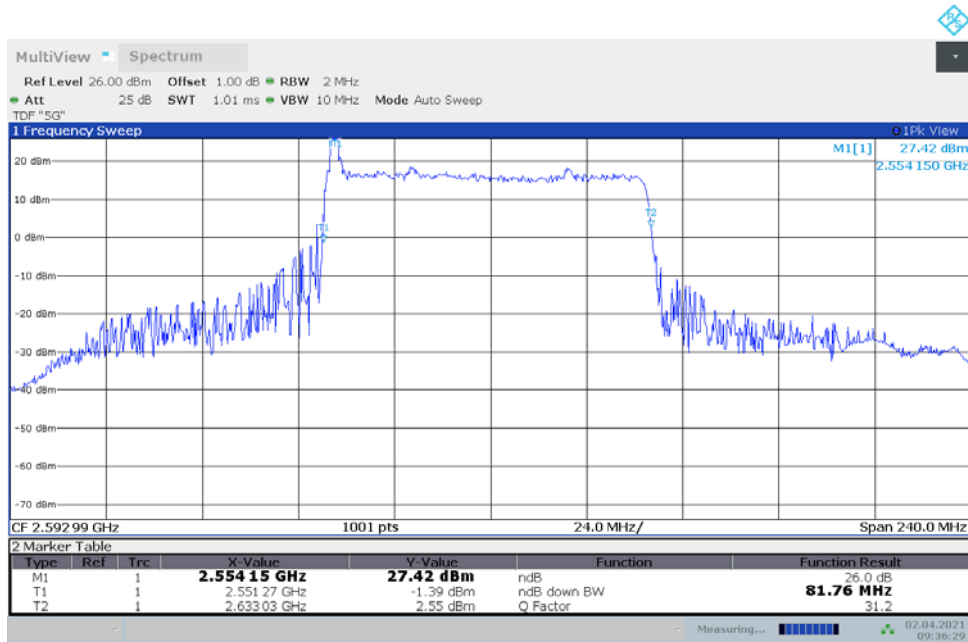


LTE Band 2+NR n41
n41,80MHz(-26dBc)

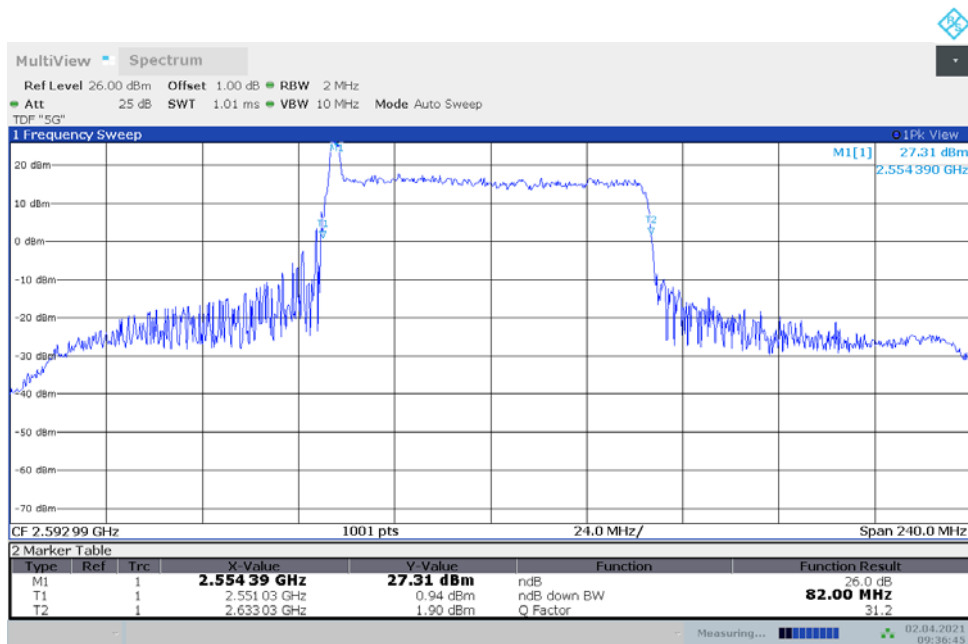
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	81.760	82.000

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



Date: 2 APR. 2021 09:36:29

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

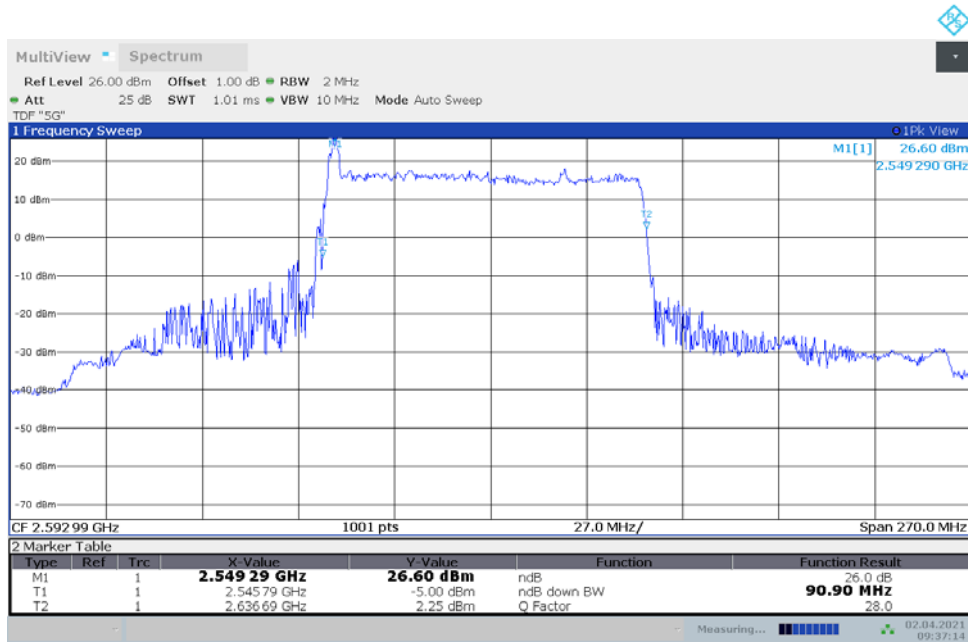


Date: 2 APR. 2021 09:36:45

LTE Band 2+NR n41
n41,90MHz(-26dBc)

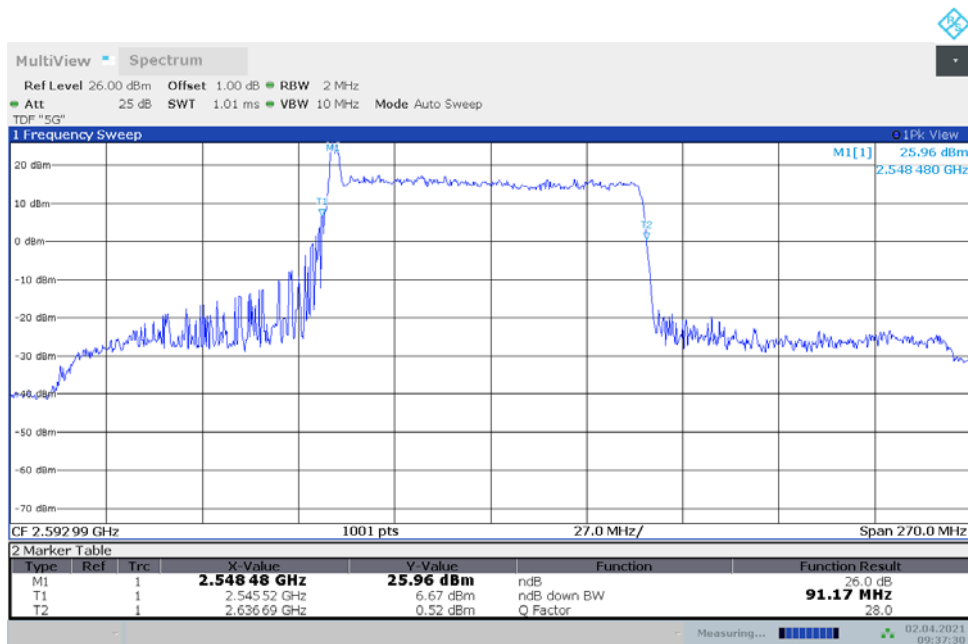
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	90.900	91.170

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



Date: 2 APR. 2021 09:37:15

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

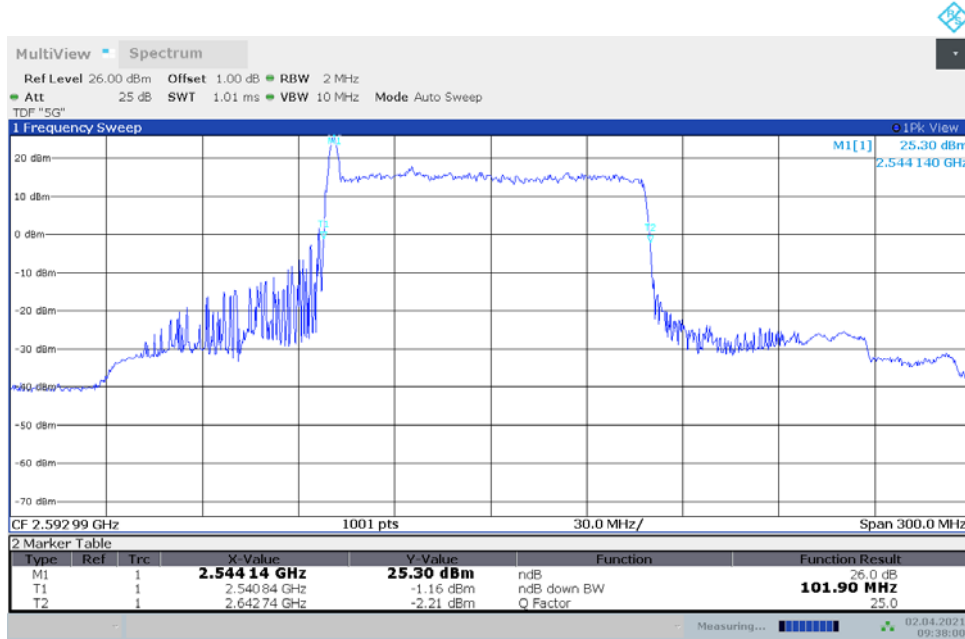


Date: 2 APR. 2021 09:37:31

LTE Band 2+NR n41
n41,100MHz(-26dBc)

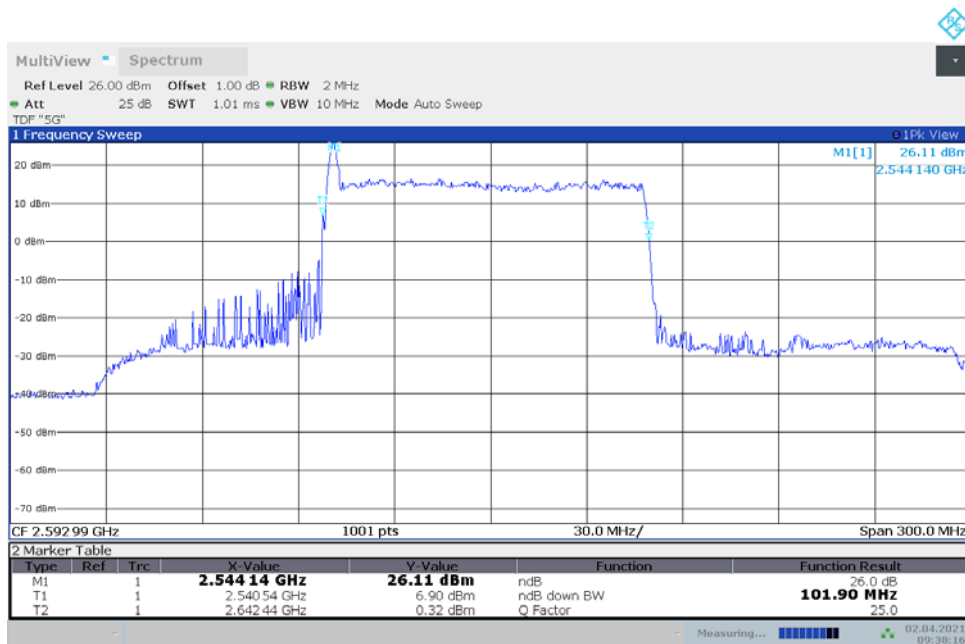
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
2592.99	101.900	101.900

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



Date: 2 APR. 2021 09:38:00

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



Date: 2 APR. 2021 09:38:16

NR n66
n66, 5MHz (-26dBc)

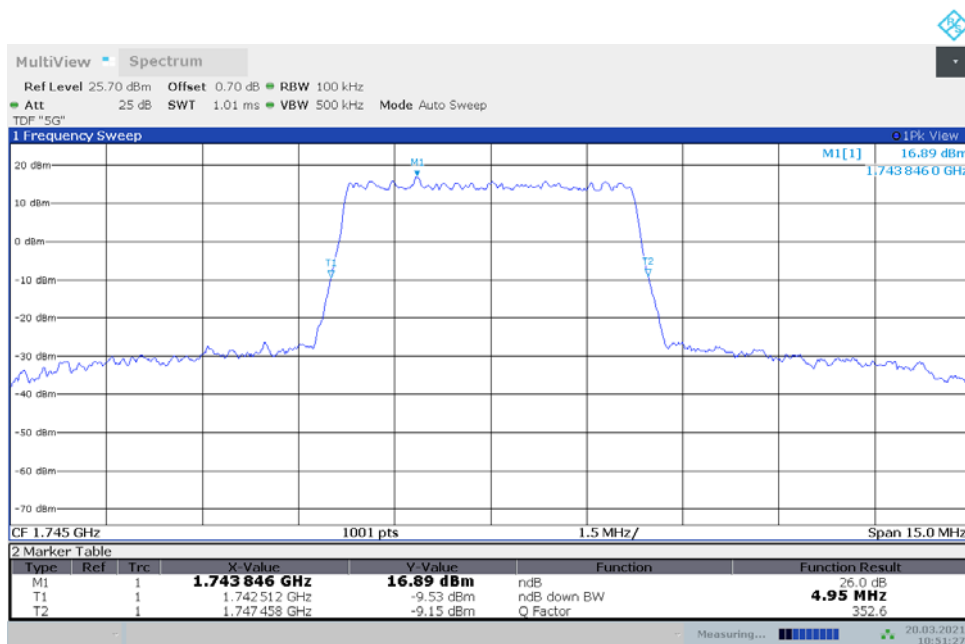
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745.0	4.915	4.945

