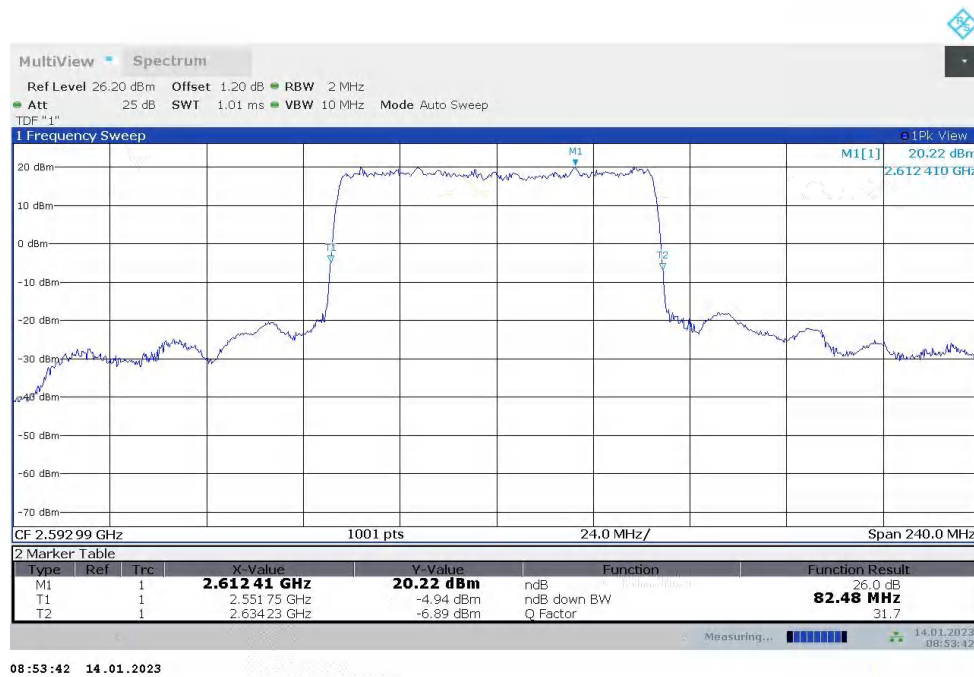


n41

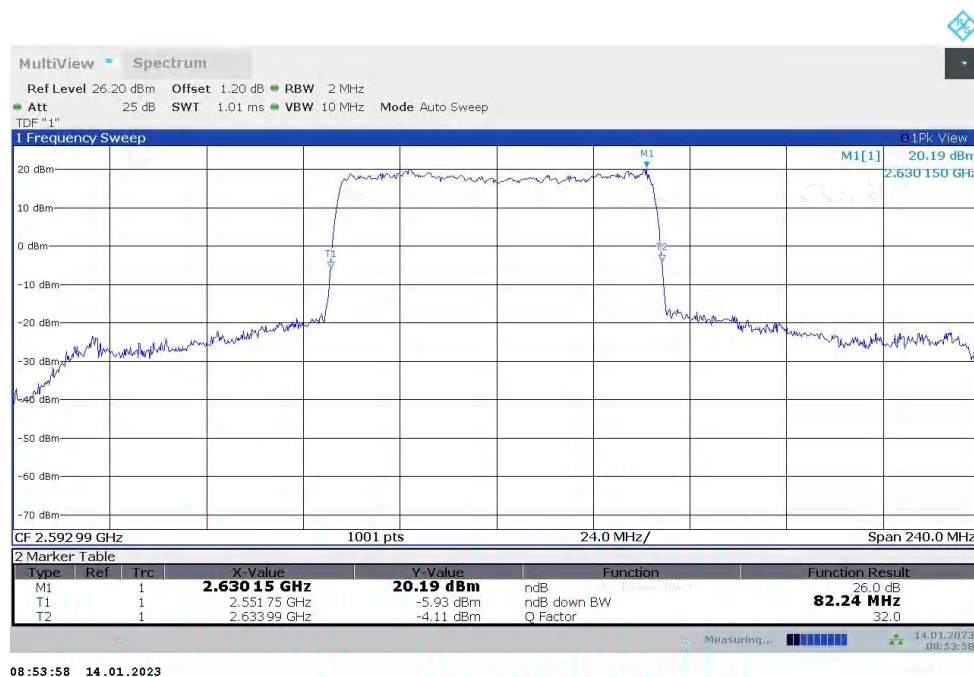
n41,80MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	82.480	82.240

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



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

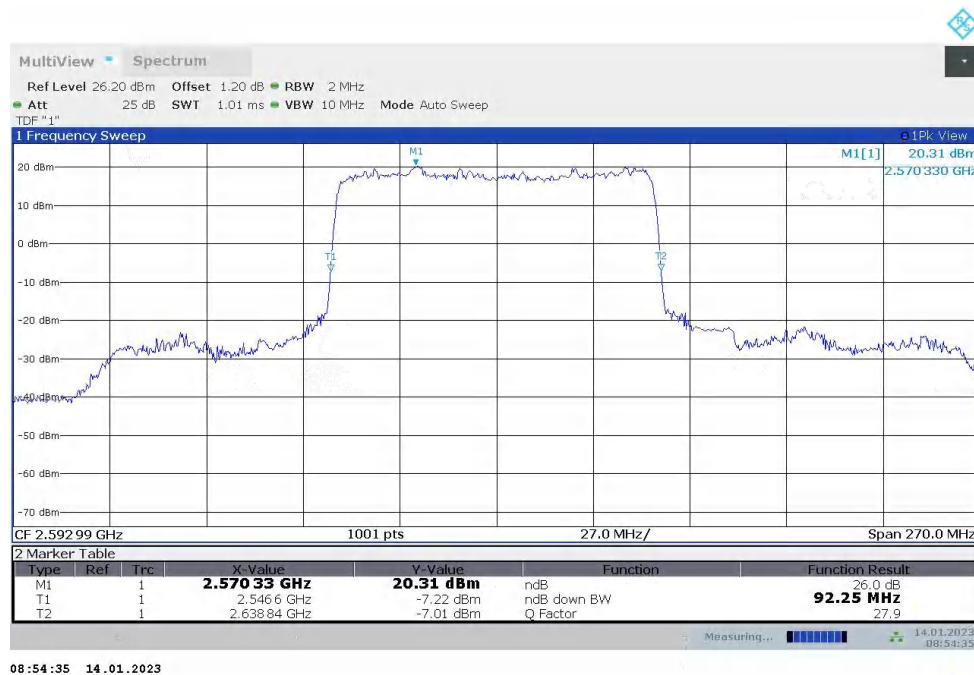


n41

n41,90MHz(-26dBc)

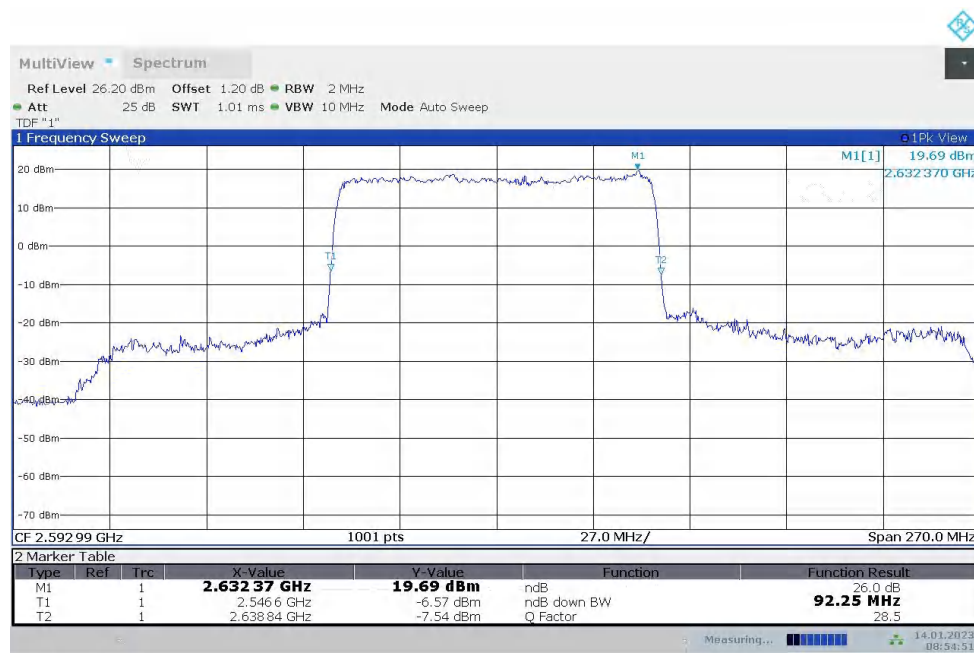
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	92.250	92.250

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



08:54:35 14.01.2023

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



08:54:51 14.01.2023

n41

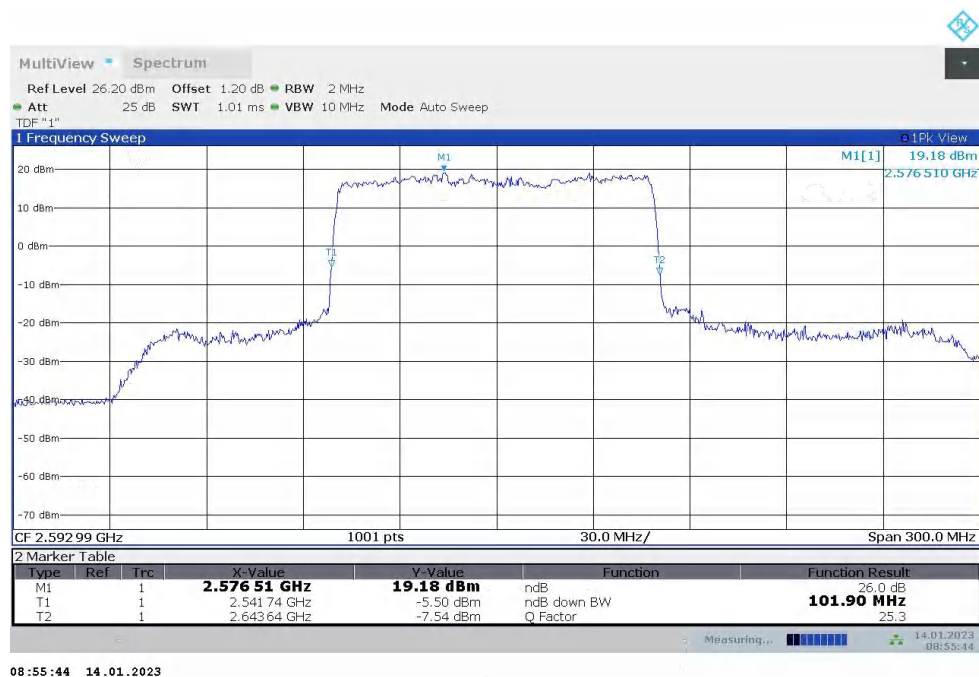
n41,100MHz(-26dBc)

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

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



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

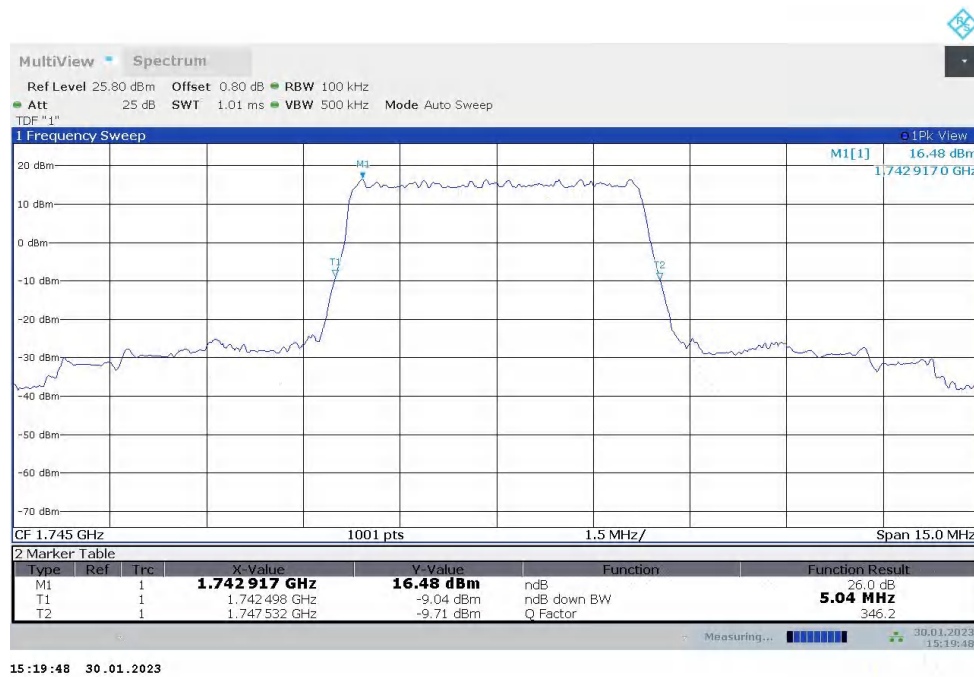


n66

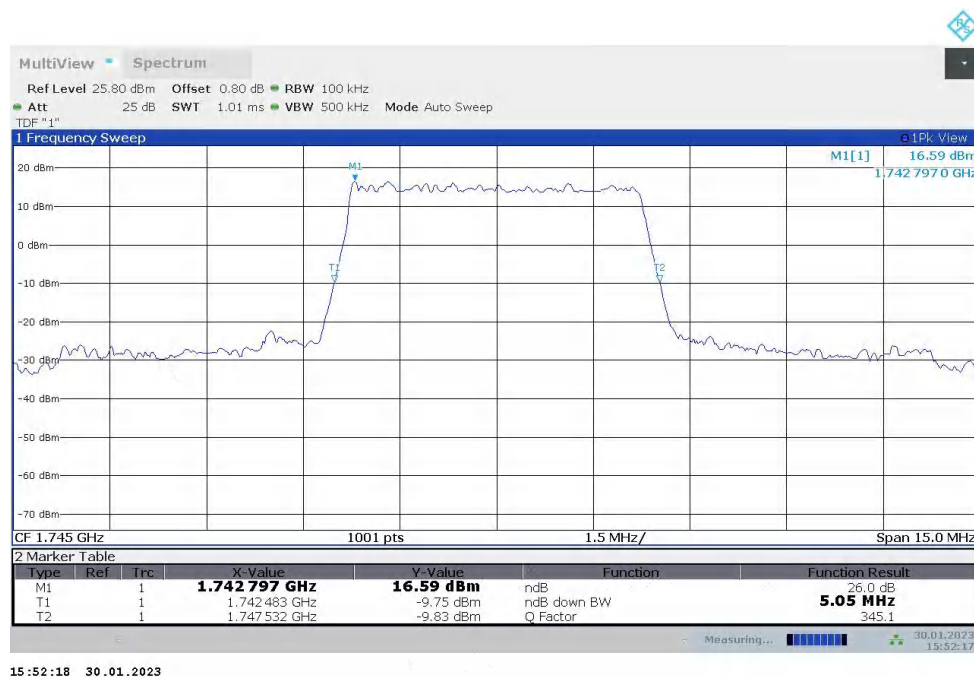
n66,5MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745	5.035	5.050

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



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



n66

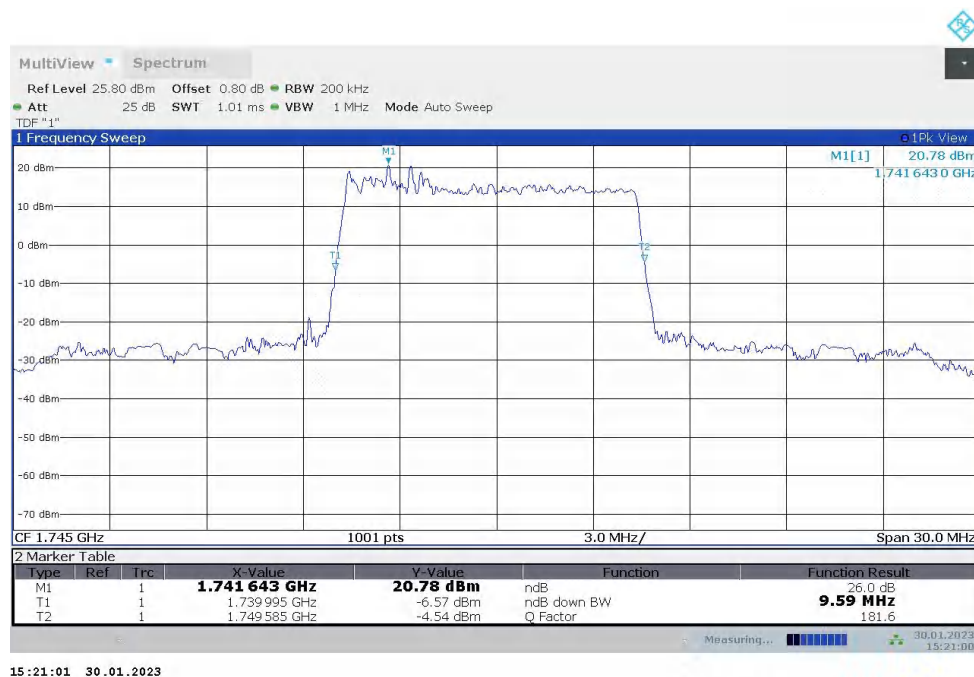
n66,10MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745	9.800	9.590

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



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

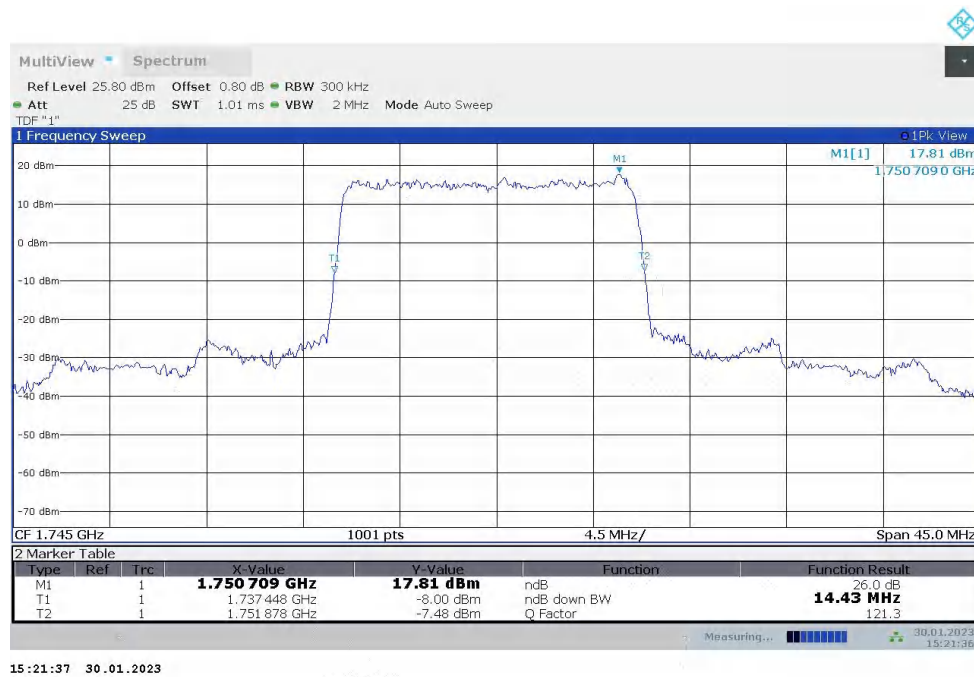


n66

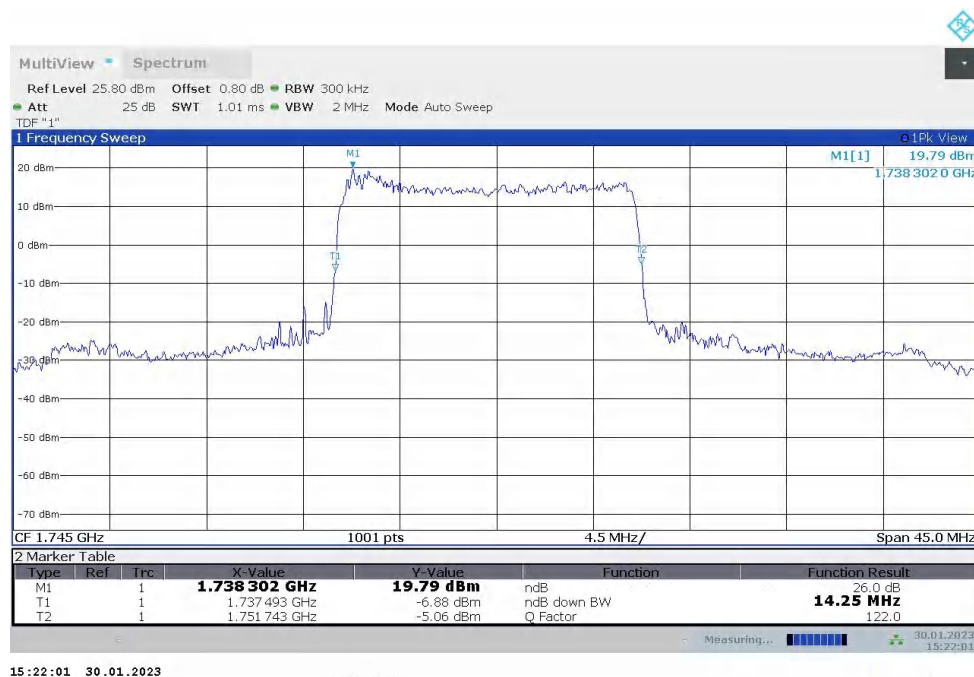
n66,15MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745	14.431	14.251

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



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

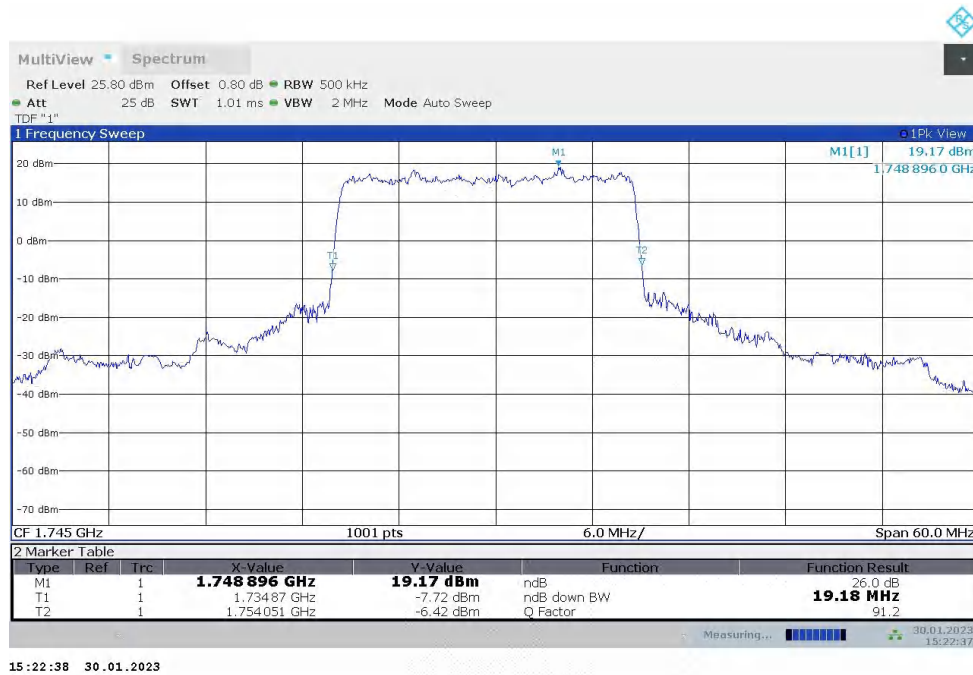


n66

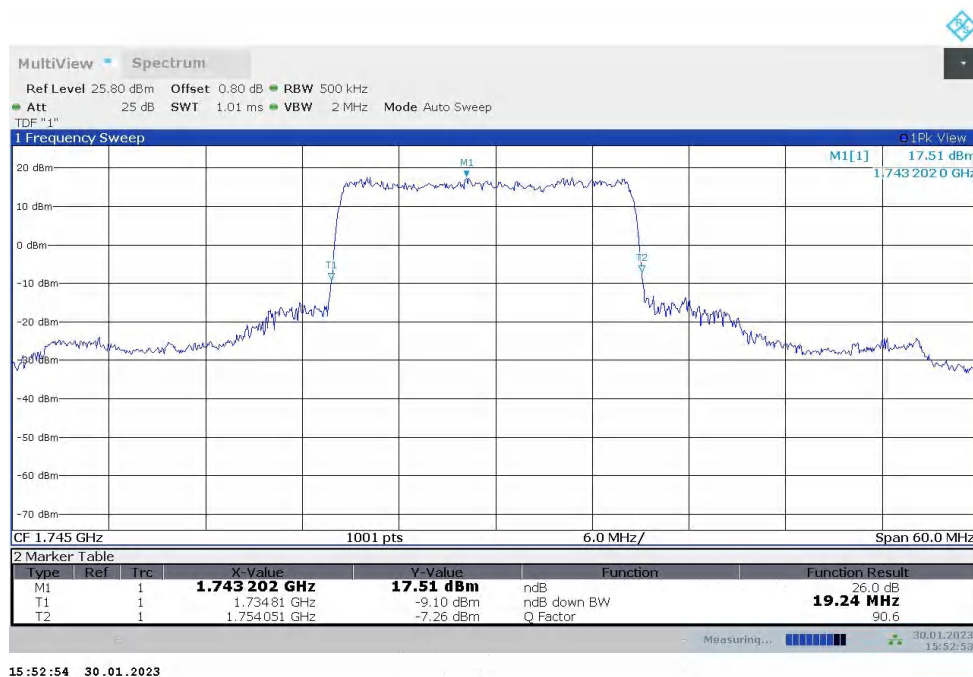
n66,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745	19.181	19.241

