TEST REPORT

No. I21Z60861-EMC02

for

Tablet PC

Model Name: 9198S

FCC ID: 2ACCJB155

with

Hardware Version: 03

Software Version: 2C61

Issued Date: 2021-07-30

Note:

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Test Laboratory:

CTTL, Telecommunication Technology Labs, CAICT

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21Z60861-EMC02	Rev.0	1st edition	2021-07-30

Note: the latest revision of the test report supersedes all previous version.

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1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0 and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#:24849). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

Location 1: CTTL (huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191

1.3. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

1.4. Project Data

Testing Start Date: 2021-05-29

Testing End Date: 2021-07-29

1.5. Signature

Zhang Xia, Xiong Yufei

(Prepared this test report)

Zhang Ying

(Reviewed this test report)

Zang Qi

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	TCL Communication Ltd.
Address /Post:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact:	Gong Zhizhou
Email:	zhizhou.gong@tcl.com
Telephone:	0086-755-36611722

2.2. Manufacturer Information

Company Name:	TCL Communication Ltd.
Address /Post:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact:	Gong Zhizhou
Email:	zhizhou.gong@tcl.com
Telephone:	TCL Communication Ltd.

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Tablet PC
Model Name	9198S
FCC ID	2ACCJB155
Antenna	Embedded
Output power	15.50dBm maximum EIRP measured for n260
Extreme vol. Limits	3.5VDC to 4.4VDC (nominal: 3.85VDC)
Extreme temp. Tolerance	-10°C to +50°C

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of CTTL.

The EUT supports n260 and n261 bands, 50MHz and 100MHz bandwidth, SCS 120kHz and 1CC only. For uplink modulation, in CP-OFDM, the EUT supports QPSK, 16QAM, 64QAM, and in DFT-s-OFDM, the EUT supports PI/2 BPSK, QPSK, 16QAM, 64QAM.

The EUT has two antenna modules. Each antenna module has two chains and supports 2x2 MIMO working mode under CP-OFDM. The two modules did not support transmitting simultaneously. Every chain supports 15 kinds of Beamforming which was identified by Beam ID.

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI / Serial Number	HW Version	SW Version
UT61a	358861400000959	03	2C61
UT84a	358861400210236	03	2C61

*EUT ID: is used to identify the test sample in the lab internally. The SW version was provided by the applicant. The frequency stability was performed on UT84a, the others were performed on UT61a.

4. Reference Documents

4.1. Documents supplied by applicant

EUT parameters, referring to Annex A for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part 30	UPPER MICROWAVE FLEXIBLE USE SERVICE	10-1-20 Edition
ANSI C63.26	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services	2015
KDB 842590	Upper Microwave Flexible Use Service v01r01	April 3, 2020

5. Laboratory Environment

Semi/Full-anechoic chamber SAC-1 (23 meters × 17meters × 10meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ˚C, Max. = 35 ˚C
Relative humidity	Min. = 15 %, Max. = 75 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 M
Ground system resistance	< 4
Normalised site attenuation (NSA)	< ± 4 dB, 3m/10m distance, from 30 to 1000 MHz
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz

6. Summary Of Test Result

n260

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	2.1046, 30.202	Pass
2	Unwanted Emission	30.203	Pass
3	Frequency Stability	2.1055	Pass
4	Occupied Bandwidth	2.1049	Pass
5	Band Edge Compliance	2.1051, 30.203	Pass

n261

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	2.1046, 30.202	Pass
2	Unwanted Emission	30.203	Pass
3	Frequency Stability	2.1055	Pass
4	Occupied Bandwidth	2.1049	Pass
5	Band Edge Compliance	2.1051, 30.203	Pass

Terms used in Verdict column

P	Pass. The EUT complies with the essential requirements in the standard.
NP	Not Performed. The test was not performed by CTTL.
NA	Not Applicable.The test was not applicable.
BR	Re-use test data from basic model report.
F	Fail. The EUT does not comply with the essential requirements in the standard.

Explanation of worst-case configuration

The worst-case scenario for all measurements is based on the output power, occupied bandwidth, band edge emission measurement investigation results. The test results shown in the following sections represent the worst case measurement results. For each frequency only the maximum measurement results of Beam ID were represent in the report. The Beam ID of maximum results for low, center and high frequency of different chains maybe vary.

7. Measurement Uncertainty

Measurement Uncertainty:

Frequency Range	Uncertainty(dB) (k=2)
30MHz-1GHz	5.18
1GHz-18GHz	5.54
18GHz-40GHz	5.26
40GHz-60GHz	3.80
60GHz-75GHz	3.76
75GHz-110GHz	3.80

8. Test Equipment Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CAL. DUE DATE	CAL. INTERVAL
1	Signal Generator	SMF100A	104940	R&S	2021-12-09	1 year
2	Signal Generator	E8257D（60GHz）	MY59140557	Keysight	2022-01-19	1 year
3	Antenna	VULB 9163	483	SCHWARZBECK	2021-08-27	1 year
4	Antenna	3115	6914	ETS-Lindgren	2022-02-03	1 year
5	Upconverter(50GHz-75GHz)	SMZ-75	101309	R&S	2022-01-14	1 year
6	Upconverter(75GHz-110GHz)	SMZ-110	101357	R&S	2022-01-14	1 year
7	Upconverter(110GHz-170GHz)/	82406B	ZEI00141	Ceyear	2022-02-04	1 year
8	Upconverter(170GHz-220GHz)/	82406C	ZEI00164	Ceyear	2022-02-04	1 year
9	Spectrum Analyzer	FSW67	103290	R&S	2022-02-04	1 year
10	(downconverter)Harmonic Mixer(60GHz-90GHz)	FS-Z90	101655	R&S	2022-02-04	1 year
11	(downconverter)Harmonic Mixer(75GHz-110GHz)	FS-Z110	101463	R&S	2022-01-19	1 year
12	(downconverter)Harmonic Mixer(110GHz-170GHz)/	FS-Z170	101008	R&S	2022-02-17	1 year
13	(downconverter)Harmonic Mixer(170GHz-220GHz)/	FS-Z220	101054	R&S	2021-12-14	1 year
14	Standard Gain Horn（40GHz-60GHz）	LB-19-25	J202024086	A-INFO	2022-01-14	1 year
15	Standard Gain Horn（40GHz-60GHz）	LB-19-25	J202024087	A-INFO	2022-01-14	1 year
16	Standard Gain Horn（60GHz-90GHz）	LB-12-25	J202062912	A-INFO	2022-02-17	1 year
17	Standard Gain Horn（50GHz-75GHz）	LB-15-25	J202062019	A-INFO	2021-12-14	1 year
18	Standard Gain Horn（75GHz-110GHz）	LB-10-25	J202023231	A-INFO	2022-01-27	1 year
19	Standard Gain Horn（75GHz-110GHz）	LB-10-25	J202023232	A-INFO	2022-01-27	1 year
24	DC power supply	PAS20-18	UH000695	Kikusui	2021-08-01	1 year
25	Incubator	SH-641	92009470	ESPEC	2022-02-14	1 year
26	Receiver	ESP40	100012	R&S	2022-01-03	1 year

Annex A: Measurement Results

A.1 Radiated Output Power

A.1.1 Summary

During the process of testing, the EUT was controlled via communication tester to ensure max power transmission and proper modulation.

In all cases, output power is within the specified limits.

30.202 (b) For mobile stations, the average power of the sum of all antenna elements is limited to a maximum EIRP of +43 dBm.

A.1.2.1 Method of Measurements

According to ANSI C63.26 chapter 5.2, the test site was validated to ANSI C63.4 requirements, the radiated output power were measured using the direct radiated field strength method.

The EUT was set up for the max output power with pseudo random data modulation.

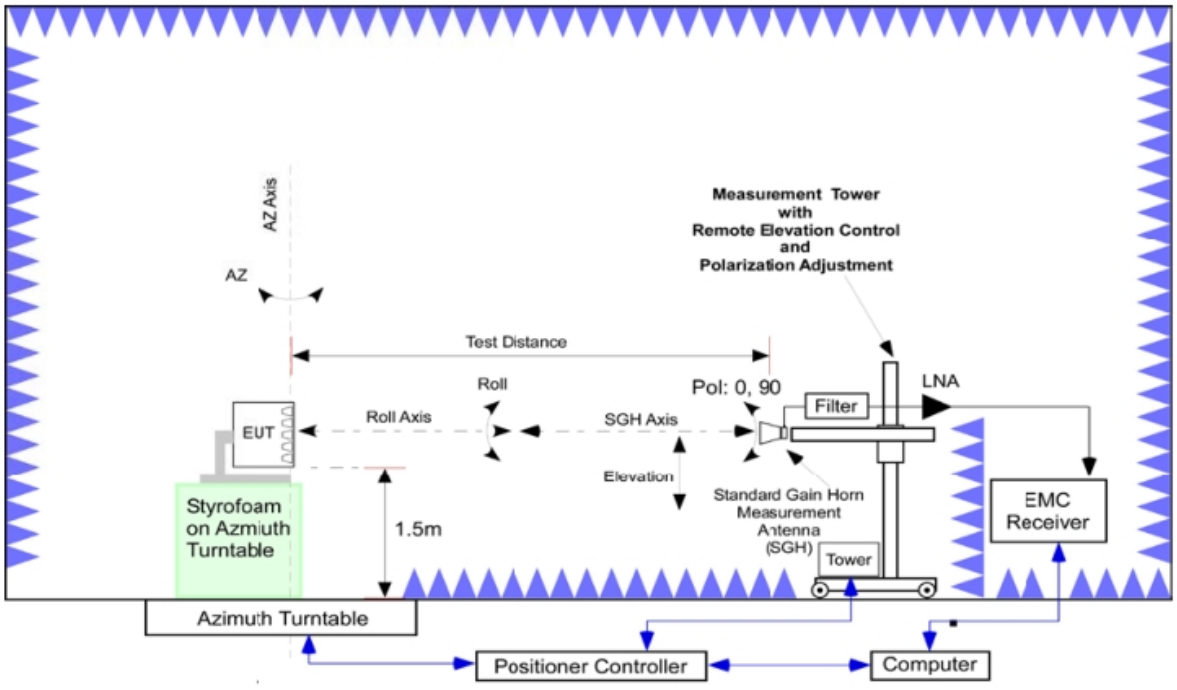
The measurements were done at 3 frequencies (bottom, middle and top of operational frequency range) for each bandwidth.

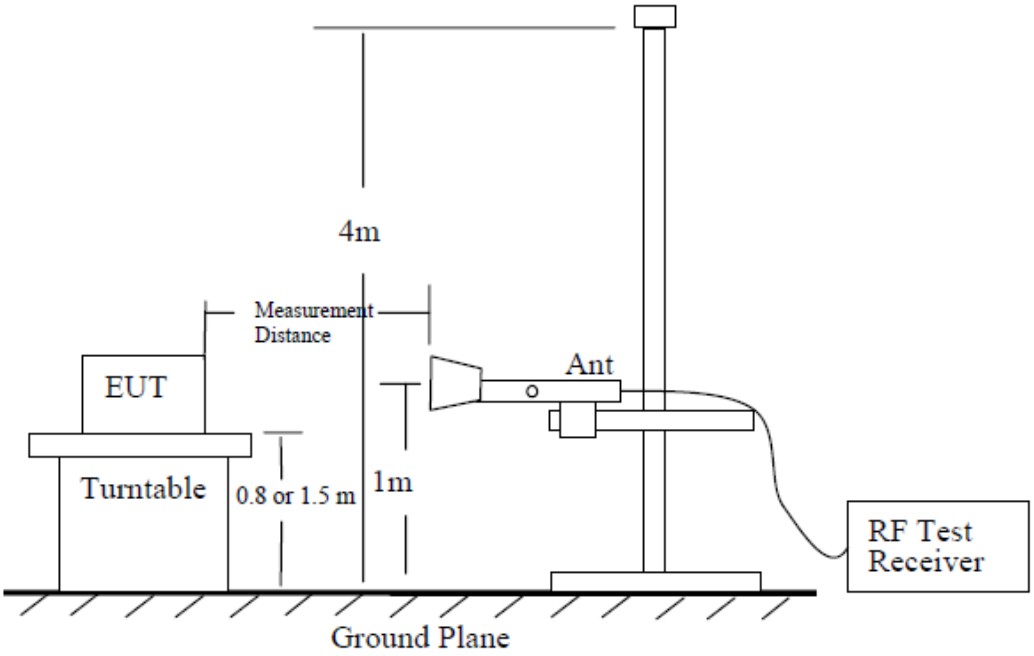
The average RF output power measurements were performed. During the measurements, the active transmission of EUT was keeping at the maximum output power level continuously.

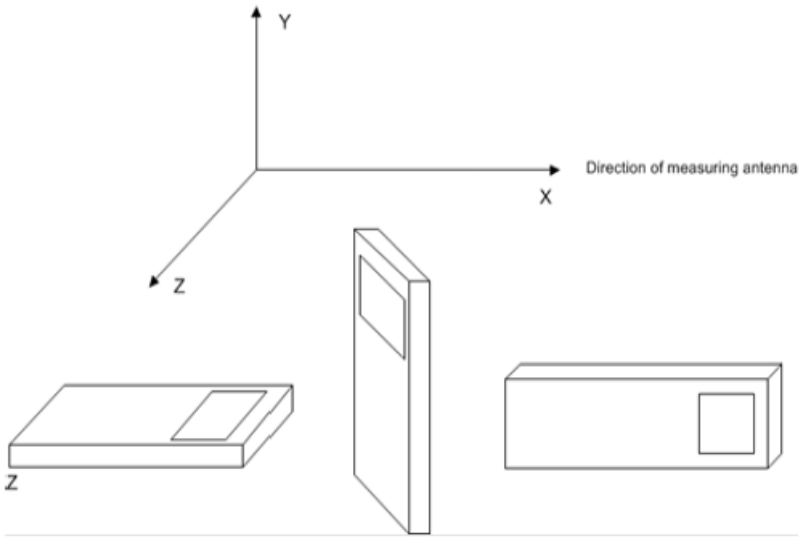
The EIRP measurement used integration method and the bandwidth was the EUT specified bandwidth, e.g, 50MHz, 100MHz.

The procedure is as follows:

Using the test configuration as follow, measure the radiated output power from the EUT and convert the measured received power to 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 measurements performed, the EUT shall be placed on a RF-transparent table or support at a specified height above the reference ground plane with absorbers. Radiated measurements shall be made with the measurement antenna positioned at 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.
For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table or support at a specified height above the ground plane with absorbers. To get the maximum power from the EUT for measurement, the EUT and its transmitting antenna(s) shall be rotated through 360°. For each mode of transmit operation to be tested, the frequency spectrum (based on findings from exploratory measurements) shall be monitored.

Test Note:
The average EIRP reported below is calculated by:
EIRP(dBm)=Spectrum Analyzer Channel Power Level(dBm)-Antenna Factor(dBi) + Cable Loss(dB) + 20log(F)+20log(D)-27.56
Where:
F:frequency (MHz)
D:Distance(m) = 3m

A.1.2.2 Measurement Result

n260, Module0, SCS=120kHz, SISO Tx Chain 0

CP-OFDM

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	QPSK	100% RB	37025.04	24	7.17
		1 RB	37025.04	24	5.81
		100% RB	38499.96	24	9.39
		100% RB	39975	21	14.92
		1 RB	39975	21	9.96
	16QAM	100% RB	39975	21	11.75
	64QAM	100% RB	39975	21	9.34
	QPSK	100% RB	39975	29	14.58
100MHz	QPSK	100% RB	37050	24	7.52
		1 RB	37050	24	6.55
		100% RB	38499.96	24	10.20
		100% RB	39949.92	21	15.16
		1 RB	39949.92	21	15.50
	16QAM	100% RB	39949.92	21	15.08
	64QAM	100% RB	39949.92	21	14.61
	QPSK	100% RB	39949.92	29	14.79

Note: The power at the low frequency channel, middle frequency channel, high frequency channel, 1RB and full RB in QPSK was measured. The channel and RB size with the maximum power was chose, and the power of 16QAM, 64QAM and the other Beam ID were measured on that channel.

DFT

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	Pi/2 BPSK	100% RB	37025.04	24	6.44
		1 RB	37025.04	24	5.53
		100% RB	38499.96	24	10.17
		100% RB	39975	21	13.83
		1 RB	39975	21	13.38
	QPSK	100% RB	39975	21	13.70
	16QAM	100% RB	39975	21	13.77
	64QAM	100% RB	39975	21	13.30
	16QAM	100% RB	39975	29	11.64
100MHz	Pi/2 BPSK	100% RB	37050	24	6.60
		1 RB	37050	24	5.65
		100% RB	38499.96	24	10.05
		100% RB	39949.92	21	14.37
		1 RB	39949.92	21	11.56
	QPSK	100% RB	39949.92	21	14.85
	16QAM	100% RB	39949.92	21	10.95
	64QAM	100% RB	39949.92	21	10.73
	QPSK	100% RB	39949.92	29	11.76

n260, Module0, SCS=120kHz, SISO Tx Chain 1

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	CP	16QAM	100% RB	37025.04	152	6.80
50MHz	CP	QPSK	100% RB	37025.04	148	6.40
50MHz	CP	QPSK	100% RB	38499.96	152	10.74
50MHz	CP	QPSK	100% RB	39975	150	14.07
50MHz	CP	QPSK	100% RB	39975	148	13.95
100MHz	CP	QPSK	100% RB	37050	152	7.00
100MHz	CP	QPSK	100% RB	37050	148	5.74
100MHz	CP	QPSK	100% RB	38499.96	152	9.25
100MHz	CP	QPSK	100% RB	38499.96	148	8.93
100MHz	CP	QPSK	100% RB	39949.92	150	13.38
100MHz	DFT	QPSK	100% RB	39949.92	150	13.33
100MHz	DFT	QPSK	1 RB	39949.92	148	15.15

Note: According to the measurement resuls in Chain 0, the set of OFDM, modulation and RB size with higher power in Chain 1 was measured on low, middle and high frequency channel of 50MHz and 100MHz bandwidth.

n260, Module0, SCS=120kHz, MIMO Tx Chain 0 Beam ID 24 + Tx Chain 1 Beam ID 152

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Power (dBm)
50MHz	CP	QPSK	100% RB	39975	11.36
50MHz	CP	QPSK	1 RB	39975	15.09

Note: According to the measurement resuls in Chain 0 and Chain 1, the set of modulation, RB size and channel with higher power at the specified bandwidth was measured.

n260, Module1, SCS=120kHz, SISO Tx Chain 0

CP-OFDM

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	QPSK	100% RB	37025.04	25	7.96
		100% RB	38499.96	25	10.19
		100% RB	39975	27	12.28
		1 RB	39975	27	11.06
	16QAM	100% RB	39975	27	11.82
	64QAM	100% RB	39975	27	9.82
	16QAM	100% RB	39975	18	12.76
100MHz	QPSK	100% RB	37050	25	8.22
		1 RB	37050	25	7.26
		100% RB	38499.96	25	9.31
		100% RB	39949.92	27	12.45
		1 RB	39949.92	27	11.63
	16QAM	100% RB	39949.92	27	9.72
	64QAM	100% RB	39949.92	27	8.99
	QPSK	100% RB	39949.92	18	12.76

Note:The channel with the maximum power of QPSK was chose, and the power of 16QAM, 64QAM and the other Beam ID were measured on that channel.

DFT

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	Pi/2 BPSK	100% RB	37025.04	25	8.42
		1 RB	37025.04	25	6.37
		100% RB	38499.96	25	9.03
		100% RB	39975	27	11.53
		1 RB	39975	27	12.04
	QPSK	1 RB	39975	22	10.13
	16QAM	1 RB	39975	22	11.76
	64QAM	1 RB	39975	22	11.31
	Pi/2 BPSK	1 RB	39975	18	11.84
100MHz	Pi/2 BPSK	100% RB	37050	25	5.67
		100% RB	38499.96	25	9.84
		100% RB	39949.92	27	10.83
		1 RB	39949.92	27	12.16
	QPSK	1 RB	39949.92	27	10.33
	16QAM	1 RB	39949.92	27	11.39
	64QAM	1 RB	39949.92	27	10.58
	Pi/2 BPSK	1 RB	39949.92	18	12.39

Note:The channel with the maximum power of Pi/2 BPSK was chose, and the power of QPSK, 16QAM, 64QAM and the other Beam ID were measured on that channel.

n260, Module1, SCS=120kHz, SISO Tx Chain 1

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	CP	16QAM	100% RB	37025.04	146	7.66
50MHz	CP	16QAM	100% RB	38499.96	146	10.50
50MHz	CP	16QAM	100% RB	39975	155	11.07
100MHz	CP	QPSK	100% RB	37050	146	7.58
100MHz	CP	QPSK	100% RB	38499.96	146	10.02
100MHz	CP	QPSK	100% RB	39949.92	155	11.57

Note: According to the measurement results for Chain 0, the set of OFDM, modulation and RB size with higher power was measured on low, middle and high channel of 50MHz and 100MHz bandwidth.

n260, Module0, SCS=120kHz, MIMO Tx Chain 0 Beam ID 27 +Tx Chain 1 Beam ID 155

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Power (dBm)
50MHz	CP	16QAM	100% RB	39975	9.07
100MHz	CP	QPSK	100% RB	39949.92	9.30

Note: According to the measurement results for Chain 0 and Chain 1, the set of OFDM, modulation, RB size and channel with higher power at the specified bandwidth was measured.

n261, Module0, SCS=120kHz, SISO Tx Chain 0

CP-OFDM

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	64QAM	100% RB	27525	20	11.09
		100% RB	27924.96	20	11.87
		100% RB	28324.92	20	12.45
		1 RB	28324.92	20	7.99
	16QAM	100% RB	28324.92	20	9.49
	QPSK	100% RB	28324.92	20	10.95
	64QAM	100% RB	28324.92	28	11.03
100MHz	64QAM	100% RB	27550.08	18	8.68
		1 RB	27550.08	18	9.08
		100% RB	27924.96	20	12.12
		1 RB	27924.96	20	9.25
		100% RB	28299.96	20	9.43
		1 RB	28299.96	20	8.49
	16QAM	100% RB	27924.96	20	10.66
	QPSK	100% RB	27924.96	20	10.16
	16QAM	100% RB	27924.96	28	12.16

Note:The channel with the maximum power of 64QAM and 100%RB was chose, and the power of 1RB, 16QAM, QPSK and the other Beam ID were measured on that channel.

DFT

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	64QAM	100% RB	27525	20	9.90
		100% RB	27924.96	20	5.68
		100% RB	28324.92	20	11.97
		1 RB	28324.92	20	4.14
	QPSK	100% RB	28324.92	20	9.82
	16QAM	100% RB	28324.92	20	9.64
	Pi/2 BPSK	100% RB	28324.92	20	9.47
	64QAM	100% RB	28324.92	28	11.86
100MHz	64QAM	100% RB	27550.08	18	9.53
		100% RB	27924.96	20	12.16
		100% RB	28299.96	20	10.56
		1 RB	27924.96	20	9.98
	QPSK	100% RB	27924.96	20	10.27
	16QAM	100% RB	27924.96	20	10.59
	Pi/2 BPSK	100% RB	27924.96	20	10.74
	64QAM	100% RB	27924.96	28	12.12

Note:The channel with the maximum power of 64QAM and 100% RB was chose, and the power of 1RB, QPSK, 16QAM, Pi/2 BPSK and the other Beam ID were measured on that channel.

n261, Module0, SCS=120kHz, SISO Tx Chain 1

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	CP	64QAM	100% RB	27525	148	8.20
50MHz	CP	64QAM	100% RB	27924.96	148	13.47
50MHz	CP	64QAM	100% RB	27924.96	157	7.93
50MHz	CP	64QAM	100% RB	28324.92	148	9.34
100MHz	DFT	64QAM	100% RB	27550.08	148	8.31
100MHz	CP	16QAM	100% RB	27924.96	148	11.56
100MHz	DFT	64QAM	100% RB	27924.96	148	13.22
100MHz	DFT	64QAM	100% RB	27924.96	157	8.64
100MHz	DFT	64QAM	100% RB	28299.96	148	10.18

Note: the set of OFDM, modulation and RB size with higher power of Chain 0 was chose and measured on low, middle and high channel of 50MHz and 100MHz bandwidth for Chain 1.

n261, Module0, SCS=120kHz, MIMO Tx Chain 0 + Tx Chain 1

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID Chain0+Chain1	Power (dBm)
50MHz	CP	64QAM	100% RB	28324.92	20+148	9.90
100MHz	CP	16QAM	100% RB	27924.96	20+148	11.40

Note: According to the measurement results in Chain0 and Chain1, the set of modulation, RB size and channel with higher power at the specified bandwidth was measured for MIMO.

n261, Module1, SCS=120kHz, SISO Tx Chain 0

CP-OFDM

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	QPSK	100% RB	27525	15	7.17
		1 RB	27525	15	7.60
		100% RB	27924.96	15	8.10
		100% RB	28324.92	15	11.65
		1 RB	28324.92	15	9.54
	16QAM	100% RB	28324.92	15	8.35
	64QAM	100% RB	28324.92	15	7.63
	QPSK	100% RB	28324.92	25	12.35
100MHz	QPSK	100% RB	27550.08	15	7.45
		1 RB	27550.08	15	7.31
		100% RB	27924.96	15	8.14
		100% RB	28299.96	15	8.70
		1 RB	28299.96	15	8.06
	16QAM	100% RB	28299.96	15	8.74
	64QAM	100% RB	28299.96	15	7.33
	16QAM	100% RB	28299.96	25	7.50

Note:The channel with the maximum power of QPSK was chose, and the power of 16QAM, 64QAM and the other Beam ID were measured on that channel.

DFT

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	Pi/2 BPSK	100% RB	27525	15	7.31
		1 RB	27525	15	7.47
		100% RB	27924.96	15	7.95
		100% RB	28324.92	15	10.49
		1 RB	28324.92	15	10.20
	QPSK	100% RB	28324.92	15	10.22
	16QAM	100% RB	28324.92	15	10.14
	64QAM	100% RB	28324.92	15	10.20
	Pi/2 BPSK	100% RB	28324.92	25	10.47
100MHz	Pi/2 BPSK	100% RB	27550.08	15	9.14
		1 RB	27550.08	15	7.91
		100% RB	27924.96	15	10.37
		100% RB	28299.96	15	8.12
		1 RB	28299.96	15	8.46
	QPSK	100% RB	27924.96	15	8.50
	16QAM	100% RB	27924.96	15	8.57
	64QAM	100% RB	27924.96	15	8.39
	16QAM	100% RB	27924.96	25	7.46

Note:The channel with the maximum power of Pi/2 BPSK was chose, and the power of QPSK, 16QAM, 64QAM and the other Beam ID were measured on that channel.

n261, Module1, SCS=120kHz, SISO Tx Chain 1

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Power (dBm)
50MHz	CP	QPSK	100% RB	27525	153	6.57
50MHz	CP	QPSK	100% RB	27924.96	153	7.73
50MHz	CP	QPSK	100% RB	28324.92	153	8.47
100MHz	DFT	Pi/2 BPSK	100% RB	27550.08	153	6.46
100MHz	DFT	Pi/2 BPSK	100% RB	27924.96	153	8.19
100MHz	DFT	Pi/2 BPSK	100% RB	28299.96	153	8.17

Note: According to the results in Chain 0, the set of OFDM, modulation and RB size with higher power was chosed and measured on low, middle and high channel of 50MHz and 100MHz bandwidth.

n261, Module0, SCS=120kHz, MIMO Tx Chain 0 Beam ID 16 +Tx Chain 1 Beam ID 144

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Power (dBm)
50MHz	CP	QPSK	100% RB	28324.92	8.96
100MHz	DFT	Pi/2 BPSK	100% RB	27924.96	11.82

Note: According to the results in Chain 0 and Chain 1, the set of OFDM, modulation, RB size and channel with higher power at the specified bandwidth was measured for MIMO.

A.2 Emission Limit

A.2.1 Measurement Method

The measurement procedures in ANSI C63.26 are used.

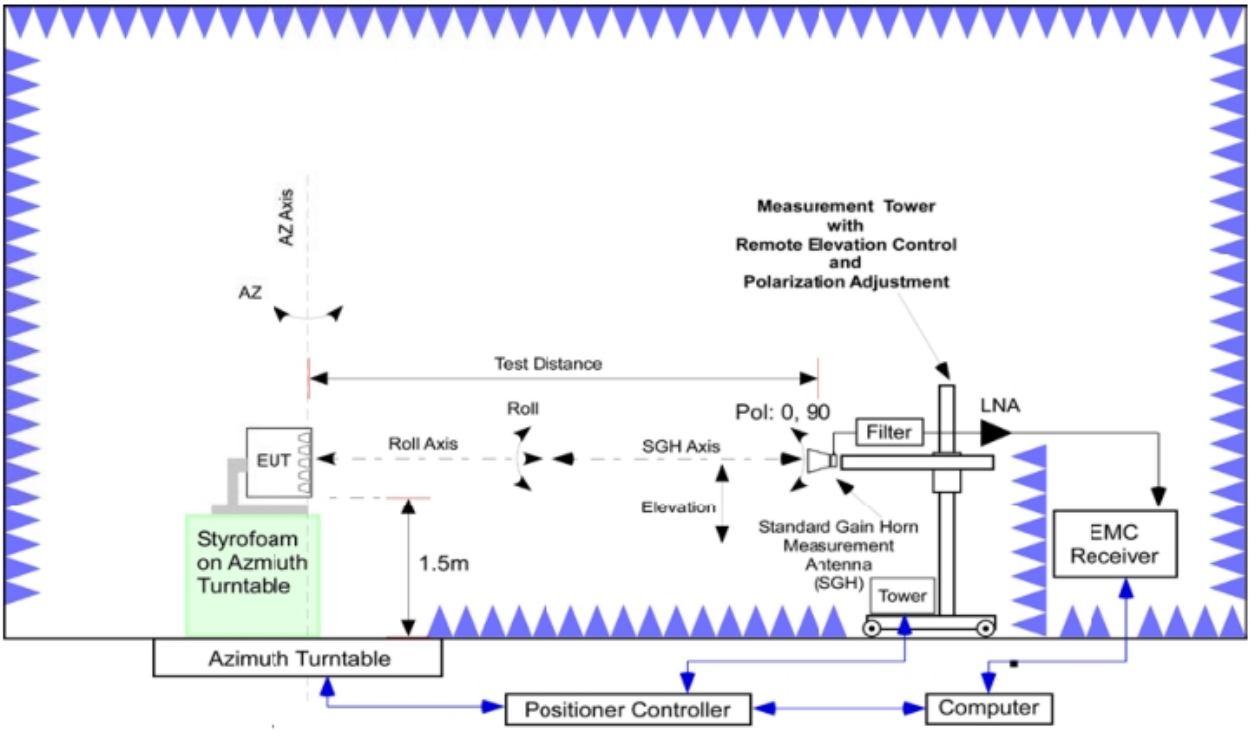
The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment. The resolution bandwidth is set as outlined in Part 30.203.

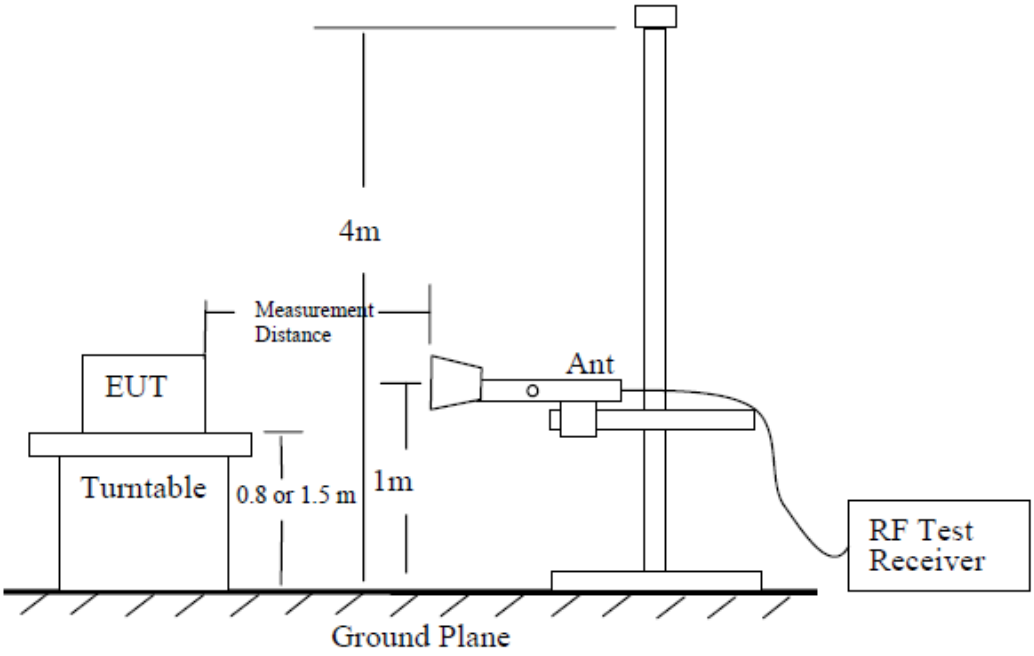
The spectrum is scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of FR2 n260 and FR2 n261.

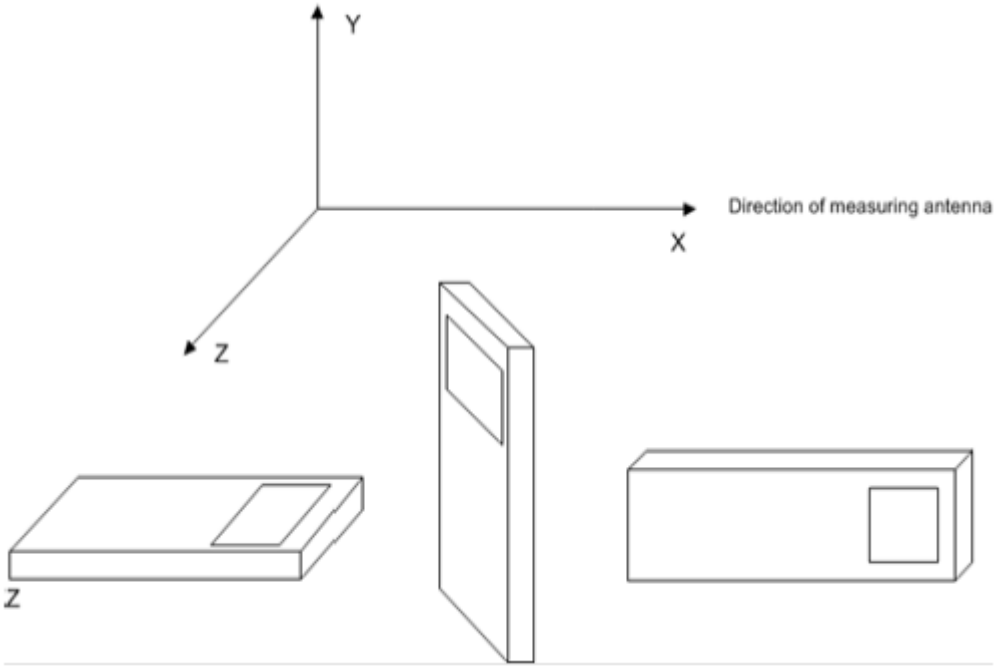
NASI C63.26 chapter 5.5.2.1: Such radiated measurements shall use substitution methods unless a test site validated to ANSI C63.4 requirements is utilized, in which case, radiated fundamental and/or unwanted emissions can be measured using the direct radiated field strength method.

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 10th 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 ≥2*span/RBW
The trace was allowed to stabilize
RBW=1MHz, VBW=3MHz

The average EIRP reported below is canculated by:
30M-1GHz:
ERP(dBm)=Spectrum Analyzer Level(dBm)+Total loss(dB)-2.15
1GHz-18GHz：
EIRP(dBm)= Spectrum Analyzer Level(dBm)+Total loss(dB)
18GHz-60GHz:
EIRP(dBm)= Spectrum Analyzer Level(dBm)-Antenna Factor(dBi) + Cable Loss(dB) + 20log(F)+20log(D)-27.56
60GHz-110GHz:
EIRP(dBm)= Spectrum Analyzer Level(dBm)-Antenna Factor(dBi) + converter Loss(dB) + 20log(F)+20log(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
75GHz-110GHz	3
110GHz-170GHz	1
170GHz-200GHz	0.5

A.2.2 Measurement Limit

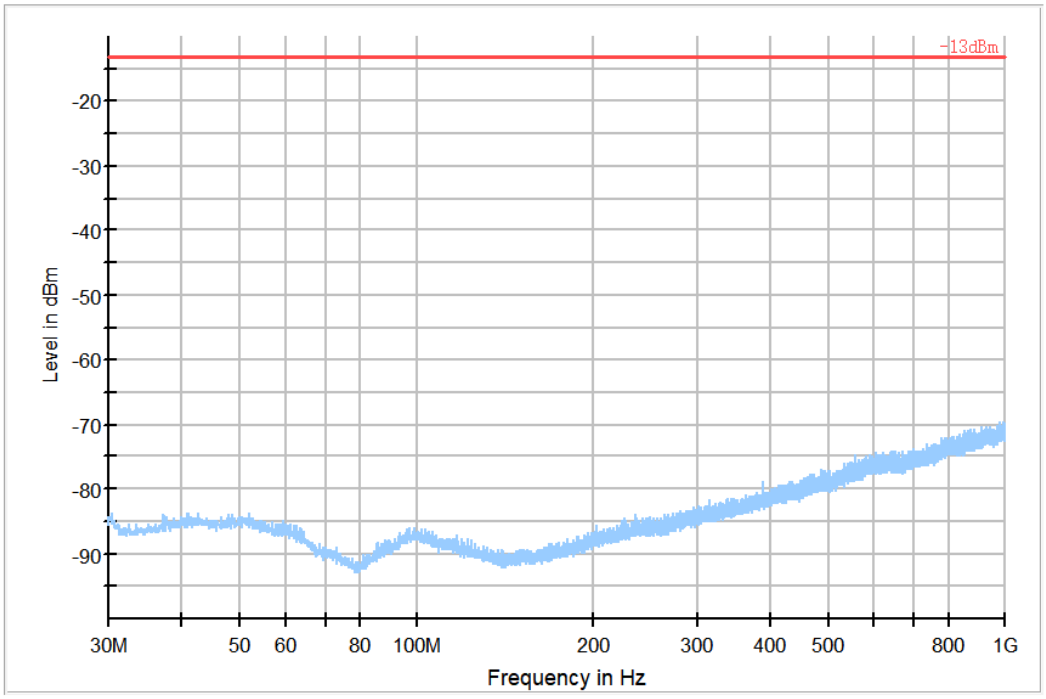
Part 30.203 specify that the total radiated power of any emission outside a licensee's frequency block shall be −13 dBm/MHz or lower. However, in the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive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

A.2.3 Measurement Results

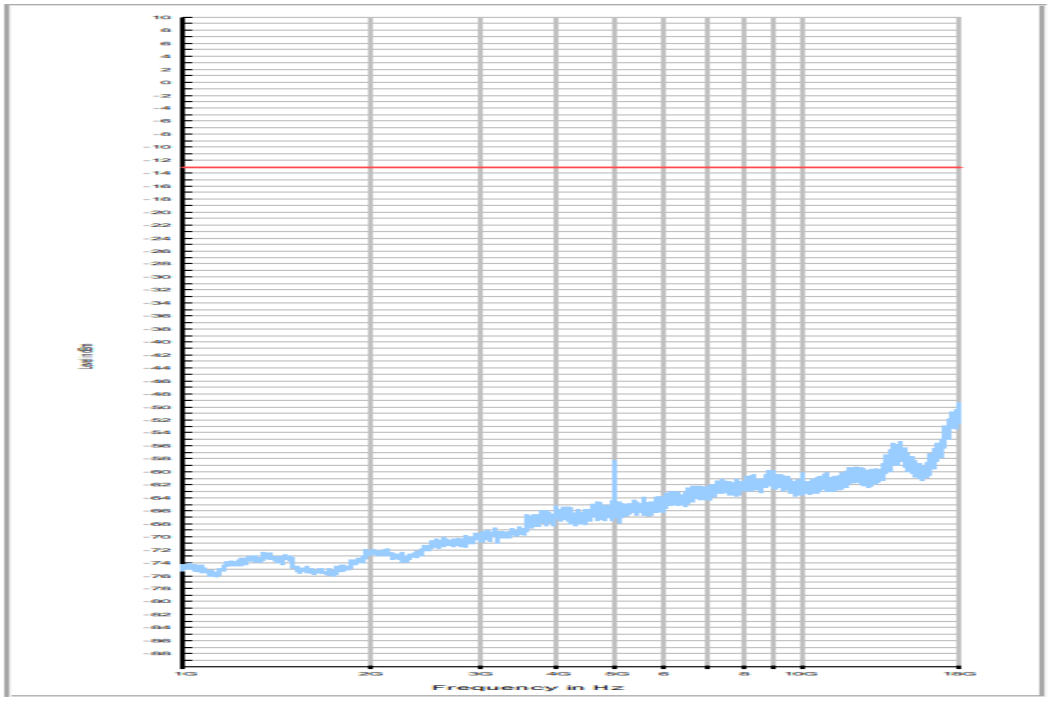
Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the FR2 n260 and n261. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant 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 n260.