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



Date: 20 MAR 2021 10:51:12

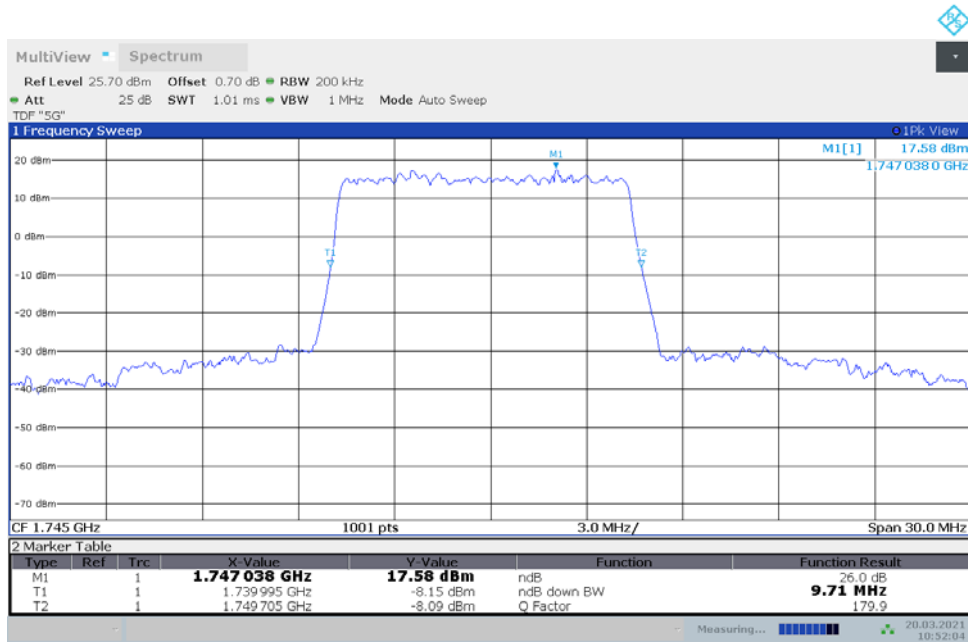
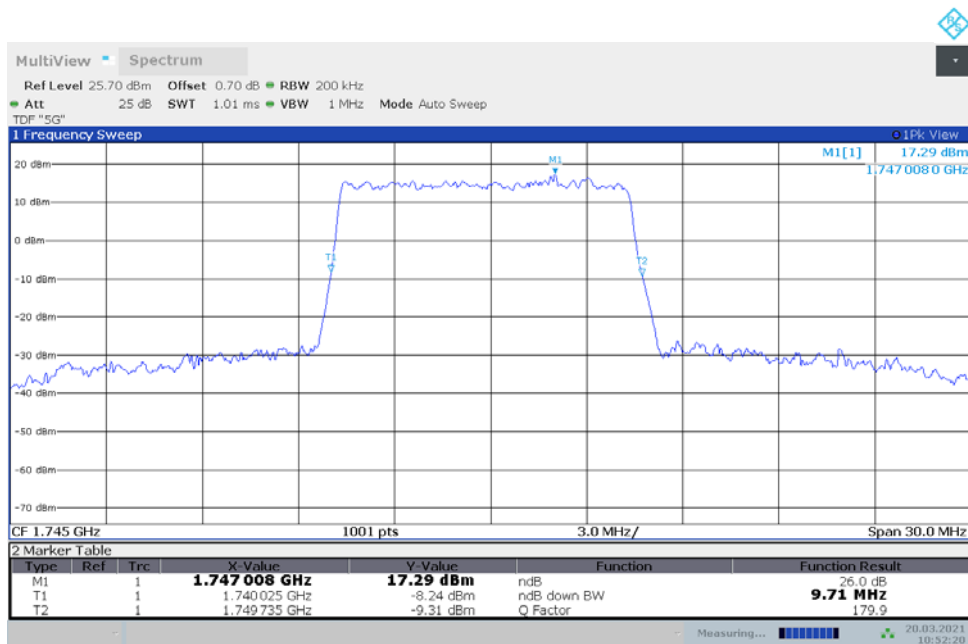
n66, 5MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



Date: 20 MAR 2021 10:51:27

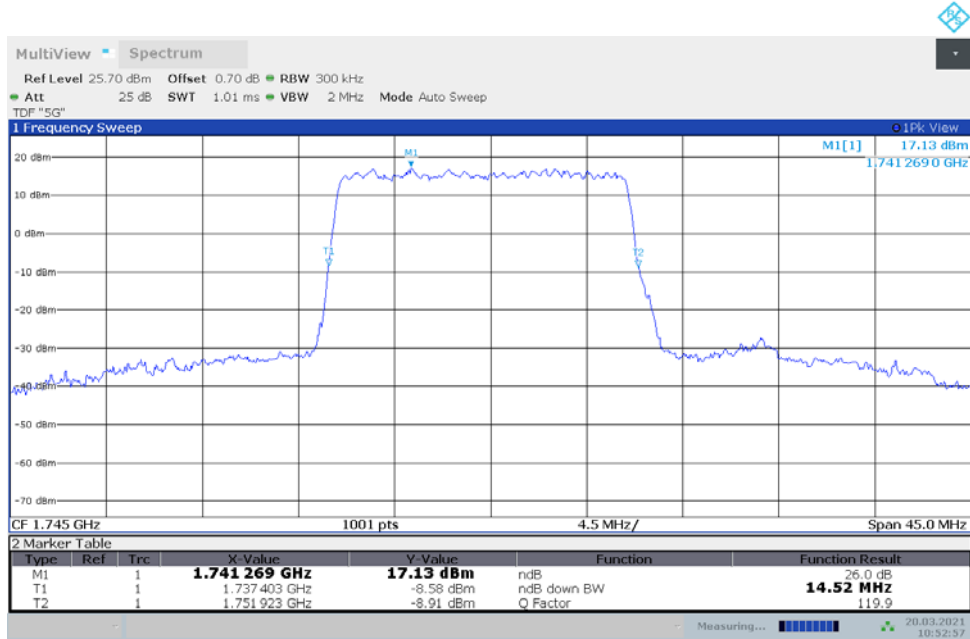
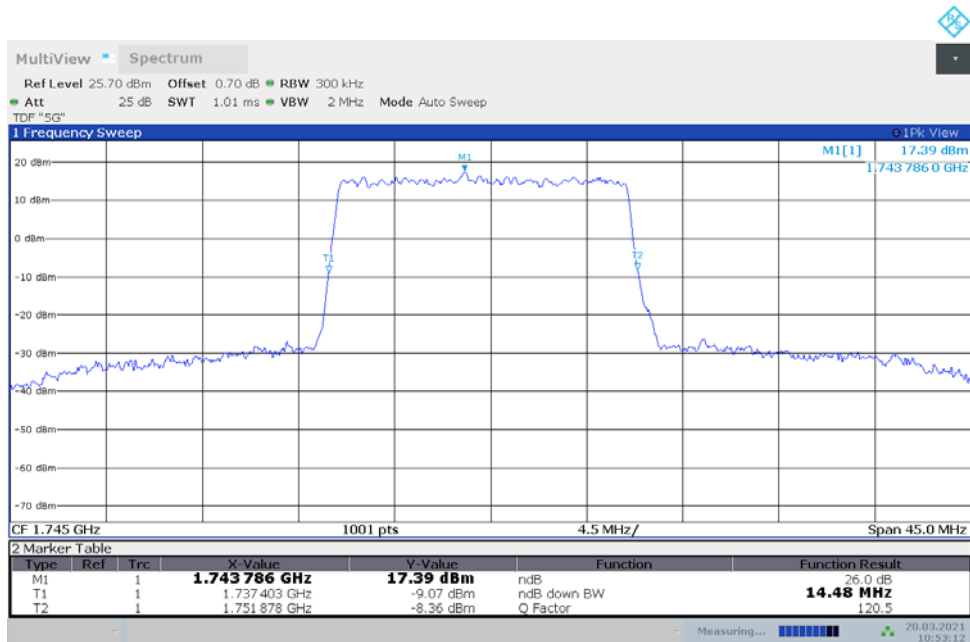
n66, 10MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745.0	9.710	9.710

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

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


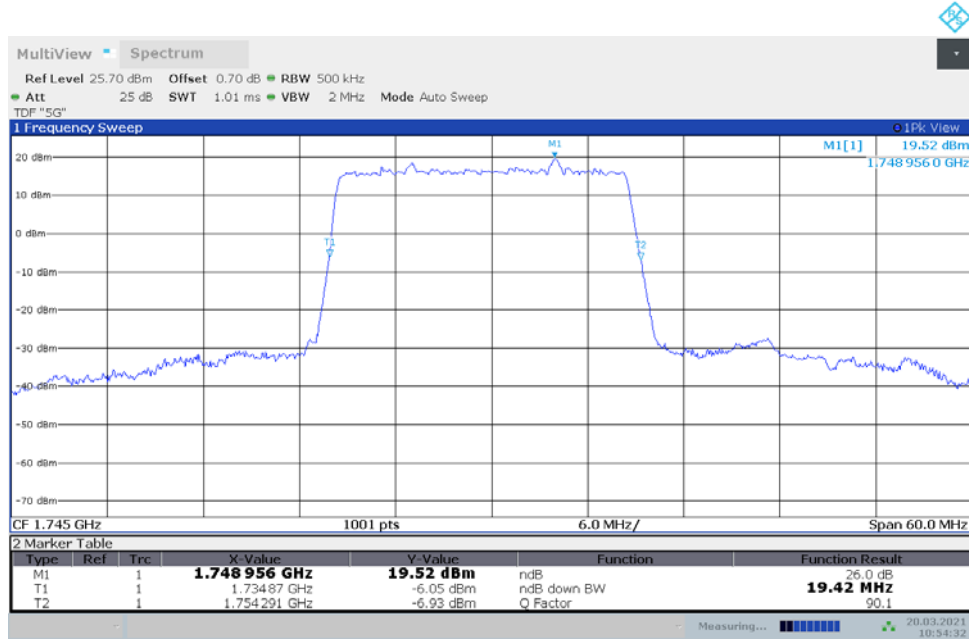
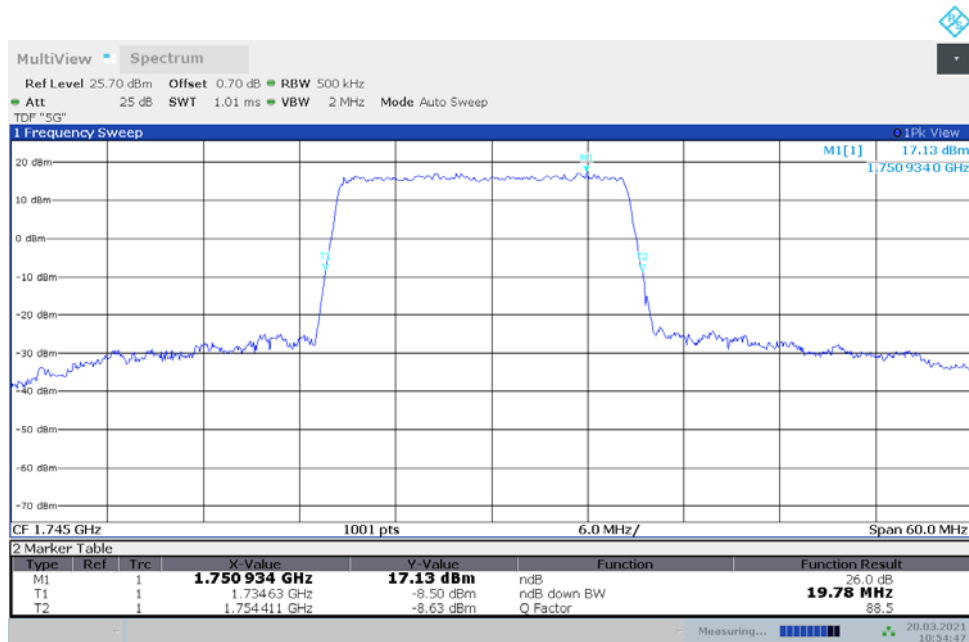
n66, 15MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745.0	14.520	14.476

