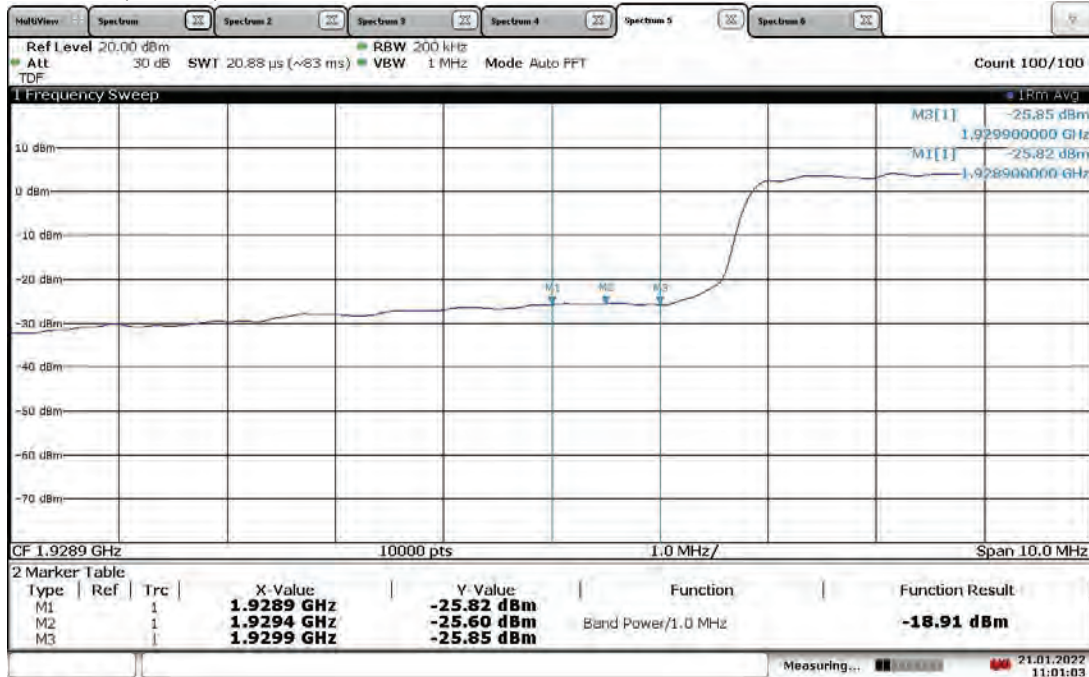
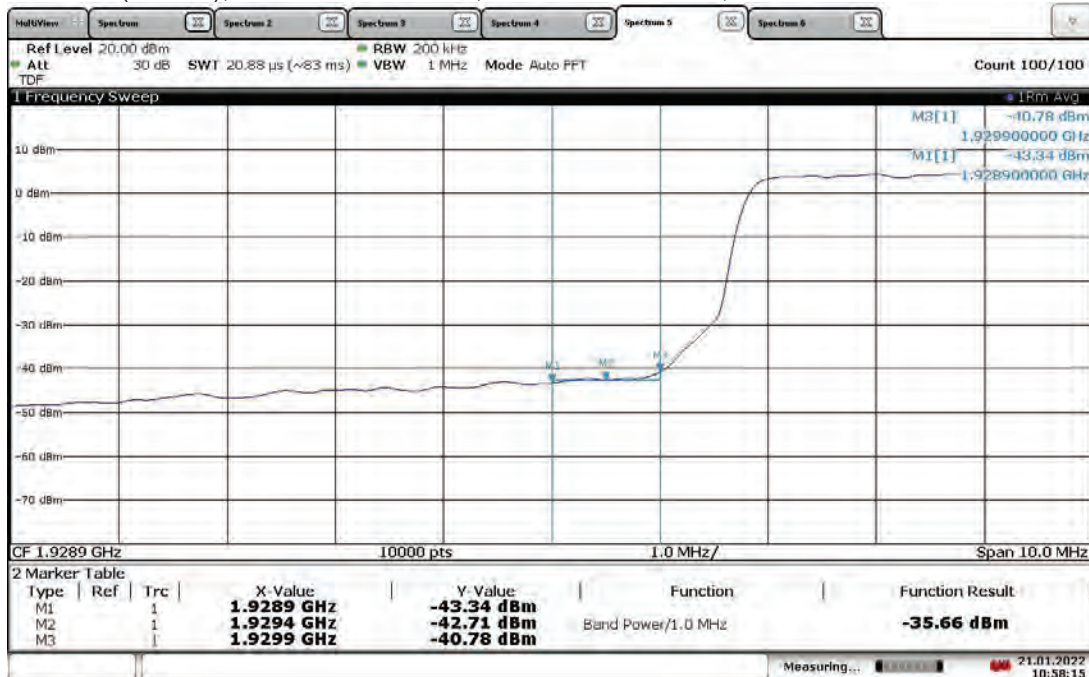


Band Edge Compliant, Lower Band Edge, 1937.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM



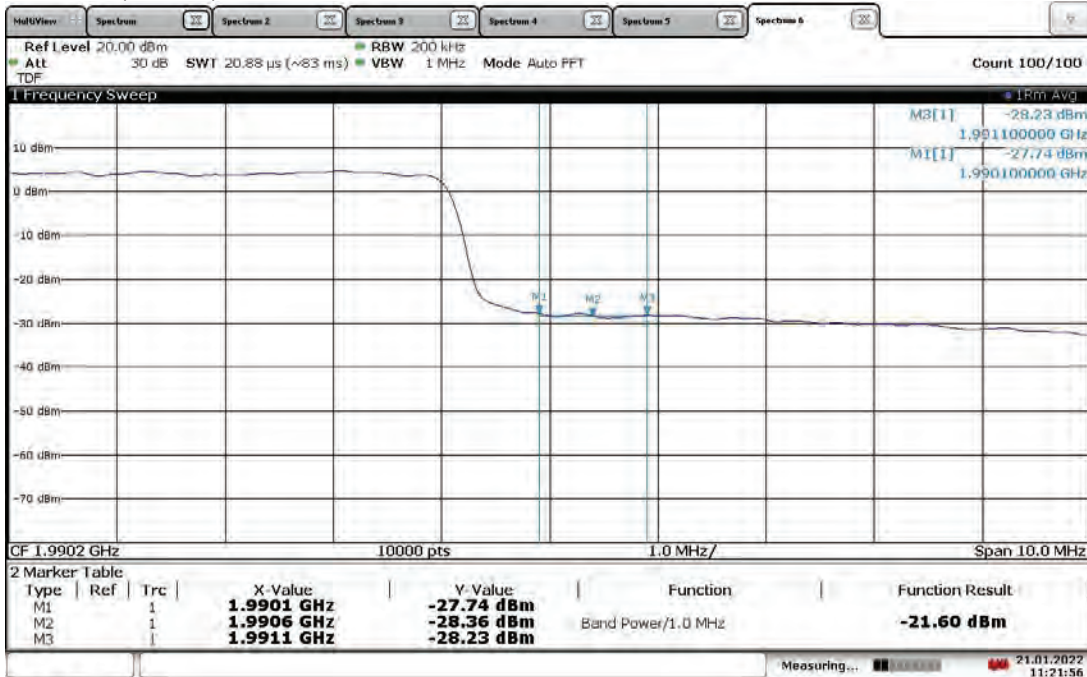
11:01:03 21.01.2022

Band Edge Compliant, Lower Band Edge, 1937.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM



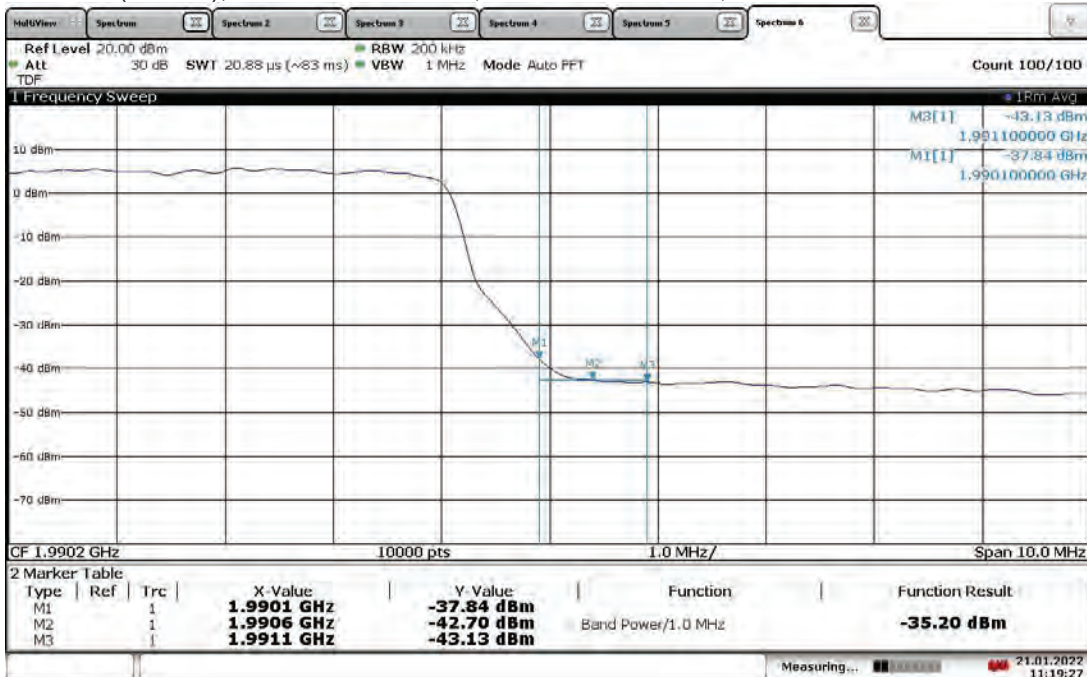
10:58:15 21.01.2022

Band Edge Compliant, Upper Band Edge, 1982.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM



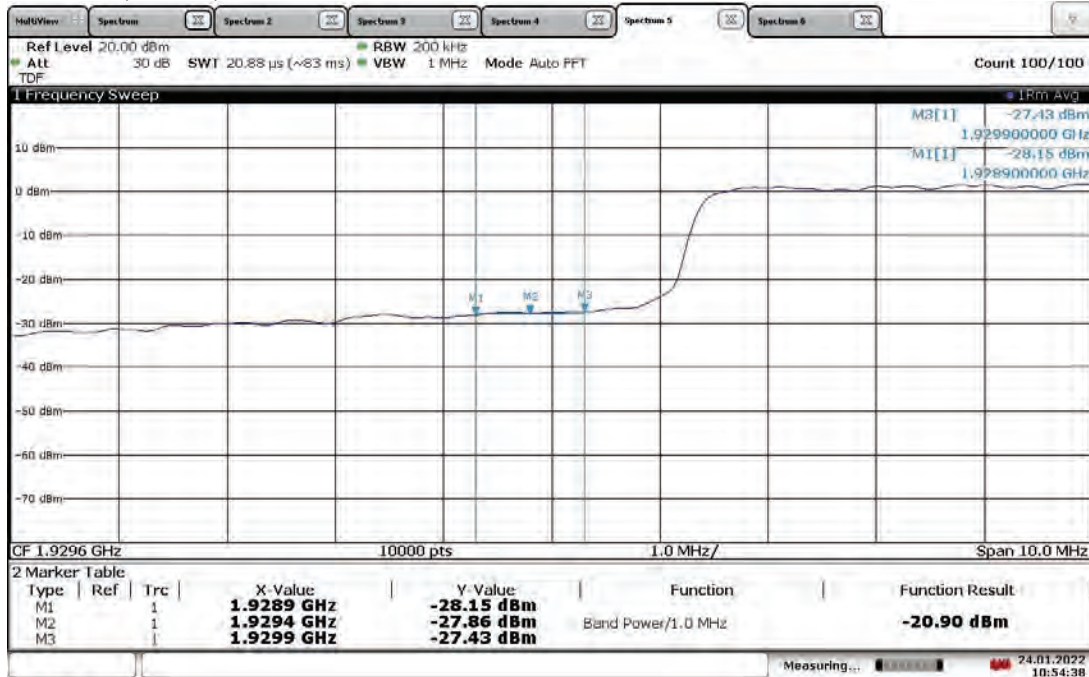
11:21:56 21.01.2022

Band Edge Compliant, Upper Band Edge, 1982.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM



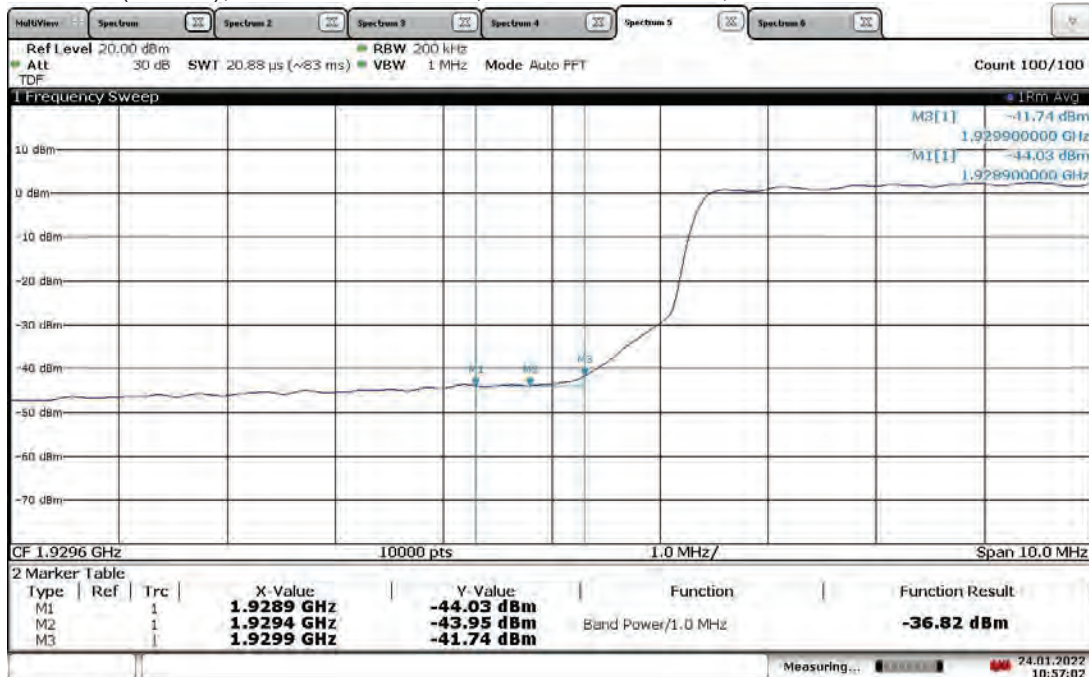
11:19:27 21.01.2022

Band Edge Compliant, Lower Band Edge, 1940 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



10:54:38 24.01.2022

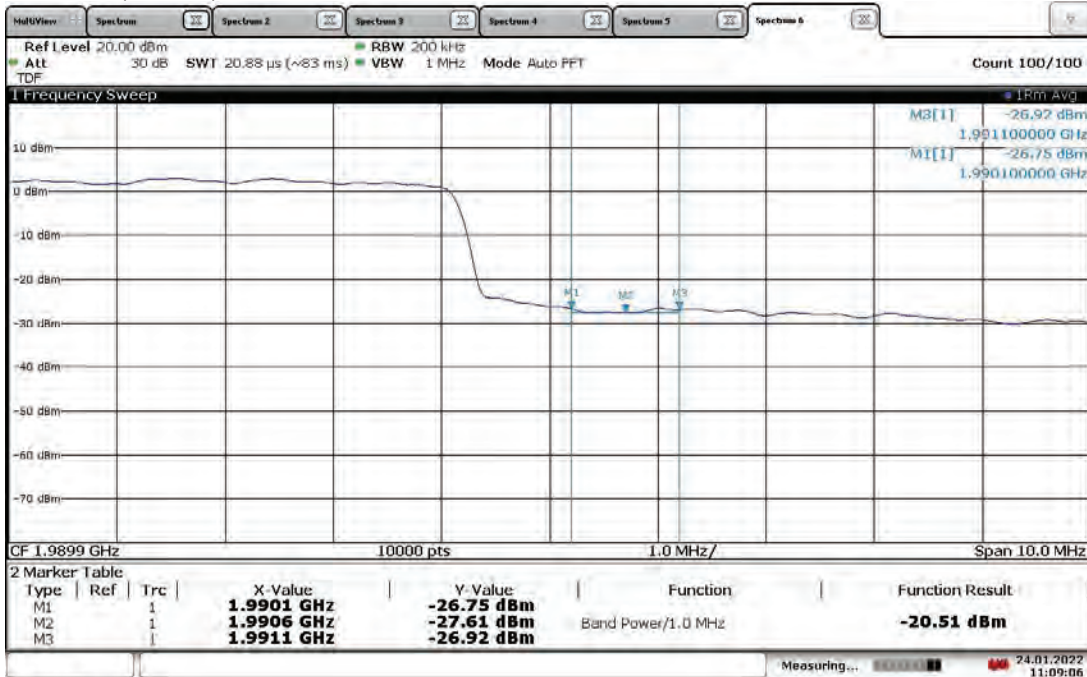
Band Edge Compliant, Lower Band Edge, 1940 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



10:57:02 24.01.2022

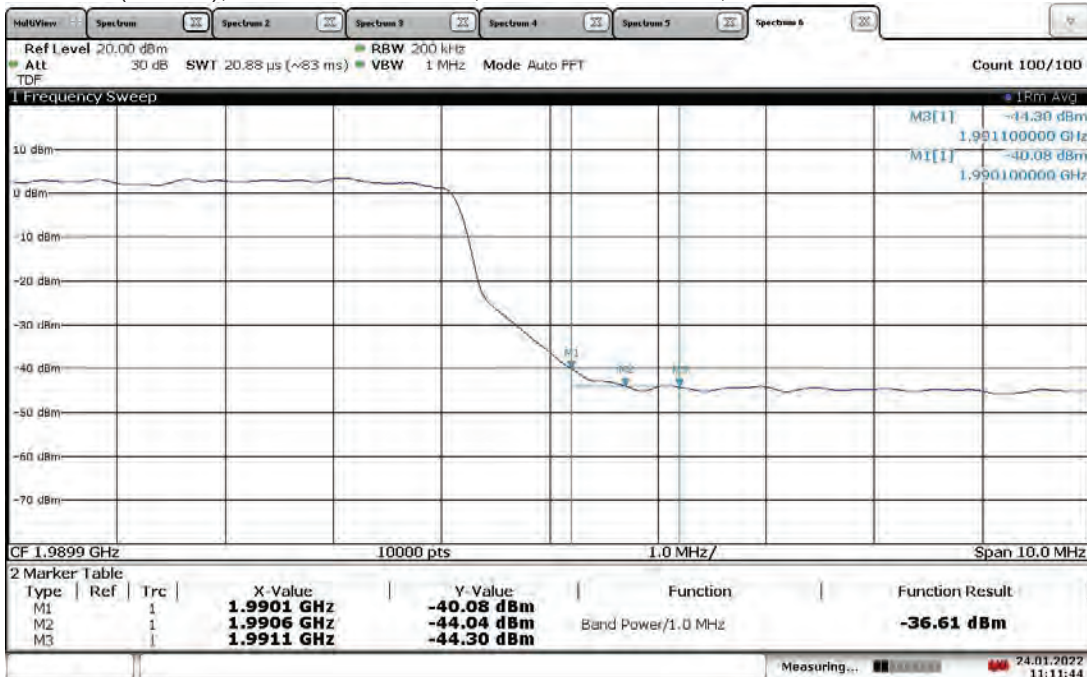


Band Edge Compliant, Upper Band Edge, 1980 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



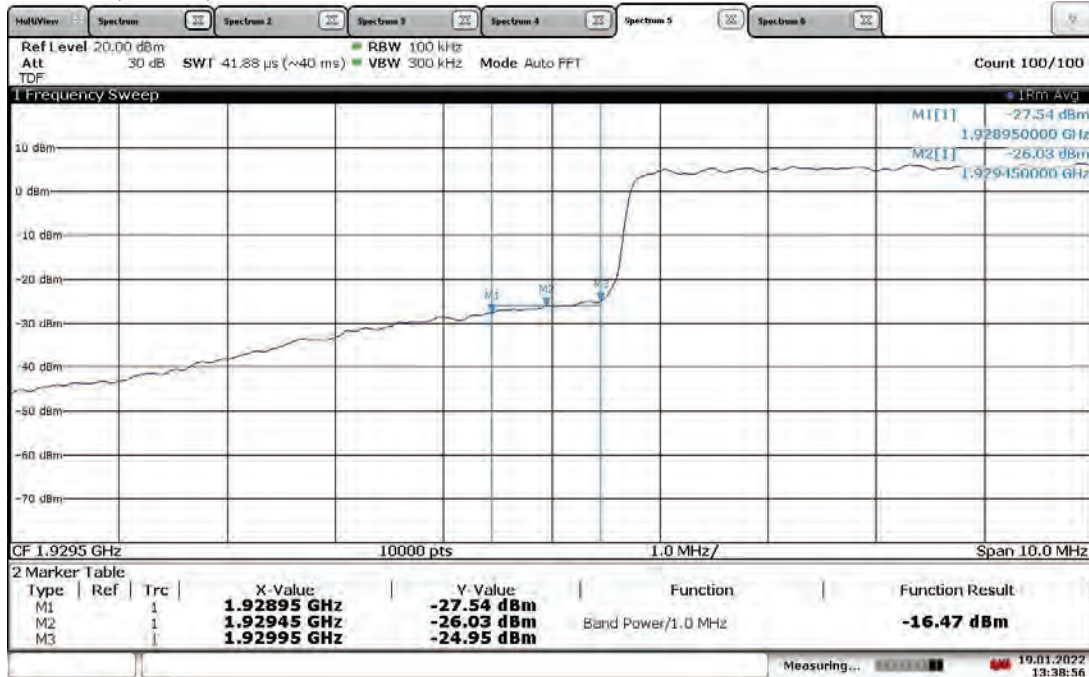
11:09:06 24.01.2022

Band Edge Compliant, Upper Band Edge, 1980 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



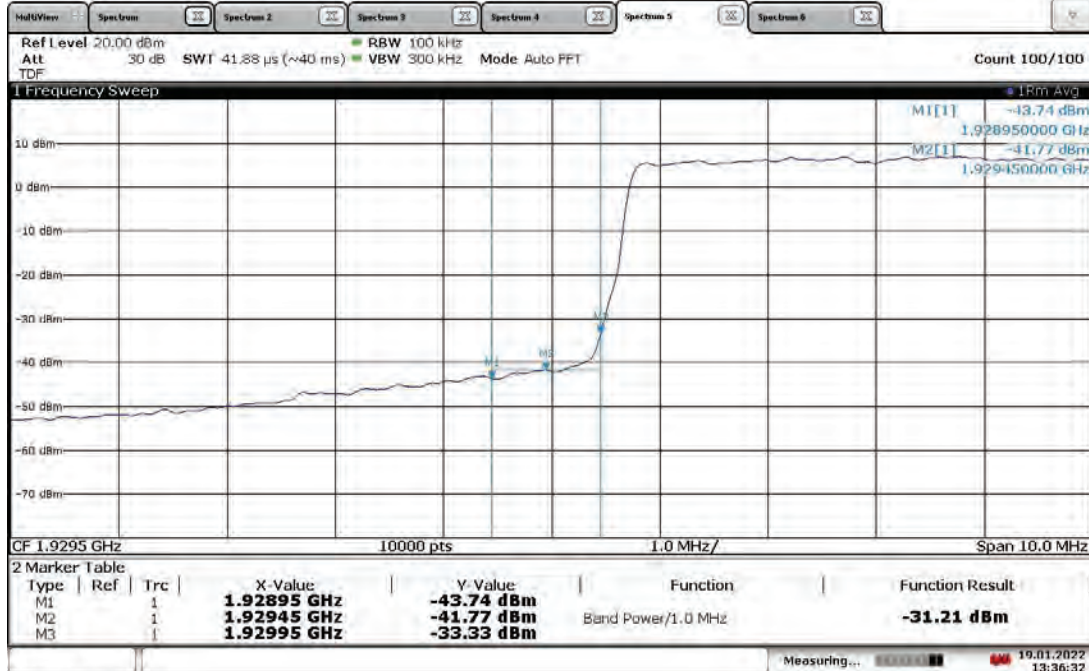
11:11:45 24.01.2022

Band Edge Compliant, Lower Band Edge, 1932.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM



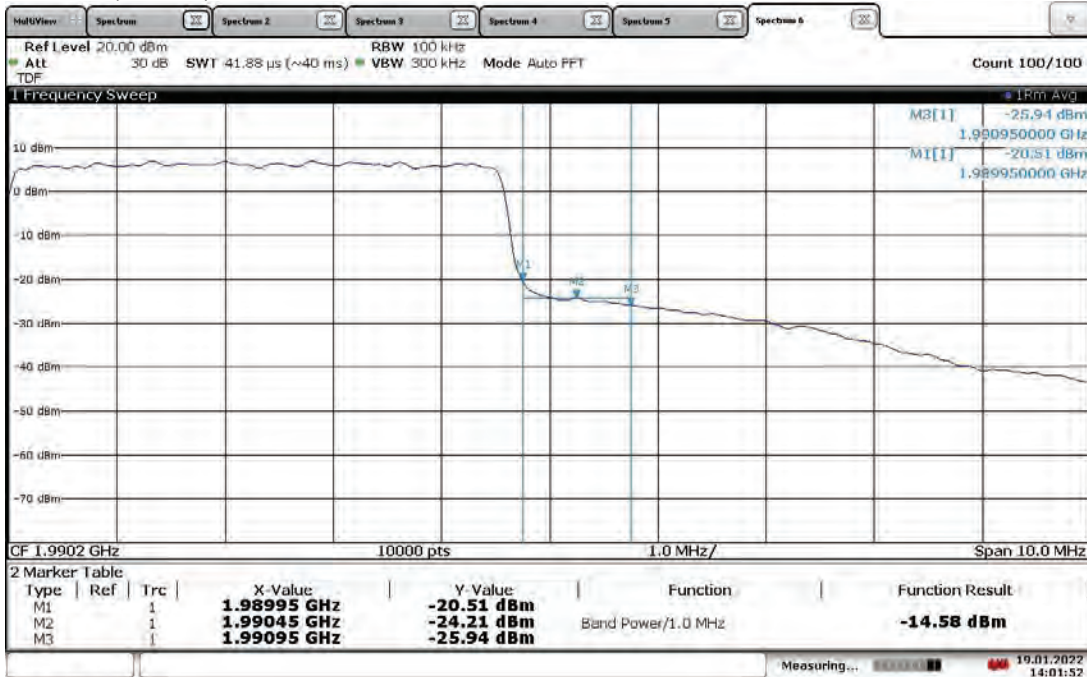
13:38:56 19.01.2022

Band Edge Compliant, Lower Band Edge, 1932.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM



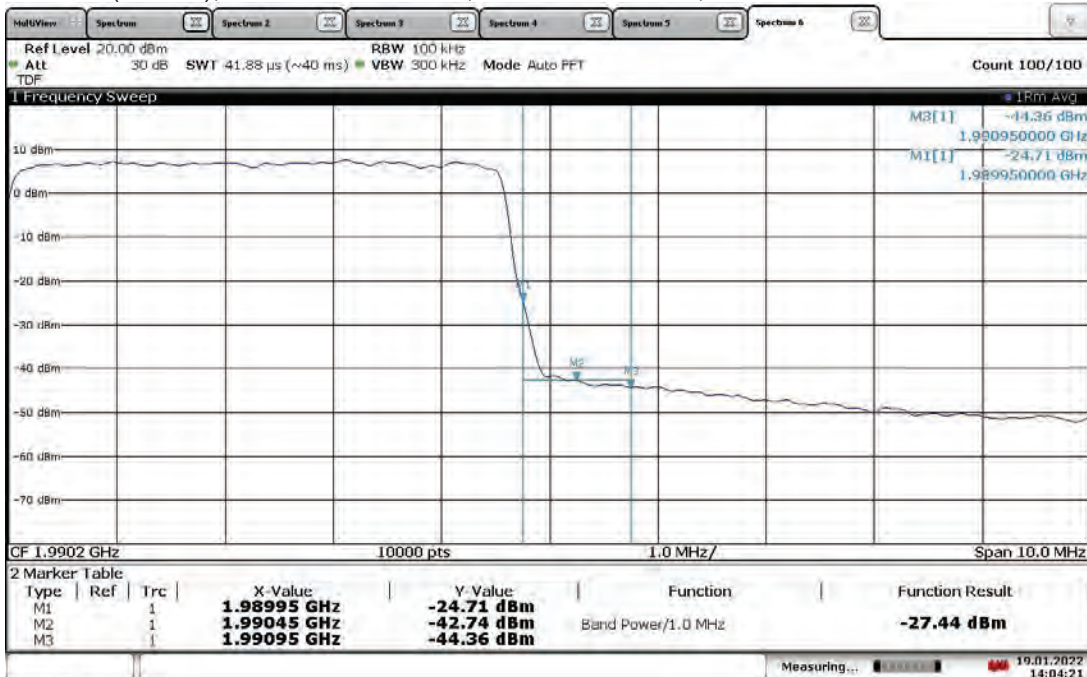
13:36:32 19.01.2022

Band Edge Compliant, Upper Band Edge, 1987.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM