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

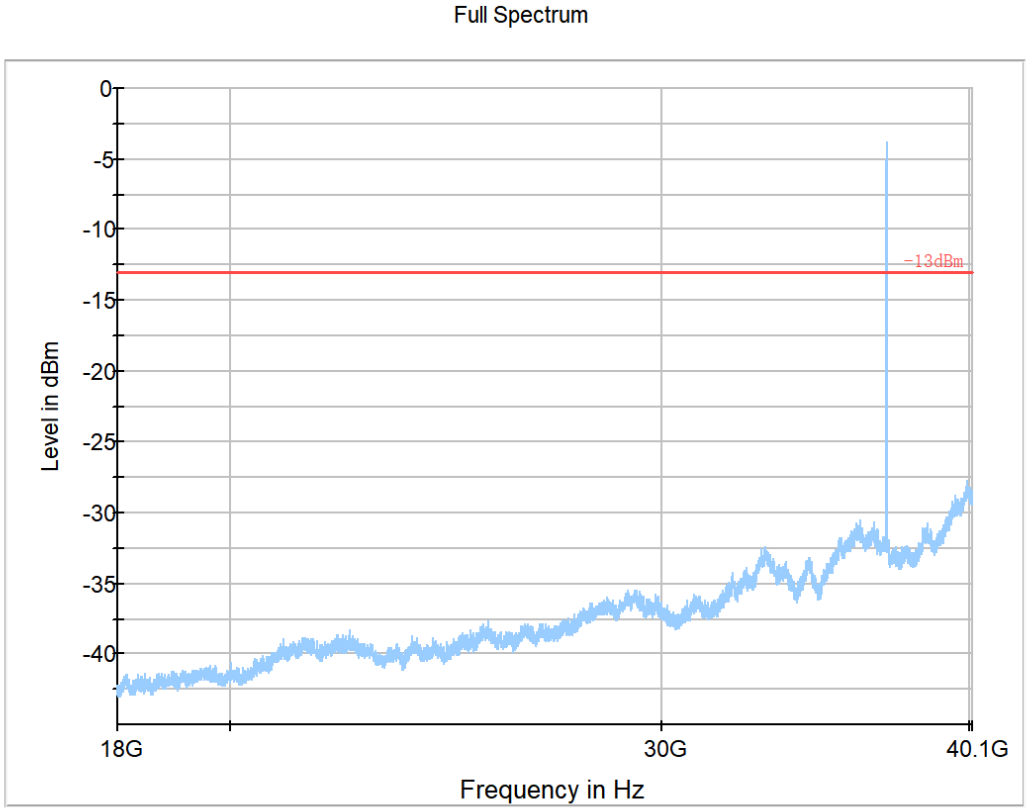
Frequency	Antenna	Modulation	Band-width	Channel	Frequency Range	Result
n260	Module 1 SISO：Tx Chain 0 Beam ID 25	DFT, PI/2 BPSK, 32RB	50MHz	Low	30MHz-200GHz	Pass
	Module 0 Chain 1 Beam ID 152	CP-OFDM, QPSK, 32RB	50MHz	Middle	30MHz-200GHz	Pass
	Module 0 SISO: Tx Chain 0 Beam ID 21	CP-OFDM, QPSK, 1RB	100MHz	High	30MHz-200GHz	Pass
n261	Module 0 Chain 0 Beam ID 20	CP-OFDM, 64QAM, 32RB	50MHz	Low	30MHz-100GHz	Pass
	Module 0 Chain 1 Beam ID 148	CP-OFDM , 64QAM, 32RB	50MHz	Middle	30MHz-100GHz	Pass
	Module 0 Chain 0 Beam ID 20	CP-OFDM, 64QAM, 32RB	50MHz	High	30MHz-100GHz	Pass



