TEST REPORT

Report Number : 14040867-E20V2

Applicant : APPLE, INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A.

Model : A2649

FCC ID : BCG-E8138A

EUT Description : SMARTPHONE

Test Standard : FCC CFR 47 PART 30 MOBILE TRANSMITTER (5GM)

Date Of Issue:
July 11, 2022

Prepared by:
UL Verification Services Inc.
47173 Benicia Street
Fremont, CA 94538 U.S.A.
TEL: (510) 319-4000
FAX: (510) 661-0888

ACCREDITED
CERT #0751.05

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	06/17/2022	Initial Issue	GP CHIN
V2	07/11/2022	Updated notes for IMD measurement in Section 8.4 Per TCB's feedback.	GP CHIN

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	APPLE, INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A
EUT DESCRIPTION:	SMARTPHONE
MODEL:	A2649
BRAND:	APPLE
SERIAL NUMBERS:	V7D6GF5XXV, GFCR6GX7F3, V2V9KHF5W9
SAMPLE RECEIPT DATES:	01/06/2022, 05/24/2022, 05/24/2022
DATE TESTED:	February 11th – June 4th, 2022

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 30 Mobile Transmitter (5GM)	Complies

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the Federal Government.

Approved & Released For
UL Verification Services Inc. By:

Gia-Piao (GP) Chin
Operations Leader
UL Verification Services Inc.

Tested By:

Paul Bastaki
Laboratory Engineer
UL Verification Services Inc.

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods:

1. FCC CFR 47 Part 2
2. FCC CFR 47 Part 30
3. ANSI C63.26-2015
4. KDB 842590 D01 Upper Microwave Flexible Use Service v01r02
5. KDB 971168 D01 Power Meas. License Digital Systems v03r01

3. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, certification #0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company No.	FCC Registration
☒	Building 1: 47173 Benicia Street, Fremont, California, USA	US0104	2324A	208313
☐	Building 2: 47266 Benicia Street, Fremont, California, USA	US0104	22541	208313
☐	Building 4: 47658 Kato Rd, Fremont, California, USA	US0104	2324B	208313

Chambers 1, 2 and 3 are fully-anechoic chambers dedicated to make measurements to TRP limits from 18 - 40 GHz, and field strength, EIRP and TRP measurements at and above 40 GHz. The measurement antenna is nominally 1.5 m high in accordance with C63.10-2013, procedures developed by the C63 mmWave Joint Task Group for inclusion in the next editions of C63.10 and C63.26, and applicable FCC KDB documents. The absorber reflectivity fully supports chamber performance over this frequency range. The dimensions of the chambers are approximately 9 m L by 6 m W by 5.2 m H for chamber 1 and 6.8 m L by 3.7 m W by 3.1 m H for chambers 2 and 3.

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4. CALIBRATION AND UNCERTAINTY

4.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

4.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U_{LAB}
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB
Worst Case TRP, 18000 to 26000 MHz	4.10 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.29 dB
Worst Case TRP, 26000 to 40000 MHz	4.95 dB
Worst Case Radiated Disturbance, >40000 MHz	2.89 dB
Worst Case TRP, >40000 MHz	2.94 dB
Temperature	±0.9 °C
Voltages	±0.45 %
Time	±0.02 %

Uncertainty figures are valid to a confidence level of 95%.

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a smartphone with multimedia functions (music, application support, and video), cellular GSM, GPRS, EGPRS, UMTS, LTE, 5G, IEEE 802.11a/b/g/n/ac/ax, Bluetooth, Ultra-Wideband, GPS, NFC and MSS. All models except reference model support at least one UICC based SIM. The second SIM is either an UICC based p-SIM (physical SIM) or e-SIM (electronic SIM). The device supports a built-in inductive charging transmitter and receiver. The rechargeable battery is not user accessible.

This test report addresses the 5G NR operational mode on following frequency bands:

n258 (denoted as n258 SB1 in this report): 24.25 – 24.45 GHz (TDD)
n258 (denoted as n258 SB2 in this report): 24.75 – 25.25 GHz (TDD)
n261: 27.5 – 28.35 GHz (TDD)
n260: 37 – 40 GHz (TDD)

Two FR2 RFIC Chipset + Antennas sets are used. Both Chipsets are identical.
Chipset 1 can transmit on mmWave antenna M1 (Ant M1) or mmWave antenna M2 (Ant M2).
Chipset 2 will transmit only on mmWave antenna M3 (Ant M3).

Ant M2 and Ant M3 employ integrated 1x5 elements patch antenna array and Ant M1 employs 1x2 elements patch antenna array, therefore Ant M2 transmits higher power than Ant M1. Full measurements on Chipset 1 were performed with Ant M2 and spot-checks on transmit power of Ant M1 were performed with selected modes. Measurements on Chipset 2 were performed with Ant M3.

The EUT supports SISO, SISO-Dual and MIMO modes in channel bandwidths of 50 MHz and 100 MHz, with up to 4 component carriers (1CC to 4CC) for carrier aggregation technique. The SISO mode operates with either the horizontal or vertical elements active. The SISO-Dual mode operates with both horizontal and vertical elements active at the same power per polarization as the SISO mode. Similarly, the MIMO mode operates with both horizontal and vertical elements active. MIMO mode only supports CP-OFDM access scheme, but SISO-Dual supports both CP-OFDM and DFT-s-OFDM access schemes. DFT-s-OFDM operates at higher power than CP-OFDM.

QPSK, 16QAM and 64QAM modulations are used in all three SISO, SISO-Dual and MIMO modes. Pi/2 BPSK modulation is only used in SISO and SISO-Dual modes.

Manufacturer provided the Beam ID settings that yield the highest EIRP for each antenna in each operating frequency band by the EIRP Simulation tool. These Beam ID settings were used for all tests. All tests were performed in a non-signaling, stand-alone mode of operation.

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5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The EUT utilizes three sets of integrated dual-polarized patch antenna array. Ant M1 employs 1x2 elements antenna array, Ant M2 and Ant M3 employ 1x5 elements antenna array. The nominal antenna gains of horizontal, vertical, and cross polarizations of each antenna, based on frequency bands, are listed in the following table.

Antenna	Frequency Band	Horizontal (dBi)	Vertical (dBi)	Cross (dBi)
M1	n258 SB1 & SB2	4.6	7.3	9.2
	n261	4.7	7.5	9.3
	n260	7.7	5.2	9.7
M2	n258 SB1 & SB2	16	14.8	18.5
	n261	16.7	15.4	18.4
	n260	14.6	15.8	19.1
M3	n258 SB1 & SB2	13.7	12.9	16.4
	n261	14	12.9	16.5
	n260	14.6	15.8	18.3

5.3. MAXIMUM EIRP AND OBW

Maximum Average EIRP based on frequency bands and antennas.

	Antenna	Control System	CH BW (MHz)	CCs Active	Avg EIRP (dBm)	Avg EIRP (W)	Modulation
n258 SB1	M1	SISO-Dual	100	1	22.07	0.161	QPSK
	M2	SISO-Dual	50	1	30.97	1.250	QPSK
	M2	SISO-Dual	100	1	28.69	0.740	16QAM
	M3	SISO-Dual	50	1	30.59	1.146	QPSK
	M3	SISO-Dual	50	1	26.88	0.488	16QAM
n258 SB2	M1	SISO-Dual	50	1	22.24	0.167	QPSK
	M2	SISO-Dual	100	1	31.65	1.462	QPSK
	M2	SISO-Dual	100	1	28.43	0.697	16QAM
	M3	SISO-Dual	50	1	30.73	1.183	QPSK
	M3	SISO-Dual	100	1	27.42	0.552	16QAM
n261	M1	SISO-Dual	100	1	22.2	0.166	QPSK
	M2	SISO-Dual	100	1	32.85	1.928	QPSK
	M2	SISO-Dual	50	1	29.65	0.923	16QAM
	M3	SISO-Dual	100	1	29.92	0.982	QPSK
	M3	SISO-Dual	100	1	27	0.501	16QAM
n260	M1	SISO-Dual	100	1	21.05	0.127	QPSK
	M2	SISO-Dual	100	1	31.49	1.409	QPSK
	M2	SISO-Dual	100	1	27.33	0.541	16QAM
	M3	SISO-Dual	100	1	28.4	0.692	QPSK
	M3	SISO-Dual	50	1	24.64	0.291	16QAM

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Maximum Occupied Bandwidth based on frequency bands and antennas M2 & M3.

	Antenna	Control System	CH BW (MHz)	CCs Active	OBW (MHz)	Emission Designator	Modulation
n258 SB1	M2	SISO-Dual	50	4	196.77	197MG7W	QPSK
	M2	SISO-Dual	50	4	196.21	196MD7W	64QAM
	M3	SISO-Dual	50	4	196.46	196MG7W	QPSK
	M3	SISO-Dual	50	4	195.28	195MD7W	64QAM
n258 SB2	M2	MIMO	100	4	391.64	392MG7W	QPSK
	M2	SISO-Dual	100	4	388.51	389MD7W	16QAM
	M3	MIMO	100	4	391.7	392MG7W	QPSK
	M3	SISO-Dual	100	4	390.31	390MD7W	16QAM
n261	M2	MIMO	100	4	392.17	392MG7W	QPSK
	M2	SISO-Dual	100	4	388.67	389MD7W	16QAM
	M3	MIMO	100	4	392.64	393MG7W	QPSK
	M3	SISO-Dual	100	4	390.21	390MD7W	16QAM
n260	M2	MIMO	100	4	392.48	392MG7W	QPSK
	M2	SISO-Dual	100	4	389.62	390MD7W	64QAM
	M3	MIMO	100	4	393.37	393MG7W	QPSK
	M3	SISO-Dual	100	4	392.51	393MD7W	64QAM

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5.4. SOFTWARE AND FIRMWARE

The Software/Firmware version used at test is 0.15.02.

5.5. WORST CASE ORIENTATION

For all 5G NR FR2 Bands, the worst-case scenario for all measurements is based on the EIRP measurement investigation results. EIRPs were measured on BPSK, QPSK, 16QAM and 64QAM modulations. It was found that QPSK results in SISO-Dual supporting DFT-s-OFDM were worst case.

The EIRPs of band edge and radiated spurious emission is compared to TRP limit to demonstrate compliance.

The fundamental and radiated spurious emission were investigated in three orthogonal orientations X (landscape), Y (portrait), Z (flatbed) and Roll, where is applicable on all 3 antennas. The final optimum position resulting in the highest EIRP for the frequency or band under investigation is placed on an open-air fixture, allowing no blockage of the signal as measured by the receiving antenna.

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5.6. BEAM ID

In all tests, the following Beam ID settings of each antenna were applied for final measurements.

n258 SB1 - Peak BID		
Antenna	**BID**	**Paired with**
M1	156	28
M2	172	44
M3	170	42

n258 SB2 - Peak BID		
Antenna	**BID**	**Paired with**
M1	156	28
M2	172	44
M3	170	42

n261 - Peak BID		
Antenna	**BID**	**Paired with**
M1	145	17
M2	164	36
M3	168	40

n260 - Peak BID		
Antenna	**BID**	**Paired with**
M1	156	28
M2	171	43
M3	169	41

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5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST			
Description	**Manufacturer**	**Model**	**Serial Number**
LAPTOP + Adapter	Apple	MacBook Pro	HRP046790
Bacon Cable-USB Adapter	Apple	---	F7514PIGMN0000102
LAPTOP + Adapter	Apple	MacBook Pro	1PWR5000019-00303
Bacon Cable-USB Adapter	Apple	---	F7514PIGMN0000107
LAPTOP + Adapter	Apple	MacBook Pro	1PWR5000019
Bacon Cable-USB Adapter	Apple	---	F7514PIGMN0000113
LAPTOP + Adapter	Apple	MacBook Pro	HRP046790

I/O CABLES

I/O Cable List						
Cable No.	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	DC Power	2	USB Micro	Shielded	0.9 – 2.0	--
2	Data	1	--	Shielded	0.8	--
3	Data	1	--	Shielded	0.06	--
4	DC Power	1	Clip leads	Un-shielded	1.0	--
5	AC Line	1	3-prong	Un-shielded	1.0	--

TEST SETUP

All testing was performed using FTM (Factory Test Mode) software at continuous Tx operation. When implemented out in the field, the EUT will operate with a maximum uplink configuration (i.e., a maximum uplink duty cycle of 100%).

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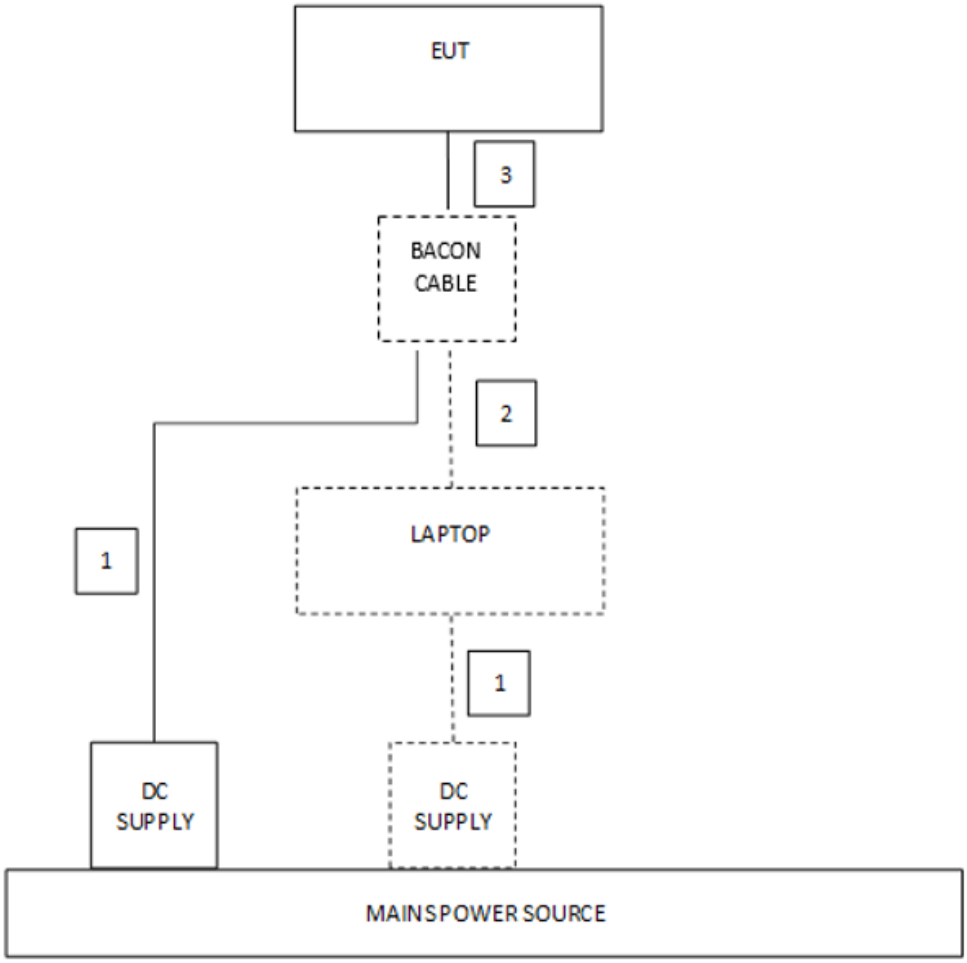
SETUP DIAGRAM FOR TESTS

RF TESTS



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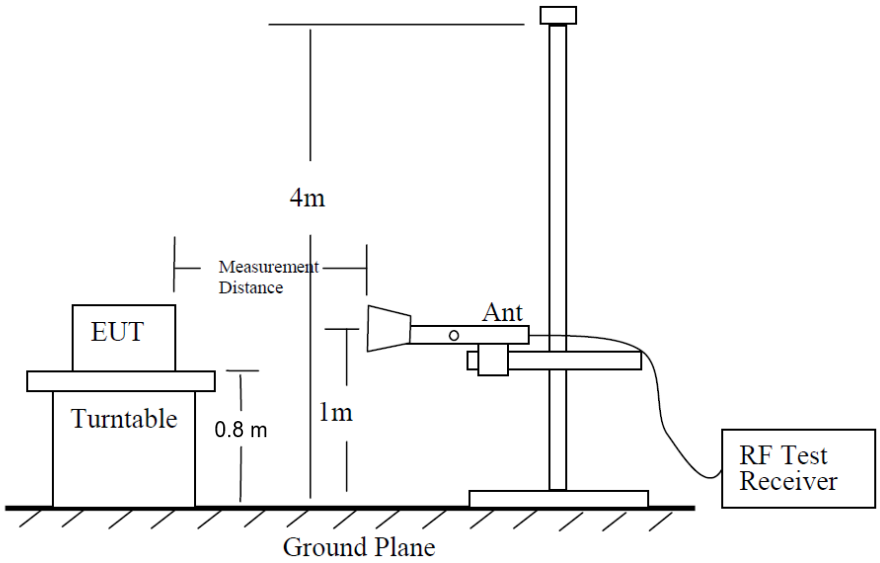
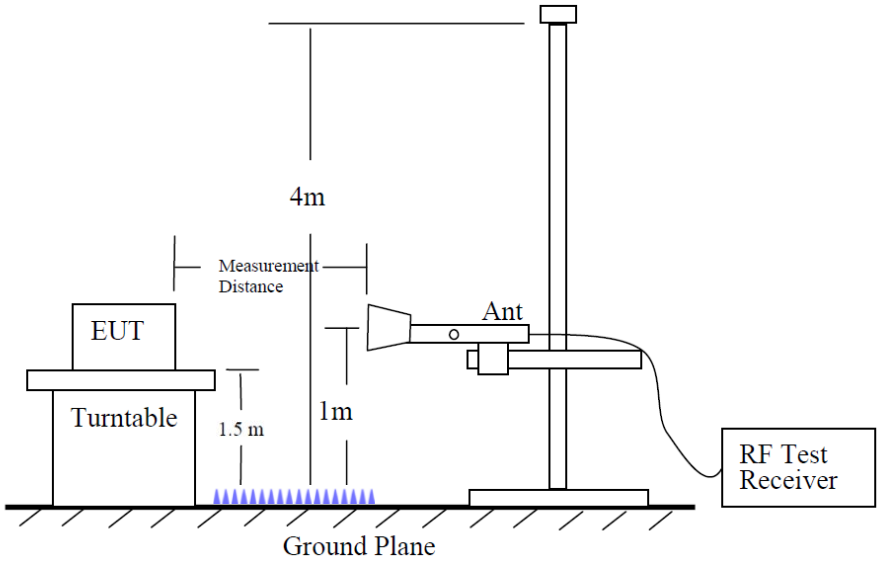
TEST SITE DIAGRAM – Below 1 GHz



TEST SITE DIAGRAM – 1-18 GHz



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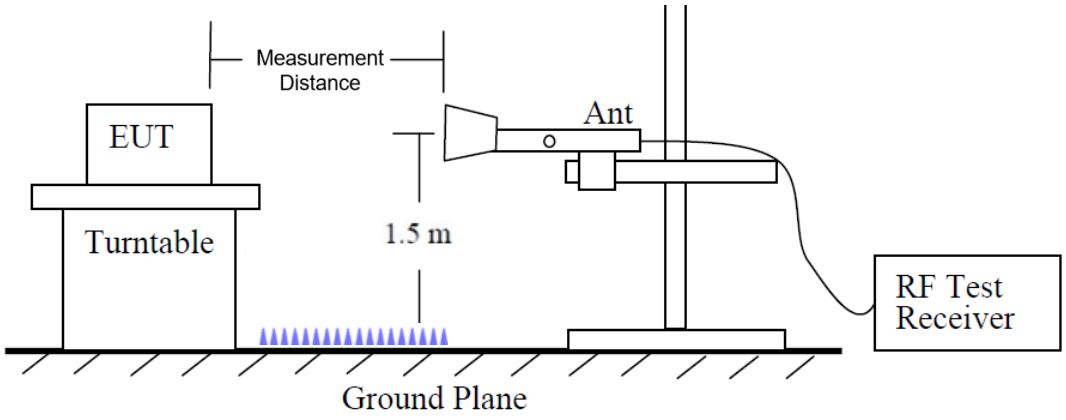
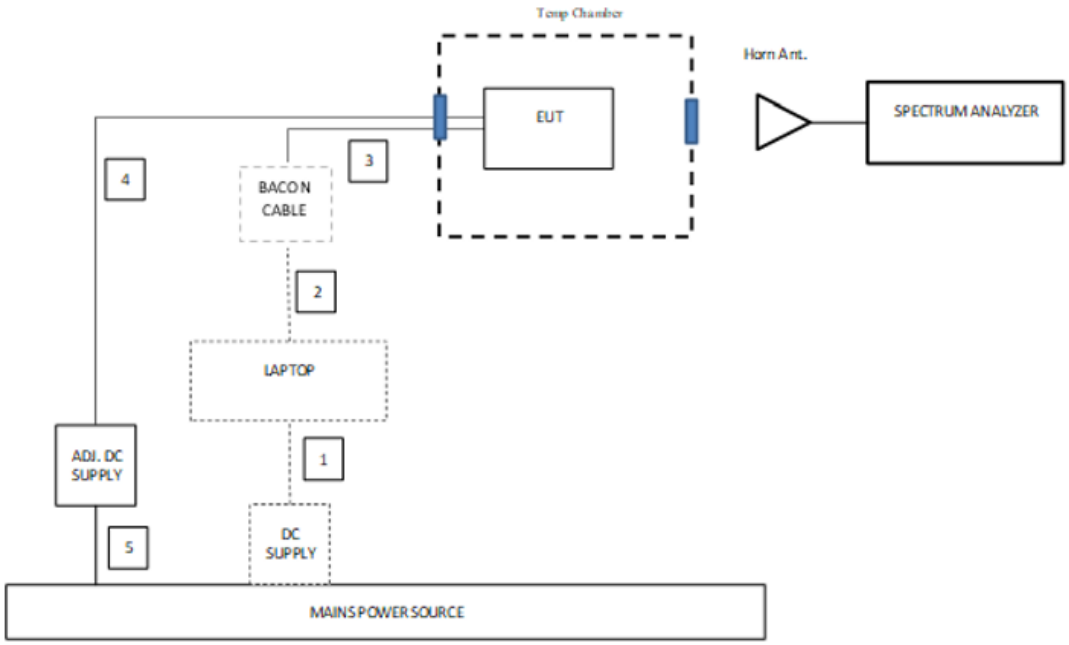
TEST SITE DIAGRAM – Above 18 GHz & mmWave



FREQUENCY STABILITY



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FAR-FIELD DISTANCE AND MEASUREMENT DISTANCE

The equipment under test was transmitting while connected to its integral antenna and is placed on a turntable.

The measurement distance is in the far field per formula $2D^2/\lambda$ where D is the larger dimension of the antenna. For fundamental or band edge emissions, the largest far-field distance of either the EUT antenna or measurement antenna shall be used. For above 18 GHz spurious emissions, the far-field distance will be based on the measured antenna. In this case, the measurement antenna has the largest far-field distance. The EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest EIRP reading on the receive spectrum analyzer.

Frequency Range (GHz)	Wavelength (m)	Far Field Distance (m)	Measurement Distance Used (m)
18-26.5	0.0113	3.39	3.50
26.5-40	0.0075	2.61	3.00
40-50	0.0060	1.61	3.00
50-75	0.0040	1.05	1.50
75-110	0.0027	0.70	1.00
110-170	0.0018	0.46	1.00
170-200	0.0015	0.24	0.50

Radiated power levels are investigated while the receive antenna was rotated through all angles to determine the worst-case polarization/positioning.

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6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List					
Description	**Manufacturer**	**Model**	**Local ID**	**Last Cal**	**Cal Due**
Spectrum Analyzer, PXA, 3 Hz to 50 GHz	Keysight	N9030A	80125	1/27/2022	1/27/2023
Spectrum Analyzer, 2 Hz to 50 GHz	Rohde & Schwarz	FSW50	198710	3/30/2022	3/30/2023
Spectrum Analyzer, 2 Hz to 50 GHz	Rohde & Schwarz	FSW50	199181	2/21/2022	2/21/2023
Spectrum Analyzer, 2 Hz to 50 GHz	Rohde & Schwarz	FSW50	215756	2/1/2022	2/1/2023
EMI Test Receiver, 1 Hz to 44 GHz	Rohde & Schwarz	ESW44	191430	2/19/2022	2/19/2023
Antenna, Horn 18-26.5 GHz	ARA	MWH-1826/B	PRE0212908	10/13/2021	10/13/2022
Antenna, Horn 26.5-40 GHz	ARA	MWH-2640/B	PRE0212909	9/2/2021	9/2/2022
Antenna, Horn 18-26.5 GHz	ARA	MWH-1826/B	PRE0213446	6/2/2021	6/2/2022*
Antenna, Horn 26.5-40 GHz	ARA	MWH-2640/B	PRE0212448	6/2/2021	6/2/2022*
Antenna, Horn 18-26.5 GHz	ARA	MWH-1826/B	PRE0212447	6/23/2021	6/23/2022
Antenna, Horn 26.5-40 GHz	ARA	MWH-2640/B	PRE0212449	6/23/2021	6/23/2022
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	85213	1/29/2022	1/29/2023
Antenna, Double Ridge Guide Horn 1 to 18 GHz	ETS	3117	T345	5/26/2021	5/26/2022*
Amplifier, 9 kHz to 1 GHz, 32dB	Sonoma Instruments	310	PRE0180176	7/7/2021	7/7/2022
Antenna, Broadband Hybrid 30MHz to 2000MHz	Sunol Sciences Corp.	JB3	203089	1/31/2022	1/31/2023
Amplifier, 1-18GHz	MITEQ	AFS42_00101800-25-S-42	PRE0177820	6/1/2021	6/1/2022*
Environmental Chamber	Thermotron Industries	SE-600-10-10	79361	11/05/2022	11/05/2023
Digital Multimeter	Fluke	87V	59154	1/24/2022	1/24/2023
50V/3A Adj. DC Power Supply	Rigol	DP712	T1746	CNR	CNR
Amplifier, 26 – 40 GHz	Amplical	AMP26G-40-34-10-MI	PRE0208539	3/31/2022	3/31/2023
Horn antenna, 35-50 GHz	CMI	HO22R	201518	7/8/2021	7/8/2022
LNA, 40-50 GHz	Evarant	SBL-3335033040-2222-E1	PRE0212250	9/29/2021	9/29/2022
Low Pass Filter, 40-50 GHz	Evarant	SWF-45310360-2F2F-B1	PRE0212184	9/29/2021	9/29/2022
50-75 GHz Horn	CMI	HO15R	210519	7/8/2021	7/8/2022
LNA, 50-75 GHz	Evarant	SBL-503753350-1515-E1	199500	11/30/2021	11/30/2022
Waveguide Harmonic Mixer, 50 to 80 GHz	Keysight	M1970V	T994	10/07/2021	10/07/2022
75-110 GHz Horn	CMI	HO10R	201522	9/22/2021	9/22/2022
LNA, 75-110 GHz	Spacek Labs	SLW-22-5	202520	3/31/2022	3/31/2023
Waveguide Harmonic Mixer, 75 to 110 GHz	Keysight	M1970W	T993	10/8/2021	10/8/2022
110-170 GHz Horn	CMI	HO6R	H06-1	7/8/2021	7/8/2022
LNA 110-170 GHz	VivaTech	VTLNA-01S01	126979	10/1/21	10/1/2022
110-170 GHz Downconverter	VDI	WR6.5SAX	166771	8/10/2021	8/10/2022
170-260 GHz Horn	CMI	HO4R	H04-1	7/8/2021	7/8/2022
170-260 GHz Downconverter	VDI	WR4.3SAX	166619	8/10/2021	8/10/2022
UL EMC Radiated Software	Version	Rev.9.5.21 Jan 2022			
mmWave FR2 Automation Tool Software	Version	V2.0			

*Equipment was used to perform tests prior to the calibration due date.

All horn antennas at and above the 33-50 GHz band are standard gain horns. In accordance with ANSI C63.10 clause 4.4.3 (a) Standard gain horns need not be periodically recalibrated, unless damage or deterioration is suspected or known to have occurred. If a standard gain horn is not periodically recalibrated, then its critical dimensions (see IEEE Std 1309-2005) shall be verified and documented on an annual basis.

UL measures the critical dimensions on an annual basis and checks for damage and deterioration before each test.

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7. TEST RESULTS SUMMARY

FCC Part Section	Test Description	Test Limit	Test Condition	Test Result
2.1049	Occupied Bandwidth	N/A	Radiated	Compliant
2.1046 30.202	Equivalent Isotropic Radiated Power (EIRP)	+43 dBm	Radiated	Compliant
2.1051 30.203	Out-of-Band Emissions at the Band Edge	-13 dBm/MHz for all out-of-band emissions. -5 dBm/MHz from the band edge up to 10% of the channel BW	Radiated	Compliant
2.1051 30.203	Radiated Spurious Emissions	-13 dBm/MHz for all out-of-band emissions	Radiated	Compliant
2.1055	Frequency Stability	N/A	Radiated	Compliant

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8. APPLICABLE LIMITS AND TEST RESULTS

8.1. OCCUPIED BANDWIDTH

RULE PART

FCC: §2.1049

LIMIT

For reporting purposes only

TEST PROCEDURES

99% bandwidth measurement function of the signal analyzer was used to measure 99% occupied.

- RBW = 1 – 5% of OBW
- VBW ≥ 3 x RBW
- Detector = Peak
- Trace mode = max hold
- Sweep = auto couple
- The trace was allowed to stabilize

KDB 842590 D01 Upper Microwave Flexible Use Service v01 Section 4.3
ANSI C63.26-2015 Clause 5.4.3.

All modulations were investigated in SISO-Dual mode and only QPSK modulation in SISO and MIMO modes with Full RB allocation to determine worst case configuration. All modes of operations were investigation and results are reported in this section.

To minimize report size, the 1CC to 4CC plots of Full RB, SISO-Dual, QPSK, Mid CH of both channel bandwidths on Ant M2 are provided to demonstrate the test parameter setting on signal analyzer. The tabular data includes data for the other combination of test modes.

RESULTS

See the following pages.

Employee IDs: 19437, 19459, 24303, 25368, 27446, 27780
Test Date: 2/11/22 – 6/2/22
Test Locations: Chambers 1, 2, 3

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8.1.1. OBW n258 SB1

RESULTS

n258 SB1, ANT M2, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
1	50	SISO-DUAL	BPSK	Mid	46.44
		SISO-DUAL	QPSK	Low	46.58
				Mid	46.54
				High	46.44
		MIMO		Mid	46.47
		SISO		Mid	46.20
		SISO-DUAL	16QAM	Mid	46.41
		SISO-DUAL	64QAM	Mid	46.47
	100	SISO-DUAL	BPSK	Mid	93.44
		SISO-DUAL	QPSK	Low	92.41
				Mid	93.73
				High	92.85
		MIMO		Mid	95.75
		SISO		Mid	92.45
		SISO-DUAL	16QAM	Mid	93.63
		SISO-DUAL	64QAM	Mid	93.04
2	50	SISO-DUAL	BPSK	Mid	96.68
		SISO-DUAL	QPSK	Low	97.01
				Mid	96.50
				High	97.19
		MIMO		Mid	95.96
		SISO		Mid	96.88
		SISO-DUAL	16QAM	Mid	96.18
		SISO-DUAL	64QAM	Mid	96.39
	100	SISO-DUAL	BPSK	Mid	191.88
		SISO-DUAL	QPSK	Mid	192.17
		MIMO		Mid	194.27
		SISO		Mid	191.68
		SISO-DUAL	16QAM	Mid	192.42
		SISO-DUAL	64QAM	Mid	192.30

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n258 SB1, ANT M2, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
3	50	SISO-DUAL	BPSK	Mid	146.47
		SISO-DUAL	QPSK	Low	146.20
				Mid	146.49
				High	146.60
		MIMO		Mid	146.30
		SISO		Mid	145.92
		SISO-DUAL	16QAM	Mid	146.70
		SISO-DUAL	64QAM	Mid	146.98
4	50	SISO-DUAL	BPSK	Mid	196.03
		SISO-DUAL	QPSK	Low	195.83
				Mid	196.77
				High	196.50
		MIMO		Mid	195.26
		SISO		Mid	195.90
		SISO-DUAL	16QAM	Mid	195.99
		SISO-DUAL	64QAM	Mid	196.21

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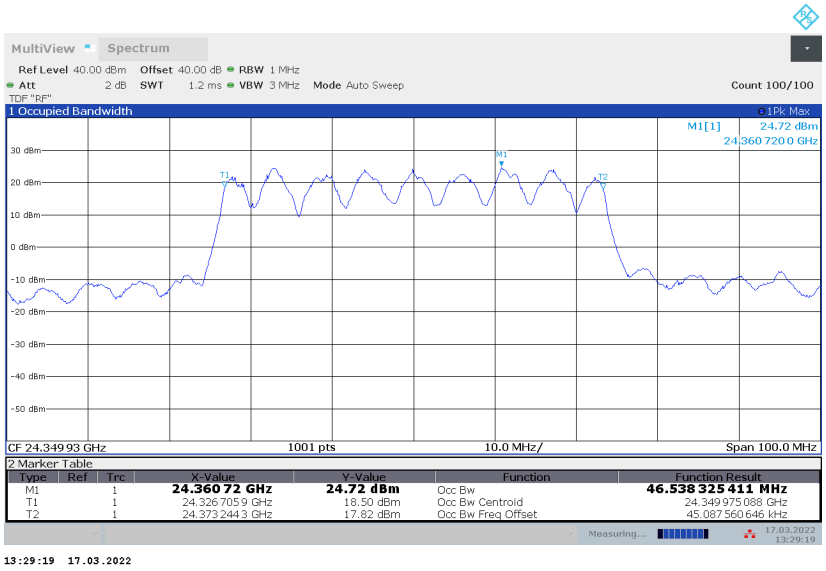
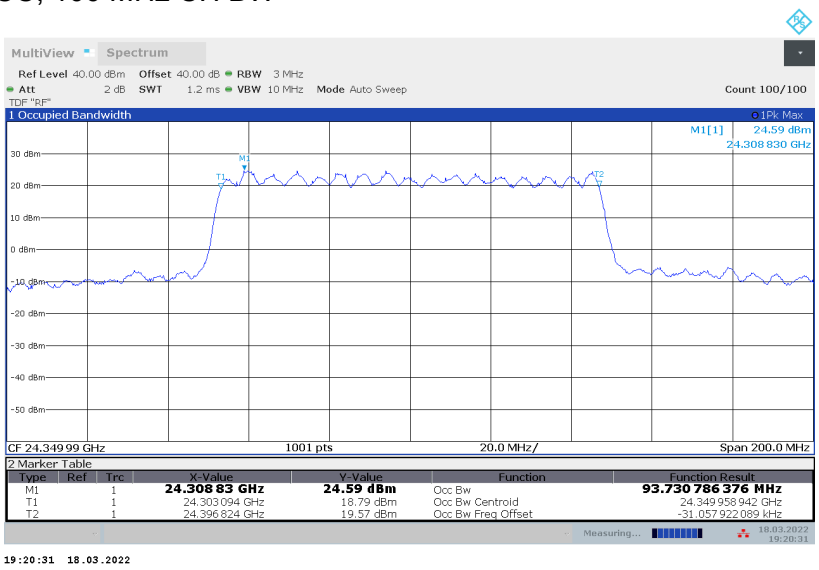
n258 SB1, ANT M2, Full-RB, SISO-Dual, QPSK, Mid-CH

