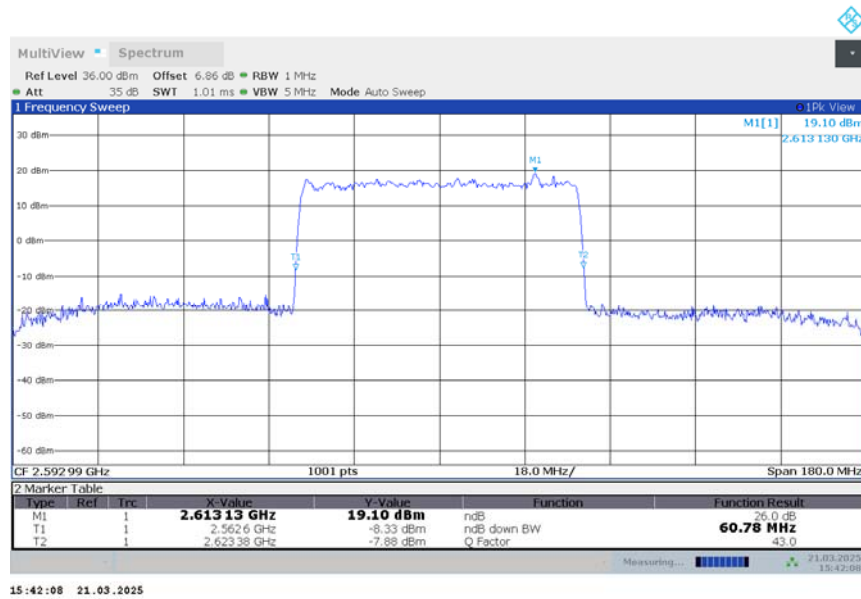
n41,60MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,60MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,60MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

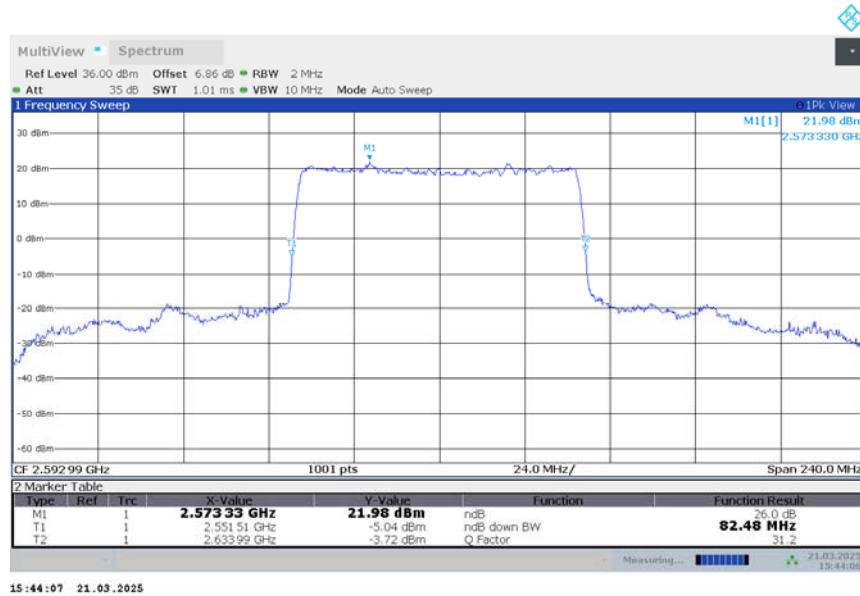


n41

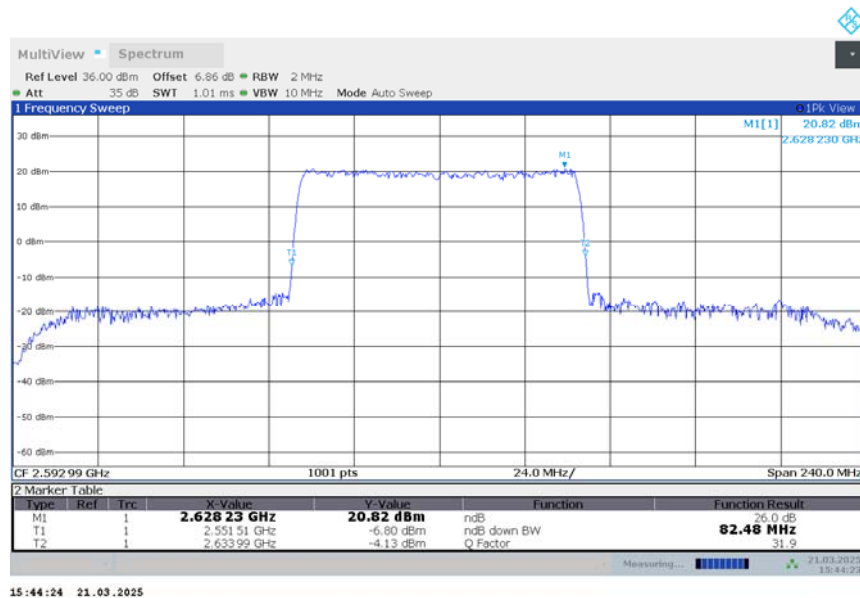
n41,80MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	82.480	82.480	82.480

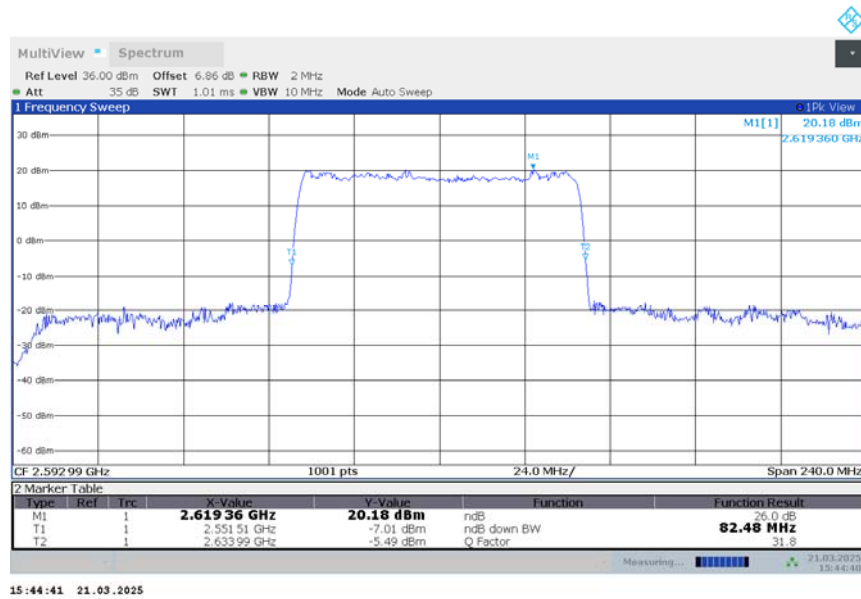
n41,80MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,80MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,80MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

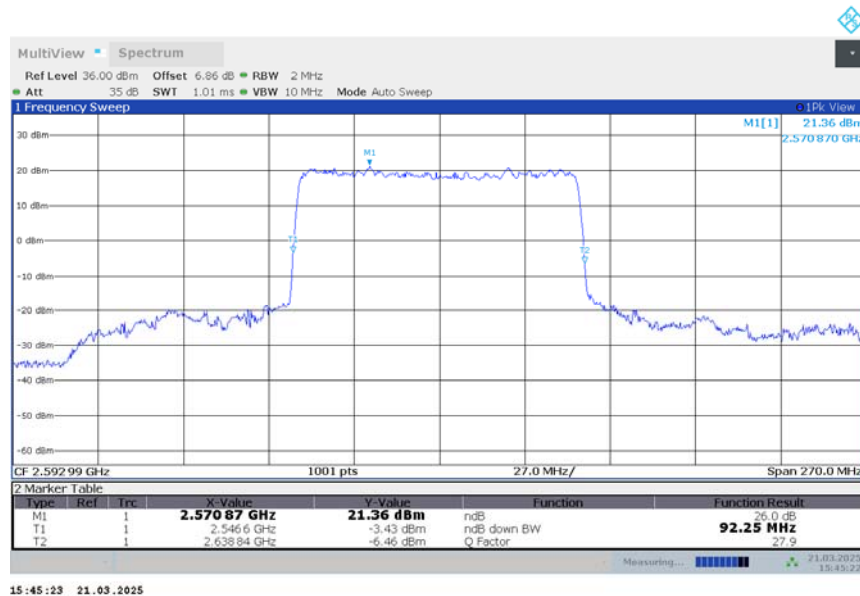


n41

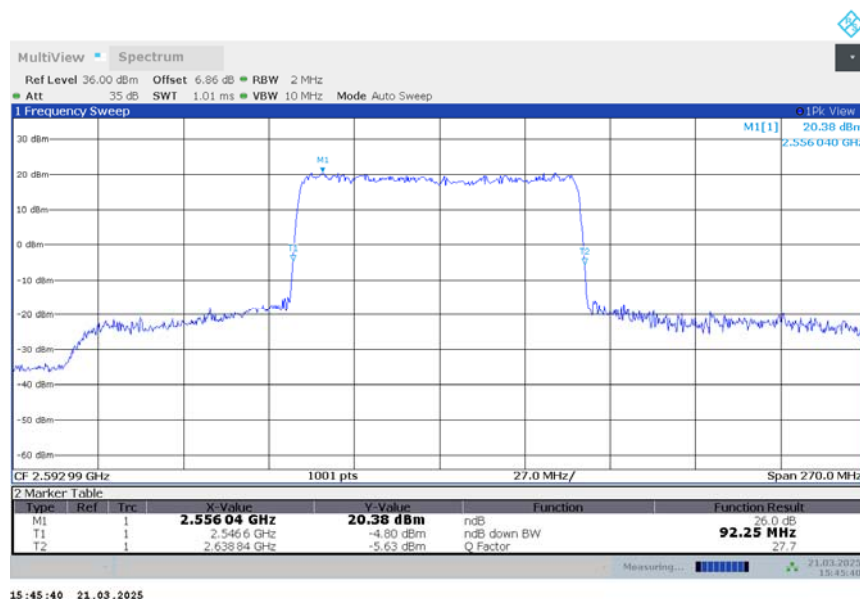
n41,90MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	92.250	92.250	92.250

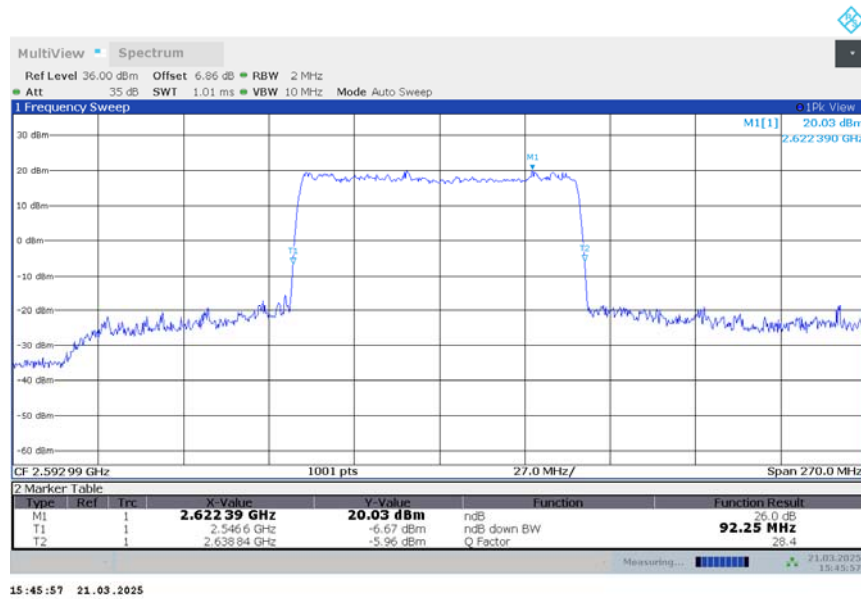
n41,90MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,90MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,90MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

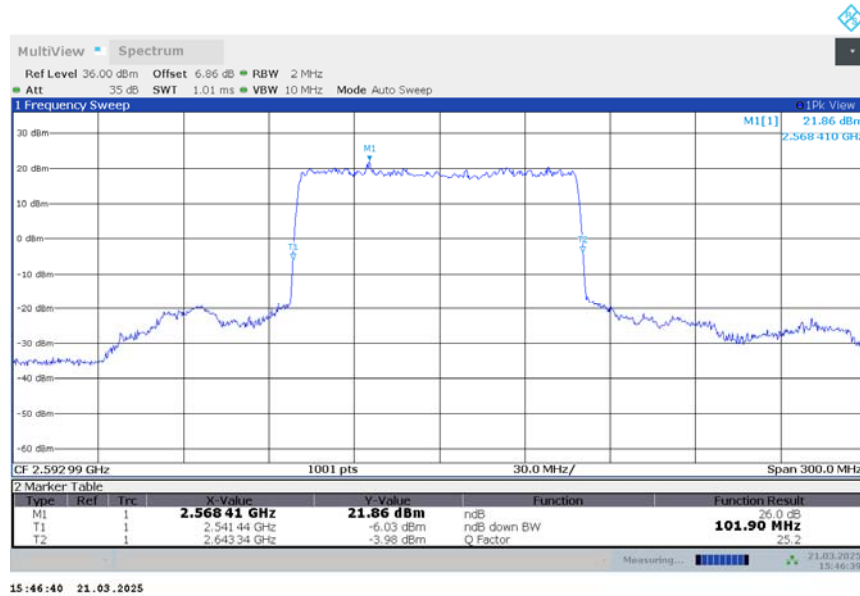


n41

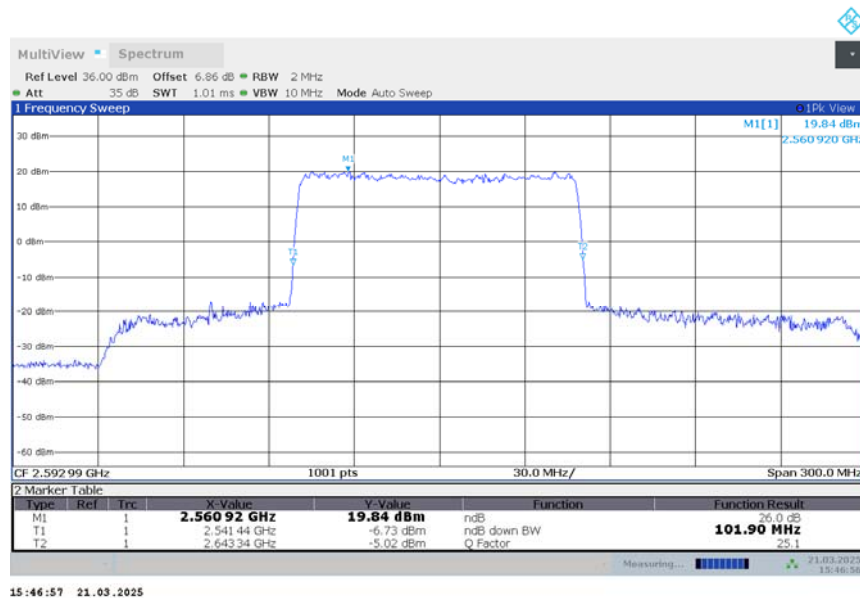
n41,100MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
2592.99	101.900	101.900	101.600

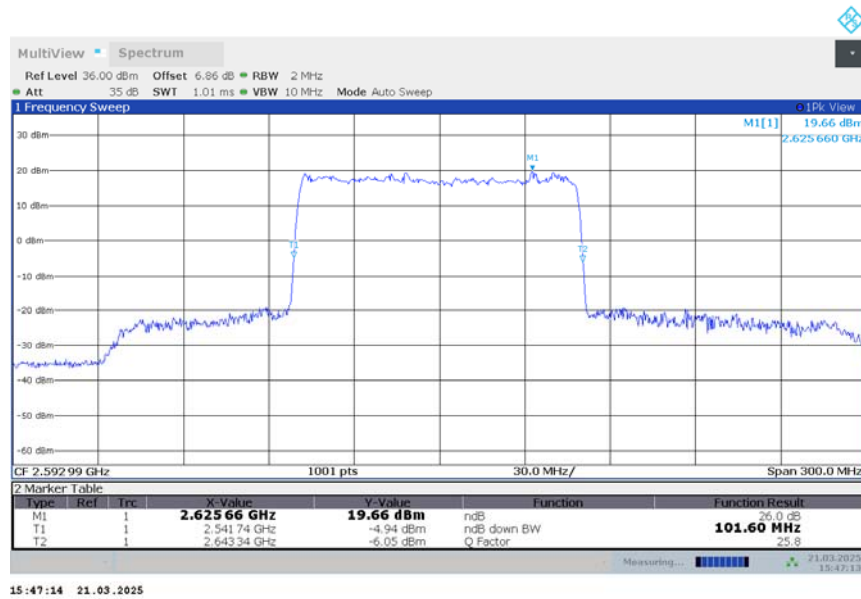
n41,100MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n41,100MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n41,100MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