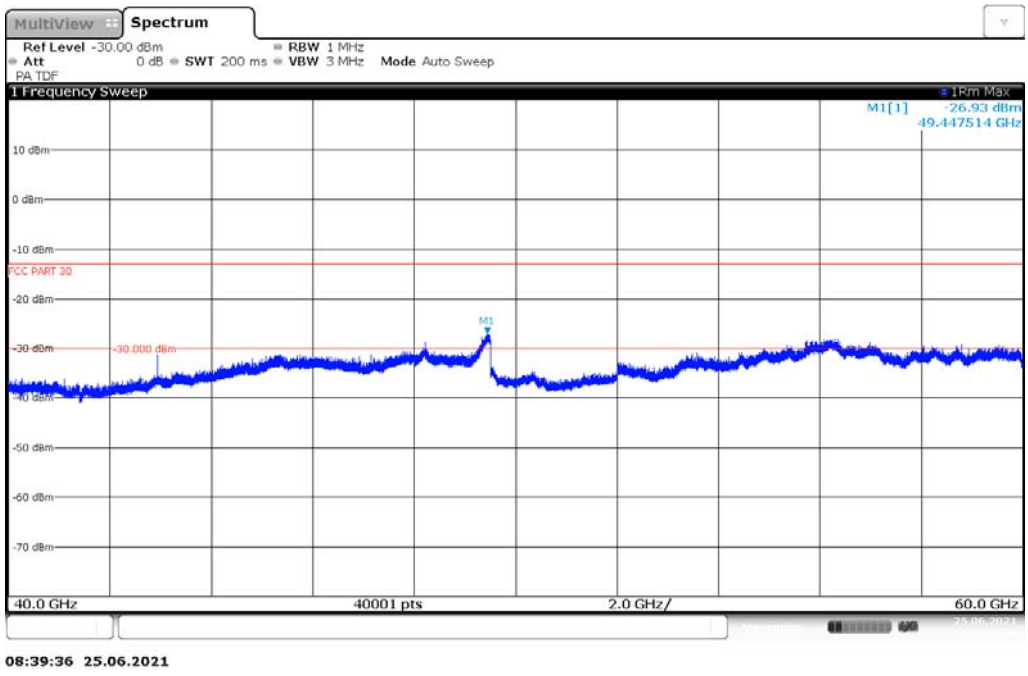
n260, Low Channel, 30MHz-1GHz



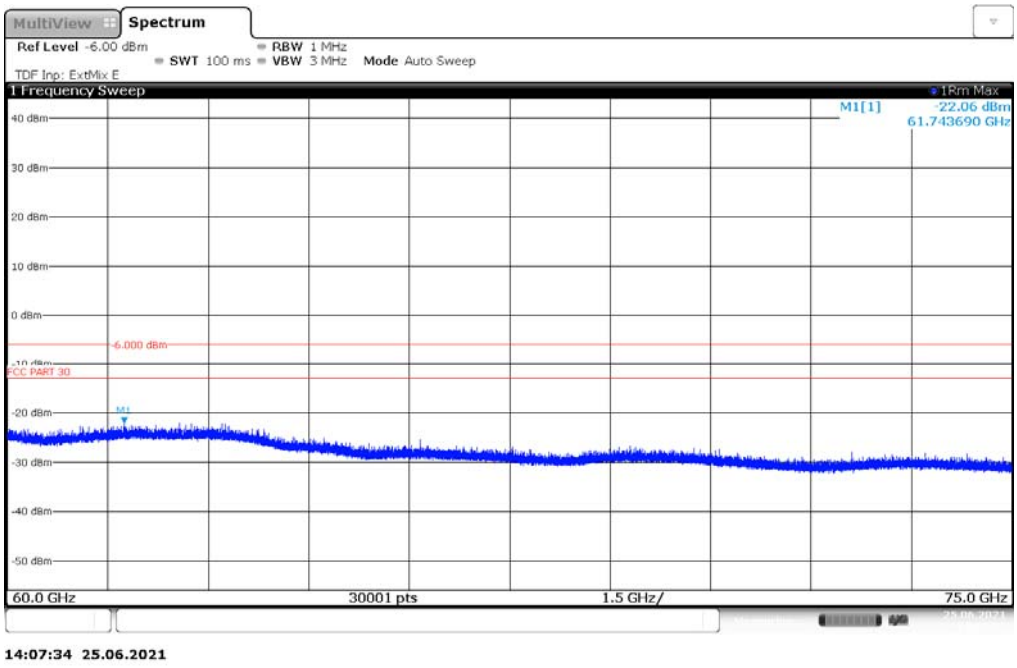
n260, Low Channel, 1GHz-18GHz



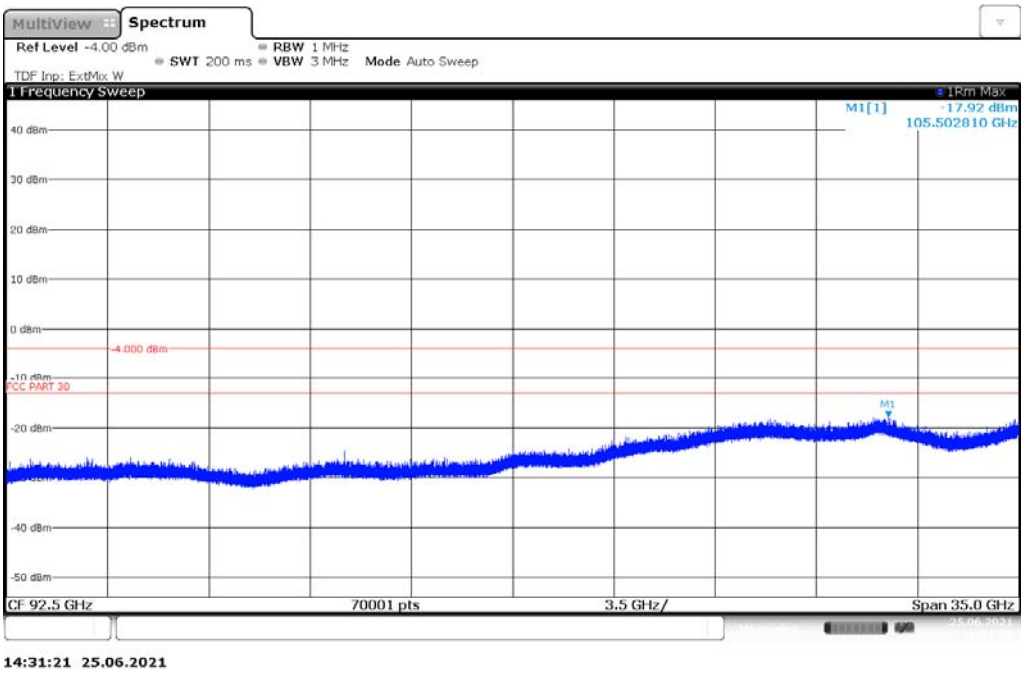
n260, Low Channel, 18GHz-40GHz



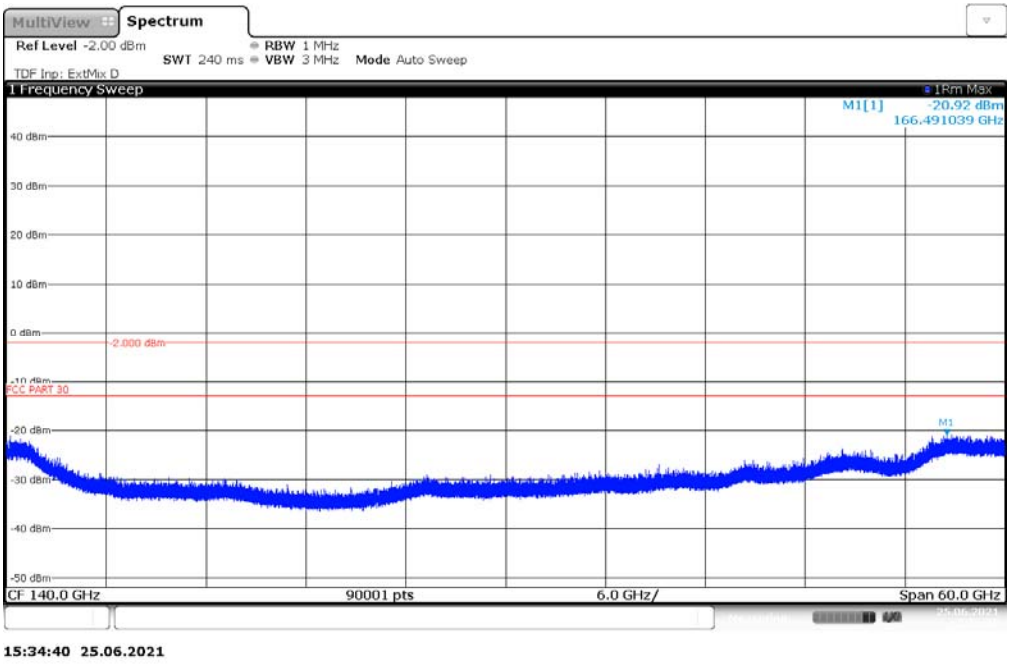
n260, Low Channel, 40GHz-60GHz



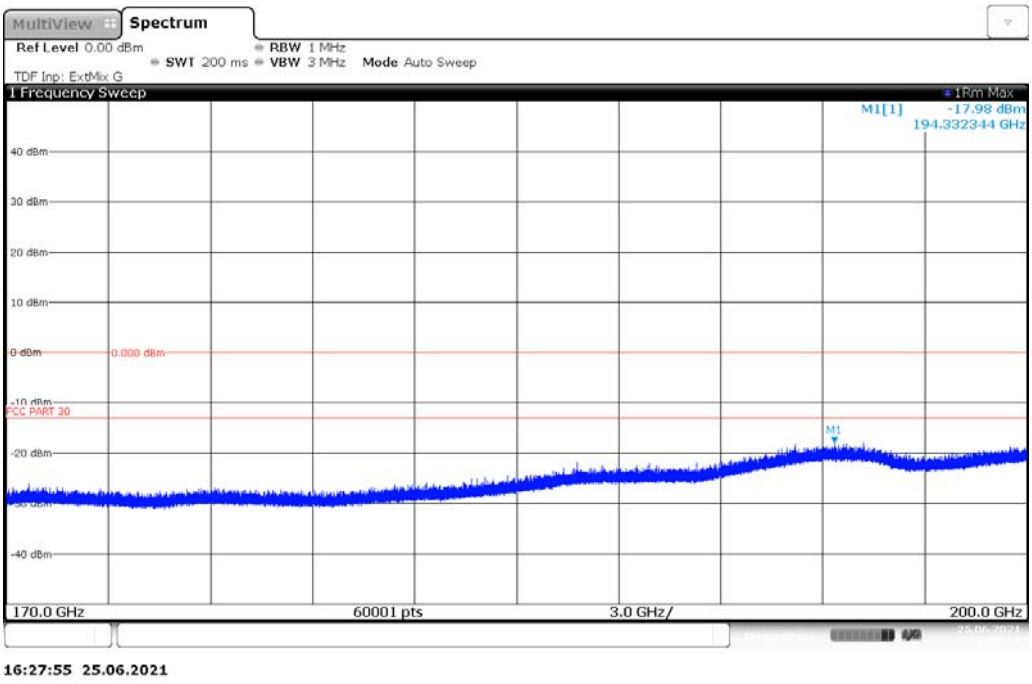
n260, Low Channel, 60GHz-75GHz



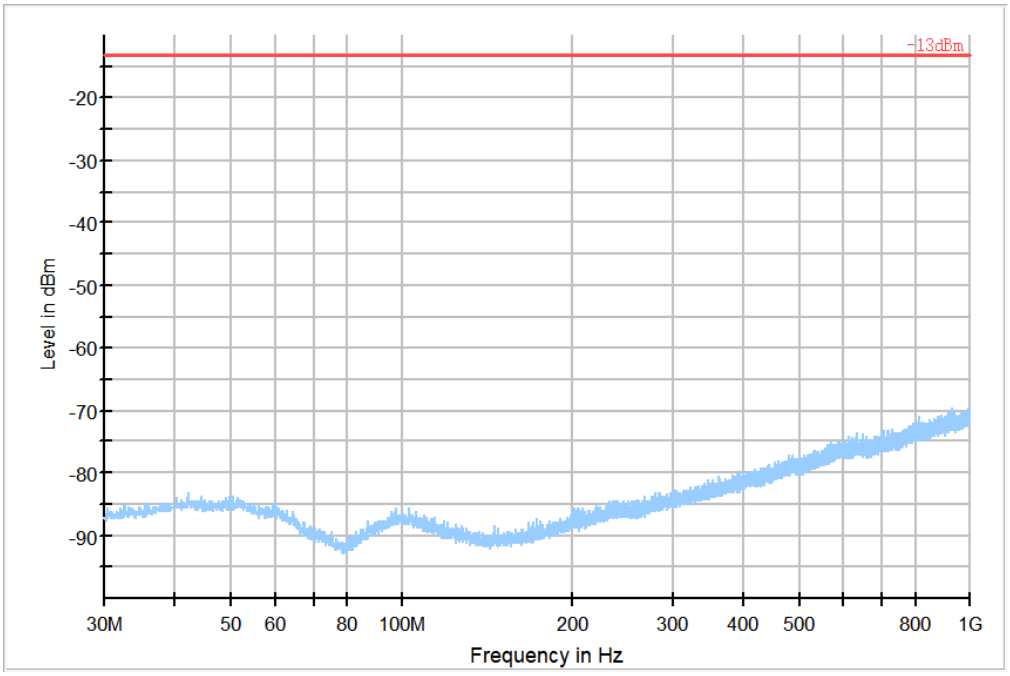
n260, Low Channel, 75GHz-110GHz



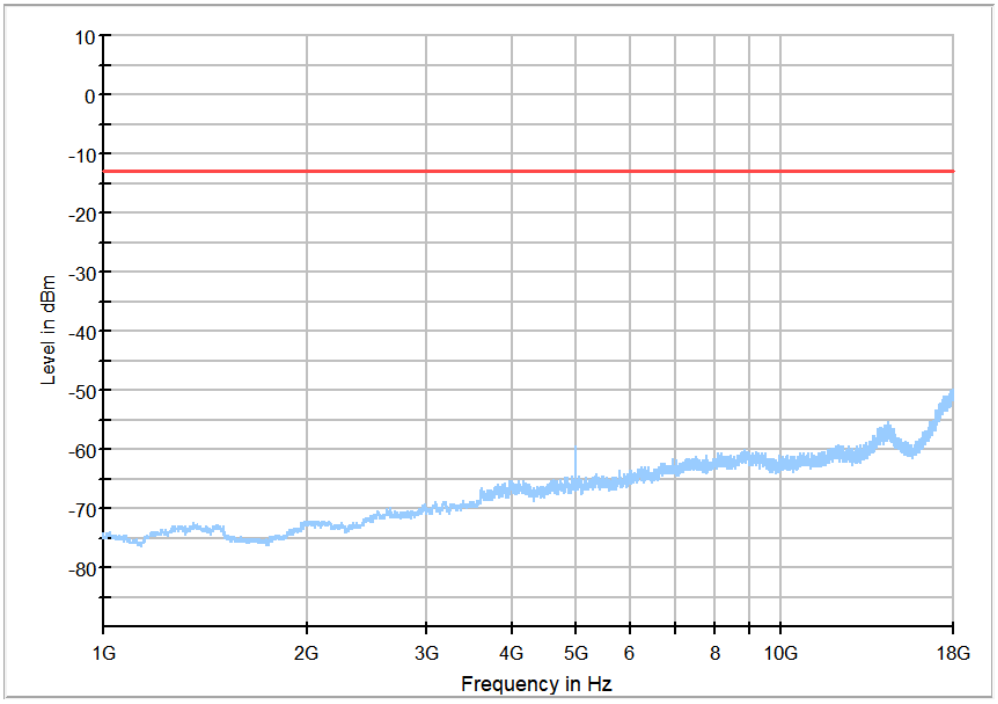
n260, Low Channel, 110GHz-170GHz



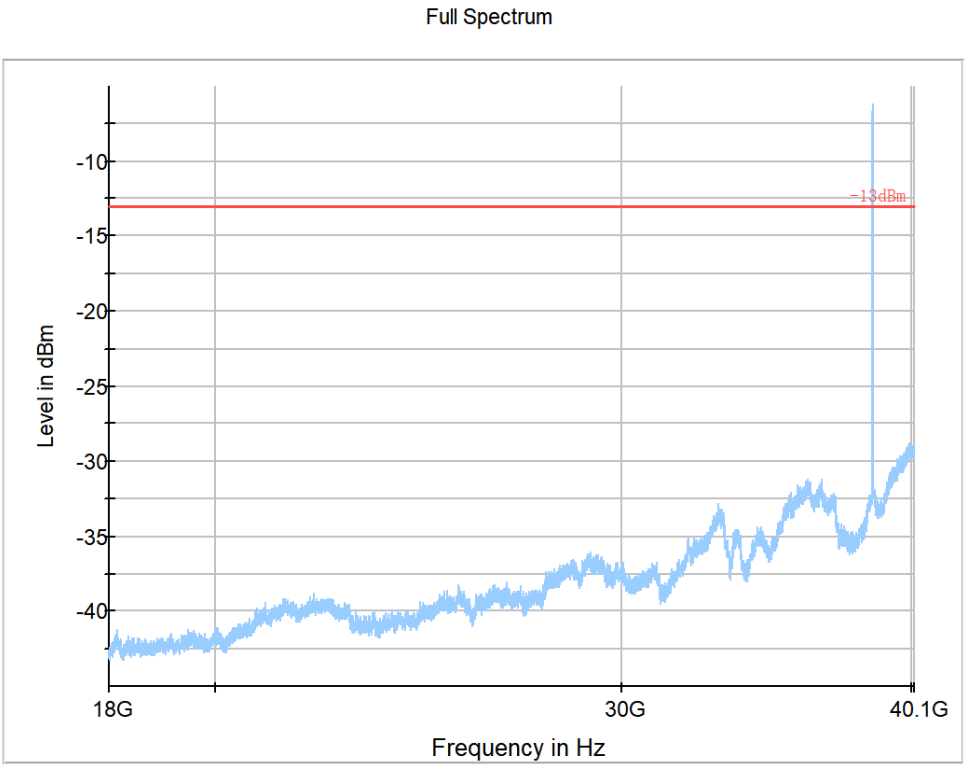
n260, Low Channel, 170GHz-200GHz



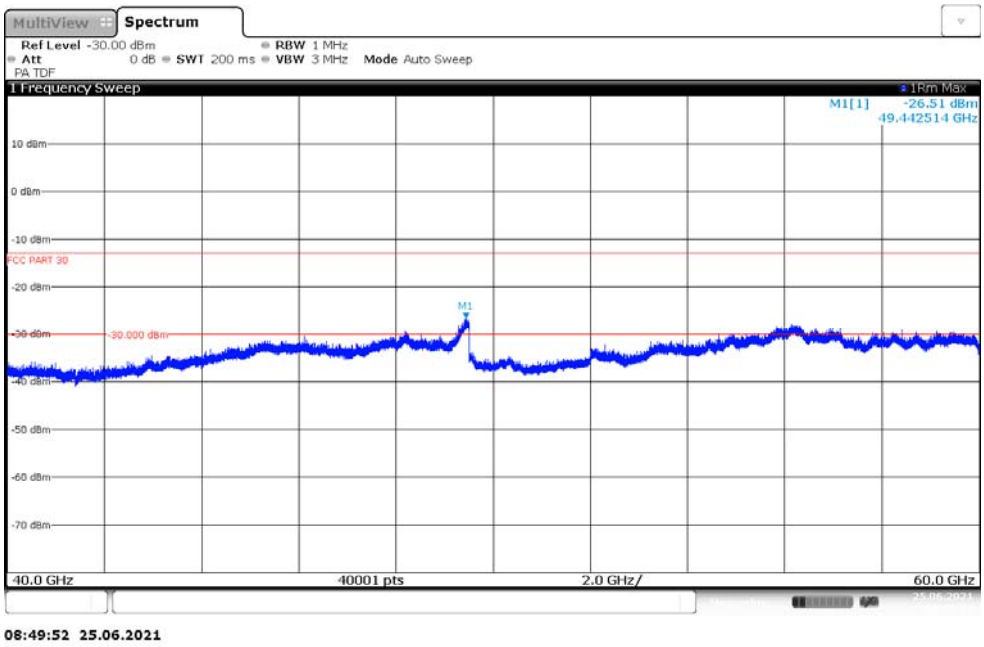
n260, Mid Channel, 30MHz-1GHz



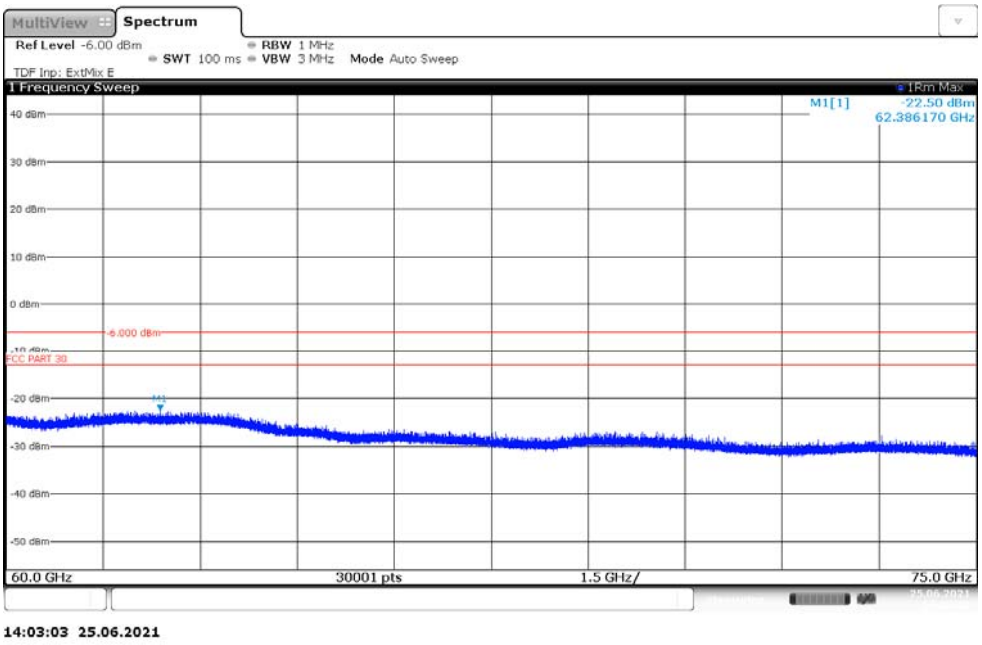
n260, Mid Channel, 1GHz-18GHz



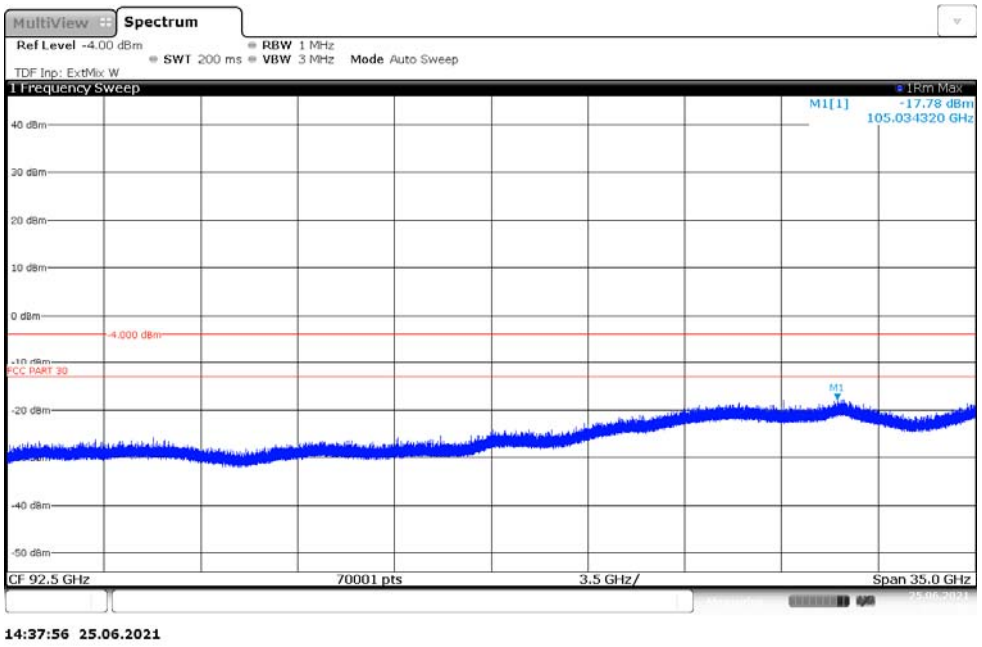
n260, Mid Channel, 18GHz-40GHz



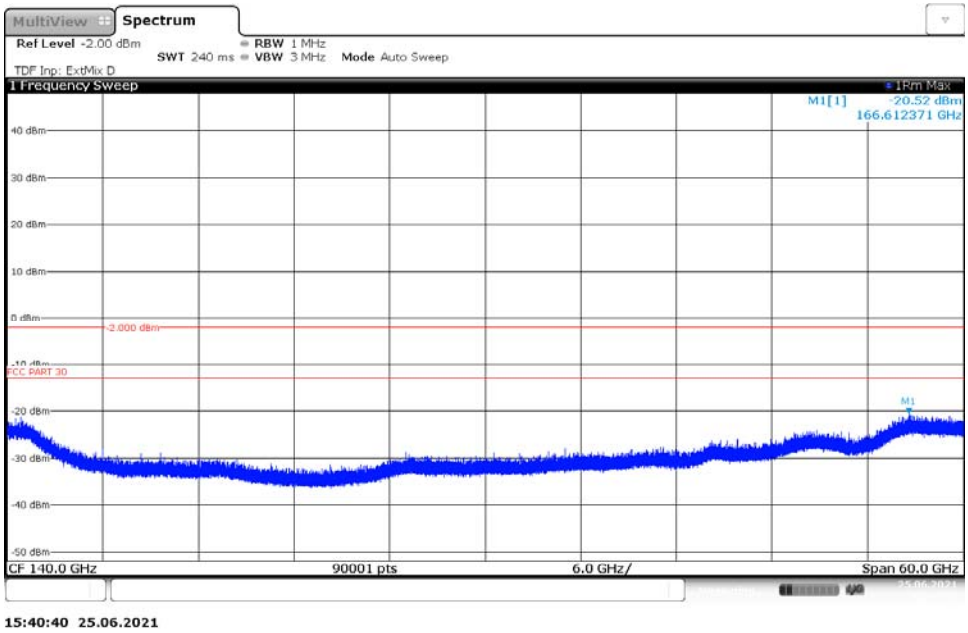
n260, Mid Channel, 40GHz-60GHz



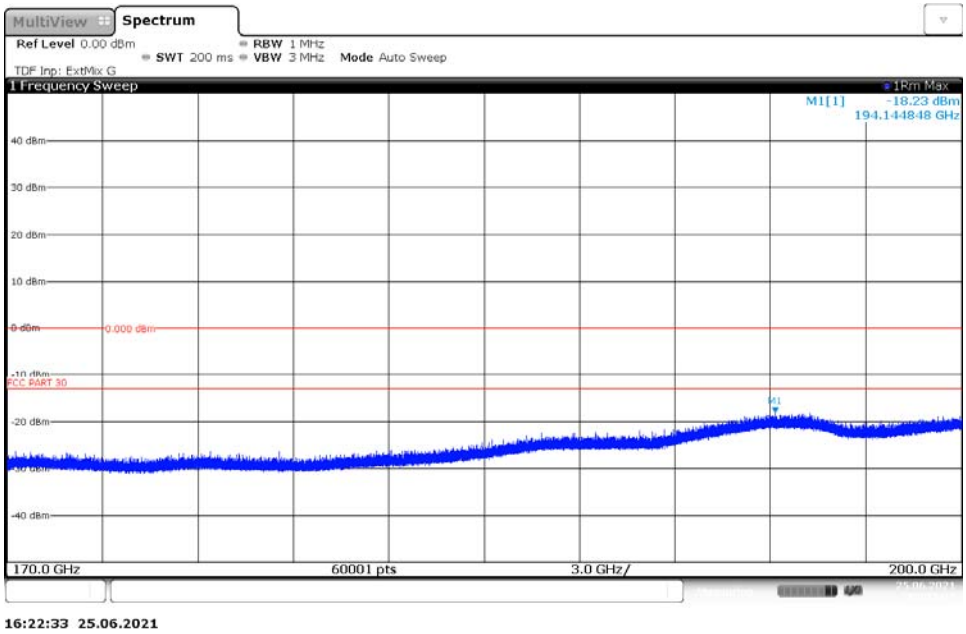
n260, Mid Channel, 60GHz-75GHz



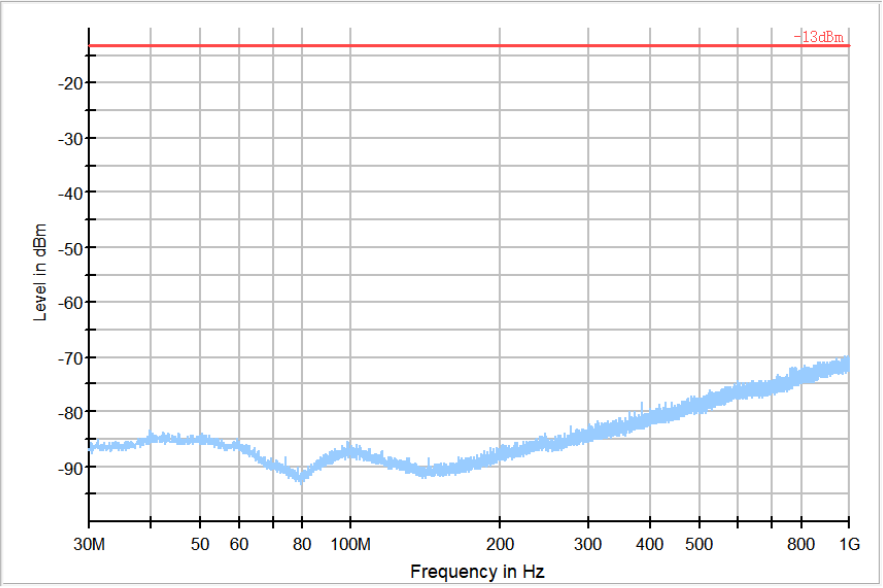
n260, Mid Channel, 75GHz-110GHz



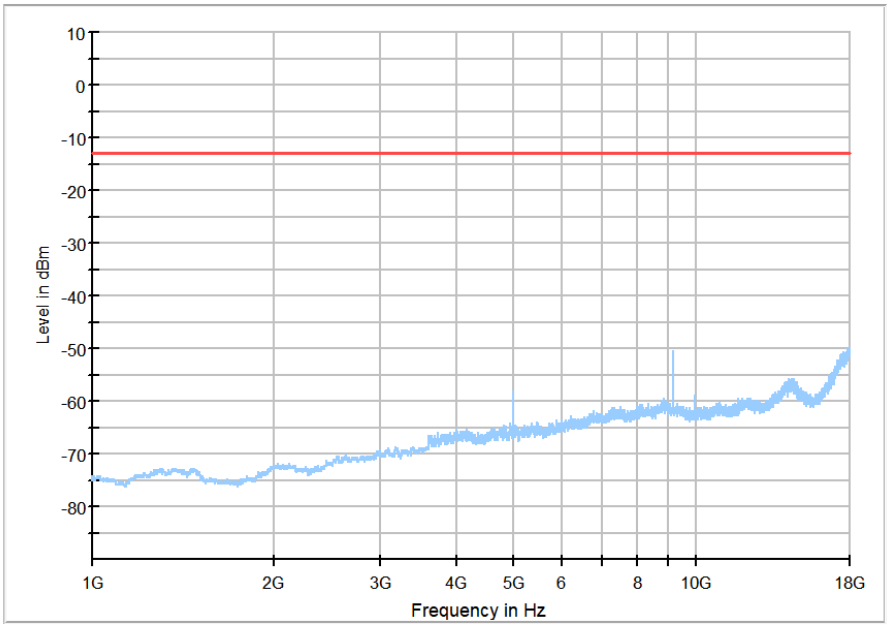
n260, Mid Channel, 110GHz-170GHz



n260, Mid Channel, 170GHz-200GHz

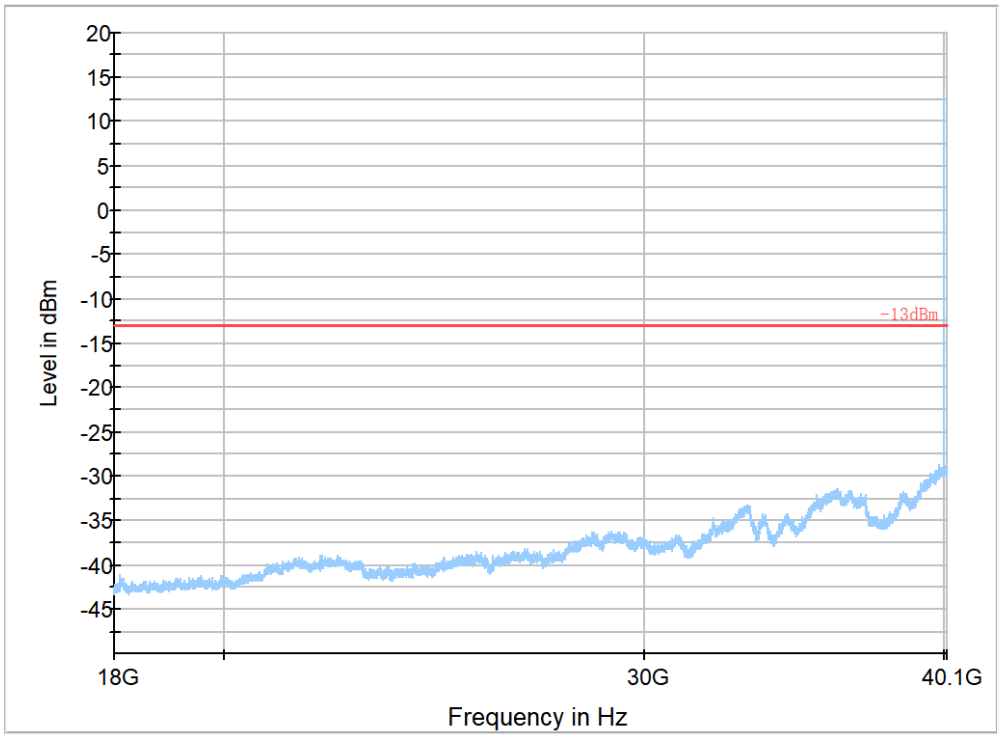


n260, High Channel, 30MHz-1GHz

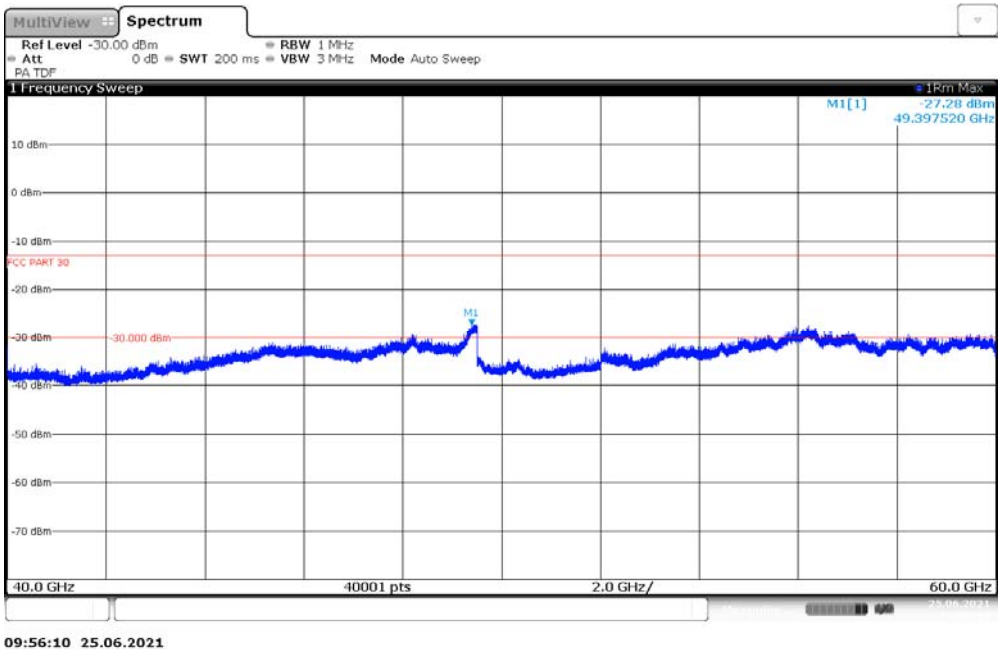


n260, High Channel, 1GHz-18GHz

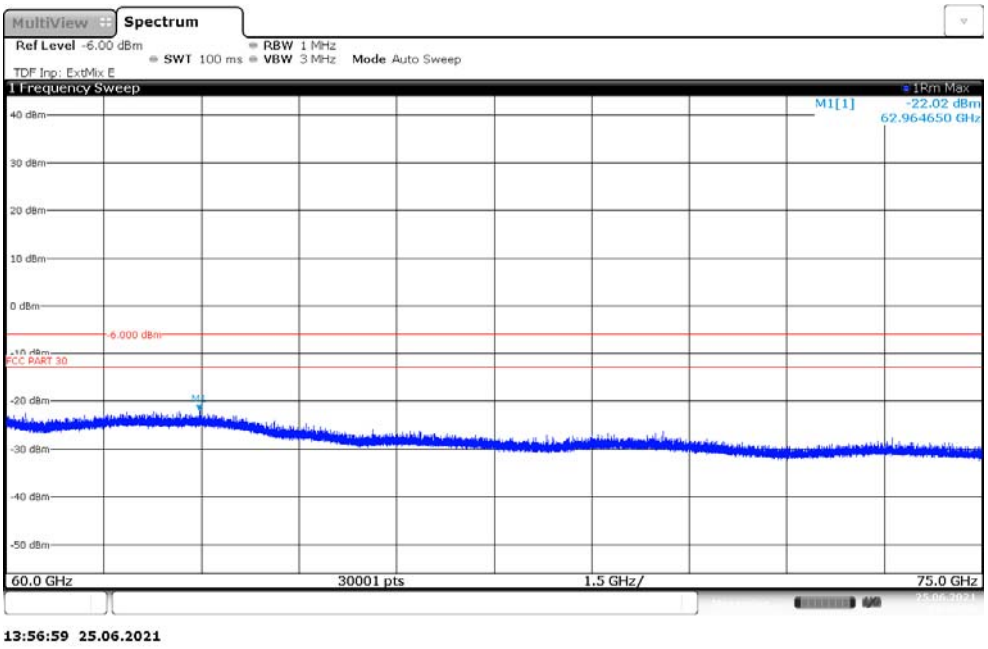
Full Spectrum



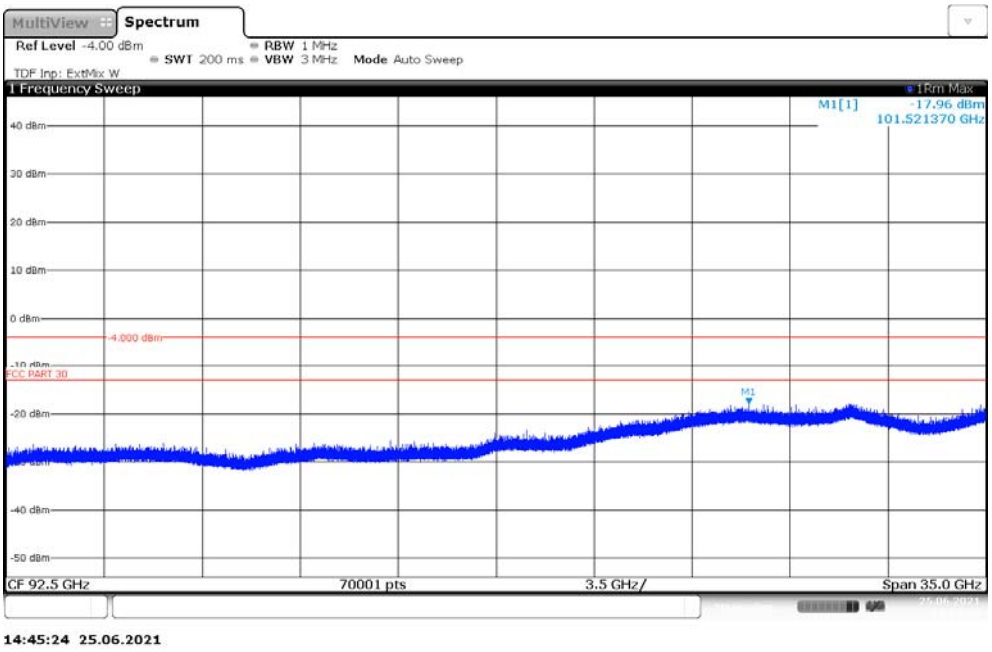
n260, High Channel, 18GHz-40GHz



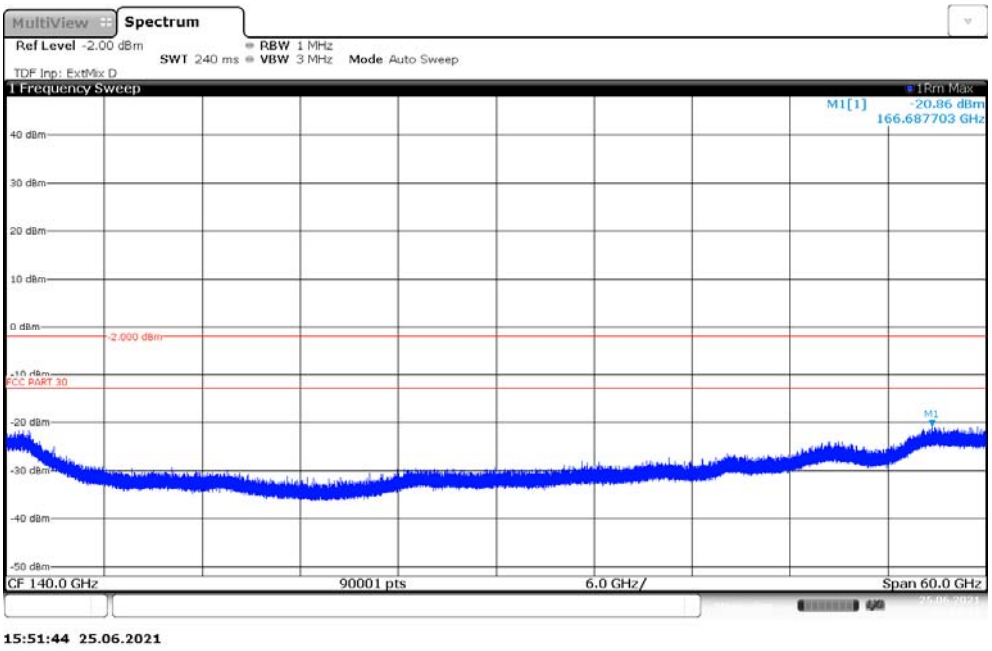
n260, High Channel, 40GHz-60GHz



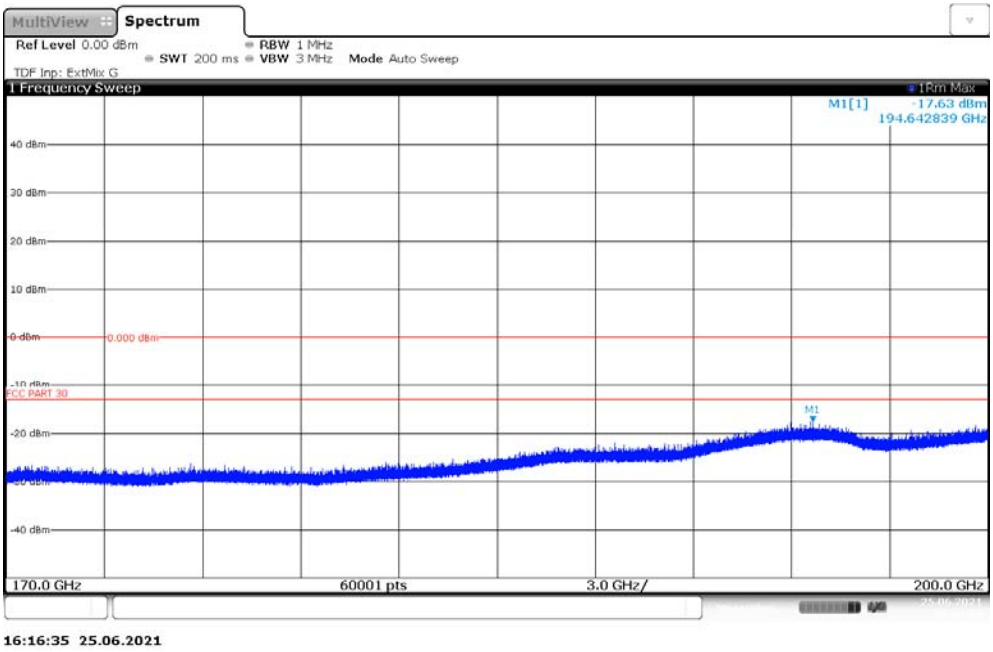
n260, High Channel, 60GHz-75GHz



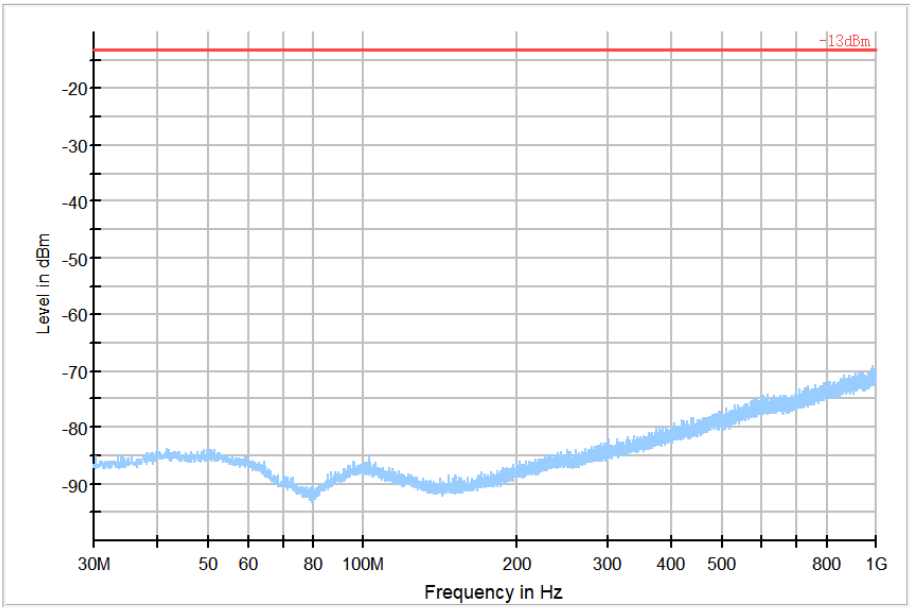
n260, High Channel, 75GHz-110GHz



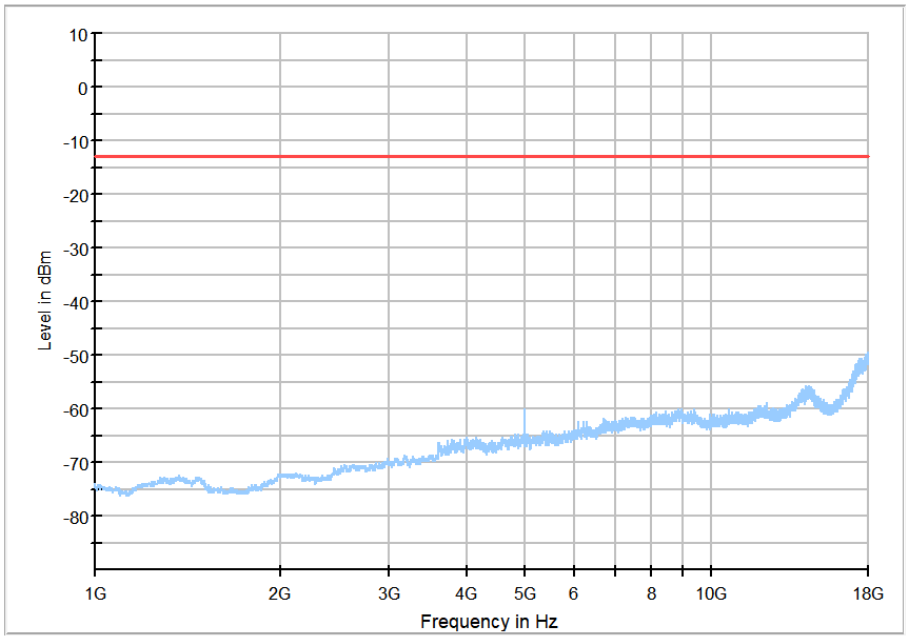
n260, High Channel, 110GHz-170GHz



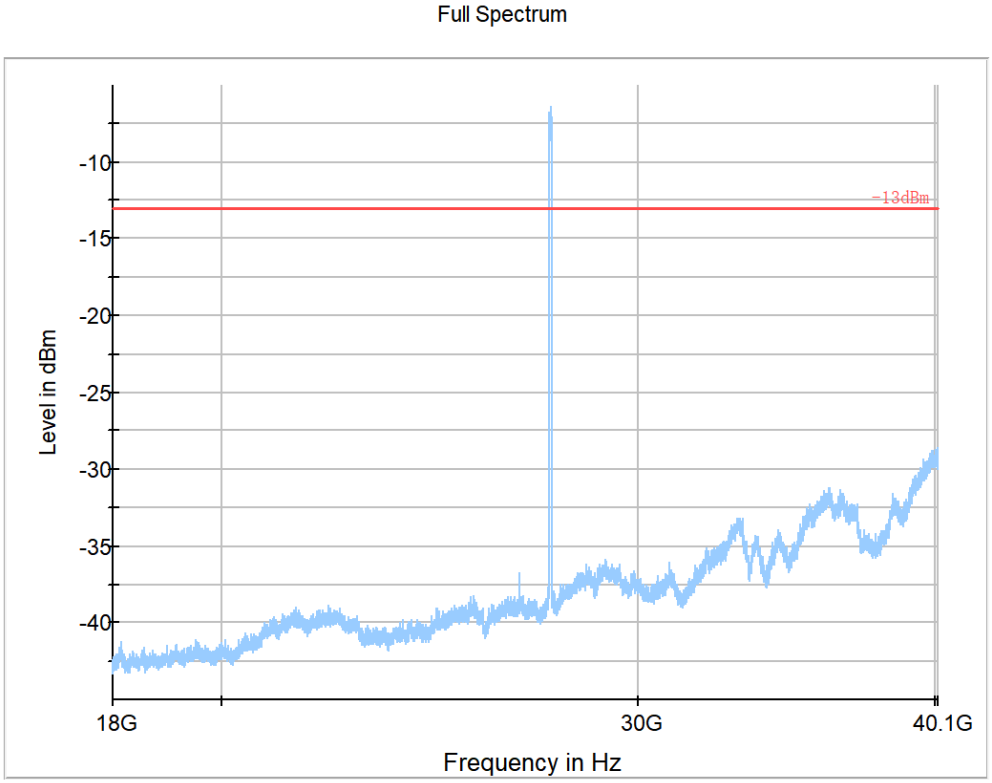
n260, High Channel, 170GHz-200GHz



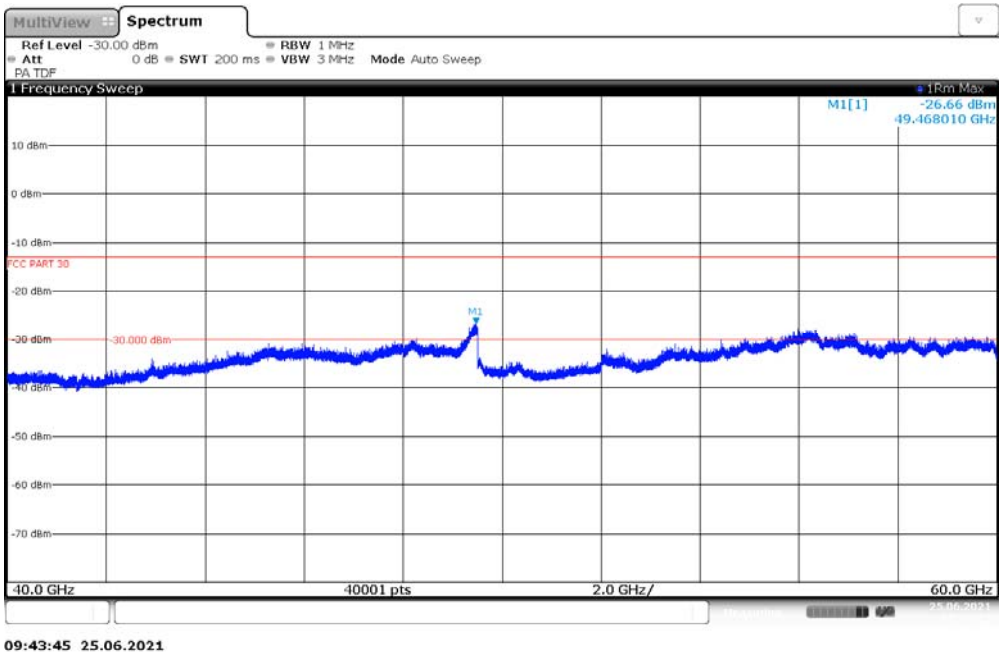
n261, Low Channel, 30MHz-1GHz



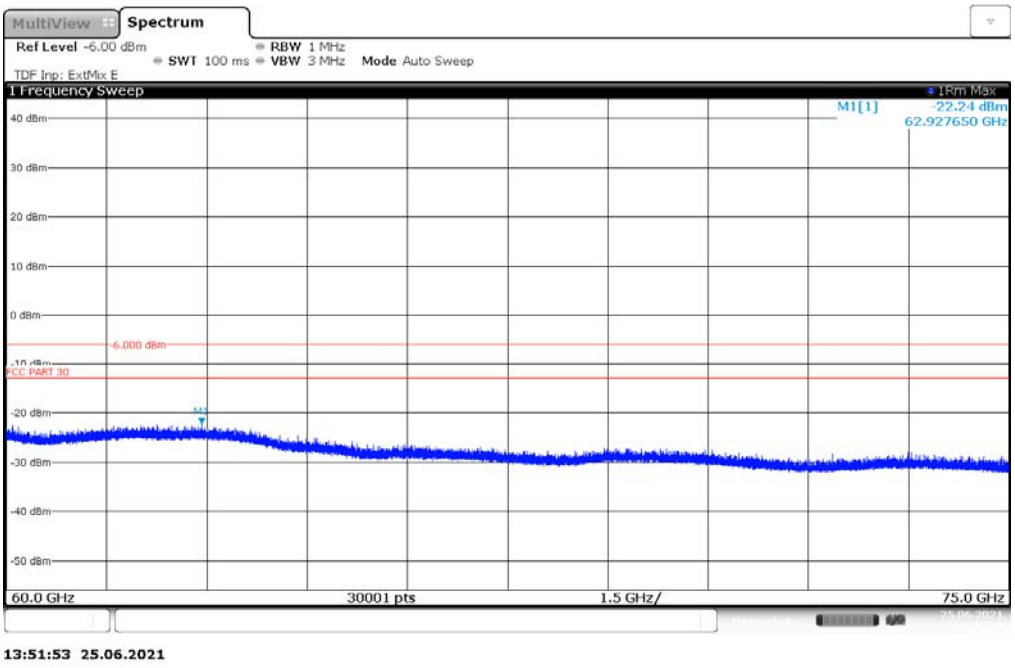
n261, Low Channel, 1GHz-18GHz



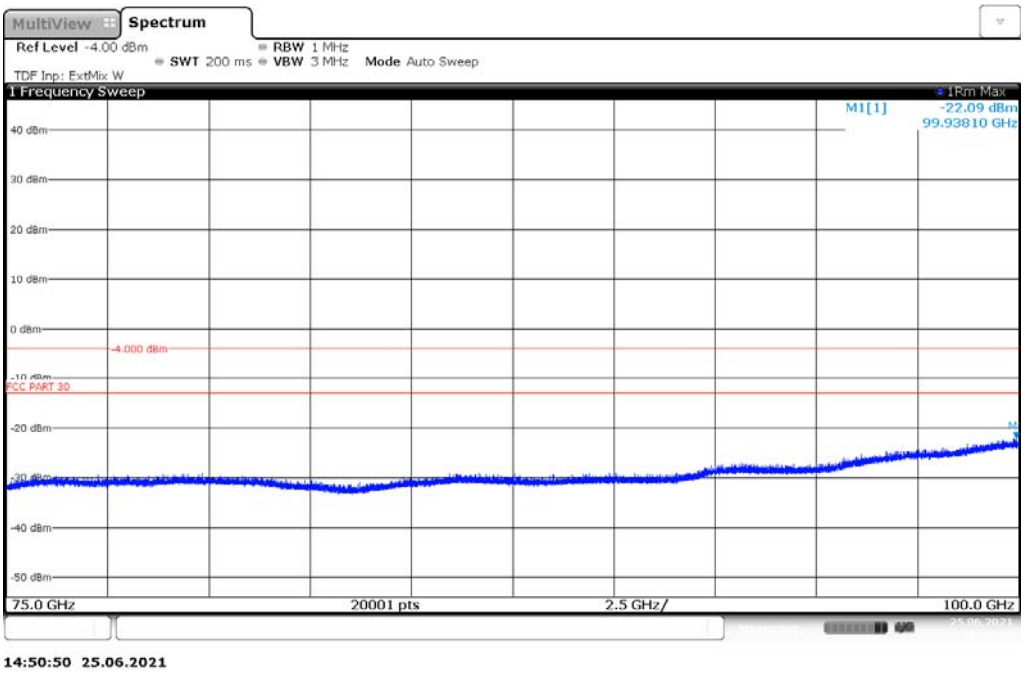
n261, Low Channel, 18GHz-40GHz



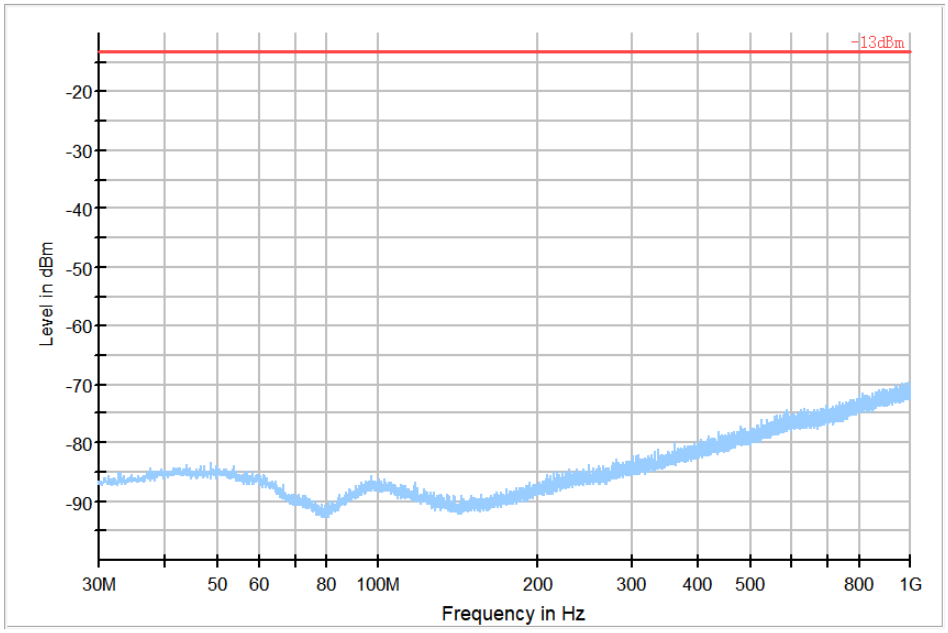
n261, Low Channel, 40GHz-60GHz



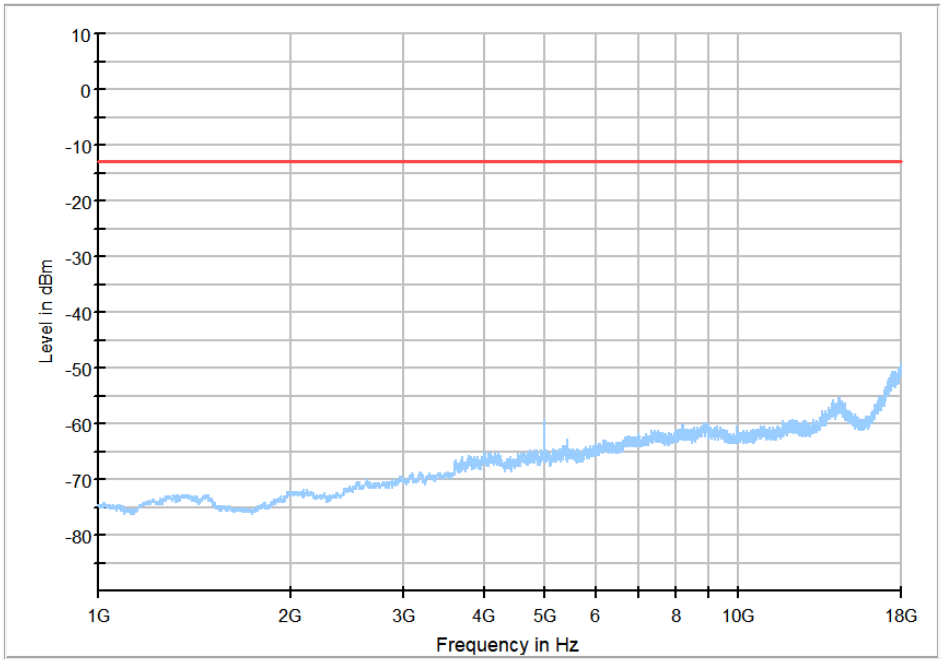
n261, Low Channel, 60GHz-75GHz



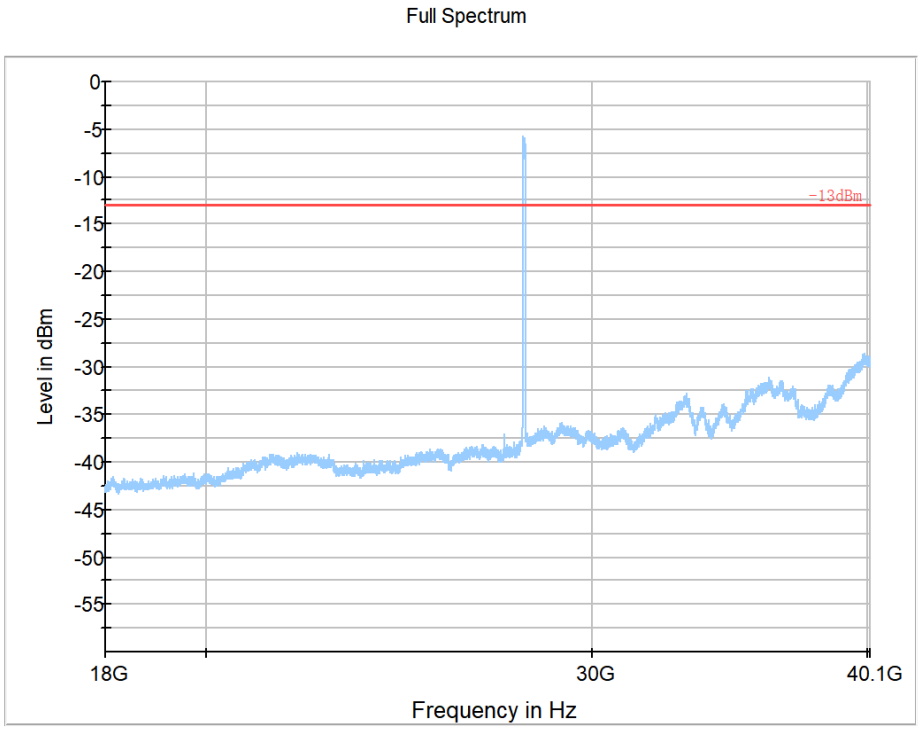
n261, Low Channel, 75GHz-100GHz



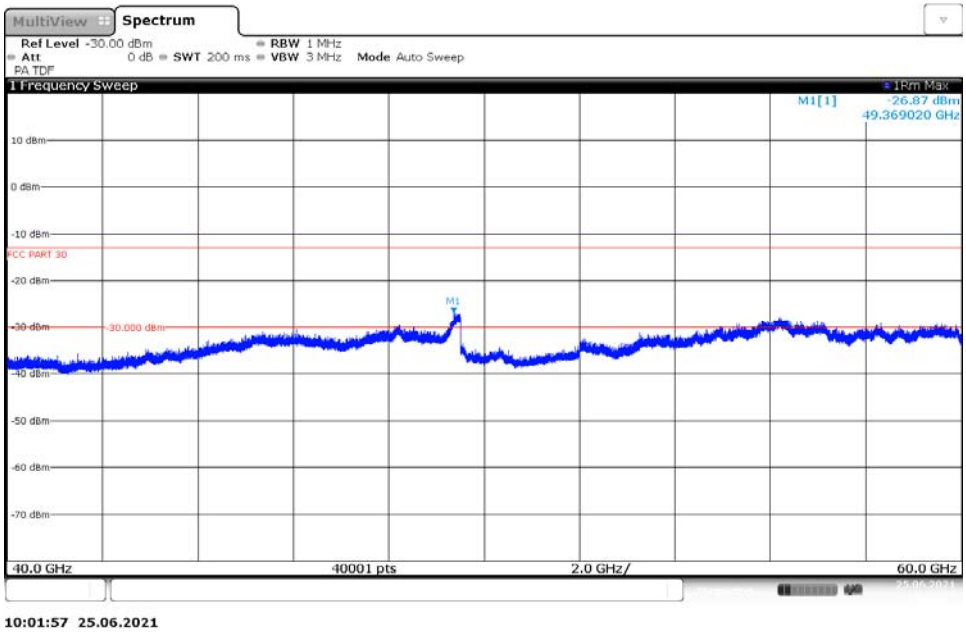
n261, Mid Channel, 30MHz-1GHz



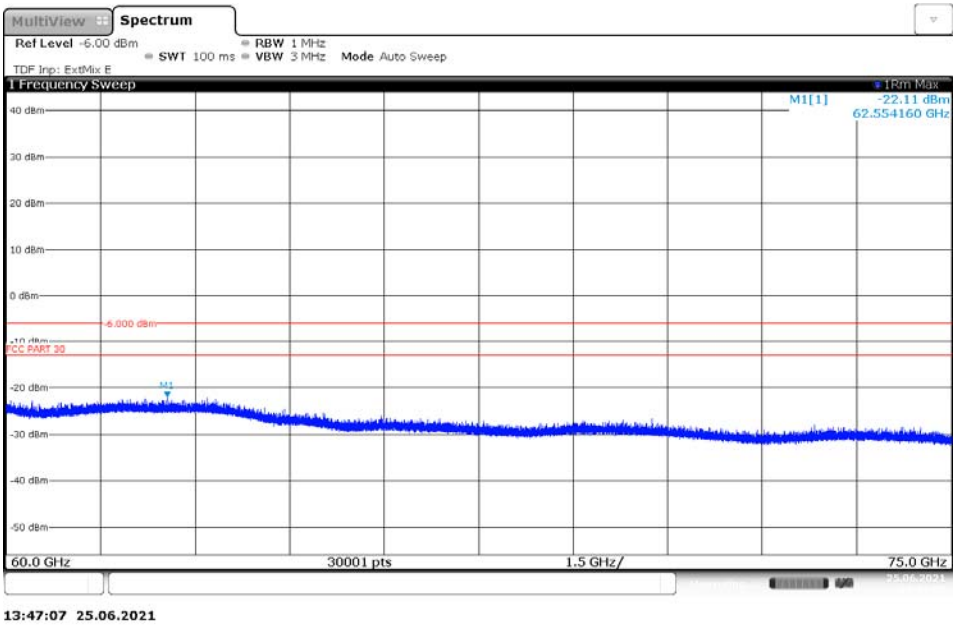
n261, Mid Channel, 1GHz-18GHz



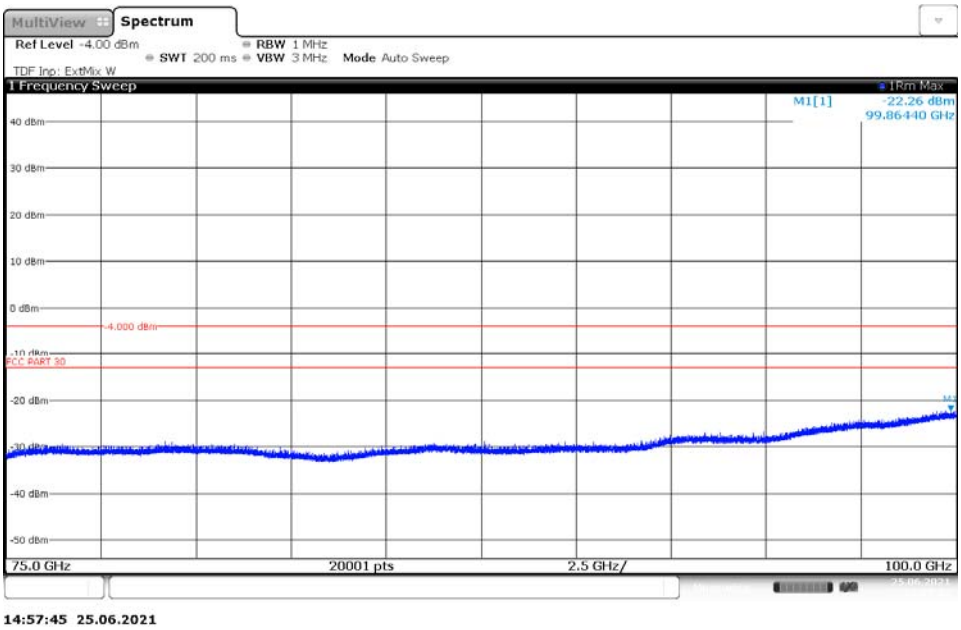
n261, Mid Channel, 18GHz-40GHz



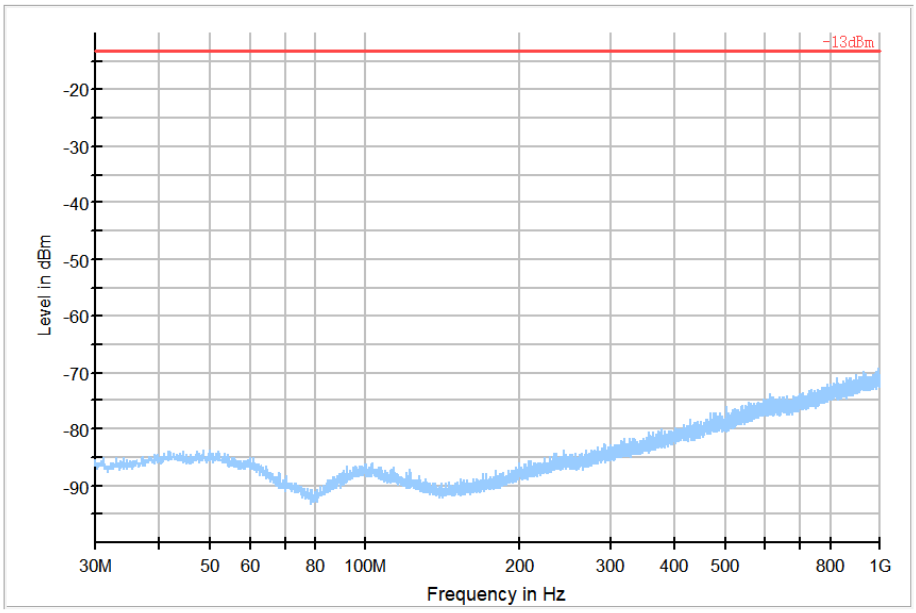
n261, Mid Channel, 40GHz-60GHz



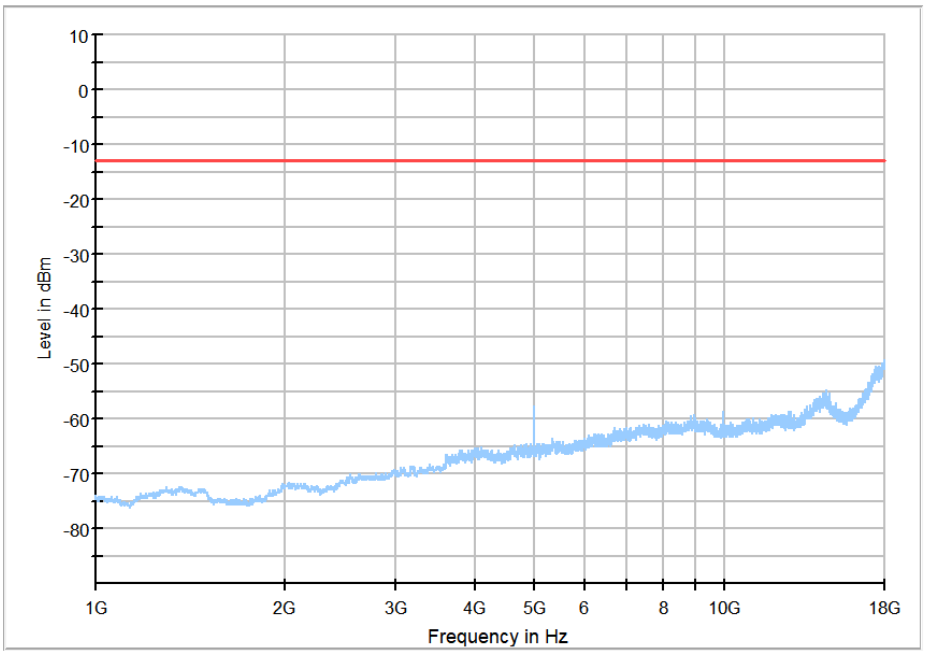
n261, Mid Channel, 60GHz-75GHz



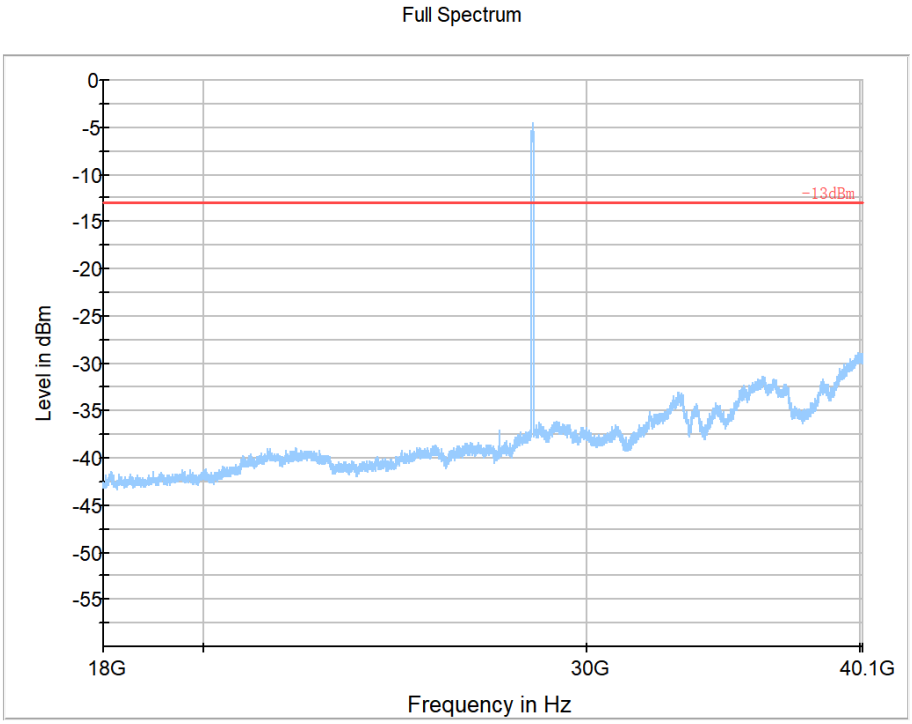
n261, Mid Channel, 75GHz-100GHz



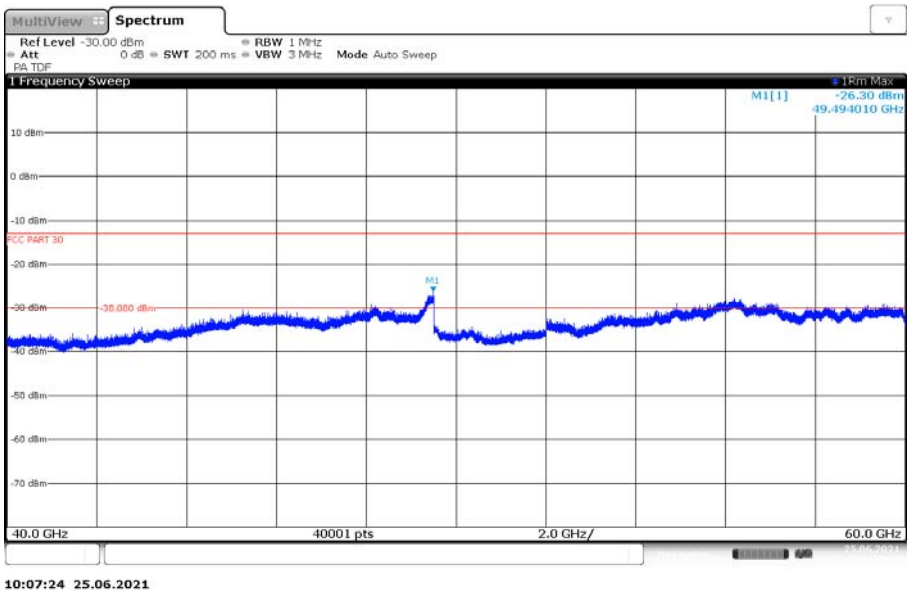
n261, High Channel, 30MHz-1GHz



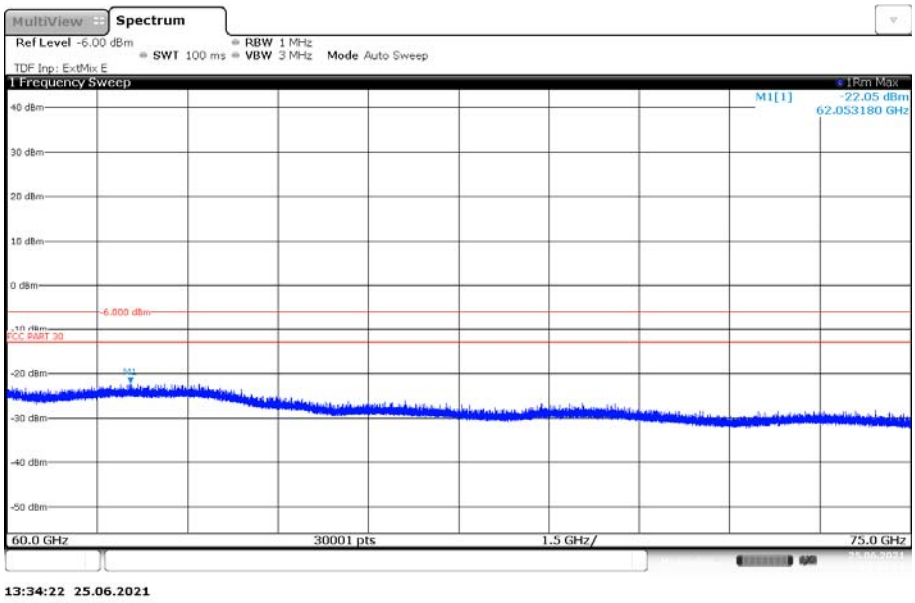
n261, High Channel, 1GHz-18GHz



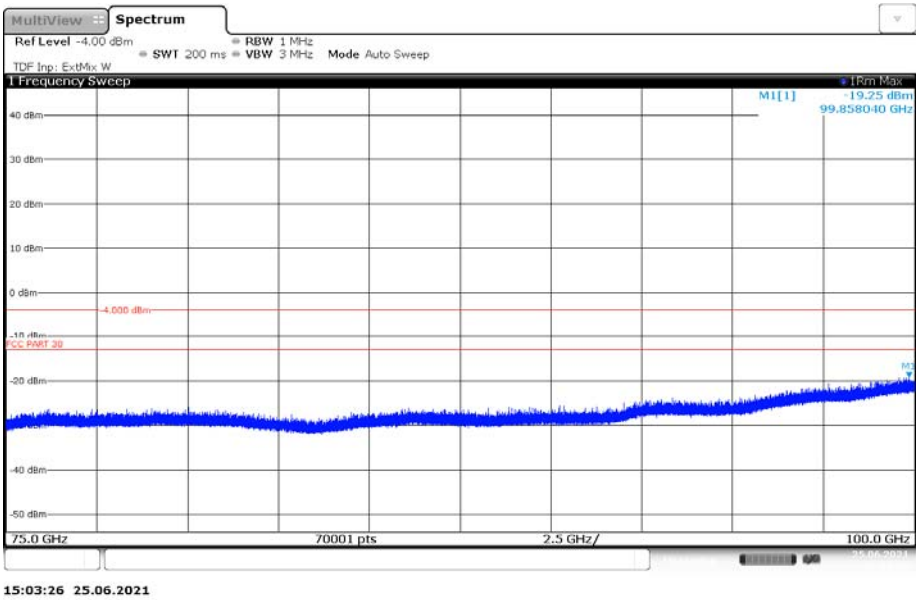
n261, High Channel, 18GHz-40GHz



n261, High Channel, 40GHz-60GHz



n261, High Channel, 60GHz-75GHz



n261, High Channel, 75GHz-100GHz

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℃.
3. With the EUT, powered via nominal voltage, connected to the simulator or working in non-signaling mode, and in a simulated call on middle channel for each frequency 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℃ increments from -30℃ to +50℃. 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℃.
7. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call 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 ℃increments from -30℃ to +50℃. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5℃ 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, DFT 64QAM, 1RB

Frequency Error vs Temperature

OPERATING FREQUENCY: 38499960000Hz

POWER (VDC)	TEMP (℃)	FREQUENCY (Hz)	Freq. Dev (Hz)	Deviation
3.85	+20(REF)	38523526900	/	/
	-30	38523866200	339300	0.0008808%
	-20	38523784000	257100	0.0006674%
	-10	38523676900	150000	0.0003894%
	+0	38523609100	82200	0.0002134%
	+10	38523534100	7200	0.0000187%
	+20	38523541200	14300	0.0000371%
	+30	38523351900	-175000	-0.0004543%
	+40	38523387500	-139400	-0.0003619%
	+50	38523369700	-157200	-0.0004081%
3.00	+20	38523894800	367900	0.0009550%
4.40	+20	38523473400	-53500	-0.0001389%

n261, PUSCH DFT 64QAM, 1RB

Frequency Error vs Temperature

OPERATING FREQUENCY: 27924960000Hz

POWER (VDC)	TEMP (℃)	FREQUENCY (Hz)	Freq. Dev (Hz)	Deviation
3.85	+20(REF)	27925455200	/	/
	-30	27925744400	289200	0.0010356%
	-20	27925769400	314200	0.0011251%
	-10	27925762300	307100	0.0010997%
	+0	27925833700	378500	0.0013554%
	+10	27925530100	74900	0.0002682%
	+20	27925480200	25000	0.0000895%
	+30	27925440900	-14300	-0.0000512%
	+40	27925437300	-17900	-0.0000641%
	+50	27925390900	-64300	-0.0002303%
3.00	+20	27924968500	-486700	-0.0017429%
4.40	+20	27925459000	3800	0.0000136%

A.4 Occupied Bandwidth

Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the specified frequencies and modulation. 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 ≥ 3 × 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 canculated by:

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

Where:

F:frequency (MHz)

D:Distance(m)=3m

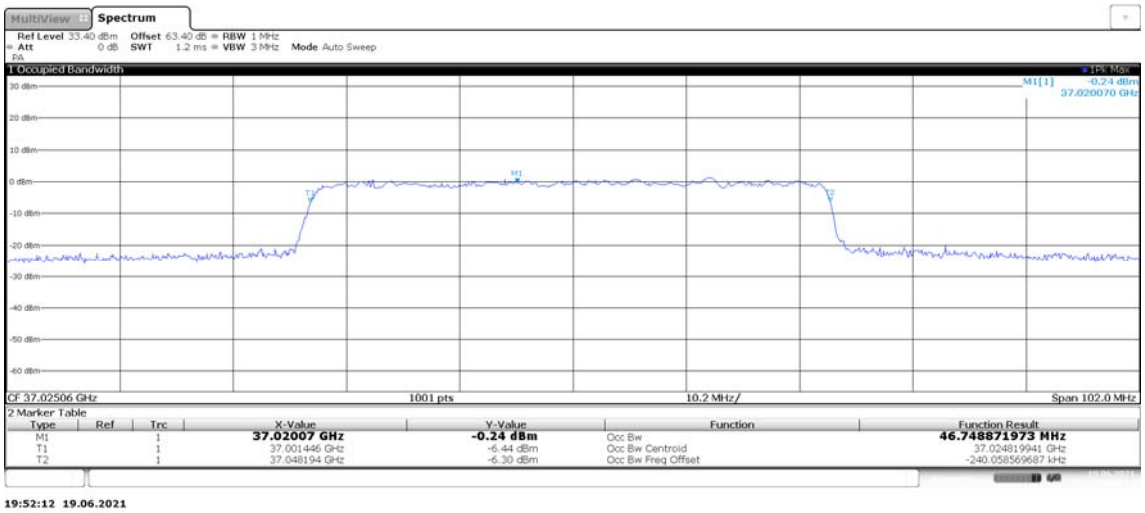
n260, Module0, SCS=120kHz, SISO Tx Chain 0

CP-OFDM

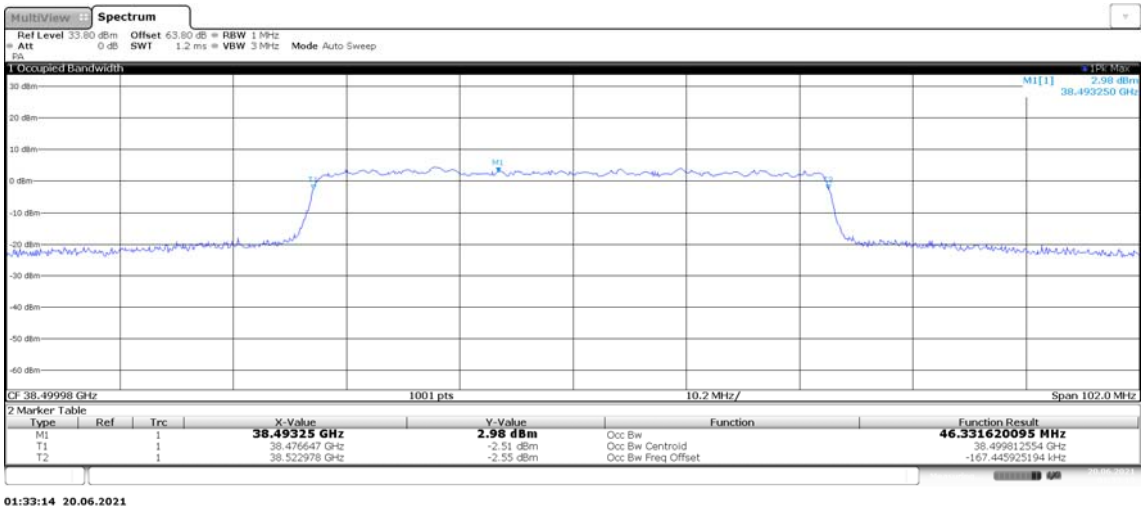
Bandwidth	Modulation	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	QPSK	37025.04	24	**46.74**
		38499.96	24	**46.33**
		39975	21	46.58
	16QAM	39975	21	46.21
	64QAM	39975	21	**46.62**
	QPSK	39975	29	46.46
100MHz	QPSK	37050	24	**95.66**
		38499.96	24	**95.15**
		39949.92	21	95.98
	16QAM	39949.92	21	95.43
	64QAM	39949.92	21	95.87
	QPSK	39949.92	29	**96.82**

Note:The channel with the maximum power of QPSK was chose, and the 16QAM, 64QAM and the other Beam ID were measured on that channel. The maximum occupied bandwidth figures were showed in the following two pages.