1CC, 50 MHz CH BW



1CC, 100 MHz CH BW



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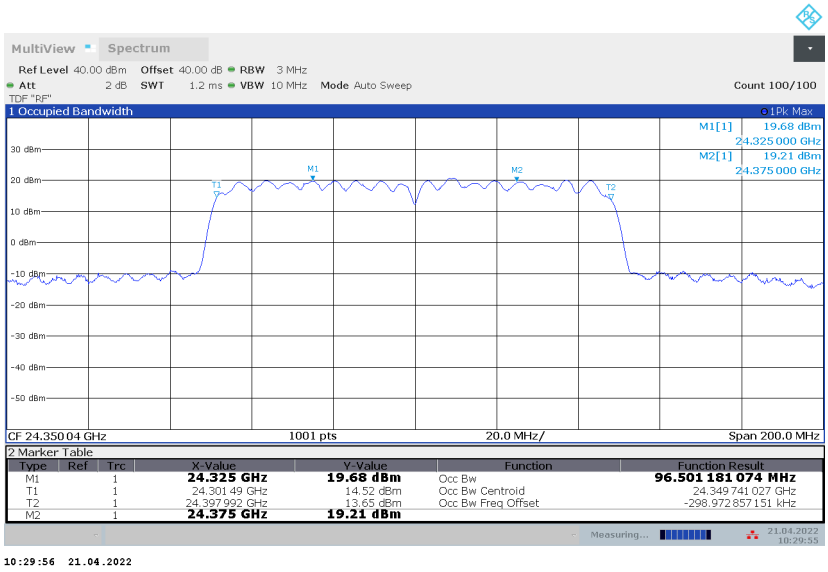
2CC, 50 MHz CH BW



2CC, 100 MHz CH BW

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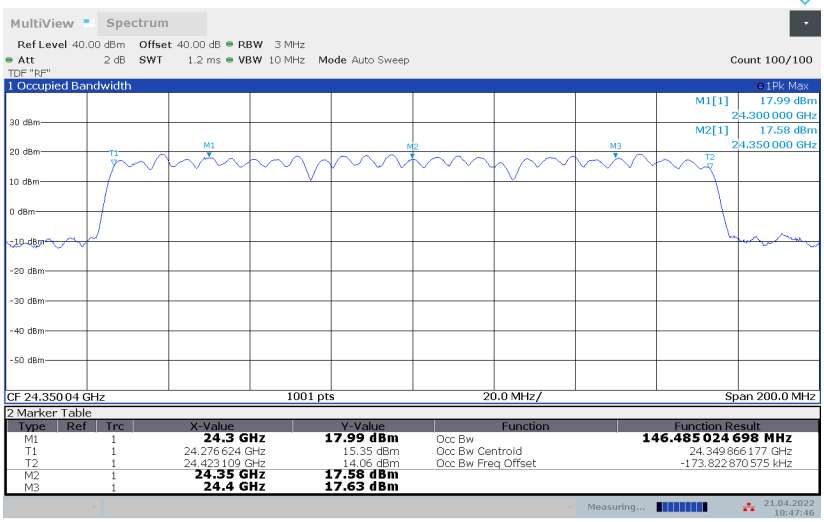
3CC, 50 MHz CH BW



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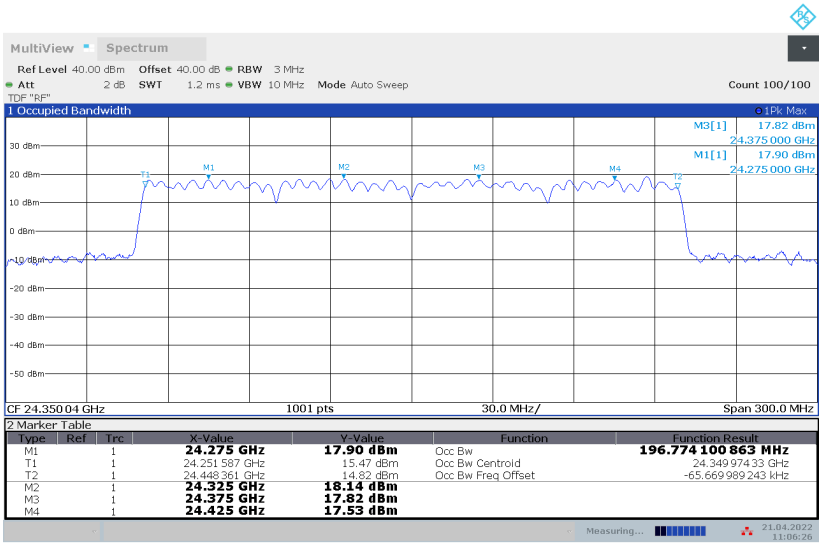
4CC, 50 MHz CH BW



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n258 SB1, ANT M3, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
1	50	SISO-DUAL	BPSK	Mid	46.45
		SISO-DUAL	QPSK	Low	46.26
				Mid	46.45
				High	46.26
		MIMO		Mid	46.29
		SISO		Mid	46.11
		SISO-DUAL	16QAM	Mid	46.45
		SISO-DUAL	64QAM	Mid	46.45
	100	SISO-DUAL	BPSK	Mid	92.58
		SISO-DUAL	QPSK	Low	93.52
				Mid	93.17
				High	93.12
		MIMO		Mid	95.69
		SISO		Mid	93.07
		SISO-DUAL	16QAM	Mid	92.58
		SISO-DUAL	64QAM	Mid	92.54
2	50	SISO-DUAL	BPSK	Mid	96.11
		SISO-DUAL	QPSK	Low	96.13
				Mid	96.11
				High	95.93
		MIMO		Mid	95.63
		SISO-DUAL	16QAM	Mid	95.93
		SISO-DUAL	64QAM	Mid	95.86
		SISO	QPSK	Mid	96.31
	100	SISO-DUAL	BPSK	Mid	192.00
		SISO-DUAL	QPSK	Mid	191.52
		MIMO		Mid	194.70
		SISO		Mid	190.97
		SISO-DUAL	16QAM	Mid	191.03
		SISO-DUAL	64QAM	Mid	190.98

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n258 SB1, ANT M3, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
3	50	SISO-DUAL	BPSK	Mid	145.56
		SISO-DUAL	QPSK	Low	145.37
				Mid	145.80
				High	145.74
		MIMO		Mid	145.56
		SISO		Mid	146.26
		SISO-DUAL	16QAM	Mid	146.03
		SISO-DUAL	64QAM	Mid	145.73
4	50	SISO-DUAL	BPSK	Mid	195.31
		SISO-DUAL	QPSK	Low	195.13
				Mid	194.50
				High	196.46
		MIMO		Mid	195.45
		SISO		Mid	196.24
		SISO-DUAL	16QAM	Mid	194.98
		SISO-DUAL	64QAM	Mid	195.28

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8.1.2. OBW n258 SB2

RESULTS

n258 SB2, ANT M2, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
1	50	SISO-DUAL	BPSK	Mid	46.50
		SISO-DUAL	QPSK	Low	46.47
				Mid	46.53
				High	46.47
		MIMO		Mid	46.47
		SISO		Mid	46.05
		SISO-DUAL	16QAM	Mid	46.41
		SISO-DUAL	64QAM	Mid	46.26
	100	SISO-DUAL	BPSK	Mid	93.45
		SISO-DUAL	QPSK	Low	92.74
				Mid	93.22
				High	92.67
		MIMO		Mid	95.81
		SISO		Mid	92.44
		SISO-DUAL	16QAM	Mid	93.37
		SISO-DUAL	64QAM	Mid	92.99
2	50	SISO-DUAL	BPSK	Mid	96.51
		SISO-DUAL	QPSK	Low	96.27
				Mid	96.55
				High	97.19
		MIMO		Mid	96.69
		SISO	QPSK	Mid	96.74
		SISO-DUAL	16QAM	Mid	97.32
		SISO-DUAL	64QAM	Mid	97.04
	100	SISO-DUAL	BPSK	Mid	191.51
		SISO-DUAL	QPSK	Low	190.98
				Mid	191.54
				High	190.68
		MIMO		Mid	193.98
		SISO	QPSK	Mid	191.38
		SISO-DUAL	16QAM	Mid	190.96
		SISO-DUAL	64QAM	Mid	191.98

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n258 SB2, ANT M2, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
3	50	SISO-DUAL	BPSK	Mid	146.46
		SISO-DUAL	QPSK	Low	146.58
				Mid	146.90
				High	146.50
		MIMO		Mid	146.27
		SISO		Mid	146.36
		SISO-DUAL	16QAM	Mid	146.82
		SISO-DUAL	64QAM	Mid	146.40
	100	SISO-DUAL	BPSK	Mid	290.13
		SISO-DUAL	QPSK	Low	290.88
				Mid	291.17
				High	289.78
		MIMO		Mid	294.58
		SISO		Mid	291.10
		SISO-DUAL	16QAM	Mid	290.26
		SISO-DUAL	64QAM	Mid	291.36
4	50	SISO-DUAL	BPSK	Mid	196.21
		SISO-DUAL	QPSK	Low	195.45
				Mid	195.58
				High	195.64
		MIMO		Mid	195.73
		SISO		Mid	195.76
		SISO-DUAL	16QAM	Mid	194.70
		SISO-DUAL	64QAM	Mid	196.08
	100	SISO-DUAL	BPSK	Mid	388.04
		SISO-DUAL	QPSK	Low	389.42
				Mid	388.54
				High	389.28
		MIMO		Mid	391.64
		SISO		Mid	390.25
		SISO-DUAL	16QAM	Mid	388.51
		SISO-DUAL	64QAM	Mid	387.93

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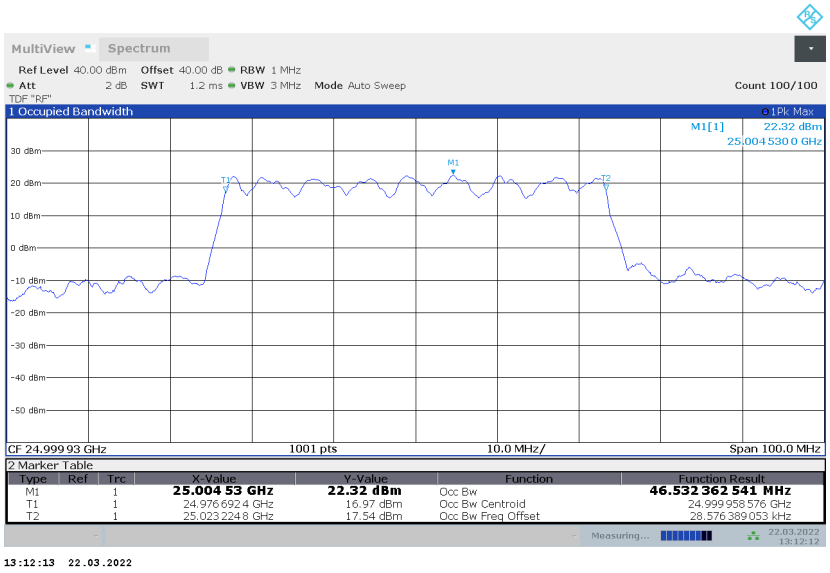
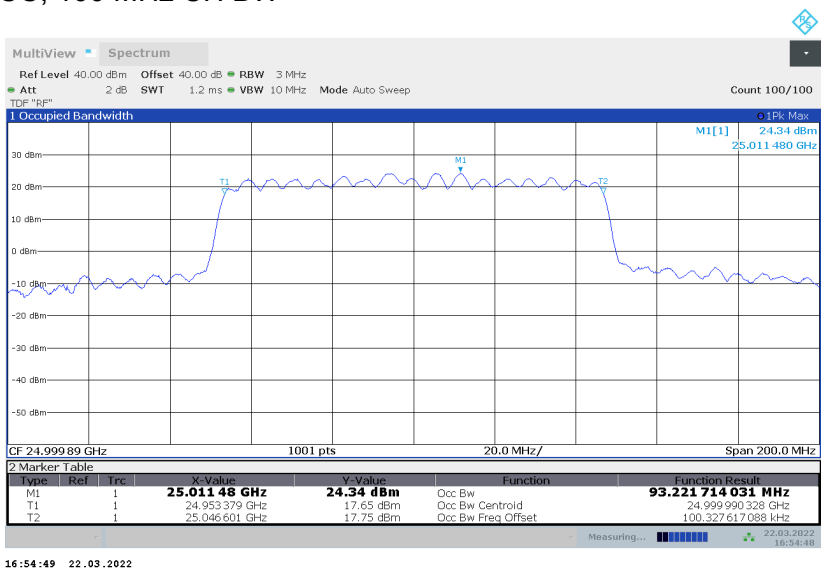
n258 SB2, ANT M2, Full-RB, SISO-Dual, QPSK, Mid-CH

1CC, 50 MHz CH BW



1CC, 100 MHz CH BW



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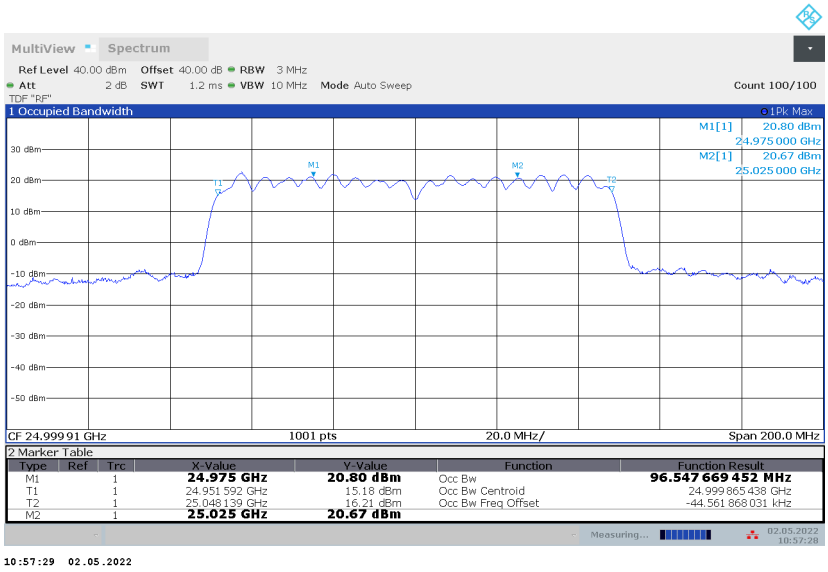
2CC, 50 MHz CH BW



2CC, 100 MHz CH BW

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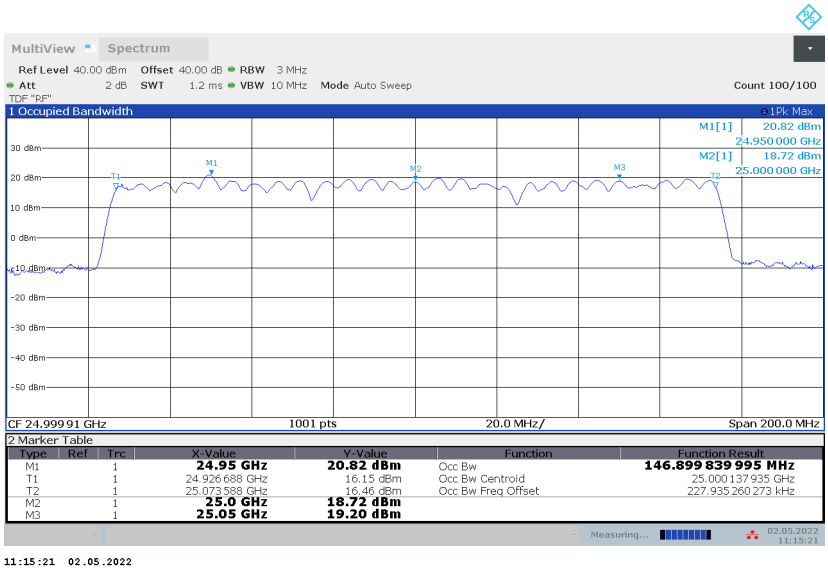
3CC, 50 MHz CH BW



3CC, 100 MHz CH BW

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4CC, 50 MHz CH BW

4CC, 100 MHz CH BW

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n258 SB2, ANT M3, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
1	50	SISO-DUAL	BPSK	Mid	46.05
		SISO-DUAL	QPSK	Low	46.05
				Mid	46.06
				High	46.22
		MIMO		Mid	46.08
		SISO		Mid	46.25
		SISO-DUAL	16QAM	Mid	45.58
		SISO-DUAL	64QAM	Mid	45.91
	100	SISO-DUAL	BPSK	Mid	91.97
		SISO-DUAL	QPSK	Low	91.93
				Mid	91.86
				High	91.65
		MIMO		Mid	95.79
		SISO		Mid	92.55
		SISO-DUAL	16QAM	Mid	92.11
		SISO-DUAL	64QAM	Mid	91.82
2	50	SISO-DUAL	BPSK	Mid	95.54
		SISO-DUAL	QPSK	Low	96.42
				Mid	96.33
				High	96.65
		MIMO		Mid	95.42
		SISO		Mid	97.05
		SISO-DUAL	16QAM	Mid	95.75
		SISO-DUAL	64QAM	Mid	96.25
	100	SISO-DUAL	BPSK	Mid	190.42
		SISO-DUAL	QPSK	Low	192.45
				Mid	190.88
				High	188.76
		MIMO		Mid	193.31
		SISO		Mid	190.74
		SISO-DUAL	16QAM	Mid	190.58
		SISO-DUAL	64QAM	Mid	190.60

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n258 SB2, ANT M3, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
3	50	SISO-DUAL	BPSK	Mid	146.23
		SISO-DUAL	QPSK	Low	145.03
				Mid	145.85
				High	146.19
		MIMO		Mid	145.21
		SISO		Mid	145.50
		SISO-DUAL	16QAM	Mid	145.60
		SISO-DUAL	64QAM	Mid	145.03
	100	SISO-DUAL	BPSK	Mid	290.39
		SISO-DUAL	QPSK	Low	290.31
				Mid	219.21
				High	288.85
		MIMO		Mid	293.99
		SISO		Mid	291.24
		SISO-DUAL	16QAM	Mid	290.73
		SISO-DUAL	64QAM	Mid	290.66
4	50	SISO-DUAL	BPSK	Mid	194.49
		SISO-DUAL	QPSK	Low	194.71
				Mid	195.03
				High	195.23
		MIMO		Mid	194.09
		SISO		Mid	195.66
		SISO-DUAL	16QAM	Mid	194.91
		SISO-DUAL	64QAM	Mid	194.80
	100	SISO-DUAL	BPSK	Mid	389.34
		SISO-DUAL	QPSK	Low	387.30
				Mid	389.78
				High	387.29
		MIMO		Mid	391.70
		SISO		Mid	390.47
		SISO-DUAL	16QAM	Mid	390.31
		SISO-DUAL	64QAM	Mid	389.91

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8.1.3. OBW n261

RESULTS

n261, ANT M2, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
1	50	SISO-DUAL	BPSK	Mid	46.51
		SISO-DUAL	QPSK	Low	46.51
				Mid	46.24
				High	46.26
		MIMO		Mid	46.30
		SISO		Mid	46.14
		SISO-DUAL	16QAM	Mid	46.33
		SISO-DUAL	64QAM	Mid	46.35
	100	SISO-DUAL	BPSK	Mid	92.49
		SISO-DUAL	QPSK	Low	93.38
				Mid	93.20
				High	92.66
		MIMO		Mid	95.21
		SISO		Mid	92.28
		SISO-DUAL	16QAM	Mid	92.96
		SISO-DUAL	64QAM	Mid	92.69
2	50	SISO-DUAL	BPSK	Mid	95.38
		SISO-DUAL	QPSK	Low	96.38
				Mid	96.73
				High	97.01
		MIMO		Mid	96.38
		SISO		Mid	96.64
		SISO-DUAL	16QAM	Mid	96.71
		SISO-DUAL	64QAM	Mid	95.79
	100	SISO-DUAL	BPSK	Mid	191.89
		SISO-DUAL	QPSK	Low	191.42
				Mid	192.08
				High	189.85
		MIMO		Mid	194.84
		SISO		Mid	191.01
		SISO-DUAL	16QAM	Mid	191.89
		SISO-DUAL	64QAM	Mid	191.87

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n261, ANT M2, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
3	50	SISO-DUAL	BPSK	Mid	146.11
		SISO-DUAL	QPSK	Low	146.71
				Mid	145.87
				High	146.11
		MIMO		Mid	146.25
		SISO		Mid	145.75
		SISO-DUAL	16QAM	Mid	145.83
		SISO-DUAL	64QAM	Mid	146.00
	100	SISO-DUAL	BPSK	Mid	290.05
		SISO-DUAL	QPSK	Low	289.96
				Mid	289.94
				High	289.66
		MIMO		Mid	294.90
		SISO		Mid	290.19
		SISO-DUAL	16QAM	Mid	290.61
		SISO-DUAL	64QAM	Mid	290.15
4	50	SISO-DUAL	BPSK	Mid	195.54
		SISO-DUAL	QPSK	Low	196.09
				Mid	195.27
				High	195.18
		MIMO		Mid	195.42
		SISO		Mid	195.05
		SISO-DUAL	16QAM	Mid	194.32
		SISO-DUAL	64QAM	Mid	195.81
	100	SISO-DUAL	BPSK	Mid	387.21
		SISO-DUAL	QPSK	Low	387.10
				Mid	388.11
				High	389.62
		MIMO		Mid	392.17
		SISO		Mid	389.45
		SISO-DUAL	16QAM	Mid	388.67
		SISO-DUAL	64QAM	Mid	388.12

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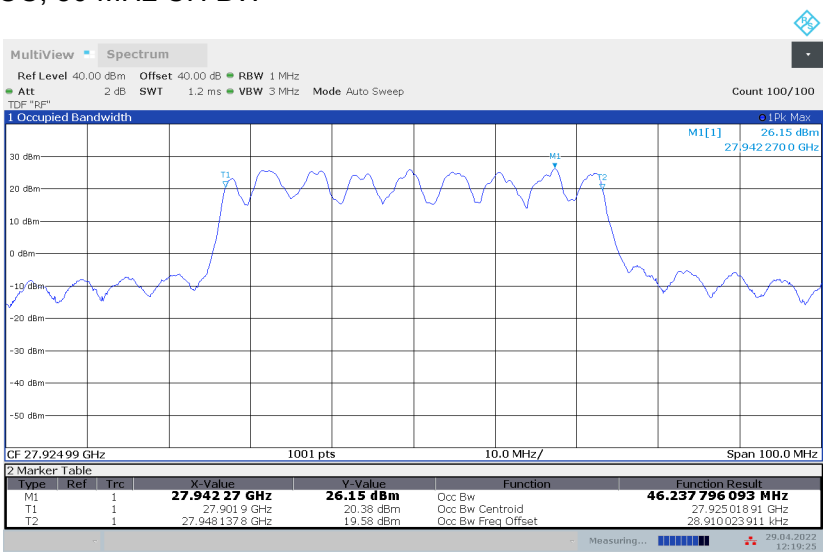
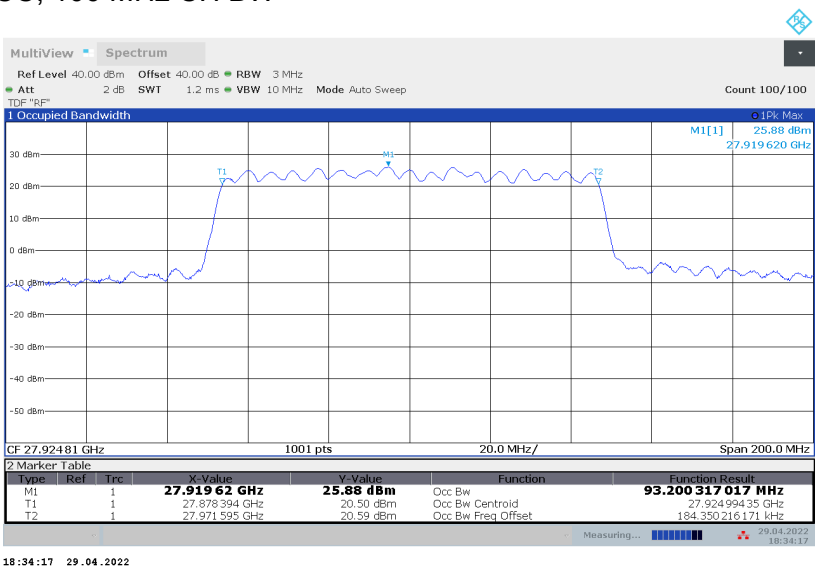
n261, ANT M2, Full-RB, SISO-Dual, QPSK, Mid-CH

1CC, 50 MHz CH BW



1CC, 100 MHz CH BW



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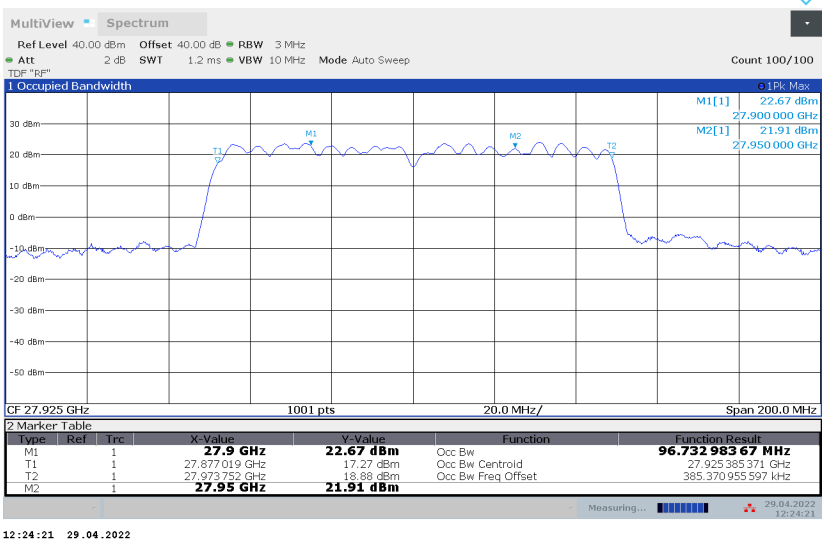
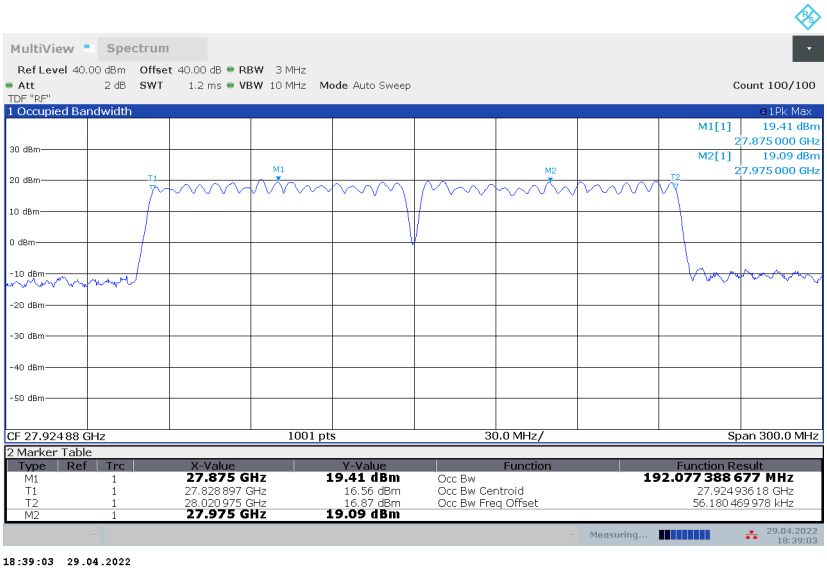
2CC, 50 MHz CH BW



2CC, 100 MHz CH BW



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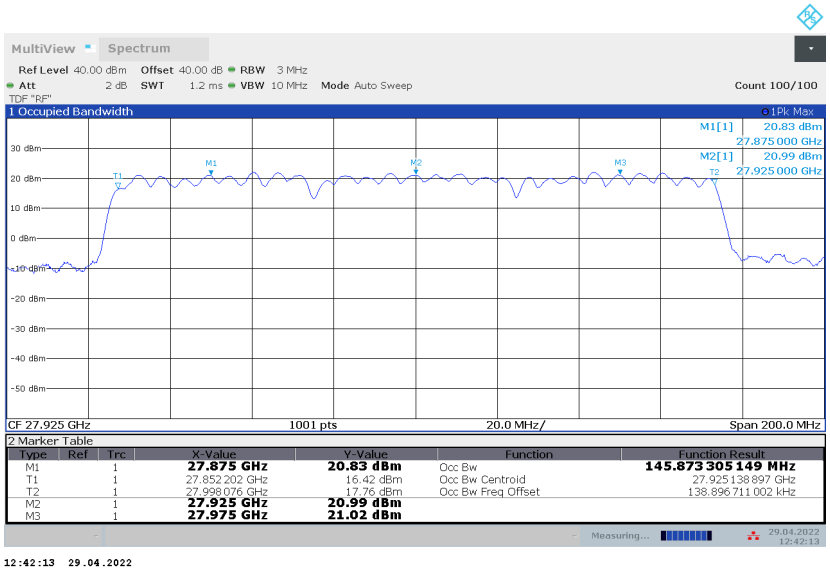
3CC, 50 MHz CH BW



3CC, 100 MHz CH BW

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4CC, 50 MHz CH BW

13:00:56 29.04.2022

4CC, 100 MHz CH BW

19:16:17 29.04.2022

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n261, ANT M3, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
1	50	SISO-DUAL	BPSK	Mid	46.20
		SISO-DUAL	QPSK	Low	46.15
				Mid	46.34
				High	46.42
		MIMO		Mid	46.22
		SISO		Mid	46.20
		SISO-DUAL	16QAM	Mid	46.11
		SISO-DUAL	64QAM	Mid	46.07
	100	SISO-DUAL	BPSK	Mid	92.88
		SISO-DUAL	QPSK	Low	92.91
				Mid	92.93
				High	92.77
		MIMO		Mid	96.45
		SISO		Mid	92.90
		SISO-DUAL	16QAM	Mid	92.96
		SISO-DUAL	64QAM	Mid	92.78
2	50	SISO-DUAL	BPSK	Mid	95.74
		SISO-DUAL	QPSK	Low	95.63
				Mid	95.96
				High	96.02
		MIMO		Mid	95.67
		SISO		Mid	96.47
		SISO-DUAL	16QAM	Mid	95.40
		SISO-DUAL	64QAM	Mid	95.84
	100	SISO-DUAL	BPSK	Mid	190.57
		SISO-DUAL	QPSK	Low	192.51
				Mid	191.49
				High	189.47
		MIMO		Mid	193.74
		SISO		Mid	191.49
		SISO-DUAL	16QAM	Mid	191.09
		SISO-DUAL	64QAM	Mid	190.83

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n261, ANT M3, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
3	50	SISO-DUAL	BPSK	Mid	144.80
		SISO-DUAL	QPSK	Low	145.07
				Mid	144.88
				High	144.58
		MIMO		Mid	144.42
		SISO		Mid	145.08
		SISO-DUAL	16QAM	Mid	144.30
		SISO-DUAL	64QAM	Mid	144.50
	100	SISO-DUAL	BPSK	Mid	291.08
		SISO-DUAL	QPSK	Low	290.27
				Mid	290.32
				High	290.62
		MIMO		Mid	293.64
		SISO		Mid	291.41
		SISO-DUAL	16QAM	Mid	291.01
		SISO-DUAL	64QAM	Mid	291.56
4	50	SISO-DUAL	BPSK	Mid	195.14
		SISO-DUAL	QPSK	Low	194.86
				Mid	195.00
				High	194.57
		MIMO		Mid	194.35
		SISO		Mid	195.63
		SISO-DUAL	16QAM	Mid	194.25
		SISO-DUAL	64QAM	Mid	194.92
	100	SISO-DUAL	BPSK	Mid	389.91
		SISO-DUAL	QPSK	Low	390.83
				Mid	390.16
				High	391.59
		MIMO		Mid	392.64
		SISO		Mid	391.46
		SISO-DUAL	16QAM	Mid	390.21
		SISO-DUAL	64QAM	Mid	390.05

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8.1.4. OBW n260

RESULTS

n260, ANT M2, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
1	50	SISO-DUAL	BPSK	Mid	46.21
		SISO-DUAL	QPSK	Low	46.33
				Mid	46.10
				High	46.48
		MIMO		Mid	46.44
		SISO		Mid	46.09
		SISO-DUAL	16QAM	Mid	46.07
		SISO-DUAL	64QAM	Mid	46.09
	100	SISO-DUAL	BPSK	Mid	93.28
		SISO-DUAL	QPSK	Low	92.40
				Mid	92.74
				High	92.32
		MIMO		Mid	95.50
		SISO		Mid	92.93
		SISO-DUAL	16QAM	Mid	93.25
		SISO-DUAL	64QAM	Mid	93.17
2	50	SISO-DUAL	BPSK	Mid	97.14
		SISO-DUAL	QPSK	Low	96.40
				Mid	96.97
				High	97.21
		MIMO		Mid	96.18
		SISO		Mid	97.06
		SISO-DUAL	16QAM	Mid	97.01
		SISO-DUAL	64QAM	Mid	97.01
	100	SISO-DUAL	BPSK	Mid	191.85
		SISO-DUAL	QPSK	Low	190.86
				Mid	192.19
				High	190.87
		MIMO		Mid	194.53
		SISO		Mid	191.68
		SISO-DUAL	16QAM	Mid	192.53
		SISO-DUAL	64QAM	Mid	192.87

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n260, ANT M2, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
3	50	SISO-DUAL	BPSK	Mid	146.52
		SISO-DUAL	QPSK	Low	145.96
				Mid	146.76
				High	146.58
		MIMO		Mid	146.04
		SISO		Mid	143.20
		SISO-DUAL	16QAM	Mid	146.48
		SISO-DUAL	64QAM	Mid	146.55
	100	SISO-DUAL	BPSK	Mid	290.75
		SISO-DUAL	QPSK	Low	291.46
				Mid	290.28
				High	291.46
		MIMO		Mid	293.09
		SISO		Mid	291.97
		SISO-DUAL	16QAM	Mid	290.62
		SISO-DUAL	64QAM	Mid	291.15
4	50	SISO-DUAL	BPSK	Mid	195.86
		SISO-DUAL	QPSK	Low	195.67
				Mid	196.06
				High	196.80
		MIMO		Mid	195.13
		SISO		Mid	196.13
		SISO-DUAL	16QAM	Mid	195.41
		SISO-DUAL	64QAM	Mid	196.54
	100	SISO-DUAL	BPSK	Mid	388.68
		SISO-DUAL	QPSK	Low	390.16
				Mid	389.29
				High	389.55
		MIMO		Mid	392.48
		SISO		Mid	391.23
		SISO-DUAL	16QAM	Mid	389.18
		SISO-DUAL	64QAM	Mid	389.62

