TEST REPORT

Report Number : 13573771-E20V3

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

Model : A2484

FCC ID : BCG-E4003A

EUT Description : SMARTPHONE

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

Date Of Issue:
August 26, 2021

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	07/26/2021	Initial Issue	GP Chin
V2	08/05/2021	Separated RSE 28.35 to 40 GHz into two sections starting on page 230	S. Aguilar
V3	08/26/2021	Updated Test Site Diagram on Pg. 15	GP Chin

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS 6

2. TEST METHODOLOGY 7

3. FACILITIES AND ACCREDITATION 7

4. CALIBRATION AND UNCERTAINTY 8

4.1. METROLOGICAL TRACEABILITY 8

4.2. DECISION RULES 8

4.3. MEASUREMENT UNCERTAINTY 8

5. EQUIPMENT UNDER TEST 9

5.1. DESCRIPTION OF EUT 9

5.2. MAXIMUM OUTPUT POWER 10

5.3. SOFTWARE AND FIRMWARE 10

5.4. WORST CASE ORIENTATION 10

5.5. BEAM ID 11

5.6. DESCRIPTION OF TEST SETUP 12

6. TEST AND MEASUREMENT EQUIPMENT 17

7. TEST RESULTS SUMMARY 18

8. APPLICABLE LIMITS AND TEST RESULTS 19

8.1. OCCUPIED BANDWIDTH 19

8.1.1. OBW n258 SB1 20
8.1.2. OBW n258 SB2 24
8.1.3. OBW n261 28
8.1.4. OBW n260 32

8.2. EQUIVALENT ISOTROPIC RADIATED POWER 36

8.2.1. EIRP n258 SB1 ANT M0 38
8.2.2. EIRP n258 SB1 ANT M1 39
8.2.3. EIRP n258 SB1 ANT M2 42
8.2.4. EIRP n258 SB2 ANT M0 44
8.2.5. EIRP n258 SB2 ANT M1 45
8.2.6. EIRP n258 SB2 ANT M2 48
8.2.7. EIRP n261 ANT M0 50
8.2.8. EIRP n261 ANT M1 51
8.2.9. EIRP n261 ANT M2 54
8.2.10. EIRP n260 ANT M0 56
8.2.11. EIRP n260 ANT M1 57
8.2.12. EIRP n260 ANT M2 60

8.3. BAND EDGE EMISSIONS 62

8.3.1. BAND EDGE n258 SB1 SISO-DUAL 1CC 64
8.3.2. BAND EDGE n258 SB1 SISO-DUAL 2CC 72

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.3.3. BAND EDGE n258 SB1 MIMO 1CC 78
8.3.4. BAND EDGE n258 SB1 MIMO 2CC 84
8.3.5. BAND EDGE n258 SB2 SISO-DUAL 1CC 90
8.3.6. BAND EDGE n258 SB2 SISO-DUAL 2CC 98
8.3.7. BAND EDGE n258 SB2 MIMO 1CC 104
8.3.8. BAND EDGE n258 SB2 MIMO 2CC 110
8.3.9. BAND EDGE n261 SISO-DUAL 1CC 116
8.3.10. BAND EDGE n261 SISO-DUAL 2CC 124
8.3.11. BAND EDGE n261 MIMO 1CC 130
8.3.12. BAND EDGE n261 MIMO 2CC 136
8.3.13. BAND EDGE n260 SISO-DUAL 1CC 142
8.3.14. BAND EDGE n260 SISO-DUAL 2CC 150
8.3.15. BAND EDGE n260 MIMO 1CC 156
8.3.16. BAND EDGE n260 MIMO 2CC 162

8.4. RADIATED SPURIOUS EMISSIONS 168
8.4.1. RSE n258 SB1 30 – 1000 MHz 170
8.4.2. RSE n258 SB1 1 - 18 GHz 172
8.4.3. RSE n258 SB1 18 - 24.25 GHz 174
8.4.4. RSE n258 SB1 24.45 - 26.5 GHz 179
8.4.5. RSE n258 SB1 26.5 - 40 GHz 184
8.4.6. RSE n258 SB1 40 - 50 GHz 187
8.4.7. RSE n258 SB1 50 - 75 GHz 190
8.4.8. RSE n258 SB1 75 - 100 GHz 193
8.4.9. RSE n258 SB2 30 – 1000 MHz 195
8.4.10. RSE n258 SB2 1 - 18 GHz 197
8.4.11. RSE n258 SB2 18 - 24.75 GHz 199
8.4.12. RSE n258 SB2 25.25 - 26.5 GHz 204
8.4.13. RSE n258 SB2 26.5 - 40 GHz 208
8.4.14. RSE n258 SB2 40 - 50 GHz 211
8.4.15. RSE n258 SB2 50 - 75 GHz 214
8.4.16. RSE n258 SB2 75 - 100 GHz 217
8.4.17. RSE n261 30 – 1000 MHz 219
8.4.18. RSE n261 1 - 18 GHz 221
8.4.19. RSE n261 18 - 26.5 GHz 223
8.4.20. RSE n261 26.5 - 27.5 GHz 225
8.4.21. RSE n261 28.35 - 29 GHz 230
8.4.22. RSE n261 29 - 40 GHz 235
8.4.23. RSE n261 40 - 50 GHz 238
8.4.24. RSE n261 50 - 75 GHz 240
8.4.25. RSE n261 75 - 100 GHz 243
8.4.26. RSE n260 30 – 1000 MHz 246
8.4.27. RSE n260 1 - 18 GHz 248
8.4.28. RSE n260 18 - 26.5 GHz 250
8.4.29. RSE n260 26.5 - 37 GHz 252
8.4.30. RSE n260 40 - 50 GHz 257
8.4.31. RSE n260 50 - 75 GHz 265
8.4.32. RSE n260 75 - 110 GHz 268
8.4.33. RSE n260 110 - 170 GHz 271
8.4.34. RSE n260 170 - 200 GHz 274

8.5. FREQUENCY STABILITY 276
8.5.1. FREQUENCY STABILITY n258 SB1 277

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.5.2. FREQUENCY STABILITY n258 SB2 277
8.5.3. FREQUENCY STABILITY n261 278
8.5.4. FREQUENCY STABILITY n260 278

9. SETUP PHOTOS 279

APPENDIX A 280

1. 50 - 80 GHz Keysight M1970V 280
2. 75 - 110 GHz Keysight M1970W 281
3. 110 - 170 GHz VDI WR6.5SAX 282
4. 170 - 260 GHz VDI WR4.3SAX 283
5. 35 - 50 GHz CMI HO22R HORN ANTENNA 284
6. 50 - 75 GHz CMI HO15R HORN ANTENNA 285
7. 75 - 110 GHz CMI HO10R HORN ANTENNA 286
8. 110 - 170 GHz CMI HO6R HORN ANTENNA 287
9. 170 - 260 GHz CMI HO4R HORN ANTENNA 288

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	APPLE, INC. 1 APPLE PARK WAY CUPERTINO, CA 95014,U.S.A
EUT DESCRIPTION:	SMARTPHONE
MODEL:	A2484
BRAND:	APPLE
SERIAL NUMBERS:	YG9VVFD4FH, HVGHKH9Q2W, F39KYTDQK0
SAMPLE RECEIPT DATES:	2/22/2021, 7/9/2021, 5/20/2021
DATE TESTED:	February 23 – July 24, 2021

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 Chin
Operations Leader
UL Verification Services Inc.

Tested By:

Eljay Velasco
Laboratory Engineer
UL Verification Services Inc.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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 Verification Services Inc. 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.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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%.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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, CDMA, IEEE 802.11a/b/g/n/ac/ax, Bluetooth, Ultra-Wideband, GPS and NFC. All models 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
n258 (denoted as n258 SB2 in this report): 24.75 – 25.25 GHz
n261: 27.5 – 28.35 GHz
n260: 37 – 40 GHz

Two FR2 RFIC Chipset + Antennas sets are used. Both Chipsets are identical.
Chipset 1 can transmit on antenna M0 (Ant M0) or antenna M1 (Ant M1). Chipset 2 transmits on antenna M2 (Ant M2) only.

Ant M1 and Ant M2 employ 4-element antenna array and Ant M0 employs 2-element antenna array, therefore Ant M0 transmits lower power than Ant M1. Full measurements on Chipset 1 were performed with Ant M1 and spot-checks on transmit power of Ant M0 were performed with selected modes. Measurements on Chipset 2 were performed with Ant M2.

The EUT supports SISO, SISO-Dual and MIMO modes. 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. 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.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

5.2. MAXIMUM OUTPUT POWER

Highest Average EIRP based on frequency bands and antennas.

Frequency Band	Antenna	Avg EIRP (dBm)
n258 SB1	M0	21.64
	M1	28.59
	M2	27.70
n258 SB2	M0	22.40
	M1	28.09
	M2	27.61
n261	M0	19.93
	M1	29.39
	M2	27.69
n260	M0	17.42
	M1	27.28
	M2	28.24

5.3. SOFTWARE AND FIRMWARE

Cellular Firmware version: 0.21.02-1

5.4. 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. 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.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

5.5. 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**
M0	12	140
M1	30	158
M2	34	162

n258 SB2 - Peak BID		
Antenna	**BID**	**Paired with**
M0	12	140
M1	30	158
M2	34	162

n261 - Peak BID		
Antenna	**BID**	**Paired with**
M0	12	140
M1	39	167
M2	34	162

n260 - Peak BID		
Antenna	**BID**	**Paired with**
M0	12	140
M1	28	156
M2	41	169

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST			
Description	**Manufacturer**	**Model**	**Serial Number**
LAPTOP + Adapter	Apple	MacBook Pro	HRP046790
Kanzi-USB Adapter	Apple	---	325191
LAPTOP + Adapter	Apple	MacBook Pro	C02VJ0ZZHV2P
Kanzi-USB Adapter	Apple	---	325B8C
LAPTOP + Adapter	Apple	MacBook Pro	C2QP600QG974
Kanzi-USB Adapter	Apple	---	32535E
USB Power Adapter	Apple	A1357	--
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	--

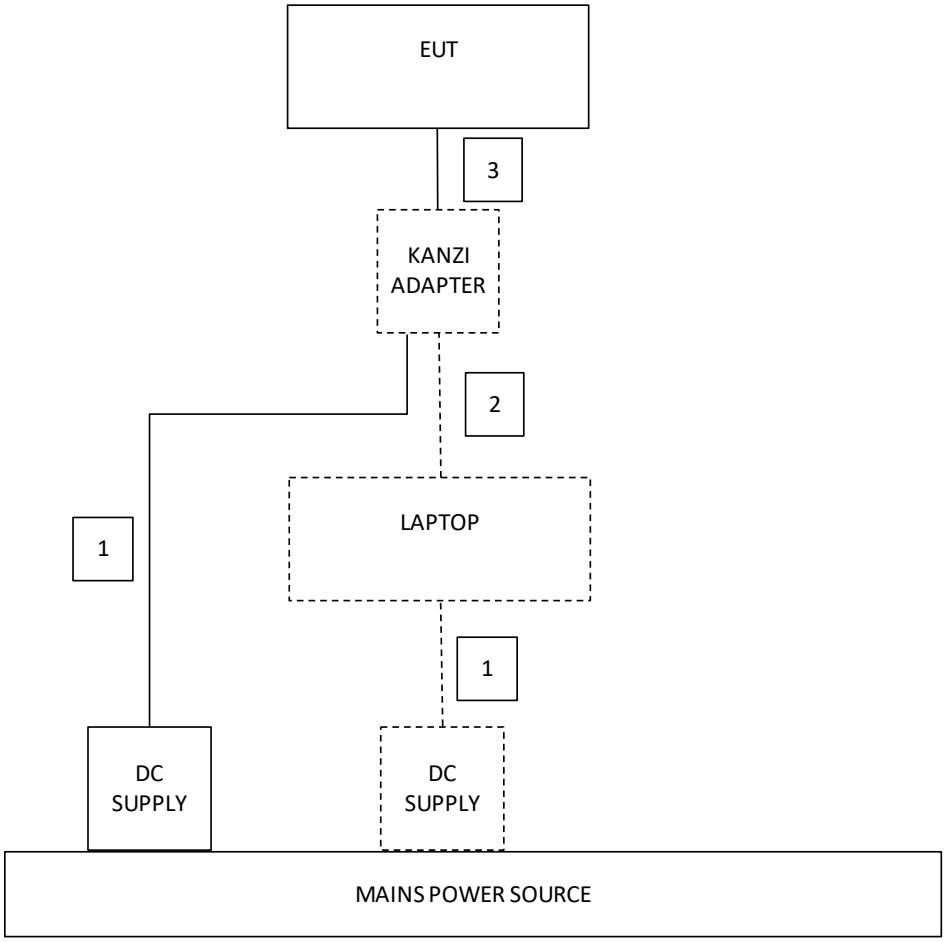
TEST SETUP

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%).

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

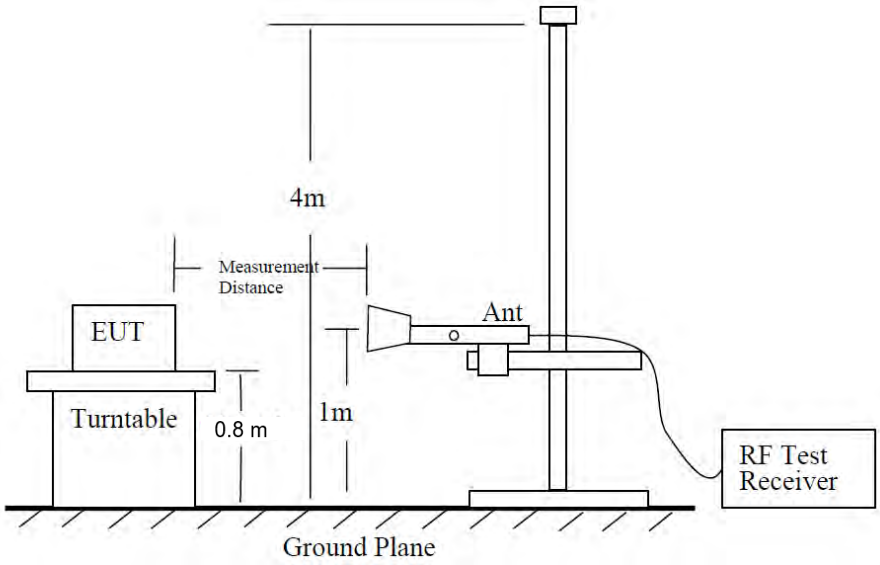
SETUP DIAGRAM FOR TESTS

RF TESTS

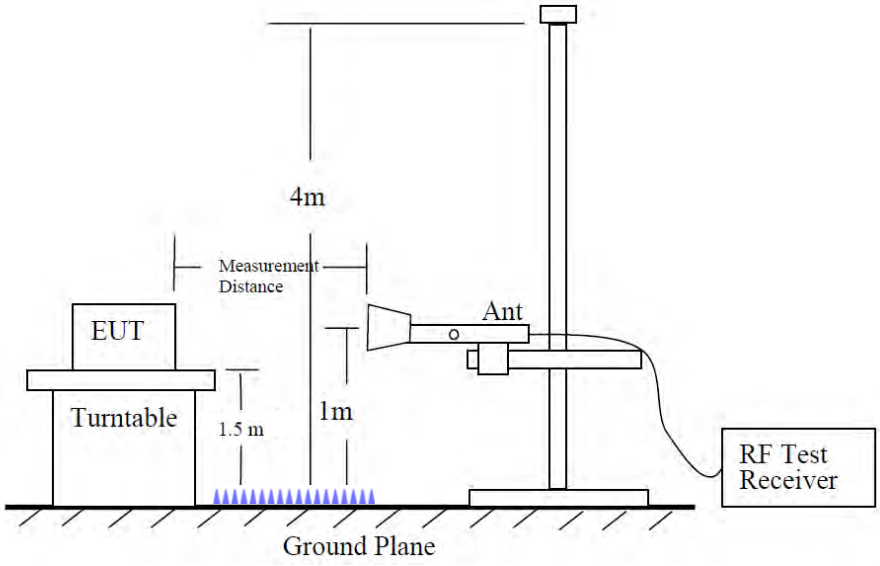


UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

TEST SITE DIAGRAM – Below 1 GHz

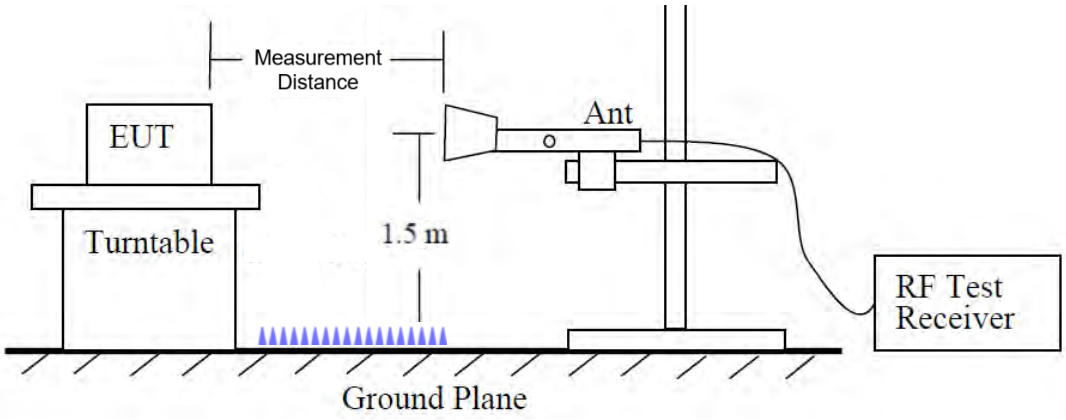


TEST SITE DIAGRAM – 1-18 GHz

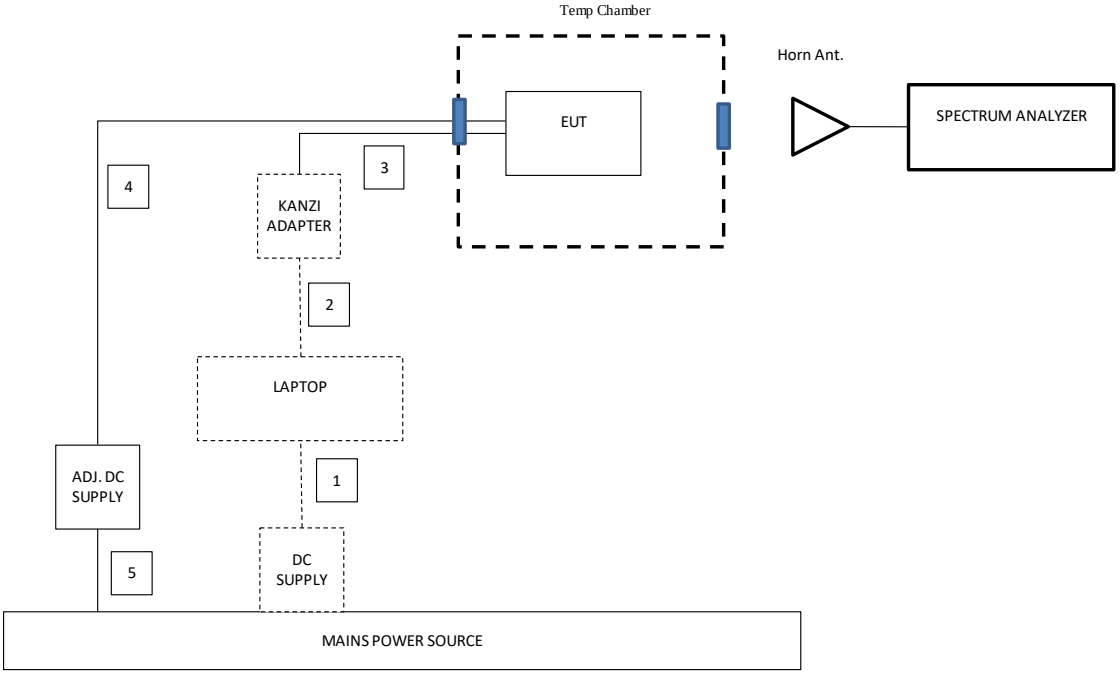


UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

TEST SITE DIAGRAM – Above 18 GHz & mmWave



FREQUENCY STABILITY



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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, 3Hz to 50 GHz w/Ext. Mixer	Keysight	N9030A	80125	1/202021	1/21/2022
EMI Test Receiver	Rohde & Schwarz	FSW50	PRE0211337	2/18/2021	2/20/2022
EMI Test Receiver	Rohde & Schwarz	FSW50	PRE0211887	2/20/2021	2/18/2022
EMI Test Receiver	Rohde & Schwarz	ESW44	PRE0203385	2/18/2021	2/18/2022
Antenna, Horn 18-26.5 GHz	ARA	MWH-1826/B	PRE0212908	9/2/2020	9/2/2021
Antenna, Horn 26.5-40 GHz	ARA	MWH-2640/B	PRE0212909	9/2/2020	9/2/2021
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	T39	5/3/21	5/3/22
Antenna, Horn 26.5-40 GHz	ARA	MWH-2640/B	T90	5/3/21	5/3/22
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	85213	1/27/2021	1/27/2022
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	7/14/2020	7/14/2021
Antenna, Broadband Hybrid 30MHz to 2000MHz	Sunol Sciences Corp.	JB1	T122	5/19/2021	5/19/2022
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	5/17/2021	11/17/2021
Digital Multimeter	Fluke	87V	59154	1/21/2021	1/21/2022
50V/3A Adj. DC Power Supply	Rigol	DP712	T1746	CNR	CNR
Amplifier, 26 – 40 GHz	Amplical	AMP26G-40-34-10-MI	PRE0208539	2/20/2021	2/20/2022
Horn antenna, 35-50 GHz	CMI	HO22R	H22-1	9/22/2020	9/22/2021
LNA, 40-50 GHz	Evarant	SBL-3335033040-2222-E1	PRE0212250	9/28/2020	9/28/2021
Low Pass Filter, 40-50 GHz	Evarant	SWF-45310360-2F2F-B1	PRE0212184	7/28/2020	7/28/2021
50-75 GHz Horn	C M i	HO15R	H15-1	9/22/2020	9/22/2021
LNA, 50-75 GHz	Evarant	SBL-503753350-1515-E1	199500	10/27/2020	10/27/2021
Waveguide Harmonic Mixer, 50 to 80 GHz	Keysight	M1970V5	T994	9/3/2020	9/3/2021
75-110 GHz Horn	C M i	HO10R	H10-1	9/22/2020	9/22/2021
LNA, 75-110 GHz	Evarant	SBL-7531142050-1010-E1	199662	10/7/2020	10/7/2021
Waveguide Harmonic Mixer, 75 to 110 GHz	Keysight	M1970W	T993	9/2/2020	9/2/2021
110-170 GHz Horn	C M i	HO6R	H06-1	9/22/2020	9/22/2021
LNA 110-170 GHz	VivaTech	VTLNA-01S01	126979	12/4/20	12/4/21
110-170 GHz Downconverter	VDI	SAX 624	PRE0209972	4/6/2021	4/6/2022
170-260 GHz Horn	C M i	HO4R	H04-1	9/22/2020	9/22/2021
170-260 GHz Downconverter	VDI	SAX 651	PRE0212241	5/18/2021	5/18/2022
UL EMC Radiated Software	Version	Rev.9.5.07 July 2020			
UL mmWave Software	Version	v2021.3.2			

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.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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 plots of Full RB, SISO-Dual, QPSK, Mid CH with both CCs and channel bandwidths on Ant M1 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: 19470 & 19437
Test Date: 2/23/2021 – 7/8/2021
Test Location: Chamber 3

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.1.1. OBW n258 SB1

RESULTS

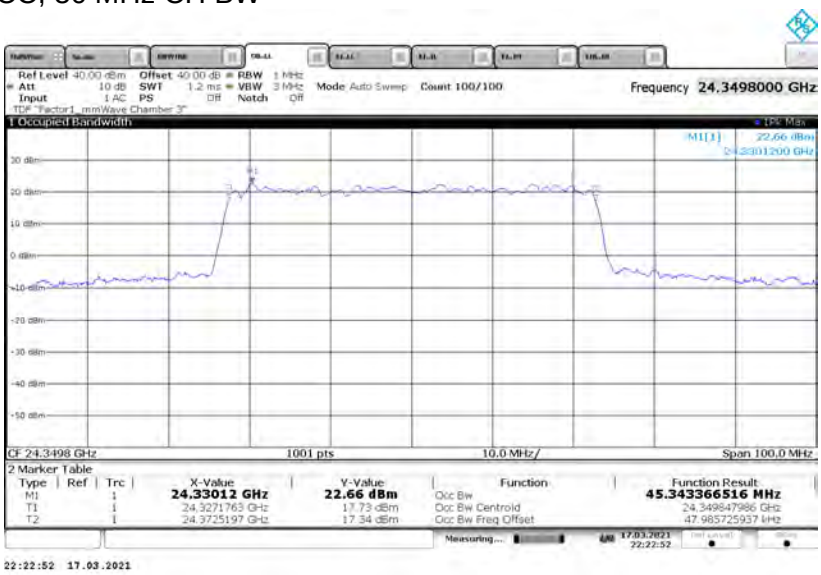
n258 SB1, ANT M1, Full-RB

Control System	Modulation	Channel	CH Bandwidth	CCs Active	OBW (MHz)
SISO-DUAL	BPSK	Mid	50	1	45.26
SISO-DUAL	QPSK	Low	50	1	45.43
SISO-DUAL	QPSK	Mid	50	1	45.34
SISO-DUAL	QPSK	High	50	1	45.56
MIMO	QPSK	Low	50	1	45.53
MIMO	QPSK	Mid	50	1	45.62
MIMO	QPSK	High	50	1	45.58
SISO-DUAL	16QAM	Mid	50	1	45.37
SISO-DUAL	64QAM	Mid	50	1	45.38
SISO	QPSK	Mid	100	1	91.71
SISO-DUAL	QPSK	Low	100	1	91.29
SISO-DUAL	QPSK	Mid	100	1	91.37
SISO-DUAL	QPSK	High	100	1	91.76
MIMO	QPSK	Low	100	1	93.94
MIMO	QPSK	Mid	100	1	94.60
MIMO	QPSK	High	100	1	94.43
SISO-DUAL	BPSK	Mid	50	2	95.81
SISO-DUAL	QPSK	Low	50	2	95.80
SISO-DUAL	QPSK	Mid	50	2	95.07
SISO-DUAL	QPSK	High	50	2	95.85
MIMO	QPSK	Low	50	2	95.53
MIMO	QPSK	Mid	50	2	95.50
MIMO	QPSK	High	50	2	95.91
SISO-DUAL	16QAM	Mid	50	2	94.77
SISO-DUAL	64QAM	Mid	50	2	95.19
SISO-DUAL	BPSK	Mid	100	2	189.83
SISO	QPSK	Mid	100	2	189.72
SISO-DUAL	QPSK	Mid	100	2	189.05
MIMO	QPSK	Mid	100	2	191.29
MIMO	16QAM	Mid	100	2	191.44
MIMO	64QAM	Mid	100	2	192.54

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n258 SB1, ANT M1, Full-RB, SISO-Dual, QPSK, Mid-CH

1CC, 50 MHz CH BW

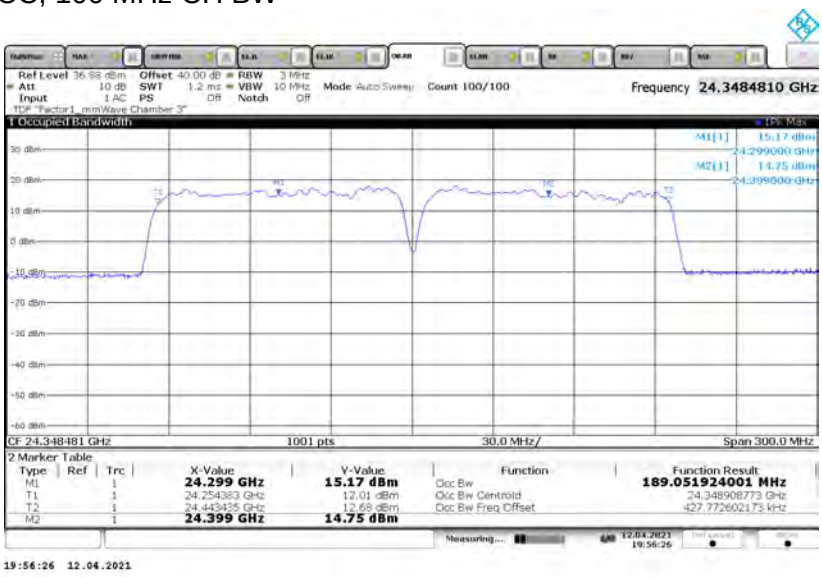


1CC, 100 MHz CH BW

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2CC, 50 MHz CH BW

2CC, 100 MHz CH BW



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n258 SB1, ANT M2, Full-RB

Control System	Modulation	Channel	CH Bandwidth	CCs Active	OBW (MHz)
SISO-DUAL	BPSK	Mid	50	1	45.61
SISO-DUAL	QPSK	Low	50	1	45.51
SISO-DUAL	QPSK	Mid	50	1	45.48
SISO-DUAL	QPSK	High	50	1	45.47
MIMO	QPSK	Low	50	1	45.53
MIMO	QPSK	Mid	50	1	45.61
MIMO	QPSK	High	50	1	45.57
SISO-DUAL	16QAM	Mid	50	1	45.22
SISO-DUAL	64QAM	Mid	50	1	45.37
SISO	QPSK	Mid	100	1	91.86
SISO-DUAL	QPSK	Low	100	1	91.56
SISO-DUAL	QPSK	Mid	100	1	91.80
SISO-DUAL	QPSK	High	100	1	91.75
MIMO	QPSK	Low	100	1	94.30
MIMO	QPSK	Mid	100	1	94.18
MIMO	QPSK	High	100	1	94.59
SISO-DUAL	BPSK	Mid	50	2	95.34
SISO-DUAL	QPSK	Low	50	2	95.79
SISO-DUAL	QPSK	Mid	50	2	95.63
SISO-DUAL	QPSK	High	50	2	95.80
MIMO	QPSK	Low	50	2	96.04
MIMO	QPSK	Mid	50	2	95.98
MIMO	QPSK	High	50	2	95.98
SISO-DUAL	16QAM	Mid	50	2	95.60
SISO-DUAL	64QAM	Mid	50	2	95.50
SISO-DUAL	BPSK	Mid	100	2	189.83
SISO	QPSK	Mid	100	2	190.05
SISO-DUAL	QPSK	Mid	100	2	189.43
MIMO	QPSK	Mid	100	2	191.03
MIMO	16QAM	Mid	100	2	192.06
MIMO	64QAM	Mid	100	2	191.89

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.1.2. OBW n258 SB2

RESULTS

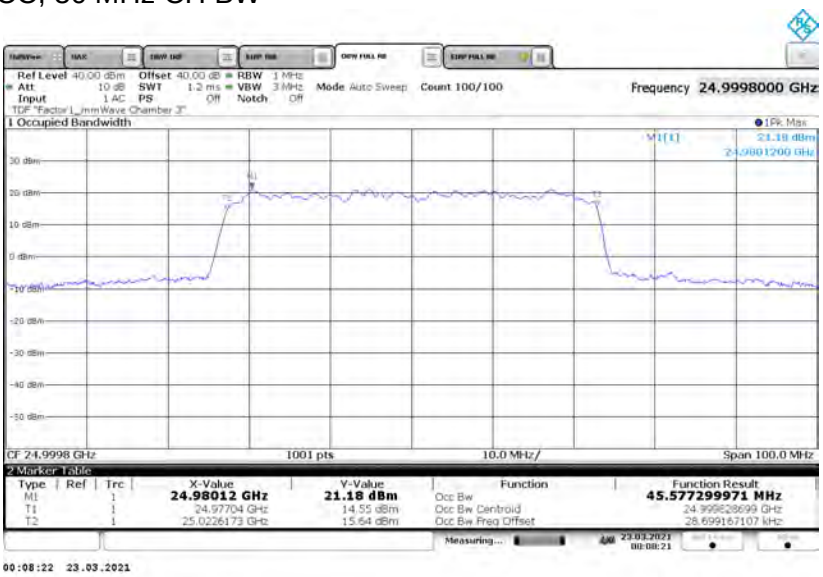
n258 SB2, ANT M1, Full-RB

Control System	Modulation	Channel	CH Bandwidth	CCs Active	OBW (MHz)
SISO-DUAL	BPSK	Mid	50	1	45.52
SISO-DUAL	QPSK	Low	50	1	45.52
SISO-DUAL	QPSK	Mid	50	1	45.58
SISO-DUAL	QPSK	High	50	1	45.35
MIMO	QPSK	Low	50	1	45.75
MIMO	QPSK	Mid	50	1	45.43
MIMO	QPSK	High	50	1	45.56
SISO-DUAL	16QAM	Mid	50	1	45.17
SISO-DUAL	64QAM	Mid	50	1	45.62
SISO	QPSK	Mid	100	1	91.64
SISO-DUAL	QPSK	Low	100	1	91.69
SISO-DUAL	QPSK	Mid	100	1	92.27
SISO-DUAL	QPSK	High	100	1	91.58
MIMO	QPSK	Low	100	1	94.03
MIMO	QPSK	Mid	100	1	94.47
MIMO	QPSK	High	100	1	93.85
SISO-DUAL	BPSK	Mid	50	2	95.78
SISO-DUAL	QPSK	Low	50	2	95.86
SISO-DUAL	QPSK	Mid	50	2	95.44
SISO-DUAL	QPSK	High	50	2	95.98
MIMO	QPSK	Low	50	2	95.48
MIMO	QPSK	Mid	50	2	96.39
MIMO	QPSK	High	50	2	95.49
SISO-DUAL	16QAM	Mid	50	2	95.56
SISO-DUAL	64QAM	Mid	50	2	96.49
SISO-DUAL	BPSK	Mid	100	2	190.11
SISO	QPSK	Mid	100	2	190.64
SISO-DUAL	QPSK	Mid	100	2	189.18
MIMO	QPSK	Mid	100	2	191.30
MIMO	16QAM	Mid	100	2	192.10
MIMO	64QAM	Mid	100	2	192.30

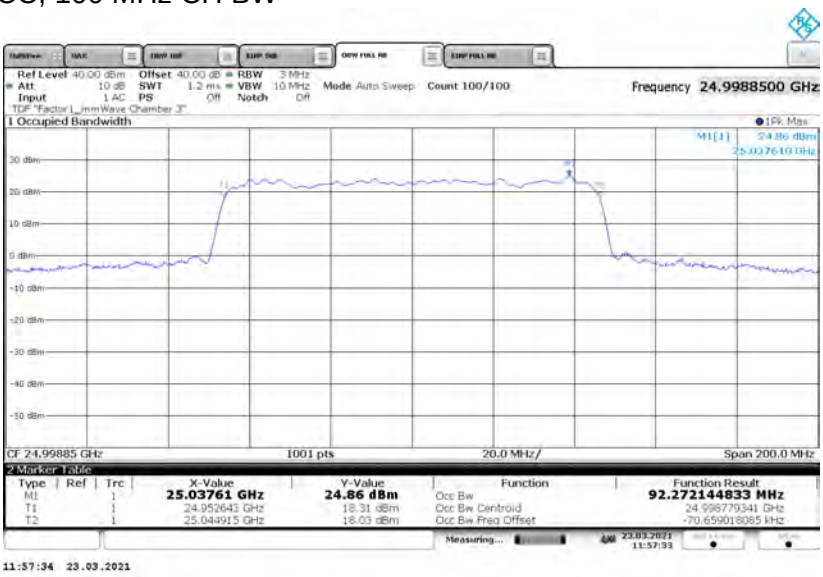
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n258 SB2, ANT M1, Full-RB, SISO-Dual, QPSK, Mid-CH

