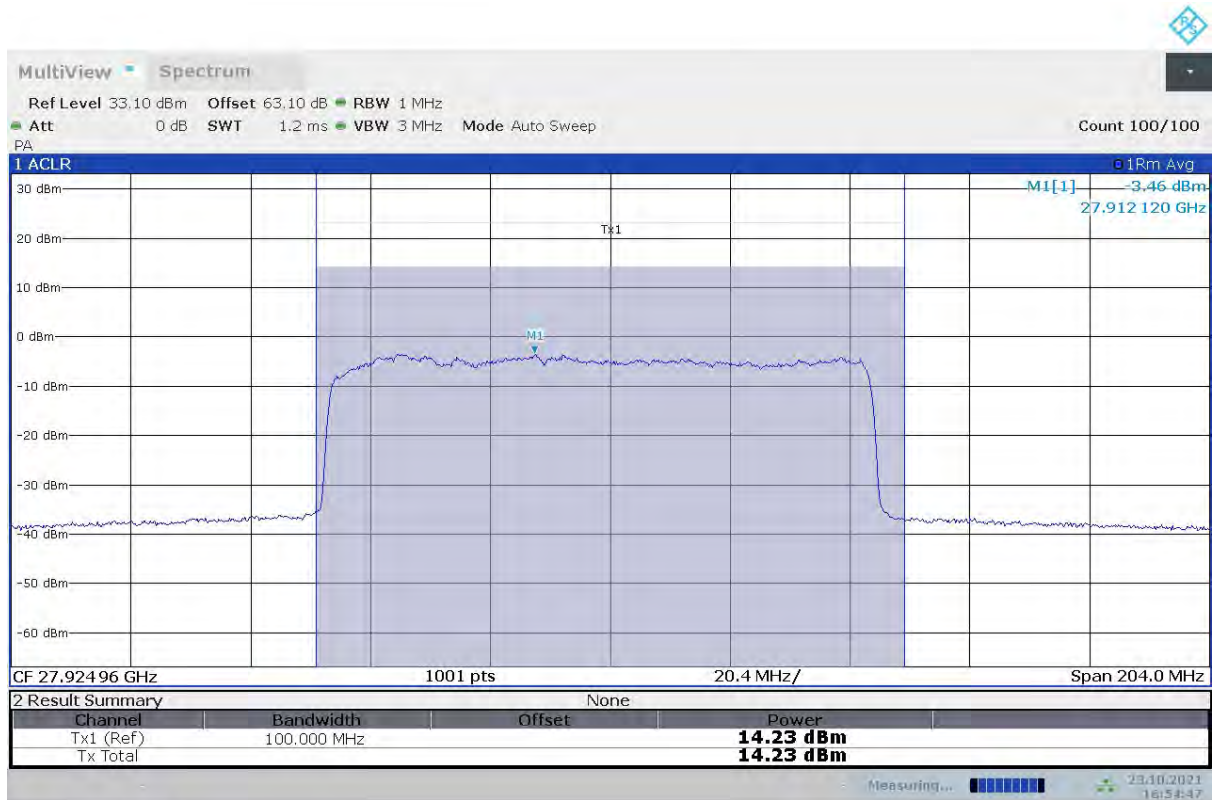


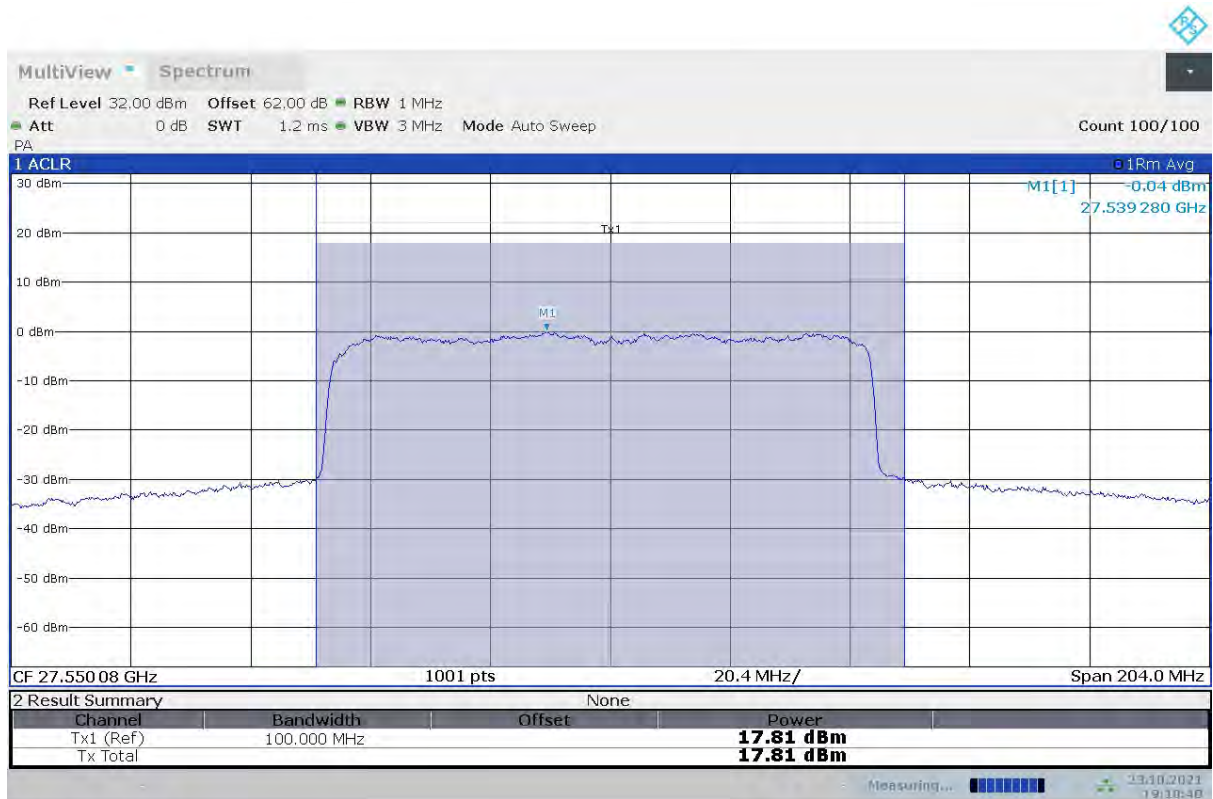
n261, Module0, 100MHz Bandwidth, 100% RB, MID CHANNEL, 64QAM



16:54:48 23.10.2021

n261, Module0, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	100% RB	27550.08	17.81	/	/

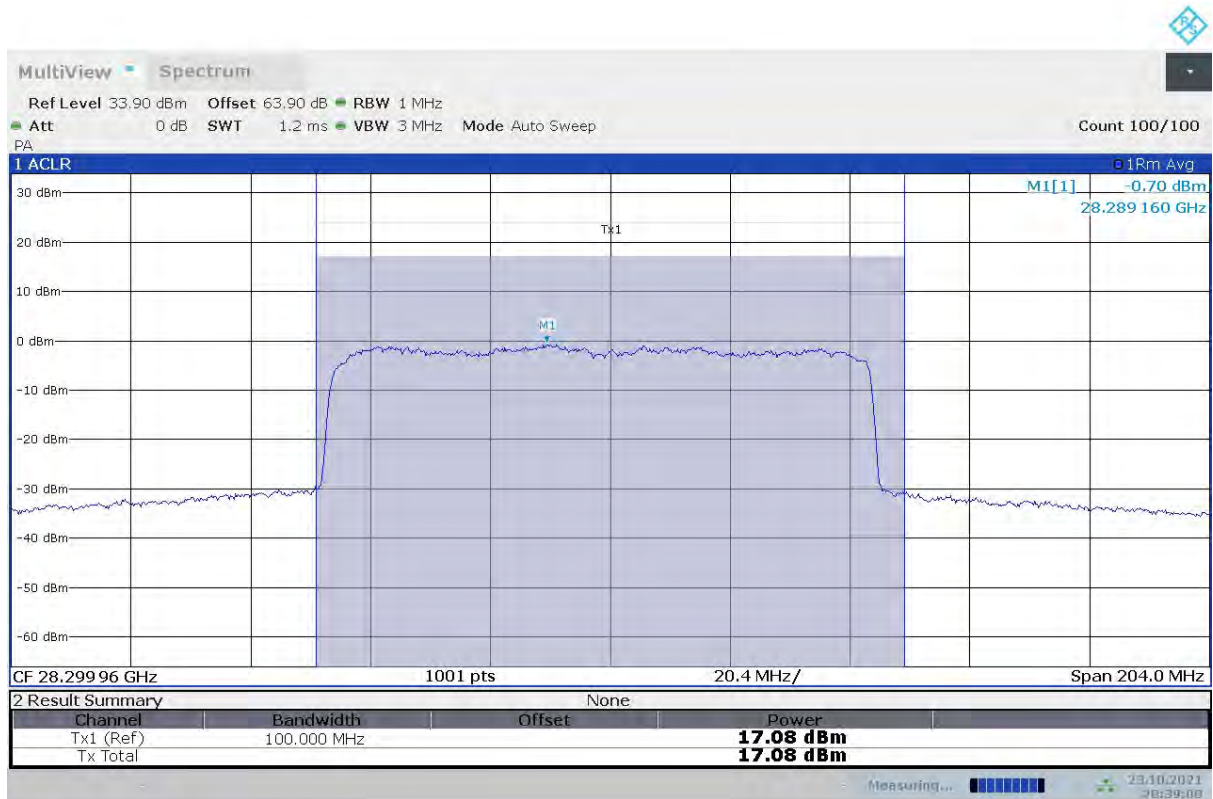
n261, Module0, 100MHz Bandwidth, 100% RB, LOW CHANNEL, QPSK



19:10:40 23.10.2021

n261, Module0, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	100% RB	28299.96	17.08	/	/

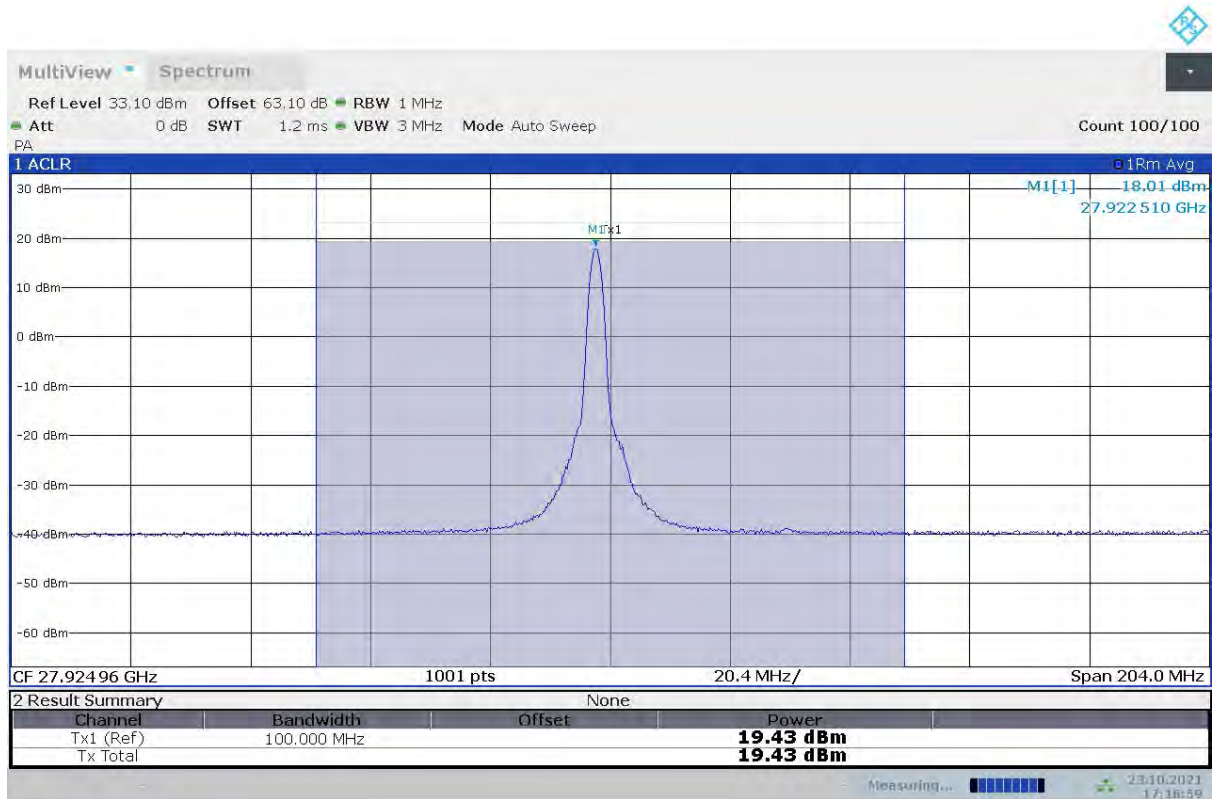
n261, Module0, 100MHz Bandwidth, 100% RB, HIGH CHANNEL, QPSK



20:39:00 23.10.2021

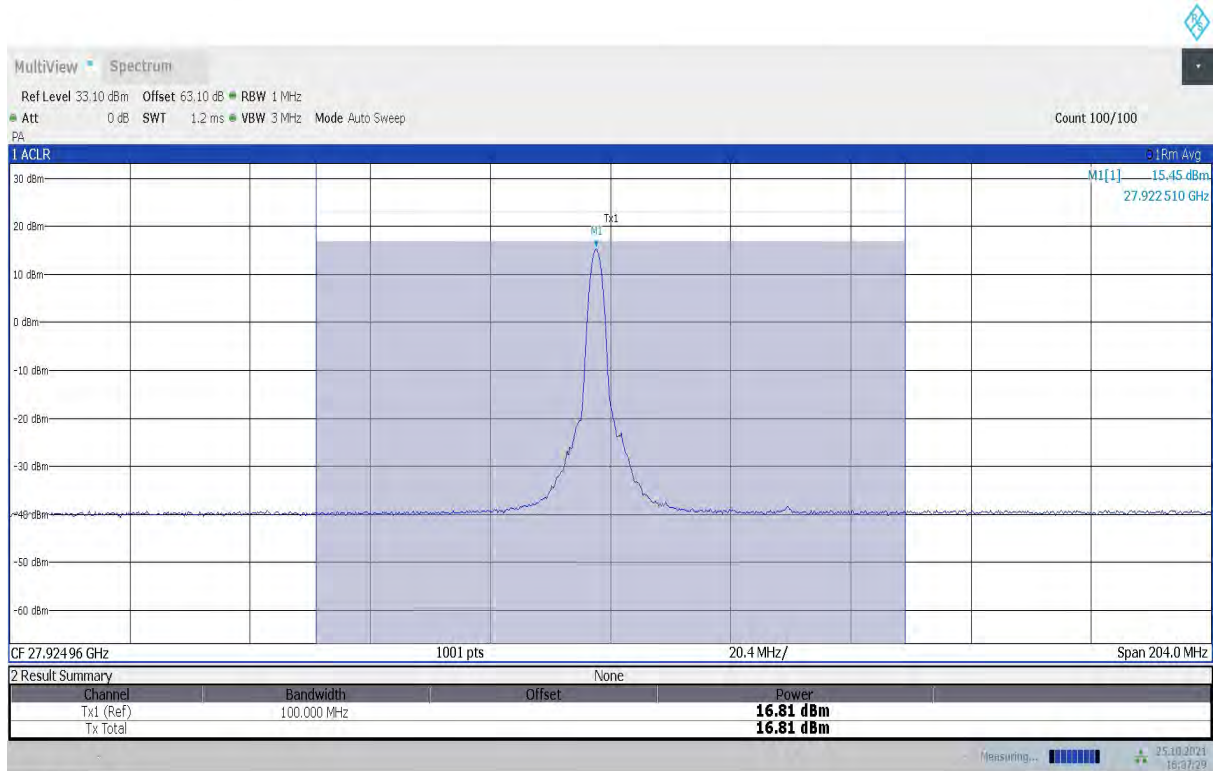
n261, Module0, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	1 RB	27924.96	19.43	16.81	15.92

n261, Module0, 100MHz Bandwidth, 1RB, MID CHANNEL, QPSK



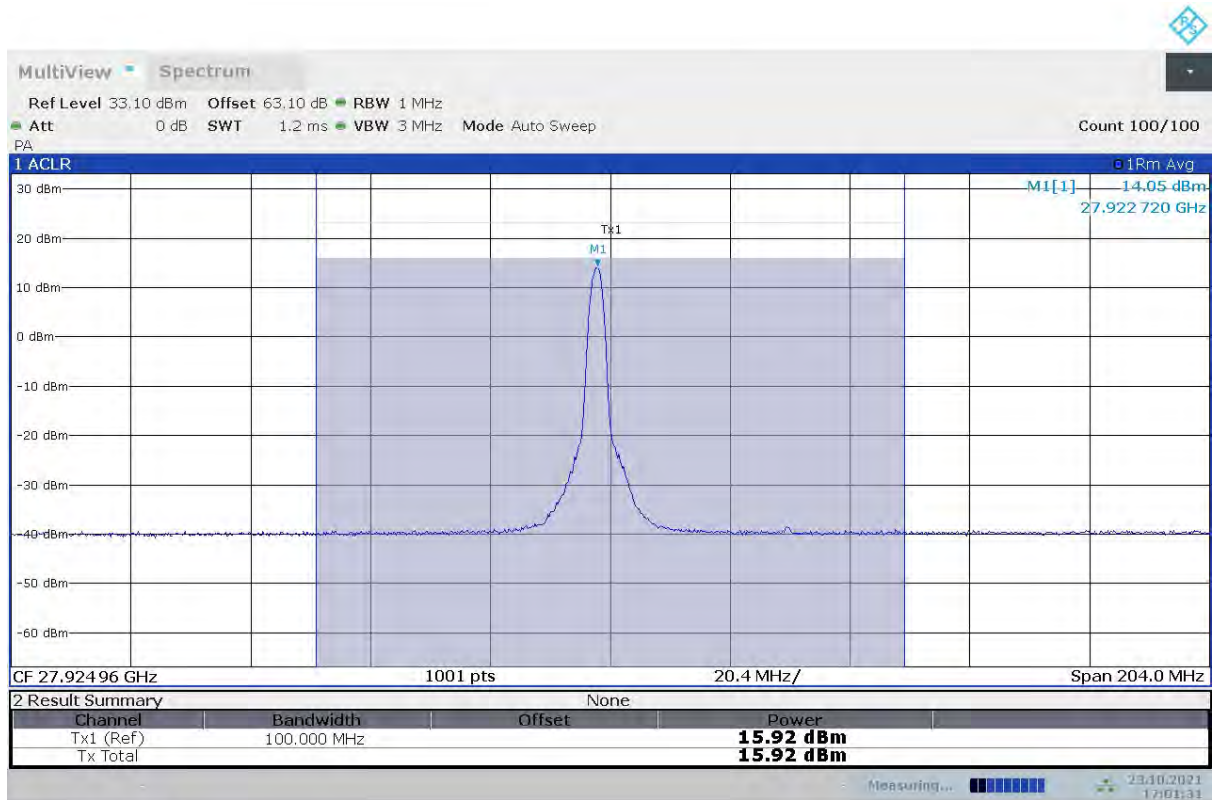
17:17:00 23.10.2021

n261, Module0, 100MHz Bandwidth, 1RB, MID CHANNEL, 16QAM



16:37:30 25.10.2021

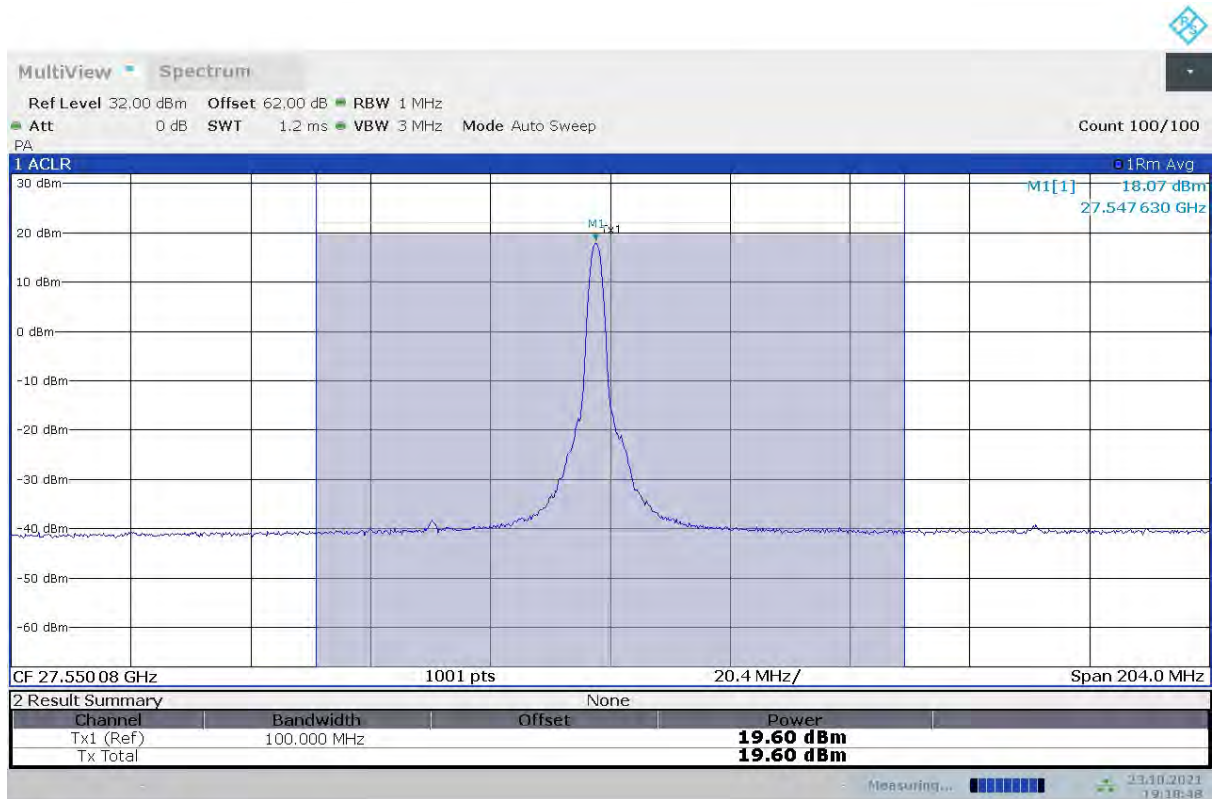
n261, Module0, 100MHz Bandwidth, 1RB, MID CHANNEL, 64QAM



17:01:32 23.10.2021

n261, Module0, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	1 RB	27550.08	19.60	/	/

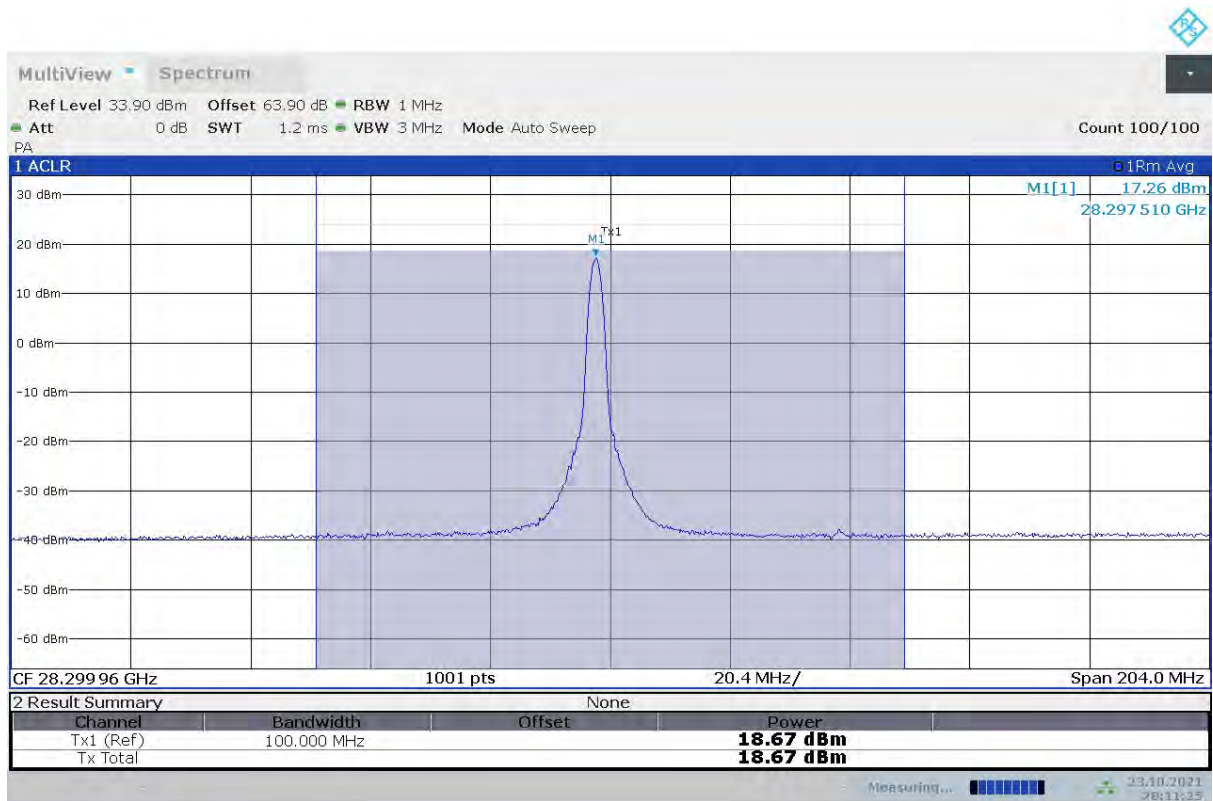
n261, Module0, 100MHz Bandwidth, 1 RB, LOW CHANNEL, QPSK



19:18:49 23.10.2021

n261, Module0, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	1 RB	28299.96	18.67	/	/

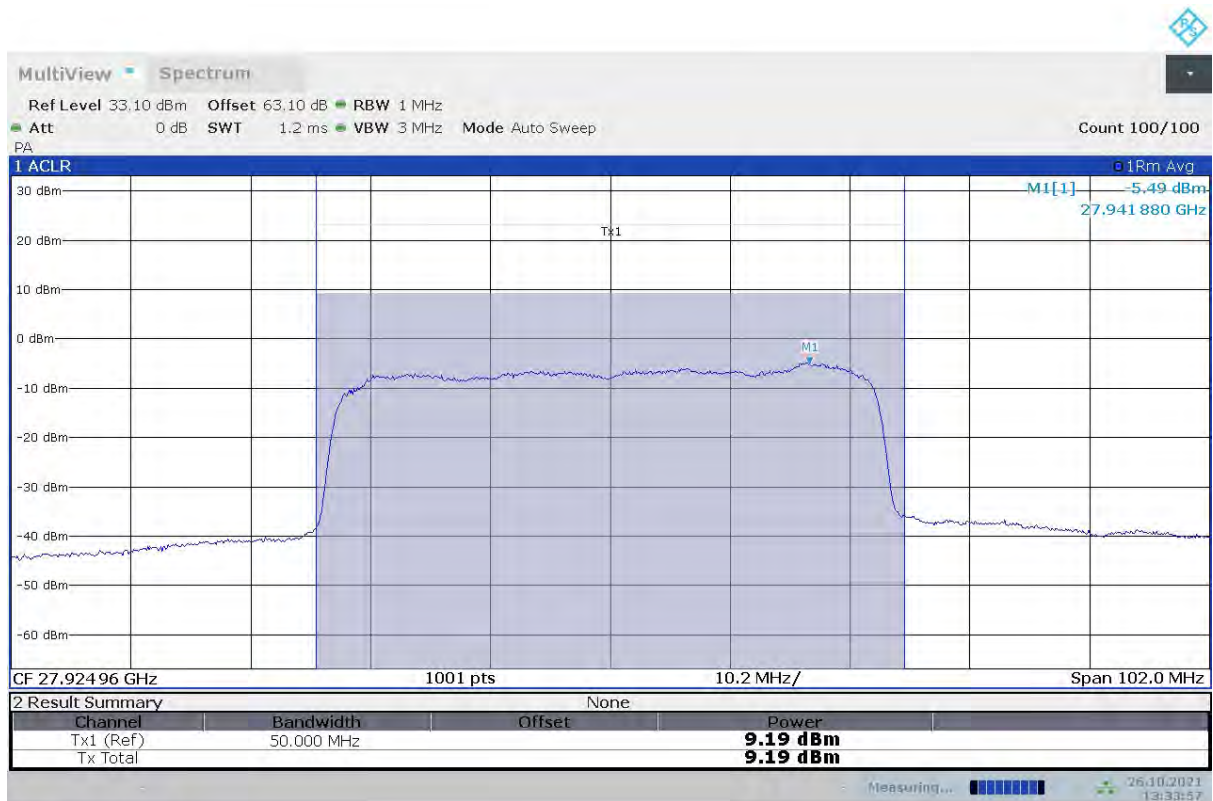
n261, Module0, 100MHz Bandwidth, 1 RB, HIGH CHANNEL, QPSK



20:11:25 23.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
50MHz	100% RB	27924.96	9.19	/	/

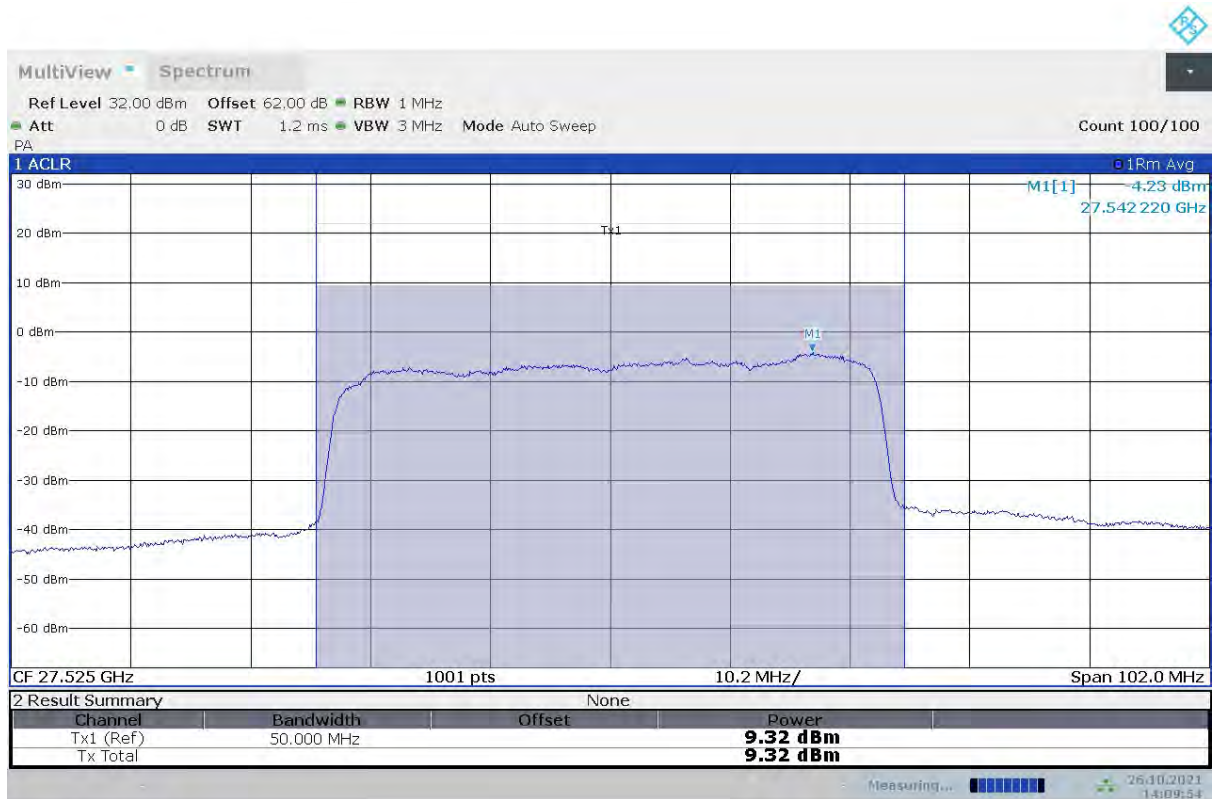
n261, Module1, 50MHz Bandwidth, 100% RB, MID CHANNEL, QPSK



13:33:57 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
50MHz	100% RB	27525	9.32	/	/

n261, Module1, 50MHz Bandwidth, 100% RB, LOW CHANNEL, QPSK



14:09:54 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
50MHz	100% RB	28324.92	5.38	/	/