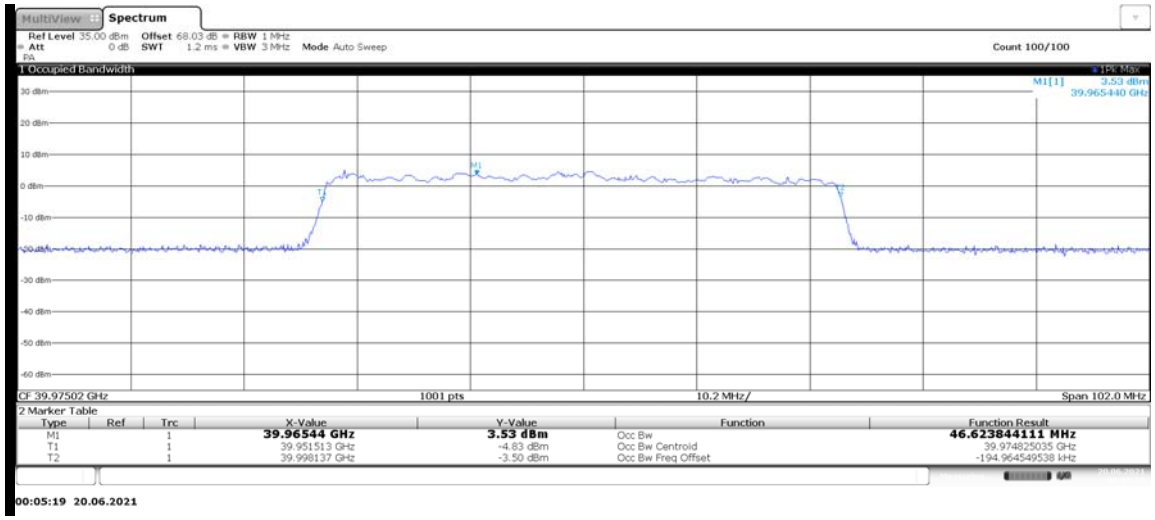
n260, 50MHz Bandwidth, CP-OFDM, Low Channel 37025.04MHz, QPSK (99% BW)



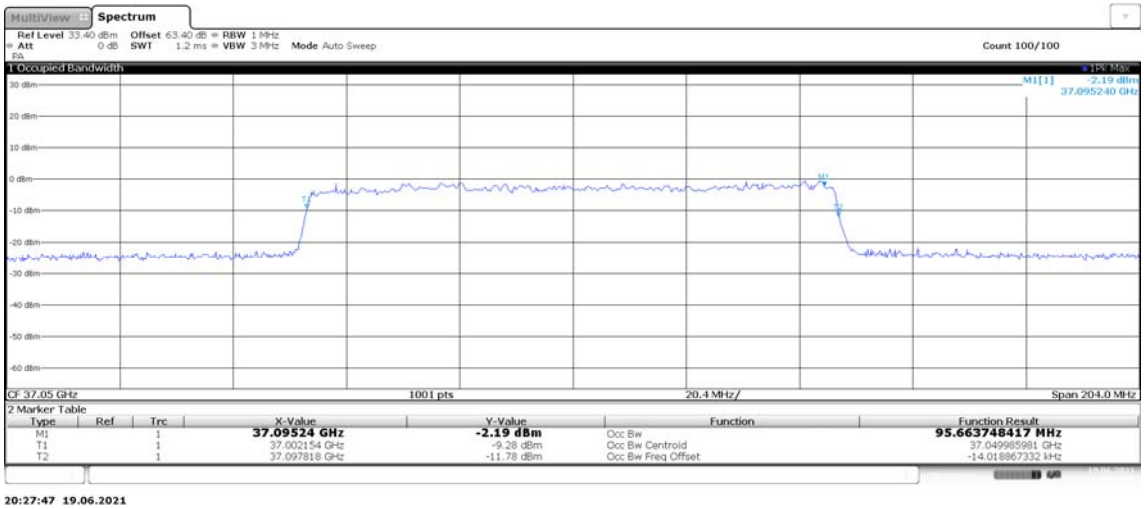
n260, 50MHz Bandwidth, CP-OFDM, Middle Channel 38499.96MHz, QPSK (99% BW)



n260, 50MHz Bandwidth,CP-OFDM,High Channel 39975MHz, 6 4QAM (99% BW)



n260, 100MHz Bandwidth,CP-OFDM, Low Channel 37050MHz, QPSK (99% BW)



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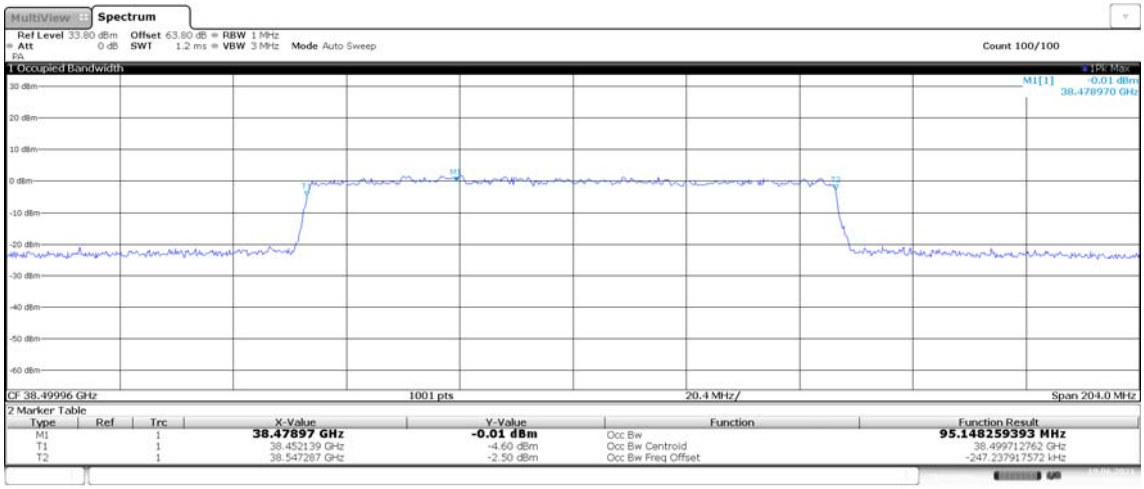
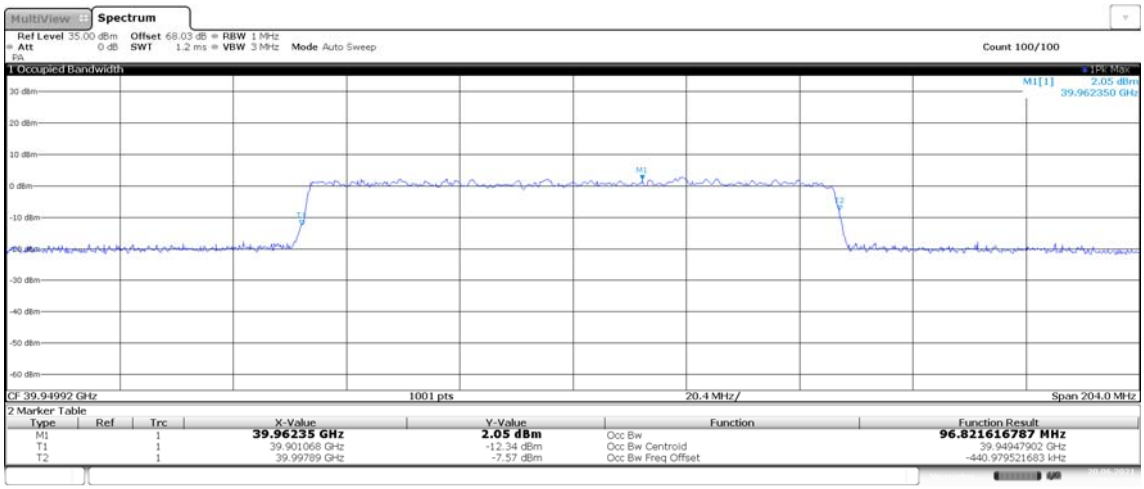
n260, 100MHz Bandwidth, CP-OFDM, Middle Channel 38499.96MHz, QPSK (99% BW)



20:56:34 19.06.2021

n260, 100MHz Bandwidth, CP-OFDM, High Channel 39949.92MHz, QPSK (99% BW)



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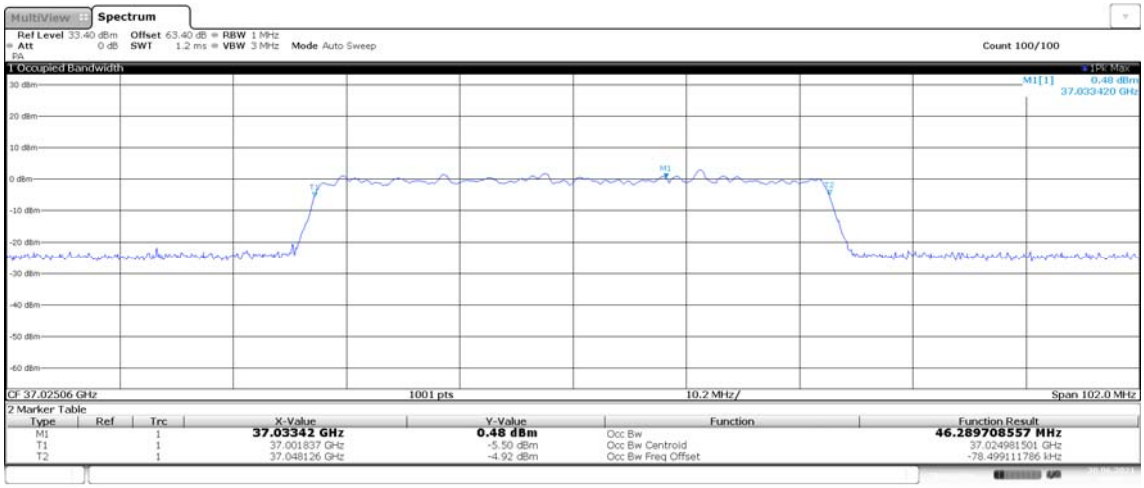
n260, Module0, SCS=120kHz, SISO Tx Chain 0

DFT

Bandwidth	Modulation	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	Pi/2 BPSK	37025.04	24	**46.29**
		38499.96	24	**46.08**
		39975	21	46.17
	QPSK	39975	21	46.27
	16QAM	39975	21	**46.36**
	64QAM	39975	21	46.29
	16QAM	39975	29	46.23
100MHz	Pi/2 BPSK	37050	24	**92.85**
		38499.96	24	**92.17**
		39949.92	21	**92.88**
		39949.92	29	91.61

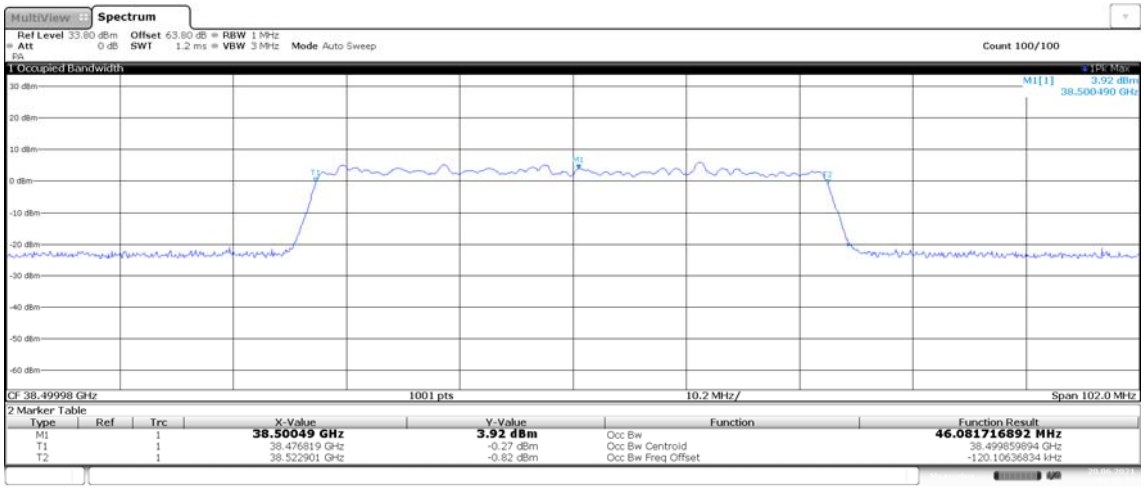
Note:The channel with the maximum power of QPSK was chose, and the 16QAM, 64QAM and the other Beam ID were measured on that channel. The maximum occupied bandwidth figures were showed in the following two pages.

n260, 50MHz Bandwidth, DFT, Low Channel 37025.04MHz, Pi/2 BPSK (99% BW)



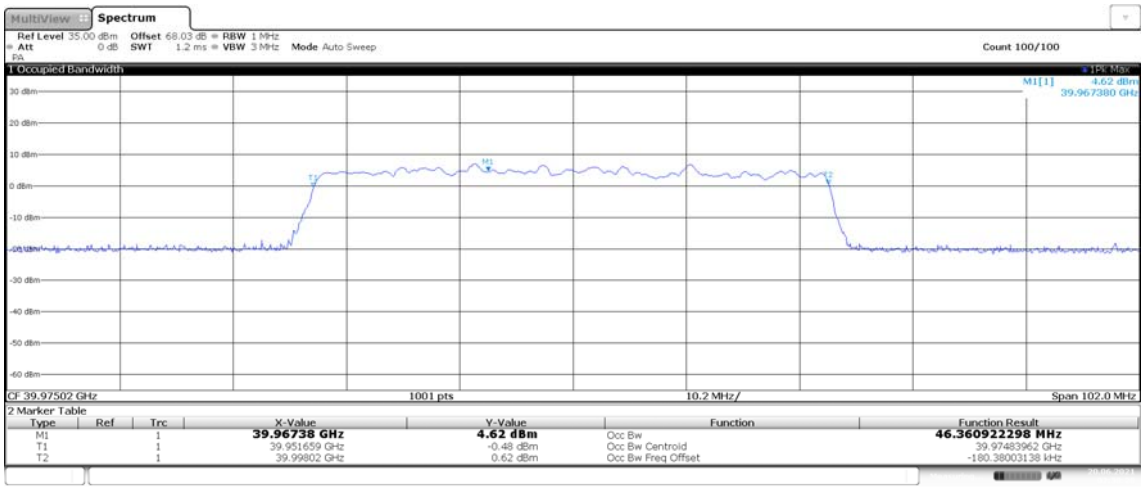
02:02:16 20.06.2021

n260, 50MHz Bandwidth, DFT, Middle Channel 38499.96MHz, Pi/2 BPSK (99% BW)



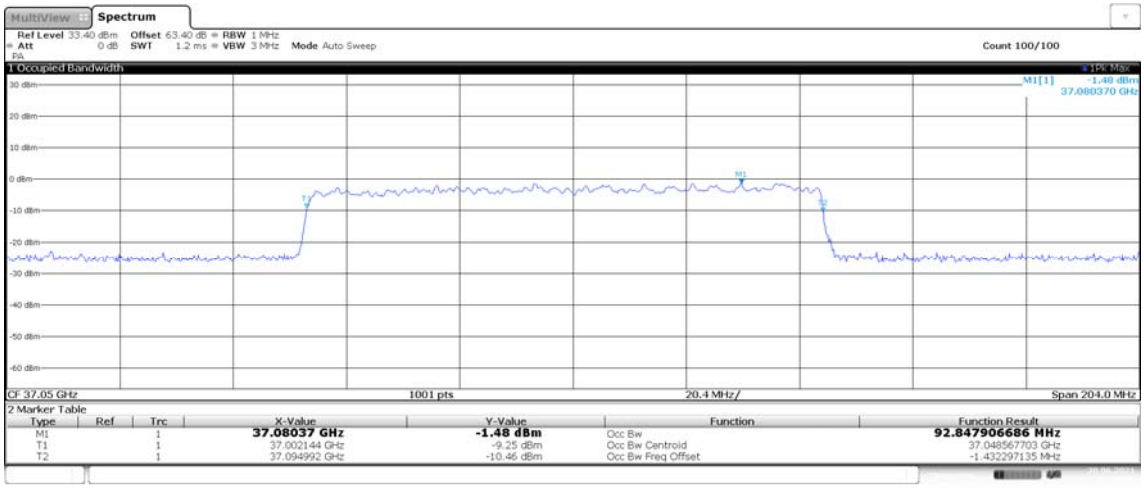
01:50:03 20.06.2021

n260, 50MHz Bandwidth,DFT,High Channel 39975MHz, 16QAM (99% BW)



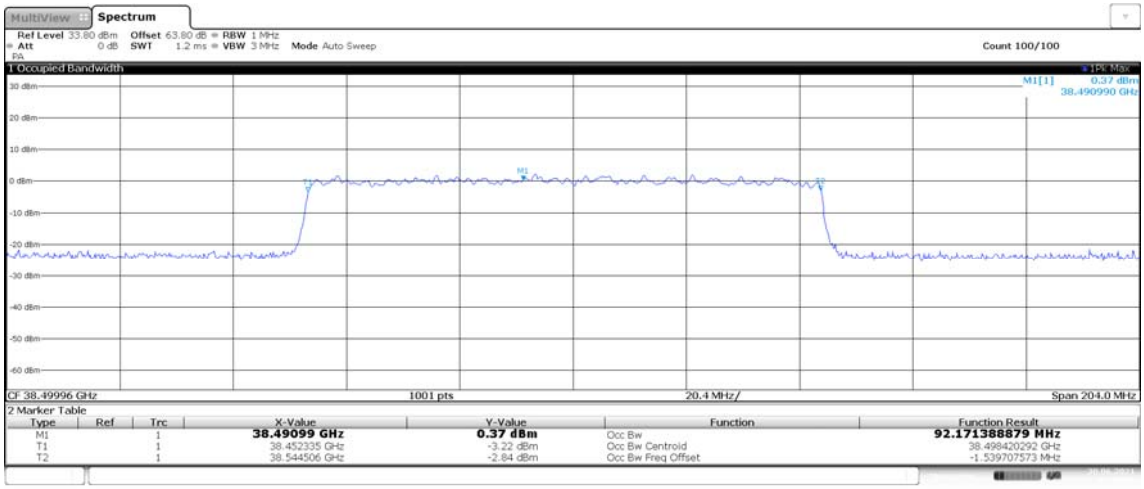
02:38:29 20.06.2021

n260, 100MHz Bandwidth, DFT, Low Channel 37050MHz, Pi/2 BPSK (99% BW)



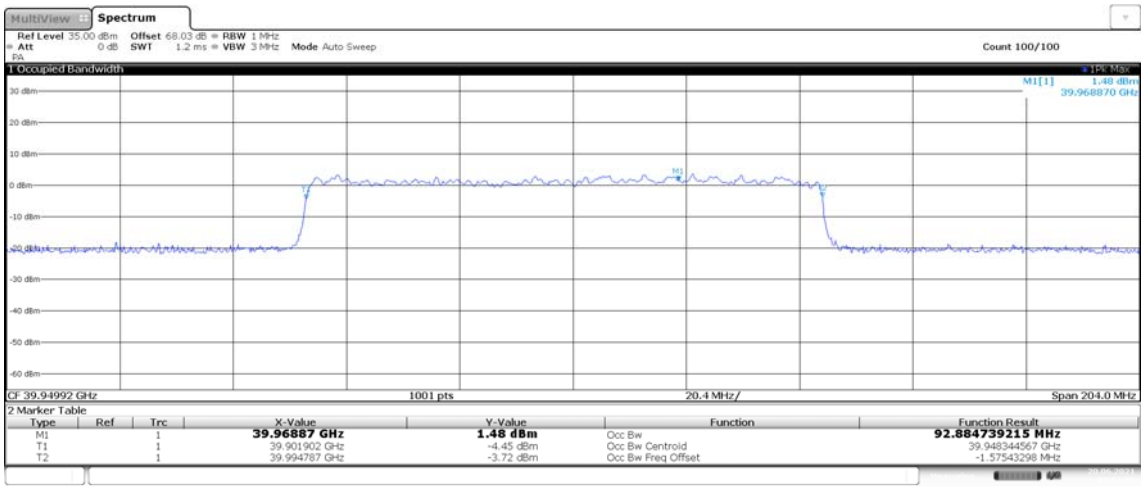
03:22:17 20.06.2021

n260, 100MHz Bandwidth, DFT, Middle Channel 38499.96MHz, Pi/2 BPSK (99% BW)



03:43:26 20.06.2021

n260, 100MHz Bandwidth, DFT, High Channel 39949.92MHz, Pi/2 BPSK (99% BW)



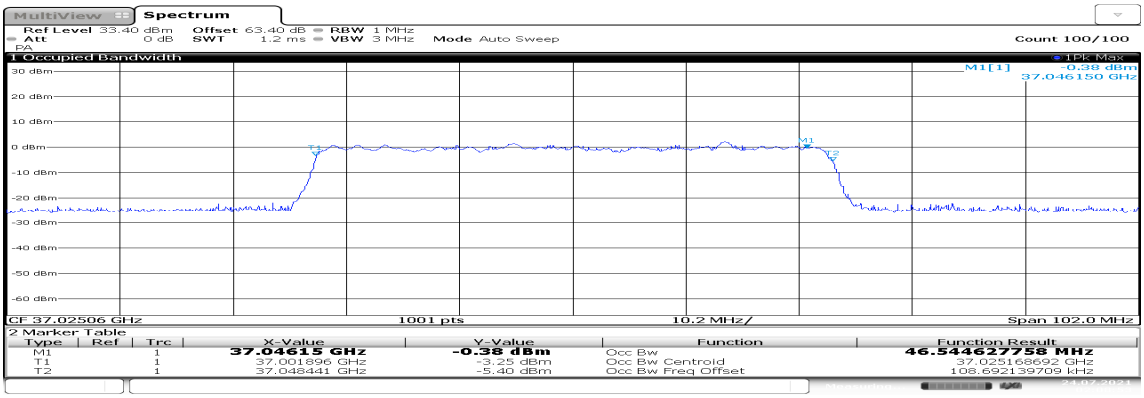
03:54:09 20.06.2021

n260, Module0, SCS=120kHz, SISO Tx Chain 1

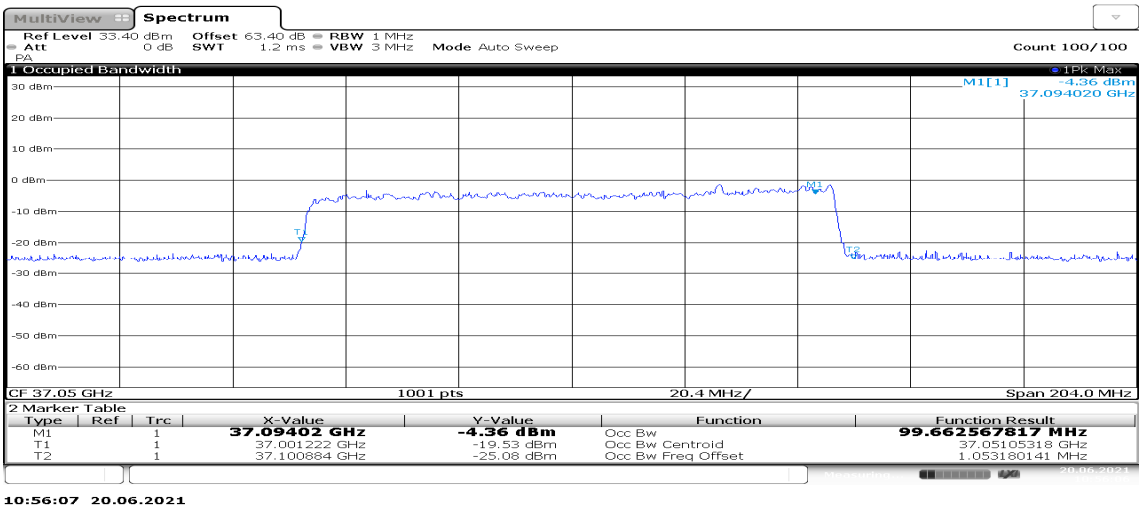
Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	CP	16QAM	100% RB	37025.04	152	**46.54**
50MHz	CP	QPSK	100% RB	37025.04	148	46.43
50MHz	CP	QPSK	100% RB	38499.96	152	46.18
50MHz	CP	QPSK	100% RB	38499.96	148	46.15
50MHz	CP	QPSK	100% RB	39975	150	46.16
50MHz	CP	QPSK	100% RB	39975	148	46.08
100MHz	CP	QPSK	100% RB	37050	152	95.45
100MHz	CP	QPSK	100% RB	37050	148	**99.66**
100MHz	CP	QPSK	100% RB	38499.96	152	95.12
100MHz	CP	QPSK	100% RB	38499.96	148	95.21
100MHz	DFT	QPSK	100% RB	39949.92	150	92.09

Note: According to the results in Chain 0, the set of OFDM, modulation and RB size with higher power was measured on low, middle and high channel of 50MHz and 100MHz bandwidth. The maxium occupied bandwidth of 50MHz and 100MHz bandwidth figures were showed in the following.

n260, 50MHz Bandwidth, CP, Low Channel 37025.04MHz, 16QAM (99% BW)



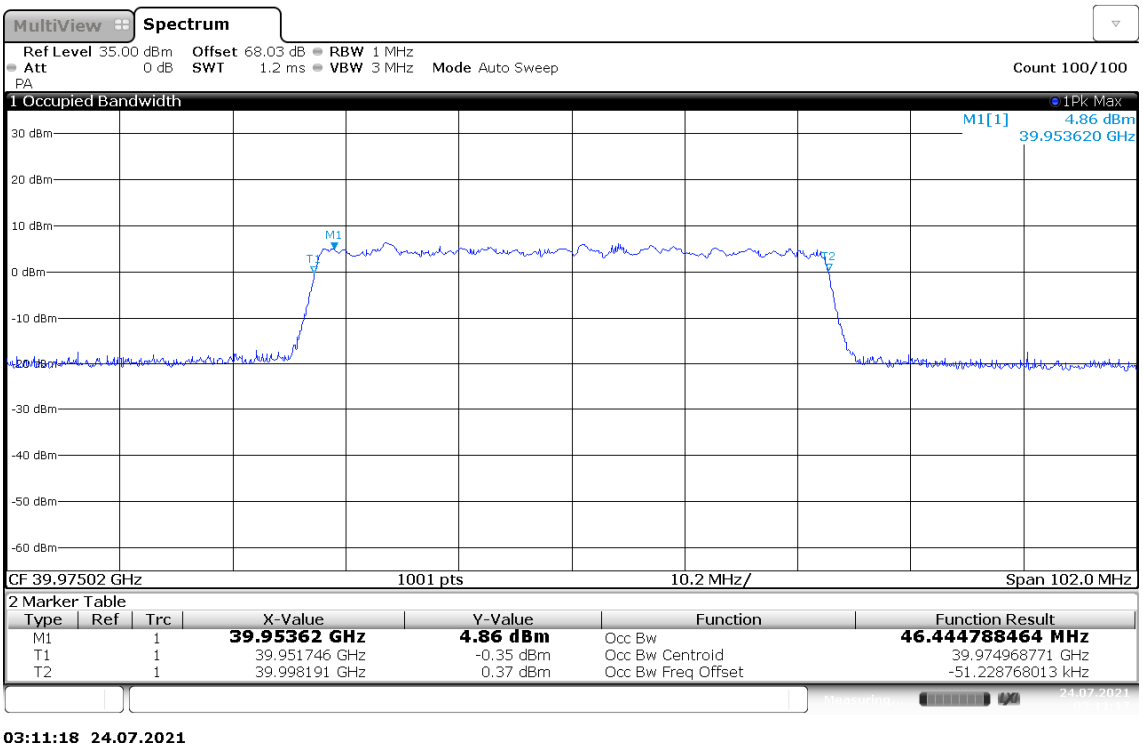
n260, 100MHz Bandwidth, CP, Low Channel 37050MHz, QPSK (99% BW)



n260, Module0, SCS=120kHz, MIMO Tx Chain 0 Beam ID 24 + Tx Chain 1 Beam ID 152

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Occupied Bandwidth (99%) (MHz)
50MHz	CP	QPSK	100% RB	39975	46.44

Note: According to the results of Chain 0 and Chain 1, the set of OFDM, modulation, RB size and channel with higher power at the specified bandwidth was measured and the figure was showed in the following:



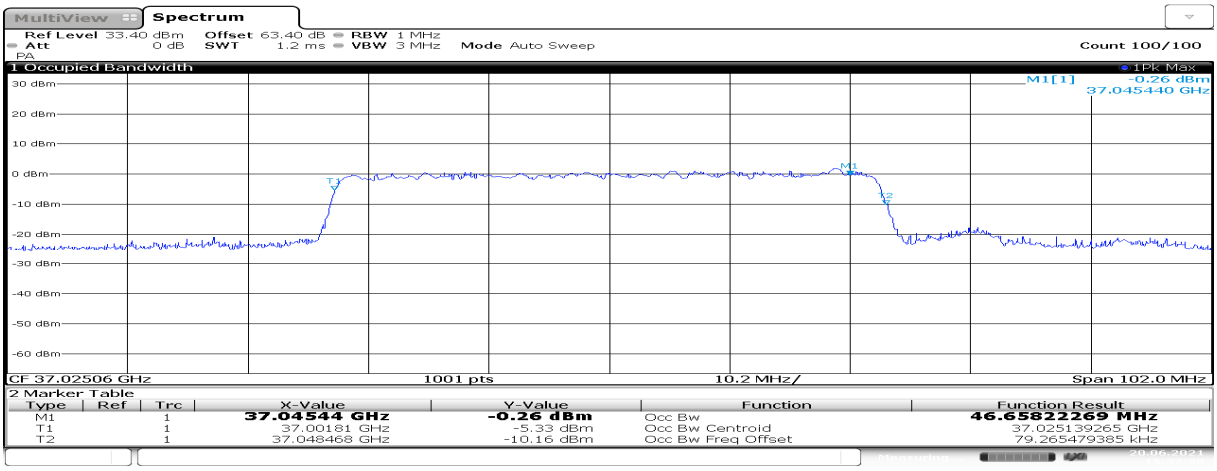
n260, Module1, SCS=120kHz, SISO Tx Chain 0

CP-OFDM

Bandwidth	Modulation	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	QPSK	37025.04	25	**46.66**
		38499.96	25	**46.34**
		39975	27	46.21
	16QAM	39975	27	46.12
	64QAM	39975	27	**46.37**
	16QAM	39975	27	46.12
	16QAM	39975	18	46.08
100MHz	QPSK	37050	25	**95.15**
		38499.96	25	**95.11**
		39949.92	27	**95.63**
		39949.92	18	95.04

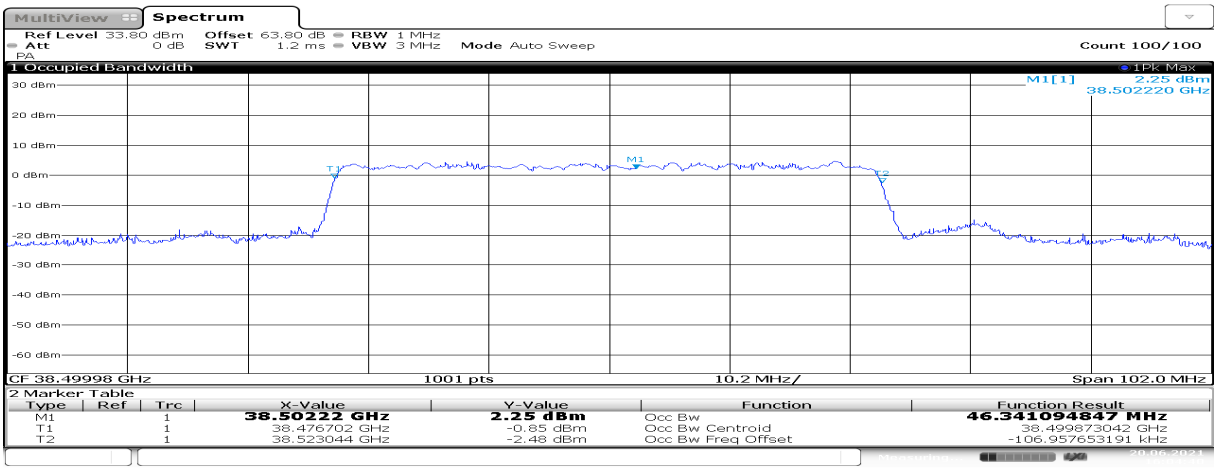
Note:The channel with the maximum power of QPSK was chose, and the 16QAM, 64QAM and the other Beam ID were measured on that channel. The maximum occupied bandwidth figures were showed in the following two pages.

n260, 50MHz Bandwidth, CP-OFDM, Low Channel 37025.04MHz, QPSK (99% BW)



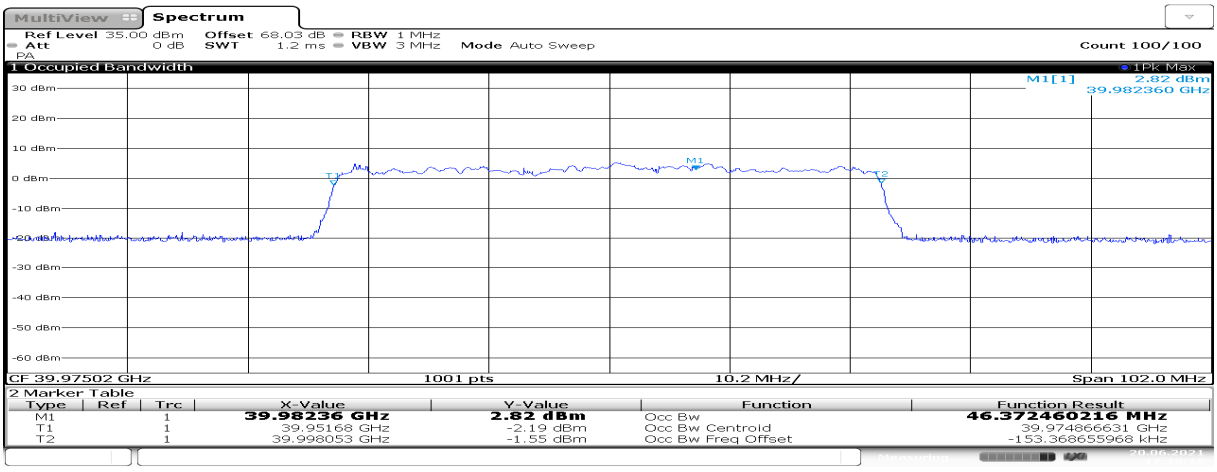
15:37:20 20.06.2021

n260, 50MHz Bandwidth, CP-OFDM, Middle Channel 38499.96MHz, QPSK (99% BW)



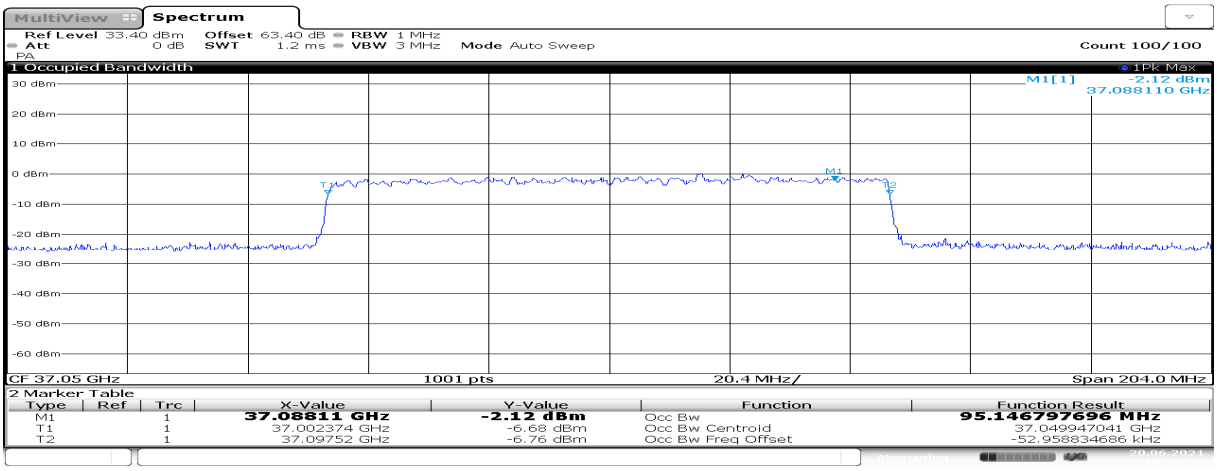
16:04:41 20.06.2021

n260, 50MHz Bandwidth,CP-OFDM,High Channel 39975MHz, 64QAM (99% BW)



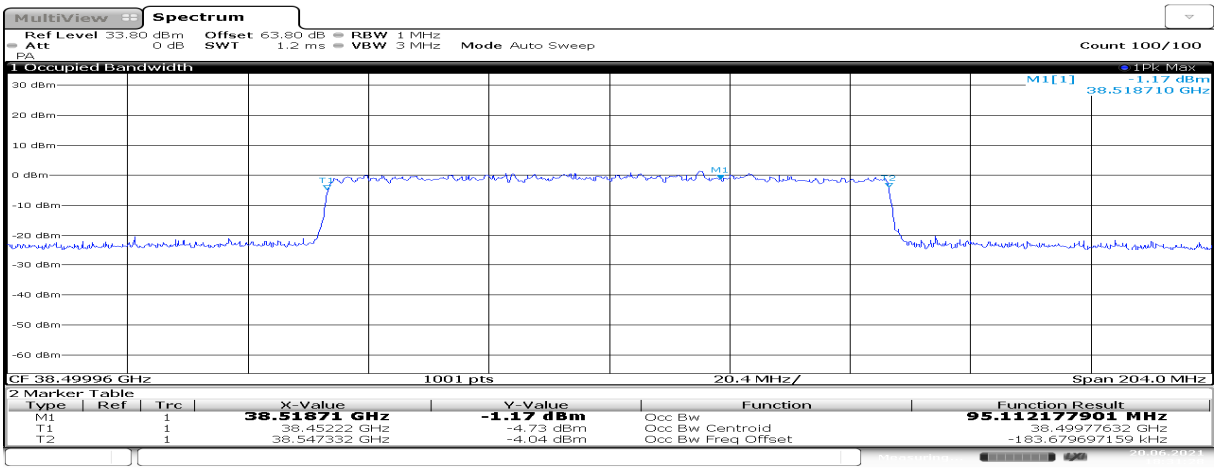
17:49:16 20.06.2021

n260, 100MHz Bandwidth,CP-OFDM, Low Channel 37050MHz, QPSK (99% BW)



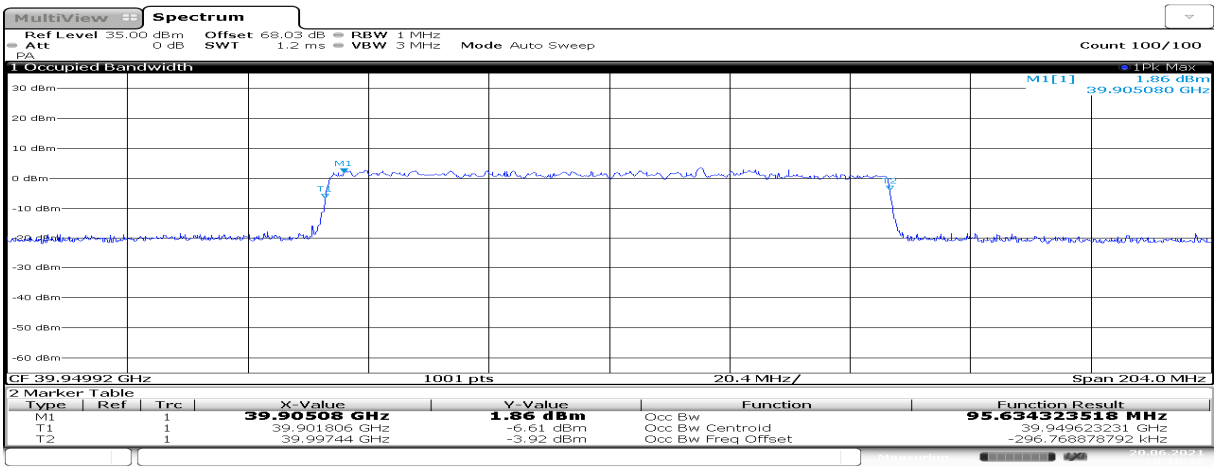
18:43:57 20.06.2021

n260, 100MHz Bandwidth, CP-OFDM, Middle Channel 38499.96MHz, QPSK (99% BW)



18:31:29 20.06.2021

n260, 100MHz Bandwidth, CP-OFDM, High Channel 39949.92MHz, QPSK (99% BW)



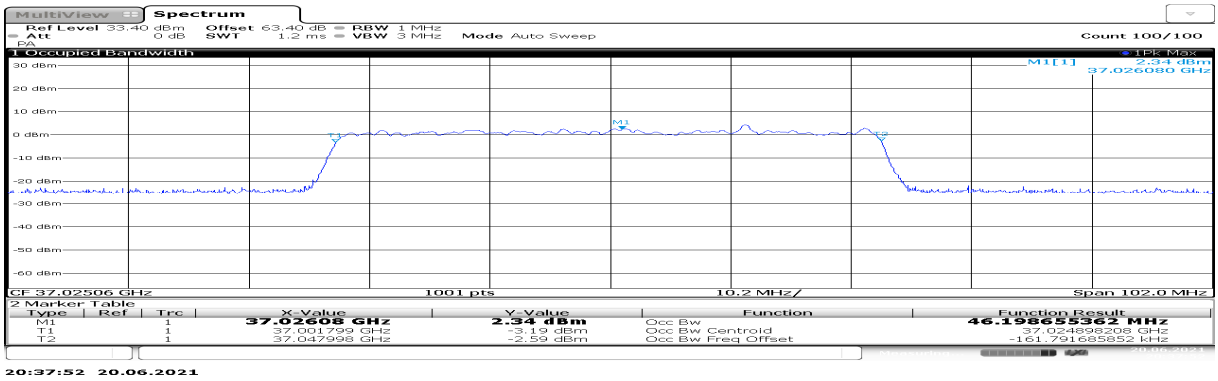
18:18:52 20.06.2021

n260, Module1, SCS=120kHz, SISO Tx Chain 0

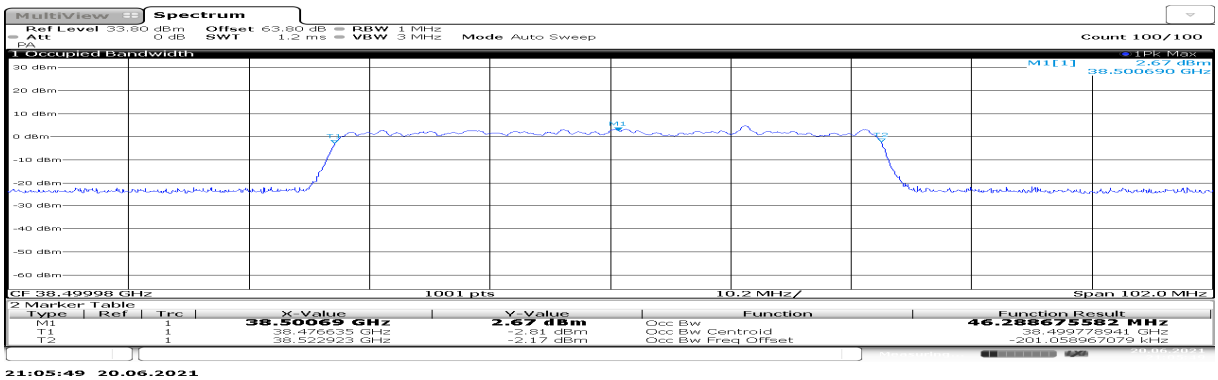
DFT

Bandwidth	Modulation	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	Pi/2 BPSK	37025.04	25	**46.20**
		38499.96	25	**46.29**
		39975	27	**46.26**
100MHz	Pi/2 BPSK	37050	25	**94.36**
		38499.96	25	**91.91**
		39949.92	27	**93.03**

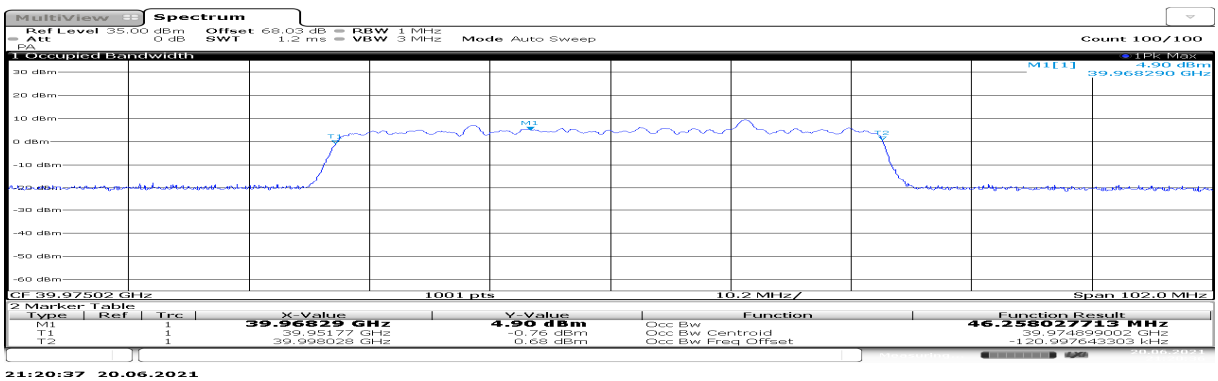
n260, 50MHz Bandwidth, DFT, Low Channel 37025.04MHz, Pi/2 BPSK (99% BW)



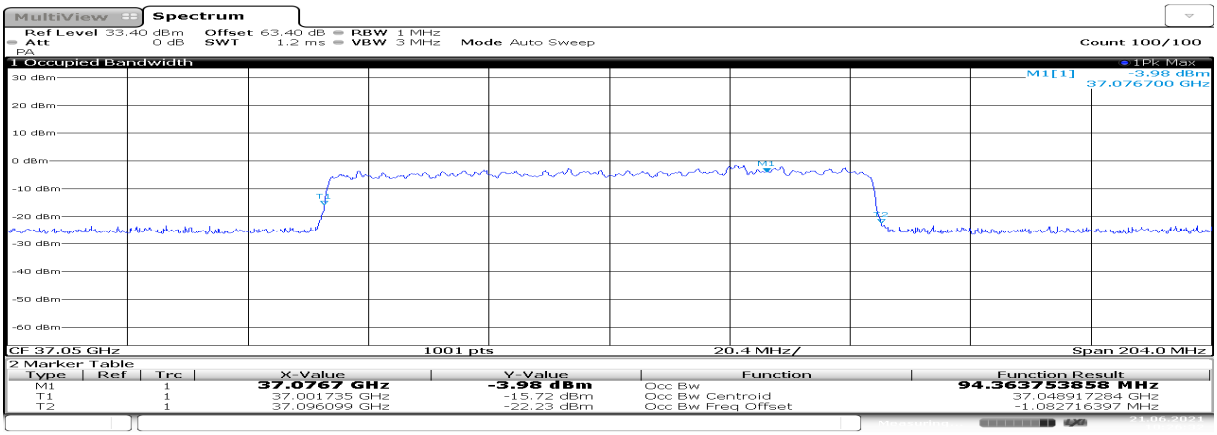
n260, 50MHz Bandwidth, DFT, Middle Channel 38499.96MHz, Pi/2 BPSK (99% BW)



n260, 50MHz Bandwidth, DFT, High Channel 39975MHz, Pi/2 BPSK (99% BW)

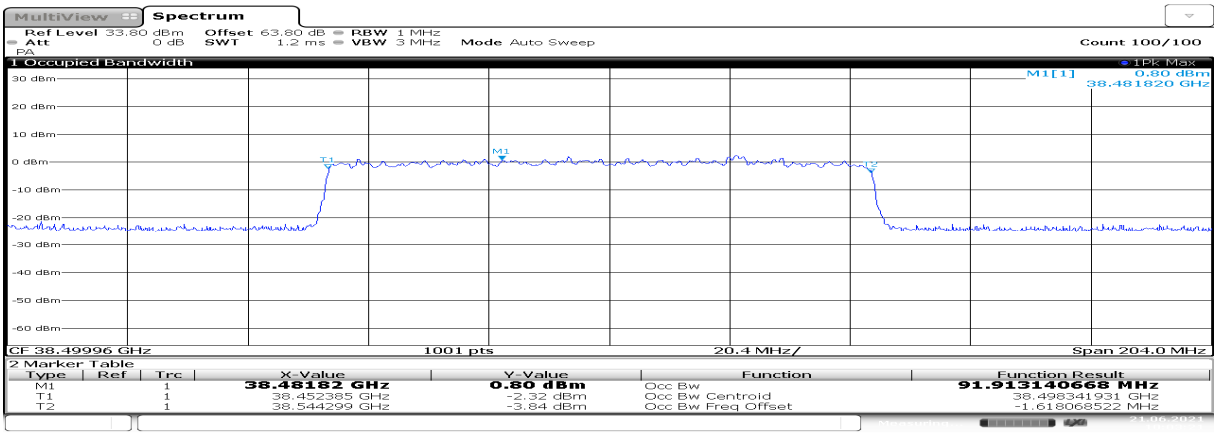


n260, 100MHz Bandwidth, DFT, Low Channel 37050MHz, Pi/2 BPSK (99% BW)