1CC, 50 MHz CH BW

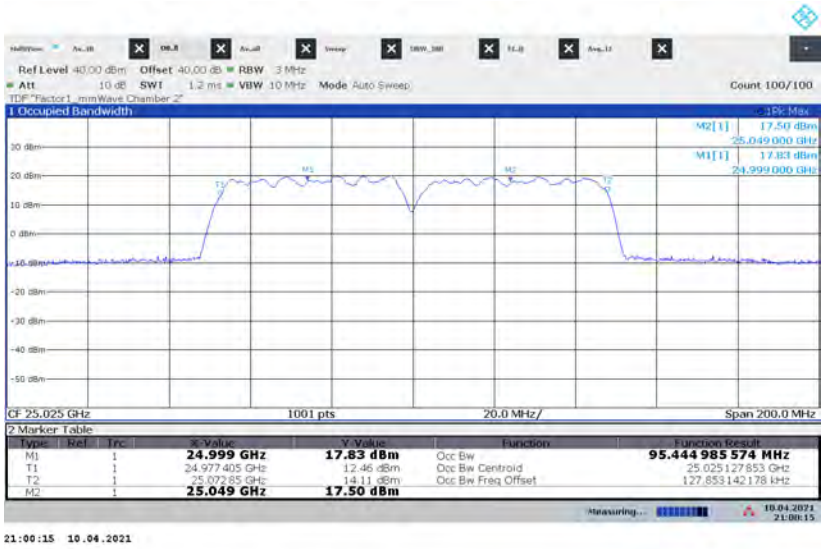


1CC, 100 MHz CH BW

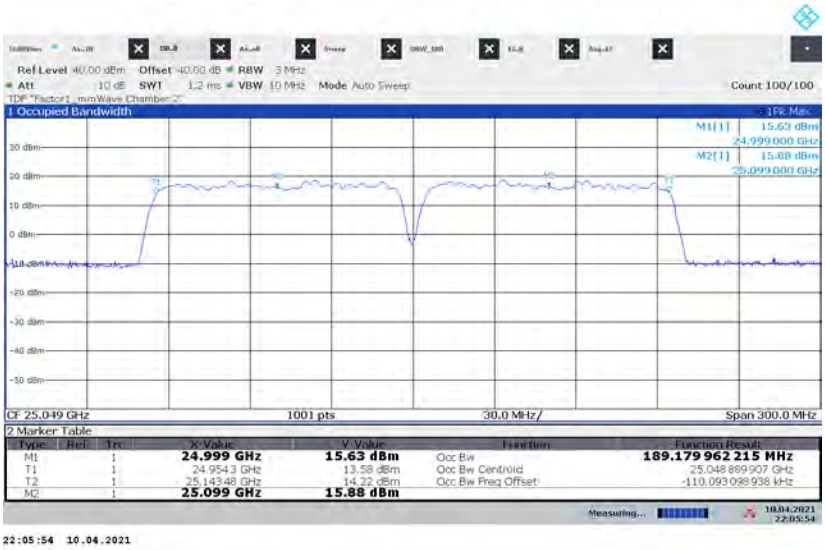


UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2CC, 50 MHz CH BW



2CC, 100 MHz CH BW



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n258 SB2, ANT M2, Full-RB

Control System	Modulation	Channel	CH Bandwidth	CCs Active	OBW (MHz)
SISO-DUAL	BPSK	Mid	50	1	45.56
SISO-DUAL	QPSK	Low	50	1	45.46
SISO-DUAL	QPSK	Mid	50	1	45.42
SISO-DUAL	QPSK	High	50	1	45.69
MIMO	QPSK	Low	50	1	45.54
MIMO	QPSK	Mid	50	1	45.51
MIMO	QPSK	High	50	1	45.32
SISO-DUAL	16QAM	Mid	50	1	45.57
SISO-DUAL	64QAM	Mid	50	1	45.33
SISO	QPSK	Mid	100	1	91.98
SISO-DUAL	QPSK	Low	100	1	91.78
SISO-DUAL	QPSK	Mid	100	1	91.98
SISO-DUAL	QPSK	High	100	1	91.52
MIMO	QPSK	Low	100	1	93.78
MIMO	QPSK	Mid	100	1	94.12
MIMO	QPSK	High	100	1	93.77
SISO-DUAL	BPSK	Mid	50	2	95.25
SISO-DUAL	QPSK	Low	50	2	95.73
SISO-DUAL	QPSK	Mid	50	2	95.39
SISO-DUAL	QPSK	High	50	2	95.64
MIMO	QPSK	Low	50	2	95.71
MIMO	QPSK	Mid	50	2	96.03
MIMO	QPSK	High	50	2	95.27
SISO-DUAL	16QAM	Mid	50	2	95.66
SISO-DUAL	64QAM	Mid	50	2	95.78
SISO-DUAL	BPSK	Mid	100	2	190.17
SISO	QPSK	Mid	100	2	189.95
SISO-DUAL	QPSK	Mid	100	2	190.15
MIMO	QPSK	Mid	100	2	191.83
MIMO	16QAM	Mid	100	2	192.31
MIMO	64QAM	Mid	100	2	192.55

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.1.3. OBW n261

RESULTS

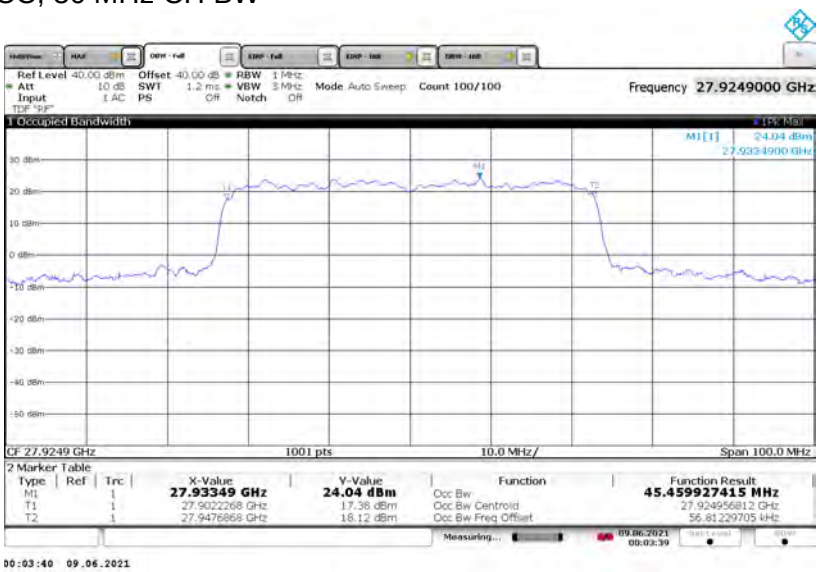
n261, ANT M1, Full-RB

Control System	Modulation	Channel	CH Bandwidth	CCs Active	OBW (MHz)
SISO-DUAL	BPSK	Mid	50	1	45.01
SISO-DUAL	QPSK	Low	50	1	45.23
SISO-DUAL	QPSK	Mid	50	1	45.46
SISO-DUAL	QPSK	High	50	1	45.21
MIMO	QPSK	Low	50	1	45.59
MIMO	QPSK	Mid	50	1	45.58
MIMO	QPSK	High	50	1	45.35
SISO-DUAL	16QAM	Mid	50	1	45.16
SISO-DUAL	64QAM	Mid	50	1	45.40
SISO	QPSK	Mid	100	1	91.72
SISO-DUAL	QPSK	Low	100	1	91.67
SISO-DUAL	QPSK	Mid	100	1	91.72
SISO-DUAL	QPSK	High	100	1	91.40
MIMO	QPSK	Low	100	1	93.73
MIMO	QPSK	Mid	100	1	94.33
MIMO	QPSK	High	100	1	94.03
SISO-DUAL	BPSK	Mid	50	2	95.39
SISO-DUAL	QPSK	Low	50	2	95.40
SISO-DUAL	QPSK	Mid	50	2	95.42
SISO-DUAL	QPSK	High	50	2	95.68
MIMO	QPSK	Low	50	2	95.30
MIMO	QPSK	Mid	50	2	96.12
MIMO	QPSK	High	50	2	95.56
SISO-DUAL	16QAM	Mid	50	2	95.58
SISO-DUAL	64QAM	Mid	50	2	95.67
SISO-DUAL	BPSK	Mid	100	2	189.64
SISO	QPSK	Mid	100	2	189.75
SISO-DUAL	QPSK	Mid	100	2	189.80
MIMO	QPSK	Mid	100	2	191.31
MIMO	16QAM	Mid	100	2	190.43
MIMO	64QAM	Mid	100	2	191.25

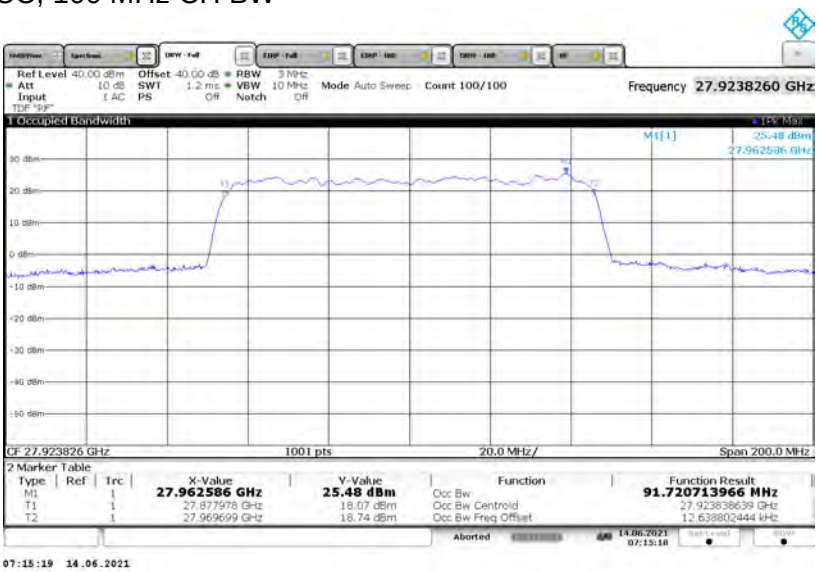
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n261, ANT M1, Full-RB, SISO-Dual, QPSK, Mid-CH

1CC, 50 MHz CH BW

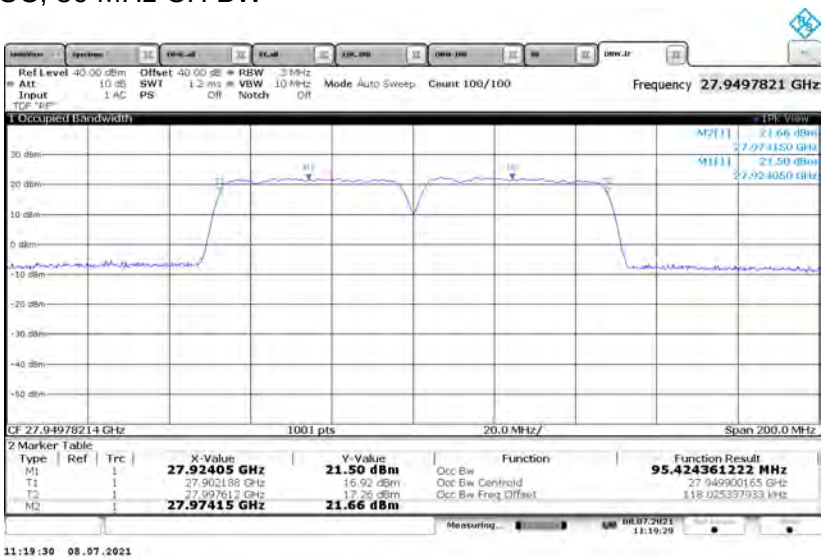


1CC, 100 MHz CH BW

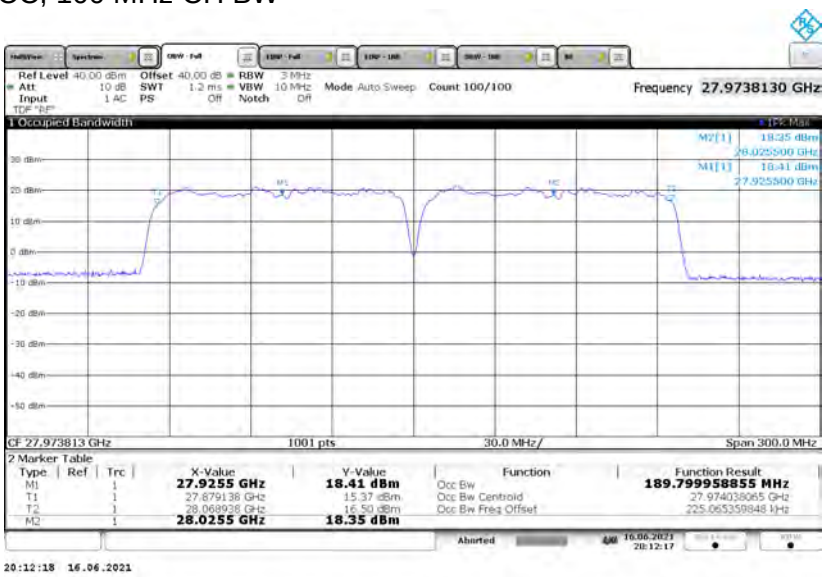


UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2CC, 50 MHz CH BW



2CC, 100 MHz CH BW



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n261, ANT M2, Full-RB

Control System	Modulation	Channel	CH Bandwidth	CCs Active	OBW (MHz)
SISO-DUAL	BPSK	Mid	50	1	45.53
SISO-DUAL	QPSK	Low	50	1	45.58
SISO-DUAL	QPSK	Mid	50	1	45.51
SISO-DUAL	QPSK	High	50	1	45.21
MIMO	QPSK	Low	50	1	45.75
MIMO	QPSK	Mid	50	1	45.62
MIMO	QPSK	High	50	1	45.85
SISO-DUAL	16QAM	Mid	50	1	45.57
SISO-DUAL	64QAM	Mid	50	1	45.60
SISO	QPSK	Mid	100	1	92.13
SISO-DUAL	QPSK	Low	100	1	91.52
SISO-DUAL	QPSK	Mid	100	1	91.56
SISO-DUAL	QPSK	High	100	1	91.60
MIMO	QPSK	Low	100	1	94.36
MIMO	QPSK	Mid	100	1	94.51
MIMO	QPSK	High	100	1	94.09
SISO-DUAL	BPSK	Mid	50	2	96.35
SISO-DUAL	QPSK	Low	50	2	95.77
SISO-DUAL	QPSK	Mid	50	2	96.05
SISO-DUAL	QPSK	High	50	2	95.80
MIMO	QPSK	Low	50	2	96.29
MIMO	QPSK	Mid	50	2	95.91
MIMO	QPSK	High	50	2	95.84
SISO-DUAL	16QAM	Mid	50	2	95.87
SISO-DUAL	64QAM	Mid	50	2	96.49
SISO-DUAL	BPSK	Mid	100	2	189.59
SISO	QPSK	Mid	100	2	190.94
SISO-DUAL	QPSK	Mid	100	2	189.07
MIMO	QPSK	Mid	100	2	191.31
MIMO	16QAM	Mid	100	2	191.43
MIMO	64QAM	Mid	100	2	191.33

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.1.4. OBW n260

RESULTS

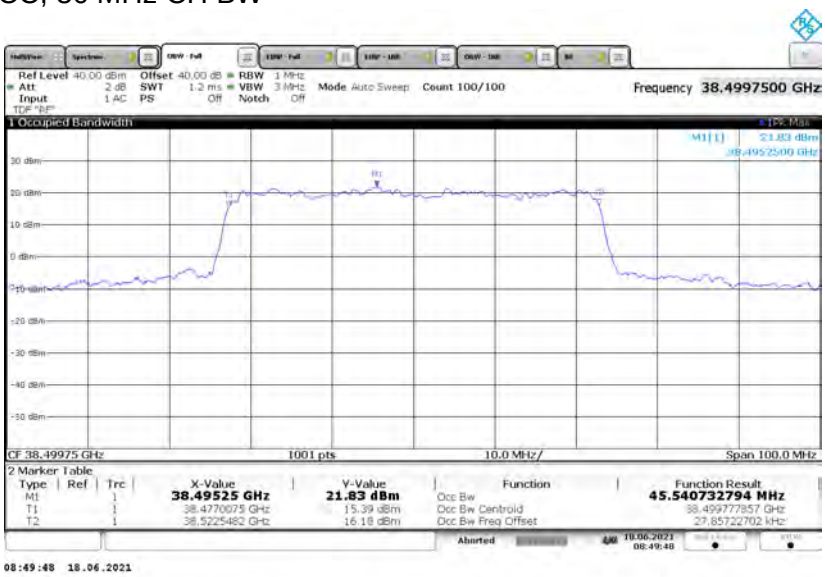
n260, ANT M1, Full-RB

Control System	Modulation	Channel	CH Bandwidth	CCs Active	OBW (MHz)
SISO-DUAL	BPSK	Mid	50	1	45.32
SISO-DUAL	QPSK	Low	50	1	45.82
SISO-DUAL	QPSK	Mid	50	1	45.54
SISO-DUAL	QPSK	High	50	1	45.87
MIMO	QPSK	Low	50	1	45.43
MIMO	QPSK	Mid	50	1	45.64
MIMO	QPSK	High	50	1	45.56
SISO-DUAL	16QAM	Mid	50	1	44.88
SISO-DUAL	64QAM	Mid	50	1	45.17
SISO	QPSK	Mid	100	1	92.19
SISO-DUAL	QPSK	Low	100	1	91.95
SISO-DUAL	QPSK	Mid	100	1	92.52
SISO-DUAL	QPSK	High	100	1	91.86
MIMO	QPSK	Low	100	1	94.43
MIMO	QPSK	Mid	100	1	94.65
MIMO	QPSK	High	100	1	94.89
SISO-DUAL	BPSK	Mid	50	2	95.80
SISO-DUAL	QPSK	Low	50	2	95.79
SISO-DUAL	QPSK	Mid	50	2	95.63
SISO-DUAL	QPSK	High	50	2	96.16
MIMO	QPSK	Low	50	2	95.74
MIMO	QPSK	Mid	50	2	96.11
MIMO	QPSK	High	50	2	95.56
SISO-DUAL	16QAM	Mid	50	2	95.68
SISO-DUAL	64QAM	Mid	50	2	95.40
SISO-DUAL	BPSK	Mid	100	2	189.56
SISO	QPSK	Mid	100	2	190.13
SISO-DUAL	QPSK	Mid	100	2	189.11
MIMO	QPSK	Mid	100	2	191.31
MIMO	16QAM	Mid	100	2	191.66
MIMO	64QAM	Mid	100	2	191.99

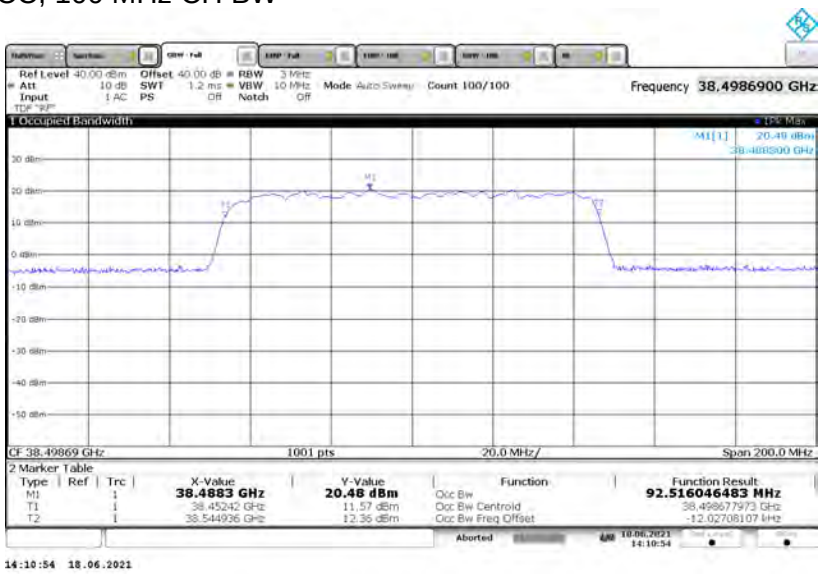
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n260, ANT M1, Full-RB, SISO-Dual, QPSK, Mid-CH

1CC, 50 MHz CH BW

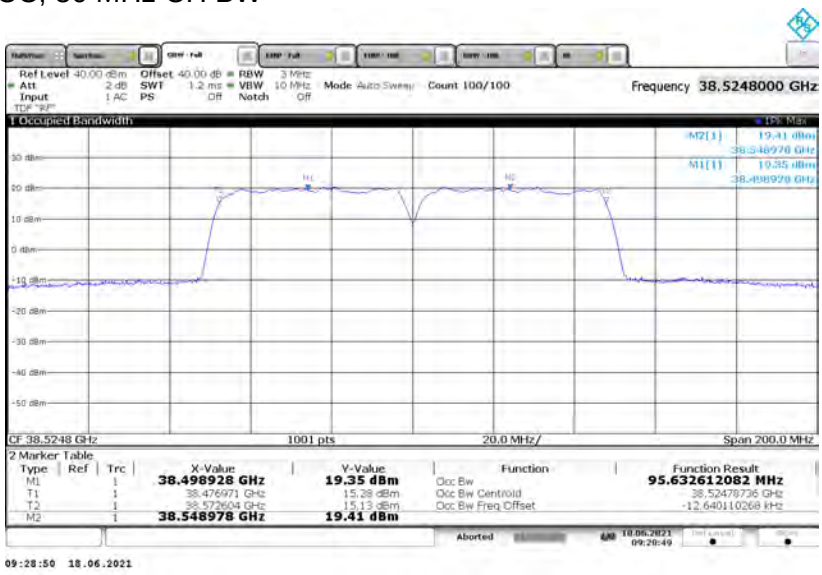


1CC, 100 MHz CH BW

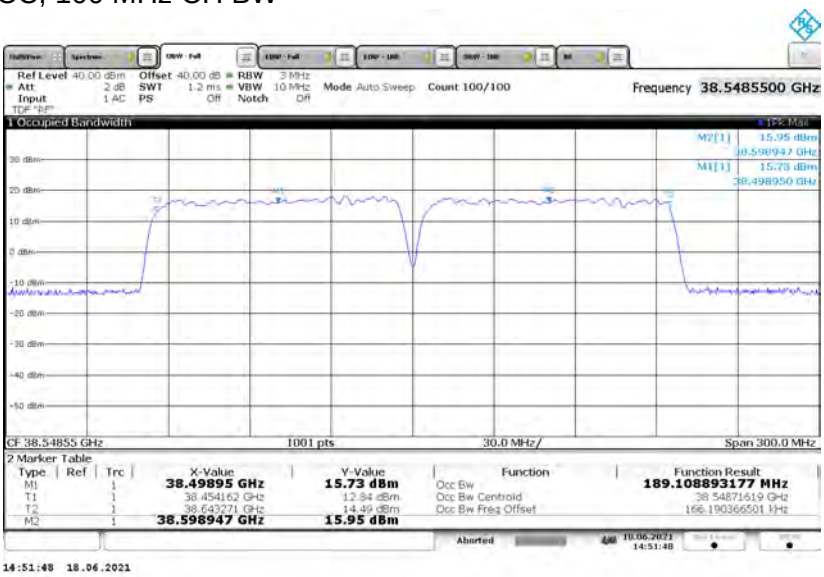


UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

2CC, 50 MHz CH BW



2CC, 100 MHz CH BW



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n260, ANT M2, Full-RB

Control System	Modulation	Channel	CH Bandwidth	CCs Active	OBW (MHz)
SISO-DUAL	BPSK	Mid	50	1	45.59
SISO-DUAL	QPSK	Low	50	1	46.17
SISO-DUAL	QPSK	Mid	50	1	45.44
SISO-DUAL	QPSK	High	50	1	45.55
MIMO	QPSK	Low	50	1	45.81
MIMO	QPSK	Mid	50	1	45.98
MIMO	QPSK	High	50	1	45.67
SISO-DUAL	16QAM	Mid	50	1	45.51
SISO-DUAL	64QAM	Mid	50	1	45.66
SISO	QPSK	Mid	100	1	92.01
SISO-DUAL	QPSK	Low	100	1	91.83
SISO-DUAL	QPSK	Mid	100	1	92.06
SISO-DUAL	QPSK	High	100	1	91.55
MIMO	QPSK	Low	100	1	94.94
MIMO	QPSK	Mid	100	1	94.77
MIMO	QPSK	High	100	1	94.72
SISO-DUAL	BPSK	Mid	50	2	96.06
SISO-DUAL	QPSK	Low	50	2	95.87
SISO-DUAL	QPSK	Mid	50	2	96.15
SISO-DUAL	QPSK	High	50	2	95.60
MIMO	QPSK	Low	50	2	96.09
MIMO	QPSK	Mid	50	2	96.03
MIMO	QPSK	High	50	2	95.79
SISO-DUAL	16QAM	Mid	50	2	95.96
SISO-DUAL	64QAM	Mid	50	2	95.59
SISO-DUAL	BPSK	Mid	100	2	189.69
SISO	QPSK	Mid	100	2	189.33
SISO-DUAL	QPSK	Mid	100	2	189.97
MIMO	QPSK	Mid	100	2	191.37
MIMO	16QAM	Mid	100	2	191.88
MIMO	64QAM	Mid	100	2	191.42

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2. EQUIVALENT ISOTROPIC RADIATED POWER

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.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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 M1 and Ant M2, 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 those combinations.

For Ant M0, 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 M1.

To minimize report size, the plots of Full RB, SISO-Dual, QPSK, Low CH with both CCs and channel bandwidths on Ant M1 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: 19470 & 19437
Test Date: 2/23/2021 – 7/24/2021
Test Location: Chamber 3

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.1. EIRP n258 SB1 ANT M0

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	24.349	50	1	1/15	21.64	43	-21.36
QPSK	Mid	24.349	100	1	1/32	21.00	43	-22.00

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.2. EIRP n258 SB1 ANT M1

SISO

Modulation	Channel	Frequency	CH Bandwidth	CCs	Ant Pol	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)			(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	24.349	50	1	V	1/15	26.92	43	-16.08
QPSK	Mid	24.349	100	1	V	1/32	26.86	43	-16.14
QPSK	Mid	24.349	50	2	V	1/15	19.03	43	-23.97
QPSK	Mid	24.299	100	2	V	1/32	19.42	43	-23.58

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
BPSK	Mid	24.349	50	1	1/15	28.10	43	-14.90
QPSK	Low	24.253	50	1	1/0	25.65	43	-17.35
QPSK	Low	24.274	50	1	1/15	26.79	43	-16.21
QPSK	Low	24.275	50	1	32/0	26.30	43	-16.70
QPSK	Mid	24.349	50	1	1/15	27.78	43	-15.22
QPSK	High	24.424	50	1	1/15	27.99	43	-15.01
QPSK	High	24.447	50	1	1/31	26.75	43	-16.25
QPSK	High	24.425	50	1	32/0	27.97	43	-15.03
16QAM	Mid	24.349	50	1	1/15	26.32	43	-16.68
64QAM	Mid	24.349	50	1	1/15	23.63	43	-19.37
BPSK	Mid	24.349	100	1	1/32	27.76	43	-15.24
QPSK	Low	24.253	100	1	1/0	26.48	43	-16.52
QPSK	Low	24.299	100	1	1/32	28.00	43	-15.00
QPSK	Low	24.299	100	1	64/0	28.16	43	-14.84
QPSK	Mid	24.349	100	1	1/32	28.59	43	-14.41
QPSK	High	24.399	100	1	1/32	27.94	43	-15.06
QPSK	High	24.447	100	1	1/65	25.86	43	-17.14
QPSK	High	24.399	100	1	64/0	26.58	43	-16.42
16QAM	Mid	24.349	100	1	1/32	26.75	43	-16.25
64QAM	Mid	24.349	100	1	1/32	24.35	43	-18.65
QPSK	Low	24.274	50	2	32/0	23.46	43	-19.54
QPSK	Mid	24.328	50	2	1/0	19.95	43	-23.05
QPSK	Mid	24.349	50	2	1/15	18.06	43	-24.94
QPSK	Mid	24.372	50	2	1/31	18.85	43	-24.15
QPSK	High	24.374	50	2	32/0	23.94	43	-19.06
BPSK	Mid	24.299	100	2	64/0	25.40	43	-17.60
QPSK	Mid	24.253	100	2	1/0	20.50	43	-22.50
QPSK	Mid	24.299	100	2	1/32	20.92	43	-22.08
QPSK	Mid	24.347	100	2	1/65	20.04	43	-22.96
QPSK	Mid	24.299	100	2	64/0	25.54	43	-17.46
16QAM	Mid	24.299	100	2	64/0	23.25	43	-19.75
64QAM	Mid	24.299	100	2	64/0	21.67	43	-21.33

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

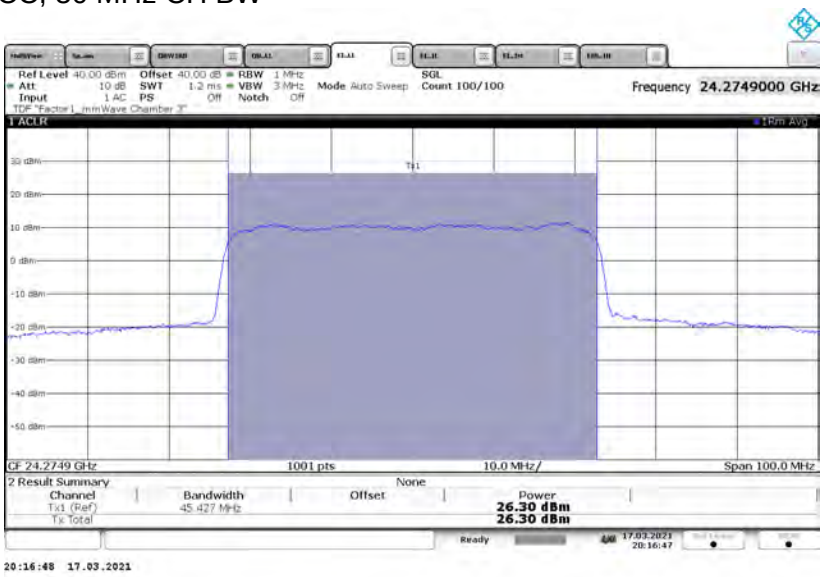
MIMO

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Low	24.275	50	1	32/0	23.71	43	-19.29
QPSK	Mid	24.349	50	1	1/15	26.31	43	-16.69
QPSK	Mid	24.350	50	1	32/0	25.88	43	-17.12
QPSK	High	24.425	50	1	32/0	24.13	43	-18.87
QPSK	Low	24.300	100	1	66/0	23.60	43	-19.40
QPSK	Mid	24.351	100	1	1/33	24.80	43	-18.20
QPSK	Mid	24.350	100	1	66/0	25.46	43	-17.54
QPSK	High	24.400	100	1	66/0	23.79	43	-19.21
QPSK	Low	24.275	50	2	32/0	21.56	43	-21.44
QPSK	Mid	24.349	50	2	1/15	19.21	43	-23.79
QPSK	Mid	24.349	50	2	32/0	23.48	43	-19.52
QPSK	High	24.375	50	2	32/0	21.66	43	-21.34
QPSK	Mid	24.300	100	2	1/33	18.16	43	-24.84
QPSK	Mid	23.300	100	2	66/0	22.82	43	-20.18

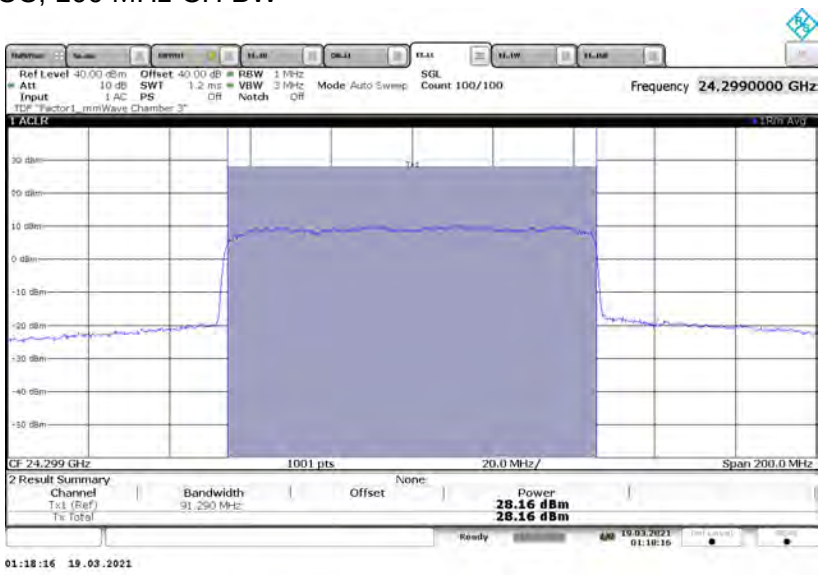
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n258 SB1, ANT M1, Full-RB, SISO-Dual, QPSK, Low-CH

1CC, 50 MHz CH BW



1CC, 100 MHz CH BW



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.3. EIRP n258 SB1 ANT M2

SISO

Modulation	Channel	Frequency	CH Bandwidth	CCs	Ant Pol	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)			(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	24.349	50	1	H	1/15	24.49	43	-18.51
QPSK	Mid	24.349	100	1	H	1/32	23.08	43	-19.92
QPSK	Mid	24.349	50	2	H	1/15	17.16	43	-25.84
QPSK	Mid	24.299	100	2	H	1/32	16.16	43	-26.84

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
BPSK	Mid	24.349	50	1	1/15	26.86	43	-16.14
QPSK	Low	24.253	50	1	1/0	24.71	43	-18.29
QPSK	Low	24.274	50	1	1/15	26.74	43	-16.26
QPSK	Low	24.275	50	1	32/0	26.15	43	-16.85
QPSK	Mid	24.349	50	1	1/15	27.02	43	-15.98
QPSK	High	24.424	50	1	1/15	26.93	43	-16.07
QPSK	High	24.447	50	1	1/31	25.19	43	-17.81
QPSK	High	24.425	50	1	32/0	26.90	43	-16.10
16QAM	Mid	24.349	50	1	1/15	24.81	43	-18.19
64QAM	Mid	24.349	50	1	1/15	22.97	43	-20.03
BPSK	Mid	24.349	100	1	1/32	27.48	43	-15.52
QPSK	Low	24.253	100	1	1/0	25.68	43	-17.32
QPSK	Low	24.299	100	1	1/32	26.95	43	-16.05
QPSK	Low	24.299	100	1	64/0	26.89	43	-16.11
QPSK	Mid	24.349	100	1	1/32	27.70	43	-15.30
QPSK	High	24.399	100	1	1/32	27.56	43	-15.44
QPSK	High	24.447	100	1	1/65	25.93	43	-17.07
QPSK	High	24.399	100	1	64/0	27.12	43	-15.88
16QAM	Mid	24.349	100	1	1/32	25.31	43	-17.69
64QAM	Mid	24.349	100	1	1/32	23.01	43	-19.99
QPSK	Low	24.274	50	2	32/0	24.62	43	-18.38
QPSK	Mid	24.327	50	2	1/0	18.74	43	-24.26
QPSK	Mid	24.349	50	2	1/15	20.19	43	-22.81
QPSK	Mid	24.372	50	2	1/31	18.63	43	-24.37
QPSK	High	24.374	50	2	32/0	24.75	43	-18.25
BPSK	Mid	24.299	100	2	64/0	24.90	43	-18.10
QPSK	Mid	24.253	100	2	1/0	19.61	43	-23.39
QPSK	Mid	24.299	100	2	1/32	20.49	43	-22.51
QPSK	Mid	24.347	100	2	1/65	20.64	43	-22.36
QPSK	Mid	24.299	100	2	64/0	24.92	43	-18.08
16QAM	Mid	24.299	100	2	64/0	22.25	43	-20.75
64QAM	Mid	24.299	100	2	64/0	21.22	43	-21.78

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

MIMO

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Low	24.275	50	1	32/0	24.17	43	-18.83
QPSK	Mid	24.349	50	1	1/15	23.98	43	-19.02
QPSK	Mid	24.350	50	1	32/0	24.69	43	-18.31
QPSK	High	24.425	50	1	32/0	24.65	43	-18.35
QPSK	Low	24.300	100	1	66/0	24.06	43	-18.94
QPSK	Mid	24.351	100	1	1/33	23.81	43	-19.19
QPSK	Mid	24.350	100	1	66/0	24.23	43	-18.77
QPSK	High	24.400	100	1	66/0	24.13	43	-18.87
QPSK	Low	24.275	50	2	32/0	21.44	43	-21.56
QPSK	Mid	24.349	50	2	1/15	16.64	43	-26.36
QPSK	Mid	24.349	50	2	32/0	21.63	43	-21.37
QPSK	High	24.375	50	2	32/0	21.32	43	-21.68
QPSK	Mid	24.301	100	2	1/33	17.27	43	-25.73
QPSK	Mid	24.301	100	2	66/0	21.75	43	-21.25

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.4. EIRP n258 SB2 ANT M0

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	24.999	50	1	1/15	22.02	43	-20.98
QPSK	Mid	24.999	100	1	1/32	22.40	43	-20.60

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.5. EIRP n258 SB2 ANT M1

SISO

Modulation	Channel	Frequency	CH Bandwidth	CCs	Ant Pol	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)			(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	24.999	50	1	V	1/15	26.72	43	-16.28
QPSK	Mid	24.999	100	1	V	1/32	26.94	43	-16.06
QPSK	Mid	24.999	50	2	V	1/15	19.79	43	-23.21
QPSK	Mid	24.999	100	2	V	1/32	20.17	43	-22.83