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



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

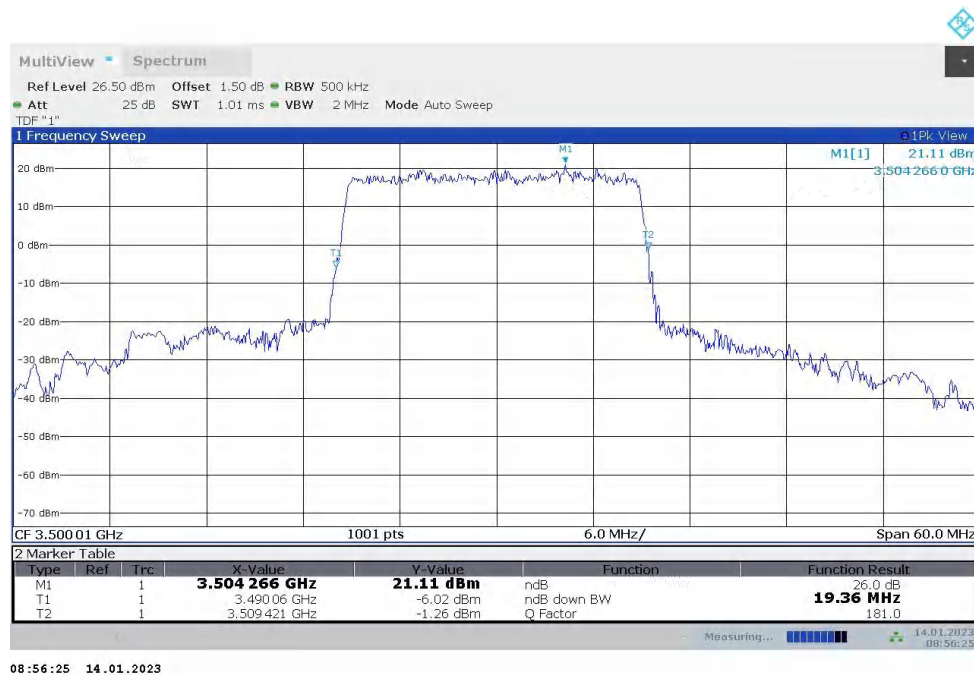


n78

n78,20MHz(-26dBc)

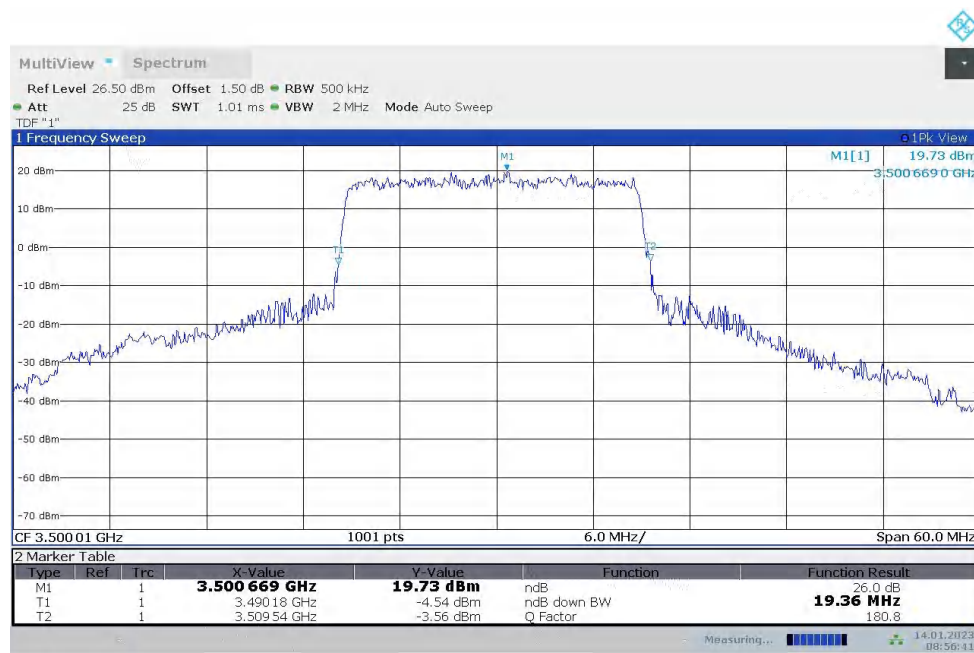
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
3500.01	19.361	19.361

n78,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



08:56:25 14.01.2023

n78,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



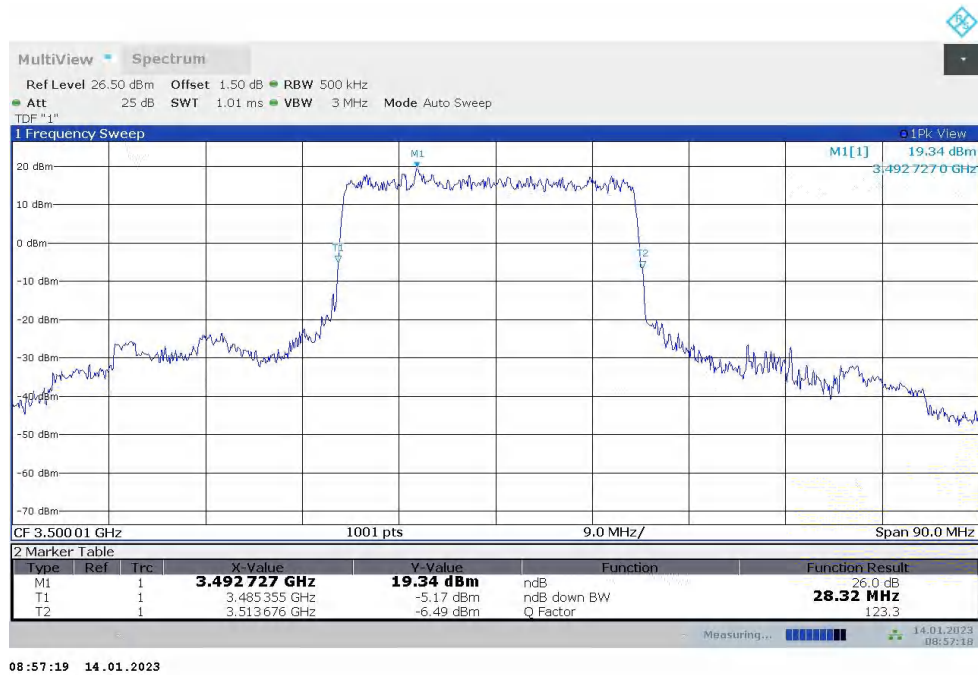
08:56:41 14.01.2023

n78

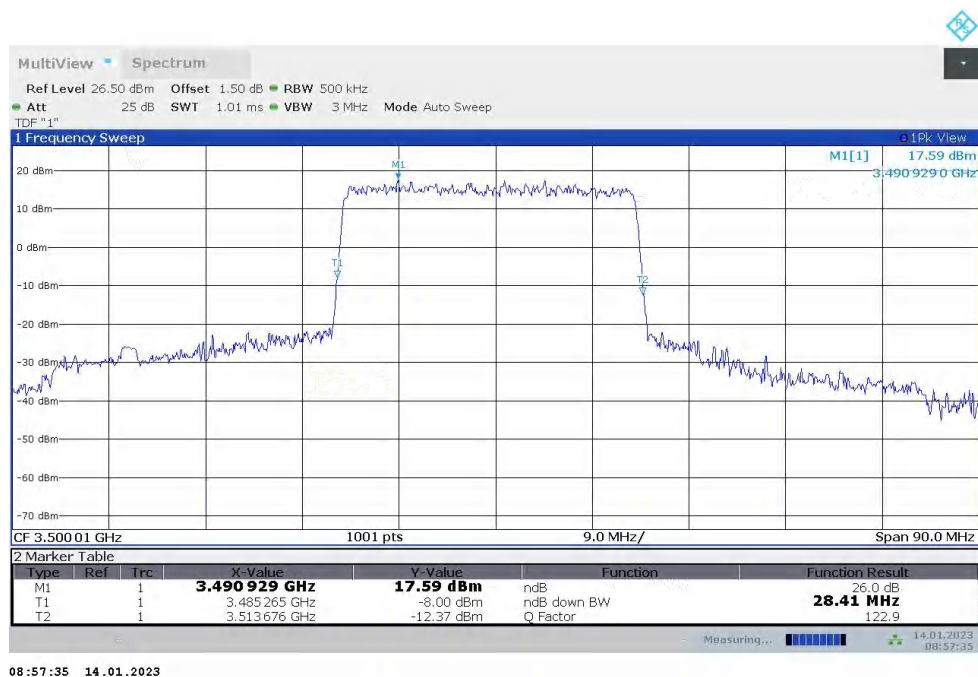
n78,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
3500.01	28.322	28.412

n78,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

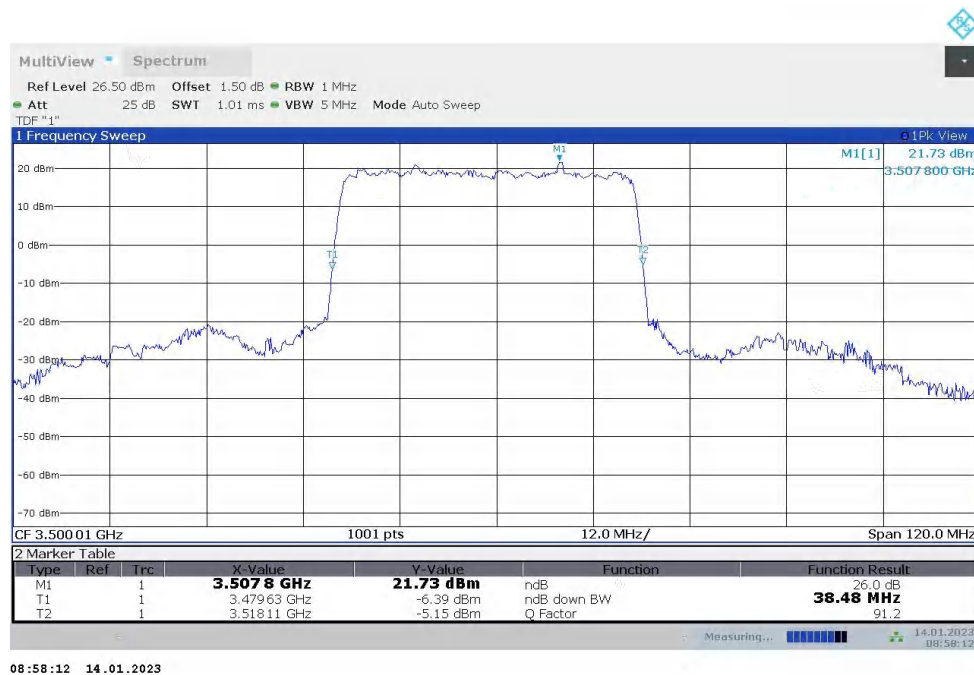


n78

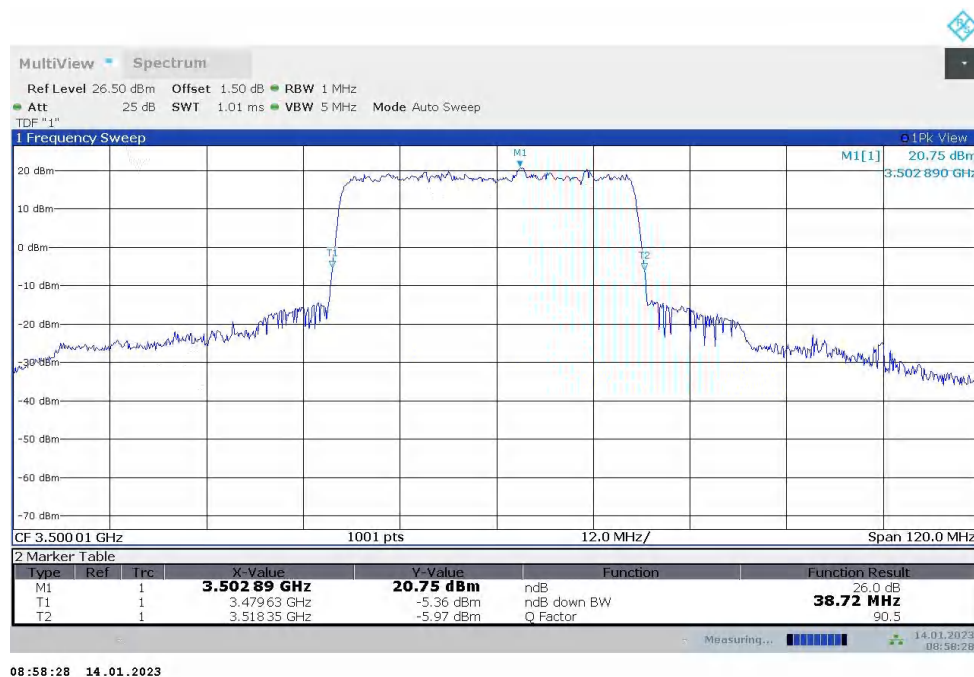
n78,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
3500.01	38.480	38.720

n78,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

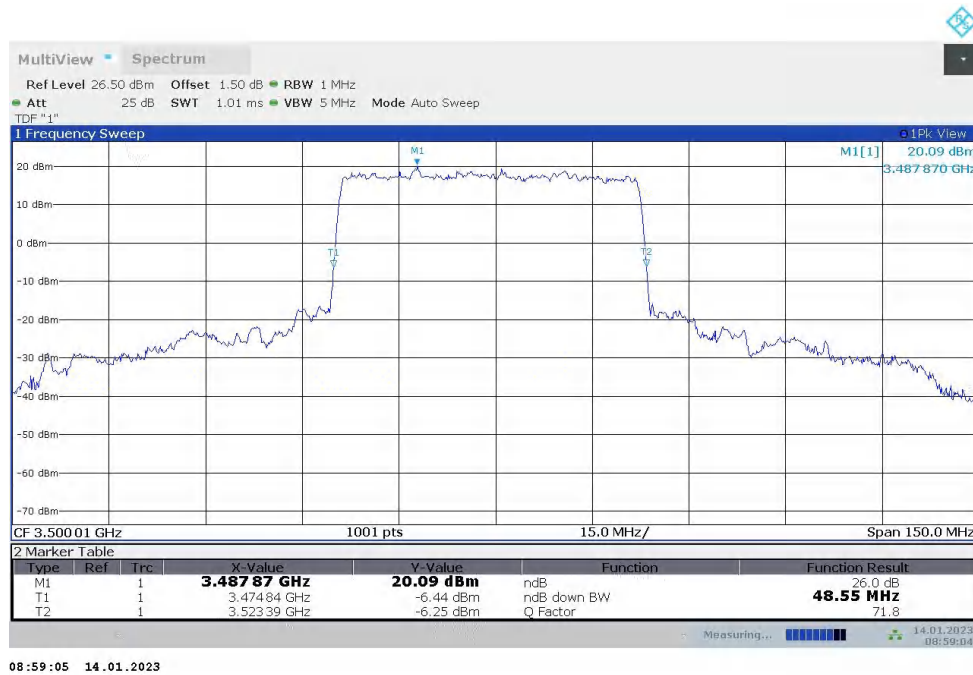


n78

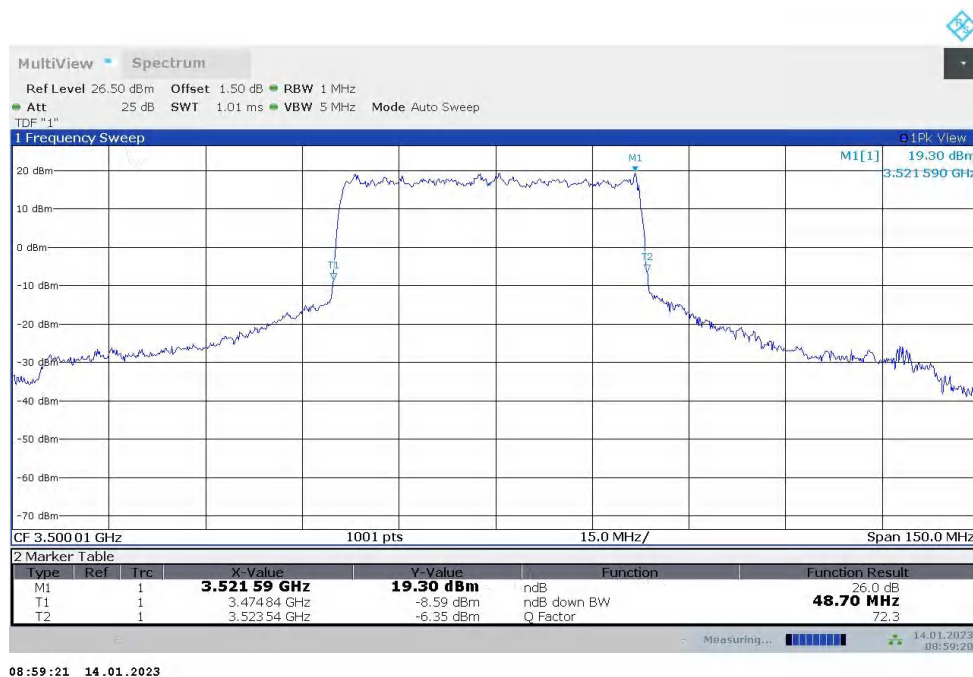
n78,50MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
3500.01	48.550	48.700

n78,50MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78,50MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

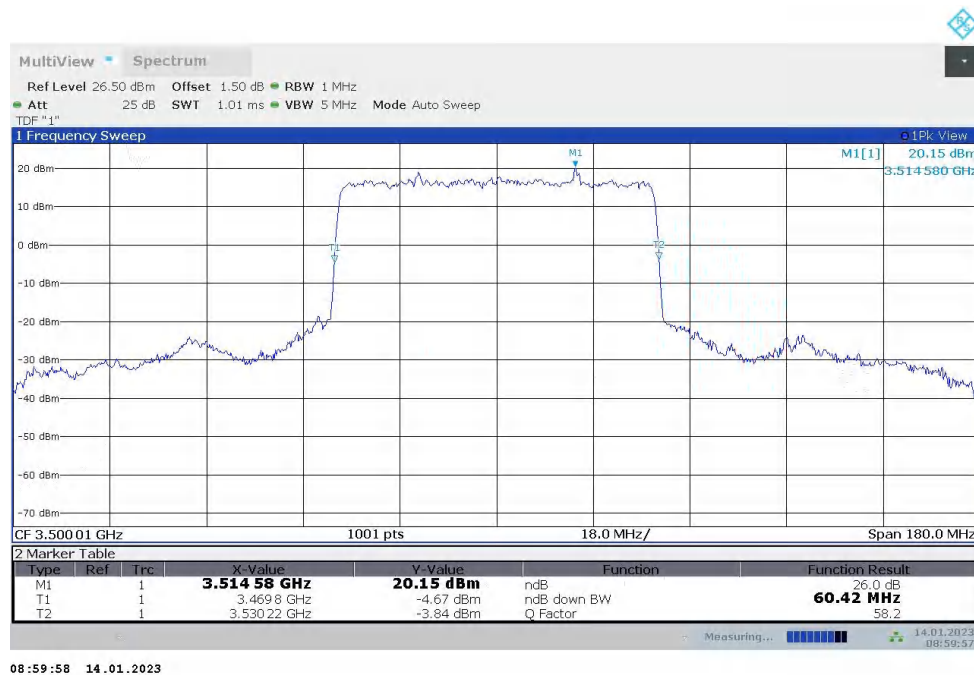


n78

n78,60MHz(-26dBc)

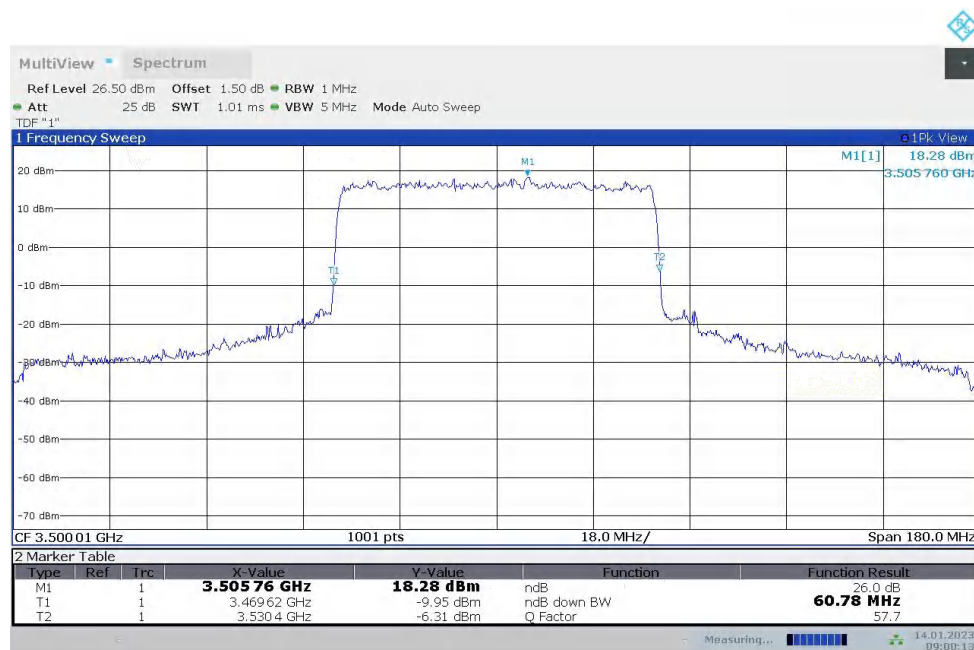
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
3500.01	60.420	60.780

n78,60MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



08:59:58 14.01.2023

n78,60MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



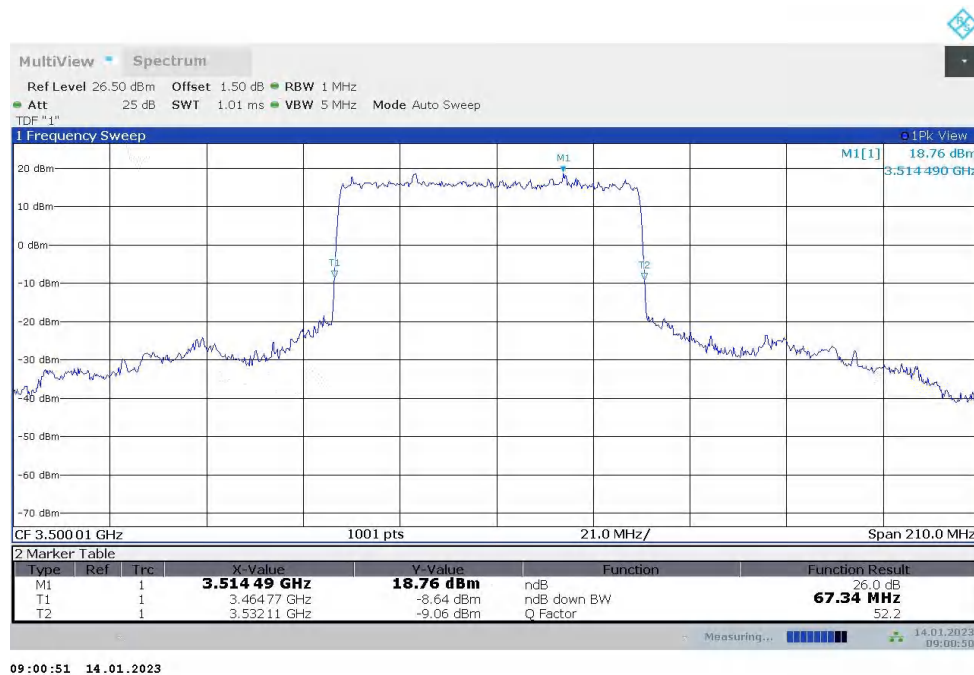
09:00:14 14.01.2023

n78

n78,70MHz(-26dBc)