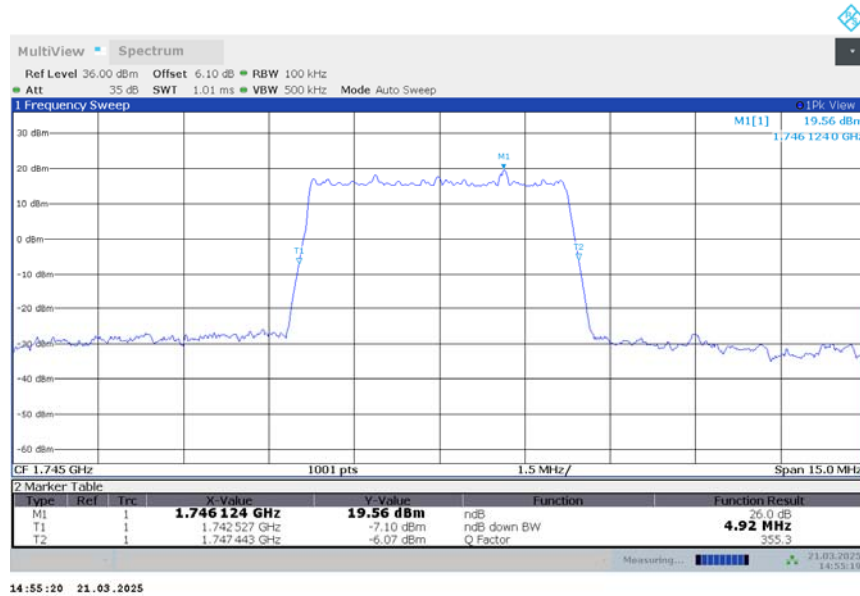


n66

n66,5MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	4.915	4.900	4.975

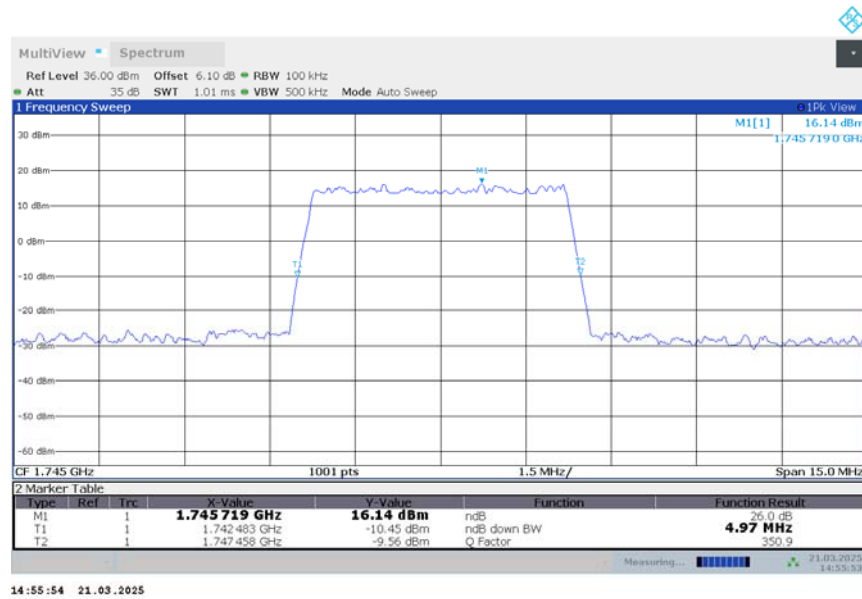
n66,5MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,5MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,5MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

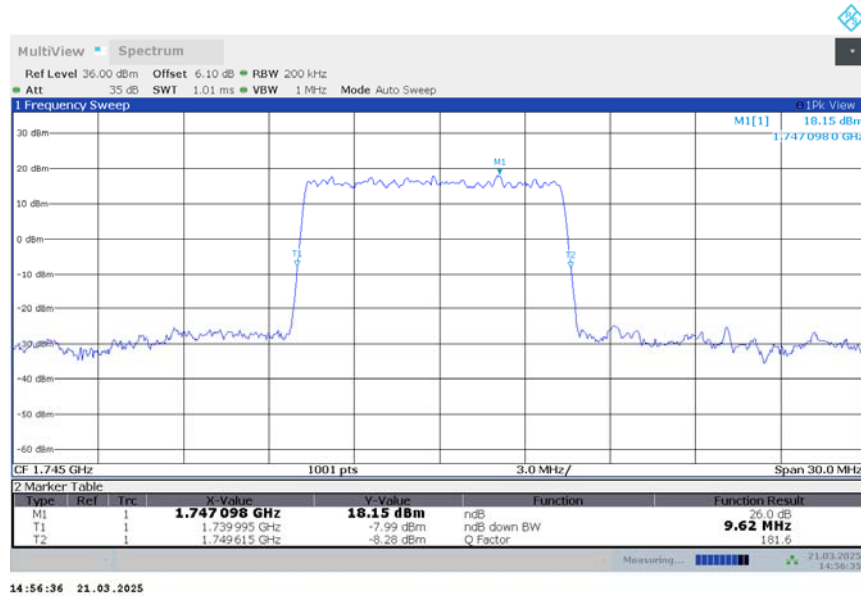


n66

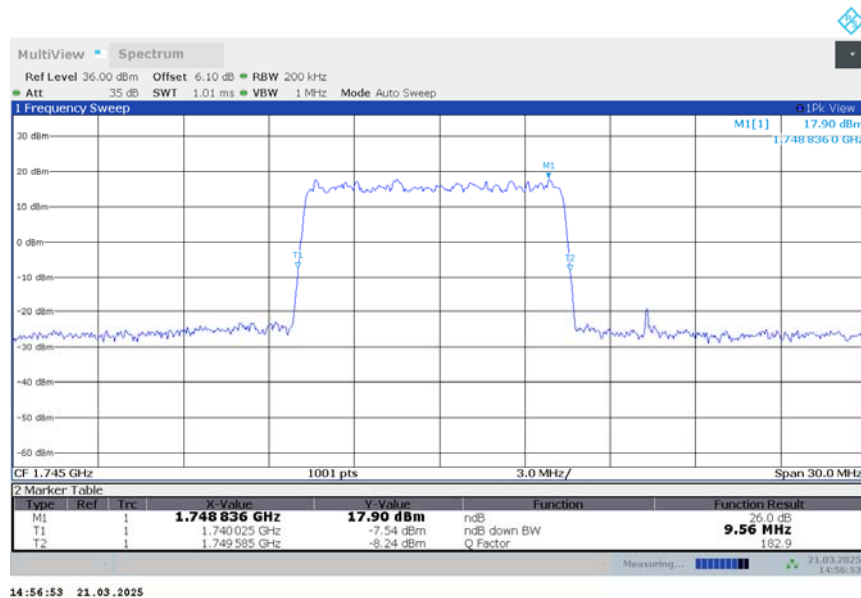
n66,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	9.620	9.560	9.560

n66,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

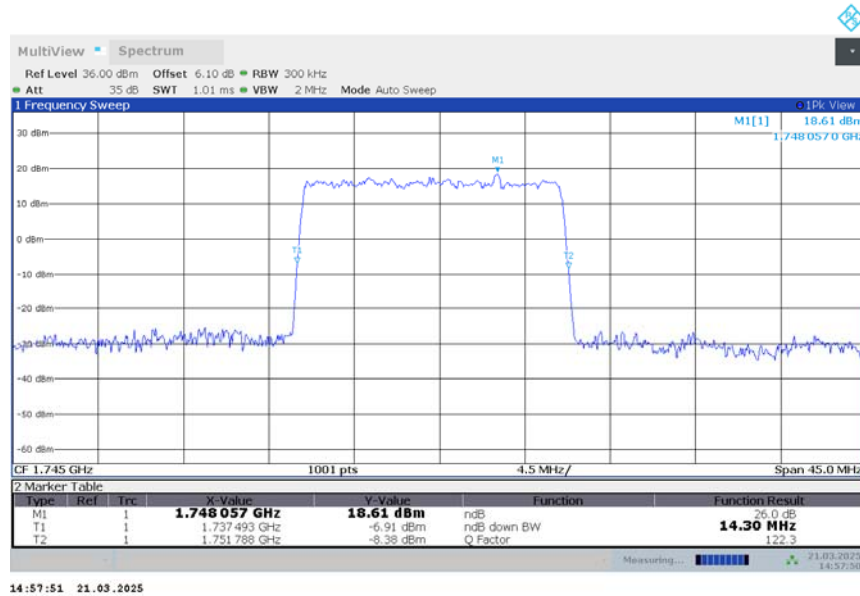


n66

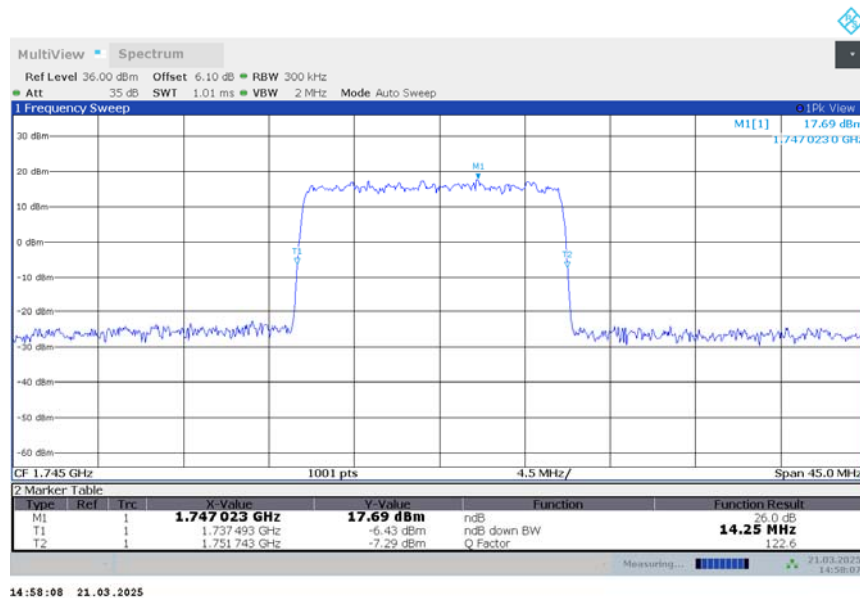
n66,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	14.296	14.251	14.296

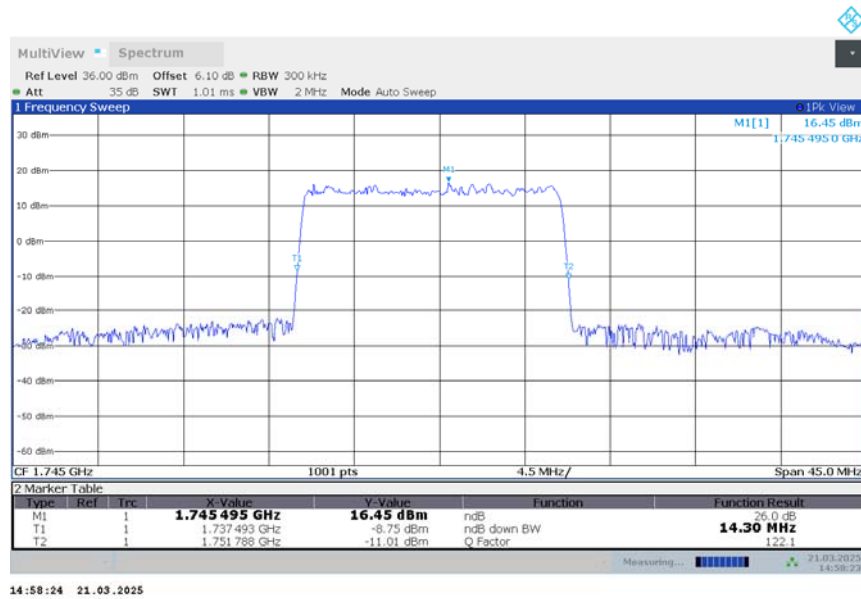
n66,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,15MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

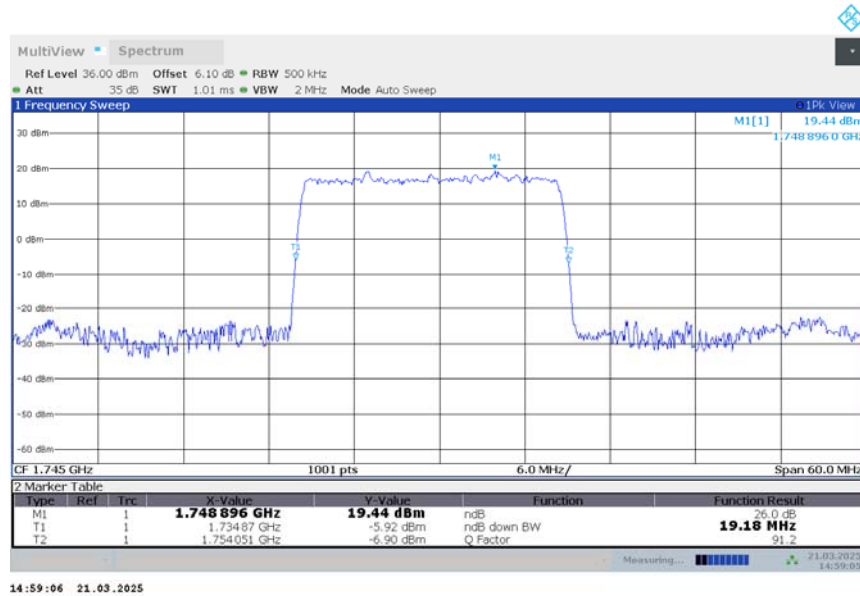


n66

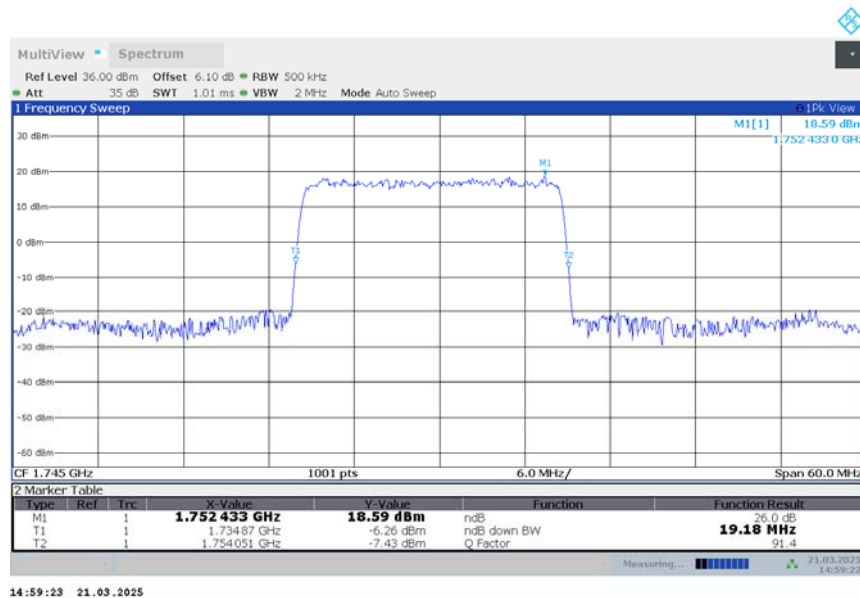
n66,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	19.181	19.181	19.181

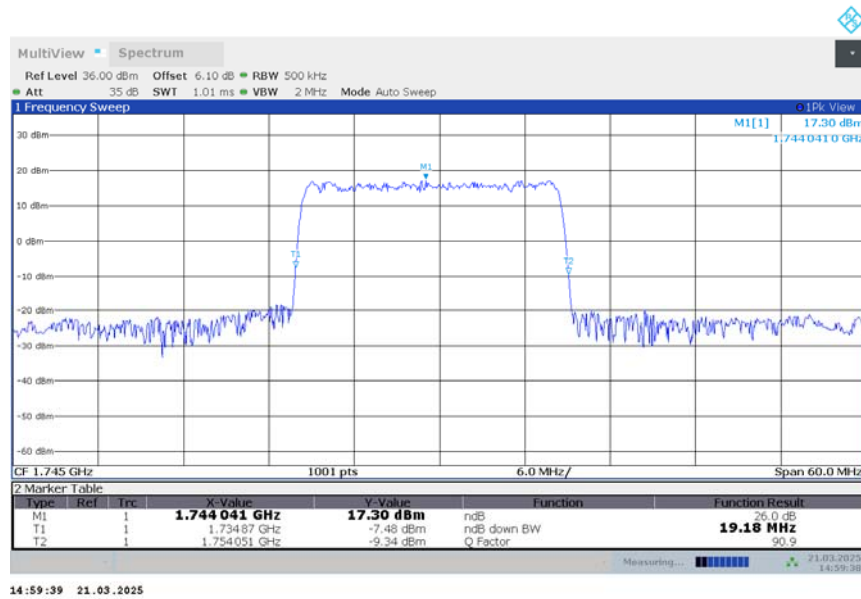
n66,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