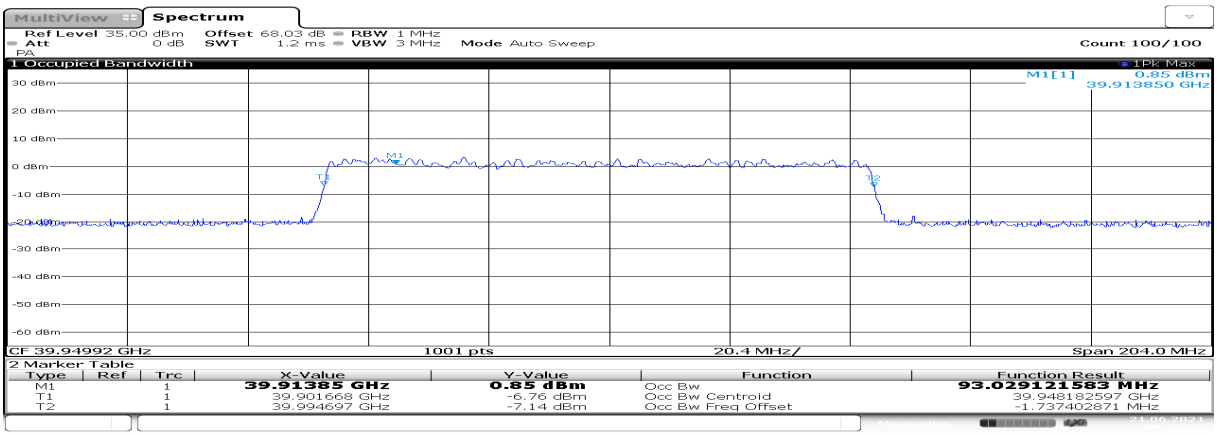
10:26:33 21.06.2021

n260, 100MHz Bandwidth, DFT, Middle Channel 38499.96MHz, Pi/2 BPSK (99% BW)



10:03:22 21.06.2021

n260, 100MHz Bandwidth, DFT, High Channel 39949.92MHz, Pi/2 BPSK (99% BW)



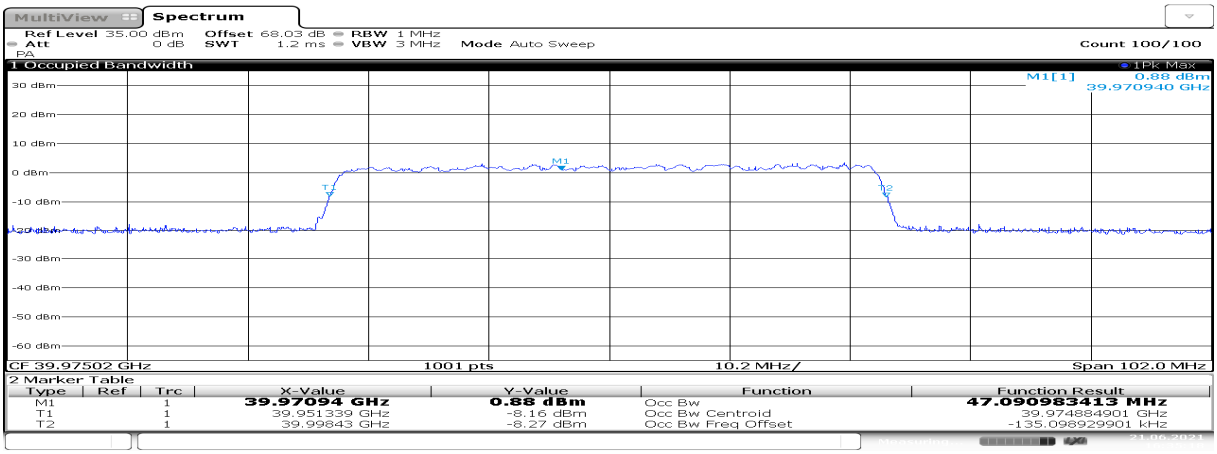
09:22:56 21.06.2021

n260, Module1, SCS=120kHz, SISO Tx Chain 1

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	CP	16QAM	100% RB	37025.04	146	46.27
50MHz	CP	16QAM	100% RB	38499.96	146	46.16
50MHz	CP	16QAM	100% RB	39975	155	**47.09**
100MHz	CP	QPSK	100% RB	37050	146	95.17
100MHz	CP	QPSK	100% RB	38499.96	146	94.83
100MHz	CP	QPSK	100% RB	39949.92	155	**95.46**

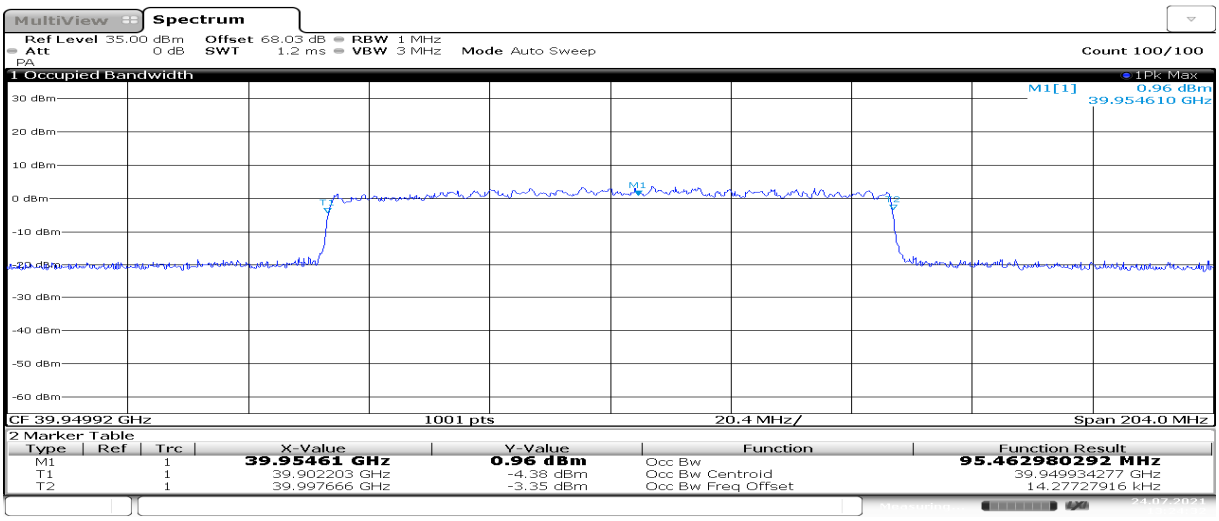
Note: According to the results of Chain 0, the set of OFDM, modulation and RB size with higher power was measured on low, middle and high channel. The maxium occupied bandwidth figure was showed in the following.

n260, 50MHz Bandwidth, CP, 39975MHz, 16QAM (99% BW)



16:35:18 21.06.2021

n260, 100MHz Bandwidth, CP, 39949.92MHz, QPSK (99% BW)

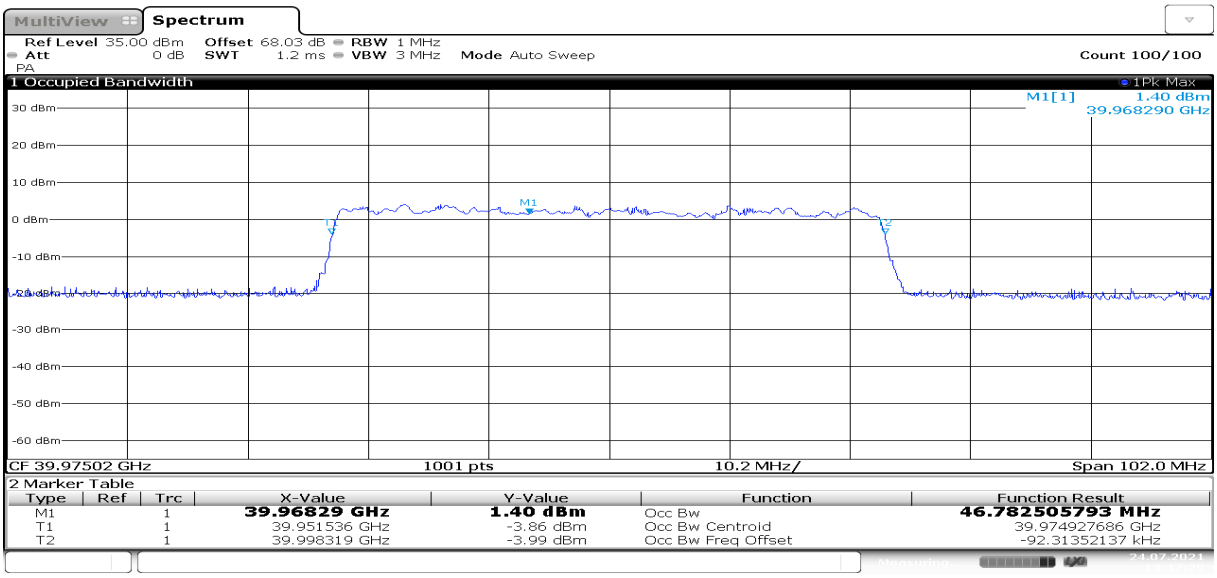


13:24:33 24.07.2021

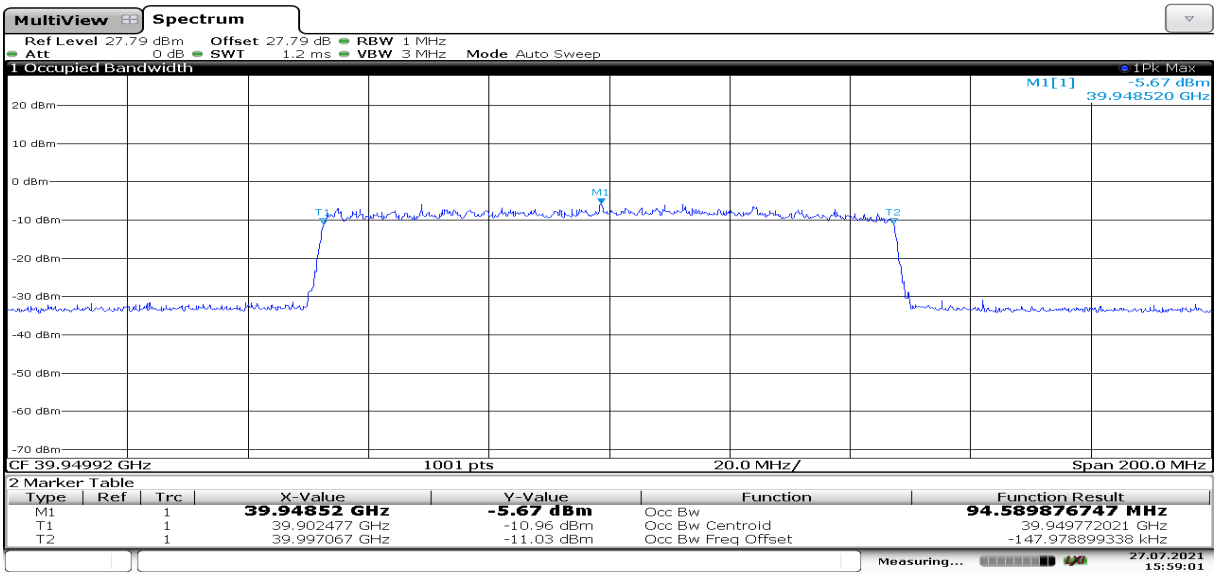
n260, Module1, SCS=120kHz, MIMO Tx Chain 0 Beam ID 27 + Tx Chain 1 Beam ID 155

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Occupied Bandwidth (99%) (MHz)
50MHz	CP	16QAM	100% RB	39975	46.78
100MHz	CP	QPSK	100% RB	39949.92	94.59

Note: According to the resules of Chain 0 and Chain 1, the set of OFDM, modulation, RB size and channel with higher power at the specified bandwidth was measured and the figure was showed in the following:



14:47:30 24.07.2021



15:59:01 27.07.2021

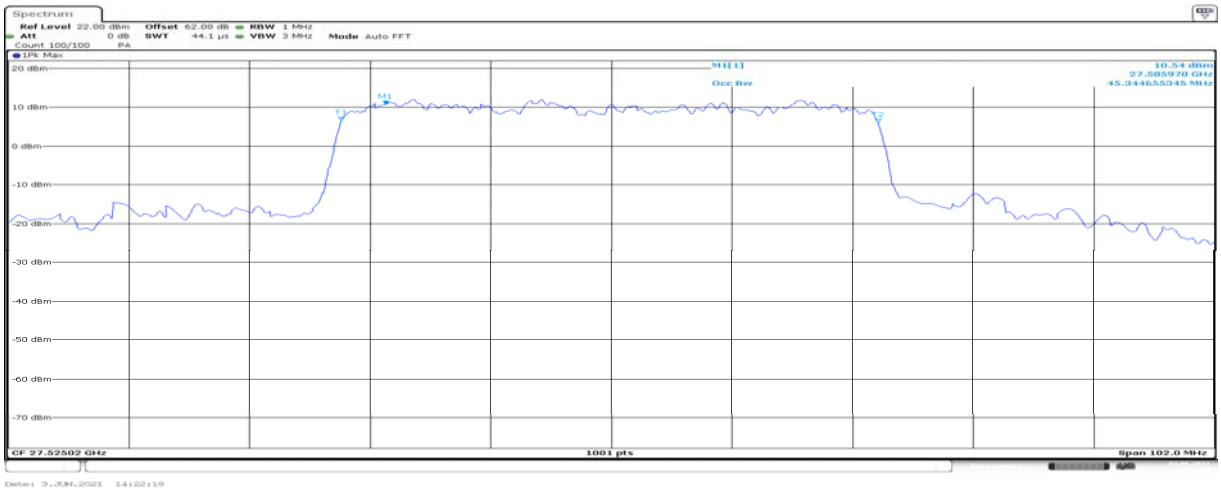
n261, Module0, SCS=120kHz, SISO Tx Chain 0

CP-OFDM

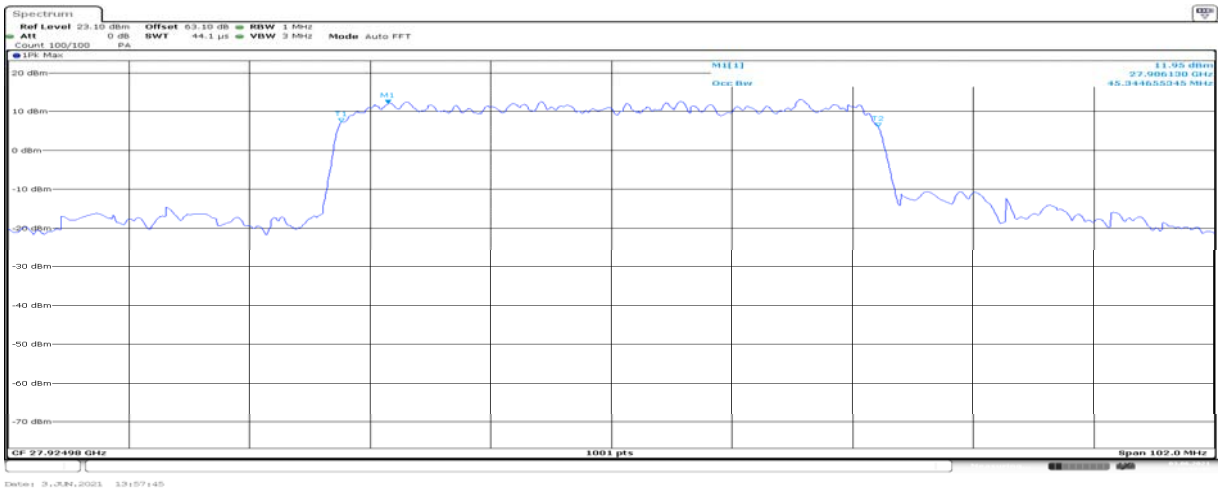
Bandwidth	Modulation	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	64QAM	27525	20	**45.34**
		27924.96	20	**45.34**
		28324.92	20	45.65
	16QAM	28324.92	20	46.04
	64QAM	28324.92	29	**46.06**
100MHz	64QAM	27550.08	18	**94.53**
		27550.08	20	93.33
		27924.96	20	93.33
		28299.96	20	**93.34**
	16QAM	27924.96	20	94.29
	QPSK	27924.96	20	**94.60**
	16QAM	27924.96	28	94.32

Note:The channel with the maximum power of 64QAM was chose, and the 16QAM, QPSK and the other Beam ID were measured on that channel. The maximum occupied bandwidth figures were showed in the following two pages.

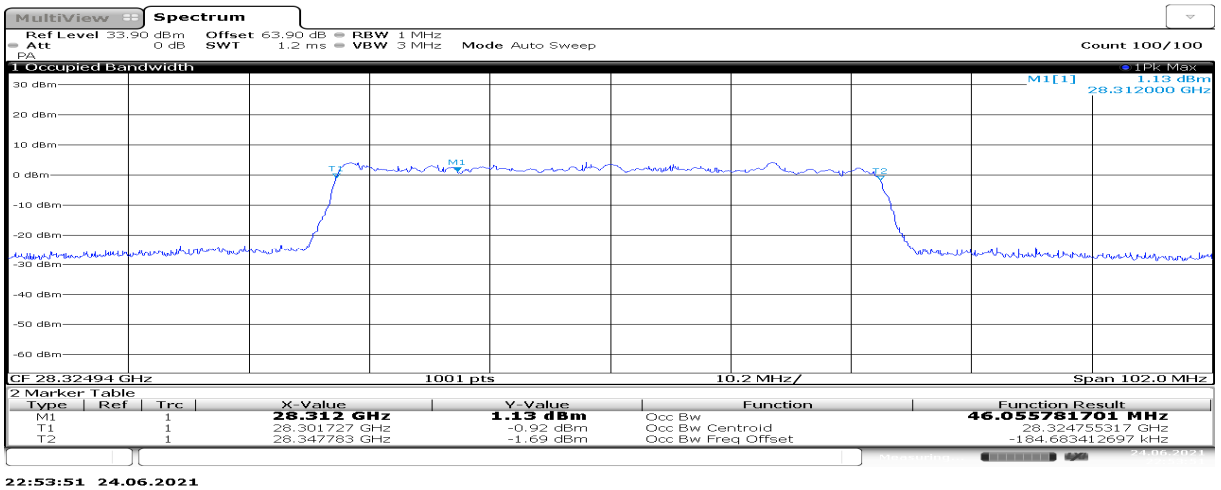
n261, 50MHz Bandwidth, CP-OFDM, 27525MHz, 64QAM (99% BW)



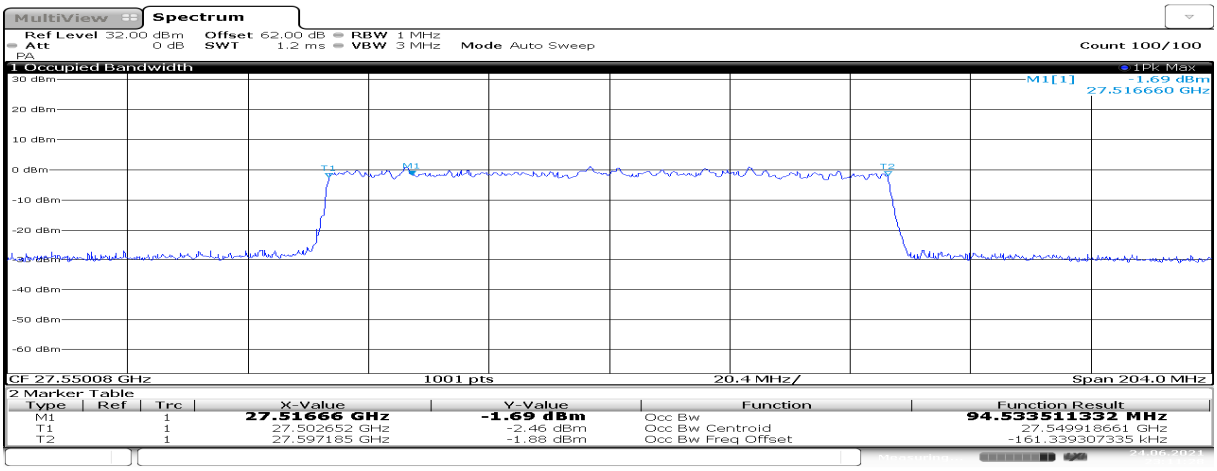
n261, 50MHz Bandwidth, CP-OFDM, 27924.96MHz, 64QAM (99% BW)



n261, 50MHz Bandwidth,CP-OFDM,28324.92MHz, 64QAM (99% BW)

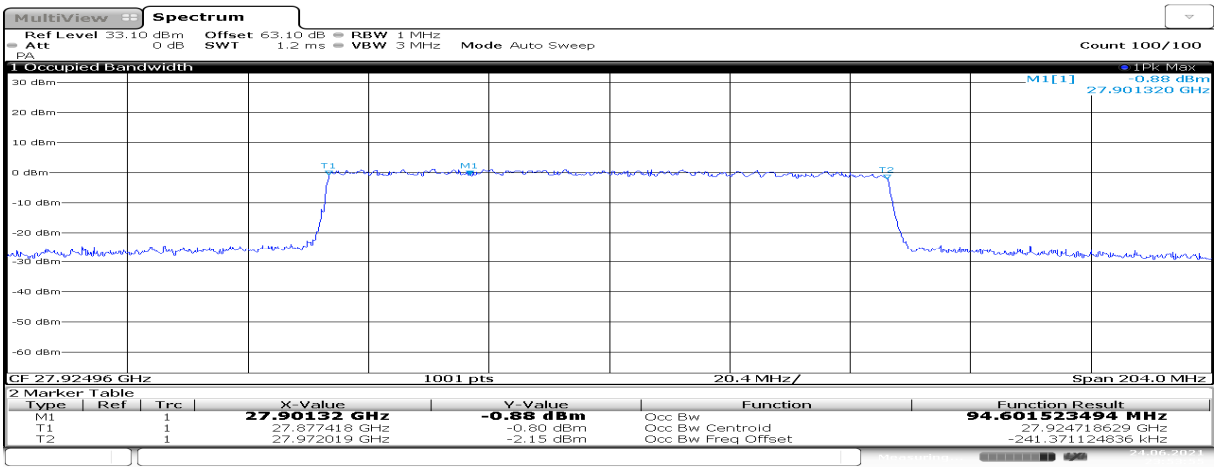


n261, 100MHz Bandwidth,CP-OFDM, 27550.08MHz, 64QAM (99% BW)



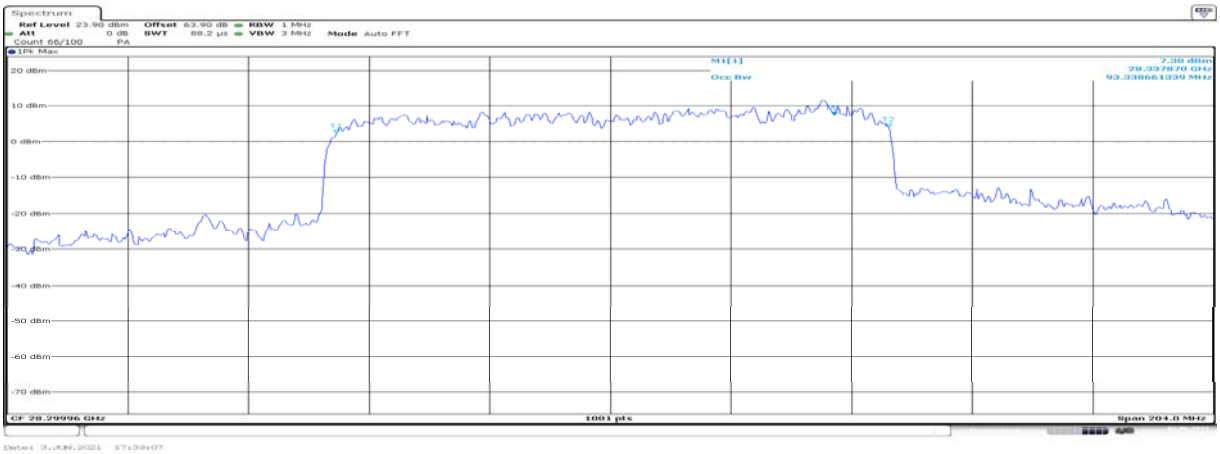
23:11:29 24.06.2021

n261, 100MHz Bandwidth, CP-OFDM, 27924.96MHz, QPSK (99% BW)



23:53:56 24.06.2021

n261, 100MHz Bandwidth, CP-OFDM, 28299.96MHz, 64QAM (99% BW)



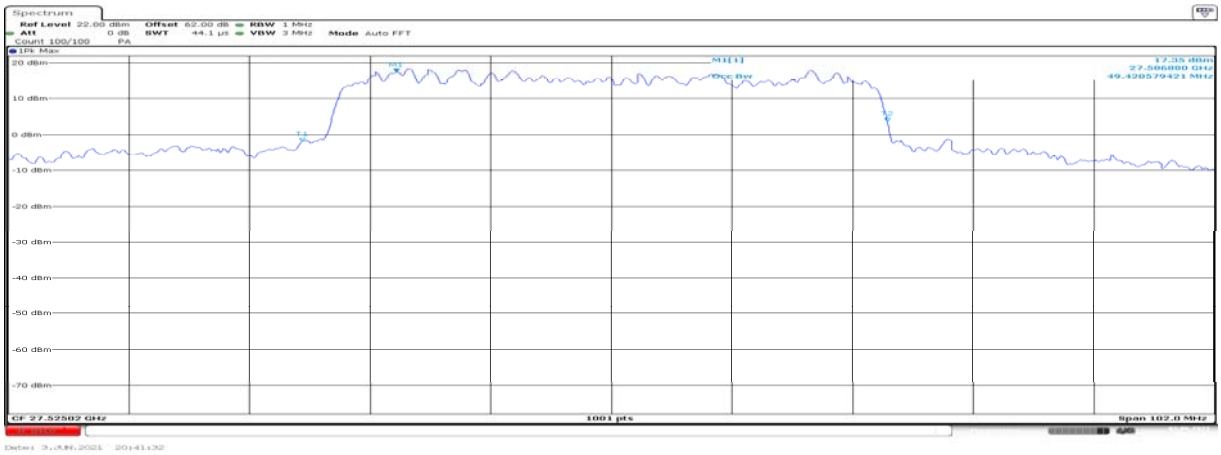
n261, Module0, SCS=120kHz, SISO Tx Chain 0

DFT

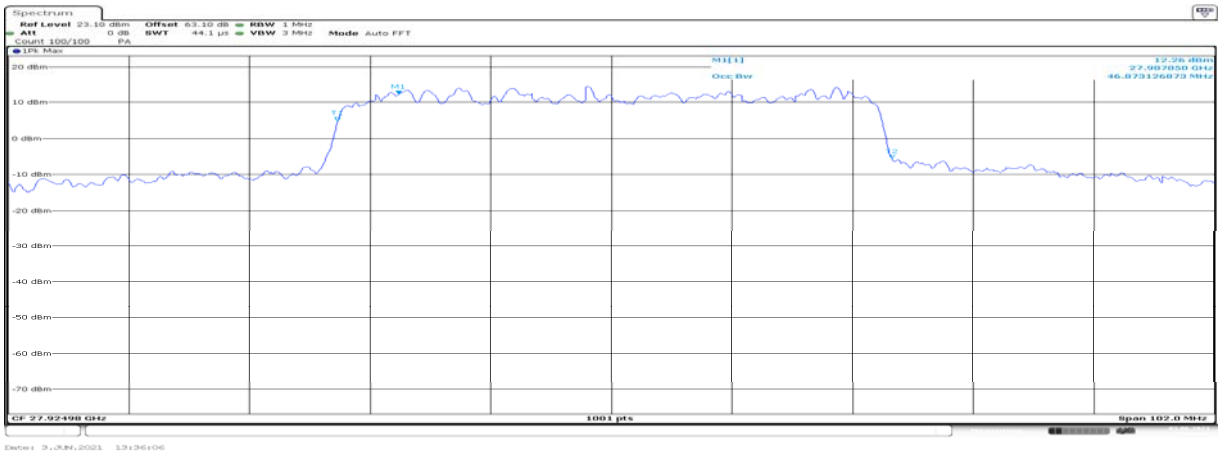
Bandwidth	Modulation	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	64QAM	27525	20	**49.42**
		27924.96	20	**46.87**
		28324.92	20	45.88
	QPSK	28324.92	20	**46.15**
	16QAM	28324.92	20	45.99
	Pi/2 BPSK	28324.92	20	45.98
	64QAM	28324.92	28	45.89
100MHz	64QAM	27550.08	18	91.20
		27550.08	20	**98.23**
		27924.96	20	**93.54**
		28299.96	20	**90.65**
	QPSK	27924.96	20	91.78
	16QAM	27924.96	20	91.54
	Pi/2 BPSK	27924.96	20	91.22
	64QAM	27924.96	28	91.33

Note:The channel with the maximum power of 64QAM was chose, and the QPSK, 16QAM, Pi/2 BPSK and the other Beam ID were measured on that channel. The maximum occupied bandwidth figures were showed in the following two pages.

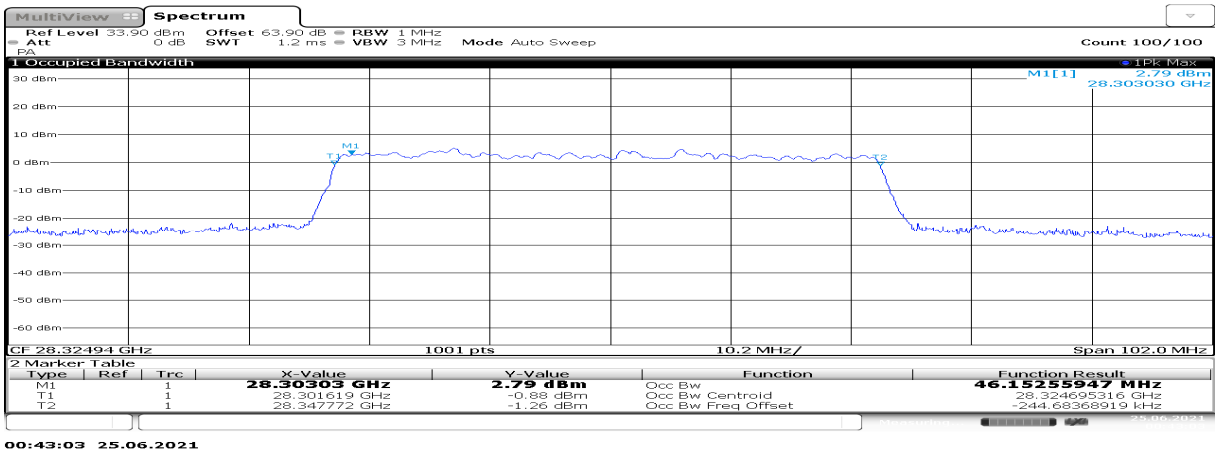
n261, 50MHz Bandwidth, DFT, 27525MHz, 64QAM (99% BW)



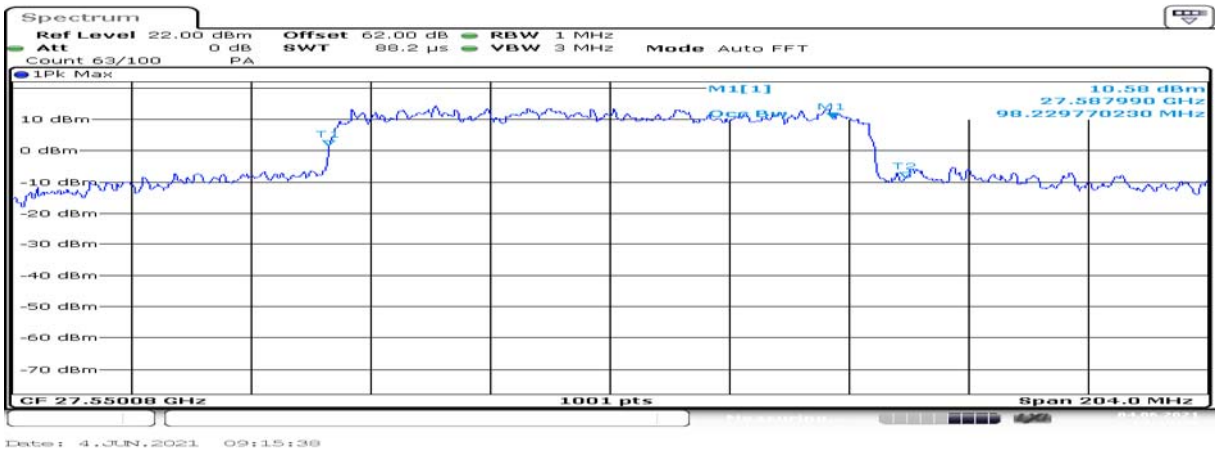
n261, 50MHz Bandwidth, DFT, 27924.96MHz, 64QAM (99% BW)



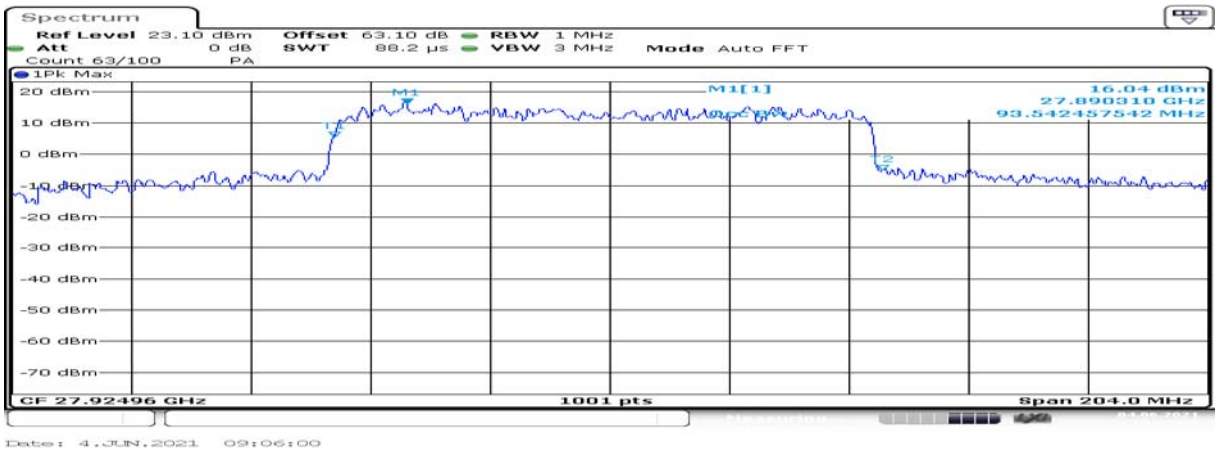
n261, 50MHz Bandwidth,DFT, 28324.92MHz, QPSK (99% BW)



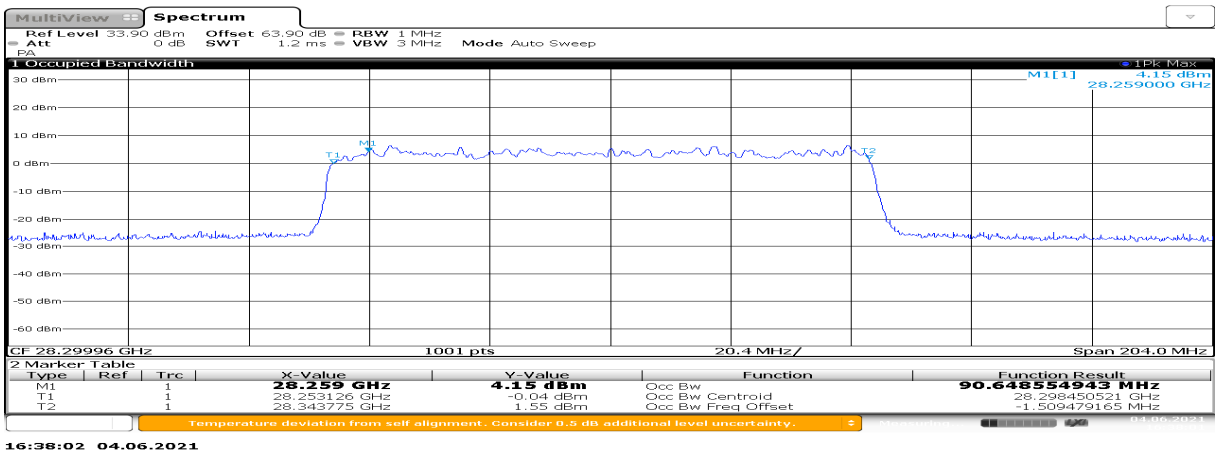
n261, 100MHz Bandwidth, DFT, 27550.08MHz, 64QAM (99% BW)



n261, 100MHz Bandwidth, DFT, 27924.96MHz, 64QAM (99% BW)



n261, 100MHz Bandwidth, DFT, 28299.96MHz, 64QAM (99% BW)

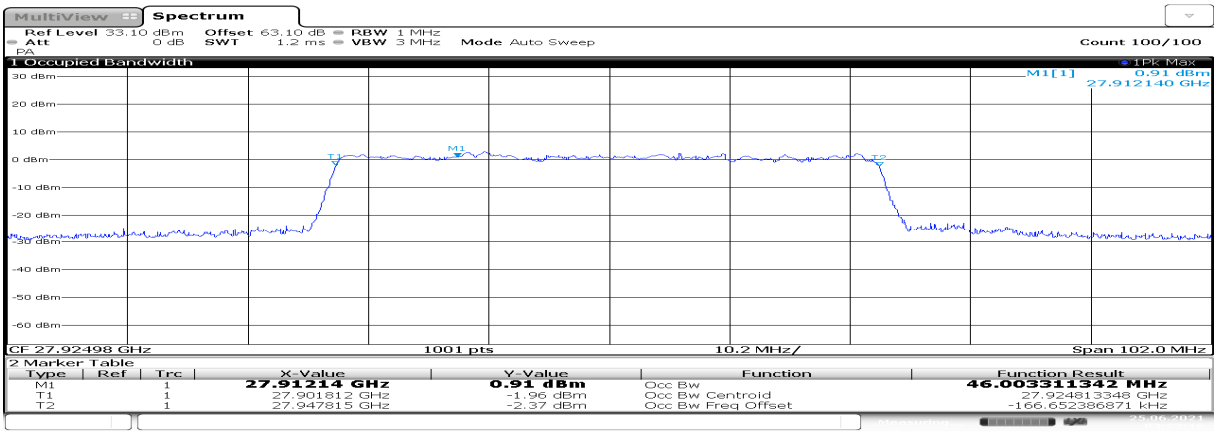


n261, Module0, SCS=120kHz, SISO Tx Chain 1

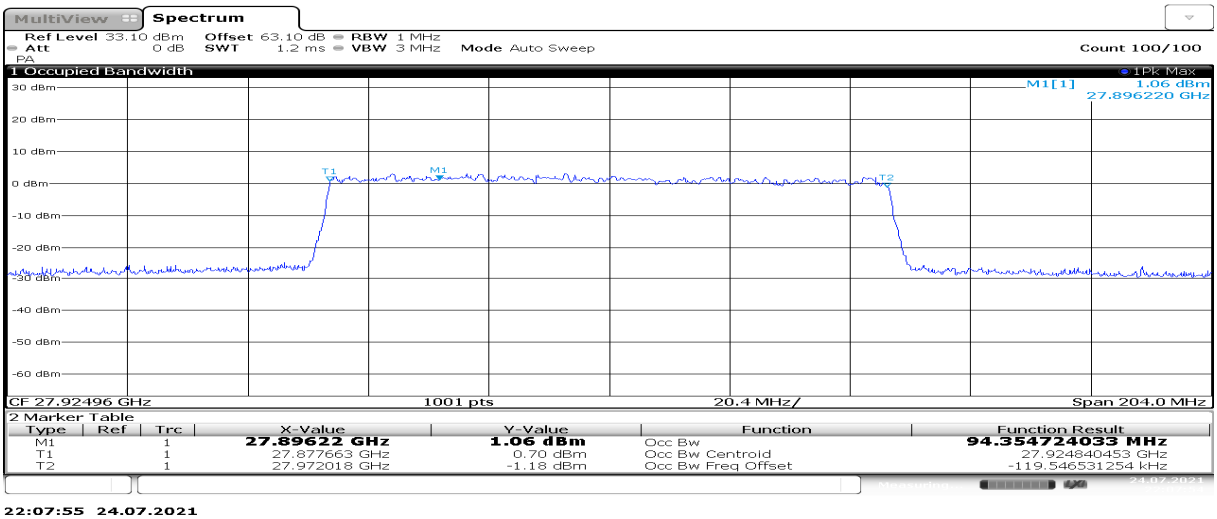
Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	CP	64QAM	100% RB	27525	148	45.94
50MHz	CP	64QAM	100% RB	27924.96	148	**46.00**
50MHz	CP	64QAM	100% RB	28324.92	148	45.60
50MHz	CP	64QAM	100% RB	28324.92	157	45.98
100MHz	DFT	64QAM	100% RB	27550.08	148	91.30
100MHz	DFT	16QAM	100% RB	27924.96	148	**94.35**
100MHz	DFT	64QAM	100% RB	27924.96	148	91.26
100MHz	DFT	64QAM	100% RB	27924.96	157	91.34
100MHz	DFT	64QAM	100% RB	28299.96	148	91.29

Note: the set of OFDM, modulation and RB size with higher power was measured on low, middle and high channel of 50MHz and 100MHz bandwidth. The maxium occupied bandwidth of 50MHz and 100MHz bandwidth figures were showed in the following.

n261, 50MHz Bandwidth, CP, 27924.96MHz, 64QAM (99% BW)



n261, 100MHz Bandwidth, DFT, 27924.96MHz, 16QAM (99% BW)

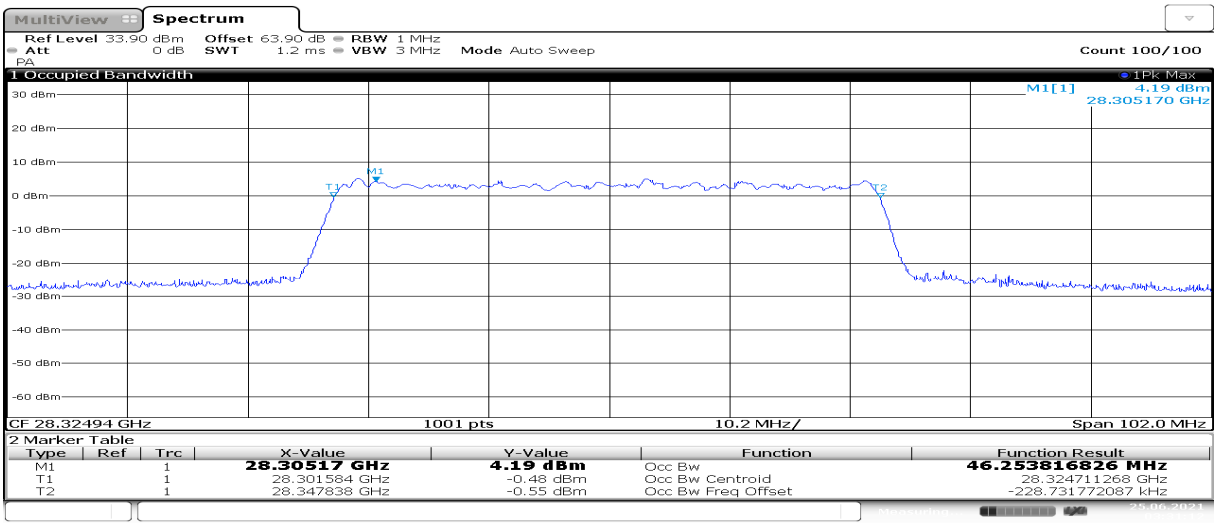


n261, Module0, SCS=120kHz, MIMO Tx Chain 0 + Tx Chain 1

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID Chain0+Chain1	Occupied Bandwidth (99%) (MHz)
50MHz	CP	64QAM	100% RB	28324.92	20+148	46.10
50MHz	CP	64QAM	100% RB	28324.92	29+157	**46.25**
100MHz	CP	16QAM	100% RB	27924.96	20+148	**99.88**

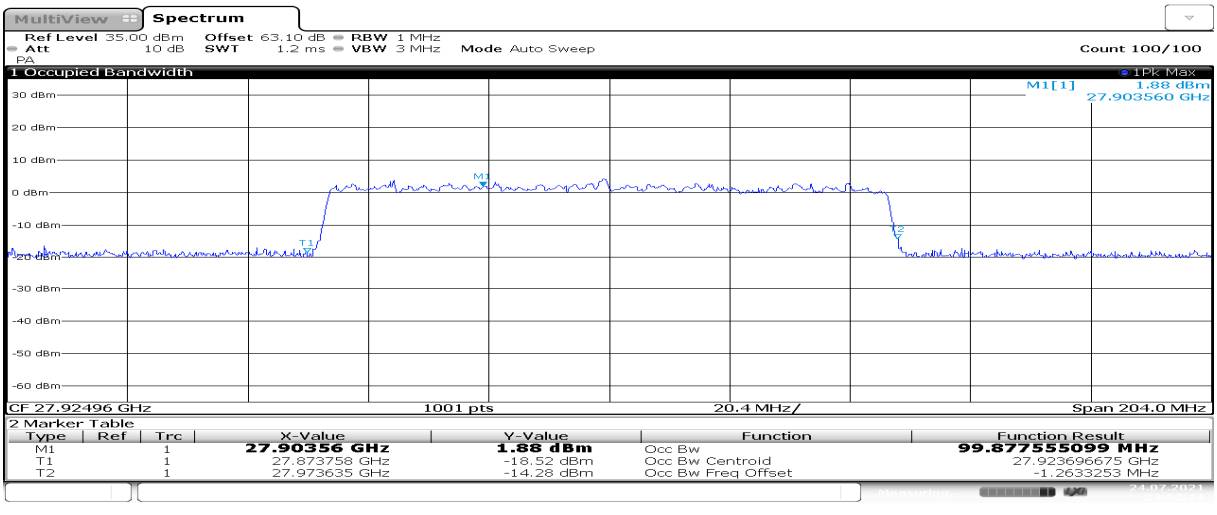
Note: the set of OFDM, modulation, RB size and channel with higher power at the specified bandwidth was measured and the figure was showed in the following:

n261, 50MHz Bandwidth, CP, 27924.96MHz, 64QAM (99% BW)