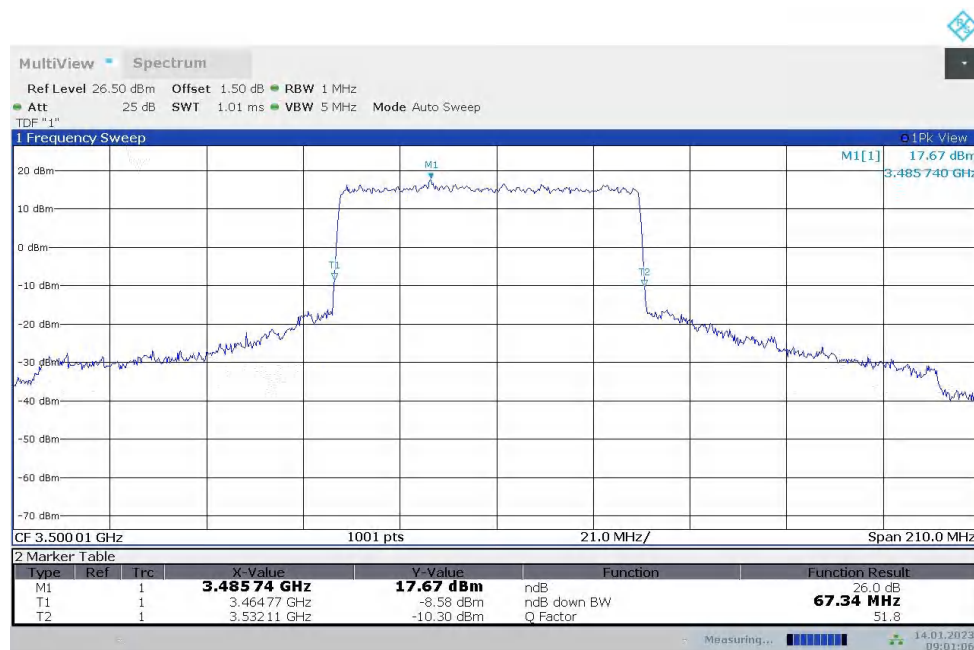
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
3500.01	67.340	67.340

n78,70MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



09:00:51 14.01.2023

n78,70MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



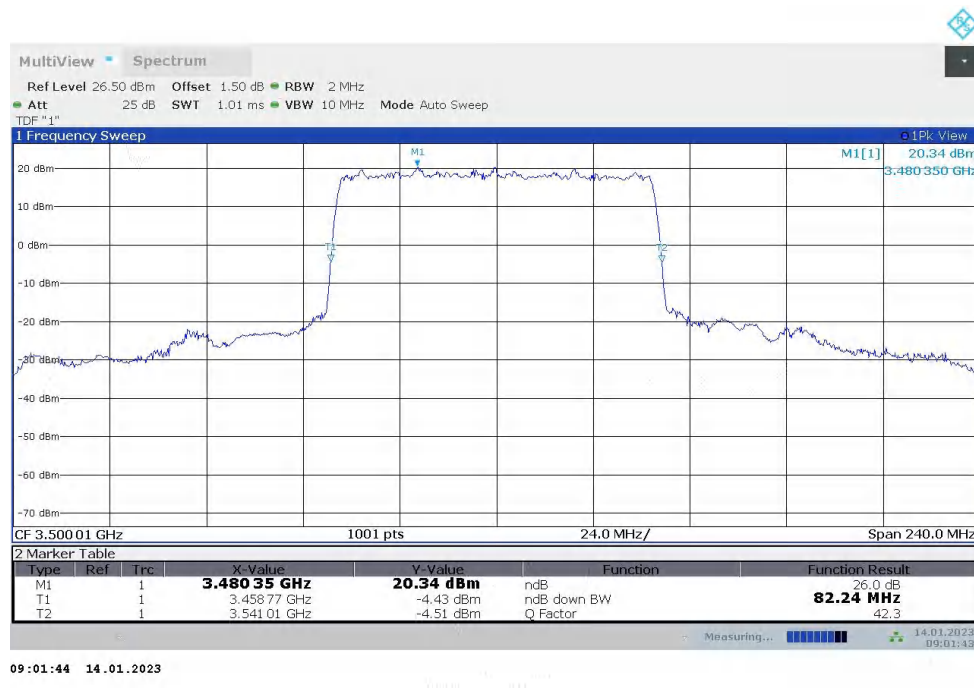
09:01:07 14.01.2023

n78

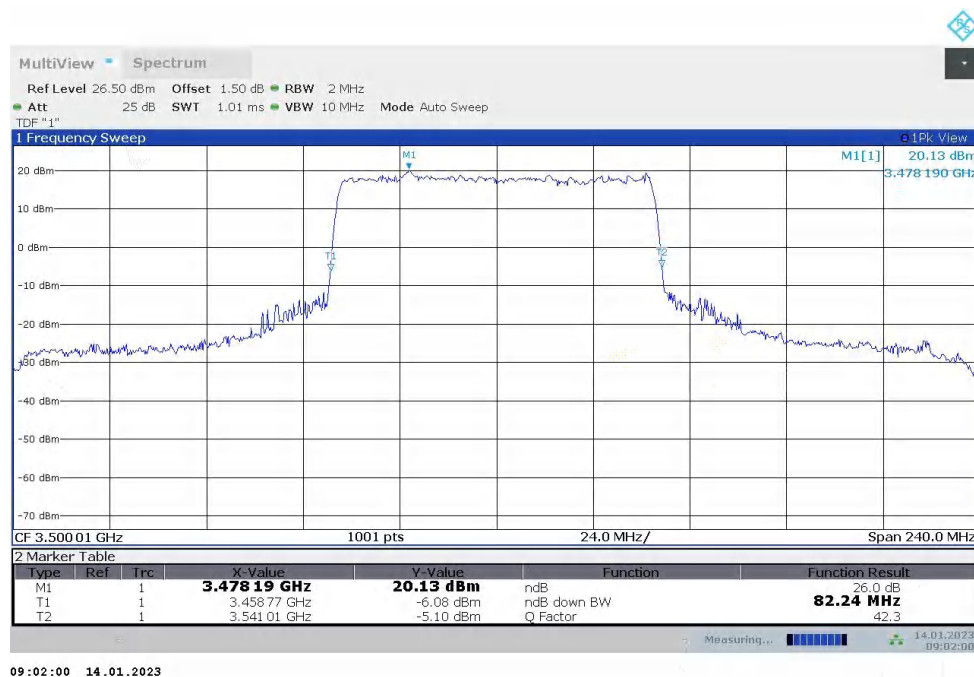
n78,80MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
3500.01	82.240	82.240

n78,80MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



n78,80MHz Bandwidth,DFT-s-QPSK (-26dBc BW)

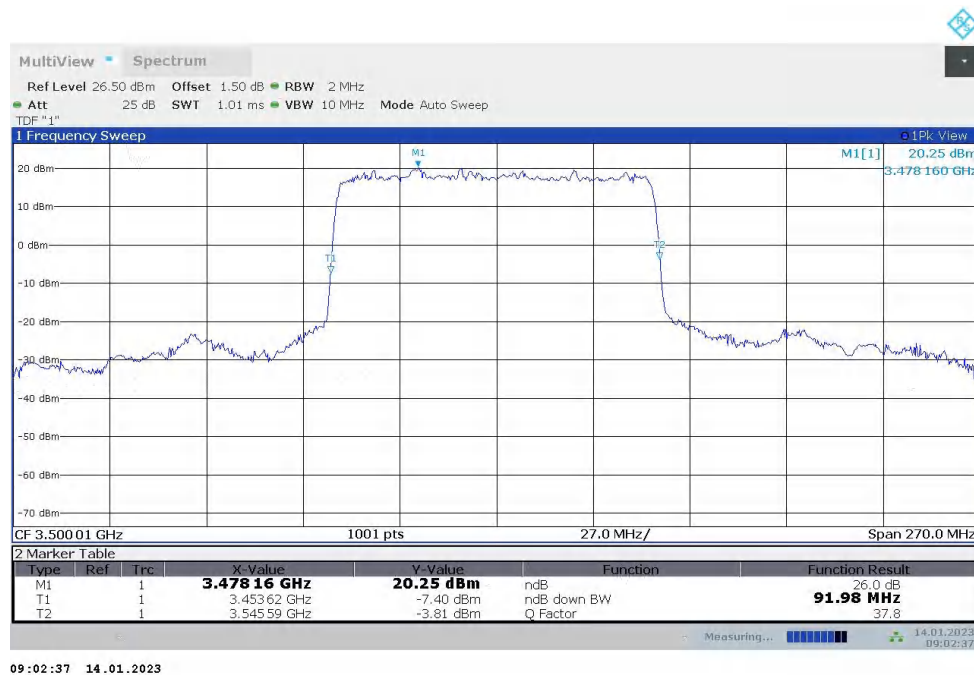


n78

n78,90MHz(-26dBc)

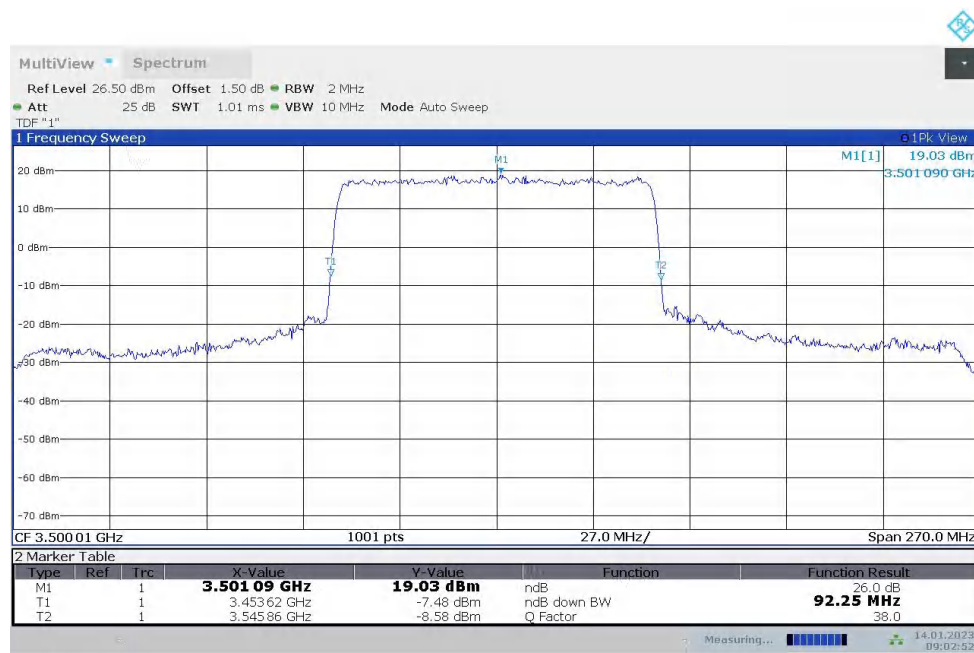
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
3500.01	91.980	92.250

n78,90MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



09:02:37 14.01.2023

n78,90MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



09:02:53 14.01.2023

Note: The maximum value of expanded measurement uncertainty for this test item is $U = 0.626$ kHz, $k = 2$.

A.5 Band Edge Compliance

A.5.1 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.

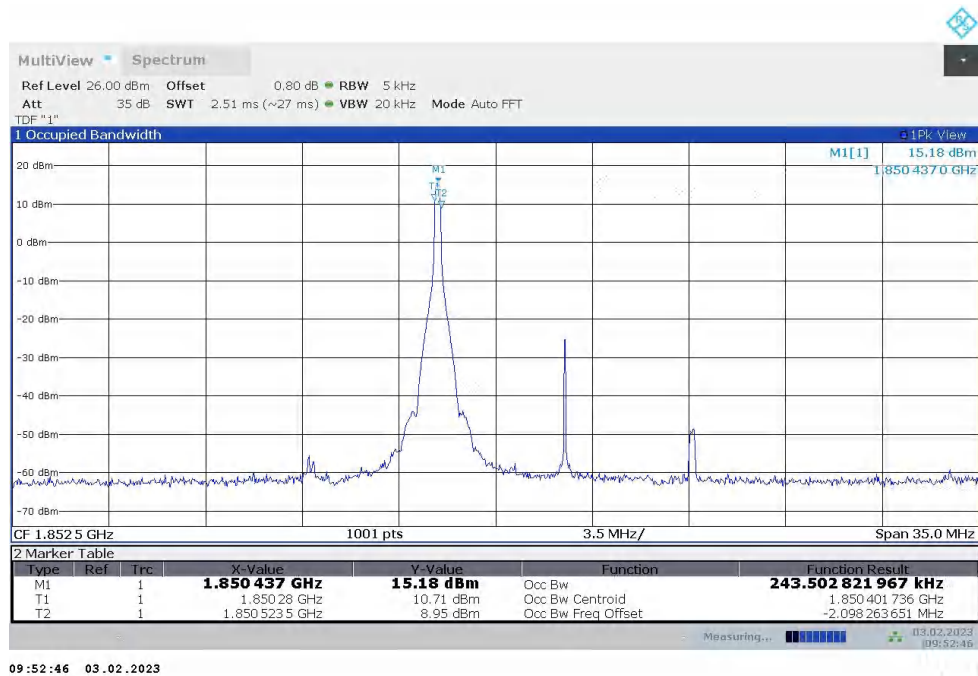
Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, 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(n) states for mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz 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, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