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

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


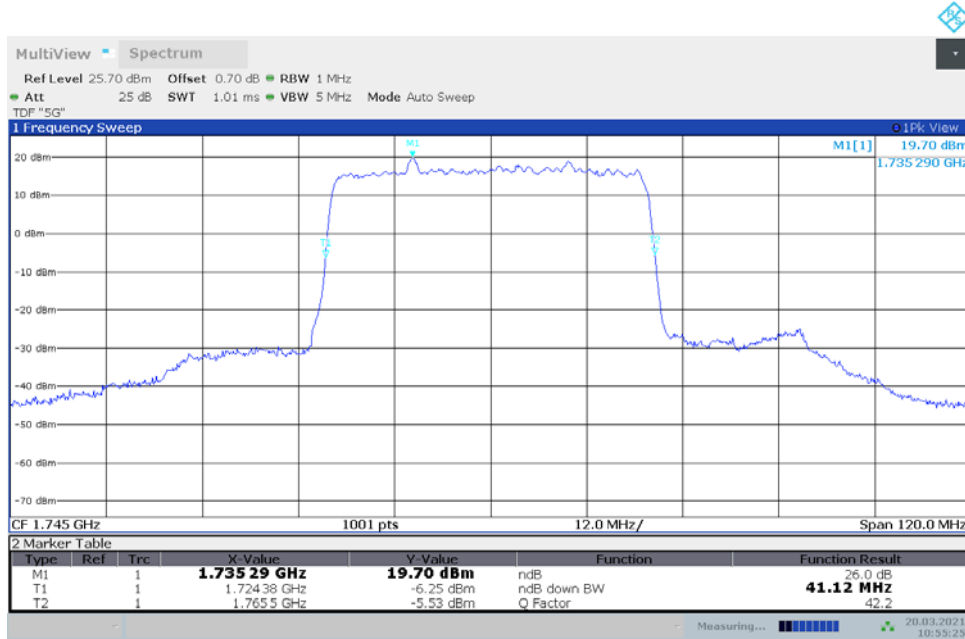
n66, 20MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745.0	19.421	19.780

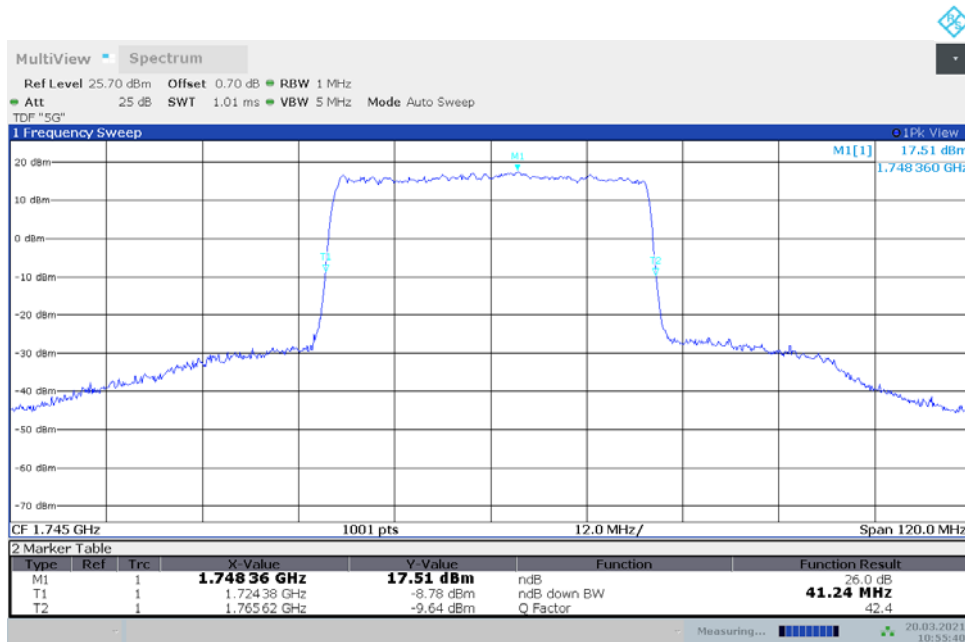
n66, 20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

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


n66, 40MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
1745.0	41.120	41.240

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


Date:20.MAR.2021 10:55:25

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


Date:20.MAR.2021 10:55:40

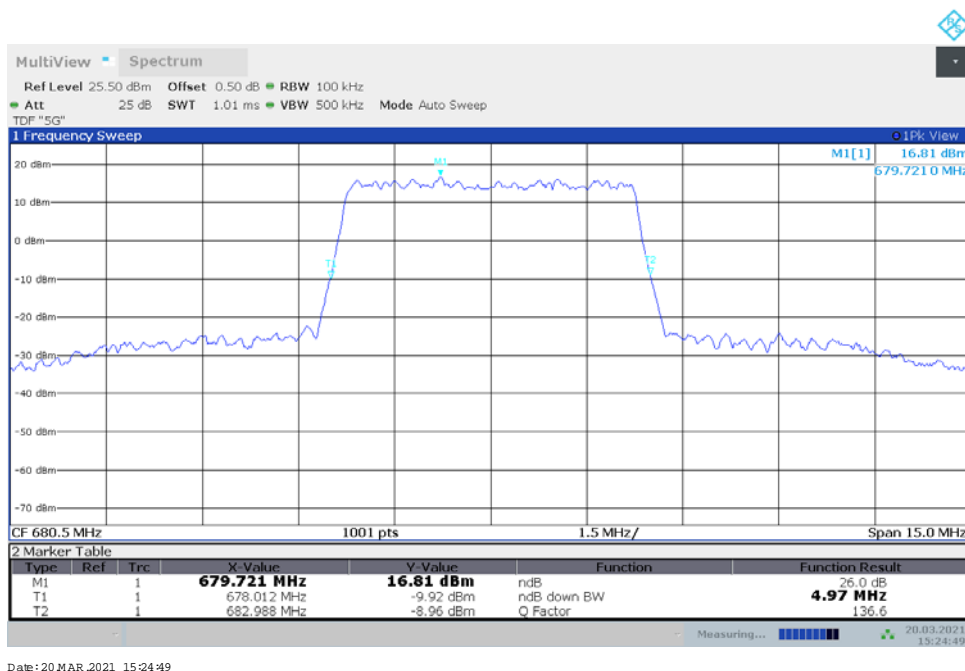
NR n71
n71, 5MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
680.5	4.945	4.975

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

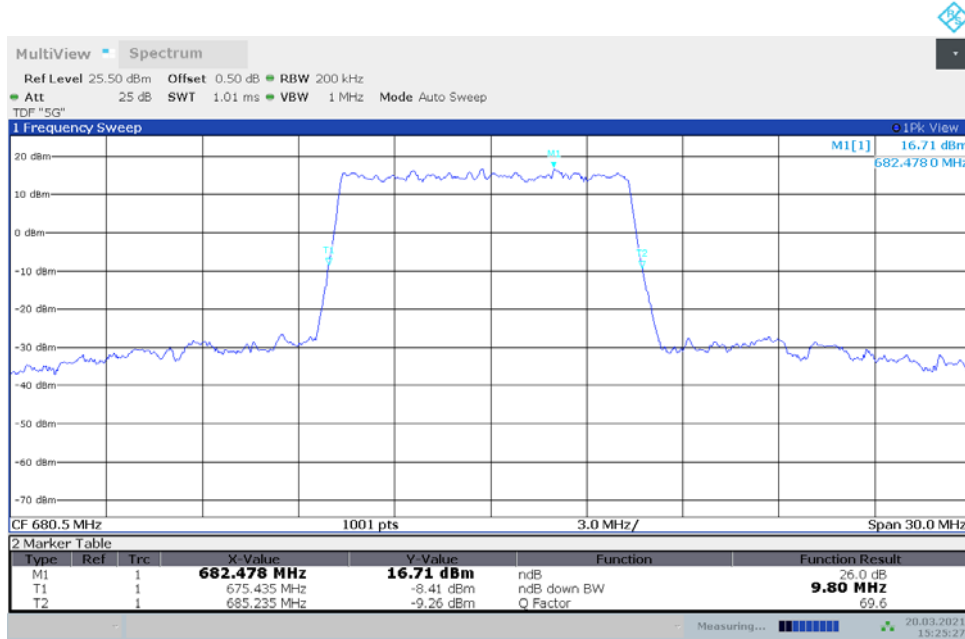
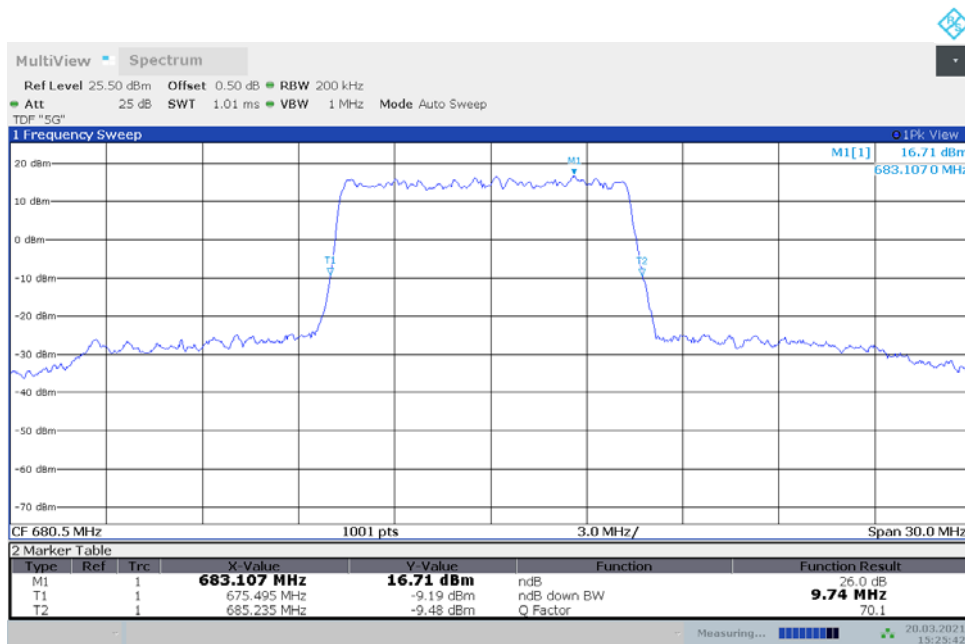


n71, 5MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



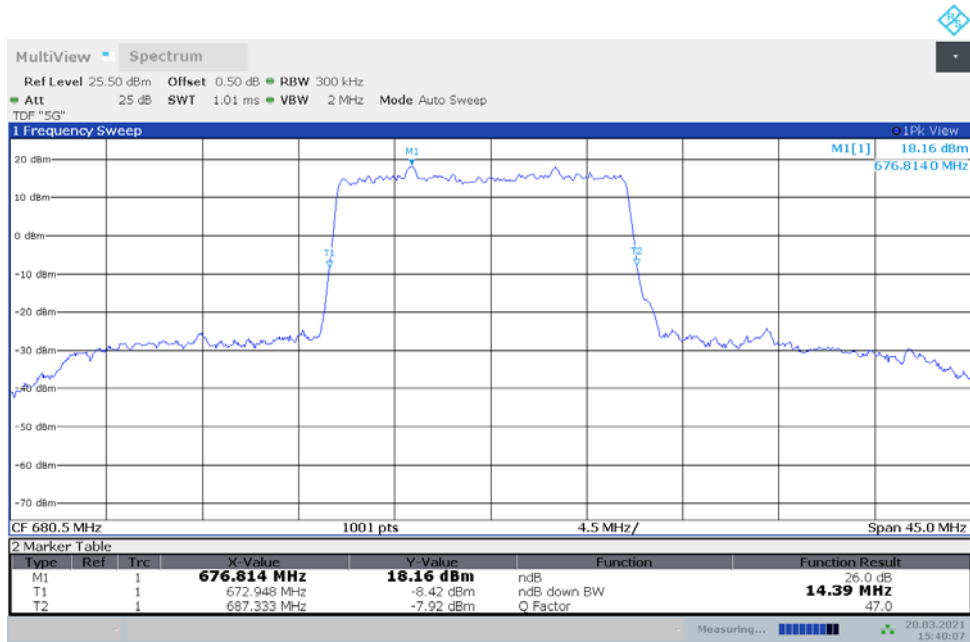
n71, 10MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
680.5	9.800	9.740

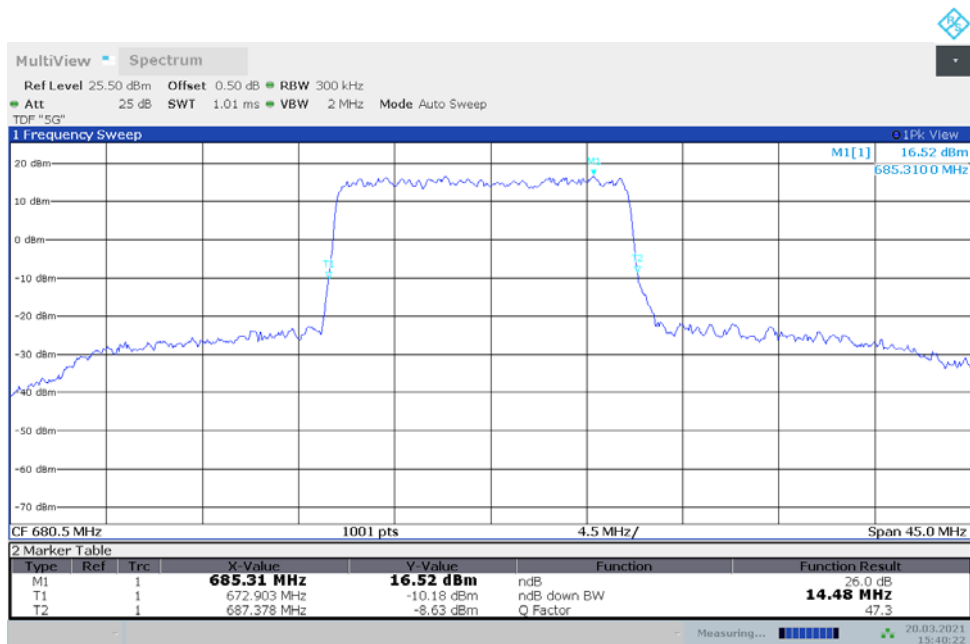
n71, 10MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)

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


n71, 15MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
680.5	14.386	14.476