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
BPSK	Mid	24.999	50	1	1/15	27.80	43	-15.20
QPSK	Low	24.752	50	1	1/0	26.59	43	-16.41
QPSK	Low	24.774	50	1	1/15	26.96	43	-16.04
QPSK	Low	24.775	50	1	32/0	26.92	43	-16.08
QPSK	Mid	24.999	50	1	1/15	27.37	43	-15.63
QPSK	High	25.224	50	1	1/15	27.31	43	-15.69
QPSK	High	25.247	50	1	1/31	26.27	43	-16.73
QPSK	High	25.225	50	1	32/0	27.52	43	-15.48
16QAM	Mid	24.999	50	1	1/15	25.26	43	-17.74
64QAM	Mid	24.999	50	1	1/15	23.98	43	-19.02
BPSK	Mid	24.999	100	1	1/32	27.99	43	-15.01
QPSK	Low	24.753	100	1	1/0	27.05	43	-15.95
QPSK	Low	24.799	100	1	1/32	28.09	43	-14.91
QPSK	Low	24.799	100	1	64/0	28.05	43	-14.95
QPSK	Mid	24.999	100	1	1/32	27.68	43	-15.32
QPSK	High	25.199	100	1	1/32	27.70	43	-15.30
QPSK	High	25.247	100	1	1/65	26.48	43	-16.52
QPSK	High	25.199	100	1	64/0	27.70	43	-15.30
16QAM	Mid	24.999	100	1	1/32	26.35	43	-16.65
64QAM	Mid	24.999	100	1	1/32	24.17	43	-18.83
QPSK	Low	24.775	50	2	32/0	25.01	43	-17.99
QPSK	Mid	24.977	50	2	1/0	19.45	43	-23.55
QPSK	Mid	24.999	50	2	1/15	19.74	43	-23.26
QPSK	Mid	25.022	50	2	1/31	18.97	43	-24.03
QPSK	High	25.175	50	2	32/0	24.04	43	-18.96
BPSK	Mid	24.999	100	2	64/0	24.47	43	-18.53
QPSK	Low	24.800	100	2	64/0	25.01	43	-17.99
QPSK	Mid	24.953	100	2	1/0	19.45	43	-23.55
QPSK	Mid	24.999	100	2	1/32	19.74	43	-23.26
QPSK	Mid	25.047	100	2	1/65	18.97	43	-24.03
QPSK	Mid	24.999	100	2	64/0	24.47	43	-18.53
QPSK	High	25.100	100	2	64/0	24.04	43	-18.96
16QAM	Mid	24.999	100	2	64/0	22.37	43	-20.63
64QAM	Mid	24.999	100	2	64/0	20.73	43	-22.27

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

MIMO

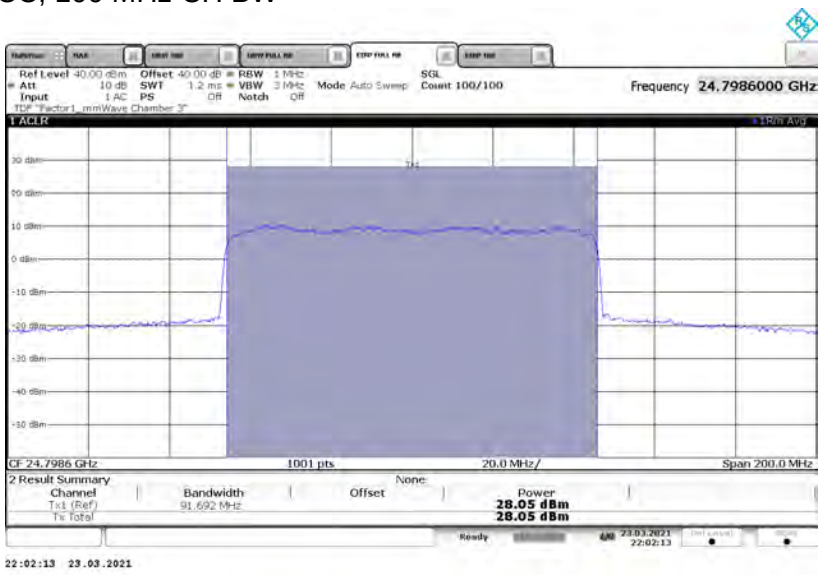
Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Low	24.775	50	1	32/0	24.60	43	-18.40
QPSK	Mid	24.999	50	1	1/15	25.46	43	-17.54
QPSK	Mid	25.000	50	1	32/0	25.84	43	-17.16
QPSK	High	25.225	50	1	32/0	24.40	43	-18.60
QPSK	Low	24.800	100	1	66/0	24.45	43	-18.55
QPSK	Mid	25.000	100	1	1/33	24.50	43	-18.50
QPSK	Mid	25.000	100	1	66/0	26.02	43	-16.98
QPSK	High	25.200	100	1	66/0	23.93	43	-19.07
QPSK	Low	24.775	50	2	32/0	21.98	43	-21.02
QPSK	Mid	24.999	50	2	1/15	18.42	43	-24.58
QPSK	Mid	24.999	50	2	32/0	22.02	43	-20.98
QPSK	High	25.175	50	2	32/0	22.12	43	-20.88
QPSK	Low	24.800	100	2	66/0	22.03	43	-20.97
QPSK	Mid	25.000	100	2	1/33	17.28	43	-25.72
QPSK	Mid	25.000	100	2	66/0	23.93	43	-19.07
QPSK	High	25.100	100	2	66/0	21.98	43	-21.02

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n258 SB2, ANT M1, Full-RB, SISO-Dual, QPSK, Low-CH

1CC, 50 MHz CH BW

1CC, 100 MHz CH BW



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.6. EIRP n258 SB2 ANT M2

SISO

Modulation	Channel	Frequency (GHz)	CH Bandwidth (MHz)	CCs	Ant Pol	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
QPSK	Mid	24.999	50	1	H	1/15	25.75	43	-17.25
QPSK	Mid	24.999	100	1	H	1/32	25.23	43	-17.77
QPSK	Mid	24.999	50	2	H	1/15	18.67	43	-24.33
QPSK	Mid	24.999	100	2	H	1/32	22.63	43	-20.37

SISO-Dual

Modulation	Channel	Frequency (GHz)	CH Bandwidth (MHz)	CCs	RB (Size/Offset)	Avg EIRP (dBm)	Limit (dBm)	Margin (dB)
BPSK	Mid	24.999	50	1	1/15	26.87	43	-16.13
QPSK	Low	24.752	50	1	1/0	26.72	43	-16.28
QPSK	Low	24.774	50	1	1/15	27.61	43	-15.39
QPSK	Low	24.775	50	1	32/0	27.47	43	-15.53
QPSK	Mid	24.999	50	1	1/15	26.81	43	-16.19
QPSK	High	25.224	50	1	1/15	27.09	43	-15.91
QPSK	High	25.247	50	1	1/31	26.09	43	-16.91
QPSK	High	25.225	50	1	32/0	26.92	43	-16.08
16QAM	Mid	24.999	50	1	1/15	25.61	43	-17.39
64QAM	Mid	24.999	50	1	1/15	23.92	43	-19.08
BPSK	Mid	24.999	100	1	1/32	26.56	43	-16.44
QPSK	Low	24.753	100	1	1/0	26.25	43	-16.75
QPSK	Low	24.799	100	1	1/32	27.19	43	-15.81
QPSK	Low	24.799	100	1	64/0	27.00	43	-16.00
QPSK	Mid	24.999	100	1	1/32	27.47	43	-15.53
QPSK	High	25.199	100	1	1/32	26.48	43	-16.52
QPSK	High	25.247	100	1	1/65	25.04	43	-17.96
QPSK	High	25.199	100	1	64/0	26.51	43	-16.49
16QAM	Mid	24.999	100	1	1/32	24.41	43	-18.59
64QAM	Mid	24.999	100	1	1/32	22.09	43	-20.91
QPSK	Low	24.775	50	2	32/0	24.90	43	-18.10
QPSK	Mid	24.977	50	2	1/0	18.99	43	-24.01
QPSK	Mid	24.999	50	2	1/15	21.27	43	-21.73
QPSK	Mid	25.022	50	2	1/31	20.52	43	-22.48
QPSK	High	25.175	50	2	32/0	24.65	43	-18.35
BPSK	Mid	24.999	100	2	64/0	24.06	43	-18.94
QPSK	Low	24.800	100	2	64/0	24.64	43	-18.36
QPSK	Mid	24.953	100	2	1/0	18.55	43	-24.45
QPSK	Mid	24.999	100	2	1/32	19.88	43	-23.12
QPSK	Mid	25.047	100	2	1/65	18.28	43	-24.72
QPSK	Mid	24.999	100	2	64/0	24.09	43	-18.91
QPSK	High	25.100	100	2	64/0	24.34	43	-18.66
16QAM	Mid	24.999	100	2	64/0	21.91	43	-21.09
64QAM	Mid	24.999	100	2	64/0	20.40	43	-22.60

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

MIMO

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Low	24.775	50	1	32/0	24.39	43	-18.61
QPSK	Mid	24.999	50	1	1/15	24.34	43	-18.66
QPSK	Mid	25.000	50	1	32/0	24.69	43	-18.31
QPSK	High	25.225	50	1	32/0	24.17	43	-18.83
QPSK	Low	24.800	100	1	66/0	24.33	43	-18.67
QPSK	Mid	25.000	100	1	1/33	24.34	43	-18.66
QPSK	Mid	25.000	100	1	66/0	24.78	43	-18.22
QPSK	High	25.200	100	1	66/0	24.42	43	-18.58
QPSK	Low	24.775	50	2	32/0	22.51	43	-20.49
QPSK	Mid	24.999	50	2	1/15	16.76	43	-26.24
QPSK	Mid	24.999	50	2	32/0	20.94	43	-22.06
QPSK	High	25.175	50	2	32/0	21.70	43	-21.30
QPSK	Low	24.800	100	2	66/0	21.73	43	-21.27
QPSK	Mid	25.000	100	2	1/33	17.70	43	-25.30
QPSK	Mid	25.000	100	2	66/0	22.45	43	-20.55
QPSK	High	25.100	100	2	66/0	21.88	43	-21.12

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.7. EIRP n261 ANT M0

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	27.924	50	1	1/15	19.71	43	-23.29
QPSK	Mid	27.924	100	1	1/32	19.93	43	-23.07

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.8. EIRP n261 ANT M1

SISO

Modulation	Channel	Frequency	CH Bandwidth	CCs	Ant Pol	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)			(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	27.924	50	1	V	1/15	25.11	43	-17.89
QPSK	Mid	27.924	100	1	V	1/32	25.12	43	-17.88
QPSK	Mid	27.924	50	2	V	1/15	17.92	43	-25.08
QPSK	Mid	27.924	100	2	V	1/32	18.10	43	-24.90

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
BPSK	Mid	27.924	50	1	1/15	28.82	43	-14.18
QPSK	Low	27.503	50	1	1/0	25.88	43	-17.12
QPSK	Low	27.524	50	1	1/15	28.07	43	-14.93
QPSK	Low	27.525	50	1	32/0	27.85	43	-15.15
QPSK	Mid	27.924	50	1	1/15	29.39	43	-13.61
QPSK	High	28.324	50	1	1/15	28.87	43	-14.13
QPSK	High	28.347	50	1	1/31	27.97	43	-15.03
QPSK	High	28.325	50	1	32/0	29.12	43	-13.88
16QAM	Mid	27.924	50	1	1/15	25.97	43	-17.03
64QAM	Mid	27.924	50	1	1/15	25.16	43	-17.84
BPSK	Mid	27.924	100	1	1/32	28.93	43	-14.07
QPSK	Low	27.503	100	1	1/0	27.02	43	-15.98
QPSK	Low	27.549	100	1	1/32	28.16	43	-14.84
QPSK	Low	27.549	100	1	64/0	28.72	43	-14.28
QPSK	Mid	27.924	100	1	1/32	29.23	43	-13.77
QPSK	High	28.299	100	1	1/32	29.17	43	-13.83
QPSK	High	28.347	100	1	1/65	27.54	43	-15.46
QPSK	High	28.299	100	1	64/0	29.16	43	-13.84
16QAM	Mid	27.924	100	1	1/32	26.25	43	-16.75
64QAM	Mid	27.924	100	1	1/32	25.37	43	-17.63
QPSK	Low	27.525	50	2	32/0	25.71	43	-17.29
QPSK	Mid	27.902	50	2	1/0	20.62	43	-22.38
QPSK	Mid	27.924	50	2	1/15	22.11	43	-20.89
QPSK	Mid	27.947	50	2	1/31	21.26	43	-21.74
QPSK	High	28.274	50	2	32/0	26.28	43	-16.72
BPSK	Mid	27.924	100	2	64/0	26.99	43	-16.01
QPSK	Low	27.550	100	2	64/0	25.74	43	-17.26
QPSK	Mid	27.878	100	2	1/0	20.90	43	-22.10
QPSK	Mid	27.924	100	2	1/32	22.12	43	-20.88
QPSK	Mid	27.972	100	2	1/65	21.21	43	-21.79
QPSK	High	28.200	100	2	64/0	26.39	43	-16.61
16QAM	Mid	27.924	100	2	64/0	24.81	43	-18.19
64QAM	Mid	27.924	100	2	64/0	23.24	43	-19.76

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

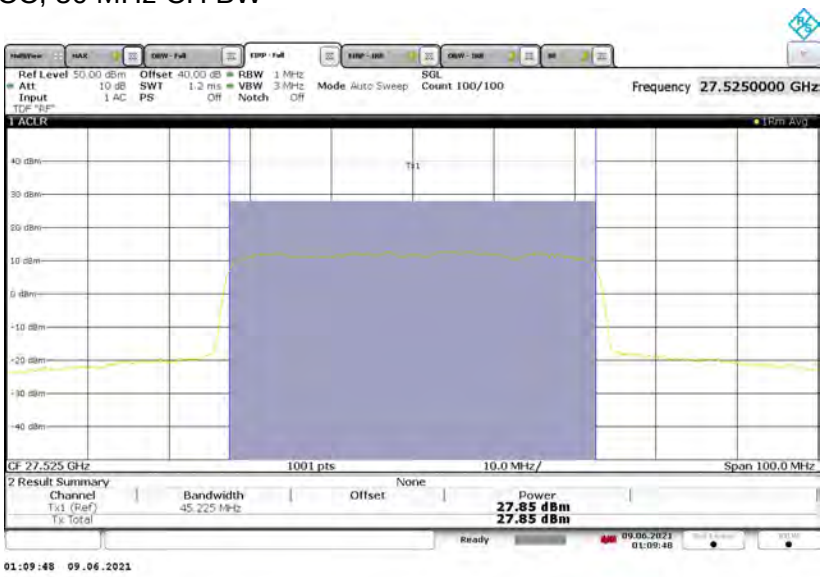
MIMO

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Low	27.525	50	1	32/0	26.21	43	-16.79
QPSK	Mid	27.924	50	1	1/15	26.19	43	-16.81
QPSK	Mid	27.925	50	1	32/0	26.93	43	-16.07
QPSK	High	28.325	50	1	32/0	26.52	43	-16.48
QPSK	Low	27.550	100	1	66/0	26.32	43	-16.68
QPSK	Mid	27.926	100	1	1/33	26.44	43	-16.56
QPSK	Mid	27.925	100	1	66/0	27.13	43	-15.87
QPSK	High	28.300	100	1	66/0	26.48	43	-16.52
QPSK	Low	27.525	50	2	32/0	23.76	43	-19.24
QPSK	Mid	27.924	50	2	1/15	19.30	43	-23.70
QPSK	Mid	27.925	50	2	32/0	24.53	43	-18.47
QPSK	High	28.275	50	2	32/0	24.26	43	-18.74
QPSK	Low	27.550	100	2	66/0	23.53	43	-19.47
QPSK	Mid	27.925	100	2	1/33	20.66	43	-22.34
QPSK	Mid	27.925	100	2	66/0	24.50	43	-18.50
QPSK	High	28.200	100	2	66/0	23.79	43	-19.21

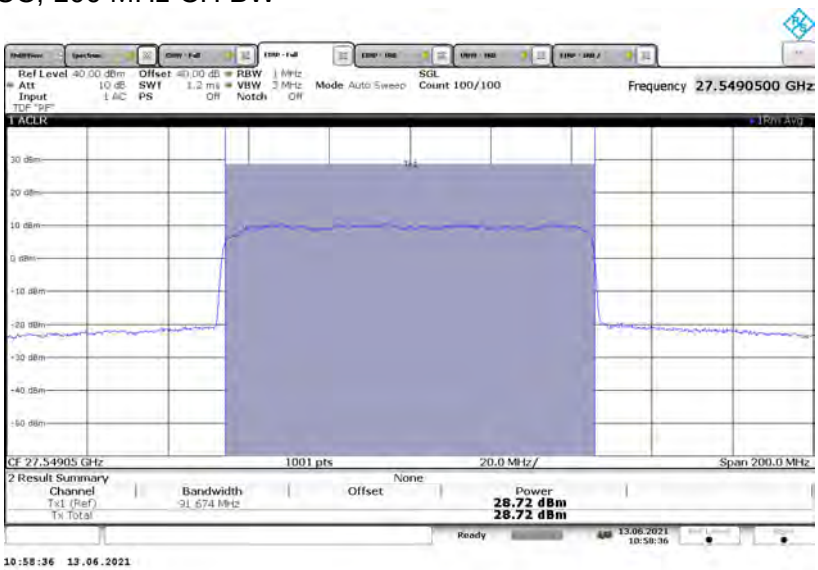
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n261, ANT M1, Full-RB, SISO-Dual, QPSK, Low-CH

1CC, 50 MHz CH BW



1CC, 100 MHz CH BW



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.9. EIRP n261 ANT M2

SISO

Modulation	Channel	Frequency	CH Bandwidth	CCs	Ant Pol	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)			(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	27.924	50	1	H	1/15	23.64	43	-19.36
QPSK	Mid	27.924	100	1	H	1/32	23.50	43	-19.50
QPSK	Mid	27.924	50	2	H	1/15	16.51	43	-26.49
QPSK	Mid	27.924	100	2	H	1/32	16.52	43	-26.48

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
BPSK	Mid	27.924	50	1	1/15	27.34	43	-15.66
QPSK	Low	27.503	50	1	1/0	26.10	43	-16.90
QPSK	Low	27.524	50	1	1/15	27.69	43	-15.31
QPSK	Low	27.525	50	1	32/0	27.29	43	-15.71
QPSK	Mid	27.924	50	1	1/15	27.52	43	-15.48
QPSK	High	28.324	50	1	1/15	27.54	43	-15.46
QPSK	High	28.347	50	1	1/31	26.30	43	-16.70
QPSK	High	28.325	50	1	32/0	27.31	43	-15.69
16QAM	Mid	27.924	50	1	1/15	25.40	43	-17.60
64QAM	Mid	27.924	50	1	1/15	23.40	43	-19.60
BPSK	Mid	27.924	100	1	1/32	26.44	43	-16.56
QPSK	Low	27.503	100	1	1/0	24.73	43	-18.27
QPSK	Low	27.549	100	1	1/32	26.32	43	-16.68
QPSK	Low	27.549	100	1	64/0	25.67	43	-17.33
QPSK	Mid	27.924	100	1	1/32	27.00	43	-16.00
QPSK	High	28.299	100	1	1/32	27.24	43	-15.76
QPSK	High	28.347	100	1	1/65	24.03	43	-18.97
QPSK	High	28.300	100	1	64/0	25.98	43	-17.02
16QAM	Mid	27.924	100	1	1/32	24.89	43	-18.11
64QAM	Mid	27.924	100	1	1/32	23.07	43	-19.93
QPSK	Low	27.525	50	2	32/0	24.64	43	-18.36
QPSK	Mid	27.901	50	2	1/0	19.65	43	-23.35
QPSK	Mid	27.924	50	2	1/15	20.50	43	-22.50
QPSK	Mid	27.947	50	2	1/31	19.22	43	-23.78
QPSK	High	28.274	50	2	32/0	25.60	43	-17.40
BPSK	Mid	27.973	100	2	64/0	23.83	43	-19.17
QPSK	Low	26.550	100	2	64/0	25.37	43	-17.63
QPSK	Mid	27.878	100	2	1/0	18.41	43	-24.59
QPSK	Mid	27.924	100	2	1/32	20.61	43	-22.39
QPSK	Mid	27.972	100	2	1/65	18.27	43	-24.73
QPSK	High	28.199	100	2	64/0	23.57	43	-19.43
16QAM	Mid	27.973	100	2	64/0	21.59	43	-21.41
64QAM	Mid	27.973	100	2	64/0	20.08	43	-22.92

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

MIMO

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Low	27.525	50	1	32/0	25.17	43	-17.83
QPSK	Mid	27.924	50	1	1/15	25.02	43	-17.98
QPSK	Mid	27.925	50	1	32/0	25.89	43	-17.11
QPSK	High	28.325	50	1	32/0	25.75	43	-17.25
QPSK	Low	27.550	100	1	66/0	25.35	43	-17.65
QPSK	Mid	27.926	100	1	1/33	25.29	43	-17.71
QPSK	Mid	27.925	100	1	66/0	25.64	43	-17.36
QPSK	High	28.300	100	1	66/0	25.97	43	-17.03
QPSK	Low	27.525	50	2	32/0	22.50	43	-20.50
QPSK	Mid	27.924	50	2	1/15	18.15	43	-24.85
QPSK	Mid	27.924	50	2	32/0	23.28	43	-19.72
QPSK	High	28.275	50	2	32/0	23.33	43	-19.67
QPSK	Low	27.550	100	2	66/0	22.78	43	-20.22
QPSK	Mid	27.924	100	2	1/33	17.61	43	-25.39
QPSK	Mid	27.924	100	2	66/0	23.08	43	-19.92
QPSK	High	28.200	100	2	66/0	23.27	43	-19.73

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.10. EIRP n260 ANT M0

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	38.499	50	1	1/15	17.17	43	-25.83
QPSK	Mid	38.499	100	1	1/32	17.42	43	-25.58

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.11. EIRP n260 ANT M1

SISO

Modulation	Channel	Frequency	CH Bandwidth	CCs	Ant Pol	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)			(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	38.499	50	1	H	1/15	21.46	43	-21.54
QPSK	Mid	38.499	100	1	H	1/32	23.20	43	-19.80
QPSK	Mid	38.499	50	2	H	1/15	14.83	43	-28.17
QPSK	Mid	38.499	100	2	H	1/32	15.68	43	-27.32

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
BPSK	Mid	38.499	50	1	1/15	26.28	43	-16.72
QPSK	Low	37.002	50	1	1/0	26.02	43	-16.98
QPSK	Low	37.024	50	1	1/15	27.28	43	-15.72
QPSK	Low	37.025	50	1	32/0	26.92	43	-16.08
QPSK	Mid	38.499	50	1	1/15	26.31	43	-16.69
QPSK	High	39.974	50	1	1/15	24.86	43	-18.14
QPSK	High	39.997	50	1	1/31	23.70	43	-19.30
QPSK	High	39.975	50	1	32/0	25.05	43	-17.95
16QAM	Mid	38.499	50	1	1/15	25.01	43	-17.99
64QAM	Mid	38.499	50	1	1/15	22.84	43	-20.16
BPSK	Mid	38.499	100	1	1/32	26.60	43	-16.40
QPSK	Low	37.003	100	1	1/0	25.91	43	-17.09
QPSK	Low	37.049	100	1	1/32	27.10	43	-15.90
QPSK	Low	37.049	100	1	64/0	27.15	43	-15.85
QPSK	Mid	38.499	100	1	1/32	26.92	43	-16.08
QPSK	High	39.949	100	1	1/32	27.20	43	-15.80
QPSK	High	39.997	100	1	1/65	23.43	43	-19.57
QPSK	High	39.951	100	1	64/0	25.11	43	-17.89
16QAM	Mid	38.499	100	1	1/32	24.06	43	-18.94
64QAM	Mid	38.499	100	1	1/32	22.19	43	-20.81
QPSK	Low	37.025	50	2	32/0	24.60	43	-18.40
QPSK	Mid	38.477	50	2	1/0	19.13	43	-23.87
QPSK	Mid	38.499	50	2	1/15	19.59	43	-23.41
QPSK	Mid	38.522	50	2	1/31	18.53	43	-24.47
QPSK	High	39.925	50	2	32/0	22.35	43	-20.65
BPSK	Mid	38.499	100	2	64/0	24.49	43	-18.51
QPSK	Low	37.050	100	2	64/0	24.30	43	-18.70
QPSK	Mid	38.453	100	2	1/0	17.26	43	-25.74
QPSK	Mid	38.499	100	2	1/32	19.12	43	-23.88
QPSK	Mid	38.546	100	2	1/65	17.28	43	-25.72
QPSK	High	39.850	100	2	64/0	22.48	43	-20.52
16QAM	Mid	38.499	100	2	64/0	21.98	43	-21.02
64QAM	Mid	38.499	100	2	64/0	19.21	43	-23.79

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

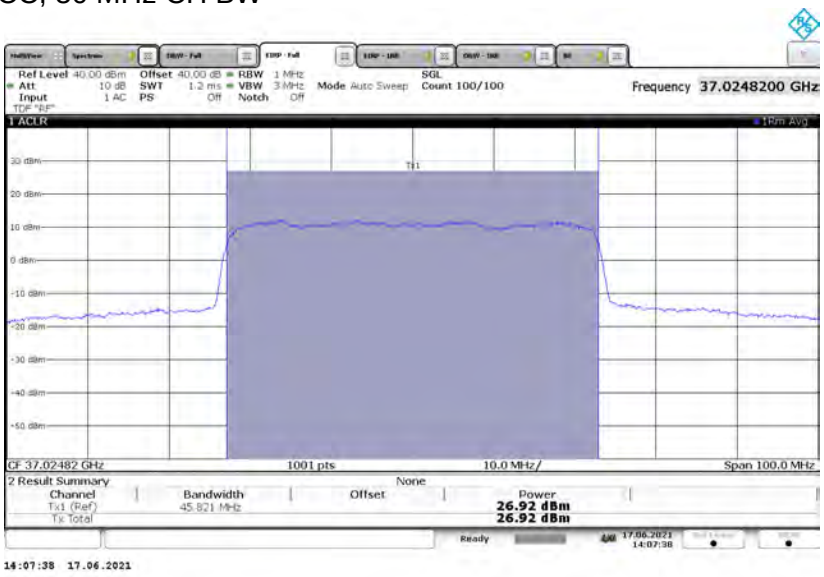
MIMO

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Low	37.025	50	1	32/0	24.93	43	-18.07
QPSK	Mid	38.499	50	1	1/15	25.10	43	-17.90
QPSK	Mid	38.500	50	1	32/0	24.95	43	-18.05
QPSK	High	39.975	50	1	32/0	24.16	43	-18.84
QPSK	Low	37.050	100	1	66/0	25.04	43	-17.96
QPSK	Mid	38.500	100	1	1/33	24.33	43	-18.67
QPSK	Mid	38.500	100	1	66/0	24.28	43	-18.72
QPSK	High	39.950	100	1	66/0	24.89	43	-18.11
QPSK	Low	37.025	50	2	32/0	23.30	43	-19.70
QPSK	Mid	38.499	50	2	1/15	18.22	43	-24.78
QPSK	Mid	38.499	50	2	32/0	22.64	43	-20.36
QPSK	High	39.925	50	2	32/0	21.64	43	-21.36
QPSK	Low	37.050	100	2	66/0	22.62	43	-20.38
QPSK	Mid	38.500	100	2	1/33	17.49	43	-25.51
QPSK	Mid	38.500	100	2	66/0	22.20	43	-20.80
QPSK	High	39.850	100	2	66/0	22.91	43	-20.09

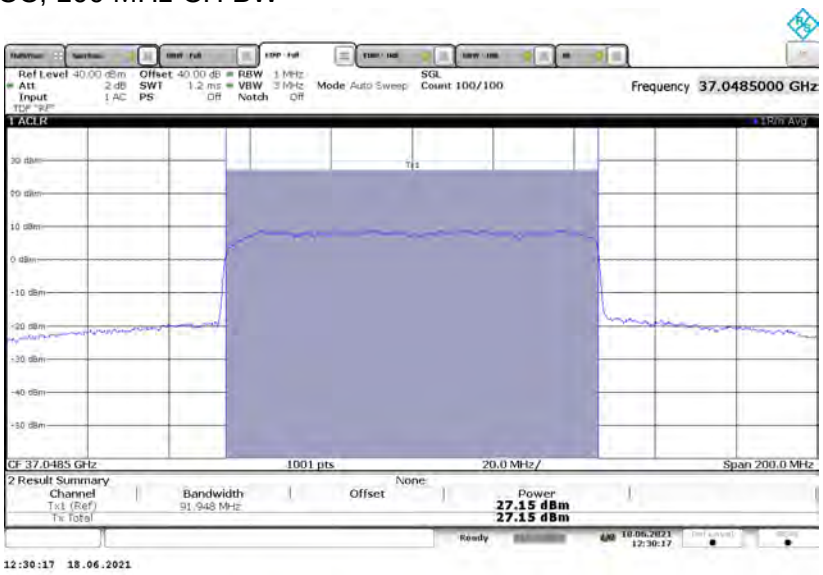
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

n260, ANT M1, Full-RB, SISO-Dual, QPSK, Low-CH

1CC, 50 MHz CH BW



1CC, 100 MHz CH BW



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.2.12. EIRP n260 ANT M2

SISO

Modulation	Channel	Frequency	CH Bandwidth	CCs	Ant Pol	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)			(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Mid	38.499	50	1	H	1/15	23.35	43	-19.65
QPSK	Mid	38.499	100	1	H	1/32	23.55	43	-19.45
QPSK	Mid	38.499	50	2	H	1/15	16.49	43	-26.51
QPSK	Mid	38.499	100	2	H	1/32	16.07	43	-26.93

SISO-Dual

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
BPSK	Mid	38.499	50	1	1/15	27.26	43	-15.74
QPSK	Low	37.002	50	1	1/0	23.29	43	-19.71
QPSK	Low	37.024	50	1	1/15	24.62	43	-18.38
QPSK	Low	37.024	50	1	32/0	24.50	43	-18.50
QPSK	Mid	38.499	50	1	1/15	27.20	43	-15.80
QPSK	High	39.974	50	1	1/15	28.24	43	-14.76
QPSK	High	39.997	50	1	1/31	26.78	43	-16.22
QPSK	High	39.975	50	1	32/0	28.13	43	-14.87
16QAM	Mid	38.499	50	1	1/15	25.11	43	-17.89
64QAM	Mid	38.499	50	1	1/15	22.36	43	-20.64
BPSK	Mid	38.499	100	1	1/32	26.65	43	-16.35
QPSK	Low	37.003	100	1	1/0	22.77	43	-20.23
QPSK	Low	37.049	100	1	1/32	25.04	43	-17.96
QPSK	Low	37.049	100	1	64/0	24.38	43	-18.62
QPSK	Mid	38.499	100	1	1/32	26.63	43	-16.37
QPSK	High	39.949	100	1	1/32	27.92	43	-15.08
QPSK	High	39.997	100	1	1/65	26.92	43	-16.08
QPSK	High	39.949	100	1	64/0	28.20	43	-14.80
16QAM	Mid	38.499	100	1	1/32	24.72	43	-18.28
64QAM	Mid	38.499	100	1	1/32	22.76	43	-20.24
QPSK	Low	37.025	50	2	32/0	22.11	43	-20.89
QPSK	Mid	38.477	50	2	1/0	19.61	43	-23.39
QPSK	Mid	38.499	50	2	1/15	20.12	43	-22.88
QPSK	Mid	38.522	50	2	1/31	19.26	43	-23.74
QPSK	High	39.925	50	2	32/0	25.73	43	-17.27
BPSK	Mid	38.499	100	2	64/0	24.49	43	-18.51
QPSK	Low	37.050	100	2	64/0	22.01	43	-20.99
QPSK	Mid	38.453	100	2	1/0	17.97	43	-25.03
QPSK	Mid	38.499	100	2	1/32	19.70	43	-23.30
QPSK	Mid	38.547	100	2	1/65	17.86	43	-25.14
QPSK	High	39.850	100	2	64/0	25.53	43	-17.47
16QAM	Mid	38.499	100	2	64/0	22.53	43	-20.47
64QAM	Mid	38.499	100	2	64/0	19.94	43	-23.06

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

MIMO

Modulation	Channel	Frequency	CH Bandwidth	CCs	RB	Avg EIRP	Limit	Margin
		(GHz)	(MHz)		(Size/Offset)	(dBm)	(dBm)	(dB)
QPSK	Low	37.025	50	1	32/0	22.27	43	-20.73
QPSK	Mid	38.499	50	1	1/15	25.13	43	-17.87
QPSK	Mid	38.500	50	1	32/0	25.37	43	-17.63
QPSK	High	39.975	50	1	32/0	26.38	43	-16.62
QPSK	Low	38.050	100	1	66/0	22.61	43	-20.39
QPSK	Mid	38.500	100	1	1/33	25.07	43	-17.93
QPSK	Mid	38.500	100	1	66/0	25.71	43	-17.29
QPSK	High	39.950	100	1	66/0	26.06	43	-16.94
QPSK	Low	37.025	50	2	32/0	19.73	43	-23.27
QPSK	Mid	38.499	50	2	1/15	18.22	43	-24.78
QPSK	Mid	38.499	50	2	32/0	22.64	43	-20.36
QPSK	High	39.925	50	2	32/0	21.64	43	-21.36
QPSK	Low	37.050	100	2	66/0	20.12	43	-22.88
QPSK	Mid	38.500	100	2	1/33	18.23	43	-24.77
QPSK	Mid	38.500	100	2	66/0	23.18	43	-19.82
QPSK	High	39.850	100	2	66/0	23.67	43	-19.33

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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 factor 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 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

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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 M0, only QPSK modulation in SISO-Dual mode of each channel bandwidth is investigated to verify the lower band edge emission level, comparing to Ant M1. Single RB (highest power) and Full RB allocations were measured.

Verified through preliminary testing across modulations and antenna configurations, there was approximately 6 - 8 dB lower on spectrum pattern of Full RB at band edges on 2CC operations comparing to 1CC operations. Therefore, band edge measurements for multi-carrier (2CC) operations were limited to Single RB only. 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 plots of worst case SISO-Dual, QPSK with both CCs and channel bandwidths on Ant M1 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.