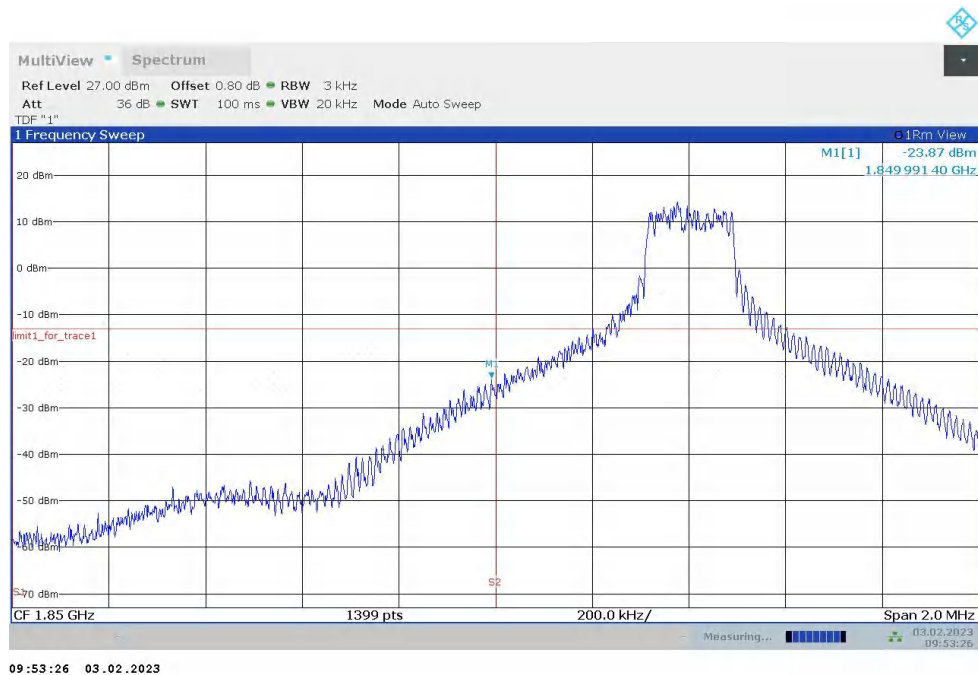
A.5.2 Measurement result

NR n2

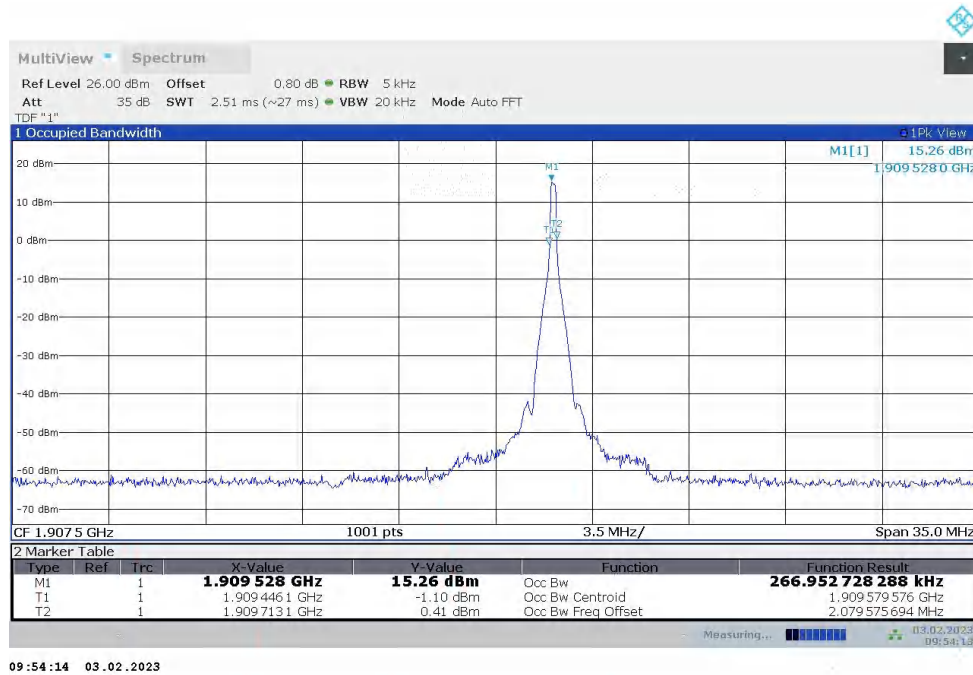
OBW: 1RB-LOW_offset



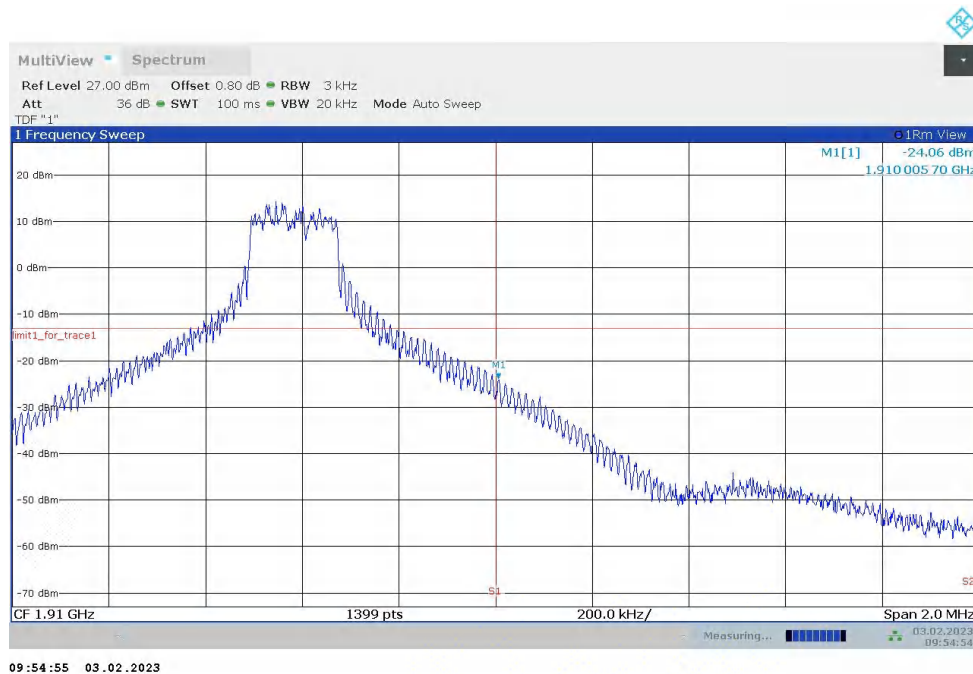
LOW BAND EDGE BLOCK-1RB-LOW_offset



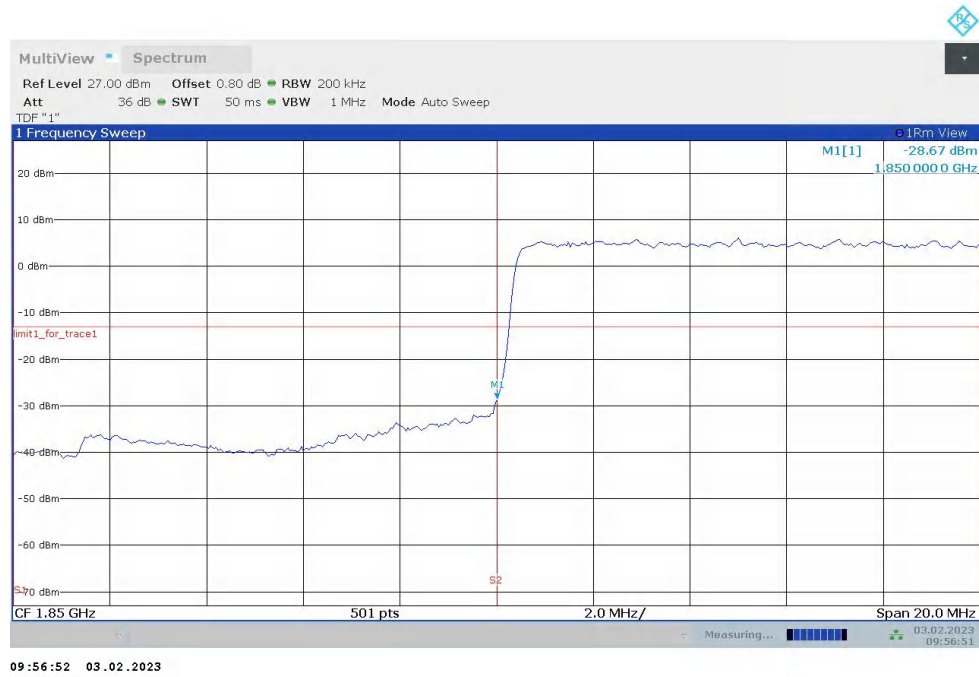
OBW: 1RB-HIGH_offset



HIGH BAND EDGE BLOCK-1RB-HIGH_offset



LOW BAND EDGE BLOCK-20M-100%RB



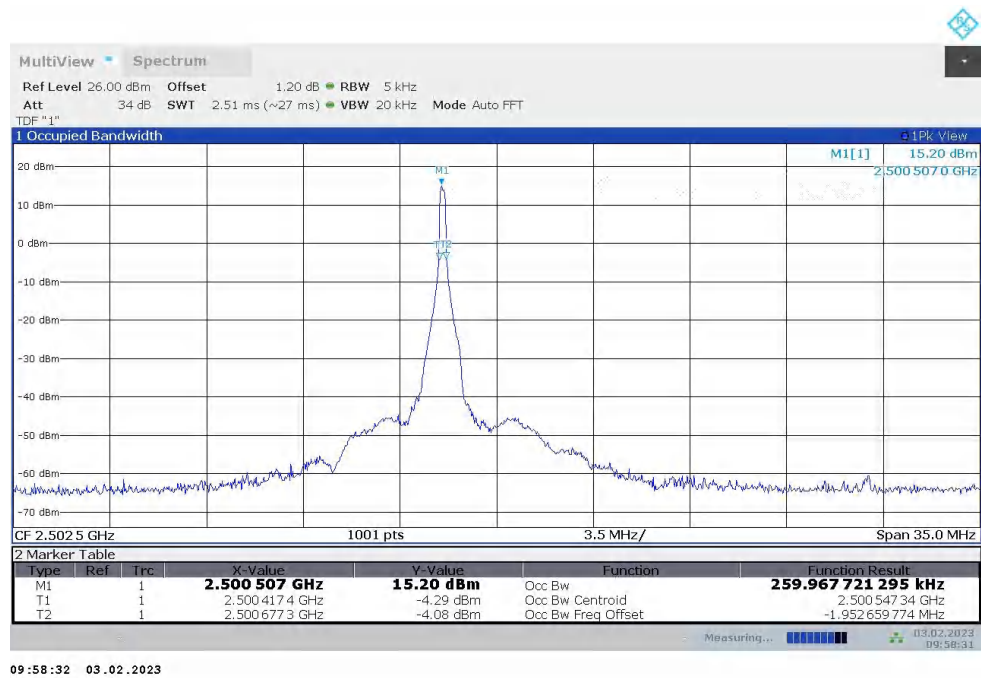
HIGH BAND EDGE BLOCK-20M-100%RB



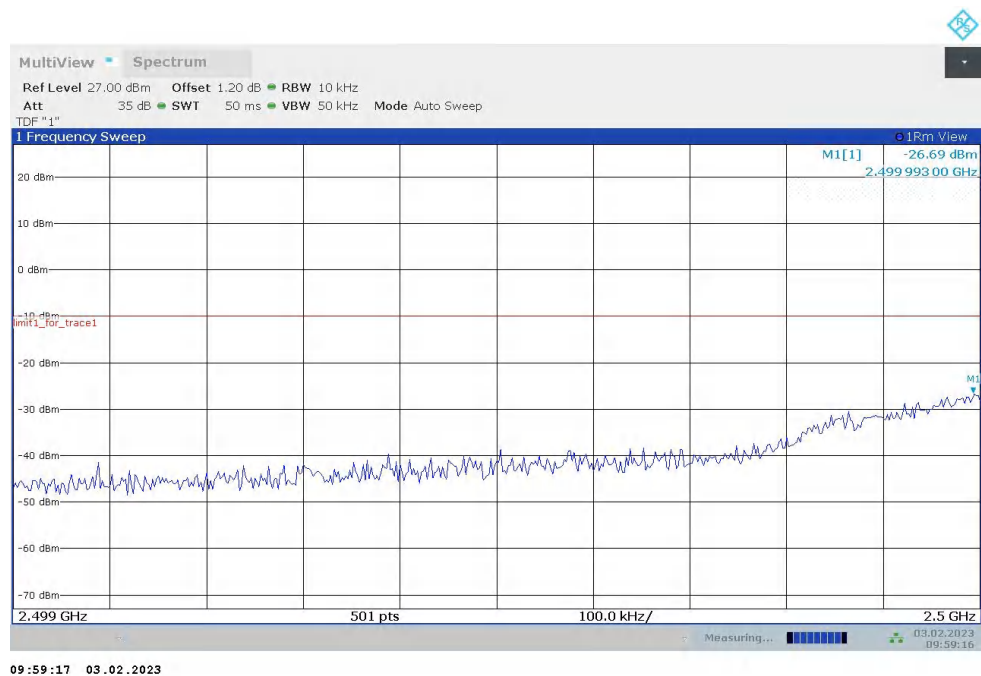


NR n7

OBW: 1RB-LOW_offset

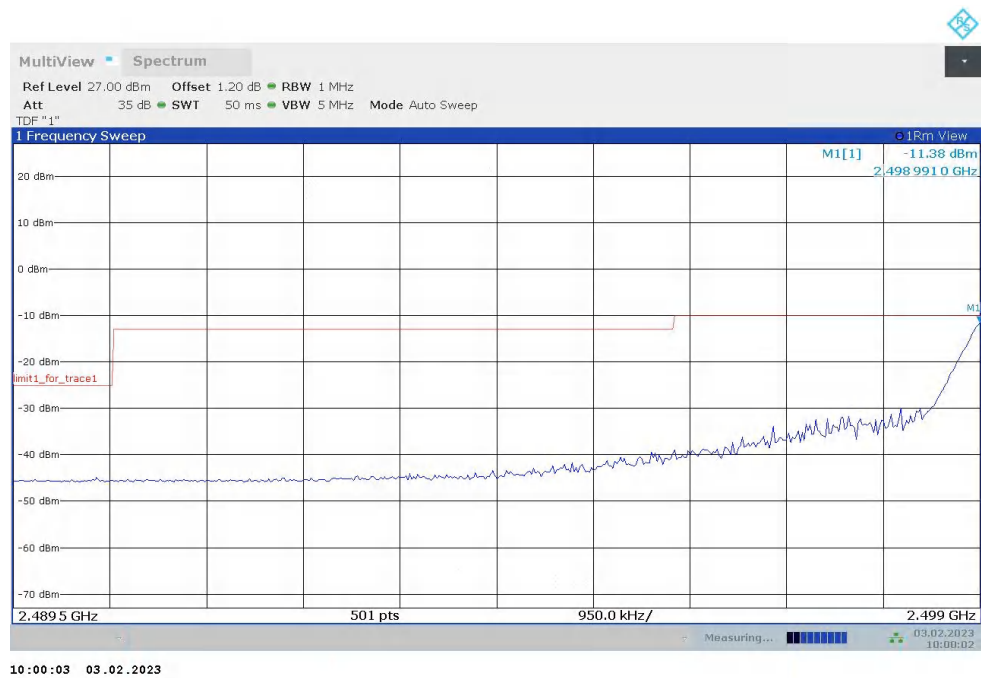


LOW BAND EDGE BLOCK-1RB-LOW_offset

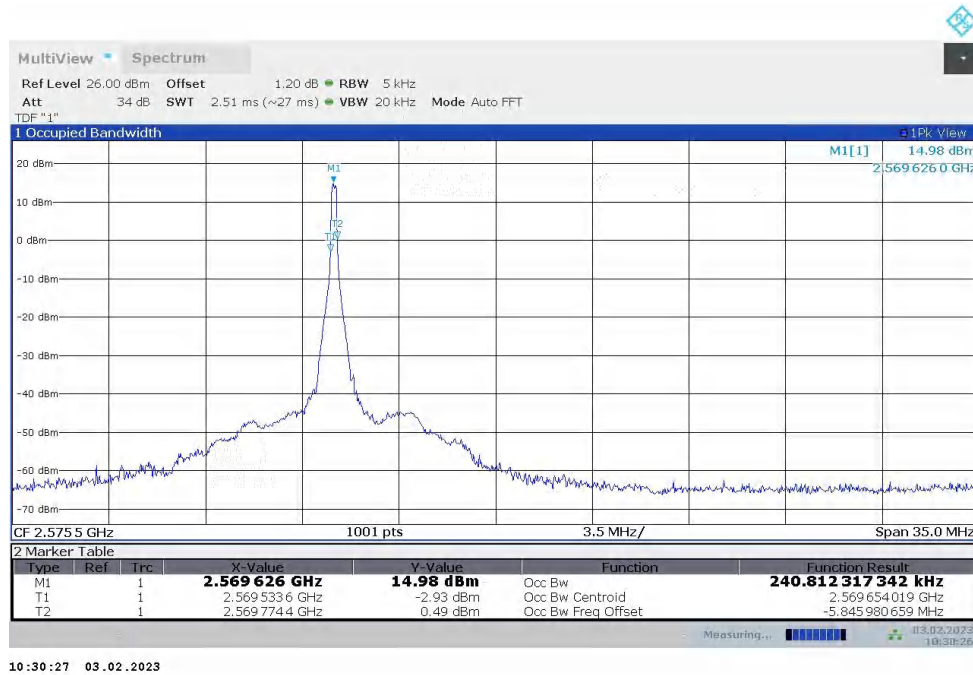




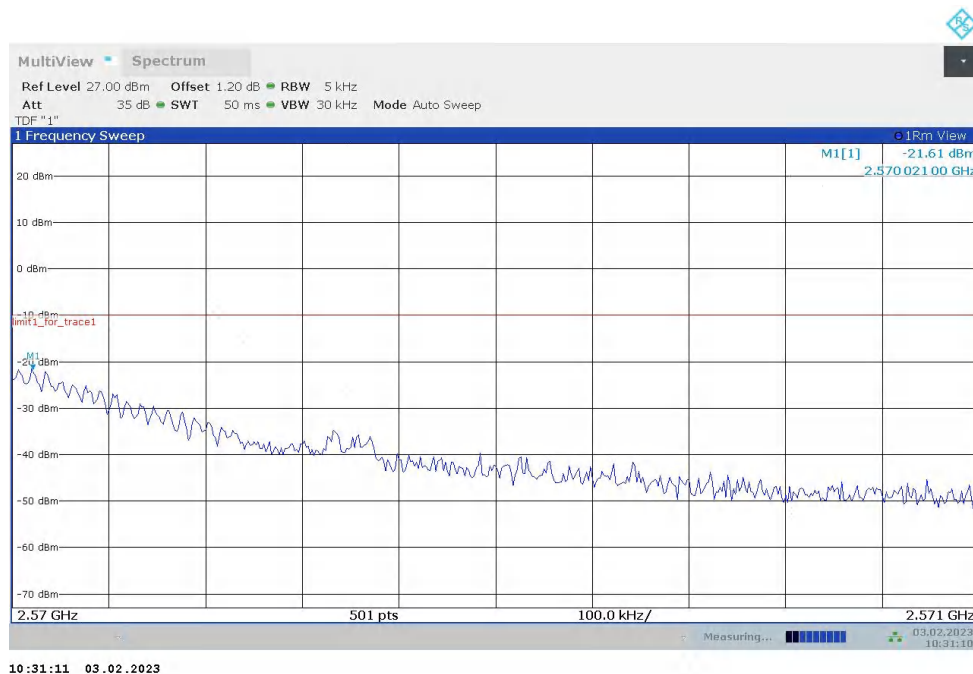
LOW BAND EDGE BLOCK-1RB-LOW_offset



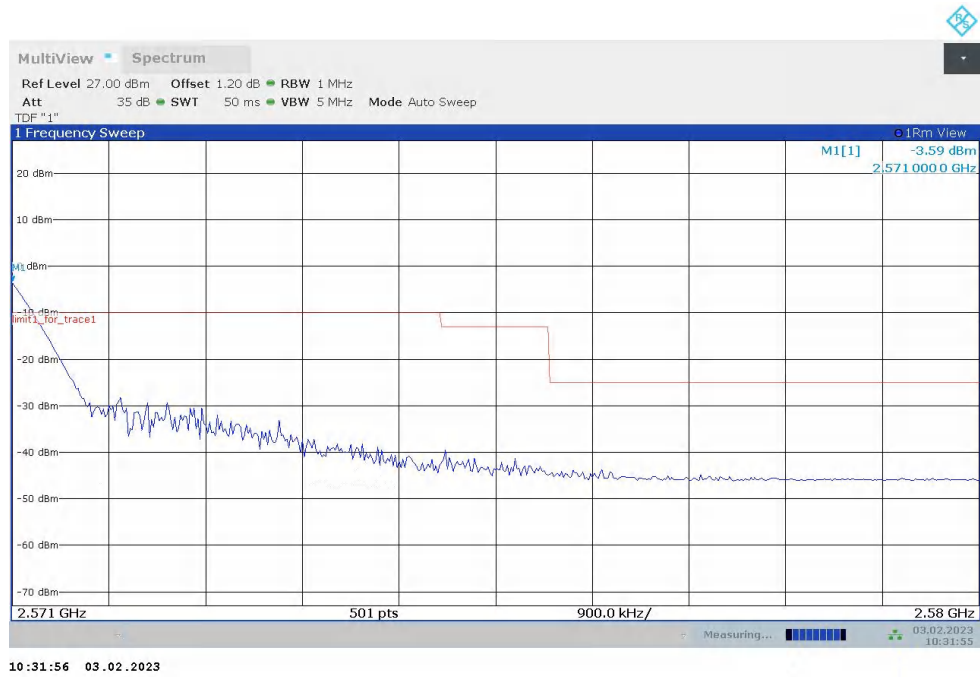
OBW: 1RB-HIGH_offset



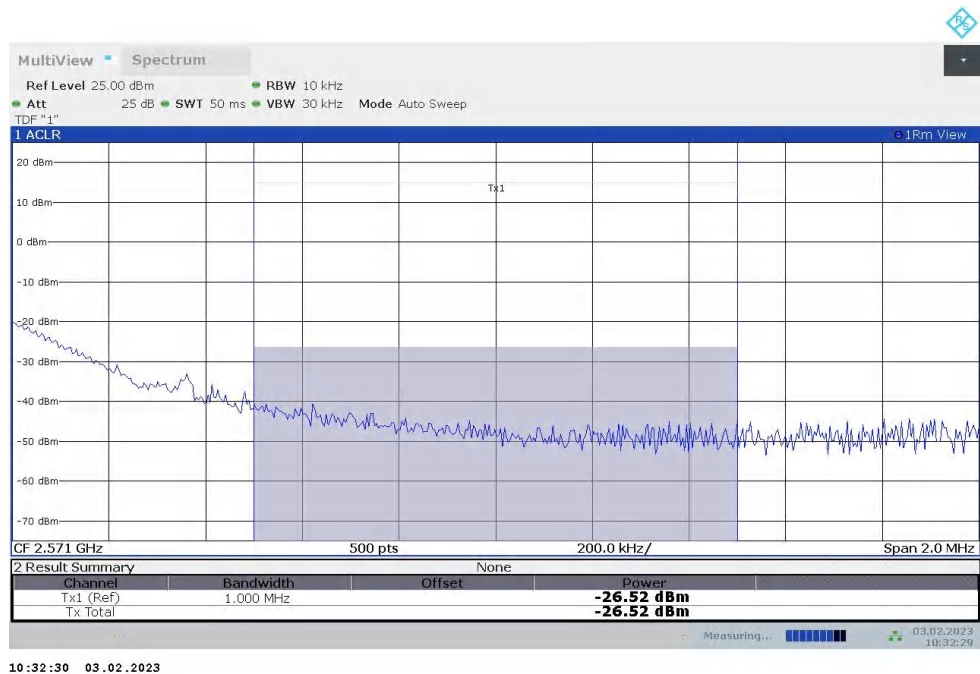
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