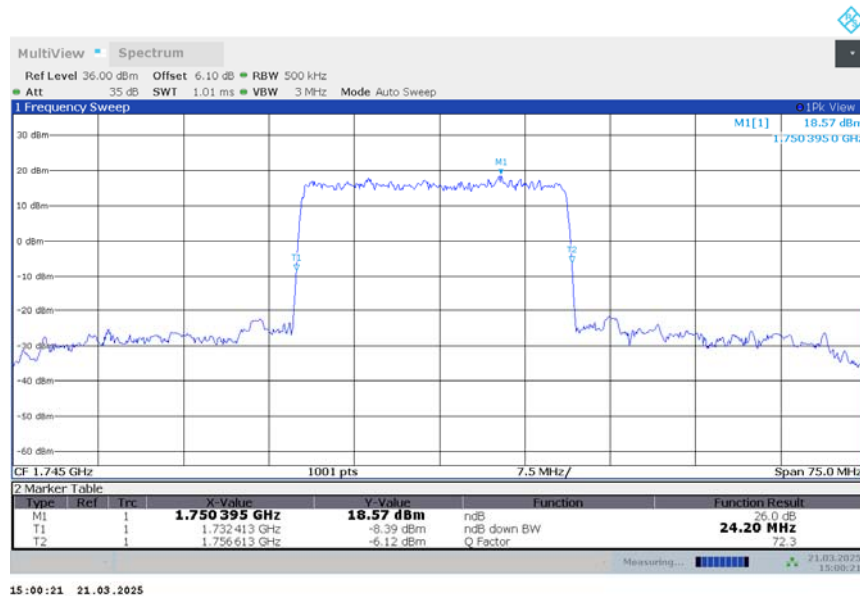


n66

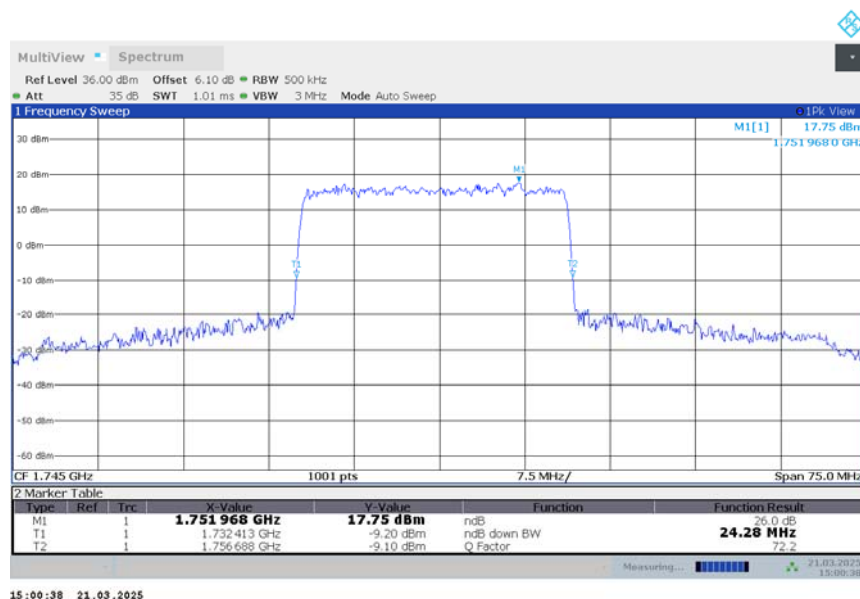
n66,25MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	24.201	24.276	24.201

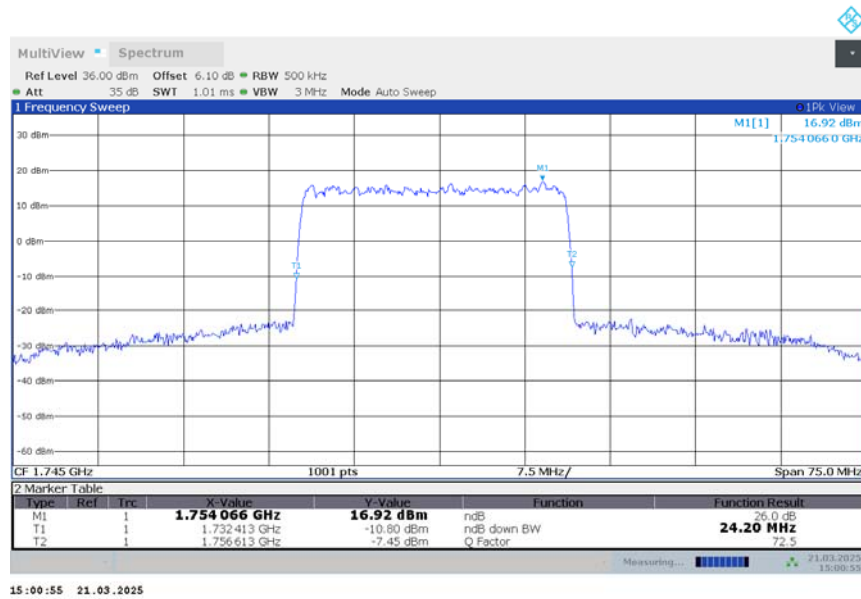
n66,25MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,25MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,25MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

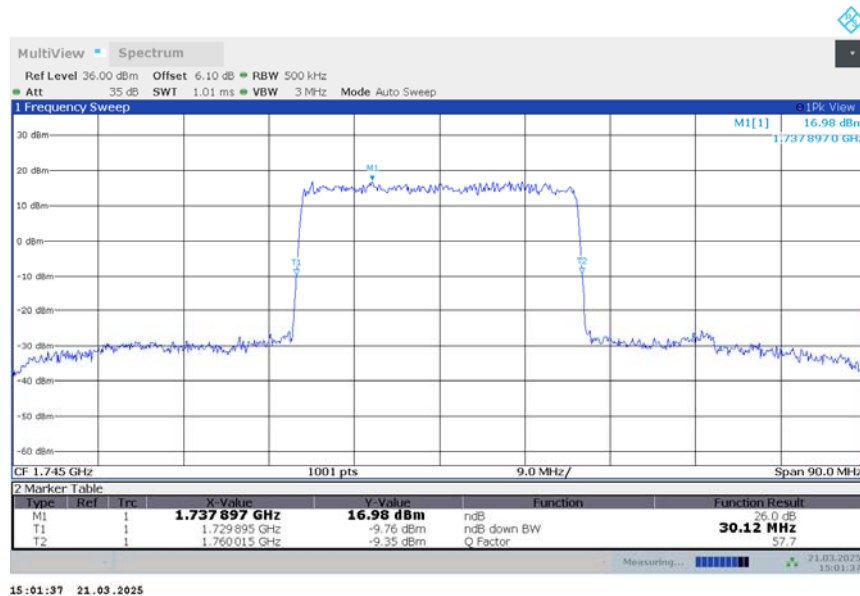


n66

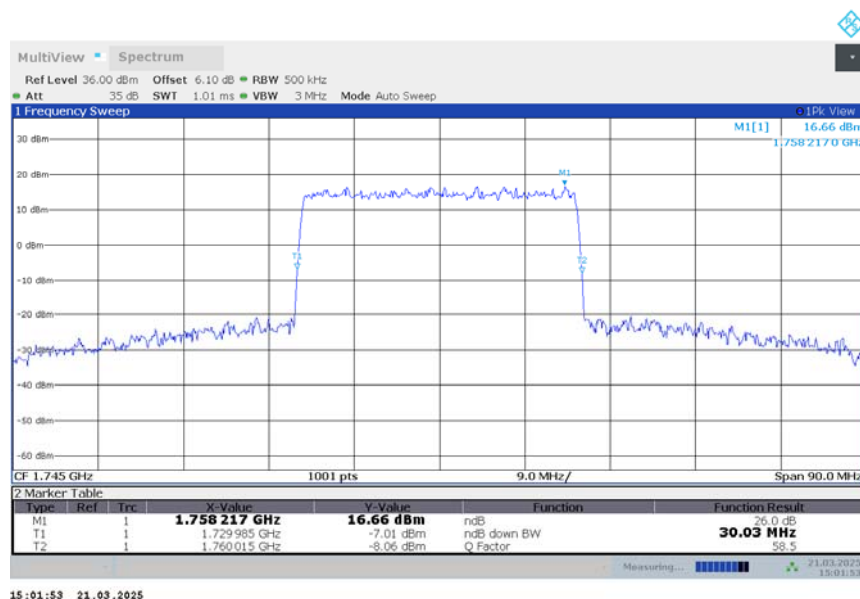
n66,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	30.120	30.030	30.030

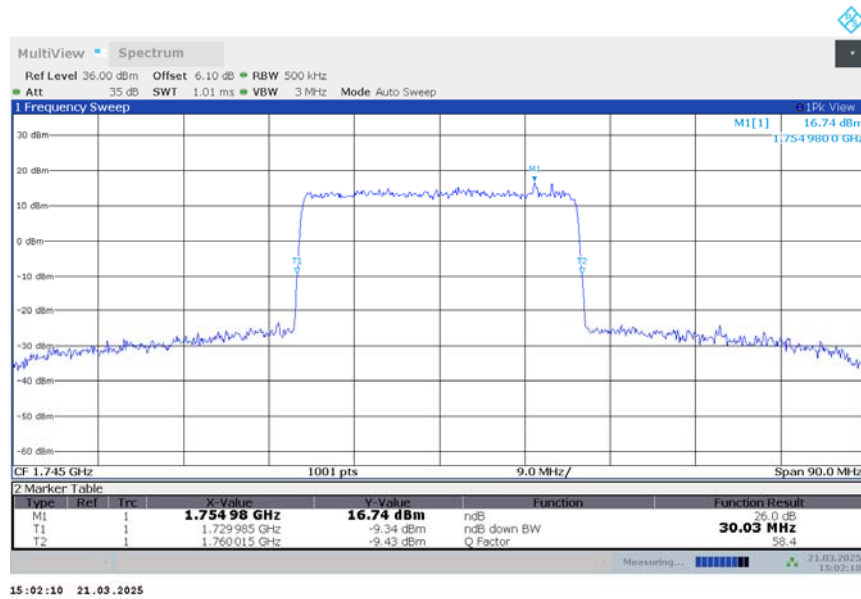
n66,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n66,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

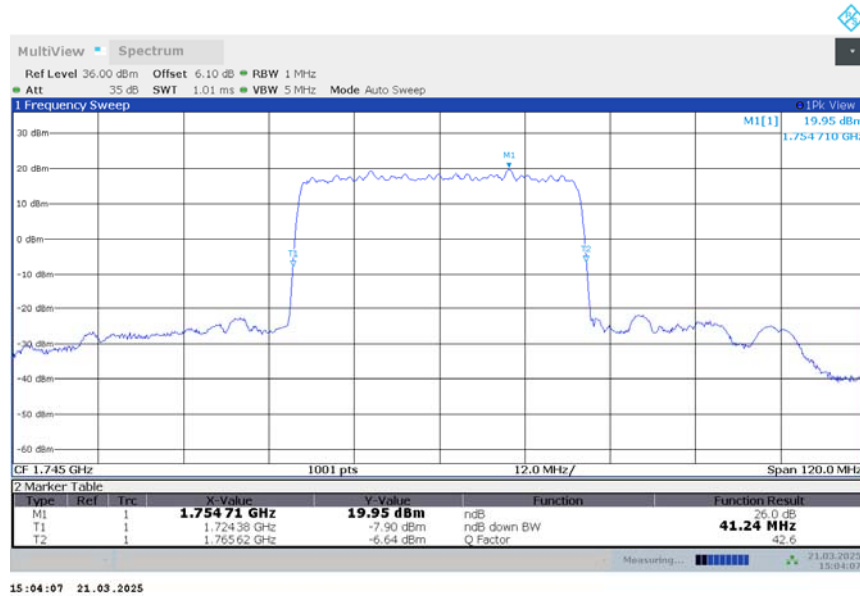


n66

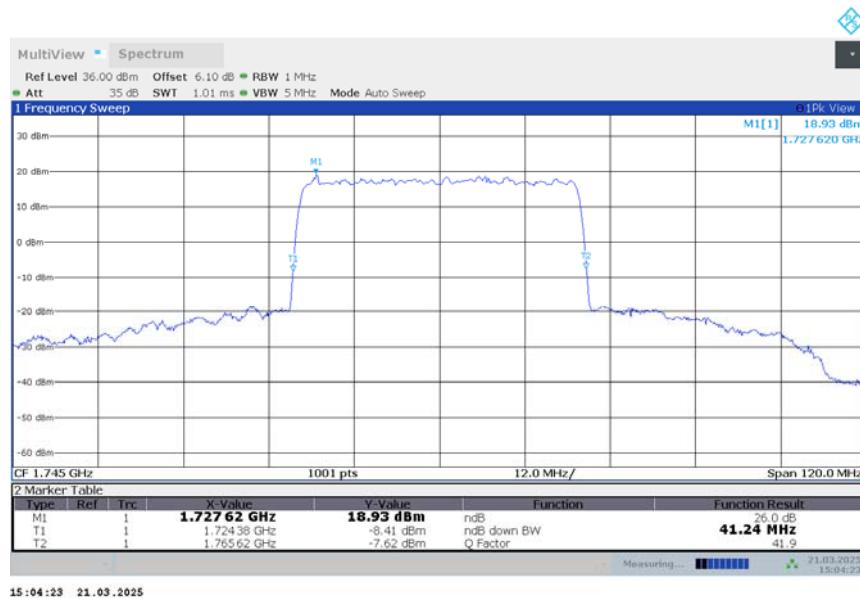
n66,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
1745	41.240	41.240	41.120

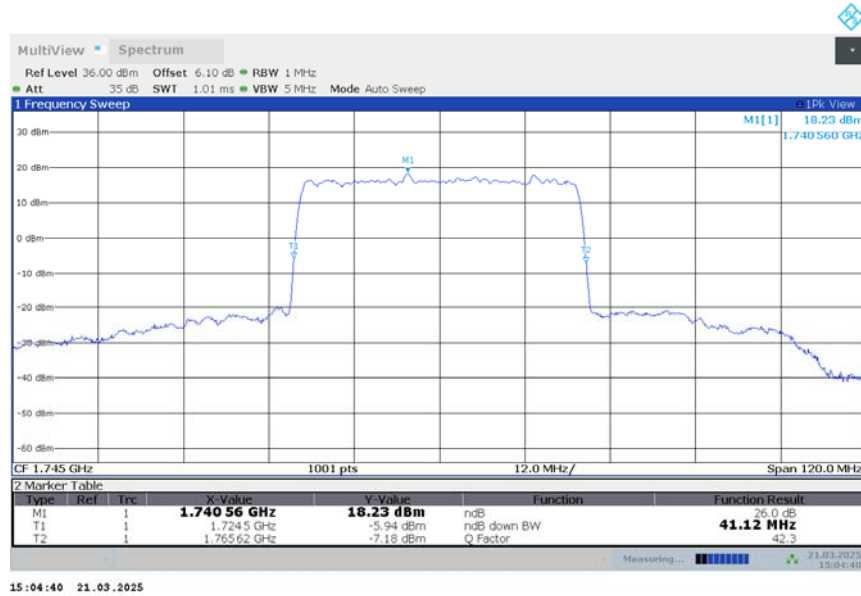
n66,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n66,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



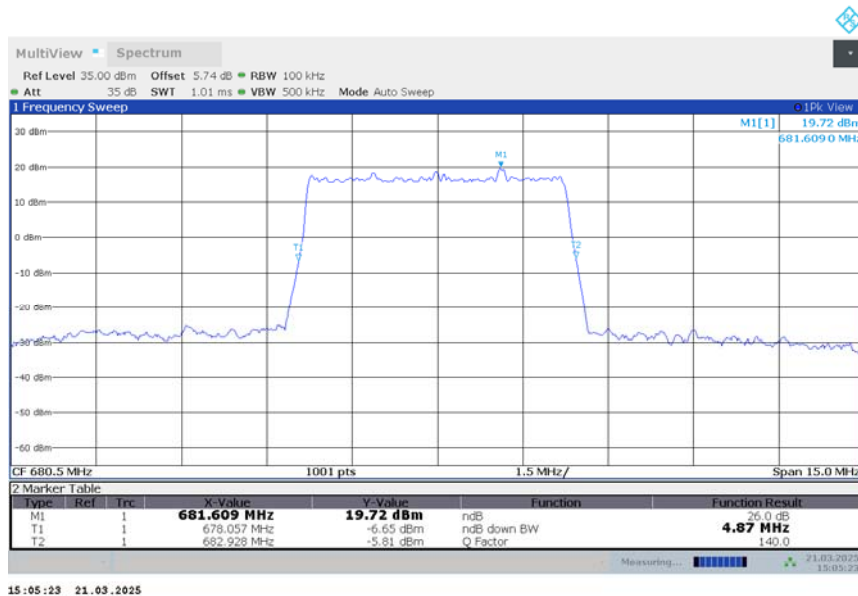
n66,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



n71
n71,5MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
680.5	4.870	4.930	4.930