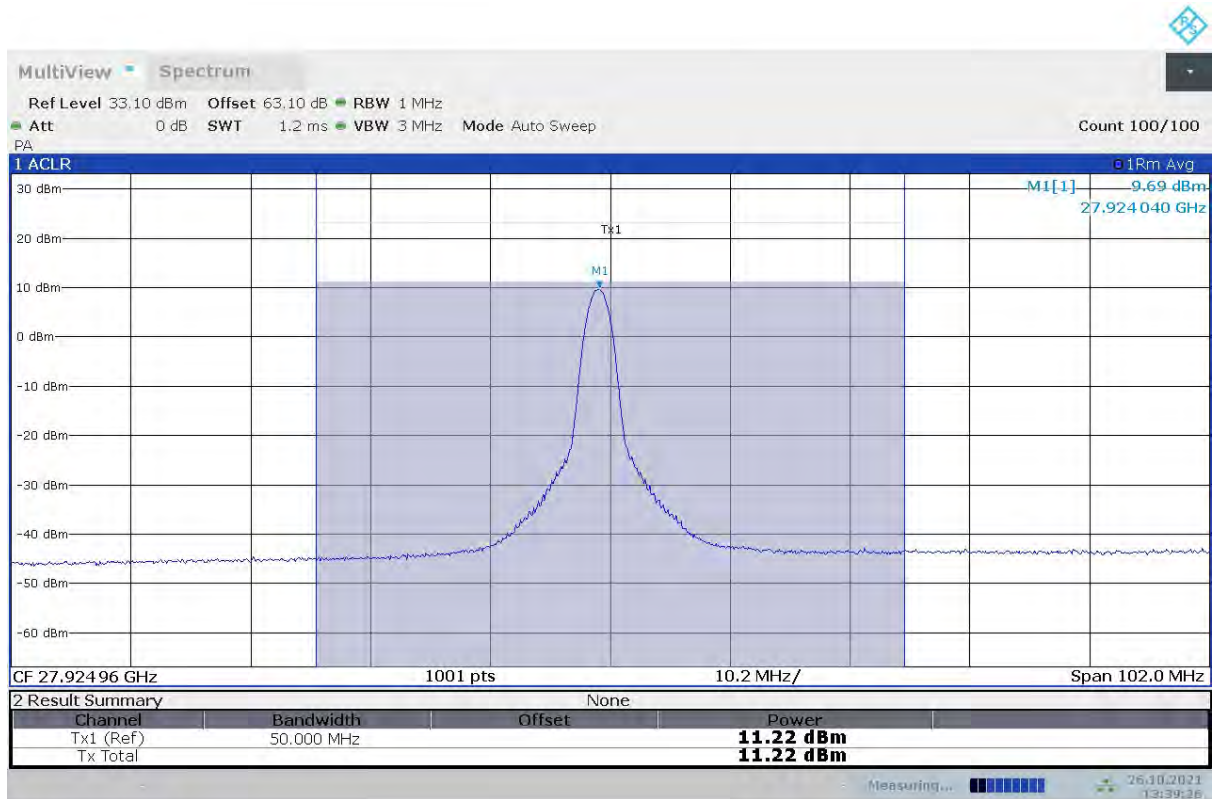
n261, Module1, 50MHz Bandwidth, 100% RB, HIGH CHANNEL, QPSK



14:22:35 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
50MHz	1 RB	27924.96	11.22	/	/

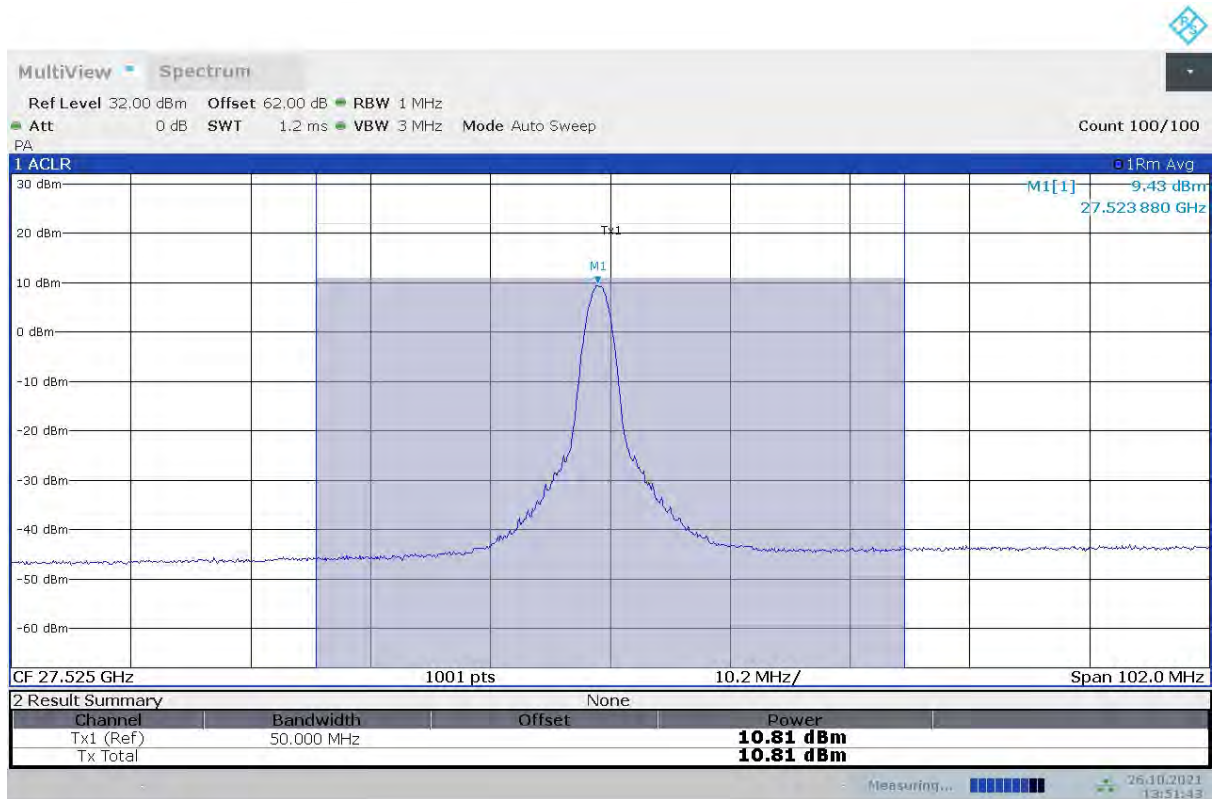
n261, Module1, 50MHz Bandwidth, 1RB, MID CHANNEL, QPSK



13:39:27 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
50MHz	1 RB	27525	10.81	/	/

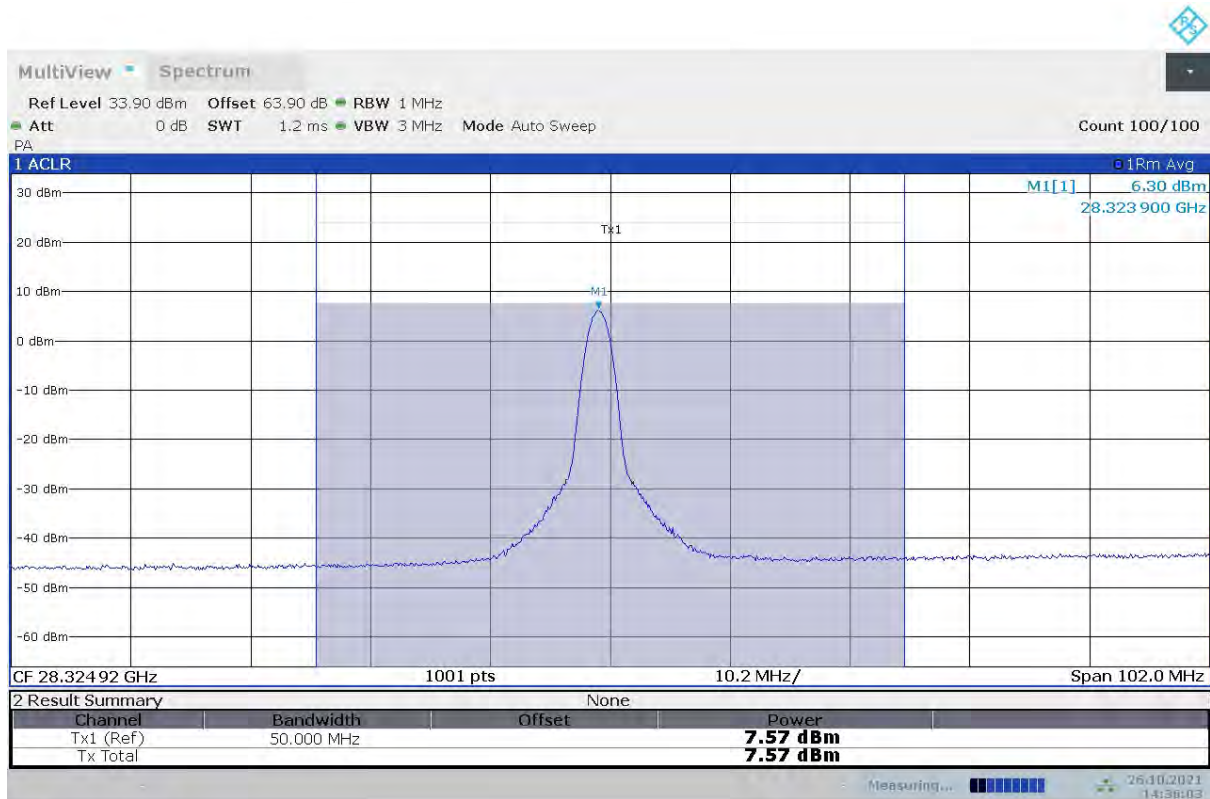
n261, Module1, 50MHz Bandwidth, 1 RB, LOW CHANNEL, QPSK



13:51:43 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
50MHz	1 RB	28324.92	7.57	/	/

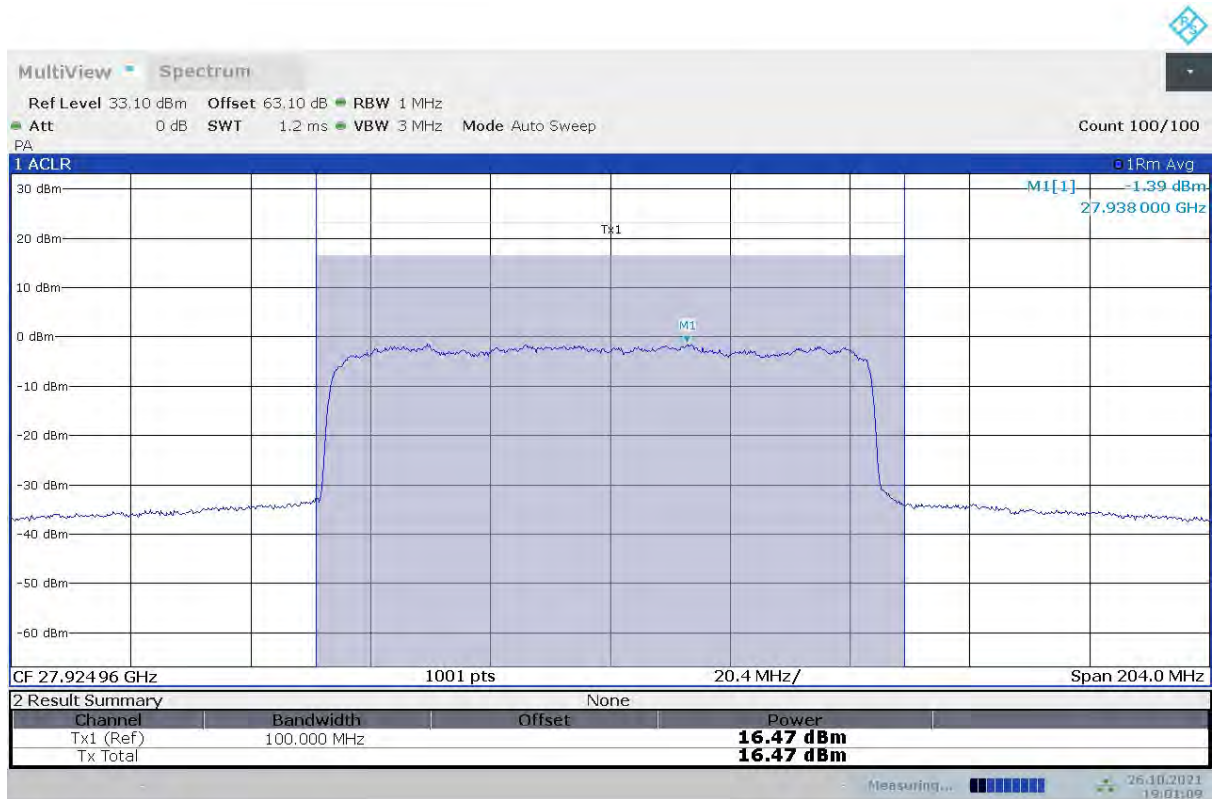
n261, Module1, 50MHz Bandwidth, 1 RB, HIGH CHANNEL, QPSK



14:36:03 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	100% RB	27924.96	16.47	/	/

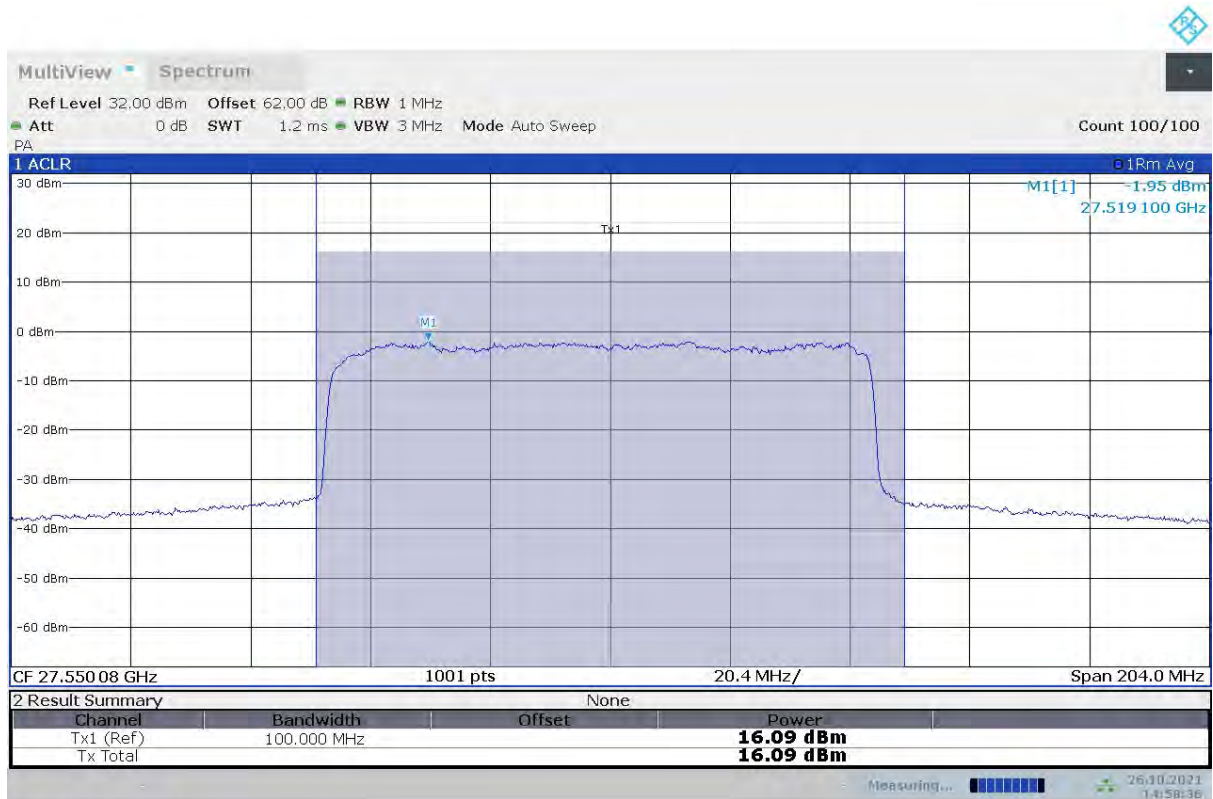
n261, Module1, 100MHz Bandwidth, 100% RB, MID CHANNEL, QPSK



19:01:10 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	100% RB	27550.08	16.09	/	/

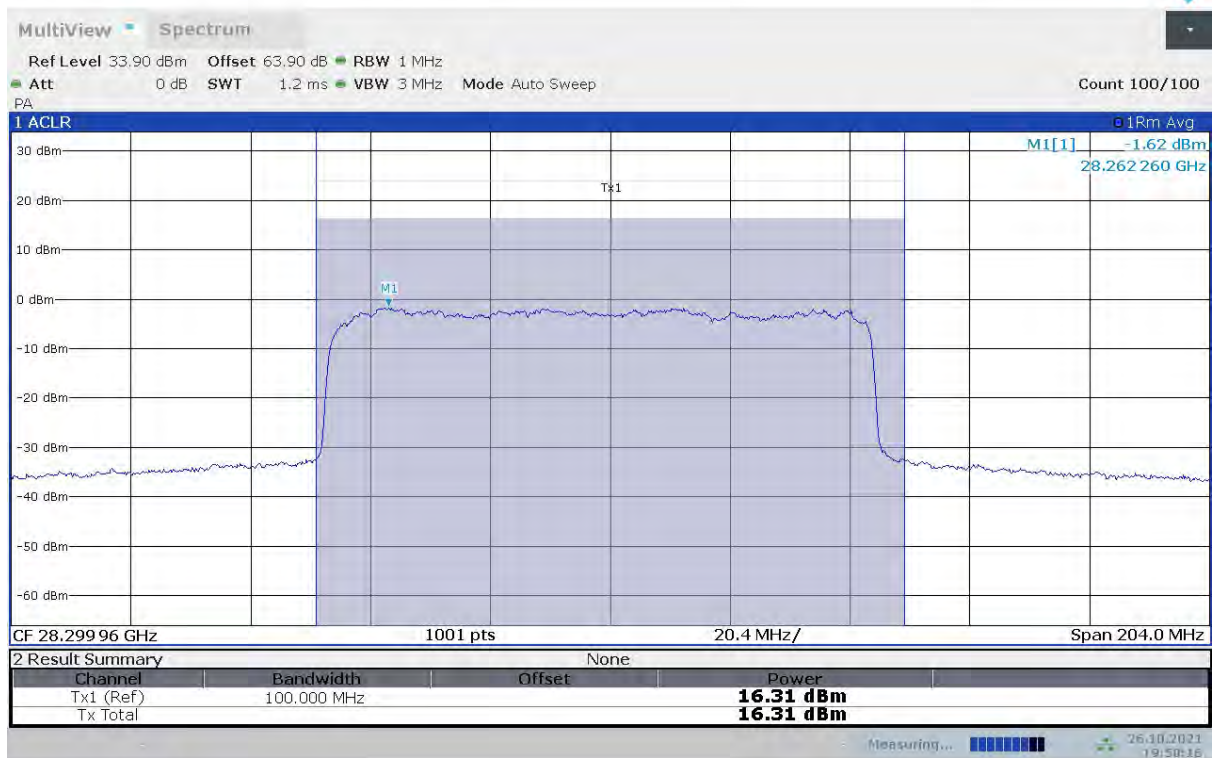
n261, Module1, 100MHz Bandwidth, 100% RB, LOW CHANNEL, QPSK



14:58:37 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	100% RB	28299.96	16.31	/	/

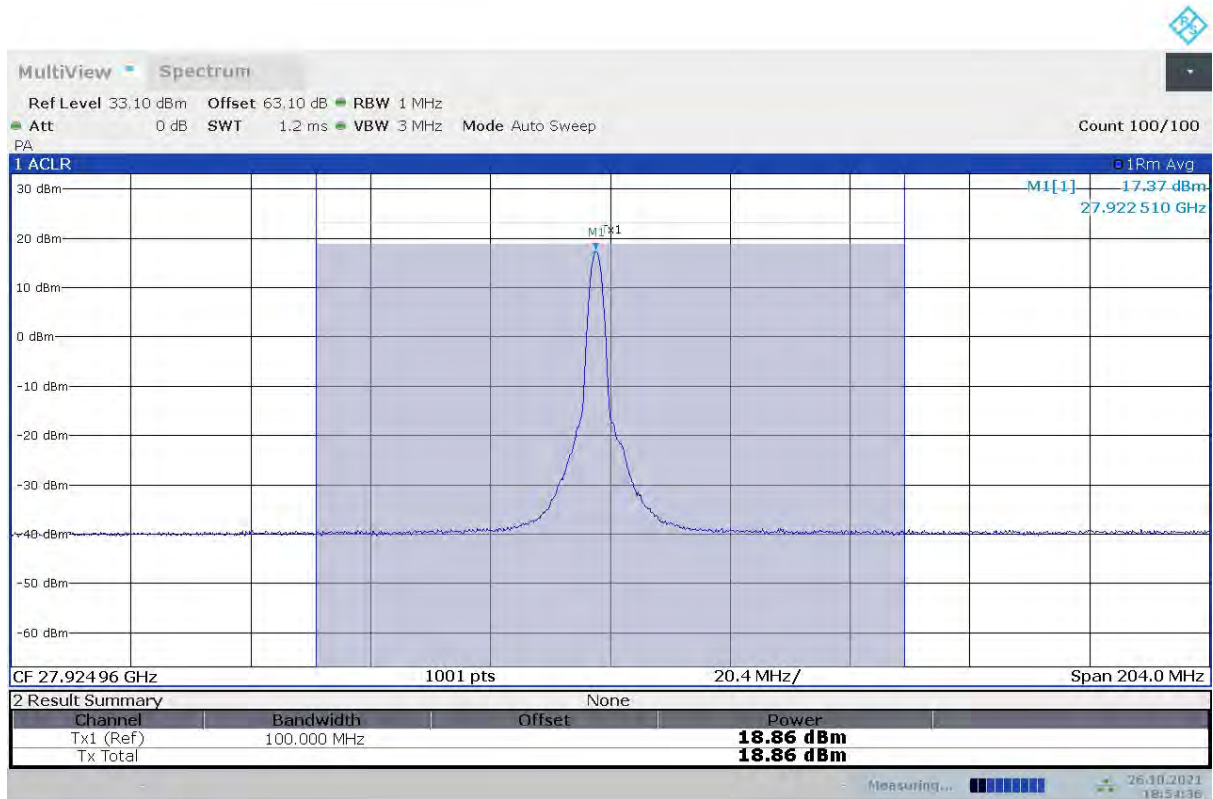
n261, Module1, 100MHz Bandwidth, 100% RB, HIGH CHANNEL, QPSK



19:50:17 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	1 RB	27924.96	18.86	/	/

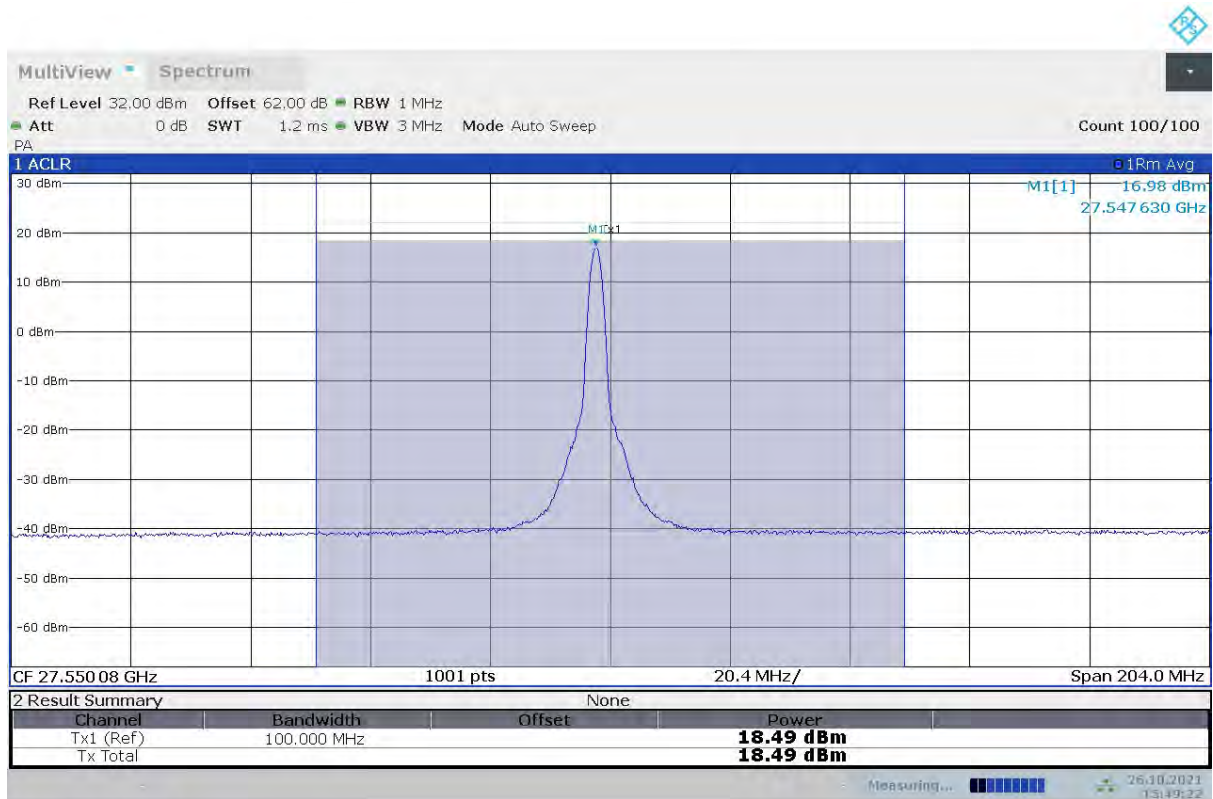
n261, Module1, 100MHz Bandwidth, 1RB, MID CHANNEL, QPSK



18:54:37 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	1 RB	27550.08	18.49	/	/

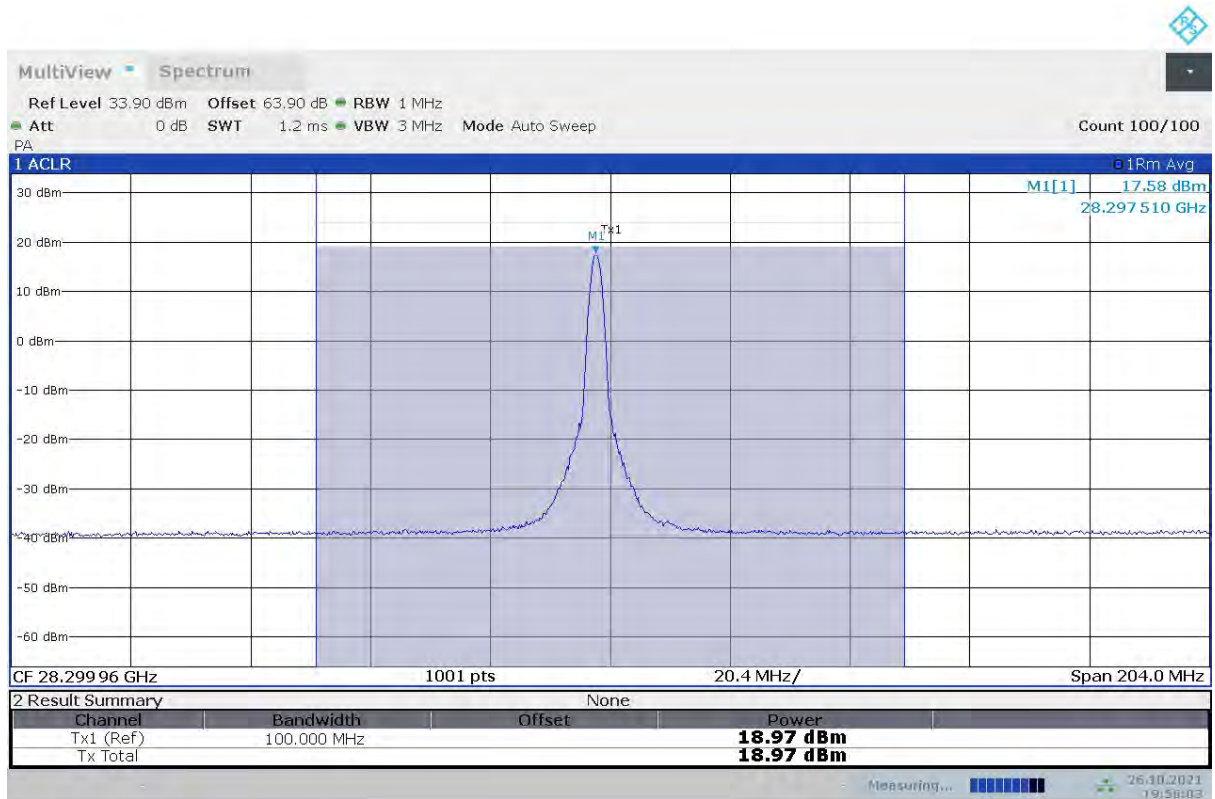
n261, Module1, 100MHz Bandwidth, 1 RB, LOW CHANNEL, QPSK



15:49:22 26.10.2021

n261, Module1, SCS=120kHz, PUSCH DFT					
Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
100MHz	1 RB	28299.96	18.97	/	/

n261, Module1, 100MHz Bandwidth, 1 RB, HIGH CHANNEL, QPSK



19:56:03 26.10.2021

A.2 Emission Limit

A.2.1 Measurement Method

The measurement procedures in ANSI C63.26 are used.

The spectrum was scanned from 30 MHz to the 5th harmonic of the highest frequency generated within the equipment. The resolution bandwidth is set as outlined in Part 30.203.

The spectrum is scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of FR2 n260 and FR2 n261.

NASIS C63.26 chapter 5.5.2.1: Such radiated measurements shall use substitution methods unless a test site validated to ANSI C63.4 requirements is utilized, in which case, radiated fundamental and/or unwanted emissions can be measured using the direct radiated field strength method.

A.2.2 Measurement Method

The measurement procedures in ANSI C63.26 are used.

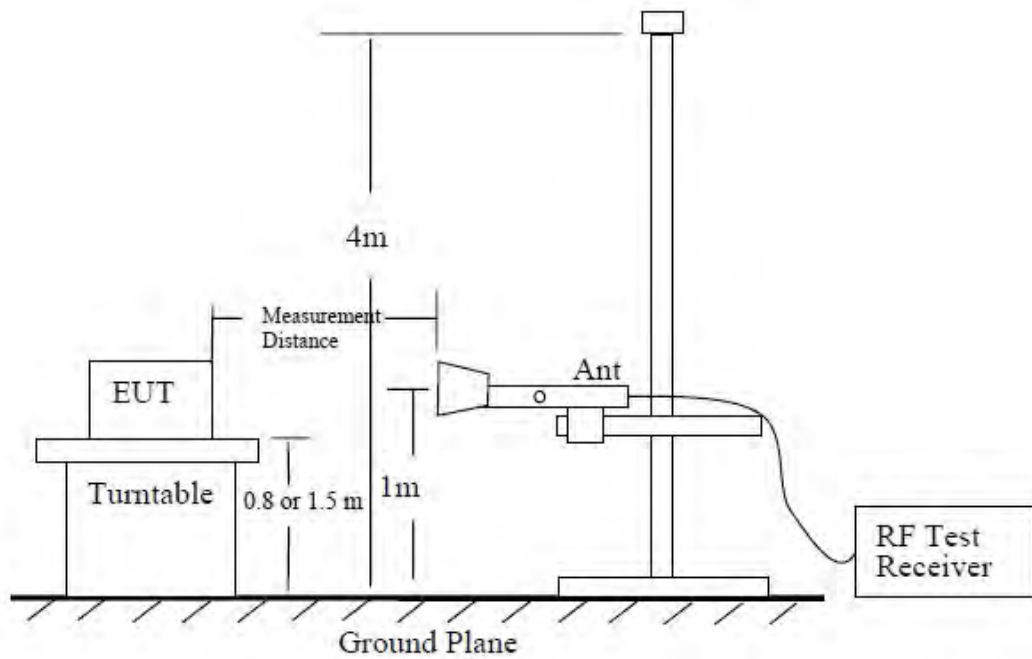
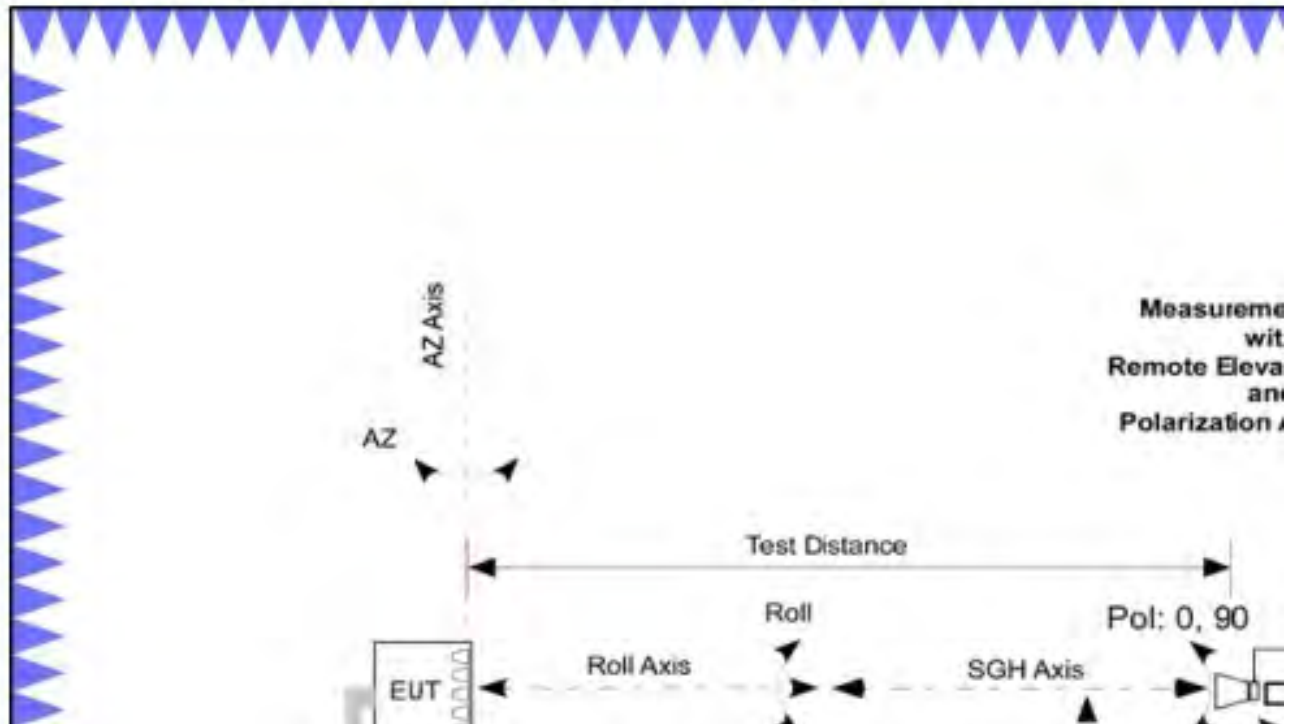
The spectrum was scanned from 30 MHz to the 5th harmonic of the highest frequency generated within the equipment. The resolution bandwidth is set as outlined in Part 30.203.