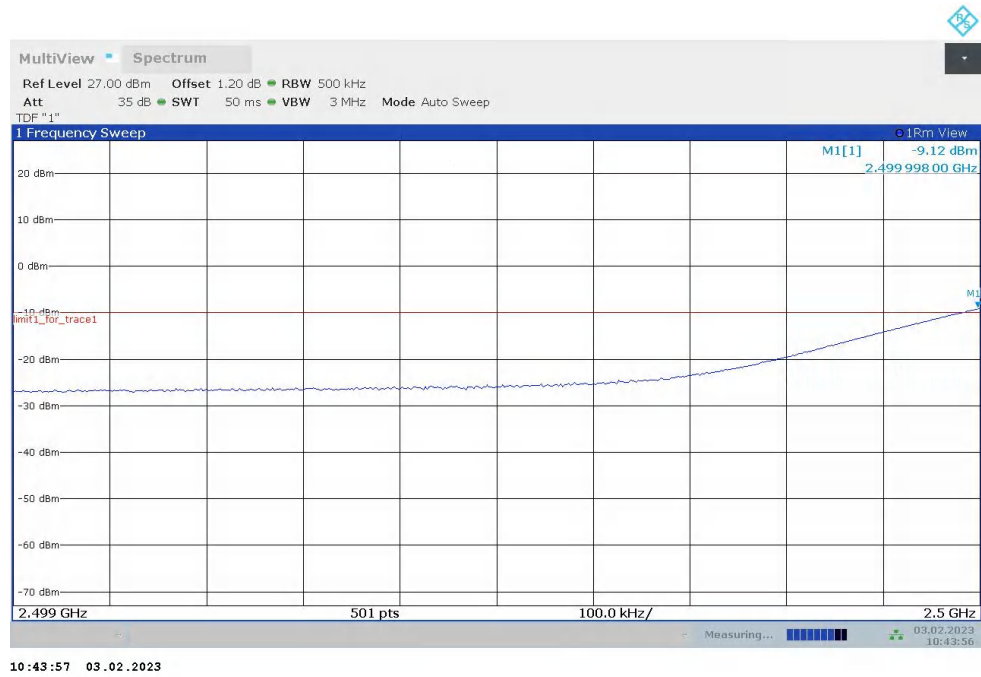
HIGH BAND EDGE BLOCK-1RB-HIGH_offset



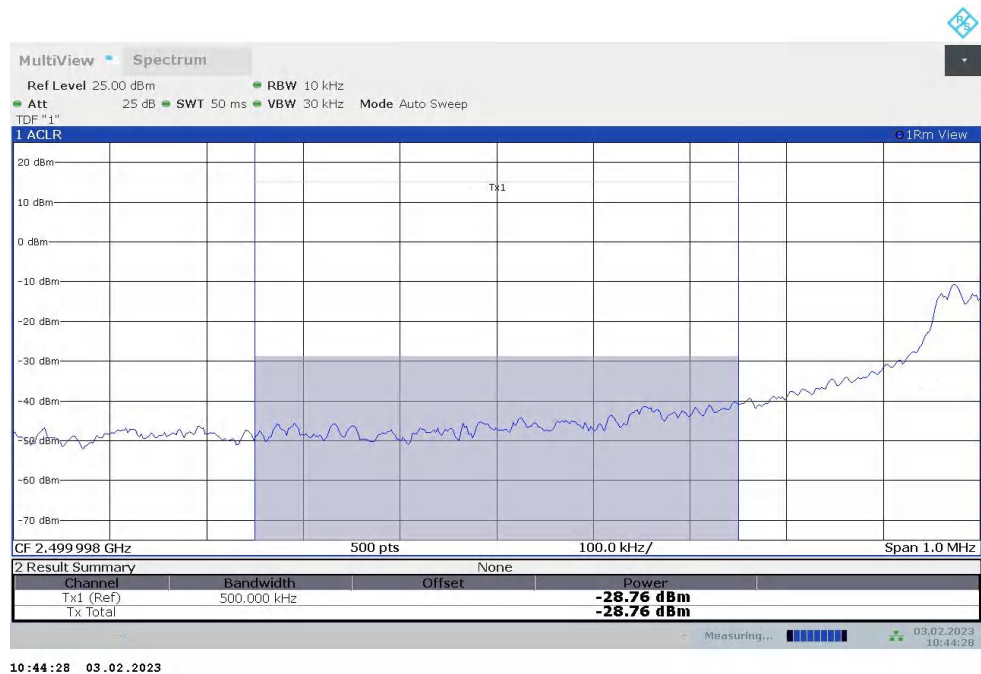
Channel power



LOW BAND EDGE BLOCK-20M-100%RB

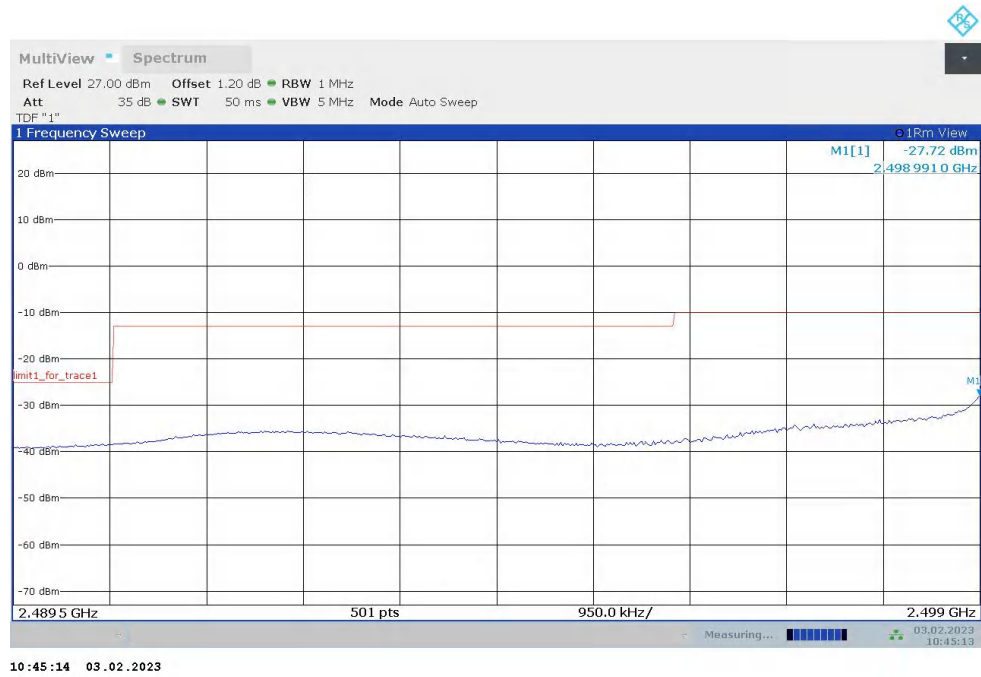


Channel power



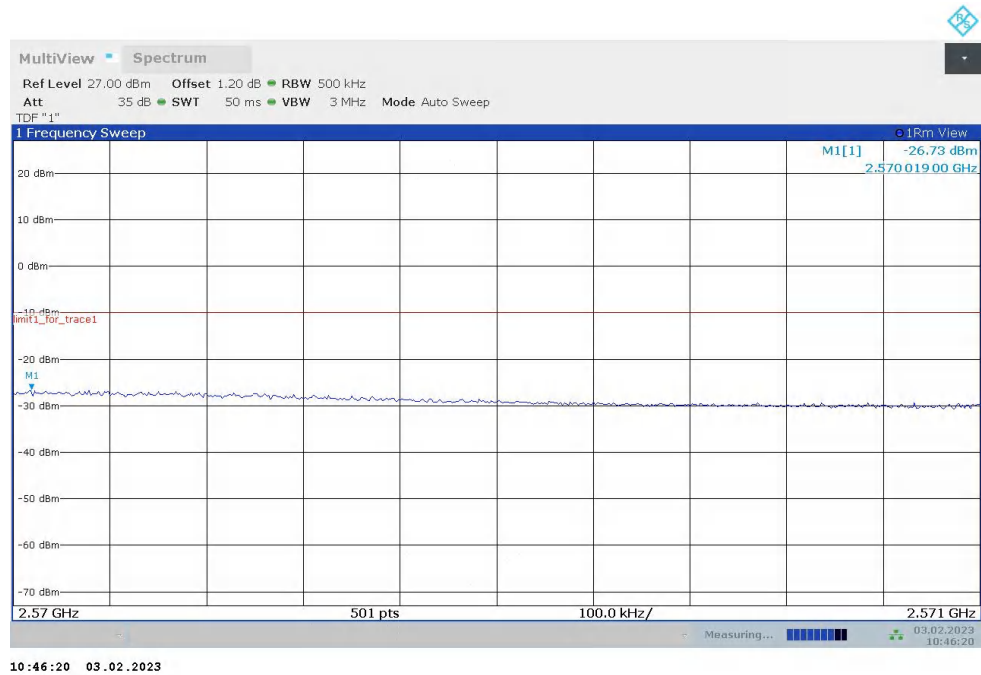


LOW BAND EDGE BLOCK-20M-100%RB

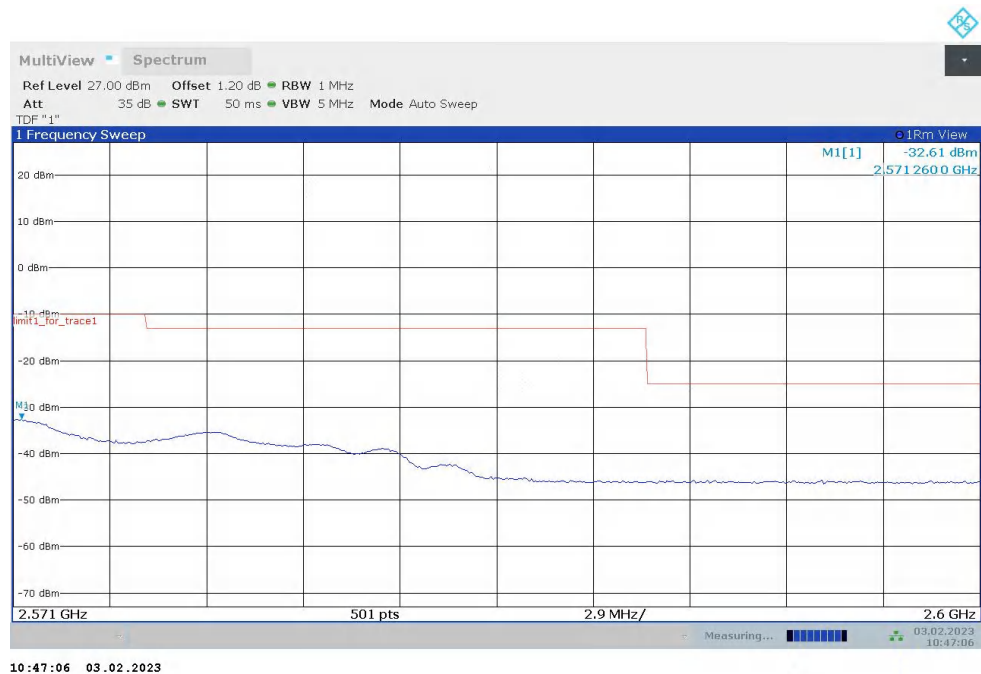




HIGH BAND EDGE BLOCK-20M-100%RB



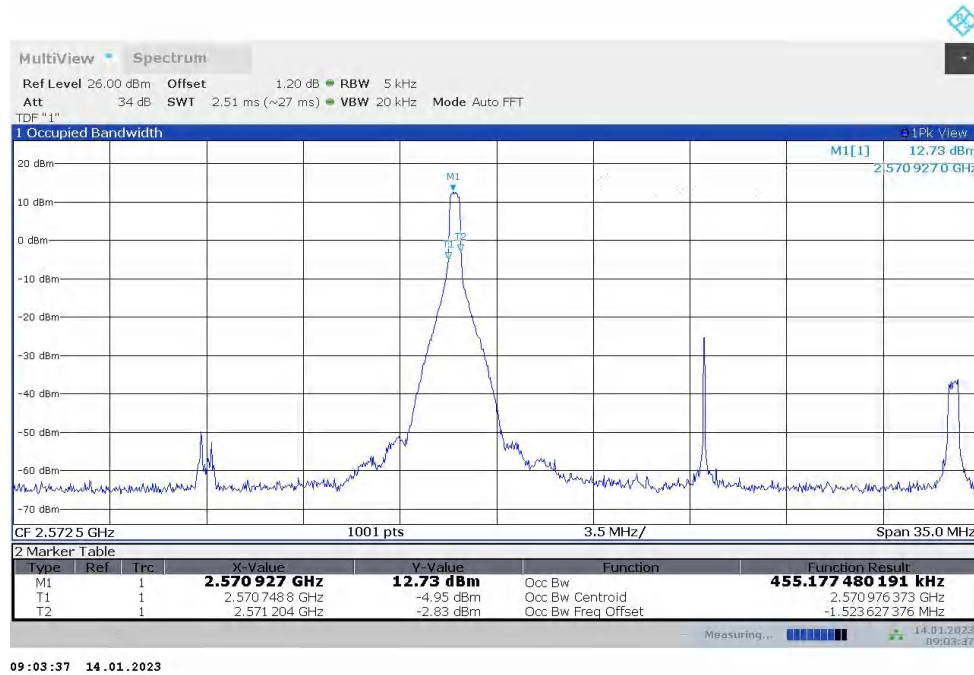
HIGH BAND EDGE BLOCK-20M-100%RB



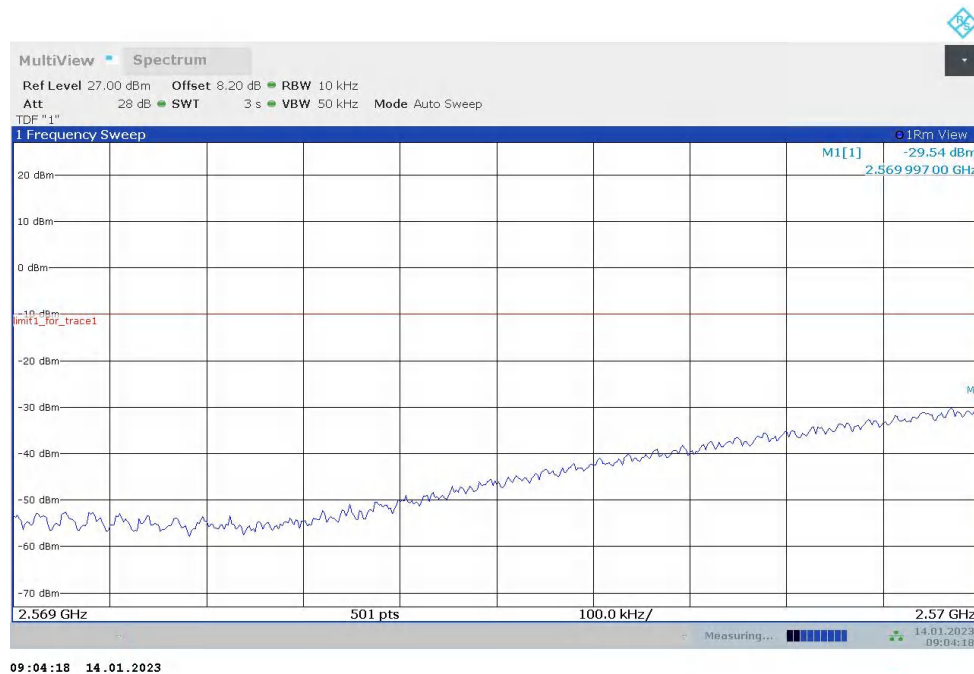


NR n38

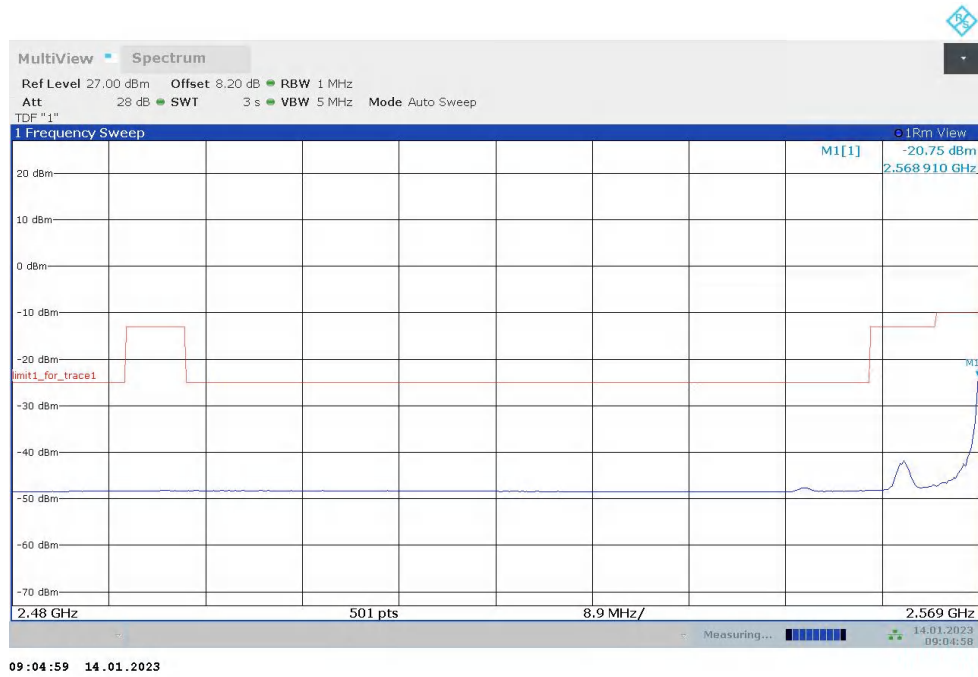
OBW: 1RB-LOW_offset



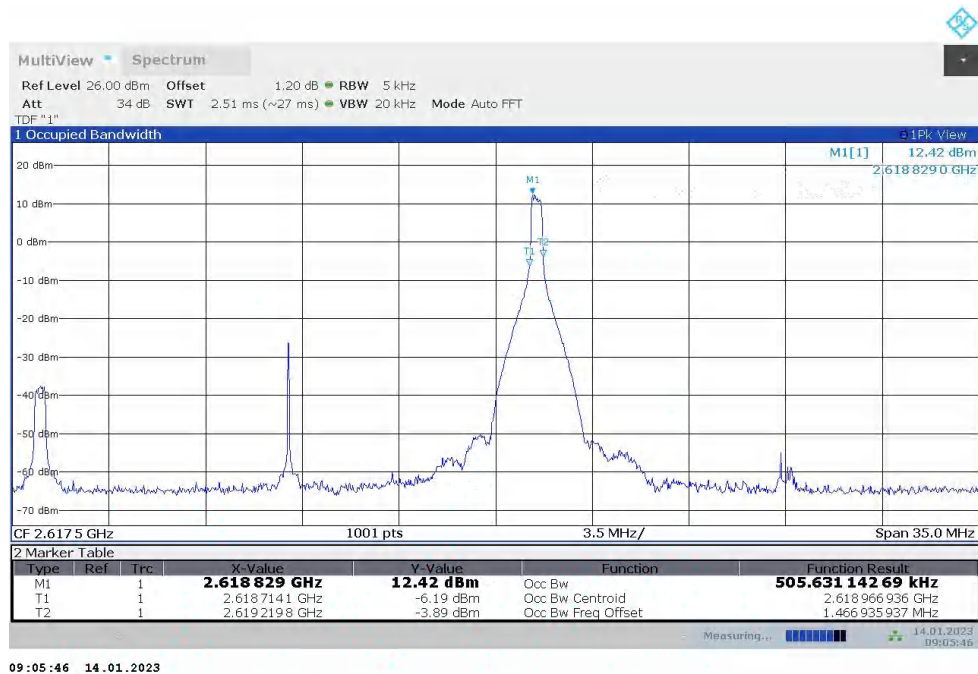
LOW BAND EDGE BLOCK-1RB-LOW_offset



LOW BAND EDGE BLOCK-1RB-LOW_offset

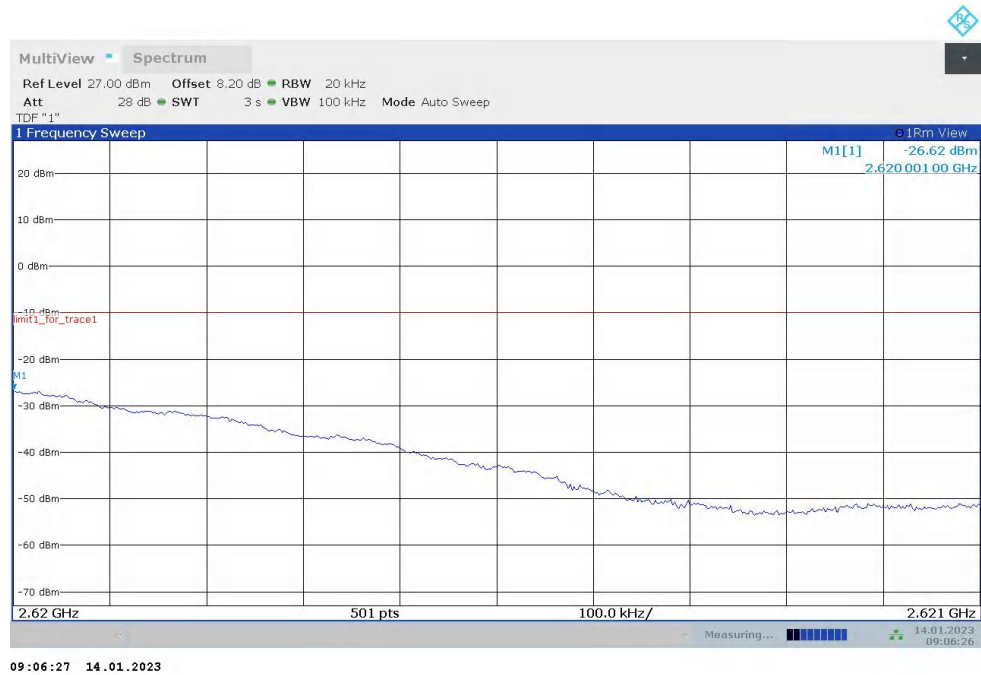


OBW: 1RB-HIGH_offset

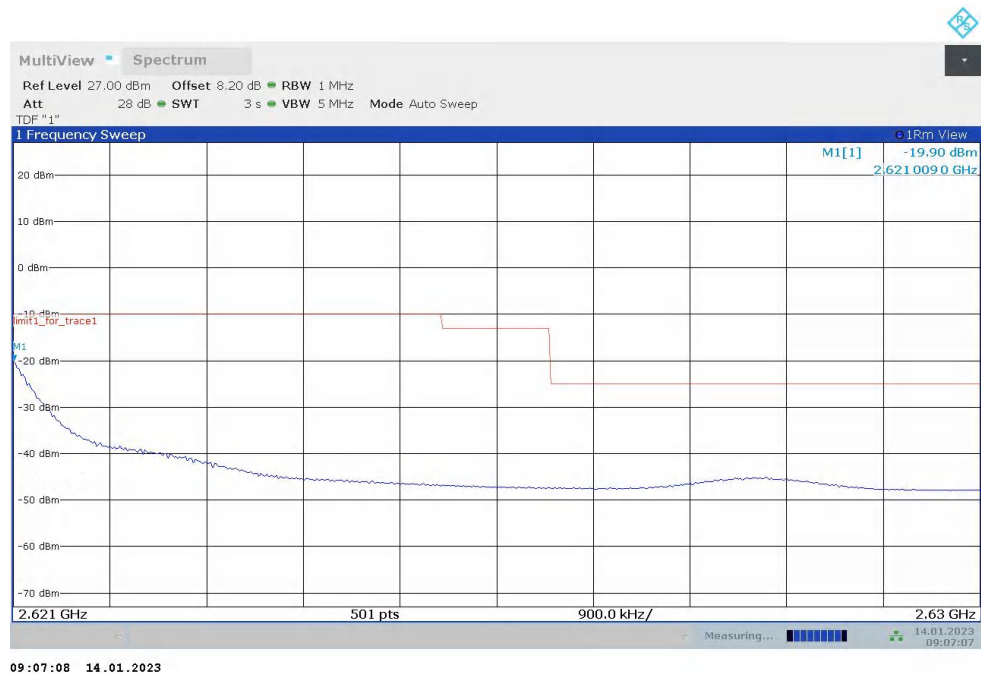




HIGH BAND EDGE BLOCK-1RB-HIGH_offset

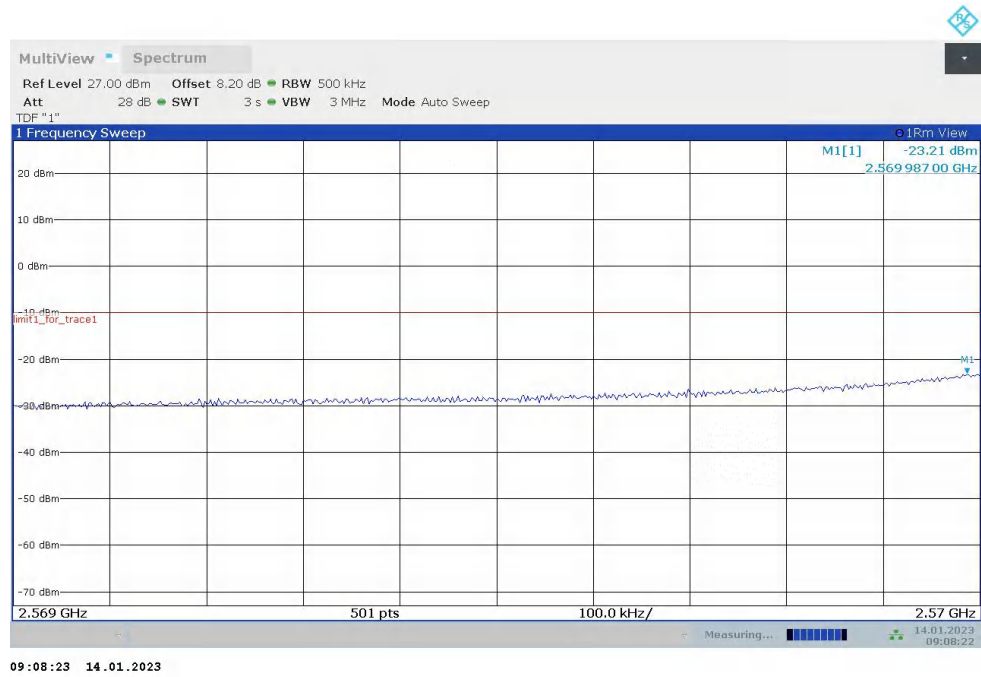


HIGH BAND EDGE BLOCK-1RB-HIGH_offset

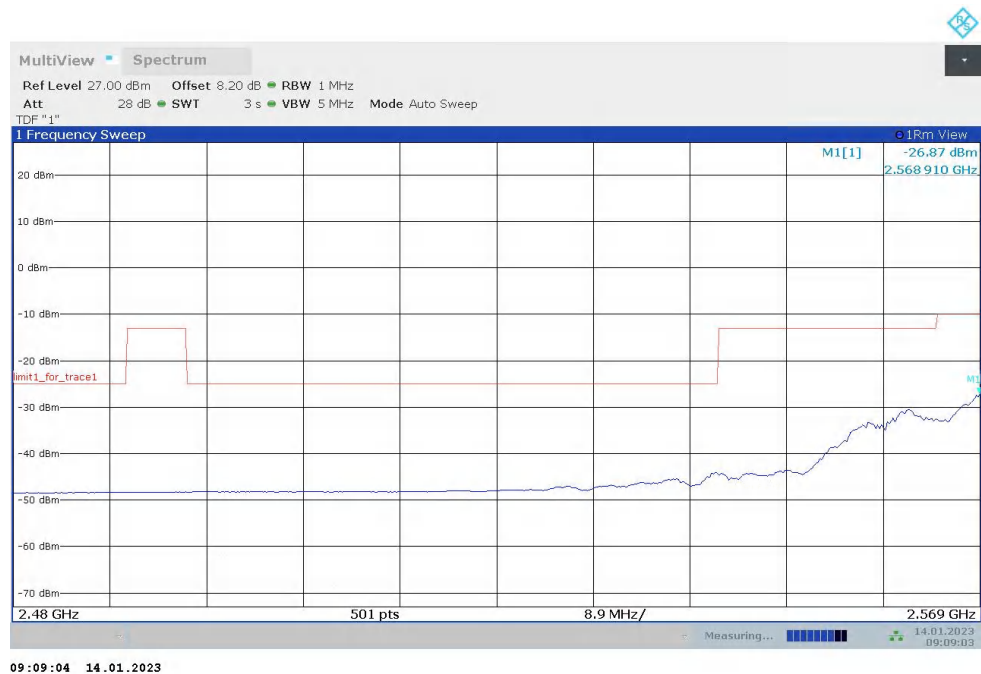




LOW BAND EDGE BLOCK-20M-100%RB

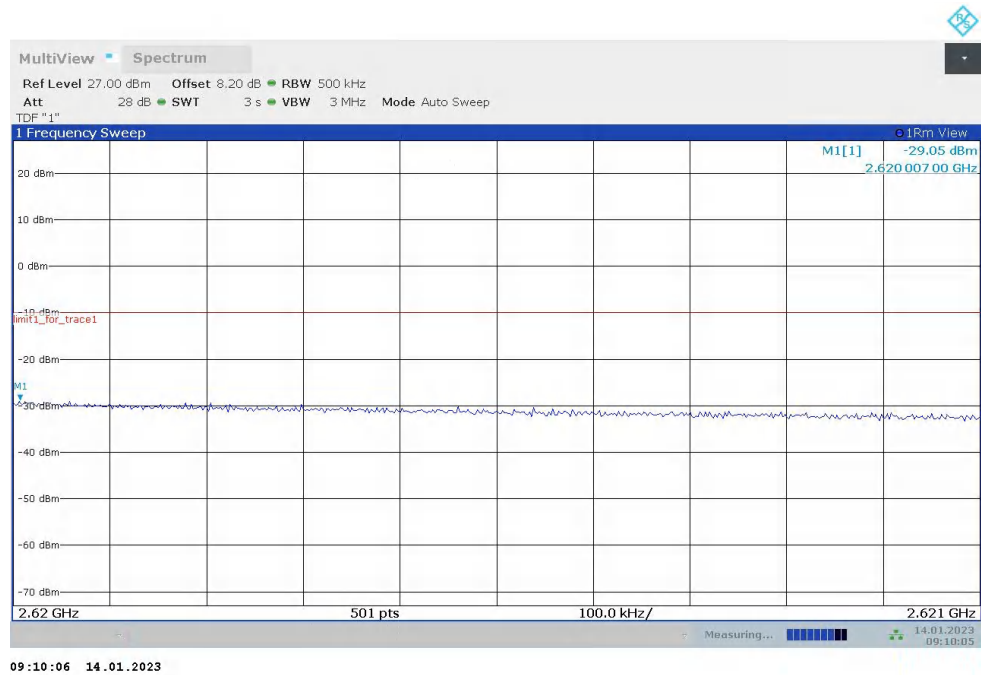


LOW BAND EDGE BLOCK-20M-100%RB

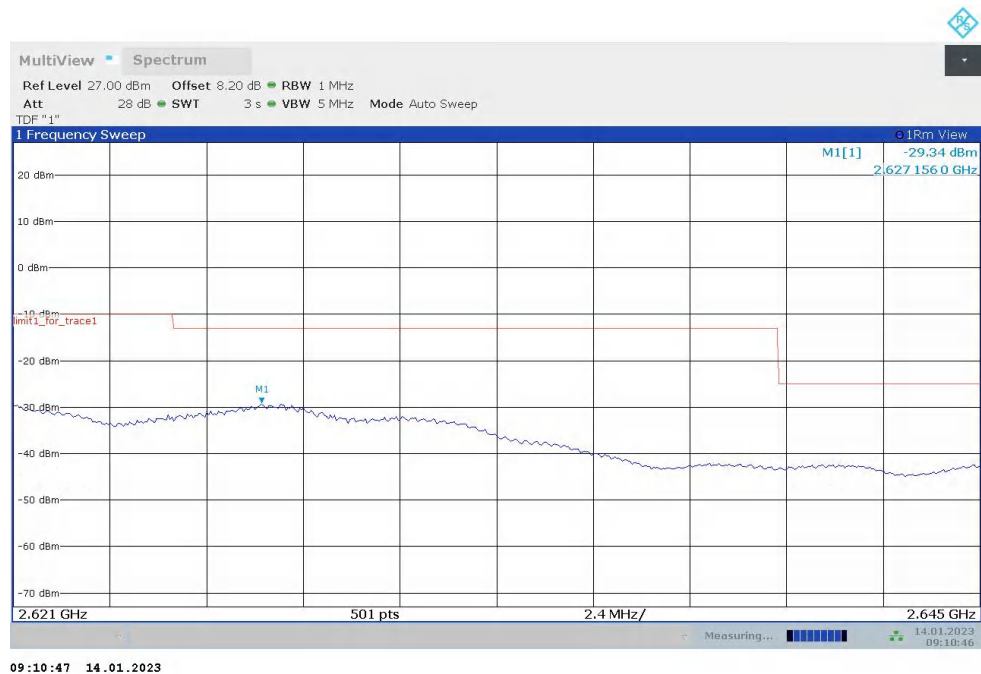




HIGH BAND EDGE BLOCK-20M-100%RB



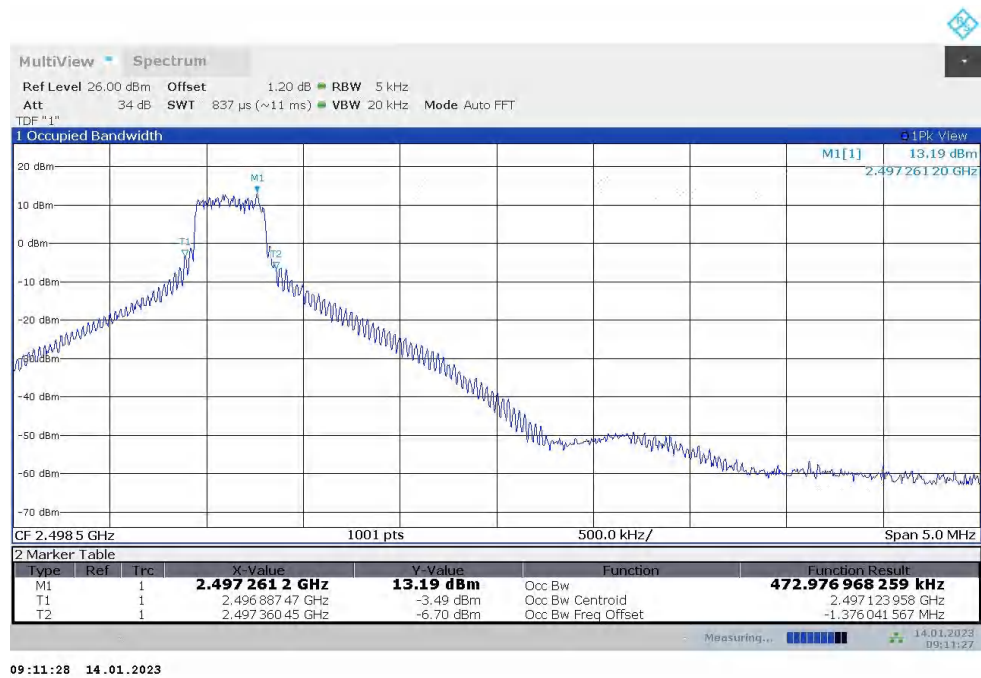
HIGH BAND EDGE BLOCK-20M-100%RB



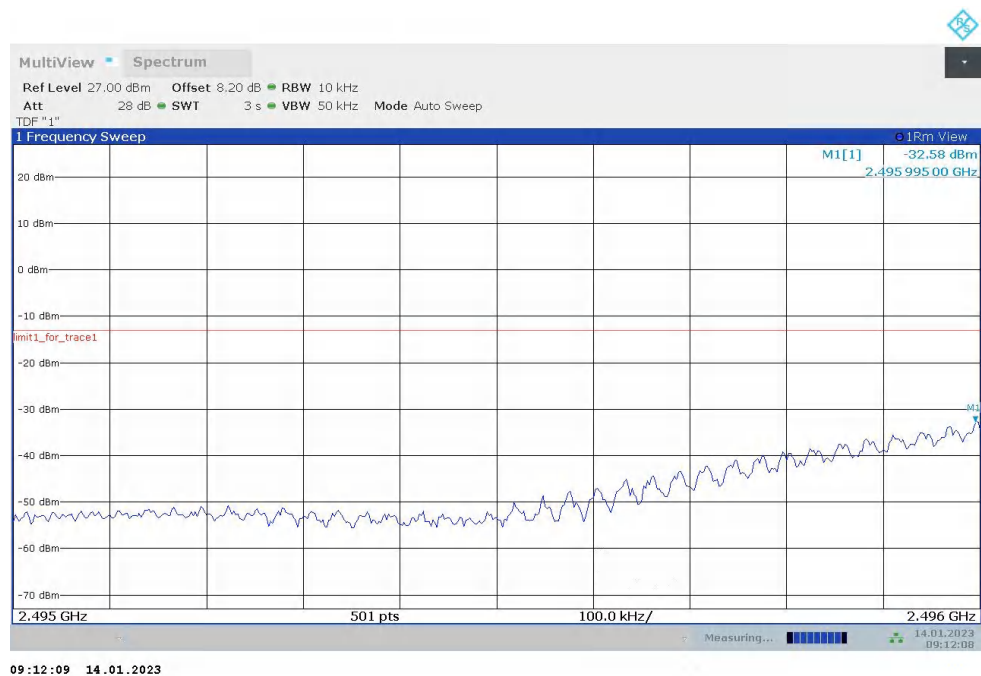


NR n41

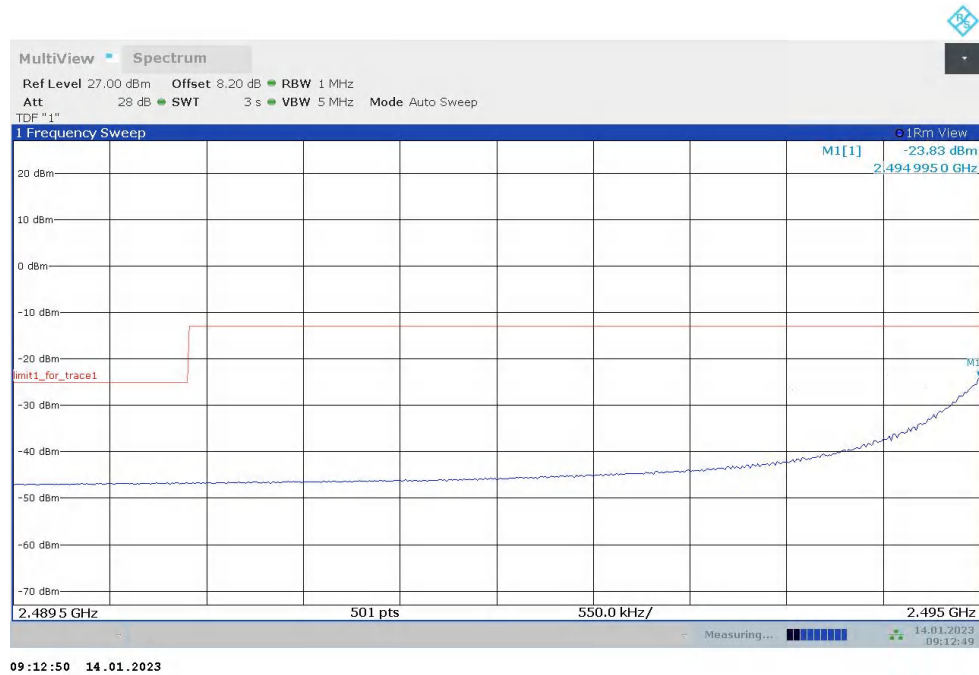
OBW: 1RB-LOW_offset



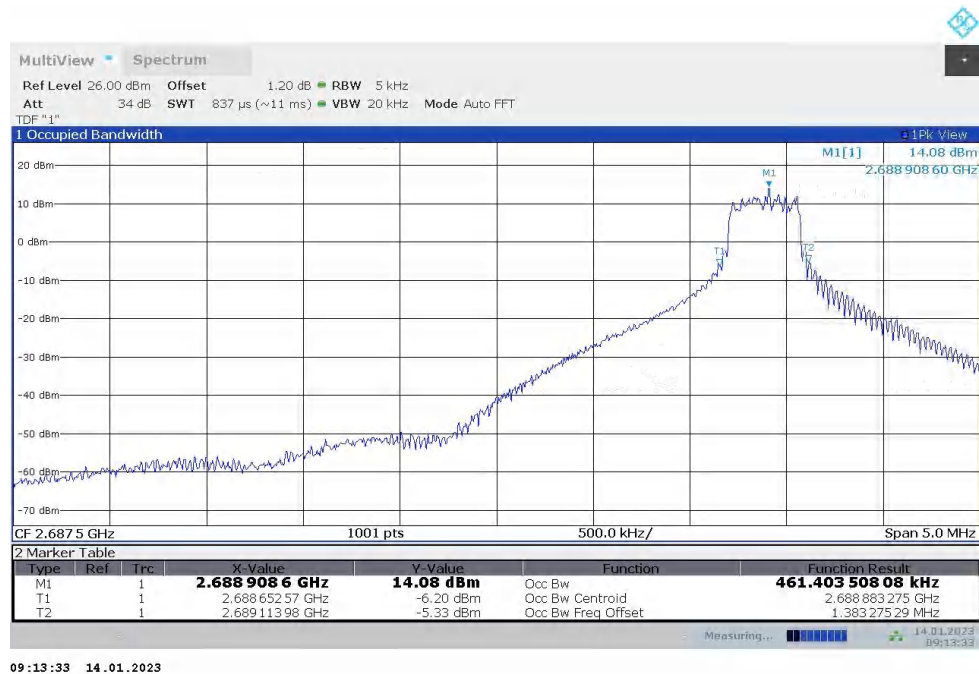
LOW BAND EDGE BLOCK-1RB-LOW_offset



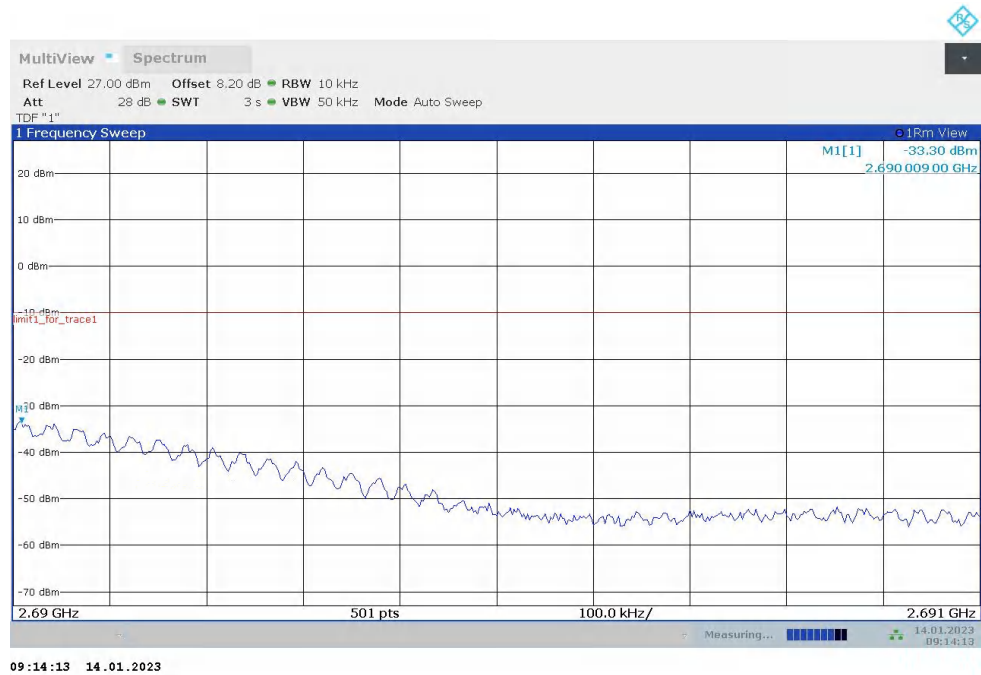
LOW BAND EDGE BLOCK-1RB-LOW_offset



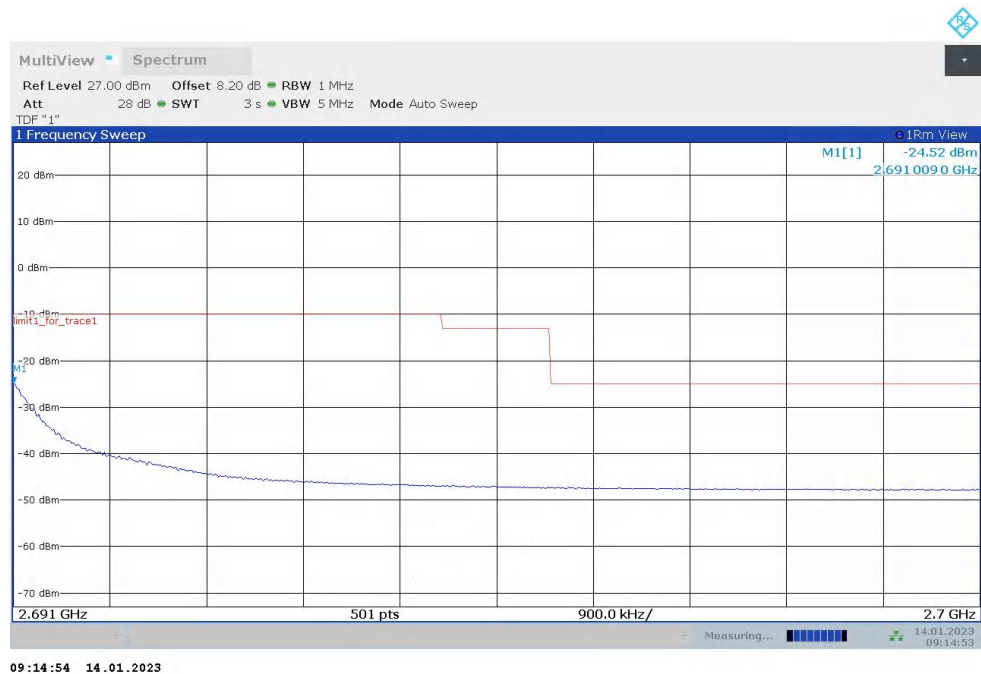