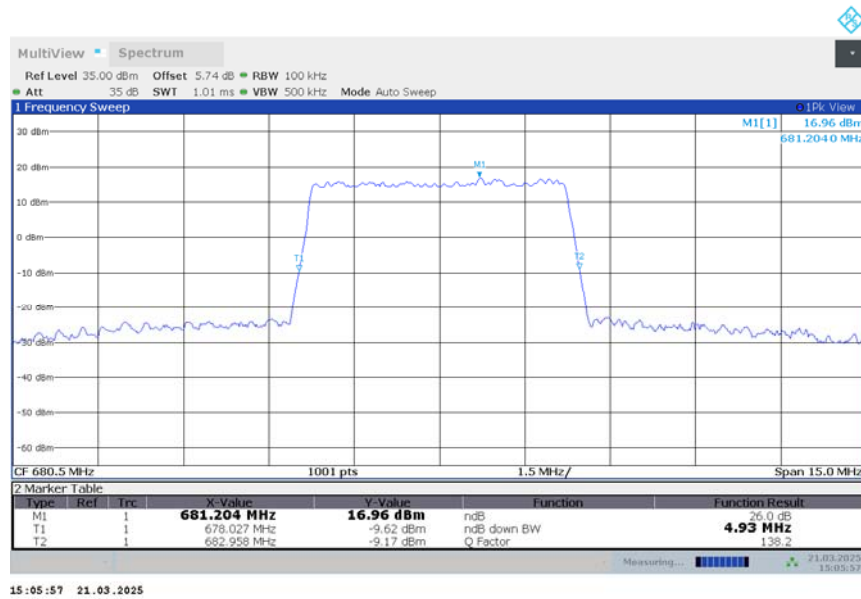
n71,5MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n71,5MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n71,5MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

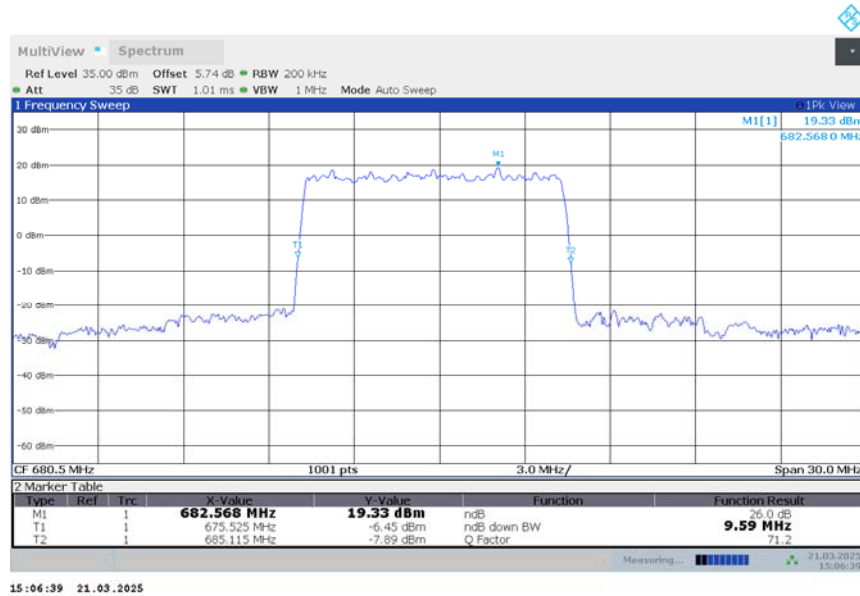


n71

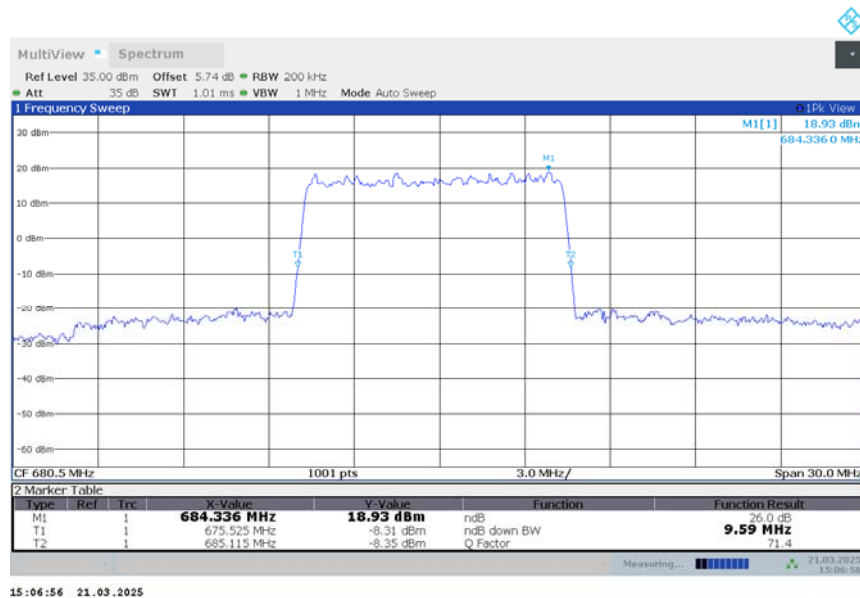
n71,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
680.5	9.590	9.590	9.590

n71,10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n71,10MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n71,10MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

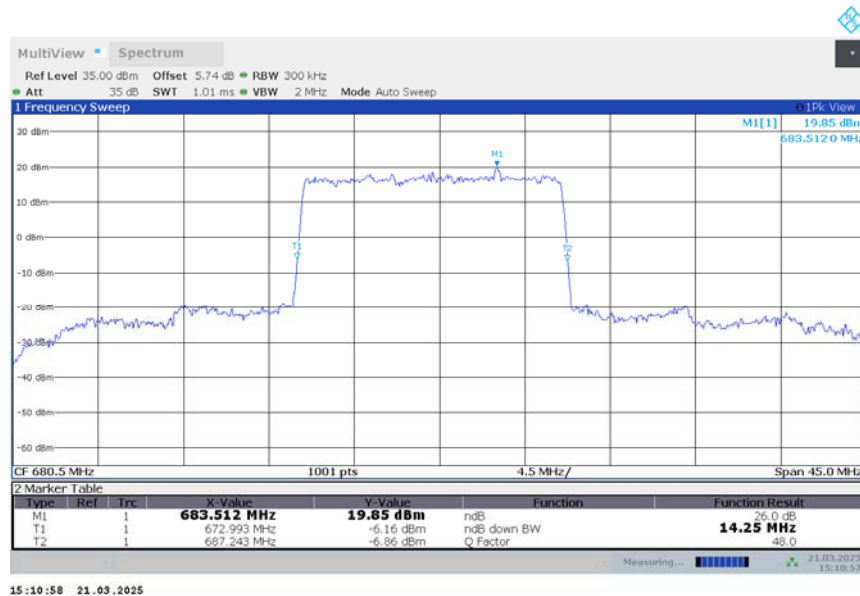


n71

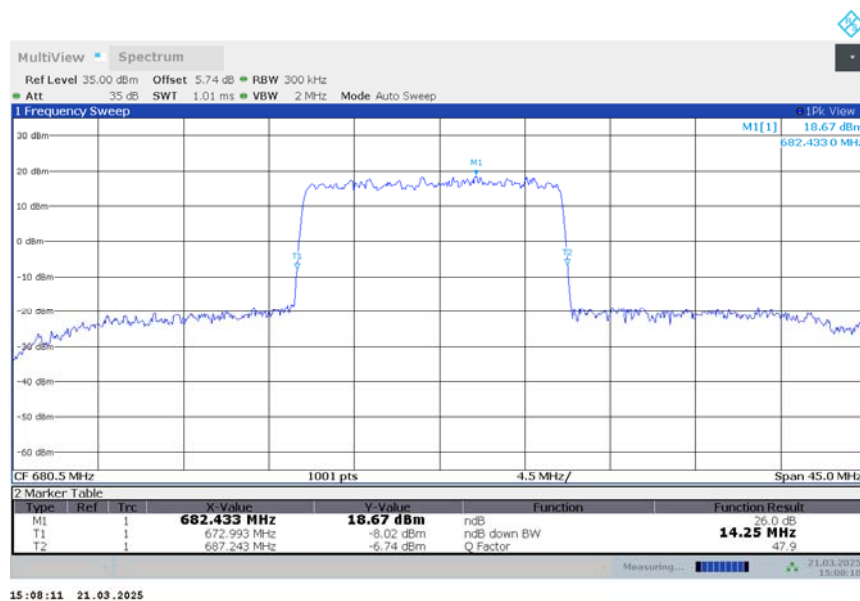
n71,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
680.5	14.251	14.251	14.251

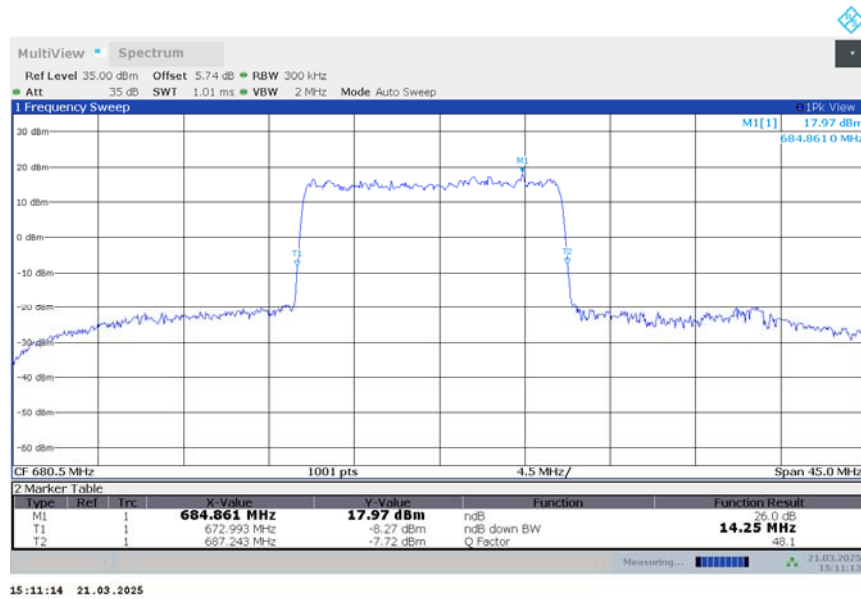
n71,15MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n71,15MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n71,15MHz Bandwidth,DFT-s-16QAM (-26dBc BW)

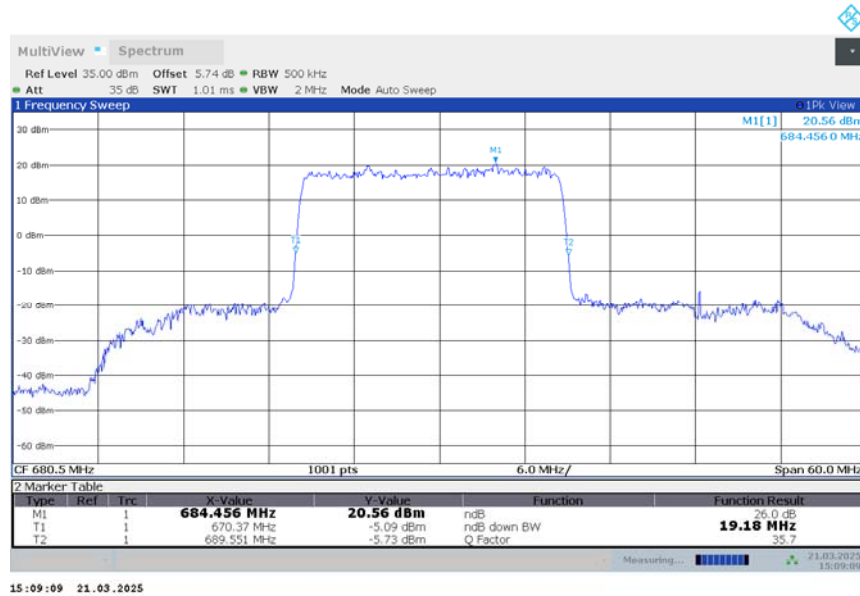


n71

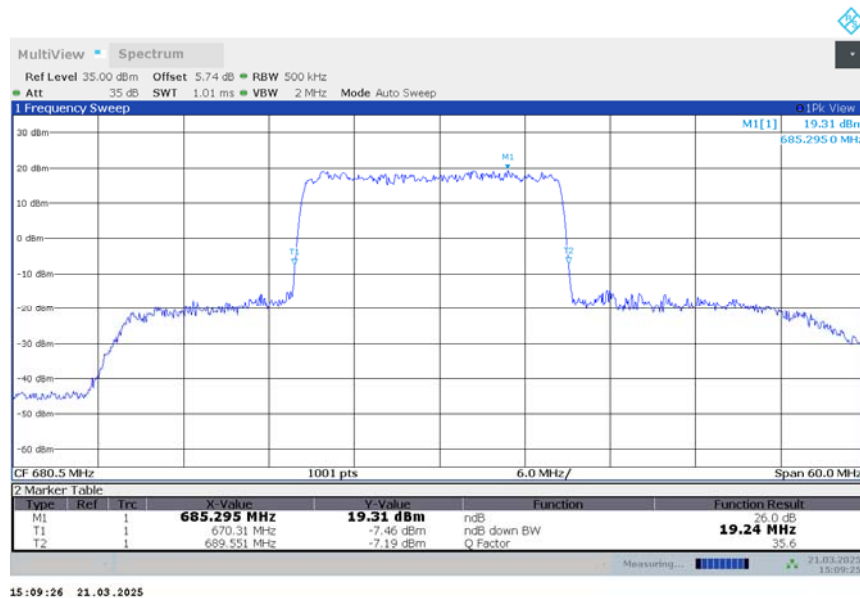
n71,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
680.5	19.181	19.241	19.181

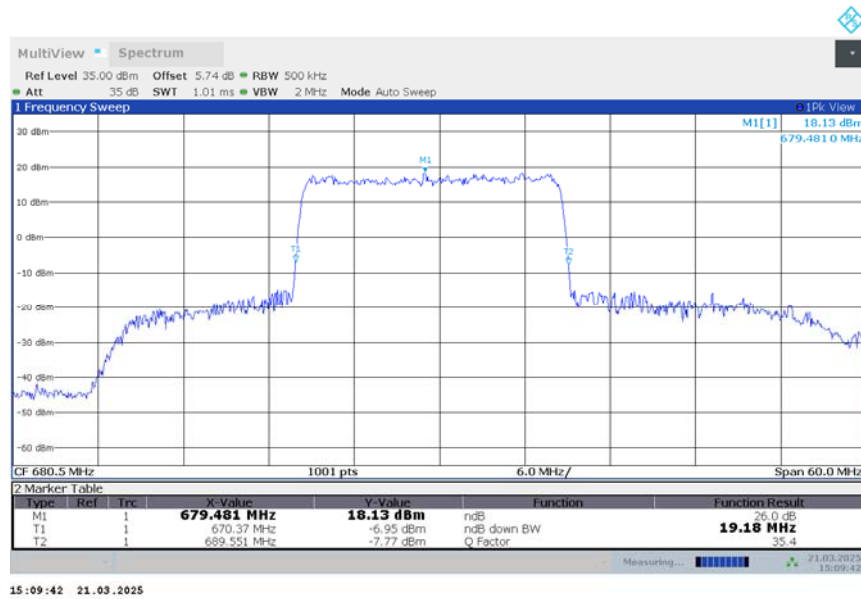
n71,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n71,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n71,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



A.6 Band Edge Compliance

A.6.1 Measurement limit

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 2490.5 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.

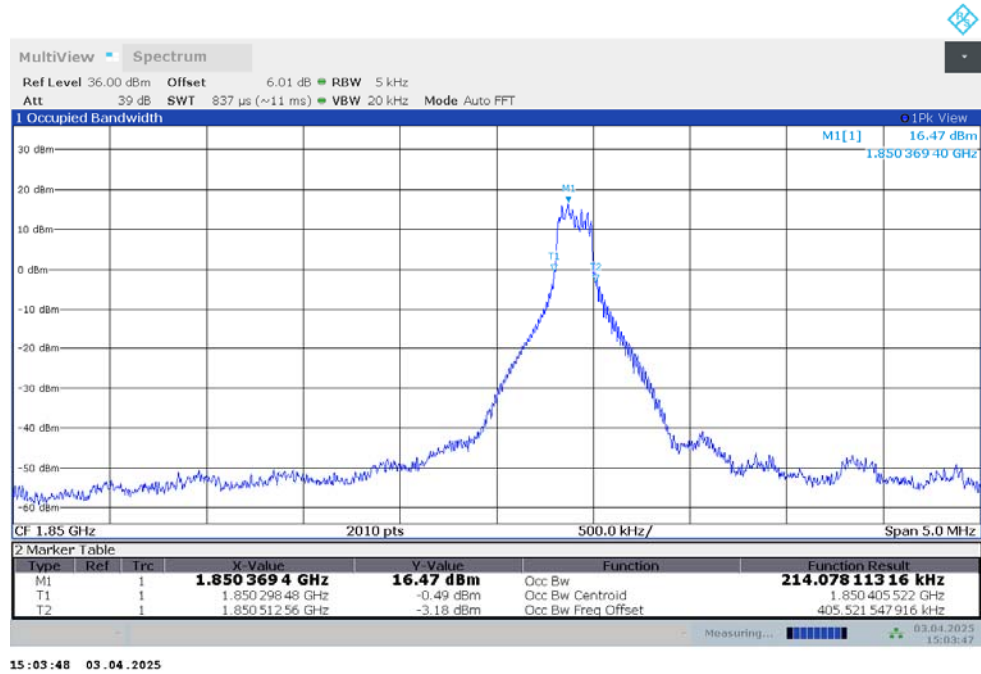
Part 27.53(g) states for operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ 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.