14:01:52 19.01.2022

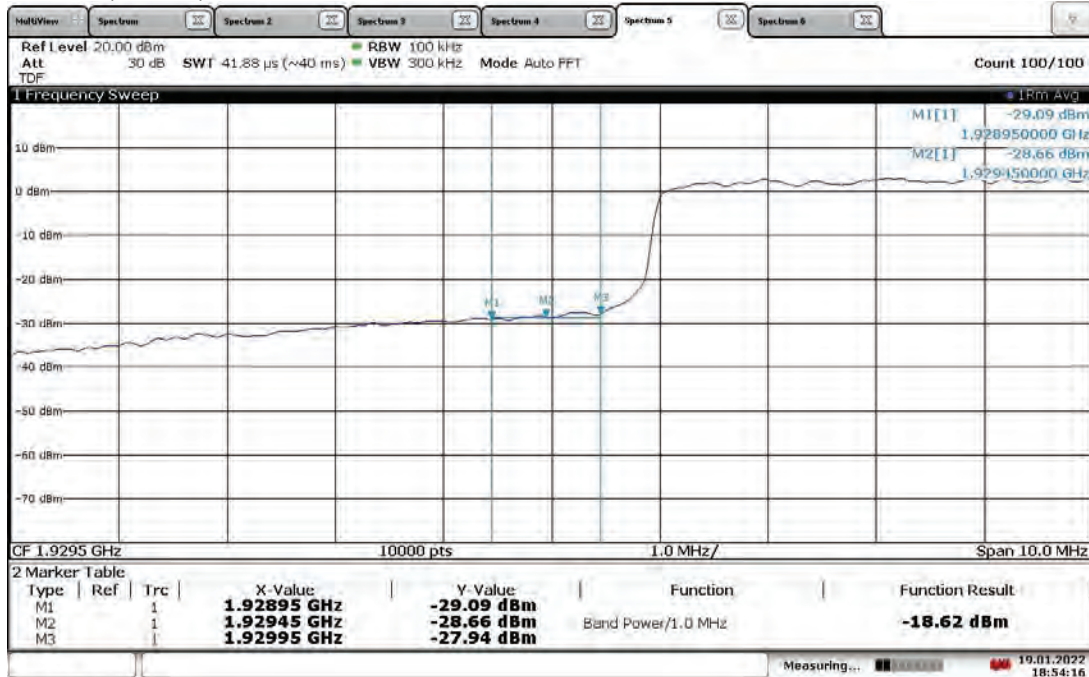
Band Edge Compliant, Upper Band Edge, 1987.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM



14:04:21 19.01.2022

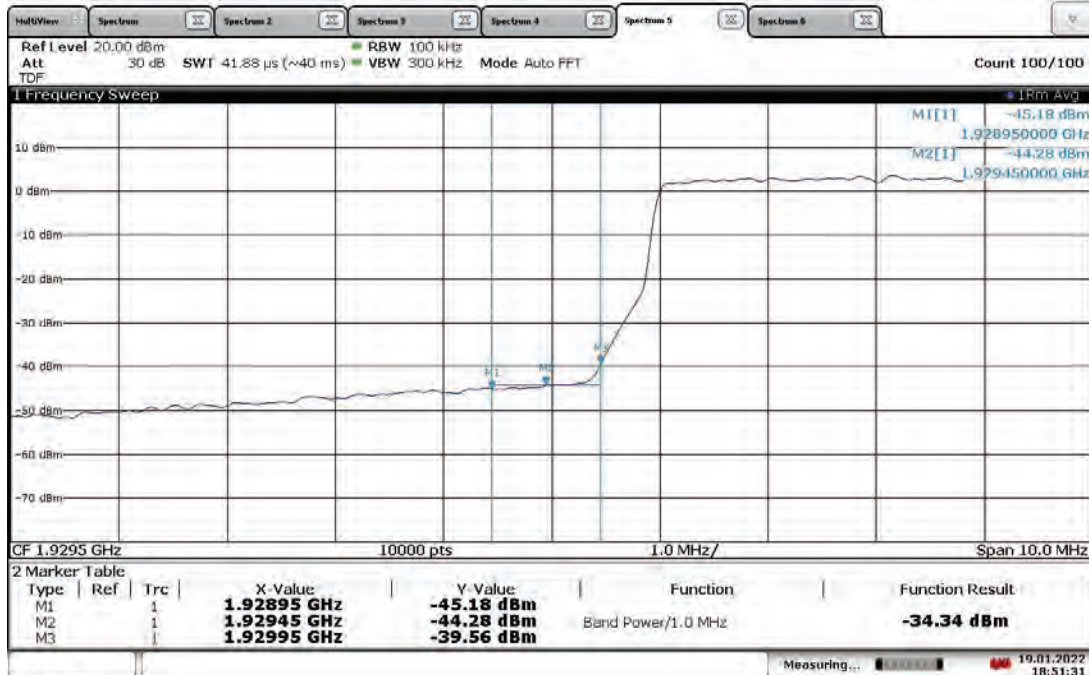


Band Edge Compliant, Lower Band Edge, 1935 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM



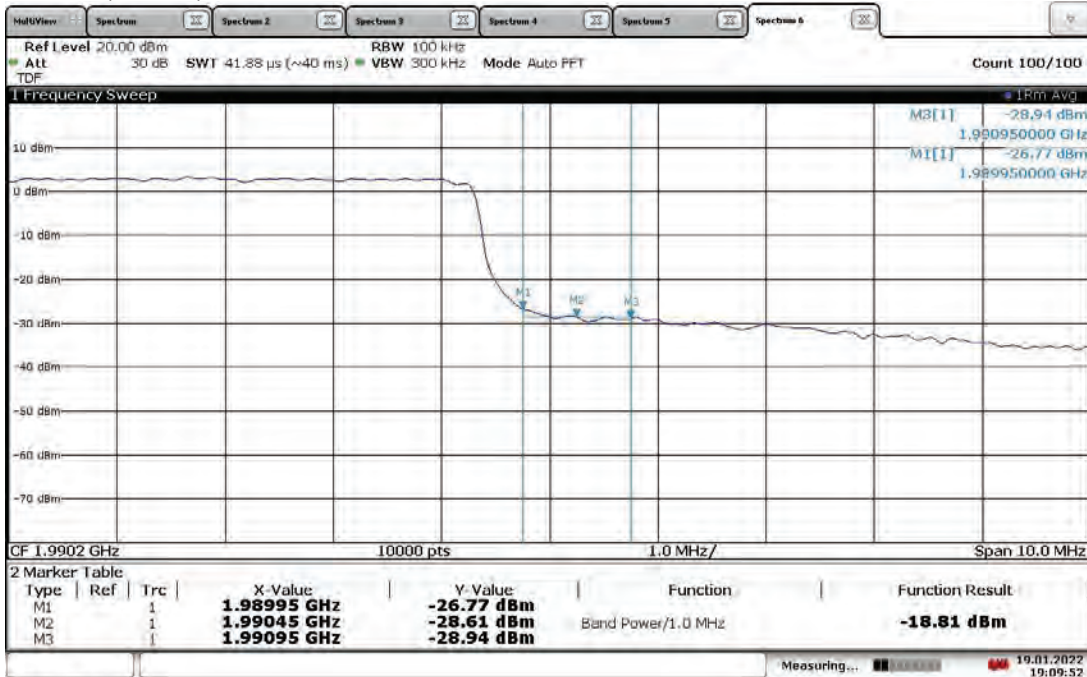
18:54:16 19.01.2022

Band Edge Compliant, Lower Band Edge, 1935 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM



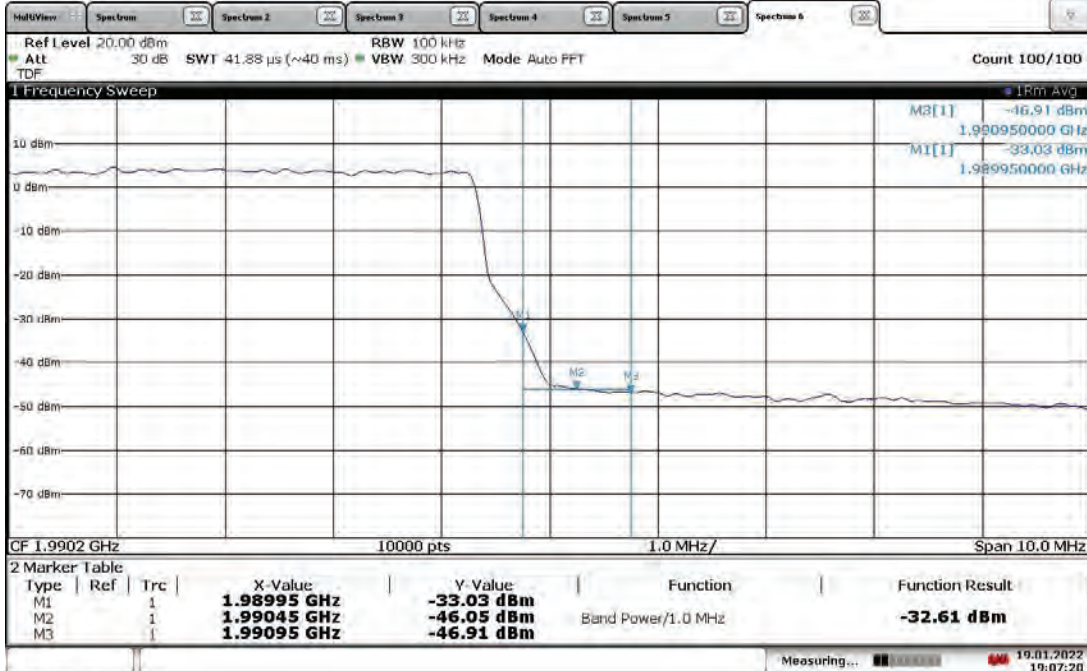
18:51:31 19.01.2022

Band Edge Compliant, Upper Band Edge, 1985 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM



19:09:52 19.01.2022

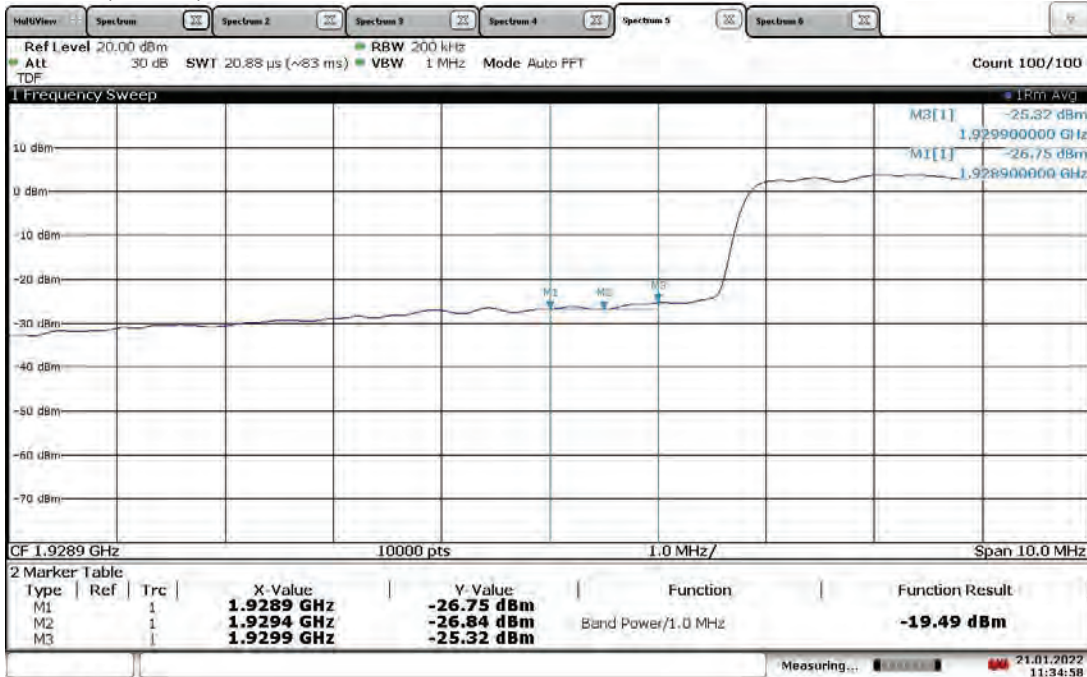
Band Edge Compliant, Upper Band Edge, 1985 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM



19:07:21 19.01.2022

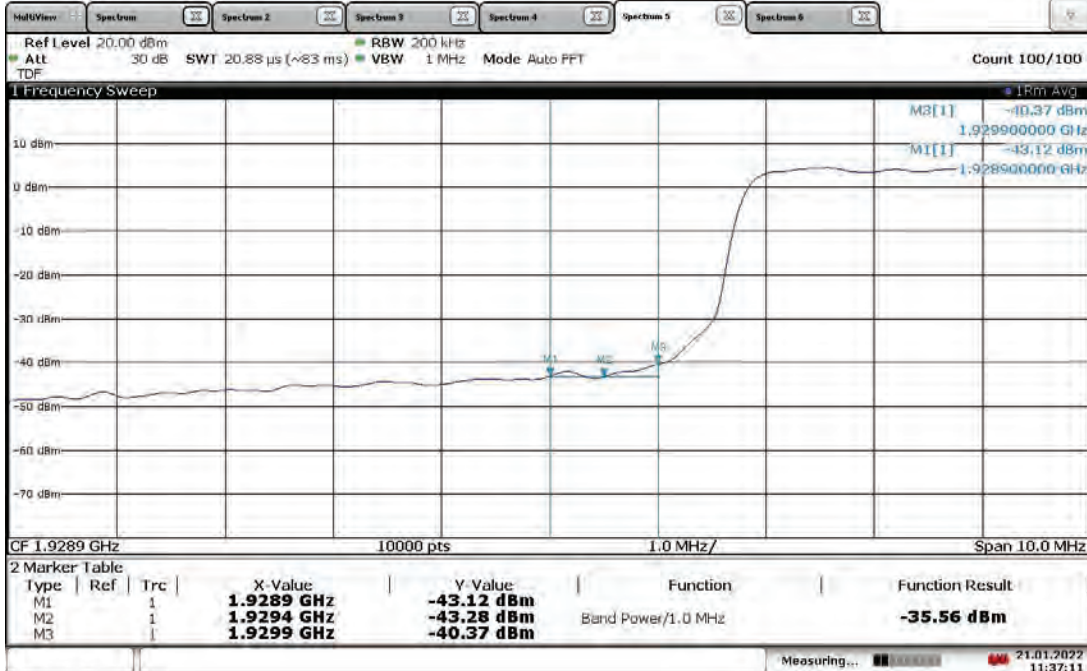


Band Edge Compliant, Lower Band Edge, 1937.5MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM



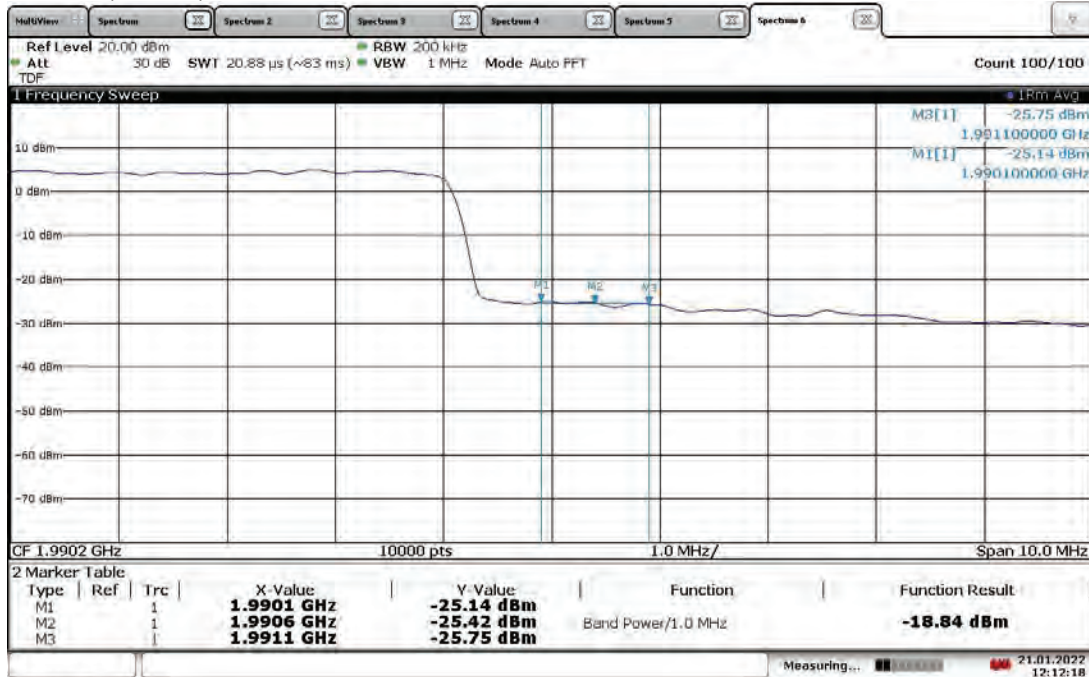
11:34:58 21.01.2022

Band Edge Compliant, Lower Band Edge, 1937.5MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM



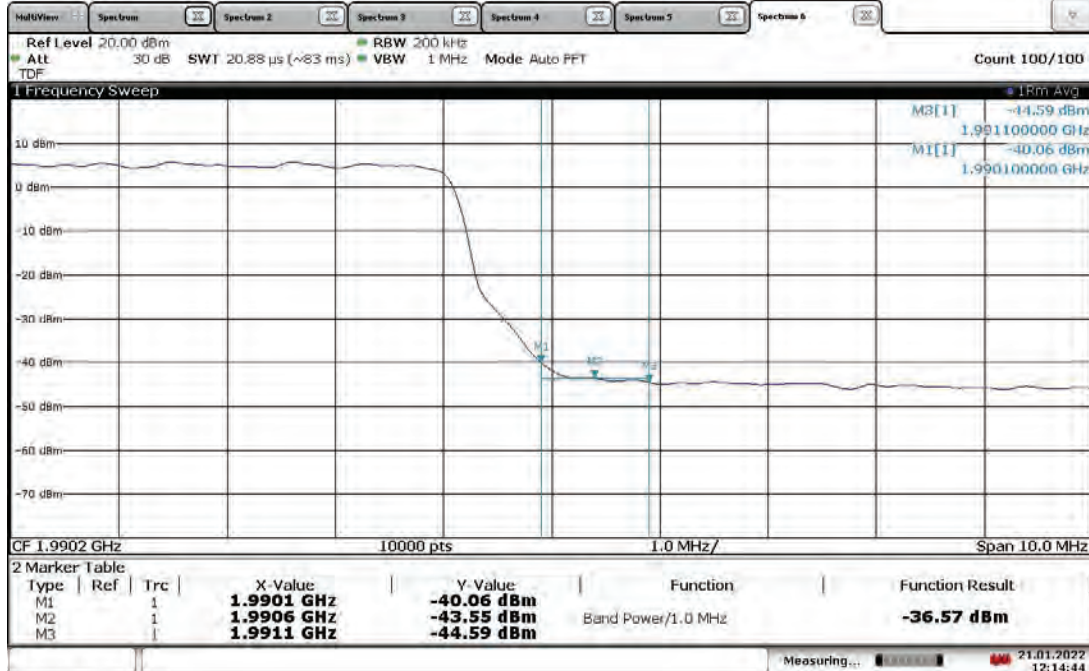
11:37:12 21.01.2022

Band Edge Compliant, Upper Band Edge, 1982.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM



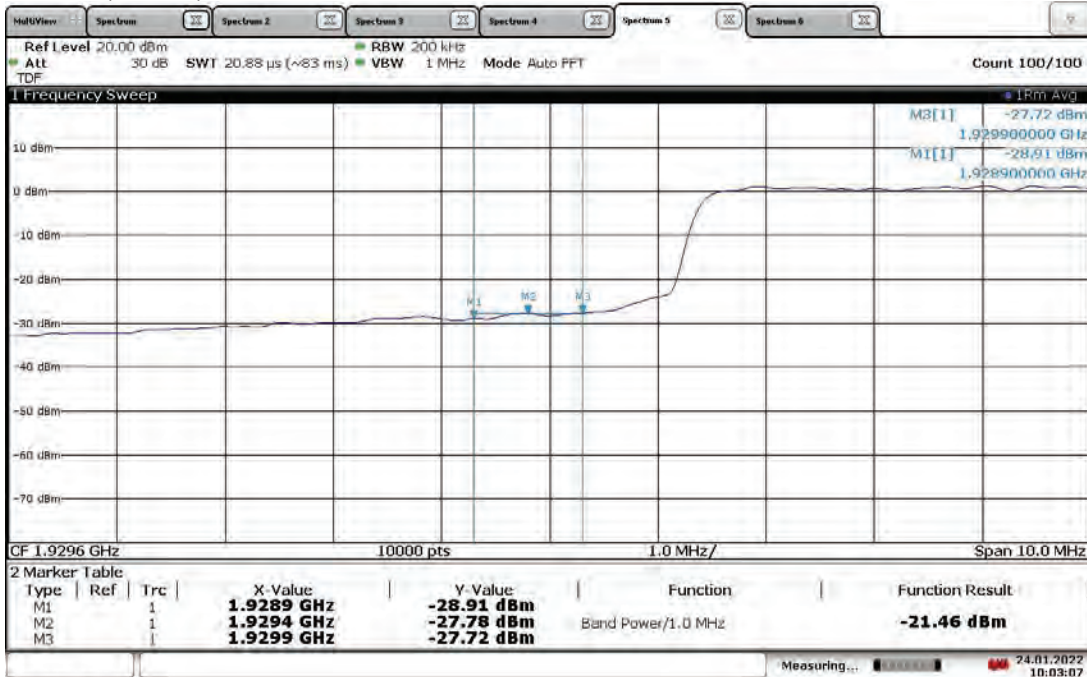
12:12:18 21.01.2022

Band Edge Compliant, Upper Band Edge, 1982.5 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM



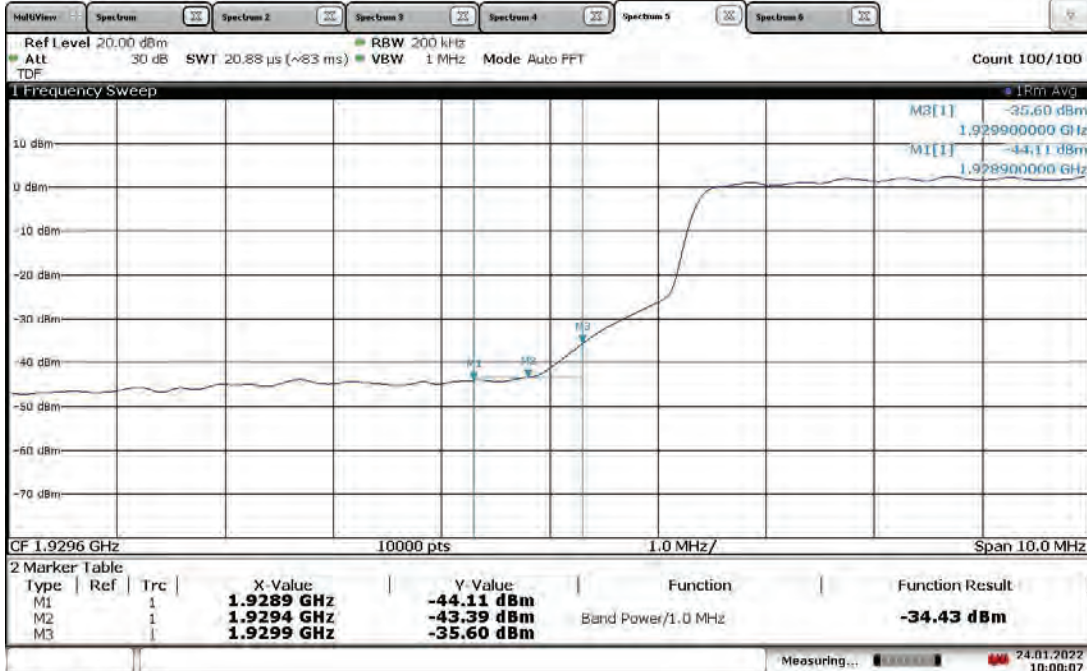
12:14:44 21.01.2022

Band Edge Compliant, Lower Band Edge, 1940 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



10:03:07 24.01.2022

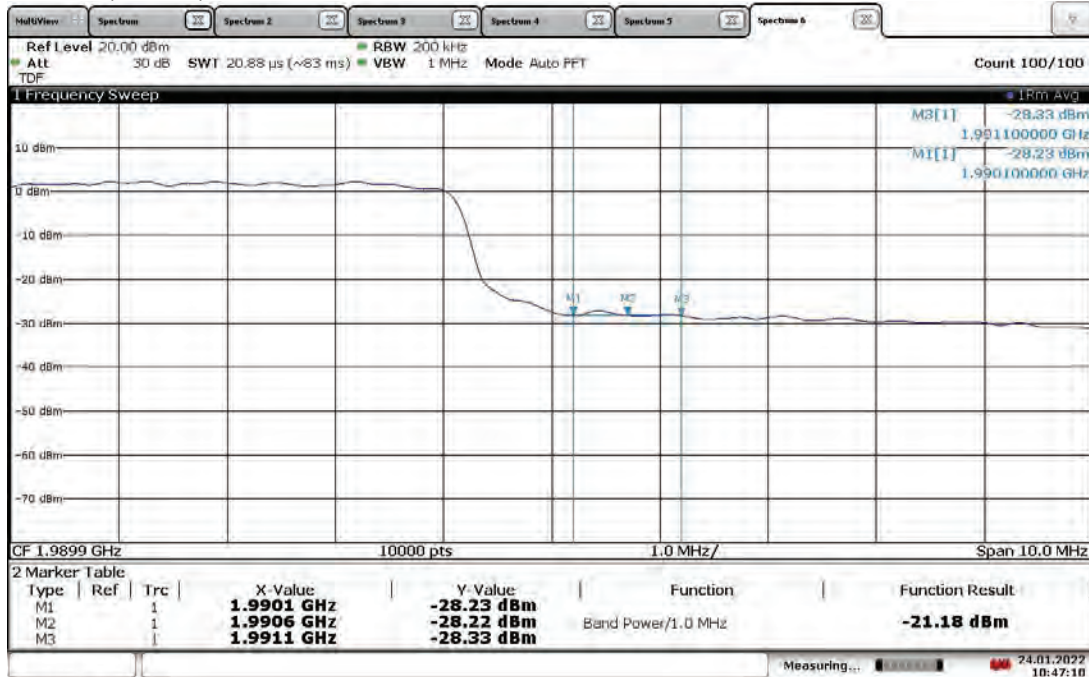
Band Edge Compliant, Lower Band Edge, 1940 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