03:31:13 25.06.2021

n261, 100MHz Bandwidth, CP, 27924.96MHz, 16QAM (99% BW)



23:02:15 24.07.2021

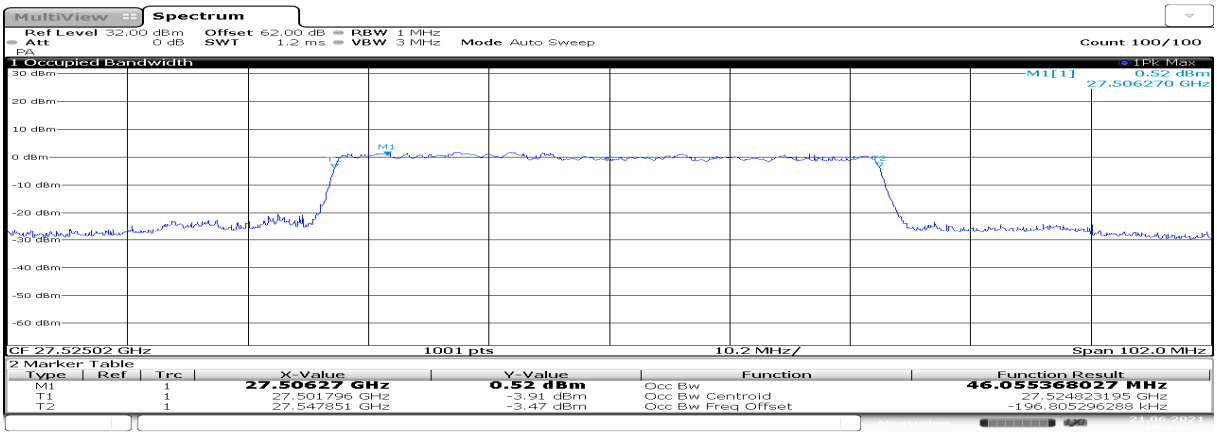
n261, Module1, SCS=120kHz, SISO Tx Chain 0

CP-OFDM

Bandwidth	Modulation	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	QPSK	27525	15	**46.06**
		27924.96	15	**46.18**
		28324.92	15	**46.44**
	16QAM	28324.92	15	46.08
	64QAM	28324.92	15	46.03
	QPSK	28324.92	25	46.36
100MHz	QPSK	27550.08	15	**94.65**
		27924.96	15	**94.69**
		28299.96	15	94.57
	16QAM	28299.96	15	94.30
	64QAM	28299.96	15	**94.75**
	16QAM	28299.96	25	94.41

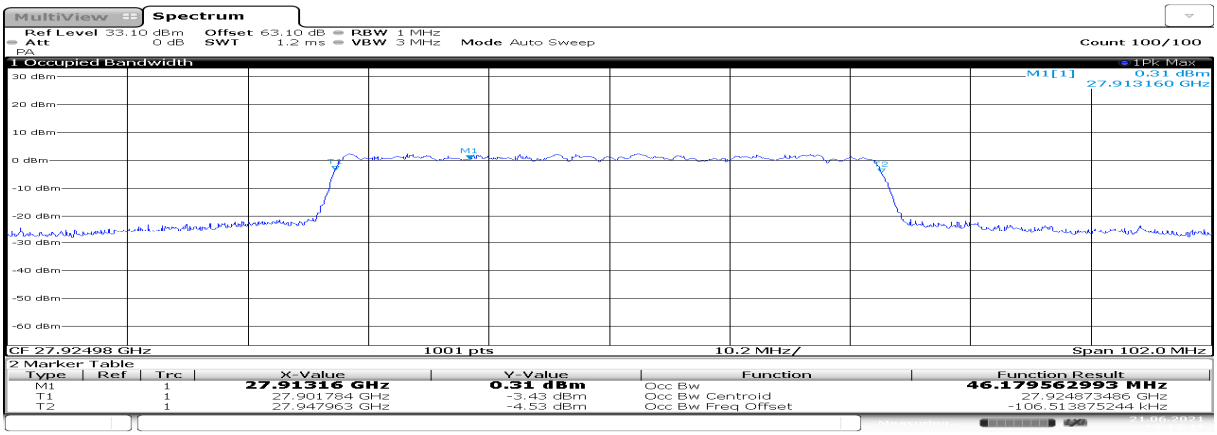
Note:The channel with the maximum power of QPSK was chose, and the 16QAM, 64QAM and the other Beam ID were measured on that channel. The maximum occupied bandwidth figures were showed in the following two pages.

n261, 50MHz Bandwidth, CP-OFDM, 27525MHz, QPSK (99% BW)



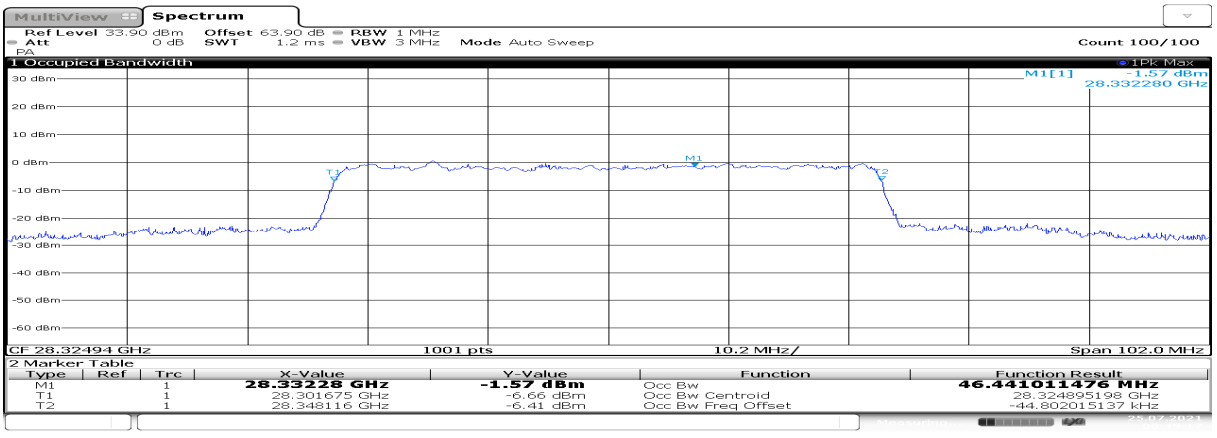
19:15:23 21.06.2021

n261, 50MHz Bandwidth, CP-OFDM, 27924.96MHz, QPSK (99% BW)



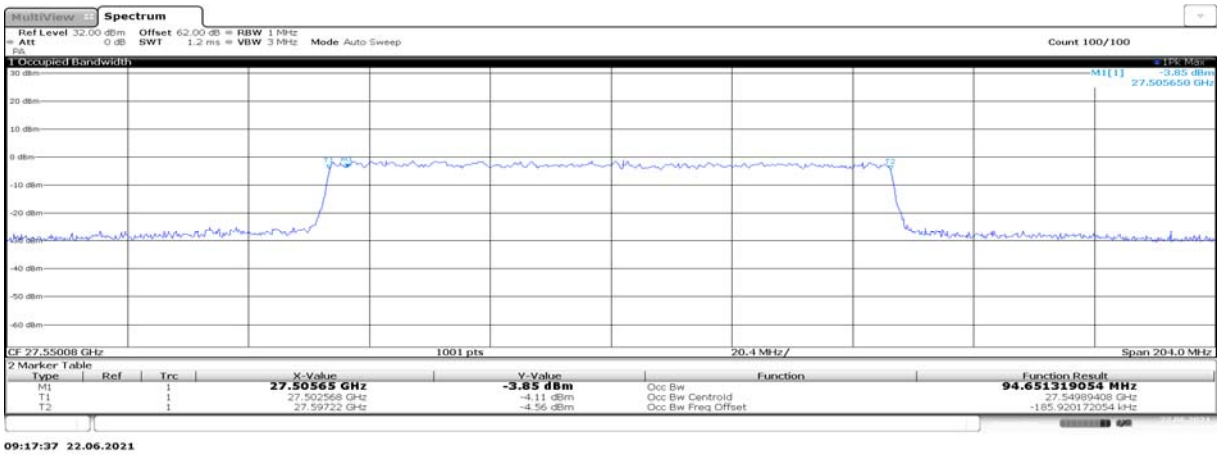
19:43:41 21.06.2021

n261, 50MHz Bandwidth,CP-OFDM, 28324.92MHz, QPSK (99% BW)



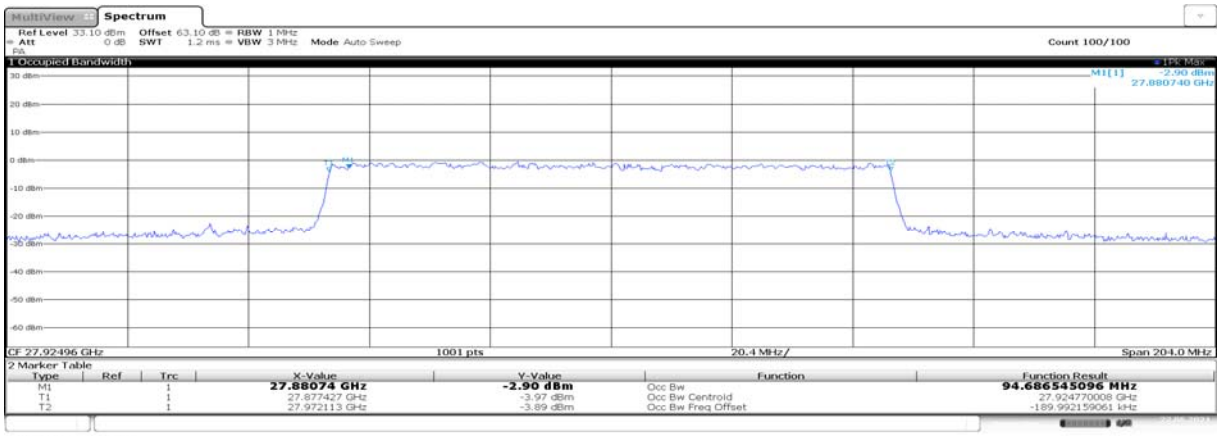
00:49:17 25.07.2021

n261, 100MHz Bandwidth,CP-OFDM, 27550.08MHz, QPSK (99% BW)



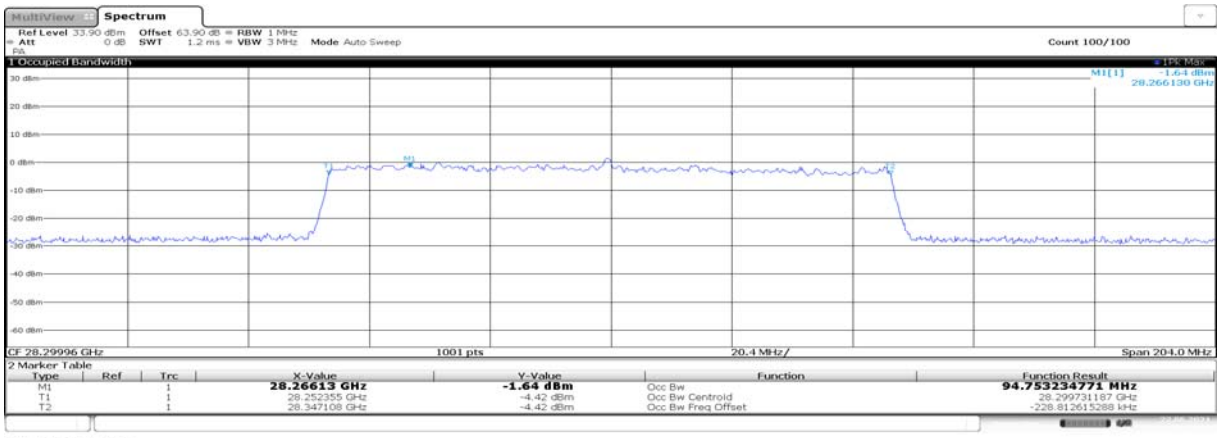
09:17:37 22.06.2021

n261, 100MHz Bandwidth, CP-OFDM, 27924.96MHz, QPSK (99% BW)



09:27:50 22.06.2021

n261, 100MHz Bandwidth, CP-OFDM, 28299.96MHz, 64QAM (99% BW)



10:12:56 22.06.2021

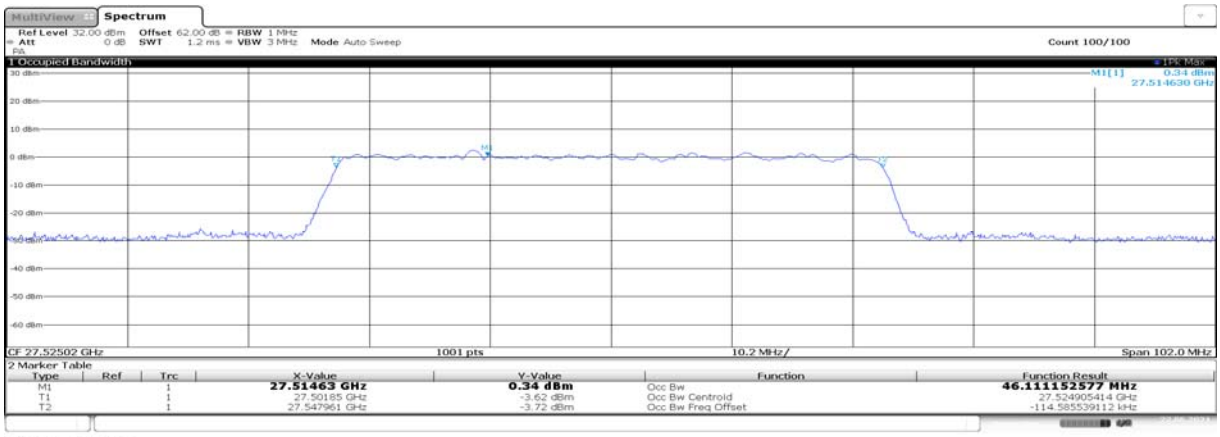
n261, Module1, SCS=120kHz, SISO Tx Chain 0

DFT

Bandwidth	Modulation	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	Pi/2 BPSK	27525	15	**46.11**
		27924.96	15	**46.19**
		28324.92	15	**46.22**
	QPSK	28324.92	15	45.98
	16QAM	28324.92	15	45.88
	64QAM	28324.92	15	45.80
	Pi/2 BPSK	28324.92	25	46.15
100MHz	Pi/2 BPSK	27550.08	15	**91.43**
		27924.96	15	91.38
		28299.96	15	**91.86**
	QPSK	27924.96	15	91.72
	16QAM	27924.96	15	91.91
	64QAM	27924.96	15	91.60
	16QAM	27924.96	25	**92.01**

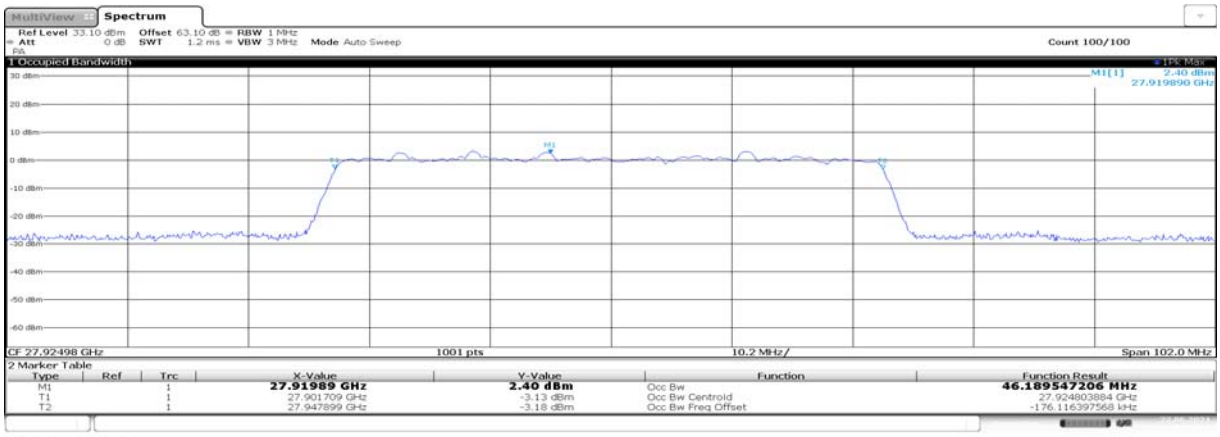
Note:The channel with the maximum power of Pi/2 BPSK was chose, and the QPSK,16QAM, 64QAM and the other Beam ID were measured on that channel. The maximum occupied bandwidth figures were showed in the following two pages.

n261, 50MHz Bandwidth, DFT, 27525.08MHz, Pi/2 BPSK (99% BW)



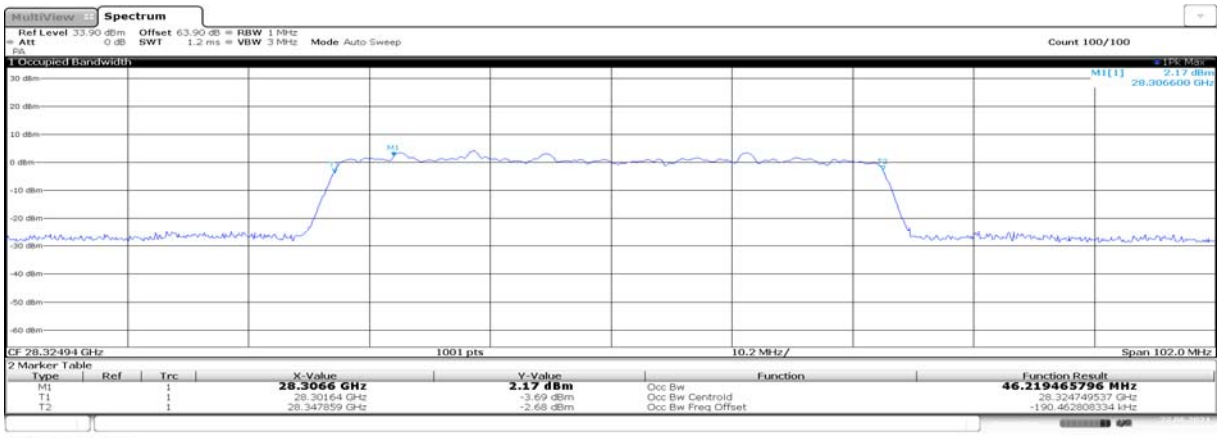
10:34:37 22.06.2021

n261, 50MHz Bandwidth, DFT, 27924.96MHz, Pi/2 BPSK (99% BW)



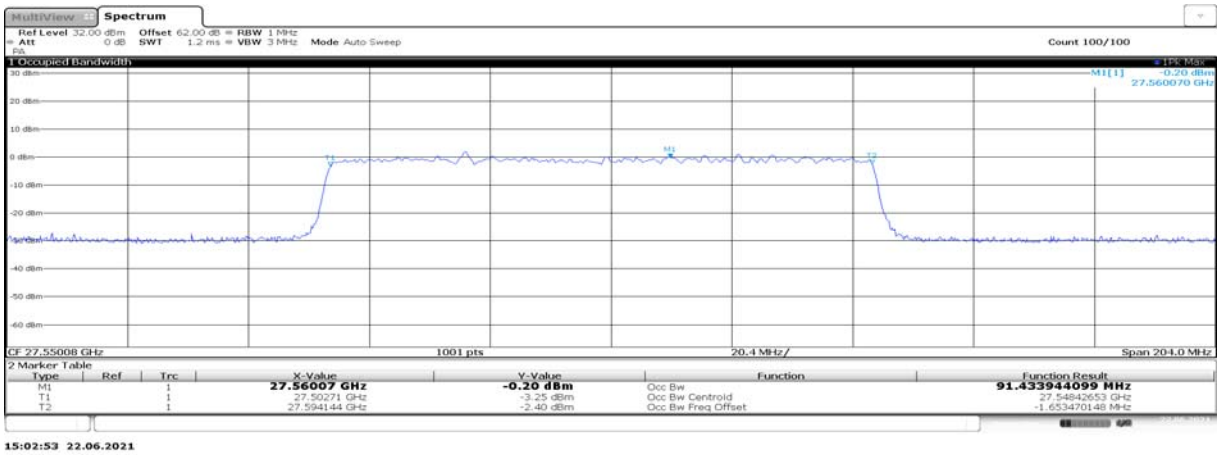
10:54:17 22.06.2021

n261, 50MHz Bandwidth, DFT, 28324.92MHz, Pi/2 BPSK (99% BW)



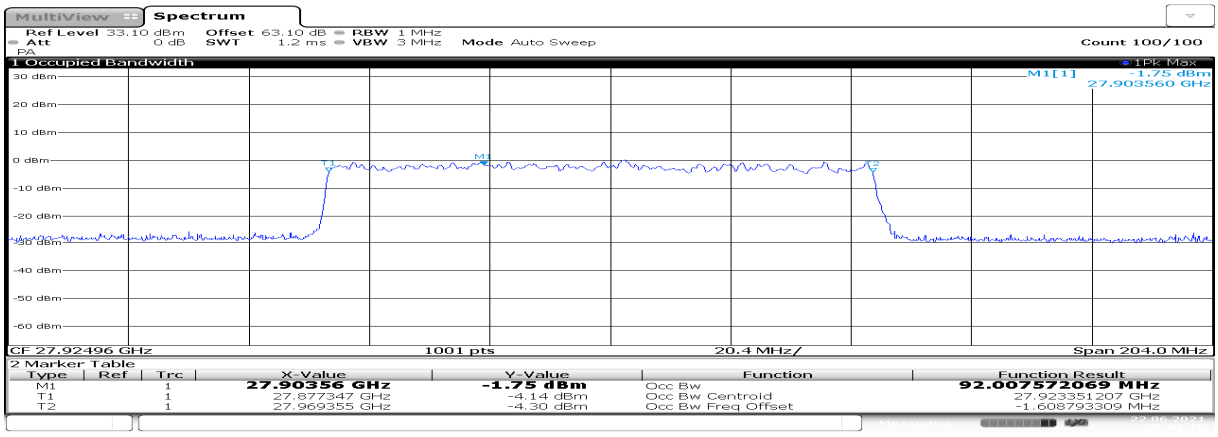
11:04:26 22.06.2021

n261, 100MHz Bandwidth, DFT, 27550.08MHz, Pi/2 BPSK (99% BW)



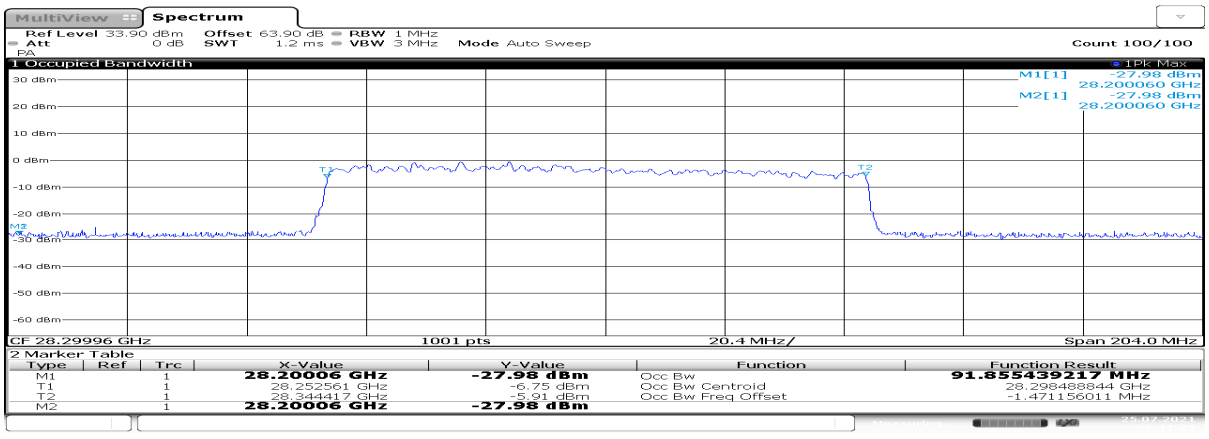
15:02:53 22.06.2021

n261, 100MHz Bandwidth, DFT, 27924.96MHz, 16QAM (99% BW)



16:01:20 22.06.2021

n261, 100MHz Bandwidth, DFT, 28299.96MHz, Pi/2 BPSK (99% BW)



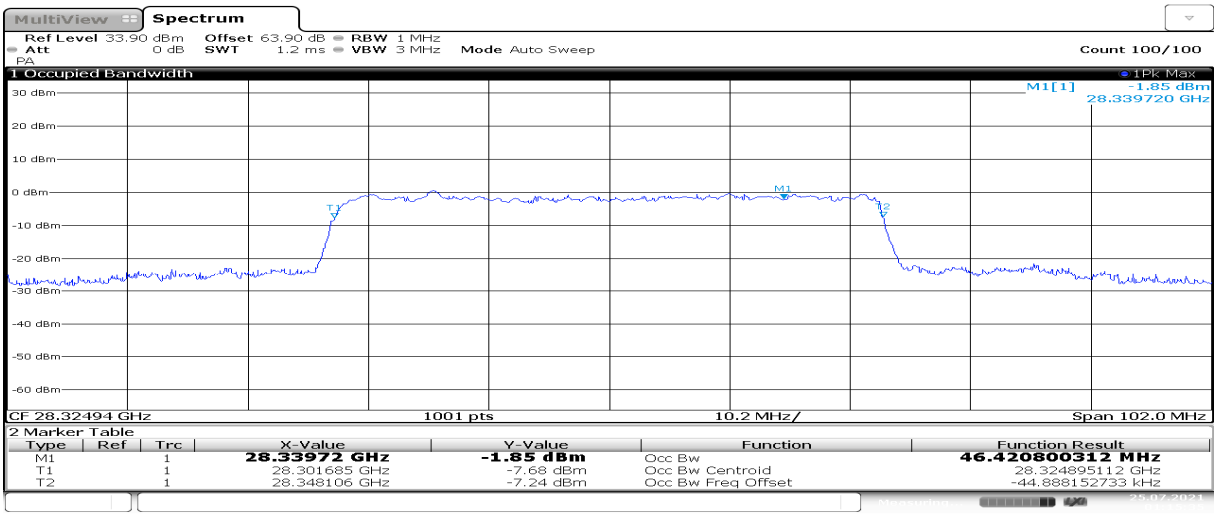
01:41:22 25.07.2021

n261, Module1, SCS=120kHz, SISO Tx Chain 1

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Occupied Bandwidth (99%) (MHz)
50MHz	CP	QPSK	100% RB	27525	153	46.11
50MHz	CP	QPSK	100% RB	27924.96	153	46.11
50MHz	CP	QPSK	100% RB	28324.92	153	**46.42**
100MHz	DFT	Pi/2 BPSK	100% RB	27550.08	153	91.85
100MHz	DFT	Pi/2 BPSK	100% RB	27924.96	153	91.77
100MHz	DFT	Pi/2 BPSK	100% RB	28299.96	153	**91.93**

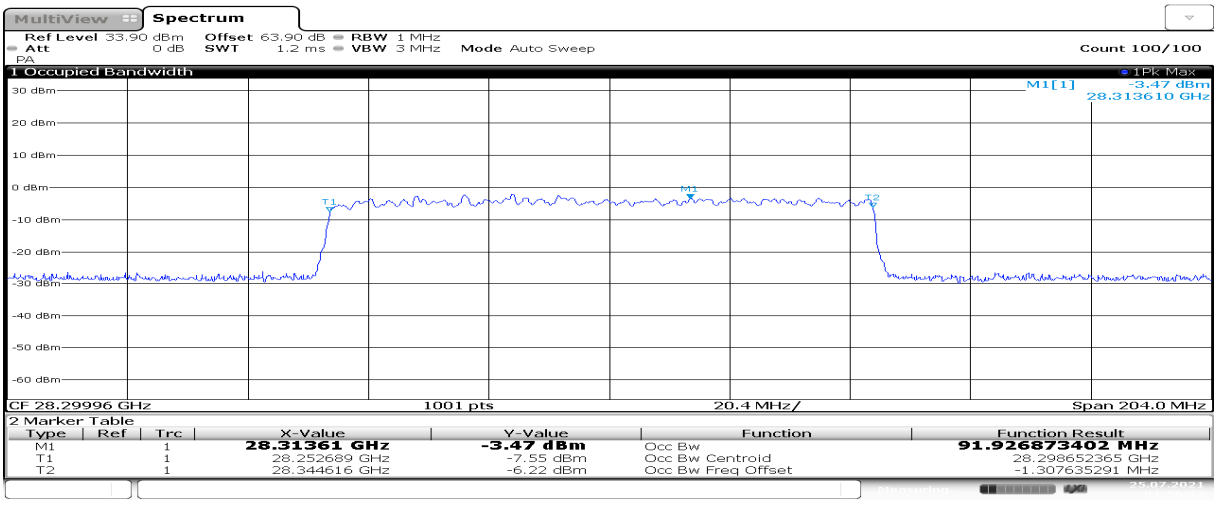
Note: the set of OFDM, modulation and RB size with higher power was measured on low, middle and high channel. The maxium occupied bandwidth figure was showed in the following.

n261, 50MHz Bandwidth, CP, 28324.92MHz, QPSK (99% BW)



01:15:35 25.07.2021

n261, 100MHz Bandwidth, DFT, 28299.96MHz, Pi/2 BPSK (99% BW)



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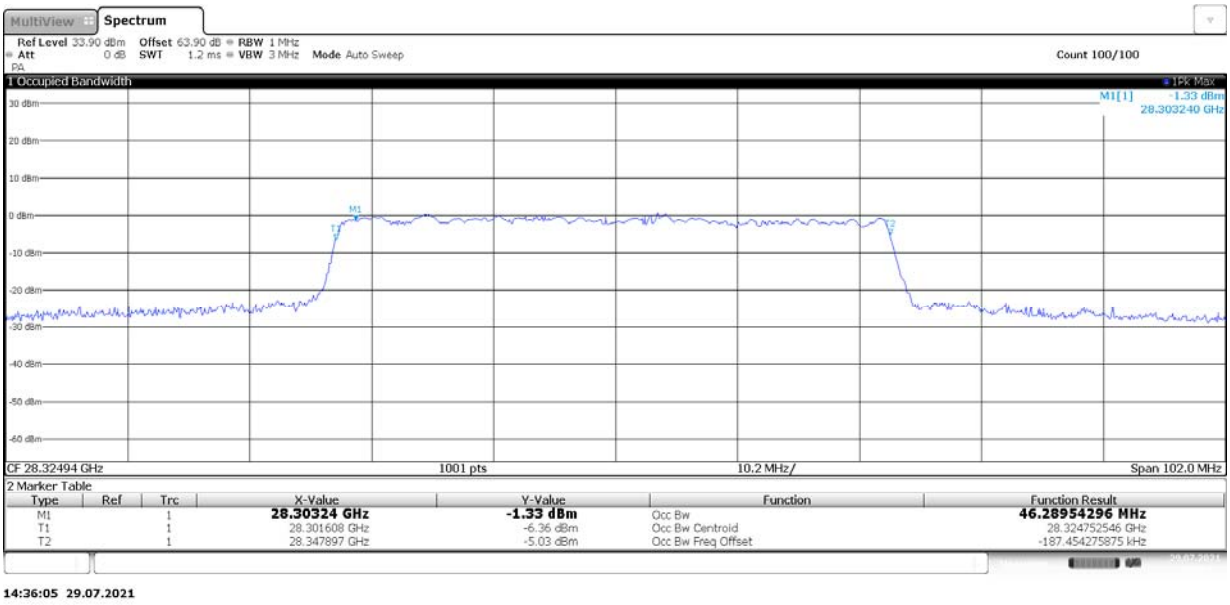
n261, Module1, SCS=120kHz, MIMO Tx Chain 0 Beam ID 16 + Tx Chain 1 Beam ID 144

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Occupied Bandwidth (99%) (MHz)
50MHz	CP	QPSK	100% RB	28324.92	46.29

Note: the set of OFDM, modulation, RB size and channel with higher power at the specified bandwidth was measured and the figure was showed in the following:



A.5 Band Edge Compliance

A.5.1 Measurement limit

Part 30.203 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.5.2 Measurement result

Only the worst case result is given below

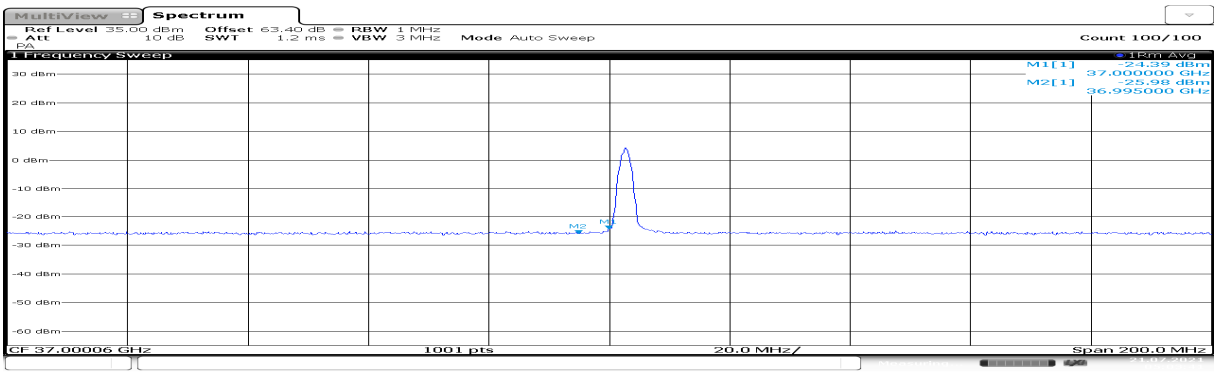
n260

Module0, SCS=120kHz, SISO Tx Chain 0, CP-OFDM, 50MHz

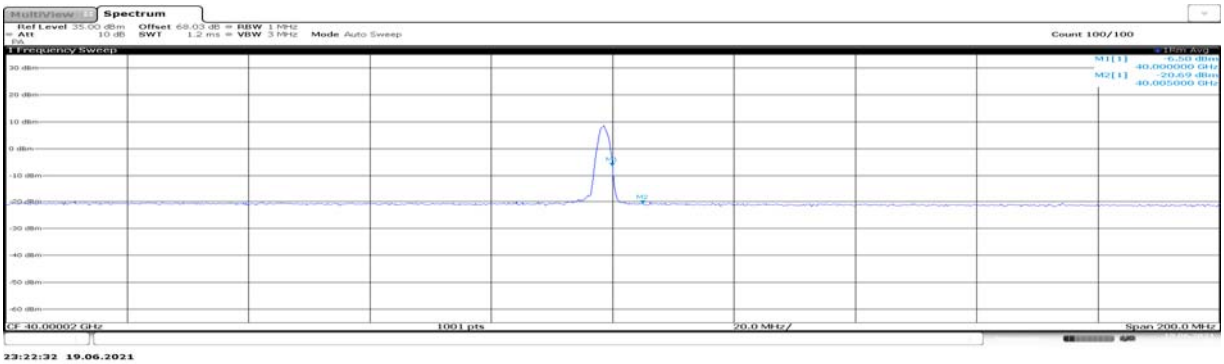
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	QPSK	100% RB	37025.04	24	-33.99	-34.16
		1 RB	37025.04	24	**-24.39**	**-25.98**
		100% RB	39975	21	-28.79	-29.95
		1 RB	39975	21	**-6.50**	**-20.69**
	16QAM	100% RB	39975	21	-29.79	-30.98
	64QAM	100% RB	39975	21	-30.92	-31.31
	QPSK	100% RB	39975	29	-28.72	-30.25

Note:The channel with the maximum power of QPSK and 1RB was chose, and the band edge of 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

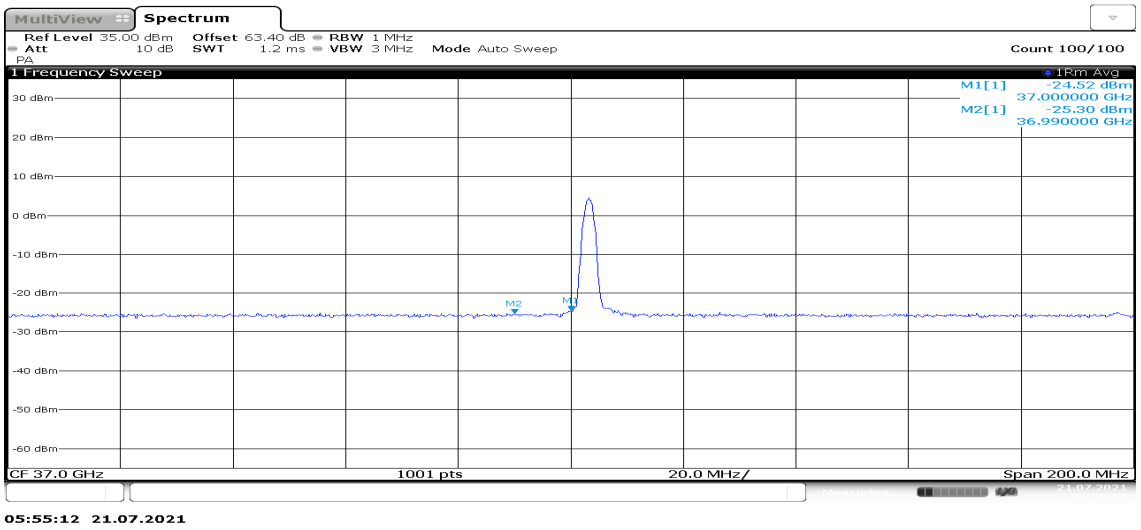


Module0, SCS=120kHz, SISO Tx Chain 0, CP-OFDM, 100MHz

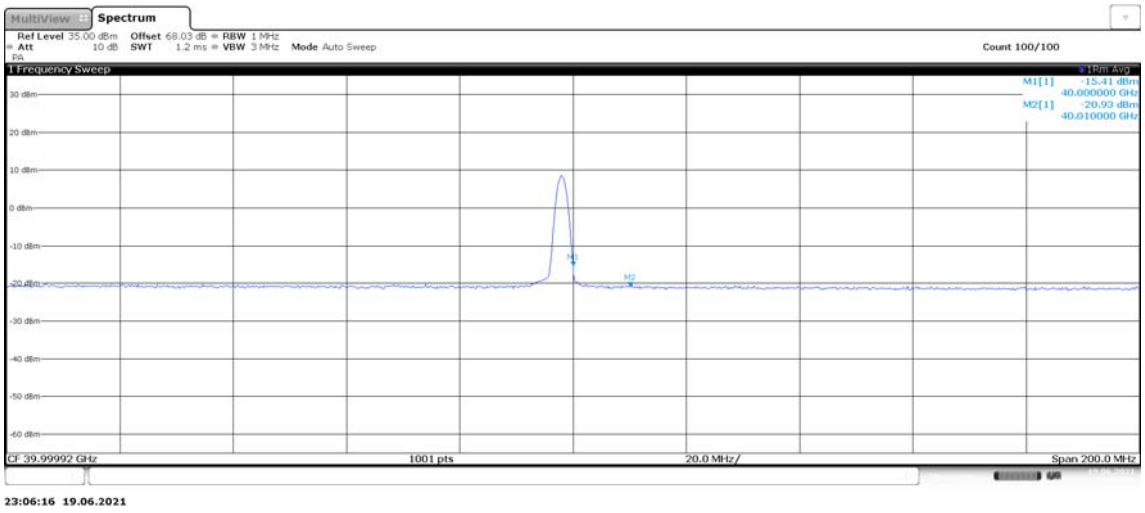
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
100MHz	QPSK	100% RB	37050	24	-34.65	-34.73
		1 RB	37050	24	**-24.52**	**-25.30**
		100% RB	39949.92	21	-30.03	-30.62
		1 RB	39949.92	21	**-15.41**	**-20.93**
	16QAM	100% RB	39949.92	21	-30.84	-30.85
	64QAM	100% RB	39949.92	21	-30.97	-31.15
	QPSK	100% RB	39949.92	29	-18.80	-21.29

Note:The channel with the maximum power of QPSK and 1RB was chose, and the band edge of 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

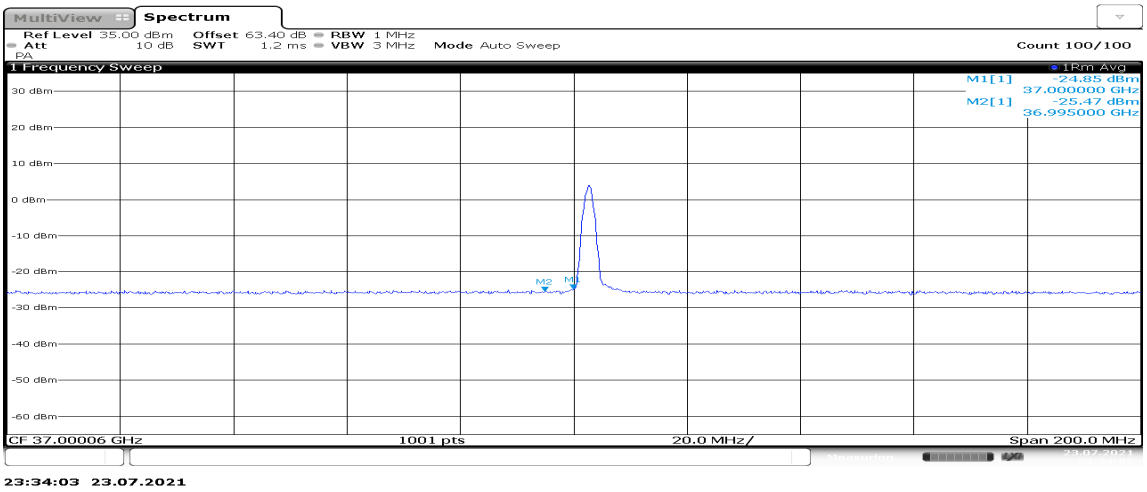


Module0, SCS=120kHz, SISO Tx Chain 0, DFT, 50MHz

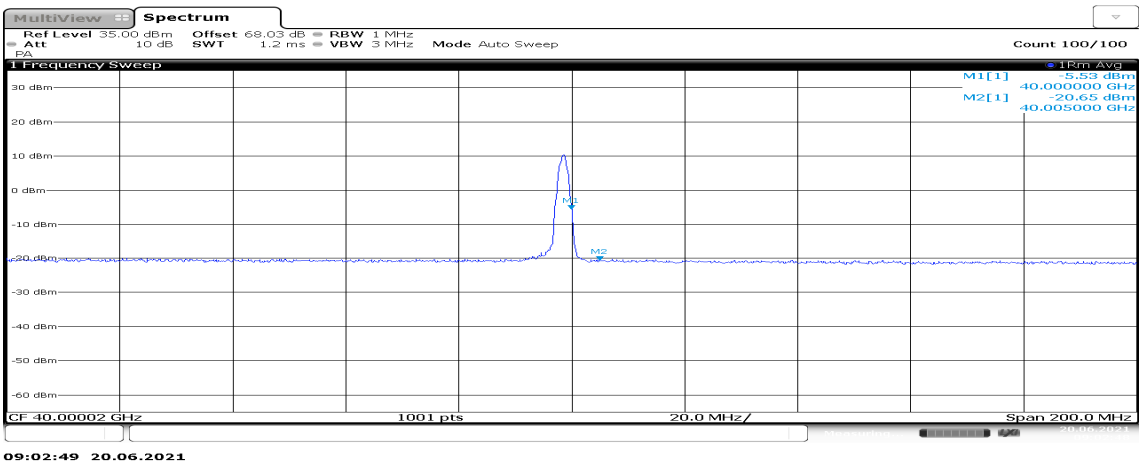
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	Pi/2 BPSK	100% RB	37025.04	24	-34.47	-35.28
		1 RB	37025.04	24	**-24.85**	**-25.47**
		100% RB	39975	21	-29.96	-30.73
		1 RB	39975	21	**-5.53**	**-20.65**
	QPSK	100% RB	39975	21	-29.66	-30.28
	16QAM	100% RB	39975	21	-29.98	-31.02
		1 RB	39975	21	-19.96	-20.96
	64QAM	100% RB	39975	21	-30.80	-30.64
	PI/2 BPSK	1 RB	39975	29	-19.60	-21.23

Note:The channel with the maximum power and band edge emission of Pi/2 BPSK was chose, and the band edge of QPSK, 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