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

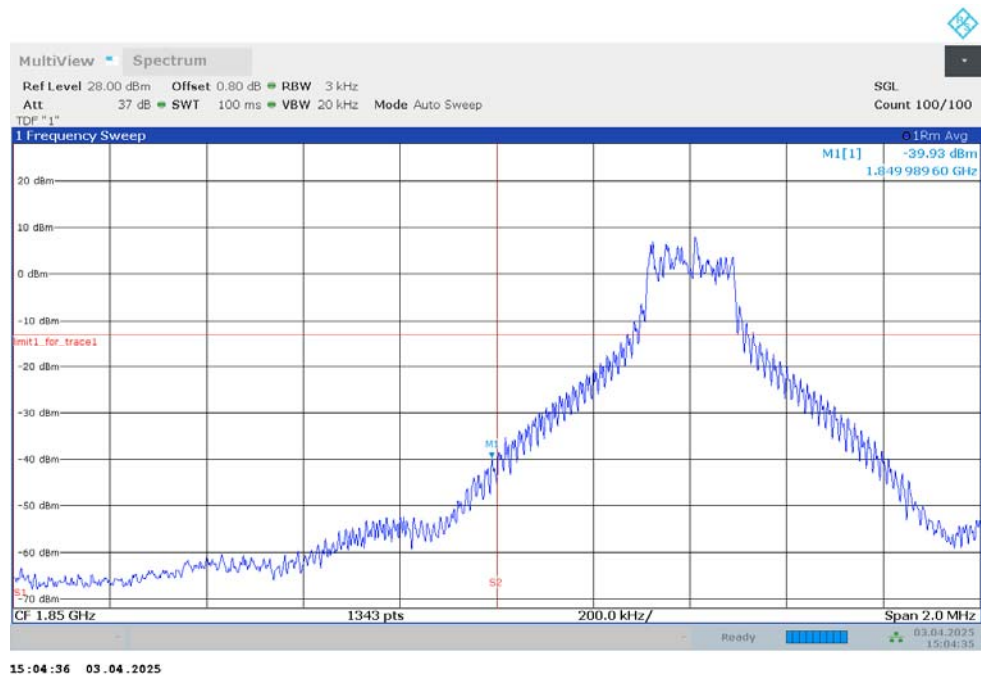
A.6.2 Measurement result

NR n25

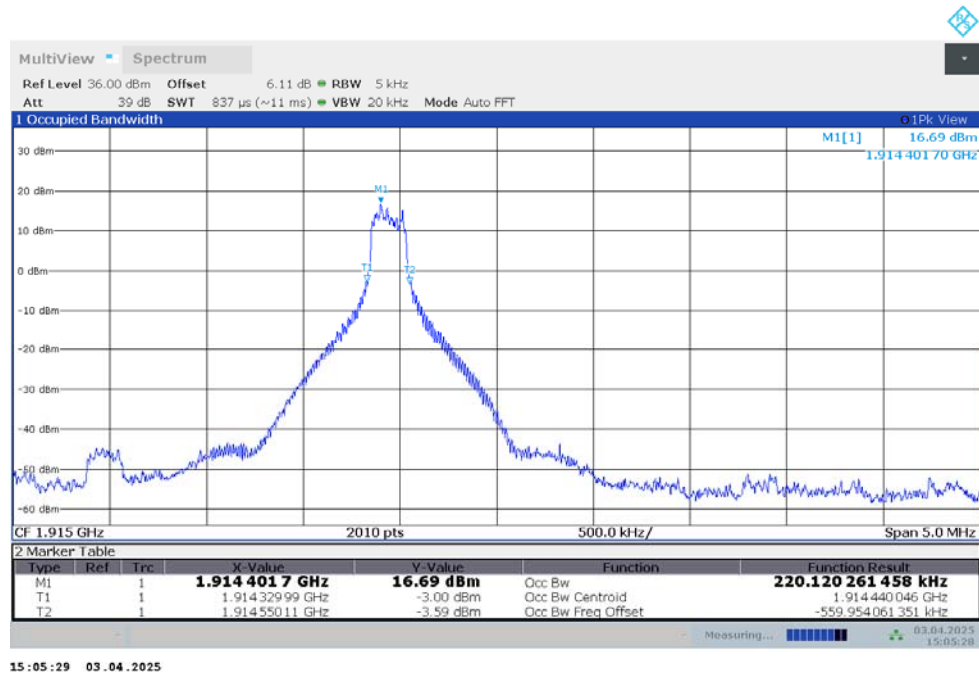
OBW: 1RB-LOW_offset



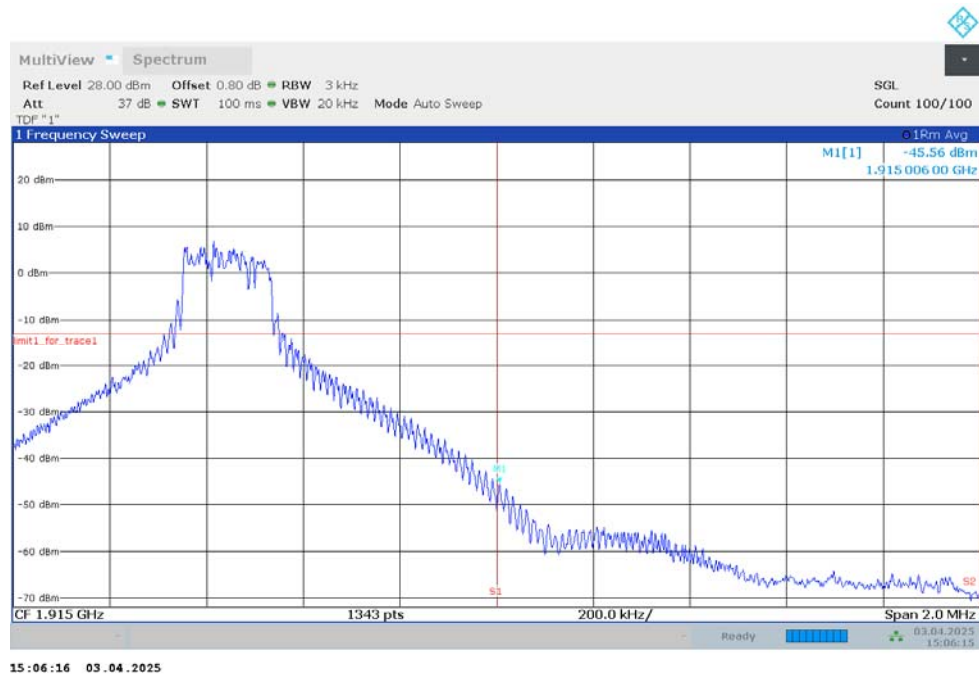
LOW BAND EDGE BLOCK-1RB-LOW_offset



OBW: 1RB-HIGH_offset

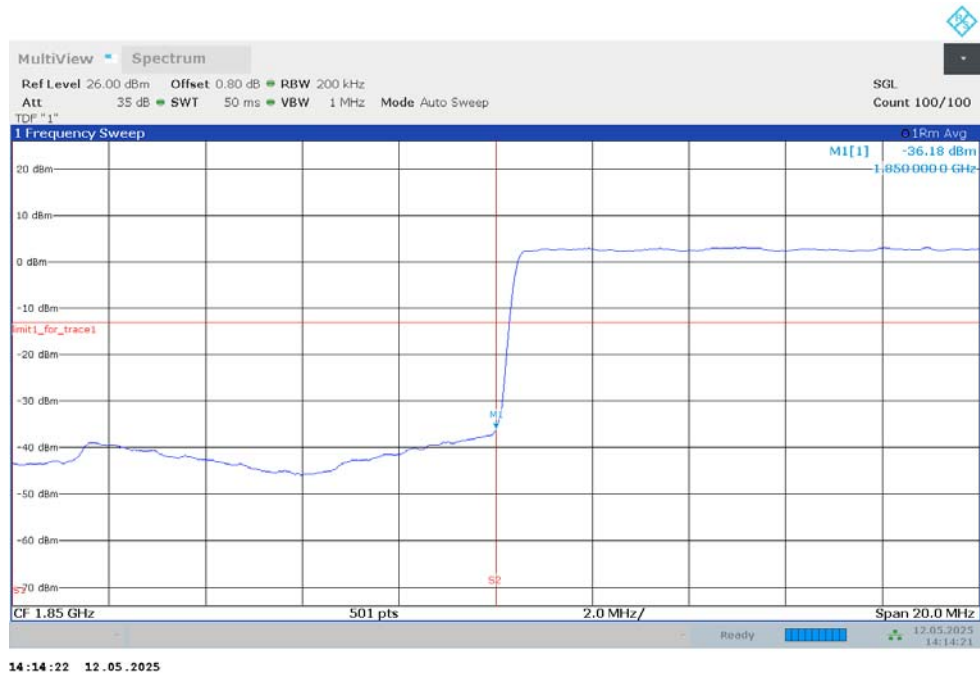


HIGH BAND EDGE BLOCK-1RB-HIGH_offset



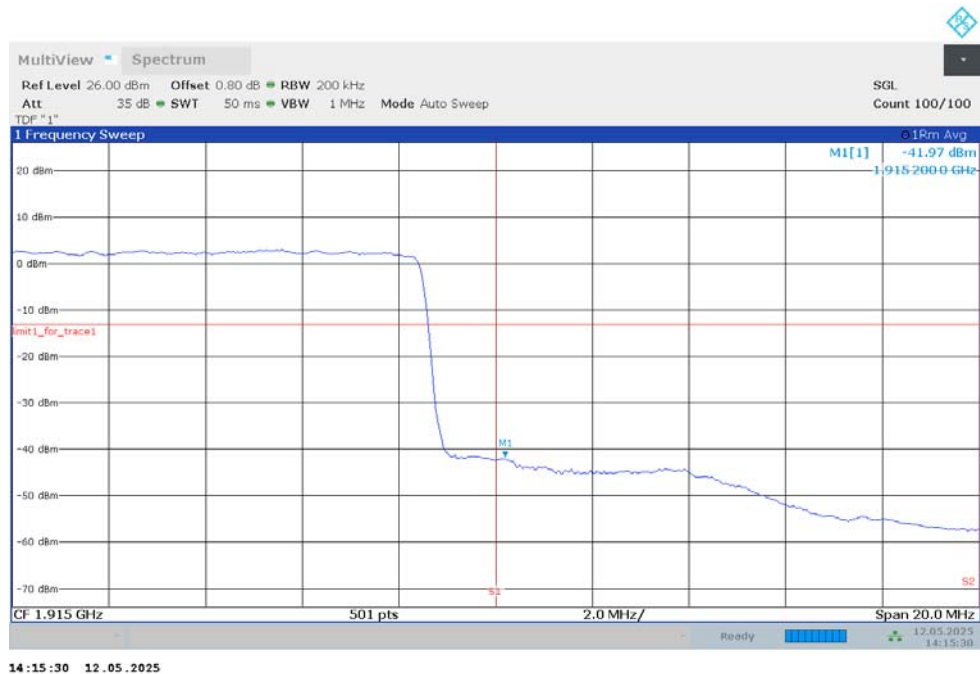
LOW BAND EDGE BLOCK-20MHz-100%RB

LOW BAN



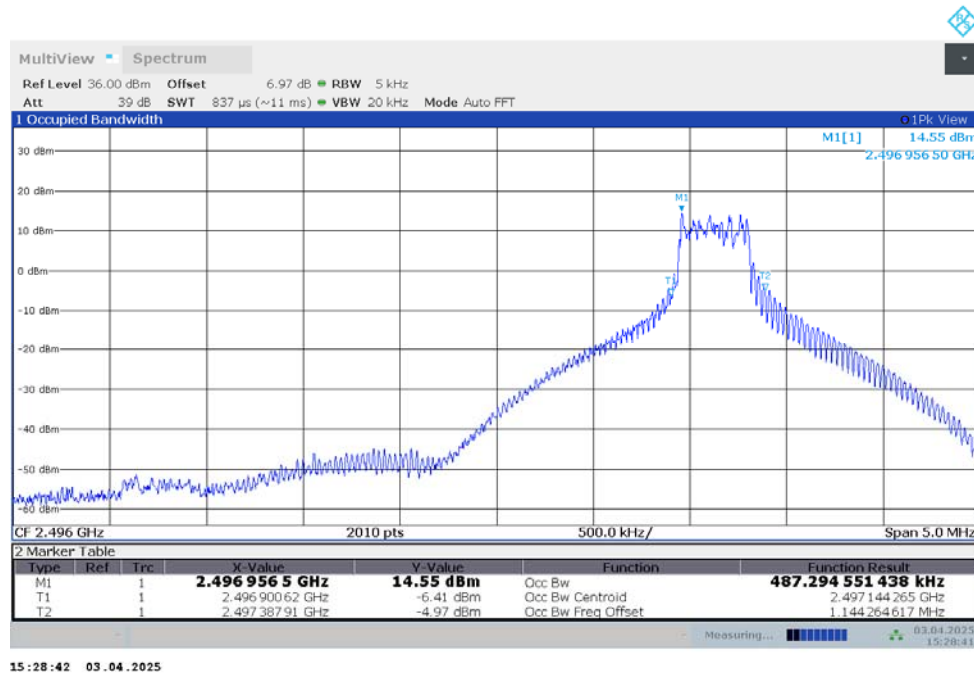
HIGH BAND EDGE BLOCK-20MHz-100%RB