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


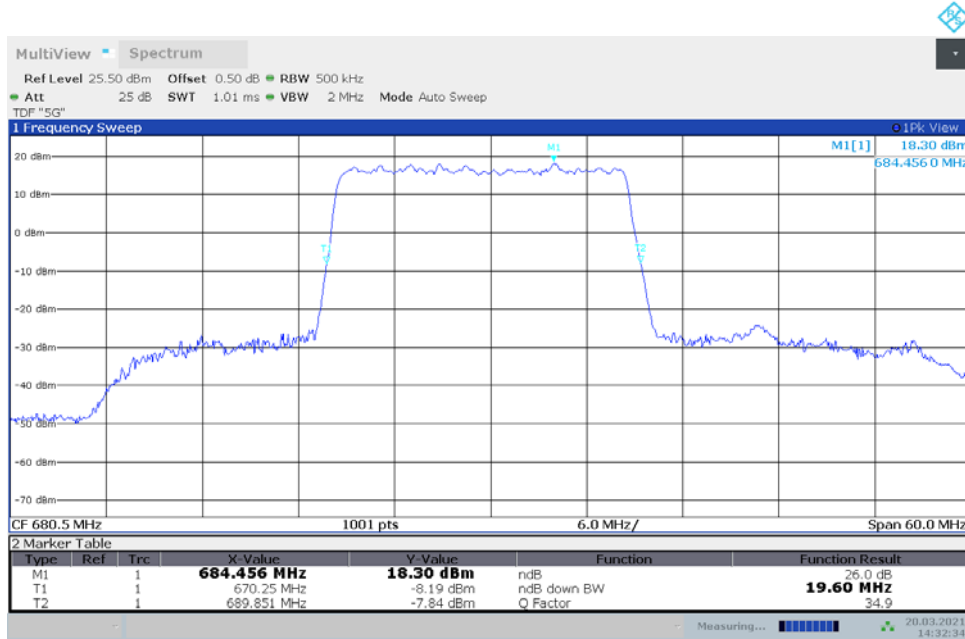
Date: 20.MAR.2021 15:40:08

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


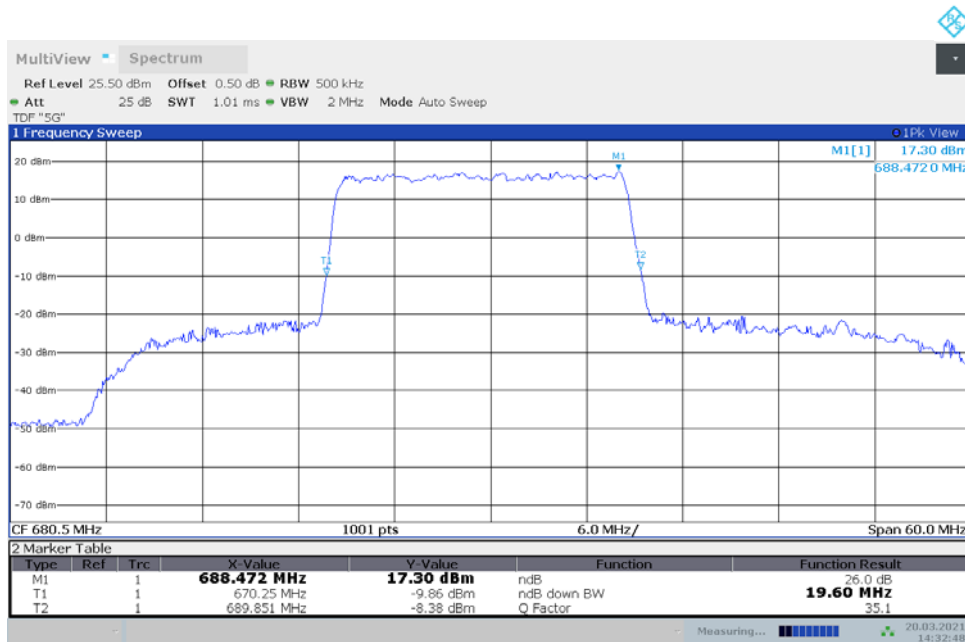
Date: 20.MAR.2021 15:40:22

n71, 20MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	DFT-s-pi/2 BPSK	DFT-s-QPSK
680.5	19.600	19.600

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


Date: 20.MAR.2021 14:32:34

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


Date: 20.MAR.2021 14:32:49

A.6 Band Edge Compliance

A.6.1 Measurement limit

Part 22.917, 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.

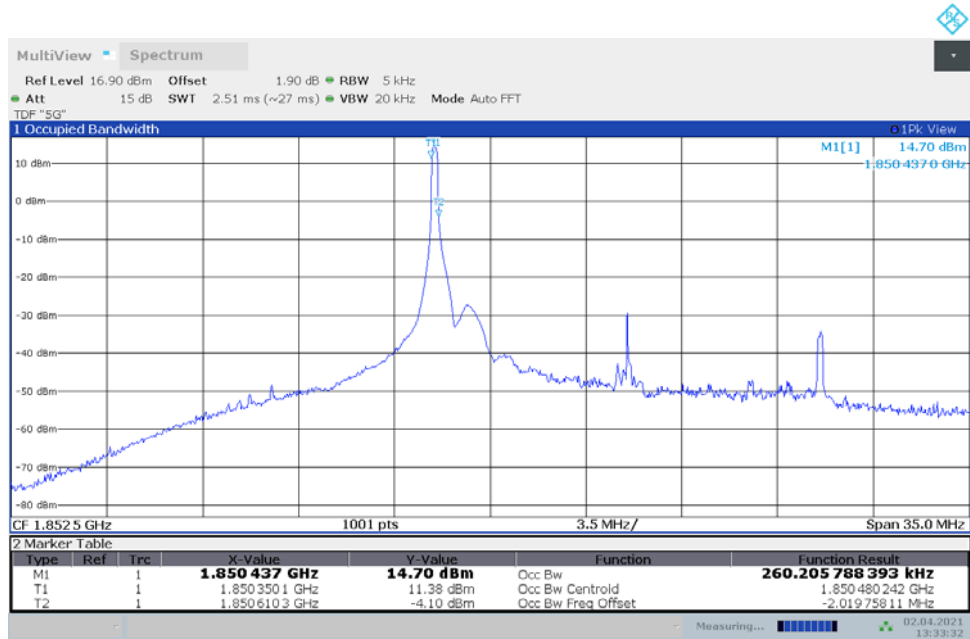
Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge,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