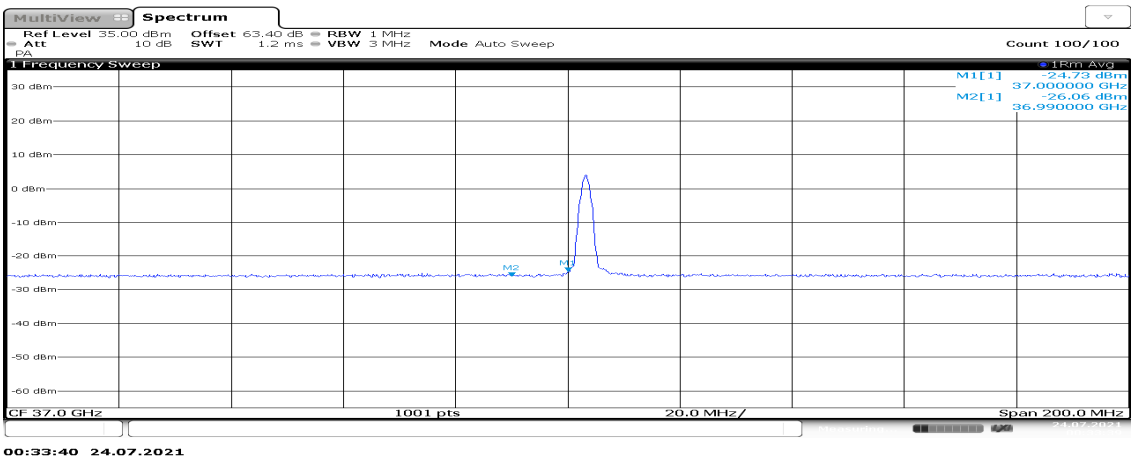


Module0, SCS=120kHz, SISO Tx Chain 0, DFT, 100MHz

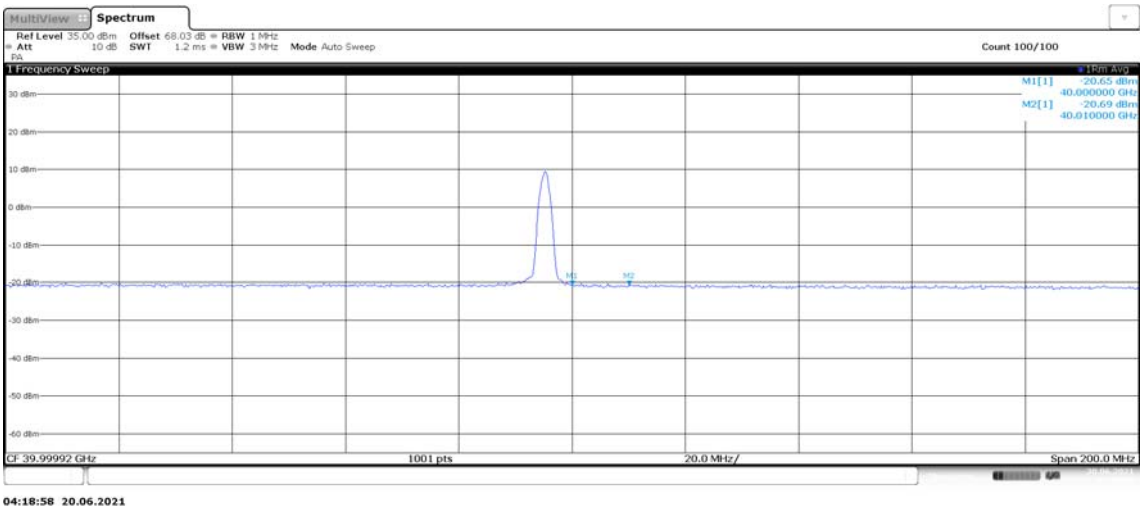
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
100MHz	Pi/2 BPSK	100% RB	37050	24	-35.05	-35.56
		1 RB	37050	24	**-24.73**	**-26.06**
		100% RB	39949.92	21	-30.78	-31.14
		1 RB	39949.92	21	-20.89	-21.00
	QPSK	100% RB	39949.92	21	-20.65	-20.77
	16QAM	100% RB	39949.92	21	**-20.65**	**-20.69**
	64QAM	100% RB	39949.92	21	-20.87	-21.08
	QPSK	100% RB	39949.92	29	-20.77	-20.92
	16QAM	1 RB	39949.92	29	-21.13	-21.18

Note:The channel with the maximum power of Pi/2 BPSK and 100% RB was chose, and the band edge of QPSK, 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

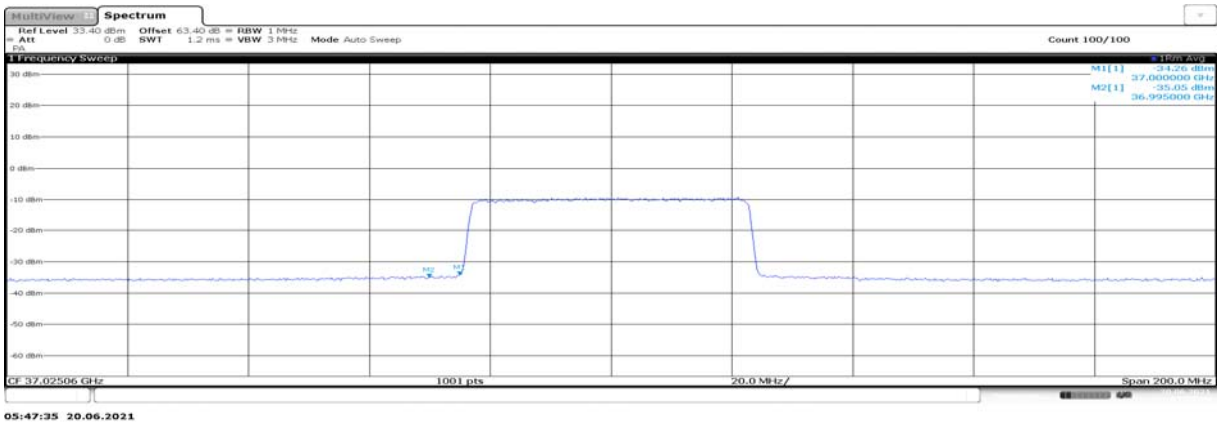


n260, Module0, SCS=120kHz, SISO Tx Chain 1

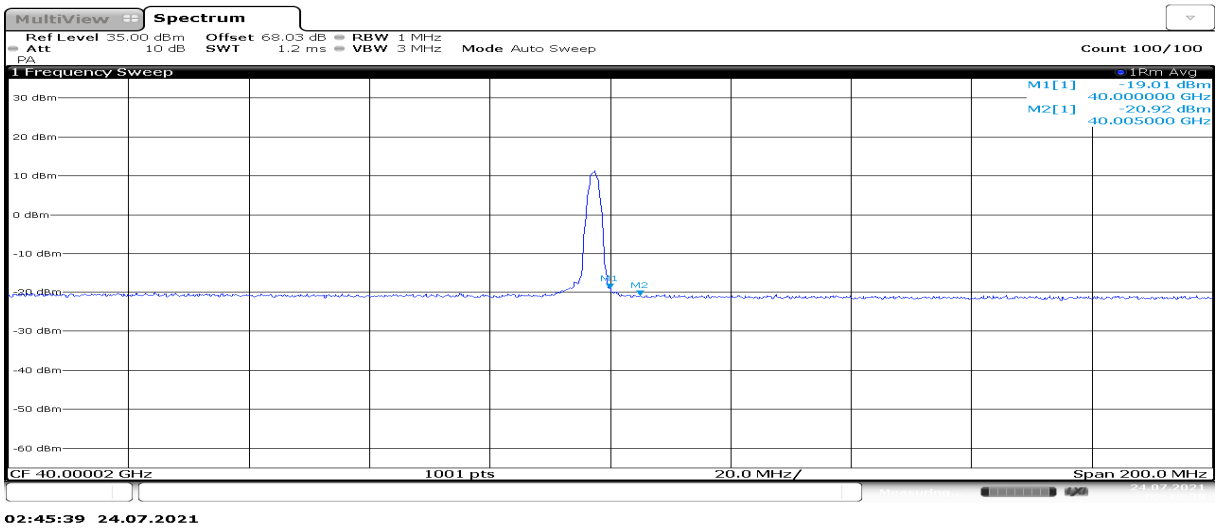
Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
						Limit: -5dBm	Limit: -13dBm
50MHz	CP	QPSK	100% RB	37025.04	152	-35.11	-35.64
50MHz	CP	QPSK	100% RB	37025.04	148	**-34.26**	**-35.05**
50MHz	CP	QPSK	100% RB	39975	150	-27.88	-28.99
50MHz	CP	QPSK	1 RB	39975	150	**-19.01**	**-20.92**
100MHz	CP	QPSK	100% RB	37050	152	-35.35	-35.39
100MHz	DFT	QPSK	1 RB	39949.92	150	-20.17	-21.18
100MHz	CP	QPSK	1 RB	39949.92	150	-19.93	-21.20
100MHz	DFT	QPSK	1 RB	39949.92	150	-20.72	-21.35
100MHz	DFT	QPSK	100% RB	39949.92	148	-30.79	-30.57

Note: the set of OFDM, modulation and RB size with higher power was measured on low and high channels of 50MHz and 100MHz bandwidth.

The left band edge worse case figure:



The right band edge worse case figure:

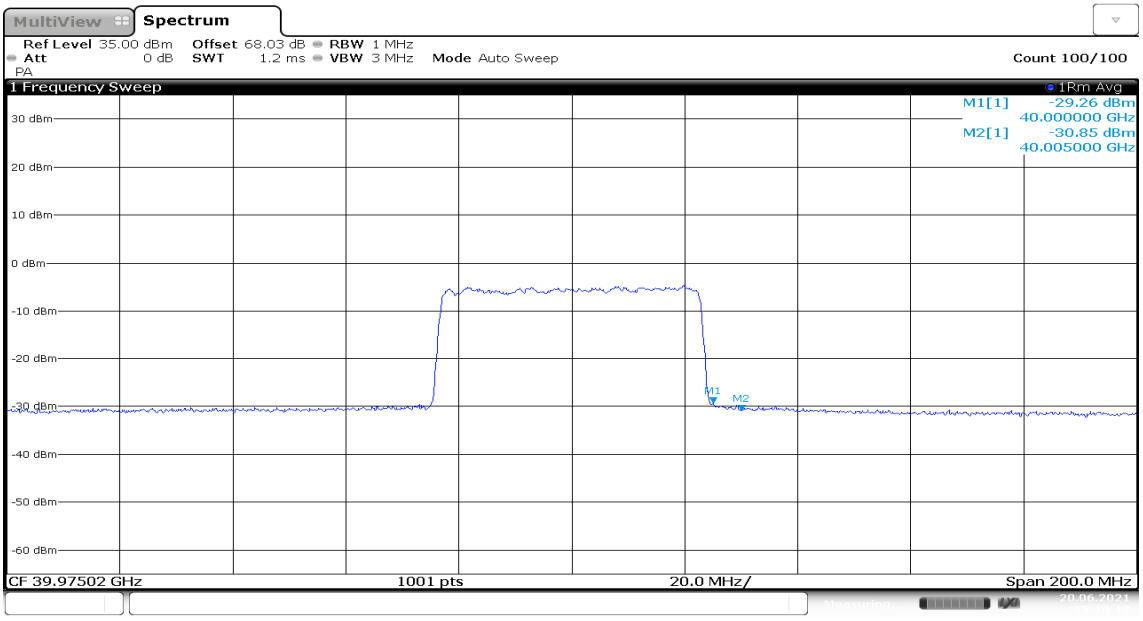


n260, Module0, SCS=120kHz, MIMO Tx Chain 0 Beam ID 24 + Tx Chain 1 Beam ID 152

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	CP	QPSK	100% RB	39975	**-29.26**	**-30.85**
50MHz	CP	QPSK	1 RB	39975	**-18.61**	**-20.81**

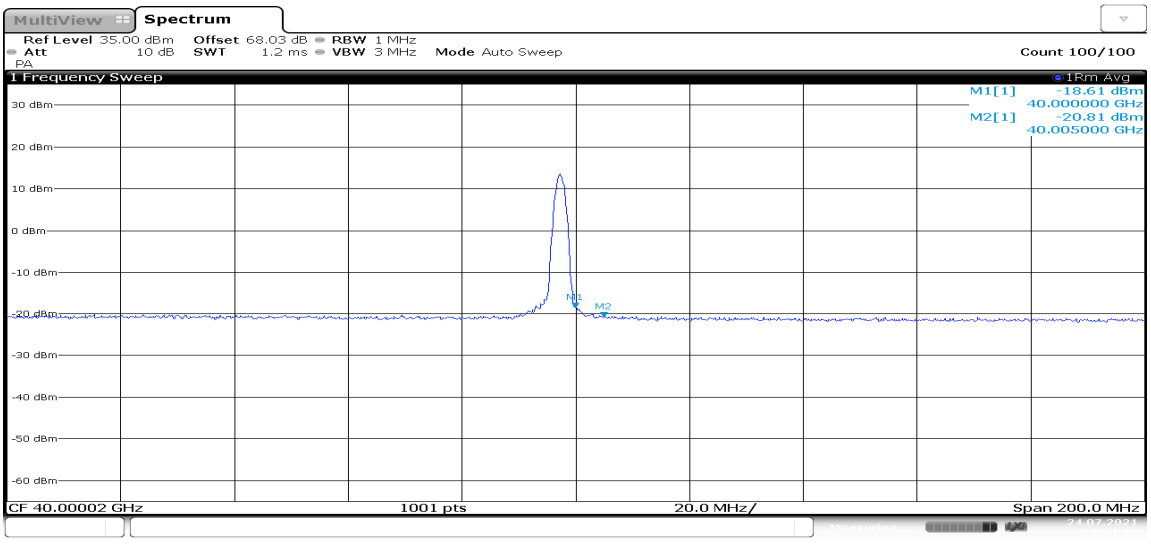
Note: the set of OFDM, modulation, RB size and channel with higher power at the specified bandwidth was measured.

The left band edge worse case figure:



15:10:13 20.06.2021

The right band edge worse case figure:



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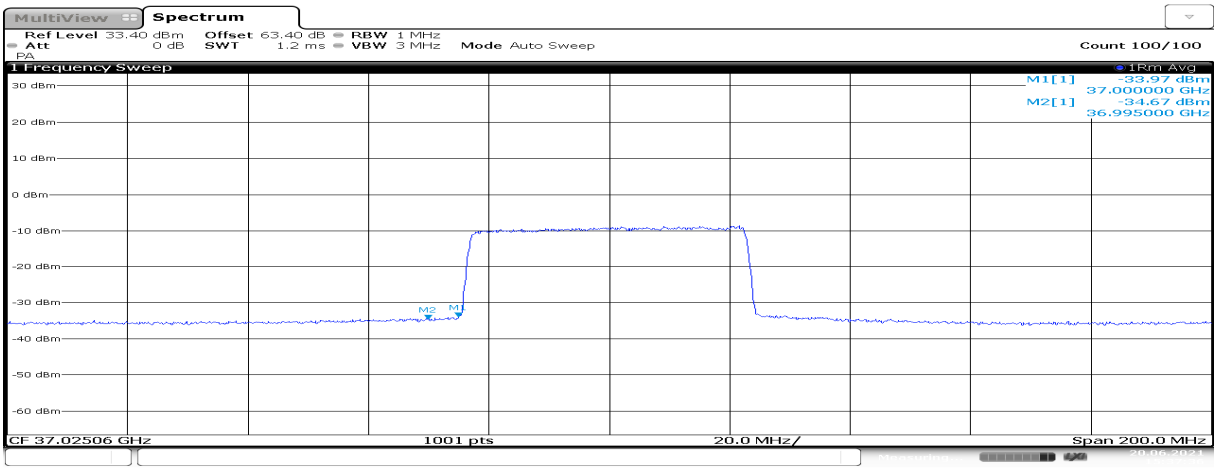
n260

Module1, SCS=120kHz, SISO Tx Chain 0, CP-OFDM, 50MHz

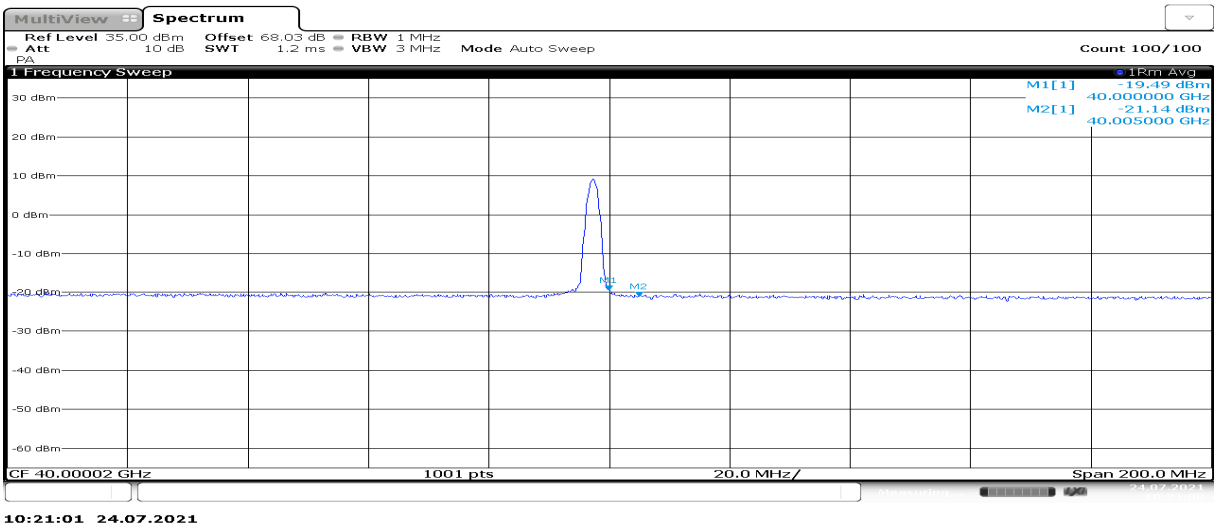
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	QPSK	100% RB	37025.04	25	**-33.97**	**-34.67**
		100% RB	39975	27	-29.44	-30.53
		1 RB	39975	27	**-19.49**	**-21.14**
	16QAM	100% RB	39975	27	-30.18	-30.54
	64QAM	100% RB	39975	27	-30.50	-31.42
	16QAM	100% RB	39975	18	-30.69	-30.92

Note:The channel with the maximum power of QPSK and 1RB was chose, and the band edge of 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

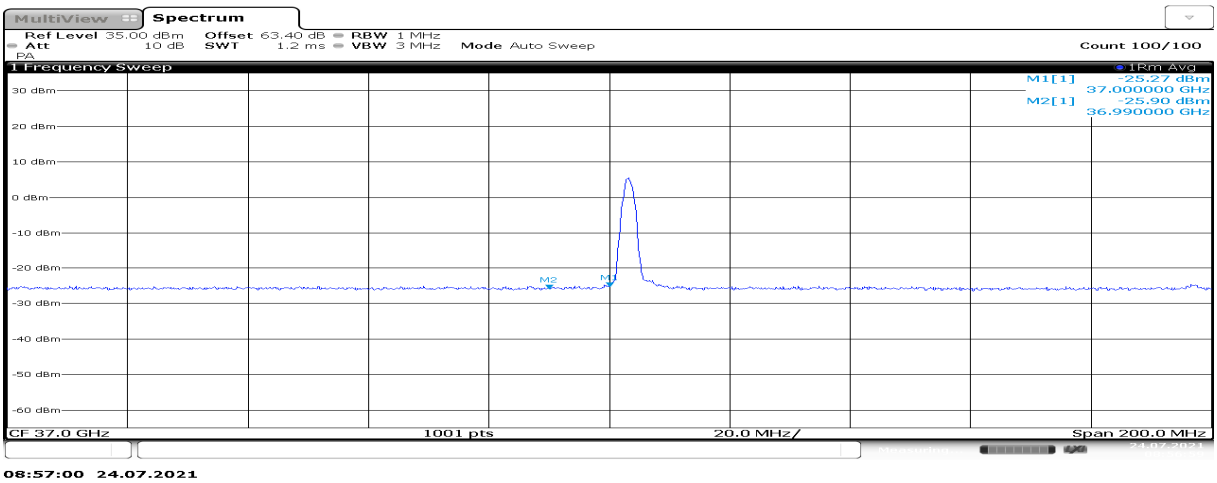


Module1, SCS=120kHz, SISO Tx Chain 0, CP-OFDM, 100MHz

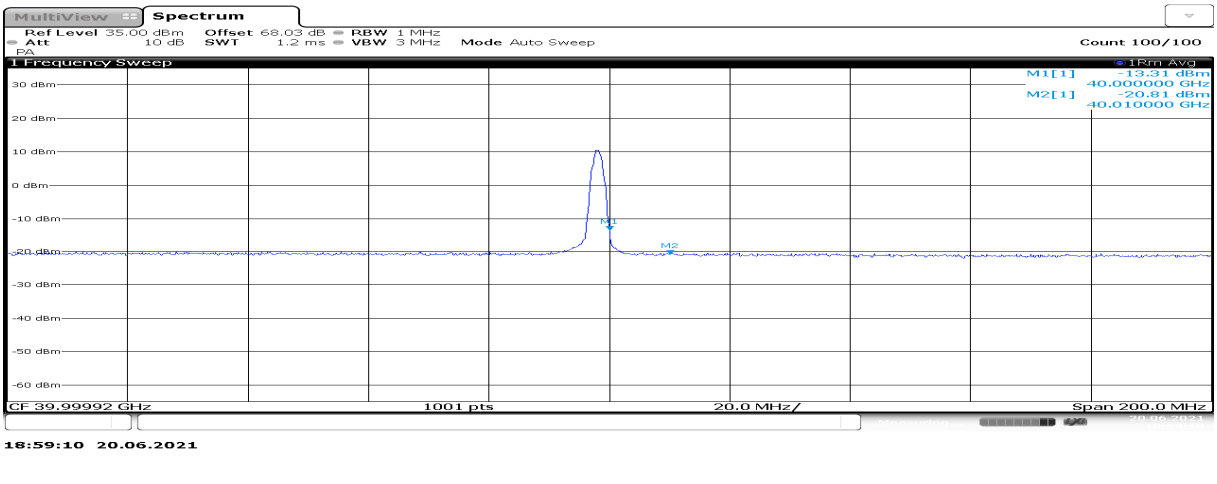
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
100MHz	QPSK	100% RB	37050	25	-34.30	-34.59
		1 RB	37050	25	**-25.27**	**-25.90**
		100% RB	39949.92	27	-30.67	-30.77
		1 RB	39949.92	27	**-13.31**	**-20.81**
	16QAM	100% RB	39949.92	27	-13.80	-21.02
	64QAM	100% RB	39949.92	27	-15.53	-20.82
	QPSK	100% RB	39949.92	18	-13.40	-21.27

Note:The channel with the maximum power of QPSK and 1RB was chose, and the band edge of 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

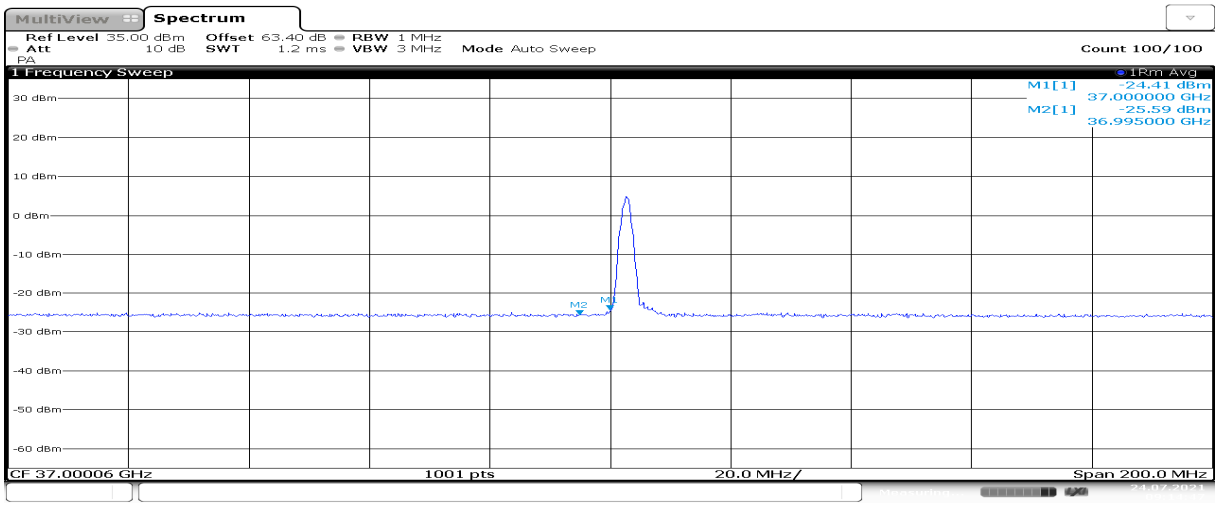


Module1, SCS=120kHz, SISO Tx Chain 0, DFT, 50MHz

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	Pi/2 BPSK	100% RB	37025.04	25	-34.10	-35.56
		1 RB	37025.04	25	**-24.41**	**-25.59**
		100% RB	39975	22	-30.62	-30.65
		1 RB	39975	27	-19.79	-20.99
	QPSK	100% RB	39975	22	-20.17	-21.06
	16QAM	100% RB	39975	22	**-19.54**	**-20.84**
	64QAM	100% RB	39975	22	-19.62	-20.62
	Pi/2 BPSK	1 RB	39975	18	-19.74	-21.12

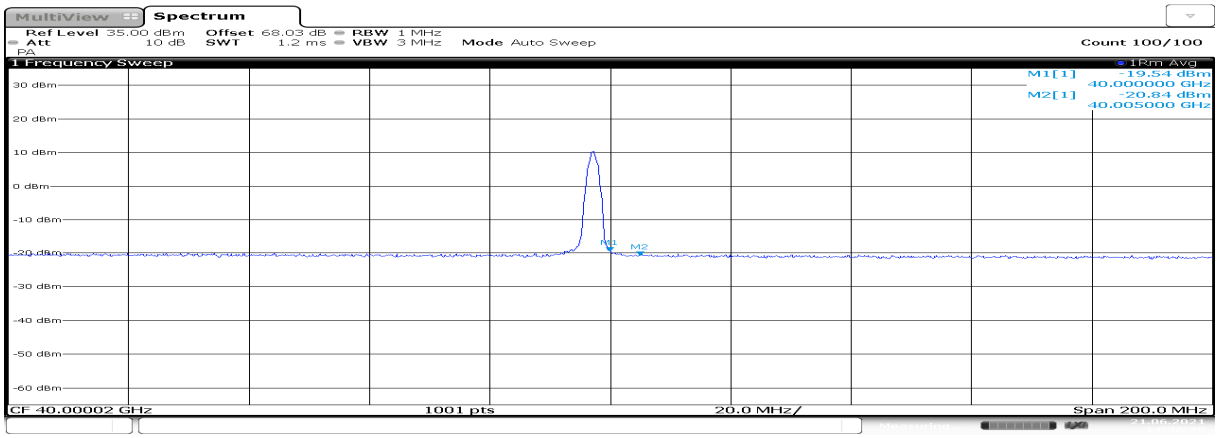
Note:The channel with the maximum power of Pi/2 BPSK and 100% RB was chose, and the band edge of QPSK, 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



09:14:48 24.07.2021

The right band edge worse case figure:



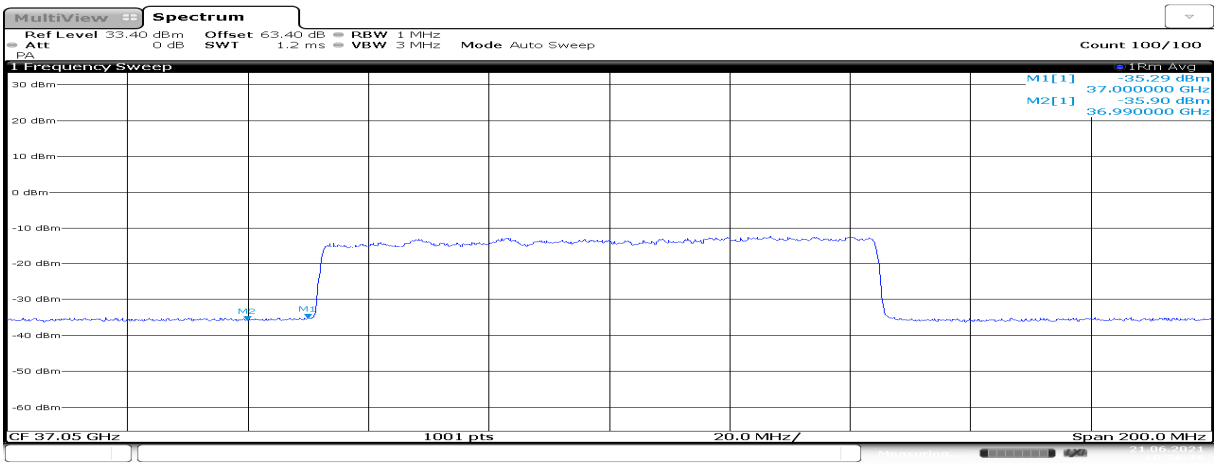
14:36:30 21.06.2021

Module1, SCS=120kHz, SISO Tx Chain 0, DFT, 100MHz

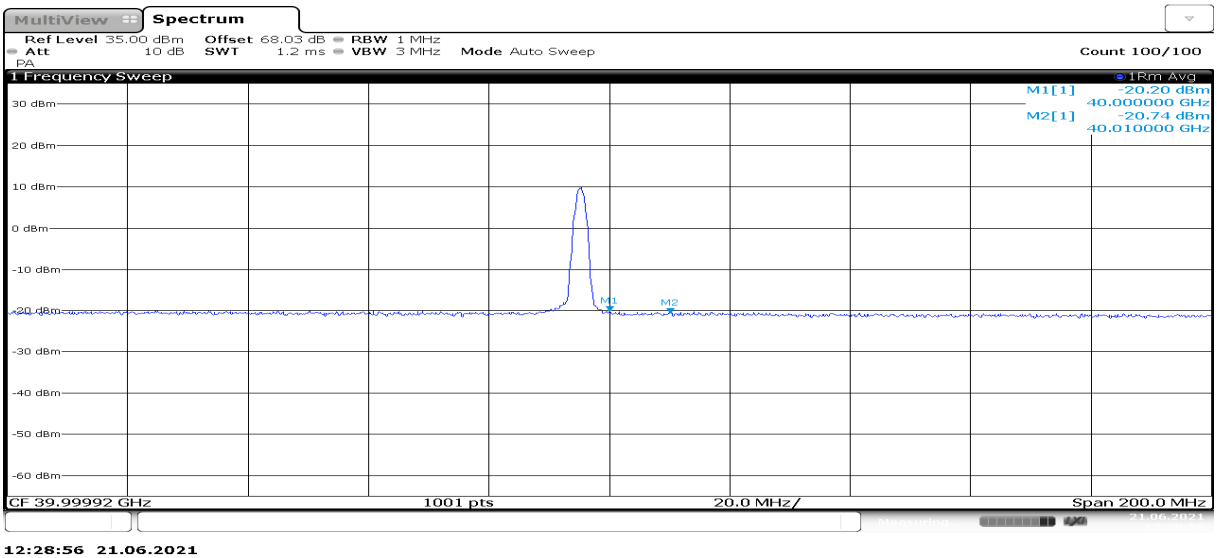
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
100MHz	Pi/2 BPSK	100% RB	37050	25	**-35.29**	**-35.90**
		100% RB	39949.92	27	-31.06	-31.52
		1 RB	39949.92	27	-20.32	-20.61
	QPSK	100% RB	39949.92	27	-20.57	-20.56
	16QAM	100% RB	39949.92	27	-20.44	-21.10
	64QAM	100% RB	39949.92	27	-20.75	-20.93
	QPSK	100% RB	39949.92	18	**-20.20**	**-20.74**

Note:The channel with the maximum power of Pi/2 BPSK and 100% RB was chose, and the band edge of QPSK, 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

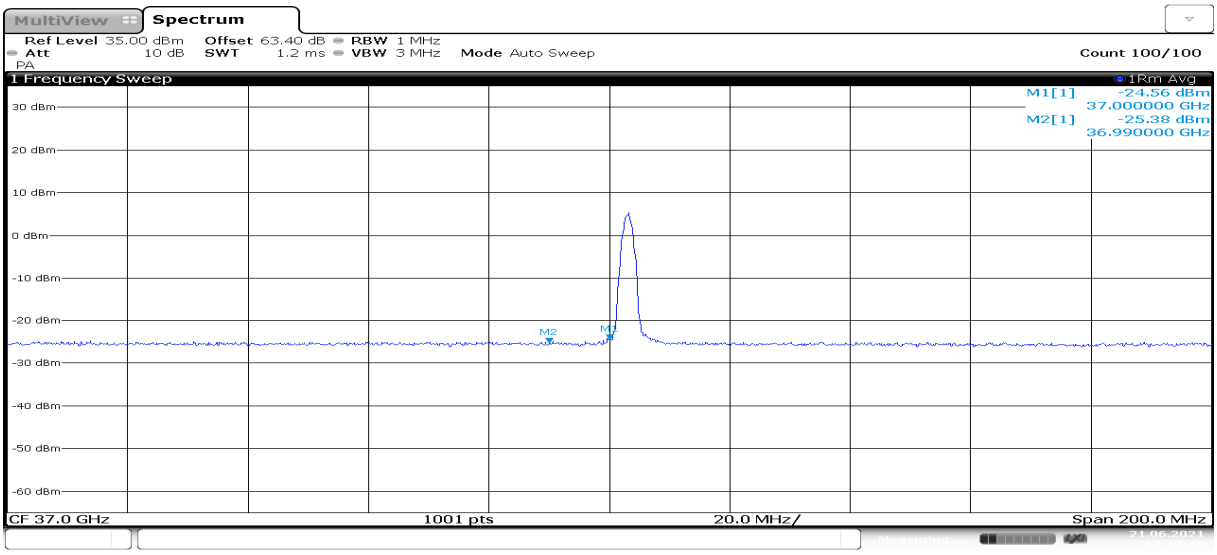


n260, Module1, SCS=120kHz, SISO Tx Chain 1

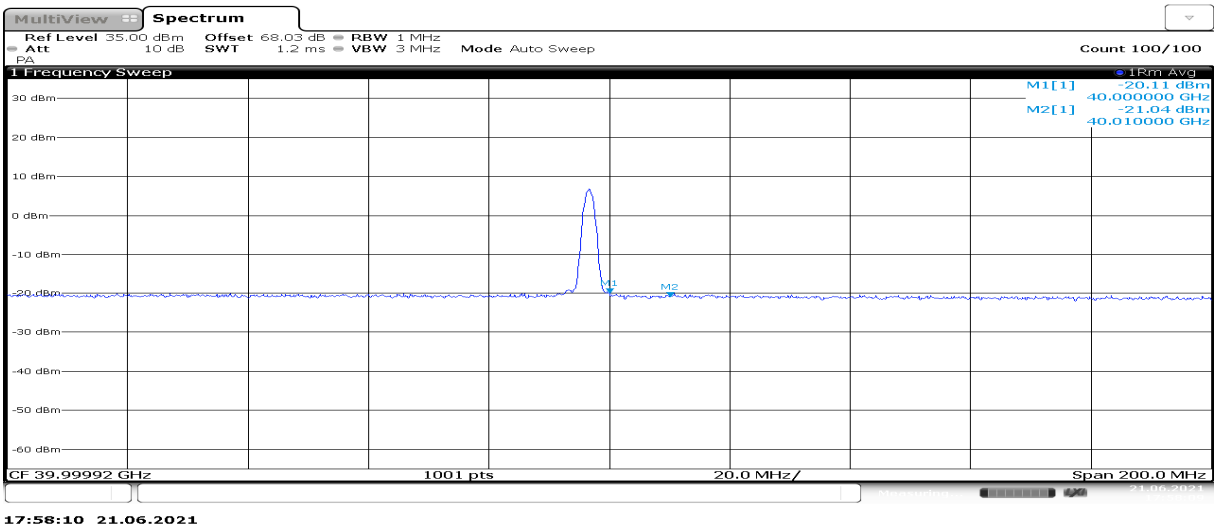
Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
						Limit: -5dBm	Limit: -13dBm
50MHz	CP	16QAM	100% RB	37025.04	146	-33.71	-34.87
50MHz	CP	16QAM	100% RB	39975	155	-30.44	-30.52
100MHz	CP	QPSK	1RB	37050	146	**-24.56**	**-25.38**
100MHz	CP	QPSK	1RB	39949.92	155	**-20.11**	**-21.04**

Note: the set of OFDM, modulation and RB size with higher power was measured on low and high channels of 50MHz and 100MHz bandwidth.

The left band edge worse case figure:



The right band edge worse case figure:

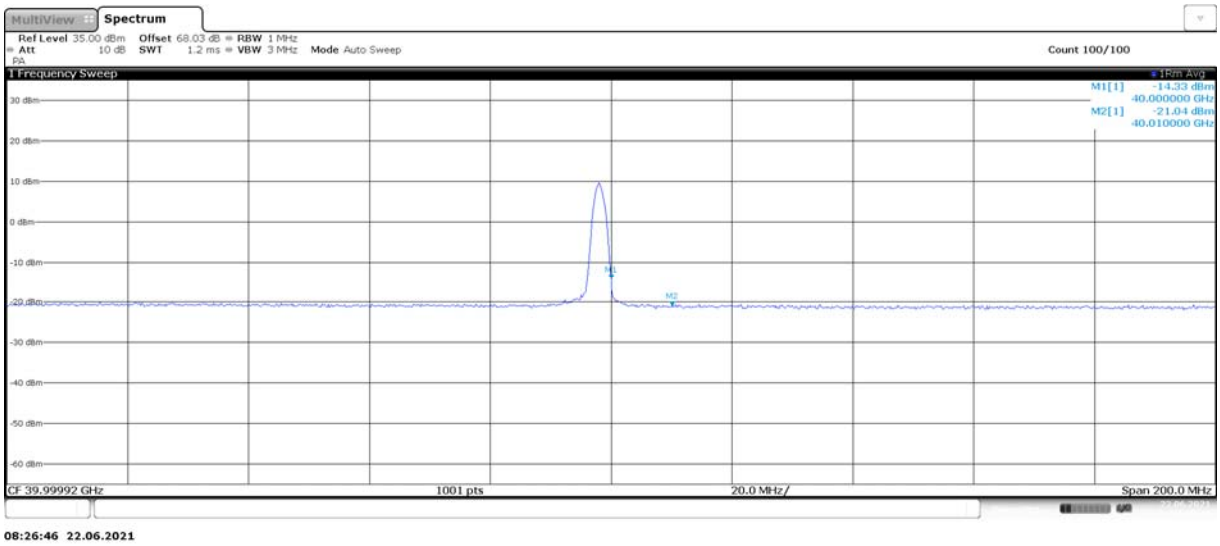


n260, Module1, SCS=120kHz, MIMO Tx Chain 0 Beam ID 27 + Tx Chain 1 Beam ID 155

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	CP	16QAM	100% RB	39975	-30.35	-30.45
100MHz	CP	QPSK	1RB	39949.92	**-14.33**	**-21.04**

Note: the set of OFDM, modulation, RB size and channel with higher power at the specified bandwidth was measured.

The worse case figure:



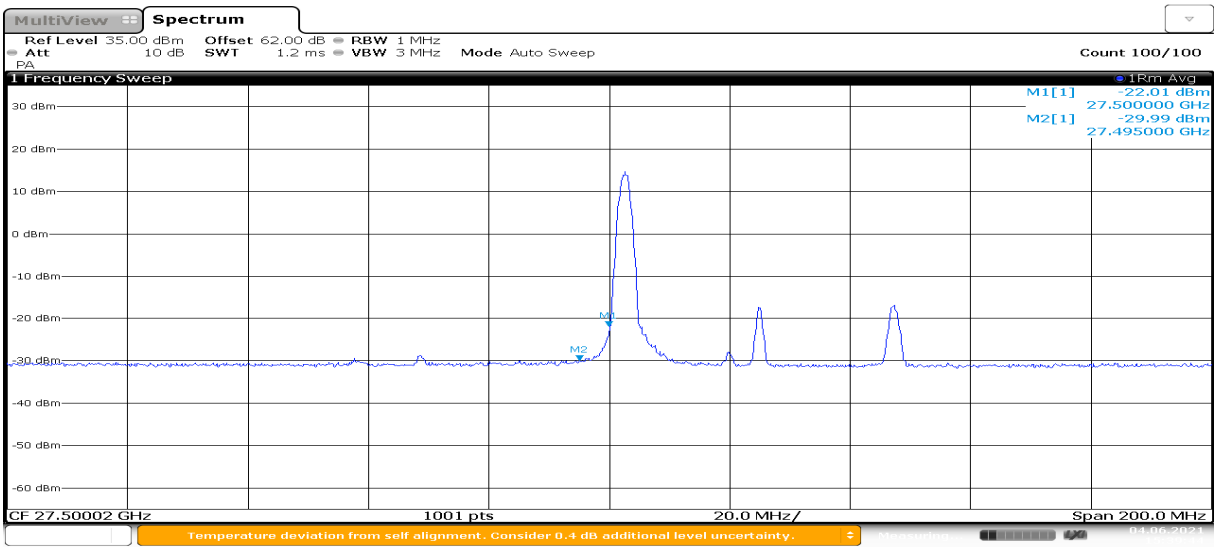
n261

Module0, SCS=120kHz, SISO Tx Chain 0, CP-OFDM, 50MHz

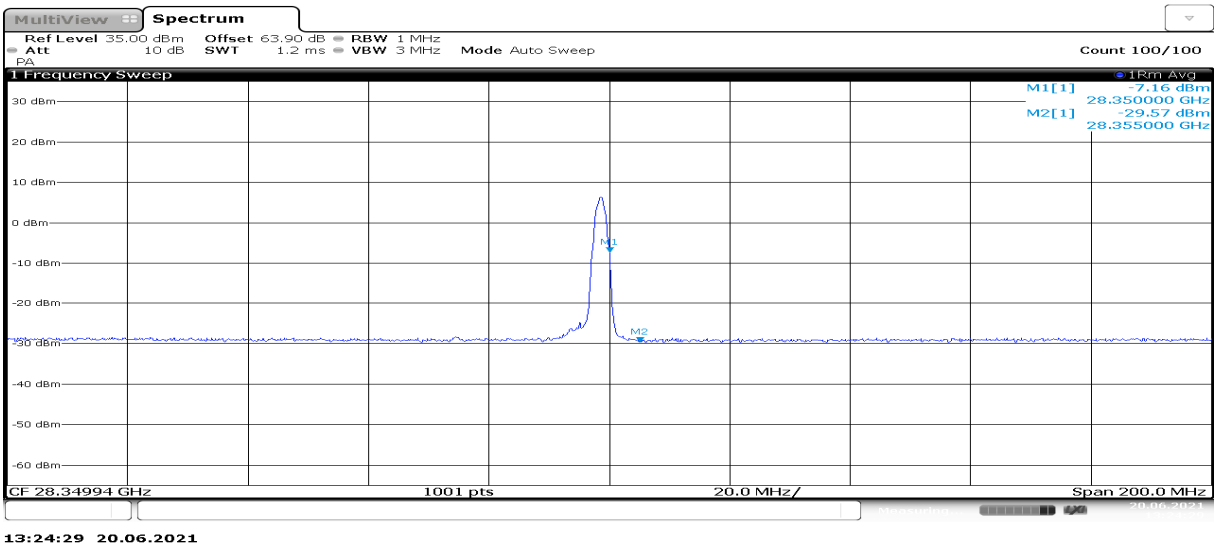
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	64QAM	100% RB	27525	20	-30.04	-31.09
		1 RB	27525	20	**-22.01**	**-29.99**
		100% RB	28324.92	20	-18.97	-20.02
		1 RB	28324.92	20	**-7.16**	**-29.57**
	16QAM	100% RB	28324.92	20	-36.61	-38.18
	QPSK	100% RB	28324.92	20	-7.39	-30.27
	64QAM	100% RB	28324.92	28	-35.70	-37.53

Note:The channel with the maximum power of 64QAM and 1RB was chose, and the band edge of 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



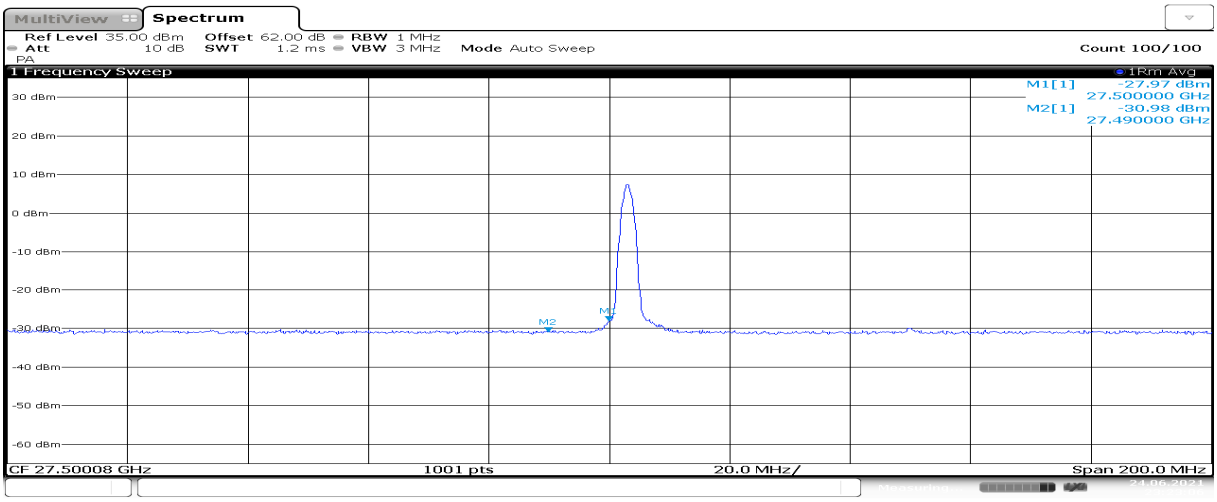
The right band edge worse case figure:



n261, Module0, SCS=120kHz, SISO Tx Chain 0, CP-OFDM, 100MHz

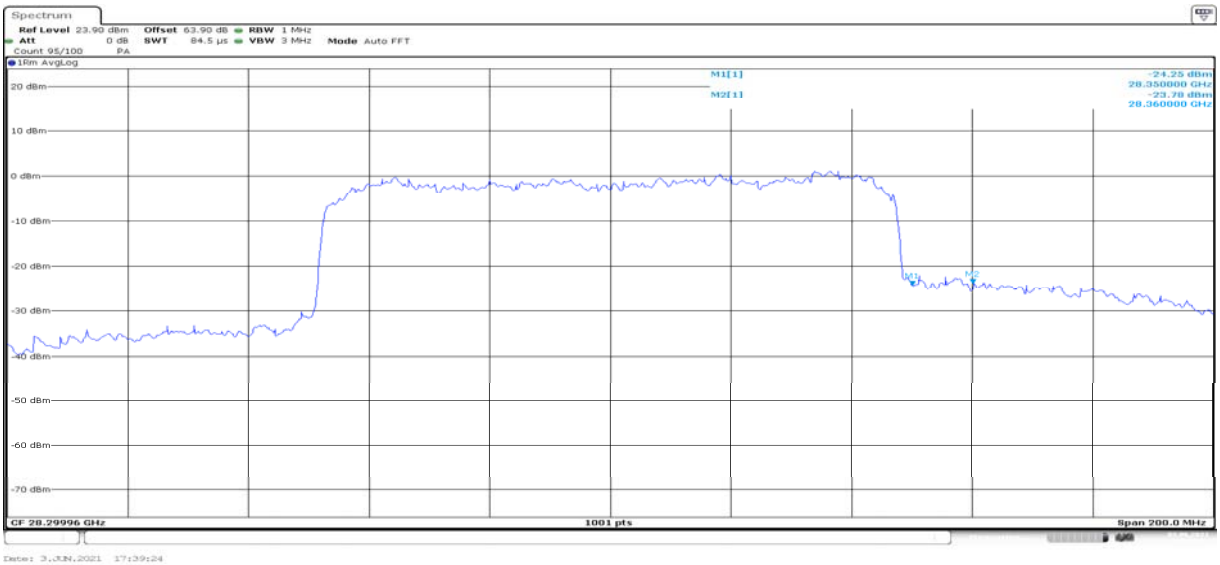
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
100MHz	64QAM	100% RB	27550.08	20	-32.10	-32.80
		100% RB	27550.08	18	-38.40	-39.52
		1 RB	27550.08	18	**-27.97**	**-30.98**
		100% RB	28299.96	20	**-24.25**	**-23.78**
		1 RB	28299.96	18	-27.80	-28.92