HIGH BAN

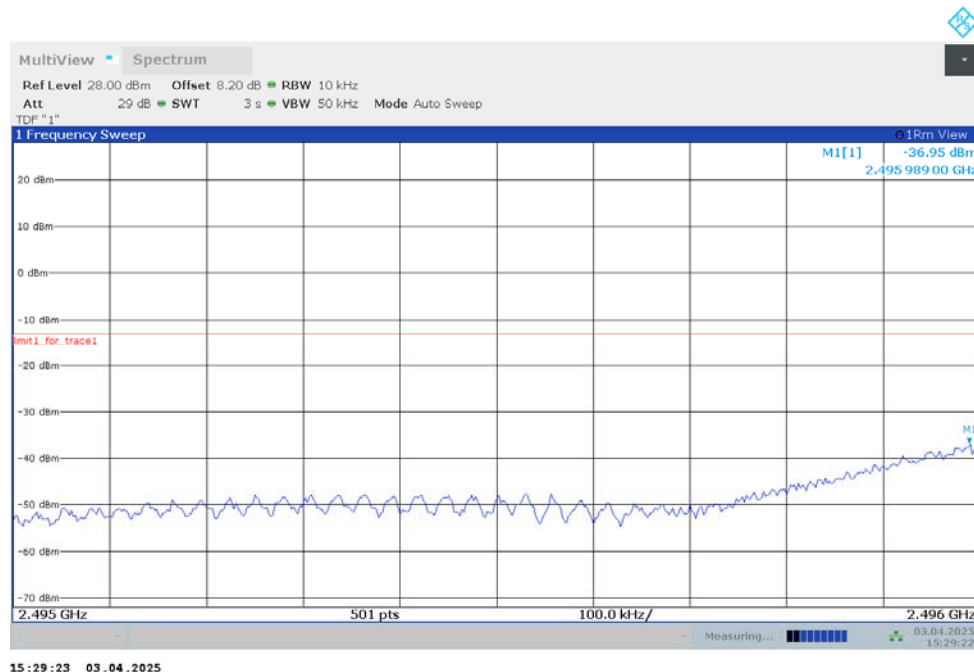


NR n41

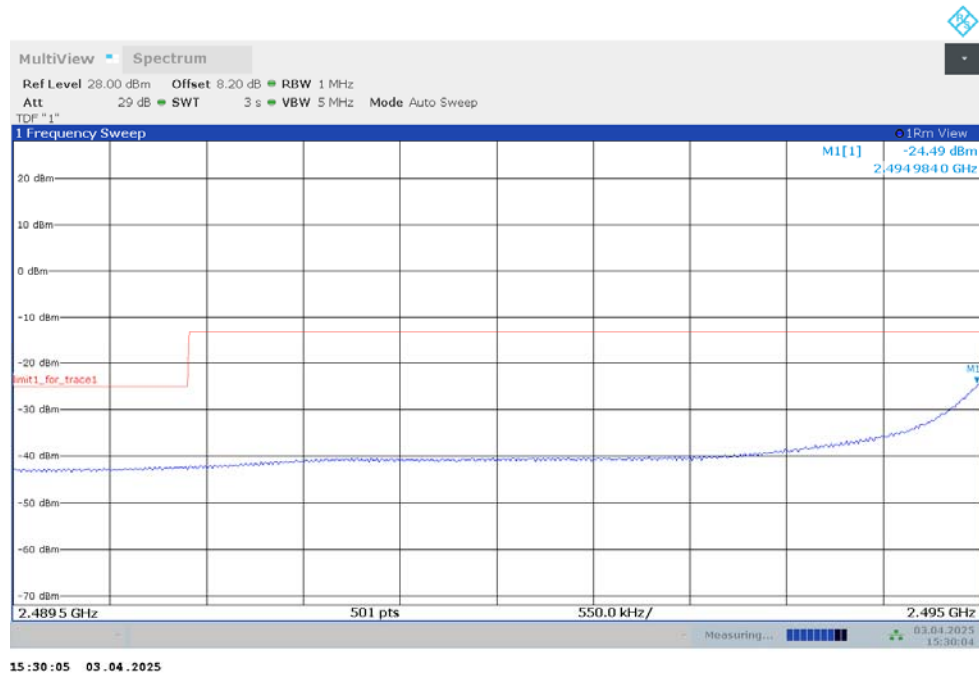
OBW: 1RB-LOW_offset



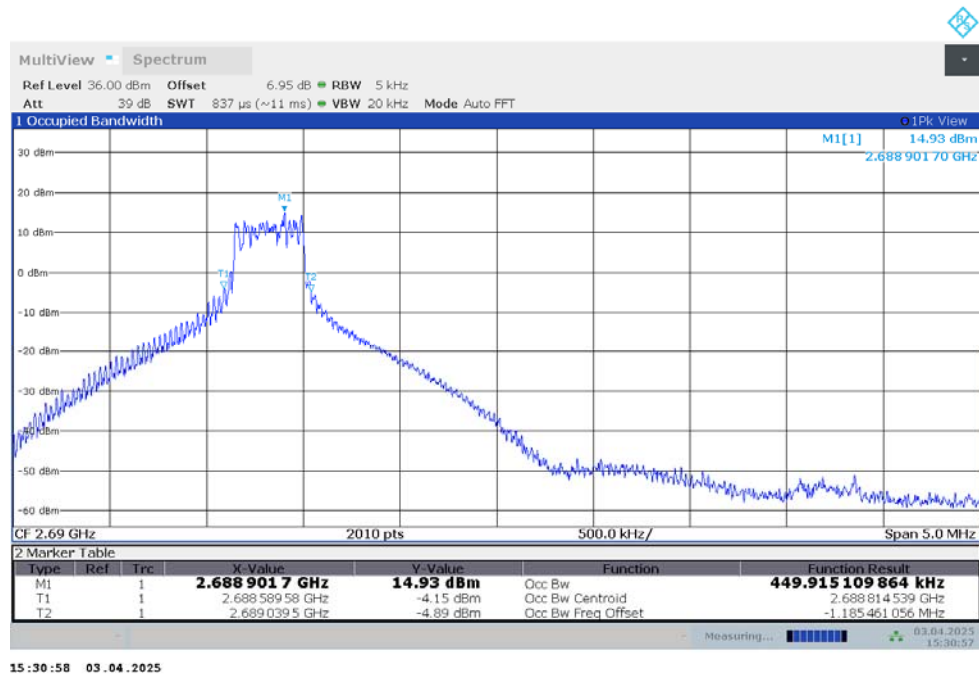
LOW BAND EDGE BLOCK-1RB-LOW_offset



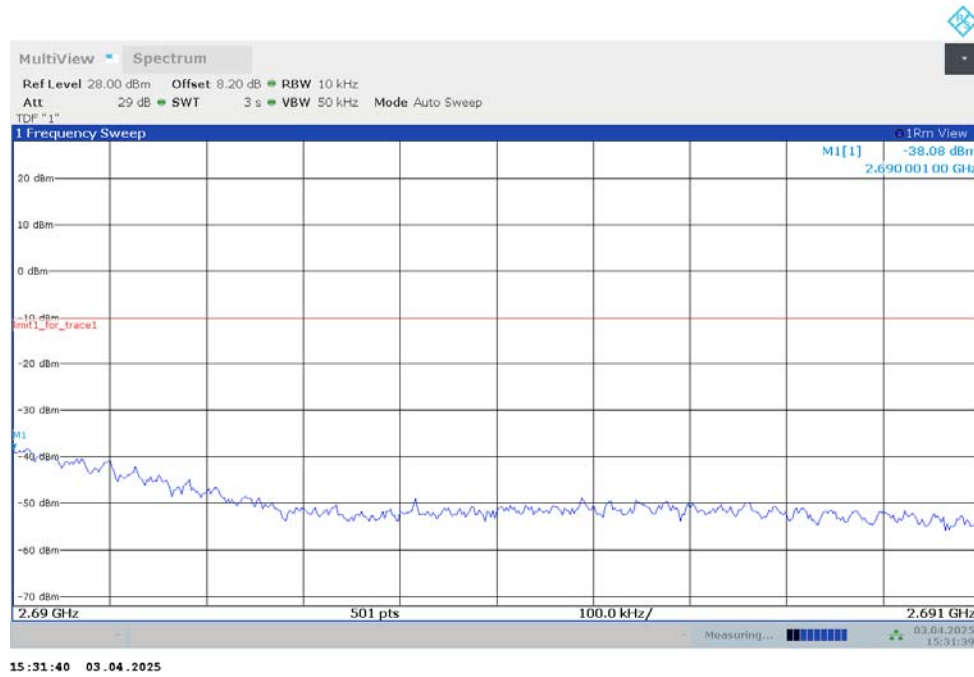
LOW BAND EDGE BLOCK-1RB-LOW_offset



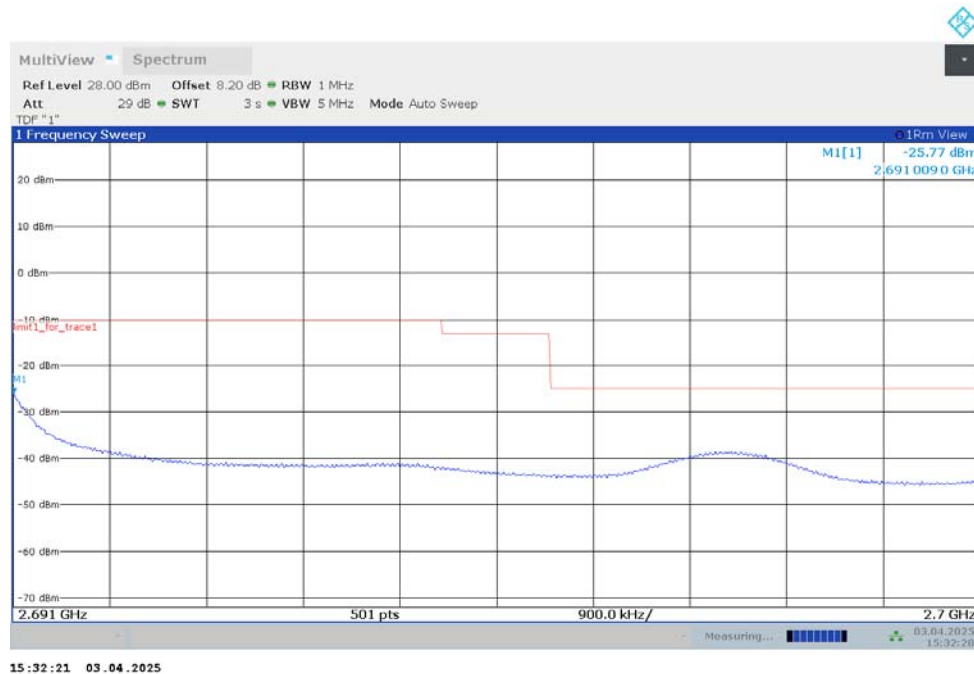
OBW: 1RB-HIGH_offset



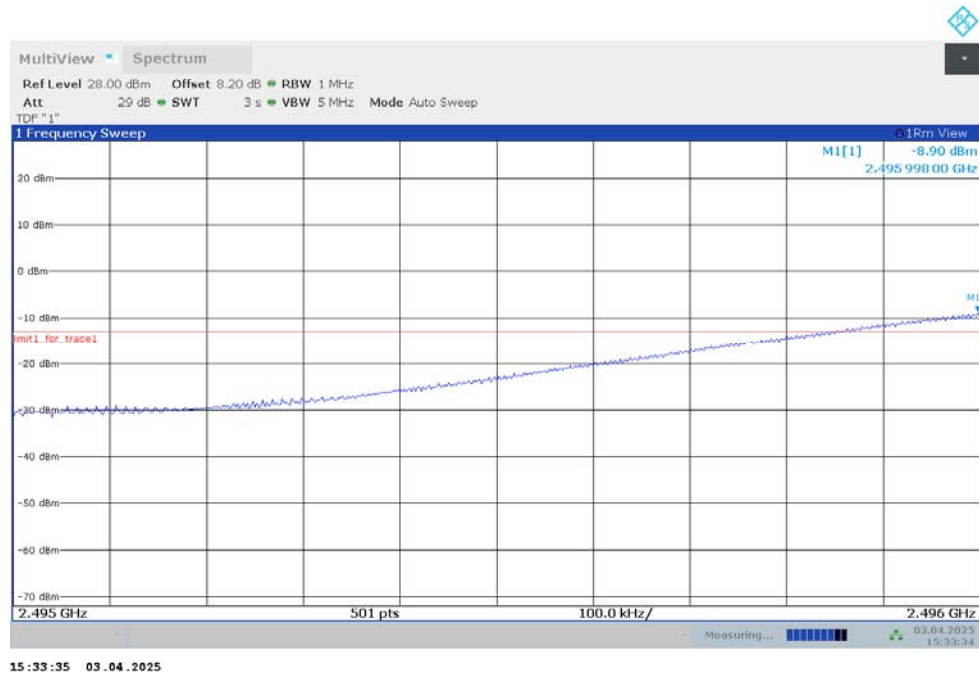
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



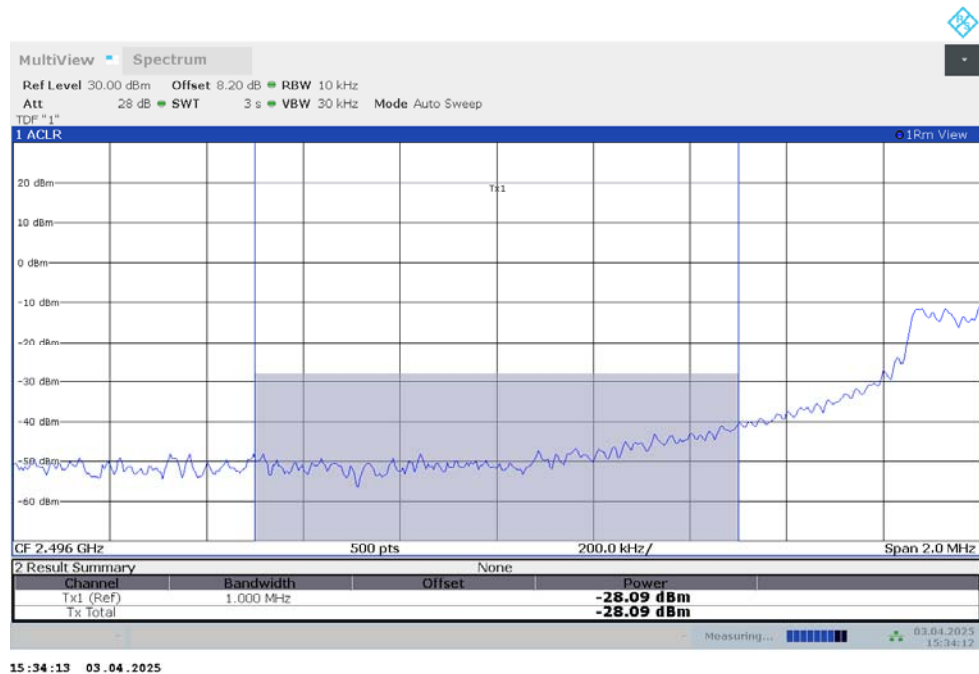
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