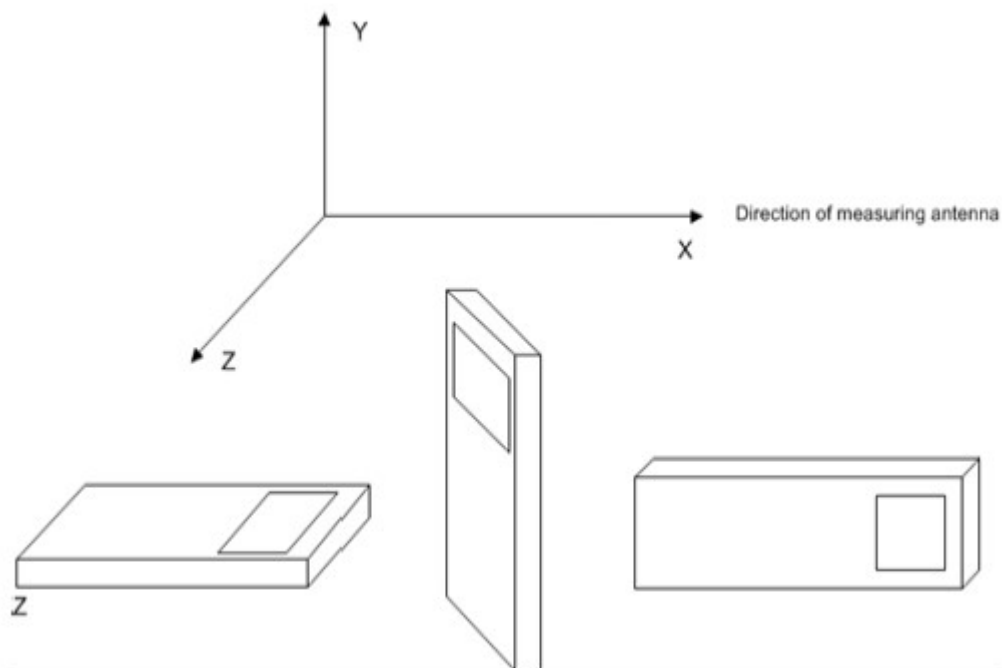
The spectrum is scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of FR2 n260 and FR2 n261.

NASIS C63.26 chapter 5.5.2.1: Such radiated measurements shall use substitution methods unless a test site validated to ANSI C63.4 requirements is utilized, in which case, radiated fundamental and/or unwanted emissions can be measured using the direct radiated field strength method.

The procedure of radiated spurious emissions is as follows:

Using the test configuration as follow, measure the radiated emissions directly from the EUT and convert the measured field strength or received power to ERP or EIRP, as required, for comparison to the applicable limits.





The emission characteristics of the EUT can be identified from the pre-scan measurement information.

Exploratory radiated measurements (pre-scans) may be performed to determine the general EUT radiated emissions characteristics and, when necessary, the EUT-to-measurement antenna orientation that produces the maximum emission amplitude. Pre-scans shall only be used to determine the emission frequencies (i.e., not amplitude levels). The information garnered from a pre-scan can then be used to perform final compliance measurements using either the substitution or direct field strength method.

For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80 cm above the reference ground plane. Radiated measurements shall be made with the measurement antenna positioned in both horizontal and vertical polarization. The measurement antenna shall be varied from 1 m to 4 m in height above the reference ground in a search for the relative positioning that produces the maximum radiated signal level (i.e., field strength or received power). When orienting the measurement antenna in vertical polarization, the minimum height of the lowest element of the antenna shall clear the site reference ground plane by at least 25 cm.

The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 5th harmonic were measured with peak detector.

For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table or support at a nominal height of 1.5 m above the ground plane. When maximizing the emissions from the EUT for measurement, the EUT and its transmitting antenna(s) shall be rotated through 360°. For each mode of operation to be tested, the frequency spectrum (based on findings from exploratory measurements) shall be monitored.

Final measurements shall be performed for the worst case combination(s) of variable technical parameters that result in the maximum measured emission amplitude, record the frequency and amplitude of the highest fundamental emission (if applicable), and the frequency and amplitude

data for the six highest-amplitude spurious emissions.

Test Setting:

Detector=RMS

Trace mode=trace average

Sweep time= auto couple

Number of sweep points $\geq 2 \times \text{span/RBW}$

The trace was allowed to stabilize

RBW=1MHz, VBW=3MHz

The average EIRP reported below is calculated by:

30M-1GHz:

$$\text{ERP(dBm)} = \text{Spectrum Analyzer Level(dBm)} + \text{Total loss(dB)} - 2.15$$

1GHz-18GHz:

$$\text{EIRP(dBm)} = \text{Spectrum Analyzer Level(dBm)} + \text{Total loss(dB)}$$

18GHz-60GHz:

$$\text{EIRP(dBm)} = \text{Spectrum Analyzer Level(dBm)} - \text{Antenna Factor(dBi)} + \text{Cable Loss(dB)} + 20\log(F) + 20\log(D) - 27.56$$

60GHz-200GHz:

$$\text{EIRP(dBm)} = \text{Spectrum Analyzer Level(dBm)} - \text{Antenna Factor(dBi)} + \text{converter Loss(dB)} + 20\log(F) + 20\log(D) - 27.56$$

Where:

F:frequency (MHz)

D:Distance(m)

Frequency Range	Distance(m)
30MHz-1GHz	3
1GHz-18GHz	3
18GHz-40GHz	3
40GHz-60GHz	3
60GHz-75GHz	3
110GHz-170GHz	1
170GHz-220GHz	0.5

A.2.2 Measurement Limit

Part 30.203 specify that the total radiated power of any emission outside a licensee's frequency block shall be -13 dBm/MHz or lower. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be -5 dBm/MHz or lower.

A.2.3 Measurement Results

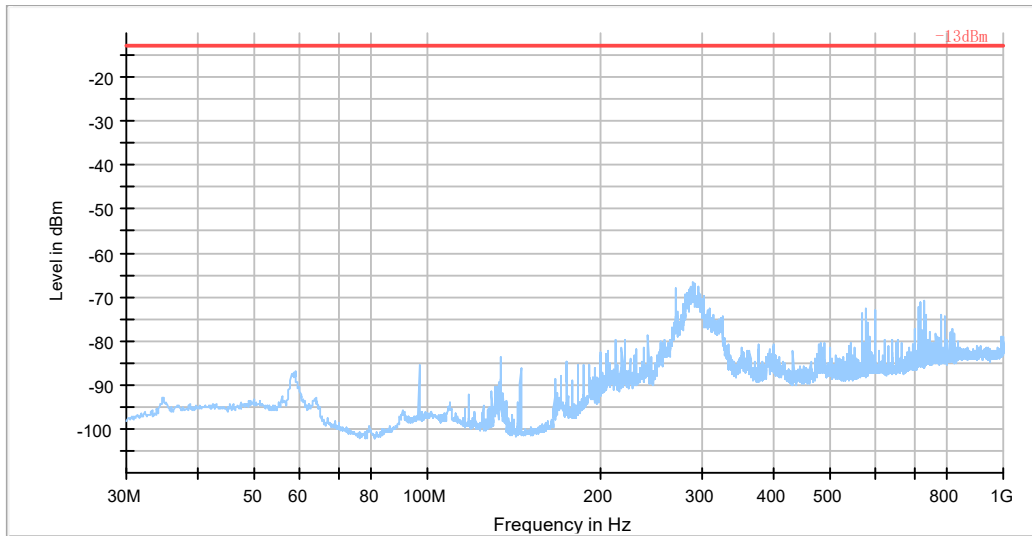
Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the FR2 n260 and n261. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a



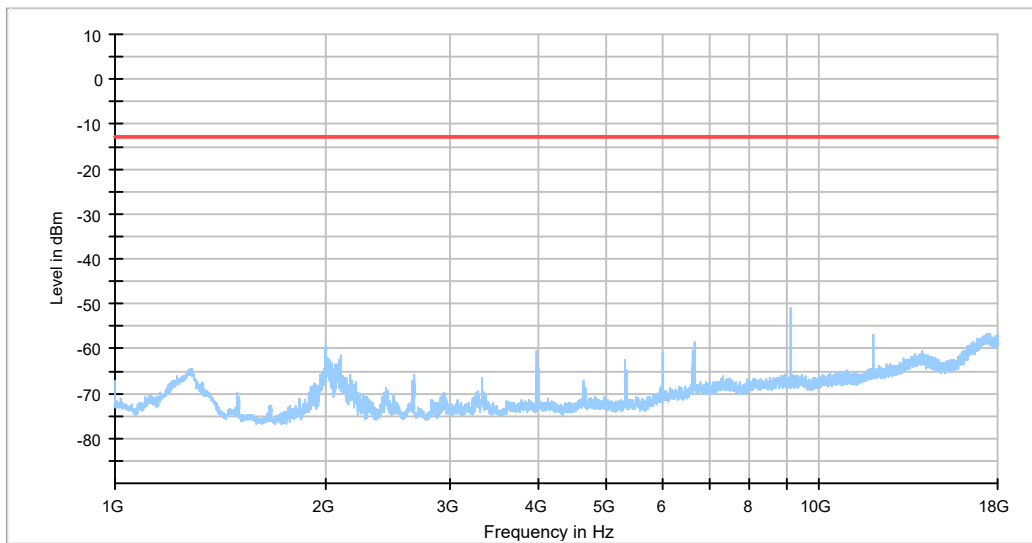
carrier in one block of the FR2 n260 and n261 into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this. The evaluated frequency range is from 30MHz to 100GHz for n261 and 30MHz to 200GHz for n260.

A.2.4 Measurement Results Table(worst case of all power)

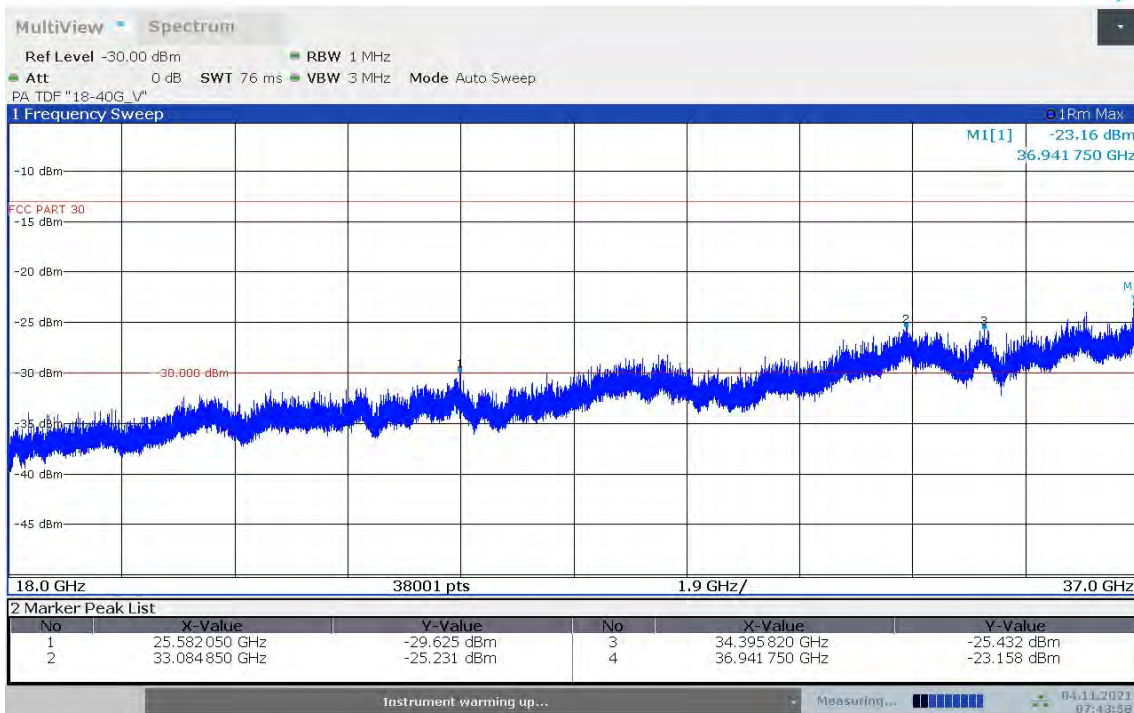
Frequency	Antenna	Modulation	Bandwidth	Channel	Frequency Range	Result
n260	Module1	PUSCH DFT, QPSK	100MHz /1RB	Low	30MHz-200GHz	Pass
				Middle	30MHz-200GHz	Pass
				High	30MHz-200GHz	Pass
n261	Module0	PUSCH DFT, QPSK	100MHz /1RB	Low	30MHz-100GHz	Pass
				Middle	30MHz-100GHz	Pass
				High	30MHz-100GHz	Pass



30MHz-1GHz

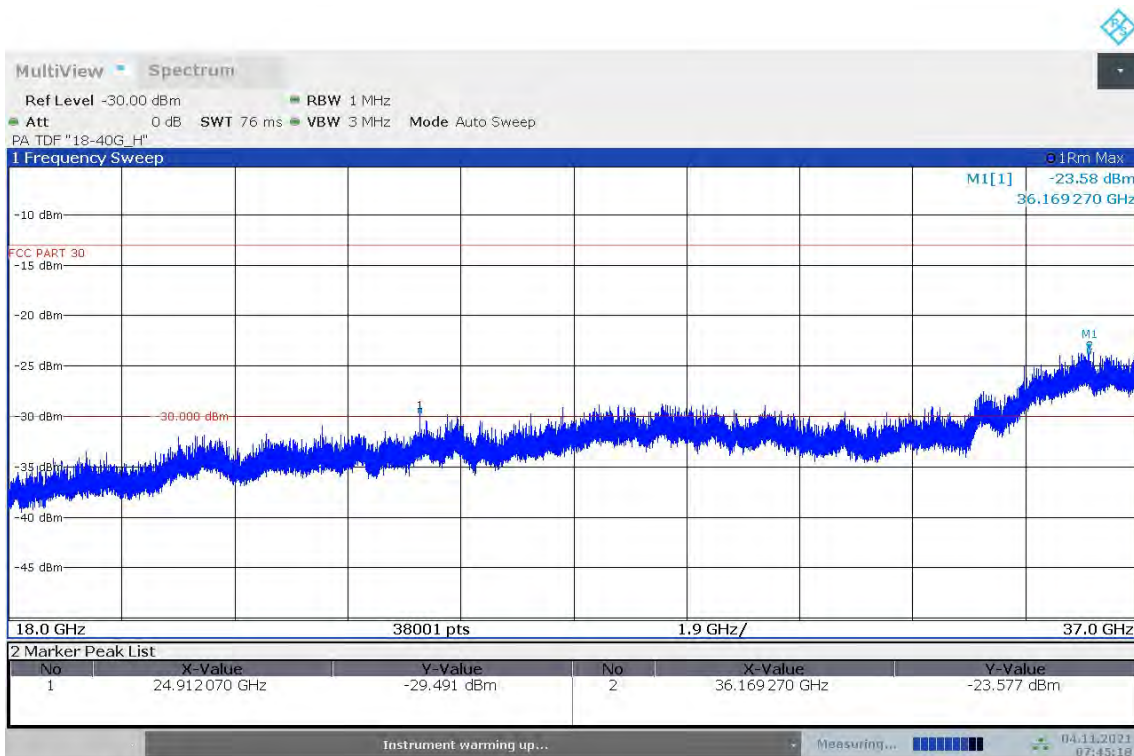


1GHz-18GHz



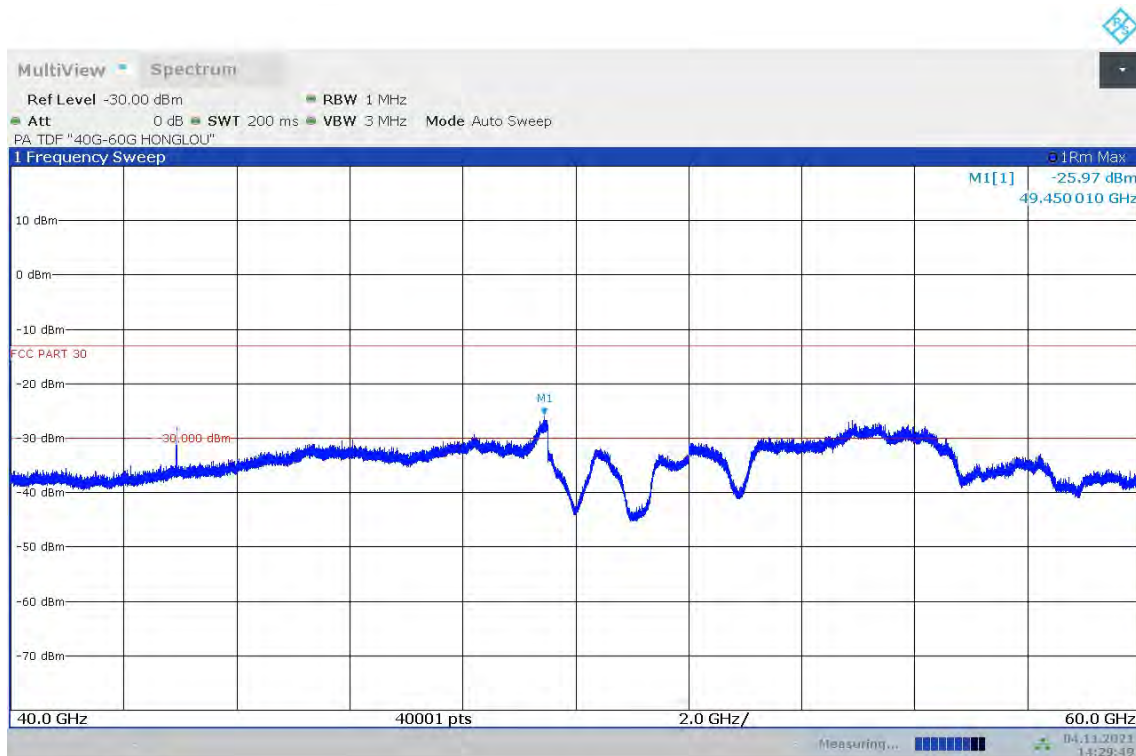
07:43:59 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Low channel, 18GHz-40GHz, V



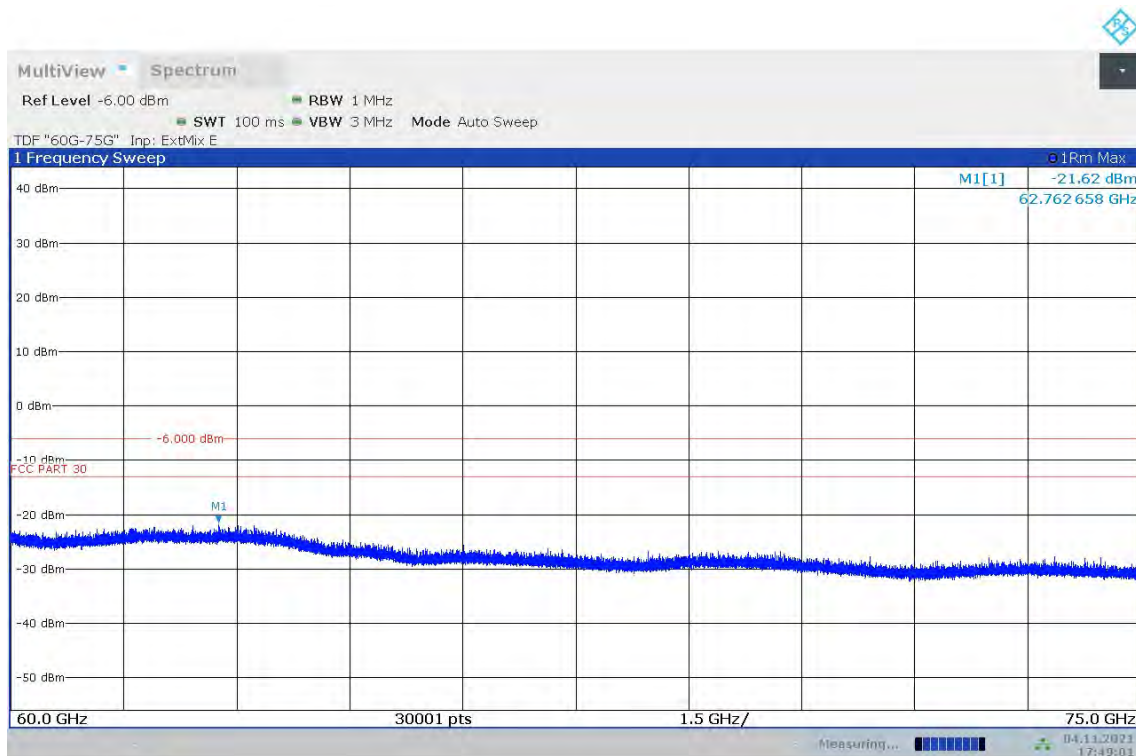
07:45:19 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Low channel, 18GHz-40GHz, H



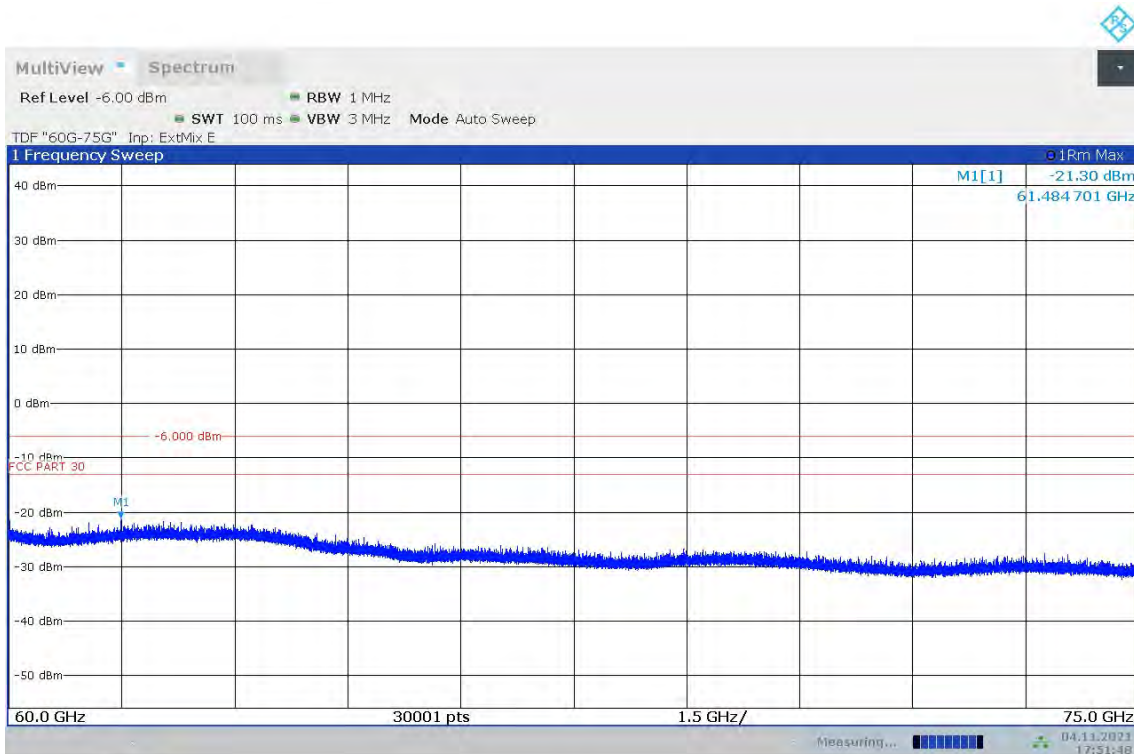
14:29:50 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Low channel, 40GHz-60GHz



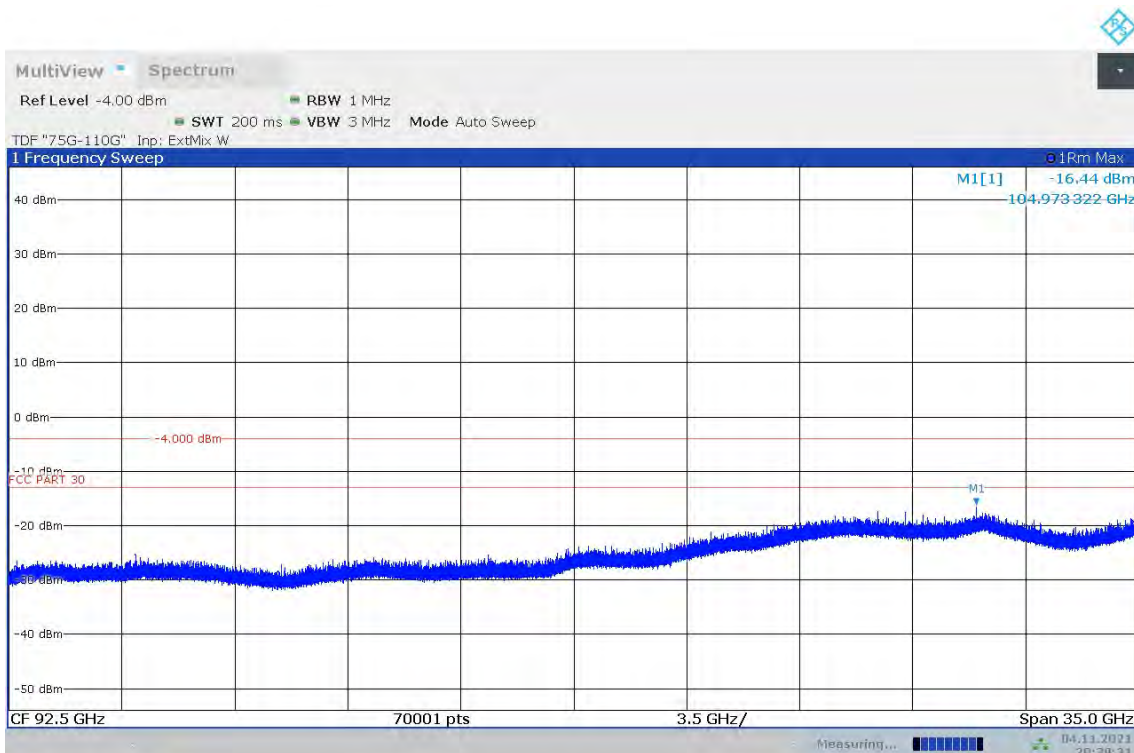
17:49:01 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Low channel, 60GHz-75GHz, V



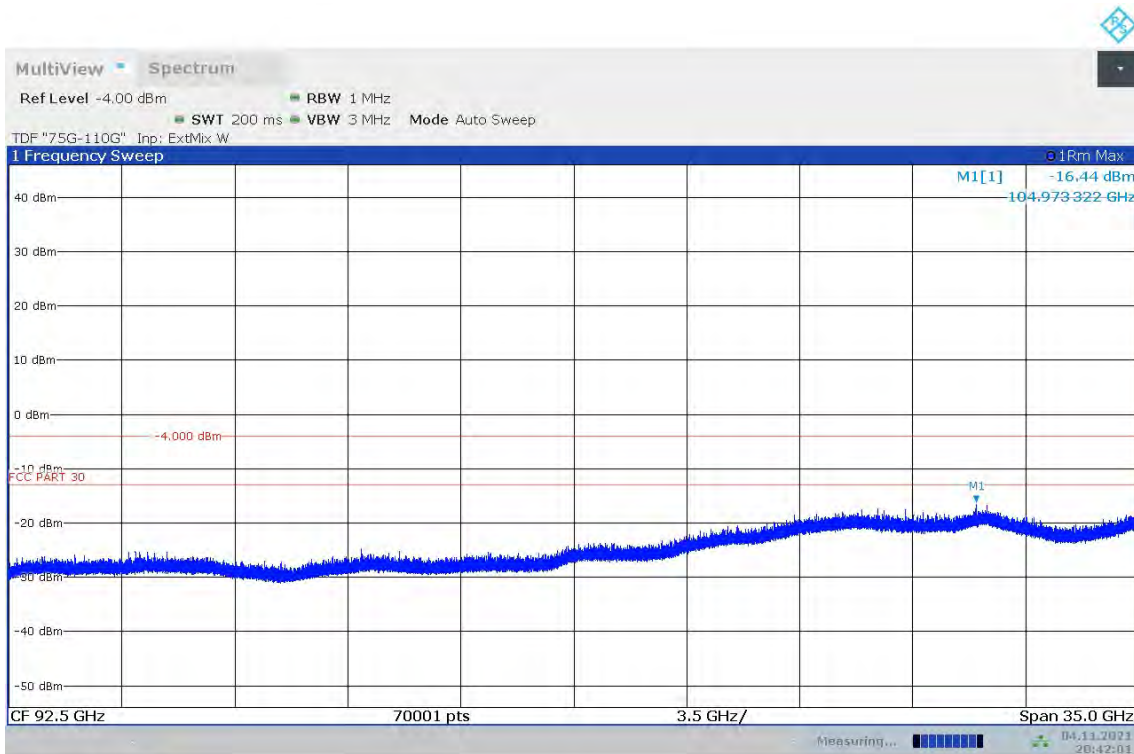
17:51:49 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Low channel, 60GHz-75GHz, H



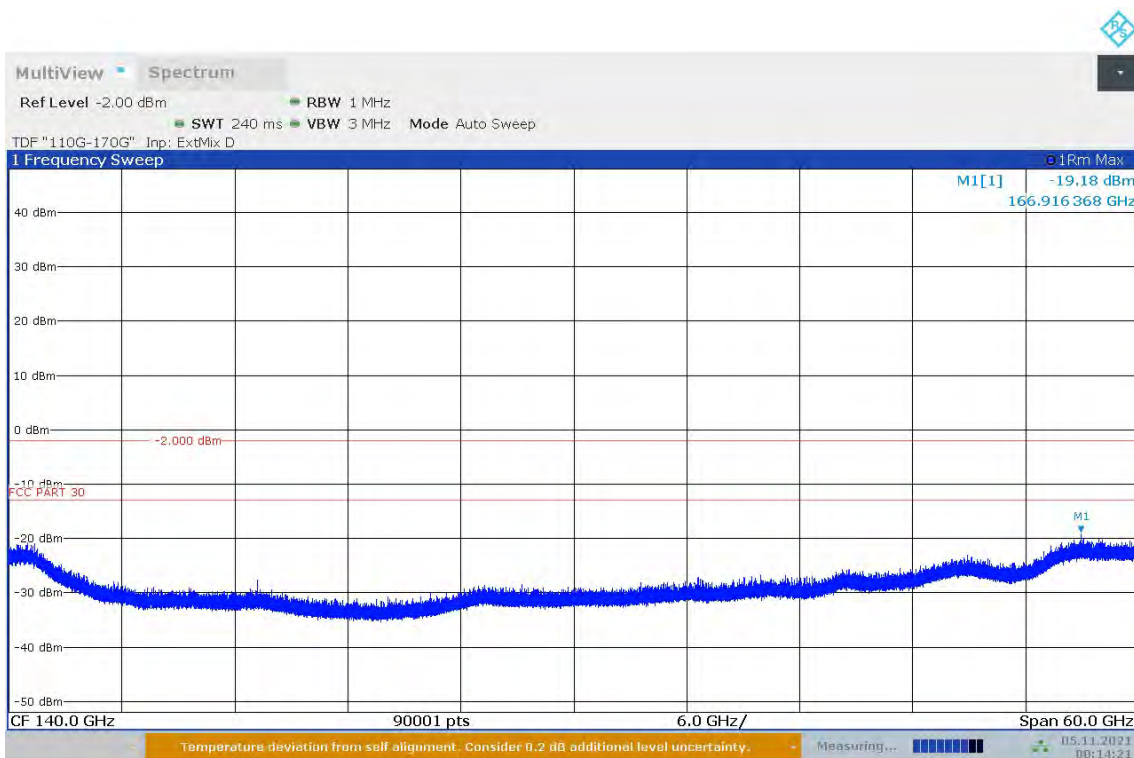
20:39:32 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Low channel, 75GHz-110GHz, V