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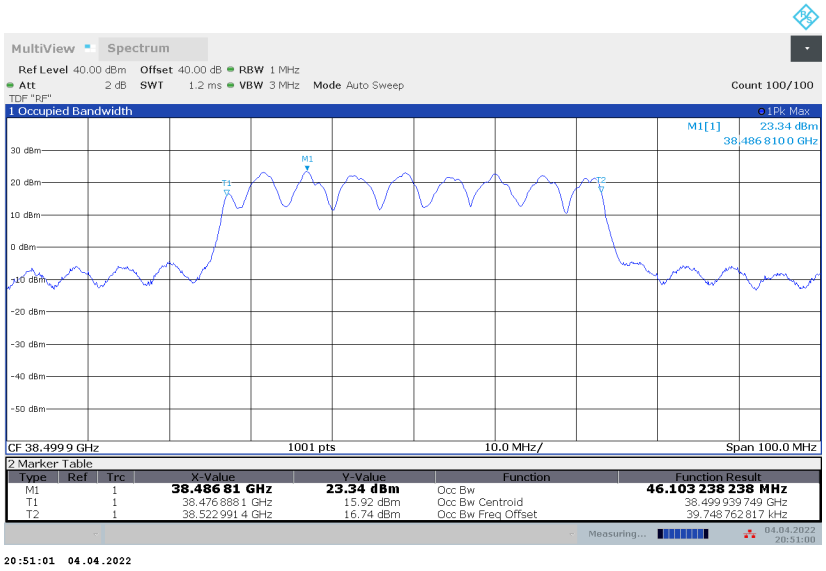
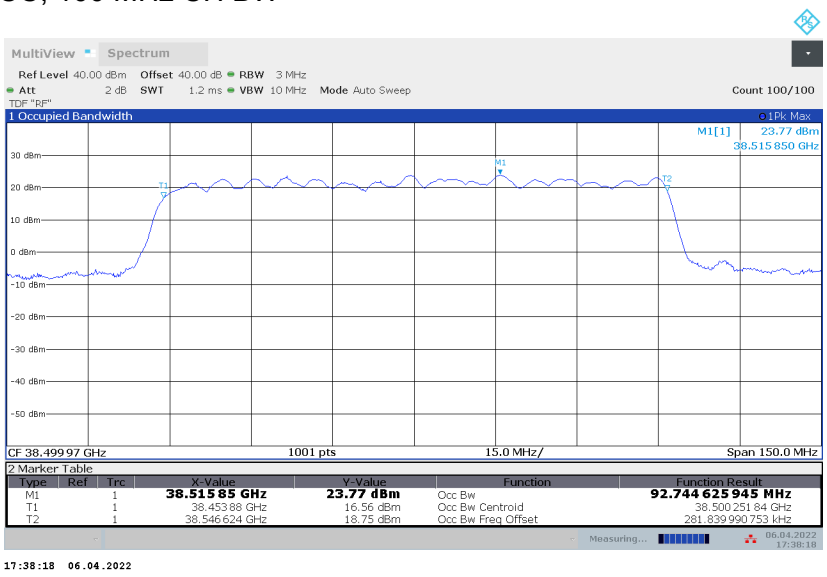
n260, ANT M2, Full-RB, SISO-Dual, QPSK, Mid-CH

1CC, 50 MHz CH BW



1CC, 100 MHz CH BW



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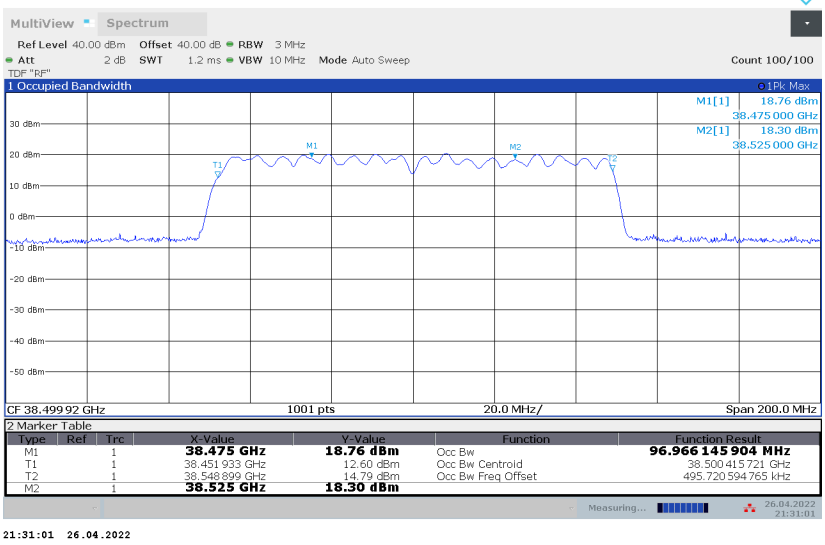
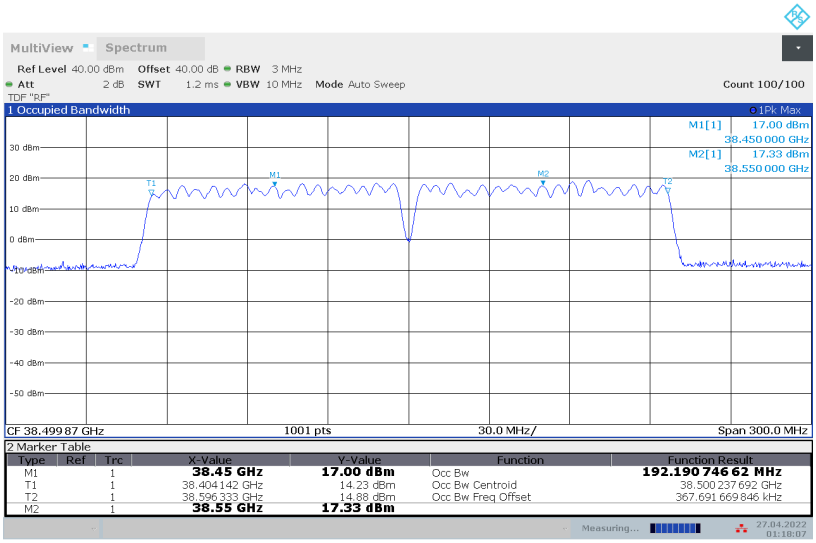
2CC, 50 MHz CH BW



21:31:01 26.04.2022

2CC, 100 MHz CH BW



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3CC, 50 MHz CH BW

3CC, 100 MHz CH BW

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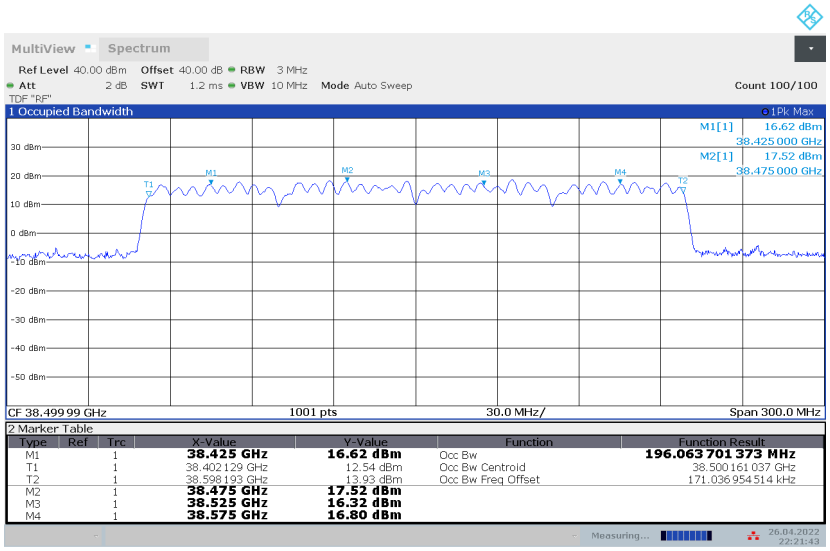
4CC, 50 MHz CH BW



4CC, 100 MHz CH BW

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n260, ANT M3, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
1	50	SISO-DUAL	BPSK	Mid	44.85
		SISO-DUAL	QPSK	Low	45.41
				Mid	44.80
				High	45.45
		MIMO		Mid	45.60
		SISO		Mid	46.23
		SISO-DUAL	16QAM	Mid	44.84
		SISO-DUAL	64QAM	Mid	44.67
	100	SISO-DUAL	BPSK	Mid	91.77
		SISO-DUAL	QPSK	Low	92.17
				Mid	91.91
				High	92.34
		MIMO		Mid	95.86
		SISO		Mid	92.93
		SISO-DUAL	16QAM	Mid	91.09
		SISO-DUAL	64QAM	Mid	91.10
2	50	SISO-DUAL	BPSK	Mid	97.82
		SISO-DUAL	QPSK	Low	97.00
				Mid	97.39
				High	96.94
		MIMO		Mid	96.92
		SISO		Mid	97.15
		SISO-DUAL	16QAM	Mid	97.93
		SISO-DUAL	64QAM	Mid	97.90
	100	SISO-DUAL	BPSK	Mid	192.39
		SISO-DUAL	QPSK	Low	191.47
				Mid	192.47
				High	191.06
		MIMO		Mid	194.68
		SISO		Mid	192.37
		SISO-DUAL	16QAM	Mid	192.25
		SISO-DUAL	64QAM	Mid	192.91

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n260, ANT M3, Full-RB

CCs Active	CH BW	Control System	Modulation	Channel	OBW (MHz)
3	50	SISO-DUAL	BPSK	Mid	146.81
		SISO-DUAL	QPSK	Low	146.37
				Mid	146.88
				High	147.19
		MIMO		Mid	146.93
		SISO		Mid	146.48
		SISO-DUAL	16QAM	Mid	146.51
		SISO-DUAL	64QAM	Mid	146.88
	100	SISO-DUAL	BPSK	Mid	291.52
		SISO-DUAL	QPSK	Low	290.97
				Mid	292.84
				High	291.09
		MIMO		Mid	295.29
		SISO		Mid	292.53
		SISO-DUAL	16QAM	Mid	291.71
		SISO-DUAL	64QAM	Mid	292.77
4	50	SISO-DUAL	BPSK	Mid	196.42
		SISO-DUAL	QPSK	Low	195.99
				Mid	196.02
				High	196.51
		MIMO		Mid	196.36
		SISO		Mid	196.32
		SISO-DUAL	16QAM	Mid	196.35
		SISO-DUAL	64QAM	Mid	197.12
	100	SISO-DUAL	BPSK	Mid	391.24
		SISO-DUAL	QPSK	Low	389.66
				Mid	391.67
				High	391.01
		MIMO		Mid	393.37
		SISO		Mid	392.29
		SISO-DUAL	16QAM	Mid	392.41
		SISO-DUAL	64QAM	Mid	392.51

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8.2. EQUIVALENT ISOTROPIC RADIATED POWER (to be updated)

RULE PART(S)

FCC: §2.1046, §30.202

LIMIT

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.

TEST PROCEDURES

Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.

- RBW = 1 – 5% of the OBW, not to exceed 1 MHz
- VBW ≥ 3 x RBW
- Span = 2x to 3x the OBW
- Number of measurement points in sweep > 2 x span / RBW
- Sweep time = auto-couple
- Detector = RMS
- Trace mode = Average over 100 sweeps

KDB 842590 D01 Upper Microwave Flexible Use Service v01 Section 4.2
ANSI C63.26-2015 Clause 5.2, Clause 5.5, Clause 6.4, and Annex C.5.2

EIRP measurements of variable frequency bands were performed at the far field test distance listed on Section 5.

EIRP was calculated using the equations on ANSI C63.26-2015 Annex C.5.2. The total correction factors of horn antenna gain, cable loss and far-field path loss were calculated using equations C.8 and C.9, and pre-loaded into spectrum analyzer.

Sample calculation of EIRP:

Total Correction Factor = Cable Loss (dB) – Horn Ant Gain (dBi) + Path Loss (dB)
= 4 – 23 + 71
= 52 dB

EIRP = $P_{measured}$(dBm), where Total Correction Factor preloaded.

In order to properly display of signal level on the plots, the pre-loaded correction factors were intentional lowered by 40 dB and an offset factor of 40 dB was applied on spectrum analyzer to compensate the true correction factors across frequency range of measurement.

Radiated power levels are investigated while the receive antenna was rotated through all angles to determine the worst case polarization/positioning.

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The SISO mode operates with either the horizontal or vertical elements active. The SISO-Dual mode operates with both horizontal and vertical elements active at the same power per polarization as the SISO mode. Therefore, the SISO-Dual mode represents the highest total EIRP across both SISO and SISO-Dual modes, only spot checks were performed on the SISO mode to confirm this. Single RB (highest power) and full RB allocations were measured.

For Ant M2 and Ant M3, BPSK, QPSK, 16QAM and 64QAM modulations were all investigated in SISO-Dual mode. The highest power mode is QPSK for the modulations with SISO-Dual mode. Spot checks in QPSK modulation were performed on the SISO and MIMO modes. Full data is provided for these combinations.

For Ant M1, only single RB of Mid Channel, QPSK modulation in SISO-Dual mode of each channel bandwidth is investigated to verify the lower EIRP, comparing to Ant M2.

To minimize report size, the 1CC to 4CC plots of Full RB, SISO-Dual, QPSK, any of tested low/mid/high CH with both channel bandwidths on Ant M2 are provided to demonstrate the test parameter setting on signal analyzer. The tabular data includes data for the other combination of test modes.

RESULTS

See the following pages.

Employee IDs: 19437, 19459, 24303, 25368, 27446, 27780
Test Date: 2/11/22 – 6/2/22
Test Locations: Chambers 1, 2, 3

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8.2.1. EIRP n258 SB1 ANT M1

SISO-Dual

CCs Active	CH BW	Modulation	Channel	Frequency	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)	(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	24.349	1/15	22.06	43	-20.94
	100			24.349	1/32	22.07	43	-20.93

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8.2.2. EIRP n258 SB1 ANT M2

SISO

CCs Active	CH BW	Modulation	Channel	Frequency	Ant Pol	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	24.349	V	1/15	28.01	43	-14.99
	100			24.349		1/32	28.00	43	-15.00
2	50			24.324		1/15	21.60	43	-21.40
	100			24.299		1/32	20.81	43	-22.19
3	50			24.299		1/15	21.40	43	-21.60
4	50			24.274		1/15	21.55	43	-21.45

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	BPSK	Mid	24.349	1/15	30.94	43	-12.06
		QPSK	Low	24.253	1/0	29.21	43	-13.79
				24.274	1/15	30.97	43	-12.03
				24.275	32/0	27.73	43	-15.27
			Mid	24.349	1/15	30.73	43	-12.27
				24.350	32/0	26.61	43	-16.39
			High	24.424	1/15	30.20	43	-12.80
				24.447	1/31	27.91	43	-15.09
				24.425	32/0	26.66	43	-16.34
		16QAM	Mid	24.349	1/15	28.49	43	-14.51
		64QAM	Mid	24.349	1/15	26.82	43	-16.18
	100	BPSK	Mid	24.349	1/32	30.91	43	-12.09
		QPSK	Low	24.253	1/0	25.96	43	-17.04
				24.299	1/32	30.35	43	-12.65
				24.299	64/0	27.32	43	-15.68
			Mid	24.349	1/32	30.06	43	-12.94
				24.349	64/1	27.15	43	-15.85
			High	24.399	1/32	31.14	43	-11.86
				24.447	1/65	28.36	43	-14.64
				24.401	64/2	26.49	43	-16.51
		16QAM	Mid	24.349	1/32	28.69	43	-14.31
		64QAM	Mid	24.349	1/32	26.91	43	-16.09
2	50	QPSK	Low	24.253	1/0	24.10	43	-18.90
				24.275	32/0	24.60	43	-18.40
			Mid	24.303	1/0	23.12	43	-19.88
				24.324	1/15	21.95	43	-21.05
				24.347	1/31	22.71	43	-20.29
			High	24.397	1/31	22.76	43	-20.24
				24.375	32/0	25.19	43	-17.81
	100	BPSK	Mid	24.300	64/1	25.58	43	-17.42
		QPSK	Low	24.253	1/0	19.98	43	-23.02
			Mid	24.253	1/0	22.10	43	-20.90
				24.299	1/32	22.56	43	-20.44
				24.347	1/65	21.88	43	-21.12
				24.300	64/1	25.60	43	-17.40
			High	24.347	1/65	22.43	43	-20.57
		16QAM	Mid	24.300	64/1	23.70	43	-19.30
		64QAM	Mid	24.300	64/1	21.65	43	-21.35

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
3	50	QPSK	Low	24.253	1/0	24.09	43	-18.91
				24.275	32/0	24.86	43	-18.14
			Mid	24.278	1/0	23.40	43	-19.60
				24.299	1/15	21.88	43	-21.12
				24.322	1/31	23.47	43	-19.53
			High	24.347	1/31	23.37	43	-19.63
				24.325	32/0	25.30	43	-17.70
4	50	QPSK	Low	24.253	1/0	24.07	43	-18.93
				24.275	32/0	24.56	43	-18.44
			Mid	24.252	1/0	23.58	43	-19.42
				24.274	1/15	21.94	43	-21.06
				24.297	1/31	22.84	43	-20.16
			High	24.297	1/31	23.33	43	-19.67
				24.275	32/0	25.46	43	-17.54

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MIMO

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	QPSK	Low	24.275	32/0	24.72	43	-18.28
			Mid	24.349	1/15	27.49	43	-15.51
				24.350	32/0	24.92	43	-18.08
			High	24.425	32/0	25.21	43	-17.79
	100		Mid	24.349	1/33	28.43	43	-14.57
				24.350	66/0	24.61	43	-18.39
2	50	QPSK	Low	24.275	32/0	22.68	43	-20.32
			Mid	24.324	1/15	23.11	43	-19.89
				24.325	32/0	22.62	43	-20.38
			High	24.375	32/0	23.06	43	-19.94
	100		Mid	24.301	1/33	23.74	43	-19.26
				24.300	66/0	23.00	43	-20.00
3	50	QPSK	Low	24.275	32/0	22.98	43	-20.02
			Mid	24.299	1/15	22.85	43	-20.15
				24.300	32/0	23.20	43	-19.80
			High	24.325	32/0	23.30	43	-19.70
4	50	QPSK	Low	24.275	32/0	23.46	43	-19.54
			Mid	24.274	1/15	22.83	43	-20.17
				24.275	32/0	23.21	43	-19.79
			High	24.275	32/0	23.35	43	-19.65

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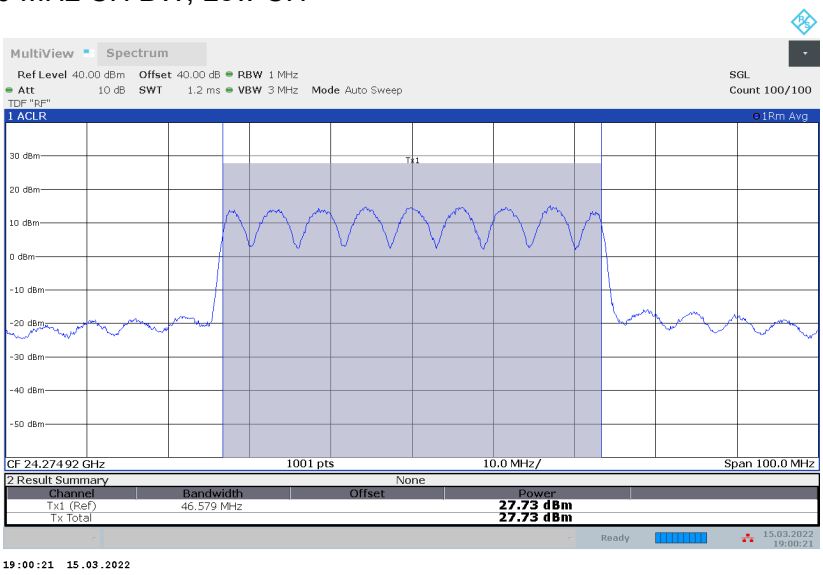
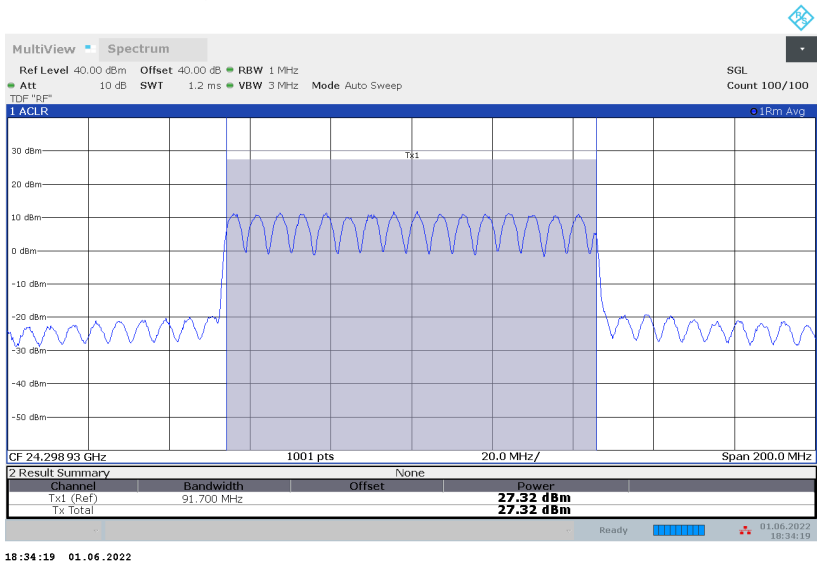
n258 SB1, ANT M2, Full-RB, SISO-Dual, QPSK, 1CC

50 MHz CH BW, Low CH



100 MHz CH BW, Low CH



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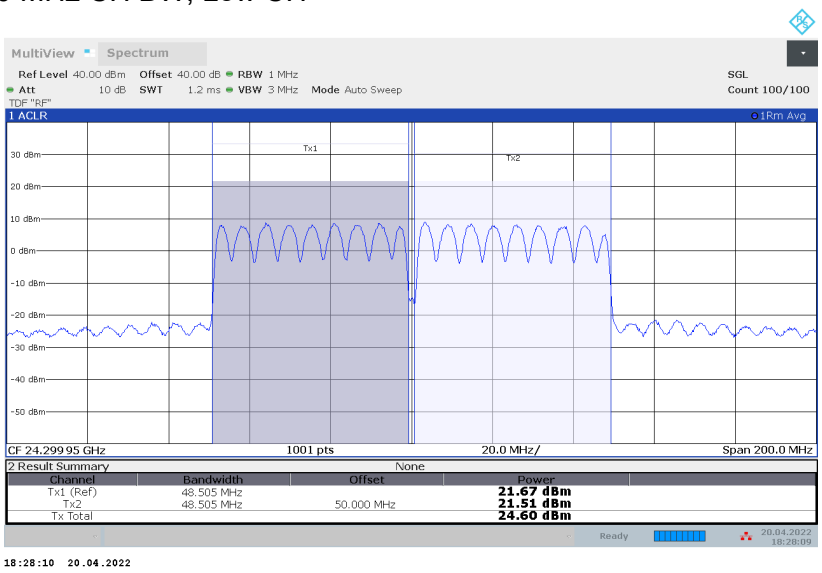
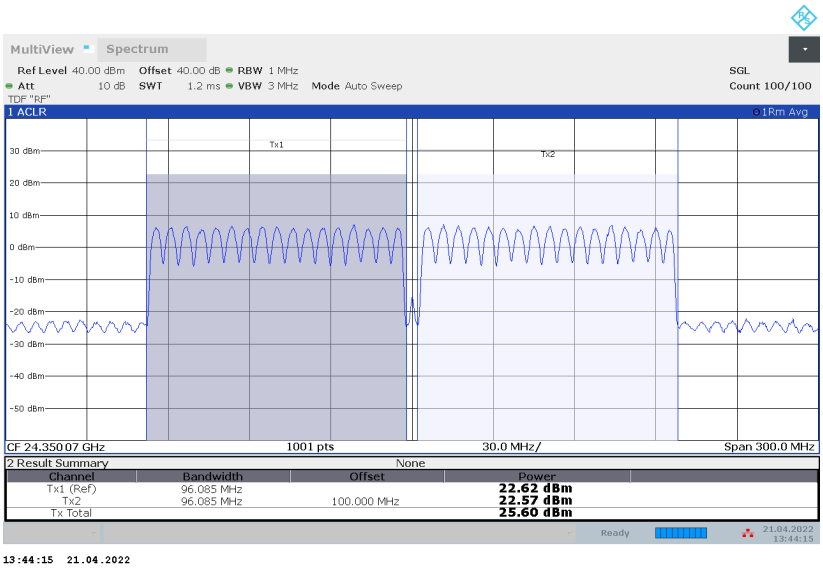
n258 SB1, ANT M2, Full-RB, SISO-Dual, QPSK, 2CC

50 MHz CH BW, Low CH



100 MHz CH BW, Mid CH



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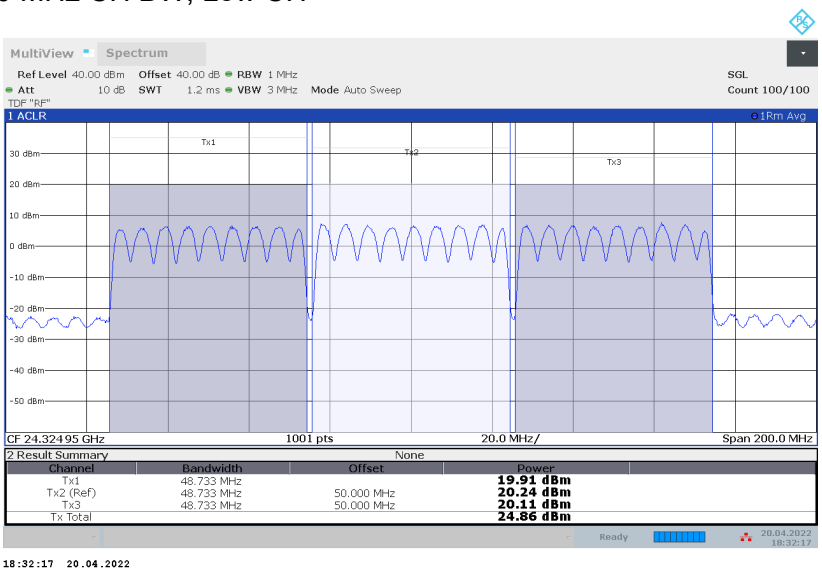
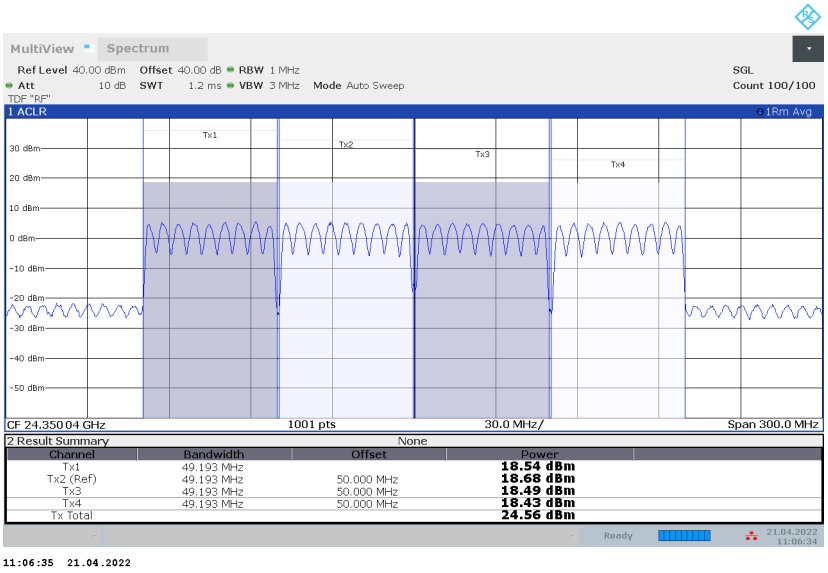
n258 SB1, ANT M2, Full-RB, SISO-Dual, QPSK, 3CC

50 MHz CH BW, Low CH



n258 SB1, ANT M2, Full-RB, SISO-Dual, QPSK, 4CC

50 MHz CH BW, Low CH



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8.2.3. EIRP n258 SB1 ANT M3

SISO

CCs Active	CH BW	Modulation	Channel	Frequency	Ant Pol	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	24.349	H	1/15	25.37	43	-17.63
	100			24.349		1/32	25.04	43	-17.96
2	50			24.324		1/15	18.06	43	-24.94
	100			24.299		1/32	17.96	43	-25.04
3	50			24.299		1/15	18.13	43	-24.87
4	50			24.274		1/15	17.87	43	-25.13

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	BPSK	Mid	24.349	1/15	29.02	43	-13.98
		QPSK	Low	24.253	1/0	24.63	43	-18.37
				24.274	1/15	30.36	43	-12.64
				24.275	32/0	24.14	43	-18.86
			Mid	24.349	1/15	30.43	43	-12.57
				24.349	32/0	24.73	43	-18.27
			High	24.424	1/15	30.59	43	-12.41
				24.447	1/31	26.49	43	-16.51
				24.425	32/0	23.97	43	-19.03
		16QAM	Mid	24.349	1/15	26.88	43	-16.12
		64QAM	Mid	24.349	1/15	24.98	43	-18.02
	100	BPSK	Mid	24.349	1/32	28.20	43	-14.80
		QPSK	Low	24.253	1/0	27.33	43	-15.67
				24.299	1/32	30.30	43	-12.70
				24.299	64/0	24.87	43	-18.13
			Mid	24.349	1/32	30.28	43	-12.72
				24.349	64/1	24.67	43	-18.33
			High	24.399	1/32	30.55	43	-12.45
				24.447	1/65	24.41	43	-18.59
				24.401	64/2	24.77	43	-18.23
		16QAM	Mid	24.349	1/32	25.77	43	-17.23
		64QAM	Mid	24.349	1/32	24.02	43	-18.98
2	50	QPSK	Low	24.253	1/0	19.96	43	-23.04
				24.275	32/0	22.84	43	-20.16
			Mid	24.303	1/0	19.62	43	-23.38
				24.324	1/15	21.33	43	-21.67
				24.347	1/31	20.89	43	-22.11
			High	24.397	1/31	21.55	43	-21.45
				24.375	32/0	22.36	43	-20.64
	100	BPSK	Mid	24.300	64/1	22.78	43	-20.22
		QPSK	Low	24.253	1/0	21.66	43	-21.34
			Mid	24.253	1/0	21.41	43	-21.59
				24.299	1/32	21.01	43	-21.99
				24.347	1/65	21.88	43	-21.12
				24.300	64/1	25.61	43	-17.39
			High	24.347	1/65	22.43	43	-20.57
		16QAM	Mid	24.300	64/1	20.86	43	-22.14
		64QAM	Mid	24.300	64/1	18.77	43	-24.23

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
3	50	QPSK	Low	24.253	1/0	19.73	43	-23.27
				24.275	32/0	22.97	43	-20.03
			Mid	24.378	1/0	19.96	43	-23.04
				24.299	1/15	21.71	43	-21.29
				24.322	1/31	20.69	43	-22.31
			High	24.347	1/31	21.10	43	-21.90
				24.325	32/0	22.60	43	-20.40
4	50	QPSK	Low	24.253	1/0	19.61	43	-23.39
				24.275	32/0	23.22	43	-19.78
			Mid	24.252	1/0	20.09	43	-22.91
				24.274	1/15	21.88	43	-21.12
				24.297	1/31	20.68	43	-22.32
			High	24.297	1/31	21.05	43	-21.95
				24.275	32/0	22.91	43	-20.09

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MIMO

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	QPSK	Low	24.275	32/0	22.98	43	-20.02
			Mid	24.349	1/15	27.11	43	-15.89
				24.350	32/0	23.37	43	-19.63
			High	24.425	32/0	24.00	43	-19.00
	100		Mid	24.350	1/33	24.84	43	-18.16
				24.350	66/0	22.85	43	-20.15
2	50	QPSK	Low	24.275	32/0	20.52	43	-22.48
			Mid	24.324	1/15	21.77	43	-21.23
				24.325	32/0	20.51	43	-22.49
			High	24.375	32/0	21.70	43	-21.30
	100		Mid	24.301	1/33	19.86	43	-23.14
				24.300	66/0	19.40	43	-23.60
3	50	QPSK	Low	24.275	32/0	20.70	43	-22.30
			Mid	24.299	1/15	21.91	43	-21.09
				24.300	32/0	20.86	43	-22.14
			High	24.325	32/0	21.89	43	-21.11
4	50	QPSK	Low	24.275	32/0	20.90	43	-22.10
			Mid	24.274	1/15	22.22	43	-20.78
				24.275	32/0	20.98	43	-22.02
			High	24.275	32/0	21.88	43	-21.12

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8.2.4. EIRP n258 SB2 ANT M1

SISO-Dual

CCs Active	CH BW	Modulation	Channel	Frequency	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)	(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	24.999	1/15	22.24	43	-20.76
	100			24.999	1/32	21.98	43	-21.02

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8.2.5. EIRP n258 SB2 ANT M2

SISO

CCs Active	CH BW	Modulation	Channel	Frequency	Ant Pol	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	24.999	V	1/15	28.57	43	-14.43
	100			24.999		1/32	27.68	43	-15.32
2	50			24.974		1/15	21.74	43	-21.26
	100			24.949		1/32	20.63	43	-22.37
3	50			24.949		1/15	21.46	43	-21.54
	100			24.899		1/32	20.69	43	-22.31
4	50			24.924		1/15	21.77	43	-21.23
	100			24.849		1/32	20.70	43	-22.30

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	BPSK	Mid	24.999	1/15	29.93	43	-13.07
		QPSK	Low	24.753	1/0	29.10	43	-13.90
				24.774	1/15	30.75	43	-12.25
				24.775	32/0	26.45	43	-16.55
			Mid	24.999	1/15	31.21	43	-11.79
				25.000	32/0	27.10	43	-15.90
			High	25.224	1/15	31.59	43	-11.41
				25.247	1/31	29.42	43	-13.58
				25.225	32/0	26.35	43	-16.65
		16QAM	Mid	24.999	1/15	27.55	43	-15.45
		64QAM		24.999	1/15	25.98	43	-17.02
	100	BPSK	Mid	24.999	1/32	30.71	43	-12.29
		QPSK	Low	24.753	1/0	25.80	43	-17.20
				24.799	1/32	30.91	43	-12.09
				24.799	64/0	28.11	43	-14.89
			Mid	24.999	1/32	31.14	43	-11.86
			High	25.199	1/32	31.65	43	-11.35
				25.247	1/65	27.61	43	-15.39
				25.201	64/2	27.50	43	-15.50
		16QAM	Mid	24.999	1/32	28.43	43	-14.57
		64QAM		24.999	1/32	26.60	43	-16.40
2	50	QPSK	Low	24.753	1/0	24.36	43	-18.64
				24.775	32/0	23.14	43	-19.86
			Mid	24.953	1/0	24.13	43	-18.87
				24.974	1/15	23.80	43	-19.20
				24.997	1/31	23.66	43	-19.34
			High	25.197	1/31	24.45	43	-18.55
				25.175	32/0	24.91	43	-18.09
	100	BPSK	Mid	24.950	64/1	25.89	43	-17.11
		QPSK	Low	24.753	1/0	19.80	43	-23.20
				24.799	64/0	25.22	43	-17.78
			Mid	24.903	1/0	19.91	43	-23.09
				24.949	1/32	24.70	43	-18.30
				24.997	1/65	22.32	43	-20.68
			High	25.147	1/65	22.83	43	-20.17
				25.101	64/2	25.95	43	-17.05
		16QAM	Mid	24.950	64/1	24.03	43	-18.97
		64QAM		24.950	64/1	21.99	43	-21.01

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
3	50	QPSK	Low	24.753	1/0	24.35	43	-18.65
				24.775	32/0	23.88	43	-19.12
			Mid	24.928	1/0	22.16	43	-20.84
				24.949	1/15	21.92	43	-21.08
				24.972	1/31	22.21	43	-20.79
			High	25.147	1/31	23.15	43	-19.85
				25.125	32/0	23.11	43	-19.89
	100	QPSK	Low	24.753	1/0	19.62	43	-23.38
				24.799	64/0	25.53	43	-17.47
			Mid	24.853	1/0	20.75	43	-22.25
				24.899	1/32	24.69	43	-18.31
				24.947	1/65	21.92	43	-21.08
			High	25.047	1/65	22.02	43	-20.98
				25.001	64/2	26.04	43	-16.96
4	50	QPSK	Low	24.753	1/0	18.03	43	-24.97
				24.775	32/0	24.61	43	-18.39
			Mid	24.903	1/0	22.04	43	-20.96
				24.924	1/15	20.31	43	-22.69
				24.947	1/31	21.78	43	-21.22
			High	25.097	1/31	24.83	43	-18.17
				25.075	32/0	26.15	43	-16.85
	100	BPSK	Mid	24.850	64/1	26.08	43	-16.92
		QPSK	Low	24.753	1/0	19.98	43	-23.02
				24.799	64/0	25.82	43	-17.18
			Mid	24.803	1/0	22.04	43	-20.96
				24.849	1/32	24.64	43	-18.36
				24.897	1/65	21.89	43	-21.11
			High	24.947	1/65	22.94	43	-20.06
				24.901	64/2	26.15	43	-16.85
		16QAM	Mid	24.850	64/1	24.23	43	-18.77
		64QAM	Mid	24.850	64/1	22.17	43	-20.83