The left band edge worse case figure:



23:23:06 24.06.2021

The right band edge worse case figure:

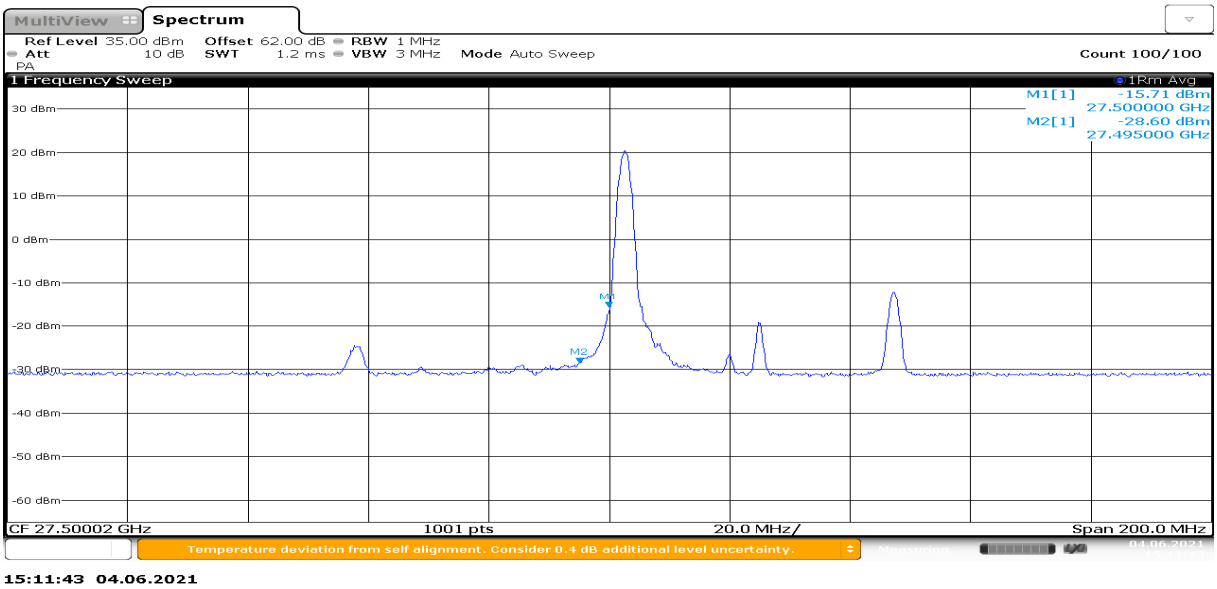


n261, Module0, SCS=120kHz, SISO Tx Chain 0, DFT, 50MHz

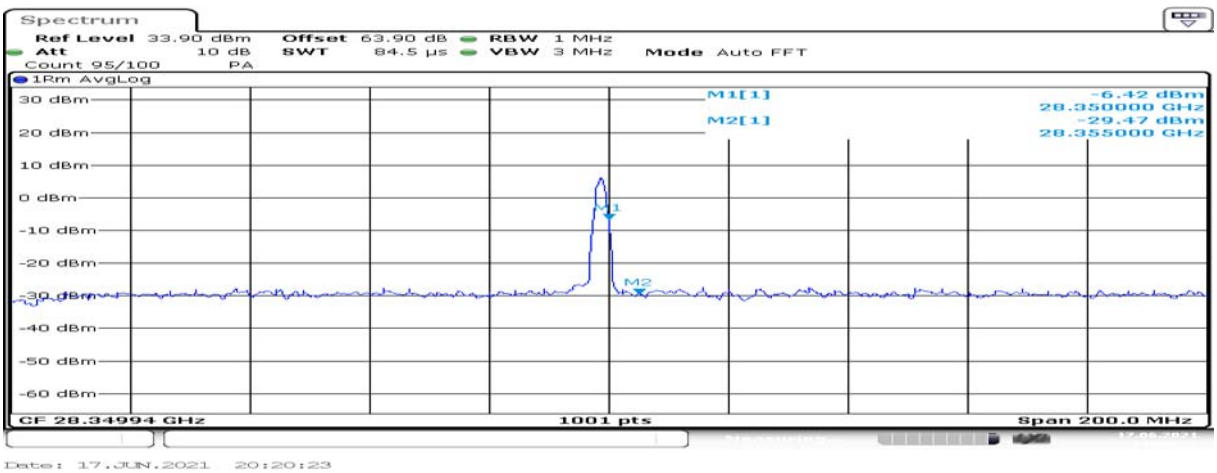
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	64QAM	100% RB	27525	20	-12.43	-12.9
		1 RB	27525	20	**-15.71**	**-28.6**
		100% RB	28324.92	20	-36.57	-36.92
		1 RB	28324.92	20	**-6.42**	**-29.47**
	QPSK	100% RB	28324.92	20	-35.02	-35.57
	16QAM	100% RB	28324.92	20	-36.39	-37.22
	Pi/2 BPSK	100% RB	28324.92	20	-36.29	-38.62
	64QAM	100% RB	28324.92	28	-36.50	-37.02

Note:The channel with the maximum power of 64QAM and 100% RB was chose, and the band edge of QPSK, 16QAM, Pi/2 BPSK and the other Beam ID were measured on that channel.

The left band edge worse case figure:



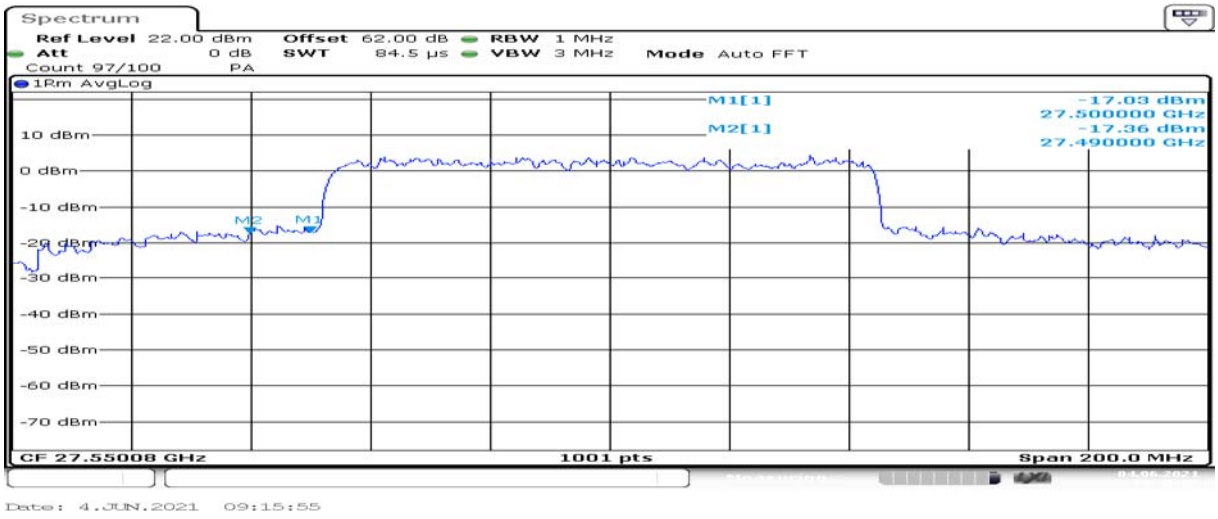
The right band edge worse case figure:



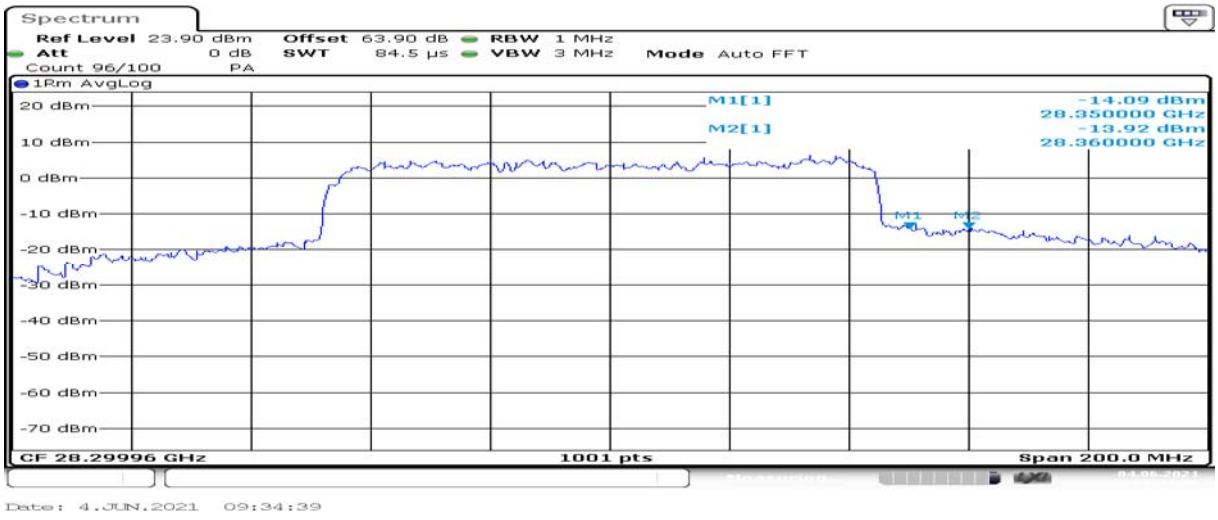
n261, Module0, SCS=120kHz, SISO Tx Chain 0, DFT, 100MHz

Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
100MHz	64QAM	100% RB	27550.08	18	-38.06	-38.85
		100% RB	27550.08	20	**-17.03**	**-17.36**
		1 RB	27550.08	20	-23.70	-28.75
		100% RB	28299.96	20	**-14.09**	**-13.92**
		1 RB	28299.96	20	-19.89	-29.99

The left band edge worse case figure:



The right band edge worse case figure:

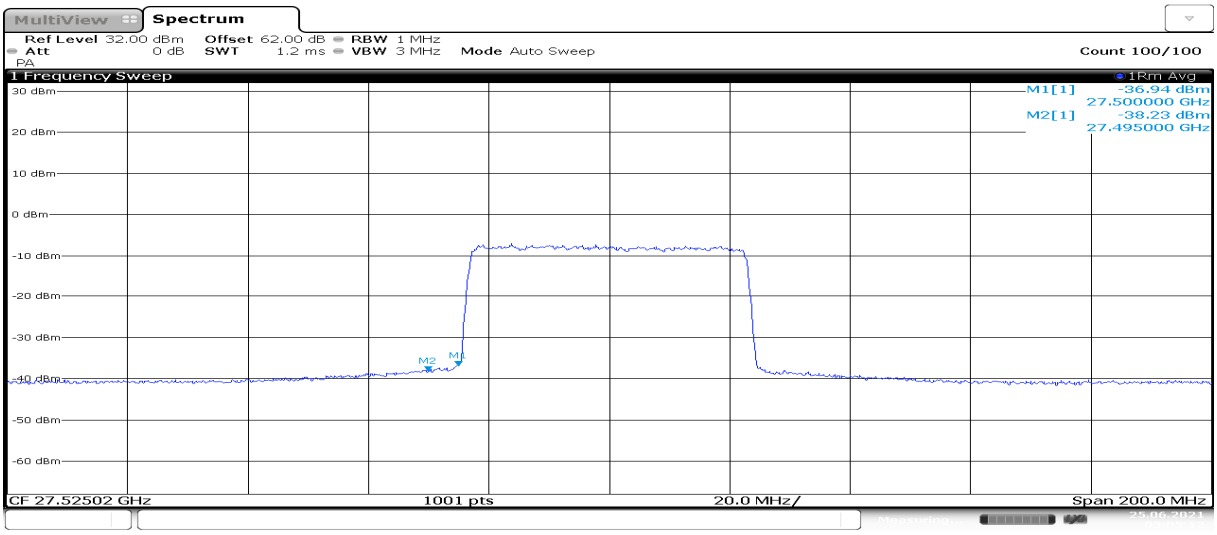


n261, Module0, SCS=120kHz, SISO Tx Chain 1

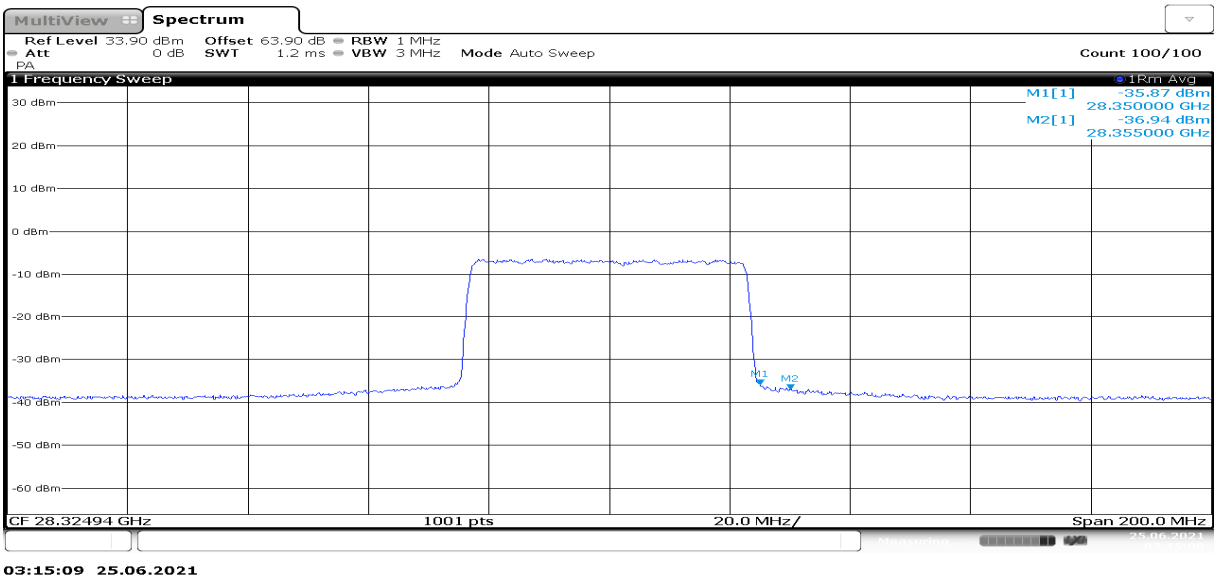
Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
						Limit: -5dBm	Limit: -13dBm
50MHz	CP	64QAM	100% RB	27525	148	**-36.94**	**-38.23**
50MHz	CP	64QAM	100% RB	28324.92	148	**-35.87**	**-36.97**
100MHz	DFT	64QAM	100% RB	27550.08	148	-38.69	-39.53
100MHz	DFT	64QAM	100% RB	28299.96	148	-37.99	-37.93

Note: the set of OFDM, modulation and RB size with higher power was measured on low and high channels of 50MHz and 100MHz bandwidth.

The left band edge worse case figure:



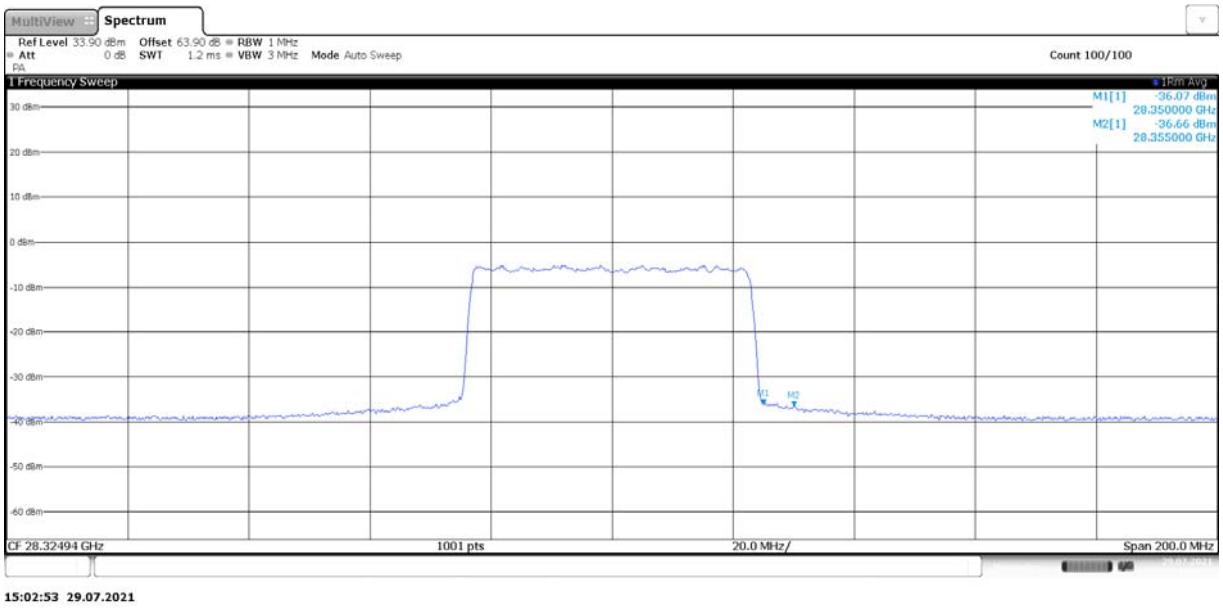
The right band edge worse case figure:



n261, Module0, SCS=120kHz, MIMO Tx Chain 0 Beam ID 20 + Tx Chain 1 Beam ID 148

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	CP	64QAM	100% RB	28324.92	-36.07	-36.66

Note: the set of modulation, RB size and channel with higher power at the specified bandwidth was measured.



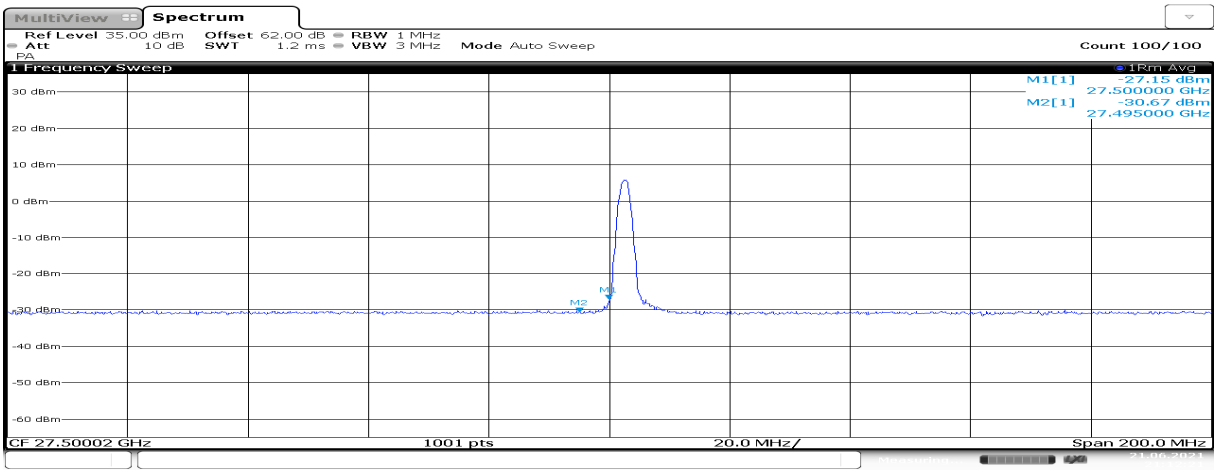
n261

Module1, SCS=120kHz, SISO Tx Chain 0, CP-OFDM, 50MHz

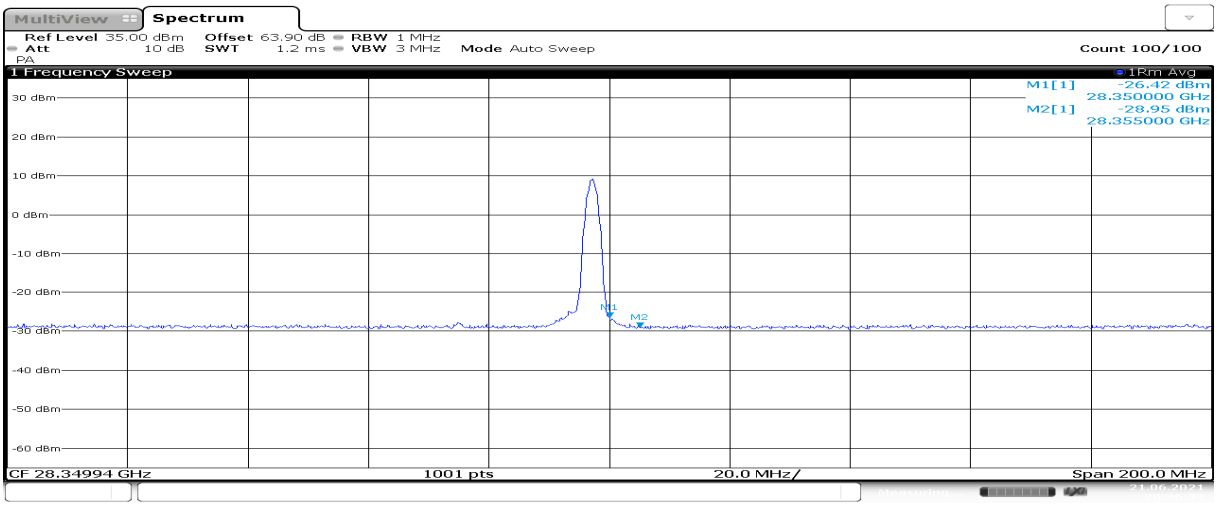
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	QPSK	100% RB	27525	15	-36.43	-38.05
		1 RB	27525	15	**-26.42**	**-28.95**
		100% RB	28324.92	15	-33.47	-34.84
		1 RB	28324.92	15	**-27.15**	**-30.67**
	16QAM	100% RB	28324.92	15	-36.70	-37.27
	64QAM	100% RB	28324.92	15	-36.85	-37.69
	QPSK	100% RB	28324.92	25	-33.65	-34.78

Note:The channel with the maximum power of QPSK and 1RB was chose, and the band edge of 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

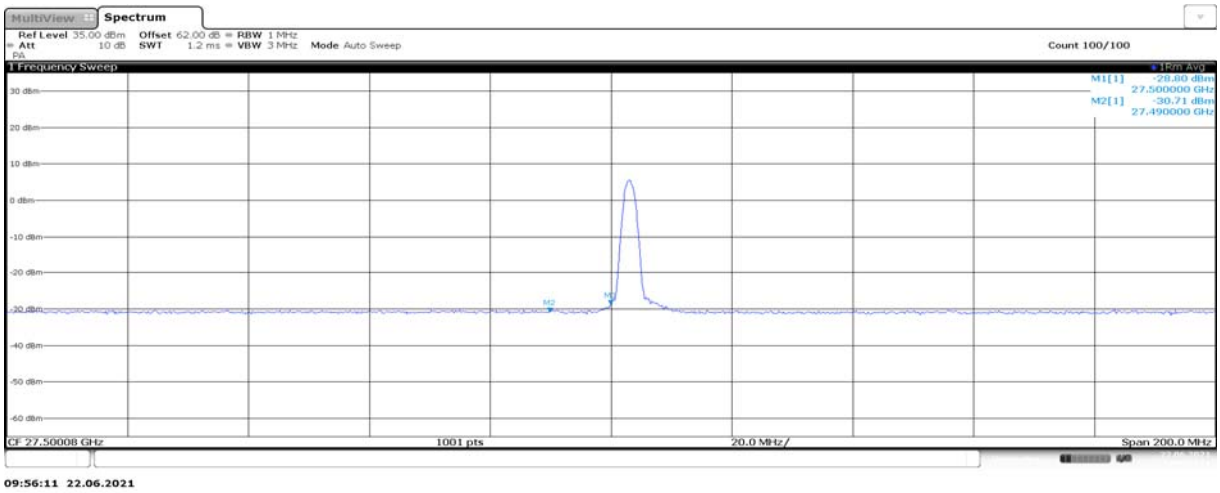


n261, **Module1, SCS=120kHz, SISO Tx Chain 0, CP-OFDM, 100MHz**

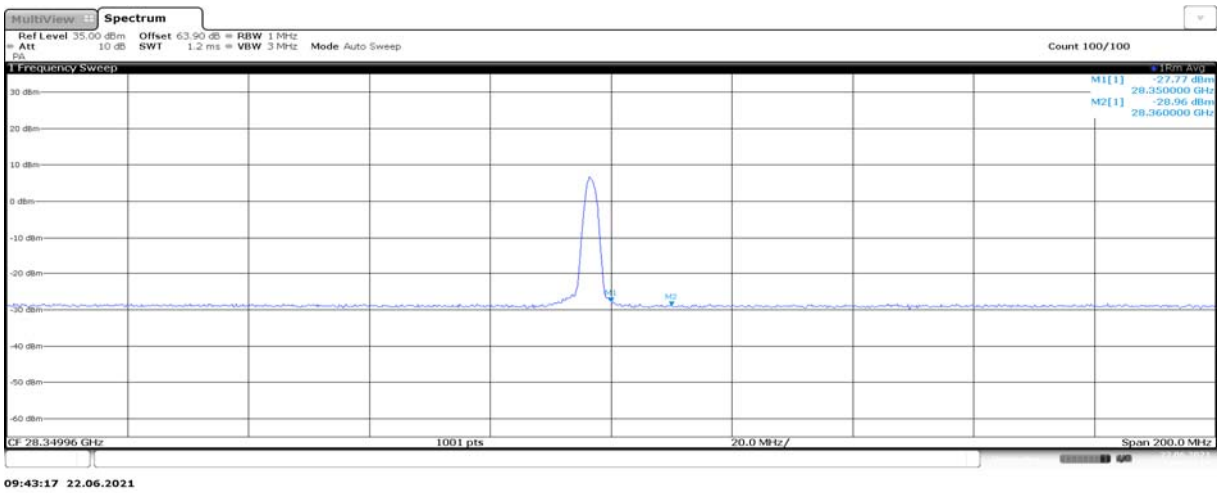
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
100MHz	QPSK	100% RB	27550.08	15	-37.85	-38.25
		1 RB	27550.08	15	**-28.80**	**-30.79**
		100% RB	28299.96	15	-36.87	-37.78
		1 RB	28299.96	15	**-27.77**	**-28.96**
	16QAM	100% RB	28299.96	15	-37.74	-38.17
	64QAM	100% RB	28299.96	15	-37.77	-38.56
	16QAM	100% RB	28299.96	25	-37.69	-38.41

Note:The channel with the maximum power of QPSK and 1RB was chose, and the band edge of 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

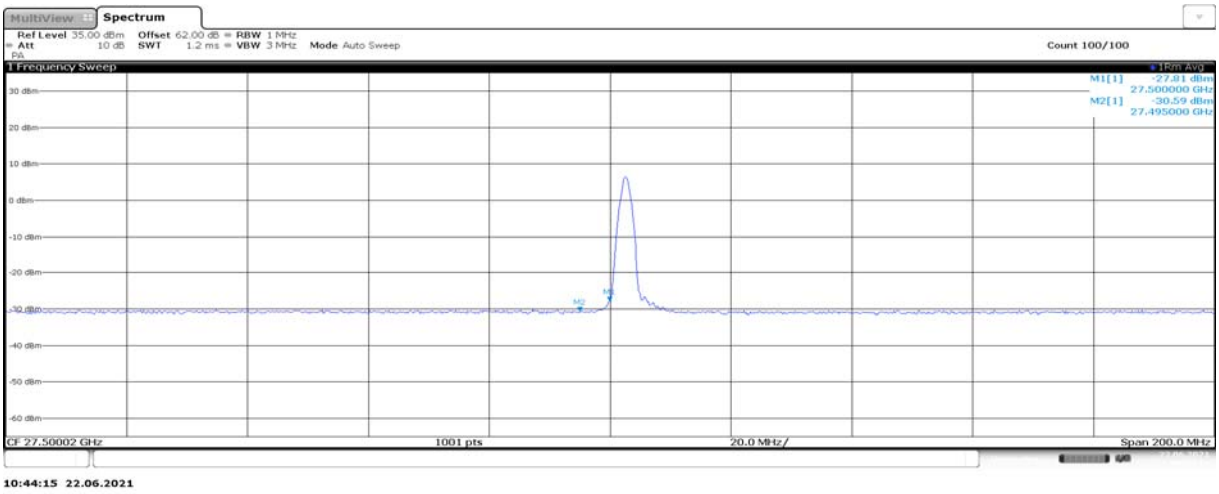


n261, Module1, SCS=120kHz, SISO Tx Chain 0, DFT, 50MHz

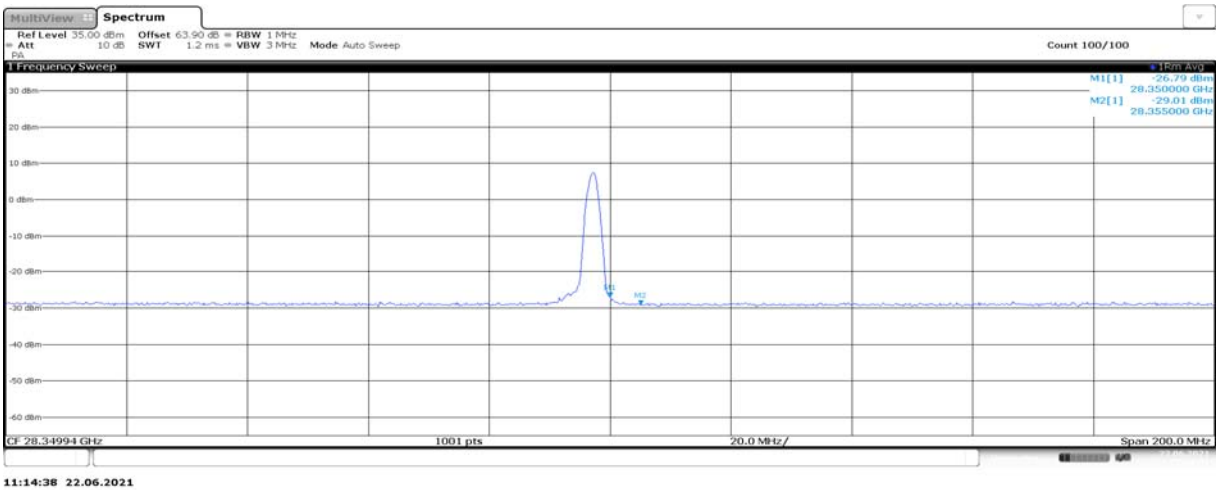
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	Pi/2 BPSK	100% RB	27525	15	-37.76	-39.34
		1 RB	27525	15	**-27.81**	**-30.59**
		100% RB	28324.92	15	-36.66	-37.86
		1 RB	28324.92	15	**-26.79**	**-29.01**
	QPSK	100% RB	28324.92	15	-34.55	-35.47
	16QAM	100% RB	28324.92	15	-36.11	-37.13
	64QAM	100% RB	28324.92	15	-36.02	-37.44
	Pi/2 BPSK	100% RB	28324.92	25	-35.63	-37.90

Note:The channel with the maximum power of Pi/2 BPSK and 100% RB was chose, and the band edge of QPSK, 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

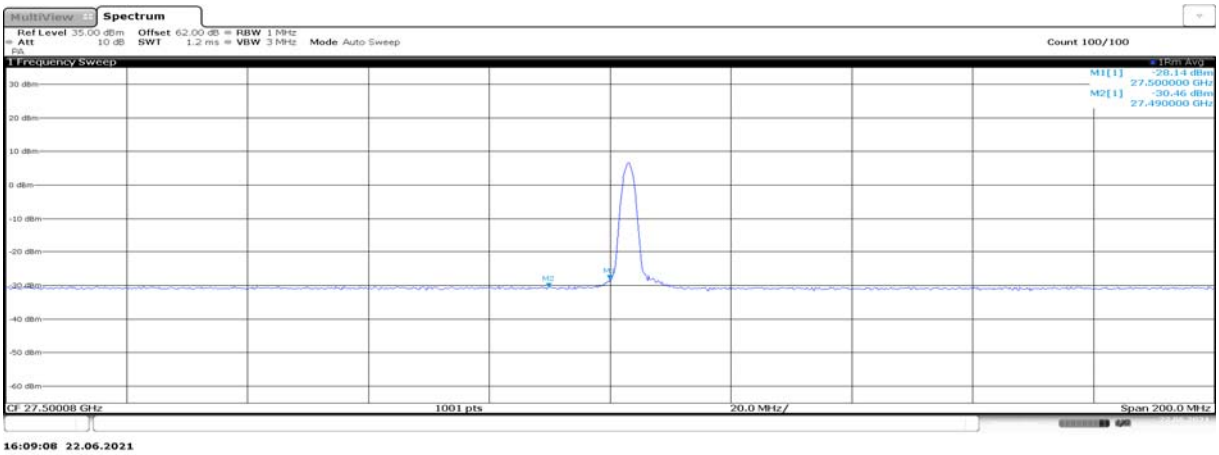


n261, Module1, SCS=120kHz, SISO Tx Chain 0, DFT, 100MHz

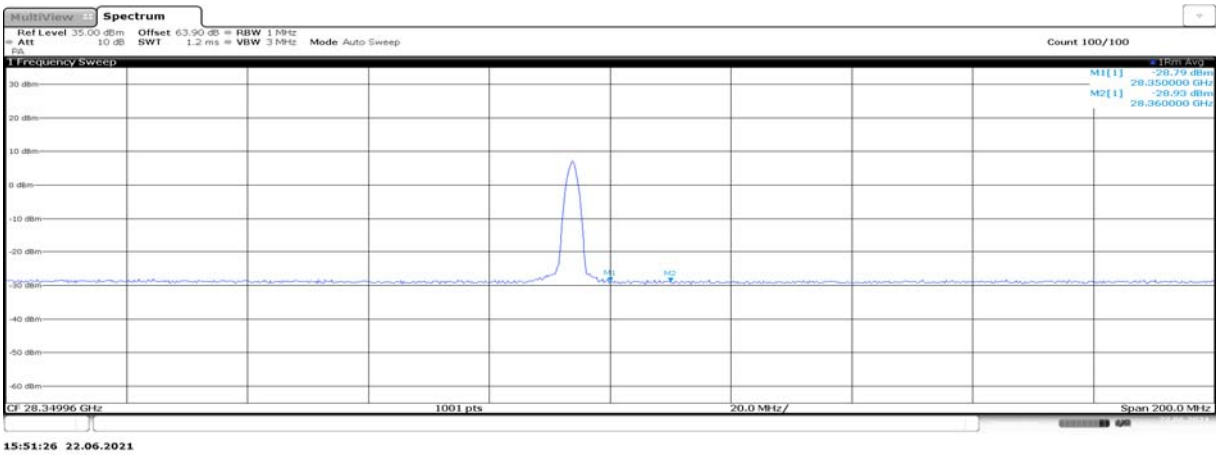
Bandwidth	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
100MHz	Pi/2 BPSK	100% RB	27550.08	15	-38.57	-39.87
		1 RB	27550.08	15	**-28.14**	**-30.46**
		100% RB	28299.96	15	-38.80	-39.94
		1 RB	28299.96	15	**-28.79**	**-28.93**
		100% RB	28299.96	25	-38.47	-38.64

Note:The channel with the maximum power of Pi/2 BPSK and 100% RB was chose, and the band edge of QPSK, 16QAM, 64QAM and the other Beam ID were measured on that channel.

The left band edge worse case figure:



The right band edge worse case figure:

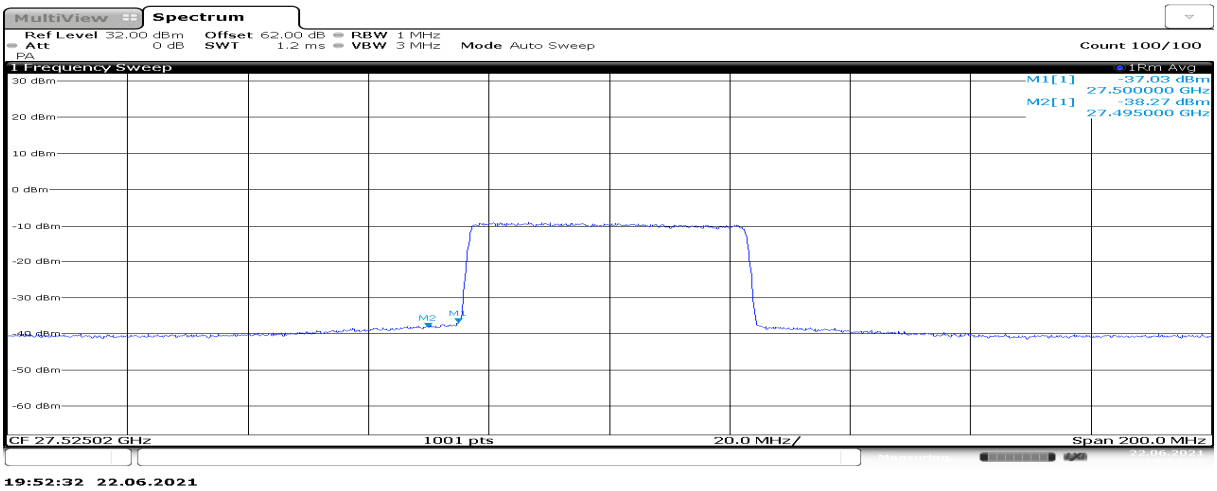


n261, Module1, SCS=120kHz, SISO Tx Chain 1

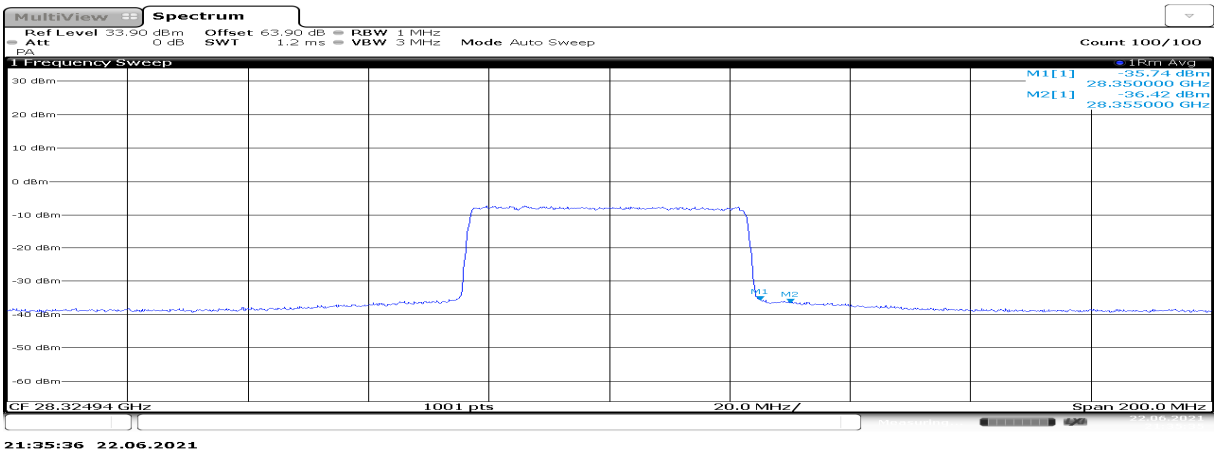
Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Beam ID	Peak (dBm)	
						Limit: -5dBm	Limit: -13dBm
50MHz	CP	QPSK	100% RB	27525	153	**-37.03**	**-38.27**
50MHz	CP	QPSK	100% RB	28324.92	153	**-35.74**	**-36.42**
100MHz	DFT	Pi/2 BPSK	100% RB	27550.08	153	-39.31	-40.32
100MHz	DFT	Pi/2 BPSK	100% RB	28299.96	153	-38.56	-38.96

Note: the set of OFDM, modulation and RB size with higher power was measured on low and high channels of 50MHz and 100MHz bandwidth.

The left band edge worse case figure:



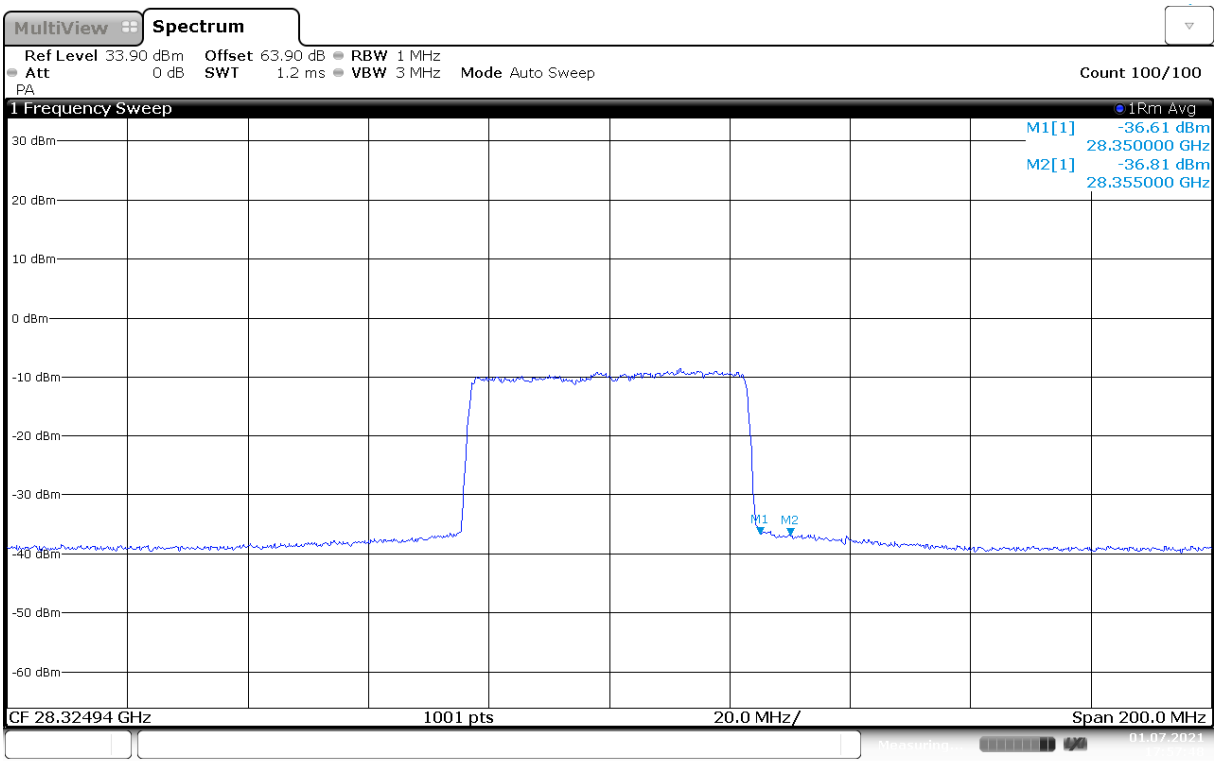
The right band edge worse case figure:



n261, Module1, SCS=120kHz, MIMO Tx Chain 0 Beam ID 16 + Tx Chain 1 Beam ID 144

Bandwidth	OFDM	Modulation	RB size/offset	Frequency (MHz)	Peak (dBm)	
					Limit: -5dBm	Limit: -13dBm
50MHz	CP	QPSK	100% RB	28324.92	-36.61	-36.81

Note: the set of modulation, RB size and channel with higher power at the specified bandwidth was measured.



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Annex B: Calibration Certificates List

Signal Generator	SMF100A	104940	R&S	2021-12-09	1 year

中国泰尔实验室 China Telecommunication Technology Labs

ilac-MRA CNAS 中国认可 国际互认 校准 CALIBRATION CNAS L0570

校 准 证 书

证书编号： J20X12055

客 户 名 称	中国泰尔实验室
客 户 地 址	北京市海淀区花园北路 52 号
器 具 名 称	信号发生器
型 号/规 格	SMF100A
出 厂 编 号	104940
制 造 单 位	ROHDE&SCHWARZ 公司
校 准 日 期	2020 年 12 月 10 日

所测数据符合该仪表说明书技术指标要求。

泰尔实验室 (校准专用章) 校准专用章

批准人：

核验员：

校准员：

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