10:00:07 24.01.2022

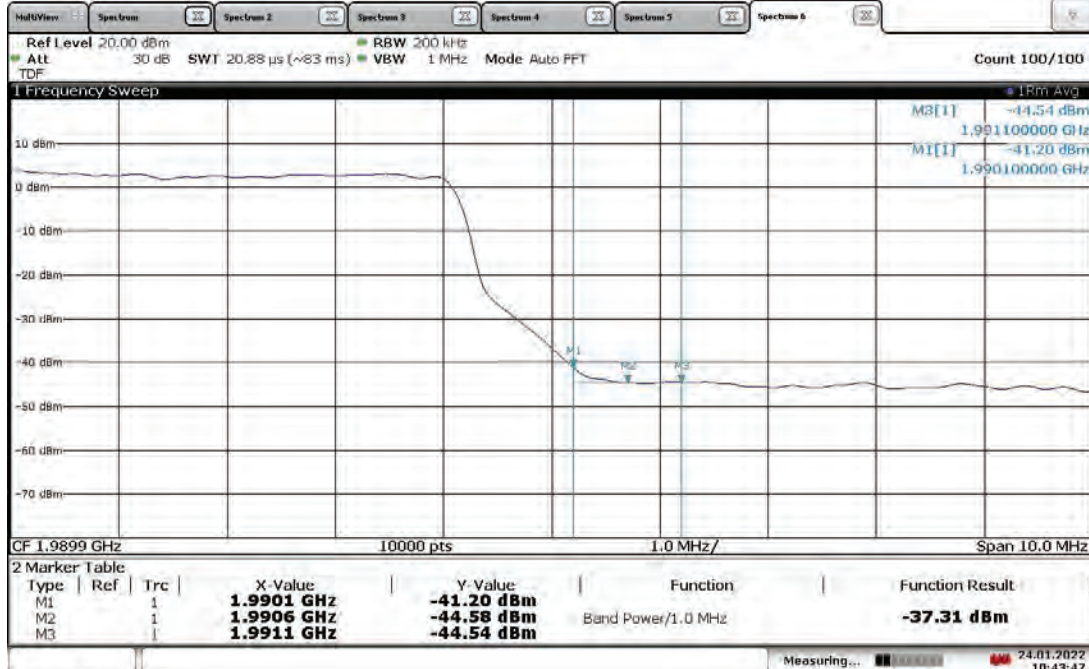


Band Edge Compliant, Upper Band Edge, 1980 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



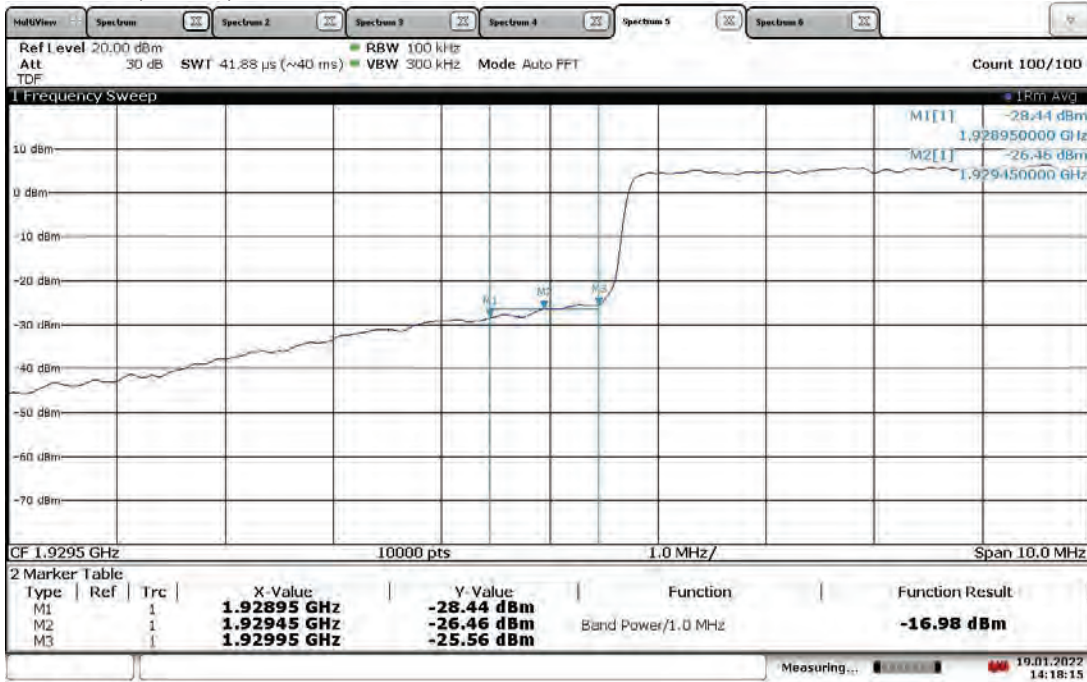
10:47:11 24.01.2022

Band Edge Compliant, Upper Band Edge, 1980 MHz (4G LTE)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



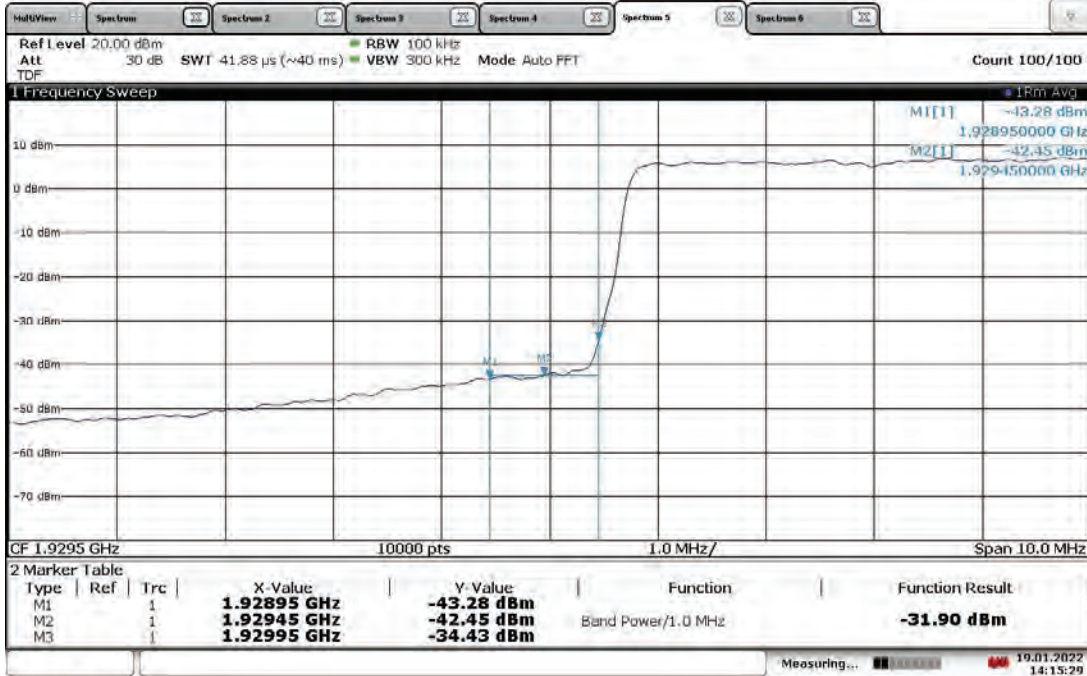
10:43:47 24.01.2022

Band Edge Compliant, Lower Band Edge, 1932.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM1.1-QPSK



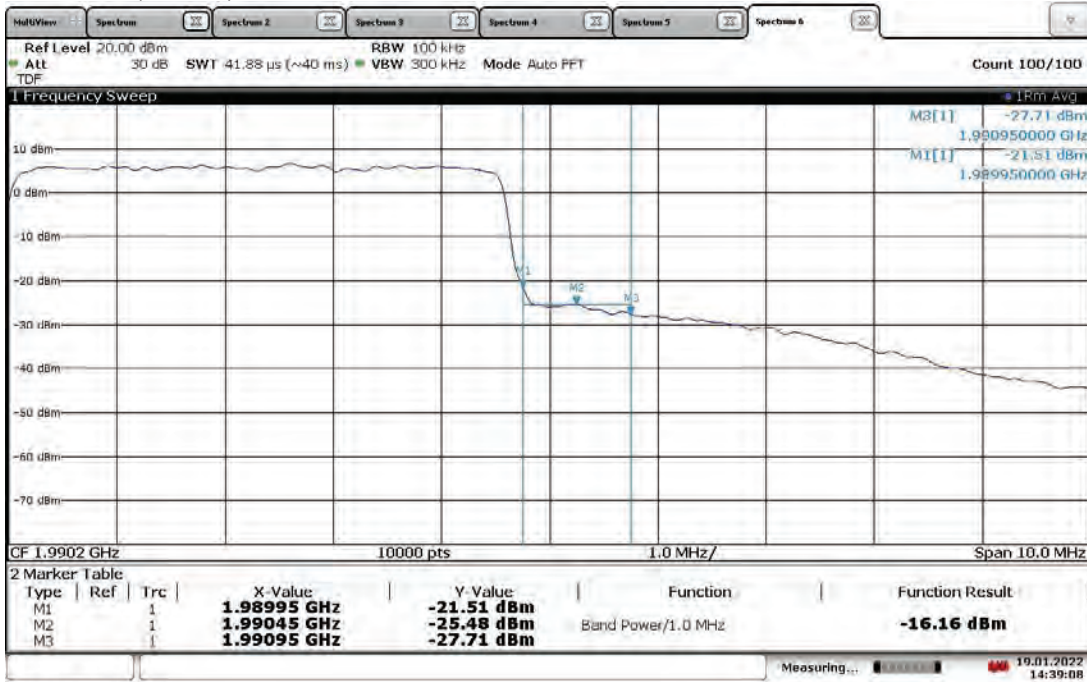
14:18:15 19.01.2022

Band Edge Compliant, Lower Band Edge, 1932.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM1.1-QPSK



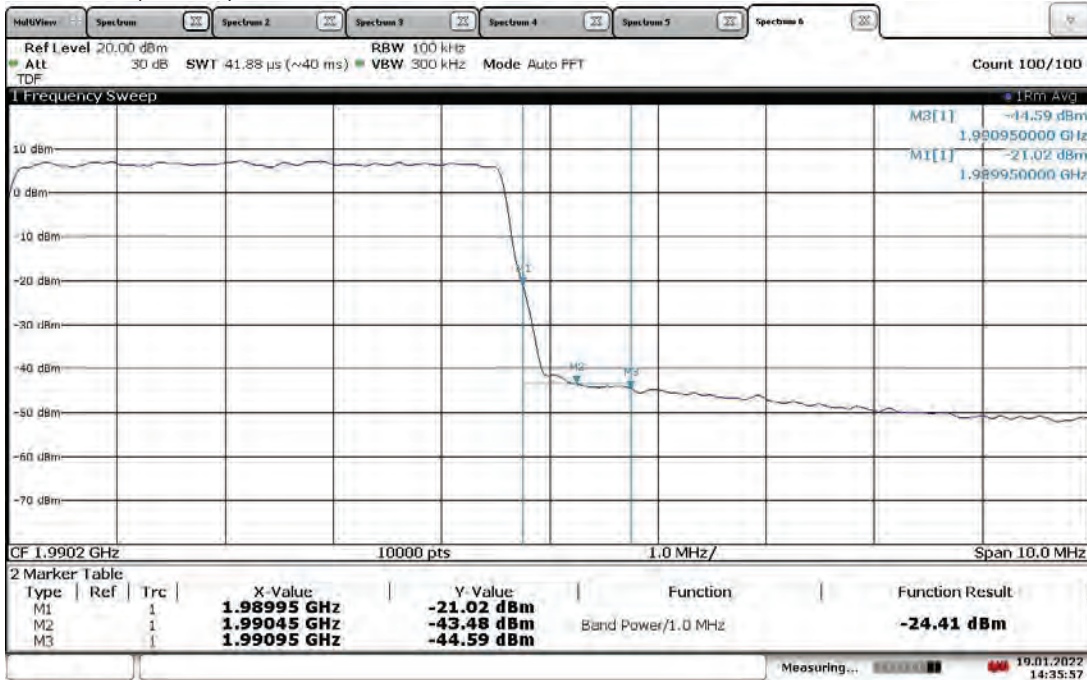
14:15:30 19.01.2022

Band Edge Compliant, Upper Band Edge, 1987.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM1.1-QPSK



14:39:08 19.01.2022

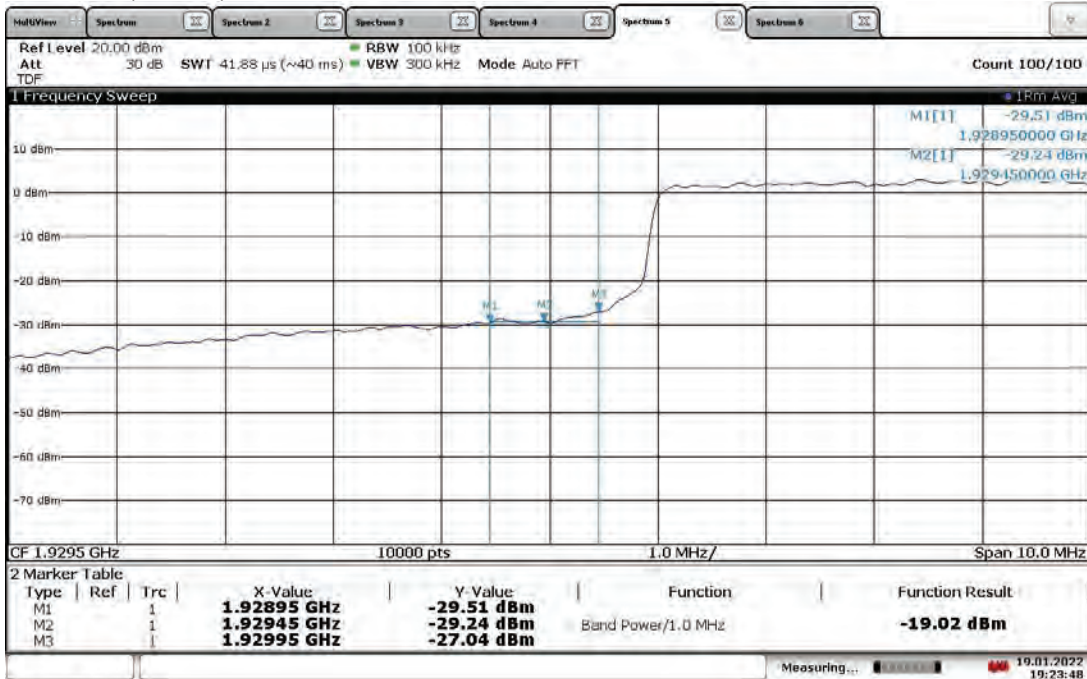
Band Edge Compliant, Upper Band Edge, 1987.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM1.1-QPSK



14:35:57 19.01.2022

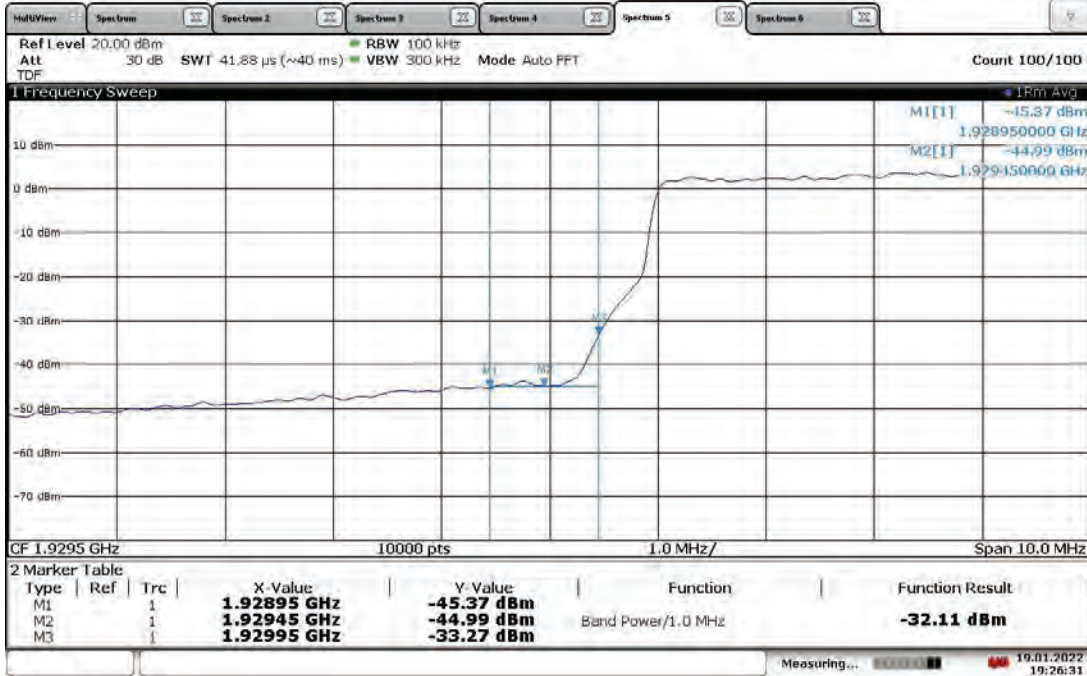


Band Edge Compliant, Lower Band Edge, 1935 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM1.1-QPSK



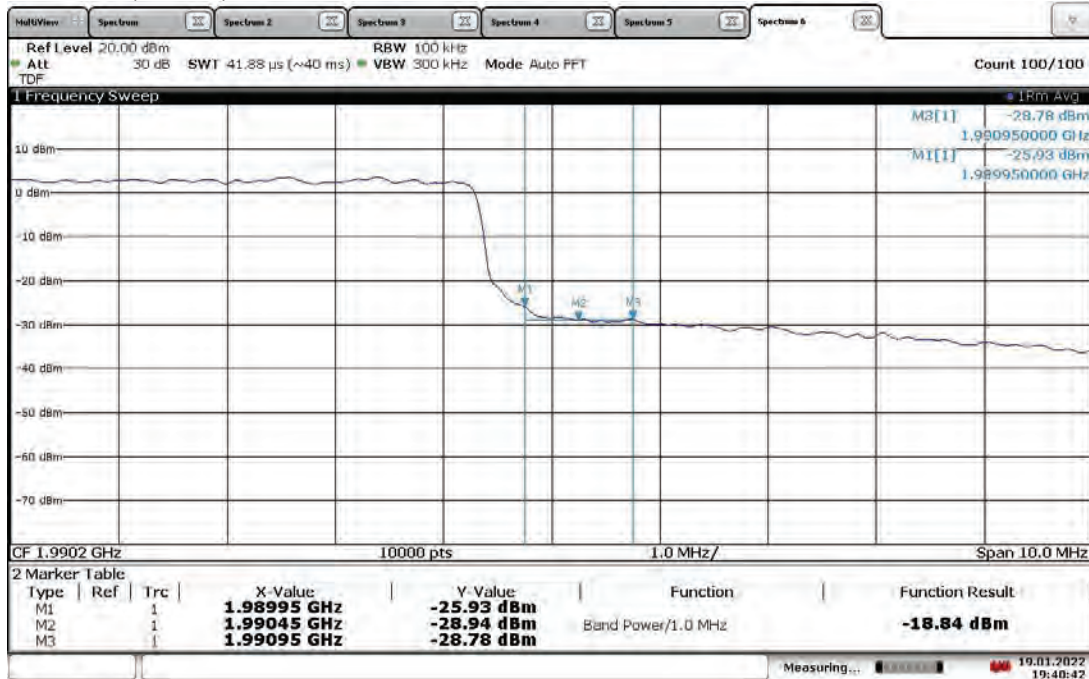
19:23:49 19.01.2022

Band Edge Compliant, Lower Band Edge, 1935 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM1.1-QPSK



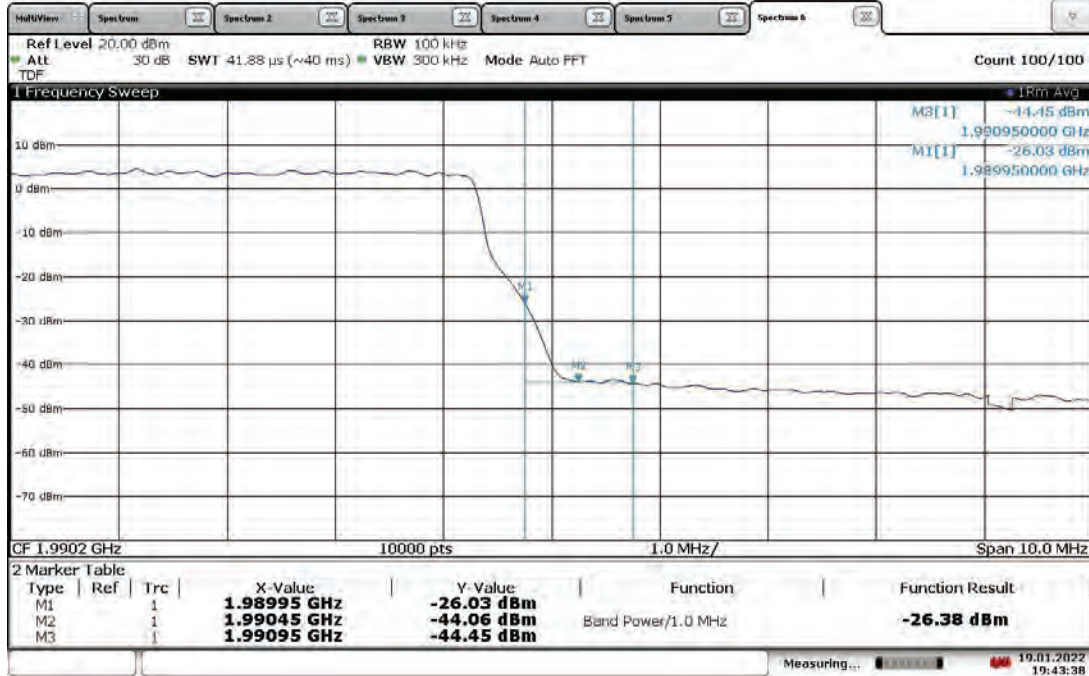
19:26:31 19.01.2022

Band Edge Compliant, Upper Edge, 1985 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM1.1-QPSK



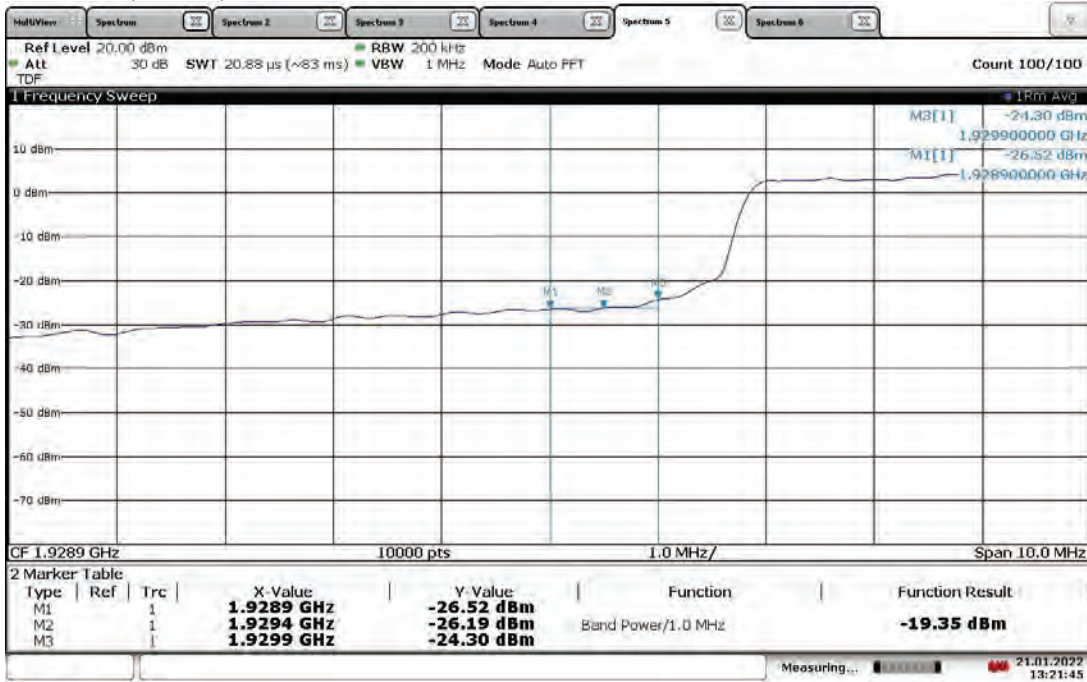
19:40:42 19.01.2022

Band Edge Compliant, Upper Edge, 1985 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM1.1-QPSK



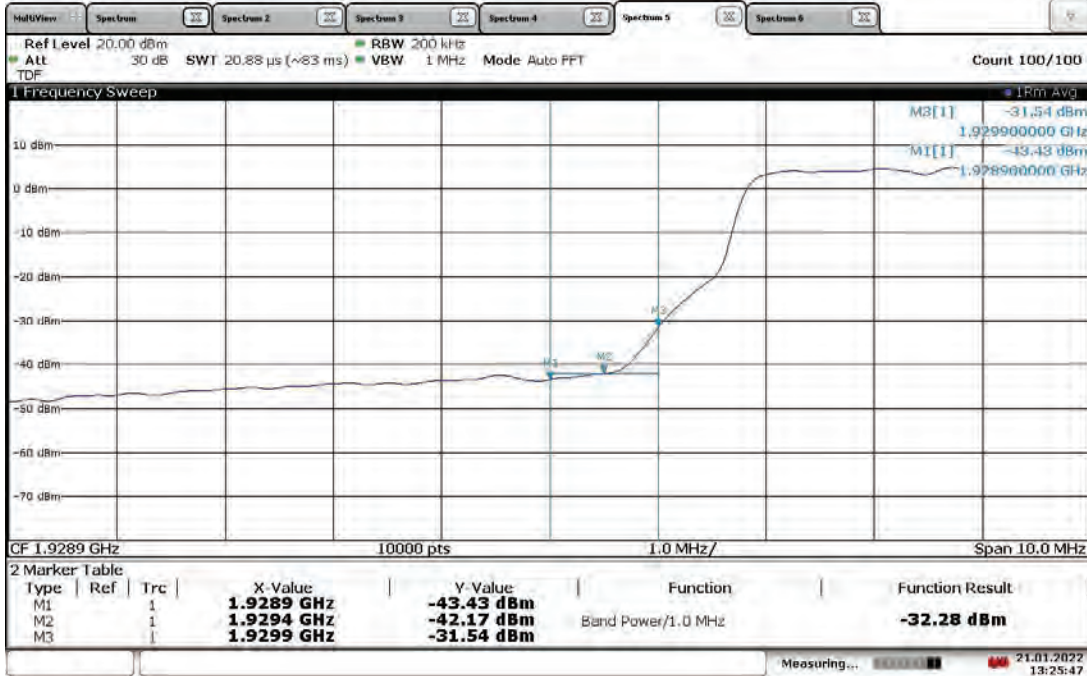
19:43:38 19.01.2022

Band Edge Compliant, Lower Band Edge, 1937.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM1.1-QPSK



13:21:46 21.01.2022

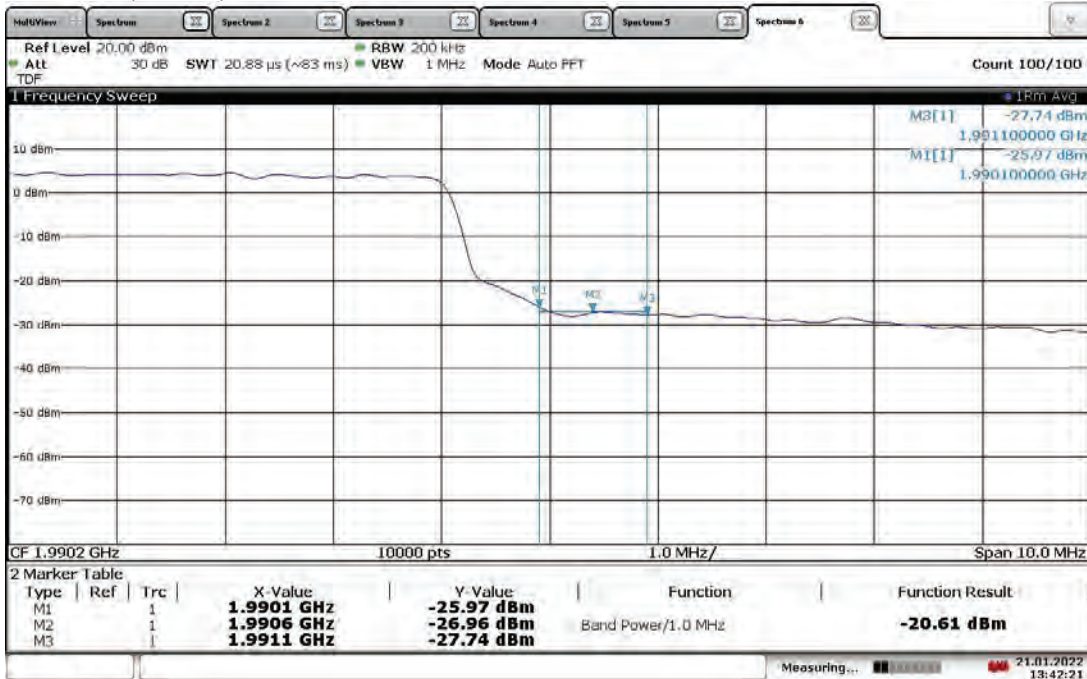
Band Edge Compliant, Lower Band Edge, 1937.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM1.1-QPSK