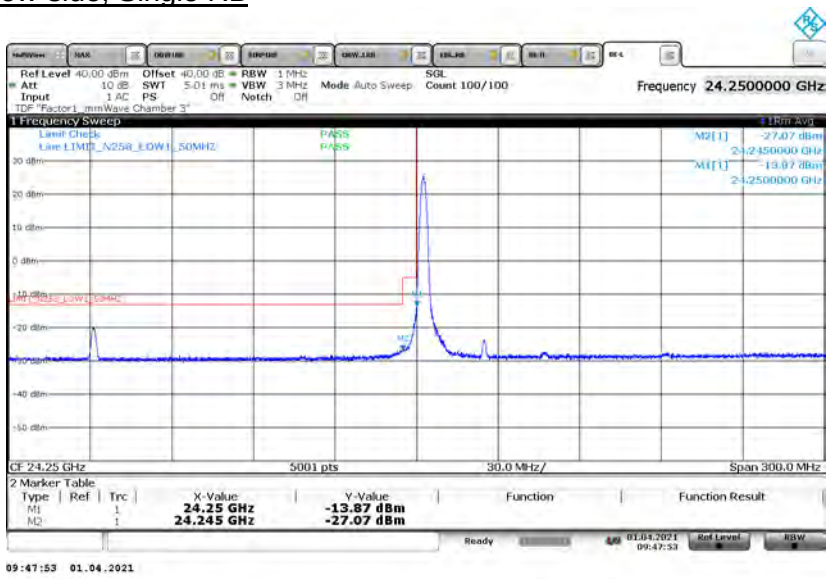
Employee IDs: 19470 & 19437
Test Date: 3/31/2021 – 7/19/2021
Test Location: Chamber 3

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

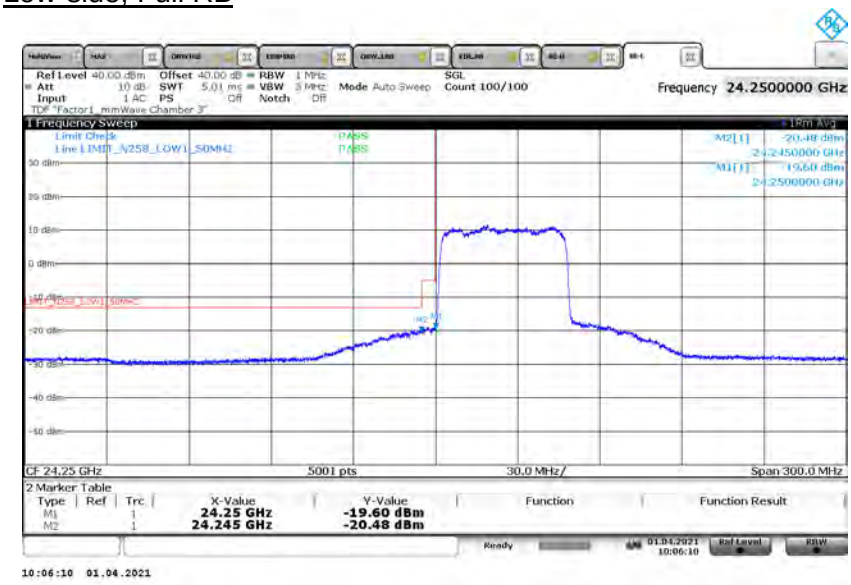
8.3.1. BAND EDGE n258 SB1 SISO-DUAL 1CC

ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



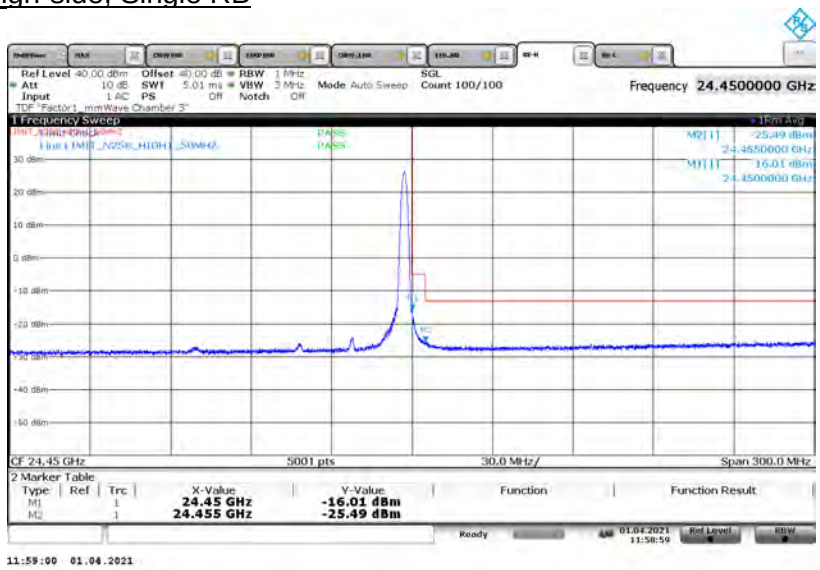
Low-side, Full RB



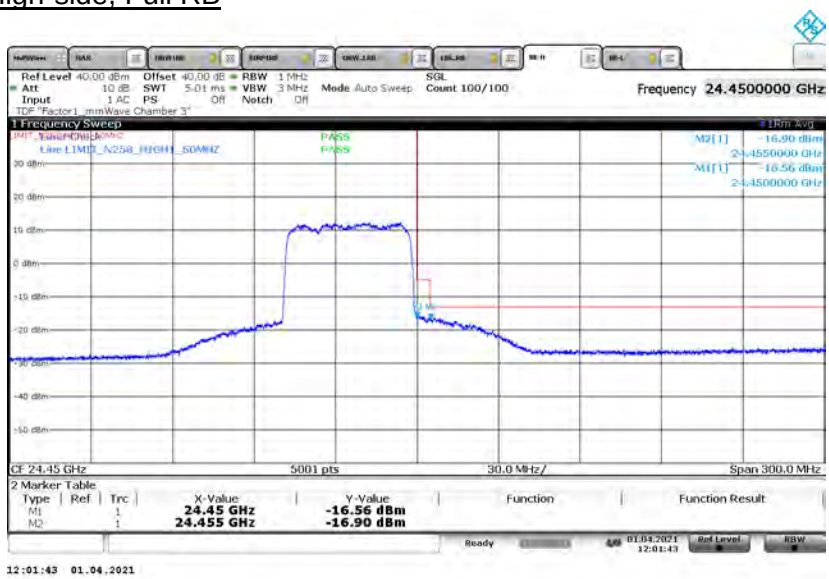
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-13.87	-5	-8.87
M1	50	L	1/0	24.245	-27.07	-13	-14.07
M0	50	L	1/0	24.25	-20.45	-5	-15.45
M0	50	L	1/0	24.245	-28.79	-13	-15.79
M2	50	L	1/0	24.25	-15.09	-5	-10.09
M2	50	L	1/0	24.245	-25.76	-13	-12.76
M1	50	L	32/0	24.25	-19.60	-5	-14.60
M1	50	L	32/0	24.245	-20.48	-13	-7.48
M0	50	L	32/0	24.25	-23.13	-5	-18.13
M0	50	L	32/0	24.245	-24.90	-13	-11.90
M2	50	L	32/0	24.25	-17.80	-5	-12.80
M2	50	L	32/0	24.245	-17.58	-13	-4.58
M1	50	H	1/32	24.45	-16.01	-5	-11.01
M1	50	H	1/32	24.455	-25.49	-13	-12.49
M0	50	H	1/32	24.45	-21.81	-5	-16.81
M0	50	H	1/32	24.455	-27.99	-13	-14.99
M2	50	H	1/32	24.45	-16.62	-5	-11.62
M2	50	H	1/32	24.455	-26.11	-13	-13.11
M1	50	H	32/0	24.45	-16.56	-5	-11.56
M1	50	H	32/0	24.455	-16.90	-13	-3.90
M0	50	H	32/0	24.45	-22.42	-5	-17.42
M0	50	H	32/0	24.455	-23.32	-13	-10.32
M2	50	H	32/0	24.45	-16.08	-5	-11.08
M2	50	H	32/0	24.455	-17.14	-13	-4.14

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-16.03	-5	-11.03
M1	50	L	1/0	24.245	-27.63	-13	-14.63
M2	50	L	1/0	24.25	-16.28	-5	-11.28
M2	50	L	1/0	24.245	-26.62	-13	-13.62
M1	50	L	32/0	24.25	-22.68	-5	-17.68
M1	50	L	32/0	24.245	-26.46	-13	-13.46
M2	50	L	32/0	24.25	-21.01	-5	-16.01
M2	50	L	32/0	24.245	-24.29	-13	-11.29
M1	50	H	1/32	24.45	-15.99	-5	-10.99
M1	50	H	1/32	24.455	-26.02	-13	-13.02
M2	50	H	1/32	24.45	-16.20	-5	-11.20
M2	50	H	1/32	24.455	-25.20	-13	-12.20
M1	50	H	32/0	24.45	-18.24	-5	-13.24
M1	50	H	32/0	24.455	-23.10	-13	-10.10
M2	50	H	32/0	24.45	-19.88	-5	-14.88
M2	50	H	32/0	24.455	-24.20	-13	-11.20

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-17.53	-5	-12.53
M1	50	L	1/0	24.245	-28.14	-13	-15.14
M2	50	L	1/0	24.25	-16.99	-5	-11.99
M2	50	L	1/0	24.245	-27.59	-13	-14.59
M1	50	L	32/0	24.25	-24.19	-5	-19.19
M1	50	L	32/0	24.245	-25.42	-13	-12.42
M2	50	L	32/0	24.25	-22.52	-5	-17.52
M2	50	L	32/0	24.245	-23.67	-13	-10.67
M1	50	H	1/32	24.45	-16.96	-5	-11.96
M1	50	H	1/32	24.455	-26.69	-13	-13.69
M2	50	H	1/32	24.45	-19.42	-5	-14.42
M2	50	H	1/32	24.455	-26.39	-13	-13.39
M1	50	H	32/0	24.45	-20.70	-5	-15.70
M1	50	H	32/0	24.455	-22.80	-13	-9.80
M2	50	H	32/0	24.45	-22.15	-5	-17.15
M2	50	H	32/0	24.455	-22.61	-13	-9.61

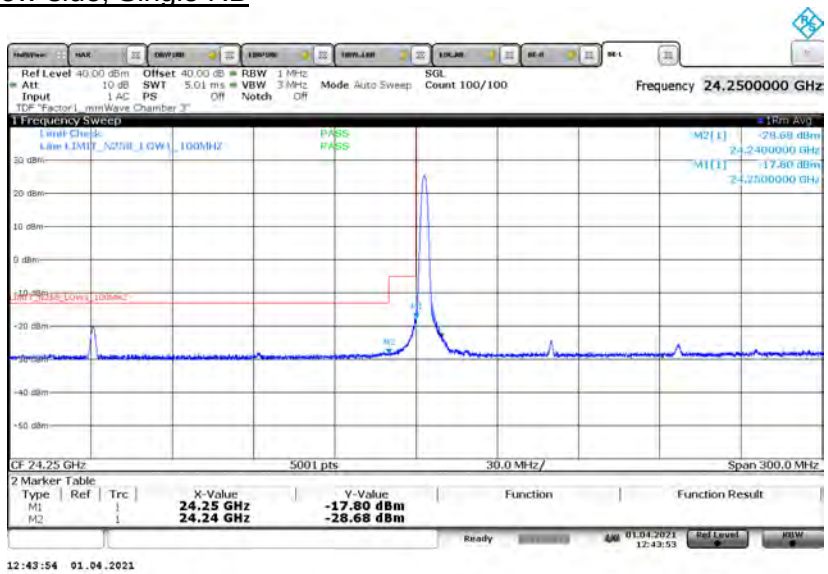
ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 64QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-19.25	-5	-14.25
M1	50	L	1/0	24.245	-28.45	-13	-15.45
M2	50	L	1/0	24.25	-17.81	-5	-12.81
M2	50	L	1/0	24.245	-27.66	-13	-14.66
M1	50	L	32/0	24.25	-24.80	-5	-19.80
M1	50	L	32/0	24.245	-26.64	-13	-13.64
M2	50	L	32/0	24.25	-24.76	-5	-19.76
M2	50	L	32/0	24.245	-27.17	-13	-14.17
M1	50	H	1/32	24.45	-20.73	-5	-15.73
M1	50	H	1/32	24.455	-26.87	-13	-13.87
M2	50	H	1/32	24.45	-21.77	-5	-16.77
M2	50	H	1/32	24.455	-27.11	-13	-14.11
M1	50	H	32/0	24.45	-24.84	-5	-19.84
M1	50	H	32/0	24.455	-25.44	-13	-12.44
M2	50	H	32/0	24.45	-24.38	-5	-19.38
M2	50	H	32/0	24.455	-25.60	-13	-12.60

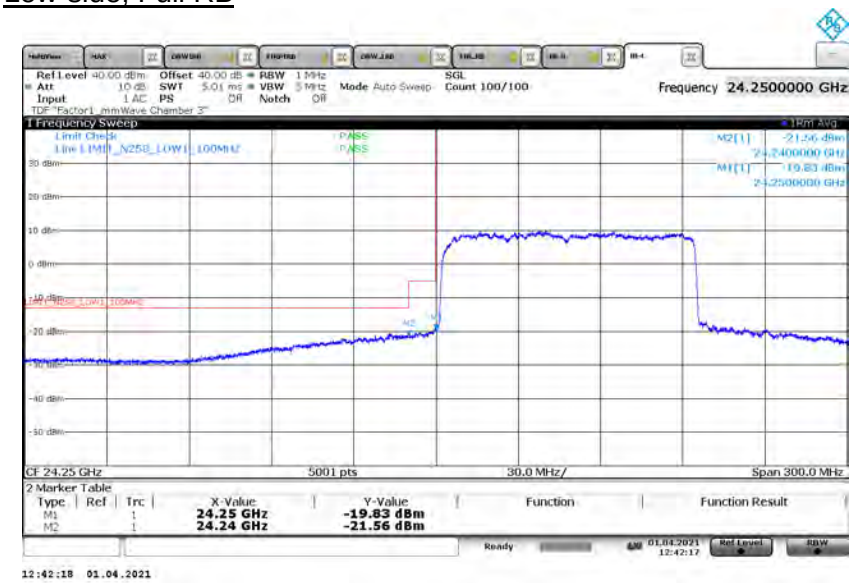
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



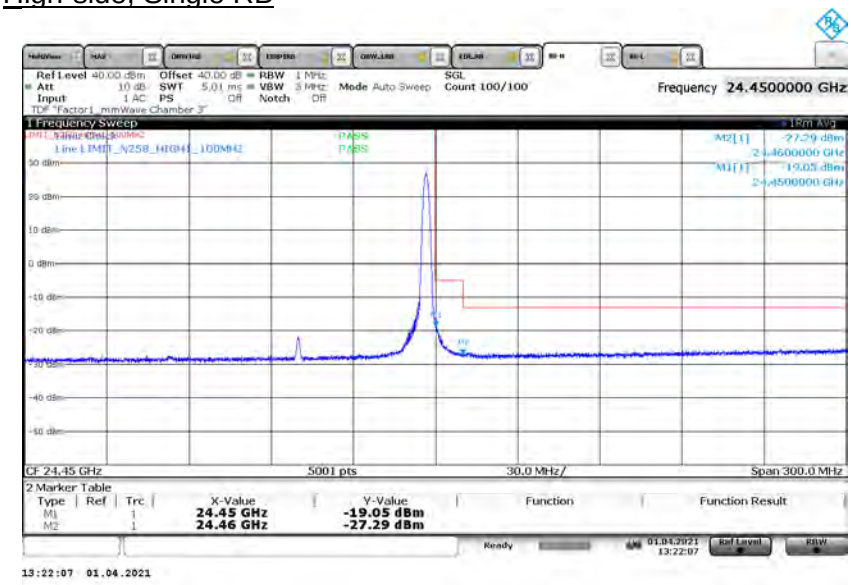
Low-side, Full RB



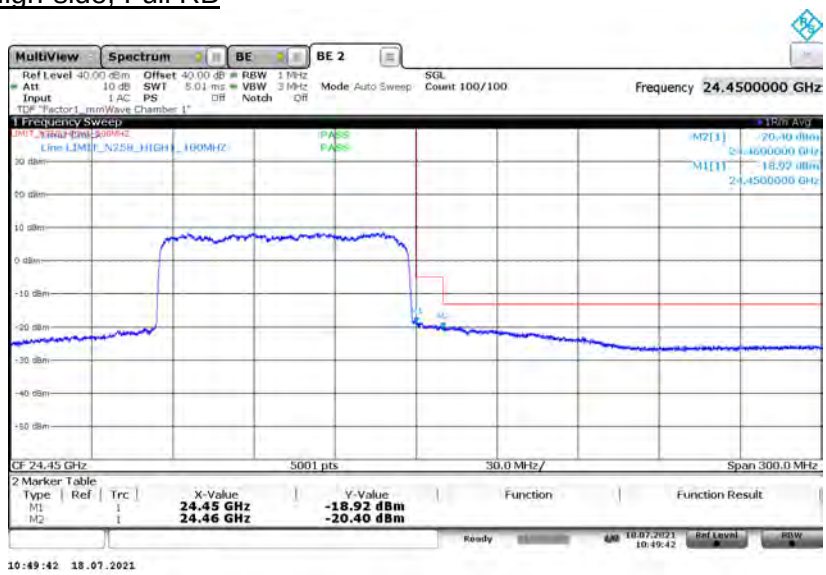
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 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	-17.80	-5	-12.80
M1	100	L	1/0	24.24	-28.68	-13	-15.68
M0	100	L	1/0	24.25	-23.96	-5	-18.96
M0	100	L	1/0	24.24	-29.25	-13	-16.25
M2	100	L	1/0	24.25	-17.87	-5	-12.87
M2	100	L	1/0	24.24	-28.68	-13	-15.68
M1	100	L	64/0	24.25	-19.83	-5	-14.83
M1	100	L	64/0	24.24	-21.56	-13	-8.56
M0	100	L	64/0	24.25	-26.71	-5	-21.71
M0	100	L	64/0	24.24	-27.08	-13	-14.08
M2	100	L	64/0	24.25	-20.17	-5	-15.17
M2	100	L	64/0	24.24	-21.68	-13	-8.68
M1	100	H	1/65	24.45	-19.05	-5	-14.05
M1	100	H	1/65	24.46	-27.26	-13	-14.26
M0	100	H	1/65	24.45	-22.49	-5	-17.49
M0	100	H	1/65	24.46	-27.71	-13	-14.71
M2	100	H	1/65	24.45	-17.29	-5	-12.29
M2	100	H	1/65	24.46	-27.20	-13	-14.20
M1	100	H	64/0	24.45	-18.92	-5	-13.92
M1	100	H	64/0	24.46	-20.40	-13	-7.40
M0	100	H	64/0	24.45	-23.31	-5	-18.31
M0	100	H	64/0	24.46	-24.36	-13	-11.36
M2	100	H	64/0	24.45	-19.10	-5	-14.10
M2	100	H	64/0	24.46	-20.40	-13	-7.40

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	24.25	-22.78	-5	-17.78
M1	100	L	64/0	24.24	-27.07	-13	-14.07
M2	100	L	64/0	24.25	-24.24	-5	-19.24
M2	100	L	64/0	24.24	-26.90	-13	-13.90
M1	100	H	64/0	24.45	-21.84	-5	-16.84
M1	100	H	64/0	24.46	-24.98	-13	-11.98
M2	100	H	64/0	24.45	-21.31	-5	-16.31
M2	100	H	64/0	24.46	-24.82	-13	-11.82

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	24.25	-25.06	-5	-20.06
M1	100	L	64/0	24.24	-25.01	-13	-12.01
M2	100	L	64/0	24.25	-24.79	-5	-19.79
M2	100	L	64/0	24.24	-25.68	-13	-12.68
M1	100	H	64/0	24.45	-23.78	-5	-18.78
M1	100	H	64/0	24.46	-23.69	-13	-10.69
M2	100	H	64/0	24.45	-23.57	-5	-18.57
M2	100	H	64/0	24.46	-23.91	-13	-10.91

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 64QAM

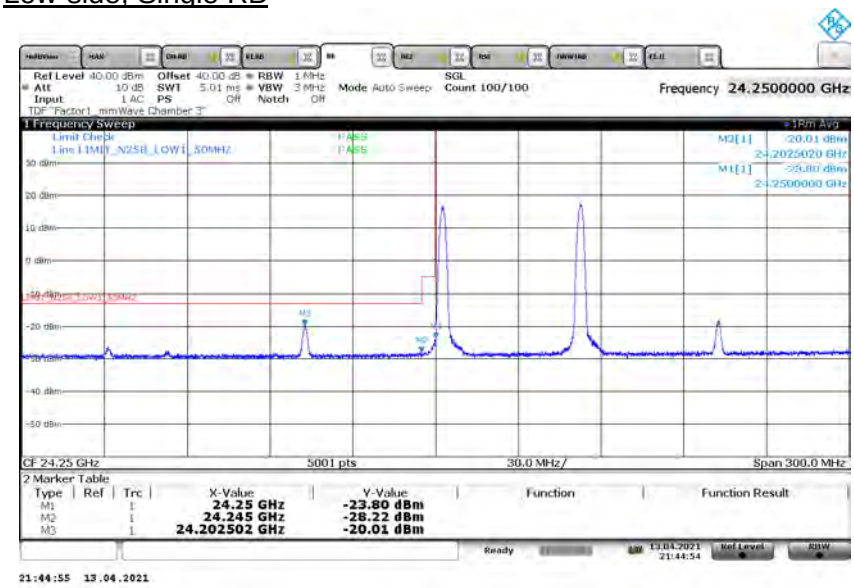
Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	64/0	24.25	-26.52	-5	-21.52
M1	100	L	64/0	24.24	-28.04	-13	-15.04
M2	100	L	64/0	24.25	-26.39	-5	-21.39
M2	100	L	64/0	24.24	-27.37	-13	-14.37
M1	100	H	64/0	24.45	-25.58	-5	-20.58
M1	100	H	64/0	24.46	-26.70	-13	-13.70
M2	100	H	64/0	24.45	-25.02	-5	-20.02
M2	100	H	64/0	24.46	-25.83	-13	-12.83

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.3.2. BAND EDGE n258 SB1 SISO-DUAL 2CC

ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

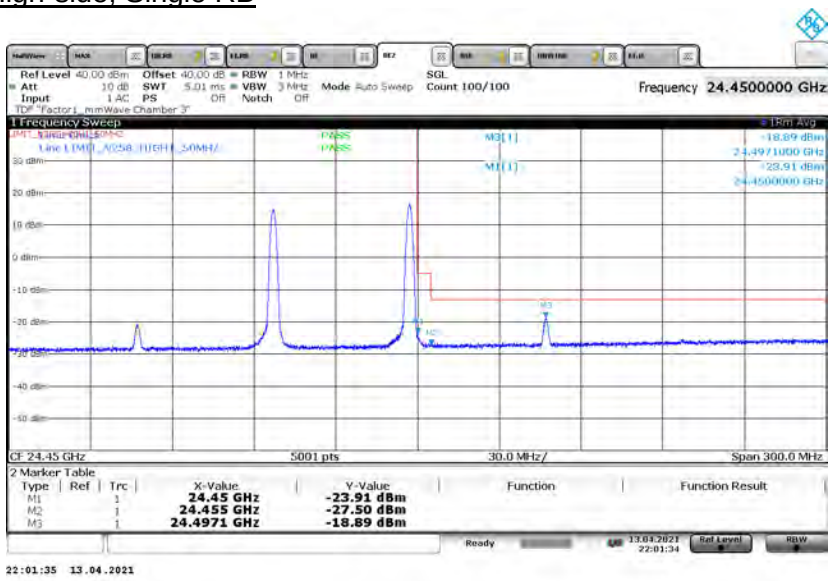
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 2CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-23.80	-5	-18.80
M1	50	L	1/0	24.245	-28.22	-13	-15.22
M0	50	L	1/0	24.25	-26.78	-5	-21.78
M0	50	L	1/0	24.245	-29.59	-13	-16.59
M2	50	L	1/0	24.25	-22.59	-5	-17.59
M2	50	L	1/0	24.245	-28.52	-13	-15.52
M1	50	H	1/32	24.45	-23.91	-5	-18.91
M1	50	H	1/32	24.455	-27.50	-13	-14.50
M0	50	H	1/32	24.45	-26.00	-5	-21.00
M0	50	H	1/32	24.455	-27.69	-13	-14.69
M2	50	H	1/32	24.45	-25.23	-5	-20.23
M2	50	H	1/32	24.455	-27.79	-13	-14.79

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-23.50	-5	-18.50
M1	50	L	1/0	24.245	-29.45	-13	-16.45
M2	50	L	1/0	24.25	-22.82	-5	-17.82
M2	50	L	1/0	24.245	-28.82	-13	-15.82
M1	50	H	1/32	24.45	-24.66	-5	-19.66
M1	50	H	1/32	24.455	-27.05	-13	-14.05
M2	50	H	1/32	24.45	-24.28	-5	-19.28
M2	50	H	1/32	24.455	-27.76	-13	-14.76

ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-23.34	-5	-18.34
M1	50	L	1/0	24.245	-29.52	-13	-16.52
M2	50	L	1/0	24.25	-26.26	-5	-21.26
M2	50	L	1/0	24.245	-29.07	-13	-16.07
M1	50	H	1/32	24.45	-25.42	-5	-20.42
M1	50	H	1/32	24.455	-27.78	-13	-14.78
M2	50	H	1/32	24.45	-26.57	-5	-21.57
M2	50	H	1/32	24.455	-27.44	-13	-14.44

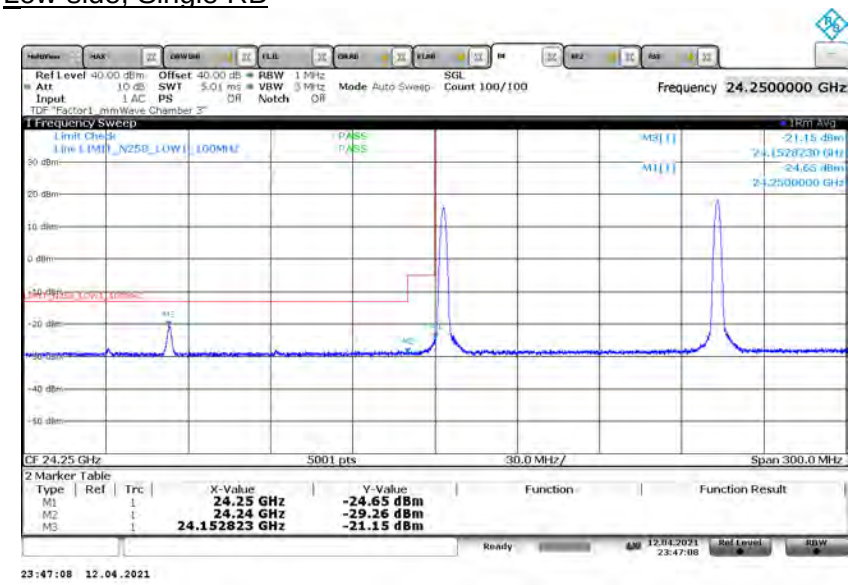
ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 64QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-25.41	-5	-20.41
M1	50	L	1/0	24.245	-28.73	-13	-15.73
M2	50	L	1/0	24.25	-24.45	-5	-19.45
M2	50	L	1/0	24.245	-28.85	-13	-15.85
M1	50	H	1/32	24.45	-27.06	-5	-22.06
M1	50	H	1/32	24.455	-27.59	-13	-14.59
M2	50	H	1/32	24.45	-26.17	-5	-21.17
M2	50	H	1/32	24.455	-27.75	-13	-14.75

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

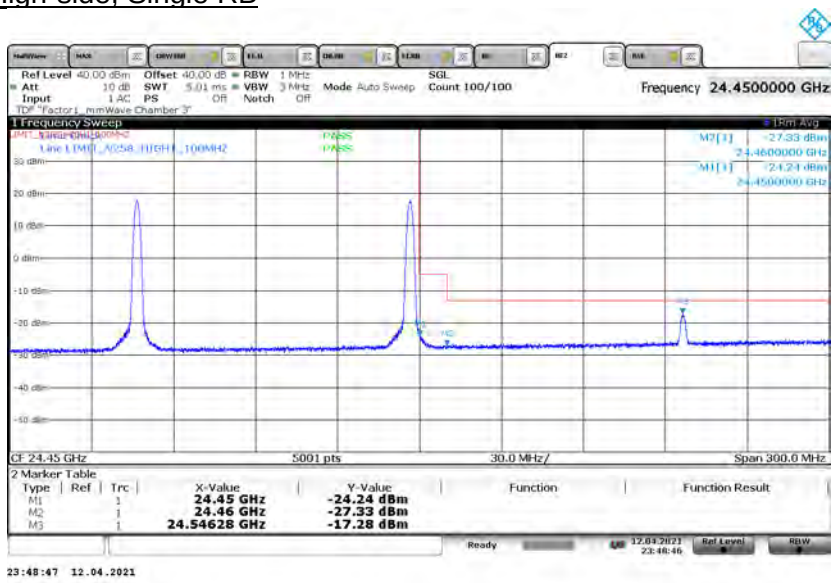
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, SISO-DUAL, 2CC, QPSK

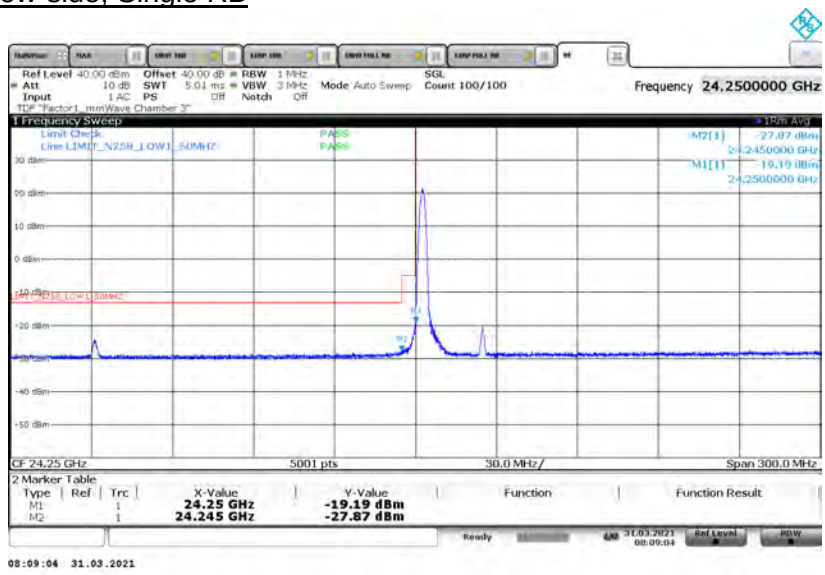
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	24.25	-24.65	-5	-19.65
M1	100	L	1/0	24.24	-29.26	-13	-16.26
M0	100	L	1/0	24.25	-27.16	-5	-22.16
M0	100	L	1/0	24.24	-29.40	-13	-16.40
M2	100	L	1/0	24.25	-25.50	-5	-20.50
M2	100	L	1/0	24.24	-28.85	-13	-15.85
M1	100	H	1/65	24.45	-24.24	-5	-19.24
M1	100	H	1/65	24.46	-27.33	-13	-14.33
M0	100	H	1/65	24.45	-26.11	-5	-21.11
M0	100	H	1/65	24.46	-27.78	-13	-14.78
M2	100	H	1/65	24.45	-25.24	-5	-20.24
M2	100	H	1/65	24.46	-27.25	-13	-14.25

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

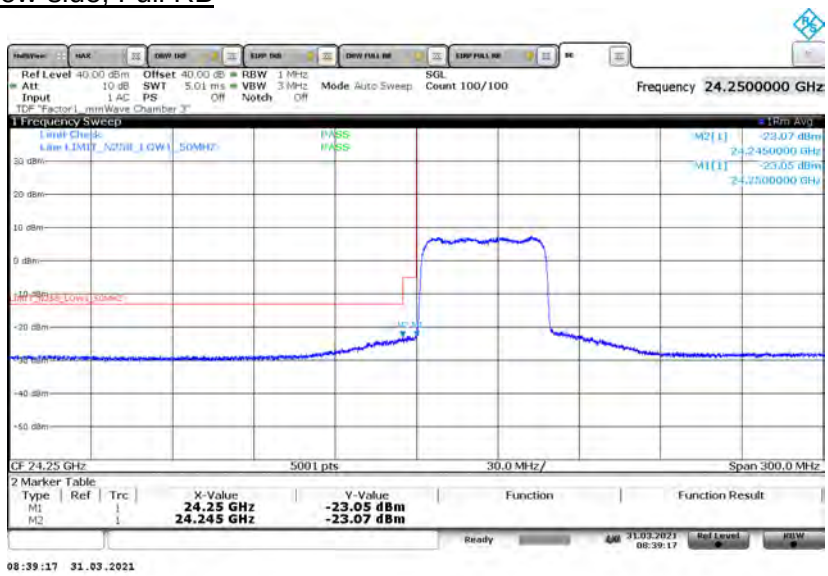
8.3.3. BAND EDGE n258 SB1 MIMO 1CC

ANT M1, 50 MHz, MIMO, 1CC, QPSK

Low-side, Single RB



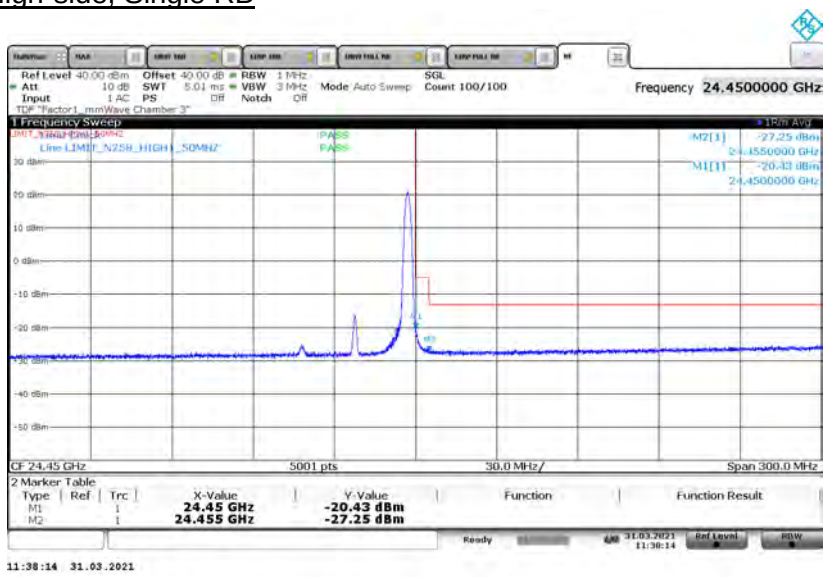
Low-side, Full RB



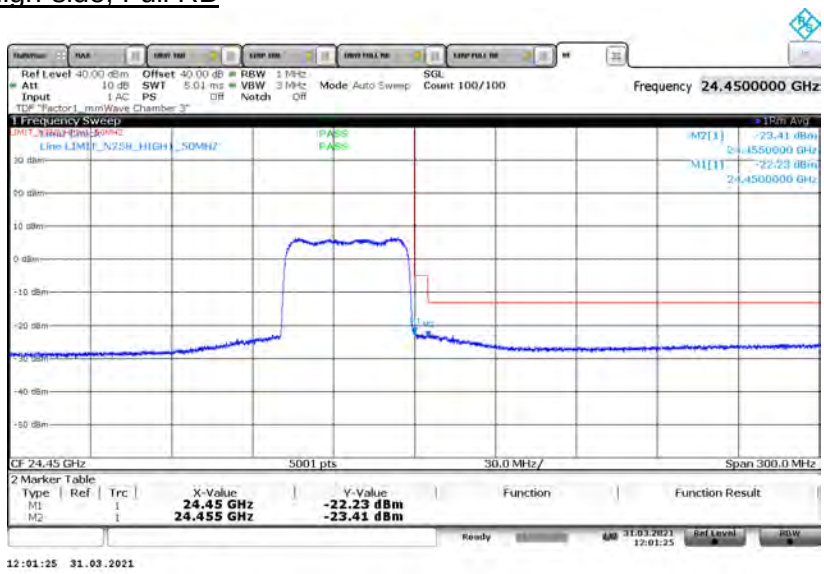
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

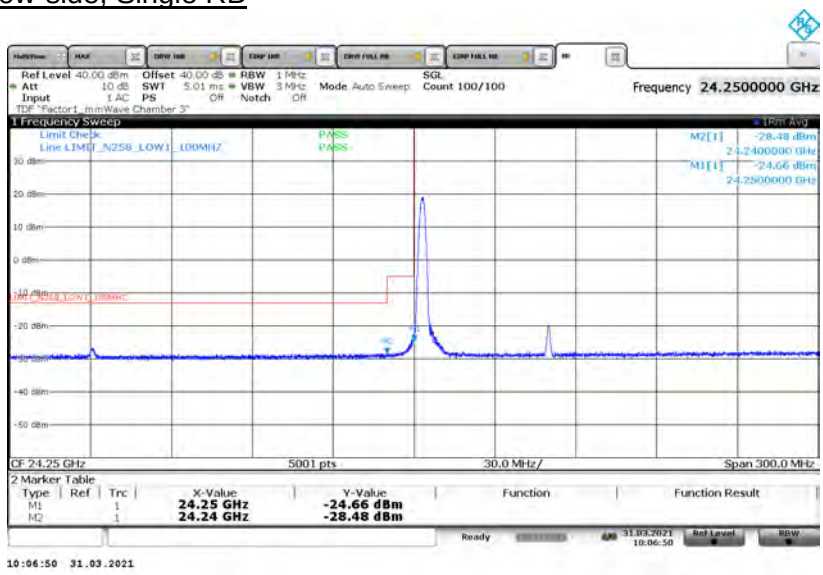
ANT M1, M0 & M2, 50 MHz, MIMO, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-19.19	-5	-14.19
M1	50	L	1/0	24.245	-27.87	-13	-14.87
M0	50	L	1/0	24.25	-22.93	-5	-17.93
M0	50	L	1/0	24.245	-28.12	-13	-15.12
M2	50	L	1/0	24.25	-17.22	-5	-12.22
M2	50	L	1/0	24.245	-27.88	-13	-14.88
M1	50	L	32/0	24.25	-23.05	-5	-18.05
M1	50	L	32/0	24.245	-23.07	-13	-10.07
M0	50	L	32/0	24.25	-25.71	-5	-20.71
M0	50	L	32/0	24.245	-25.23	-13	-12.23
M2	50	L	32/0	24.25	-20.77	-5	-15.77
M2	50	L	32/0	24.245	-20.83	-13	-7.83
M1	50	H	1/32	24.45	-20.43	-5	-15.43
M1	50	H	1/32	24.455	-27.25	-13	-14.25
M0	50	H	1/32	24.45	-24.76	-5	-19.76
M0	50	H	1/32	24.455	-27.51	-13	-14.51
M2	50	H	1/32	24.45	-18.50	-5	-13.50
M2	50	H	1/32	24.455	-26.40	-13	-13.40
M1	50	H	32/0	24.45	-22.23	-5	-17.23
M1	50	H	32/0	24.455	-23.41	-13	-10.41
M0	50	H	32/0	24.45	-24.15	-5	-19.15
M0	50	H	32/0	24.455	-24.94	-13	-11.94
M2	50	H	32/0	24.45	-19.49	-5	-14.49
M2	50	H	32/0	24.455	-20.64	-13	-7.64