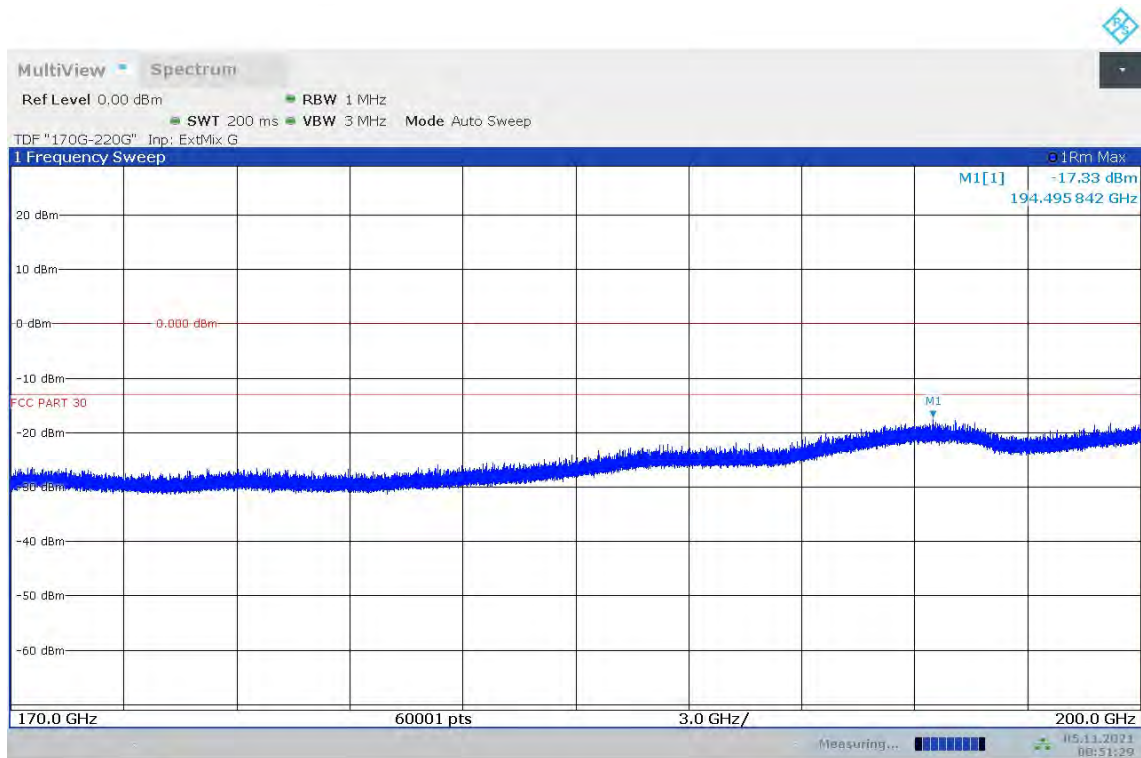
20:42:02 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Low channel, 75GHz-110GHz, H



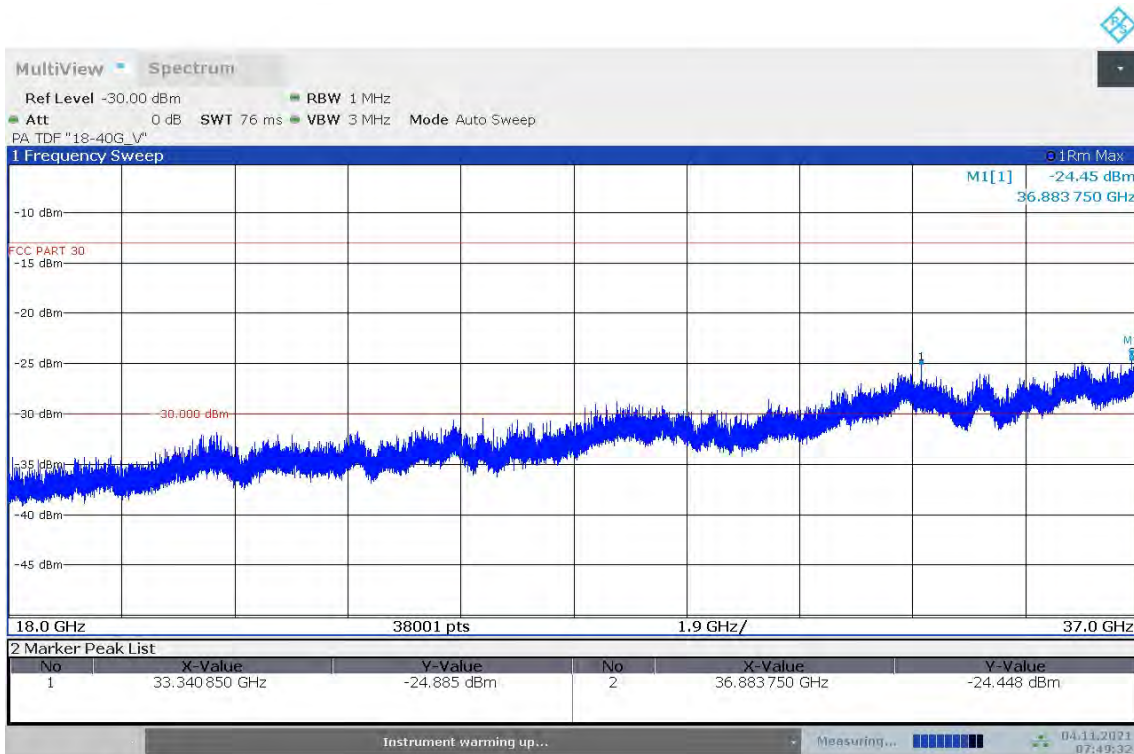
00:14:22 05.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Low channel, 110GHz-170GHz



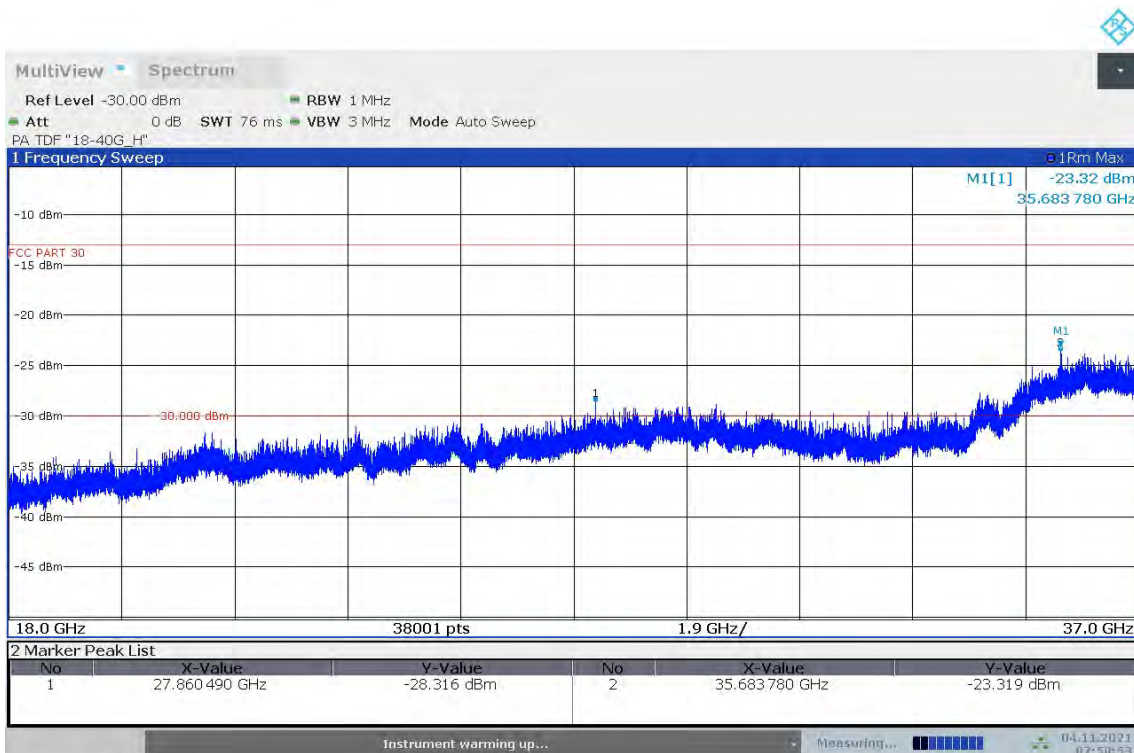
00:51:30 05.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Low channel, 170GHz-200GHz



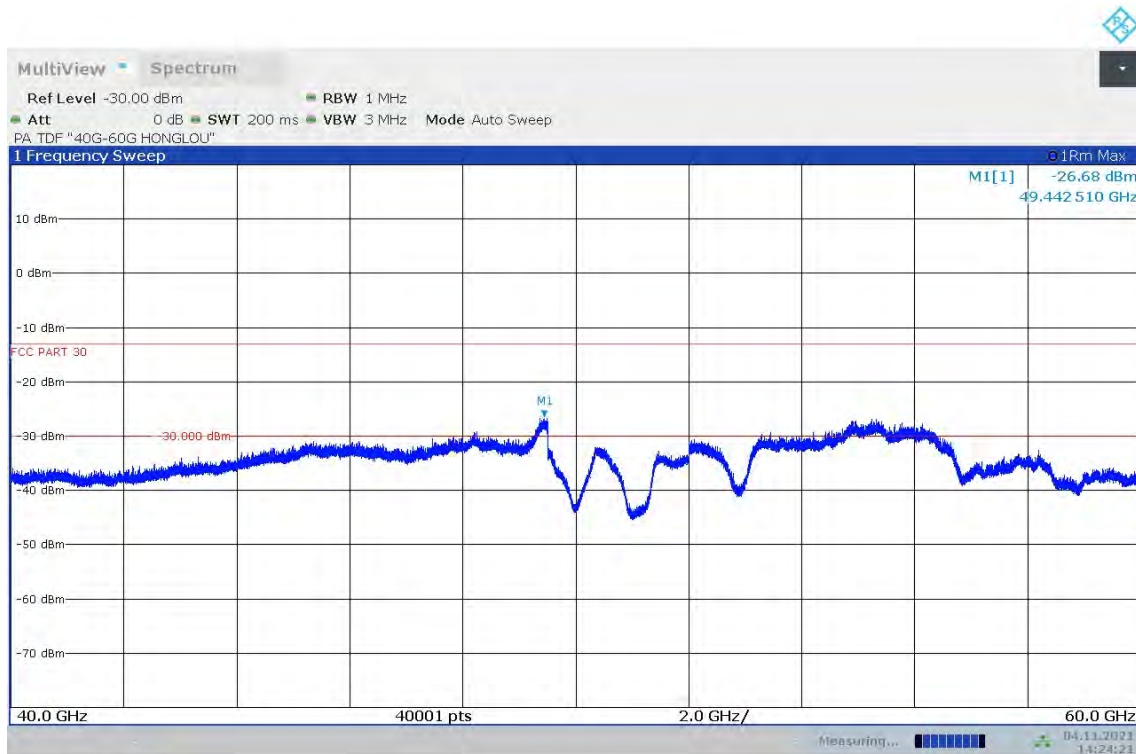
07:49:33 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Mid channel, 18GHz-40GHz, V



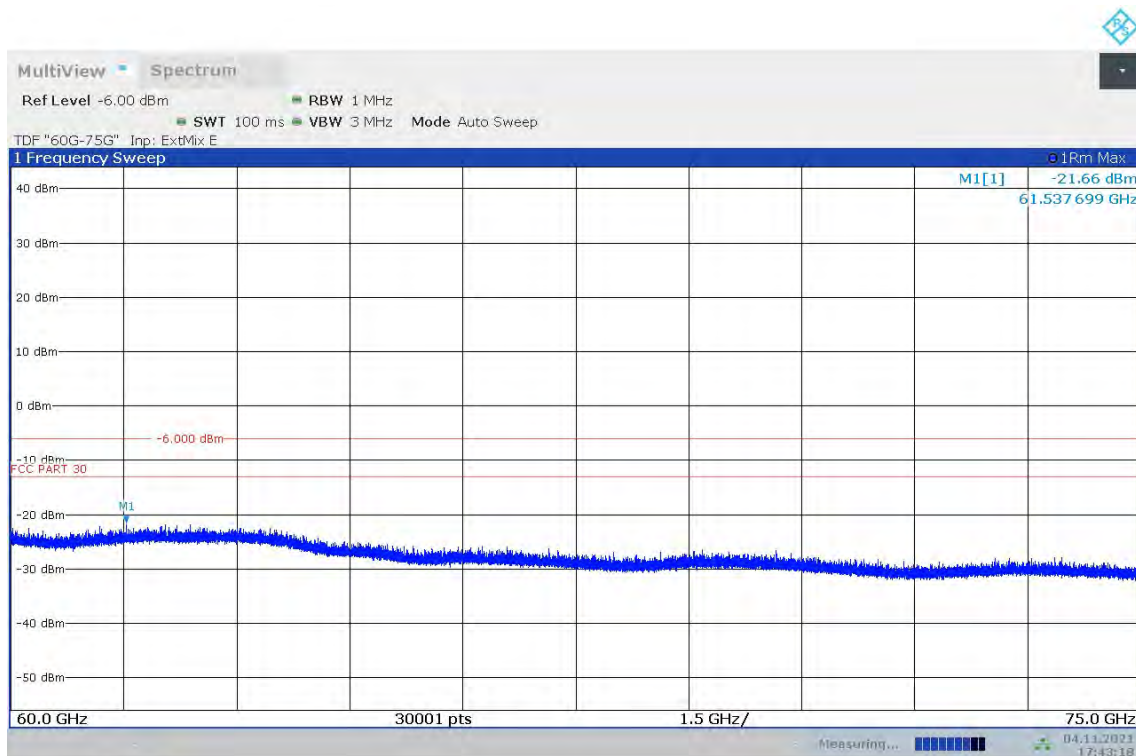
07:50:53 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Mid channel, 18GHz-40GHz, H



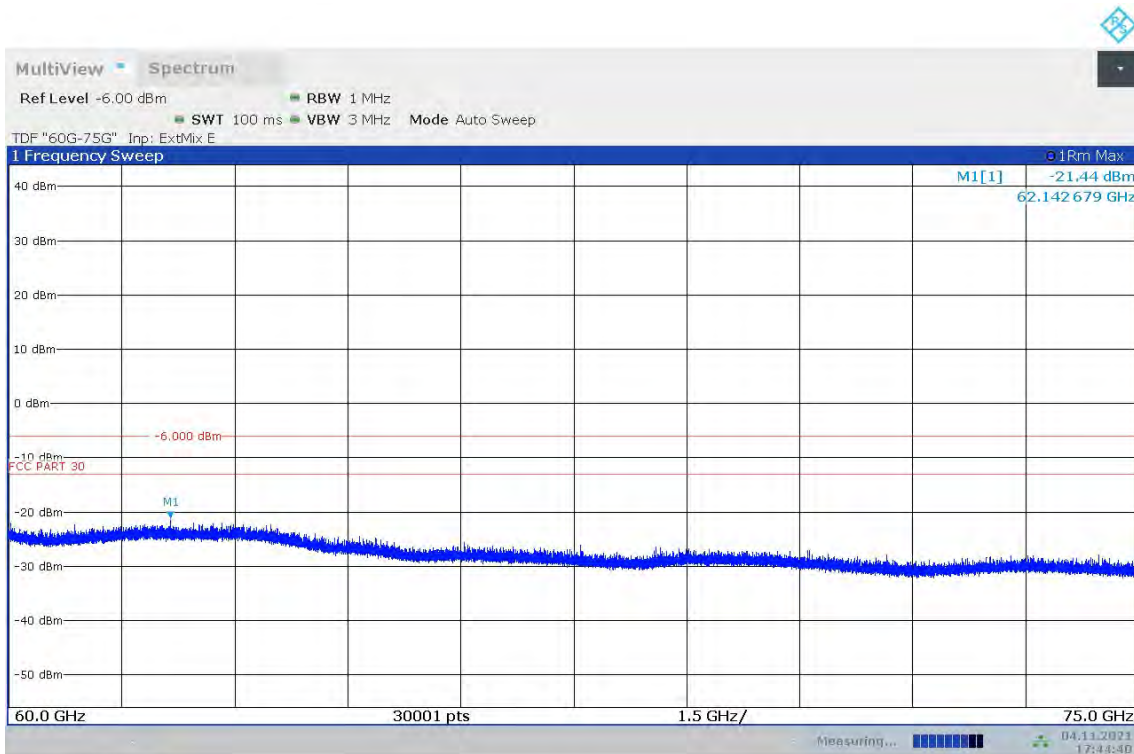
14:24:22 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Mid channel, 40GHz-60GHz



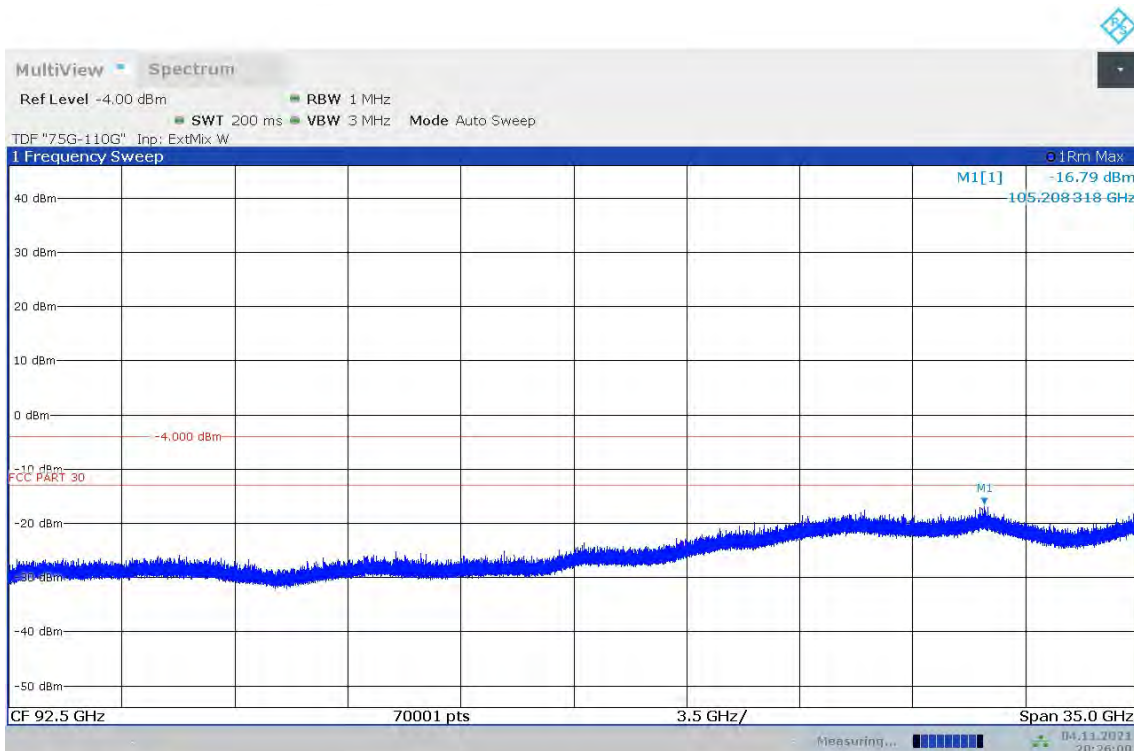
17:43:19 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Mid channel, 60GHz-75GHz, V



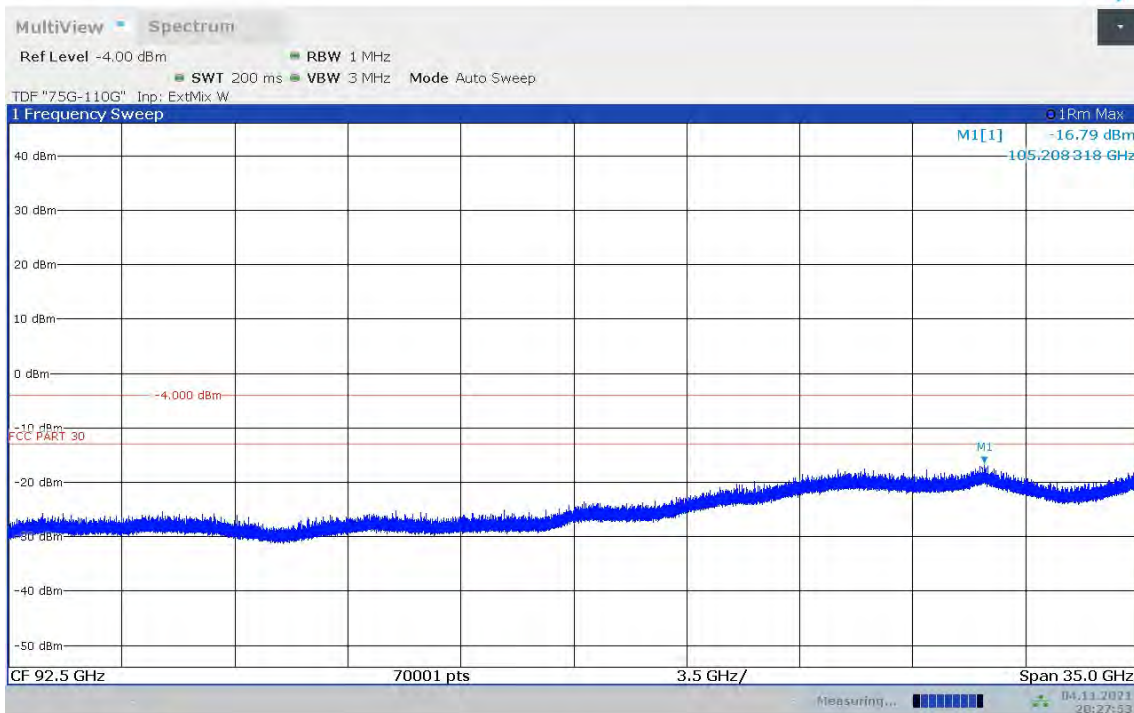
17:44:41 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Mid channel, 60GHz-75GHz, H



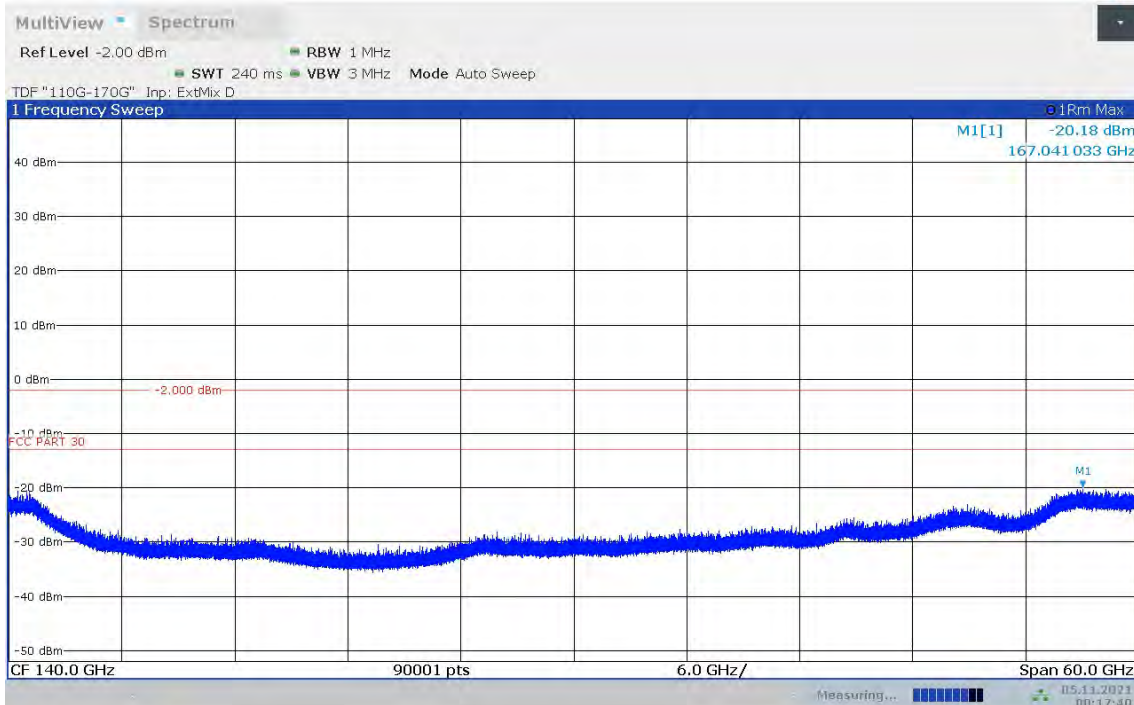
20:26:00 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Mid channel, 75GHz-110GHz, V



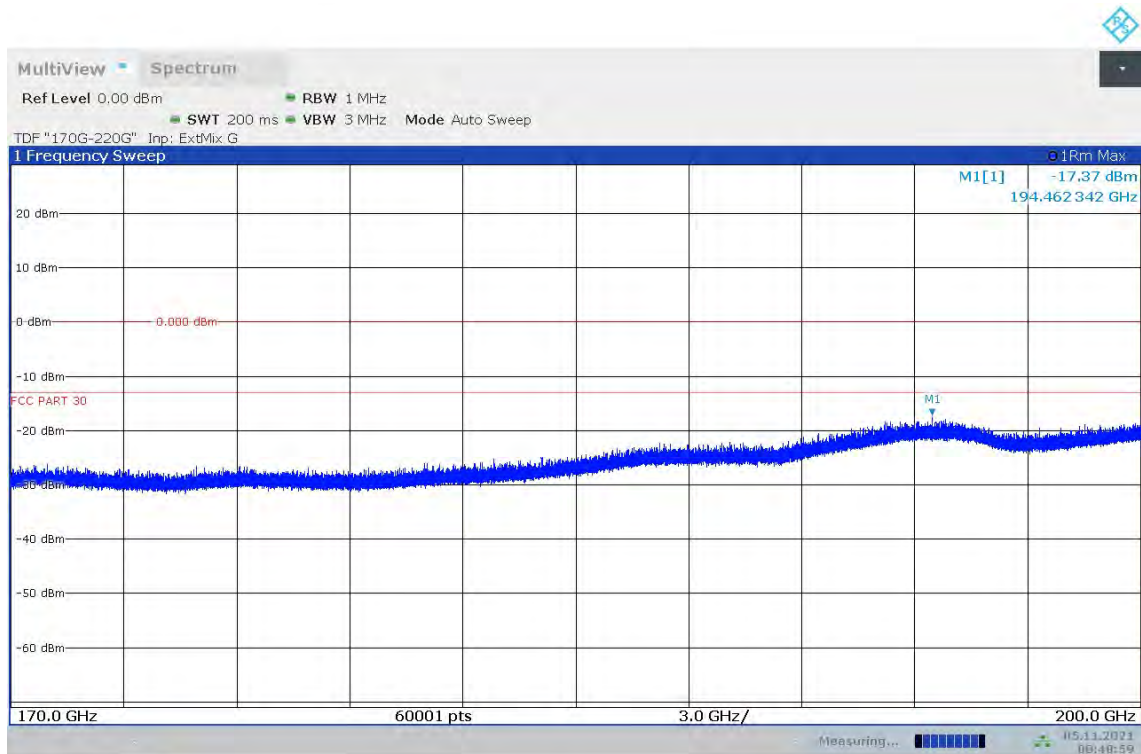
20:27:53 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Mid channel, 75GHz-110GHz, H



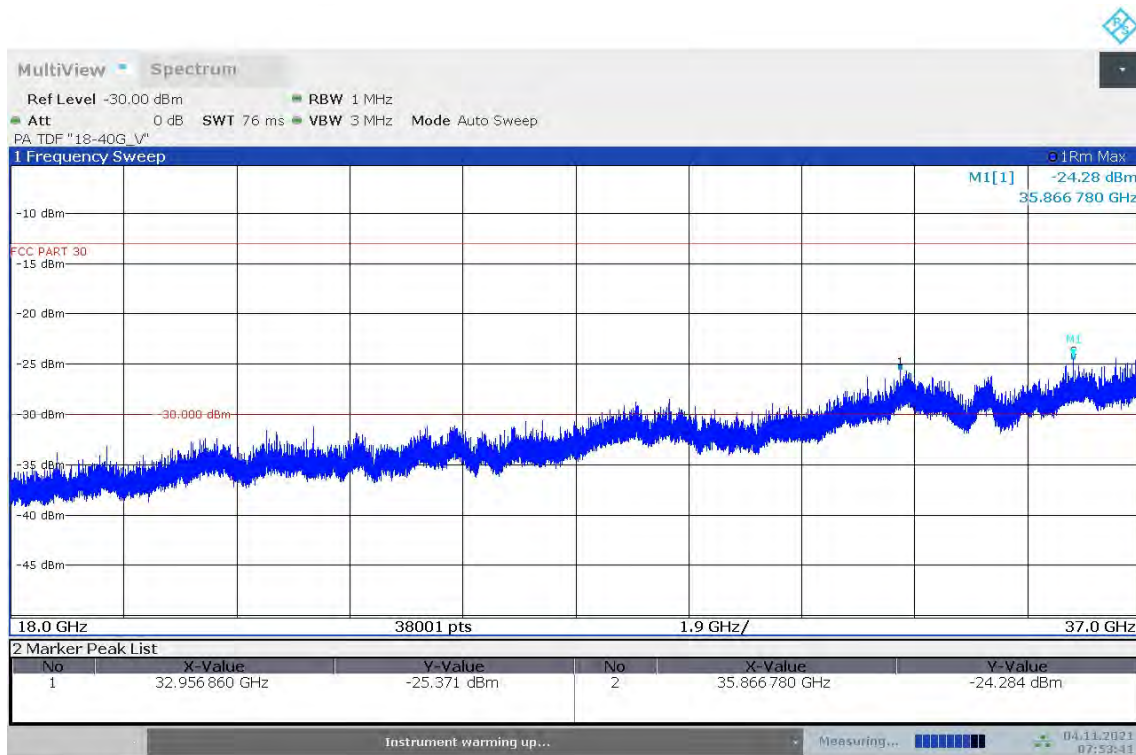
00:17:40 05.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Mid channel, 110GHz-170GHz



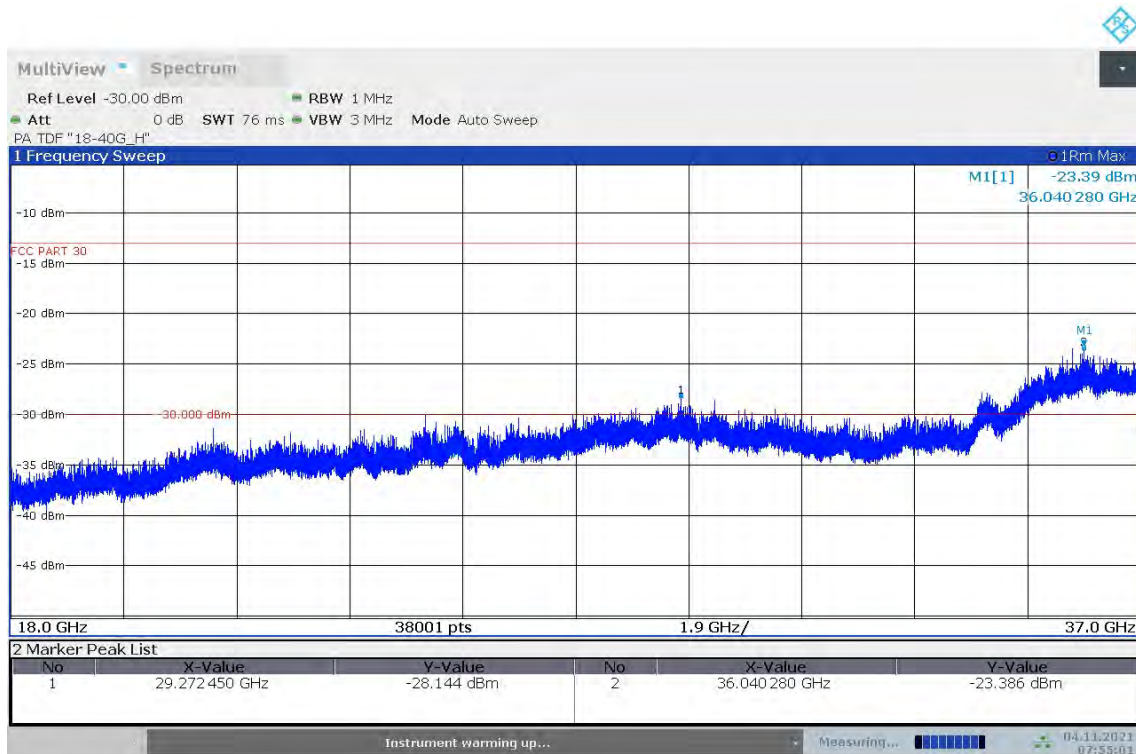
00:49:00 05.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, Mid channel, 170GHz-200GHz