13:25:47 21.01.2022

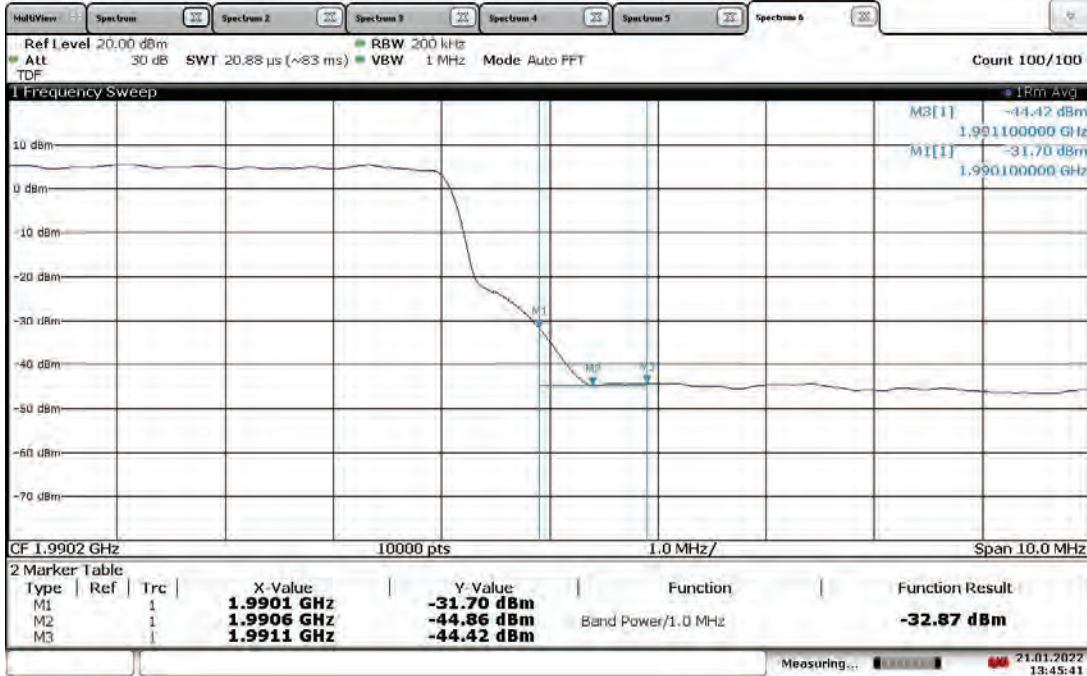


Band Edge Compliant, Upper Band Edge, 1982.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM1.1-QPSK



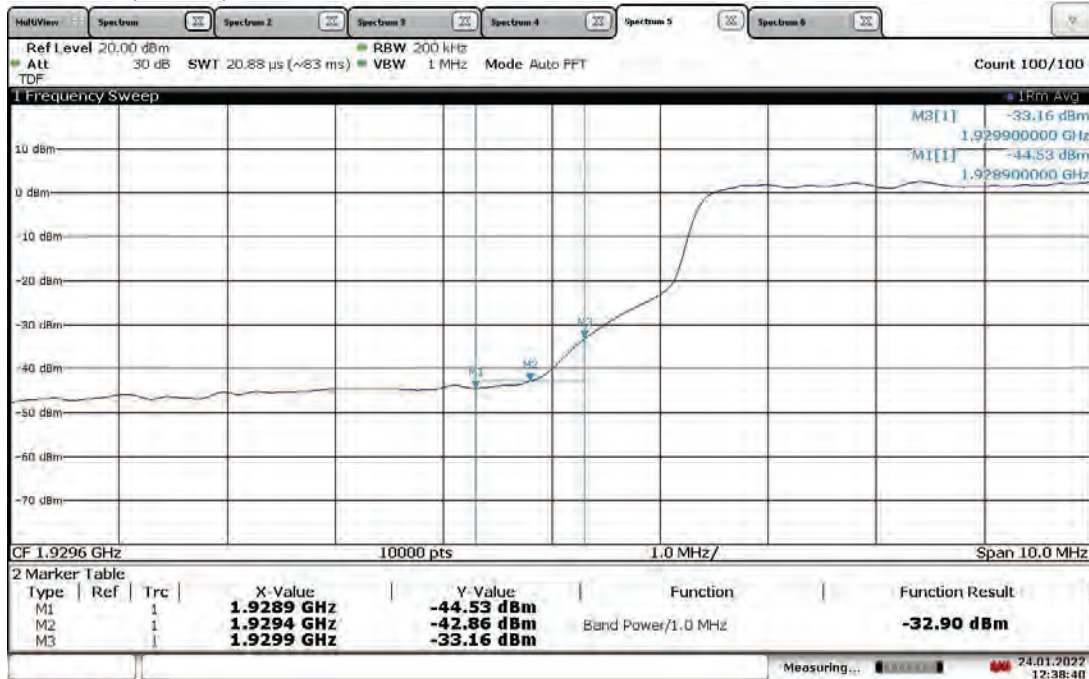
13:42:21 21.01.2022

Band Edge Compliant, Upper Band Edge, 1982.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM1.1-QPSK



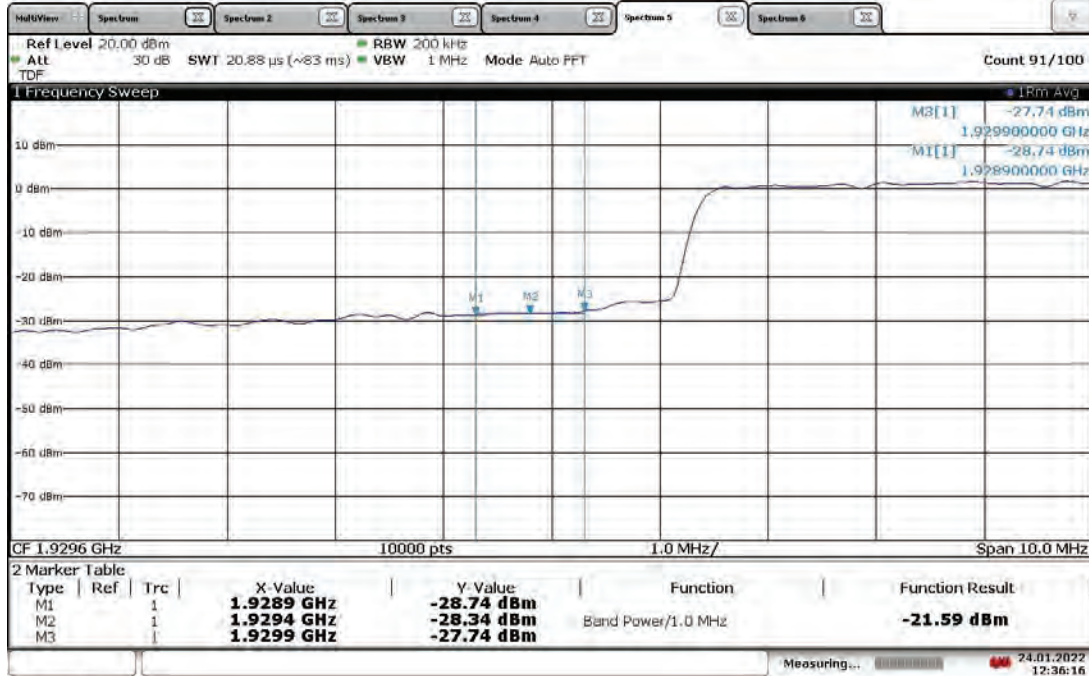
13:45:42 21.01.2022

Band Edge Compliant, Lower Band Edge, 1940 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM1.1-QPSK



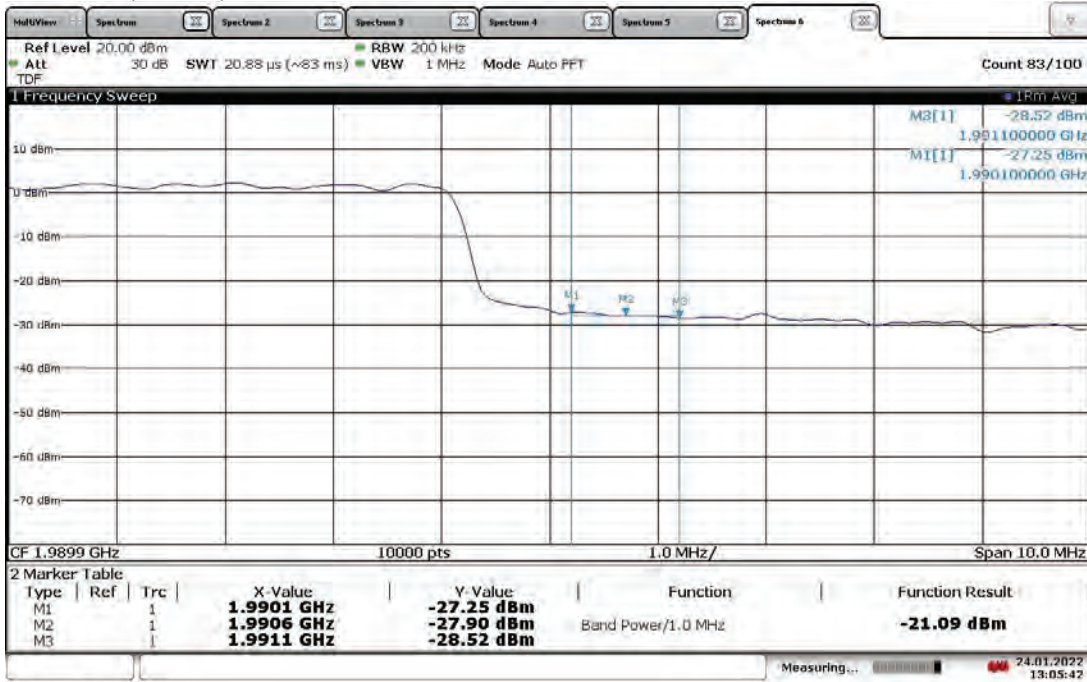
12:38:40 24.01.2022

Band Edge Compliant, Lower Band Edge, 1940 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM1.1-QPSK



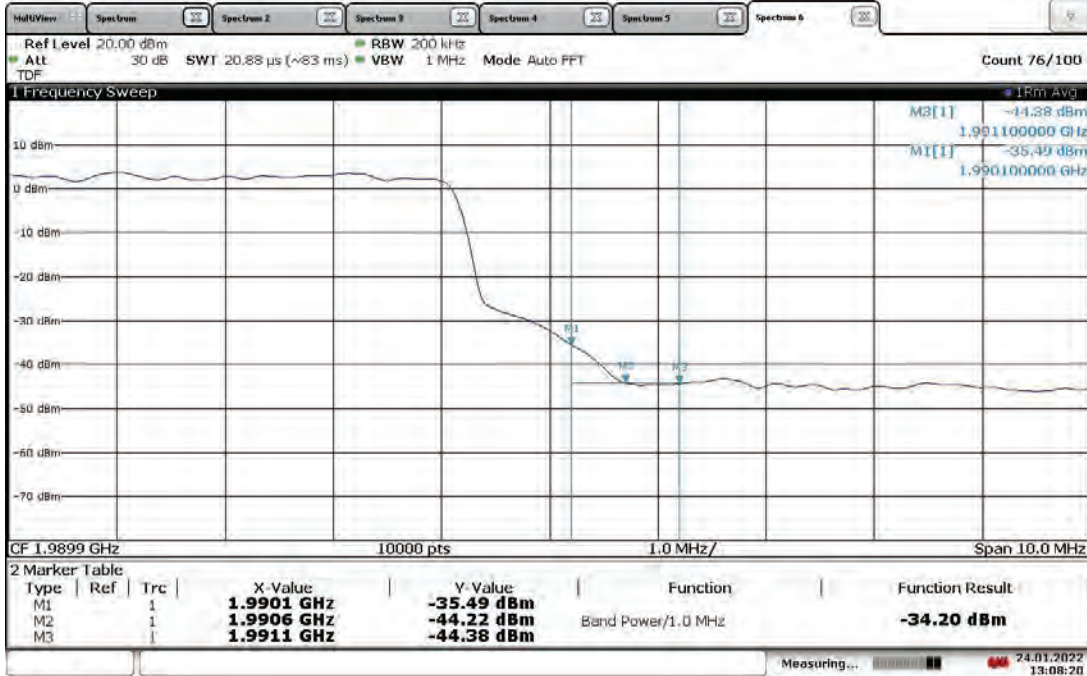
12:36:16 24.01.2022

Band Edge Compliant, Upper Band Edge, 1980 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM1.1-QPSK



13:05:42 24.01.2022

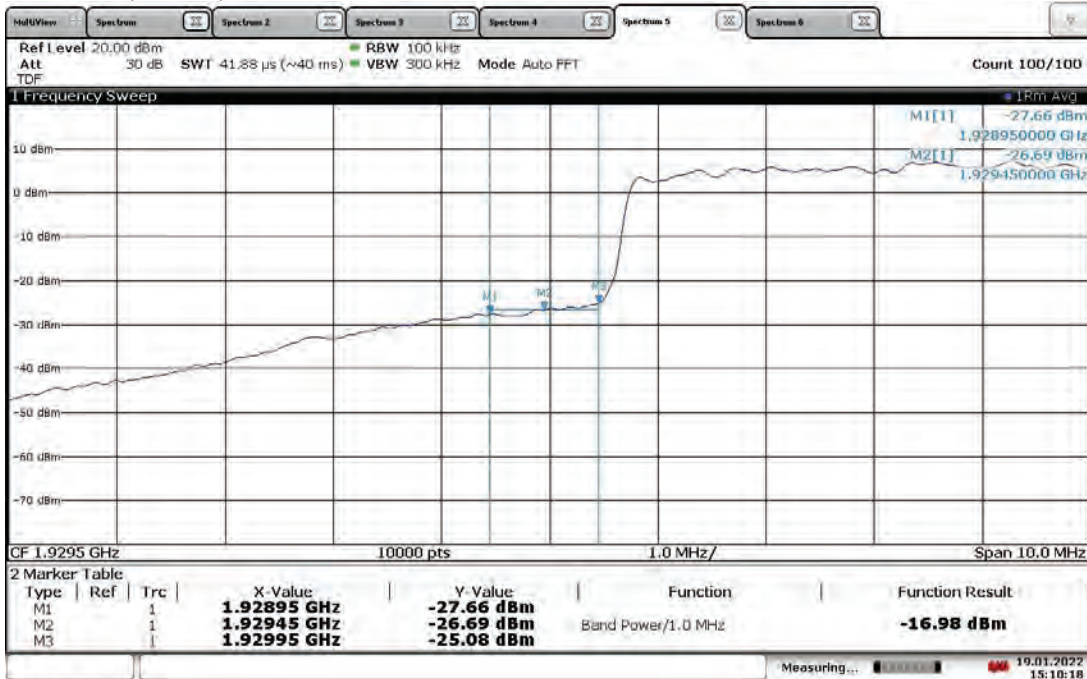
Band Edge Compliant, Upper Band Edge, 1980 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM1.1-QPSK



13:08:20 24.01.2022

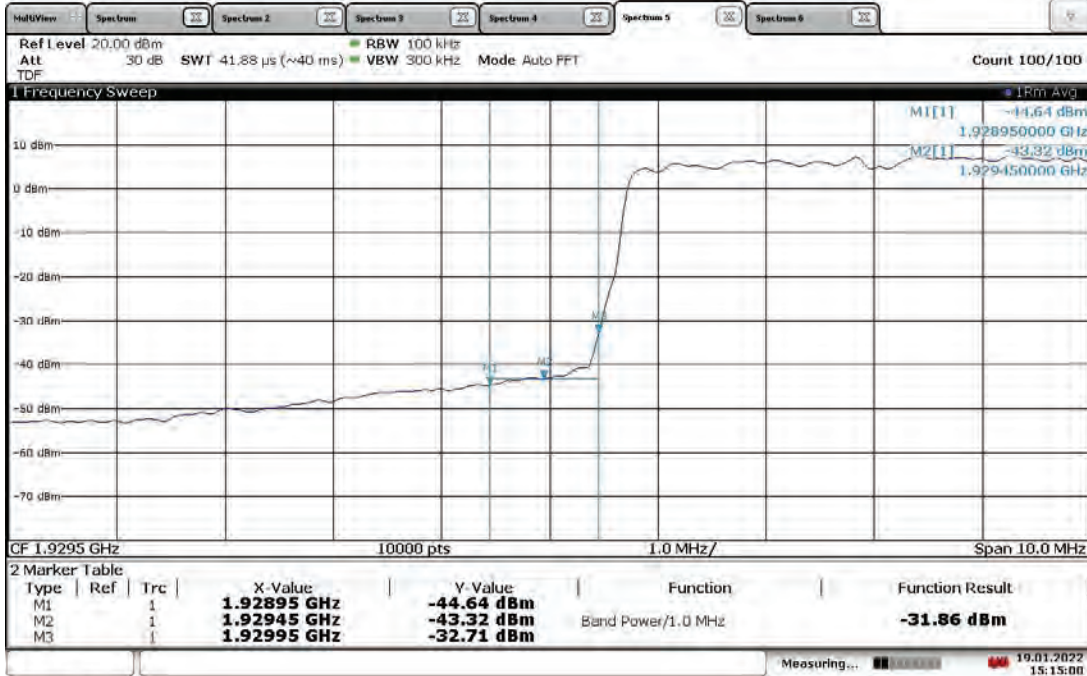


Band Edge Compliant, Lower Band Edge, 1932.5MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM3.2-16QAM



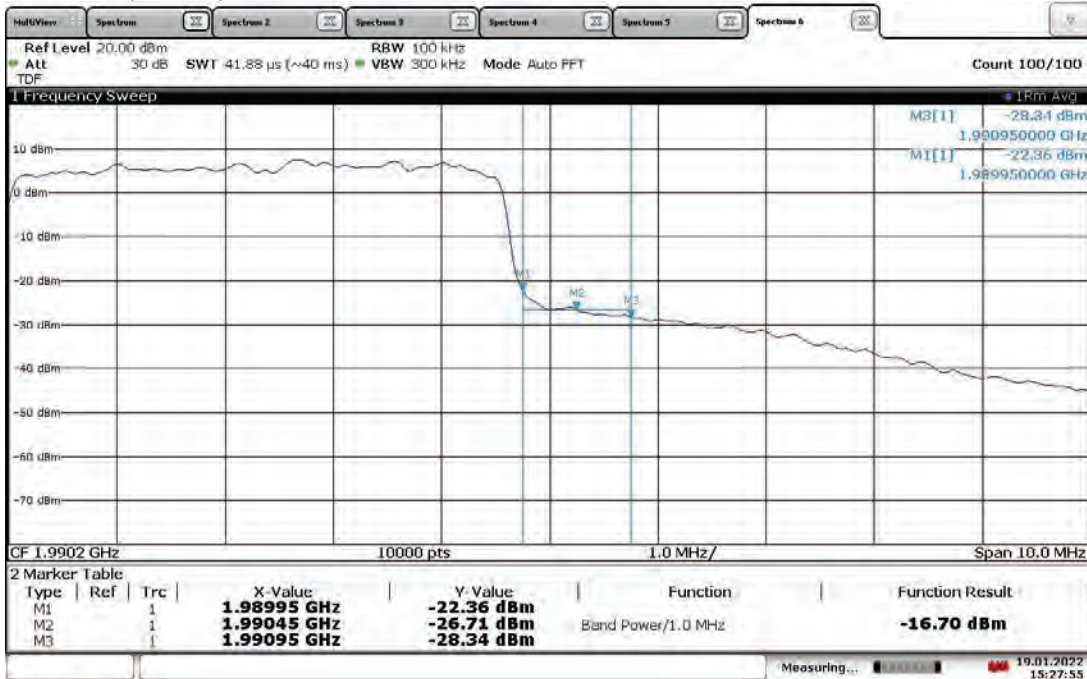
15:10:18 19.01.2022

Band Edge Compliant, Lower Band Edge, 1932.5MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM3.2-16QAM



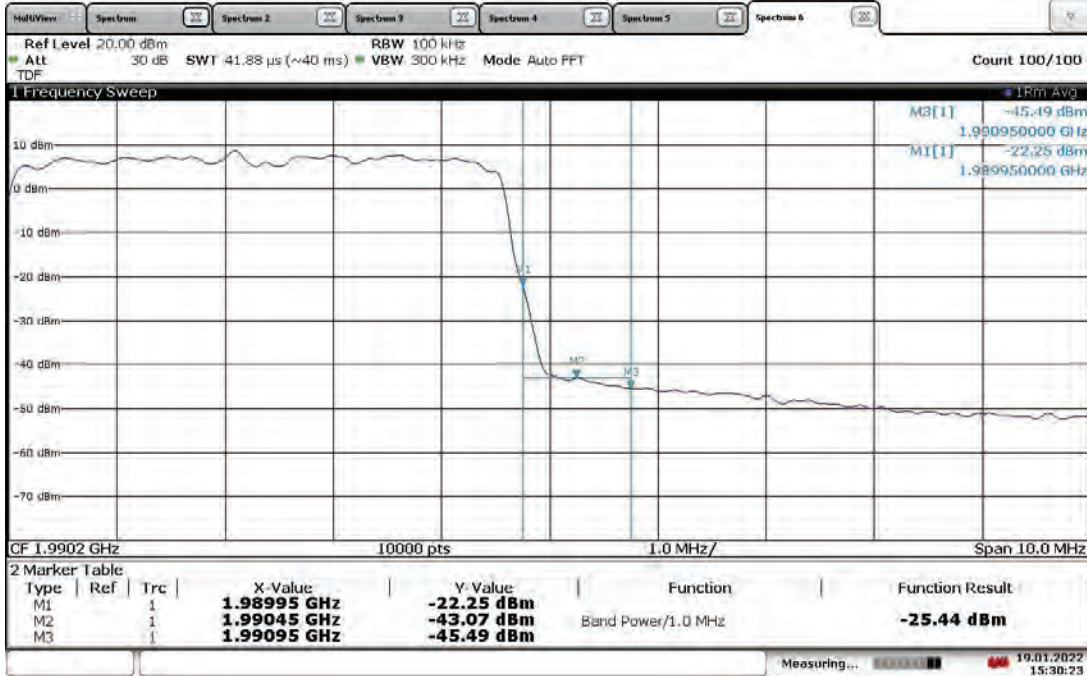
15:15:01 19.01.2022

Band Edge Compliant, Upper Band Edge, 1987.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM3.2-16QAM



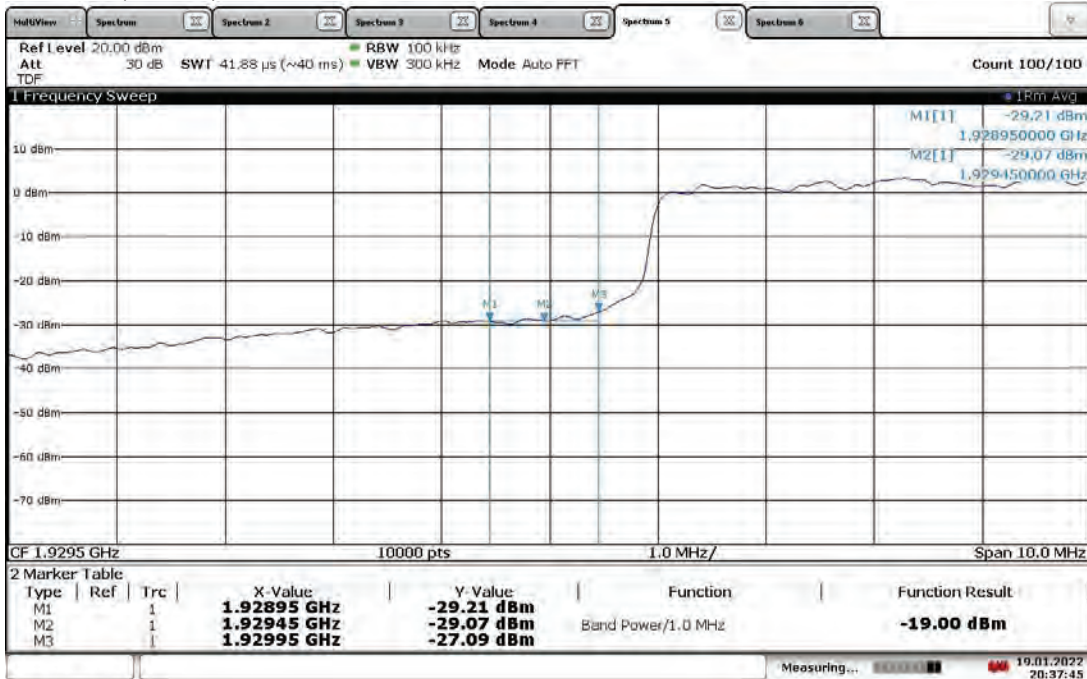
15:27:55 19.01.2022

Band Edge Compliant, Upper Band Edge, 1987.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT, Bandwidth: 5 MHz, Modulation: TM3.2-16QAM



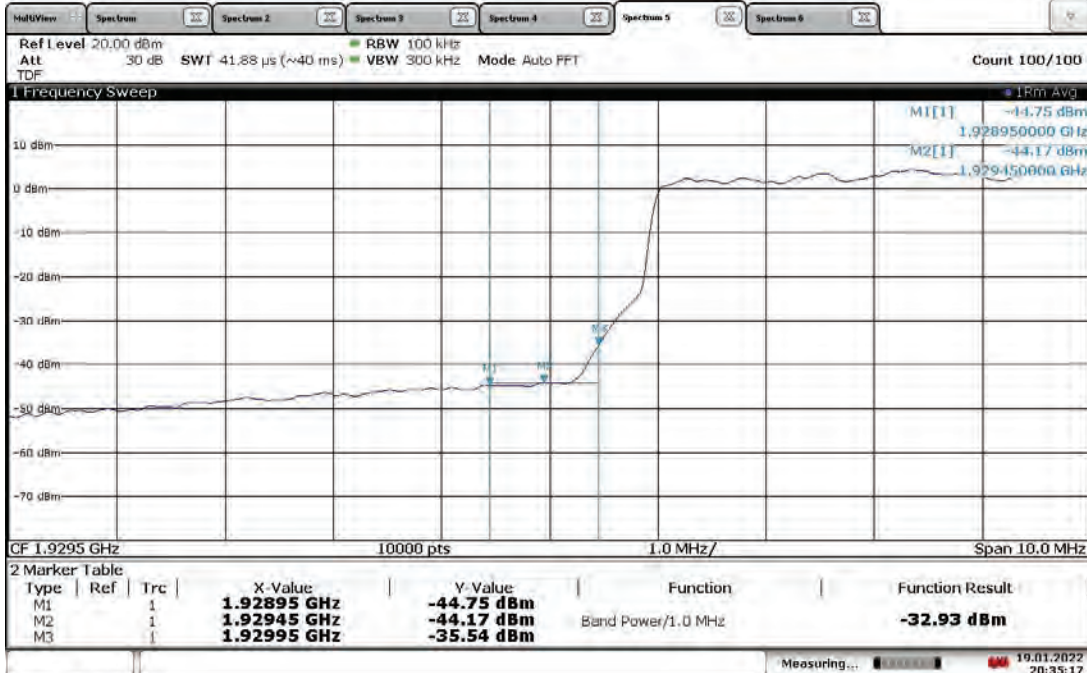
15:30:23 19.01.2022

Band Edge Compliant, Lower Band Edge, 1935 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM3.2-16QAM