OBW: 1RB-HIGH_offset



HIGH BAND EDGE BLOCK-1RB-HIGH_offset

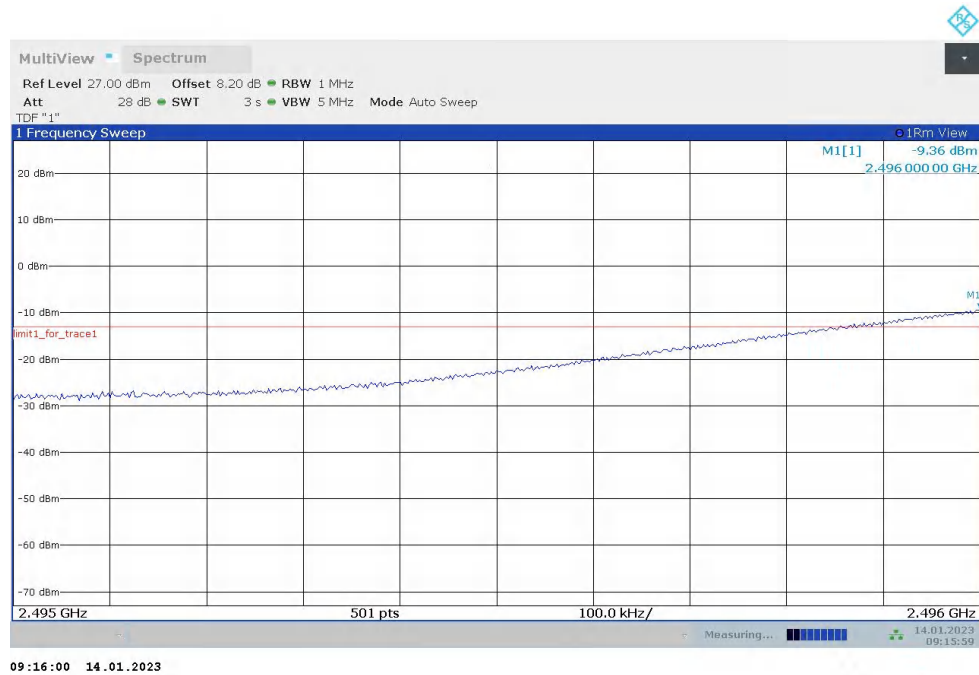


HIGH BAND EDGE BLOCK-1RB-HIGH_offset

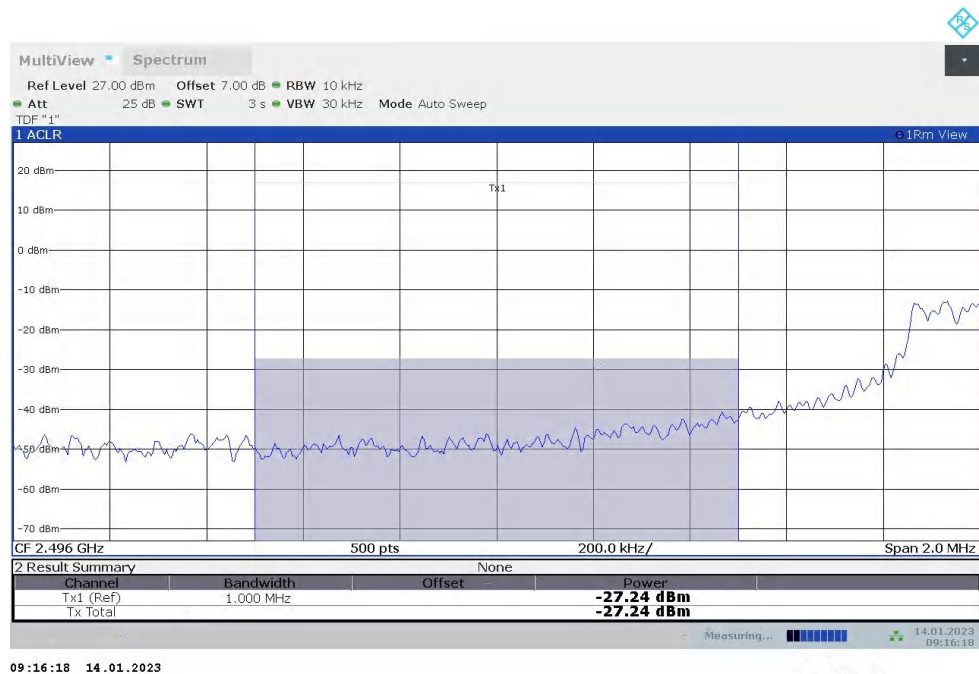




LOW BAND EDGE BLOCK-100M-100%RB

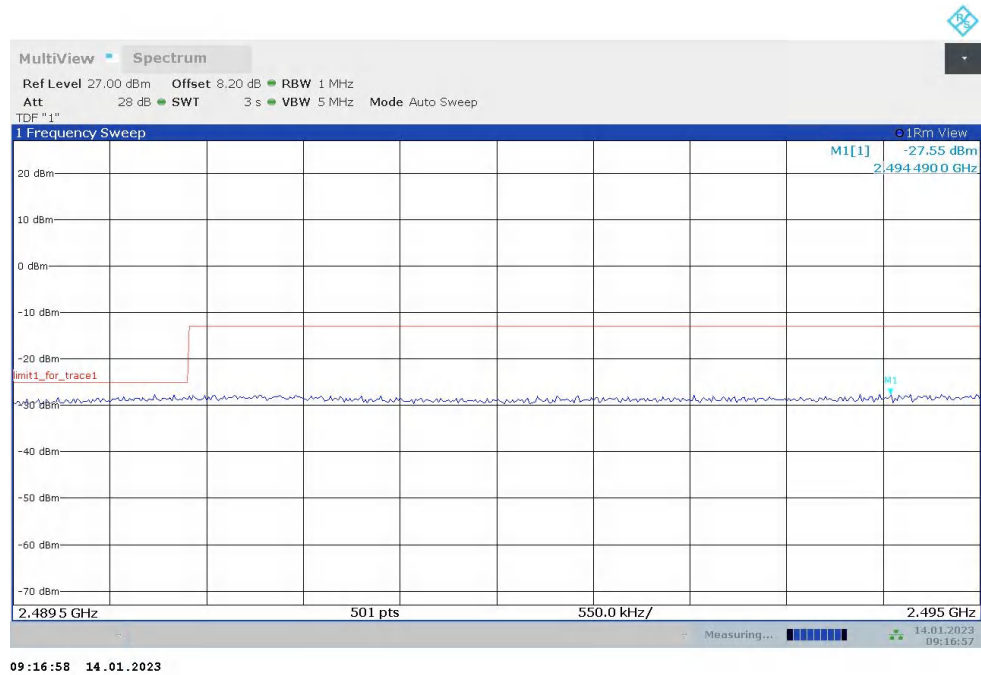


Channel power

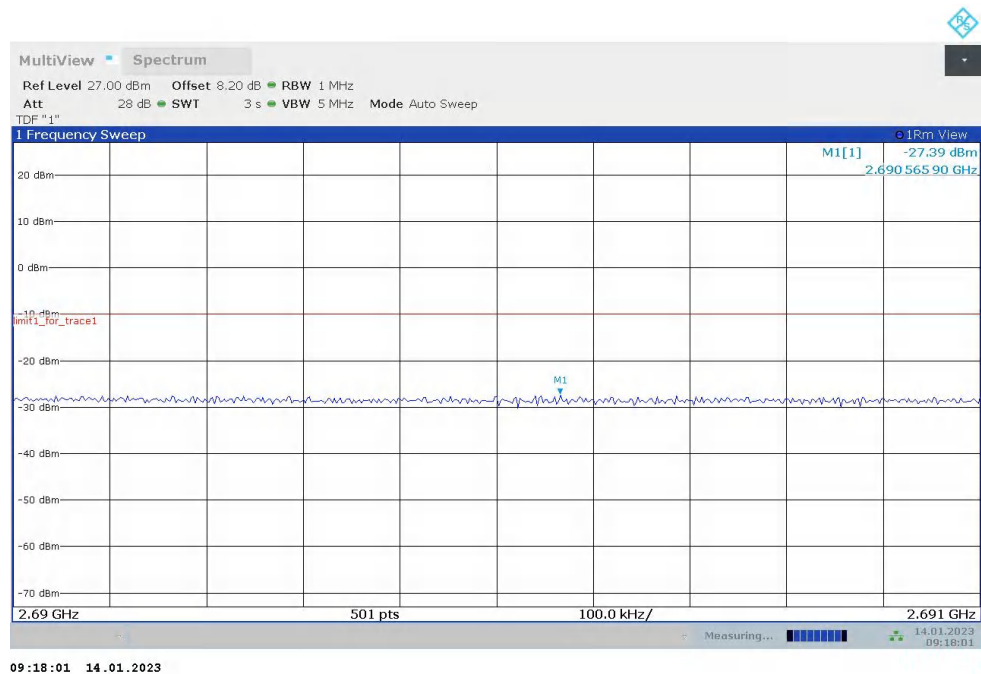




LOW BAND EDGE BLOCK-100M-100%RB

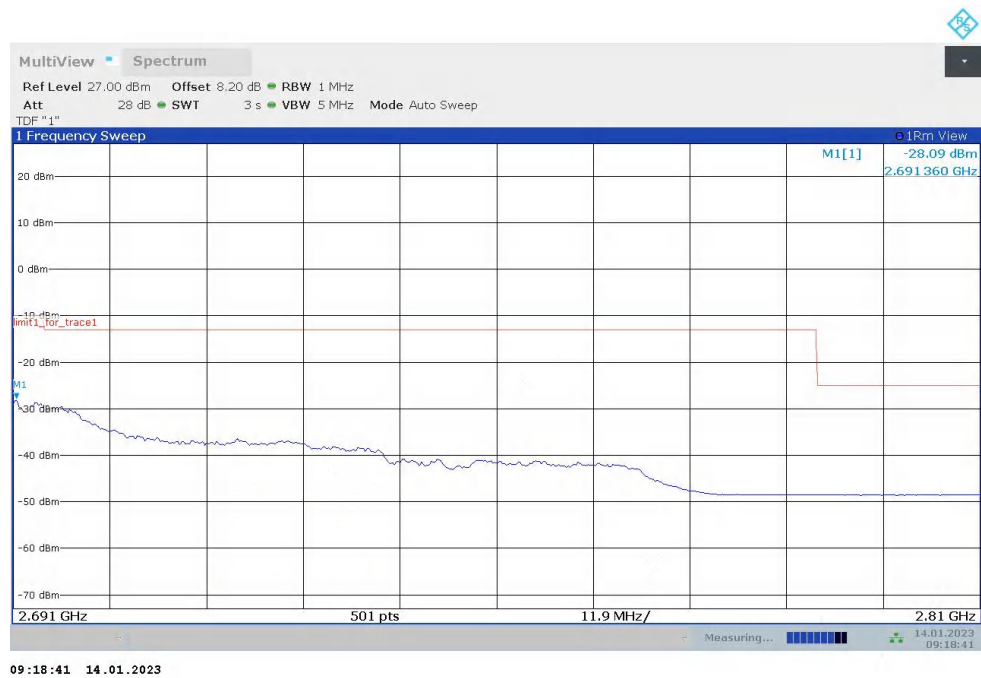


HIGH BAND EDGE BLOCK-100M-100%RB





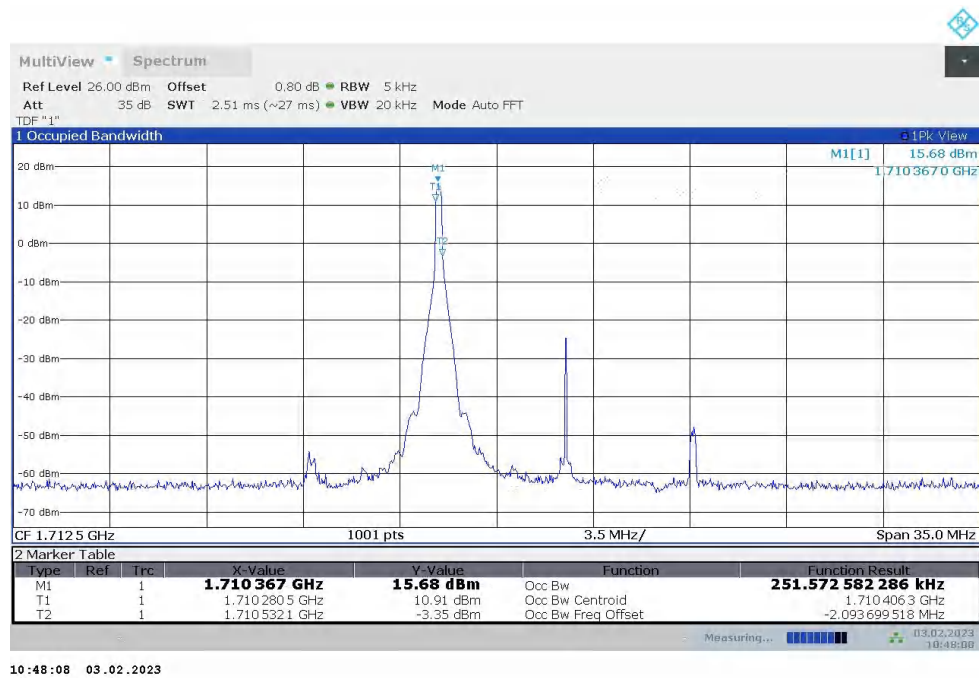
HIGH BAND EDGE BLOCK-100M-100%RB



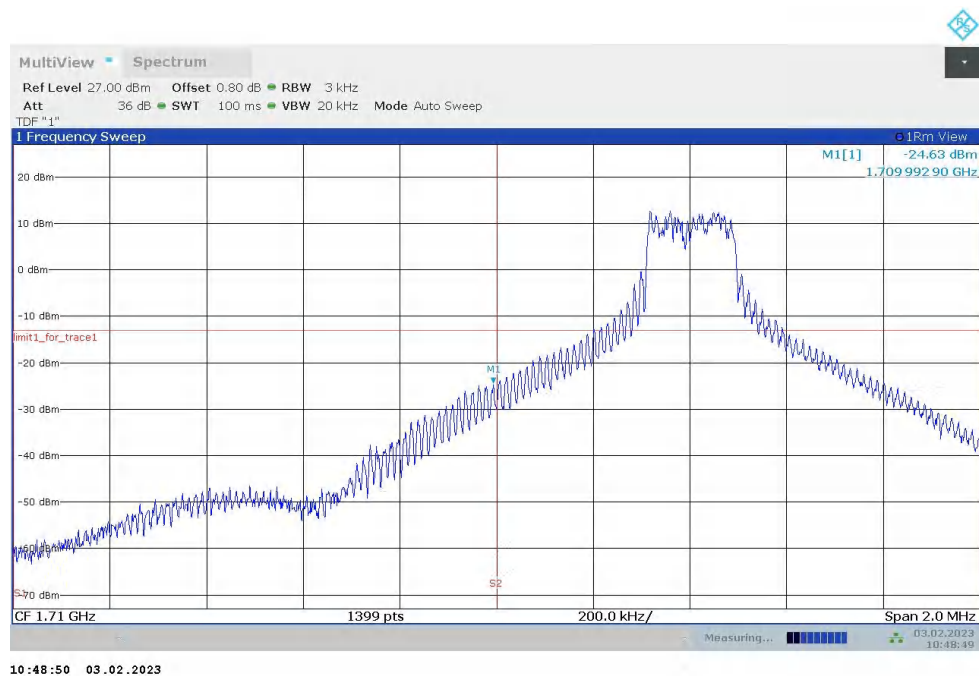


NR n66

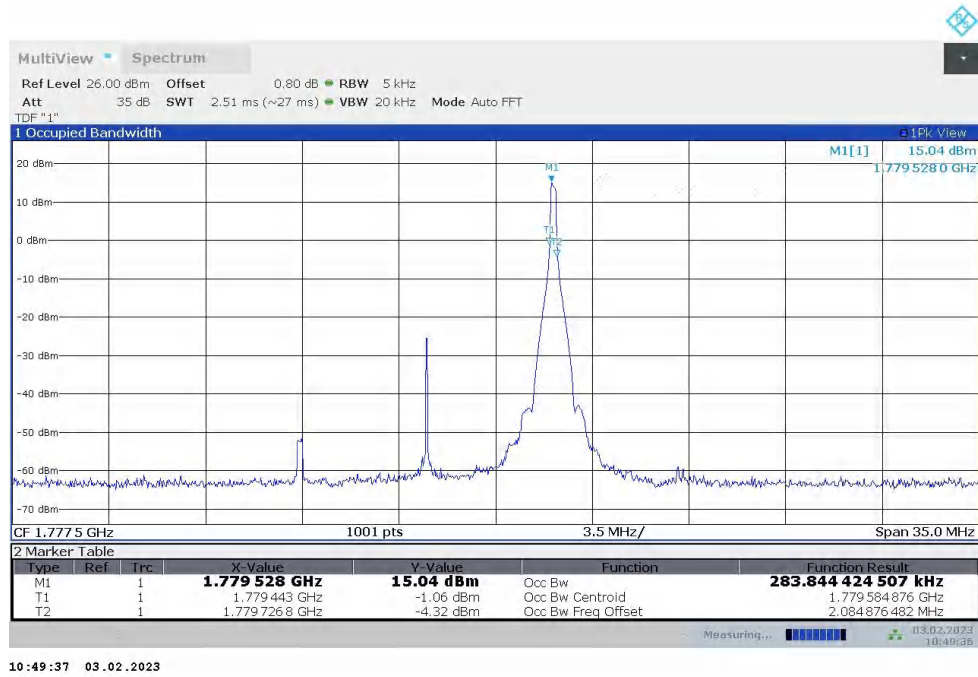
OBW: 1RB-LOW_offset



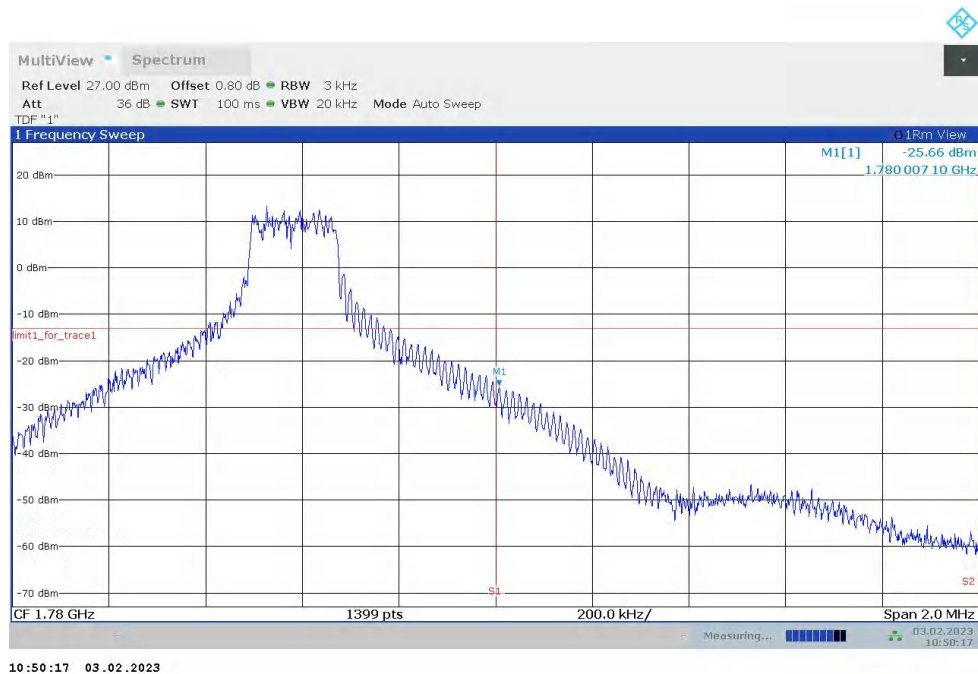
LOW BAND EDGE BLOCK-1RB-LOW_offset



OBW: 1RB-HIGH_offset

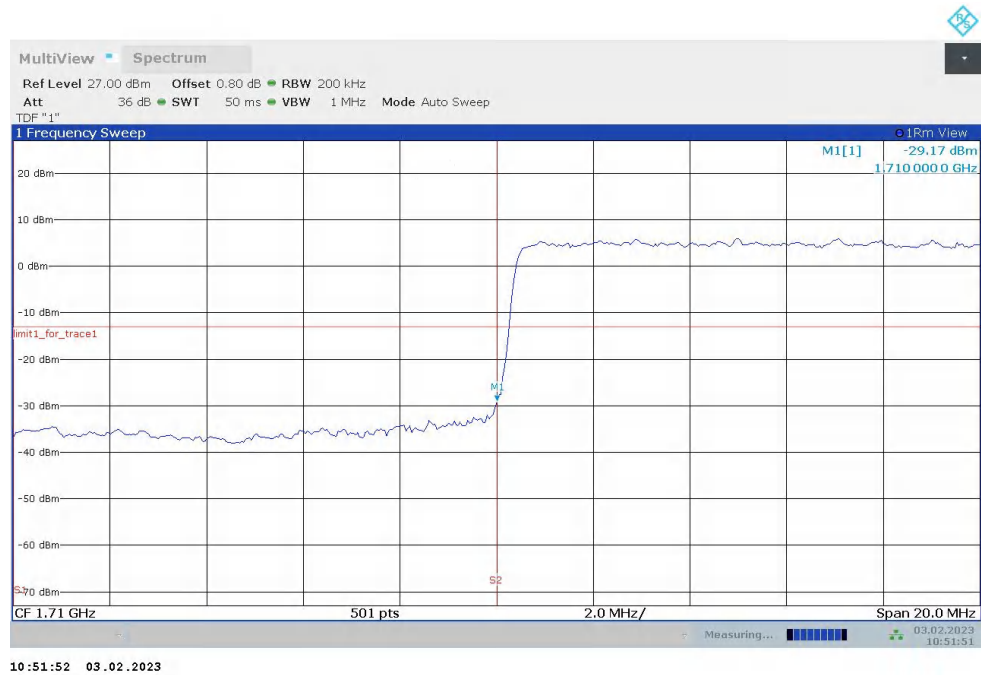


HIGH BAND EDGE BLOCK-1RB-HIGH_offset

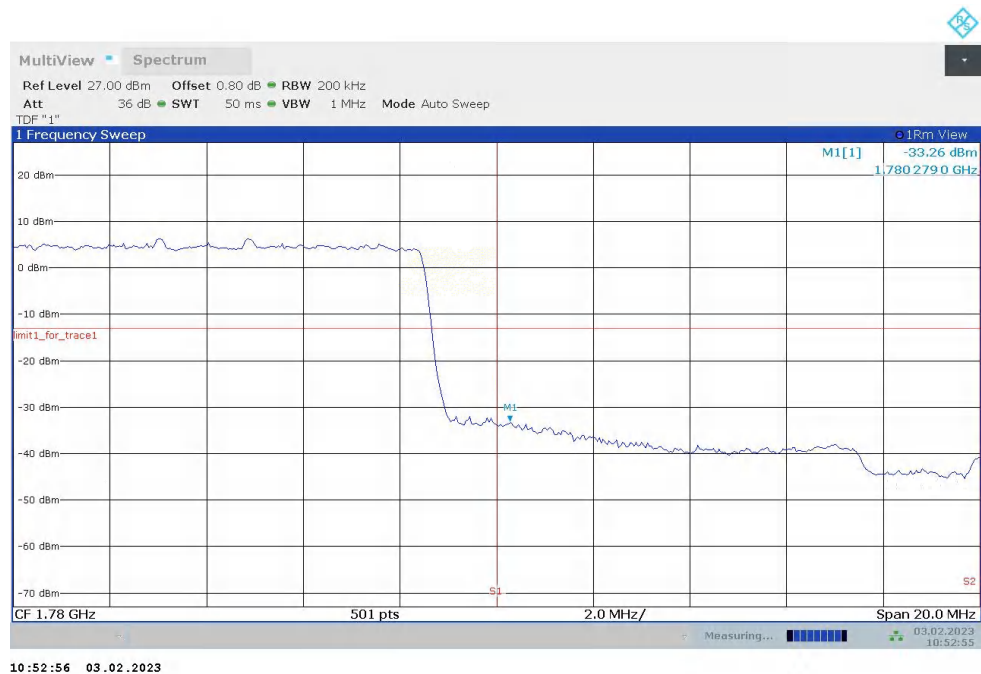




LOW BAND EDGE BLOCK-20M-100%RB

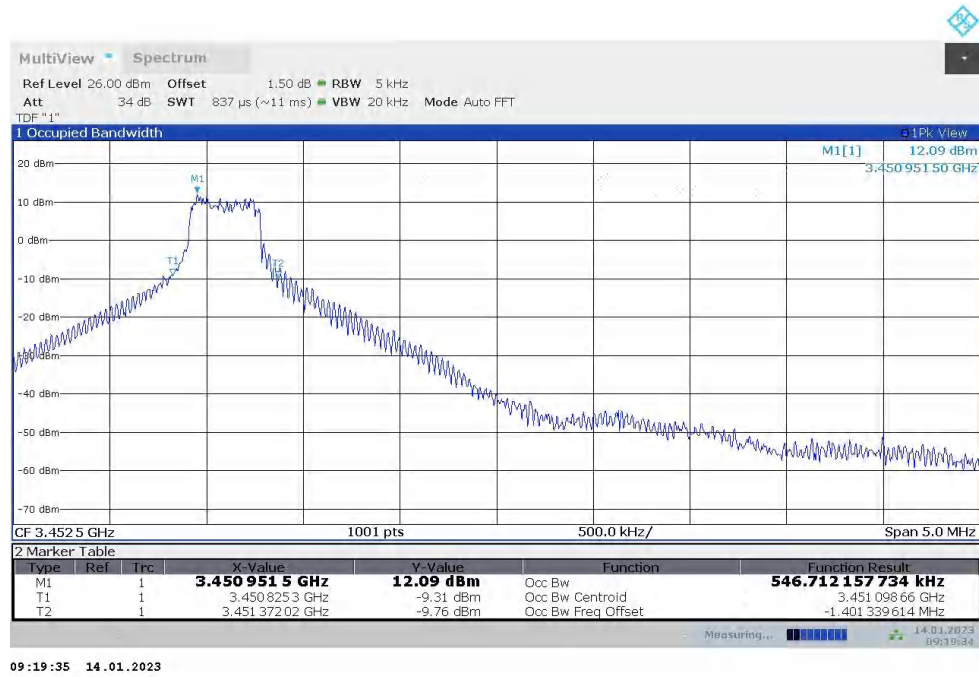


HIGH BAND EDGE BLOCK-20M-100%RB

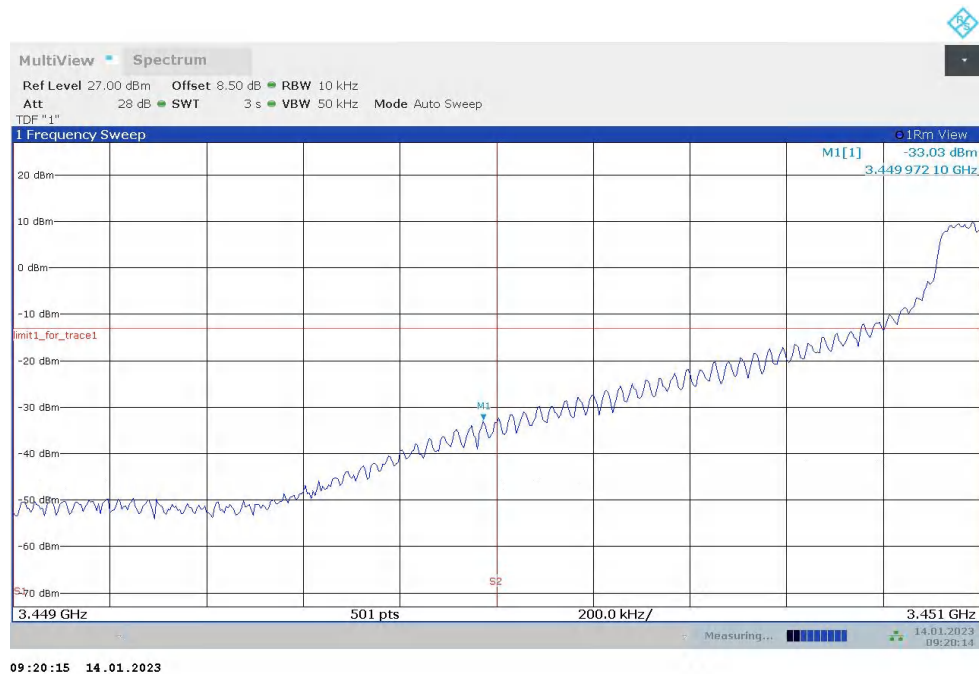


NR n78

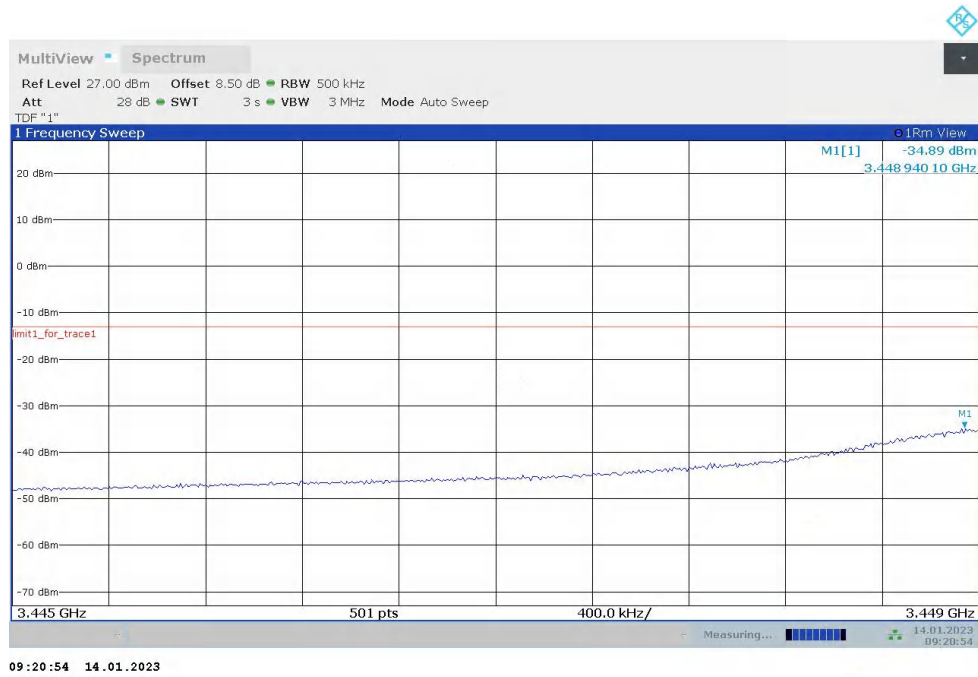
OBW: 1RB-LOW_offset



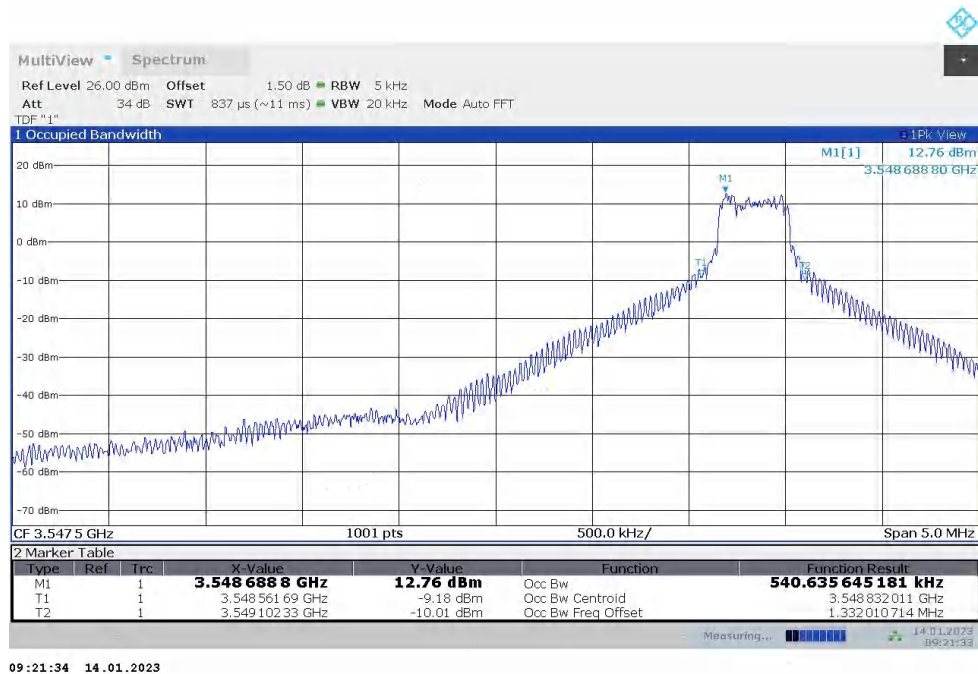
LOW BAND EDGE BLOCK-1RB-LOW_offset



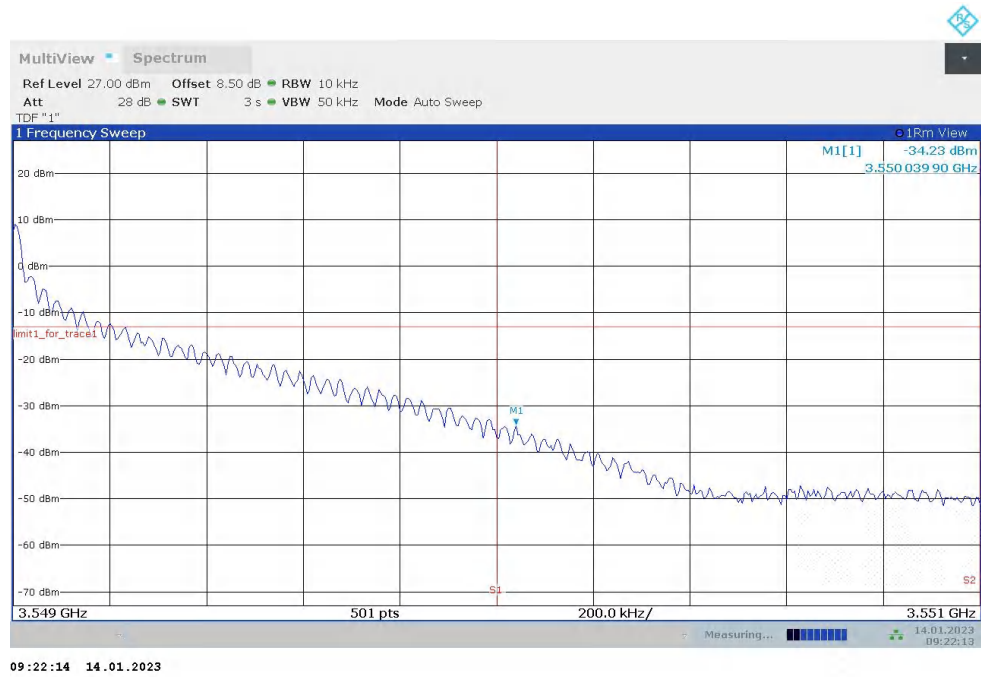
LOW BAND EDGE BLOCK-1RB-LOW_offset



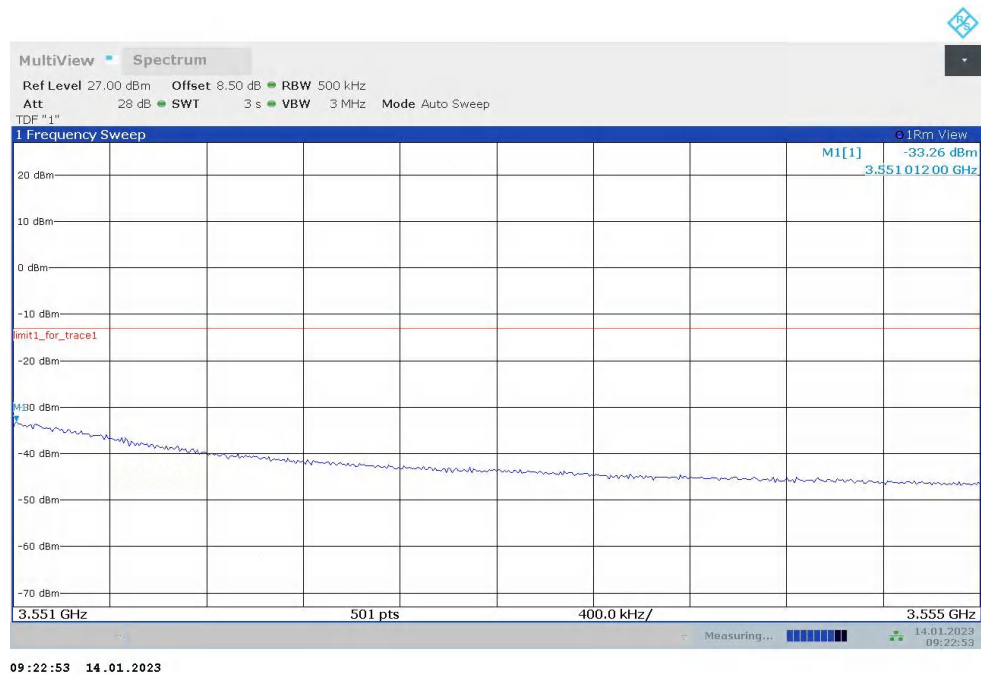
OBW: 1RB-HIGH_offset



HIGH BAND EDGE BLOCK-1RB-HIGH_offset

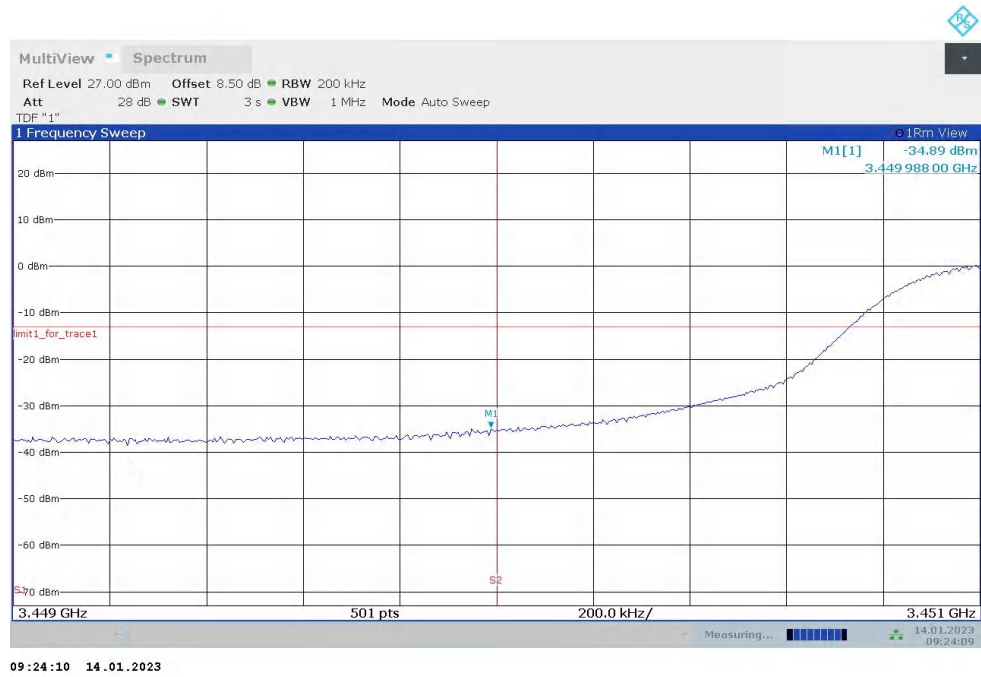


HIGH BAND EDGE BLOCK-1RB-HIGH_offset

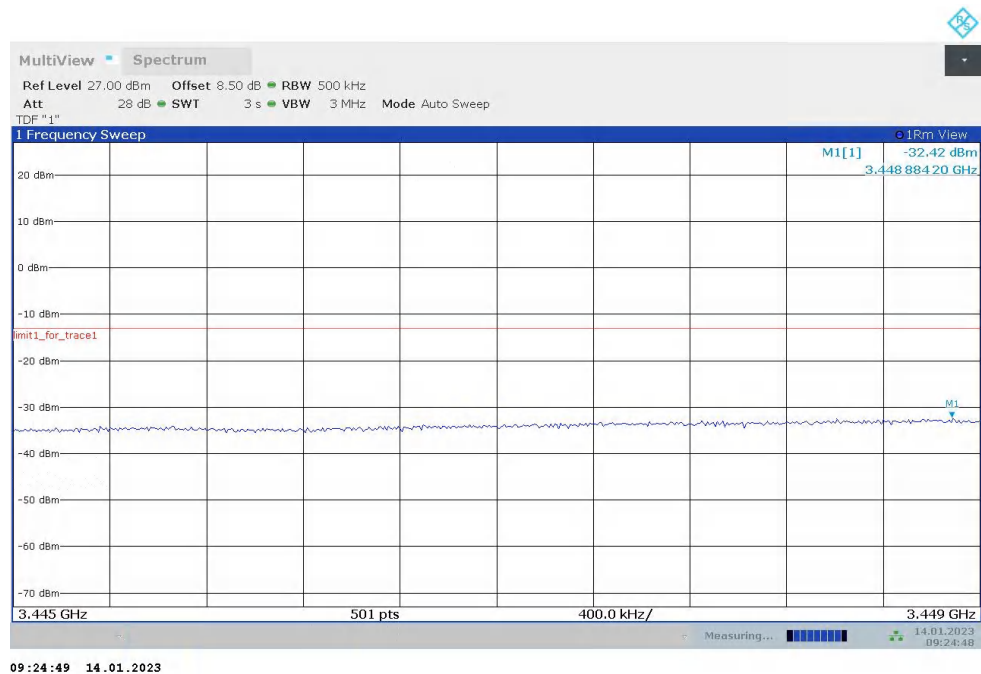




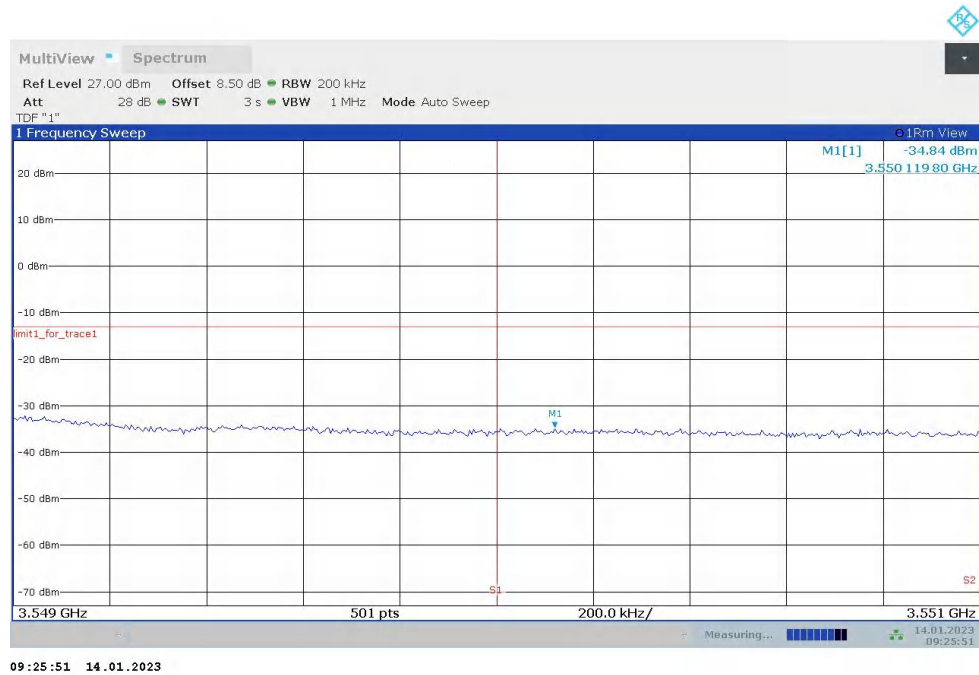
LOW BAND EDGE BLOCK-90M-100%RB



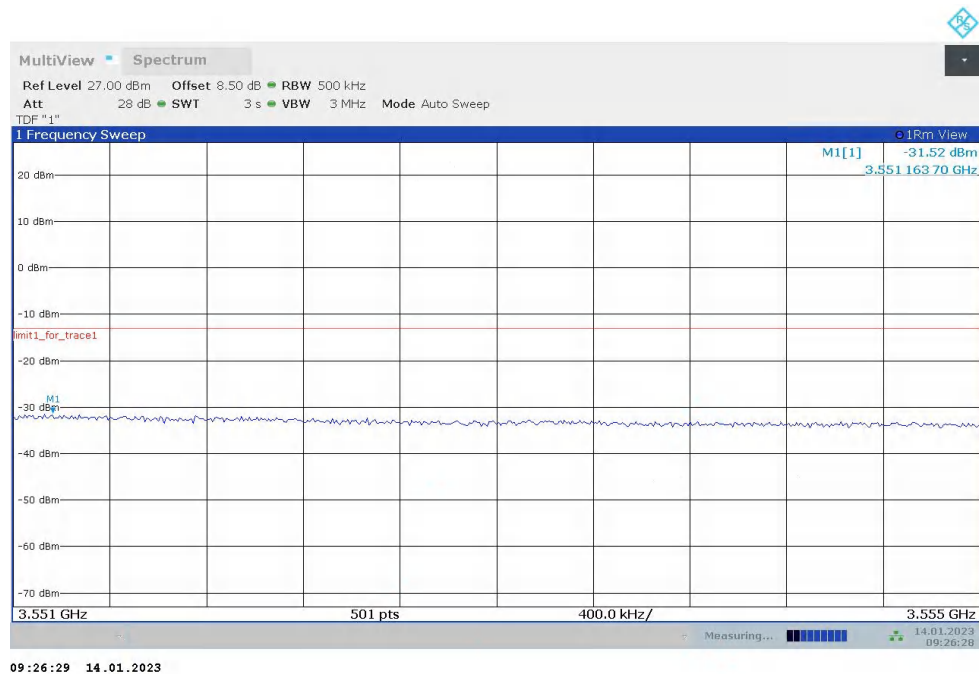