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CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	QPSK	Low	24.775	32/0	25.19	43	-17.81
			Mid	24.999	1/15	27.84	43	-15.16
				25.000	32/0	25.28	43	-17.72
			High	25.225	32/0	25.87	43	-17.13
	100		Low	24.800	66/0	22.20	43	-20.80
			Mid	25.000	1/33	27.91	43	-15.09
				25.000	66/0	25.71	43	-17.29
			High	25.200	66/0	24.95	43	-18.05
2	50	QPSK	Low	24.775	32/0	22.52	43	-20.48
			Mid	24.974	1/15	23.76	43	-19.24
				24.975	32/0	23.03	43	-19.97
			High	25.175	32/0	23.34	43	-19.66
	100		Low	24.800	66/0	23.89	43	-19.11
			Mid	24.950	1/33	23.91	43	-19.09
				24.950	66/0	24.04	43	-18.96
			High	25.100	66/0	23.95	43	-19.05
3	50	QPSK	Low	24.775	32/0	23.12	43	-19.88
			Mid	24.949	1/15	23.85	43	-19.15
				24.950	32/0	23.30	43	-19.70
			High	25.125	32/0	23.59	43	-19.41
	100		Low	24.800	66/0	24.16	43	-18.84
			Mid	24.901	1/33	22.32	43	-20.68
				24.900	66/0	24.17	43	-18.83
			High	25.001	66/0	24.16	43	-18.84
4	50	QPSK	Low	24.775	32/0	23.60	43	-19.40
			Mid	24.924	1/15	23.61	43	-19.39
				24.925	32/0	23.72	43	-19.28
			High	25.075	32/0	24.39	43	-18.61
	100		Low	24.800	66/0	24.30	43	-18.70
			Mid	24.851	1/33	21.36	43	-21.64
				24.851	66/0	24.18	43	-18.82
			High	24.901	66/0	24.09	43	-18.91

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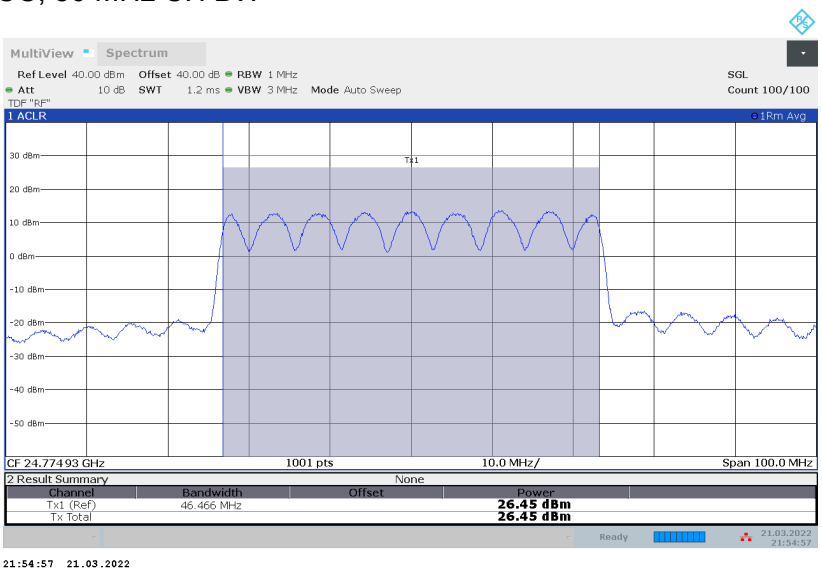
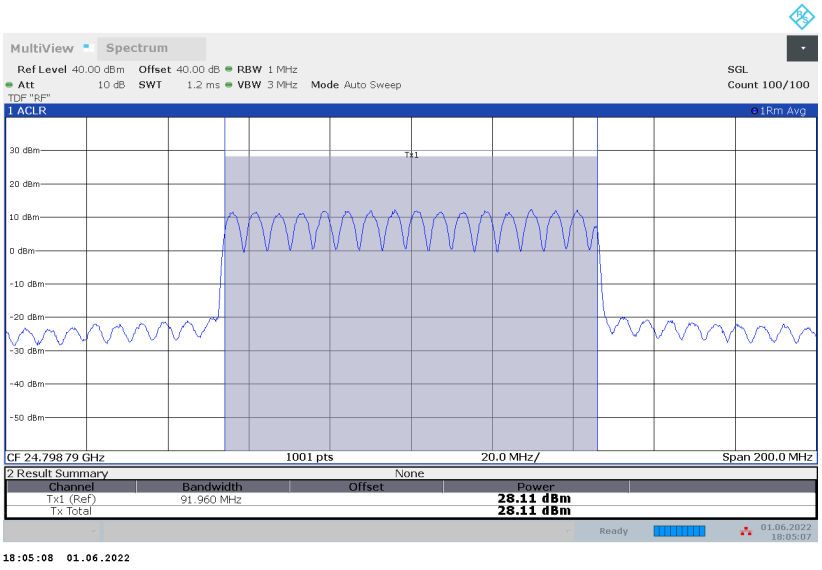
n258 SB2, ANT M2, Full-RB, SISO-Dual, QPSK, Low CH

1CC, 50 MHz CH BW



1CC, 100 MHz CH BW



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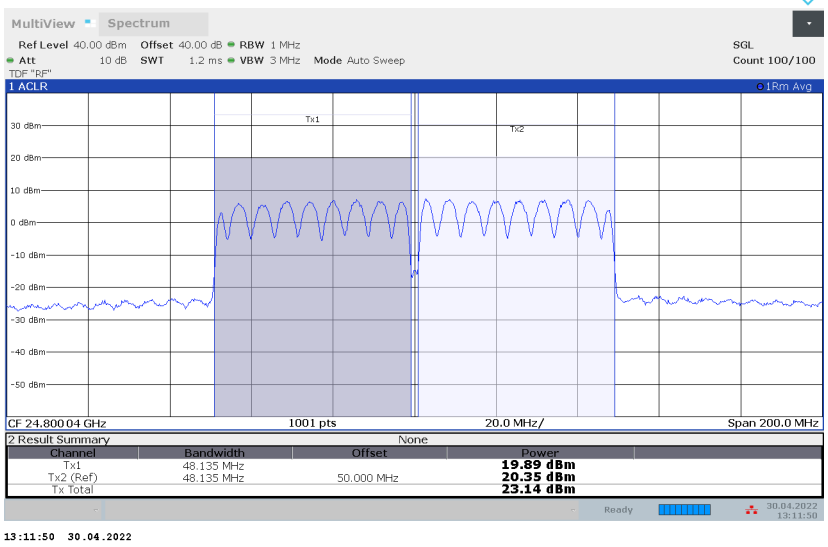
2CC, 50 MHz CH BW



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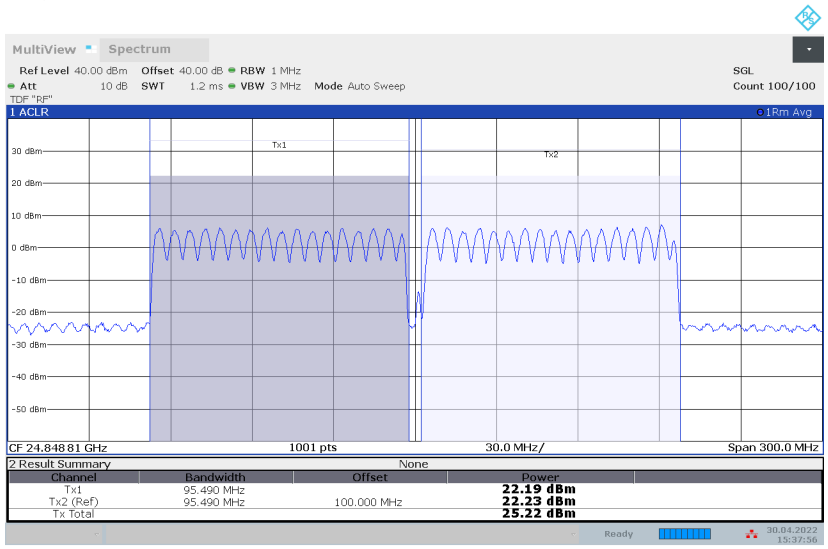
2CC, 100 MHz CH BW



15:37:56 30.04.2022

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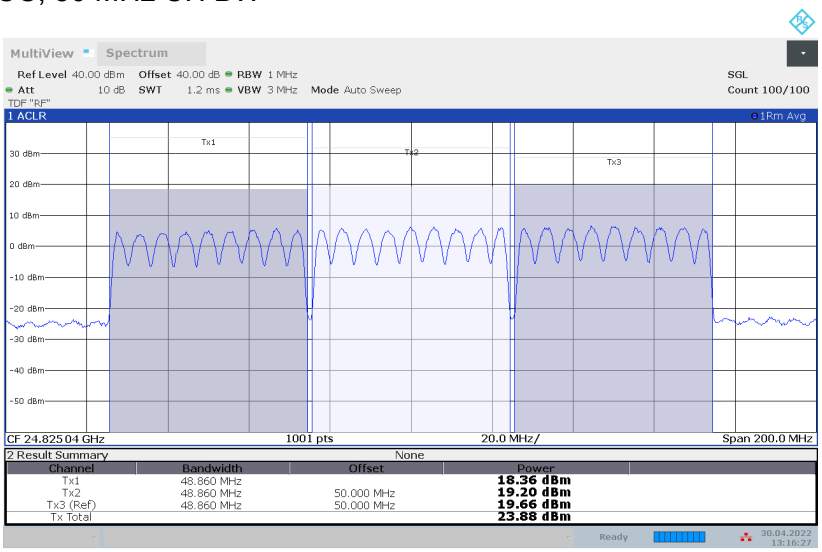
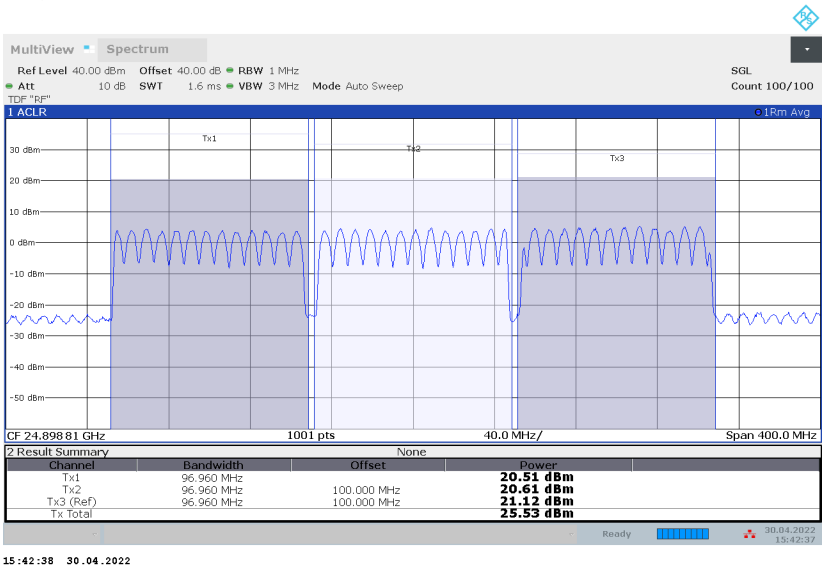
3CC, 50 MHz CH BW



3CC, 100 MHz CH BW



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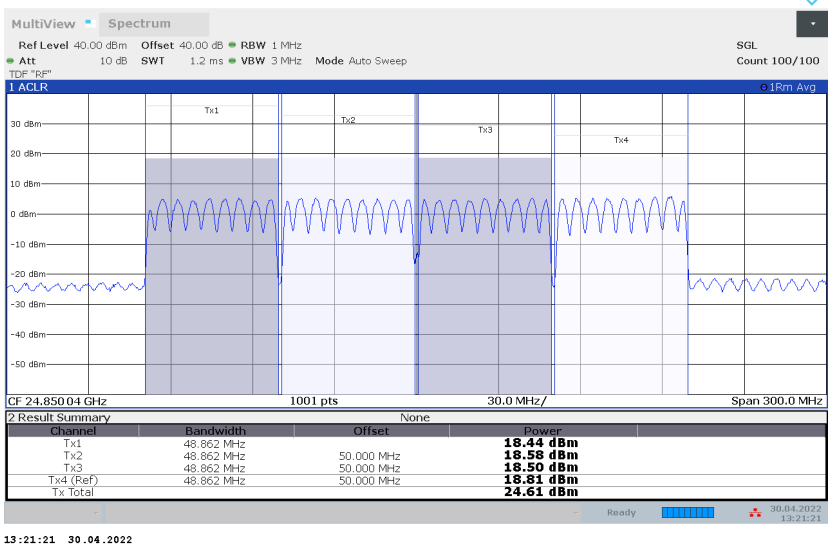
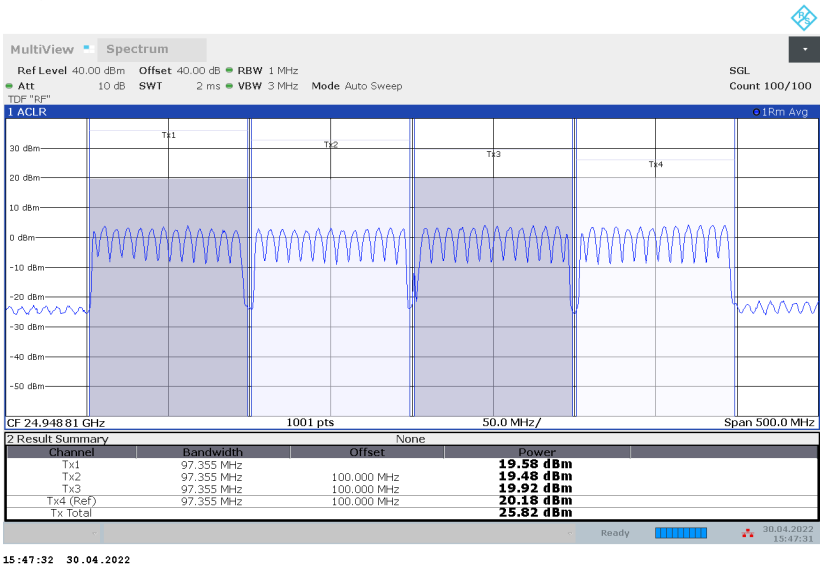
4CC, 50 MHz CH BW



4CC, 100 MHz CH BW



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8.2.6. EIRP n258 SB2 ANT M3

SISO

CCs Active	CH BW	Modulation	Channel	Frequency	Ant Pol	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	24.999	H	1/15	25.95	43	-17.05
	100			24.999		1/32	25.63	43	-17.37
2	50			24.974		1/15	19.23	43	-23.77
	100			24.949		1/32	18.72	43	-24.28
3	50			24.949		1/15	19.30	43	-23.70
	100			24.899		1/32	18.49	43	-24.51
4	50			24.924		1/15	19.19	43	-23.81
	100			24.849		1/32	18.67	43	-24.33

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	BPSK	Mid	24.999	1/15	29.75	43	-13.25
		QPSK	Low	24.753	1/0	24.79	43	-18.21
				24.774	1/15	30.50	43	-12.50
				24.775	32/0	25.43	43	-17.57
			Mid	24.999	1/15	30.25	43	-12.75
				25.000	32/0	25.90	43	-17.10
			High	25.224	1/15	30.20	43	-12.80
				25.247	1/31	27.70	43	-15.30
				25.225	32/0	26.48	43	-16.52
		16QAM	Mid	24.999	1/15	27.42	43	-15.58
		64QAM		24.999	1/15	25.63	43	-17.37
	100	BPSK	Mid	24.999	1/32	28.84	43	-14.16
		QPSK	Low	24.753	1/0	27.95	43	-15.05
				24.799	1/32	30.73	43	-12.27
				24.799	64/0	27.47	43	-15.53
			Mid	24.999	1/32	30.46	43	-12.54
			High	25.199	1/32	30.61	43	-12.39
				25.247	1/65	25.93	43	-17.07
				25.201	64/2	26.73	43	-16.27
		16QAM	Mid	24.999	1/32	26.78	43	-16.22
		64QAM		24.999	1/32	24.94	43	-18.06
2	50	QPSK	Low	24.753	1/0	21.39	43	-21.61
				24.775	32/0	22.57	43	-20.43
			Mid	24.953	1/0	21.06	43	-21.94
				24.974	1/15	22.19	43	-20.81
				24.997	1/31	21.96	43	-21.04
			High	25.197	1/31	22.14	43	-20.86
				25.175	32/0	22.96	43	-20.04
	100	BPSK	Mid	24.950	64/1	21.86	43	-21.14
		QPSK	Low	24.753	1/0	22.40	43	-20.60
				24.799	64/0	24.14	43	-18.86
			Mid	24.903	1/0	23.61	43	-19.39
				24.949	1/32	23.95	43	-19.05
				24.997	1/65	21.20	43	-21.80
			High	25.147	1/65	20.95	43	-22.05
				25.101	64/2	23.74	43	-19.26
		16QAM	Mid	24.950	64/1	19.90	43	-23.10
		64QAM		24.950	64/1	17.88	43	-25.12

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SISO-Dual

CCs	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
3	50	QPSK	Low	24.753	1/0	21.38	43	-21.62
				24.775	32/0	23.16	43	-19.84
			Mid	24.928	1/0	21.57	43	-21.43
				24.949	1/15	22.33	43	-20.67
				24.972	1/31	21.68	43	-21.32
			High	25.147	1/31	21.75	43	-21.25
				25.125	32/0	23.13	43	-19.87
	100	QPSK	Low	24.753	1/0	20.62	43	-22.38
				24.799	64/0	24.44	43	-18.56
			Mid	24.853	1/0	23.37	43	-19.63
				24.899	1/32	23.99	43	-19.01
				24.947	1/65	21.16	43	-21.84
			High	25.047	1/65	21.09	43	-21.91
				25.002	64/2	23.94	43	-19.06
4	50	QPSK	Low	24.753	1/0	21.27	43	-21.73
				24.775	32/0	23.68	43	-19.32
			Mid	24.903	1/0	21.15	43	-21.85
				24.924	1/15	22.42	43	-20.58
				24.947	1/31	21.75	43	-21.25
			High	25.097	1/31	21.77	43	-21.23
				25.075	32/0	23.95	43	-19.05
	100	BPSK	Mid	24.849	64/1	22.08	43	-20.92
		QPSK	Low	24.753	1/0	22.59	43	-20.41
				24.799	64/0	24.79	43	-18.21
			Mid	24.803	1/0	23.21	43	-19.79
				24.849	1/32	23.93	43	-19.07
				24.897	1/65	21.06	43	-21.94
			High	24.947	1/65	21.09	43	-21.91
				24.902	64/2	24.09	43	-18.91
		16QAM	Mid	24.849	64/1	20.15	43	-22.85
		64QAM	Mid	24.849	64/1	18.04	43	-24.96

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MIMO

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	QPSK	Low	24.775	32/0	24.14	43	-18.86
			Mid	24.999	1/15	27.84	43	-15.16
				25.000	32/0	24.27	43	-18.73
			High	25.225	32/0	24.84	43	-18.16
	100		Low	24.800	66/0	21.81	43	-21.19
			Mid	25.000	1/33	25.20	43	-17.80
				25.000	66/0	21.25	43	-21.75
			High	25.200	66/0	22.01	43	-20.99
2	50	QPSK	Low	24.775	32/0	21.38	43	-21.62
			Mid	24.974	1/15	22.61	43	-20.39
				24.975	32/0	21.26	43	-21.74
			High	25.175	32/0	22.07	43	-20.93
	100		Low	24.800	66/0	20.87	43	-22.13
			Mid	24.950	1/33	21.36	43	-21.64
				24.950	66/0	20.05	43	-22.95
			High	25.100	66/0	20.17	43	-22.83
3	50	QPSK	Low	24.775	32/0	21.98	43	-21.02
			Mid	24.949	1/15	22.80	43	-20.20
				24.950	32/0	21.57	43	-21.43
			High	25.125	32/0	22.12	43	-20.88
	100		Low	24.800	66/0	21.23	43	-21.77
			Mid	24.901	1/33	21.34	43	-21.66
				24.900	66/0	20.13	43	-22.87
			High	25.000	66/0	20.42	43	-22.58
4	50	QPSK	Low	24.775	32/0	22.31	43	-20.69
			Mid	24.924	1/15	22.88	43	-20.12
				24.925	32/0	22.24	43	-20.76
			High	25.075	32/0	22.53	43	-20.47
	100		Low	24.800	66/0	21.49	43	-21.51
			Mid	24.851	1/33	21.27	43	-21.73
				24.850	66/0	20.28	43	-22.72
			High	24.900	66/0	20.42	43	-22.58

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8.2.7. EIRP n261 ANT M1

SISO-Dual

CCs Active	CH BW	Modulation	Channel	Frequency	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)	(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	27.924	1/15	21.40	43	-21.60
	100			27.924	1/32	22.20	43	-20.80

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8.2.8. EIRP n261 ANT M2

SISO

CCs Active	CH BW	Modulation	Channel	Frequency	Ant Pol	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	27.924	V	1/15	28.86	43	-14.14
	100			27.924		1/32	28.95	43	-14.05
2	50			27.899		1/15	22.12	43	-20.88
	100			27.874		1/32	21.62	43	-21.38
3	50			27.874		1/15	22.06	43	-20.94
	100			27.824		1/32	21.60	43	-21.40
4	50			27.849		1/15	22.05	43	-20.95
	100			27.774		1/32	21.50	43	-21.50

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	BPSK	Mid	27.924	1/15	32.06	43	-10.94
		QPSK	Low	27.503	1/0	28.92	43	-14.08
				27.524	1/15	31.81	43	-11.19
				27.525	32/0	28.75	43	-14.25
			Mid	27.924	1/15	32.54	43	-10.46
				27.925	32/0	28.78	43	-14.22
			High	28.324	1/15	32.72	43	-10.28
				28.347	1/31	30.12	43	-12.88
				28.325	32/0	29.17	43	-13.83
		16QAM	Mid	27.924	1/15	29.65	43	-13.35
		64QAM	Mid	27.924	1/15	28.06	43	-14.94
	100	BPSK	Mid	27.924	1/32	31.85	43	-11.15
		QPSK	Low	27.503	1/0	29.49	43	-13.51
				27.549	1/32	32.03	43	-10.97
				27.549	64/0	28.50	43	-14.50
			Mid	27.924	1/32	32.67	43	-10.33
			High	28.299	1/32	32.85	43	-10.15
				28.347	1/65	29.28	43	-13.72
				28.302	64/2	28.70	43	-14.30
		16QAM	Mid	27.924	1/32	29.45	43	-13.55
		64QAM	Mid	27.924	1/32	27.78	43	-15.22
2	50	QPSK	Low	27.503	1/0	24.65	43	-18.35
				27.525	32/0	26.51	43	-16.49
			Mid	27.877	1/0	24.38	43	-18.62
				27.899	1/15	25.03	43	-17.97
				27.922	1/31	25.13	43	-17.87
			High	28.297	1/31	25.27	43	-17.73
				28.275	32/0	25.75	43	-17.25
	100	BPSK	Mid	27.875	64/1	25.56	43	-17.44
		QPSK	Low	27.503	1/0	22.92	43	-20.08
				27.549	64/0	26.40	43	-16.60
			Mid	27.828	1/0	23.73	43	-19.27
				27.874	1/32	24.99	43	-18.01
				27.921	1/65	24.31	43	-18.69
			High	28.246	1/65	25.33	43	-17.67
				28.201	64/2	26.93	43	-16.07
		16QAM	Mid	27.875	64/1	23.72	43	-19.28
		64QAM	Mid	27.875	64/1	21.63	43	-21.37

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
3	50	QPSK	Low	27.503	1/0	25.10	43	-17.90
				27.525	32/0	26.60	43	-16.40
			Mid	27.853	1/0	24.43	43	-18.57
				27.874	1/15	25.33	43	-17.67
				27.897	1/31	25.05	43	-17.95
			High	28.247	1/31	25.17	43	-17.83
				28.225	32/0	25.88	43	-17.12
	100	QPSK	Low	27.503	1/0	21.63	43	-21.37
				27.550	64/0	26.42	43	-16.58
			Mid	27.778	1/0	23.79	43	-19.21
				27.824	1/32	22.45	43	-20.55
				27.872	1/65	22.55	43	-20.45
			High	28.147	1/65	22.34	43	-20.66
				28.101	64/2	27.01	43	-15.99
4	50	QPSK	Low	27.503	1/0	25.46	43	-17.54
				27.525	32/0	26.69	43	-16.31
			Mid	27.828	1/0	24.28	43	-18.72
				27.849	1/15	25.02	43	-17.98
				27.872	1/31	25.25	43	-17.75
			High	28.197	1/31	25.24	43	-17.76
				28.175	32/0	26.17	43	-16.83
	100	BPSK	Mid	27.775	64/1	26.08	43	-16.92
		QPSK	Low	27.503	1/0	21.08	43	-21.92
				27.550	64/0	26.48	43	-16.52
			Mid	27.728	1/0	21.11	43	-21.89
				27.774	1/32	21.53	43	-21.47
				27.822	1/65	22.08	43	-20.92
			High	28.047	1/65	21.78	43	-21.22
				28.001	64/2	27.02	43	-15.98
		16QAM	Mid	27.775	64/1	24.29	43	-18.71
		64QAM	Mid	27.775	64/1	22.16	43	-20.84

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MIMO

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	QPSK	Low	27.525	32/0	25.51	43	-17.49
			Mid	27.924	1/15	29.89	43	-13.11
				27.925	32/0	26.86	43	-16.14
			High	28.325	32/0	26.91	43	-16.09
	100		Low	27.551	66/0	26.21	43	-16.79
			Mid	27.926	1/33	26.32	43	-16.68
				27.925	66/0	25.09	43	-17.91
			High	28.300	66/0	26.29	43	-16.71
2	50	QPSK	Low	27.525	32/0	24.73	43	-18.27
			Mid	27.899	1/15	24.56	43	-18.44
				27.900	32/0	24.69	43	-18.31
			High	28.275	32/0	24.29	43	-18.71
	100		Low	27.550	66/0	24.25	43	-18.75
			Mid	27.876	1/33	24.77	43	-18.23
				27.875	66/0	24.75	43	-18.25
			High	28.200	66/0	24.52	43	-18.48
3	50	QPSK	Low	27.525	32/0	21.29	43	-21.71
			Mid	27.874	1/15	24.76	43	-18.24
				27.875	32/1	24.65	43	-18.35
			High	28.225	32/0	24.44	43	-18.56
	100		Low	27.550	32/0	24.43	43	-18.57
			Mid	27.826	1/33	22.60	43	-20.40
				27.825	66/0	25.02	43	-17.98
			High	28.100	66/0	24.91	43	-18.09
4	50	QPSK	Low	27.525	32/0	24.54	43	-18.46
			Mid	27.849	1/15	21.83	43	-21.17
				27.850	32/0	20.89	43	-22.11
			High	28.175	32/0	21.67	43	-21.33
	100		Low	27.550	66/0	24.48	43	-18.52
			Mid	27.776	1/33	22.13	43	-20.87
				27.775	66/0	25.20	43	-17.80
			High	28.000	66/0	24.92	43	-18.08

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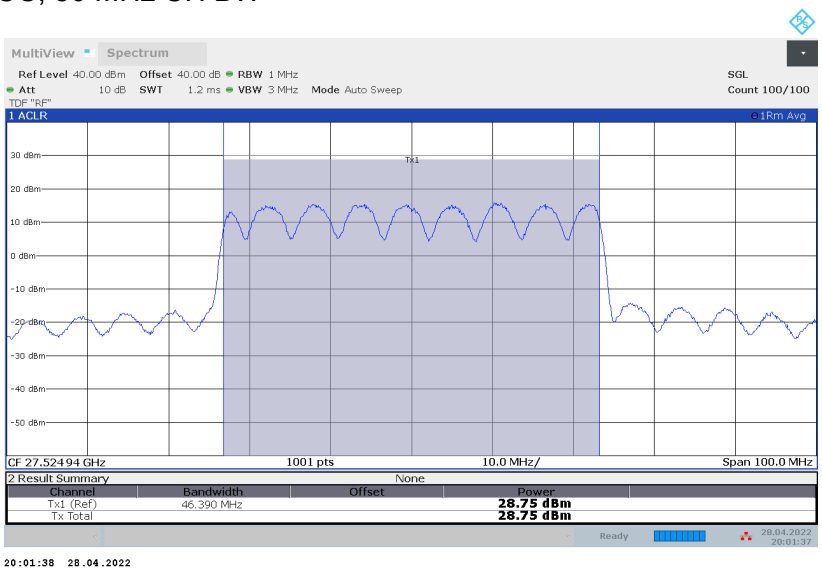
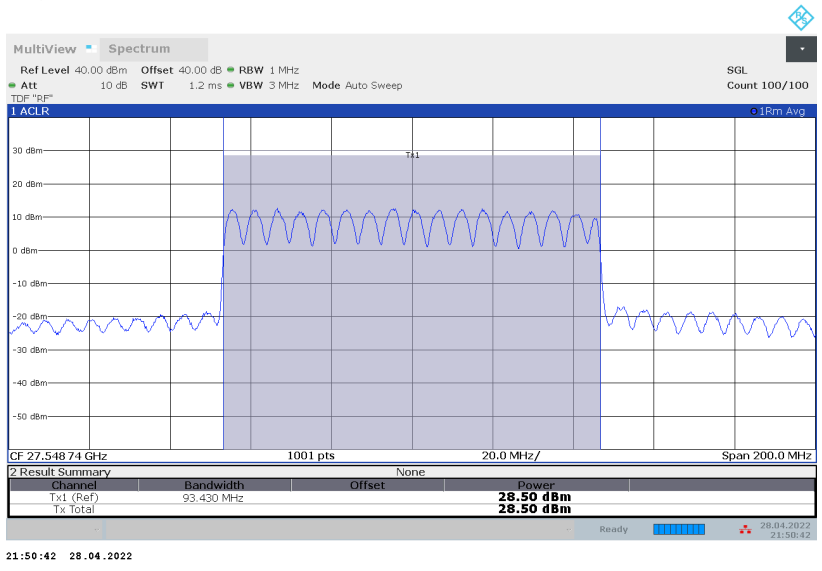
n261, ANT M2, Full-RB, SISO-Dual, QPSK, Low-CH

1CC, 50 MHz CH BW



1CC, 100 MHz CH BW



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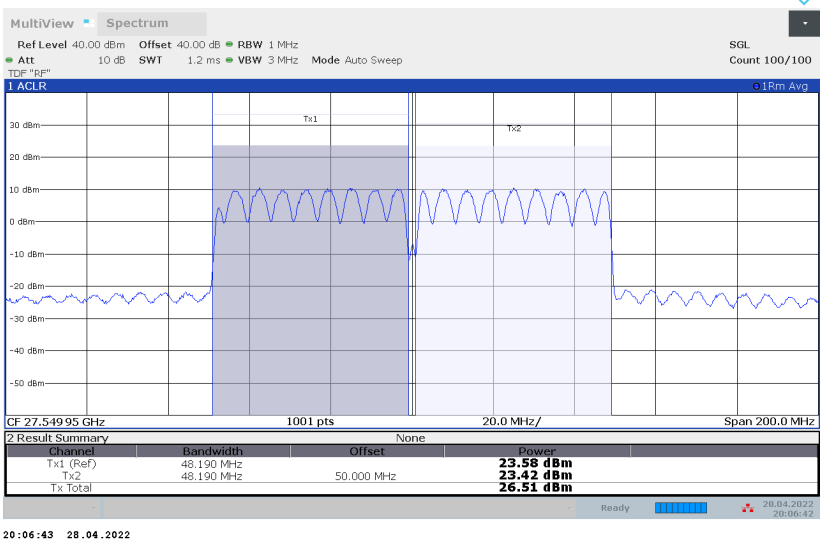
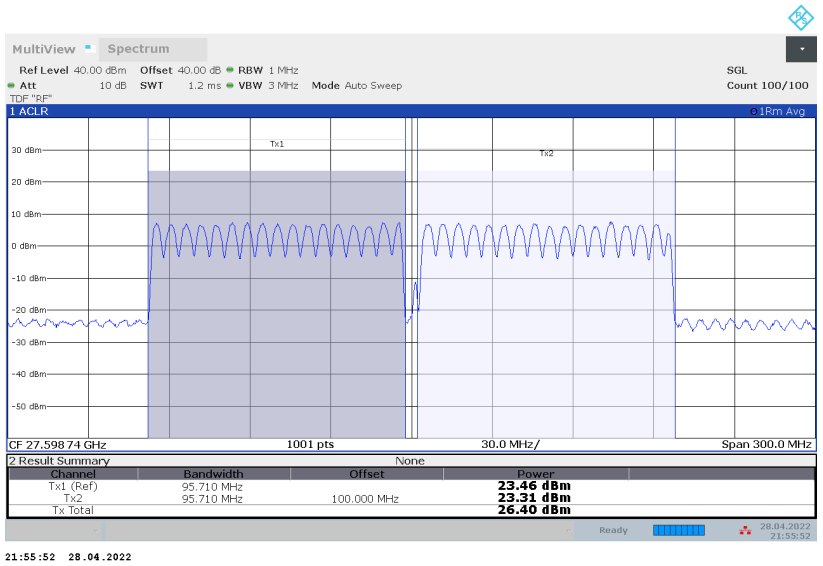
n261, ANT M2, Full-RB, SISO-Dual, QPSK, Low-CH

2CC, 50 MHz CH BW



2CC, 100 MHz CH BW



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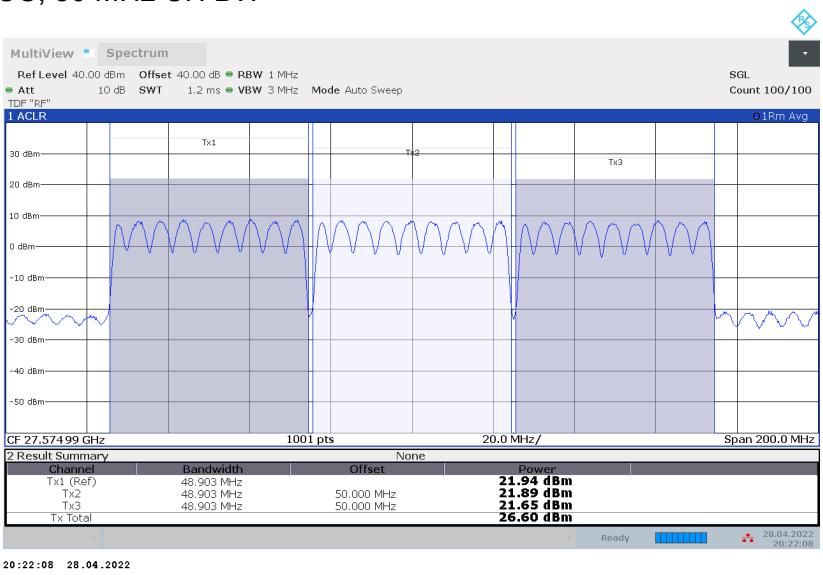
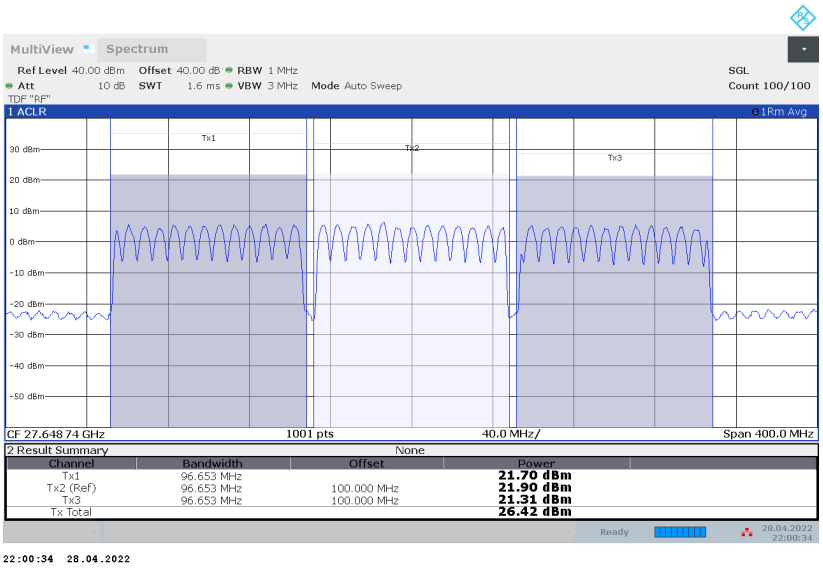
n261, ANT M2, Full-RB, SISO-Dual, QPSK, Low-CH