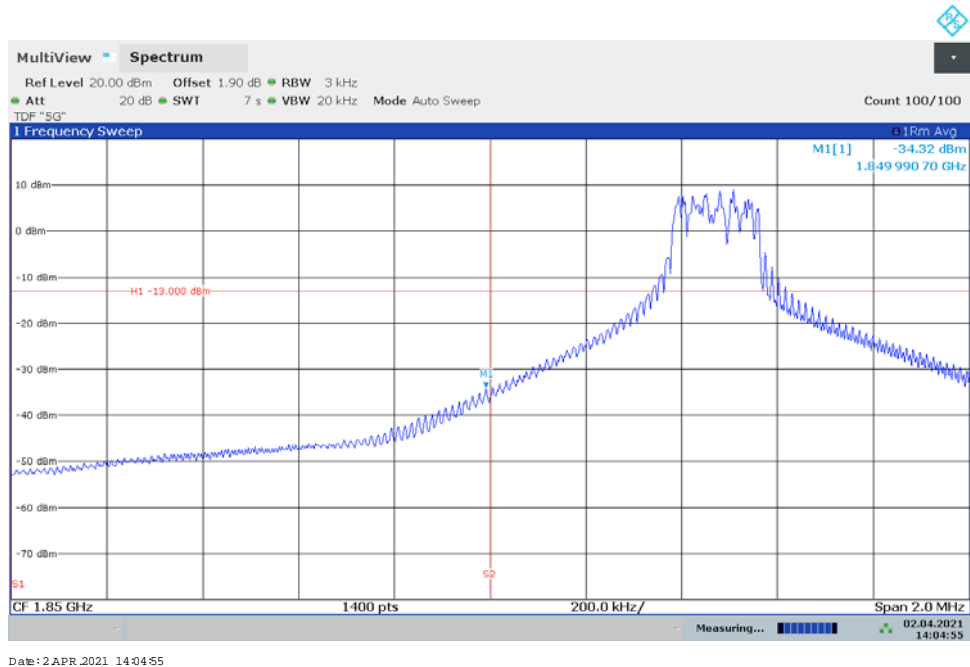
A.6.2 Measurement result

LTE Band 12+NR n25

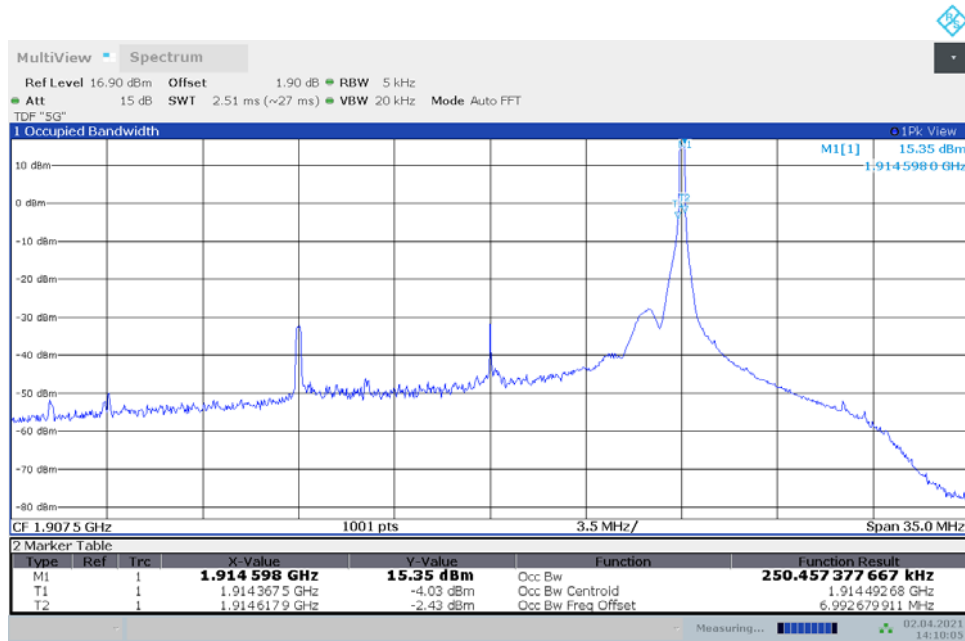
OBW: 1RB-low_offset



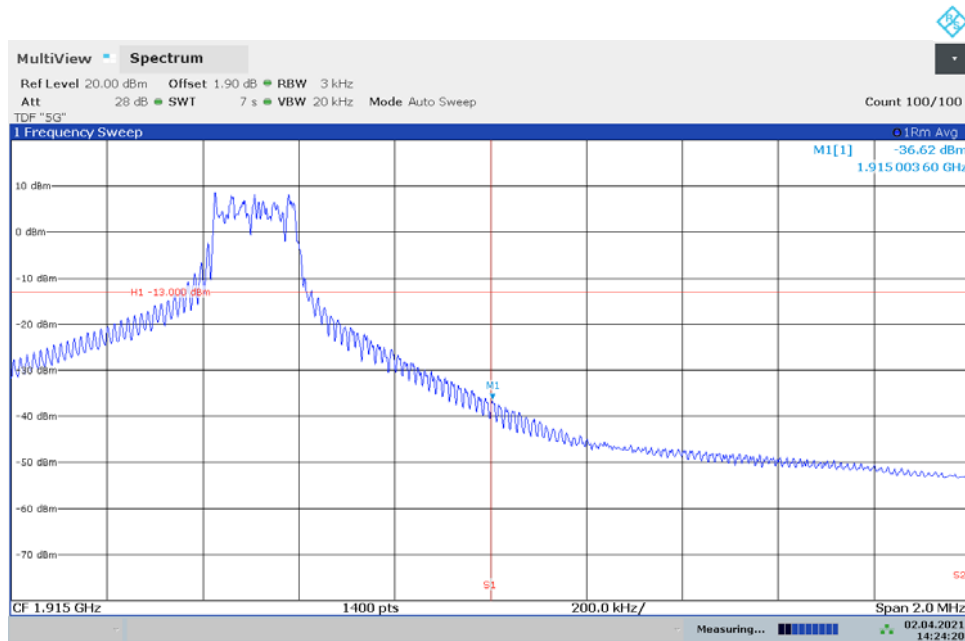
LOW BAND EDGE BLOCK-1RB-low_offset



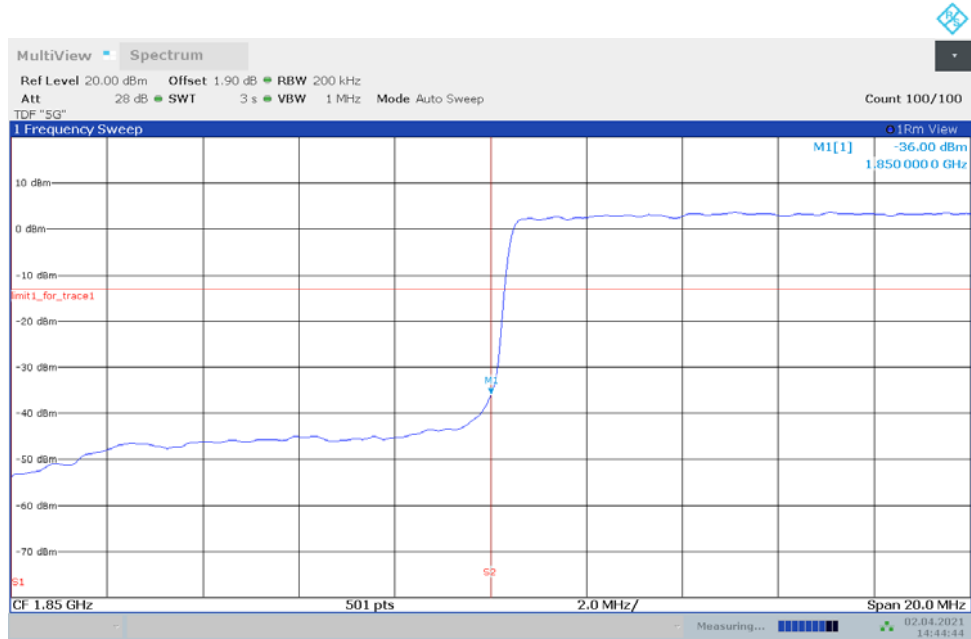
OBW: 1RB-high_offset



HIGH BAND EDGE BLOCK-1RB-high_offset

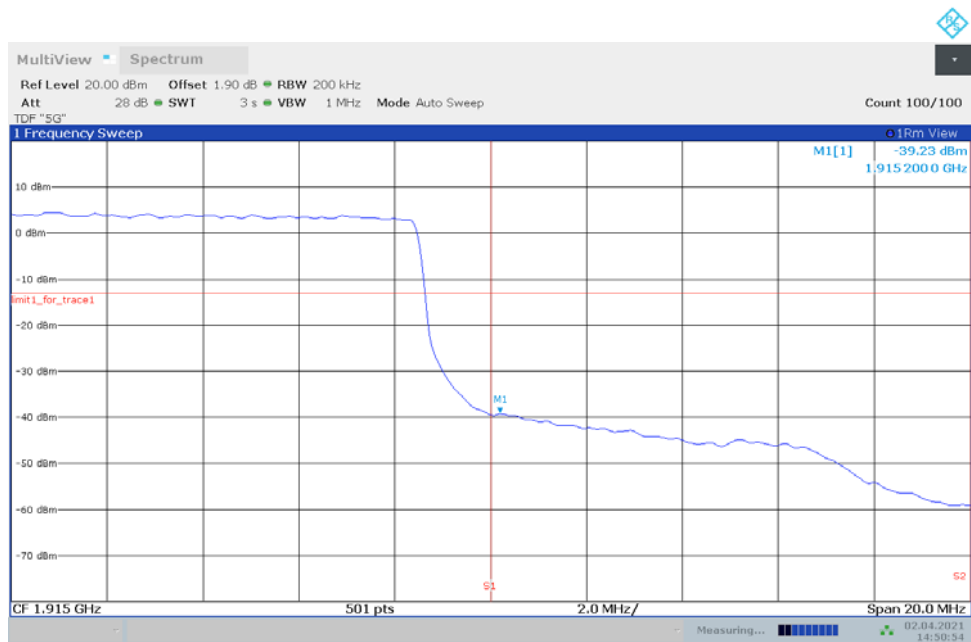


LOW BAND EDGE BLOCK-20MHz-100%RB



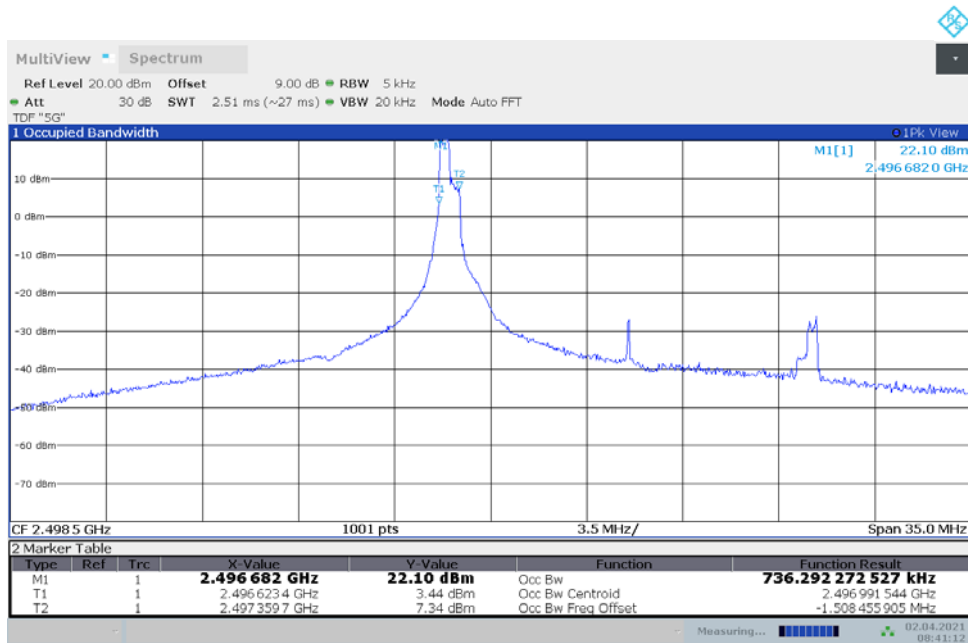
Date: 2 APR. 2021 14:44:44

HIGH BAND EDGE BLOCK-20MHz-100%RB



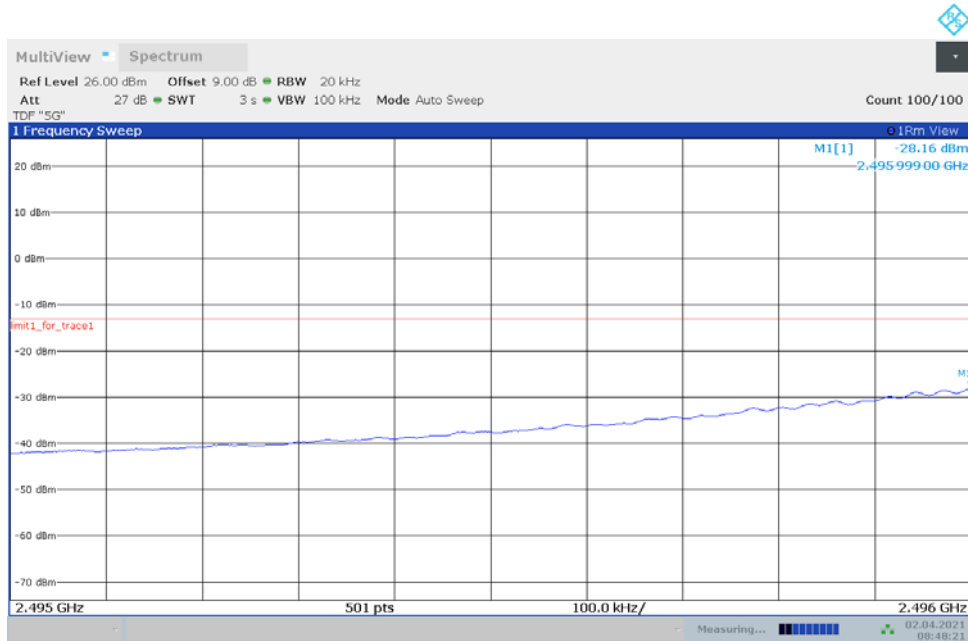
Date: 2 APR. 2021 14:50:55

LTE Band 2+NR n41
OBW: 1RB-low_offset

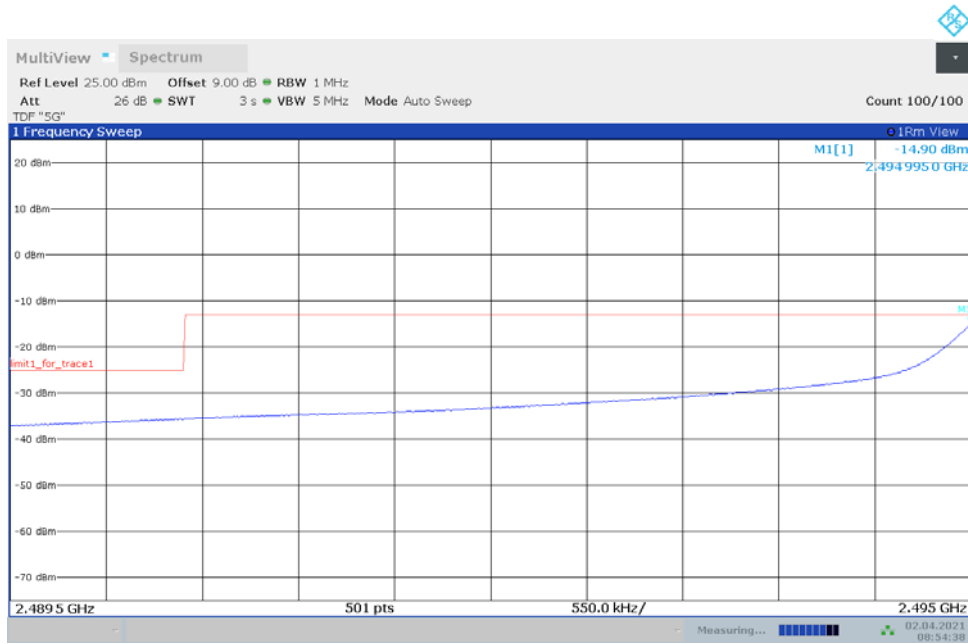


Date: 2 APR. 2021 08:41:12

LOW BAND EDGE BLOCK-1RB-low_offset

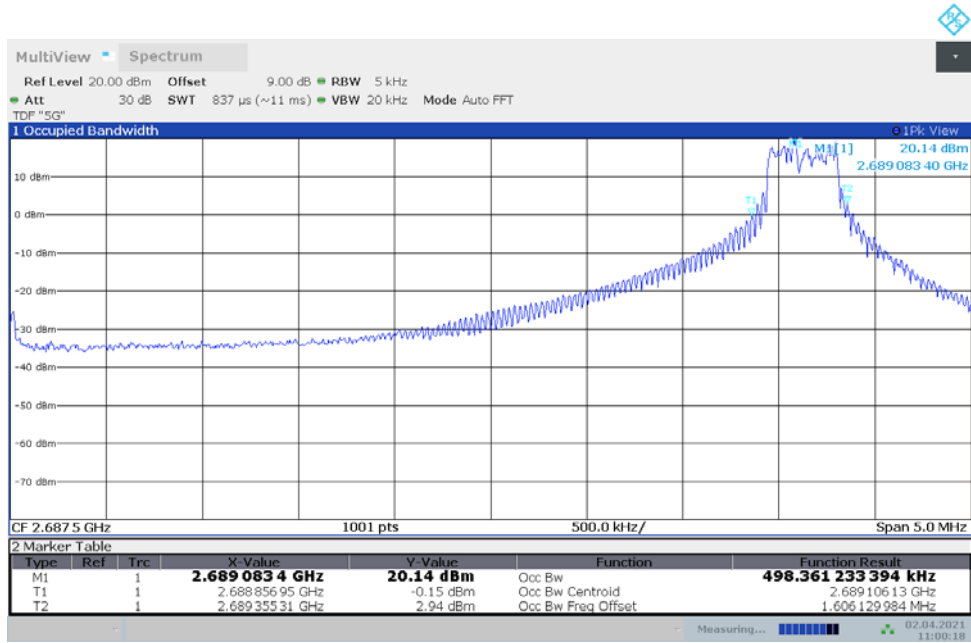


Date: 2 APR. 2021 08:48:21



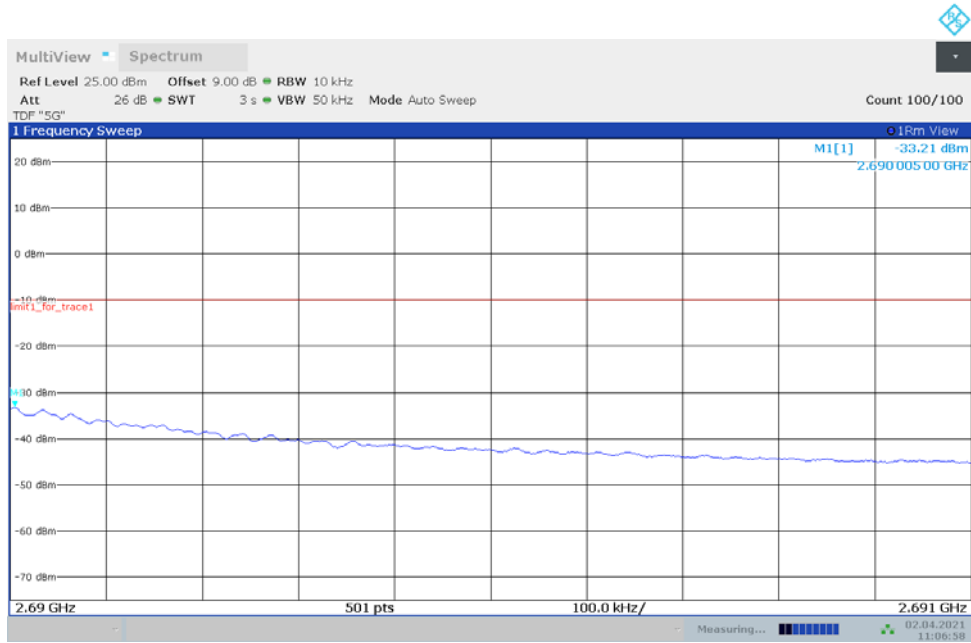
Date: 2 APR. 2021 08:54:39

OBW: 1RB-high_offset

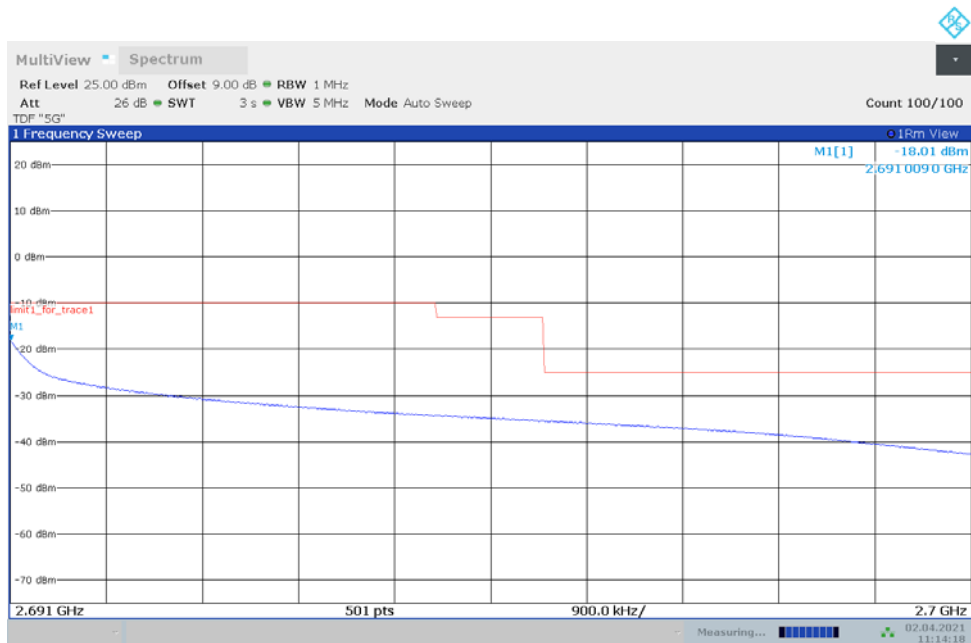


Date: 2 APR 2021 11:00:18

HIGH BAND EDGE BLOCK-1RB-high_offset