LOW BAND EDGE BLOCK-90M-100%RB



HIGH BAND EDGE BLOCK-90M-100%RB



HIGH BAND EDGE BLOCK-90M-100%RB



Note: The maximum value of expanded measurement uncertainty for this test item is $U = 0.626 \text{ kHz}$, $k = 2$.

A.6 Conducted Spurious Emission

A.6.1 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 $2 \times \text{span} / \text{RBW}$.

A. 6.2 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.

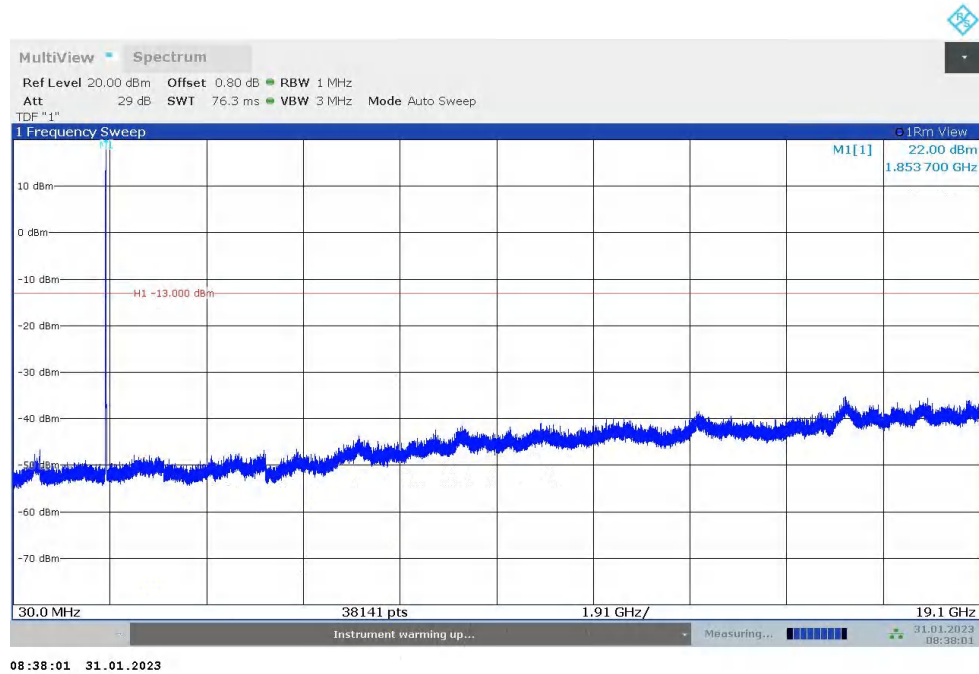
Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, 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(n) states for mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz 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, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

A. 6.3 Measurement result

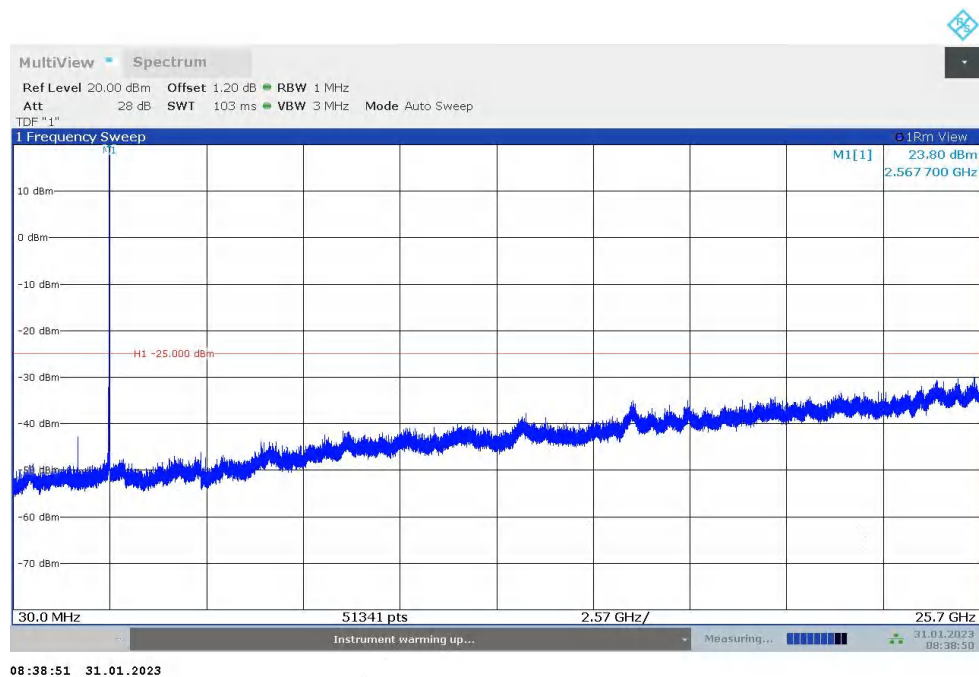
n2

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



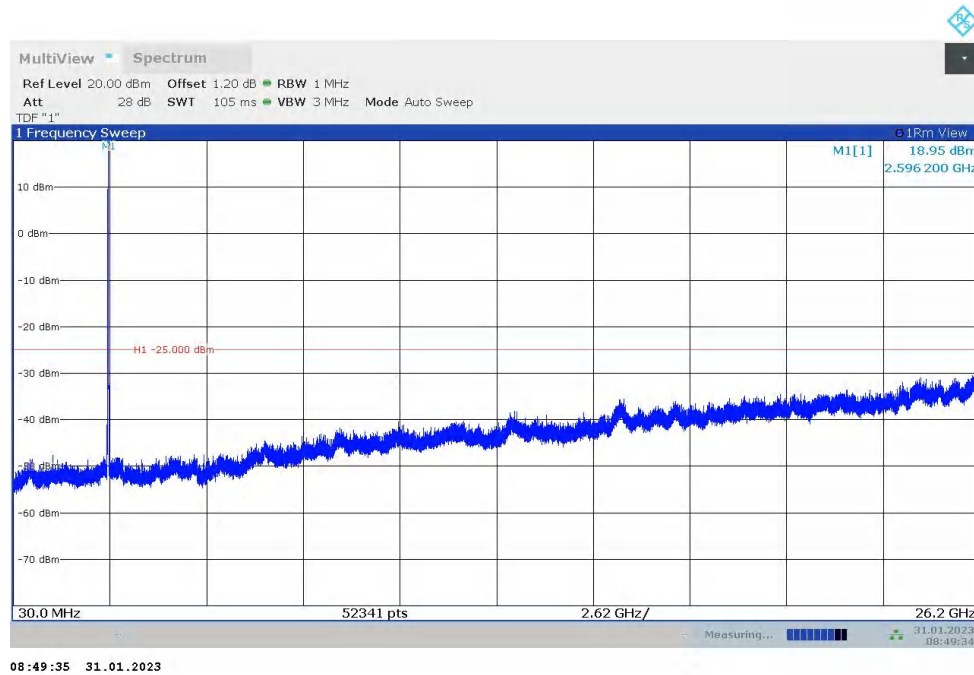
n7

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



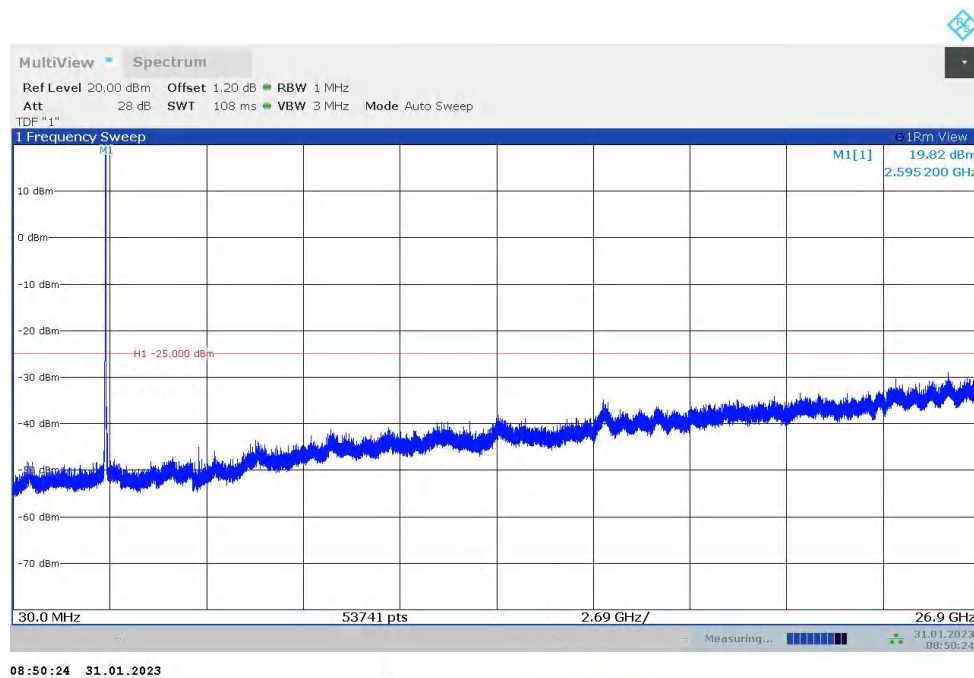
n38

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



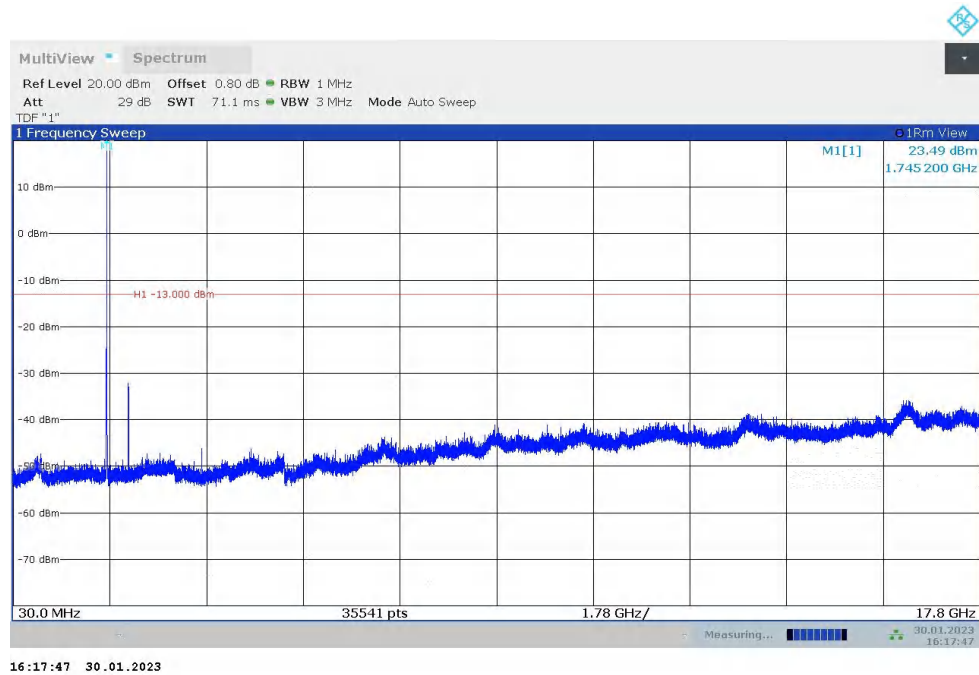
n41

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



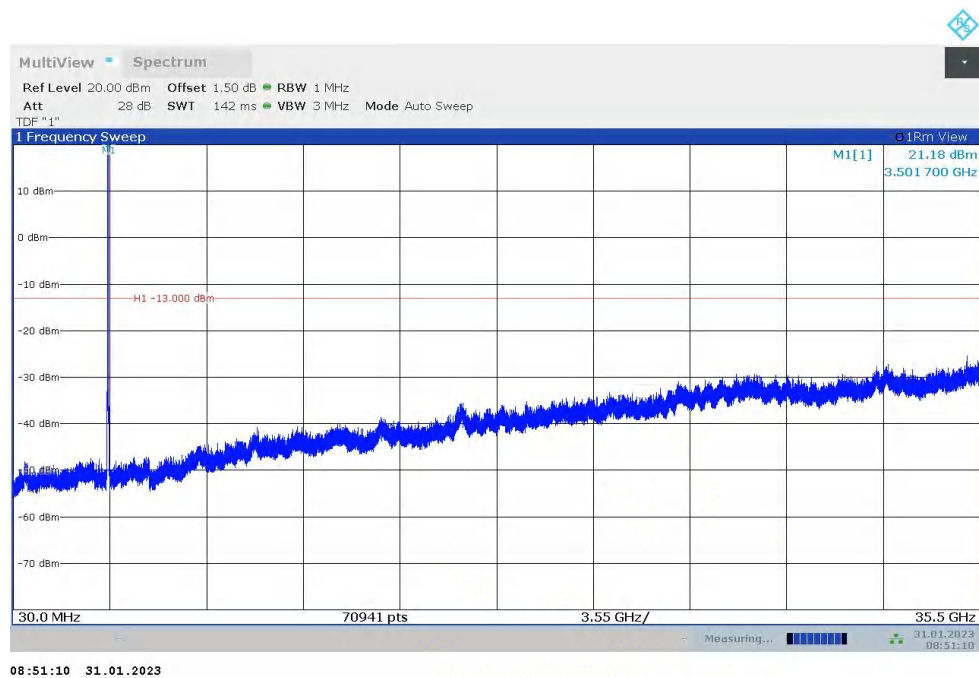
n66

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



n78

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



Note: The maximum value of expanded measurement uncertainty for this test item is $U = 0.372 \text{ dB}$, $k = 2$.

A.7 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

n2,20MHz