3CC, 50 MHz CH BW



3CC, 100 MHz CH BW



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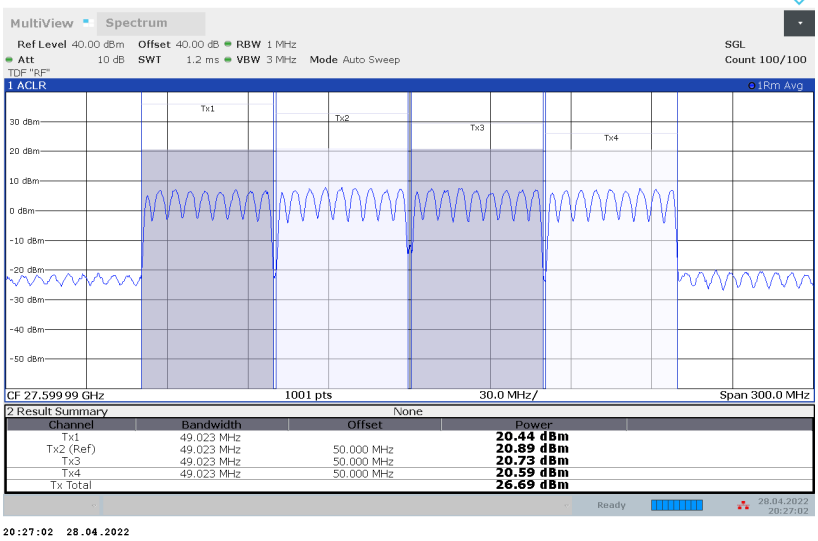
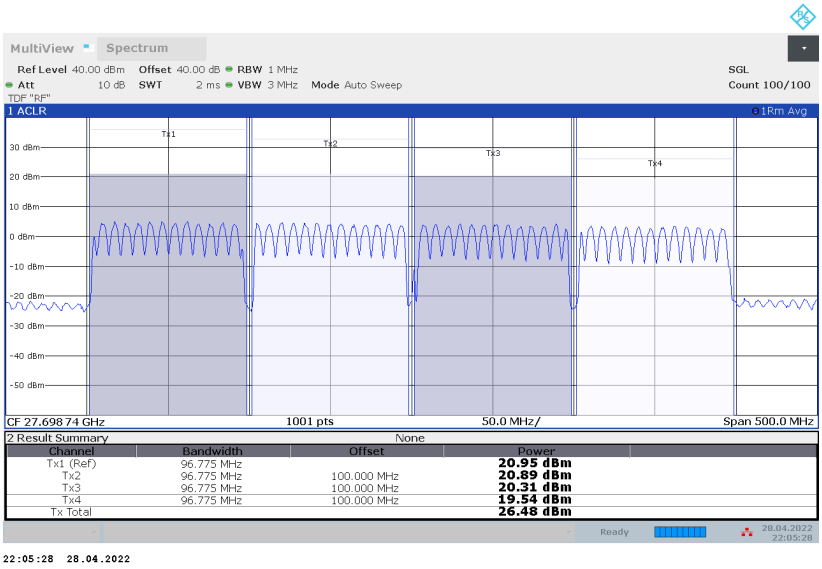
n261, ANT M2, Full-RB, SISO-Dual, QPSK, Low-CH

4CC, 50 MHz CH BW



4CC, 100 MHz CH BW



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8.2.9. EIRP n261 ANT M3

SISO

CCs Active	CH BW	Modulation	Channel	Frequency	Ant Pol	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	27.924	H	1/15	25.39	43	-17.61
	100			27.924		1/32	25.53	43	-17.47
2	50			27.899		1/15	18.46	43	-24.54
	100			27.874		1/32	18.52	43	-24.48
3	50			27.874		1/15	18.44	43	-24.56
	100			27.824		1/32	18.60	43	-24.40
4	50			27.849		1/15	18.52	43	-24.48
	100			27.774		1/32	18.78	43	-24.22

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	BPSK	Mid	27.924	1/15	28.77	43	-14.23
		QPSK	Low	27.503	1/0	24.54	43	-18.46
				27.524	1/15	29.00	43	-14.00
				27.525	32/0	27.53	43	-15.47
			Mid	27.924	1/15	29.51	43	-13.49
				27.925	32/0	26.51	43	-16.49
			High	28.324	1/15	29.76	43	-13.24
				28.347	1/31	26.11	43	-16.89
				28.325	32/0	21.88	43	-21.12
		16QAM	Mid	27.924	1/15	26.38	43	-16.62
		64QAM	Mid	27.924	1/15	24.49	43	-18.51
	100	BPSK	Mid	27.924	1/32	29.52	43	-13.48
		QPSK	Low	27.503	1/0	26.61	43	-16.39
				27.549	1/32	28.83	43	-14.17
				27.549	64/0	24.91	43	-18.09
			Mid	27.924	1/32	29.64	43	-13.36
			High	28.299	1/32	29.92	43	-13.08
				28.347	1/65	26.27	43	-16.73
				28.301	64/2	24.99	43	-18.01
		16QAM	Mid	27.924	1/32	27.00	43	-16.00
		64QAM	Mid	27.924	1/32	25.28	43	-17.72
2	50	QPSK	Low	27.503	1/0	19.45	43	-23.55
				27.525	32/0	23.58	43	-19.42
			Mid	27.878	1/0	19.89	43	-23.11
				27.899	1/15	21.71	43	-21.29
				27.922	1/31	21.45	43	-21.55
			High	28.297	1/31	21.67	43	-21.33
				28.275	32/0	23.60	43	-19.40
	100	BPSK	Mid	27.875	64/1	23.11	43	-19.89
		QPSK	Low	27.503	1/0	21.84	43	-21.16
				27.550	64/0	23.78	43	-19.22
			Mid	27.828	1/0	21.61	43	-21.39
				27.874	1/32	21.65	43	-21.35
				27.922	1/65	19.13	43	-23.87
			High	28.246	1/65	20.07	43	-22.93
				28.202	64/2	23.76	43	-19.24
		16QAM	Mid	27.875	64/1	21.10	43	-21.90
		64QAM	Mid	27.875	64/1	18.97	43	-24.03

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
3	50	QPSK	Low	27.503	1/0	19.16	43	-23.84
				27.525	32/0	23.61	43	-19.39
			Mid	27.853	1/0	19.85	43	-23.15
				27.874	1/15	21.88	43	-21.12
				27.897	1/31	21.17	43	-21.83
			High	28.247	1/31	21.23	43	-21.77
				28.225	32/0	23.62	43	-19.38
	100	QPSK	Low	27.503	1/0	19.83	43	-23.17
				27.549	64/0	23.68	43	-19.32
			Mid	27.778	1/0	19.86	43	-23.14
				27.824	1/32	18.12	43	-24.88
				27.872	1/65	18.65	43	-24.35
			High	28.147	1/65	18.16	43	-24.84
				28.102	64/2	23.88	43	-19.12
4	50	QPSK	Low	27.503	1/0	19.42	43	-23.58
				27.525	32/0	23.76	43	-19.24
			Mid	27.828	1/0	19.92	43	-23.08
				27.849	1/15	21.91	43	-21.09
				27.872	1/31	21.20	43	-21.80
			High	28.197	1/31	21.36	43	-21.64
				28.175	32/0	24.10	43	-18.90
	100	BPSK	Mid	27.775	64/1	23.73	43	-19.28
		QPSK	Low	27.503	1/0	19.51	43	-23.49
				27.549	64/0	23.80	43	-19.20
			Mid	27.728	1/0	18.80	43	-24.20
				27.774	1/32	20.48	43	-22.52
				27.822	1/65	18.49	43	-24.51
			High	28.047	1/65	19.51	43	-23.49
				28.002	64/2	23.80	43	-19.20
		16QAM	Mid	27.775	64/1	21.86	43	-21.14
		64QAM	Mid	27.775	64/1	19.75	43	-23.25

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MIMO

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	QPSK	Low	27.525	32/0	23.60	43	-19.40
			Mid	27.924	1/15	26.53	43	-16.47
				27.925	32/0	24.09	43	-18.91
			High	28.325	32/0	23.42	43	-19.58
	100		Low	27.550	66/0	21.72	43	-21.28
			Mid	27.926	1/33	26.32	43	-16.68
				27.925	66/0	22.92	43	-20.08
			High	28.300	66/0	22.56	43	-20.44
2	50	QPSK	Low	27.525	32/0	21.28	43	-21.72
			Mid	27.899	1/15	21.49	43	-21.51
				27.900	32/0	21.50	43	-21.50
			High	28.275	32/0	20.67	43	-22.33
	100		Low	27.550	66/0	19.71	43	-23.29
			Mid	27.876	1/33	22.19	43	-20.81
				27.875	66/0	20.24	43	-22.76
			High	28.200	66/0	19.60	43	-23.40
3	50	QPSK	Low	27.525	32/0	23.26	43	-19.74
			Mid	27.874	1/15	21.72	43	-21.28
				27.875	32/0	21.65	43	-21.35
			High	28.225	32/0	21.08	43	-21.92
	100		Low	27.550	66/0	19.80	43	-23.20
			Mid	27.826	1/33	19.32	43	-23.68
				27.825	66/0	20.60	43	-22.40
			High	28.100	66/0	19.98	43	-23.02
4	50	QPSK	Low	27.525	32/0	21.27	43	-21.73
			Mid	27.849	1/15	18.61	43	-24.39
				27.850	32/0	18.09	43	-24.91
			High	28.175	32/0	19.96	43	-23.04
	100		Low	27.550	66/0	19.84	43	-23.16
			Mid	27.776	1/33	18.40	43	-24.60
				27.776	66/0	20.89	43	-22.11
			High	28.000	66/0	19.96	43	-23.04

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8.2.10. EIRP n260 ANT M1

SISO-Dual

CCs Active	CH BW	Modulation	Channel	Frequency	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)	(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	38.499	1/15	21.00	43	-22.00
	100			38.499	1/32	21.05	43	-21.95

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8.2.11. EIRP n260 ANT M2

SISO

CCs Active	CH BW	Modulation	Channel	Frequency	Ant Pol	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	38.499	V	1/15	27.32	43	-15.68
	100			38.499		1/32	26.93	43	-16.07
2	50			38.474		1/15	20.50	43	-22.50
	100			38.449		1/32	20.27	43	-22.73
3	50			38.449		1/15	20.52	43	-22.48
	100			38.399		1/32	20.29	43	-22.71
4	50			38.424		1/15	21.78	43	-21.22
	100			38.349		1/32	20.37	43	-22.63

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	BPSK	Mid	38.499	1/15	29.27	43	-13.73
		QPSK	Low	37.003	1/0	26.47	43	-16.53
				37.024	1/15	29.86	43	-13.14
				37.025	32/0	25.88	43	-17.12
			Mid	38.499	1/15	31.24	43	-11.76
				38.500	32/0	26.02	43	-16.98
			High	39.974	1/15	31.22	43	-11.78
				39.997	1/31	27.22	43	-15.78
				39.975	32/0	24.79	43	-18.21
		16QAM	Mid	38.499	1/15	26.89	43	-16.11
		64QAM	Mid	38.499	1/15	25.08	43	-17.92
	100	BPSK	Mid	38.499	1/32	29.82	43	-13.18
		QPSK	Low	37.003	1/0	26.86	43	-16.14
				37.049	1/32	30.21	43	-12.79
				37.048	64/0	25.76	43	-17.24
			Mid	38.499	1/32	31.49	43	-11.51
			High	39.949	1/32	30.91	43	-12.09
				39.996	1/65	25.86	43	-17.14
				39.951	64/2	25.29	43	-17.71
		16QAM	Mid	38.499	1/32	27.33	43	-15.67
		64QAM		38.499	1/32	25.64	43	-17.36
2	50	QPSK	Low	37.003	1/0	21.69	43	-21.31
				37.025	32/0	23.08	43	-19.92
			Mid	38.452	1/0	20.81	43	-22.19
				38.474	1/15	21.96	43	-21.04
				38.497	1/31	22.16	43	-20.84
			High	39.947	1/31	22.44	43	-20.56
				39.925	32/0	23.35	43	-19.65
	100	BPSK	Mid	38.450	64/1	24.11	43	-18.89
		QPSK	Low	37.003	1/0	21.70	43	-21.30
				37.048	64/0	23.05	43	-19.95
			Mid	38.403	1/0	20.83	43	-22.17
				38.449	1/32	24.57	43	-18.43
				38.497	1/65	19.63	43	-23.37
			High	39.897	1/65	20.62	43	-22.38
				39.851	64/2	24.02	43	-18.98
		16QAM	Mid	38.450	64/1	22.67	43	-20.33
		64QAM	Mid	38.450	64/1	20.86	43	-22.14

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
3	50	QPSK	Low	37.003	1/0	21.42	43	-21.58
				37.025	32/0	23.32	43	-19.68
			Mid	38.428	1/0	21.87	43	-21.13
				38.449	1/15	22.58	43	-20.42
				38.472	1/31	22.22	43	-20.78
			High	39.897	1/31	22.47	43	-20.53
				39.875	32/0	23.42	43	-19.58
	100	QPSK	Low	37.003	1/0	19.57	43	-23.43
				37.049	64/0	23.33	43	-19.67
			Mid	38.353	1/0	20.66	43	-22.34
				38.399	1/32	24.44	43	-18.56
				38.447	1/65	19.47	43	-23.53
			High	39.797	1/65	19.81	43	-23.19
				39.752	64/2	24.29	43	-18.71
4	50	QPSK	Low	37.003	1/0	21.61	43	-21.39
				37.025	32/0	23.53	43	-19.47
			Mid	38.403	1/0	21.81	43	-21.19
				38.424	1/15	22.55	43	-20.45
				38.447	1/31	22.34	43	-20.66
			High	39.847	1/31	22.74	43	-20.26
				39.825	32/0	23.89	43	-19.11
	100	BPSK	Mid	38.350	64/1	24.21	43	-18.79
		QPSK	Low	37.003	1/0	21.45	43	-21.55
				37.048	64/0	23.43	43	-19.57
			Mid	38.303	1/0	20.96	43	-22.04
				38.349	1/32	24.60	43	-18.40
				38.397	1/65	19.20	43	-23.80
			High	39.697	1/65	20.09	43	-22.91
				39.651	64/2	24.46	43	-18.54
		16QAM	Mid	38.350	64/1	22.91	43	-20.09
		64QAM	Mid	38.350	64/1	21.19	43	-21.81

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MIMO

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	QPSK	Low	37.025	32/0	23.31	43	-19.69
			Mid	38.499	1/15	26.50	43	-16.50
				38.500	32/0	24.40	43	-18.60
			High	39.975	32/0	22.88	43	-20.12
	100		Low	37.050	66/0	22.94	43	-20.06
			Mid	38.500	1/33	25.06	43	-17.94
				38.500	66/0	23.28	43	-19.72
			High	39.951	66/0	21.96	43	-21.04
2	50	QPSK	Low	37.025	32/0	21.49	43	-21.51
			Mid	38.474	1/15	22.54	43	-20.46
				38.475	32/0	22.09	43	-20.91
			High	39.925	32/0	21.64	43	-21.36
	100		Low	37.050	66/0	21.54	43	-21.46
			Mid	38.451	1/33	19.36	43	-23.64
				38.450	66/0	21.39	43	-21.61
			High	39.850	66/0	19.84	43	-23.16
3	50	QPSK	Low	37.025	32/0	21.69	43	-21.31
			Mid	38.449	1/15	22.89	43	-20.11
				38.450	32/0	22.14	43	-20.86
			High	39.875	32/0	21.78	43	-21.22
	100		Low	37.050	66/0	20.72	43	-22.28
			Mid	38.400	1/33	19.56	43	-23.44
				38.400	66/0	21.50	43	-21.50
			High	39.750	66/0	20.37	43	-22.63
4	50	QPSK	Low	37.025	32/0	21.73	43	-21.27
			Mid	38.424	1/15	22.96	43	-20.04
				38.425	32/0	22.55	43	-20.45
			High	39.825	32/0	22.24	43	-20.76
	100		Low	37.050	66/0	17.89	43	-25.11
			Mid	38.351	1/33	21.62	43	-21.38
				38.350	66/0	17.51	43	-25.49
			High	39.650	66/0	18.67	43	-24.33

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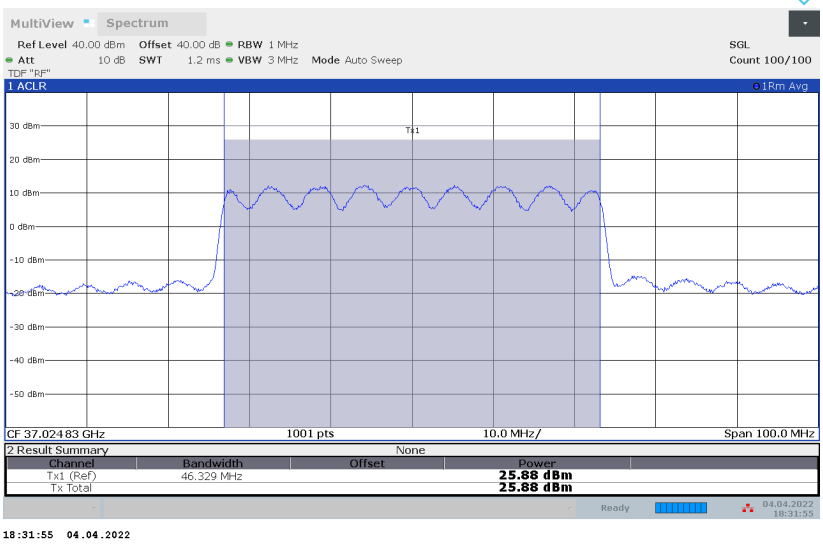
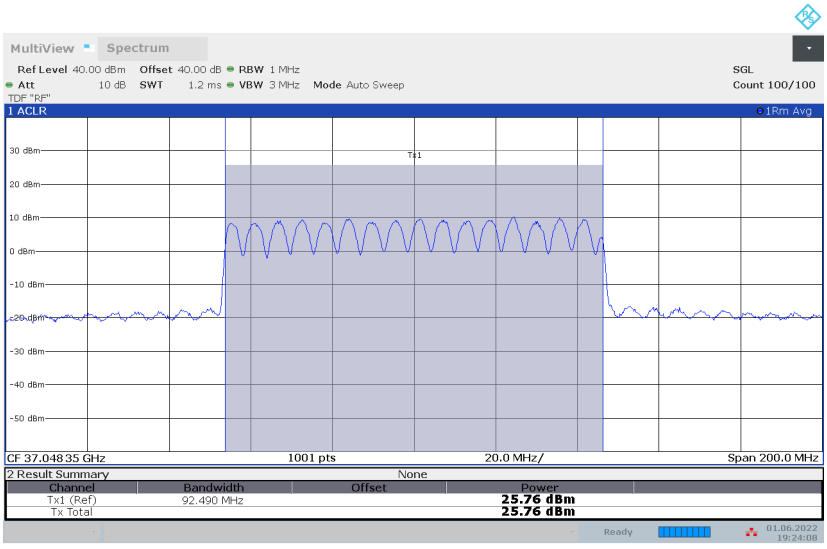
n260, ANT M2, Full-RB, SISO-Dual, QPSK, Low-CH

1CC, 50 MHz CH BW



18:31:55 04.04.2022

1CC, 100 MHz CH BW



19:24:09 01.06.2022

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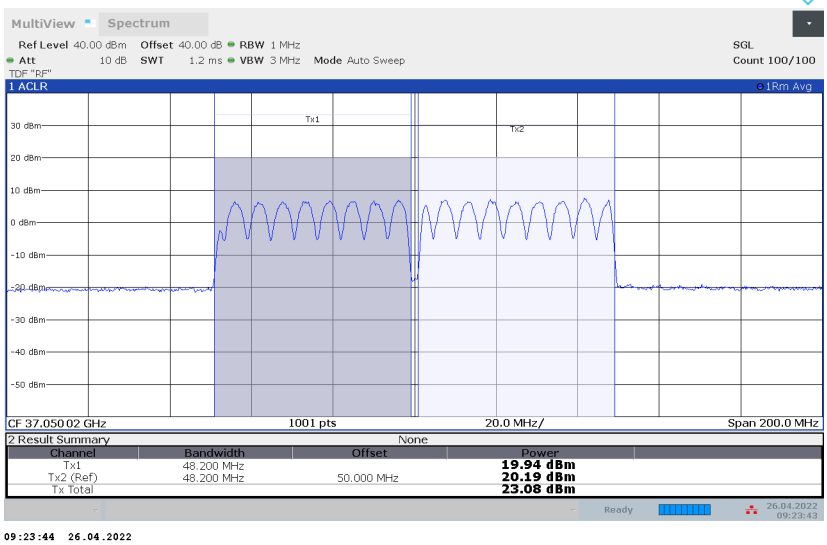
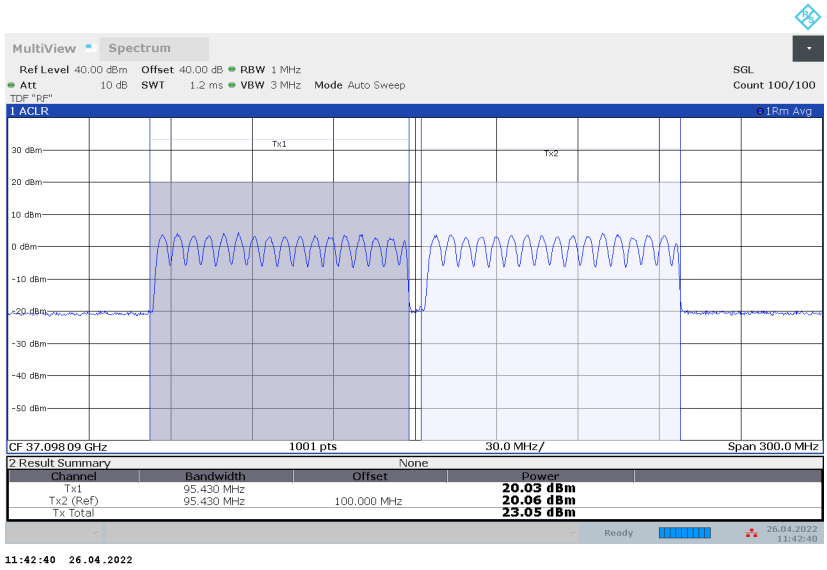
n260, ANT M2, Full-RB, SISO-Dual, QPSK, Low-CH

2CC, 50 MHz CH BW



2CC, 100 MHz CH BW



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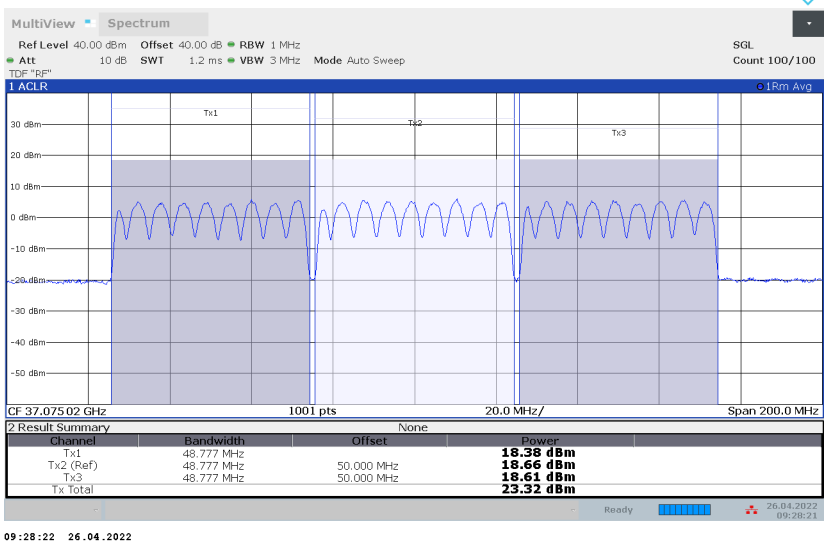
n260, ANT M2, Full-RB, SISO-Dual, QPSK, Low-CH

3CC, 50 MHz CH BW



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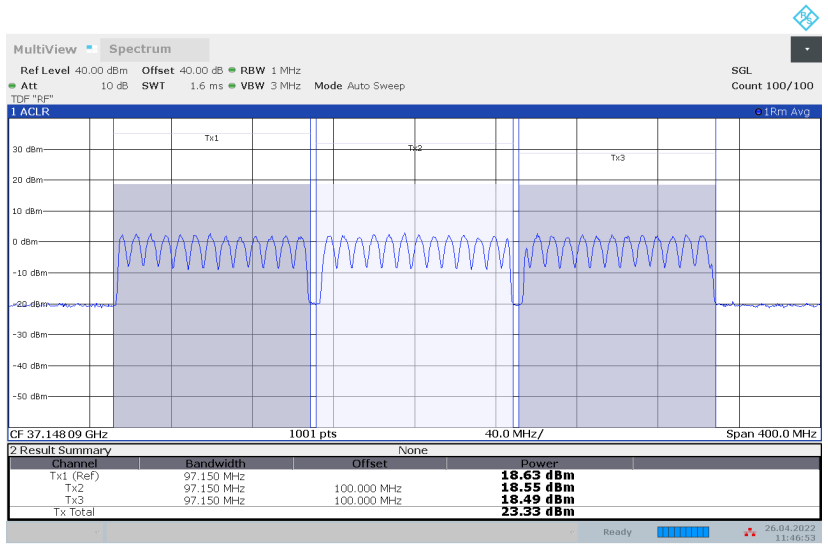
3CC, 100 MHz CH BW



11:46:53 26.04.2022

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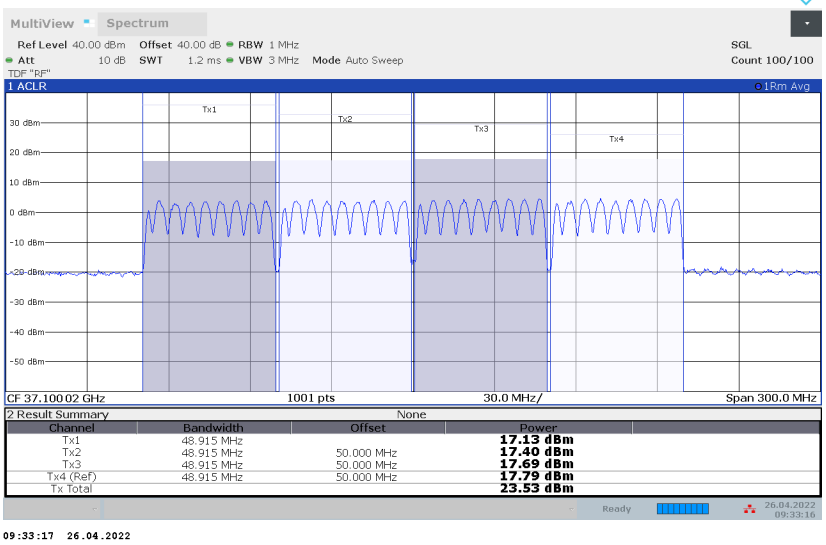
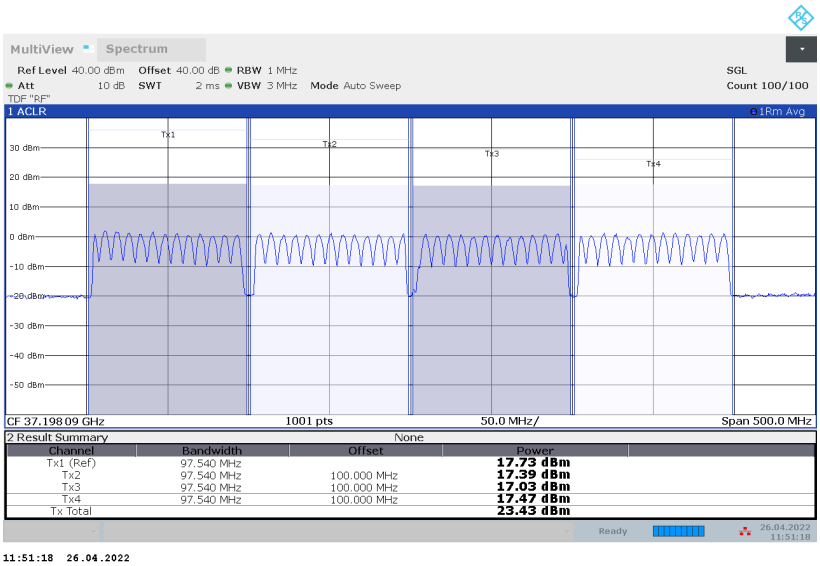
n260, ANT M2, Full-RB, SISO-Dual, QPSK, Low-CH

4CC, 50 MHz CH BW



4CC, 100 MHz CH BW



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8.2.12. EIRP n260 ANT M3

SISO

CCs Active	CH BW	Modulation	Channel	Frequency	Ant Pol	RB	Avg EIRP	Limit	Margin
	(MHz)			(GHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
1	50	QPSK	Mid	38.499	H	1/15	27.50	43	-15.50
	100			38.499		1/32	27.29	43	-15.71
2	50			38.474		1/15	20.42	43	-22.58
	100			38.449		1/32	20.21	43	-22.79
3	50			38.449		1/15	20.44	43	-22.56
	100			38.399		1/32	20.52	43	-22.48
4	50			38.424		1/15	20.38	43	-22.62
	100			38.349		1/32	20.33	43	-22.67

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SISO-Dual

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	BPSK	Mid	38.499	1/15	26.60	43	-16.40
		QPSK	Low	37.003	1/0	25.24	43	-17.76
				37.024	1/15	27.26	43	-15.74
				37.025	32/0	25.77	43	-17.23
			Mid	38.499	1/15	28.14	43	-14.86
				38.500	32/0	24.99	43	-18.01
			High	39.974	1/15	28.31	43	-14.69
				39.997	1/31	24.31	43	-18.69
				39.975	32/0	25.15	43	-17.85
		16QAM	Mid	38.499	1/15	24.64	43	-18.36
		64QAM		38.499	1/15	22.65	43	-20.35
	100	BPSK	Mid	38.499	1/32	25.93	43	-17.07
		QPSK	Low	37.003	1/0	23.06	43	-19.94
				37.049	1/32	28.18	43	-14.82
				37.048	64/0	24.83	43	-18.17
			Mid	38.499	1/32	27.89	43	-15.11
			High	39.949	1/32	28.40	43	-14.60
				39.996	1/65	24.67	43	-18.33
				39.951	64/2	25.08	43	-17.92
		16QAM	Mid	38.499	1/32	23.85	43	-19.15
		64QAM	Mid	38.499	1/32	21.85	43	-21.15
2	50	QPSK	Low	37.003	1/0	20.92	43	-22.08
				37.025	32/0	23.00	43	-20.00
			Mid	38.453	1/0	22.33	43	-20.67
				38.474	1/15	22.12	43	-20.88
				38.497	1/31	22.66	43	-20.34
			High	39.947	1/31	22.20	43	-20.80
				39.925	32/0	23.21	43	-19.79
	100	BPSK	Mid	38.450	64/1	24.45	43	-18.55
		QPSK	Low	37.003	1/0	20.45	43	-22.55
				37.048	64/0	22.18	43	-20.82
			Mid	38.403	1/0	18.48	43	-24.52
				38.449	1/32	19.21	43	-23.79
				38.497	1/65	23.70	43	-19.30
			High	39.897	1/65	19.16	43	-23.84
				39.851	64/2	23.24	43	-19.76
		16QAM	Mid	38.450	64/1	22.32	43	-20.68
		64QAM		38.450	64/1	20.58	43	-22.42

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CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
3	50	QPSK	Low	37.003	1/0	20.71	43	-22.29
				37.025	32/0	23.00	43	-20.00
			Mid	38.428	1/0	22.93	43	-20.07
				38.449	1/15	21.94	43	-21.06
				38.472	1/31	22.92	43	-20.08
			High	39.897	1/31	22.49	43	-20.51
				39.875	32/0	23.38	43	-19.62
	100	QPSK	Low	37.003	1/0	19.85	43	-23.15
				37.049	64/0	22.39	43	-20.61
			Mid	38.353	1/0	20.62	43	-22.38
				38.399	1/32	21.78	43	-21.22
				38.447	1/65	21.28	43	-21.72
			High	39.797	1/65	20.13	43	-22.87
				39.751	64/2	23.61	43	-19.39
4	50	QPSK	Low	37.003	1/0	20.96	43	-22.04
				37.025	32/0	23.05	43	-19.95
			Mid	38.403	1/0	22.98	43	-20.02
				38.424	1/15	22.25	43	-20.75
				38.447	1/31	22.51	43	-20.49
			High	39.847	1/31	22.80	43	-20.20
				39.825	32/0	23.84	43	-19.16
	100	BPSK	Mid	38.350	64/1	24.05	43	-18.95
		QPSK	Low	37.003	1/0	19.92	43	-23.08
				37.048	64/0	22.50	43	-20.50
			Mid	38.303	1/0	20.23	43	-22.77
				38.349	1/32	19.43	43	-23.57
				38.397	1/65	20.14	43	-22.86
			High	39.697	1/65	19.90	43	-23.10
				39.651	64/2	23.79	43	-19.21
		16QAM	Mid	38.350	64/1	22.60	43	-20.40
		64QAM	Mid	38.350	64/1	20.85	43	-22.15

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MIMO

CCs Active	CH BW (MHz)	Modulation	Channel	Frequency (GHz)	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
1	50	QPSK	Low	37.025	32/0	23.26	43	-19.74
			Mid	38.499	1/15	26.00	43	-17.00
				38.500	32/0	24.28	43	-18.72
			High	39.975	32/0	24.33	43	-18.67
	100		Low	37.050	66/0	22.82	43	-20.18
			Mid	38.500	1/33	26.16	43	-16.84
				38.500	66/0	24.93	43	-18.07
			High	39.951	66/0	22.83	43	-20.17
2	50	QPSK	Low	37.025	32/0	20.78	43	-22.22
			Mid	38.474	1/15	22.40	43	-20.60
				38.475	32/0	21.68	43	-21.32
			High	39.925	32/0	21.62	43	-21.38
	100		Low	37.050	66/0	20.26	43	-22.74
			Mid	38.451	1/33	22.38	43	-20.62
				38.450	66/0	22.34	43	-20.66
			High	39.850	66/0	21.81	43	-21.19
3	50	QPSK	Low	37.025	32/0	20.92	43	-22.08
			Mid	38.449	1/15	22.28	43	-20.72
				38.450	32/0	21.71	43	-21.29
			High	39.875	32/0	21.72	43	-21.28
	100		Low	37.050	66/0	20.61	43	-22.39
			Mid	38.400	1/33	22.53	43	-20.47
				38.400	66/0	22.52	43	-20.48
			High	39.750	66/0	22.10	43	-20.90
4	50	QPSK	Low	37.025	32/0	20.95	43	-22.05
			Mid	38.424	1/15	22.26	43	-20.74
				38.425	32/0	22.22	43	-20.78
			High	39.825	32/0	22.15	43	-20.85
	100		Low	37.050	66/0	20.79	43	-22.21
			Mid	38.351	1/33	17.41	43	-25.59
				38.350	66/0	19.74	43	-23.26
			High	39.650	66/0	19.26	43	-23.74

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8.3. BAND EDGE EMISSIONS

RULE PART(S)

FCC: §2.1051, §30.203

LIMITS

30.203 (a) - The conductive power or 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.