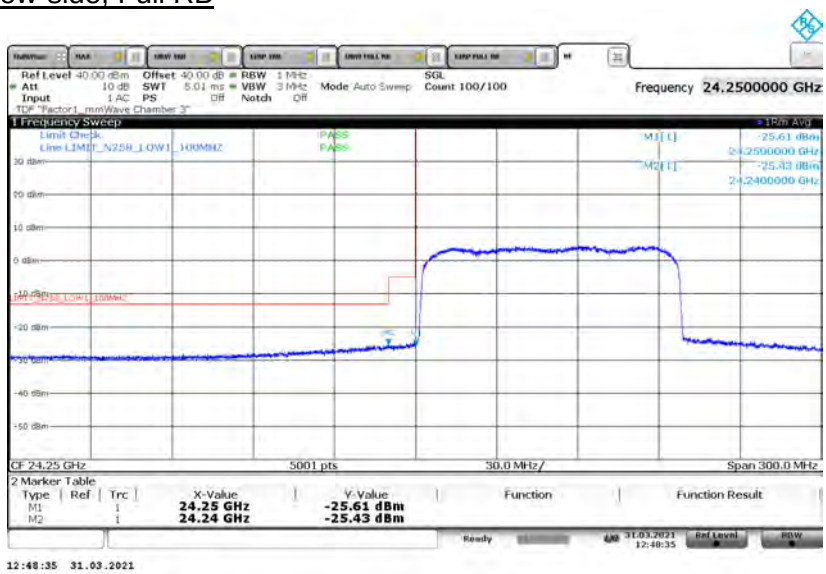
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 1CC, QPSK

Low-side, Single RB



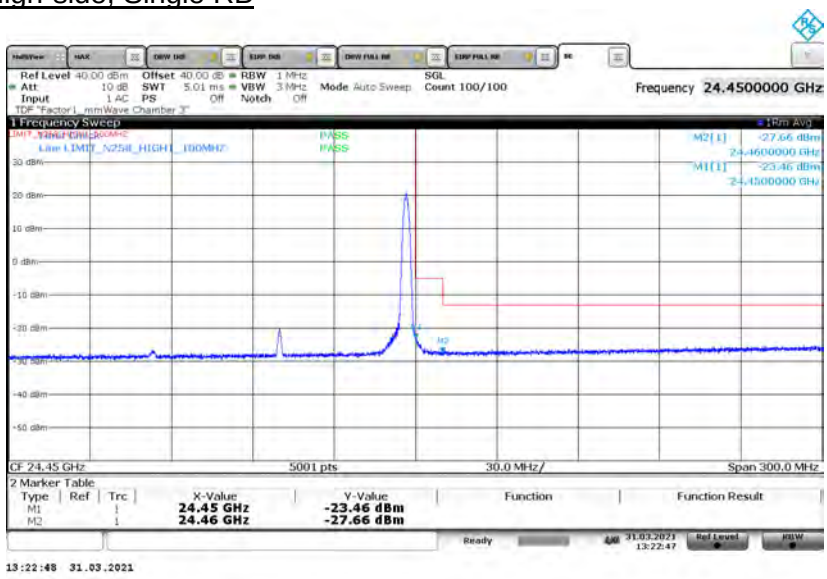
Low-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, MIMO, 1CC, QPSK

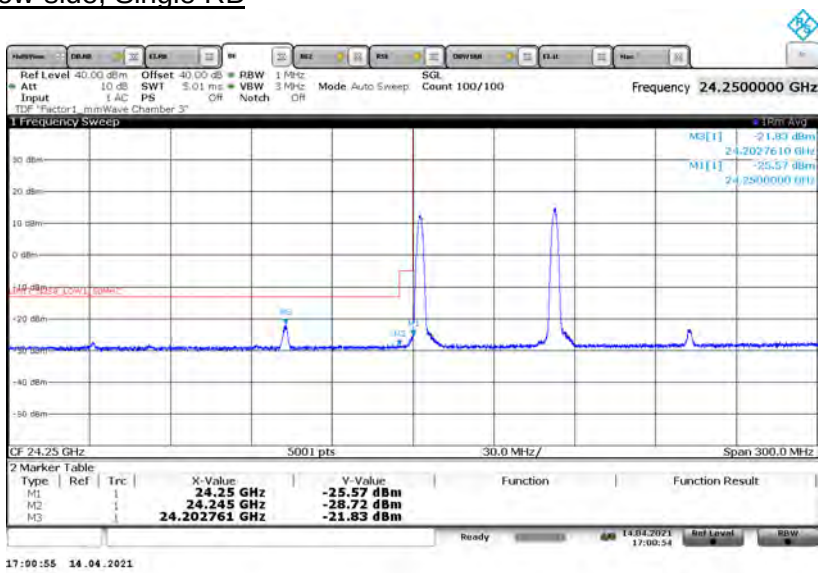
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	24.25	-24.66	-5	-19.66
M1	100	L	1/0	24.24	-28.48	-13	-15.48
M0	100	L	1/0	24.25	-24.44	-5	-19.44
M0	100	L	1/0	24.24	-29.24	-13	-16.24
M2	100	L	1/0	24.25	-21.44	-5	-16.44
M2	100	L	1/0	24.24	-28.94	-13	-15.94
M1	100	L	66/0	24.25	-25.61	-5	-20.61
M1	100	L	66/0	24.24	-25.43	-13	-12.43
M0	100	L	66/0	24.25	-27.24	-5	-22.24
M0	100	L	66/0	24.24	-27.48	-13	-14.48
M2	100	L	66/0	24.25	-23.24	-5	-18.24
M2	100	L	66/0	24.24	-24.37	-13	-11.37
M1	100	H	1/65	24.45	-23.46	-5	-18.46
M1	100	H	1/65	24.46	-27.66	-13	-14.66
M0	100	H	1/65	24.45	-24.23	-5	-19.23
M0	100	H	1/65	24.46	-27.43	-13	-14.43
M2	100	H	1/65	24.45	-21.86	-5	-16.86
M2	100	H	1/65	24.46	-28.03	-13	-15.03
M1	100	H	66/0	24.45	-23.91	-5	-18.91
M1	100	H	66/0	24.46	-24.47	-13	-11.47
M0	100	H	66/0	24.45	-25.31	-5	-20.31
M0	100	H	66/0	24.46	-25.83	-13	-12.83
M2	100	H	66/0	24.45	-22.75	-5	-17.75
M2	100	H	66/0	24.46	-22.86	-13	-9.86

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.3.4. BAND EDGE n258 SB1 MIMO 2CC

ANT M1, 50 MHz, MIMO, 2CC, QPSK

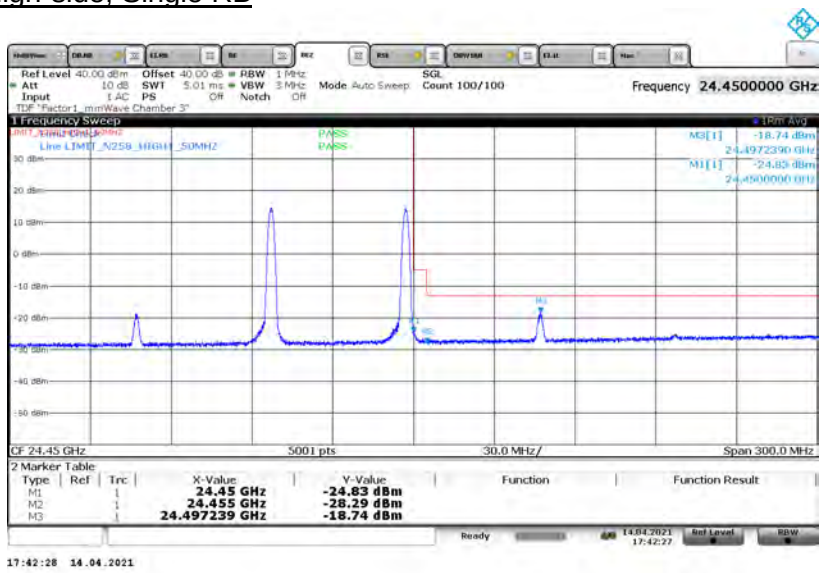
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, MIMO, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

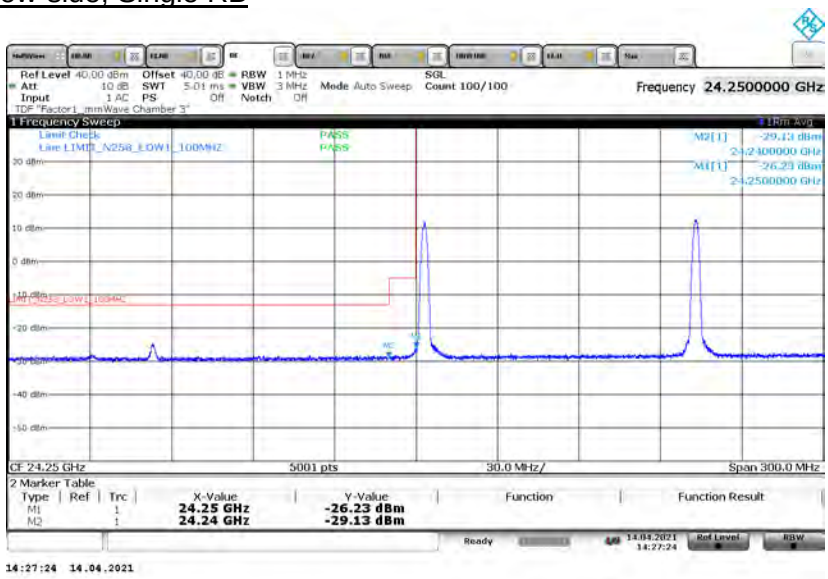
ANT M1, M0 & M2, 50 MHz, MIMO, 2CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.25	-25.57	-5	-20.57
M1	50	L	1/0	24.245	-28.72	-13	-15.72
M0	50	L	1/0	24.25	-26.25	-5	-21.25
M0	50	L	1/0	24.245	-29.20	-13	-16.20
M2	50	L	1/0	24.25	-23.02	-5	-18.02
M2	50	L	1/0	24.245	-28.77	-13	-15.77
M1	50	H	1/32	24.45	-24.83	-5	-19.83
M1	50	H	1/32	24.455	-28.29	-13	-15.29
M0	50	H	1/32	24.45	-25.41	-5	-20.41
M0	50	H	1/32	24.455	-27.93	-13	-14.93
M2	50	H	1/32	24.45	-24.95	-5	-19.95
M2	50	H	1/32	24.455	-27.65	-13	-14.65

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 2CC, QPSK

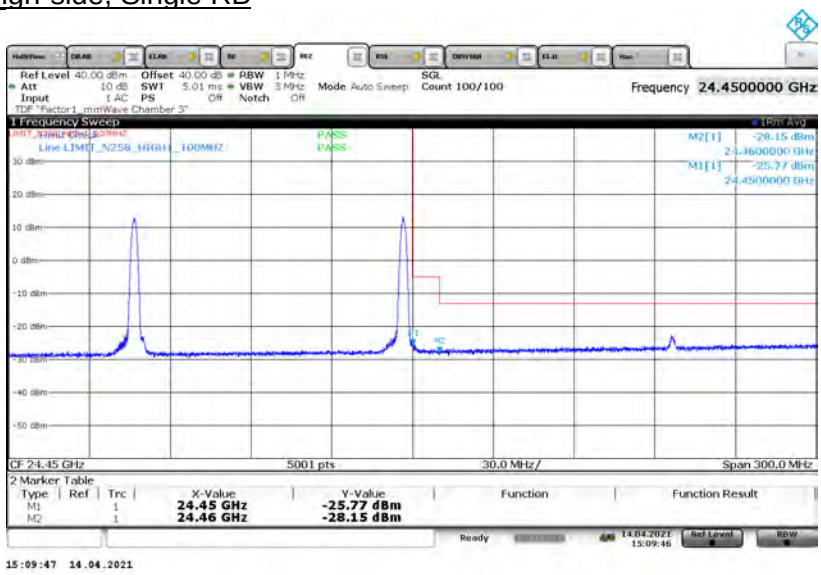
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, MIMO, 2CC, QPSK

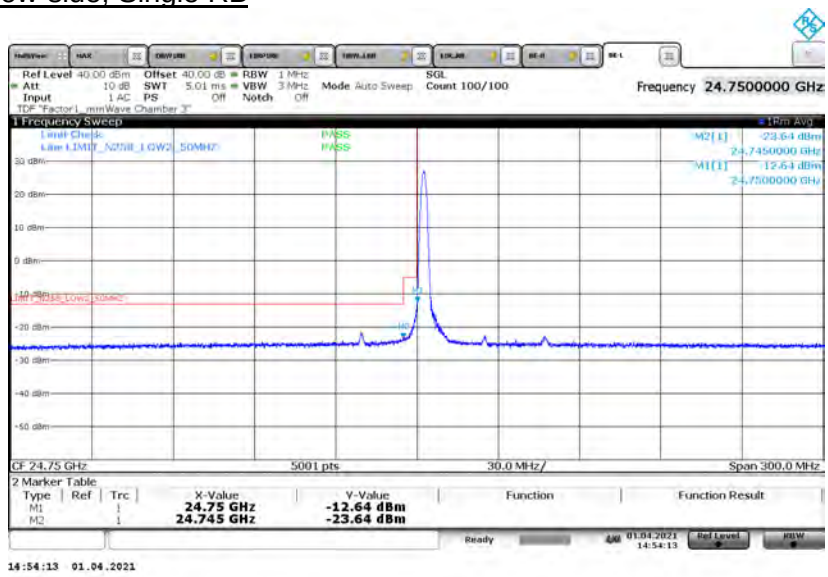
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	24.25	-26.23	-5	-21.23
M1	100	L	1/0	24.245	-29.13	-13	-16.13
M0	100	L	1/0	24.25	-25.25	-5	-20.25
M0	100	L	1/0	24.245	-28.92	-13	-15.92
M2	100	L	1/0	24.25	-26.54	-5	-21.54
M2	100	L	1/0	24.245	-28.88	-13	-15.88
M1	100	H	1/65	24.45	-25.77	-5	-20.77
M1	100	H	1/65	24.455	-28.15	-13	-15.15
M0	100	H	1/65	24.45	-25.99	-5	-20.99
M0	100	H	1/65	24.455	-27.95	-13	-14.95
M2	100	H	1/65	24.45	-24.62	-5	-19.62
M2	100	H	1/65	24.455	-27.64	-13	-14.64

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

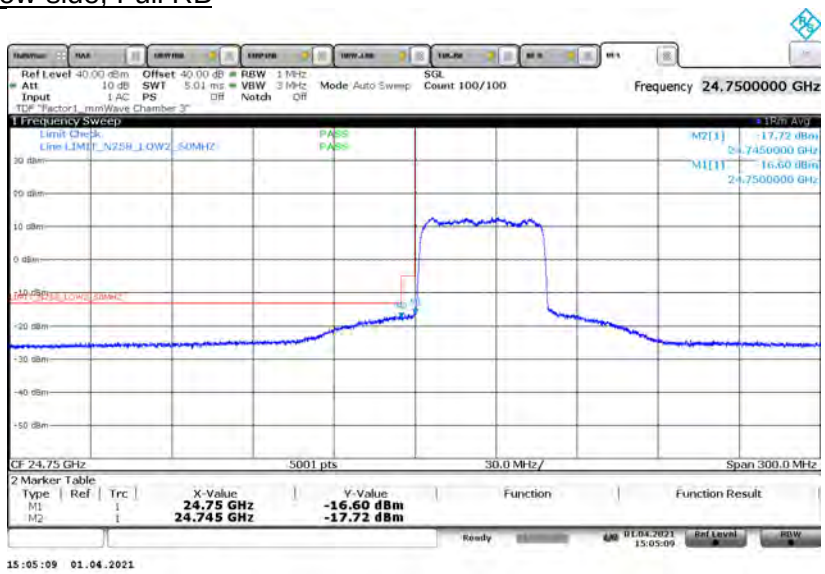
8.3.5. BAND EDGE n258 SB2 SISO-DUAL 1CC

ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



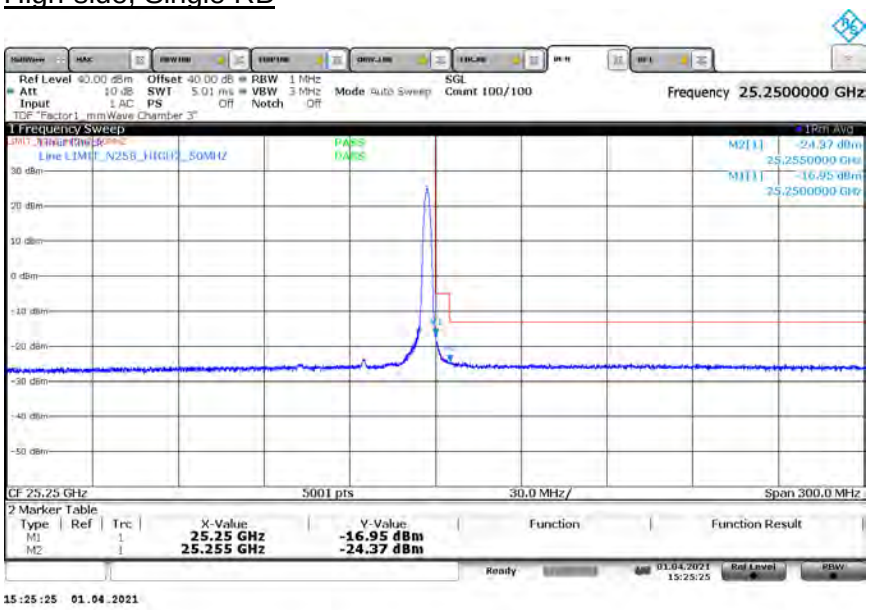
Low-side, Full RB



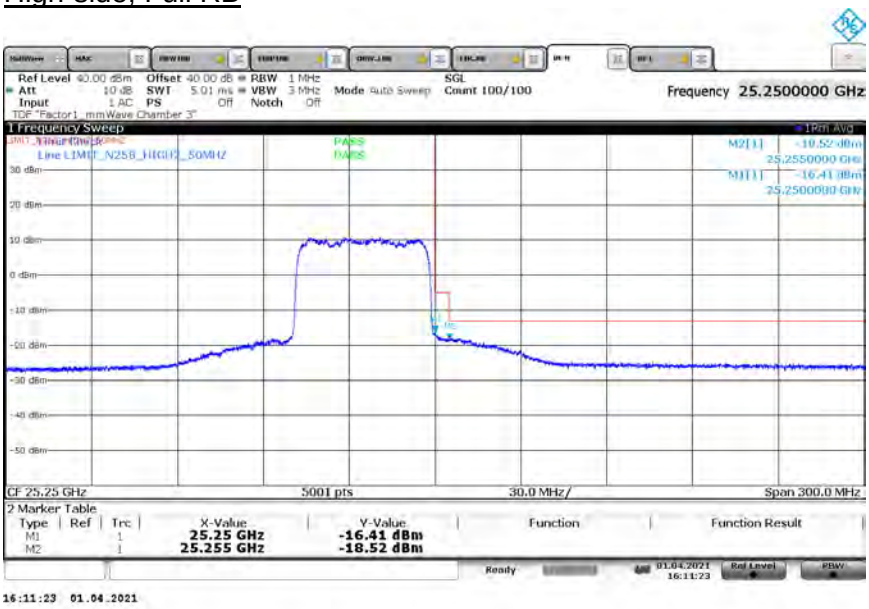
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.75	-12.64	-5	-7.64
M1	50	L	1/0	24.745	-23.64	-13	-10.64
M0	50	L	1/0	24.75	-18.33	-5	-13.33
M0	50	L	1/0	24.745	-24.46	-13	-11.46
M2	50	L	1/0	24.75	-13.29	-5	-8.29
M2	50	L	1/0	24.745	-23.82	-13	-10.82
M1	50	L	32/0	24.75	-16.60	-5	-11.60
M1	50	L	32/0	24.745	-17.72	-13	-4.72
M0	50	L	32/0	24.75	-21.89	-5	-16.89
M0	50	L	32/0	24.745	-23.02	-13	-10.02
M2	50	L	32/0	24.75	-17.06	-5	-12.06
M2	50	L	32/0	24.745	-17.49	-13	-4.49
M1	50	H	1/32	25.25	-16.95	-5	-11.95
M1	50	H	1/32	25.255	-24.37	-13	-11.37
M0	50	H	1/32	25.25	-21.95	-5	-16.95
M0	50	H	1/32	25.255	-25.58	-13	-12.58
M2	50	H	1/32	25.25	-17.92	-5	-12.92
M2	50	H	1/32	25.255	-24.40	-13	-11.40
M1	50	H	32/0	25.25	-16.41	-5	-11.41
M1	50	H	32/0	25.255	-18.52	-13	-5.52
M0	50	H	32/0	25.25	-22.71	-5	-17.71
M0	50	H	32/0	25.255	-23.18	-13	-10.18
M2	50	H	32/0	25.25	-18.09	-5	-13.09
M2	50	H	32/0	25.255	-20.03	-13	-7.03

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.75	-13.78	-5	-8.78
M1	50	L	1/0	24.745	-23.55	-13	-10.55
M2	50	L	1/0	24.75	-14.28	-5	-9.28
M2	50	L	1/0	24.745	-23.26	-13	-10.26
M1	50	L	32/0	24.75	-19.77	-5	-14.77
M1	50	L	32/0	24.745	-23.27	-13	-10.27
M2	50	L	32/0	24.75	-19.63	-5	-14.63
M2	50	L	32/0	24.745	-22.86	-13	-9.86
M1	50	H	1/32	25.25	-18.42	-5	-13.42
M1	50	H	1/32	25.255	-25.23	-13	-12.23
M2	50	H	1/32	25.25	-16.30	-5	-11.30
M2	50	H	1/32	25.255	-24.49	-13	-11.49
M1	50	H	32/0	25.25	-20.24	-5	-15.24
M1	50	H	32/0	25.255	-23.34	-13	-10.34
M2	50	H	32/0	25.25	-21.86	-5	-16.86
M2	50	H	32/0	25.255	-23.95	-13	-10.95

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.75	-15.50	-5	-10.50
M1	50	L	1/0	24.745	-23.68	-13	-10.68
M2	50	L	1/0	24.75	-17.16	-5	-12.16
M2	50	L	1/0	24.745	-24.17	-13	-11.17
M1	50	L	32/0	24.75	-20.16	-5	-15.16
M1	50	L	32/0	24.745	-22.29	-13	-9.29
M2	50	L	32/0	24.75	-21.00	-5	-16.00
M2	50	L	32/0	24.745	-22.33	-13	-9.33
M1	50	H	1/32	25.25	-20.23	-5	-15.23
M1	50	H	1/32	25.255	-25.10	-13	-12.10
M2	50	H	1/32	25.25	-18.32	-5	-13.32
M2	50	H	1/32	25.255	-24.64	-13	-11.64
M1	50	H	32/0	25.25	-22.09	-5	-17.09
M1	50	H	32/0	25.255	-22.78	-13	-9.78
M2	50	H	32/0	25.25	-22.25	-5	-17.25
M2	50	H	32/0	25.255	-22.15	-13	-9.15

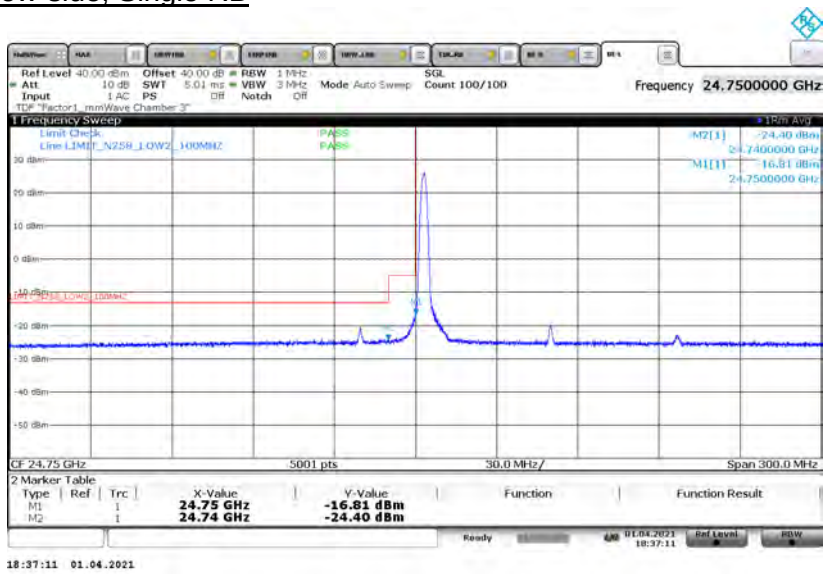
ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 64QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.75	-17.71	-5	-12.71
M1	50	L	1/0	24.745	-24.82	-13	-11.82
M2	50	L	1/0	24.75	-17.75	-5	-12.75
M2	50	L	1/0	24.745	-24.99	-13	-11.99
M1	50	L	32/0	24.75	-22.79	-5	-17.79
M1	50	L	32/0	24.745	-23.53	-13	-10.53
M2	50	L	32/0	24.75	-22.01	-5	-17.01
M2	50	L	32/0	24.745	-23.28	-13	-10.28
M1	50	H	1/32	25.25	-21.04	-5	-16.04
M1	50	H	1/32	25.255	-25.42	-13	-12.42
M2	50	H	1/32	25.25	-21.01	-5	-16.01
M2	50	H	1/32	25.255	-25.31	-13	-12.31
M1	50	H	32/0	25.25	-23.19	-5	-18.19
M1	50	H	32/0	25.255	-23.97	-13	-10.97
M2	50	H	32/0	25.25	-23.47	-5	-18.47
M2	50	H	32/0	25.255	-24.13	-13	-11.13

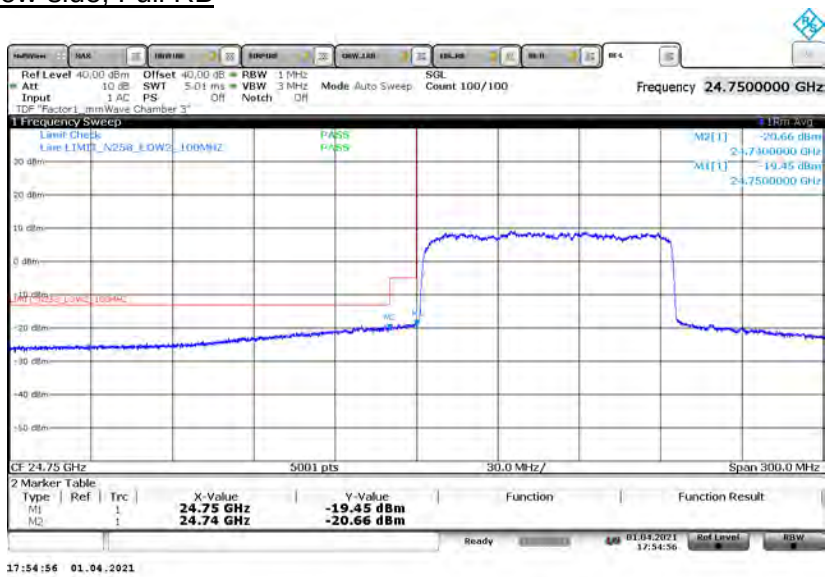
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



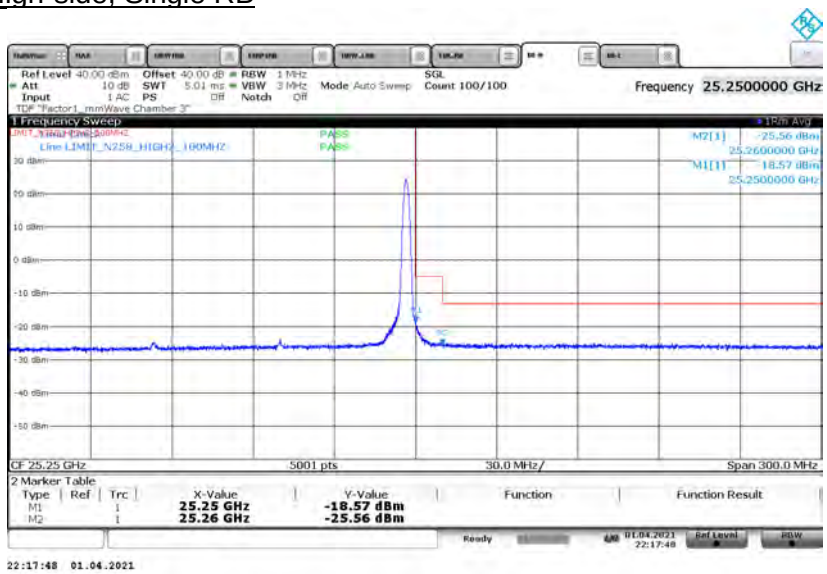
Low-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 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	24.75	-16.81	-5	-11.81
M1	100	L	1/0	24.74	-24.40	-13	-11.40
M0	100	L	1/0	24.75	-21.07	-5	-16.07
M0	100	L	1/0	24.74	-25.12	-13	-12.12
M2	100	L	1/0	24.75	-17.23	-5	-12.23
M2	100	L	1/0	24.74	-25.20	-13	-12.20
M1	100	L	64/0	24.75	-19.45	-5	-14.45
M1	100	L	64/0	24.74	-20.66	-13	-7.66
M0	100	L	64/0	24.75	-24.14	-5	-19.14
M0	100	L	64/0	24.74	-23.94	-13	-10.94
M2	100	L	64/0	24.75	-18.71	-5	-13.71
M2	100	L	64/0	24.74	-20.90	-13	-7.90
M1	100	H	1/65	25.25	-18.57	-5	-13.57
M1	100	H	1/65	25.26	-25.56	-13	-12.56
M0	100	H	1/65	25.25	-21.93	-5	-16.93
M0	100	H	1/65	25.26	-25.53	-13	-12.53
M2	100	H	1/65	25.25	-17.70	-5	-12.70
M2	100	H	1/65	25.26	-25.61	-13	-12.61
M1	100	H	64/0	25.25	-18.10	-5	-13.10
M1	100	H	64/0	25.26	-20.47	-13	-7.47
M0	100	H	64/0	25.25	-25.25	-5	-20.25
M0	100	H	64/0	25.26	-24.76	-13	-11.76
M2	100	H	64/0	25.25	-20.07	-5	-15.07
M2	100	H	64/0	25.26	-20.83	-13	-7.83

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	24.75	-22.47	-5	-17.47
M1	100	L	64/0	24.74	-24.12	-13	-11.12
M2	100	L	64/0	24.75	-22.89	-5	-17.89
M2	100	L	64/0	24.74	-23.70	-13	-10.70
M1	100	H	64/0	25.25	-21.18	-5	-16.18
M1	100	H	64/0	25.26	-24.06	-13	-11.06
M2	100	H	64/0	25.25	-21.73	-5	-16.73
M2	100	H	64/0	25.26	-24.46	-13	-11.46

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	24.75	-22.82	-5	-17.82
M1	100	L	64/0	24.74	-23.07	-13	-10.07
M2	100	L	64/0	24.75	-21.66	-5	-16.66
M2	100	L	64/0	24.74	-23.90	-13	-10.90
M1	100	H	64/0	25.25	-22.64	-5	-17.64
M1	100	H	64/0	25.26	-23.30	-13	-10.30
M2	100	H	64/0	25.25	-24.12	-5	-19.12
M2	100	H	64/0	25.26	-24.98	-13	-11.98

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 64QAM

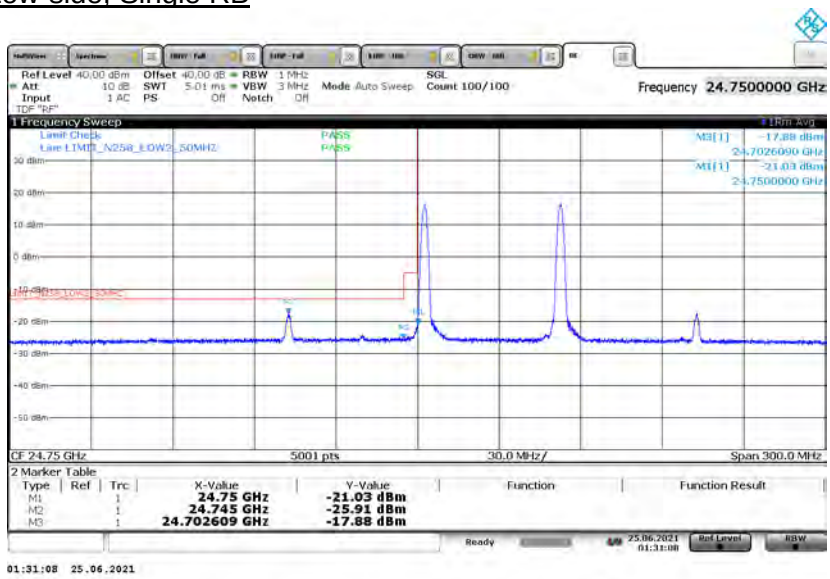
Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	64/0	24.75	-24.32	-5	-19.32
M1	100	L	64/0	24.74	-24.43	-13	-11.43
M2	100	L	64/0	24.75	-24.27	-5	-19.27
M2	100	L	64/0	24.74	-24.42	-13	-11.42
M1	100	H	64/0	25.25	-24.38	-5	-19.38
M1	100	H	64/0	25.26	-24.75	-13	-11.75
M2	100	H	64/0	25.25	-25.00	-5	-20.00
M2	100	H	64/0	25.26	-25.26	-13	-12.26

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.3.6. BAND EDGE n258 SB2 SISO-DUAL 2CC

ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

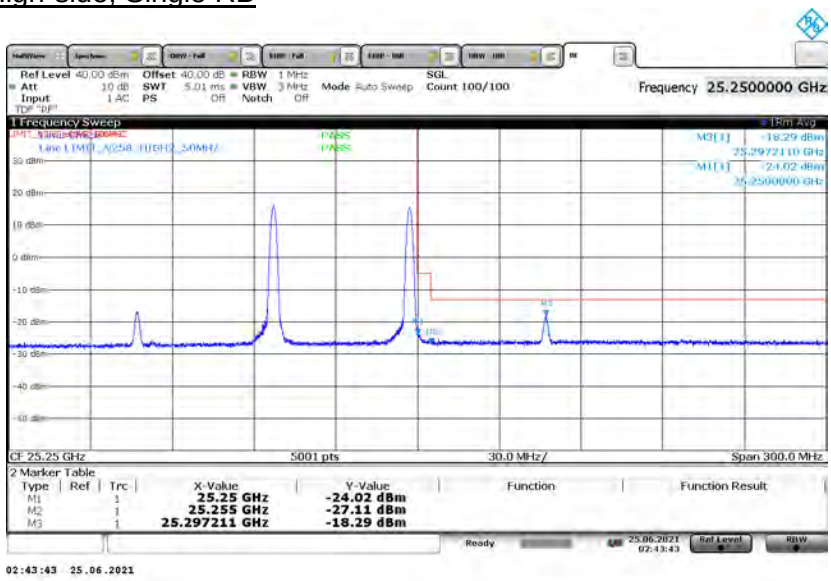
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 2CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.75	-21.03	-5	-16.03
M1	50	L	1/0	24.745	-25.91	-13	-12.91
M0	50	L	1/0	24.75	-23.04	-5	-18.04
M0	50	L	1/0	24.745	-25.72	-13	-12.72
M2	50	L	1/0	24.75	-20.58	-5	-15.58
M2	50	L	1/0	24.745	-25.70	-13	-12.70
M1	50	H	1/32	25.25	-24.02	-5	-19.02
M1	50	H	1/32	25.255	-27.11	-13	-14.11
M0	50	H	1/32	25.25	-25.84	-5	-20.84
M0	50	H	1/32	25.255	-27.34	-13	-14.34
M2	50	H	1/32	25.25	-23.92	-5	-18.92
M2	50	H	1/32	25.255	-26.55	-13	-13.55