20:37:45 19.01.2022

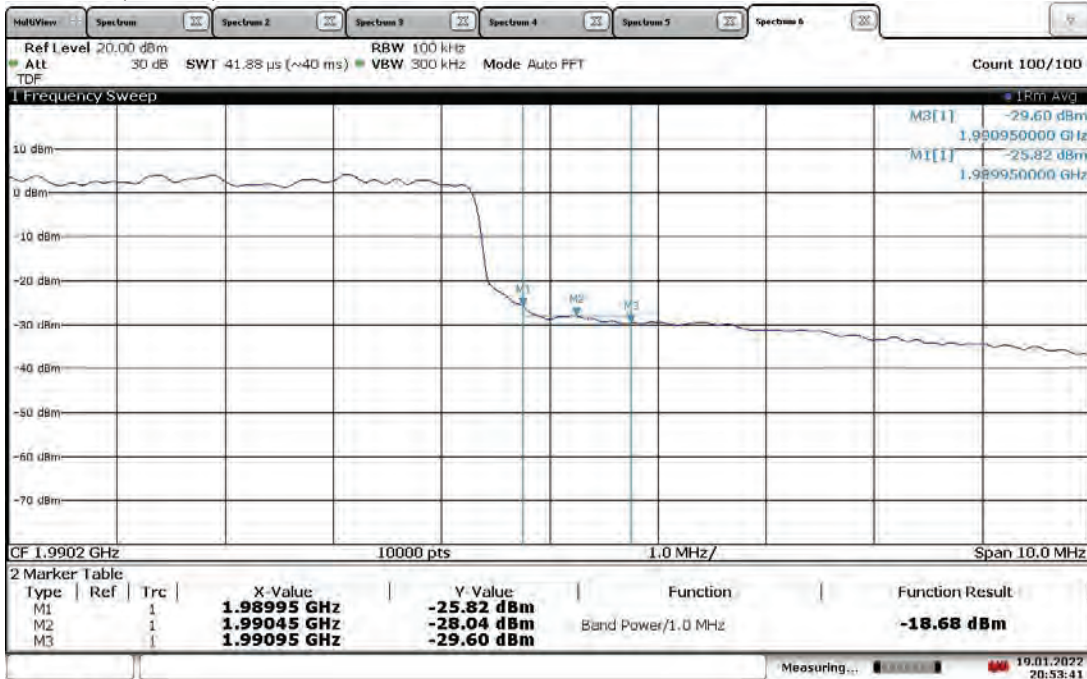
Band Edge Compliant, Lower Band Edge, 1935 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.2-16QAM



20:35:17 19.01.2022

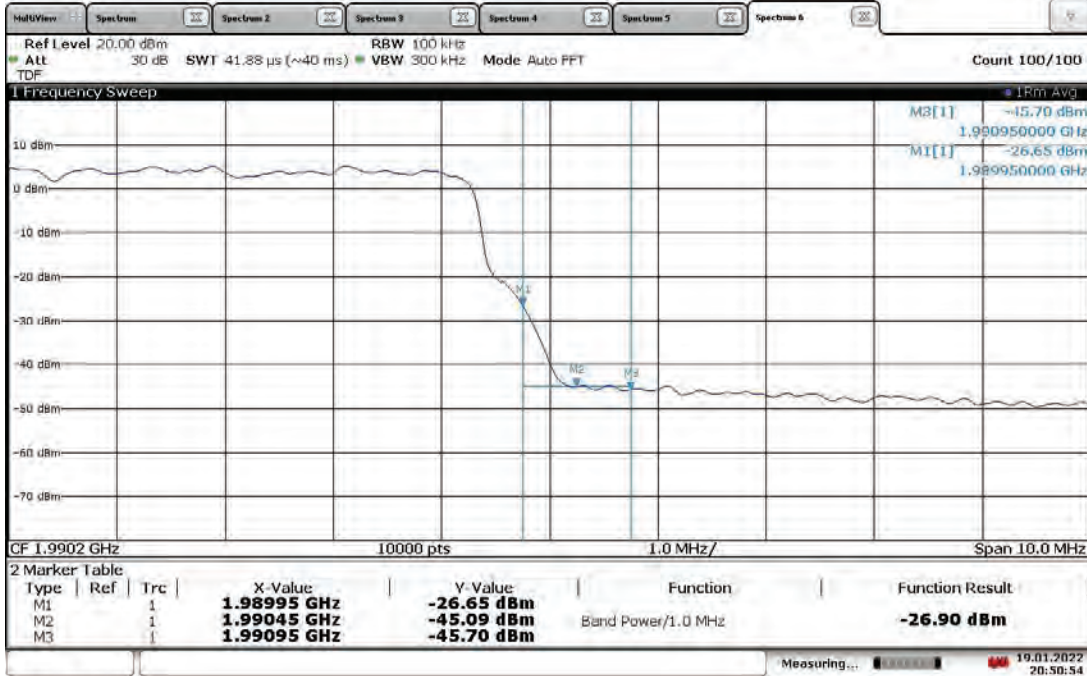


Band Edge Compliant, Upper Band Edge, 1985 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM3.2-16QAM



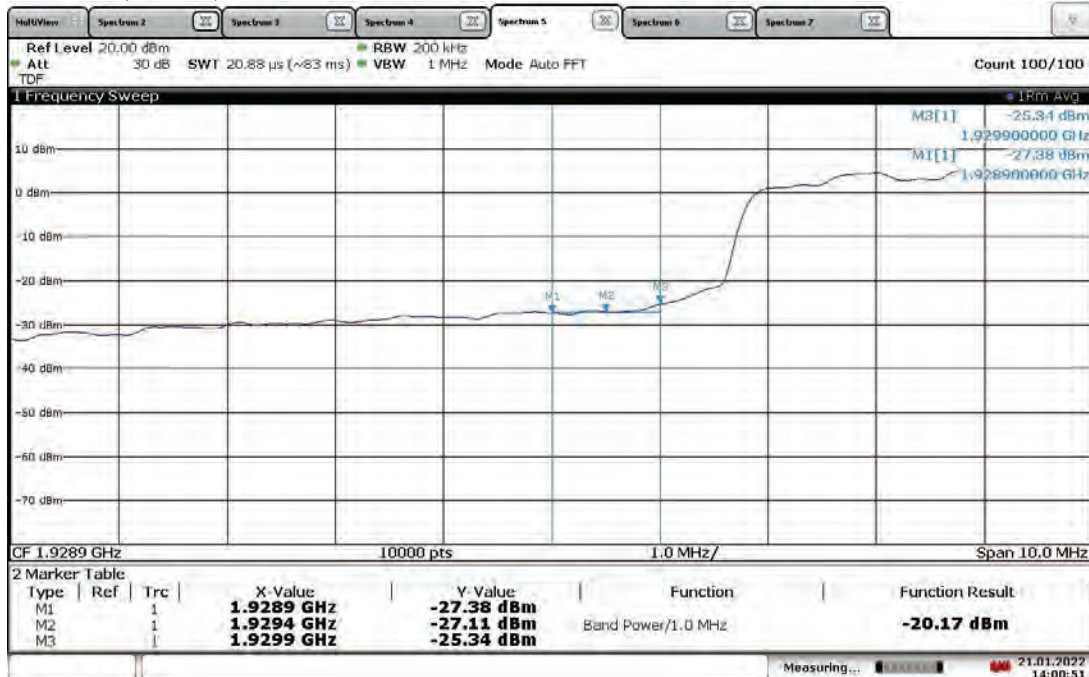
20:53:42 19.01.2022

Band Edge Compliant, Upper Band Edge, 1985 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.2-16QAM



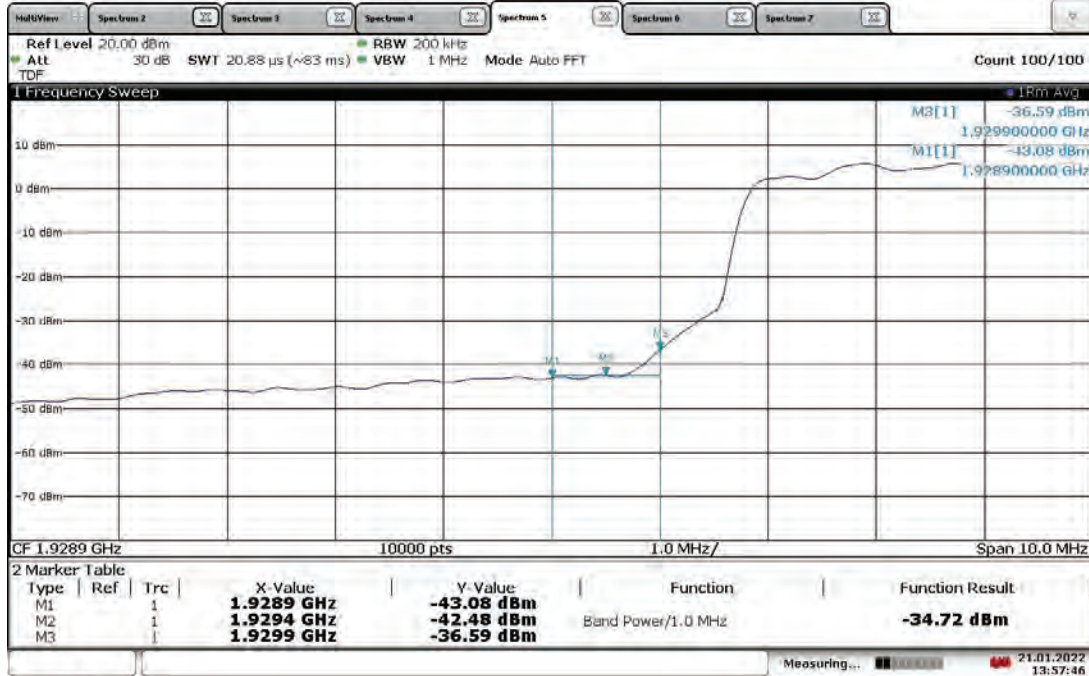
20:50:54 19.01.2022

Band Edge Compliant, Lower Band Edge, 1937.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.2-16QAM



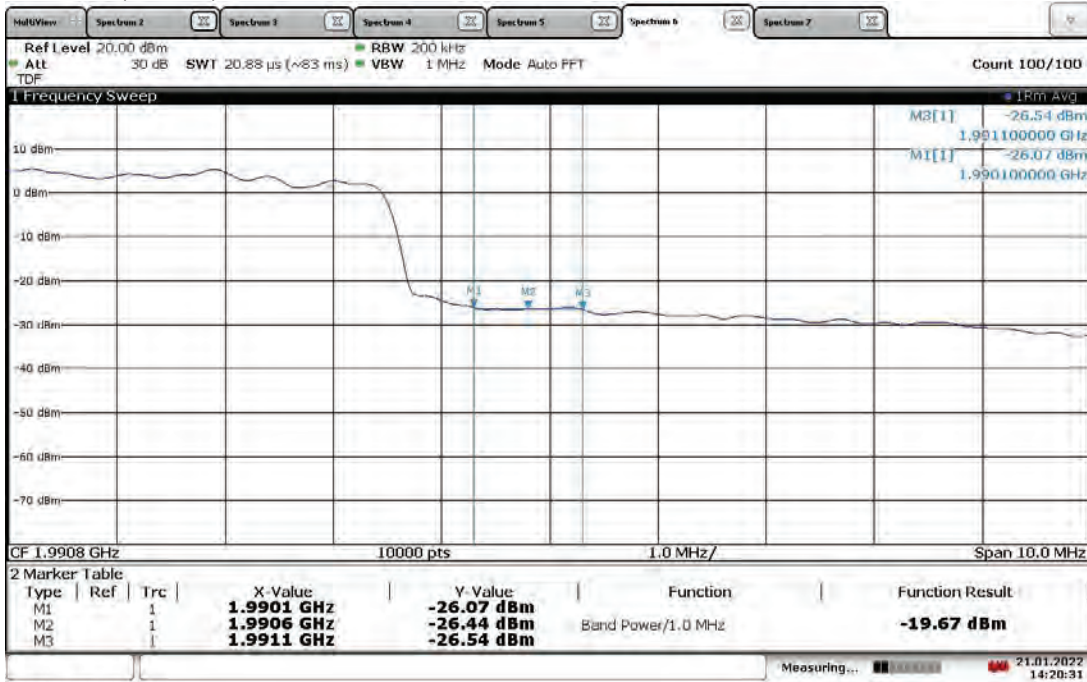
14:00:52 21.01.2022

Band Edge Compliant, Lower Band Edge, 1937.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.2-16QAM



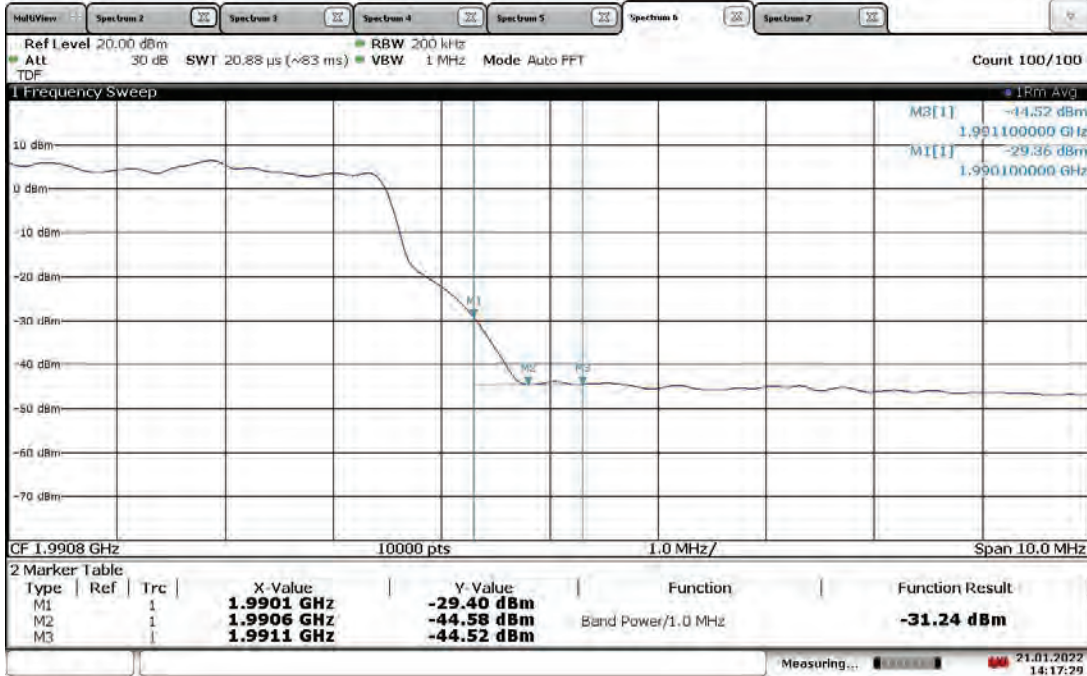
13:57:47 21.01.2022

Band Edge Compliant, Upper Band Edge, 1982.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.2-16QAM



14:20:31 21.01.2022

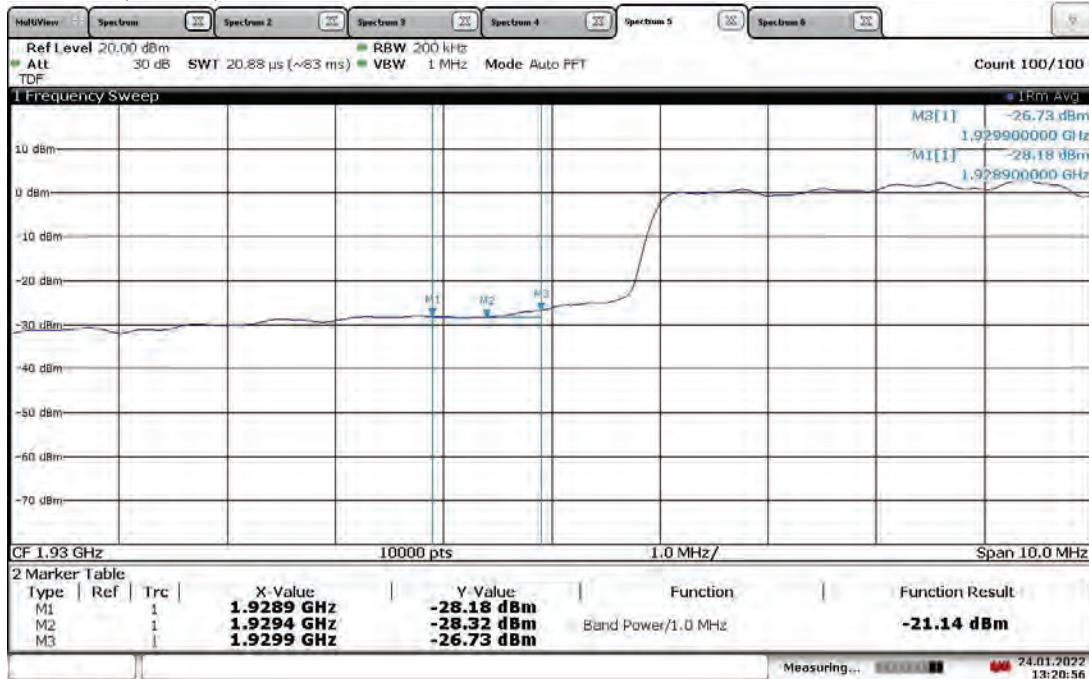
Band Edge Compliant, Upper Band Edge, 1982.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.2-16QAM



14:17:29 21.01.2022

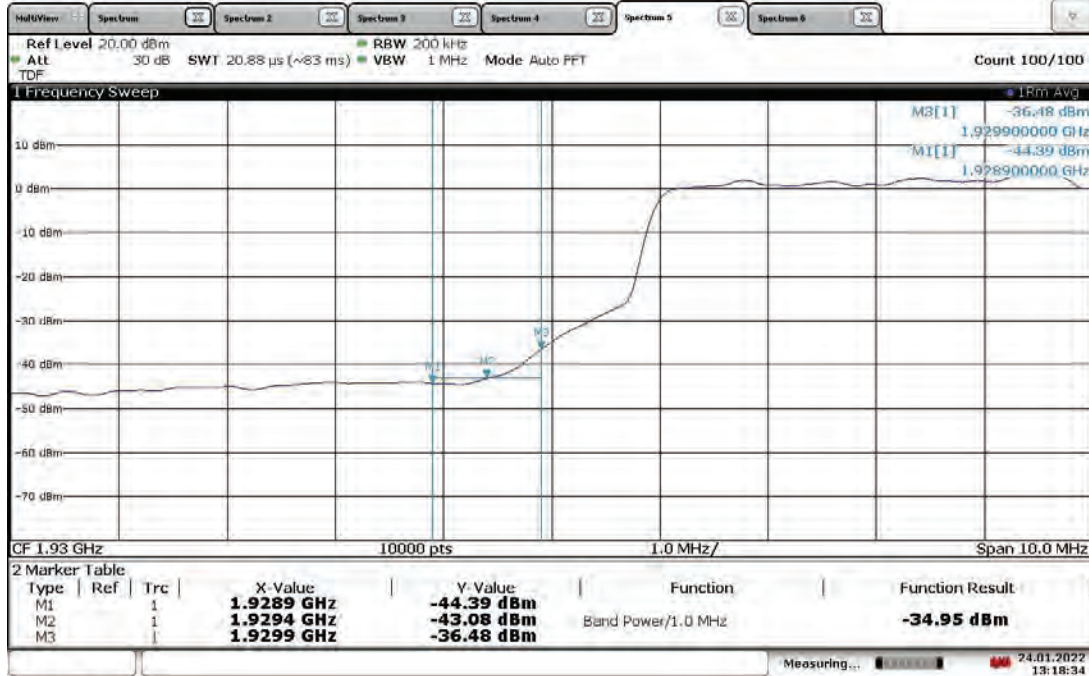


Band Edge Compliant, Lower Band Edge, 1940 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.2-16QAM



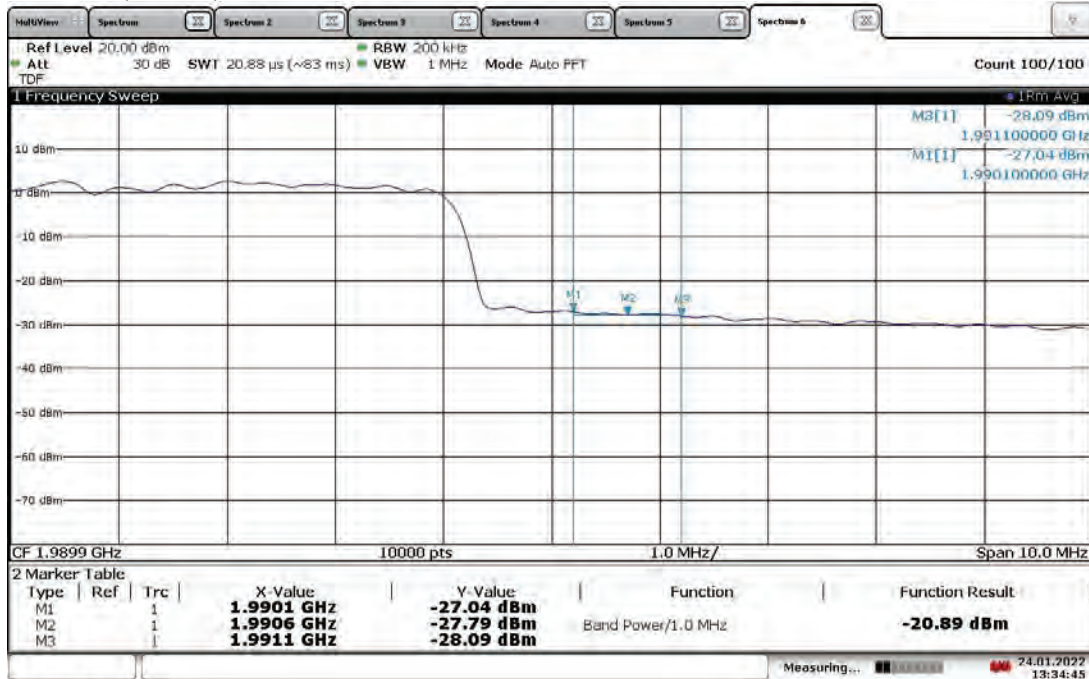
13:20:56 24.01.2022

Band Edge Compliant, Lower Band Edge, 1940 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.2-16QAM



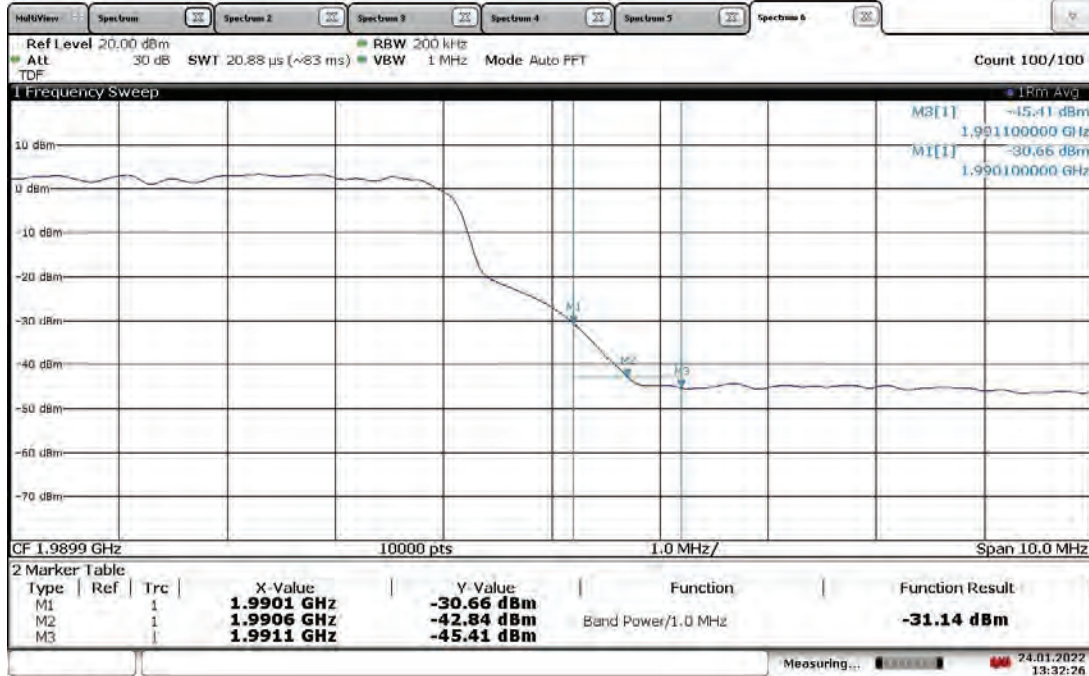
13:18:34 24.01.2022

Band Edge Compliant, Upper Band Edge, 1980 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.2-16QAM



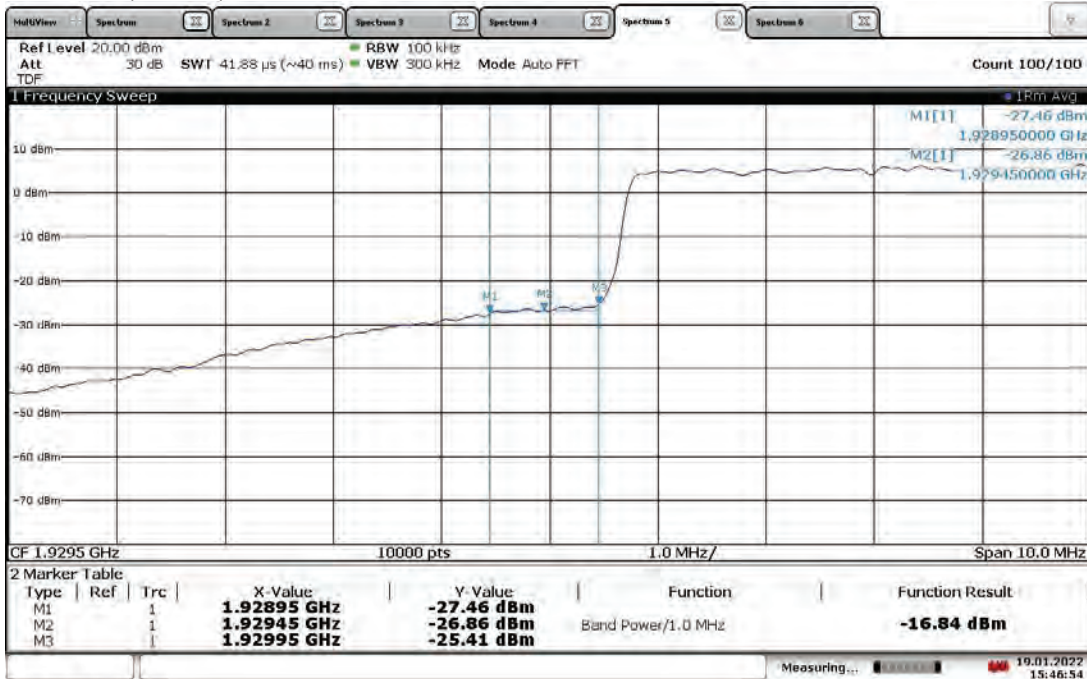
13:34:45 24.01.2022

Band Edge Compliant, Upper Band Edge, 1980 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.2-16QAM



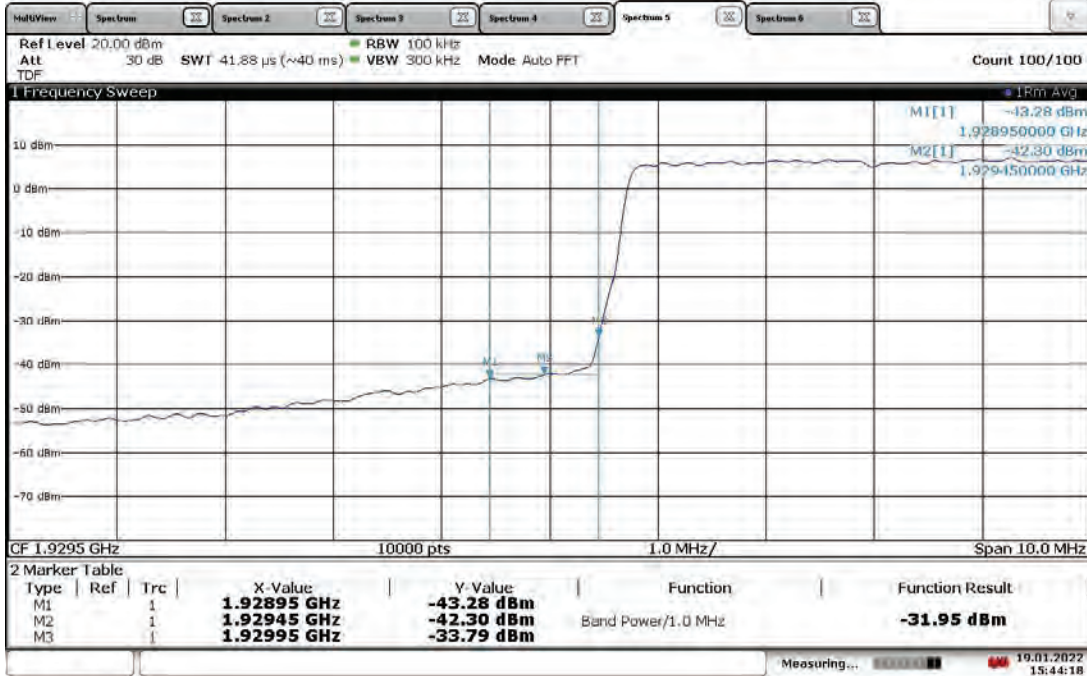
13:32:26 24.01.2022

Band Edge Compliant, Lower Band Edge, 1932.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM3.1-64QAM