TEST PROCEDURE

- RBW = 1 MHz
- VBW ≥ 3 x RBW
- Number of measurement points in sweep > 2 x span / RBW
- Sweep time = auto-couple
- Detector = RMS
- Trace mode = Average

KDB 842590 D01 Upper Microwave Flexible Use Service v01 Section 4.2
ANSI C63.26-2015 Clause 5.2, Clause 5.5, Clause 6.4, and Annex C.5.2

Band Edge measurements of variable frequency bands were performed at the far field test distance listed on Section 5.

EIRP was calculated using the equations on ANSI C63.26-2015 Annex C.5.2. The total correction factors of horn antenna gain, cable loss and far-field path loss were calculated using equations C.8 and C.9, and pre-loaded into spectrum analyzer. Antenna gain of EUT is not factored into the EIRP calculation of BE measurements.

Sample calculation of EIRP:

Total Correction Factor = Cable Loss (dB) – Horn Ant Gain (dBi) + Path Loss (dB)
= 4 – 23 + 71
= 52 dB

EIRP = $P_{measured}$(dBm), where Total Correction Factor preloaded.

In order to properly display of signal level on the plots, the pre-loaded correction factors were intentional lowered by 40 dB and an offset factor of 40 dB was applied on spectrum analyzer to compensate the true correction factors across the frequency range of measurement.

BPSK, QPSK, 16QAM and 64QAM modulations were all investigated in SISO-Dual mode on all 3 antennas, since the highest band edge emissions were for the SISO-Dual antenna configuration, consistent with this also being the configuration with the highest EIRP. The SISO-Dual mode was, therefore, used for the final band-edge measurements to represent

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worse case of both SISO-Dual and SISO modes. Additional measurements were made with QPSK modulation on the MIMO mode as it has a wider bandwidth than the SISO-Dual mode. For Ant M1, only QPSK modulation in SISO-Dual mode of each channel bandwidth is investigated to verify the lower band edge emission level, comparing to Ant M2. Single RB (highest power) and Full RB allocations were measured.

Band edge measurements for multi-carrier (2CC - 4CC) QPSK modulated operations Single RB and Full RB allocations were investigated in each carrier in the (50 MHz + 50 MHz) and (100 MHz + 100 MHz) modes. Note that inter-modulation products which can be seen in the band edge plots are evaluated as part of the radiated spurious emission measurements.

To minimize report size, the 1CC to 4CC plots of worst case SISO-Dual and MIMO, QPSK of both channel bandwidths on Ant M2 are provided to demonstrate the test parameter setting on signal analyzer. The tabular data includes data for the BPSK, 16QAM and 64QAM modulations.

RESULTS

See the following pages.

Employee IDs: 19437, 19459, 24303, 25368, 27446, 27780
Test Date: 2/11/22 – 6/2/22
Test Locations: Chambers 1, 2, 3

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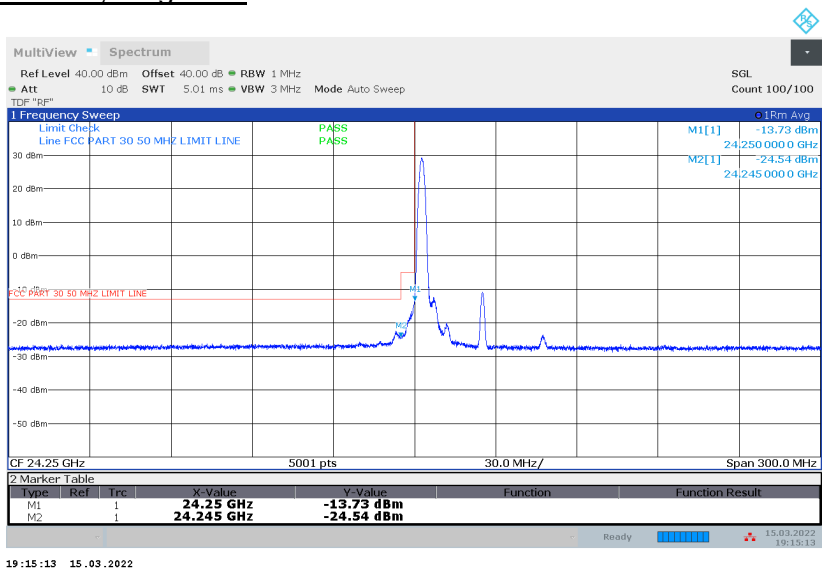
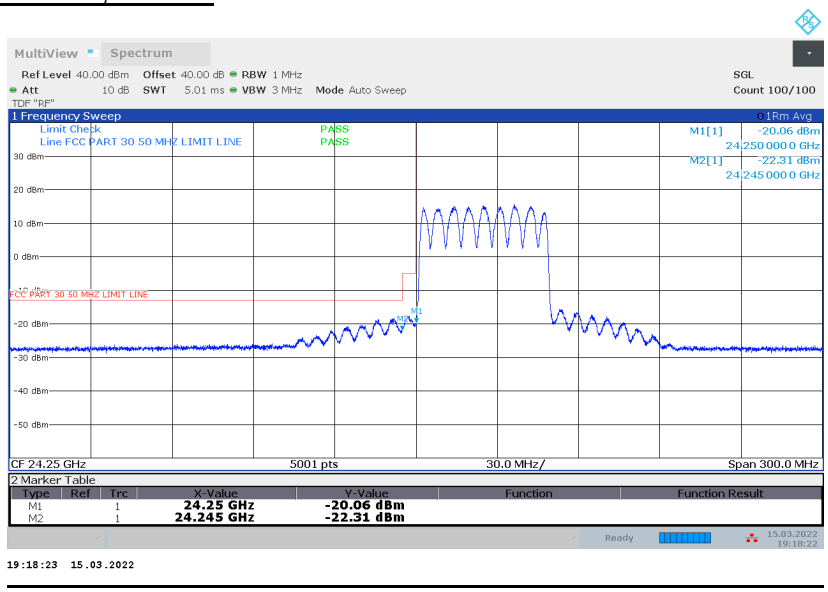
8.3.1. BAND EDGE n258 SB1 SISO-DUAL 1CC

ANT M2, 50 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



Low-side, Full RB



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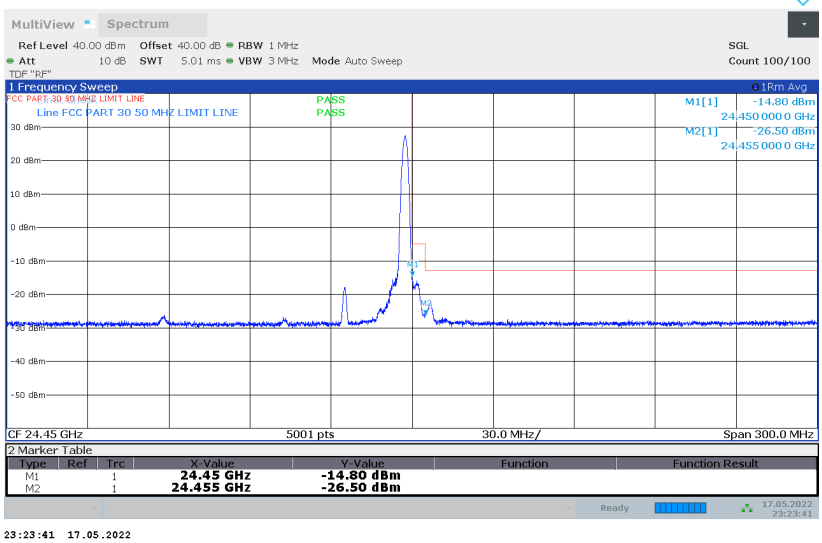
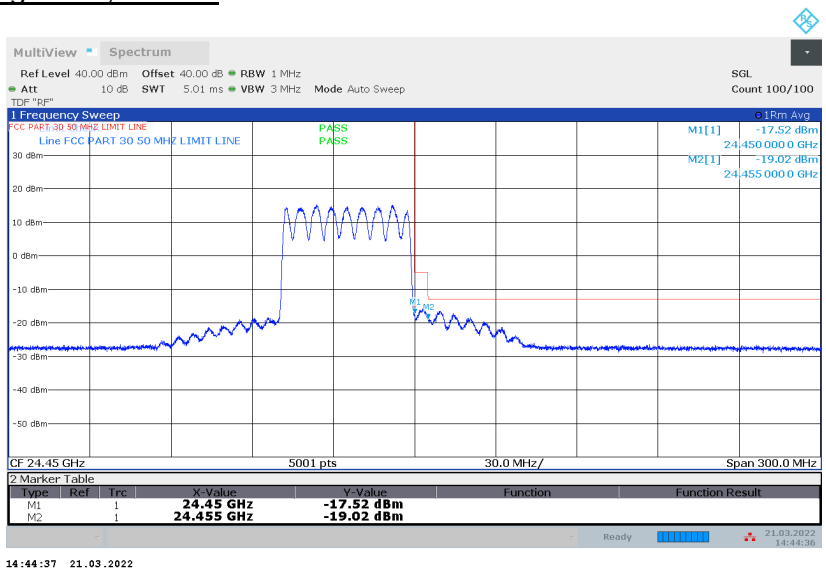
ANT M2, 50 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 50 MHz, SISO-DUAL, 1CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.25	-23.27	-5	-18.27
				24.245	-29.73	-13	-16.73
M2				24.25	-13.73	-5	-8.73
				24.245	-24.54	-13	-11.54
M3				24.25	-15.73	-5	-10.73
				24.245	-26.10	-13	-13.10
M1	50	L	32/0	24.25	-27.81	-5	-22.81
				24.245	-29.50	-13	-16.50
M2				24.25	-20.06	-5	-15.06
				24.245	-22.31	-13	-9.31
M3				24.25	-20.40	-5	-15.40
				24.245	-20.10	-13	-7.10
M1	50	H	1/31	24.45	-24.03	-5	-19.03
				24.455	-29.84	-13	-16.84
M2				24.45	-14.80	-5	-9.80
				24.455	-26.50	-13	-13.50
M3				24.45	-16.94	-5	-11.94
				24.455	-25.27	-13	-12.27
M1	50	H	32/0	24.45	-28.58	-5	-23.58
				24.455	-29.57	-13	-16.57
M2				24.45	-17.52	-5	-12.52
				24.455	-19.02	-13	-6.02
M3				24.45	-20.21	-5	-15.21
				24.455	-20.94	-13	-7.94

ANT M2 & M3, 50 MHz, SISO-DUAL, 1CC, BPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-12.83	-5	-7.83
				24.245	-24.88	-13	-11.88
M3				24.25	-17.06	-5	-12.06
				24.245	-26.16	-13	-13.16
M2	50	H	1/31	24.45	-15.36	-5	-10.36
				24.455	-23.97	-13	-10.97
M3				24.45	-17.32	-5	-12.32
				24.455	-25.36	-13	-12.36

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ANT M2 & M3, 50 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-14.35	-5	-9.35
				24.245	-24.79	-13	-11.79
M3				24.25	-18.28	-5	-13.28
				24.245	-26.03	-13	-13.03
M2	50	H	1/31	24.45	-14.70	-5	-9.70
				24.455	-25.26	-13	-12.26
M3				24.45	-17.30	-5	-12.30
				24.455	-25.95	-13	-12.95

ANT M2 & M3, 50 MHz, SISO-DUAL, 1CC, 64QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-16.84	-5	-11.84
				24.245	-26.27	-13	-13.27
M3				24.25	-17.86	-5	-12.86
				24.245	-26.39	-13	-13.39
M2	50	H	1/31	24.45	-16.78	-5	-11.78
				24.455	-25.33	-13	-12.33
M3				24.45	-18.70	-5	-13.70
				24.455	-26.13	-13	-13.13

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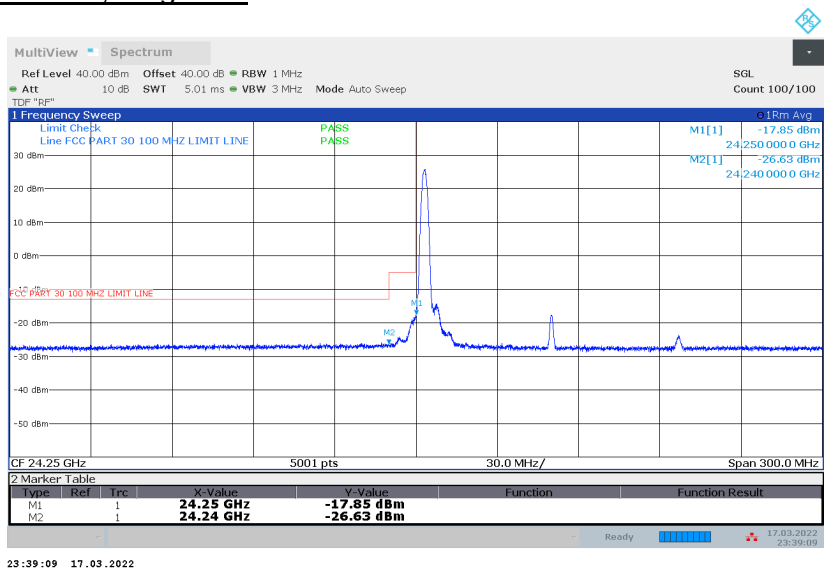
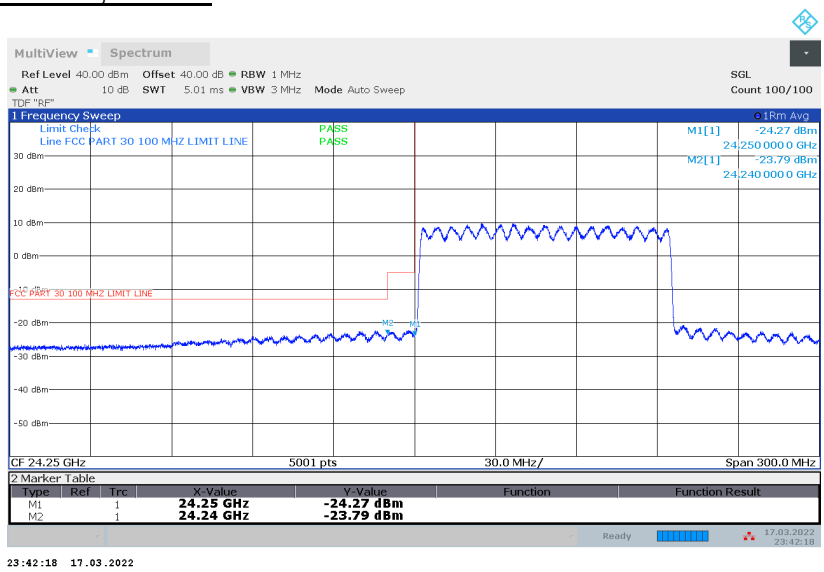
ANT M2, 100 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



Low-side, Full RB



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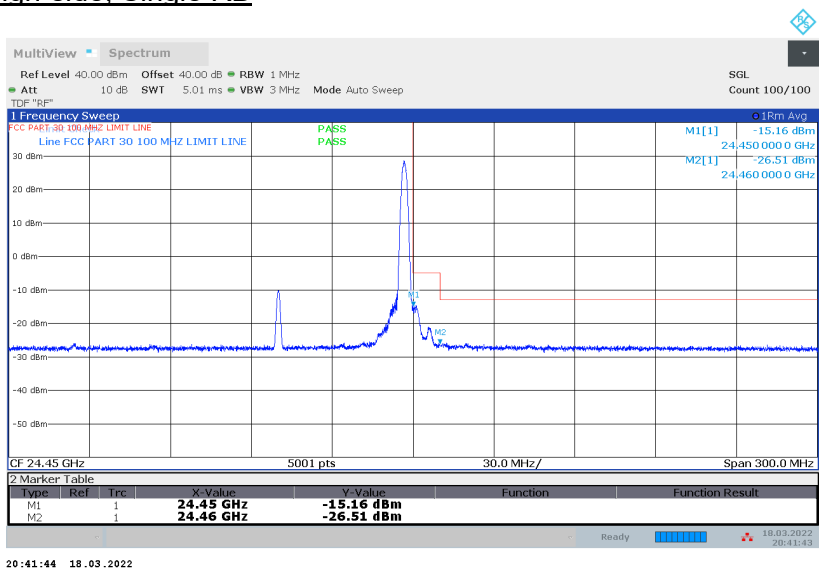
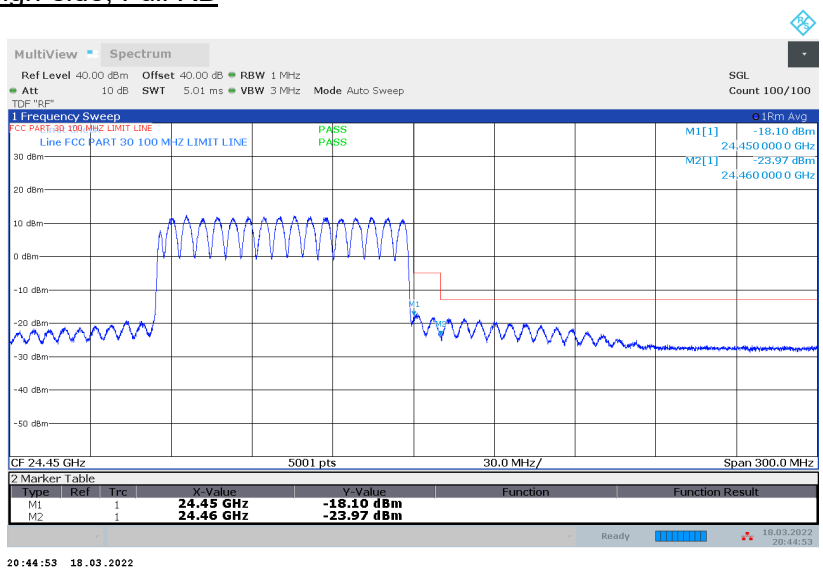
ANT M2, 100 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 100 MHz, SISO-DUAL, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	24.25	-22.99	-5	-17.99
				24.24	-29.88	-13	-16.88
M2				24.25	-17.85	-5	-12.85
				24.24	-26.63	-13	-13.63
M3				24.25	-17.83	-5	-12.83
				24.24	-27.17	-13	-14.17
M1	100	L	64/0	24.25	-28.17	-5	-23.17
				24.24	-29.62	-13	-16.62
M2				24.25	-24.27	-5	-19.27
				24.24	-23.79	-13	-10.79
M3				24.25	-23.94	-5	-18.94
				24.24	-22.99	-13	-9.99
M1	100	H	1/65	24.45	-25.67	-5	-20.67
				24.46	-30.41	-13	-17.41
M2				24.45	-15.16	-5	-10.16
				24.46	-26.51	-13	-13.51
M3				24.45	-19.73	-5	-14.73
				24.46	-27.36	-13	-14.36
M1	100	H	64/2	24.45	-29.45	-5	-24.45
				24.46	-29.20	-13	-16.20
M2				24.45	-18.10	-5	-13.10
				24.46	-23.97	-13	-10.97
M3				24.45	-22.01	-5	-17.01
				24.46	-25.44	-13	-12.44

ANT M2 & M3, 100 MHz, SISO-DUAL, 1CC, BPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M2	100	L	64/0	24.25	-23.58	-5	-18.58
				24.24	-25.10	-13	-12.10
M3				24.25	-23.95	-5	-18.95
				24.24	-24.82	-13	-11.82
M2	100	H	64/2	24.45	-20.21	-5	-15.21
				24.46	-24.88	-13	-11.88
M3				24.45	-23.68	-5	-18.68
				24.46	-26.88	-13	-13.88

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ANT M2 & M3, 100 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	100	L	64/0	24.25	-24.92	-5	-19.92
				24.24	-25.57	-13	-12.57
M3				24.25	-24.72	-5	-19.72
				24.24	-24.11	-13	-11.11
M2	100	H	64/2	24.45	-20.91	-5	-15.91
				24.46	-25.25	-13	-12.25
M3				24.45	-24.25	-5	-19.25
				24.46	-26.04	-13	-13.04

ANT M2 & M3, 100 MHz, SISO-DUAL, 1CC, 64QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	100	L	64/0	24.25	-24.35	-5	-19.35
				24.24	-25.65	-13	-12.65
M3				24.25	-25.70	-5	-20.70
				24.24	-26.00	-13	-13.00
M2	100	H	64/2	24.45	-24.63	-5	-19.63
				24.46	-25.67	-13	-12.67
M3				24.45	-26.21	-5	-21.21
				24.46	-27.03	-13	-14.03

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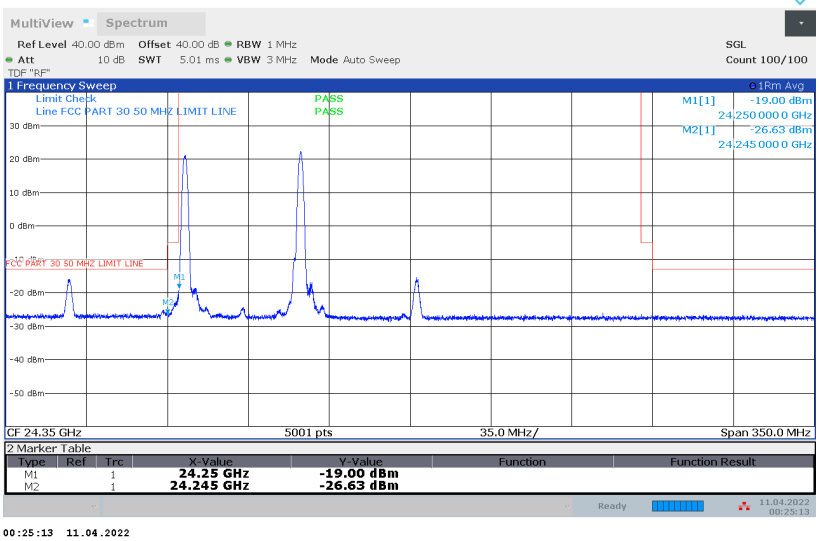
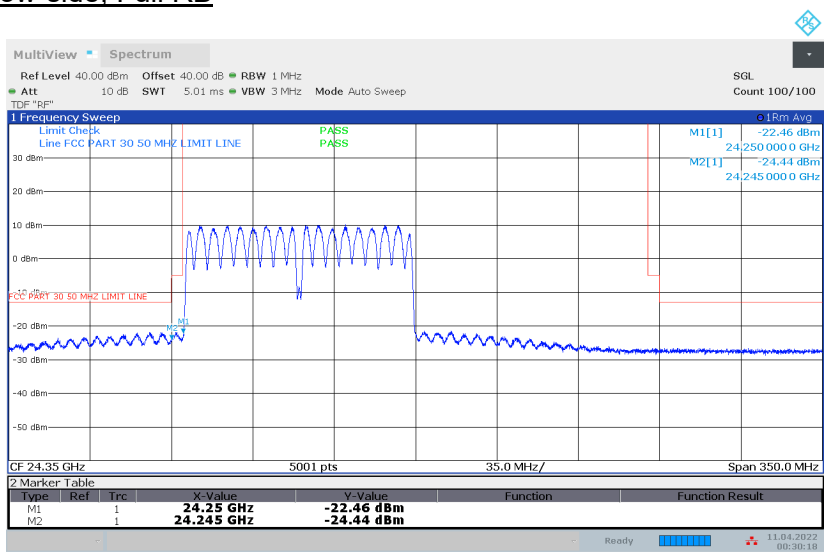
8.3.2. BAND EDGE n258 SB1 SISO-DUAL 2CC

ANT M2, 50 MHz, SISO-DUAL, 2CC, QPSK

Low-side, Single RB



Low-side, Full RB



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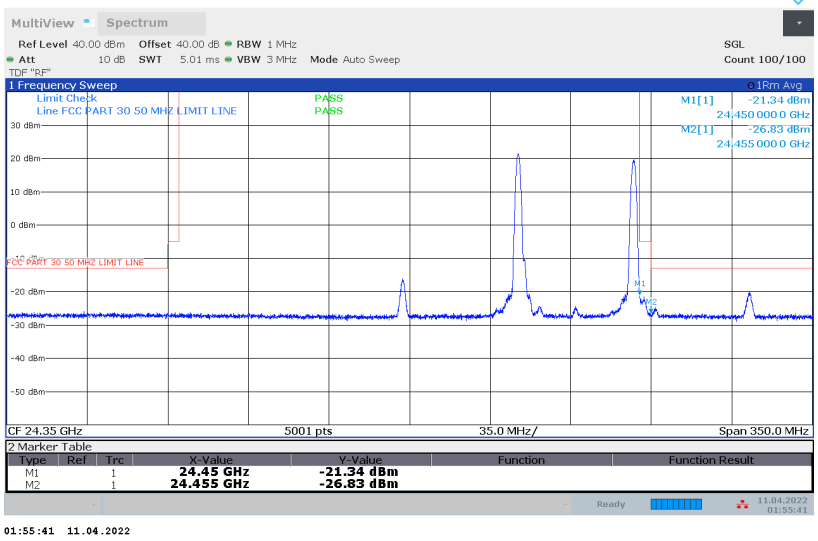
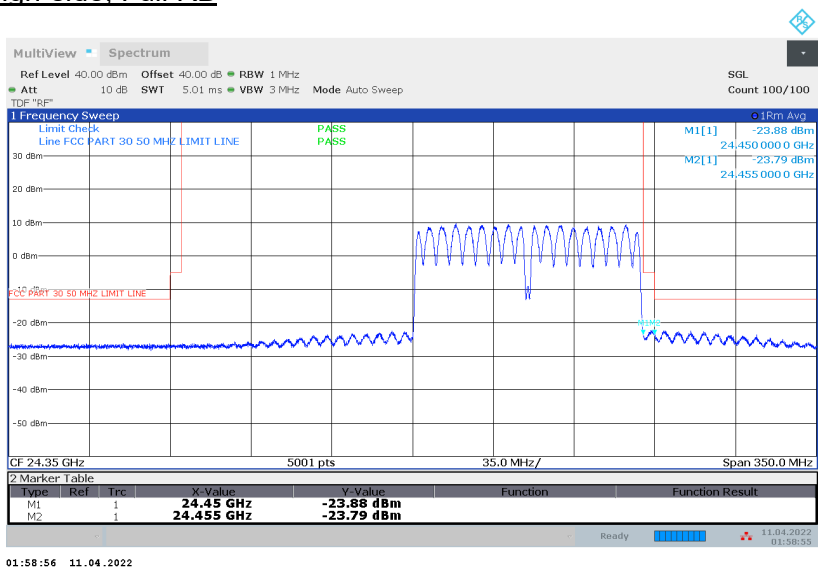
ANT M2, 50 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 50 MHz, SISO-DUAL, 2CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.25	-25.54	-5	-20.54
				24.245	-27.49	-13	-14.49
M2				24.25	-19.00	-5	-14.00
				24.245	-26.63	-13	-13.63
M3				24.25	-23.09	-5	-18.09
				24.245	-30.05	-13	-17.05
M1	50	L	32/0	24.25	-26.70	-5	-21.70
				24.245	-27.01	-13	-14.01
M2				24.25	-22.46	-5	-17.46
				24.245	-24.44	-13	-11.44
M3				24.25	-24.88	-5	-19.88
				24.245	-24.25	-13	-11.25
M1	50	H	1/31	24.45	-25.64	-5	-20.64
				24.455	-27.34	-13	-14.34
M2				24.45	-21.34	-5	-16.34
				24.455	-26.83	-13	-13.83
M3				24.45	-23.41	-5	-18.41
				24.455	-29.69	-13	-16.69
M1	50	H	32/0	24.45	-26.71	-5	-21.71
				24.455	-27.53	-13	-14.53
M2				24.45	-23.88	-5	-18.88
				24.455	-23.79	-13	-10.79
M3				24.45	-25.26	-5	-20.26
				24.455	-25.01	-13	-12.01

ANT M2 & M3, 50 MHz, SISO-DUAL, 2CC, BPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-20.43	-5	-15.43
				24.245	-26.50	-13	-13.50
M3				24.25	-24.01	-5	-19.01
				24.245	-29.57	-13	-16.57
M2	50	H	1/31	24.45	-21.02	-5	-16.02
				24.455	-27.37	-13	-14.37
M3				24.45	-23.30	-5	-18.30
				24.455	-30.49	-13	-17.49

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ANT M2 & M3, 50 MHz, SISO-DUAL, 2CC, 16QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-20.34	-5	-15.34
				24.245	-26.79	-13	-13.79
M3				24.25	-25.22	-5	-20.22
				24.245	-29.33	-13	-16.33
M2	50	H	1/31	24.45	-20.59	-5	-15.59
				24.455	-27.12	-13	-14.12
M3				24.45	-24.14	-5	-19.14
				24.455	-29.80	-13	-16.80

ANT M2 & M3, 50 MHz, SISO-DUAL, 2CC, 64QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-21.04	-5	-16.04
				24.245	-27.14	-13	-14.14
M3				24.25	-25.78	-5	-20.78
				24.245	-29.61	-13	-16.61
M2	50	H	1/31	24.45	-22.49	-5	-17.49
				24.455	-27.03	-13	-14.03
M3				24.45	-23.56	-5	-18.56
				24.455	-30.06	-13	-17.06

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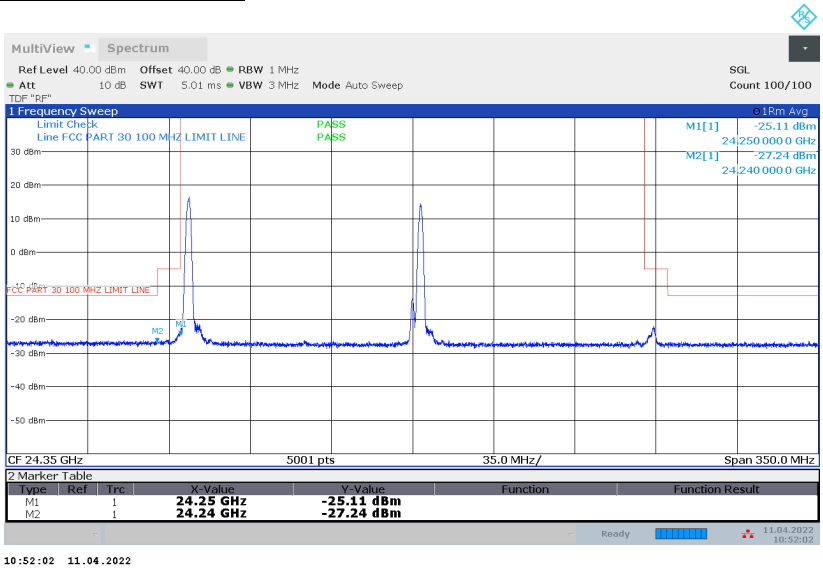
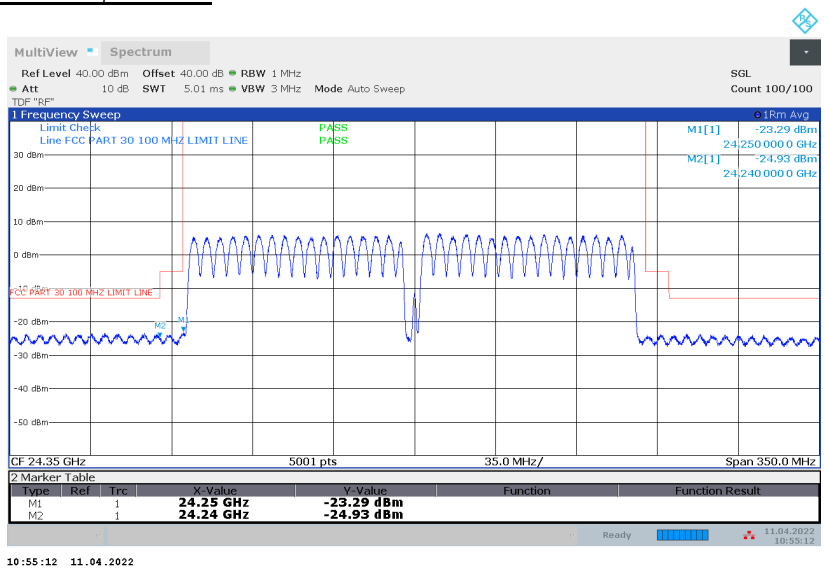
ANT M2, 100 MHz, SISO-DUAL, 2CC, QPSK

Low-side, Single RB



Low-side, Full RB



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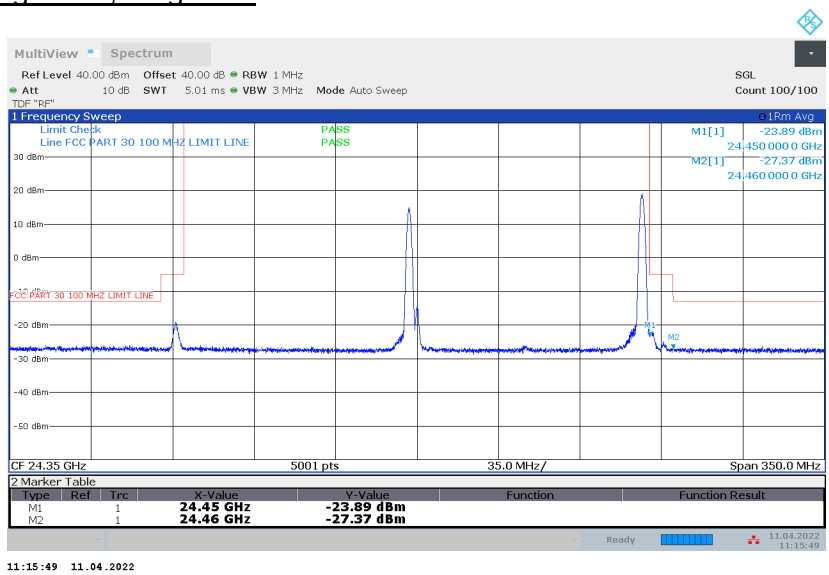
ANT M2, 100 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



High-side, Full RB

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ANT M1, M2 & M3, 100 MHz, SISO-DUAL, 2CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	1/0	24.25	-25.56	-5	-20.56
				24.24	-27.01	-13	-14.01
M2				24.25	-25.11	-5	-20.11
				24.24	-27.24	-13	-14.24
M3				24.25	-22.13	-5	-17.13
				24.24	-29.42	-13	-16.42
M1	100	L	64/0	24.25	-27.09	-5	-22.09
				24.24	-27.50	-13	-14.50
M2				24.25	-23.29	-5	-18.29
				24.24	-24.93	-13	-11.93
M3				24.25	-25.96	-5	-20.96
				24.24	-29.07	-13	-16.07
M1	100	H	1/65	24.45	-25.41	-5	-20.41
				24.46	-27.81	-13	-14.81
M2				24.45	-23.89	-5	-18.89
				24.46	-27.37	-13	-14.37
M3				24.45	-26.33	-5	-21.33
				24.46	-30.51	-13	-17.51
M1	100	H	64/2	24.45	-27.08	-5	-22.08
				24.46	-26.87	-13	-13.87
M2				24.45	-24.32	-5	-19.32
				24.46	-26.78	-13	-13.78
M3				24.45	-29.30	-5	-24.30
				24.46	-28.71	-13	-15.71