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.75	-21.00	-5	-16.00
M1	50	L	1/0	24.745	-25.41	-13	-12.41
M2	50	L	1/0	24.75	-21.54	-5	-16.54
M2	50	L	1/0	24.745	-24.93	-13	-11.93
M1	50	H	1/32	25.25	-23.56	-5	-18.56
M1	50	H	1/32	25.255	-26.91	-13	-13.91
M2	50	H	1/32	25.25	-23.53	-5	-18.53
M2	50	H	1/32	25.255	-26.38	-13	-13.38

ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.75	-22.31	-5	-17.31
M1	50	L	1/0	24.745	-25.92	-13	-12.92
M2	50	L	1/0	24.75	-21.56	-5	-16.56
M2	50	L	1/0	24.745	-25.49	-13	-12.49
M1	50	H	1/32	25.25	-23.69	-5	-18.69
M1	50	H	1/32	25.255	-26.01	-13	-13.01
M2	50	H	1/32	25.25	-23.59	-5	-18.59
M2	50	H	1/32	25.255	-26.67	-13	-13.67

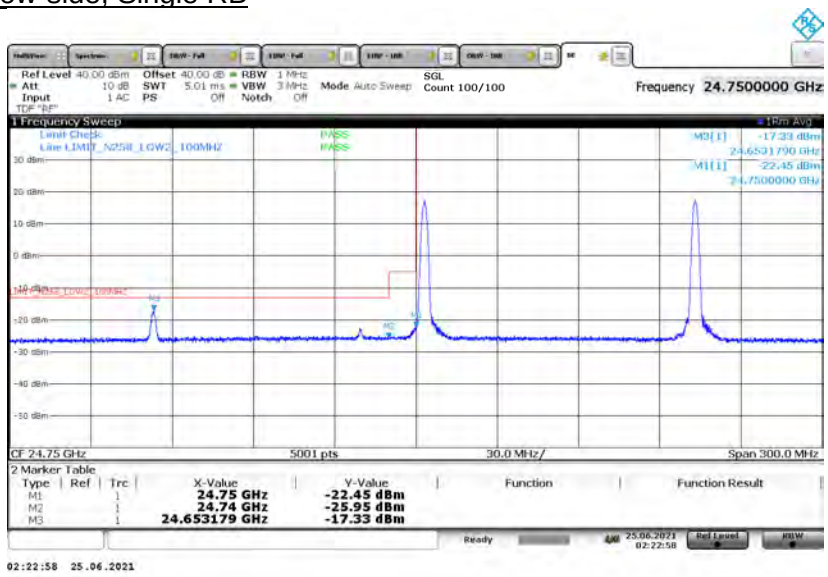
ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 64QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.75	-22.48	-5	-17.48
M1	50	L	1/0	24.745	-25.59	-13	-12.59
M2	50	L	1/0	24.75	-22.61	-5	-17.61
M2	50	L	1/0	24.745	-25.64	-13	-12.64
M1	50	H	1/32	25.25	-24.67	-5	-19.67
M1	50	H	1/32	25.255	-26.46	-13	-13.46
M2	50	H	1/32	25.25	-24.34	-5	-19.34
M2	50	H	1/32	25.255	-26.56	-13	-13.56

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

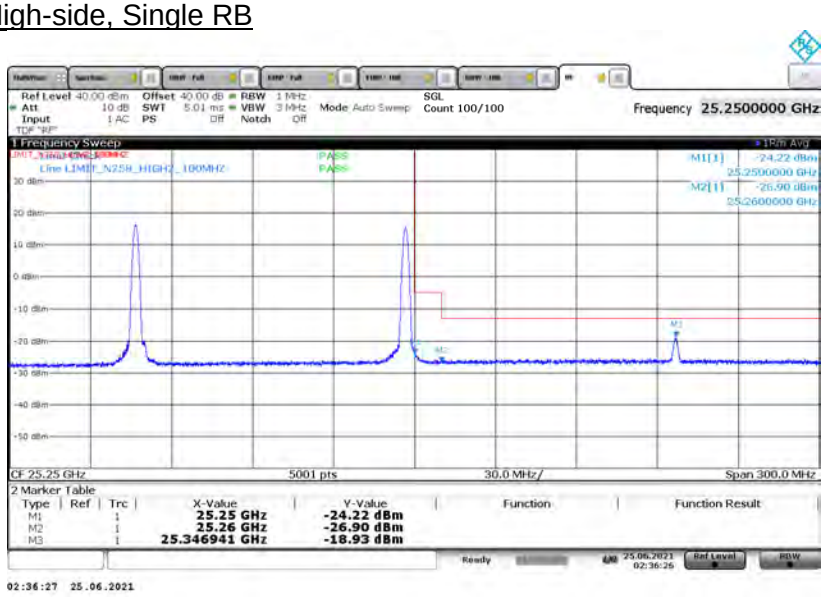
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, SISO-DUAL, 2CC, QPSK

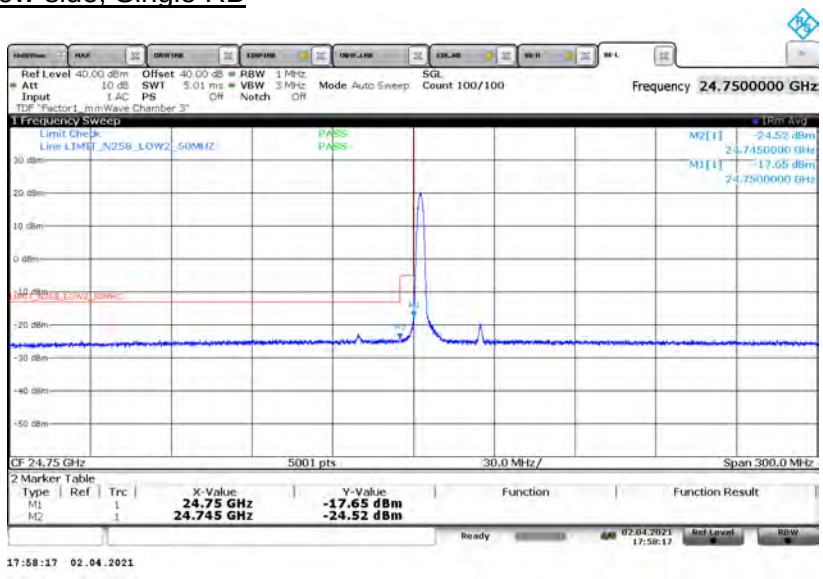
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	24.75	-22.45	-5	-17.45
M1	100	L	1/0	24.74	-25.95	-13	-12.95
M0	100	L	1/0	24.75	-24.64	-5	-19.64
M0	100	L	1/0	24.74	-26.46	-13	-13.46
M2	100	L	1/0	24.75	-23.12	-5	-18.12
M2	100	L	1/0	24.74	-25.97	-13	-12.97
M1	100	H	1/65	25.25	-24.22	-5	-19.22
M1	100	H	1/65	25.26	-26.90	-13	-13.90
M0	100	H	1/65	25.25	-25.44	-5	-20.44
M0	100	H	1/65	25.26	-26.46	-13	-13.46
M2	100	H	1/65	25.25	-22.98	-5	-17.98
M2	100	H	1/65	25.26	-27.43	-13	-14.43

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

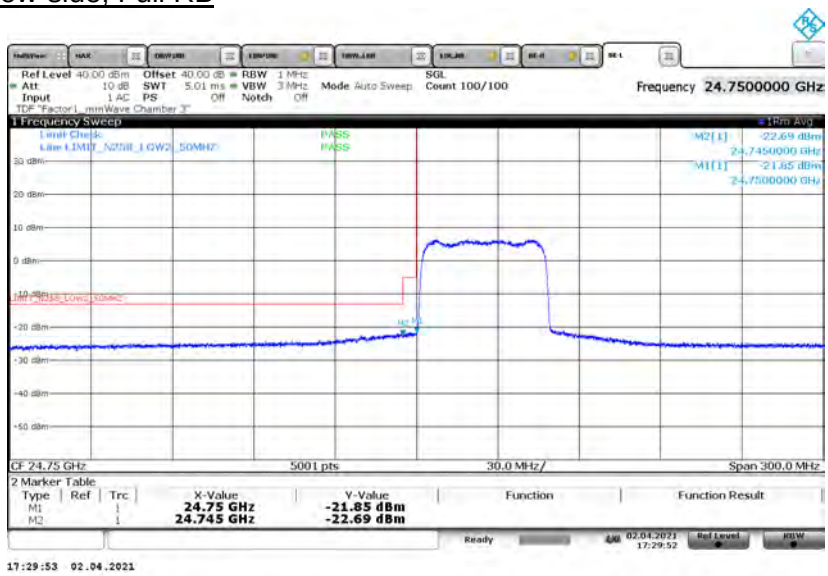
8.3.7. BAND EDGE n258 SB2 MIMO 1CC

ANT M1, 50 MHz, MIMO, 1CC, QPSK

Low-side, Single RB



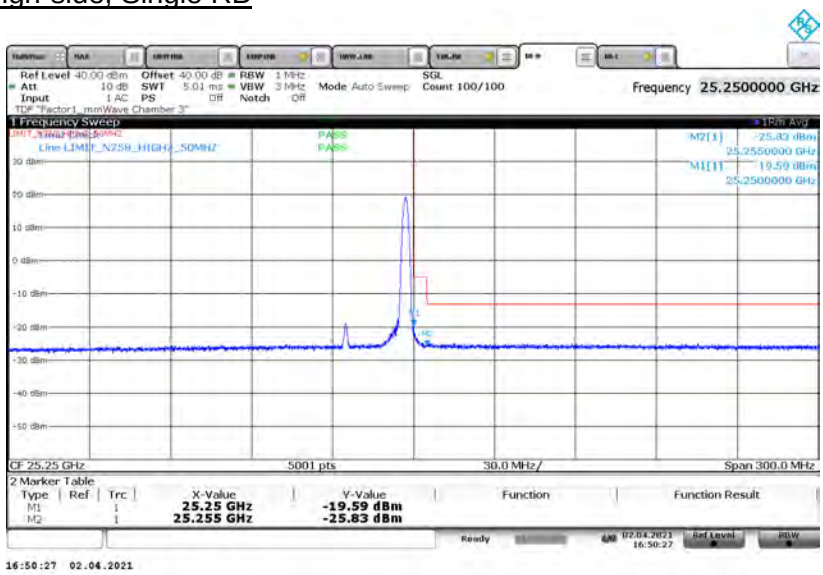
Low-side, Full RB



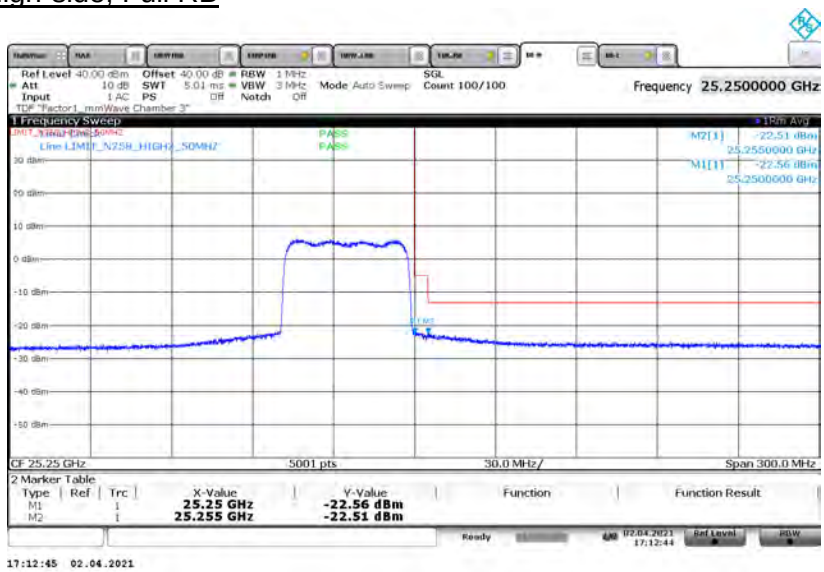
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

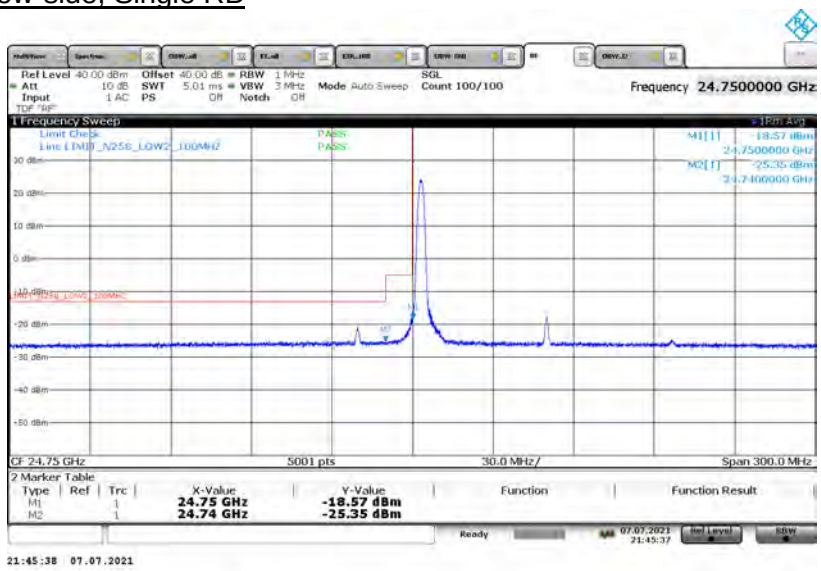
ANT M1, M0 & M2, 50 MHz, MIMO, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	24.75	-17.65	-5	-12.65
M1	50	L	1/0	24.745	-24.52	-13	-11.52
M0	50	L	1/0	24.75	-22.20	-5	-17.20
M0	50	L	1/0	24.745	-25.28	-13	-12.28
M2	50	L	1/0	24.75	-16.68	-5	-11.68
M2	50	L	1/0	24.745	-23.63	-13	-10.63
M1	50	L	32/0	24.75	-21.85	-5	-16.85
M1	50	L	32/0	24.745	-22.69	-13	-9.69
M0	50	L	32/0	24.75	-24.49	-5	-19.49
M0	50	L	32/0	24.745	-24.35	-13	-11.35
M2	50	L	32/0	24.75	-18.23	-5	-13.23
M2	50	L	32/0	24.745	-18.97	-13	-5.97
M1	50	H	1/32	25.25	-19.59	-5	-14.59
M1	50	H	1/32	25.255	-25.83	-13	-12.83
M0	50	H	1/32	25.25	-22.15	-5	-17.15
M0	50	H	1/32	25.255	-26.13	-13	-13.13
M2	50	H	1/32	25.25	-19.05	-5	-14.05
M2	50	H	1/32	25.255	-24.85	-13	-11.85
M1	50	H	32/0	25.25	-22.56	-5	-17.56
M1	50	H	32/0	25.255	-22.51	-13	-9.51
M0	50	H	32/0	25.25	-24.17	-5	-19.17
M0	50	H	32/0	25.255	-24.95	-13	-11.95
M2	50	H	32/0	25.25	-19.49	-5	-14.49
M2	50	H	32/0	25.255	-20.36	-13	-7.36

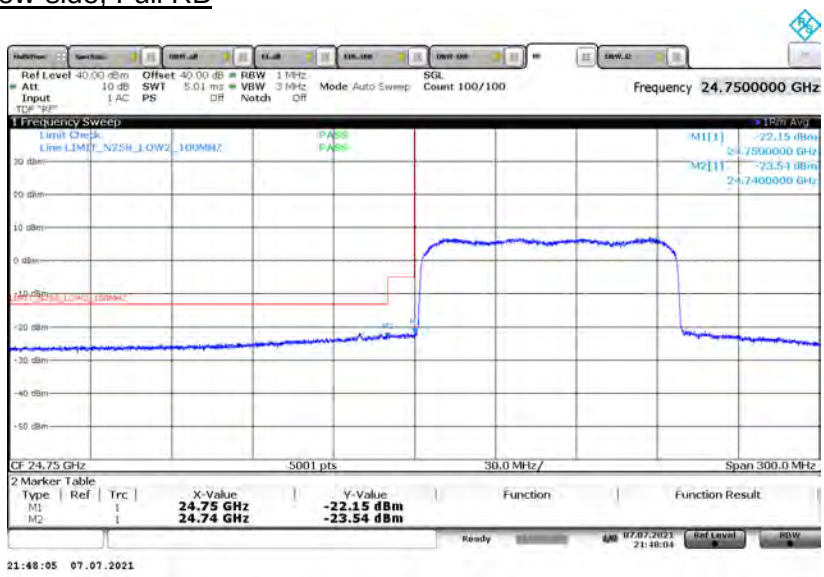
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 1CC, QPSK

Low-side, Single RB



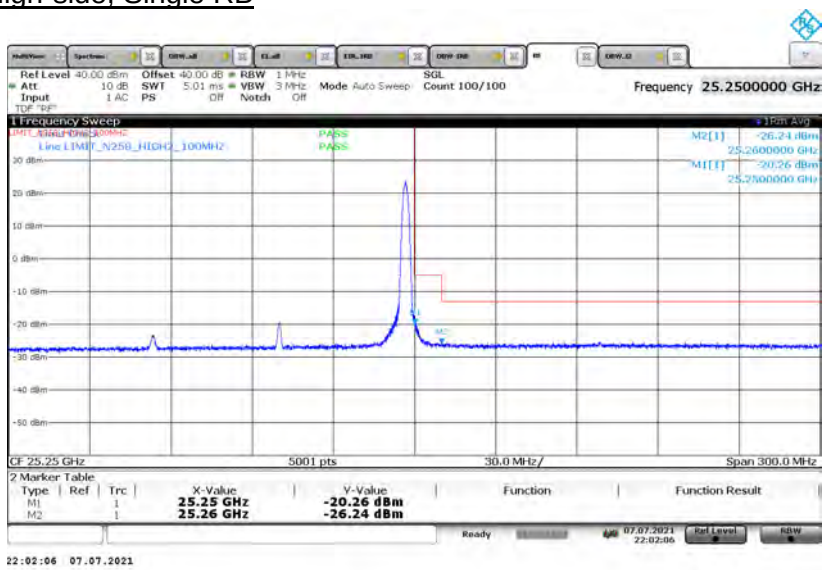
Low-side, Full RB



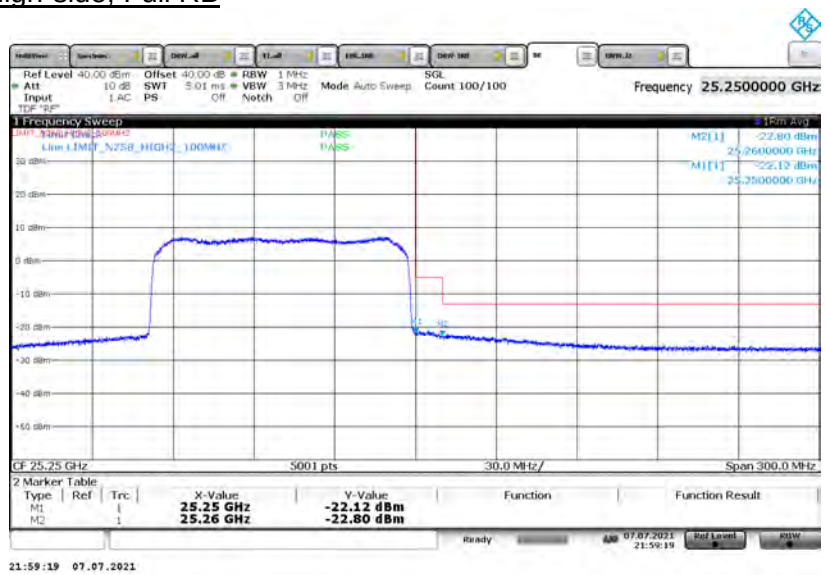
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, MIMO, 1CC, QPSK

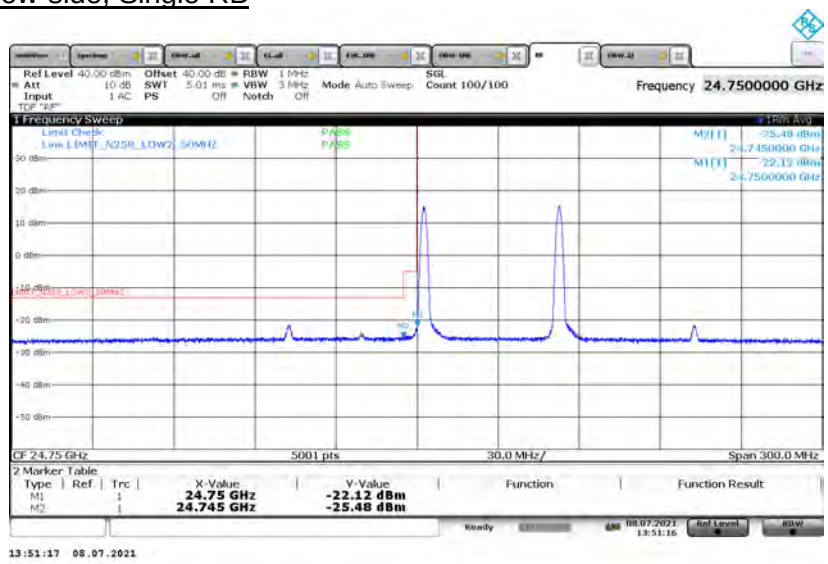
Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	1/0	24.75	-18.57	-5	-13.57
M1	100	L	1/0	24.74	-25.35	-13	-12.35
M0	100	L	1/0	24.75	-22.32	-5	-17.32
M0	100	L	1/0	24.74	-25.82	-13	-12.82
M2	100	L	1/0	24.75	-19.27	-5	-14.27
M2	100	L	1/0	24.74	-25.12	-13	-12.12
M1	100	L	66/0	24.75	-22.15	-5	-17.15
M1	100	L	66/0	24.74	-23.54	-13	-10.54
M0	100	L	66/0	24.75	-25.40	-5	-20.40
M0	100	L	66/0	24.74	-25.10	-13	-12.10
M2	100	L	66/0	24.75	-20.38	-5	-15.38
M2	100	L	66/0	24.74	-21.37	-13	-8.37
M1	100	H	1/65	25.25	-20.26	-5	-15.26
M1	100	H	1/65	25.26	-26.24	-13	-13.24
M0	100	H	1/65	25.25	-23.17	-5	-18.17
M0	100	H	1/65	25.26	-26.97	-13	-13.97
M2	100	H	1/65	25.25	-20.24	-5	-15.24
M2	100	H	1/65	25.26	-25.99	-13	-12.99
M1	100	H	66/0	25.25	-22.12	-5	-17.12
M1	100	H	66/0	25.26	-22.80	-13	-9.80
M0	100	H	66/0	25.25	-25.89	-5	-20.89
M0	100	H	66/0	25.26	-26.13	-13	-13.13
M2	100	H	66/0	25.25	-22.13	-5	-17.13
M2	100	H	66/0	25.26	-22.54	-13	-9.54

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.3.8. BAND EDGE n258 SB2 MIMO 2CC

ANT M1, 50 MHz, MIMO, 2CC, QPSK

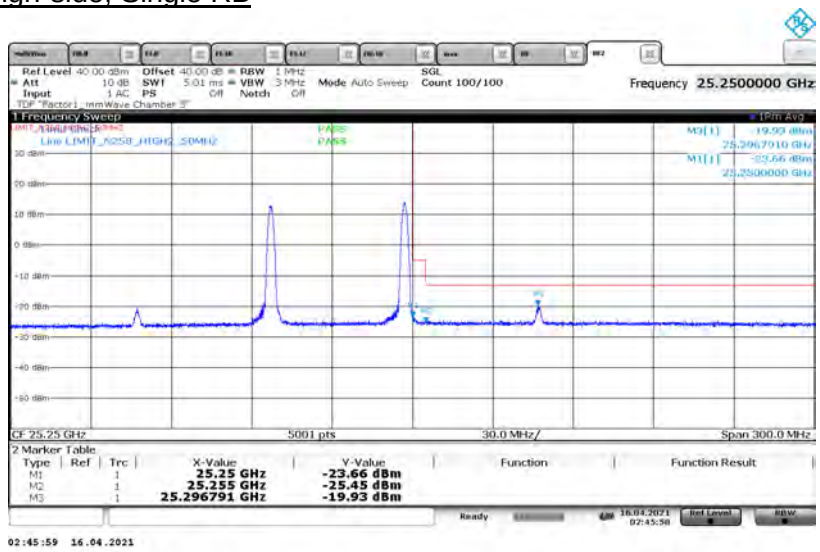
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, MIMO, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

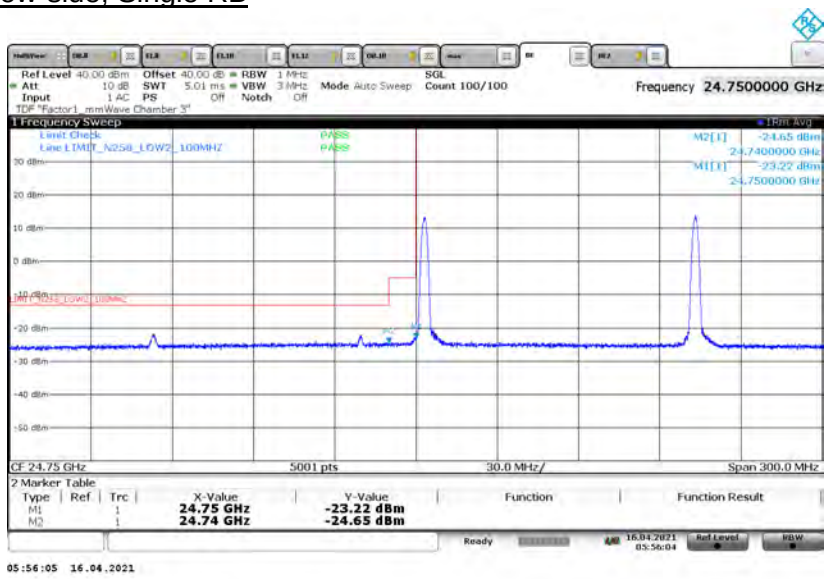
ANT M1, M0 & M2, 50 MHz, MIMO, 2CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	24.75	-22.12	-5	-17.12
M1	50	L	1/0	24.745	-25.48	-13	-12.48
M0	50	L	1/0	24.75	-24.16	-5	-19.16
M0	50	L	1/0	24.745	-24.72	-13	-11.72
M2	50	L	1/0	24.75	-22.99	-5	-17.99
M2	50	L	1/0	24.745	-25.58	-13	-12.58
M1	50	H	1/32	25.25	-23.66	-5	-18.66
M1	50	H	1/32	25.255	-25.45	-13	-12.45
M0	50	H	1/32	25.25	-25.66	-5	-20.66
M0	50	H	1/32	25.255	-25.54	-13	-12.54
M2	50	H	1/32	25.25	-24.01	-5	-19.01
M2	50	H	1/32	25.255	-25.95	-13	-12.95

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 2CC, QPSK

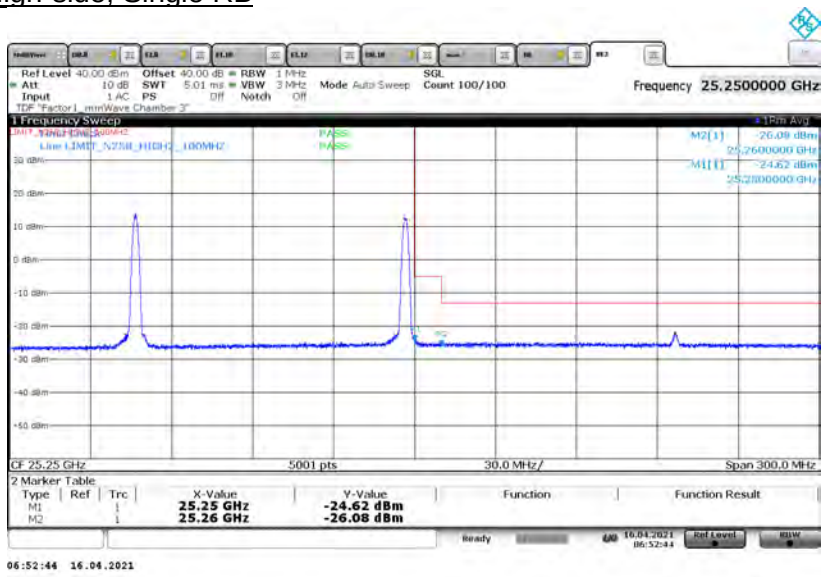
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, MIMO, 2CC, QPSK

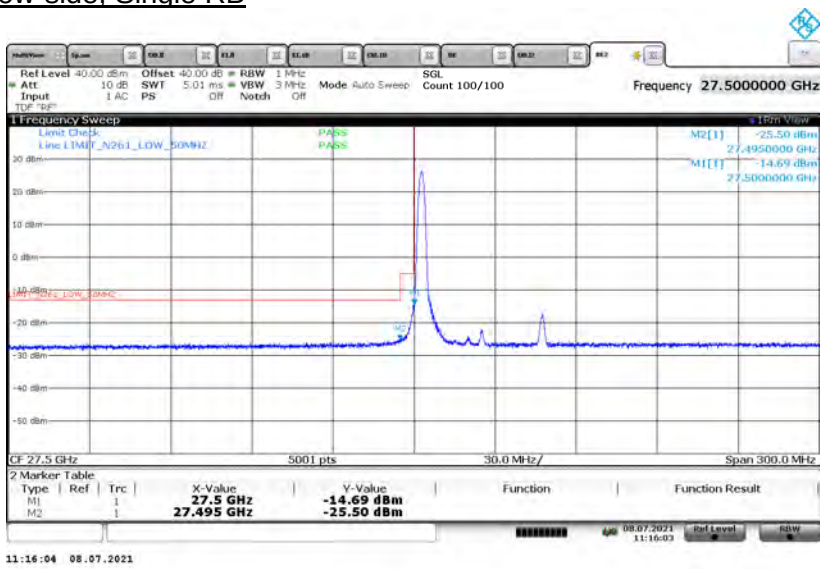
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	24.75	-23.22	-5	-18.22
M1	100	L	1/0	24.74	-24.65	-13	-11.65
M0	100	L	1/0	24.75	-24.71	-5	-19.71
M0	100	L	1/0	24.74	-24.46	-13	-11.46
M2	100	L	1/0	24.75	-23.00	-5	-18.00
M2	100	L	1/0	24.74	-24.97	-13	-11.97
M1	100	H	1/65	25.25	-24.62	-5	-19.62
M1	100	H	1/65	25.26	-26.08	-13	-13.08
M0	100	H	1/65	25.25	-24.85	-5	-19.85
M0	100	H	1/65	25.26	-25.46	-13	-12.46
M2	100	H	1/65	25.25	-24.36	-5	-19.36
M2	100	H	1/65	25.26	-25.95	-13	-12.95

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

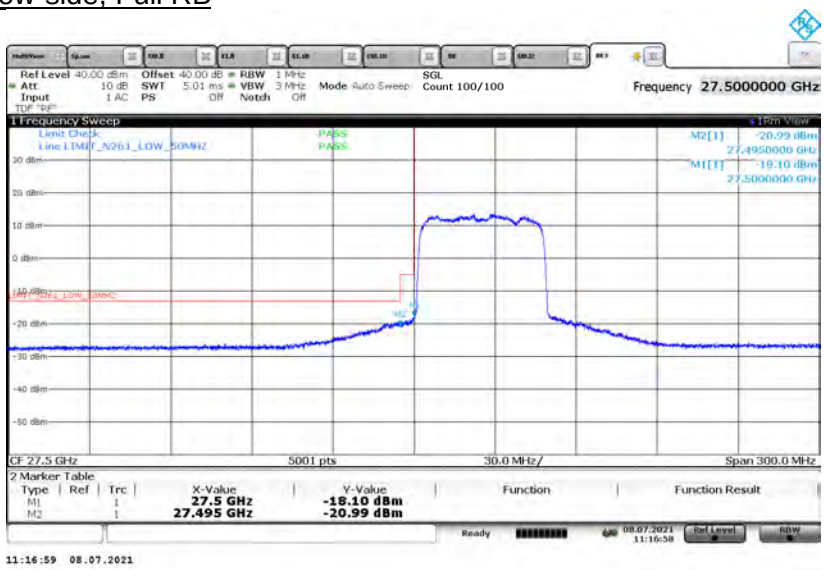
8.3.9. BAND EDGE n261 SISO-DUAL 1CC

ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



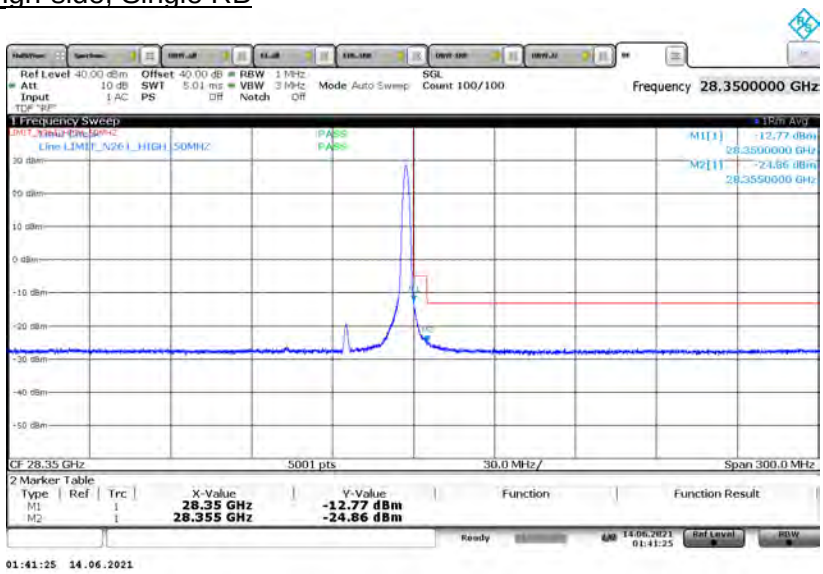
Low-side, Full RB



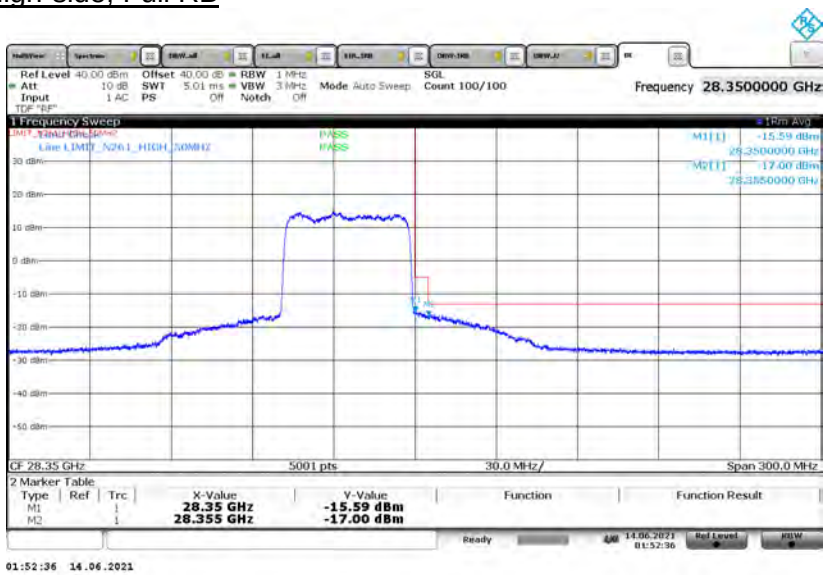
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-14.69	-5	-9.69
M1	50	L	1/0	27.495	-25.50	-13	-12.50
M0	50	L	1/0	27.5	-19.07	-5	-14.07
M0	50	L	1/0	27.495	-26.58	-13	-13.58
M2	50	L	1/0	27.5	-15.73	-5	-10.73
M2	50	L	1/0	27.495	-25.90	-13	-12.90
M1	50	L	32/0	27.5	-18.10	-5	-13.10
M1	50	L	32/0	27.495	-20.99	-13	-7.99
M0	50	L	32/0	27.5	-23.46	-5	-18.46
M0	50	L	32/0	27.495	-24.09	-13	-11.09
M2	50	L	32/0	27.5	-16.64	-5	-11.64
M2	50	L	32/0	27.495	-18.00	-13	-5.00
M1	50	H	1/32	28.35	-12.77	-5	-7.77
M1	50	H	1/32	28.355	-24.86	-13	-11.86
M0	50	H	1/32	28.35	-20.04	-5	-15.04
M0	50	H	1/32	28.355	-26.86	-13	-13.86
M2	50	H	1/32	28.35	-15.43	-5	-10.43
M2	50	H	1/32	28.355	-25.46	-13	-12.46
M1	50	H	32/0	28.35	-15.59	-5	-10.59
M1	50	H	32/0	28.355	-17.00	-13	-4.00
M0	50	H	32/0	28.35	-22.95	-5	-17.95
M0	50	H	32/0	28.355	-23.34	-13	-10.34
M2	50	H	32/0	28.35	-16.70	-5	-11.70
M2	50	H	32/0	28.355	-17.46	-13	-4.46