15:46:54 19.01.2022

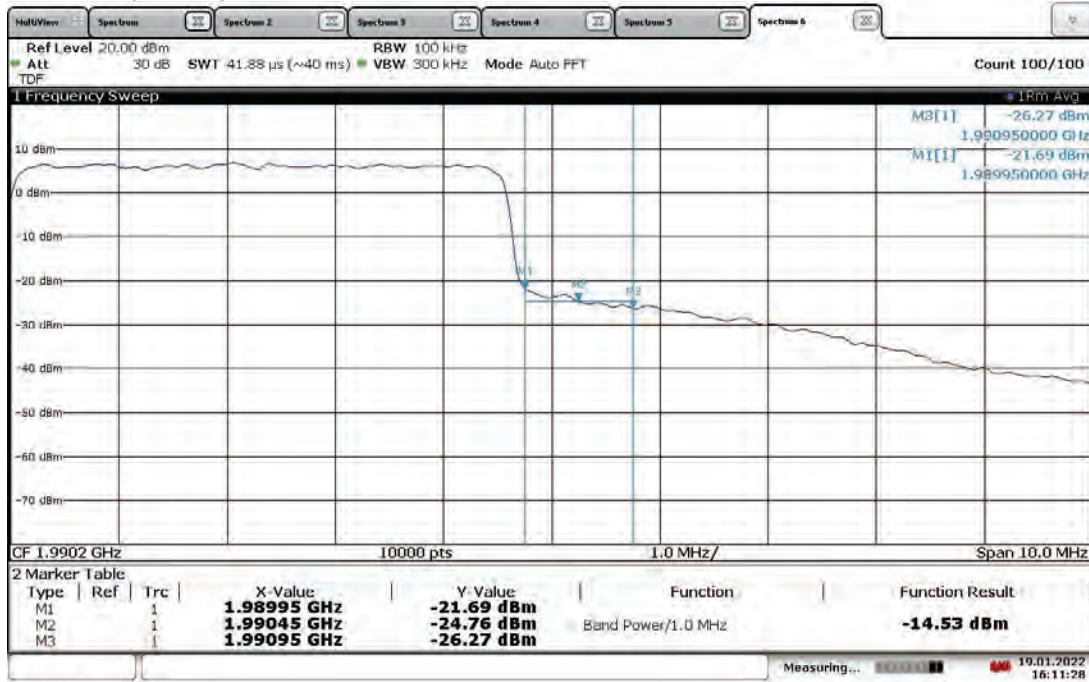
Band Edge Compliant, Lower Band Edge, 1932.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM3.1-64QAM



15:44:18 19.01.2022

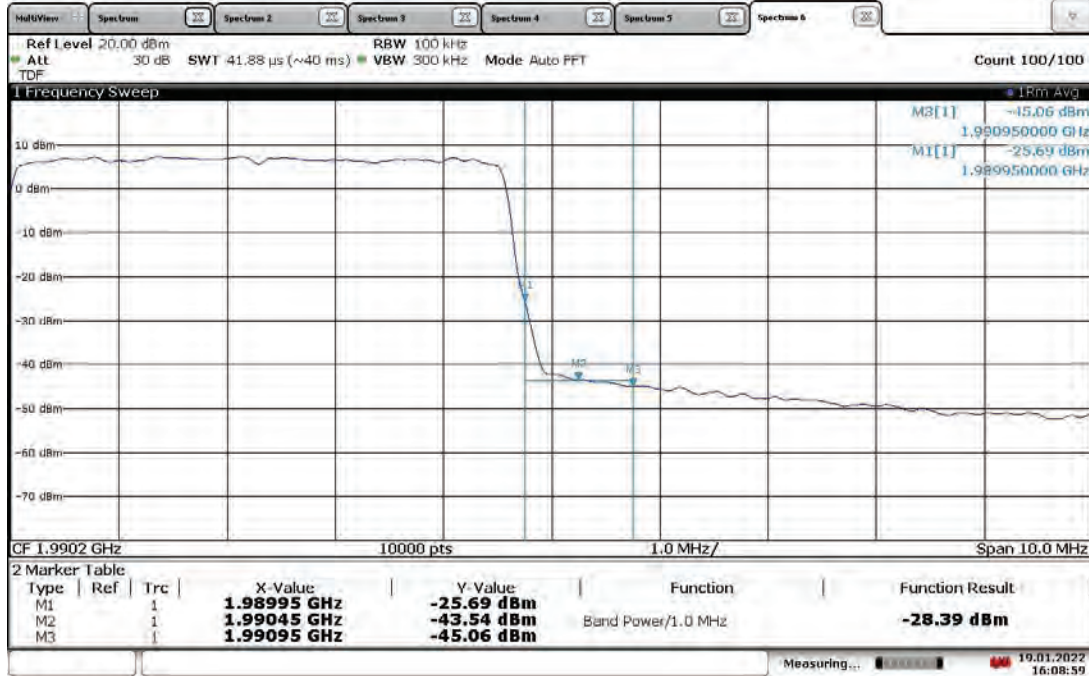


Band Edge Compliant, Upper Band Edge, 1987.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM3.1-64QAM



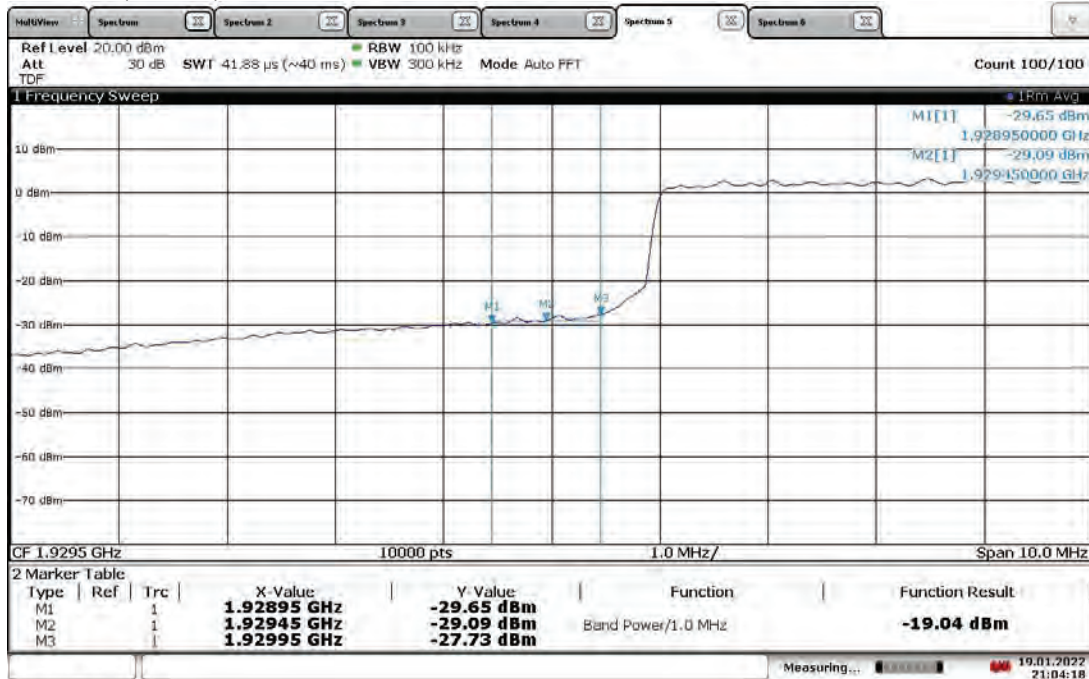
16:11:28 19.01.2022

Band Edge Compliant, Upper Band Edge, 1987.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM3.1-64QAM



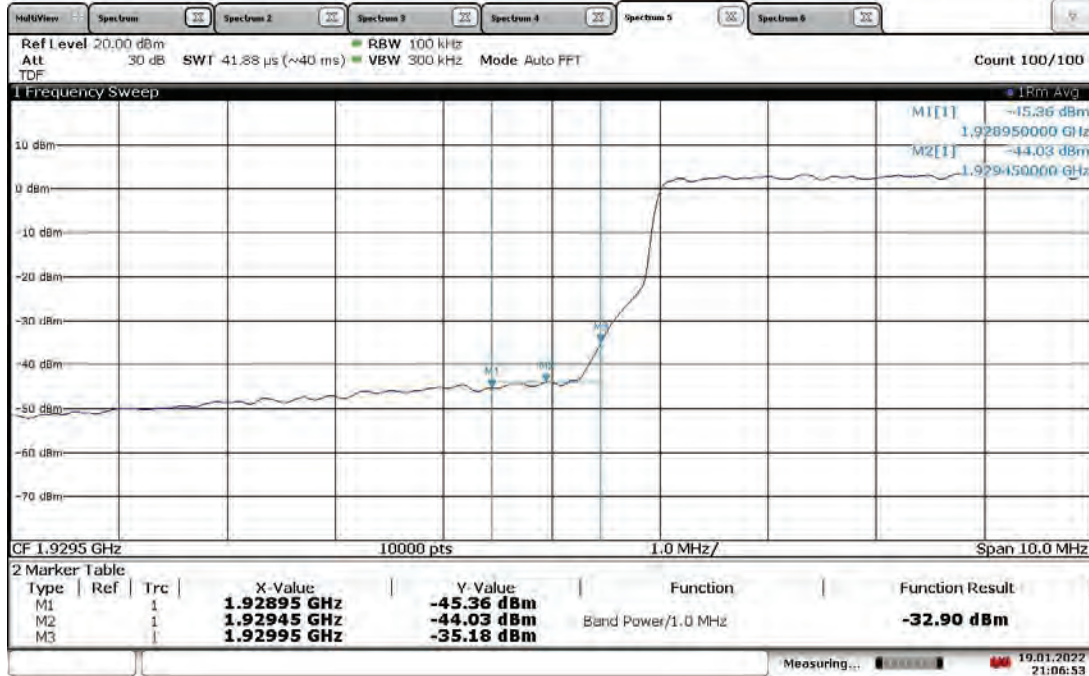
16:08:59 19.01.2022

Band Edge Compliant, Lower Band Edge, 1935 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM3.1-64QAM



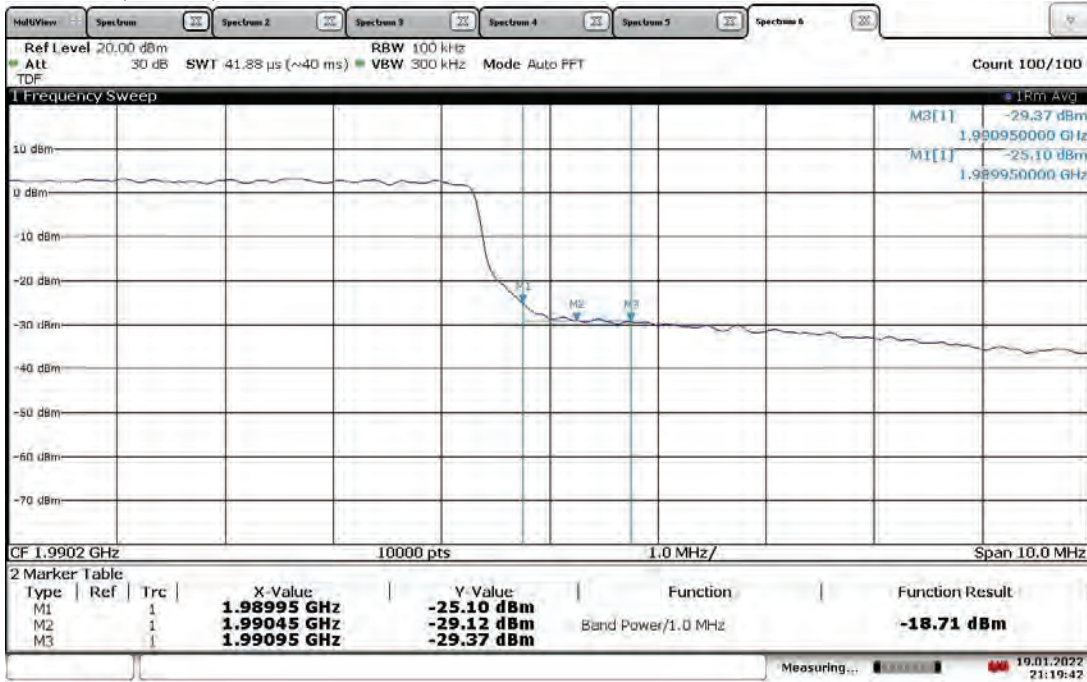
21:04:19 19.01.2022

Band Edge Compliant, Lower Band Edge, 1935 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.1-64QAM



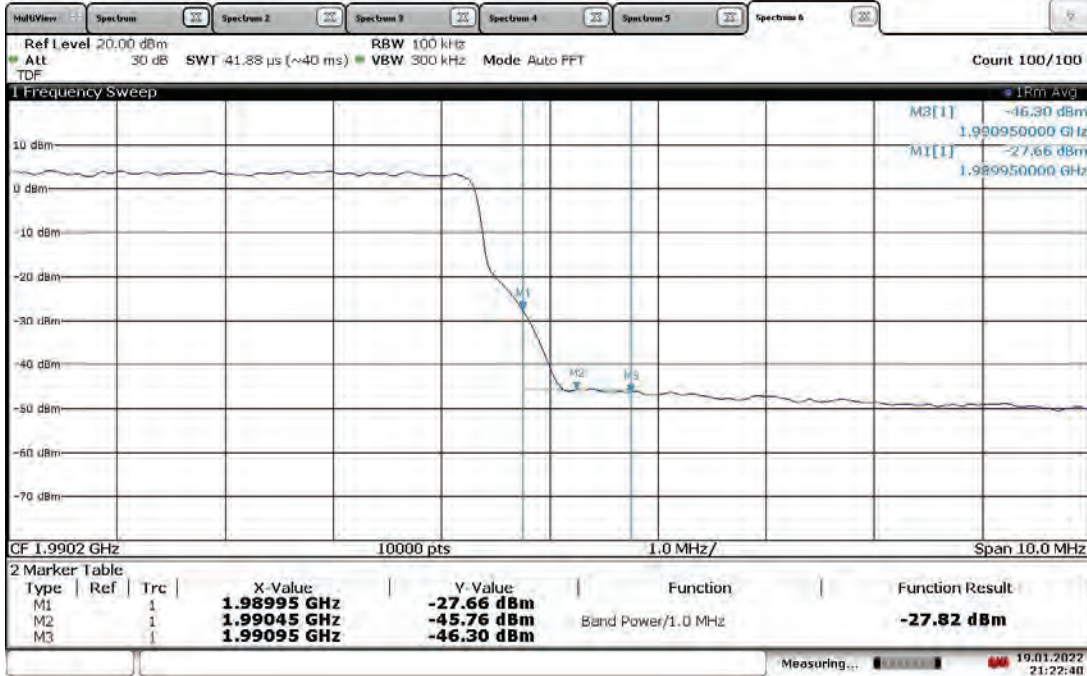
21:06:53 19.01.2022

Band Edge Compliant, Upper Band Edge, 1985 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM3.1-64QAM



21:19:42 19.01.2022

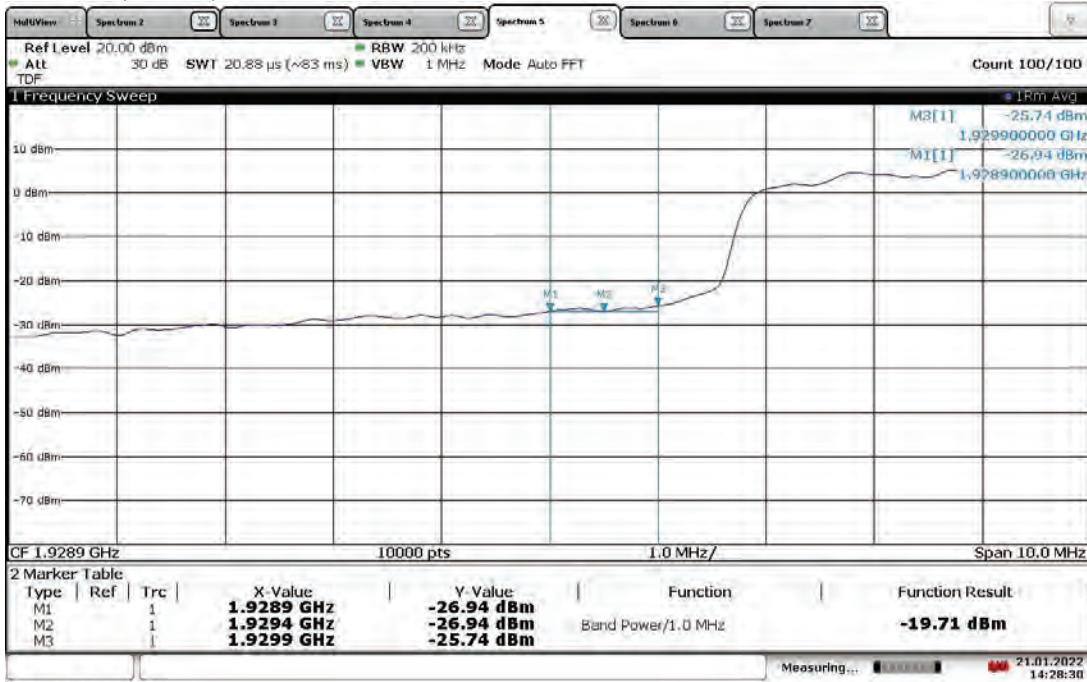
Band Edge Compliant, Upper Band Edge, 1985 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.1-64QAM



21:22:41 19.01.2022

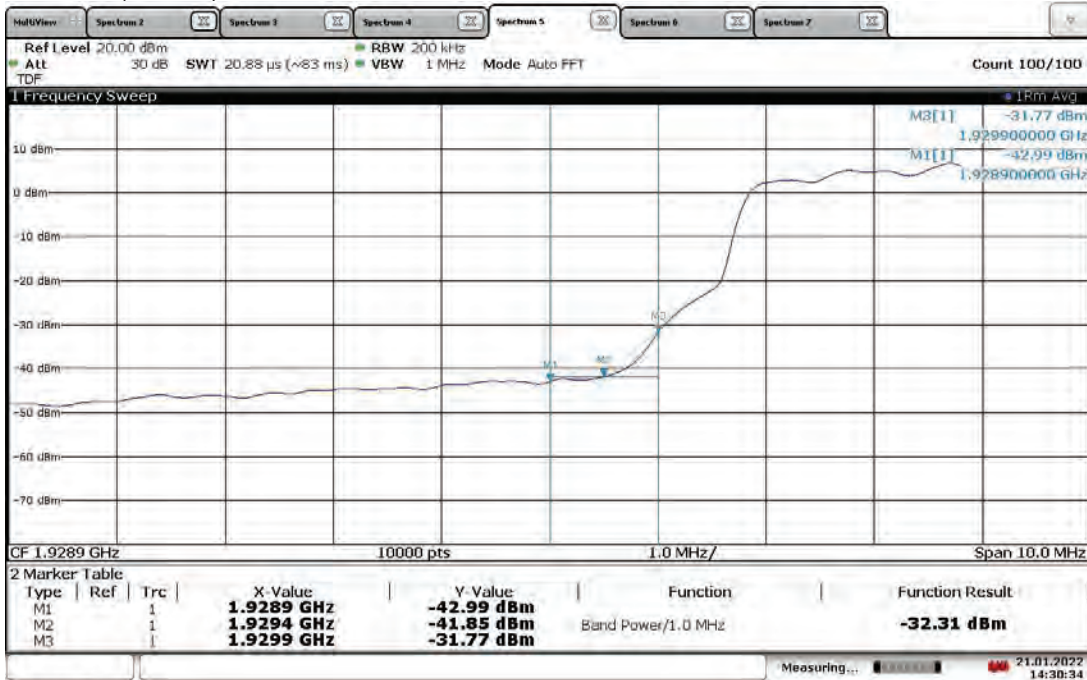


Band Edge Compliant, Lower Band Edge, 1937.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM



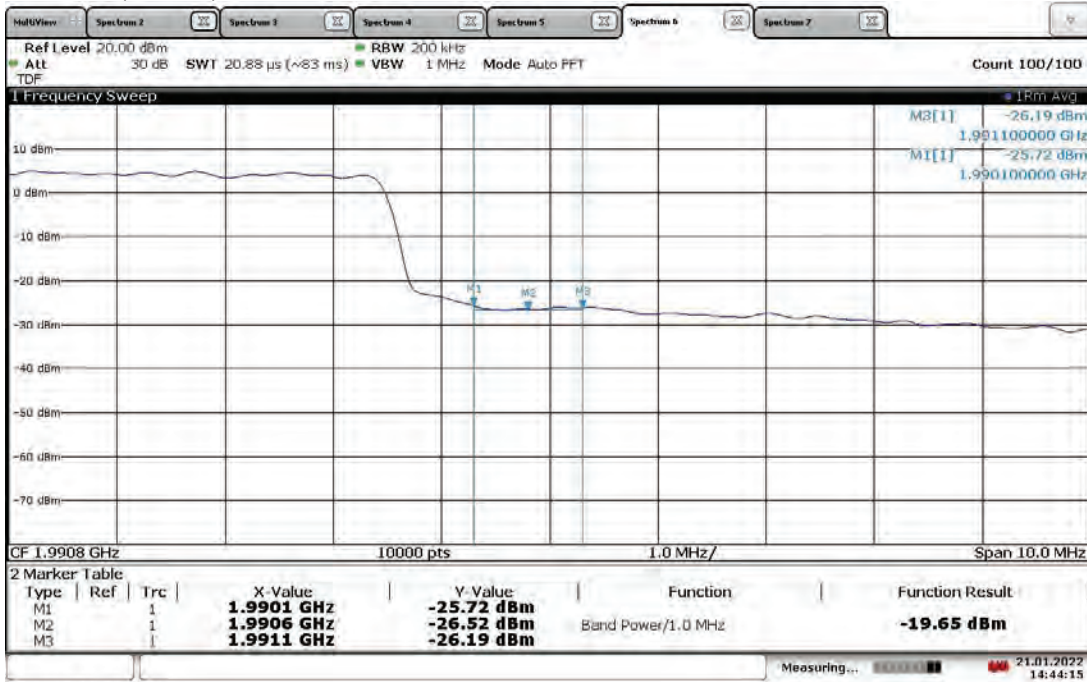
14:28:30 21.01.2022

Band Edge Compliant, Lower Band Edge, 1937.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM



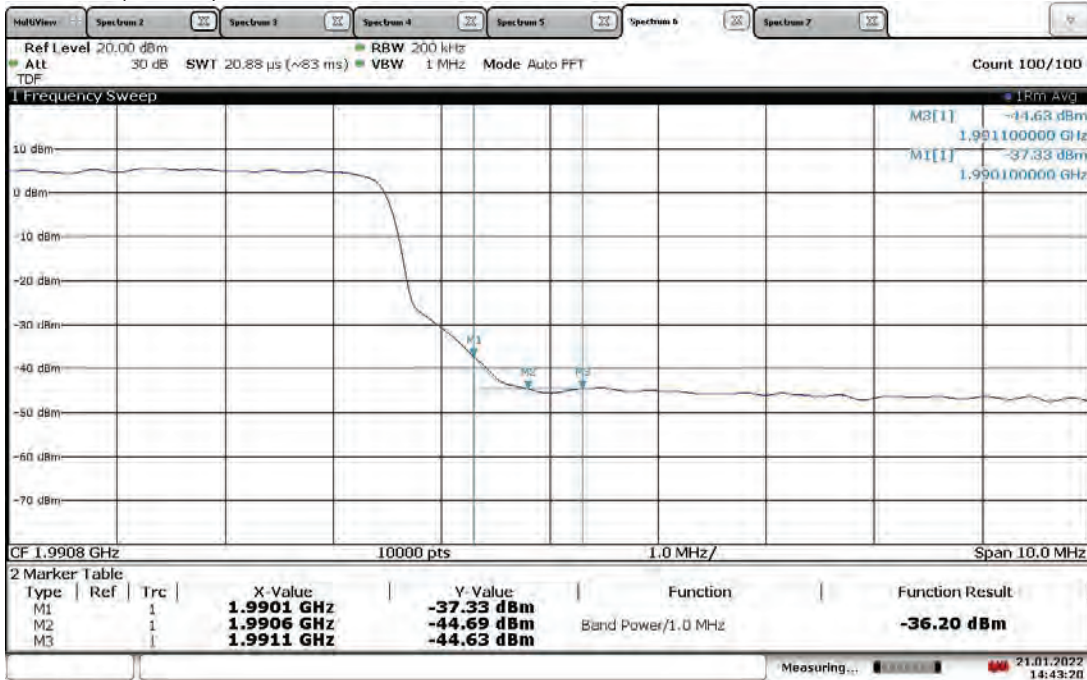
14:30:35 21.01.2022

Band Edge Compliant, Upper Band Edge, 1982.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM



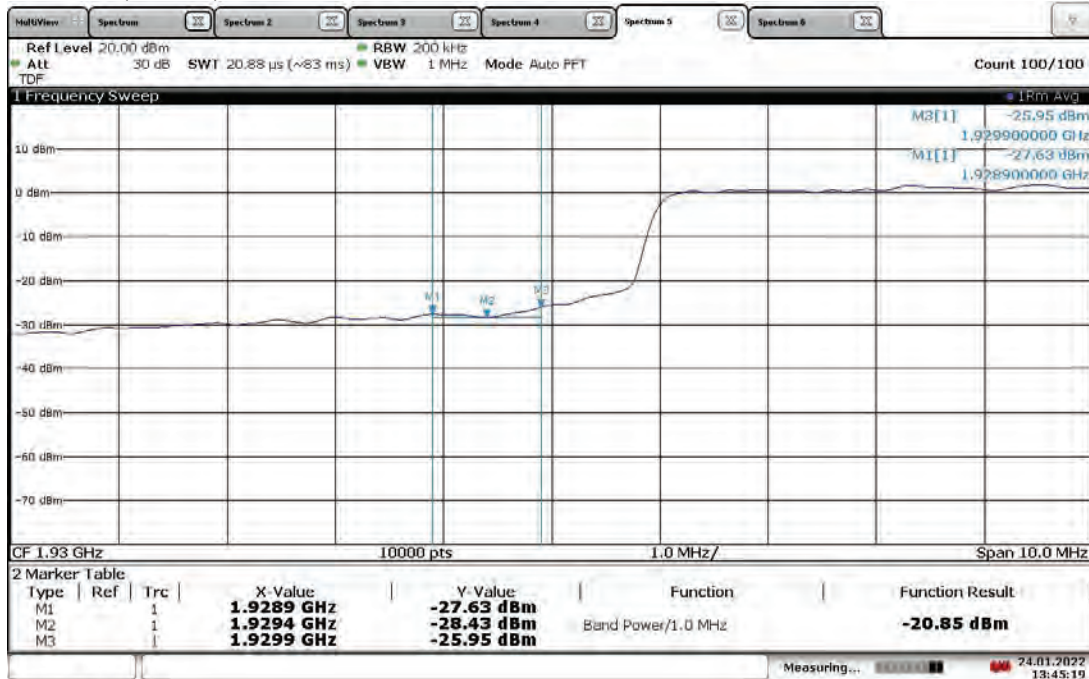
14:44:15 21.01.2022

Band Edge Compliant, Upper Band Edge, 1982.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1-64QAM