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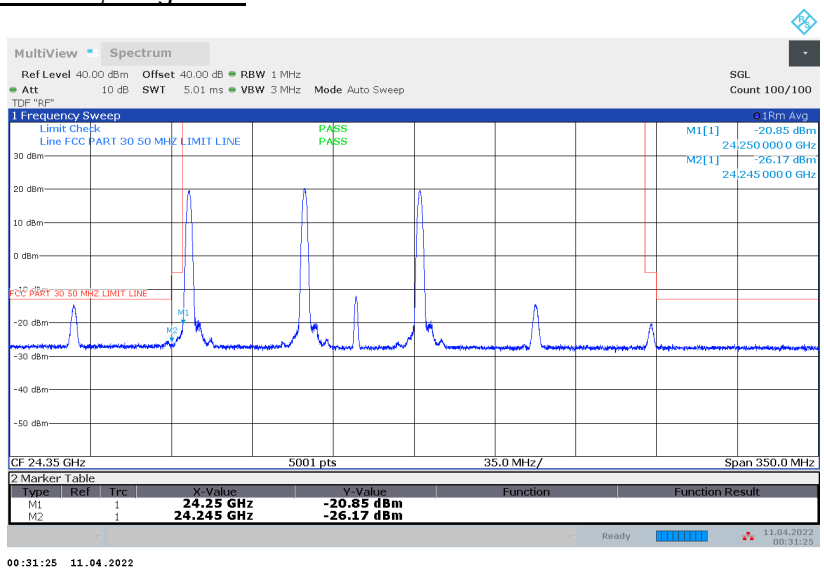
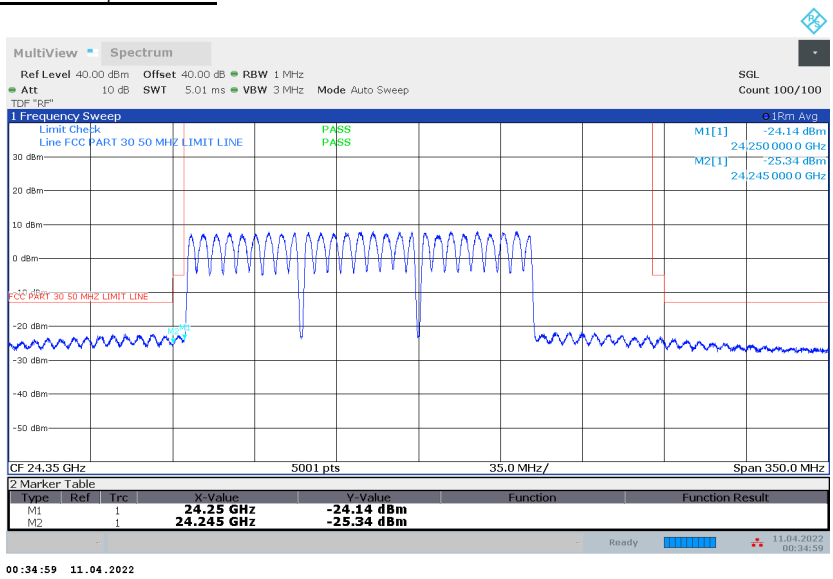
8.3.3. BAND EDGE n258 SB1 SISO-DUAL 3CC

ANT M2, 50 MHz, SISO-DUAL, 3CC, QPSK

Low-side, Single RB



Low-side, Full RB



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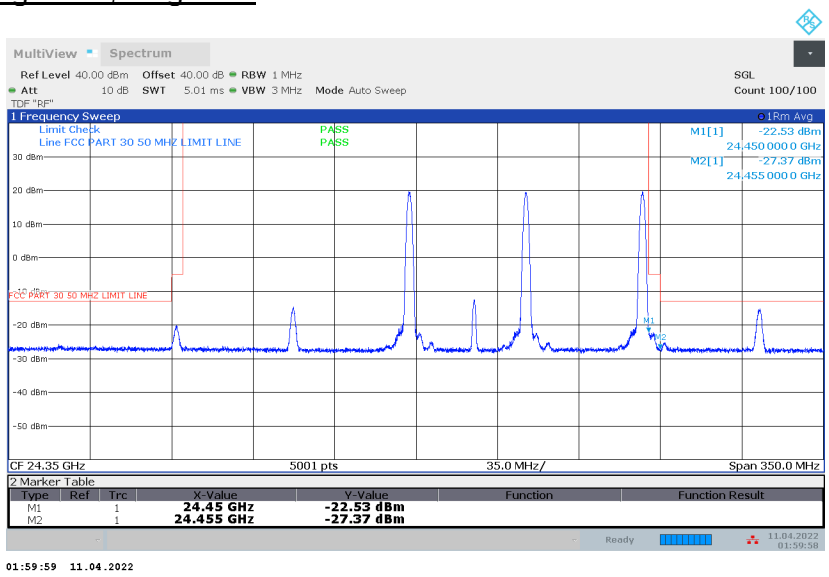
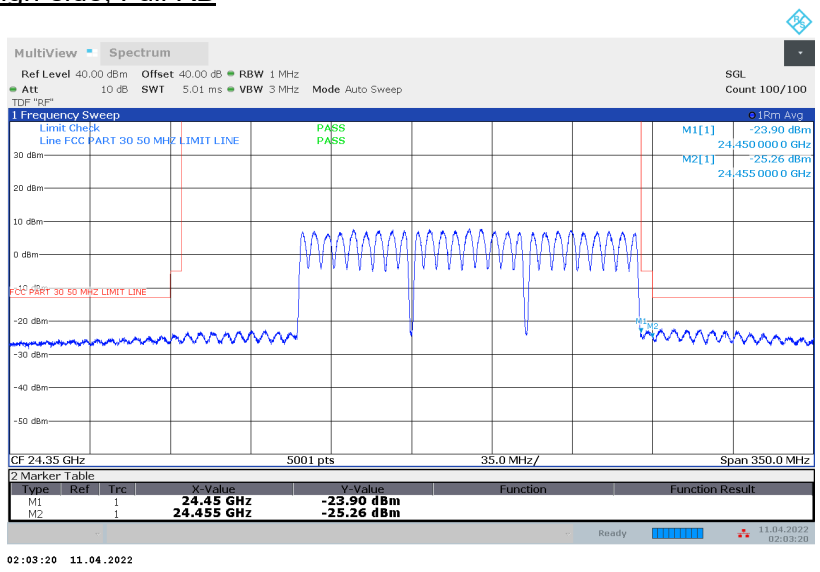
ANT M2, 50 MHz, SISO-DUAL, 3CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 50 MHz, SISO-DUAL, 3CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.25	-25.63	-5	-20.63
				24.245	-27.47	-13	-14.47
M2				24.25	-20.85	-5	-15.85
				24.245	-26.17	-13	-13.17
M3				24.25	-23.41	-5	-18.41
				24.245	-29.13	-13	-16.13
M1	50	L	32/0	24.25	-26.91	-5	-21.91
				24.245	-26.90	-13	-13.90
M2				24.25	-24.14	-5	-19.14
				24.245	-25.34	-13	-12.34
M3				24.25	-26.75	-5	-21.75
				24.245	-26.42	-13	-13.42
M1	50	H	1/31	24.45	-26.35	-5	-21.35
				24.455	-28.53	-13	-15.53
M2				24.45	-22.53	-5	-17.53
				24.455	-27.37	-13	-14.37
M3				24.45	-24.88	-5	-19.88
				24.455	-29.47	-13	-16.47
M1	50	H	32/0	24.45	-28.57	-5	-23.57
				24.455	-28.80	-13	-15.80
M2				24.45	-23.90	-5	-18.90
				24.455	-25.26	-13	-12.26
M3				24.45	-26.65	-5	-21.65
				24.455	-27.75	-13	-14.75

ANT M2 & M3, 50 MHz, SISO-DUAL, 3CC, BPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-21.80	-5	-16.80
				24.245	-26.60	-13	-13.60
M3				24.25	-23.54	-5	-18.54
				24.245	-29.78	-13	-16.78
M2	50	H	1/31	24.45	-22.29	-5	-17.29
				24.455	-27.52	-13	-14.52
M3				24.45	-26.15	-5	-21.15
				24.455	-29.91	-13	-16.91

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ANT M2 & M3, 50 MHz, SISO-DUAL, 3CC, 16QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-20.37	-5	-15.37
				24.245	-26.89	-13	-13.89
M3				24.25	-24.07	-5	-19.07
				24.245	-29.82	-13	-16.82
M2	50	H	1/31	24.45	-23.06	-5	-18.06
				24.455	-27.11	-13	-14.11
M3				24.45	-26.12	-5	-21.12
				24.455	-30.26	-13	-17.26

ANT M2 & M3, 50 MHz, SISO-DUAL, 3CC, 64QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-22.39	-5	-17.39
				24.245	-27.18	-13	-14.18
M3				24.25	-25.37	-5	-20.37
				24.245	-29.12	-13	-16.12
M2	50	H	1/31	24.45	-21.75	-5	-16.75
				24.455	-26.76	-13	-13.76
M3				24.45	-26.12	-5	-21.12
				24.455	-30.26	-13	-17.26

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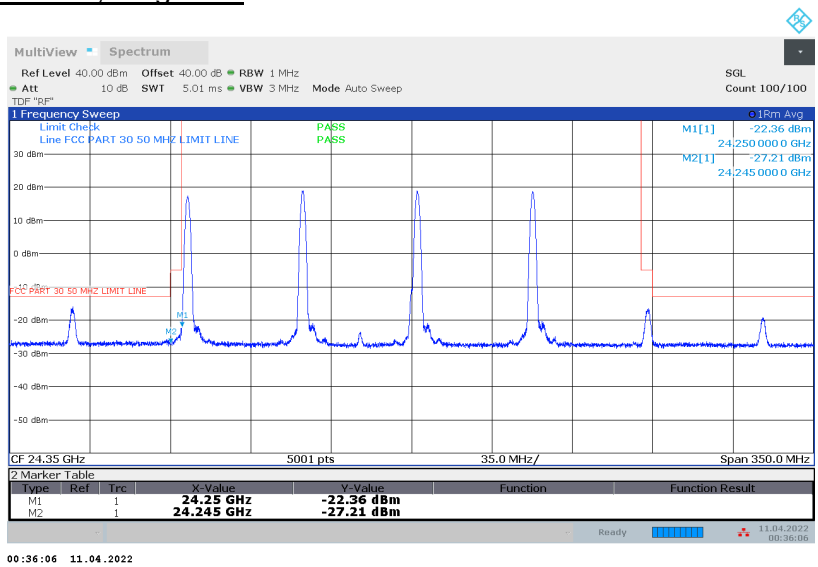
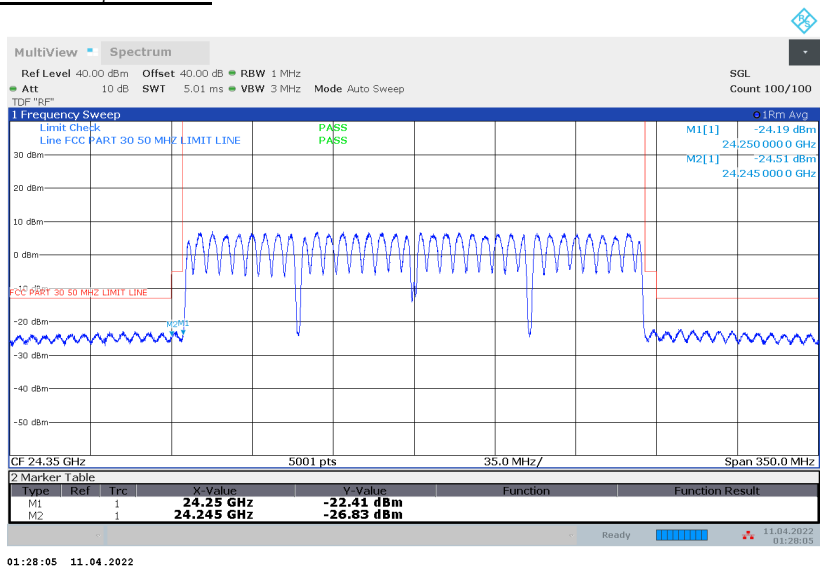
8.3.4. BAND EDGE n258 SB1 SISO-DUAL 4CC

ANT M2, 50 MHz, SISO-DUAL, 4CC, QPSK

Low-side, Single RB



Low-side, Full RB



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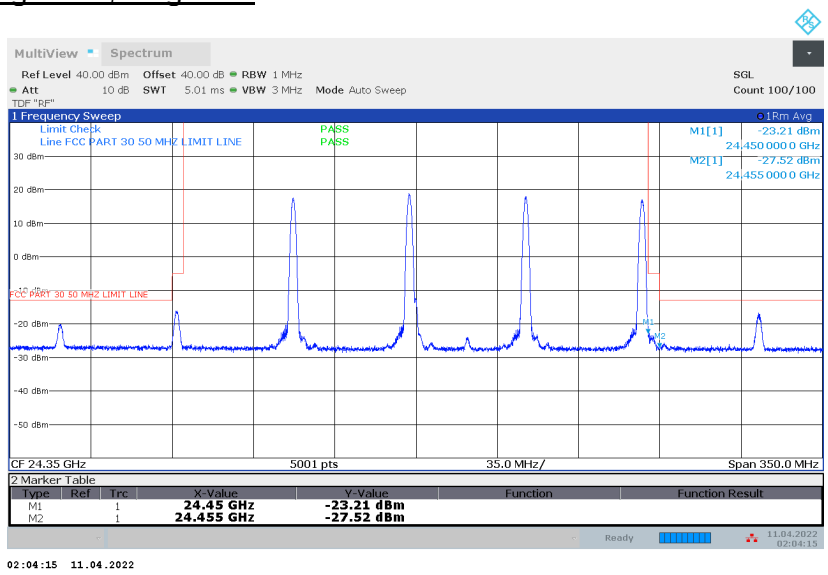
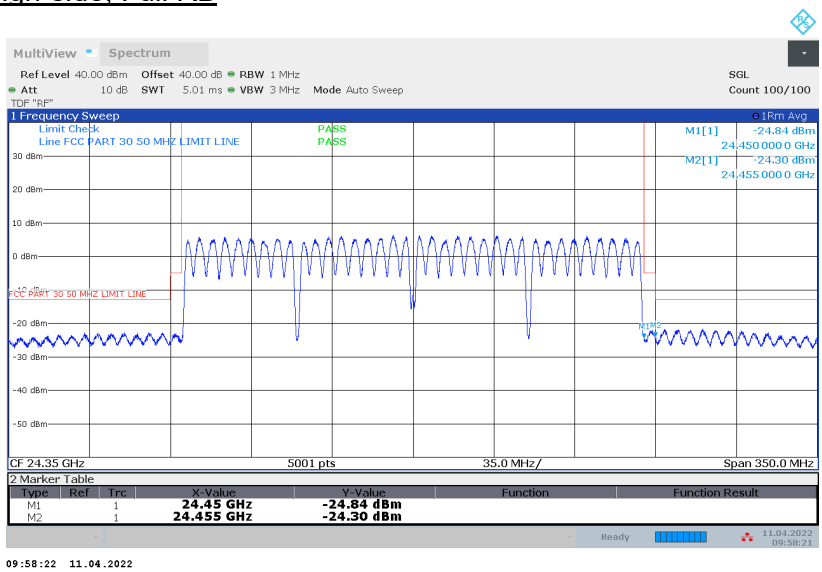
ANT M2, 50 MHz, SISO-DUAL, 4CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 50 MHz, SISO-DUAL, 4CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.25	-25.69	-5	-20.69
				24.245	-26.81	-13	-13.81
M2				24.25	-22.36	-5	-17.36
				24.245	-27.21	-13	-14.21
M3				24.25	-24.58	-5	-19.58
				24.245	-29.76	-13	-16.76
M1	50	L	32/0	24.25	-26.79	-5	-21.79
				24.245	-26.87	-13	-13.87
M2				24.25	-22.41	-5	-17.41
				24.245	-26.83	-13	-13.83
M3				24.25	-26.89	-5	-21.89
				24.245	-25.94	-13	-12.94
M1	50	H	1/31	24.45	-26.49	-5	-21.49
				24.455	-27.84	-13	-14.84
M2				24.45	-23.21	-5	-18.21
				24.455	-27.52	-13	-14.52
M3				24.45	-25.54	-5	-20.54
				24.455	-30.10	-13	-17.10
M1	50	H	32/0	24.45	-27.22	-5	-22.22
				24.455	-27.14	-13	-14.14
M2				24.45	-24.84	-5	-19.84
				24.455	-24.30	-13	-11.30
M3				24.45	-25.90	-5	-20.90
				24.455	-24.90	-13	-11.90

ANT M2 & M3, 50 MHz, SISO-DUAL, 4CC, BPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-22.76	-5	-17.76
				24.245	-27.63	-13	-14.63
M3				24.25	-24.98	-5	-19.98
				24.245	-29.71	-13	-16.71
M2	50	H	1/31	24.45	-23.02	-5	-18.02
				24.455	-27.52	-13	-14.52
M3				24.45	-23.81	-5	-18.81
				24.455	-30.23	-13	-17.23

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ANT M2 & M3, 50 MHz, SISO-DUAL, 4CC, 16QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-22.20	-5	-17.20
				24.245	-27.46	-13	-14.46
M3				24.25	-24.79	-5	-19.79
				24.245	-29.66	-13	-16.66
M2	50	H	1/31	24.45	-22.86	-5	-17.86
				24.455	-27.16	-13	-14.16
M3				24.45	-25.12	-5	-20.12
				24.455	-30.30	-13	-17.30

ANT M2 & M3, 50 MHz, SISO-DUAL, 4CC, 64QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.25	-22.41	-5	-17.41
				24.245	-26.83	-13	-13.83
M3				24.25	-24.85	-5	-19.85
				24.245	-29.80	-13	-16.80
M2	50	H	1/31	24.45	-22.38	-5	-17.38
				24.455	-27.62	-13	-14.62
M3				24.45	-25.95	-5	-20.95
				24.455	-30.62	-13	-17.62

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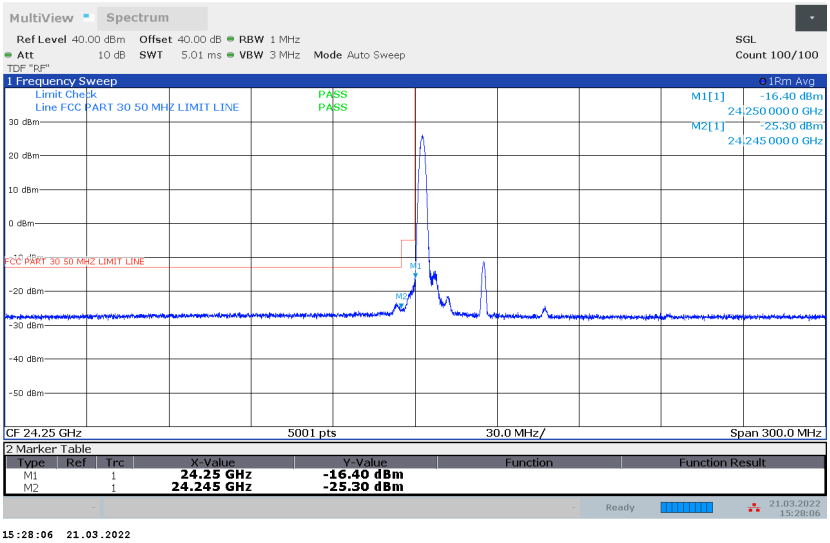
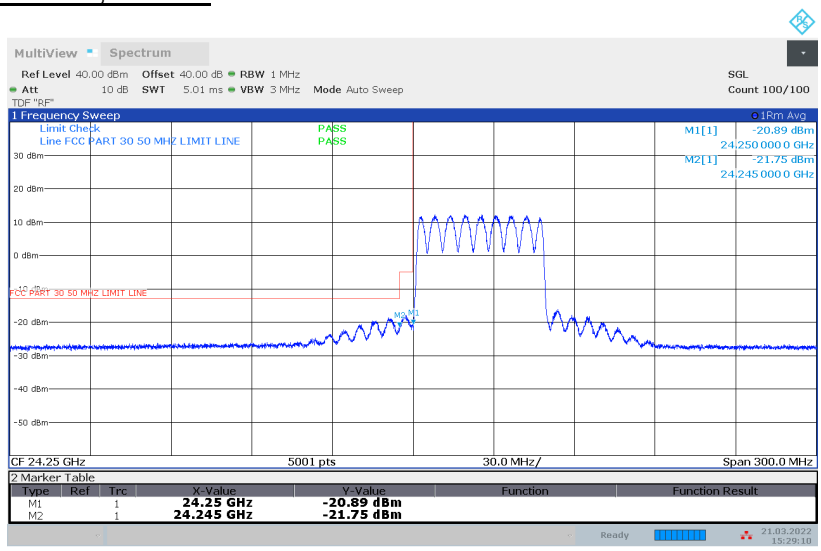
8.3.5. BAND EDGE n258 SB1 MIMO 1CC

ANT M2, 50 MHz, MIMO, 1CC, QPSK

Low-side, Single RB



Low-side, Full RB



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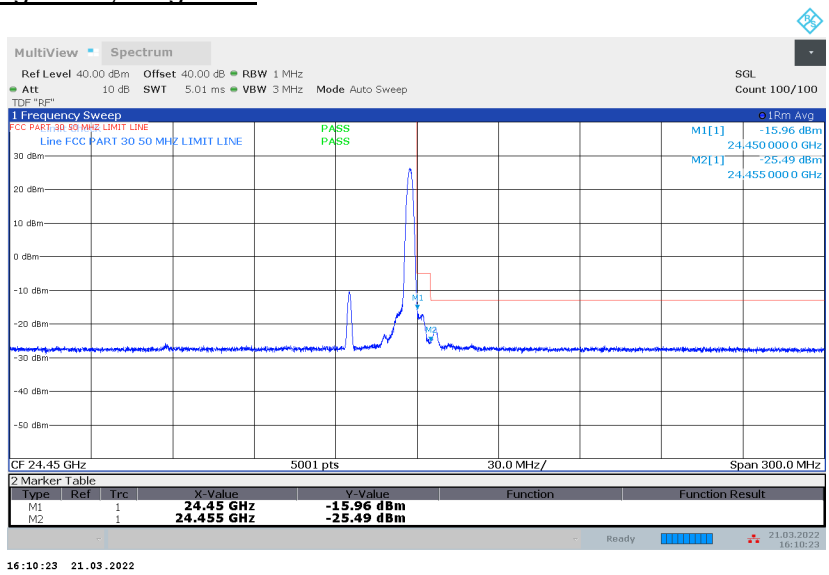
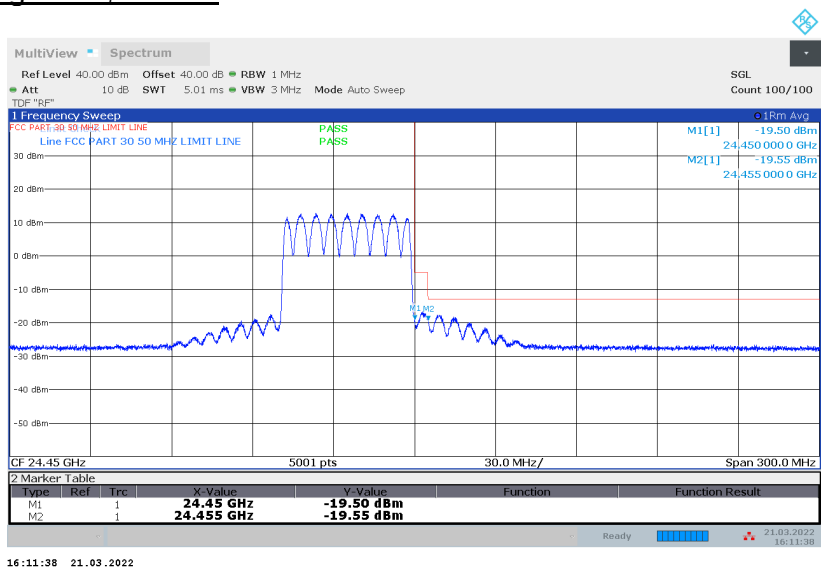
ANT M2, 50 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 50 MHz, MIMO, 1CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.25	-22.46	-5	-17.46
				24.245	-27.06	-13	-14.06
M2				24.25	-16.40	-5	-11.40
				24.245	-25.30	-13	-12.30
M3				24.25	-18.33	-5	-13.33
				24.245	-26.50	-13	-13.50
M1	50	L	32/0	24.25	-25.80	-5	-20.80
				24.245	-26.33	-13	-13.33
M2				24.25	-20.89	-5	-15.89
				24.245	-21.75	-13	-8.75
M3				24.25	-20.16	-5	-15.16
				24.245	-19.51	-13	-6.51
M1	50	H	1/31	24.45	-23.49	-5	-18.49
				24.455	-27.15	-13	-14.15
M2				24.45	-15.96	-5	-10.96
				24.455	-25.49	-13	-12.49
M3				24.45	-16.76	-5	-11.76
				24.455	-26.08	-13	-13.08
M1	50	H	32/0	24.45	-25.55	-5	-20.55
				24.455	-25.73	-13	-12.73
M2				24.45	-19.50	-5	-14.50
				24.455	-19.55	-13	-6.55
M3				24.45	-19.88	-5	-14.88
				24.455	-19.95	-13	-6.95

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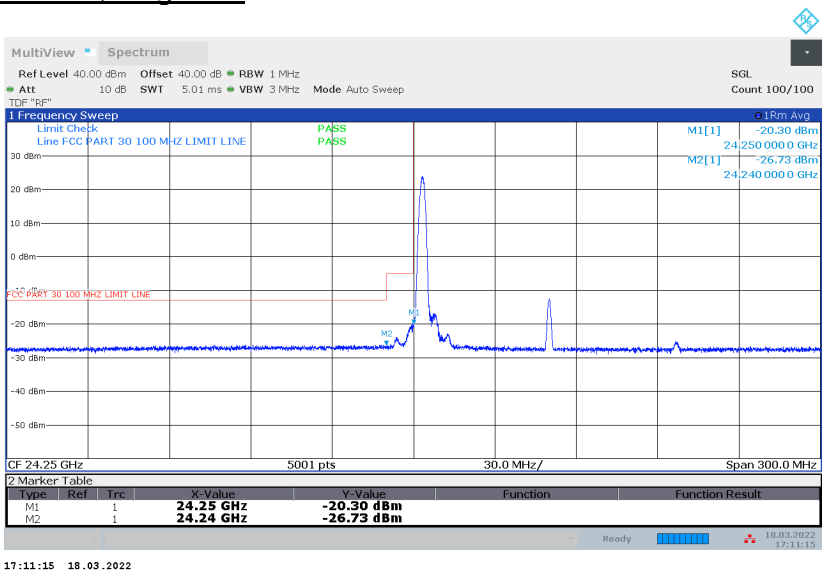
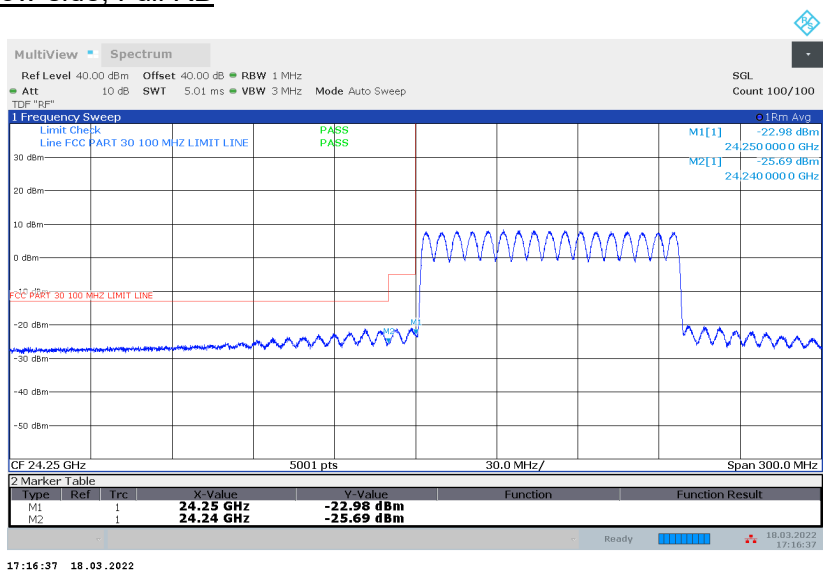
ANT M2, 100 MHz, MIMO, 1CC, QPSK

Low-side, Single RB



Low-side, Full RB



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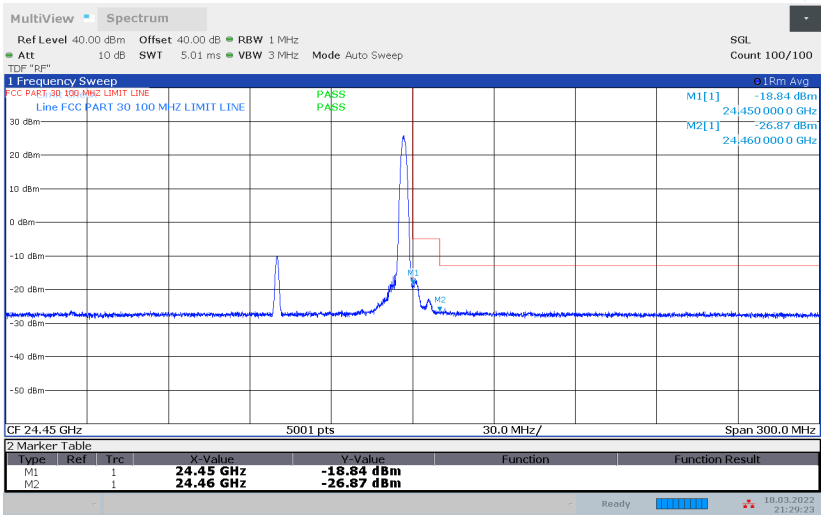
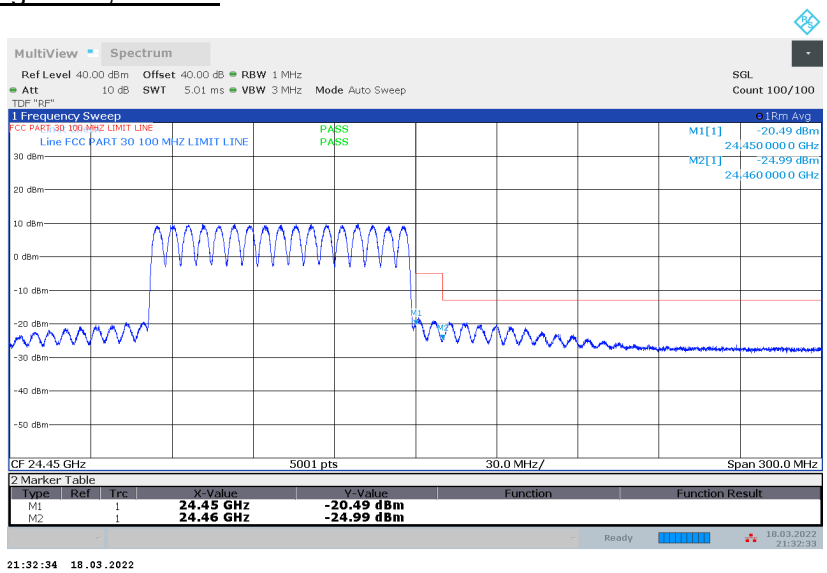
ANT M2, 100 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 100 MHz, MIMO, 1CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	1/0	24.25	-24.23	-5	-19.23
				24.24	-26.79	-13	-13.79
M2				24.25	-20.30	-5	-15.30
				24.24	-26.73	-13	-13.73
M3				24.25	-19.02	-5	-14.02
				24.24	-26.74	-13	-13.74
M1	100	L	66/0	24.25	-26.31	-5	-21.31
				24.24	-26.62	-13	-13.62
M2				24.25	-22.98	-5	-17.98
				24.24	-25.69	-13	-12.69
M3				24.25	-23.12	-5	-18.12
				24.24	-24.16	-13	-11.16
M1	100	H	1/65	24.45	-24.76	-5	-19.76
				24.46	-27.34	-13	-14.34
M2				24.45	-18.84	-5	-13.84
				24.46	-26.87	-13	-13.87
M3				24.45	-21.24	-5	-16.24
				24.46	-27.13	-13	-14.13
M1	100	H	66/0	24.45	-26.29	-5	-21.29
				24.46	-27.24	-13	-14.24
M2				24.45	-20.49	-5	-15.49
				24.46	-24.99	-13	-11.99
M3				24.45	-19.72	-5	-14.72
				24.46	-23.57	-13	-10.57

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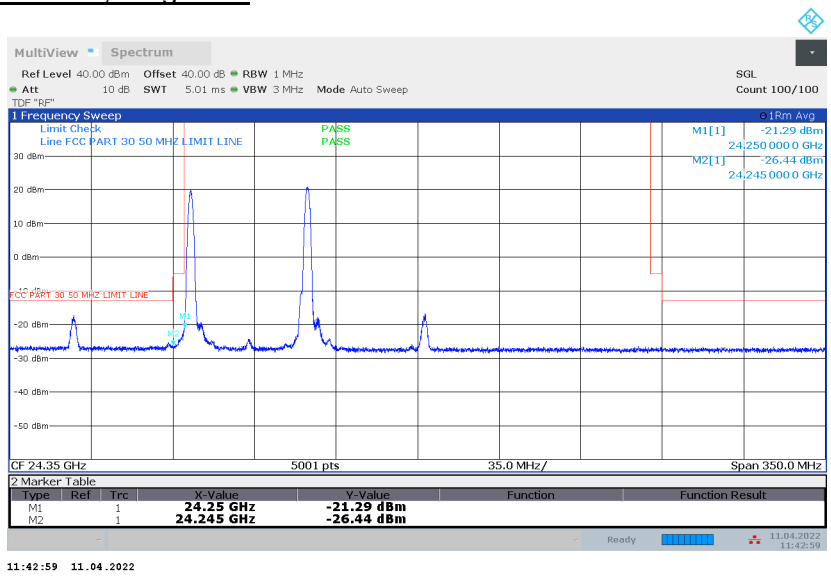
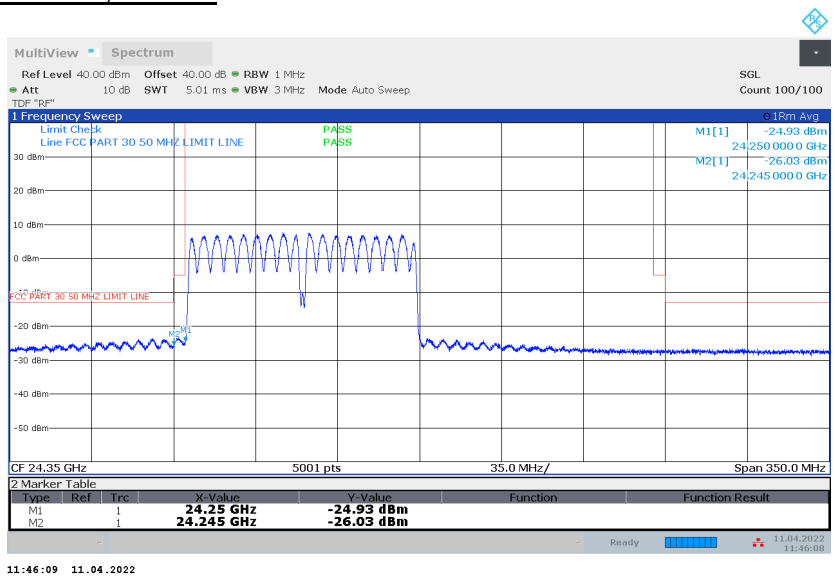
8.3.6. BAND EDGE n258 SB1 MIMO 2CC