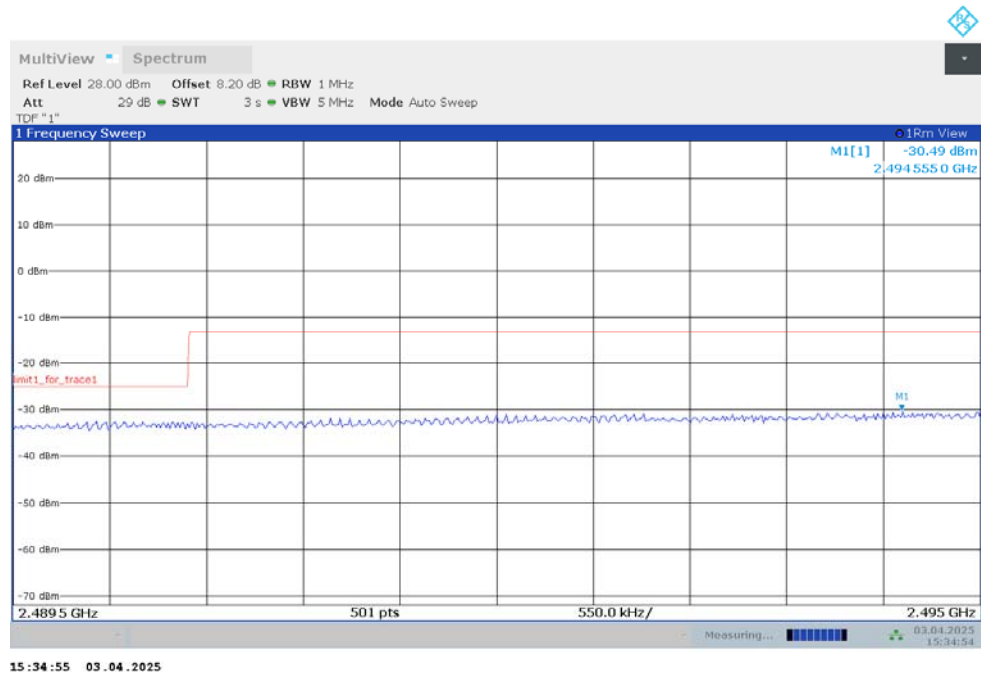
LOW BAND EDGE BLOCK-100MHz-100%RB



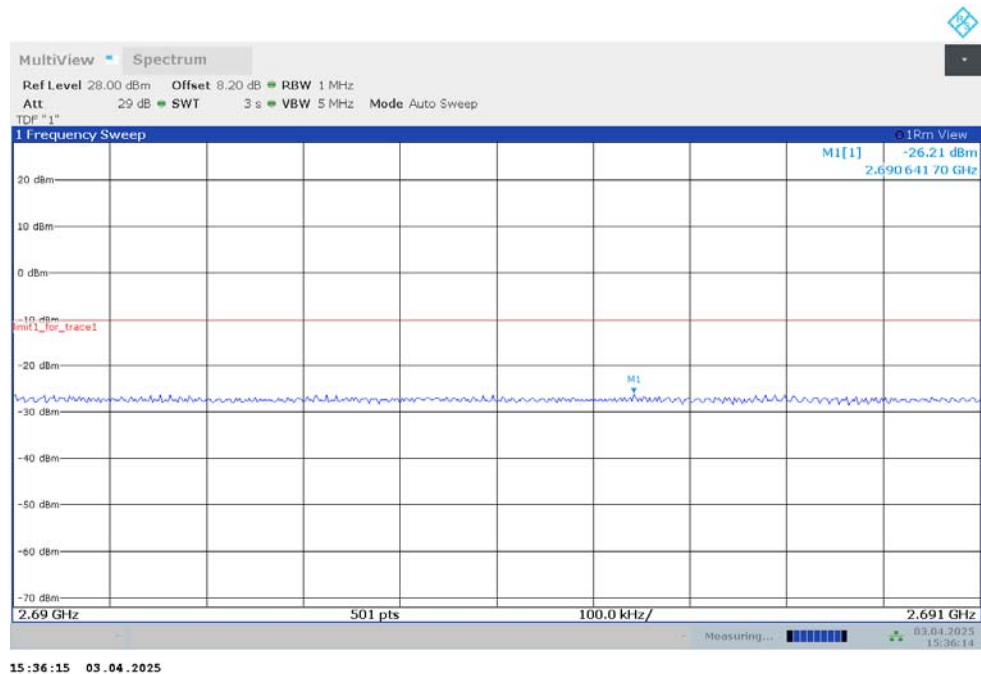
Channel power



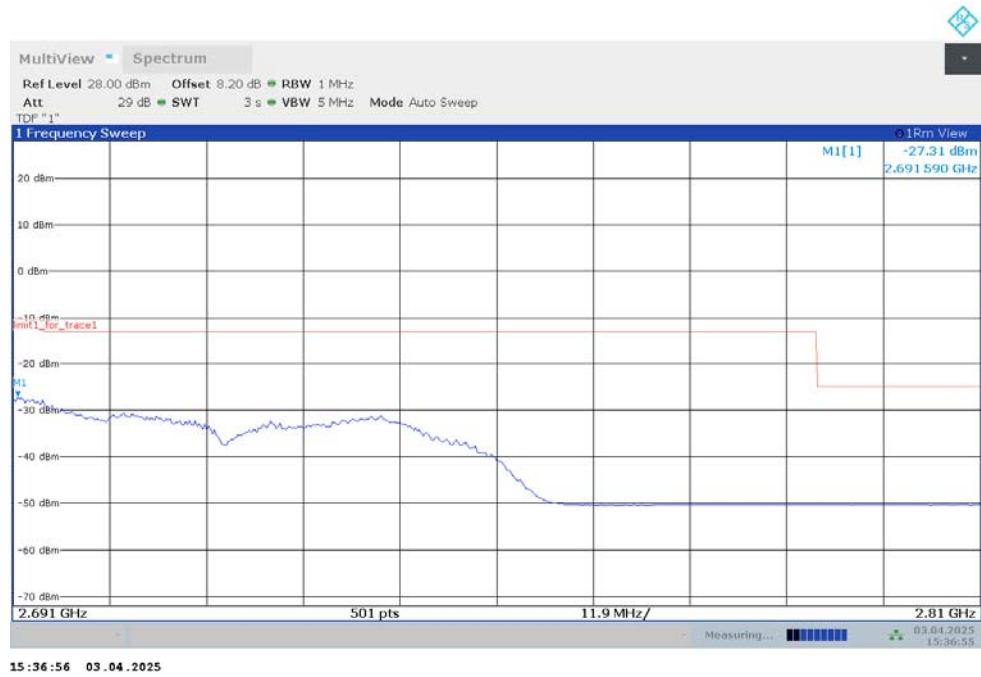
LOW BAND EDGE BLOCK-100MHz-100%RB



HIGH BAND EDGE BLOCK-100MHz-100%RB

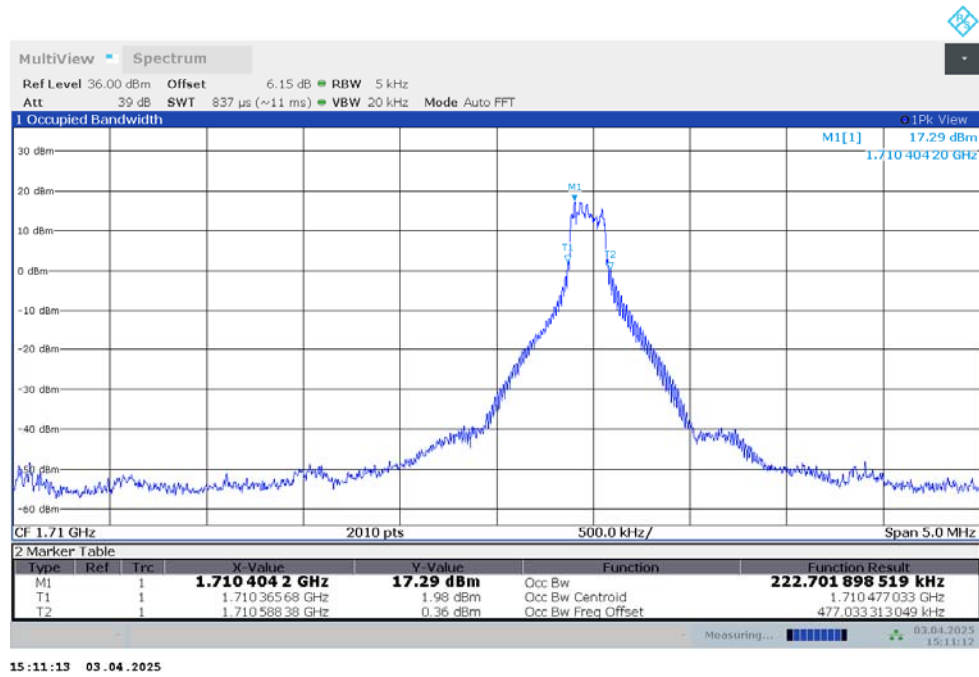


HIGH BAND EDGE BLOCK-100MHz-100%RB

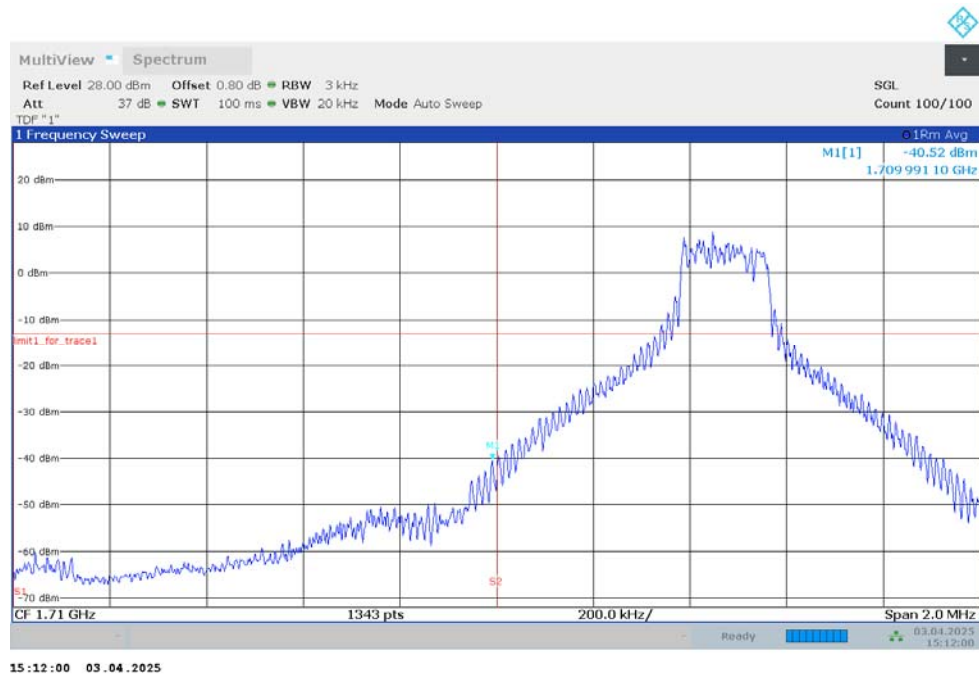


NR n66

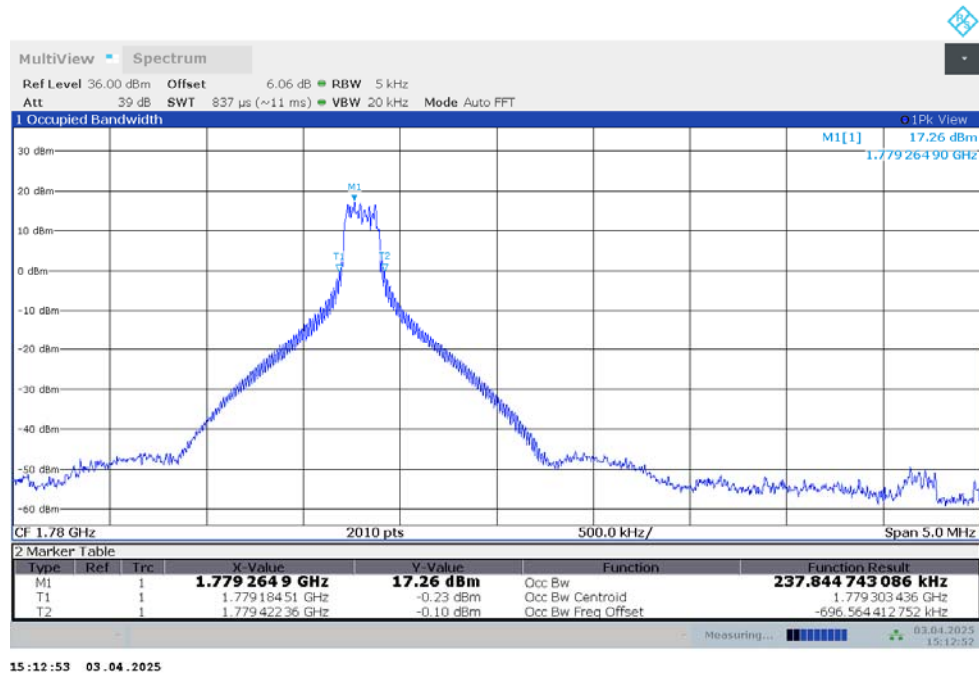
OBW: 1RB-LOW_offset



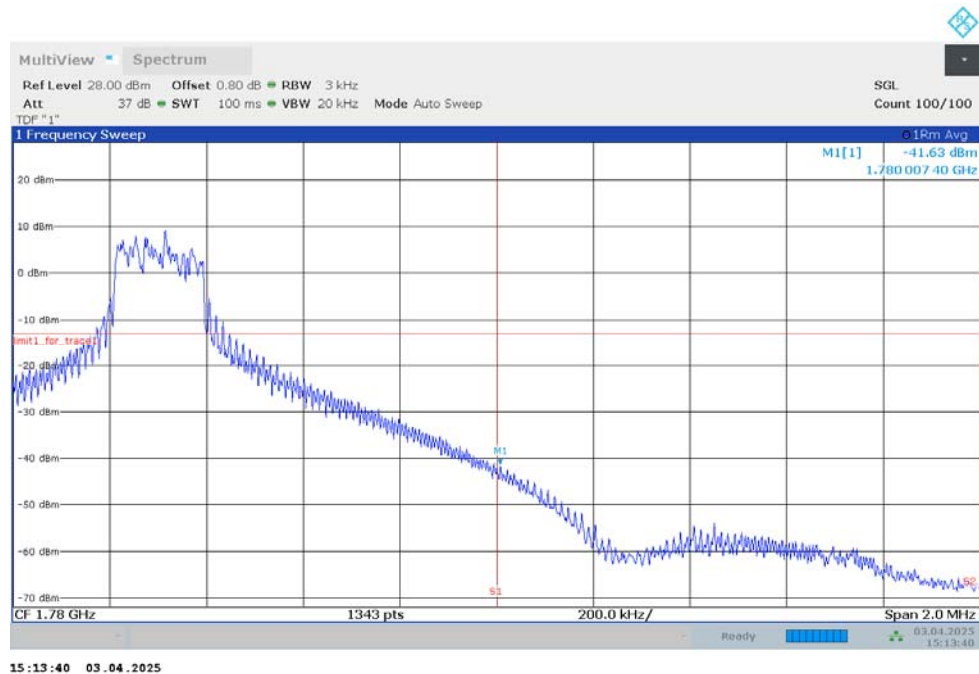
LOW BAND EDGE BLOCK-1RB-LOW_offset



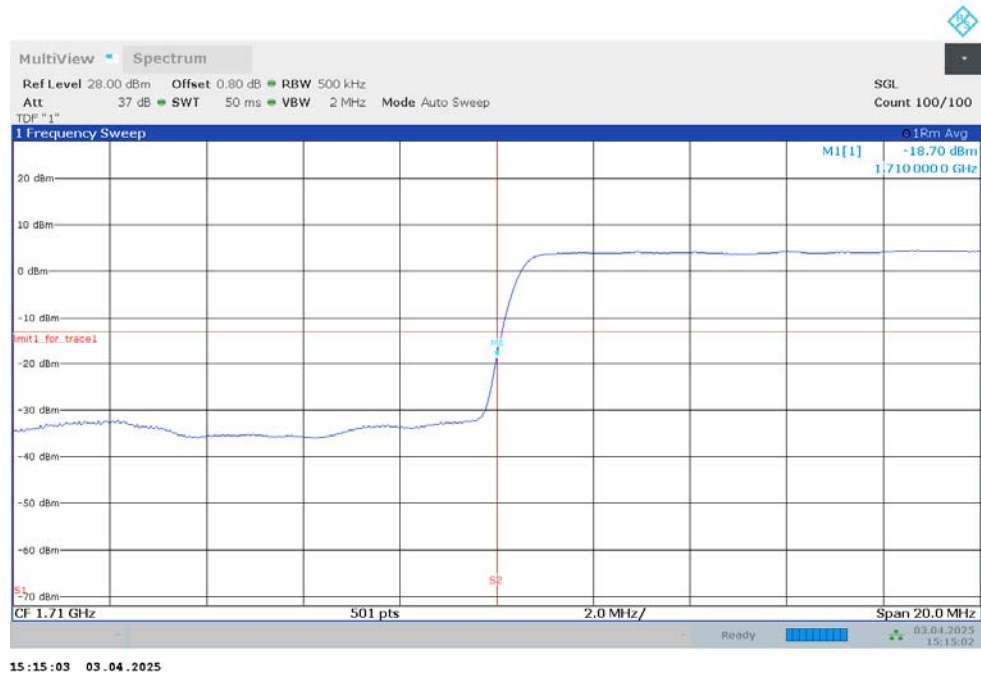
OBW: 1RB-HIGH_offset



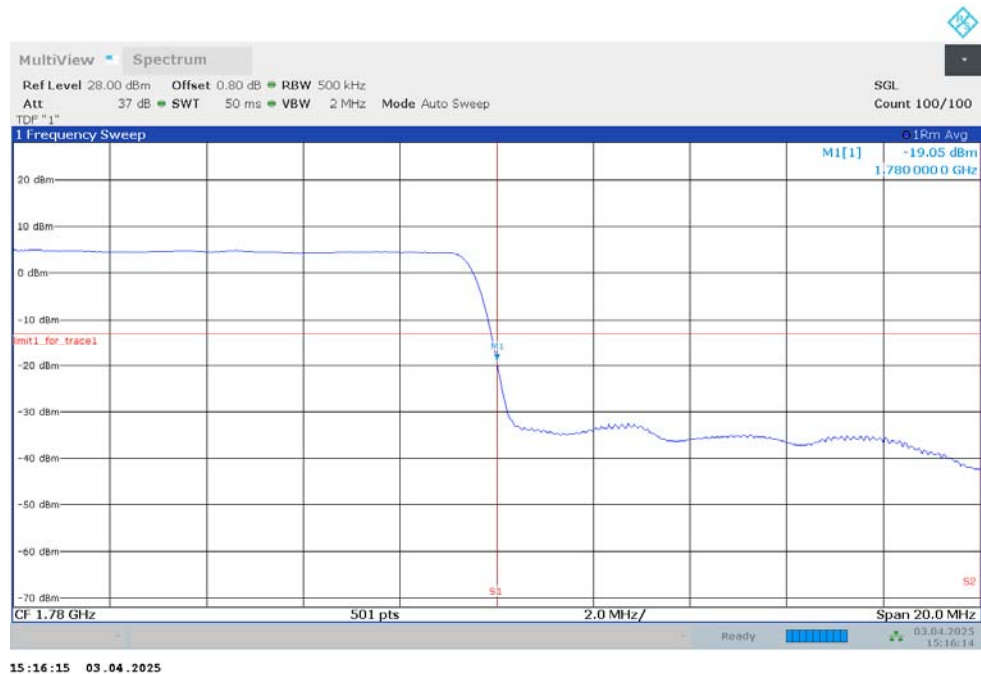
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-40MHz-100%RB