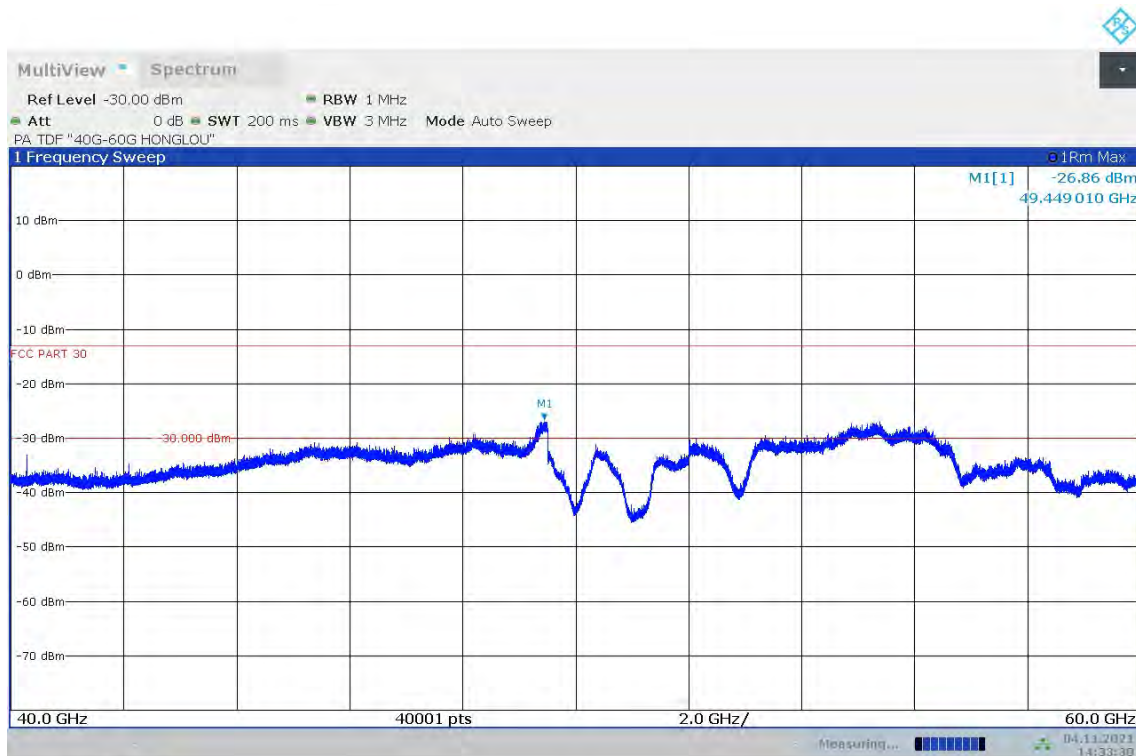
07:53:41 04.11.2021

n260, Module1,100MHz, PUSCH DFT, QPSK, 1RB, High channel, 18GHz-40GHz, V



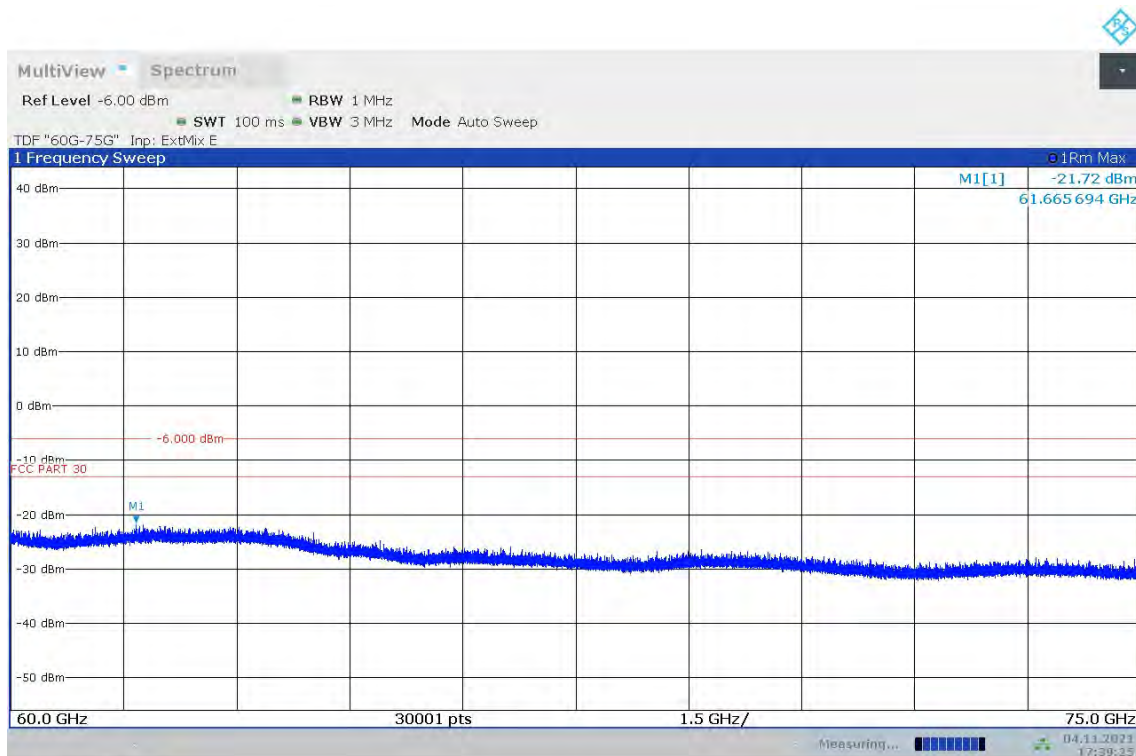
07:55:01 04.11.2021

n260, Module1,100MHz, PUSCH DFT, QPSK, 1RB, High channel, 18GHz-40GHz, H



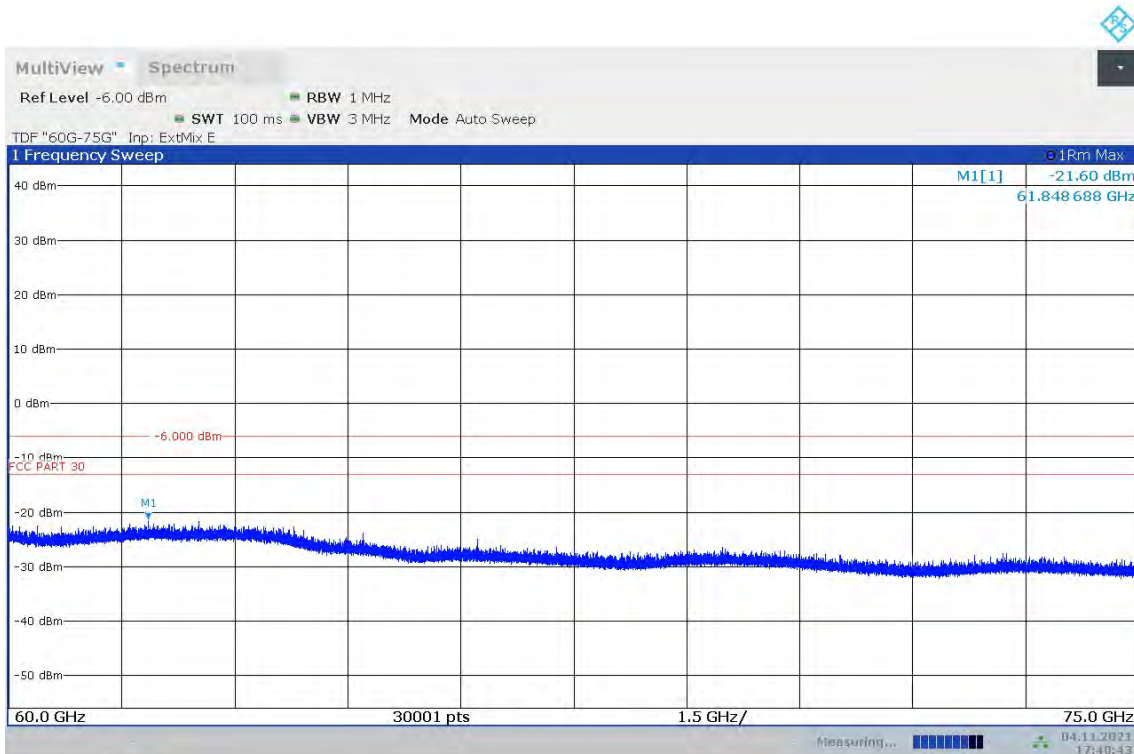
14:33:30 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, High channel, 40GHz-60GHz



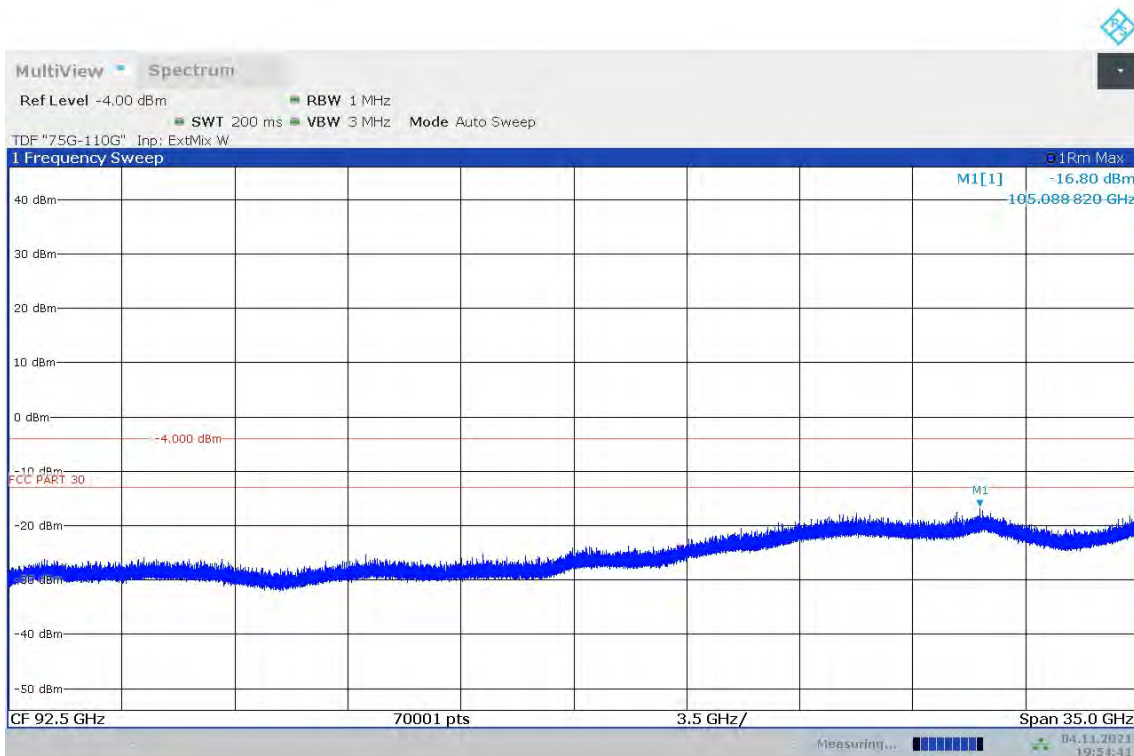
17:39:26 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, High channel, 60GHz-75GHz, V



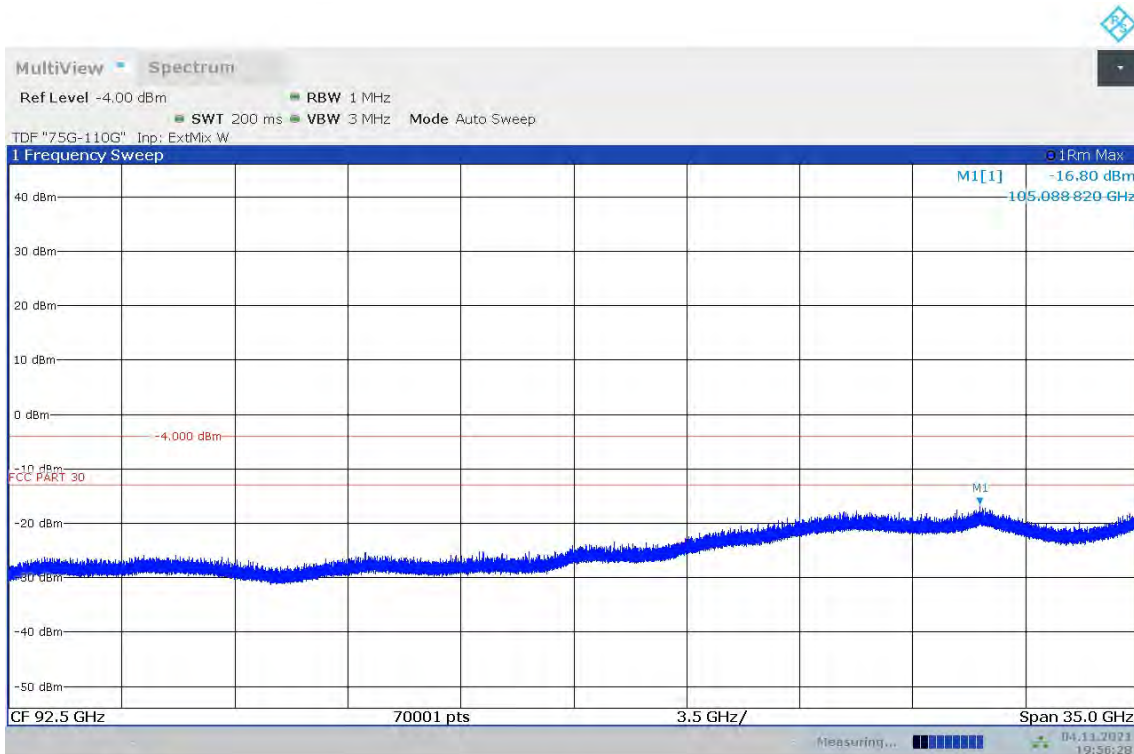
17:40:43 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, High channel, 60GHz-75GHz, H



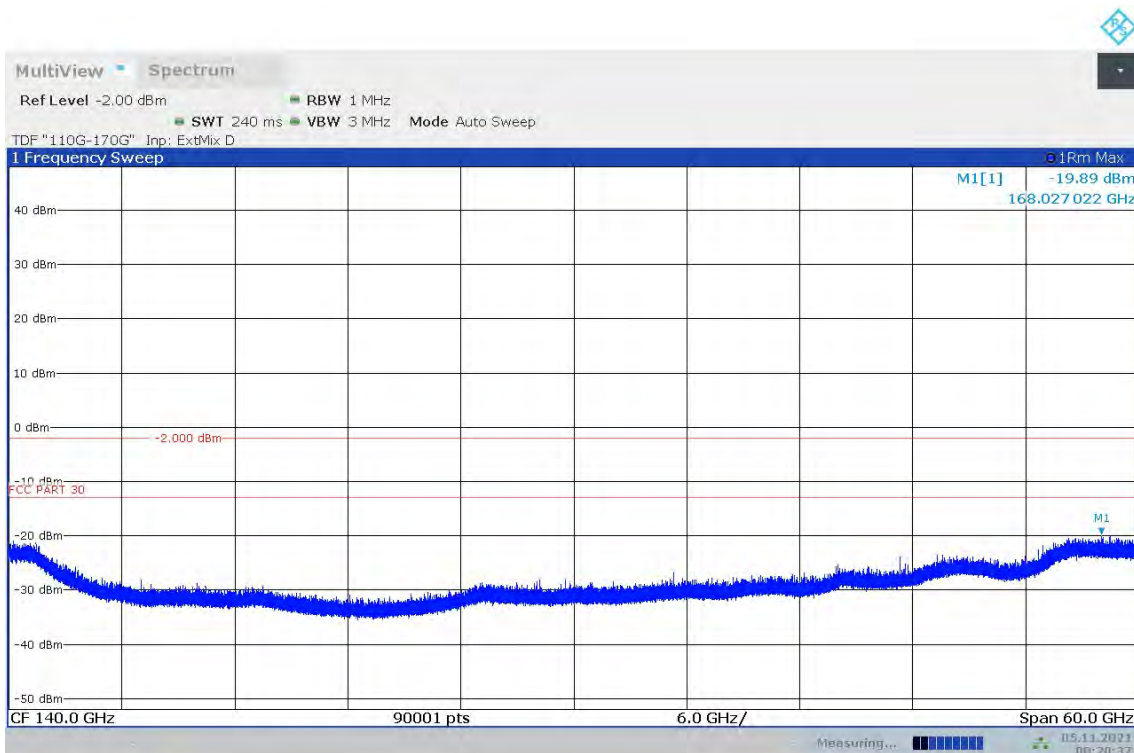
19:54:41 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, High channel, 75GHz-110GHz, V



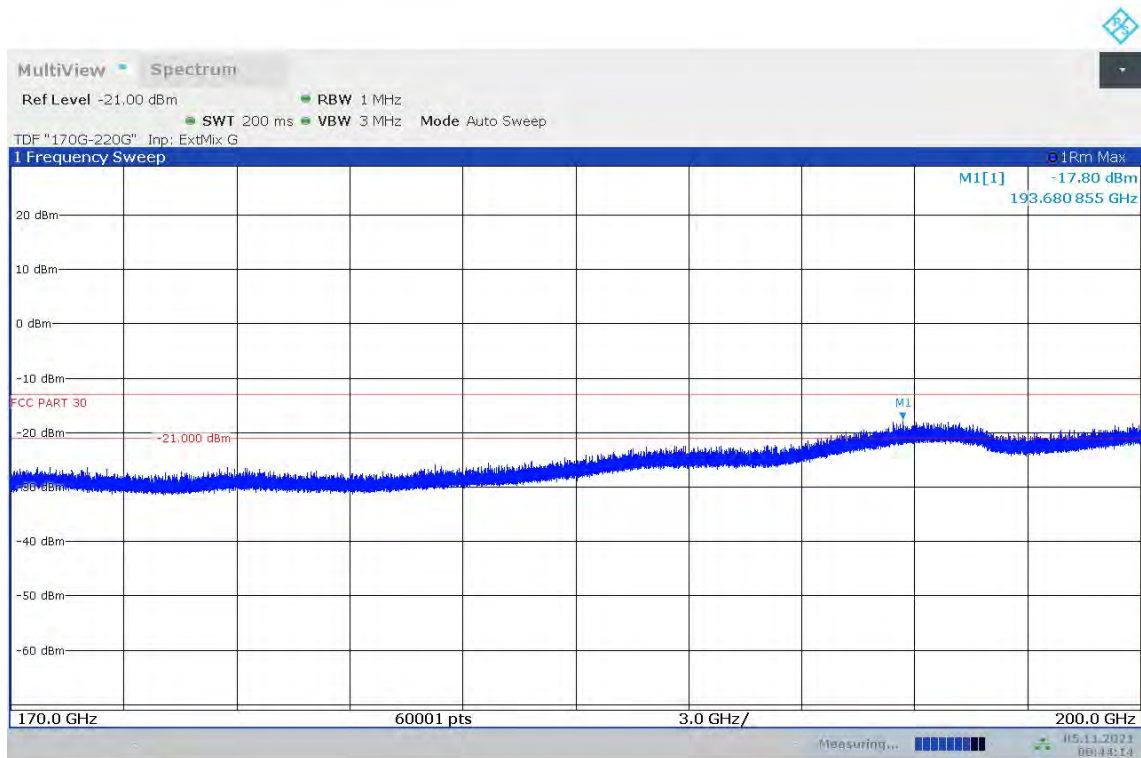
19:56:28 04.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, High channel, 75GHz-110GHz, H



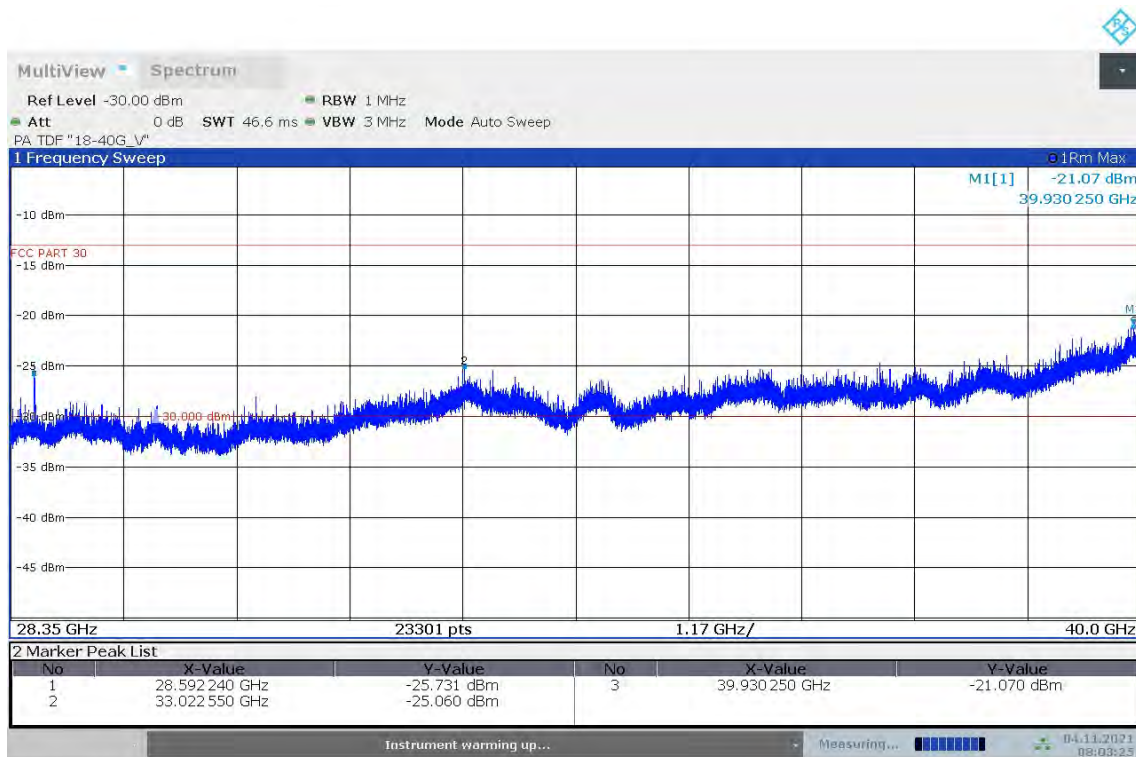
00:20:38 05.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, High channel, 110GHz-170GHz



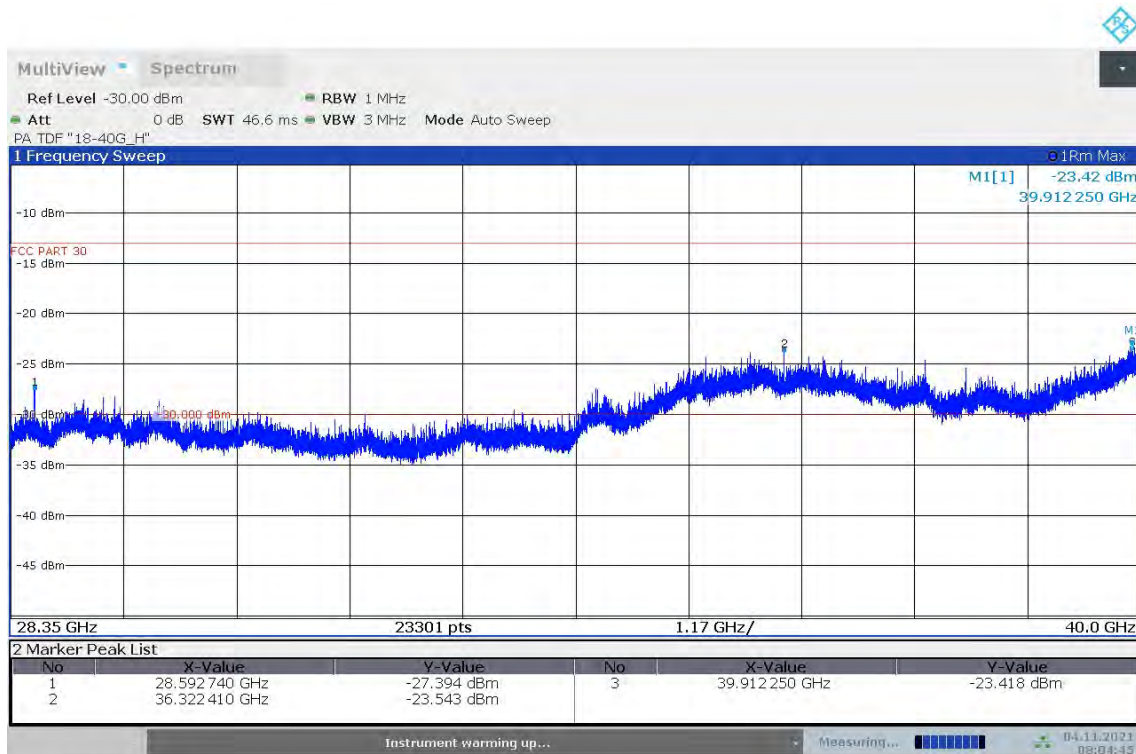
00:44:15 05.11.2021

n260, Module1, 100MHz, PUSCH DFT, QPSK, 1RB, High channel, 170GHz-200GHz



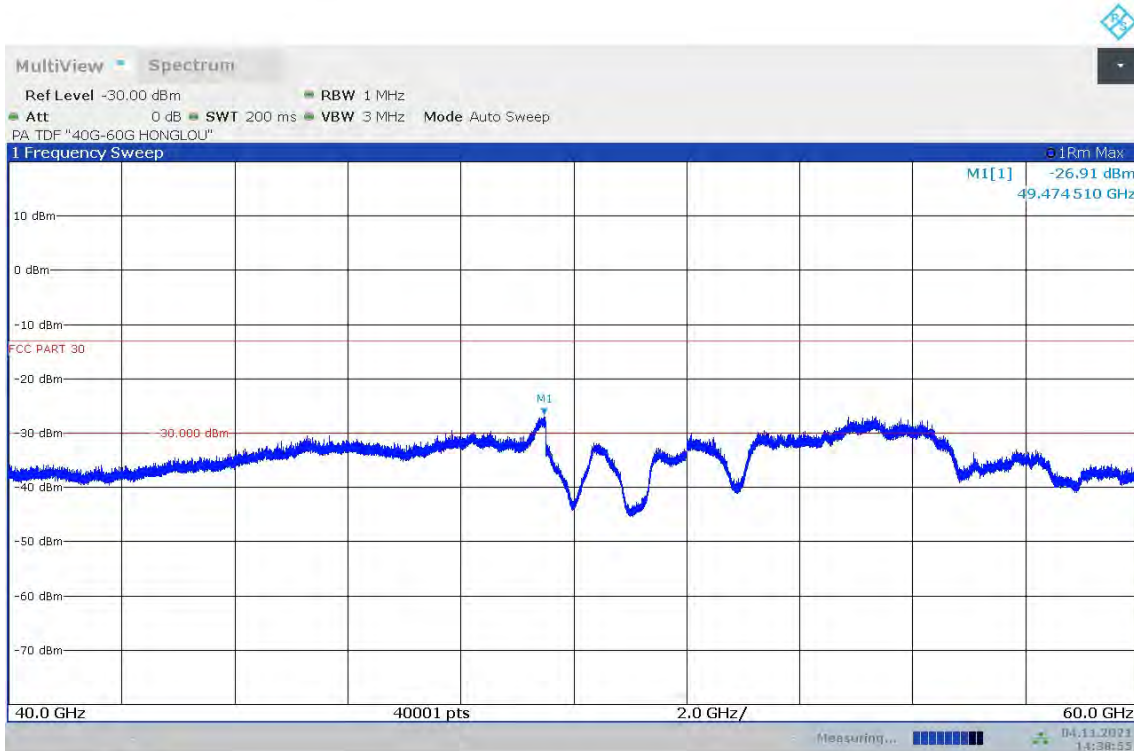
08:03:25 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Low channel, 18GHz-40GHz, V



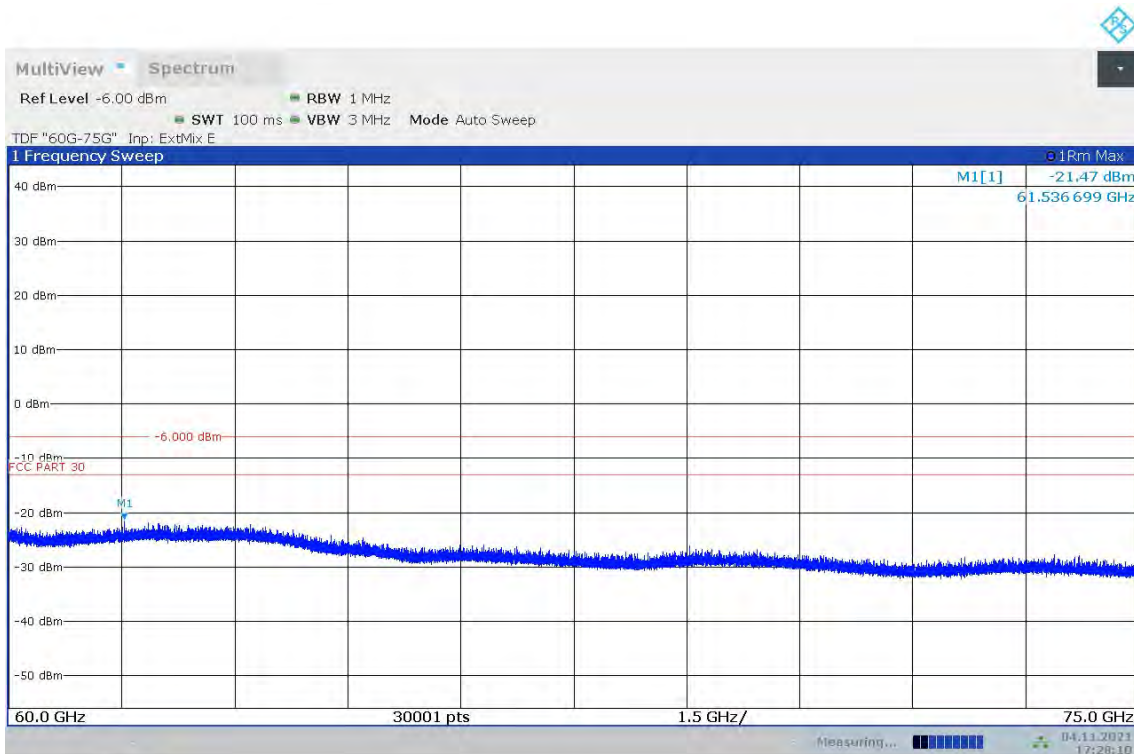
08:04:45 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Low channel, 18GHz-40GHz, H



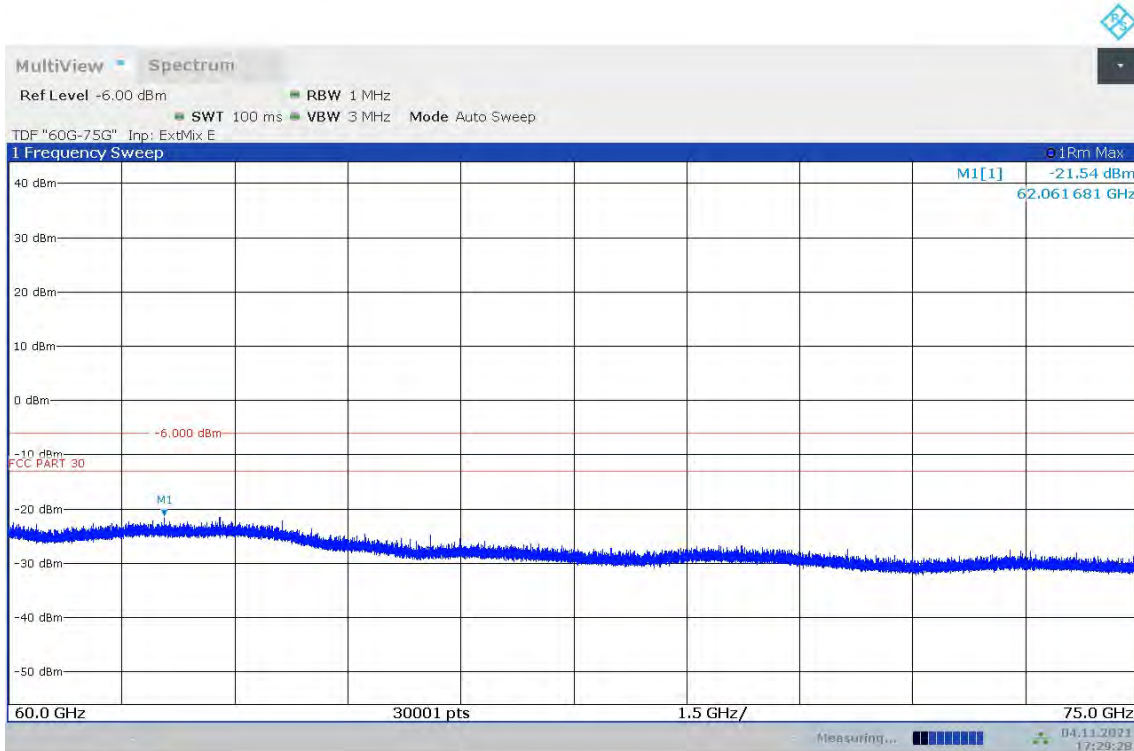
14:38:56 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Low channel, 40GHz-60GHz