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-12.51	-5	-7.51
M1	50	L	1/0	27.495	-25.30	-13	-12.30
M2	50	L	1/0	27.5	-14.50	-5	-9.50
M2	50	L	1/0	27.495	-25.38	-13	-12.38
M1	50	L	32/0	27.5	-20.72	-5	-15.72
M1	50	L	32/0	27.495	-23.55	-13	-10.55
M2	50	L	32/0	27.5	-21.66	-5	-16.66
M2	50	L	32/0	27.495	-24.22	-13	-11.22
M1	50	H	1/32	28.35	-13.82	-5	-8.82
M1	50	H	1/32	28.355	-25.23	-13	-12.23
M2	50	H	1/32	28.35	-15.51	-5	-10.51
M2	50	H	1/32	28.355	-25.45	-13	-12.45
M1	50	H	32/0	28.35	-19.06	-5	-14.06
M1	50	H	32/0	28.355	-22.76	-13	-9.76
M2	50	H	32/0	28.35	-19.13	-5	-14.13
M2	50	H	32/0	28.355	-22.55	-13	-9.55

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-12.99	-5	-7.99
M1	50	L	1/0	27.495	-25.14	-13	-12.14
M2	50	L	1/0	27.5	-15.06	-5	-10.06
M2	50	L	1/0	27.495	-26.04	-13	-13.04
M1	50	L	32/0	27.5	-21.65	-5	-16.65
M1	50	L	32/0	27.495	-22.99	-13	-9.99
M2	50	L	32/0	27.5	-20.54	-5	-15.54
M2	50	L	32/0	27.495	-21.81	-13	-8.81
M1	50	H	1/32	28.35	-14.34	-5	-9.34
M1	50	H	1/32	28.355	-25.76	-13	-12.76
M2	50	H	1/32	28.35	-19.35	-5	-14.35
M2	50	H	1/32	28.355	-26.31	-13	-13.31
M1	50	H	32/0	28.35	-20.94	-5	-15.94
M1	50	H	32/0	28.355	-22.76	-13	-9.76
M2	50	H	32/0	28.35	-20.54	-5	-15.54
M2	50	H	32/0	28.355	-22.53	-13	-9.53

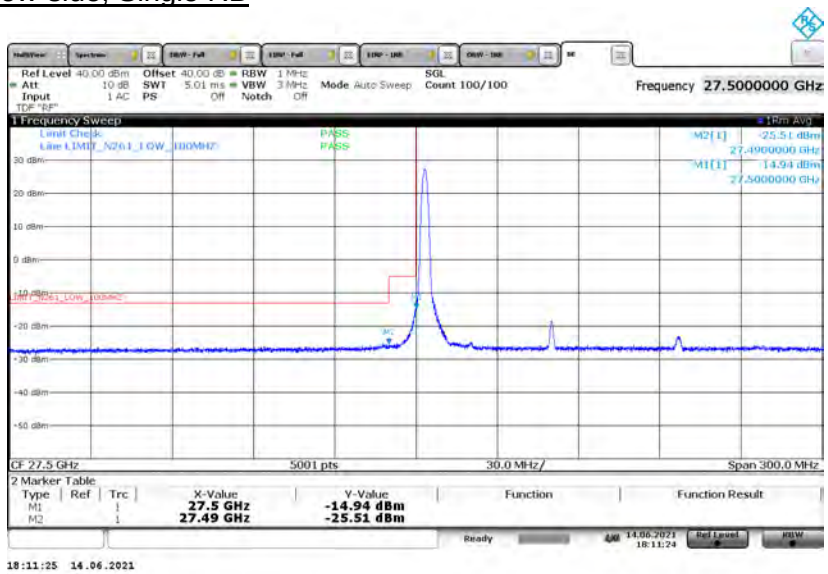
ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 64QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-15.45	-5	-10.45
M1	50	L	1/0	27.495	-26.08	-13	-13.08
M2	50	L	1/0	27.5	-16.78	-5	-11.78
M2	50	L	1/0	27.495	-25.82	-13	-12.82
M1	50	L	32/0	27.5	-22.56	-5	-17.56
M1	50	L	32/0	27.495	-23.89	-13	-10.89
M2	50	L	32/0	27.5	-23.50	-5	-18.50
M2	50	L	32/0	27.495	-25.24	-13	-12.24
M1	50	H	1/32	28.35	-17.36	-5	-12.36
M1	50	H	1/32	28.355	-25.74	-13	-12.74
M2	50	H	1/32	28.35	-18.89	-5	-13.89
M2	50	H	1/32	28.355	-27.14	-13	-14.14
M1	50	H	32/0	28.35	-23.01	-5	-18.01
M1	50	H	32/0	28.355	-23.96	-13	-10.96
M2	50	H	32/0	28.35	-22.80	-5	-17.80
M2	50	H	32/0	28.355	-24.83	-13	-11.83

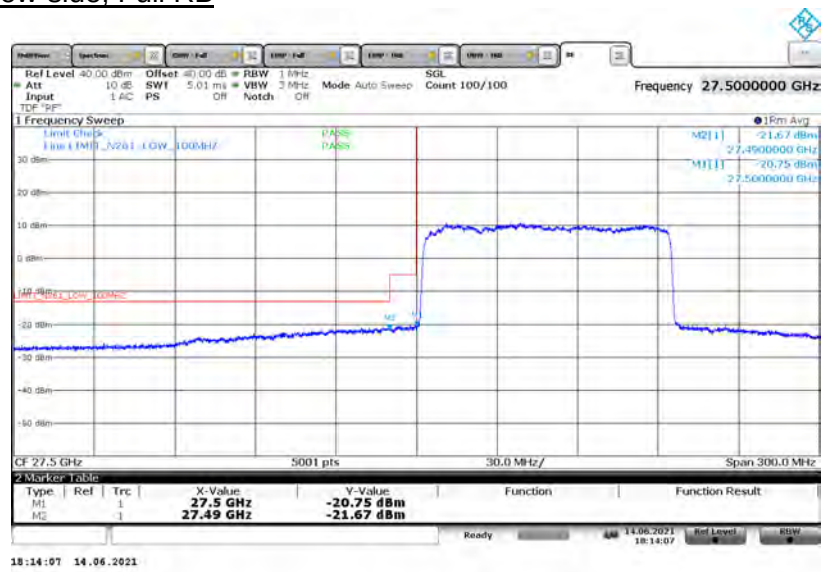
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



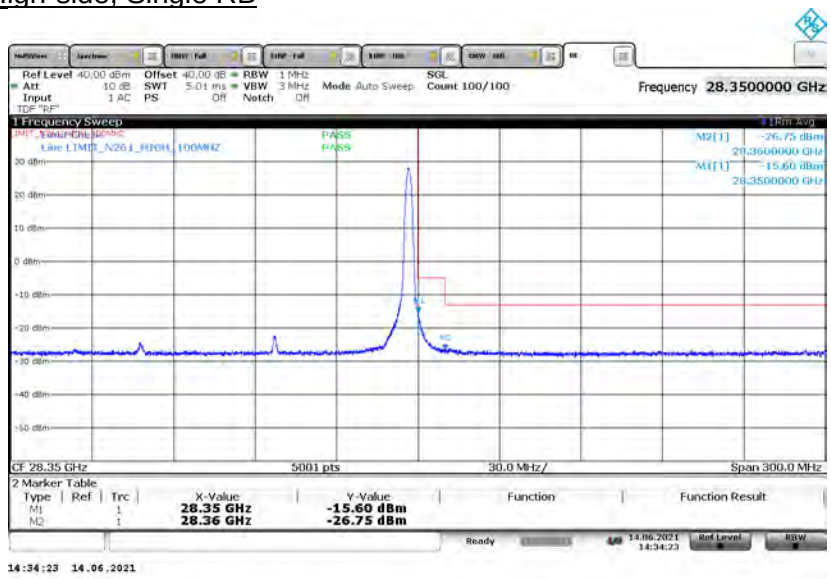
Low-side, Full RB



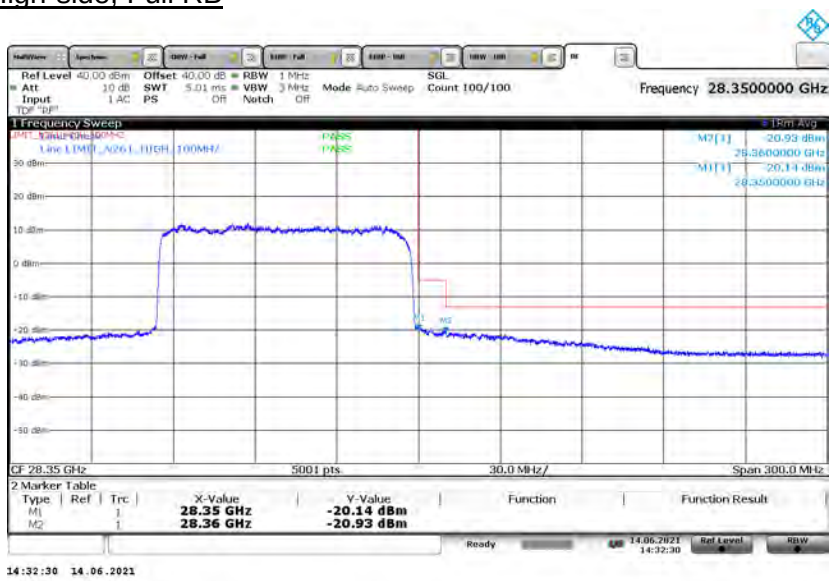
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, SISO-DUAL, 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	27.5	-14.94	-5	-9.94
M1	100	L	1/0	27.49	-25.51	-13	-12.51
M0	100	L	1/0	27.5	-23.06	-5	-18.06
M0	100	L	1/0	27.49	-26.72	-13	-13.72
M2	100	L	1/0	27.5	-16.95	-5	-11.95
M2	100	L	1/0	27.49	-26.02	-13	-13.02
M1	100	L	64/0	27.5	-20.75	-5	-15.75
M1	100	L	64/0	27.49	-21.67	-13	-8.67
M0	100	L	64/0	27.5	-25.54	-5	-20.54
M0	100	L	64/0	27.49	-25.22	-13	-12.22
M2	100	L	64/0	27.5	-20.54	-5	-15.54
M2	100	L	64/0	27.49	-21.14	-13	-8.14
M1	100	H	1/65	28.35	-15.60	-5	-10.60
M1	100	H	1/65	28.36	-26.75	-13	-13.75
M0	100	H	1/65	28.35	-24.31	-5	-19.31
M0	100	H	1/65	28.36	-28.23	-13	-15.23
M2	100	H	1/65	28.35	-17.63	-5	-12.63
M2	100	H	1/65	28.36	-26.31	-13	-13.31
M1	100	H	64/0	28.35	-20.14	-5	-15.14
M1	100	H	64/0	28.36	-20.93	-13	-7.93
M0	100	H	64/0	28.35	-26.96	-5	-21.96
M0	100	H	64/0	28.36	-27.44	-13	-14.44
M2	100	H	64/0	28.35	-22.91	-5	-17.91
M2	100	H	64/0	28.36	-22.57	-13	-9.57

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

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	64/0	27.5	-23.10	-5	-18.10
M1	100	L	64/0	27.49	-24.76	-13	-11.76
M2	100	L	64/0	27.5	-23.28	-5	-18.28
M2	100	L	64/0	27.49	-25.88	-13	-12.88
M1	100	H	64/0	28.35	-23.41	-5	-18.41
M1	100	H	64/0	28.36	-25.81	-13	-12.81
M2	100	H	64/0	28.35	-25.58	-5	-20.58
M2	100	H	64/0	28.36	-26.60	-13	-13.60

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	64/0	27.5	-23.49	-5	-18.49
M1	100	L	64/0	27.49	-24.21	-13	-11.21
M2	100	L	64/0	27.5	-24.07	-5	-19.07
M2	100	L	64/0	27.49	-25.29	-13	-12.29
M1	100	H	64/0	28.35	-24.50	-5	-19.50
M1	100	H	64/0	28.36	-25.56	-13	-12.56
M2	100	H	64/0	28.35	-26.28	-5	-21.28
M2	100	H	64/0	28.36	-25.24	-13	-12.24

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 64QAM

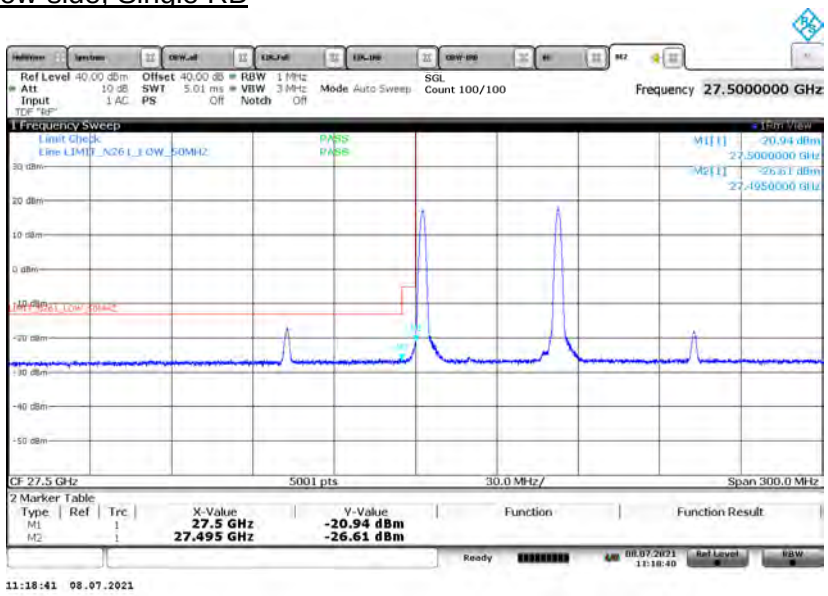
Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	64/0	27.5	-24.11	-5	-19.11
M1	100	L	64/0	27.49	-25.61	-13	-12.61
M2	100	L	64/0	27.5	-25.21	-5	-20.21
M2	100	L	64/0	27.49	-25.22	-13	-12.22
M1	100	H	64/0	28.35	-24.81	-5	-19.81
M1	100	H	64/0	28.36	-26.18	-13	-13.18
M2	100	H	64/0	28.35	-26.24	-5	-21.24
M2	100	H	64/0	28.36	-27.30	-13	-14.30

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.3.10. BAND EDGE n261 SISO-DUAL 2CC

ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

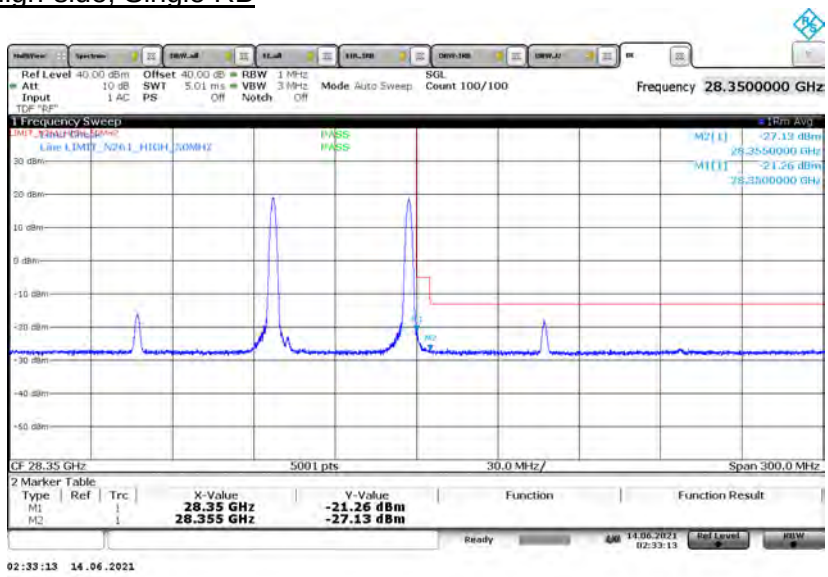
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 2CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-20.94	-5	-15.94
M1	50	L	1/0	27.495	-26.61	-13	-13.61
M0	50	L	1/0	27.5	-24.36	-5	-19.36
M0	50	L	1/0	27.495	-26.92	-13	-13.92
M2	50	L	1/0	27.5	-22.92	-5	-17.92
M2	50	L	1/0	27.495	-26.57	-13	-13.57
M1	50	H	1/32	28.35	-21.26	-5	-16.26
M1	50	H	1/32	28.355	-27.13	-13	-14.13
M0	50	H	1/32	28.35	-24.31	-5	-19.31
M0	50	H	1/32	28.355	-27.20	-13	-14.20
M2	50	H	1/32	28.35	-24.10	-5	-19.10
M2	50	H	1/32	28.355	-27.71	-13	-14.71

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-21.77	-5	-16.77
M1	50	L	1/0	27.495	-26.72	-13	-13.72
M2	50	L	1/0	27.5	-22.95	-5	-17.95
M2	50	L	1/0	27.495	-26.87	-13	-13.87
M1	50	H	1/32	28.35	-21.69	-5	-16.69
M1	50	H	1/32	28.355	-27.20	-13	-14.20
M2	50	H	1/32	28.35	-22.90	-5	-17.90
M2	50	H	1/32	28.355	-27.21	-13	-14.21

ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-21.98	-5	-16.98
M1	50	L	1/0	27.495	-26.78	-13	-13.78
M2	50	L	1/0	27.5	-22.75	-5	-17.75
M2	50	L	1/0	27.495	-26.91	-13	-13.91
M1	50	H	1/32	28.35	-23.40	-5	-18.40
M1	50	H	1/32	28.355	-27.56	-13	-14.56
M2	50	H	1/32	28.35	-24.19	-5	-19.19
M2	50	H	1/32	28.355	-27.06	-13	-14.06

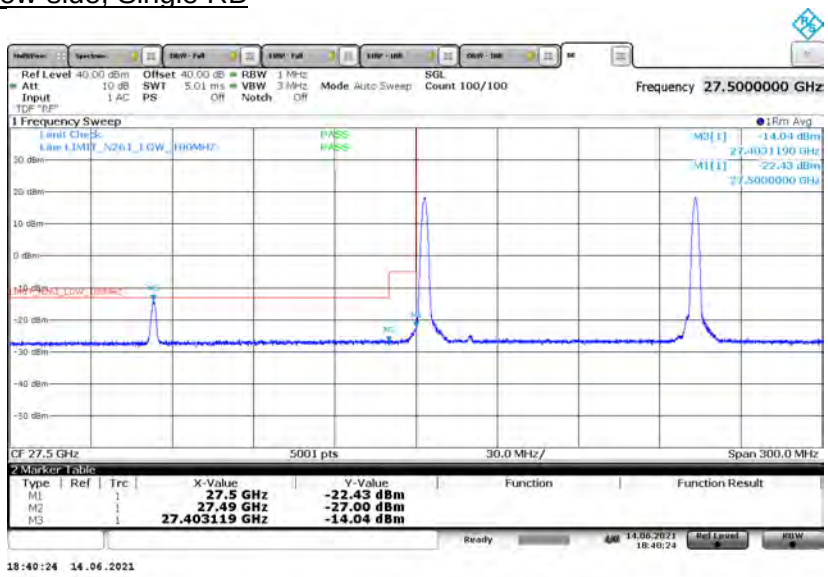
ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 64QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-21.87	-5	-16.87
M1	50	L	1/0	27.495	-26.98	-13	-13.98
M2	50	L	1/0	27.5	-23.32	-5	-18.32
M2	50	L	1/0	27.495	-26.64	-13	-13.64
M1	50	H	1/32	28.35	-23.70	-5	-18.70
M1	50	H	1/32	28.355	-27.86	-13	-14.86
M2	50	H	1/32	28.35	-25.33	-5	-20.33
M2	50	H	1/32	28.355	-27.50	-13	-14.50

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

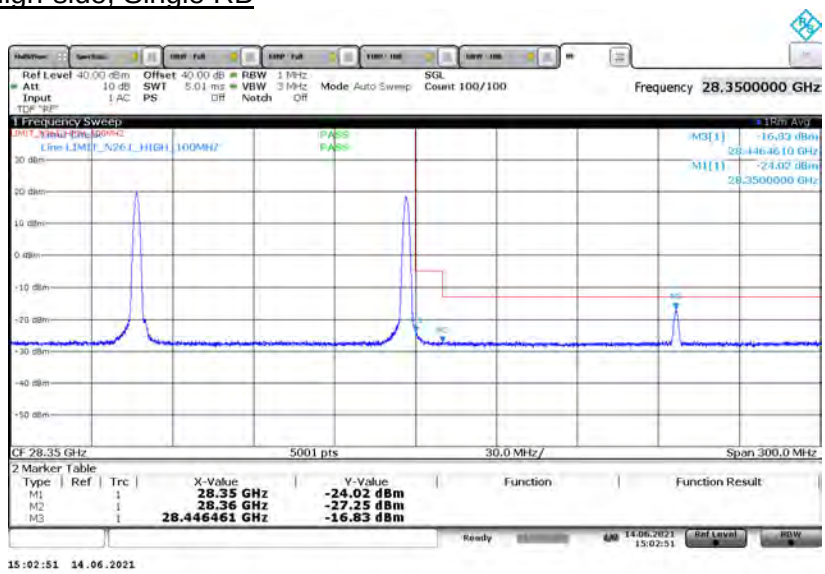
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, SISO-DUAL, 2CC, QPSK

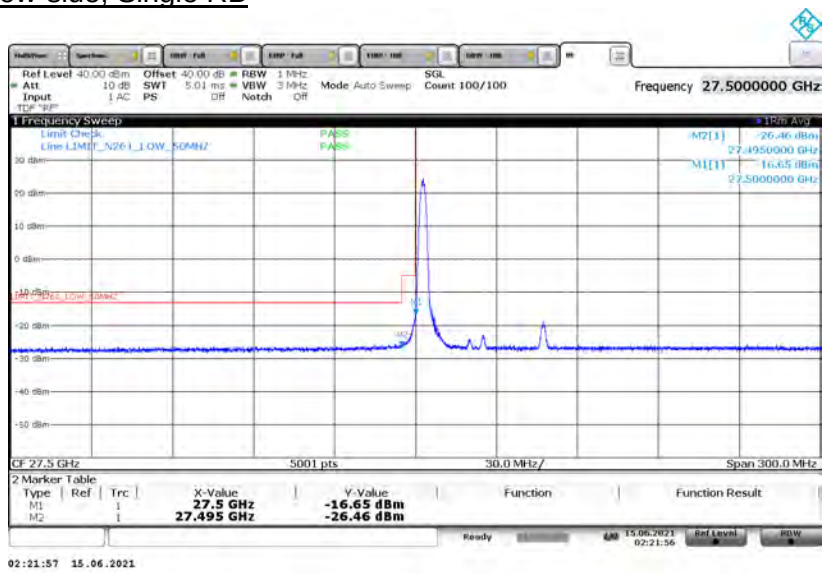
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	24.75	-22.43	-5	-17.43
M1	100	L	1/0	24.74	-27.00	-13	-14.00
M0	100	L	1/0	24.75	-23.91	-5	-18.91
M0	100	L	1/0	24.74	-27.21	-13	-14.21
M2	100	L	1/0	24.75	-22.80	-5	-17.80
M2	100	L	1/0	24.74	-26.32	-13	-13.32
M1	100	H	1/65	25.25	-24.02	-5	-19.02
M1	100	H	1/65	25.26	-27.25	-13	-14.25
M0	100	H	1/65	25.25	-25.24	-5	-20.24
M0	100	H	1/65	25.26	-27.94	-13	-14.94
M2	100	H	1/65	25.25	-25.33	-5	-20.33
M2	100	H	1/65	25.26	-27.56	-13	-14.56

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

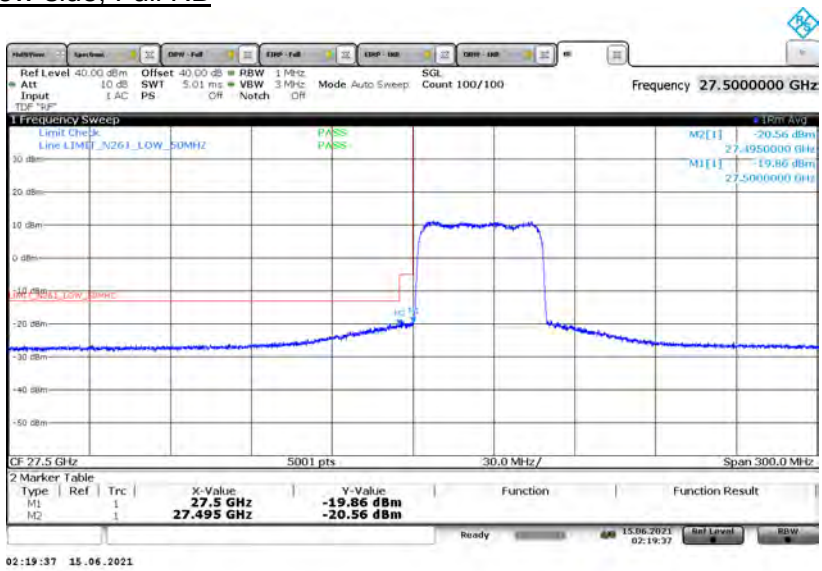
8.3.11. BAND EDGE n261 MIMO 1CC

ANT M1, 50 MHz, MIMO, 1CC, QPSK

Low-side, Single RB



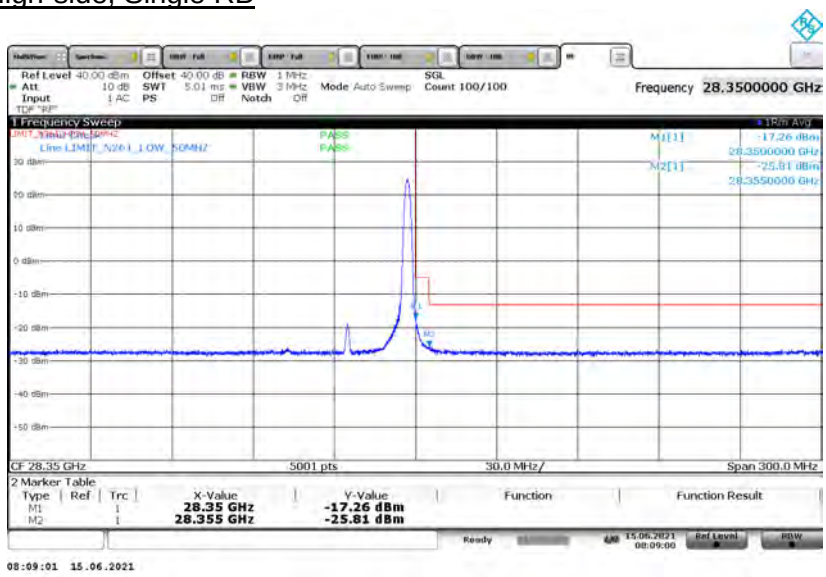
Low-side, Full RB



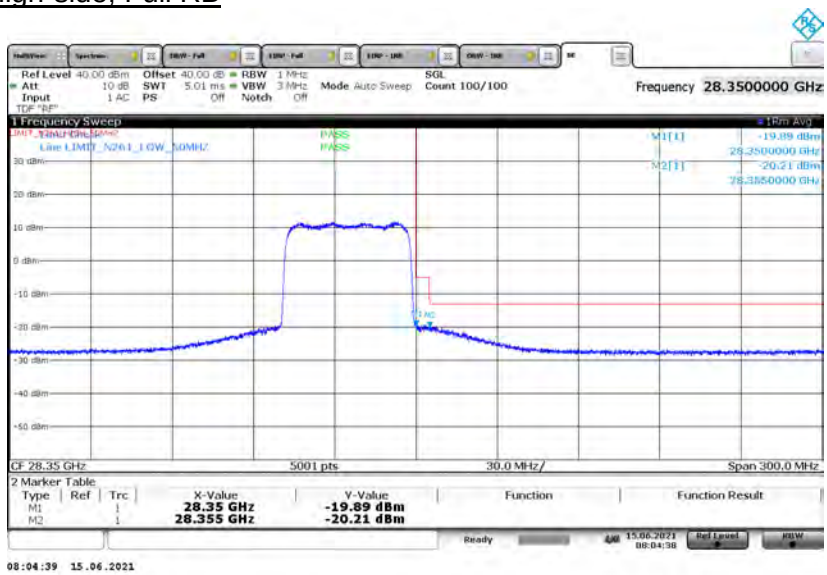
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

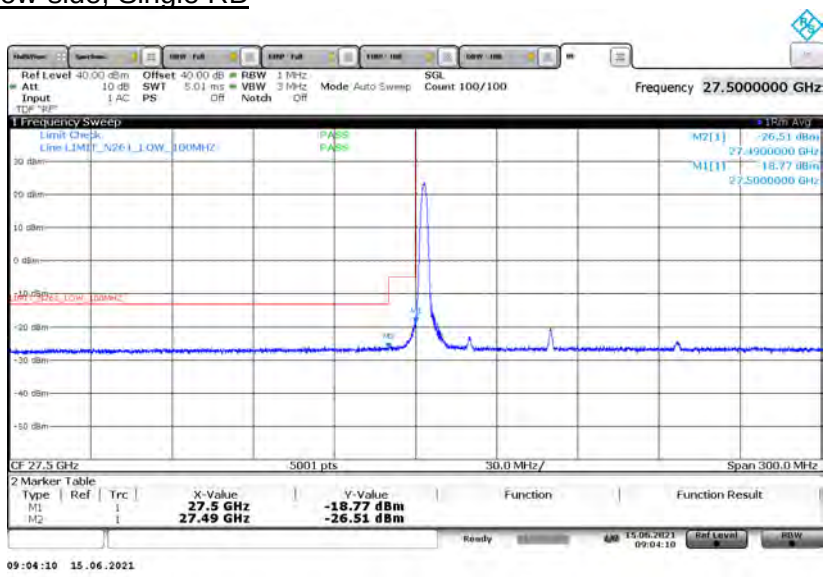
ANT M1, M0 & M2, 50 MHz, MIMO, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-16.65	-5	-11.65
M1	50	L	1/0	27.495	-26.46	-13	-13.46
M0	50	L	1/0	27.5	-19.21	-5	-14.21
M0	50	L	1/0	27.495	-26.64	-13	-13.64
M2	50	L	1/0	27.5	-15.62	-5	-10.62
M2	50	L	1/0	27.495	-25.37	-13	-12.37
M1	50	L	32/0	27.5	-19.86	-5	-14.86
M1	50	L	32/0	27.495	-20.56	-13	-7.56
M0	50	L	32/0	27.5	-24.68	-5	-19.68
M0	50	L	32/0	27.495	-25.15	-13	-12.15
M2	50	L	32/0	27.5	-18.01	-5	-13.01
M2	50	L	32/0	27.495	-18.44	-13	-5.44
M1	50	H	1/32	28.35	-17.26	-5	-12.26
M1	50	H	1/32	28.355	-25.81	-13	-12.81
M0	50	H	1/32	28.35	-22.76	-5	-17.76
M0	50	H	1/32	28.355	-27.98	-13	-14.98
M2	50	H	1/32	28.35	-17.14	-5	-12.14
M2	50	H	1/32	28.355	-25.57	-13	-12.57
M1	50	H	32/0	28.35	-19.89	-5	-14.89
M1	50	H	32/0	28.355	-20.21	-13	-7.21
M0	50	H	32/0	28.35	-25.48	-5	-20.48
M0	50	H	32/0	28.355	-25.75	-13	-12.75
M2	50	H	32/0	28.35	-18.17	-5	-13.17
M2	50	H	32/0	28.355	-20.52	-13	-7.52

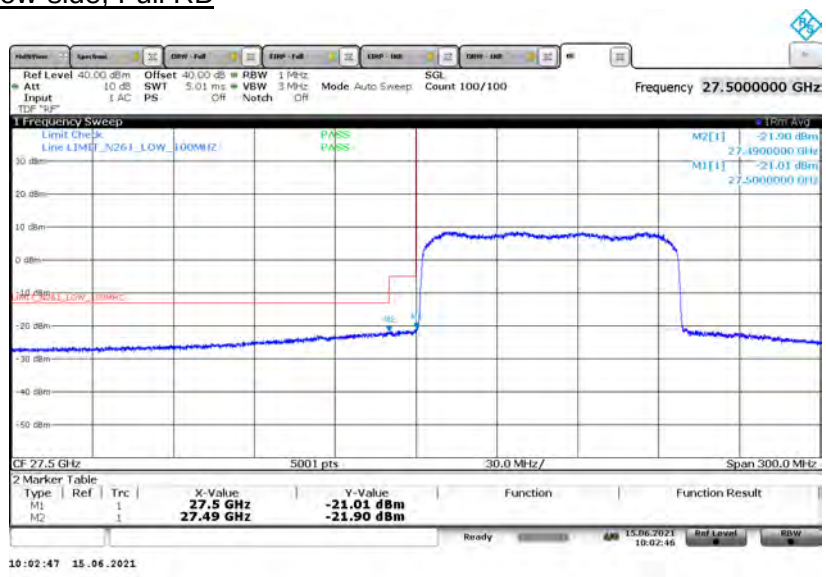
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 1CC, QPSK

Low-side, Single RB



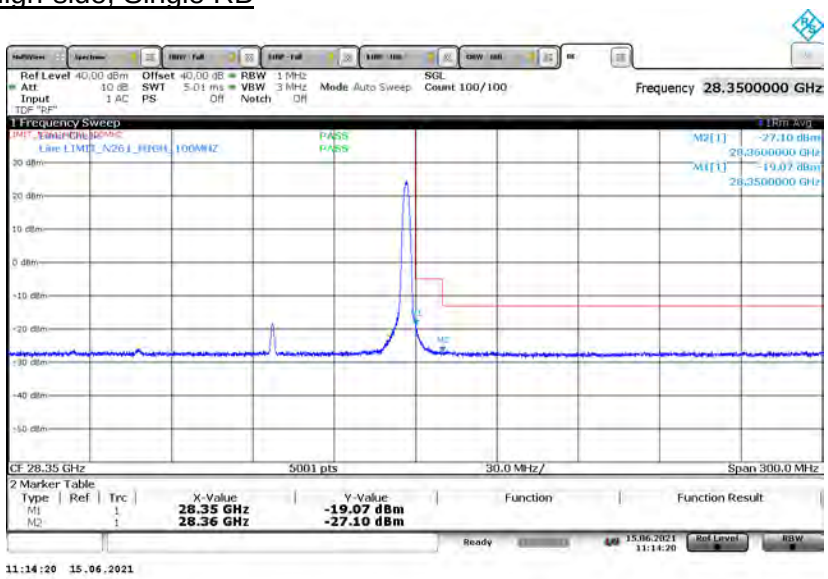
Low-side, Full RB



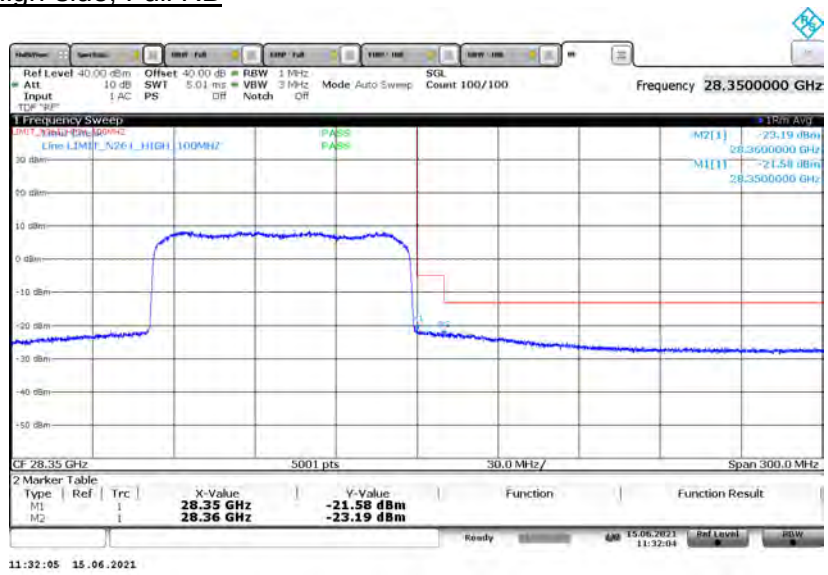
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, MIMO, 1CC, QPSK