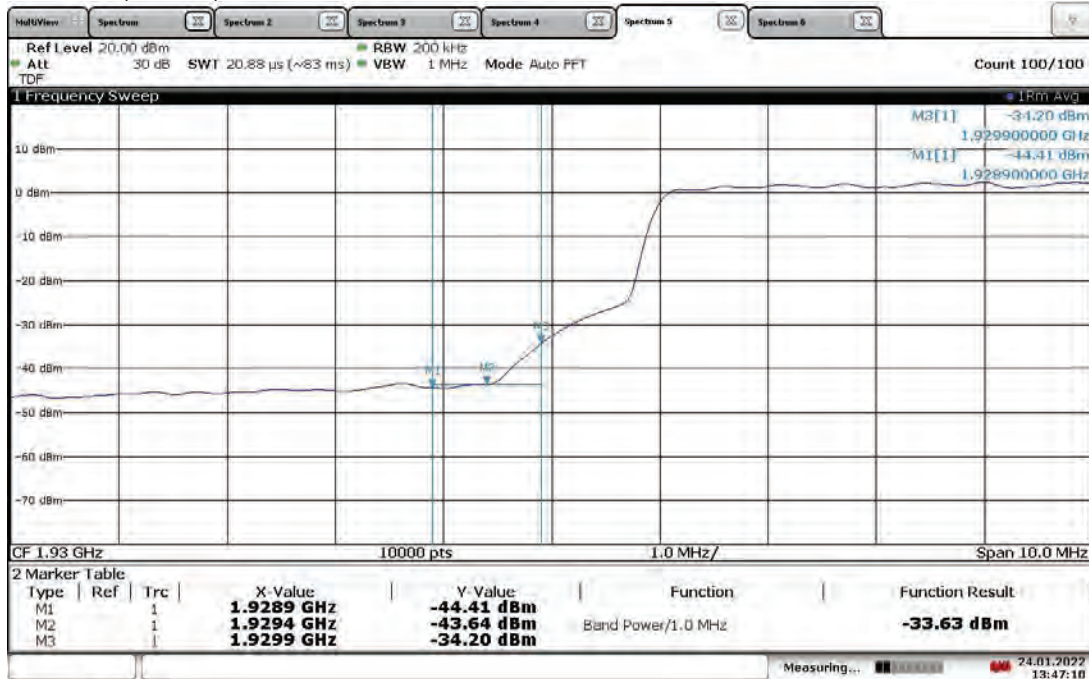
14:43:21 21.01.2022

Band Edge Compliant, Lower Band Edge, 1940 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



13:45:19 24.01.2022

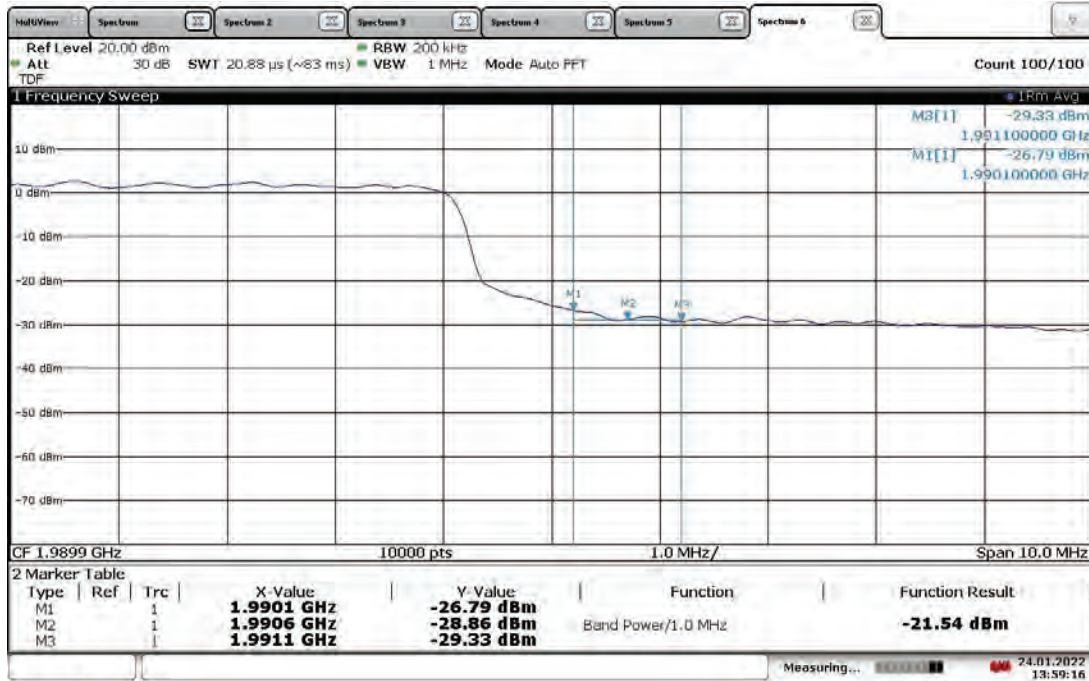
Band Edge Compliant, Lower Band Edge, 1940 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



13:47:11 24.01.2022

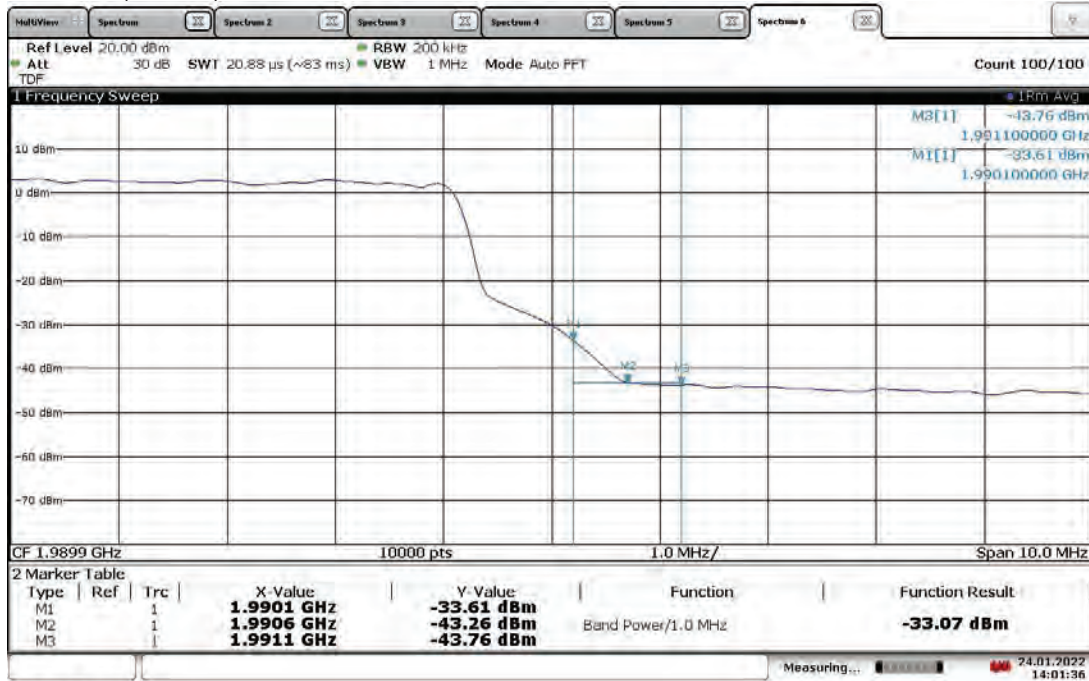


Band Edge Compliant, Upper Band Edge, 1980 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



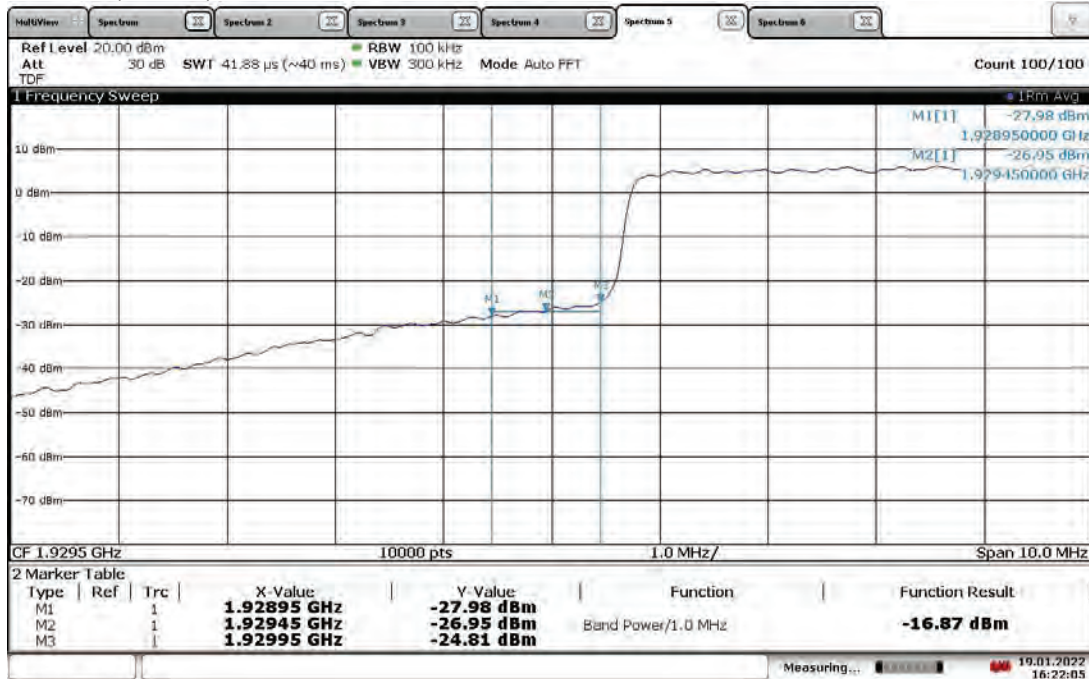
13:59:16 24.01.2022

Band Edge Compliant, Upper Band Edge, 1980 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1-64QAM



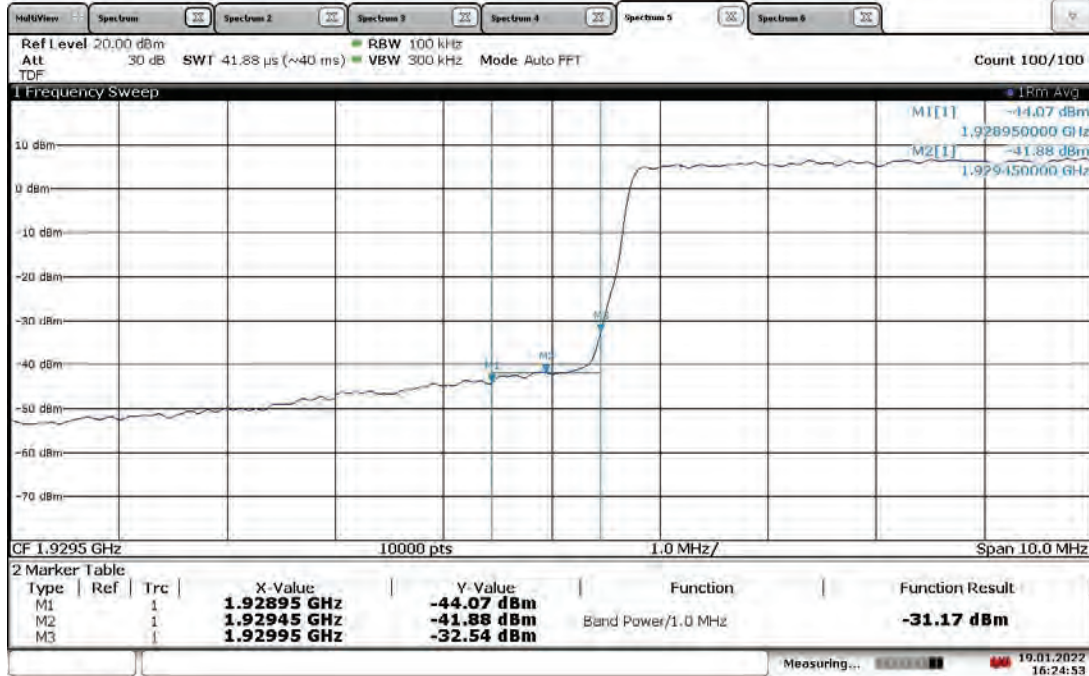
14:01:36 24.01.2022

Band Edge Compliant, Lower Band Edge, 1932.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM



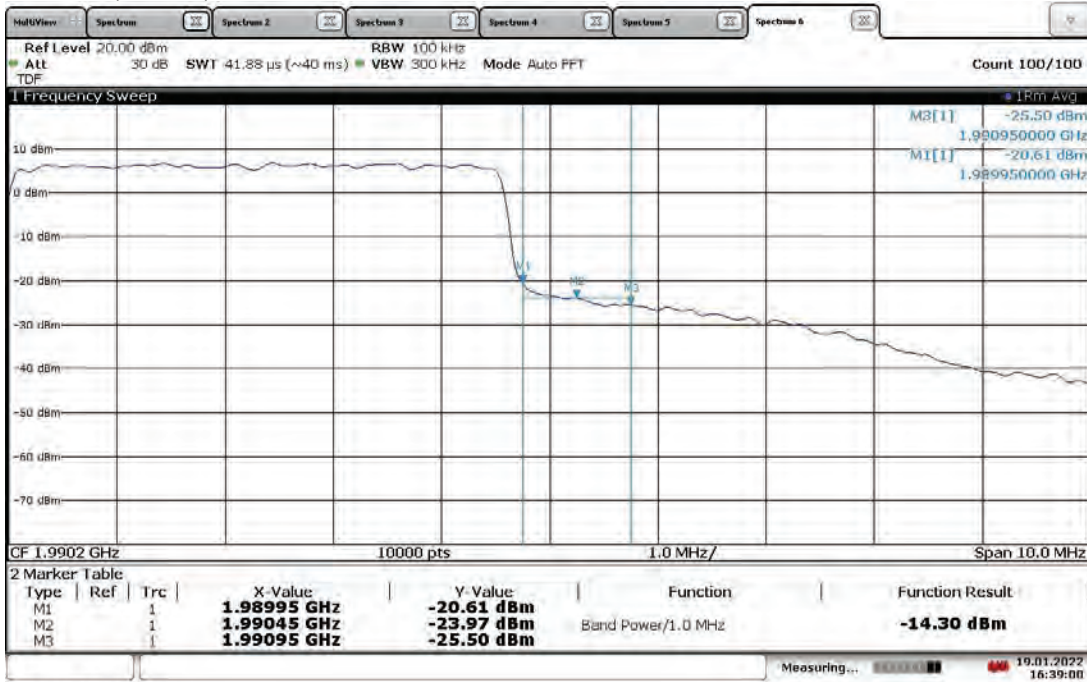
16:22:05 19.01.2022

Band Edge Compliant, Lower Band Edge, 1932.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM



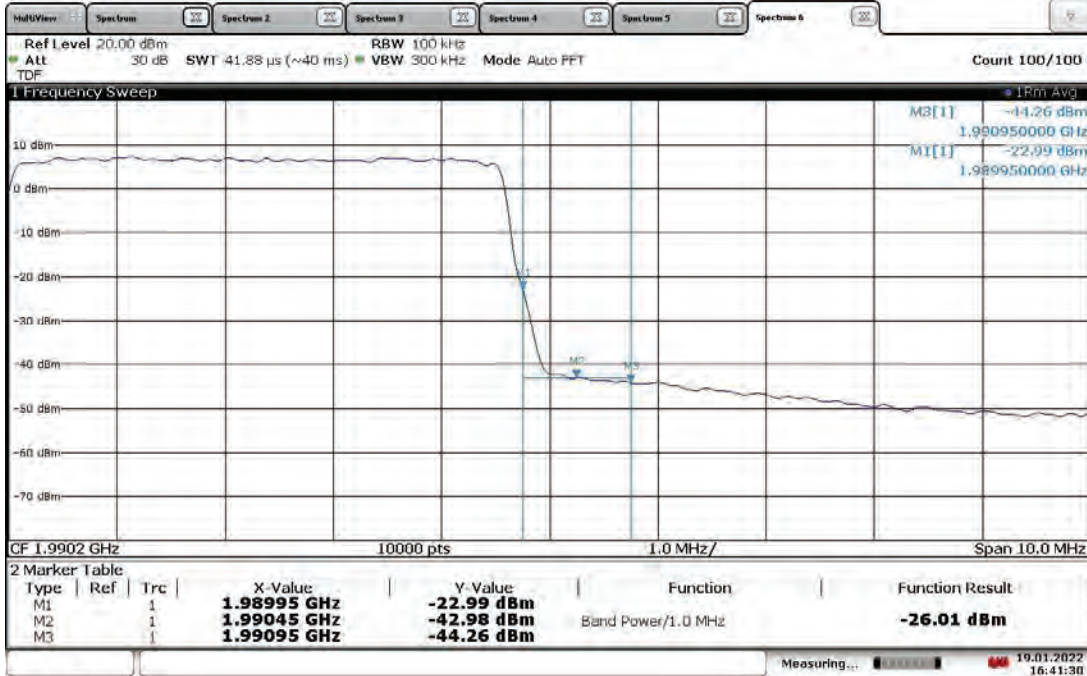
16:24:53 19.01.2022

Band Edge Compliant, Upper Band Edge, 1987.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM



16:39:00 19.01.2022

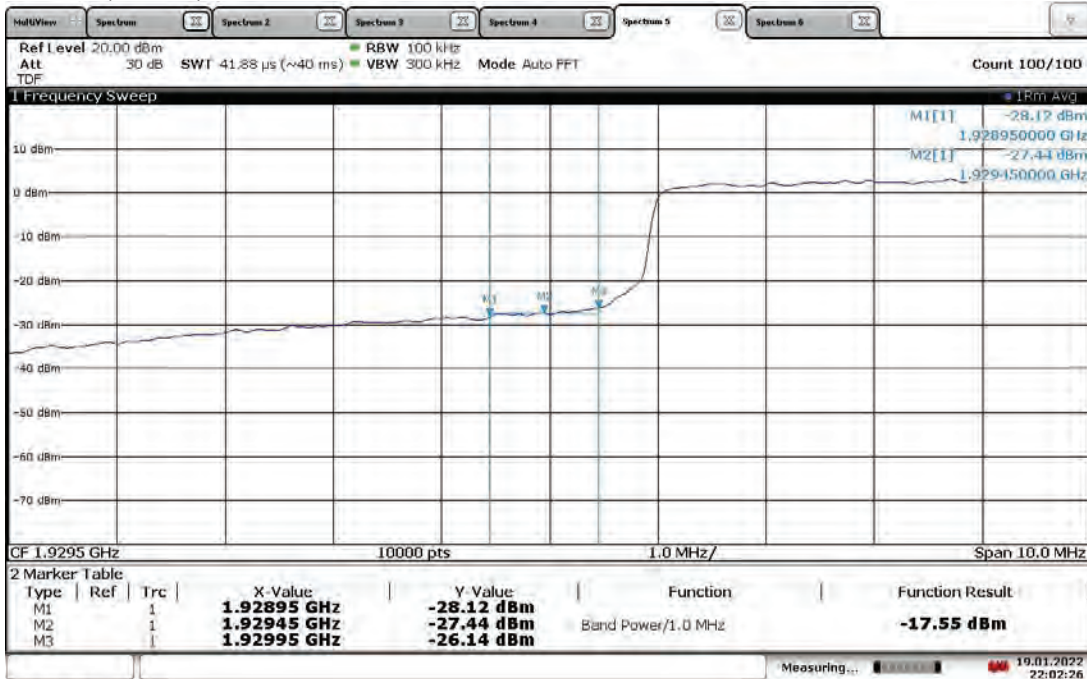
Band Edge Compliant, Upper Band Edge, 1987.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 5 MHz, Modulation: TM3.1a-256QAM



16:41:30 19.01.2022

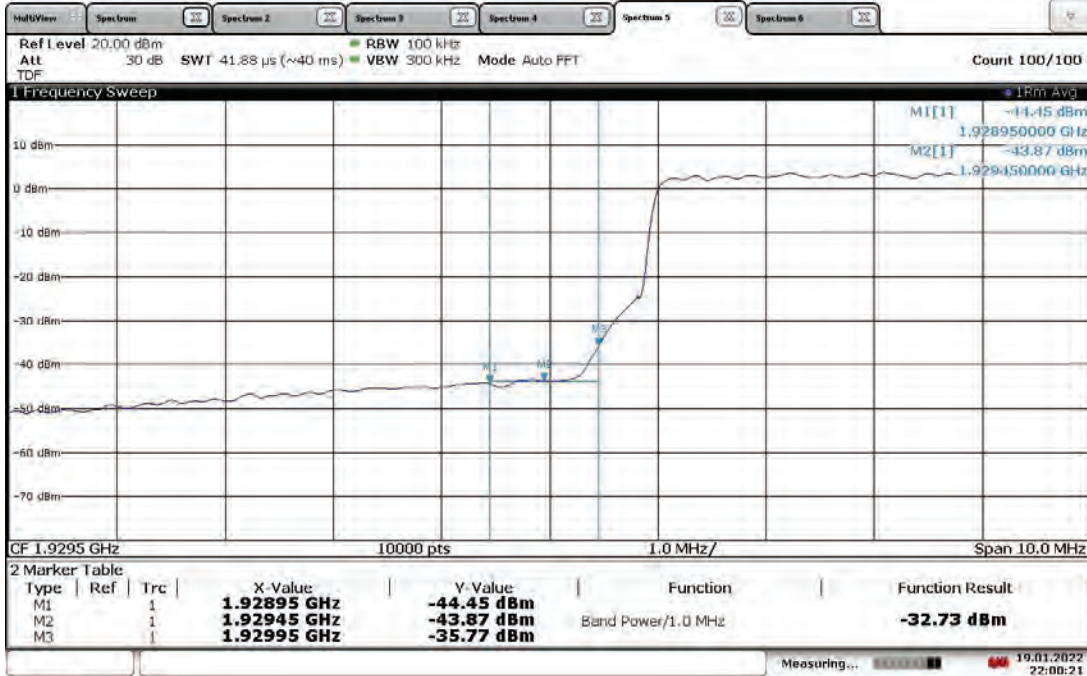


Band Edge Compliant, Lower Band Edge, 1935 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM



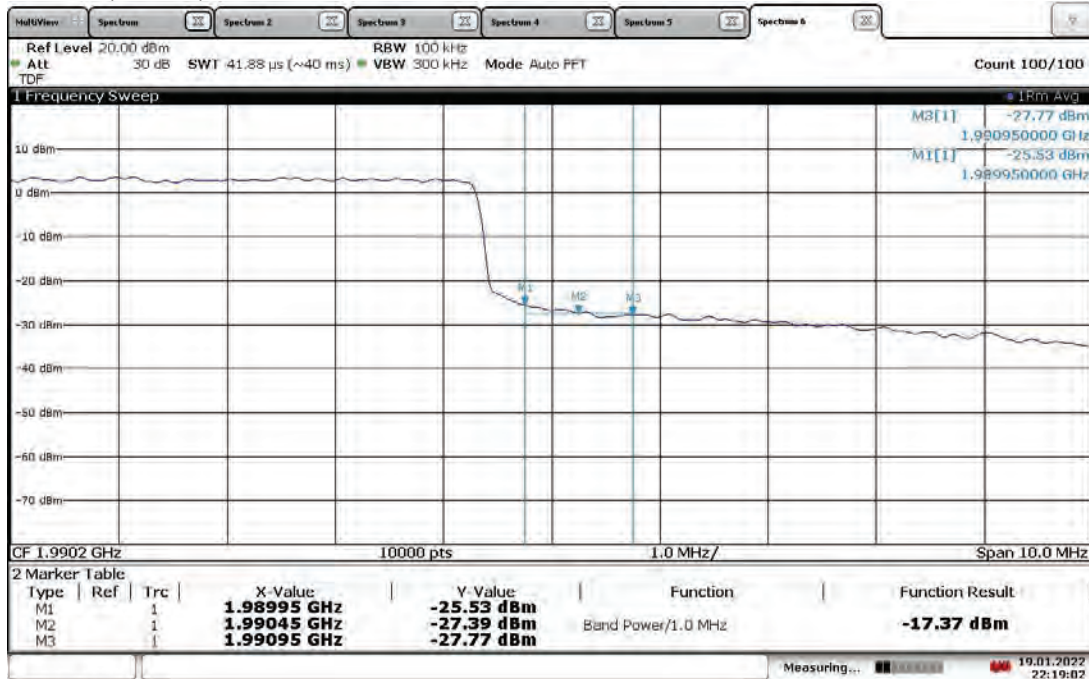
22:02:26 19.01.2022

Band Edge Compliant, Lower Band Edge, 1935 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM



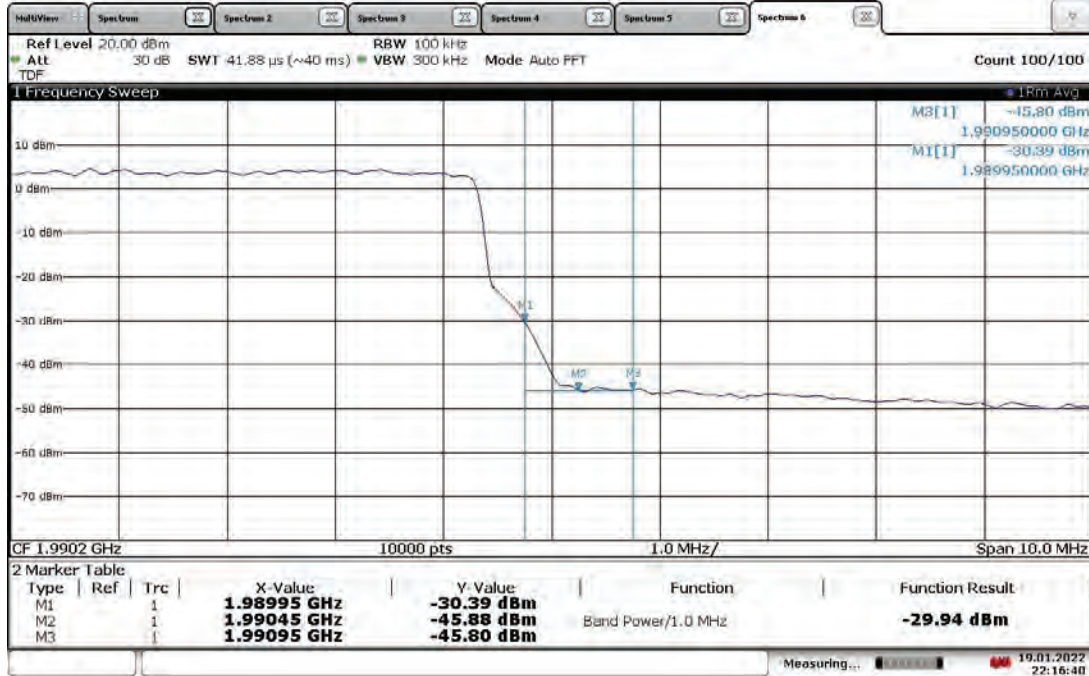
22:00:22 19.01.2022

Band Edge Compliant, Upper Band Edge, 1985 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM



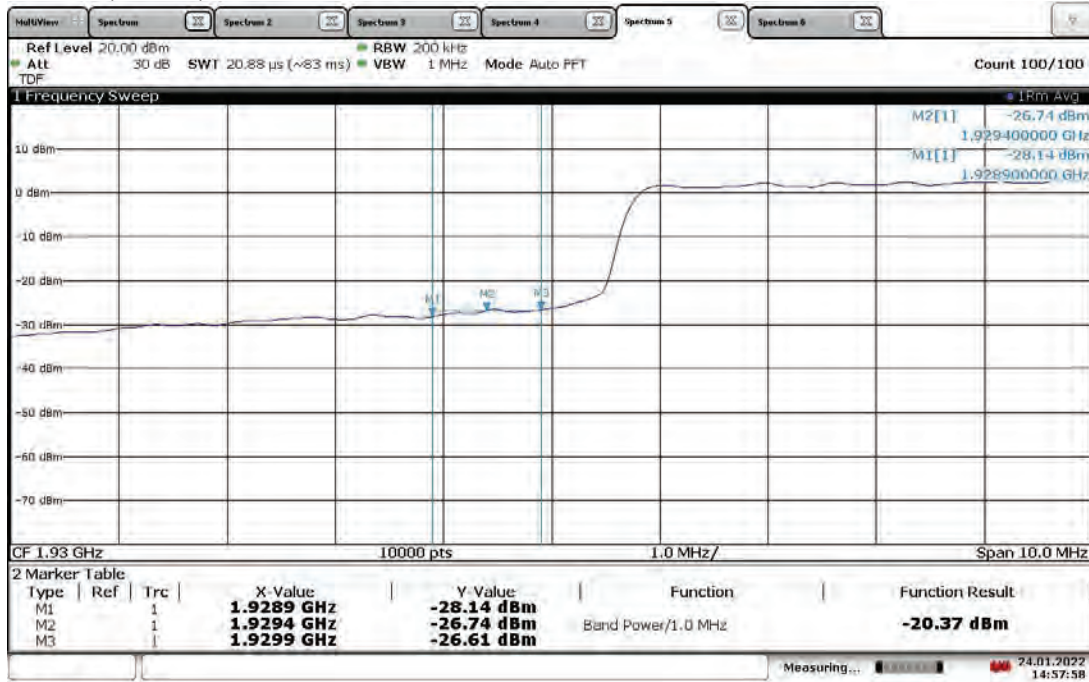
22:19:03 19.01.2022

Band Edge Compliant, Upper Band Edge, 1985 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 10 MHz, Modulation: TM3.1a-256QAM