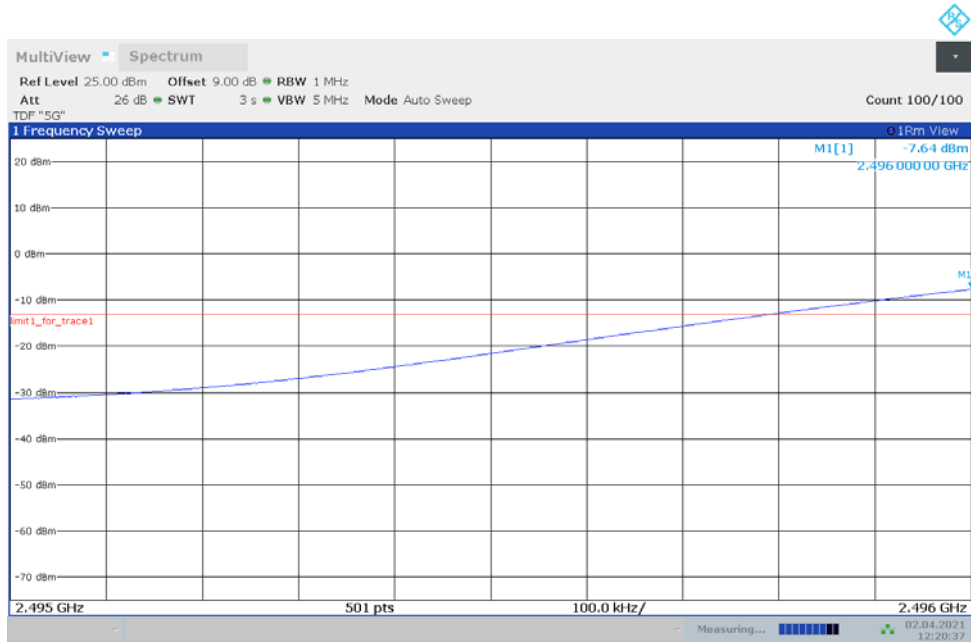


Date: 2 APR 2021 11:06:58

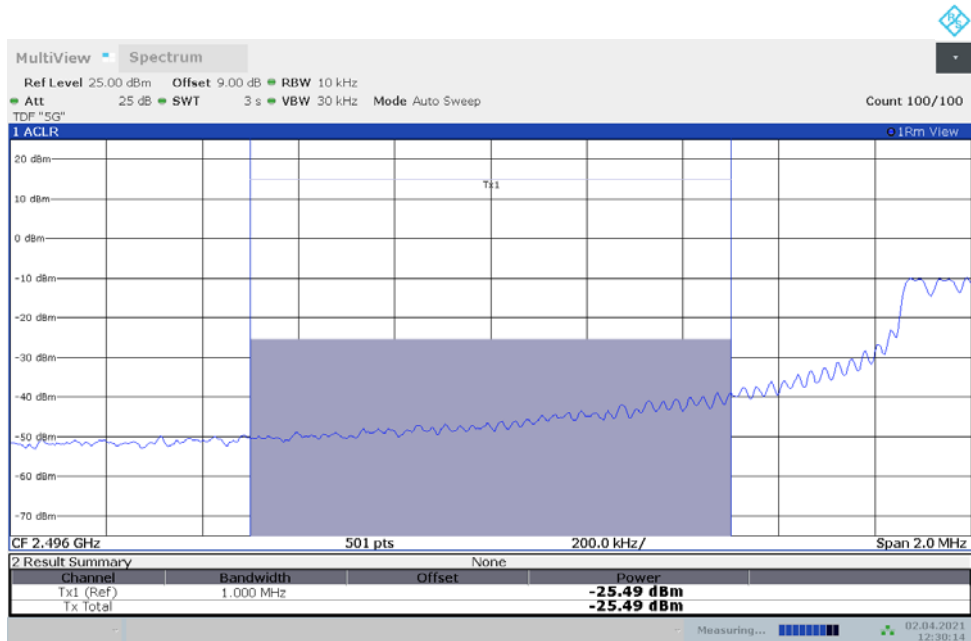


Date: 2 APR 2021 11:14:18

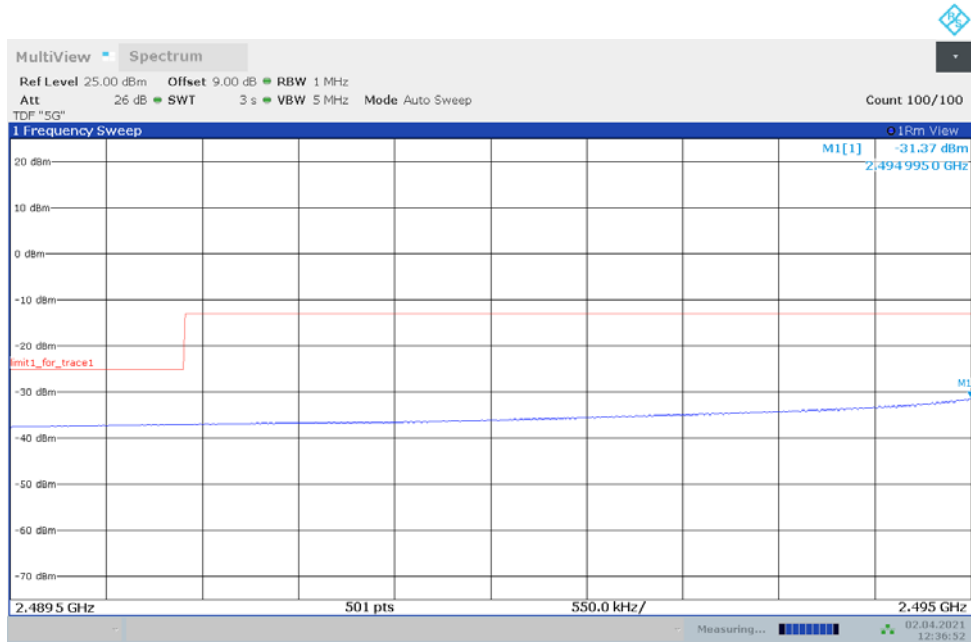
LOW BAND EDGE BLOCK-100MHz-100%RB



Date: 2 APR 2021 12:20:37

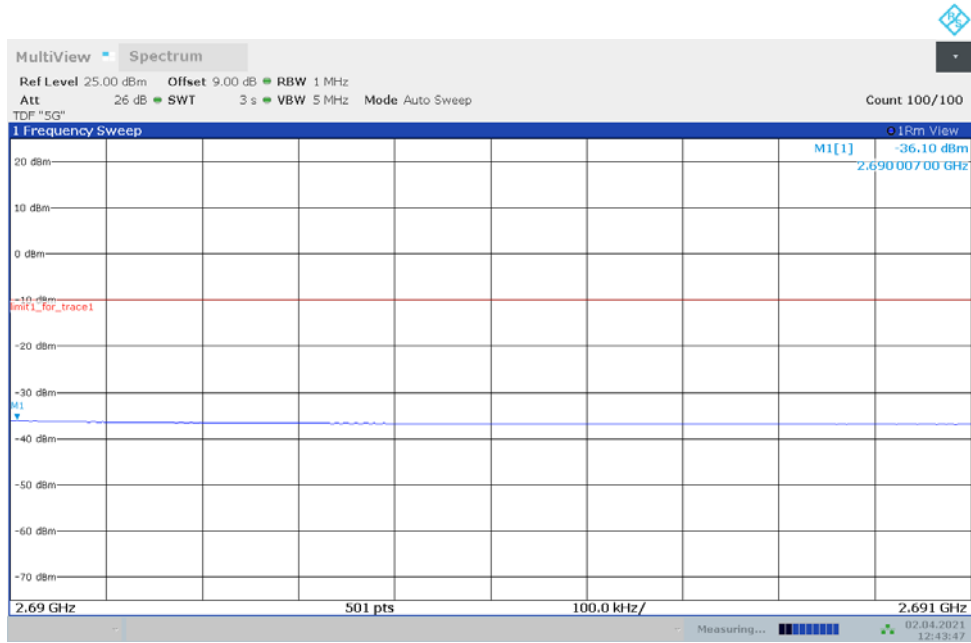


Date: 2 APR 2021 12:30:13

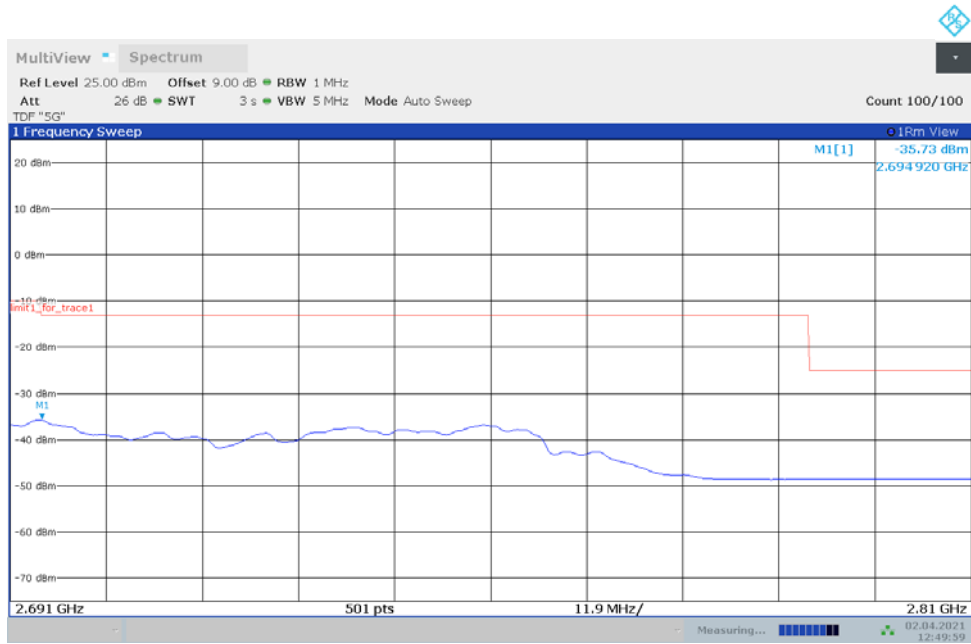


Date: 2 APR 2021 12:36:52

HIGH BAND EDGE BLOCK-100MHz-100%RB

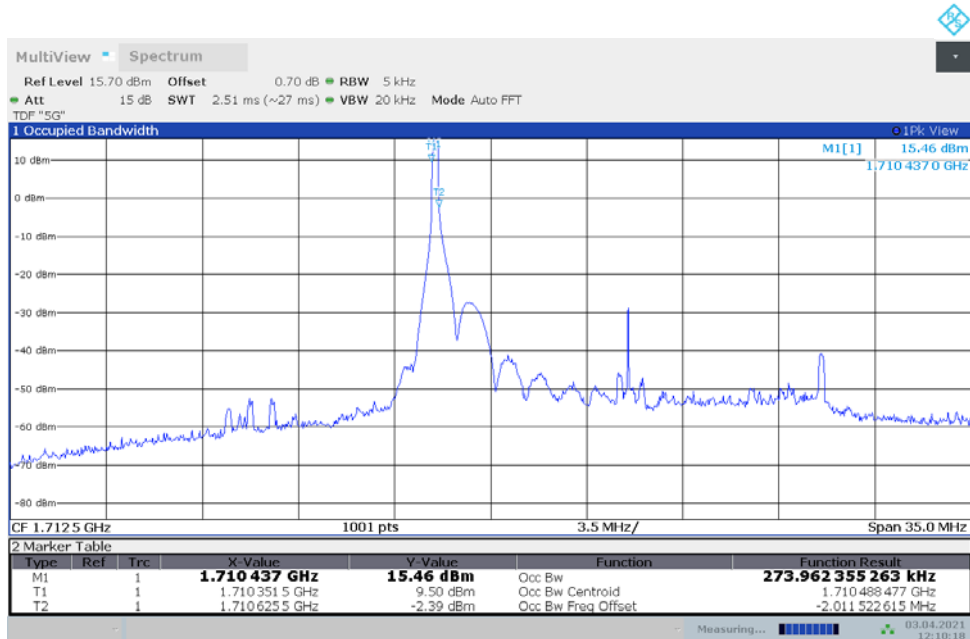


Date: 2 APR 2021 12:43:47

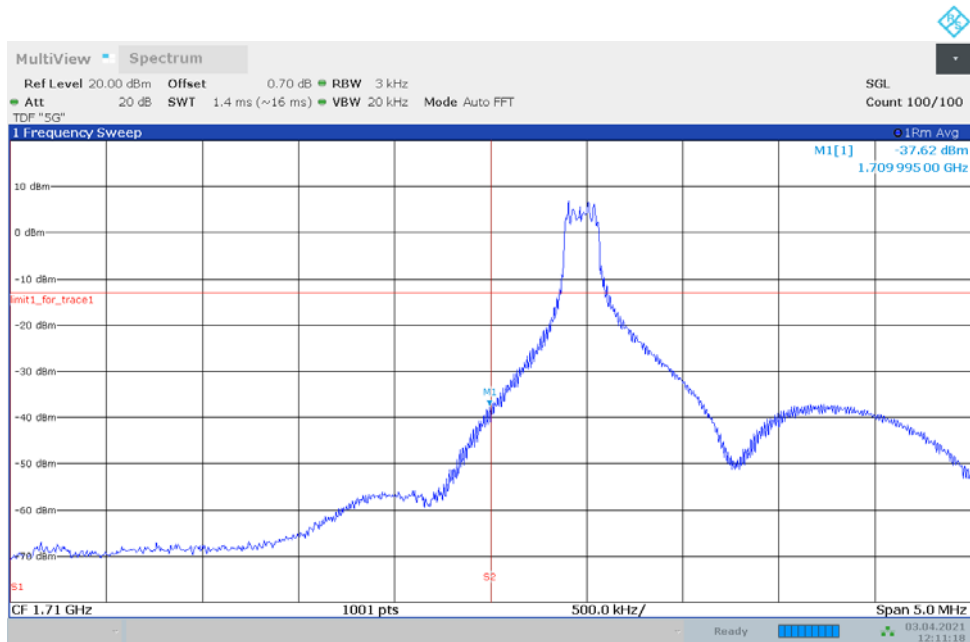


Date: 2 APR 2021 12:49:59

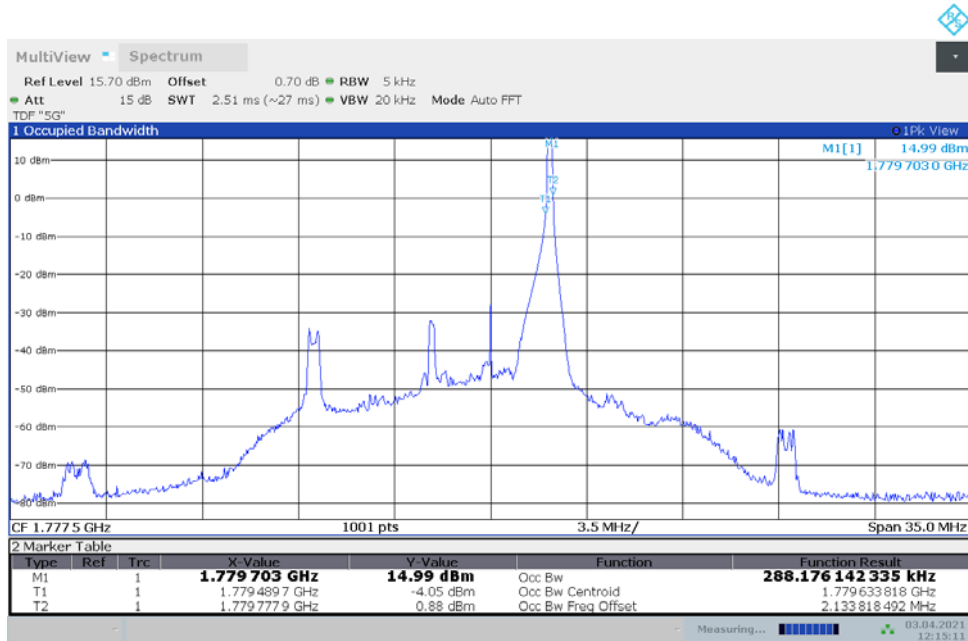
NR n66
 OBW: 1RB-low_offset



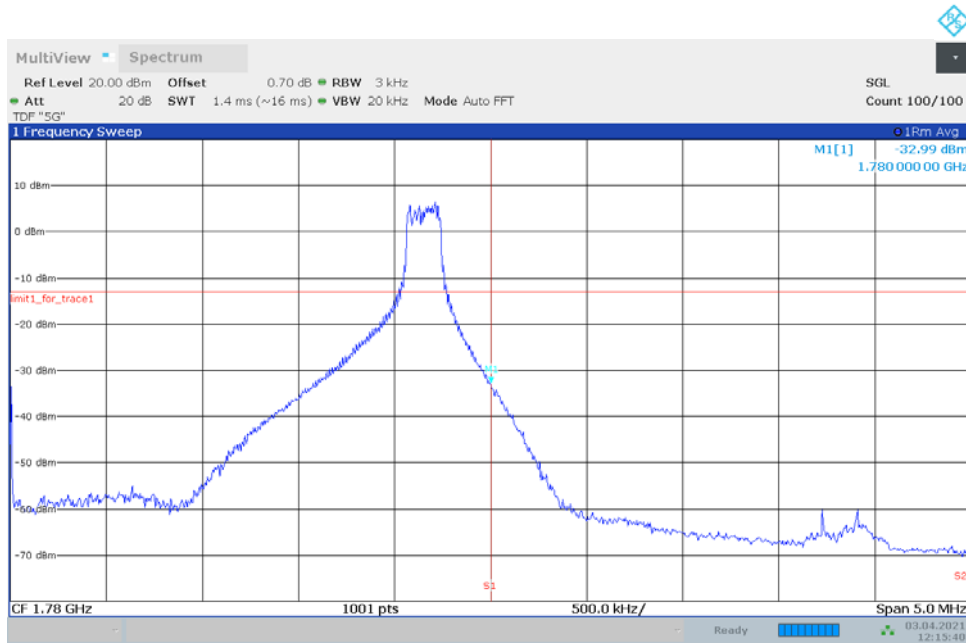
LOW BAND EDGE BLOCK-1RB-low_offset



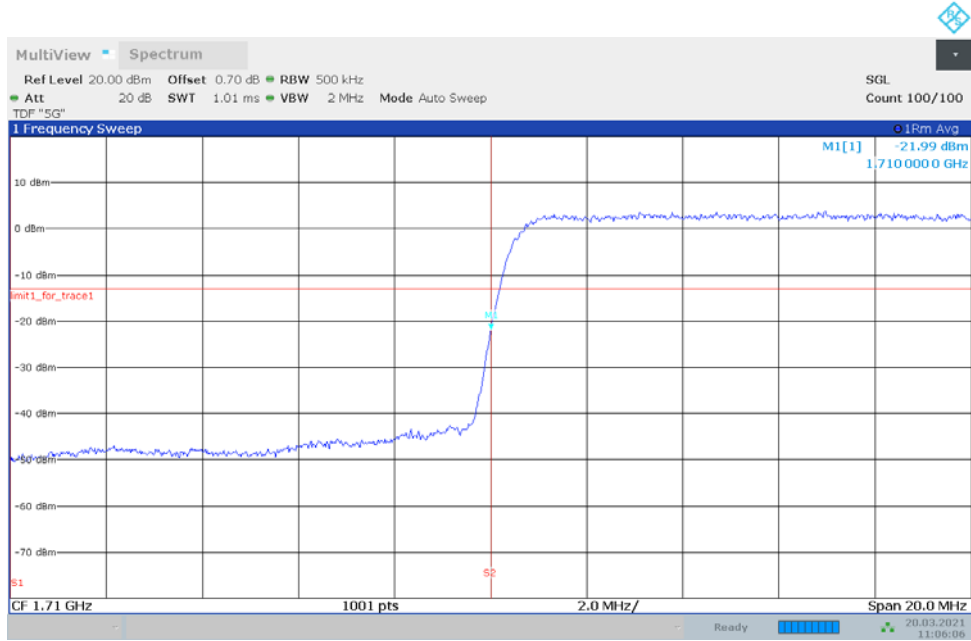
OBW: 1RB-high_offset



HIGH BAND EDGE BLOCK-1RB-high_offset

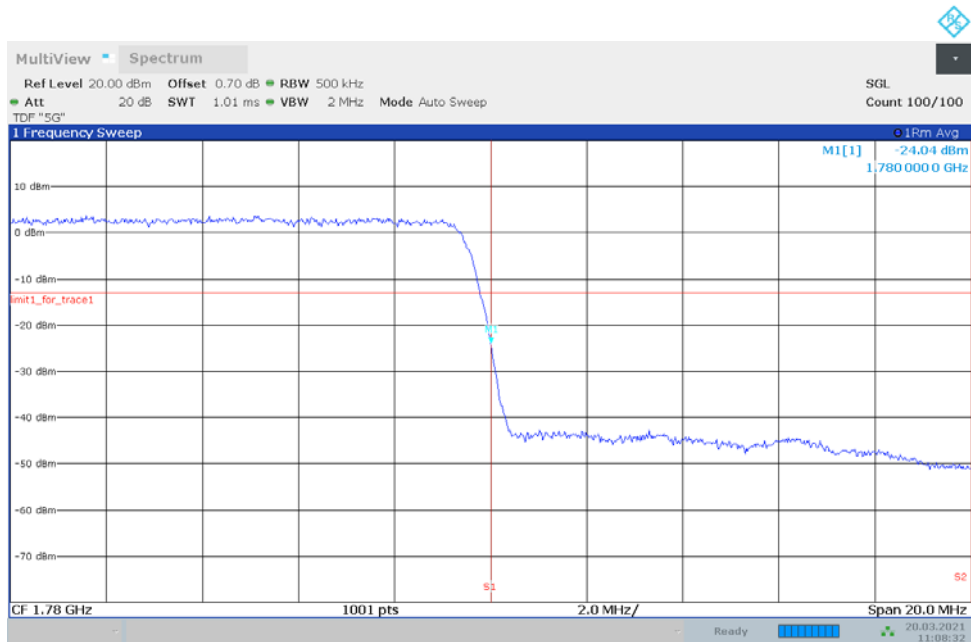


LOW BAND EDGE BLOCK-20MHz-100%RB



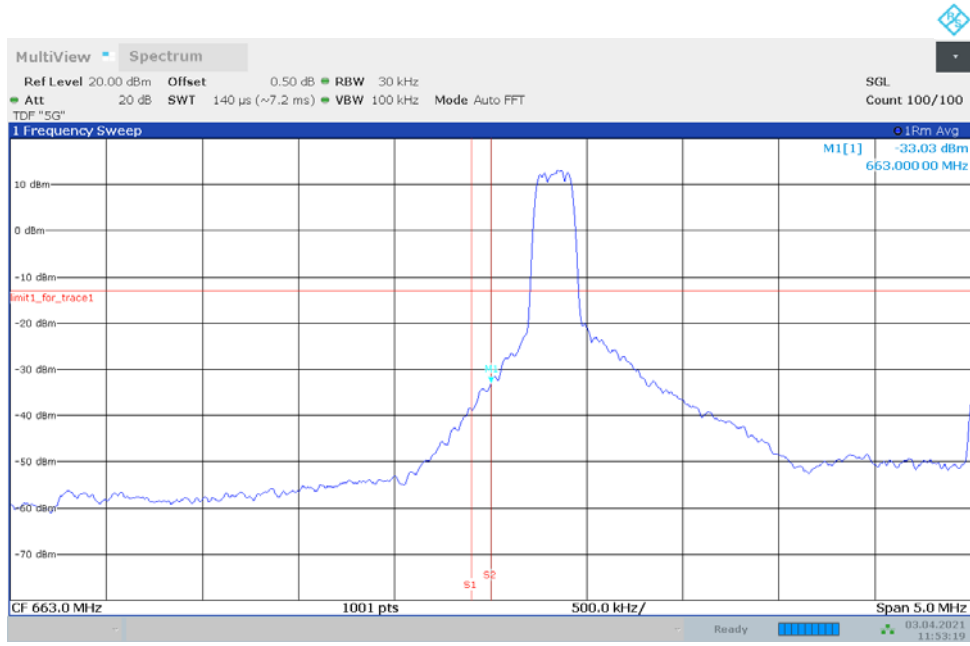
Date:20 MAR 2021 11:06:07

HIGH BAND EDGE BLOCK-20MHz-100%RB