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
1880	4.20	5.24	6.16	6.30	6.74	6.94	6.86	7.42	8.54

n7,20MHz

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
2535	3.96	5.08	6.04	6.06	6.30	6.64	6.50	7.14	7.96

n38,20MHz

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
2595	4.10	5.21	6.04	6.33	6.66	6.73	6.69	7.25	8.14

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	4.38	5.59	6.32	6.43	6.59	7.30	7.27	7.65	8.23

n66,20MHz

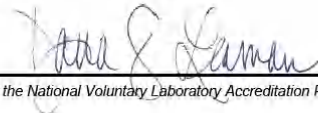
Frequency (MHz)	PAPR (dB)								
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM	DFT-s-64QAM	DFT-s-256QAM	CP-QPSK	CP-16QAM	CP-64QAM	CP-256QAM
1745	4.18	5.24	6.22	6.34	6.82	7.28	7.26	7.28	8.66

n78,90MHz

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
3500.01	10.50	4.26	5.96	6.36	6.63	6.87	6.87	7.26	8.48

Note: The maximum value of expanded measurement uncertainty for this test item is $U = 0.356$ dB, $k = 2$.

Annex B: Accreditation Certificate

United States Department of Commerce National Institute of Standards and Technology NVLAP[®] 	
Certificate of Accreditation to ISO/IEC 17025:2017	
NVLAP LAB CODE: 600118-0	
Telecommunication Technology Labs, CAICT Beijing China	
<i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i>	
Electromagnetic Compatibility & Telecommunications	
<i>This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. 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 January 2009).</i>	
2022-10-01 through 2023-09-30 <i>Effective Dates</i>	 For the National Voluntary Laboratory Accreditation Program

END OF REPORT