ANT M2, 50 MHz, MIMO, 2CC, QPSK

Low-side, Single RB



Low-side, Full RB



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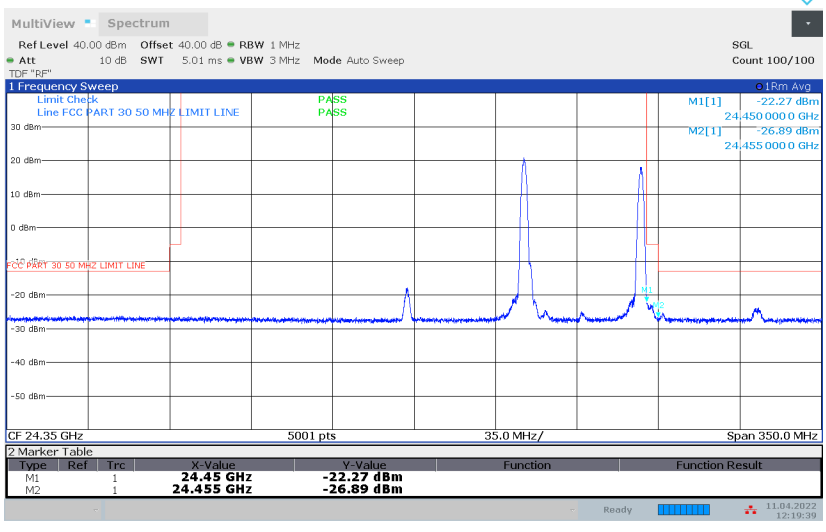
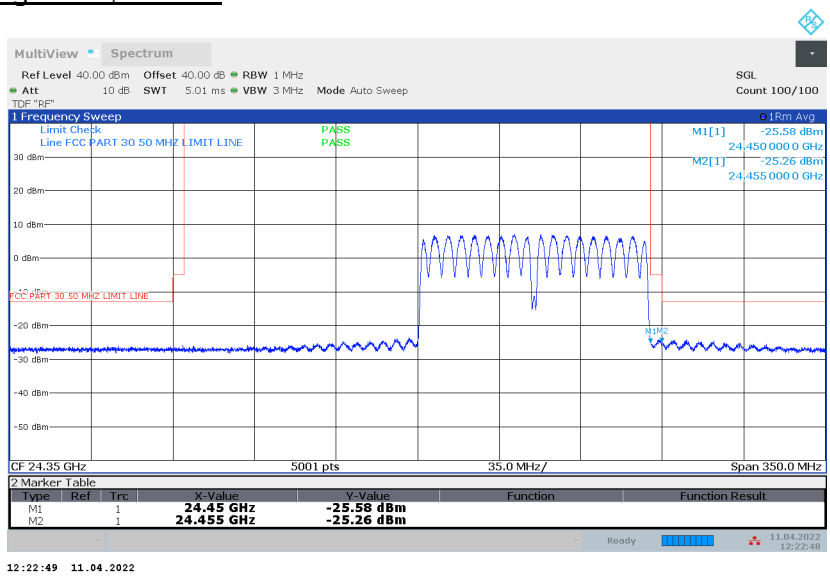
ANT M2, 50 MHz, MIMO, 2CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 50 MHz, MIMO, 2CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.25	-25.53	-5	-20.53
				24.245	-27.25	-13	-14.25
M2				24.25	-21.29	-5	-16.29
				24.245	-26.44	-13	-13.44
M3				24.25	-23.87	-5	-18.87
				24.245	-29.66	-13	-16.66
M1	50	L	32/0	24.25	-27.16	-5	-22.16
				24.245	-26.60	-13	-13.60
M2				24.25	-24.93	-5	-19.93
				24.245	-26.03	-13	-13.03
M3				24.25	-27.02	-5	-22.02
				24.245	-25.49	-13	-12.49
M1	50	H	1/31	24.45	-25.69	-5	-20.69
				24.455	-27.63	-13	-14.63
M2				24.45	-22.27	-5	-17.27
				24.455	-26.89	-13	-13.89
M3				24.45	-23.15	-5	-18.15
				24.455	-30.20	-13	-17.20
M1	50	H	32/0	24.45	-27.85	-5	-22.85
				24.455	-27.96	-13	-14.96
M2				24.45	-25.58	-5	-20.58
				24.455	-25.26	-13	-12.26
M3				24.45	-26.84	-5	-21.84
				24.455	-26.65	-13	-13.65

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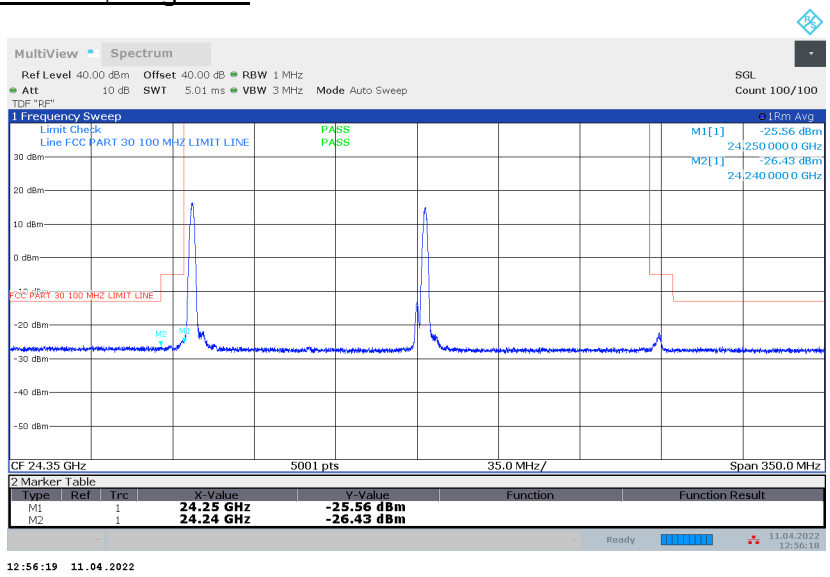
ANT M2, 100 MHz, MIMO, 2CC, QPSK

Low-side, Single RB



Low-side, Full RB

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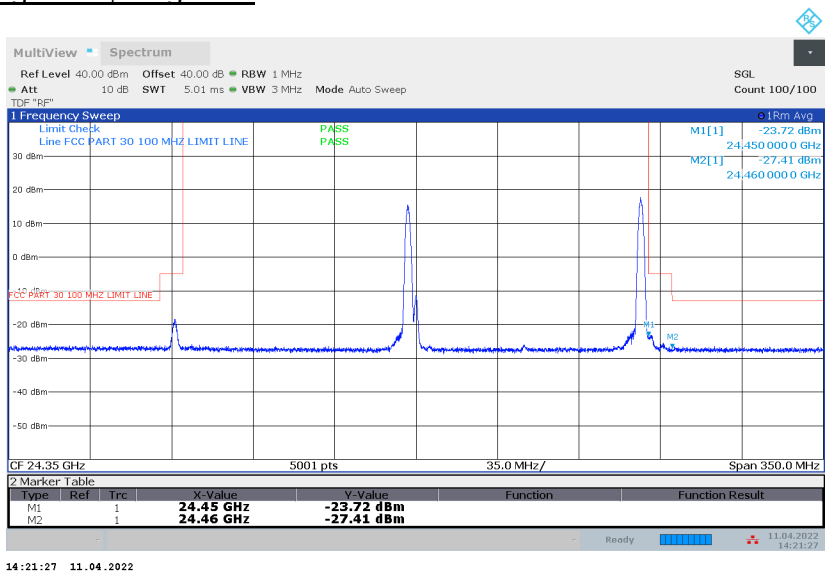
ANT M2, 100 MHz, MIMO, 2CC, QPSK

High-side, Single RB



High-side, Full RB

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ANT M1, M2 & M3, 100 MHz, MIMO, 2CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	1/0	24.25	-26.46	-5	-21.46
				24.24	-27.31	-13	-14.31
M2				24.25	-25.56	-5	-20.56
				24.24	-26.43	-13	-13.43
M3				24.25	-25.94	-5	-20.94
				24.24	-29.83	-13	-16.83
M1	100	L	66/0	24.25	-27.34	-5	-22.34
				24.24	-26.78	-13	-13.78
M2				24.25	-24.79	-5	-19.79
				24.24	-25.52	-13	-12.52
M3				24.25	-27.77	-5	-22.77
				24.24	-28.72	-13	-15.72
M1	100	H	1/65	24.45	-25.76	-5	-20.76
				24.46	-27.22	-13	-14.22
M2				24.45	-23.72	-5	-18.72
				24.46	-27.41	-13	-14.41
M3				24.45	-16.15	-5	-11.15
				24.46	-30.71	-13	-17.71
M1	100	H	66/0	24.45	-27.90	-5	-22.90
				24.46	-28.14	-13	-15.14
M2				24.45	-25.58	-5	-20.58
				24.46	-26.06	-13	-13.06
M3				24.45	-29.39	-5	-24.39
				24.46	-30.36	-13	-17.36

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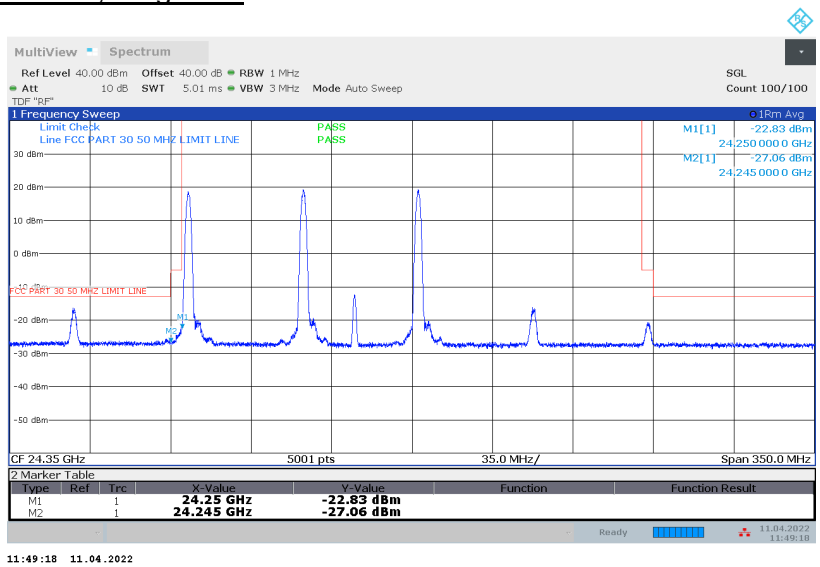
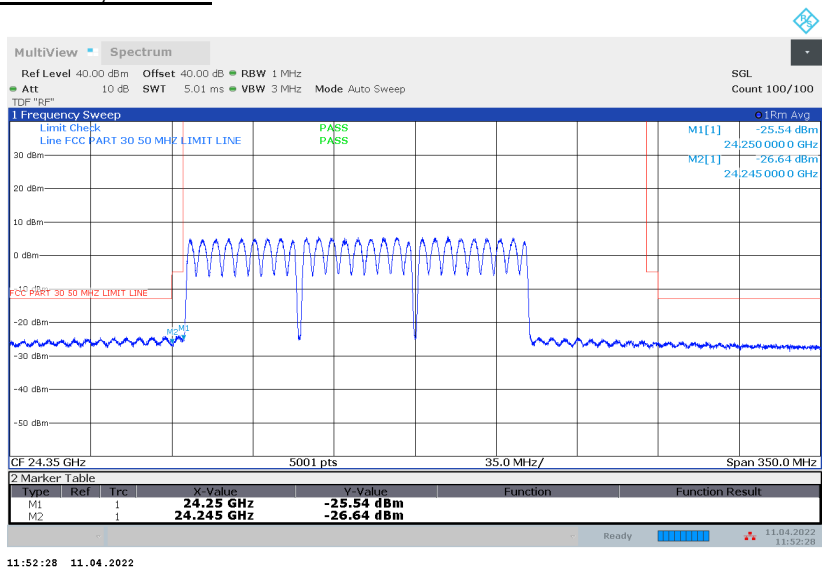
8.3.7. BAND EDGE n258 SB1 MIMO 3CC

ANT M2, 50 MHz, MIMO, 3CC, QPSK

Low-side, Single RB



Low-side, Full RB



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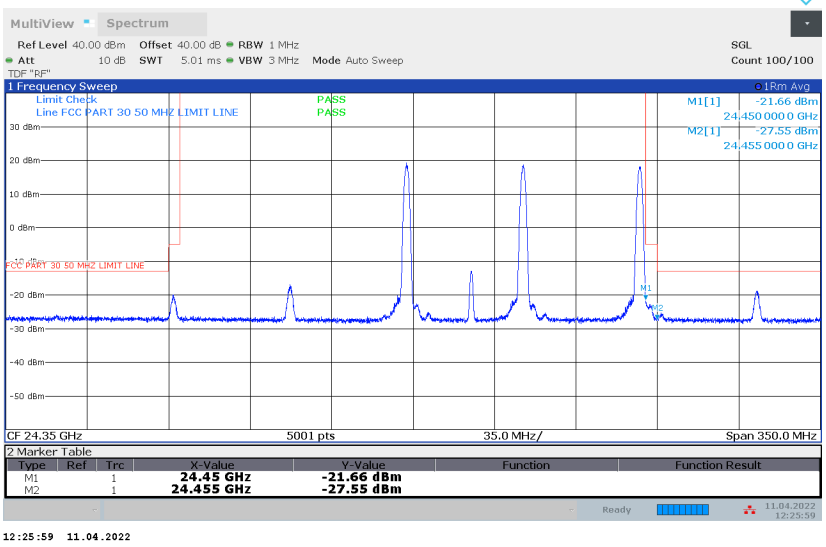
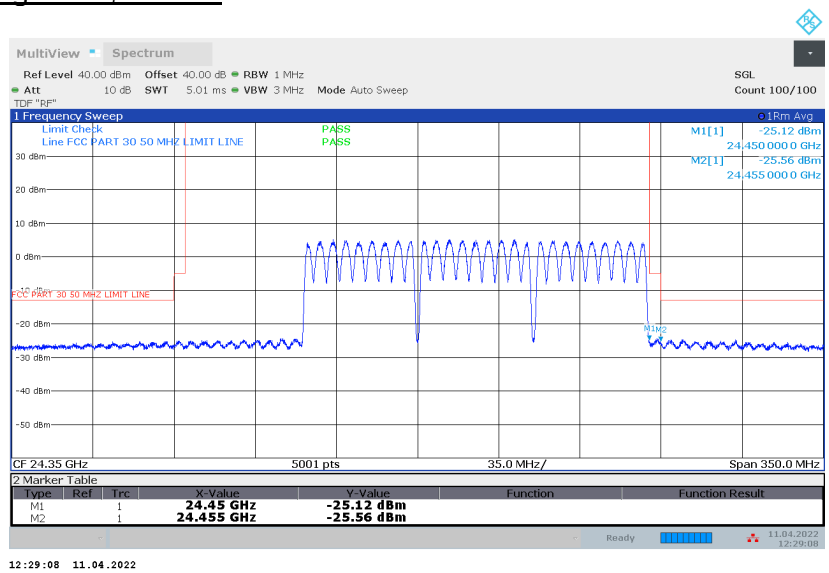
ANT M2, 50 MHz, MIMO, 3CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 50 MHz, MIMO, 3CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.25	-25.74	-5	-20.74
				24.245	-26.92	-13	-13.92
M2				24.25	-22.83	-5	-17.83
				24.245	-27.06	-13	-14.06
M3				24.25	-25.60	-5	-20.60
				24.245	-29.47	-13	-16.47
M1	50	L	32/0	24.25	-27.09	-5	-22.09
				24.245	-26.60	-13	-13.60
M2				24.25	-25.54	-5	-20.54
				24.245	-26.64	-13	-13.64
M3				24.25	-27.48	-5	-22.48
				24.245	-26.79	-13	-13.79
M1	50	H	1/31	24.45	-27.85	-5	-22.85
				24.455	-27.96	-13	-14.96
M2				24.45	-21.66	-5	-16.66
				24.455	-27.55	-13	-14.55
M3				24.45	-24.87	-5	-19.87
				24.455	-30.39	-13	-17.39
M1	50	H	32/0	24.45	-27.48	-5	-22.48
				24.455	-27.83	-13	-14.83
M2				24.45	-25.12	-5	-20.12
				24.455	-25.56	-13	-12.56
M3				24.45	-27.27	-5	-22.27
				24.455	-27.84	-13	-14.84

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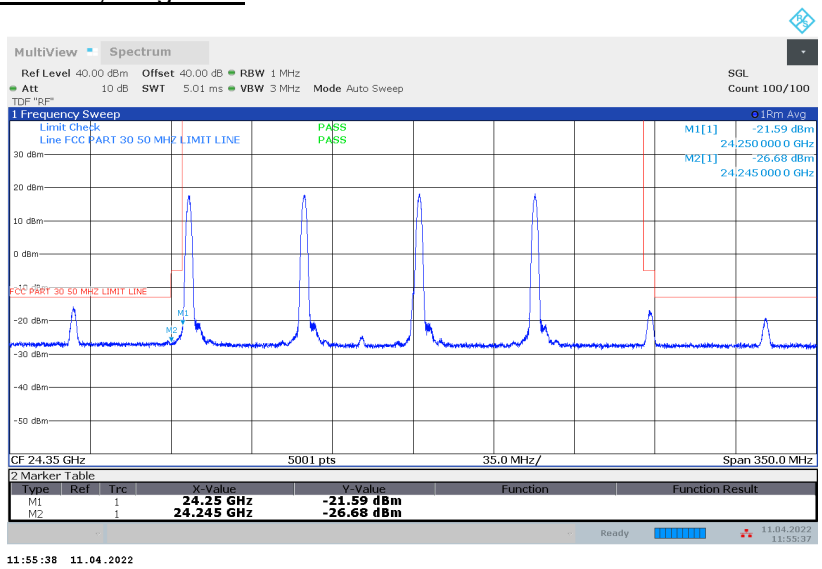
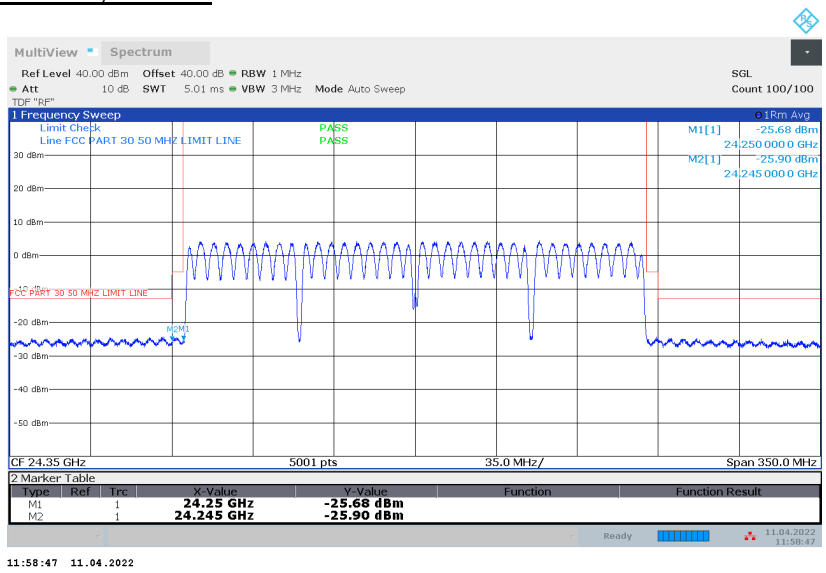
8.3.8. BAND EDGE n258 SB1 MIMO 4CC

ANT M2, 50 MHz, MIMO, 4CC, QPSK

Low-side, Single RB



Low-side, Full RB



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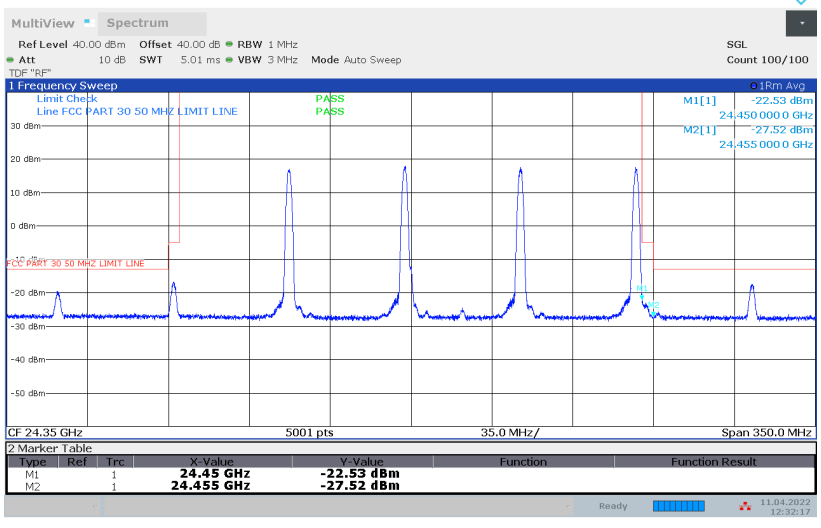
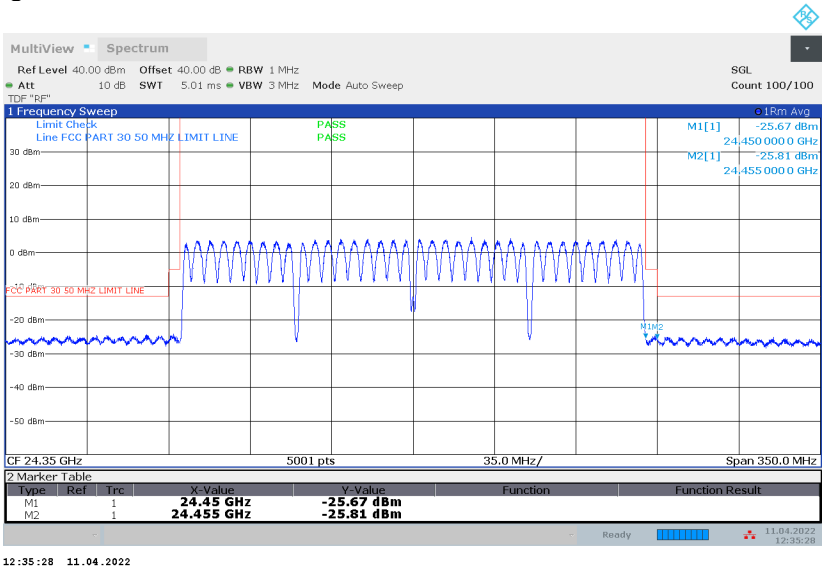
ANT M2, 50 MHz, MIMO, 4CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 50 MHz, MIMO, 4CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.25	-25.81	-5	-20.81
				24.245	-27.44	-13	-14.44
M2				24.25	-21.59	-5	-16.59
				24.245	-26.68	-13	-13.68
M3				24.25	-24.78	-5	-19.78
				24.245	-29.43	-13	-16.43
M1	50	L	32/0	24.25	-27.19	-5	-22.19
				24.245	-27.07	-13	-14.07
M2				24.25	-25.68	-5	-20.68
				24.245	-25.90	-13	-12.90
M3				24.25	-28.11	-5	-23.11
				24.245	-28.16	-13	-15.16
M1	50	H	1/31	24.45	-26.87	-5	-21.87
				24.455	-27.47	-13	-14.47
M2				24.45	-22.53	-5	-17.53
				24.455	-27.52	-13	-14.52
M3				24.45	-26.23	-5	-21.23
				24.455	-30.26	-13	-17.26
M1	50	H	32/0	24.45	-27.34	-5	-22.34
				24.455	-27.80	-13	-14.80
M2				24.45	-25.67	-5	-20.67
				24.455	-25.81	-13	-12.81
M3				24.45	-27.76	-5	-22.76
				24.455	-27.50	-13	-14.50

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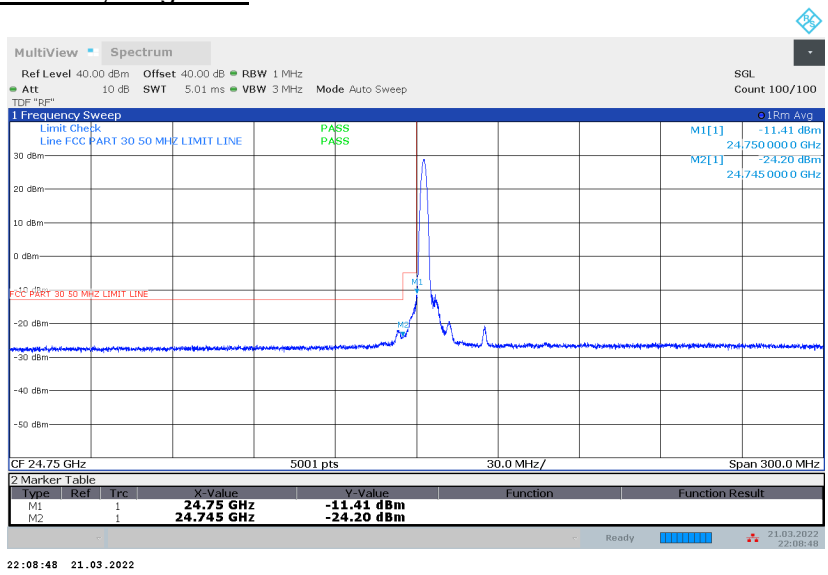
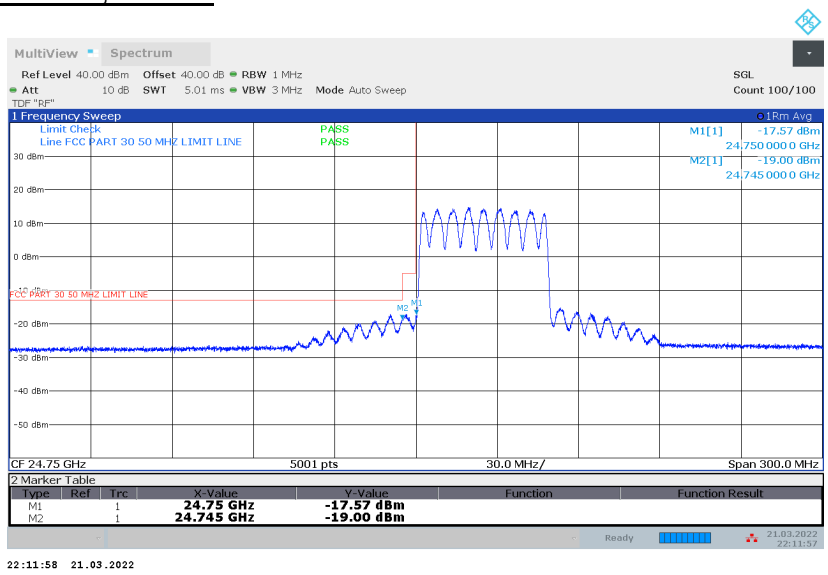
8.3.9. BAND EDGE n258 SB2 SISO-DUAL 1CC

ANT M2, 50 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



Low-side, Full RB



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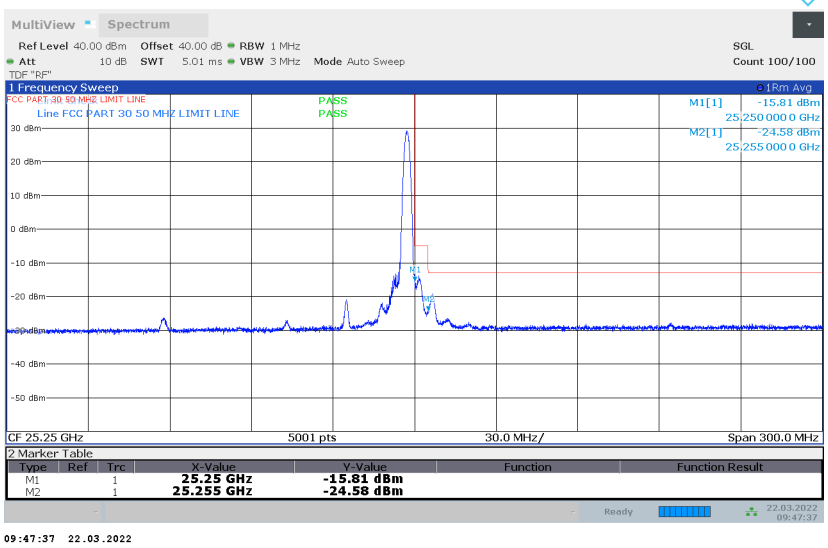
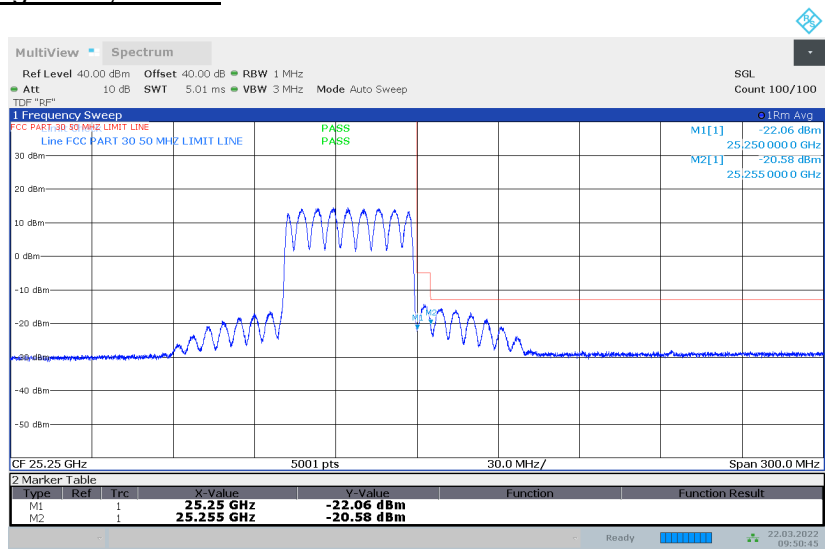
ANT M2, 50 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



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ANT M1, M2 & M3, 50 MHz, SISO-DUAL, 1CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.75	-23.57	-5	-18.57
				24.745	-28.72	-13	-15.72
M2				24.75	-11.41	-5	-6.41
				24.745	-24.20	-13	-11.20
M3				24.75	-16.26	-5	-11.26
				24.745	-25.61	-13	-12.61
M1	50	L	32/0	24.75	-27.02	-5	-22.02
				24.745	-28.35	-13	-15.35
M2				24.75	-17.57	-5	-12.57
				24.745	-19.00	-13	-6.00
M3				24.75	-18.92	-5	-13.92
				24.745	-19.22	-13	-6.22
M1	50	H	1/31	25.25	-22.91	-5	-17.91
				25.255	-28.74	-13	-15.74
M2				25.25	-15.81	-5	-10.81
				25.255	-24.58	-13	-11.58
M3				25.25	-14.94	-5	-9.94
				25.255	-24.39	-13	-11.39
M1	50	H	32/0	25.25	-27.72	-5	-22.72
				25.255	-28.57	-13	-15.57
M2				25.25	-22.06	-5	-17.06
				25.255	-20.58	-13	-7.58
M3				25.25	-18.32	-5	-13.32
				25.255	-21.26	-13	-8.26

ANT M2 & M3, 50 MHz, SISO-DUAL, 1CC, BPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.75	-11.64	-5	-6.64
				24.745	-24.23	-13	-11.23
M3				24.75	-17.28	-5	-12.28
				24.745	-24.75	-13	-11.75
M2	50	L	32/0	24.75	-20.77	-5	-15.77
				24.745	-22.70	-13	-9.70
M3				24.75	-21.04	-5	-16.04
				24.745	-22.51	-13	-9.51
M2	50	H	1/31	25.25	-16.50	-5	-11.50
				25.255	-25.32	-13	-12.32
M3				25.25	-15.56	-5	-10.56
				25.255	-24.18	-13	-11.18
M2	50	H	32/0	25.25	-23.05	-5	-18.05
				25.255	-23.79	-13	-10.79
M3				25.25	-18.59	-5	-13.59
				25.255	-22.80	-13	-9.80

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ANT M2 & M3, 50 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.75	-14.75	-5	-9.75
				24.745	-25.06	-13	-12.06
M3				24.75	-18.87	-5	-13.87
				24.745	-26.43	-13	-13.43
M2	50	L	32/0	24.75	-21.35	-5	-16.35
				24.745	-21.81	-13	-8.81
M3				24.75	-21.22	-5	-16.22
				24.745	-21.51	-13	-8.51
M2	50	H	1/31	25.25	-17.41	-5	-12.41
				25.255	-25.95	-13	-12.95
M3				25.25	-17.35	-5	-12.35
				25.255	-24.79	-13	-11.79
M2	50	H	32/0	25.25	-23.83	-5	-18.83
				25.255	-24.27	-13	-11.27
M3				25.25	-21.78	-5	-16.78
				25.255	-22.33	-13	-9.33

ANT M2 & M3, 50 MHz, SISO-DUAL, 1CC, 64QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M2	50	L	1/0	24.75	-17.70	-5	-12.70
				24.745	-25.89	-13	-12.89
M3				24.75	-18.96	-5	-13.96
				24.745	-26.22	-13	-13.22
M2	50	L	32/0	24.75	-23.51	-5	-18.51
				24.745	-24.67	-13	-11.67
M3				24.75	-23.56	-5	-18.56
				24.745	-24.17	-13	-11.17
M2	50	H	1/31	25.25	-18.21	-5	-13.21
				25.255	-27.37	-13	-14.37
M3				25.25	-19.05	-5	-14.05
				25.255	-25.19	-13	-12.19
M2	50	H	32/0	25.25	-26.28	-5	-21.28
				25.255	-26.97	-13	-13.97
M3				25.25	-22.23	-5	-17.23
				25.255	-24.59	-13	-11.59

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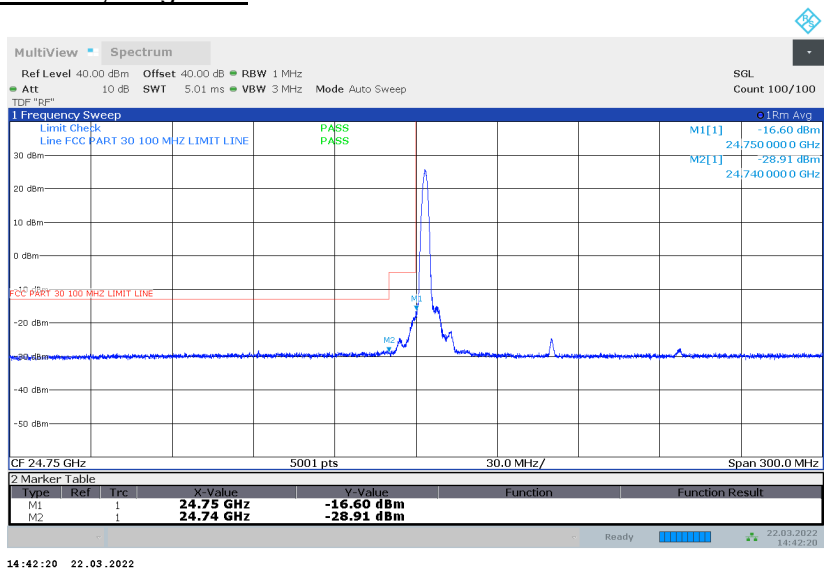
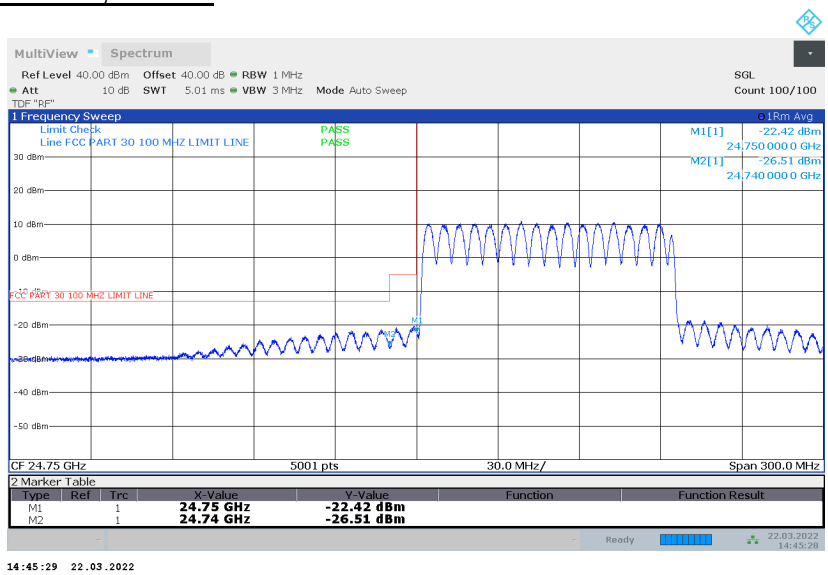
ANT M2, 100 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



Low-side, Full RB



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