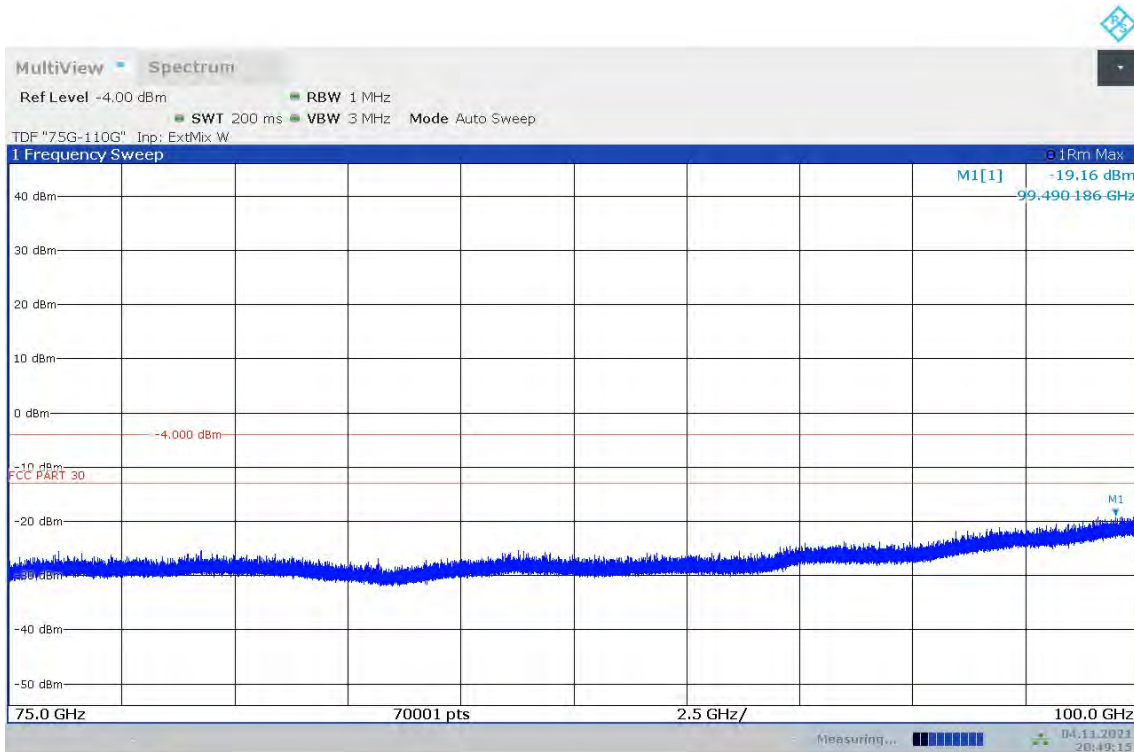
17:28:10 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Low channel, 60GHz-75GHz, V



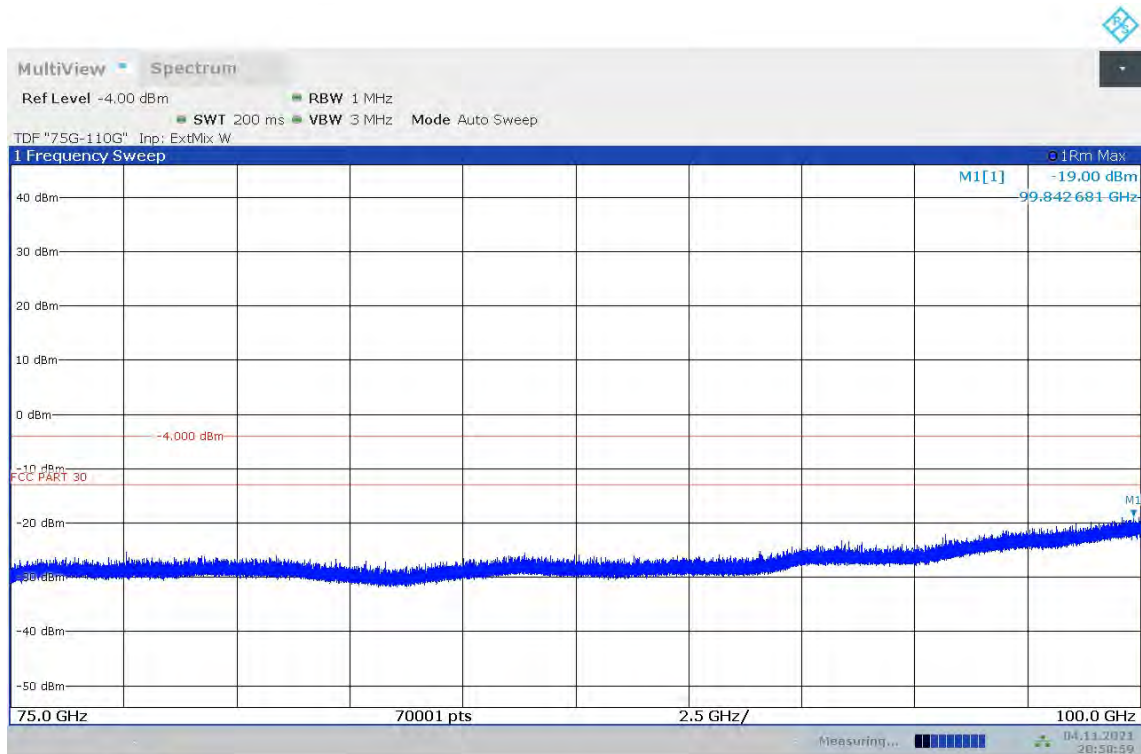
17:29:28 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Low channel, 60GHz-75GHz, H



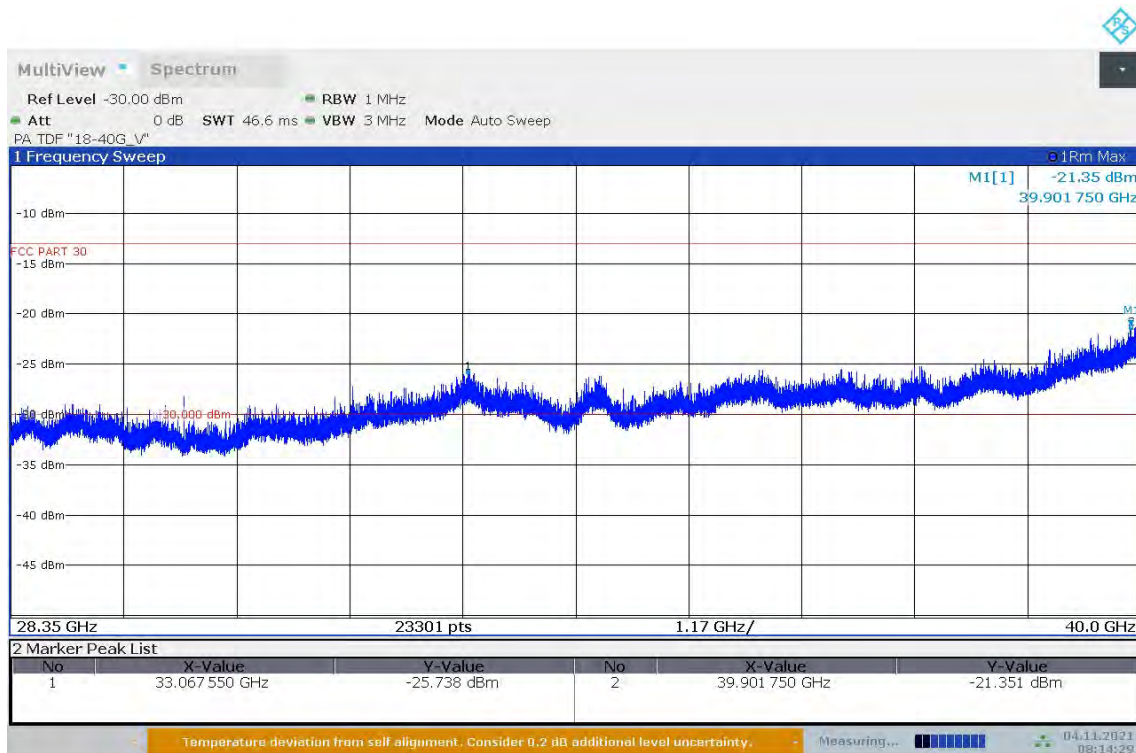
20:49:15 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Low channel, 75GHz-100GHz, V



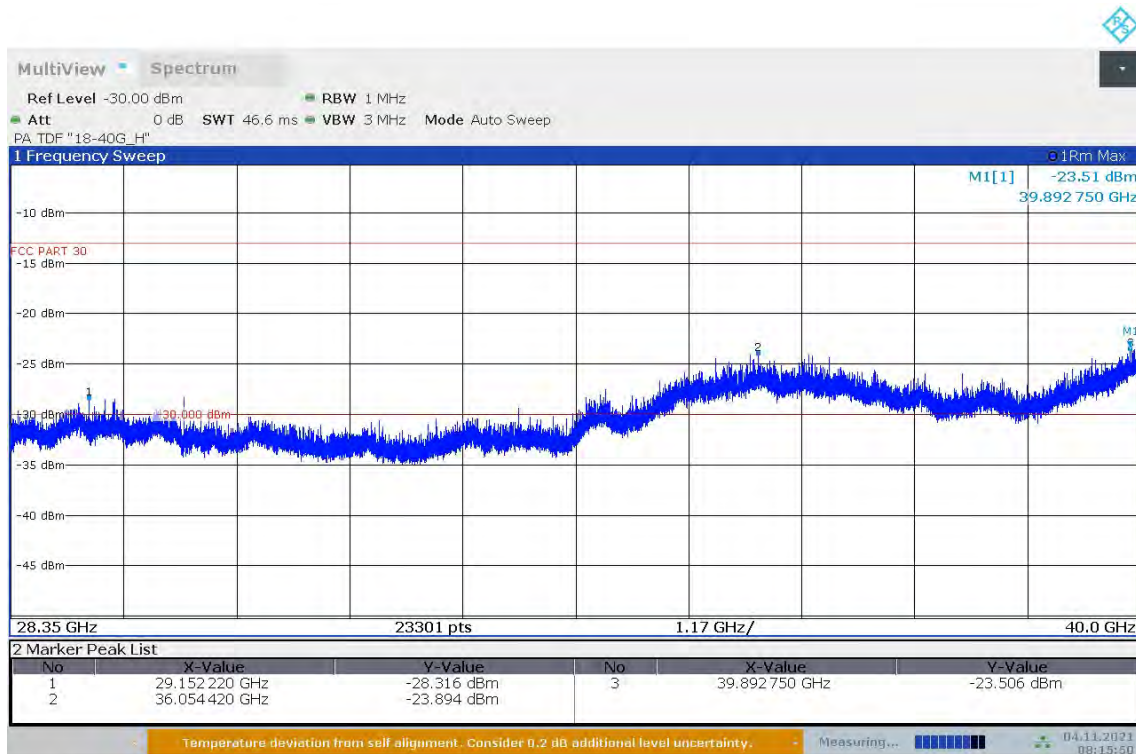
20:50:59 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Low channel, 75GHz-100GHz, H



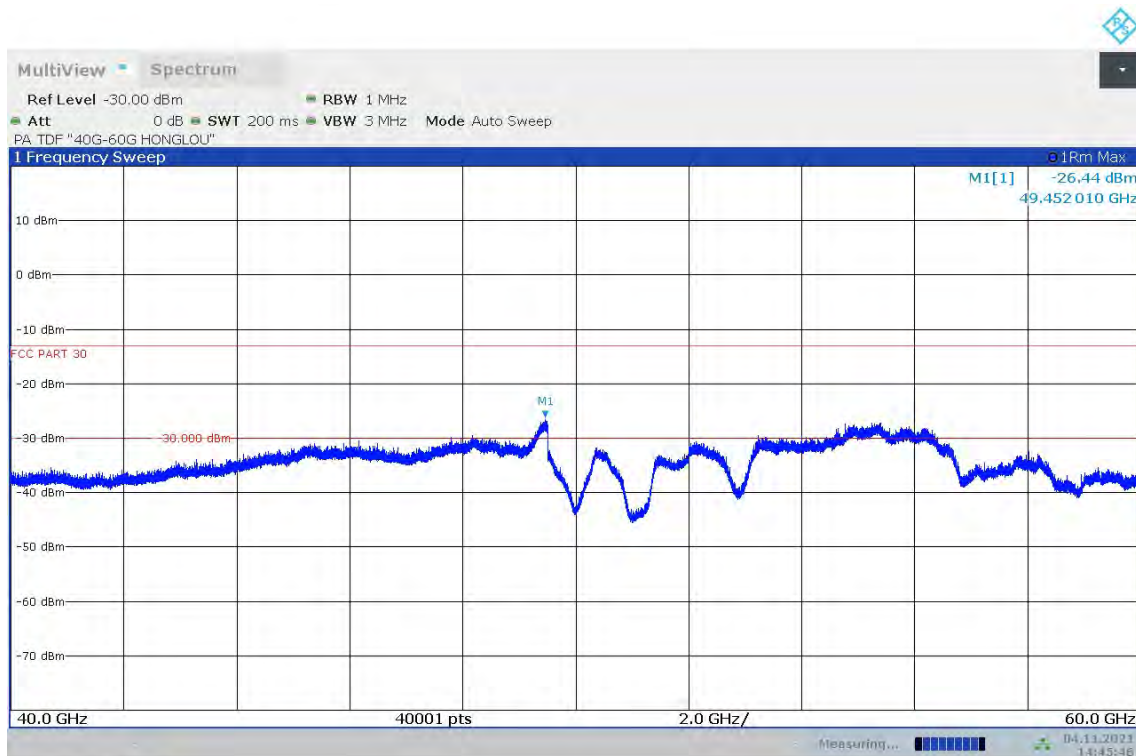
08:14:30 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Mid channel, 18GHz-40GHz, V



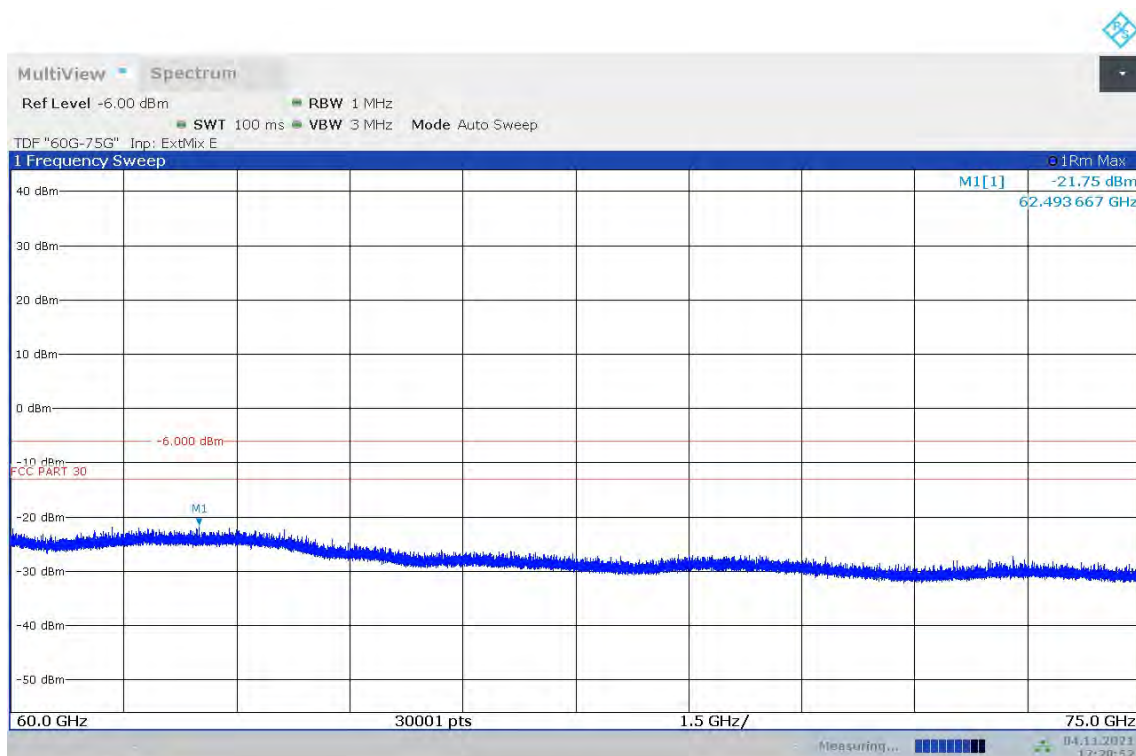
08:15:51 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Mid channel, 18GHz-40GHz, H



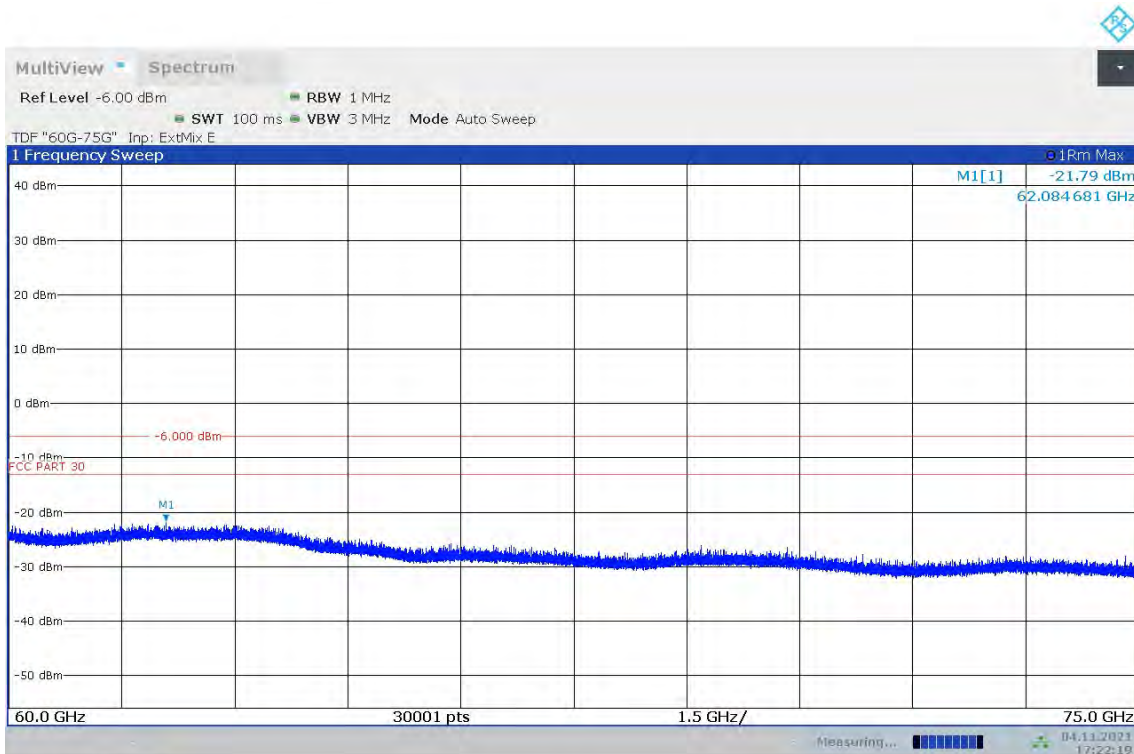
14:45:46 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Mid channel, 40GHz-60GHz



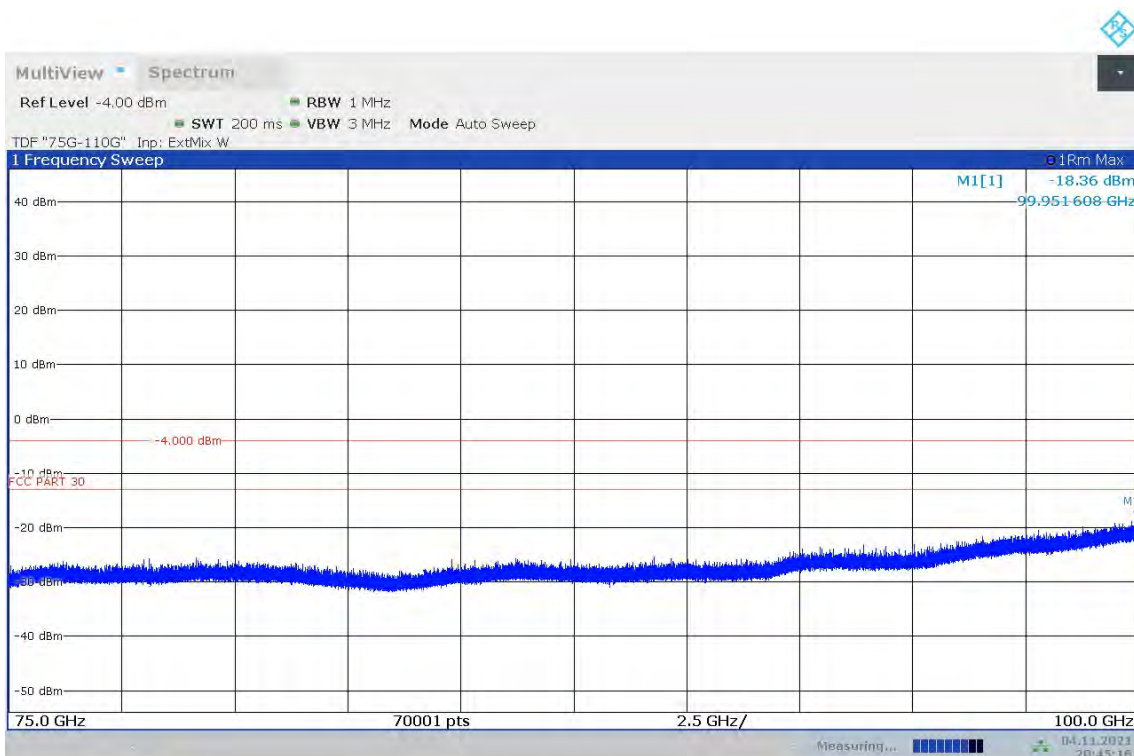
17:20:53 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Mid channel, 60GHz-75GHz, V



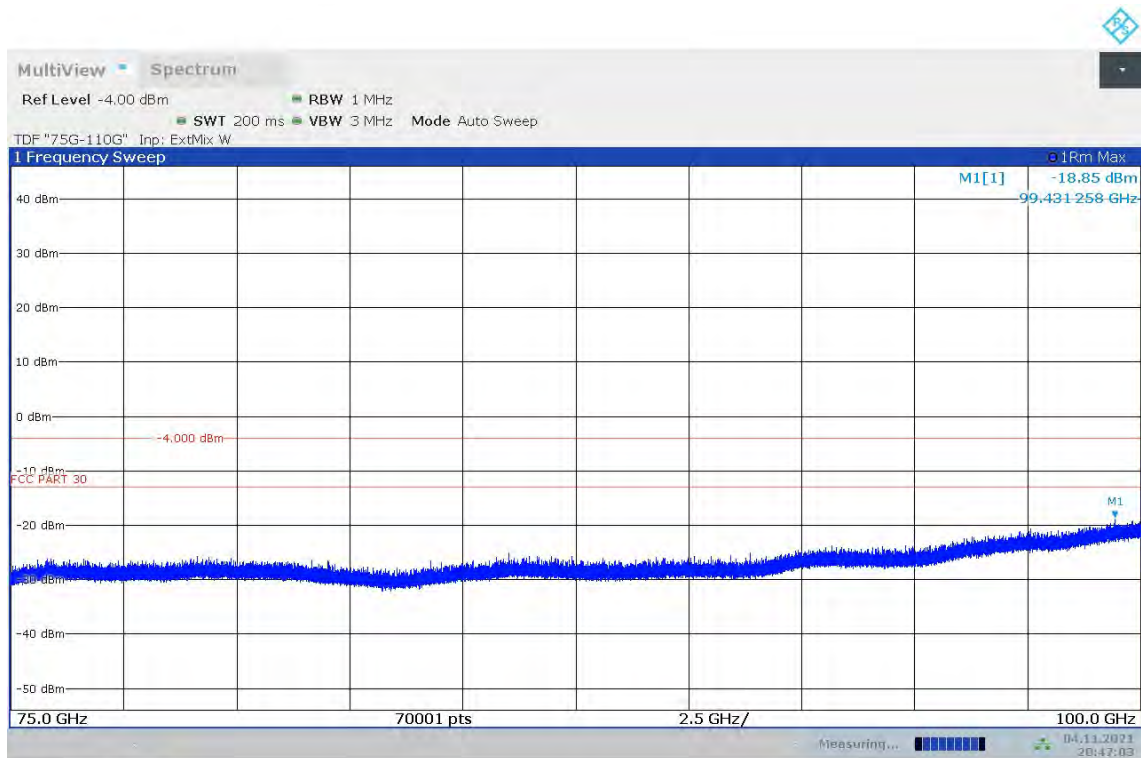
17:22:20 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Mid channel, 60GHz-75GHz, H



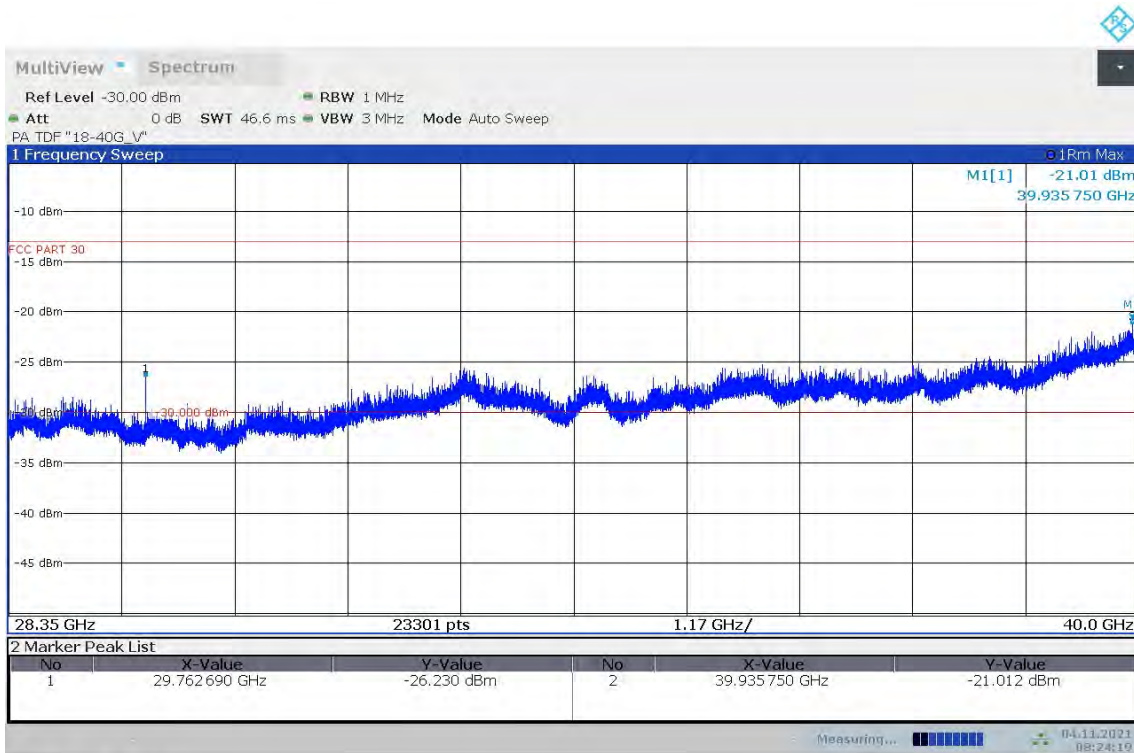
20:45:16 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Mid channel, 75GHz-100GHz, V



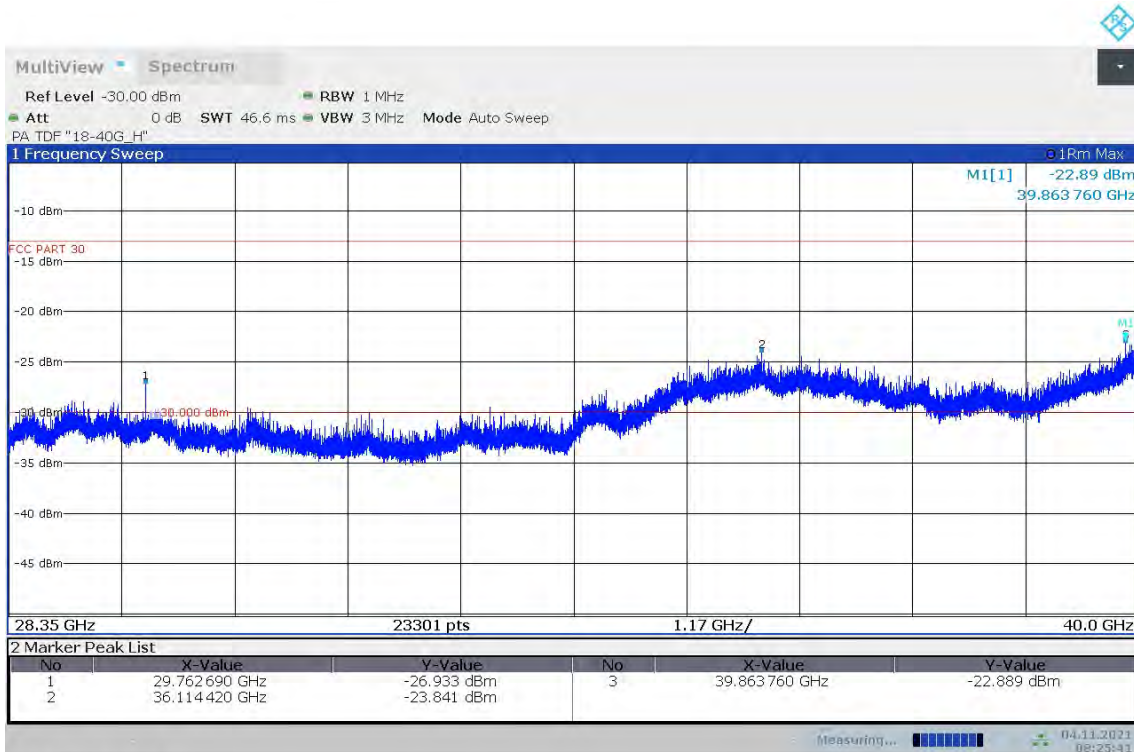
20:47:03 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, Mid channel, 75GHz-100GHz, V



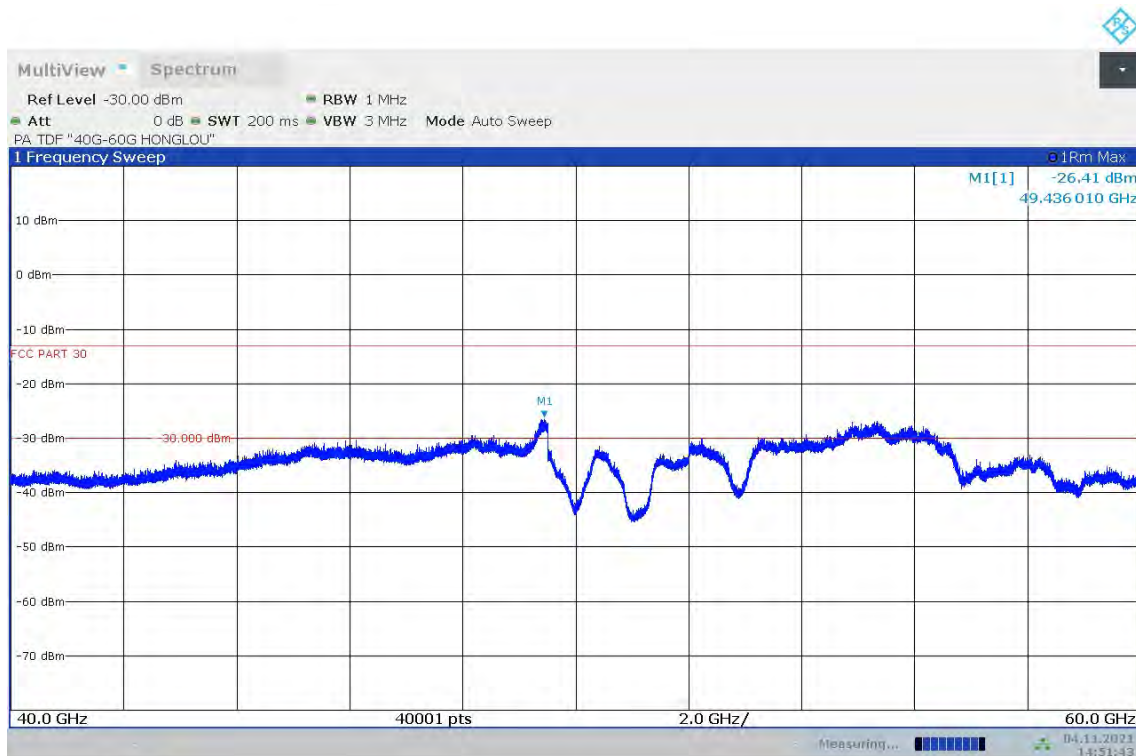
08:24:20 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, High channel, 18GHz-40GHz, V