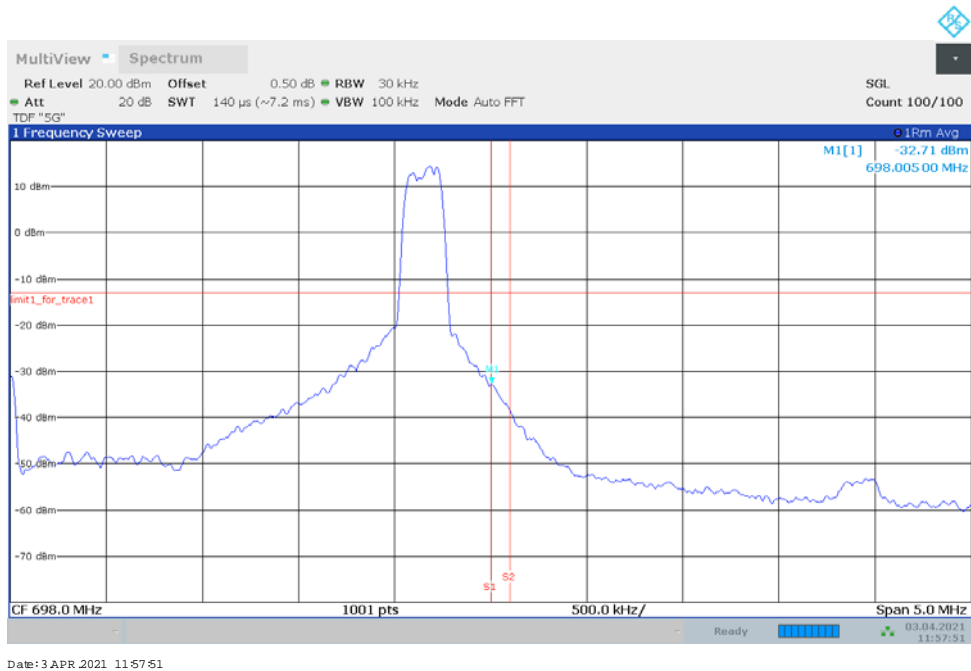


Date:20 MAR 2021 11:08:32

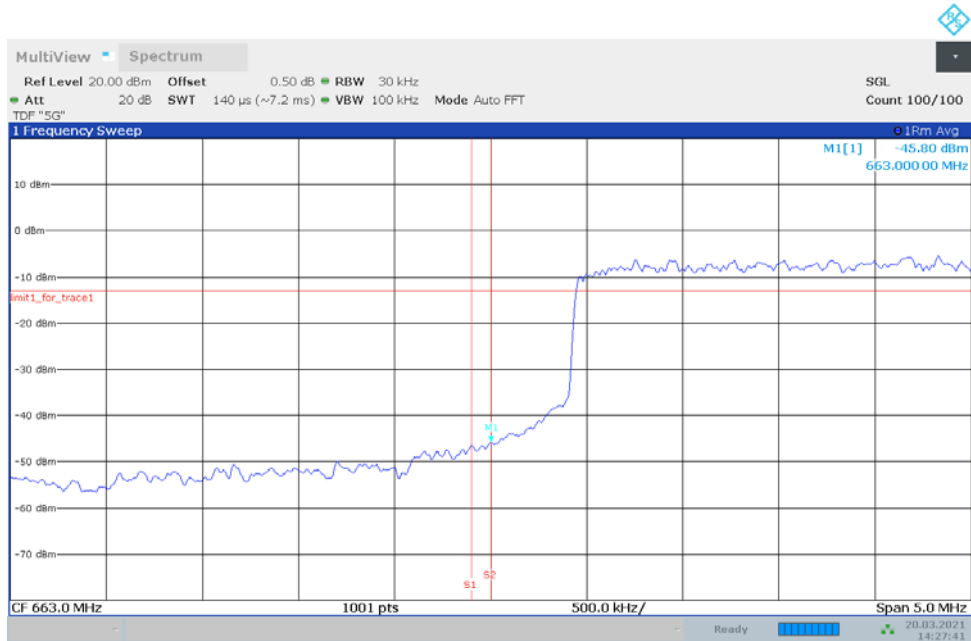
NR n71
 LOW BAND EDGE BLOCK-1RB-low_offset



HIGH BAND EDGE BLOCK-1RB-high_offset

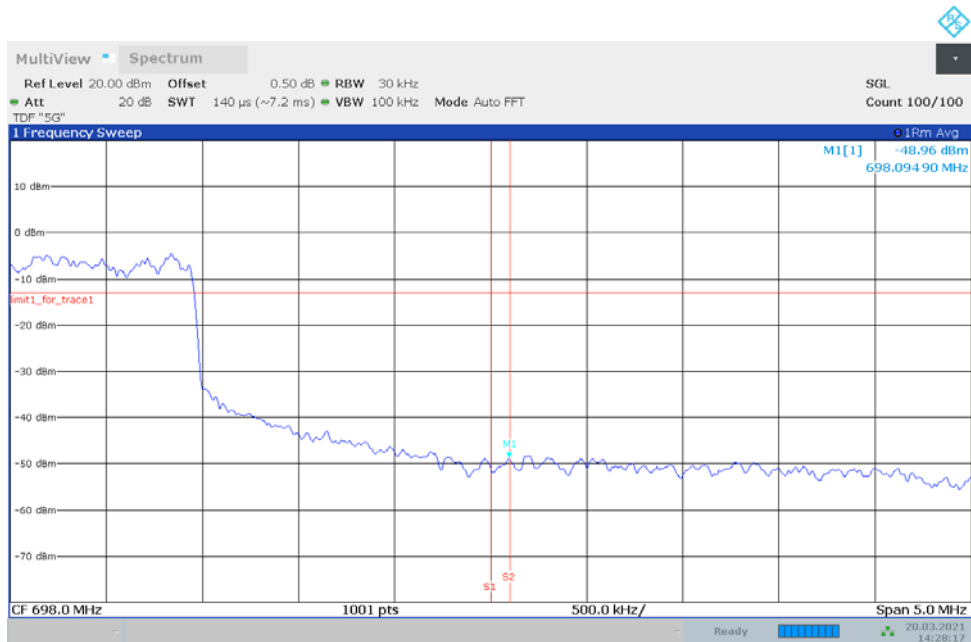


LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 20 MAR 2021 14:27:41

HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 20 MAR 2021 14:28:17

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 22.917, 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.

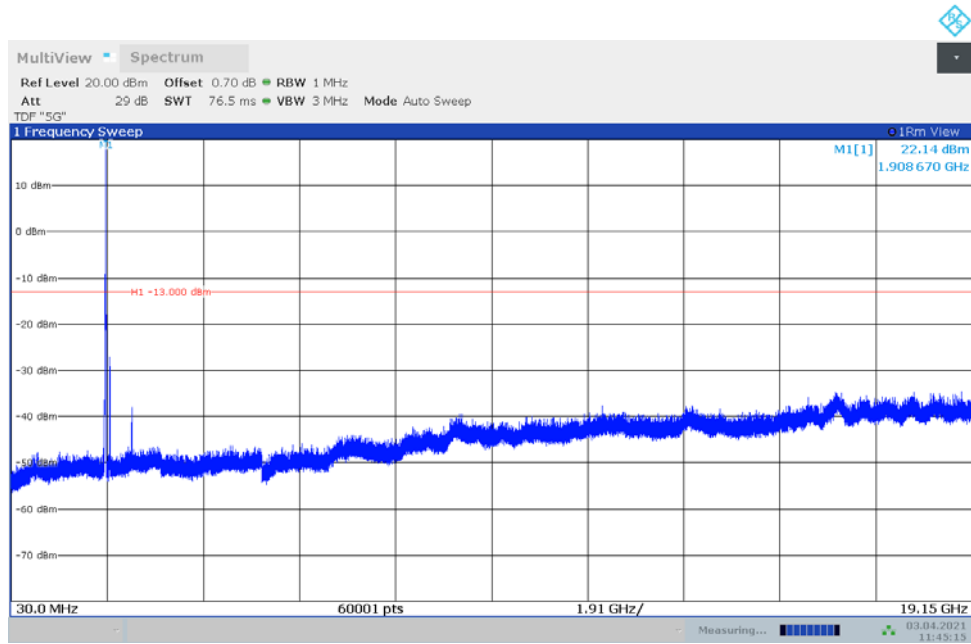
Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge,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

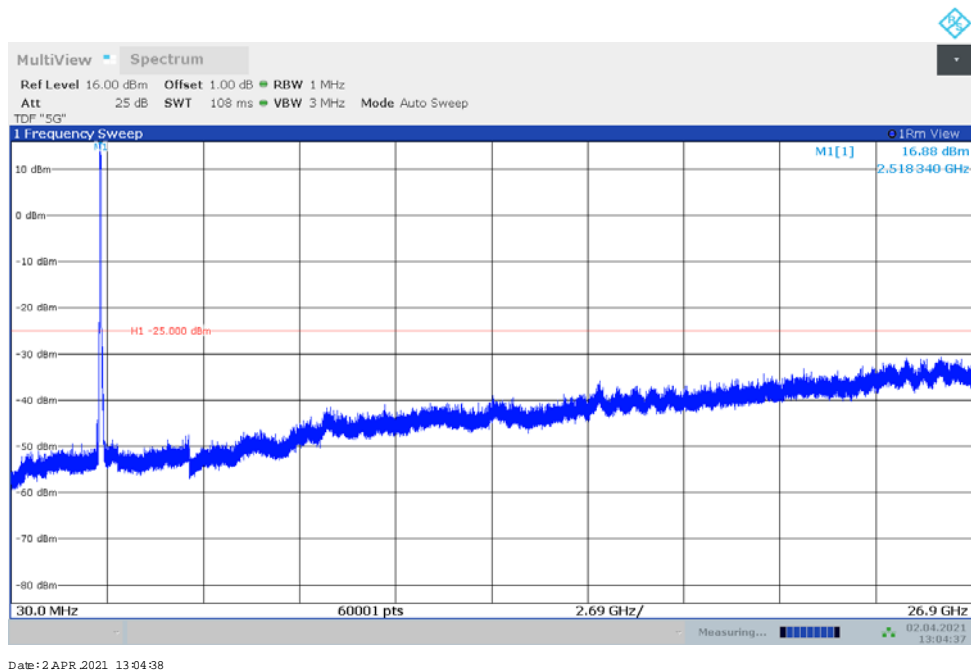
LTE Band 12+NR n25

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



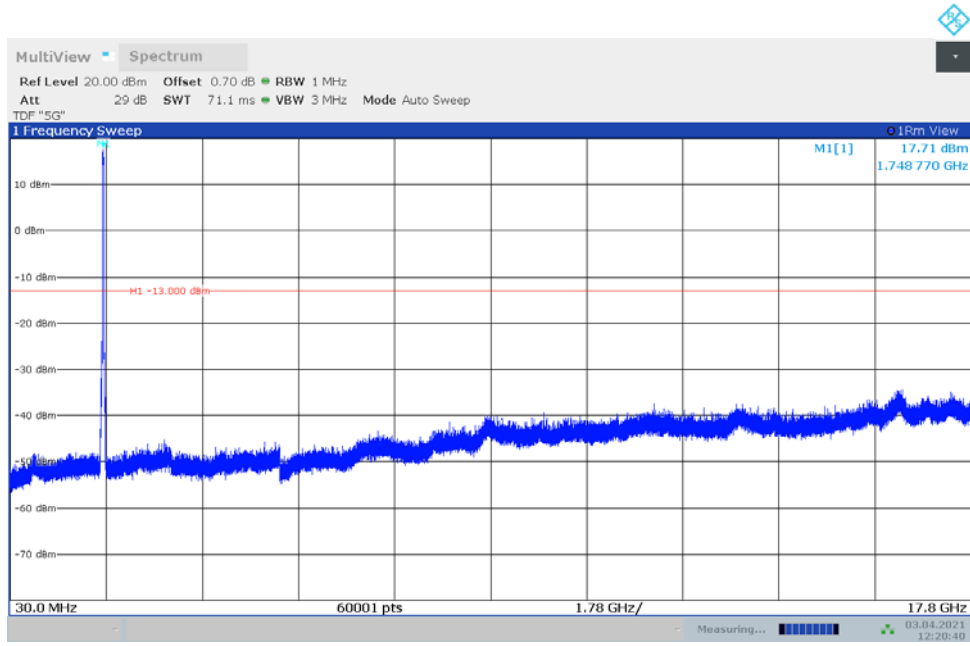
LTE Band 2+NR n41

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



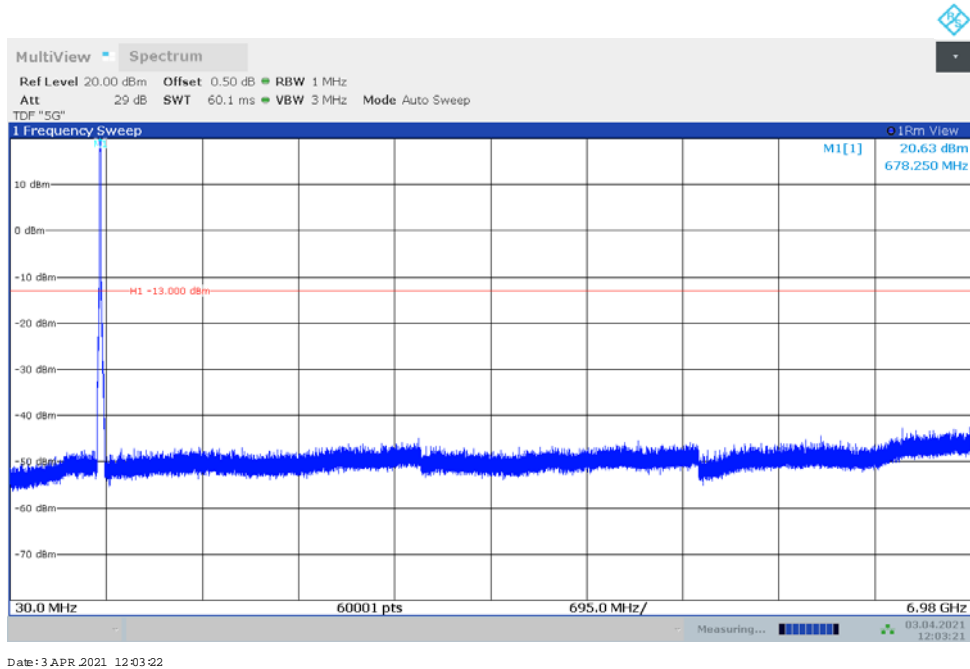
NR n66

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



NR 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

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

Measurement results

LTE Band 12+NR 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
1880.0	7.32	8.54	8.42	8.78	9.02	9.12	9.36	9.50	9.12

LTE Band 2+NR 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	9.56	9.61	10.25	9.93	10.74	10.43	10.69	10.71	10.56

NR 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
1745.0	7.80	7.88	7.92	7.72	8.30	8.12	8.24	8.50	8.54

NR 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	6.44	7.44	8.14	7.20	7.98	8.44	8.60	8.30	7.98

Annex B: Accreditation Certificate

**United States Department of Commerce
National Institute of Standards and Technology**

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Electromagnetic Compatibility & Telecommunications

*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 Communique dated January 2009).*

2020-09-29 through 2021-09-30
Effective Dates




For the National Voluntary Laboratory Accreditation Program

END OF REPORT