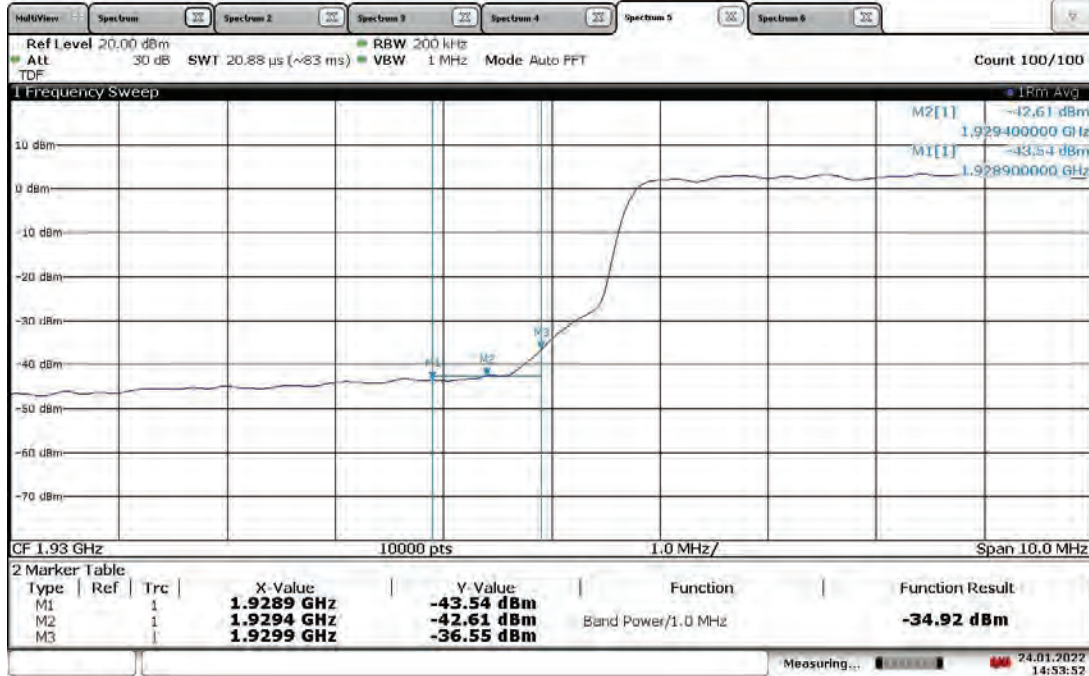
22:16:40 19.01.2022

Band Edge Compliant, Lower Band Edge, 1937.5MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM



14:57:58 24.01.2022

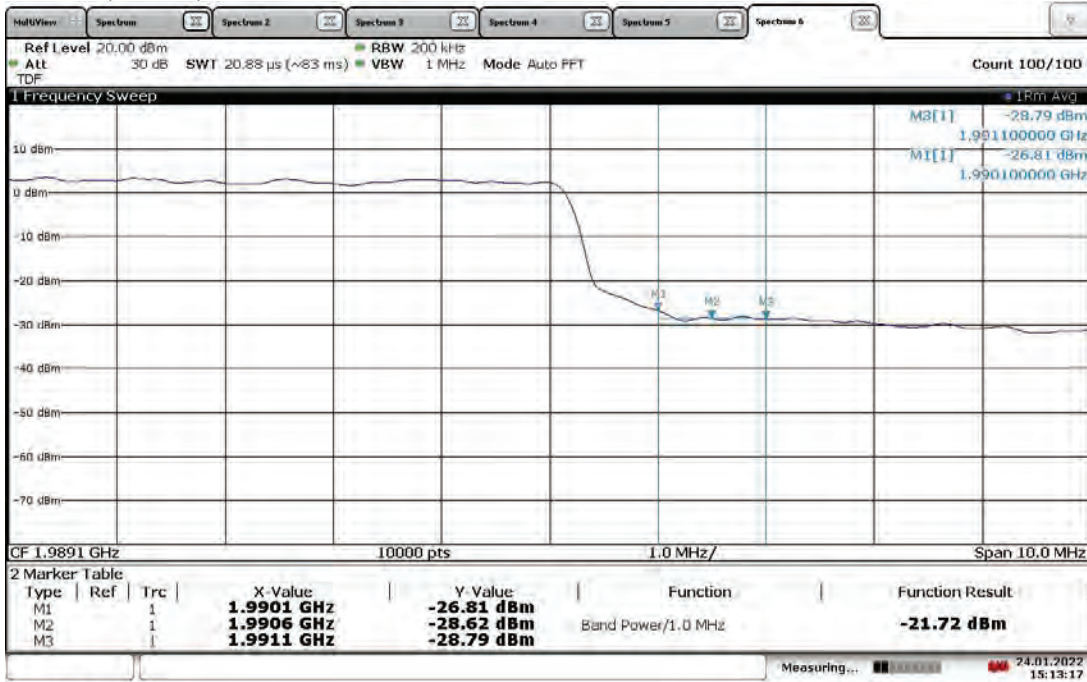
Band Edge Compliant, Lower Band Edge, 1937.5MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM



14:53:53 24.01.2022

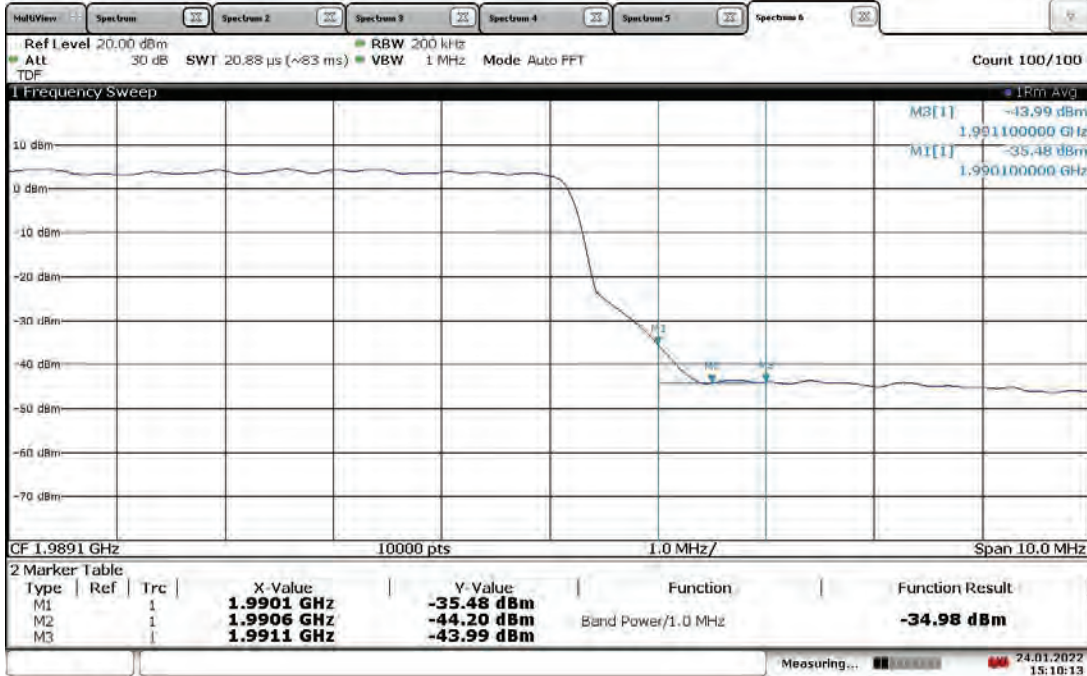


Band Edge Compliant, Upper Band Edge, 1982.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM



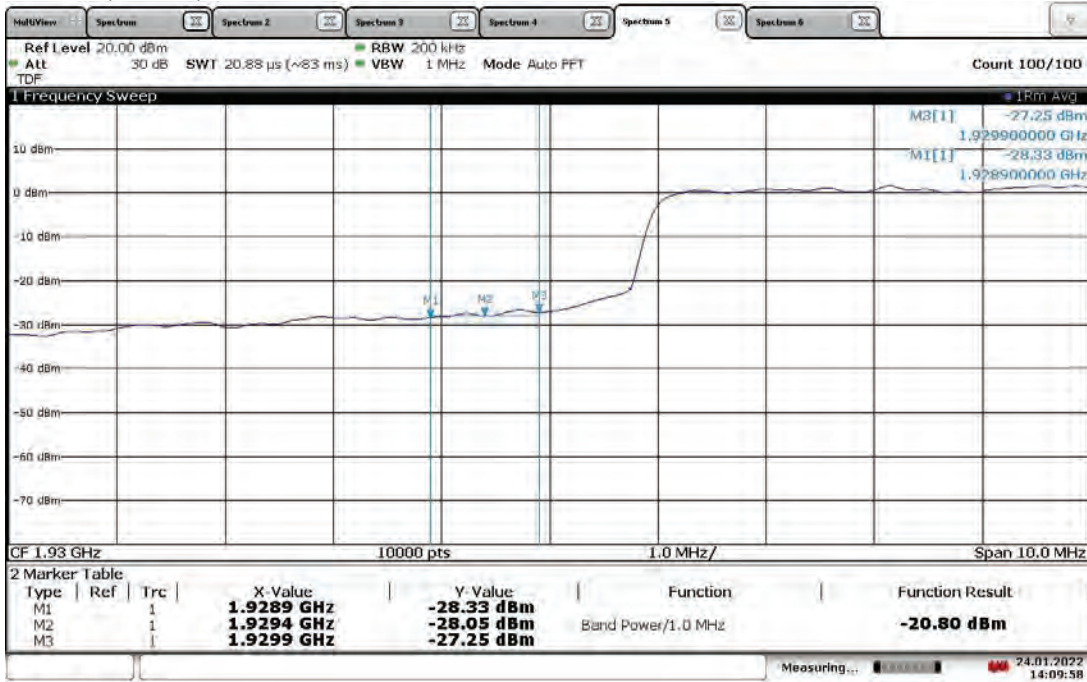
15:13:18 24.01.2022

Band Edge Compliant, Upper Band Edge, 1982.5 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 15 MHz, Modulation: TM3.1a-256QAM



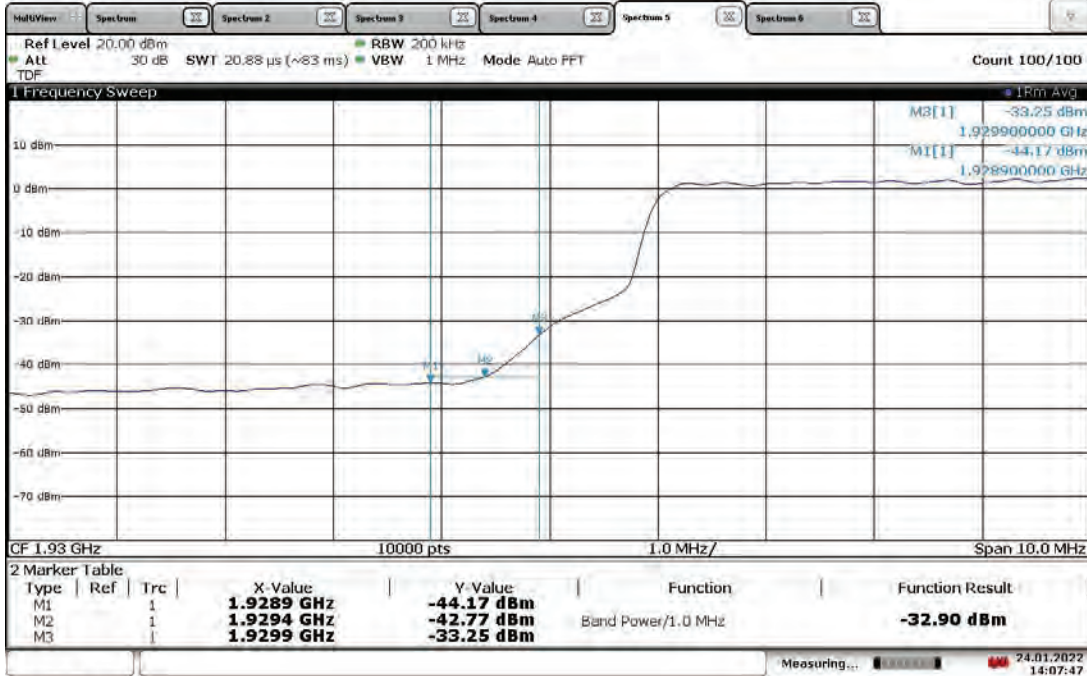
15:10:13 24.01.2022

Band Edge Compliant, Lower Band Edge, 1940 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



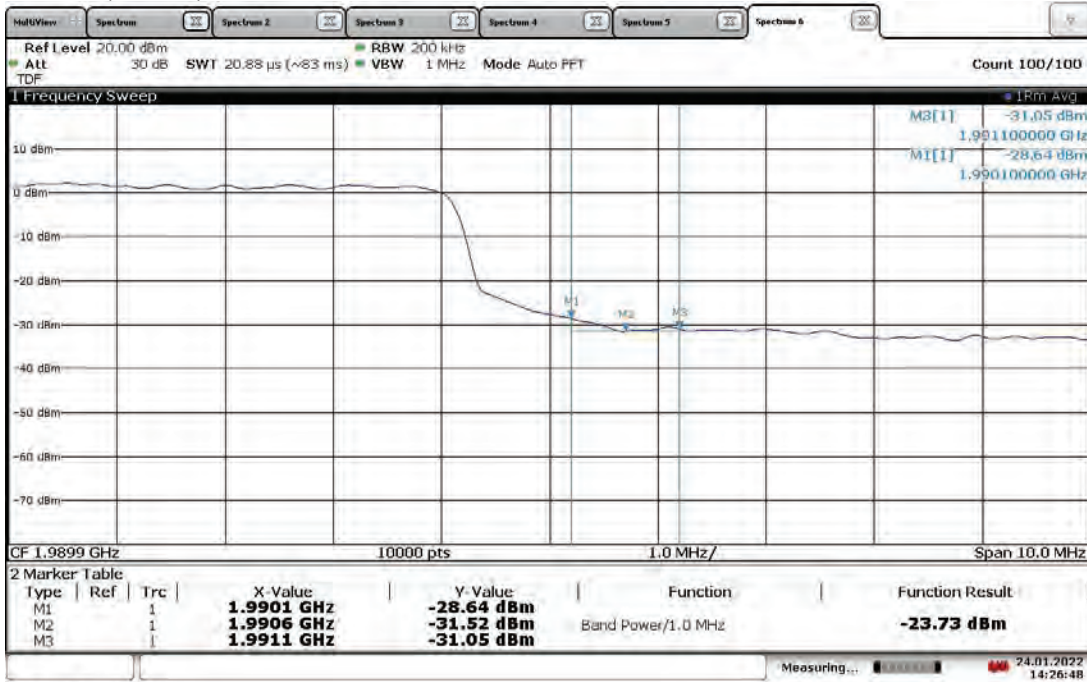
14:09:58 24.01.2022

Band Edge Compliant, Lower Band Edge, 1940 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



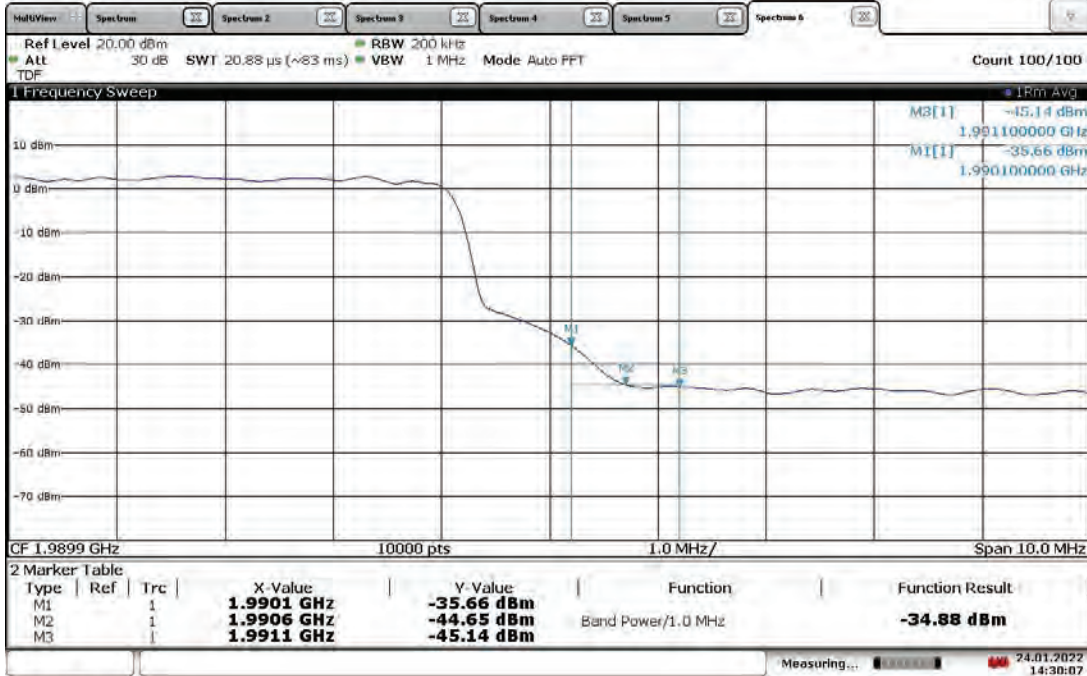
14:07:47 24.01.2022

Band Edge Compliant, Upper Band Edge, 1980 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT0, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



14:26:48 24.01.2022

Band Edge Compliant, Upper Band Edge, 1980 MHz (5G nR)  
Slot 0 (Band 2), Antenna Port: ANT1, Bandwidth: 20 MHz, Modulation: TM3.1a-256QAM



14:30:08 24.01.2022



# Intertek

Report Number: 104915434BOX-001

Issued: 02/24/2022  
Revised: 03/30/2022

Test Personnel: Kouma Sinn *KPS*  
Supervising/Reviewing  
Engineer:  
(Where Applicable) N/A

Test Date: 01/19/2022, 01/21/2022, 01/24/2022

Product Standard: FCC Part 24  
Input Voltage: 48 VDC (POE)

Limit Applied: See report section 9.3

Pretest Verification w/  
Ambient Signals or  
BB Source: N/A

Ambient Temperature: 24, 24, 23 °C

Relative Humidity: 15, 8, 12 %

Atmospheric Pressure: 1003, 1025, 1002 mbars

Deviations, Additions, or Exclusions: None

## 10 Frequency Stability

### 10.1 Method

Tests are performed in accordance with ANSI C63.26 and CFR47 FCC Parts 2.1055 and 24.

**TEST SITE:** Safety Lab

### 10.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
ROS005-1'	Signal and Spectrum Analyzer	Rohde and Shwartz	FSW43	100646	11/02/2021	11/02/2022
CEN001'	DC-40GHz attenuator 20dB	Centric RF	C411-20	CEN001	01/26/2022	01/26/2023
CBLHF2012-2M-2'	2m 9kHz-40GHz Coaxial Cable - SET2	Huber & Suhner	SF102	252675002	02/10/2021	02/10/2022
SAF1153'	Freezing Rain\icing\Temp\Humidity\ -73deg C to +190deg C, 95% humidity, Ice Freezing Rain	Cincinnati Sub-Zero	CTH-(FR)64-6-6-SC/AC	12-CT15628	11/22/2021	11/22/2022

### Software Utilized:

Name	Manufacturer	Version
None	--	--

### 10.3 Results:

The sample tested was found to Comply.

§24.235 Frequency stability – The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The occupied bandwidth measurement was used to make sure the lower and upper frequencies of the occupied bandwidth remains within the assigned band of 1930-1990 MHz.

**Band 2 (4G LTE), Modulation: QPSK, Bandwidth: 5 MHz, Antenna Port: ANT1, Low Ch. 1932.5 MHz**

**Frequency stability over temperature**

Band 2 (4G LTE), Modulation: QPSK, Bandwidth: 5MHz, Antenna Port: ANT1 , Low Ch. 1932.5

Low Edge of Occupied Bandwidth

Temperature (Deg. C)	Low Edge (GHz)	Low Edge Deviation (GHz)	Low Edge (%) --	PPM --	Limit PPM
-30	1.93026121	-8.07E-06	-4.1808E-06	-0.04	2.5
-20	1.93025795	-4.81E-06	-2.4919E-06	-0.02	2.5
-10	1.93025642	-3.28E-06	-1.69926E-06	-0.02	2.5
0	1.9302561	2.96E-06	1.53348E-06	0.02	2.5
10	1.93025357	4.3E-07	2.22769E-07	0.00	2.5
20	1.93025314	0	0	0.00	--
30	1.93025418	1.04E-06	5.38789E-07	0.01	2.5
40	1.93025297	-1.7E-07	-8.80714E-08	0.00	2.5
50	1.93025153	-1.61E-06	-8.34087E-07	-0.01	2.5

Upper Edge of Occupied Bandwidth

Temperature (Deg. C)	Upper Edge (GHz)	Upper Edge Deviation (GHz)	Upper Edge (%) --	PPM --	Limit PPM
-30	1.9347503	-6.17E-06	-3.18905E-06	-0.03	2.5
-20	1.93474897	-4.84E-06	-2.50162E-06	-0.03	2.5
-10	1.93474879	-4.66E-06	-2.40859E-06	-0.02	2.5
0	1.93474806	3.93E-06	2.03128E-06	0.02	2.5
10	1.93474856	4.43E-06	2.28971E-06	0.02	2.5
20	1.93474413	0	0	0.00	--
30	1.93474646	2.33E-06	1.20429E-06	0.01	2.5
40	1.9347453	1.17E-06	6.04731E-07	0.01	2.5
50	1.93474527	1.14E-06	5.89225E-07	0.01	2.5



**Band 2 (4G LTE), Modulation: QPSK, Bandwidth: 5 MHz, Antenna Port: ANT1, High Ch. 1987.5 MHz**

**Frequency stability over temperature**

Band 2 (4G LTE), Modulation: QPSK, Bandwidth: 5MHz, Antenna Port: ANT1 , High Ch. 1987.5 MHz

Low Edge of Occupied Bandwidth

Temperature (Deg. C)	Low Edge (GHz)	Low Edge Deviation (GHz)	Low Edge (%)	PPM	Limit PPM
-30	1.9852439	-9.9E-07	-4.9868E-07	0.00	2.5
-20	1.98524456	-1.65E-06	-8.31133E-07	-0.01	2.5
-10	1.98524366	-7.5E-07	-3.77788E-07	0.00	2.5
0	1.98524411	1.2E-06	6.0446E-07	0.01	2.5
10	1.98524451	1.6E-06	8.05947E-07	0.01	2.5
20	1.98524291	0	0	0.00	--
30	1.98524379	8.8E-07	4.43271E-07	0.00	2.5
40	1.98524336	4.5E-07	2.26673E-07	0.00	2.5
50	1.9852433	3.9E-07	1.9645E-07	0.00	2.5

Upper Edge of Occupied Bandwidth

Temperature (Deg. C)	Upper Edge (GHz)	Upper Edge Deviation (GHz)	Upper Edge (%)	PPM	Limit PPM
-30	1.98974136	-4.73E-06	-2.3772E-06	-0.02	2.5
-20	1.98973928	-2.65E-06	-1.33183E-06	-0.01	2.5
-10	1.98974022	-3.59E-06	-1.80426E-06	-0.02	2.5
0	1.98974082	4.19E-06	2.10581E-06	0.02	2.5
10	1.98974009	3.46E-06	1.73892E-06	0.02	2.5
20	1.98973663	0	0	0.00	--
30	1.98973938	2.75E-06	1.38209E-06	0.01	2.5
40	1.98973829	1.66E-06	8.34281E-07	0.01	2.5
50	1.9897355	-1.13E-06	-5.67914E-07	-0.01	2.5

**Band 2 (4G LTE), Modulation: QPSK, Bandwidth: 20 MHz, Antenna Port: ANT1, Low Ch. 1940 MHz**

**Frequency stability over temperature**

Band 2 (4G LTE), Modulation: QPSK, Bandwidth: 20MHz, Antenna Port: ANT1 , Low Ch. 1940 MHz

Low Edge of Occupied Bandwidth

Temperature (Deg. C)	Low Edge (GHz)	Low Edge Deviation (GHz)	Low Edge (%)	PPM	Limit PPM
-30	1.93114751	-2.26E-05	-1.1703E-05	-0.12	2.5
-20	1.93111768	7.23E-06	3.74393E-06	0.04	2.5
-10	1.93112489	2E-08	1.03567E-08	0.00	2.5
0	1.93112318	-1.73E-06	-8.95851E-07	-0.01	2.5
10	1.93112501	1E-07	5.17833E-08	0.00	2.5
20	1.93112491	0	0	0.00	--
30	1.9311169	-8.01E-06	-4.14784E-06	-0.04	2.5
40	1.93111597	-8.94E-06	-4.62943E-06	-0.05	2.5
50	1.93109716	-2.775E-05	-1.43699E-05	-0.14	2.5

Upper Edge of Occupied Bandwidth

Temperature (Deg. C)	Upper Edge (GHz)	Upper Edge Deviation (GHz)	Upper Edge (%)	PPM	Limit PPM
-30	1.94896287	-4.03E-06	-2.06777E-06	-0.02	2.5
-20	1.94895732	1.52E-06	7.79904E-07	0.01	2.5
-10	1.94895193	6.91E-06	3.54548E-06	0.04	2.5
0	1.9489505	-8.34E-06	-4.27921E-06	-0.04	2.5
10	1.94895407	-4.77E-06	-2.44746E-06	-0.02	2.5
20	1.94895884	0	0	0.00	--
30	1.94895474	-4.1E-06	-2.10369E-06	-0.02	2.5
40	1.94893498	-2.386E-05	-1.22424E-05	-0.12	2.5
50	1.94894495	-1.389E-05	-7.12688E-06	-0.07	2.5

**Band 2 (4G LTE), Modulation: QPSK, Bandwidth: 20 MHz, Antenna Port: ANT1, High Ch. 1980 MHz****Frequency stability over temperature**

Band 2 (4G LTE), Modulation: QPSK, Bandwidth: 20 MHz, Antenna Port: ANT1 , High Ch. 1980 MHz

## Low Edge of Occupied Bandwidth

Temperature (Deg. C)	Low Edge (GHz)	Low Edge Deviation (GHz)	Low Edge (%)	PPM	Limit PPM
-30	1.97106782	-8.62E-06	-4.37328E-06	-0.04	2.5
-20	1.97105837	8.3E-07	4.21093E-07	0.00	2.5
-10	1.97106376	-4.56E-06	-2.31348E-06	-0.02	2.5
0	1.97105628	-2.92E-06	-1.48144E-06	-0.01	2.5
10	1.97105995	7.5E-07	3.80506E-07	0.00	2.5
20	1.9710592	0	0	0.00	--
30	1.97105211	-7.09E-06	-3.59705E-06	-0.04	2.5
40	1.9710642	5E-06	2.53671E-06	0.03	2.5
50	1.97107284	1.364E-05	6.92014E-06	0.07	2.5

## Upper Edge of Occupied Bandwidth

Temperature (Deg. C)	Upper Edge (GHz)	Upper Edge Deviation (GHz)	Upper Edge (%)	PPM	Limit PPM
-30	1.98892442	-2.23E-06	-1.12121E-06	-0.01	2.5
-20	1.98892141	7.8E-07	3.92172E-07	0.00	2.5
-10	1.9889151	7.09E-06	3.56474E-06	0.04	2.5
0	1.98892516	2.97E-06	1.49327E-06	0.01	2.5
10	1.98892315	9.6E-07	4.82673E-07	0.00	2.5
20	1.98892219	0	0	0.00	--
30	1.98891903	-3.16E-06	-1.5888E-06	-0.02	2.5
40	1.98892647	4.28E-06	2.15192E-06	0.02	2.5
50	1.98892084	-1.35E-06	-6.7876E-07	-0.01	2.5