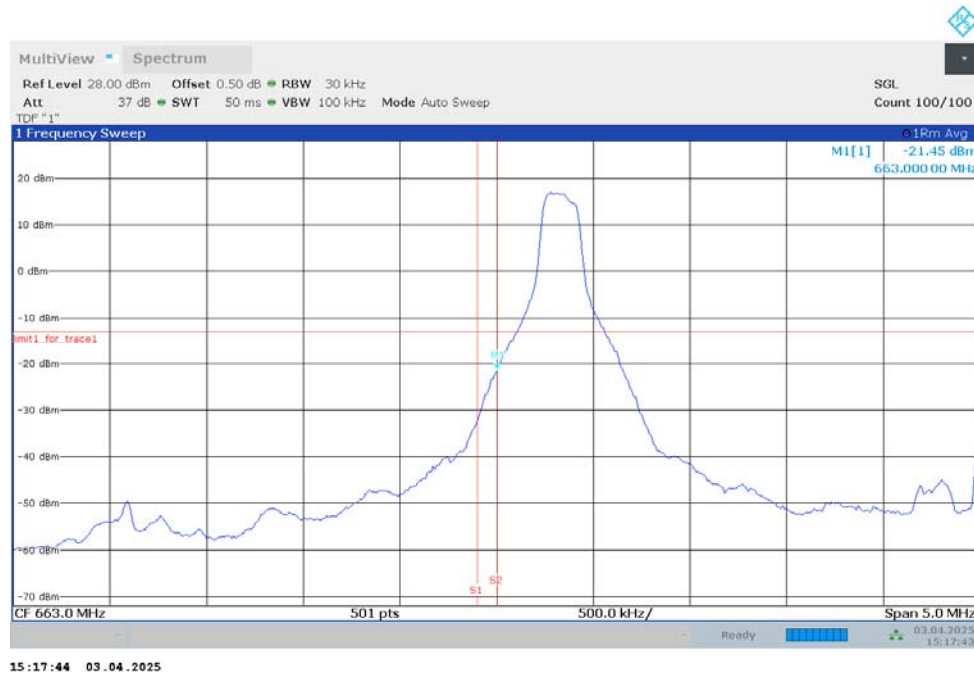


HIGH BAND EDGE BLOCK-40MHz-100%RB

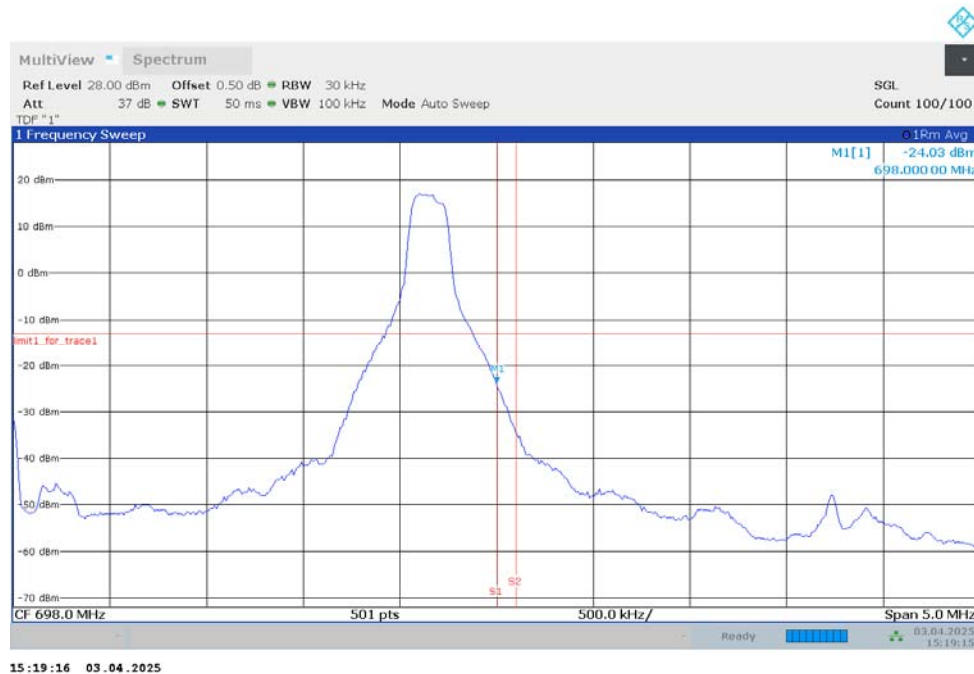


NR n71

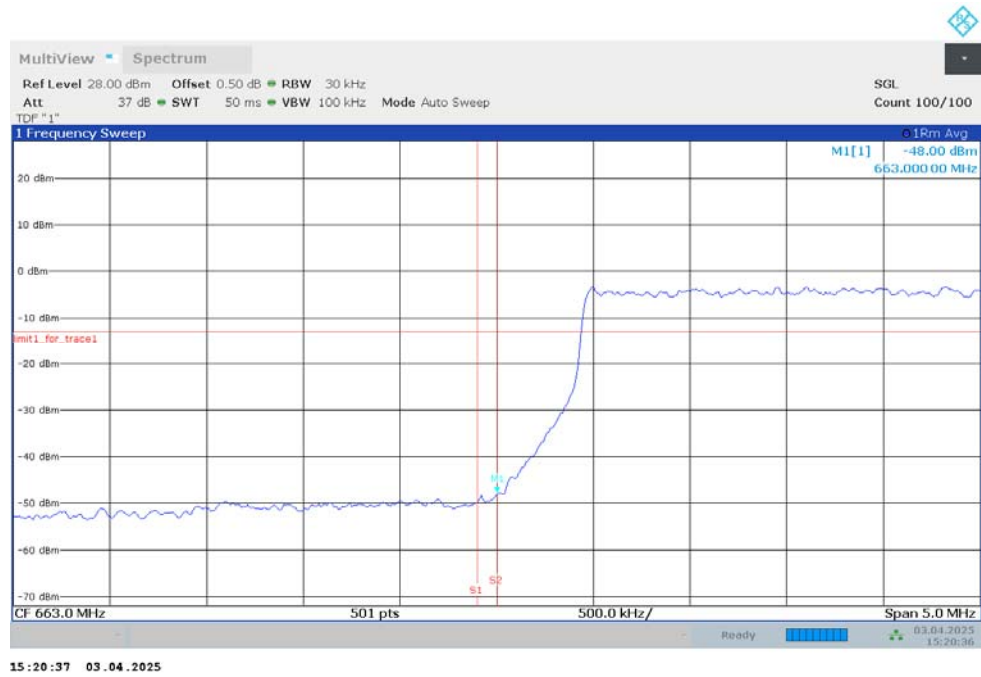
LOW BAND EDGE BLOCK-1RB-LOW_offset



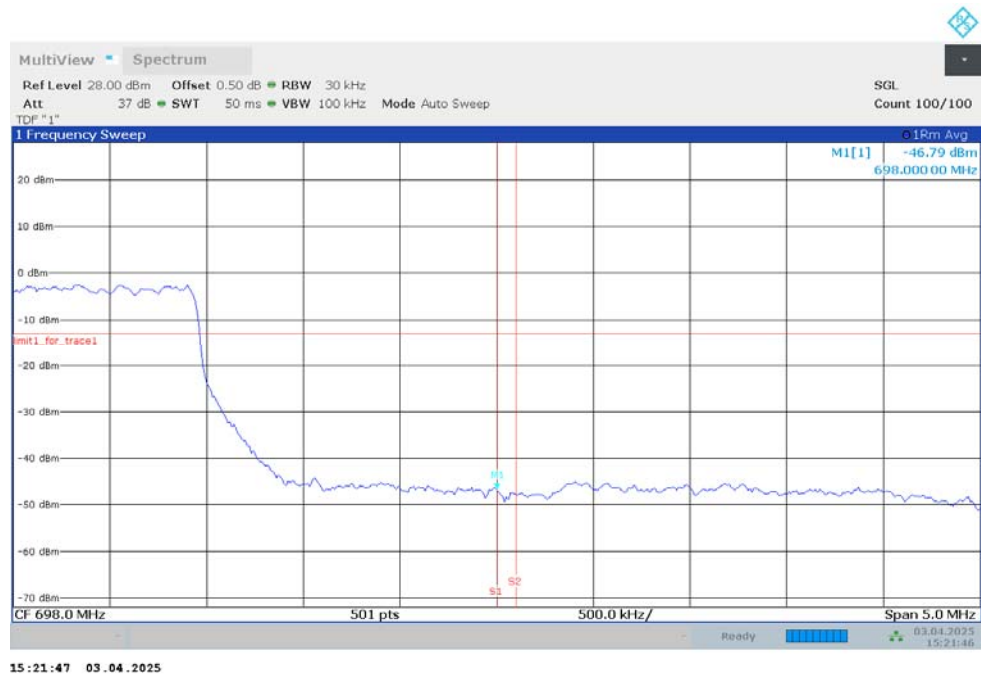
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20MHz-100%RB



HIGH BAND EDGE BLOCK-20MHz-100%RB



A.7 Conducted Spurious Emission

A.7.1 Measurement Method

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. In measuring unwanted emissions, the spectrum shall be investigated from 30 MHz or the lowest radio frequency signal generated in the equipment, whichever is lower, without going below 9 kHz, up to at least the frequency given below:
 - (a) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
 - (b) If the equipment operates at or above 10 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.
3. The number of sweep points of spectrum analyzer is greater than $2 \times \text{span/RBW}$.

A. 7.2 Measurement Limit

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.

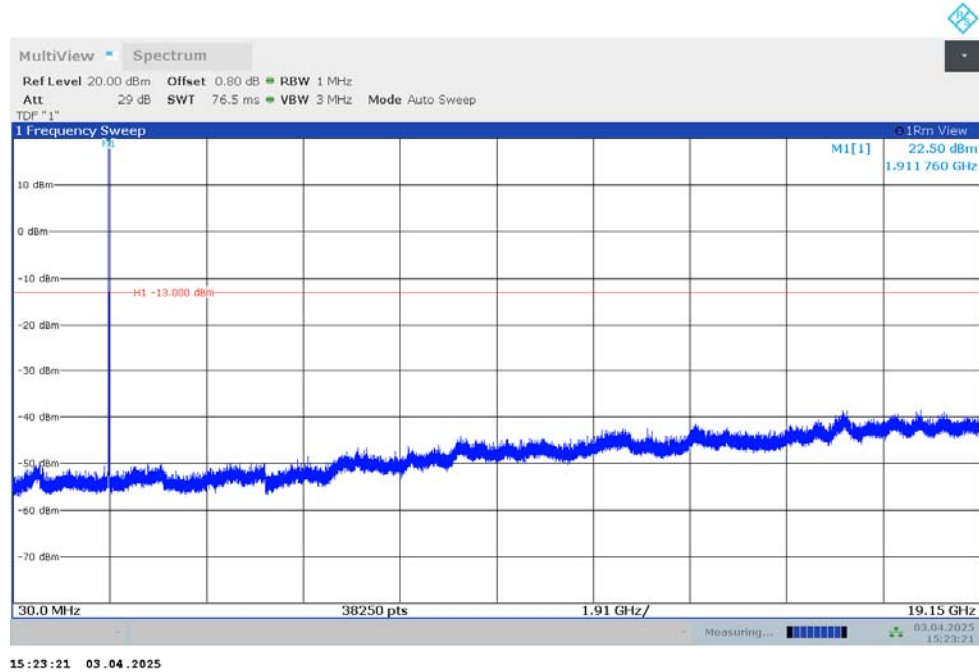
Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, 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 2490.5 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.

A.7.3 Measurement result

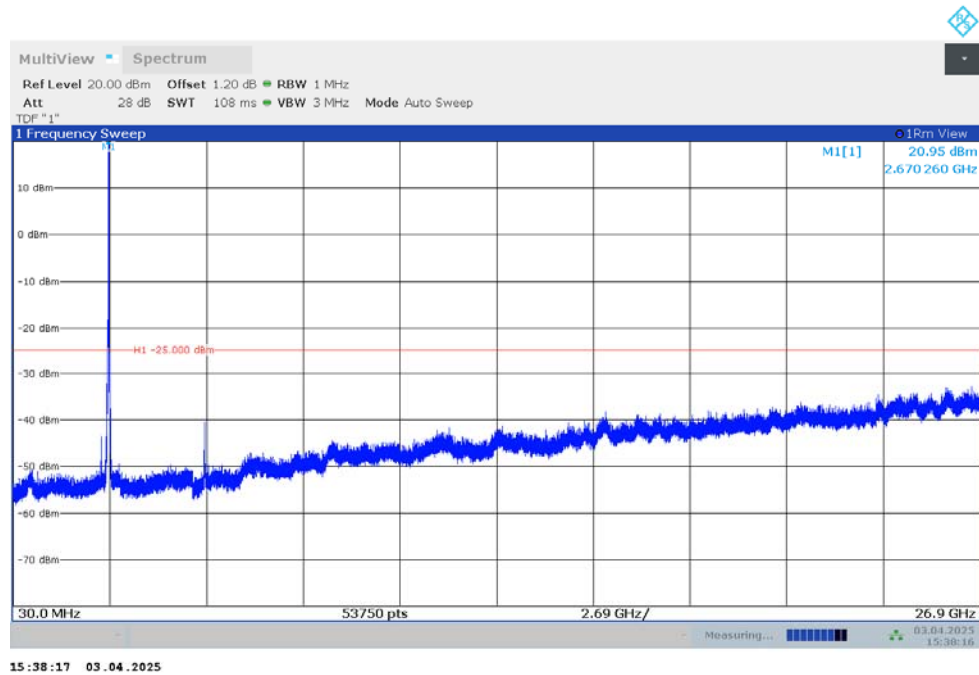
n25

NOTE: peak above the limit line is the carrier frequency.



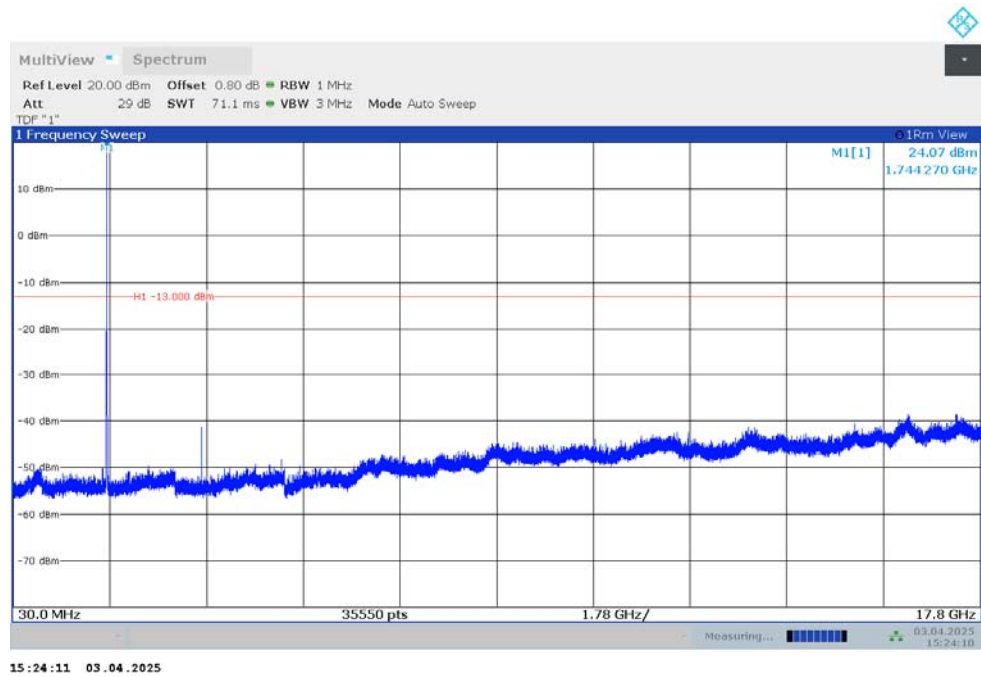
n41

NOTE: peak above the limit line is the carrier frequency.



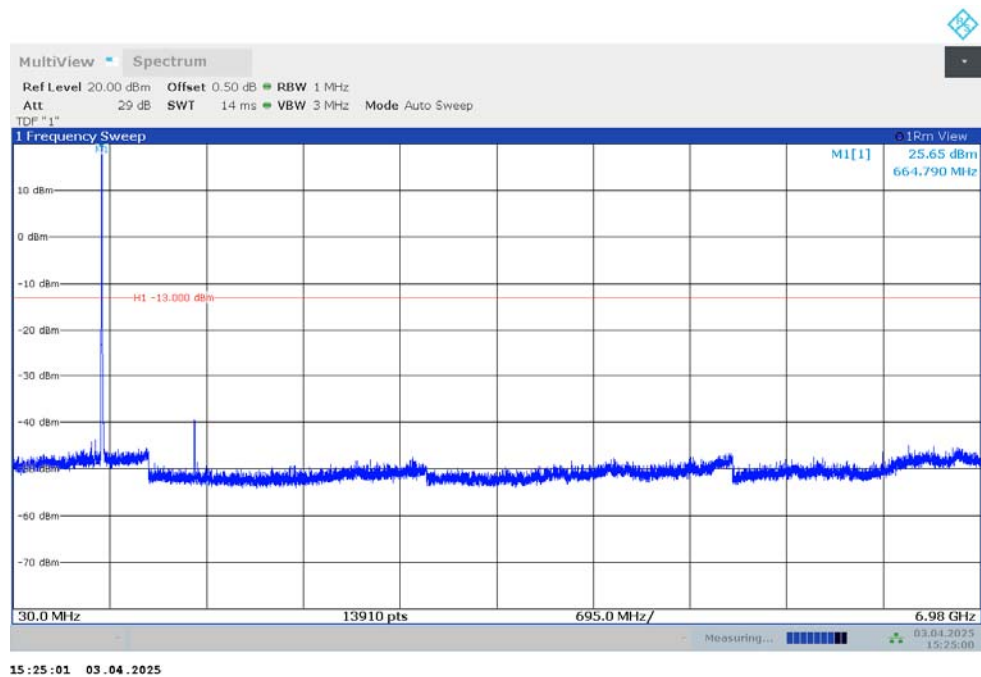
n66

NOTE: peak above the limit line is the carrier frequency.



n71

NOTE: peak above the limit line is the carrier frequency.



A.8 Peak-to-Average Power Ratio

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB

- Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
- Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
- Set the number of counts to a value that stabilizes the measured CCDF curve;
- Record the maximum PAPR level associated with a probability of 0.1%.

Measurement results

n25,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
1882.5	4.56	5.68	6.44	6.54	6.54	8.46	8.42	8.52	8.20

n41,100MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
2592.99	5.16	5.61	6.27	6.48	6.59	8.07	8.28	8.15	8.33

n66,40MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
1745	4.63	5.18	5.90	6.21	6.61	7.63	7.64	7.80	8.58

n71,20MHz

Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
680.5	4.31	5.17	6.04	6.25	6.58	7.61	7.54	7.85	8.24

Annex B: Accreditation Certificate



Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 23rd day of July 2024.



Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2026

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

END OF REPORT