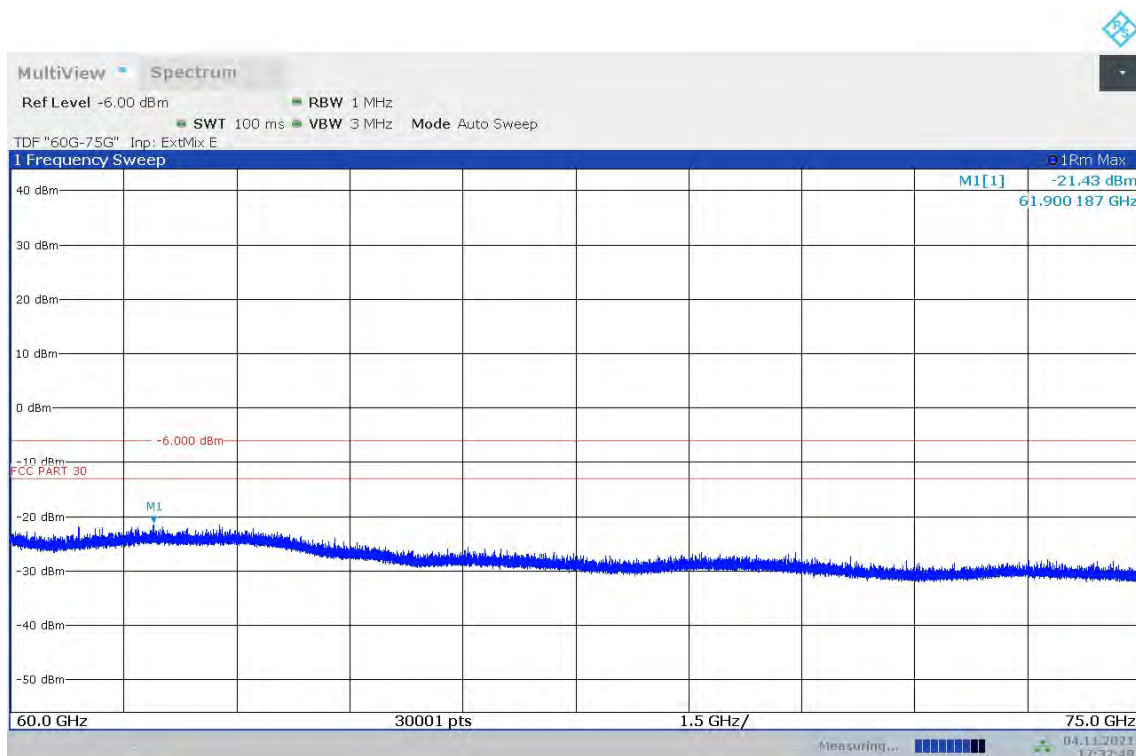
08:25:41 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, High channel, 18GHz-40GHz, H



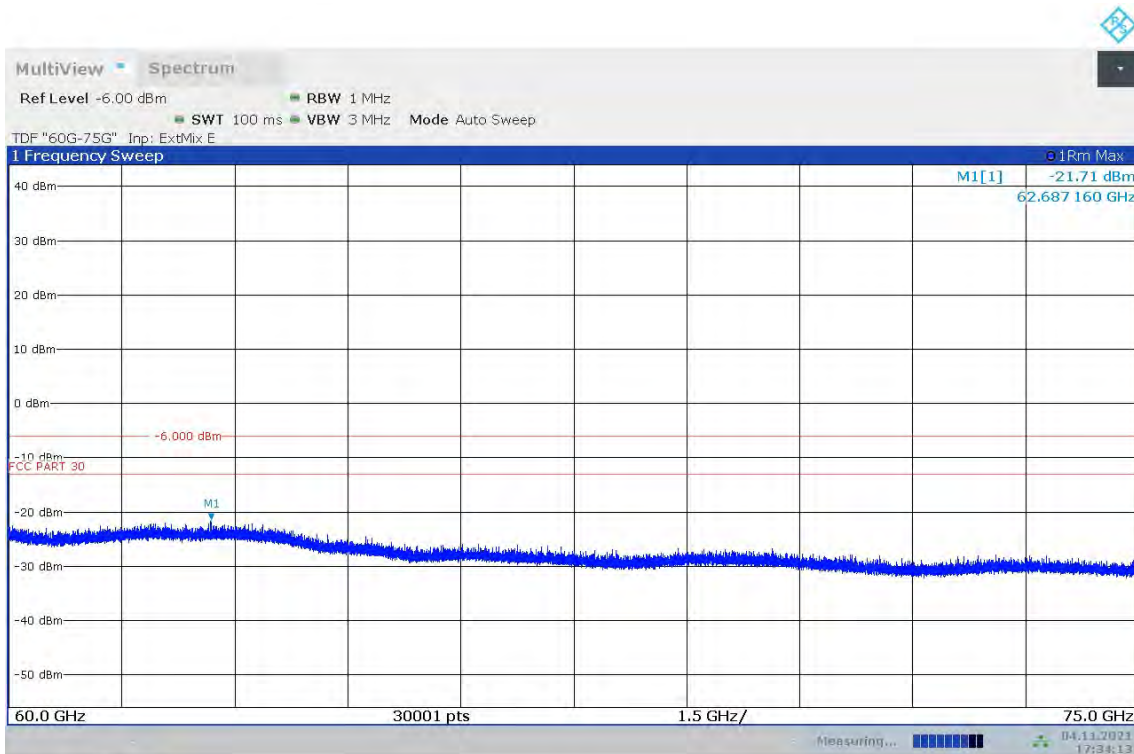
14:51:44 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, High channel, 40GHz-60GHz



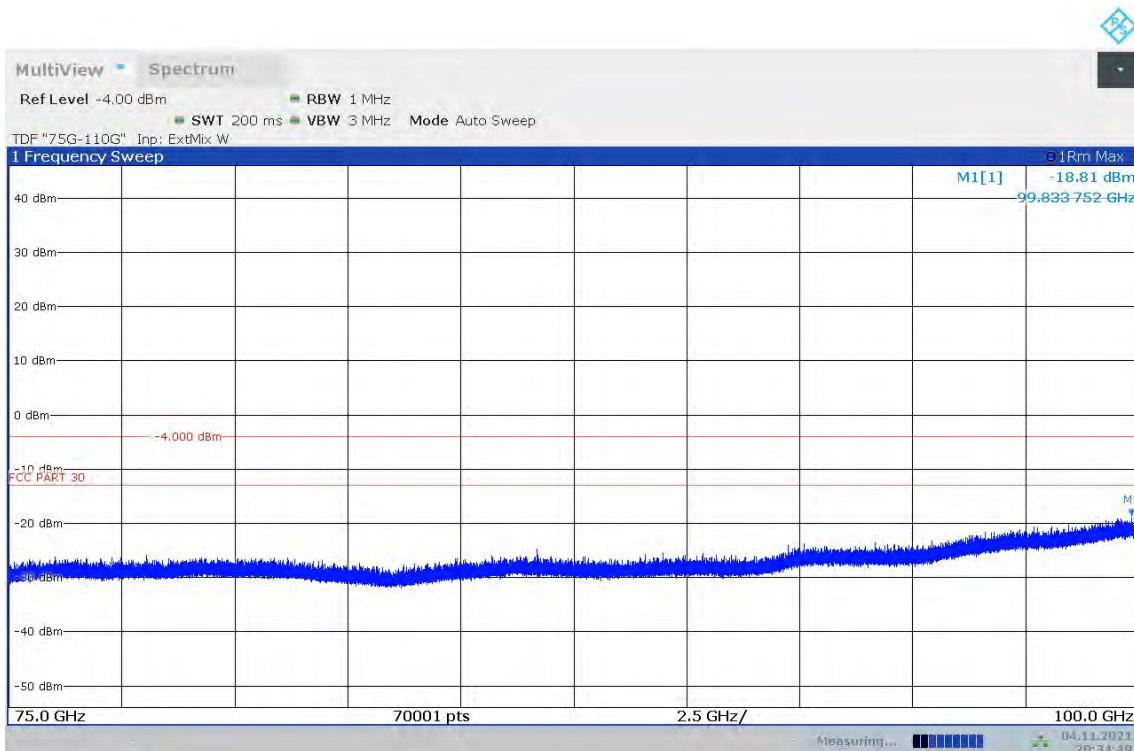
17:32:49 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, High channel, 60GHz-75GHz, V



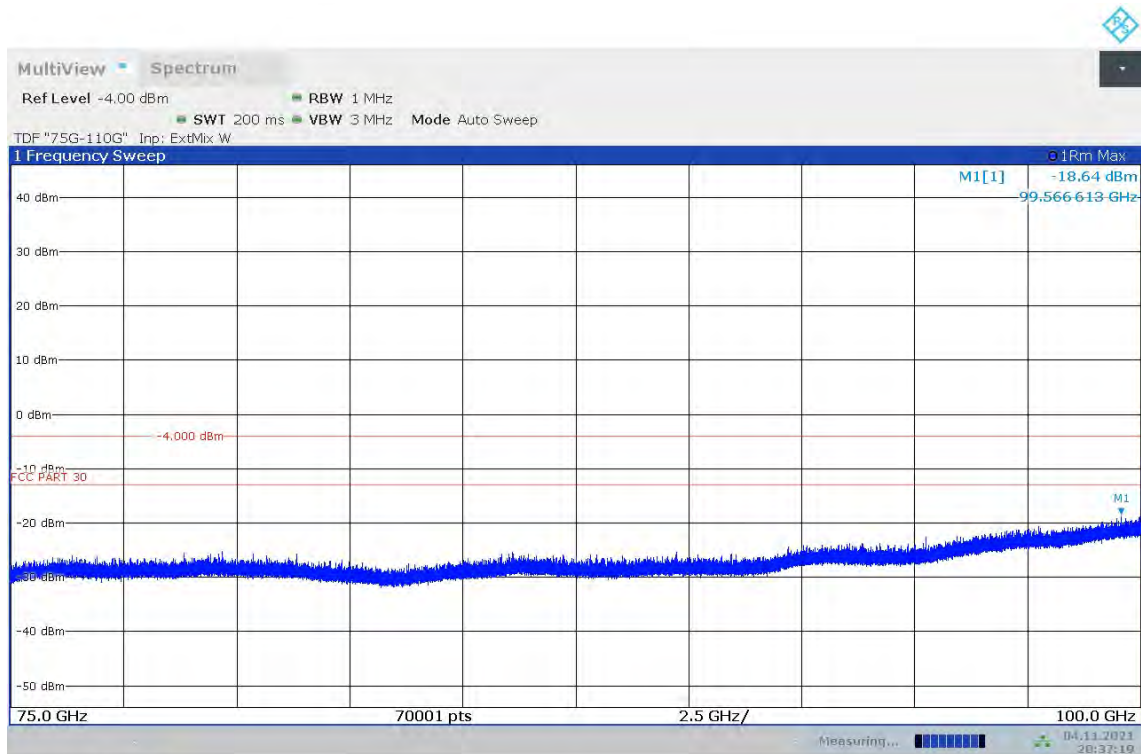
17:34:13 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, High channel, 60GHz-75GHz, V



20:34:49 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, High channel, 75GHz-100GHz, V



20:37:19 04.11.2021

n261, Module0, 100MHz, PUSCH DFT, QPSK, 100%RB, High channel, 75GHz-100GHz, H

A.3 Frequency Stability

\$2.1055

A.3.1 Method of Measurement

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage. Two reference points are established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shall be identified as F_L and F_H respectively.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -30°C.
3. With the EUT, powered via nominal voltage, and transmitted on middle channel for each FR2 band, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
5. Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1.5 hours unpowered, to allow any self-heating to stabilize, before continuing.
6. Subject the EUT to overnight soak at +50°C.
7. With the EUT, powered via nominal voltage, and transmitted on the center channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 °C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5°C during the measurement procedure.

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of the lower, higher and nominal voltage. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress.

A.3.2 Measurement results

n260, PUSCH DFT QPSK, 1RB

Frequency Error vs Temperature

OPERATING FREQUENCY: 38499960000Hz

POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev (Hz)	Deviation (%)
7.6	+20(REF)	38499338000	/	/
	-30	38499213000	-125000	-0.000325%
	-20	38499188000	-150000	-0.000390%
	-10	38499638000	300000	0.000779%
	+0	38499288000	-50000	-0.000130%
	+10	38499488000	150000	0.000390%
	+20	38499413000	75000	0.000195%
	+30	38499100000	-238000	-0.000618%
	+40	38499325000	-13000	-0.000034%
	+50	38499200000	-138000	-0.000358%
6.0	+20	38499600000	262000	0.000681%
8.7	+20	38499638000	300000	0.000779%

n261, PUSCH DFT QPSK, 1RB

Frequency Error vs Temperature

OPERATING FREQUENCY: 27924960000Hz

POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev (Hz)	Deviation (%)
7.6	+20(REF)	27923918700	/	/
	-30	27924119900	201200	0.000721%
	-20	27923848700	-70000	-0.000251%
	-10	27923966500	47800	0.000171%
	+0	27923962400	43700	0.000156%
	+10	27924113300	194600	0.000697%
	+20	27924007100	88400	0.000317%
	+30	27924055800	137100	0.000491%
	+40	27924051800	133100	0.000477%
	+50	27923682100	-236600	-0.000847%
6.0	+20	27923844600	-74100	-0.000265%
8.7	+20	27923832400	-86300	-0.000309%

A.4 Occupied Bandwidth

A.4.1 Minimum Measurement Distance Evaluation

According to KDB842590 D01, the measurements of the fundamental emission, out of band, harmonics and spurious emissions shall be made in the far field of the measurement antenna. The far-field boundary for mmW antennas is greater than or equal to $2D^2/\lambda$ (with D being the largest dimension of the antenna, and λ the wavelength of the emission). We calculate the far-field boundary and the test distance meet the requirement of standard.

A.4.2 Measurement Method

Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the mid frequencies frequency. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.

The measurement method is from ANSI C63.26:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts.
- b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times$ RBW.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
- d) Set the detection mode to peak, and the trace mode to max-hold.

The average EIRP reported below is calculated by:

$$\text{EIRP(dBm)} = \text{Spectrum Analyzer Channel Power Level(dBm)} - \text{Antenna Factor(dBi)} + \text{Cable Loss(dB)} + 20\log(F) + 20\log(D) - 27.56$$

Where:

F: frequency (MHz)

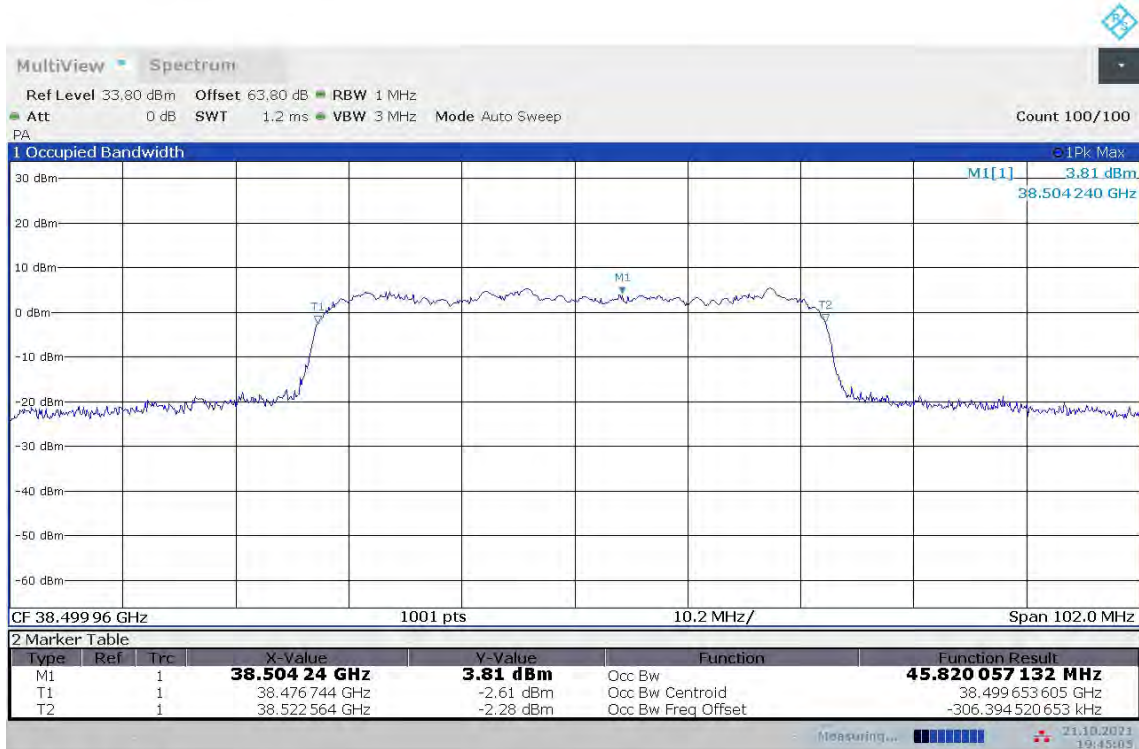
D: Distance(m)=3m

n260, 50MHz (99%)

MID CHANNEL

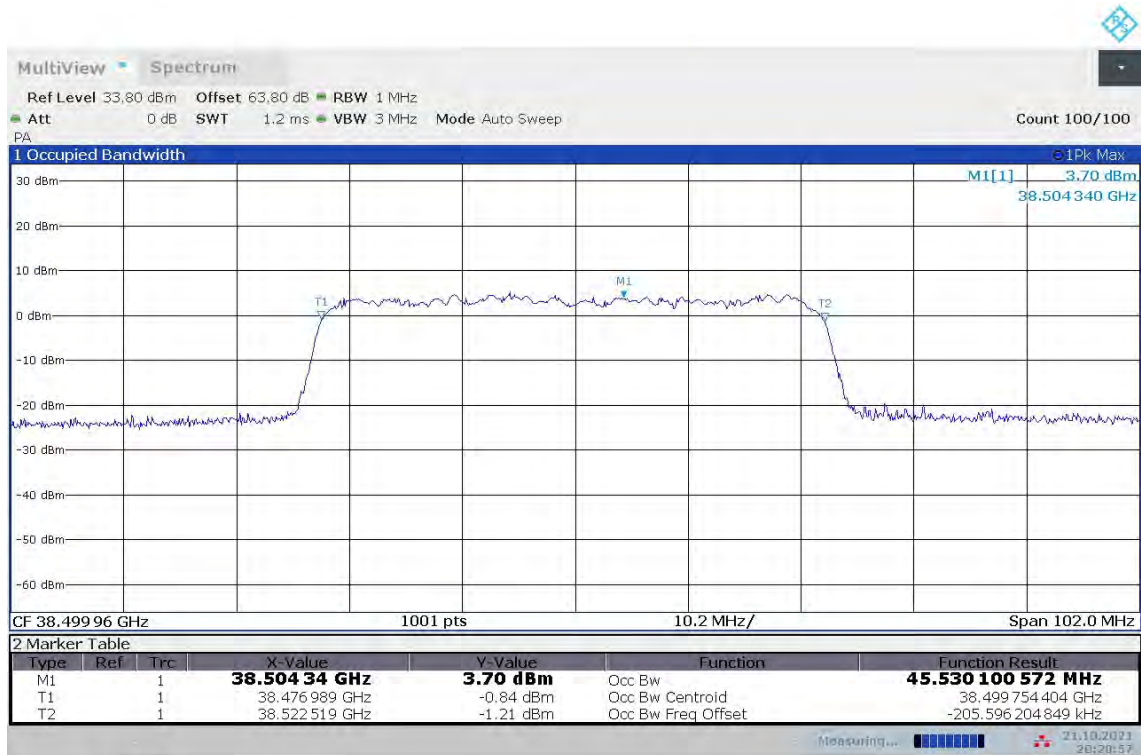
Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
38499.96	QPSK	16QAM	64QAM
	45.82	45.53	46.20

n260, 50MHz Bandwidth, MID CHANNEL, QPSK (99% BW)



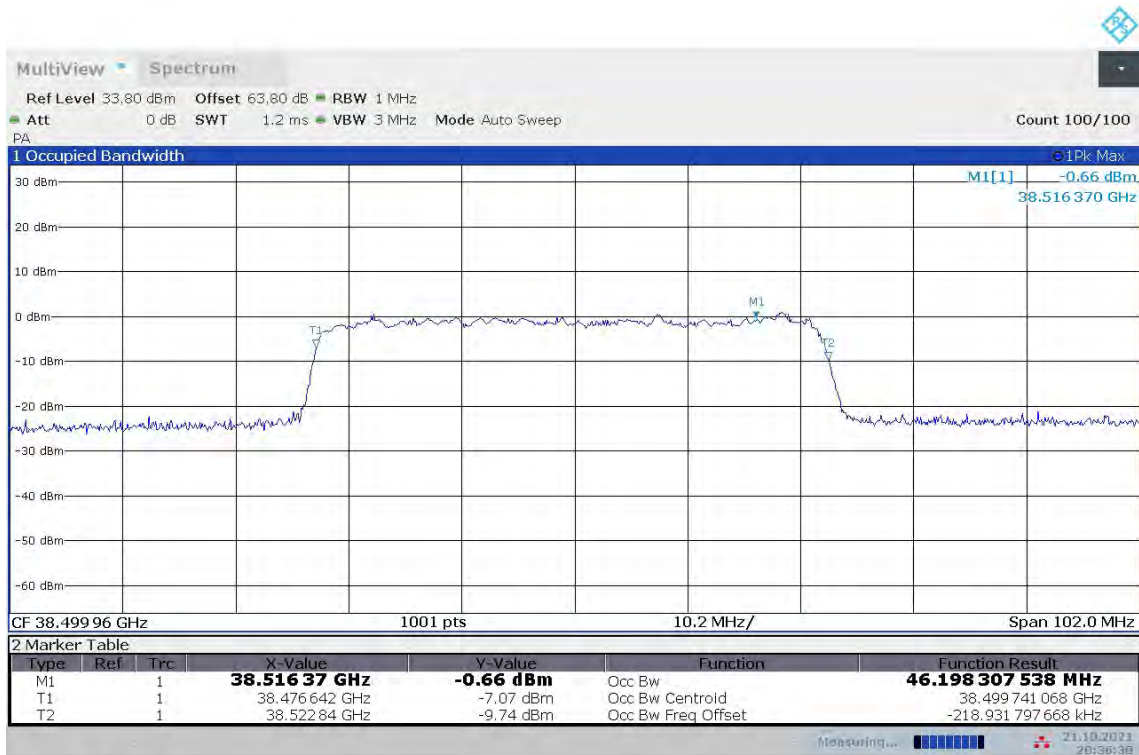
19:45:05 21.10.2021

n260, 50MHz Bandwidth, MID CHANNEL, 16QAM (99% BW)



20:20:57 21.10.2021

n260, 50MHz Bandwidth, MID CHANNEL, 64QAM (99% BW)



20:36:31 21.10.2021

Note: The worst modulation is 64QAM, and we test follow setups used 64QAM.

n260, 50MHz (99%)
LOW CHANNEL

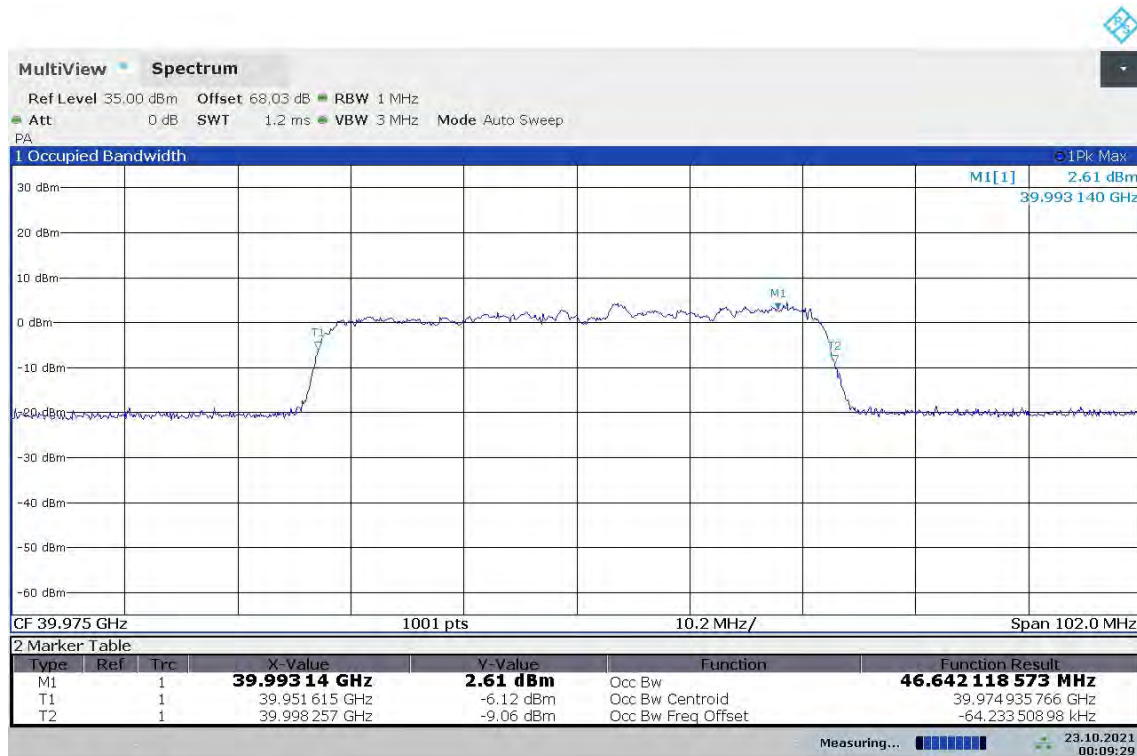
Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
37025.04	QPSK	16QAM	64QAM
	/	/	45.57

n260, 50MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)


20:44:53 21.10.2021

n260, 50MHz (99%)
HIGH CHANNEL

Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
39975	QPSK	16QAM	64QAM
	/	/	46.64

n260, 50MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)


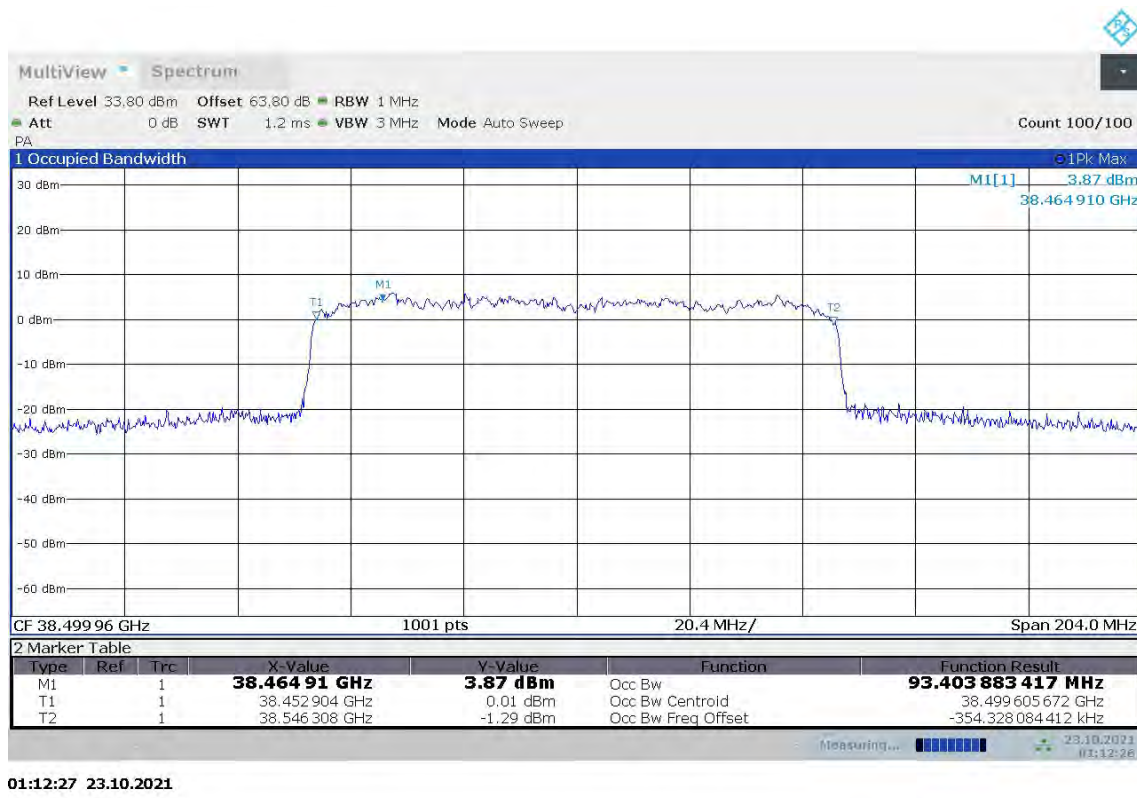
00:09:30 23.10.2021

n260, 100MHz (99%)

MID CHANNEL

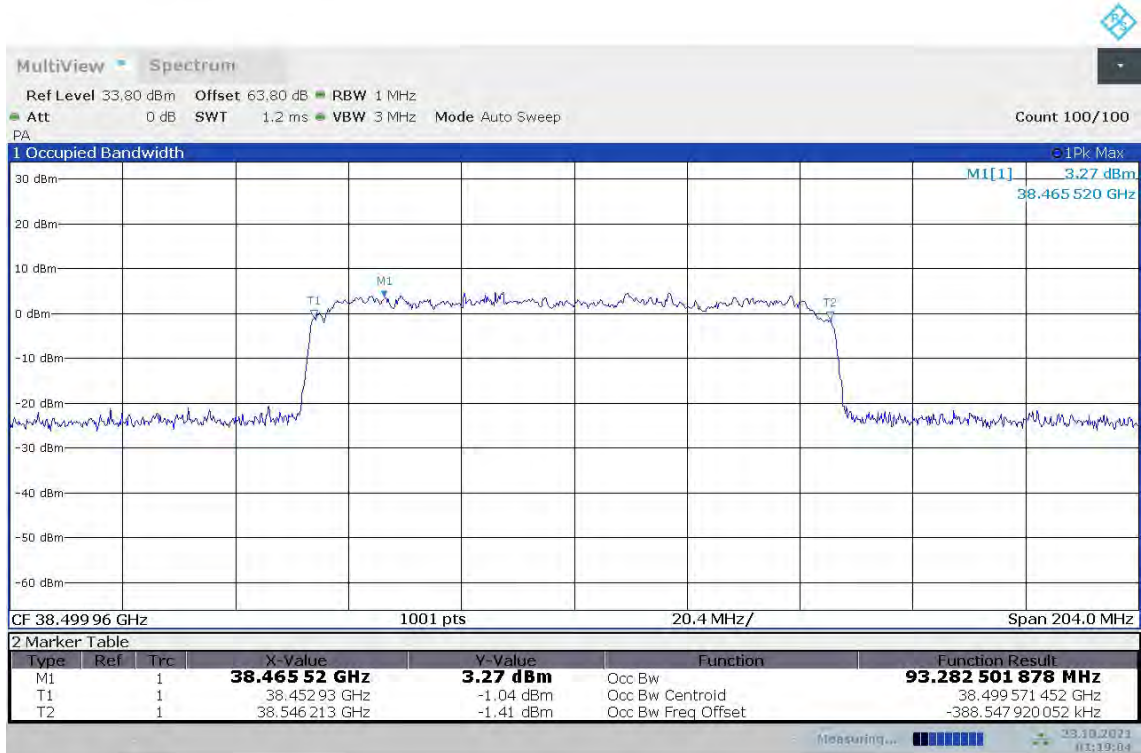
Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
38499.96	QPSK	16QAM	64QAM
	93.40	93.28	94.47

n260, 100MHz Bandwidth, QPSK (99% BW)



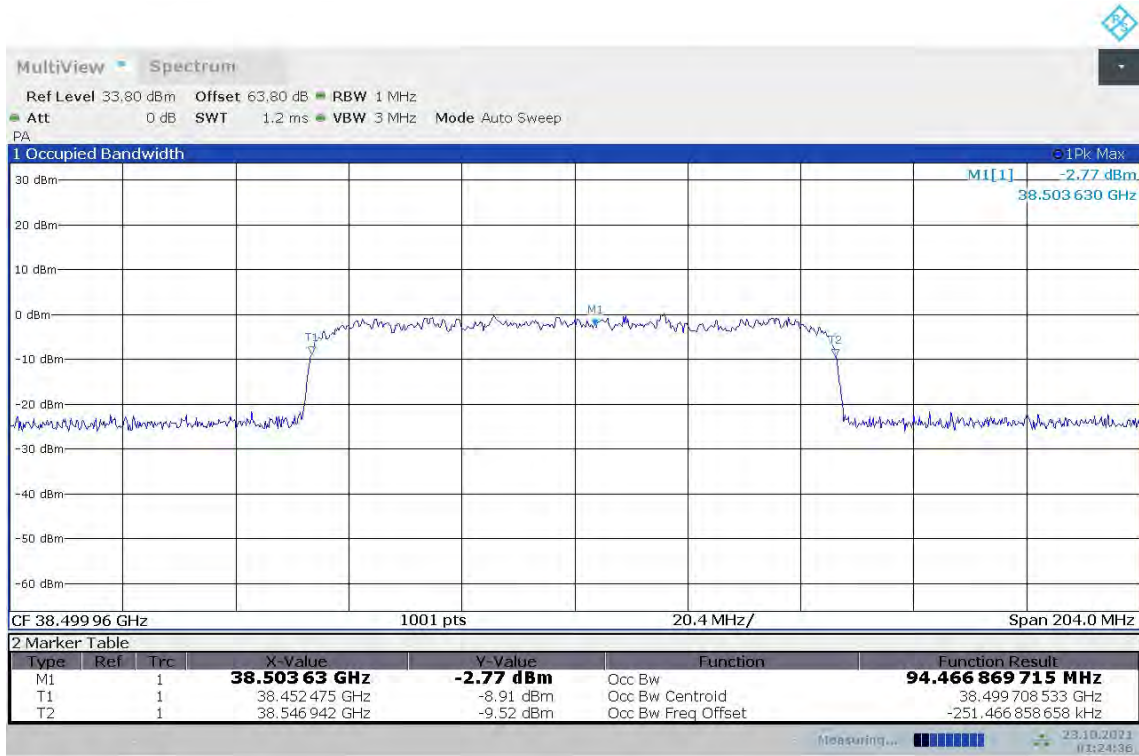
01:12:27 23.10.2021

n260, 100MHz Bandwidth, 16QAM (99% BW)



01:19:05 23.10.2021

n260, 100MHz Bandwidth, 64QAM (99% BW)



01:24:36 23.10.2021

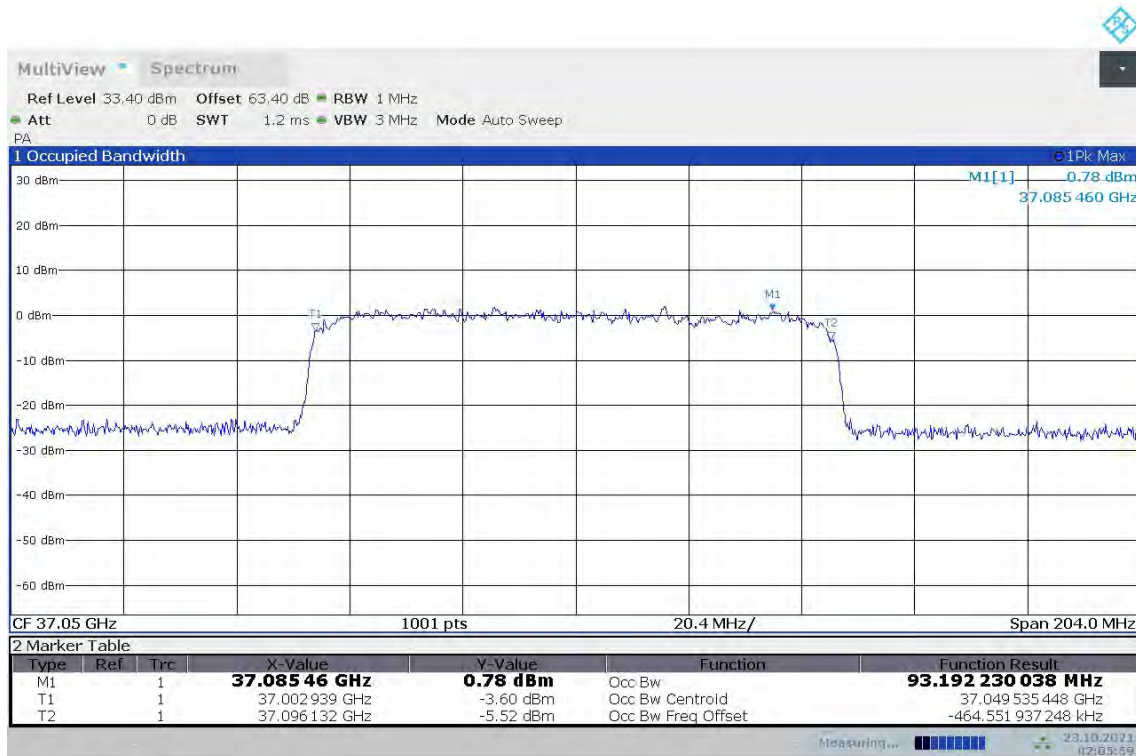
Note: The worst modulation is 64QAM, and we test follow setups used 64QAM.

n260, 100MHz (99%)

LOW CHANNEL

Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
37050	QPSK	16QAM	64QAM
	/	/	93.19

n260, 100MHz Bandwidth, LOW CHANNEL, 64QAM (99% BW)

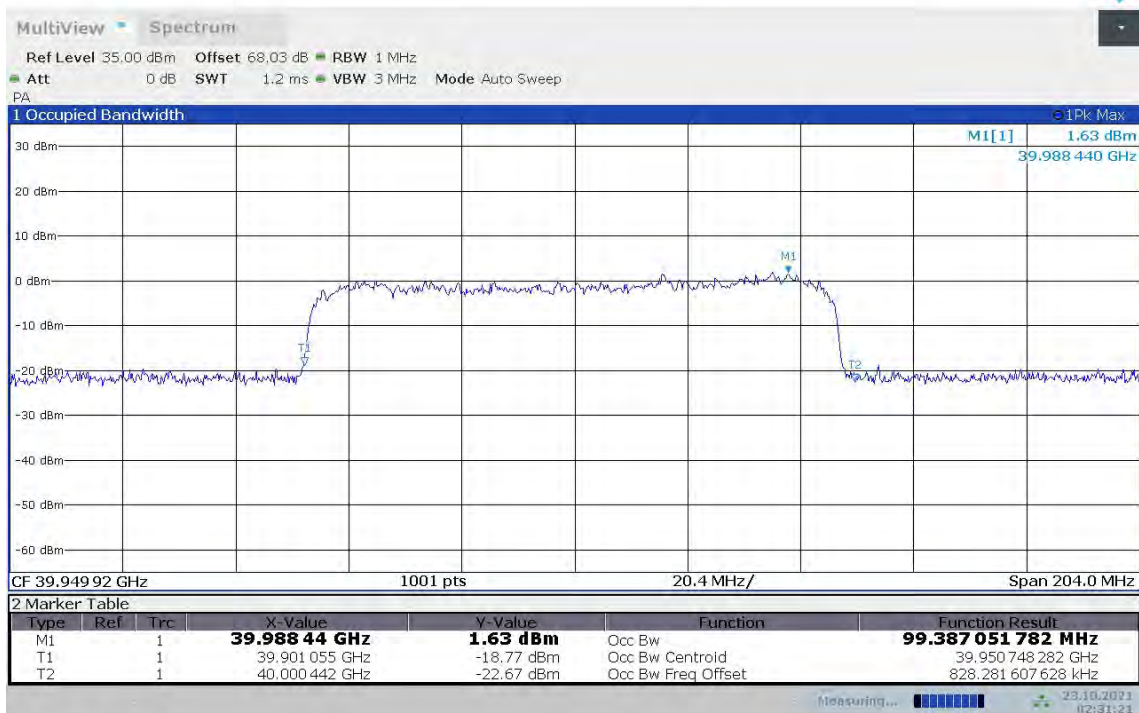


02:05:59 23.10.2021

**n260, 100MHz (99%)
HIGH CHANNEL**

Module0, CP-OFDM			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
39949.92	QPSK	16QAM	64QAM
	/	/	99.39

n260, 100MHz Bandwidth, LOW CHANNEL, 64QAM (99% BW)



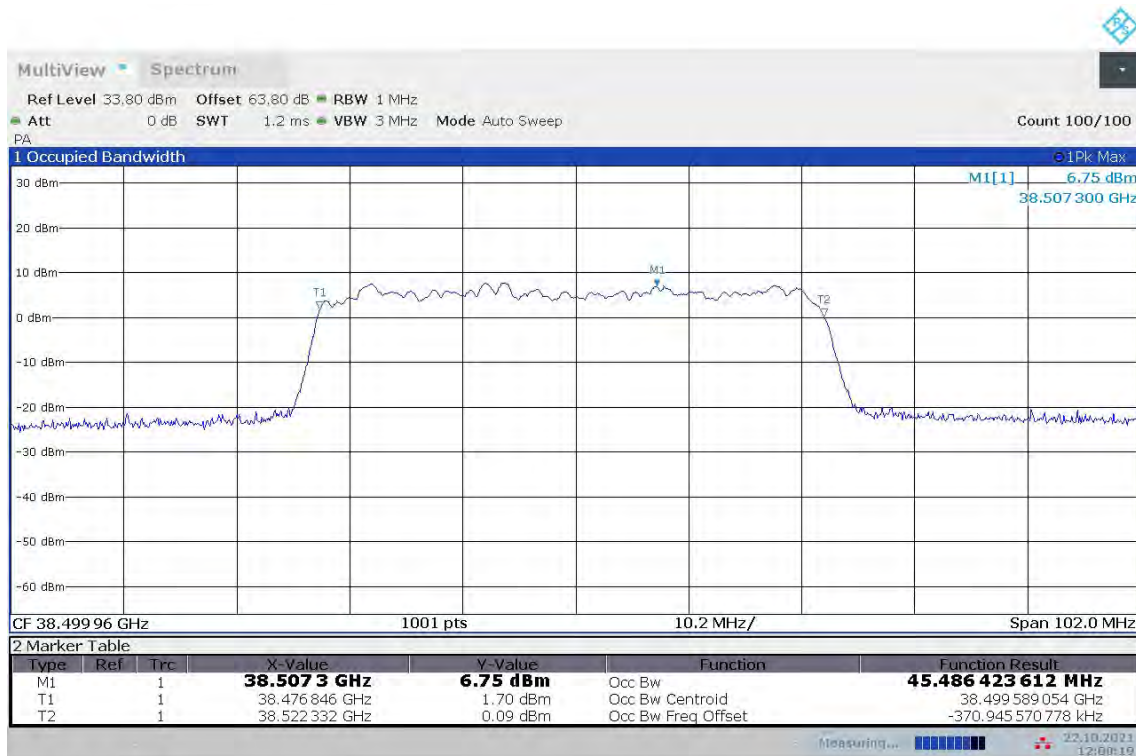
02:31:21 23.10.2021

n260, 50MHz (99%)

MID CHANNEL

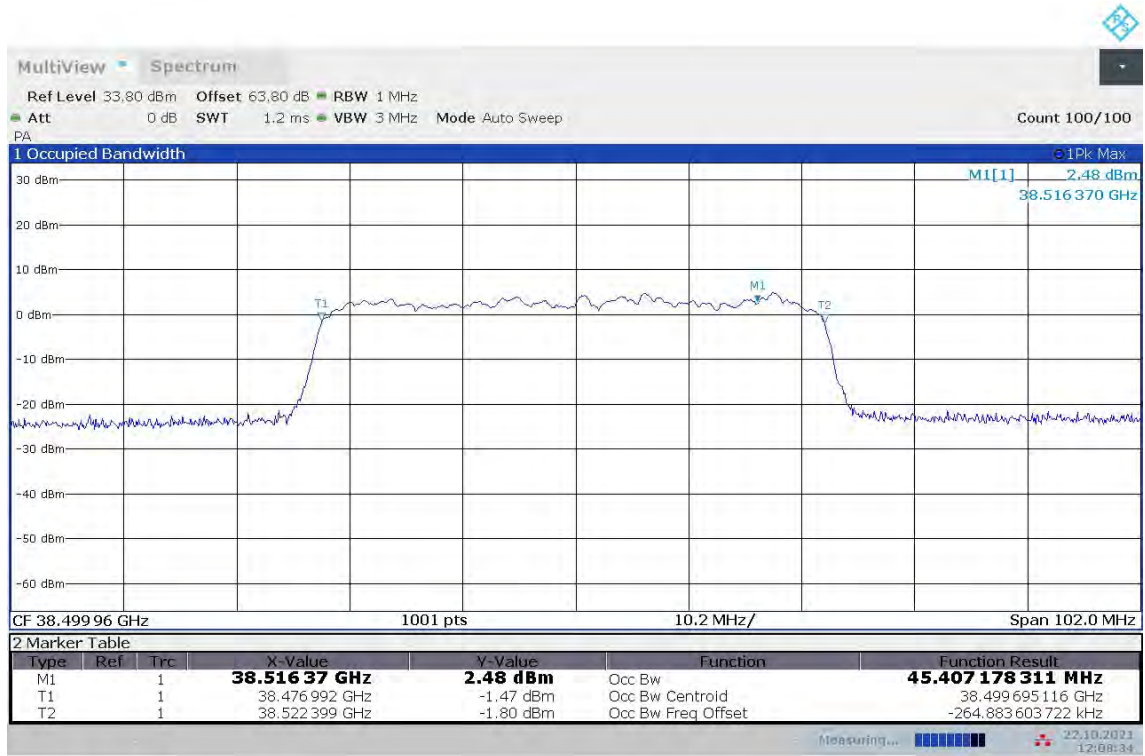
Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
38499.96	QPSK	16QAM	64QAM
	45.49	45.41	45.96

n260, 50MHz Bandwidth, QPSK (99% BW)



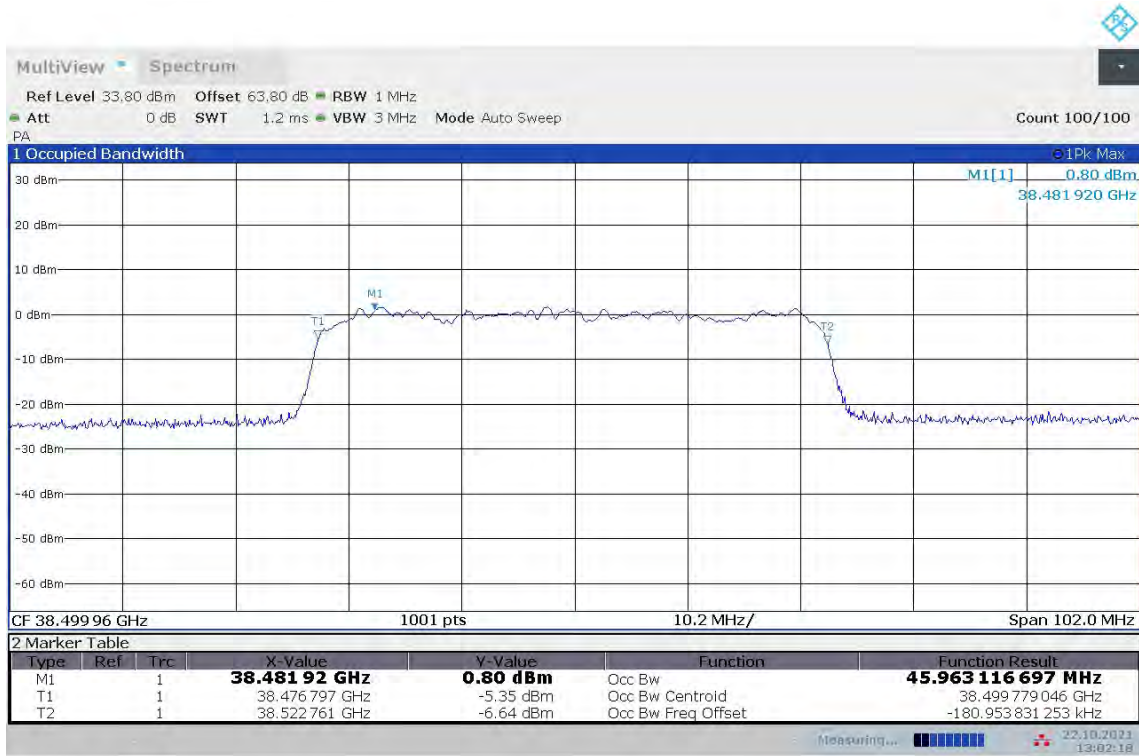
12:00:20 22.10.2021

n260, 50MHz Bandwidth, 16QAM (99% BW)



12:08:35 22.10.2021

n260, 50MHz Bandwidth, 64QAM (99% BW)

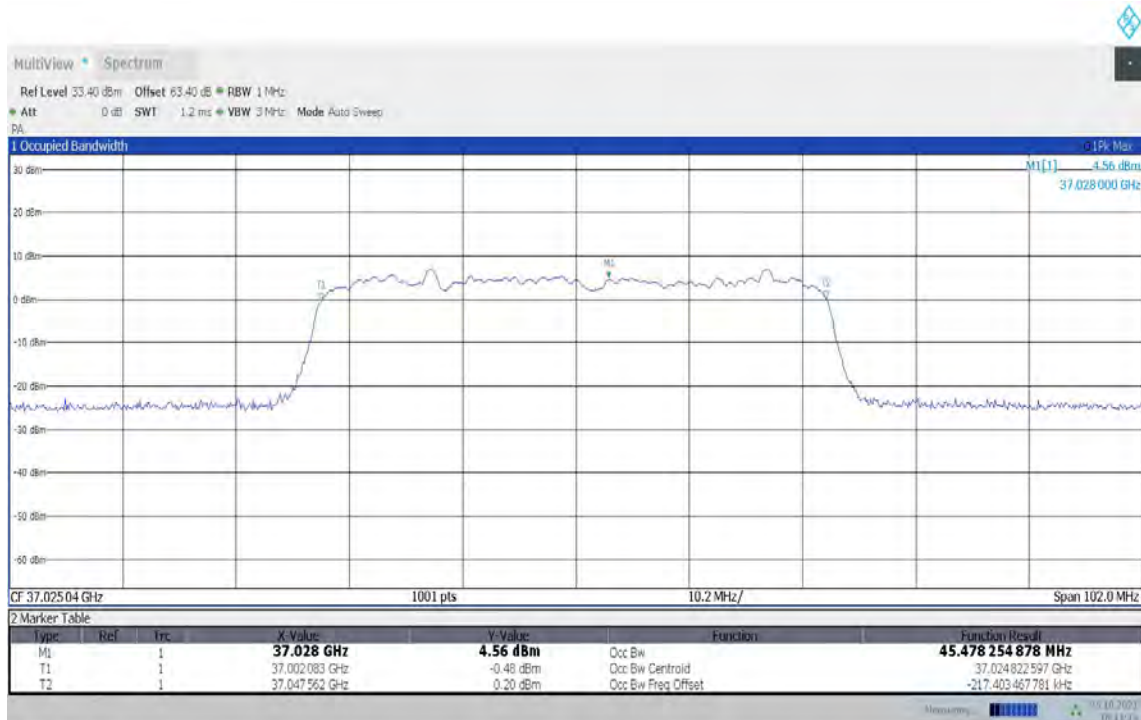


13:02:19 22.10.2021

Note: The worst modulation is 64QAM, and we test follow setups used 64QAM.

n260, 50MHz (99%)
LOW CHANNEL

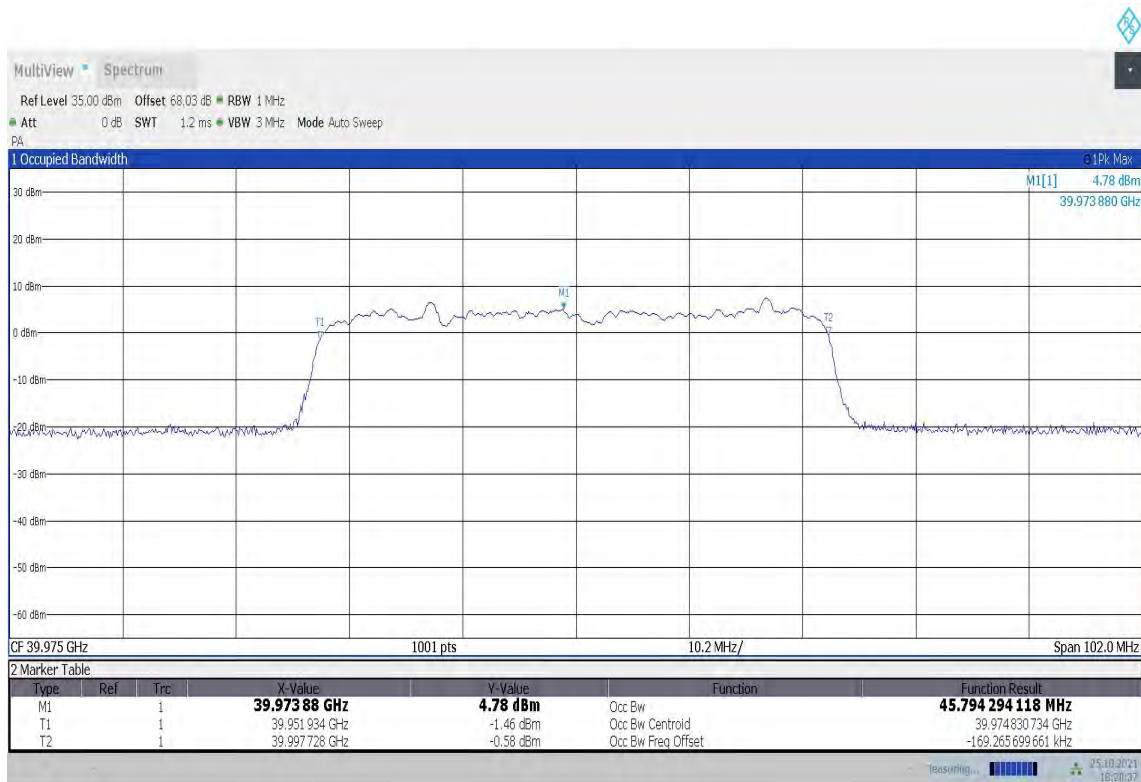
Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
37025.04	QPSK	16QAM	64QAM
	/	/	45.48

n260, 50MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)


**n260, 50MHz (99%)
HIGH CHANNEL**

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
39975	QPSK	16QAM	64QAM
	/	/	45.79

n260, 50MHz Bandwidth, HIGH CHANNEL, QPSK (99% BW)



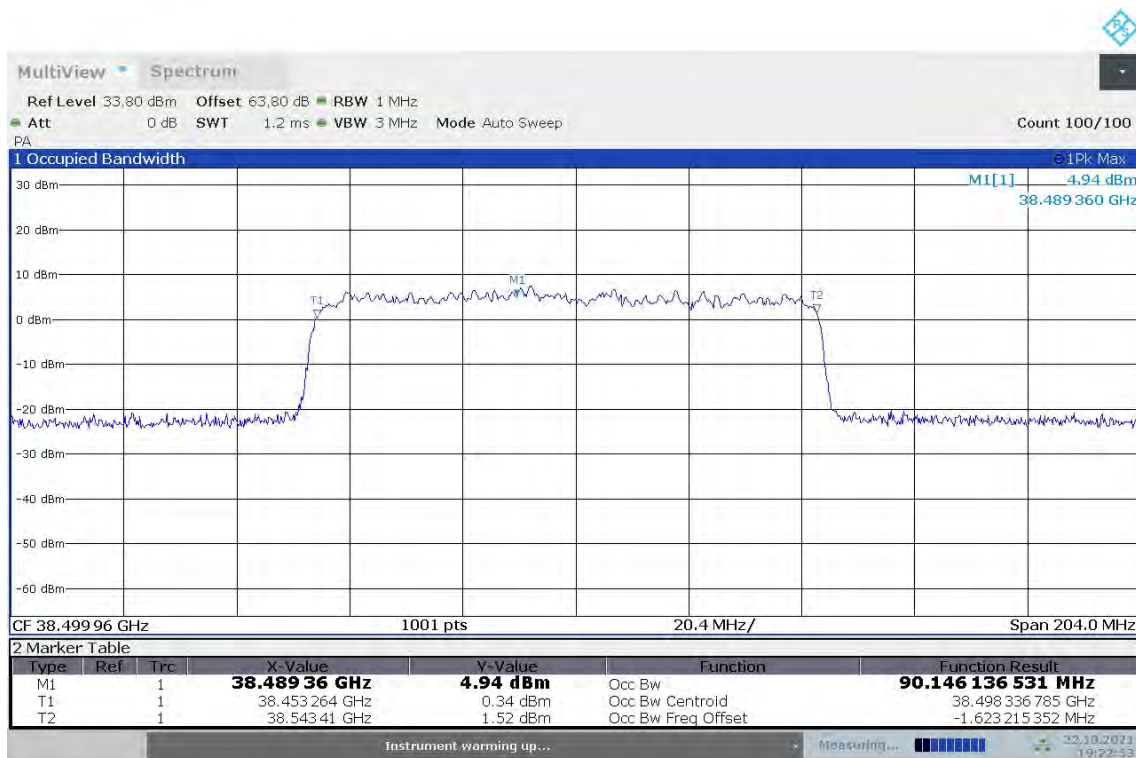
18:20:37 25.10.2021

n260, 100MHz (99%)

MID CHANNEL

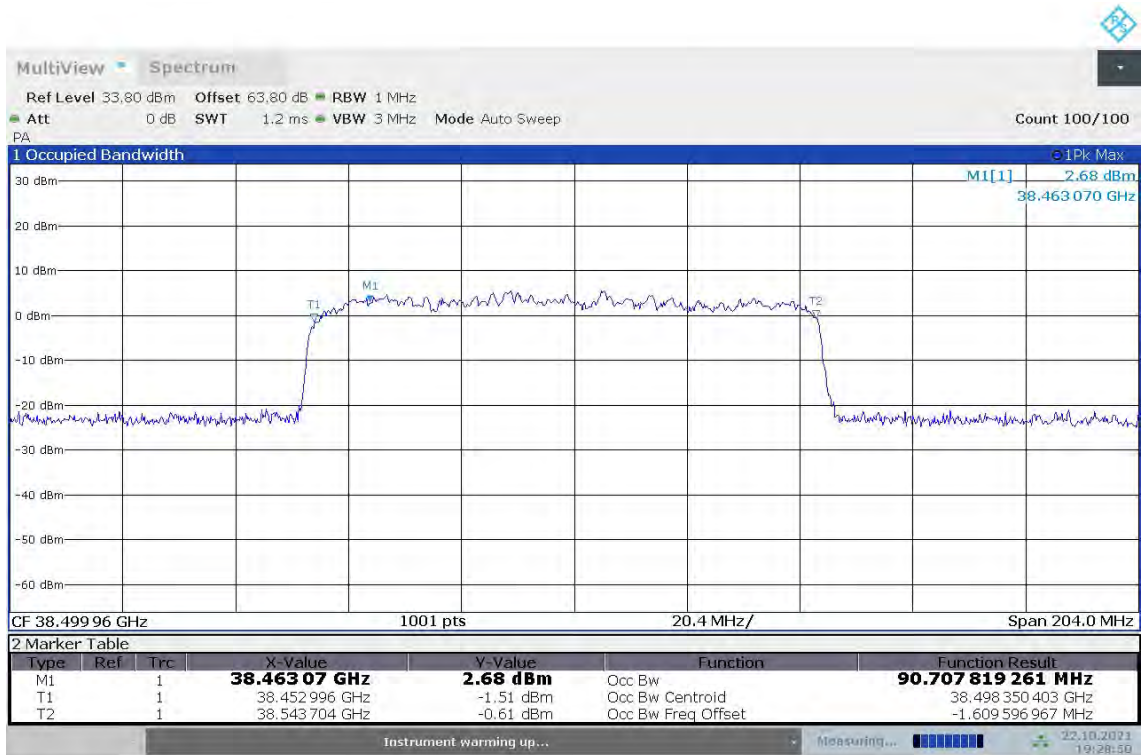
Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
38499.96	QPSK	16QAM	64QAM
	90.15	90.71	91.36

n260, 100MHz Bandwidth, MID CHANNEL, QPSK (99% BW)



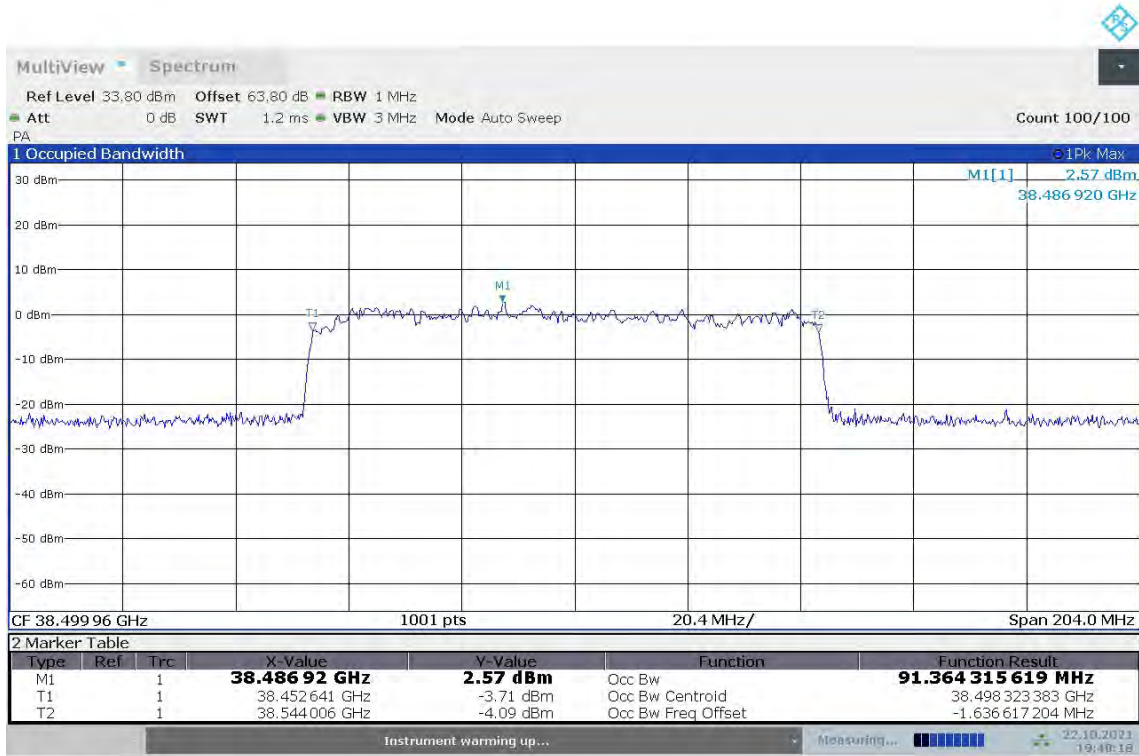
19:22:53 22.10.2021

n260, 100MHz Bandwidth, MID CHANNEL, 16QAM (99% BW)



19:28:51 22.10.2021

n260, 100MHz Bandwidth, MID CHANNEL, 64QAM (99% BW)



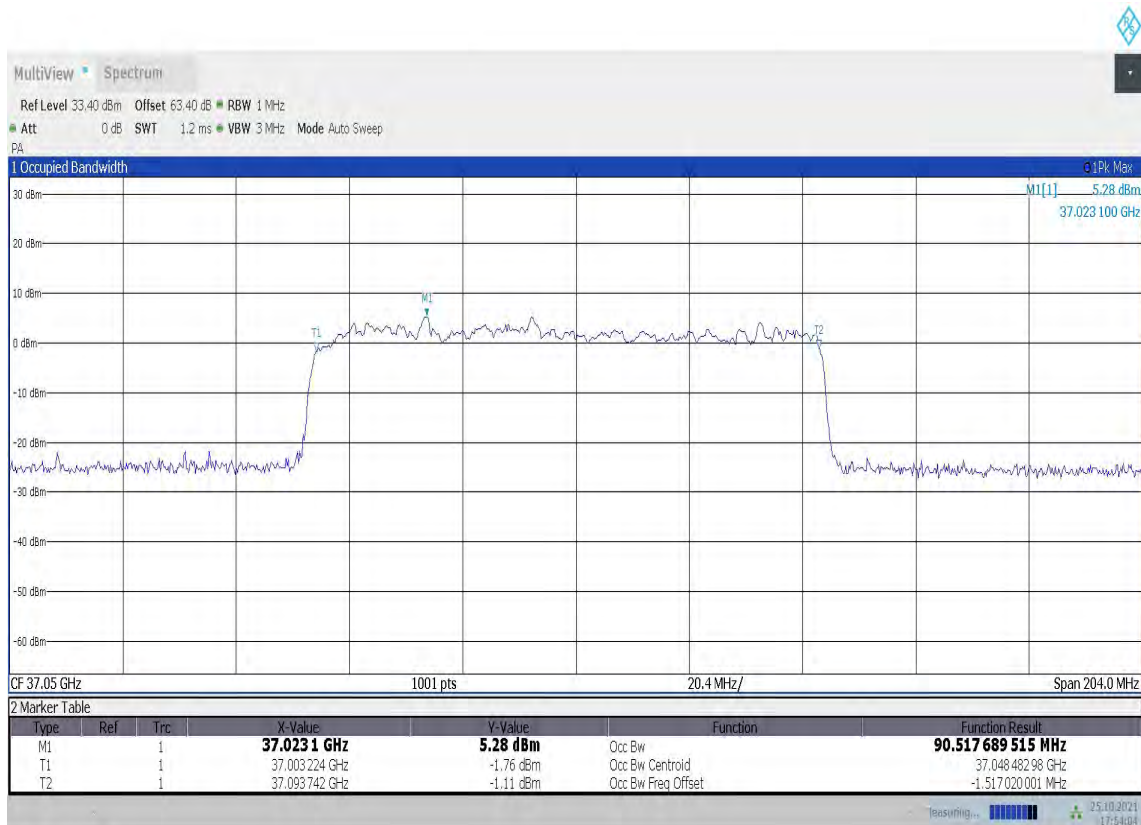
19:40:19 22.10.2021

Note: The worst modulation is 64QAM, and we test follow setups used 64QAM.

n260, 100MHz (99%)
LOW CHANNEL

Module0, PUSCH DFT			
Frequency(MHz)	Occupied Bandwidth (99%) (MHz)		
37050	QPSK	16QAM	64QAM
	/	/	90.52

n260, 100MHz Bandwidth, LOW CHANNEL, QPSK (99% BW)



17:54:04 25.10.2021