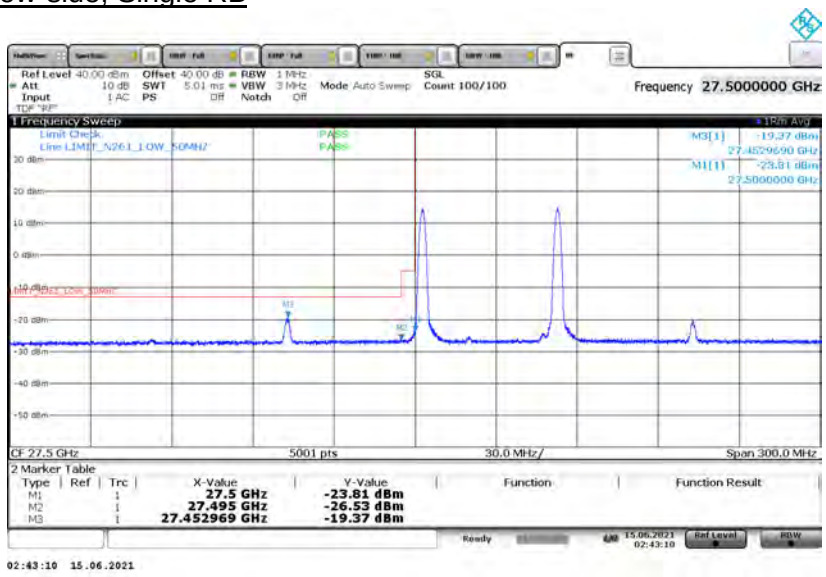
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	27.5	-18.77	-5	-13.77
M1	100	L	1/0	27.49	-26.51	-13	-13.51
M0	100	L	1/0	27.5	-22.54	-5	-17.54
M0	100	L	1/0	27.49	-26.41	-13	-13.41
M2	100	L	1/0	27.5	-17.50	-5	-12.50
M2	100	L	1/0	27.49	-26.24	-13	-13.24
M1	100	L	66/0	27.5	-21.01	-5	-16.01
M1	100	L	66/0	27.49	-21.90	-13	-8.90
M0	100	L	66/0	27.5	-25.88	-5	-20.88
M0	100	L	66/0	27.49	-25.61	-13	-12.61
M2	100	L	66/0	27.5	-21.09	-5	-16.09
M2	100	L	66/0	27.49	-21.86	-13	-8.86
M1	100	H	1/65	28.35	-19.07	-5	-14.07
M1	100	H	1/65	28.36	-27.10	-13	-14.10
M0	100	H	1/65	28.35	-25.92	-5	-20.92
M0	100	H	1/65	28.36	-27.76	-13	-14.76
M2	100	H	1/65	28.35	-19.16	-5	-14.16
M2	100	H	1/65	28.36	-27.60	-13	-14.60
M1	100	H	66/0	28.35	-21.58	-5	-16.58
M1	100	H	66/0	28.36	-23.19	-13	-10.19
M0	100	H	66/0	28.35	-26.25	-5	-21.25
M0	100	H	66/0	28.36	-26.60	-13	-13.60
M2	100	H	66/0	28.35	-21.58	-5	-16.58
M2	100	H	66/0	28.36	-21.70	-13	-8.70

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.3.12. BAND EDGE n261 MIMO 2CC

ANT M1, 50 MHz, MIMO, 2CC, QPSK

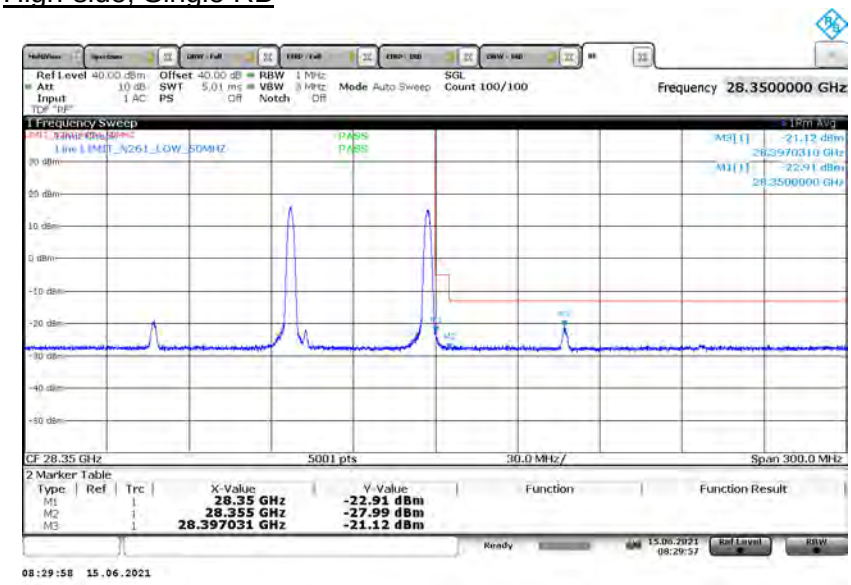
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

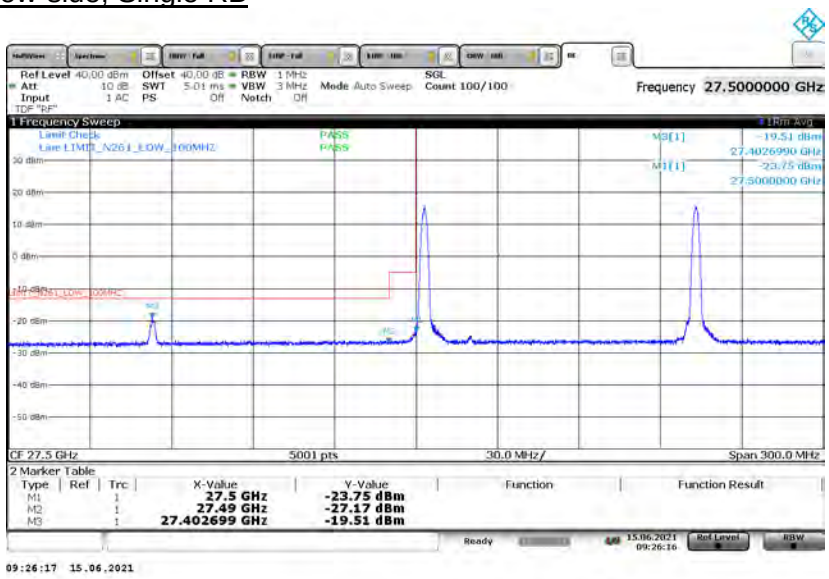
ANT M1, M0 & M2, 50 MHz, MIMO, 2CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	27.5	-23.81	-5	-18.81
M1	50	L	1/0	27.495	-26.53	-13	-13.53
M0	50	L	1/0	27.5	-25.69	-5	-20.69
M0	50	L	1/0	27.495	-26.91	-13	-13.91
M2	50	L	1/0	27.5	-22.14	-5	-17.14
M2	50	L	1/0	27.495	-26.74	-13	-13.74
M1	50	H	1/32	28.35	-22.91	-5	-17.91
M1	50	H	1/32	28.355	-27.99	-13	-14.99
M0	50	H	1/32	28.35	-26.65	-5	-21.65
M0	50	H	1/32	28.355	-27.77	-13	-14.77
M2	50	H	1/32	28.35	-23.00	-5	-18.00
M2	50	H	1/32	28.355	-27.18	-13	-14.18

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 2CC, QPSK

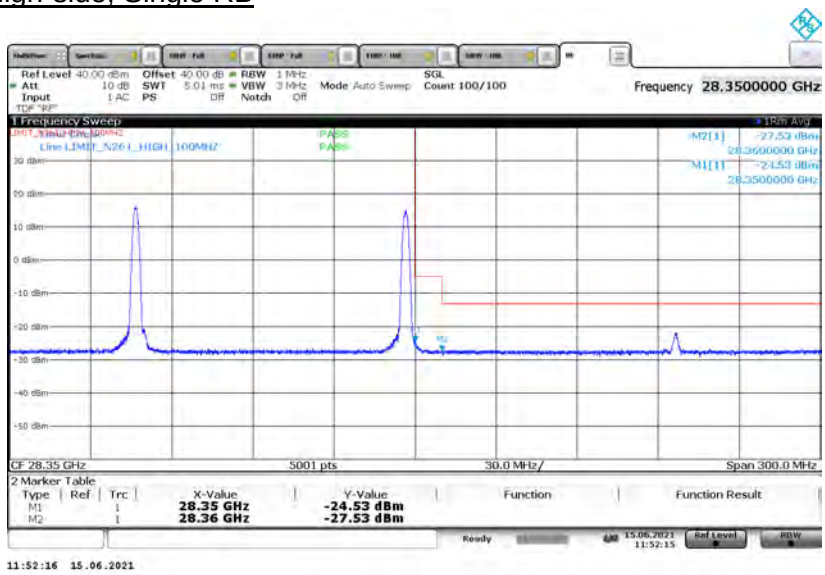
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, MIMO, 2CC, QPSK

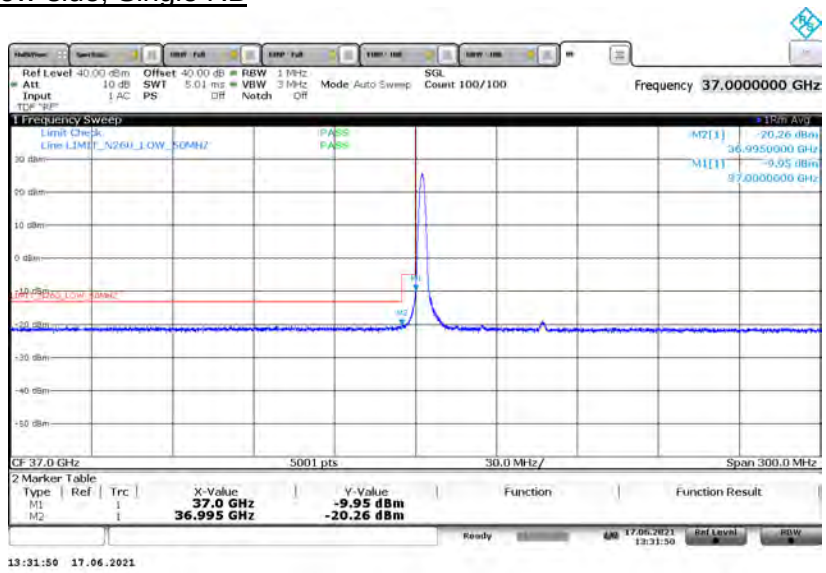
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	27.5	-23.75	-5	-18.75
M1	100	L	1/0	27.49	-27.17	-13	-14.17
M0	100	L	1/0	27.5	-26.32	-5	-21.32
M0	100	L	1/0	27.49	-26.90	-13	-13.90
M2	100	L	1/0	27.5	-17.50	-5	-12.50
M2	100	L	1/0	27.49	-26.24	-13	-13.24
M1	100	H	1/65	28.35	-24.53	-5	-19.53
M1	100	H	1/65	28.36	-27.53	-13	-14.53
M0	100	H	1/65	28.35	-26.96	-5	-21.96
M0	100	H	1/65	28.36	-27.91	-13	-14.91
M2	100	H	1/65	28.35	-24.08	-5	-19.08
M2	100	H	1/65	28.36	-27.57	-13	-14.57

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

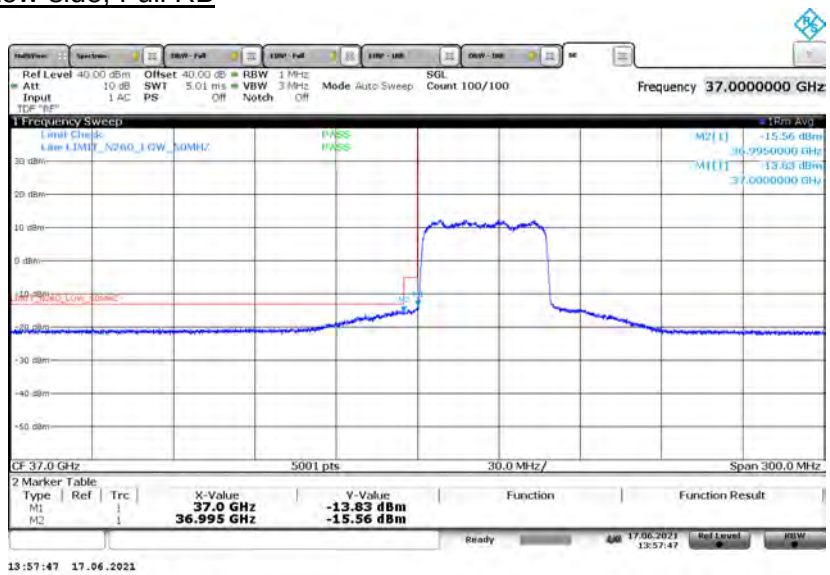
8.3.13. BAND EDGE n260 SISO-DUAL 1CC

ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB



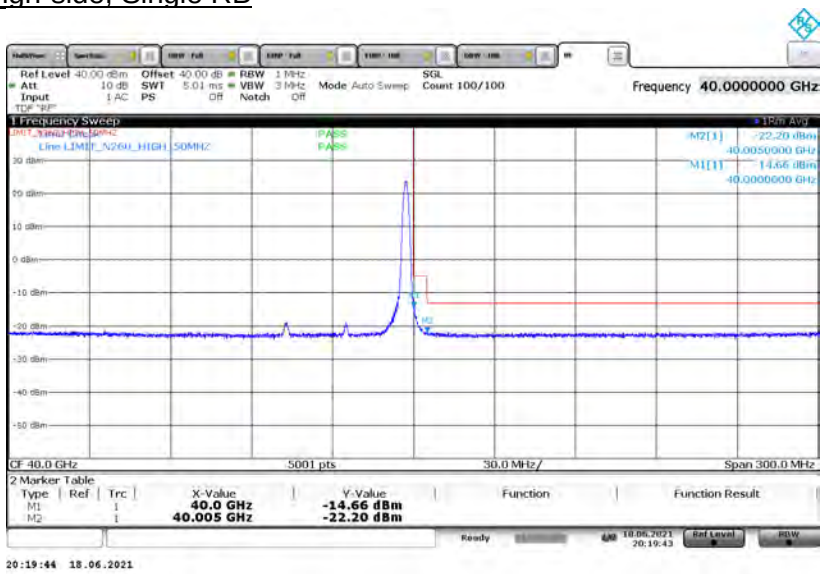
Low-side, Full RB



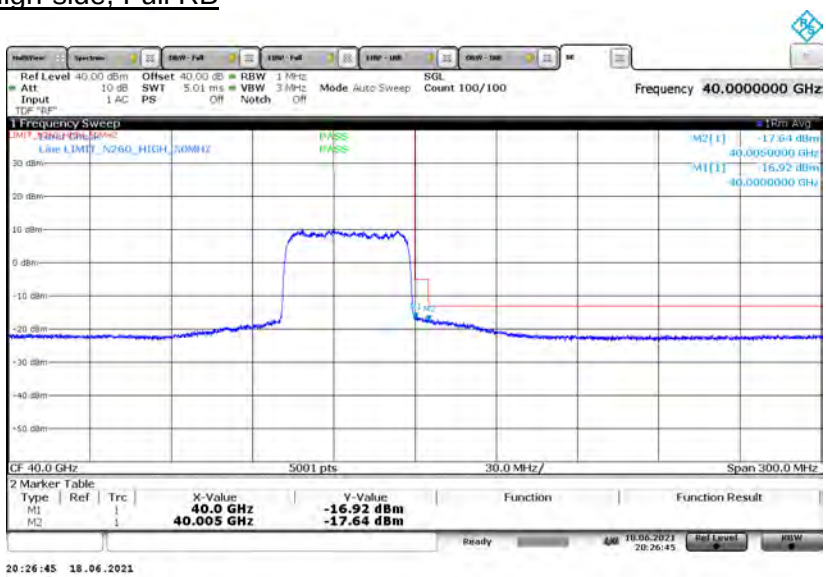
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-9.95	-5	-4.95
M1	50	L	1/0	36.995	-20.26	-13	-7.26
M0	50	L	1/0	37	-20.25	-5	-15.25
M0	50	L	1/0	36.995	-23.72	-13	-10.72
M2	50	L	1/0	37	-13.45	-5	-8.45
M2	50	L	1/0	36.995	-20.41	-13	-7.41
M1	50	L	32/0	37	-13.83	-5	-8.83
M1	50	L	32/0	36.995	-15.56	-13	-2.56
M0	50	L	32/0	37	-22.48	-5	-17.48
M0	50	L	32/0	36.995	-22.74	-13	-9.74
M2	50	L	32/0	37	-16.09	-5	-11.09
M2	50	L	32/0	36.995	-16.14	-13	-3.14
M1	50	H	1/32	40	-14.66	-5	-9.66
M1	50	H	1/32	40.005	-22.20	-13	-9.20
M0	50	H	1/32	40	-16.96	-5	-11.96
M0	50	H	1/32	40.005	-18.87	-13	-5.87
M2	50	H	1/32	40	-12.78	-5	-7.78
M2	50	H	1/32	40.005	-21.19	-13	-8.19
M1	50	H	32/0	40	-16.92	-5	-11.92
M1	50	H	32/0	40.005	-17.64	-13	-4.64
M0	50	H	32/0	40	-18.90	-5	-13.90
M0	50	H	32/0	40.005	-18.80	-13	-5.80
M2	50	H	32/0	40	-14.71	-5	-9.71
M2	50	H	32/0	40.005	-15.60	-13	-2.60

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-11.56	-5	-6.56
M1	50	L	1/0	36.995	-21.22	-13	-8.22
M2	50	L	1/0	37	-13.04	-5	-8.04
M2	50	L	1/0	36.995	-21.17	-13	-8.17
M1	50	L	32/0	37	-16.42	-5	-11.42
M1	50	L	32/0	36.995	-19.31	-13	-6.31
M2	50	L	32/0	37	-16.52	-5	-11.52
M2	50	L	32/0	36.995	-20.15	-13	-7.15
M1	50	H	1/32	40	-14.83	-5	-9.83
M1	50	H	1/32	40.005	-22.18	-13	-9.18
M2	50	H	1/32	40	-12.61	-5	-7.61
M2	50	H	1/32	40.005	-18.30	-13	-5.30
M1	50	H	32/0	40	-18.67	-5	-13.67
M1	50	H	32/0	40.005	-21.21	-13	-8.21
M2	50	H	32/0	40	-16.85	-5	-11.85
M2	50	H	32/0	40.005	-18.39	-13	-5.39

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-11.89	-5	-6.89
M1	50	L	1/0	36.995	-20.85	-13	-7.85
M2	50	L	1/0	37	-15.08	-5	-10.08
M2	50	L	1/0	36.995	-20.92	-13	-7.92
M1	50	L	32/0	37	-18.95	-5	-13.95
M1	50	L	32/0	36.995	-20.18	-13	-7.18
M2	50	L	32/0	37	-18.54	-5	-13.54
M2	50	L	32/0	36.995	-19.73	-13	-6.73
M1	50	H	1/32	40	-15.93	-5	-10.93
M1	50	H	1/32	40.005	-22.46	-13	-9.46
M2	50	H	1/32	40	-14.46	-5	-9.46
M2	50	H	1/32	40.005	-21.53	-13	-8.53
M1	50	H	32/0	40	-19.43	-5	-14.43
M1	50	H	32/0	40.005	-20.25	-13	-7.25
M2	50	H	32/0	40	-17.77	-5	-12.77
M2	50	H	32/0	40.005	-18.24	-13	-5.24

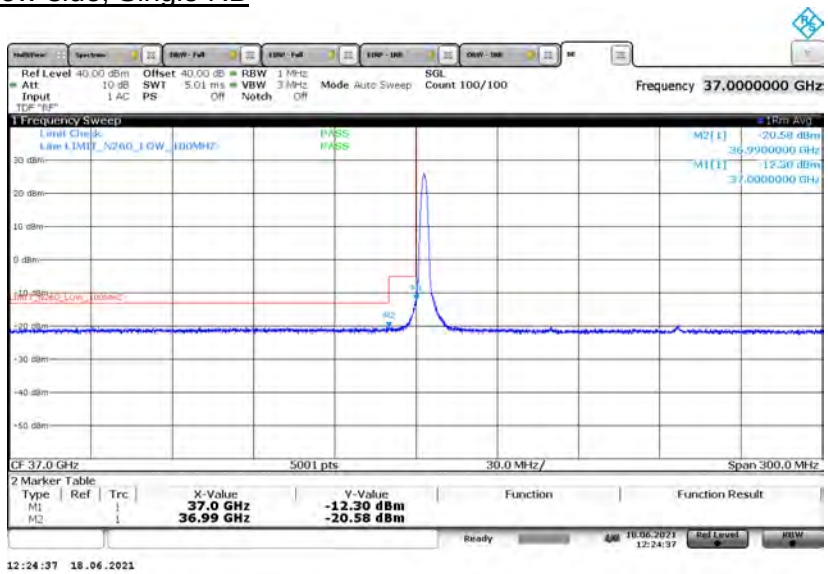
ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 64QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-14.71	-5	-9.71
M1	50	L	1/0	36.995	-20.70	-13	-7.70
M2	50	L	1/0	37	-16.59	-5	-11.59
M2	50	L	1/0	36.995	-20.85	-13	-7.85
M1	50	L	32/0	37	-20.41	-5	-15.41
M1	50	L	32/0	36.995	-21.22	-13	-8.22
M2	50	L	32/0	37	-21.05	-5	-16.05
M2	50	L	32/0	36.995	-21.52	-13	-8.52
M1	50	H	1/32	40	-18.72	-5	-13.72
M1	50	H	1/32	40.005	-22.46	-13	-9.46
M2	50	H	1/32	40	-15.83	-5	-10.83
M2	50	H	1/32	40.005	-22.49	-13	-9.49
M1	50	H	32/0	40	-22.38	-5	-17.38
M1	50	H	32/0	40.005	-22.21	-13	-9.21
M2	50	H	32/0	40	-21.09	-5	-16.09
M2	50	H	32/0	40.005	-22.03	-13	-9.03

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB

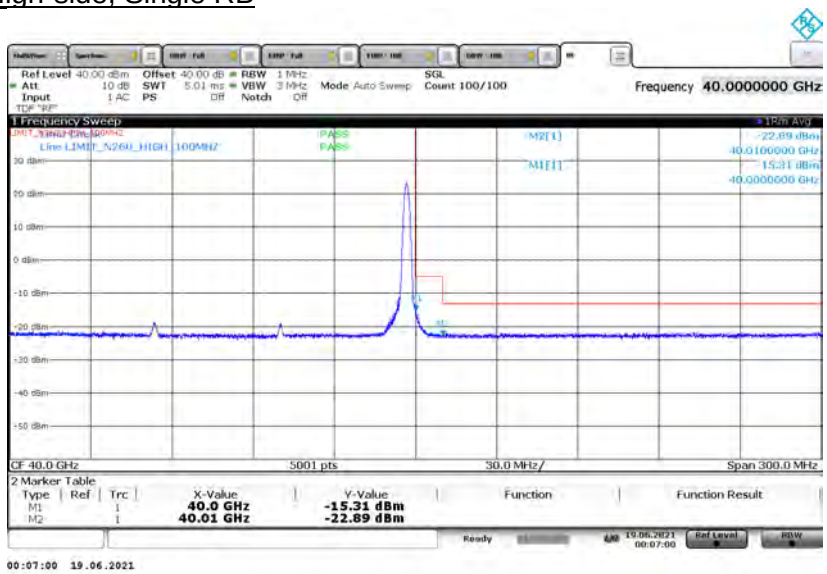


Low-side, Full RB

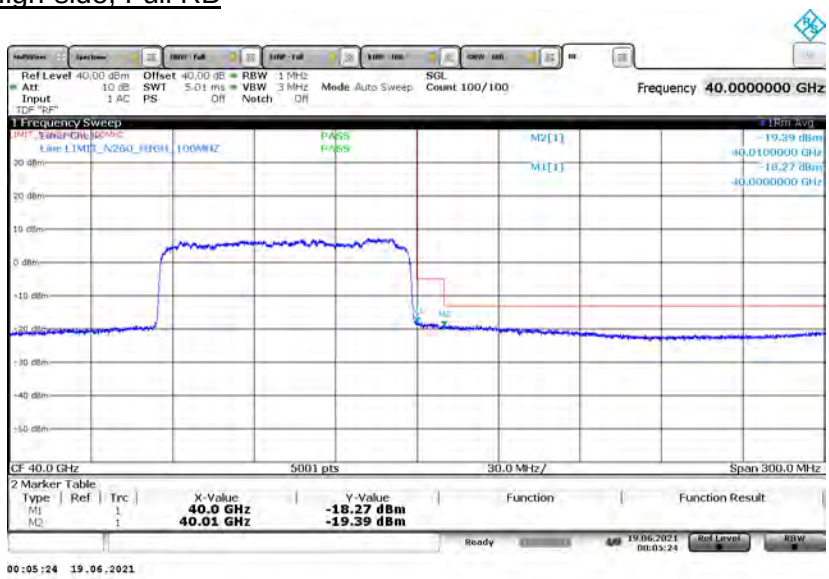
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 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	37	-12.30	-5	-7.30
M1	100	L	1/0	36.99	-20.58	-13	-7.58
M0	100	L	1/0	37	-21.23	-5	-16.23
M0	100	L	1/0	36.99	-23.43	-13	-10.43
M2	100	L	1/0	37	-16.45	-5	-11.45
M2	100	L	1/0	36.99	-21.27	-13	-8.27
M1	100	L	64/0	37	-17.63	-5	-12.63
M1	100	L	64/0	36.99	-18.27	-13	-5.27
M0	100	L	64/0	37	-22.86	-5	-17.86
M0	100	L	64/0	36.99	-23.36	-13	-10.36
M2	100	L	64/0	37	-18.11	-5	-13.11
M2	100	L	64/0	36.99	-19.18	-13	-6.18
M1	100	H	1/65	40	-15.31	-5	-10.31
M1	100	H	1/65	40.01	-22.89	-13	-9.89
M0	100	H	1/65	40	-17.48	-5	-12.48
M0	100	H	1/65	40.01	-18.41	-13	-5.41
M2	100	H	1/65	40	-13.50	-5	-8.50
M2	100	H	1/65	40.01	-21.97	-13	-8.97
M1	100	H	64/0	40	-18.27	-5	-13.27
M1	100	H	64/0	40.01	-19.39	-13	-6.39
M0	100	H	64/0	40	-18.01	-5	-13.01
M0	100	H	64/0	40.01	-17.88	-13	-4.88
M2	100	H	64/0	40	-17.41	-5	-12.41
M2	100	H	64/0	40.01	-16.90	-13	-3.90

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	37	-18.18	-5	-13.18
M1	100	L	64/0	36.99	-20.53	-13	-7.53
M2	100	L	64/0	37	-18.95	-5	-13.95
M2	100	L	64/0	36.99	-20.55	-13	-7.55
M1	100	H	64/0	40	-19.98	-5	-14.98
M1	100	H	64/0	40.01	-22.00	-13	-9.00
M2	100	H	64/0	40	-20.59	-5	-15.59
M2	100	H	64/0	40.01	-21.88	-13	-8.88

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	37	-19.85	-5	-14.85
M1	100	L	64/0	36.99	-20.05	-13	-7.05
M2	100	L	64/0	37	-19.68	-5	-14.68
M2	100	L	64/0	36.99	-20.24	-13	-7.24
M1	100	H	64/0	40	-21.38	-5	-16.38
M1	100	H	64/0	40.01	-21.87	-13	-8.87
M2	100	H	64/0	40	-21.39	-5	-16.39
M2	100	H	64/0	40.01	-21.09	-13	-8.09

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 64QAM

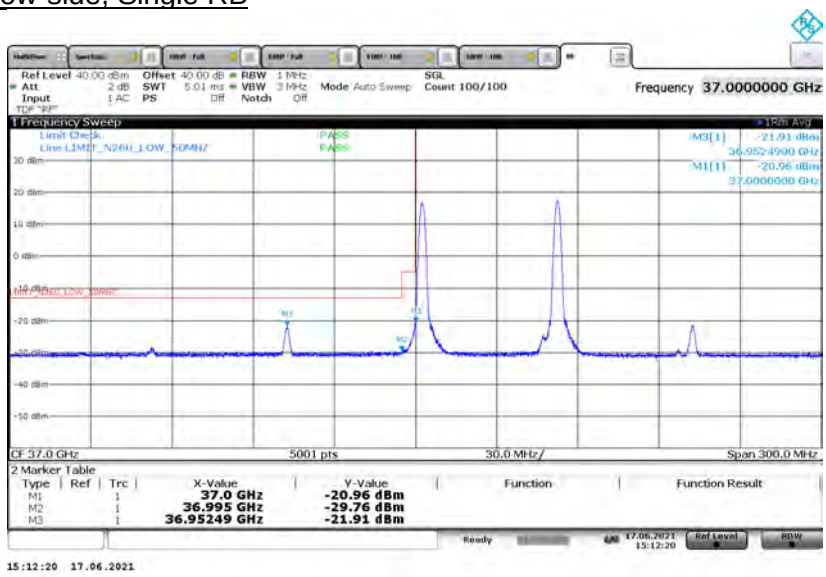
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	37	-21.06	-5	-16.06
M1	100	L	64/0	36.99	-21.04	-13	-8.04
M2	100	L	64/0	37	-20.88	-5	-15.88
M2	100	L	64/0	36.99	-21.19	-13	-8.19
M1	100	H	64/0	40	-22.76	-5	-17.76
M1	100	H	64/0	40.01	-23.12	-13	-10.12
M2	100	H	64/0	40	-22.18	-5	-17.18
M2	100	H	64/0	40.01	-22.98	-13	-9.98

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.3.14. BAND EDGE n260 SISO-DUAL 2CC

ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

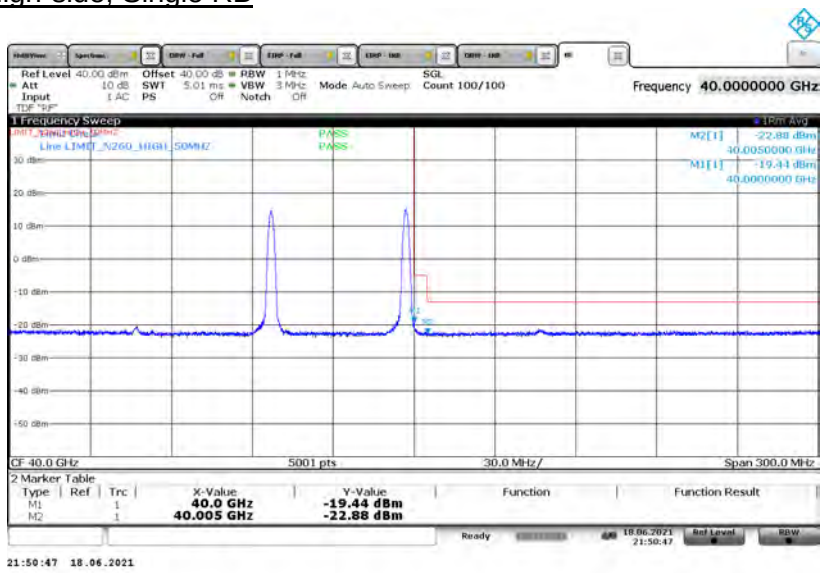
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 2CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-20.96	-5	-15.96
M1	50	L	1/0	36.995	-29.76	-13	-16.76
M0	50	L	1/0	37	-20.22	-5	-15.22
M0	50	L	1/0	36.995	-20.86	-13	-7.86
M2	50	L	1/0	37	-19.38	-5	-14.38
M2	50	L	1/0	36.995	-21.43	-13	-8.43
M1	50	H	1/32	40	-19.44	-5	-14.44
M1	50	H	1/32	40.005	-22.88	-13	-9.88
M0	50	H	1/32	40	-22.31	-5	-17.31
M0	50	H	1/32	40.005	-23.29	-13	-10.29
M2	50	H	1/32	40	-19.70	-5	-14.70
M2	50	H	1/32	40.005	-22.70	-13	-9.70

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

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-20.09	-5	-15.09
M1	50	L	1/0	36.995	-29.50	-13	-16.50
M2	50	L	1/0	37	-18.69	-5	-13.69
M2	50	L	1/0	36.995	-21.62	-13	-8.62
M1	50	H	1/32	40	-20.99	-5	-15.99
M1	50	H	1/32	40.005	-23.18	-13	-10.18
M2	50	H	1/32	40	-19.07	-5	-14.07
M2	50	H	1/32	40.005	-22.45	-13	-9.45

ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-21.86	-5	-16.86
M1	50	L	1/0	36.995	-29.84	-13	-16.84
M2	50	L	1/0	37	-19.83	-5	-14.83
M2	50	L	1/0	36.995	-21.29	-13	-8.29
M1	50	H	1/32	40	-20.27	-5	-15.27
M1	50	H	1/32	40.005	-22.42	-13	-9.42
M2	50	H	1/32	40	-20.80	-5	-15.80
M2	50	H	1/32	40.005	-23.65	-13	-10.65

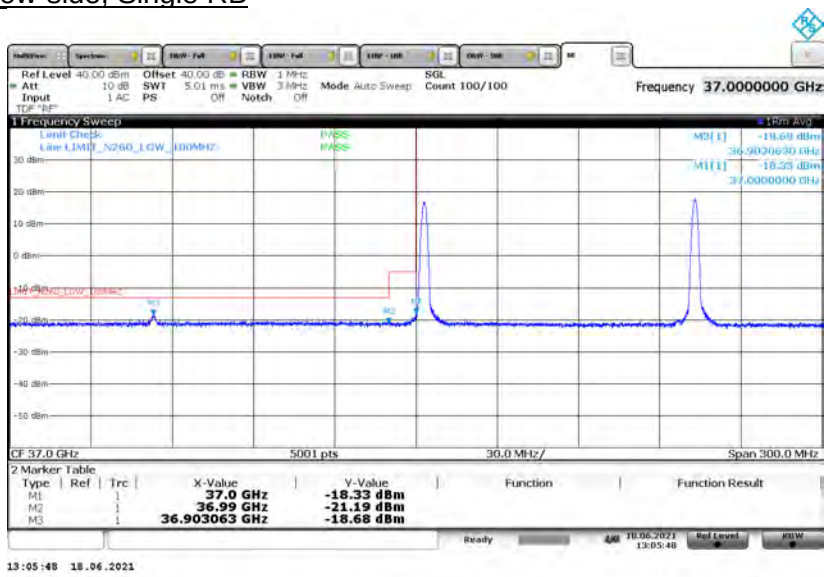
ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 64QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-21.31	-5	-16.31
M1	50	L	1/0	36.995	-30.18	-13	-17.18
M2	50	L	1/0	37	-20.12	-5	-15.12
M2	50	L	1/0	36.995	-20.83	-13	-7.83
M1	50	H	1/32	40	-21.21	-5	-16.21
M1	50	H	1/32	40.005	-22.94	-13	-9.94
M2	50	H	1/32	40	-20.56	-5	-15.56
M2	50	H	1/32	40.005	-22.90	-13	-9.90

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

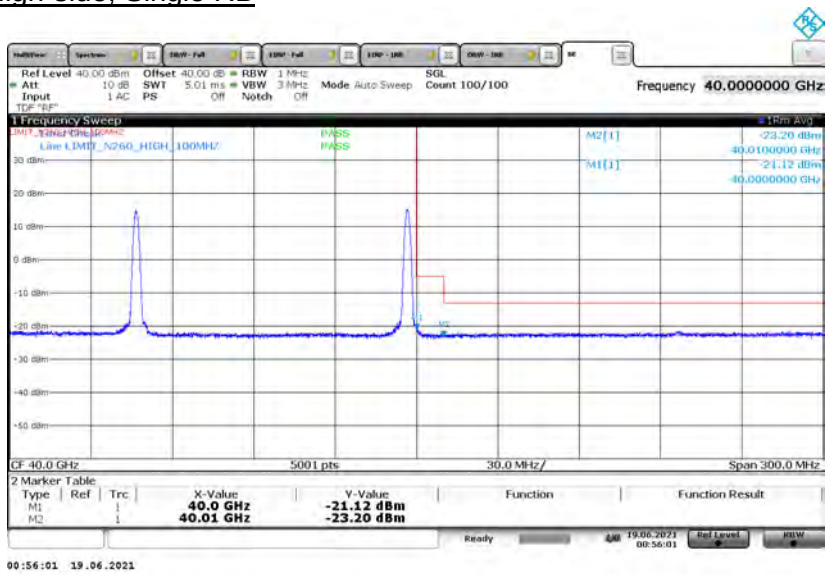
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, SISO-DUAL, 2CC, QPSK

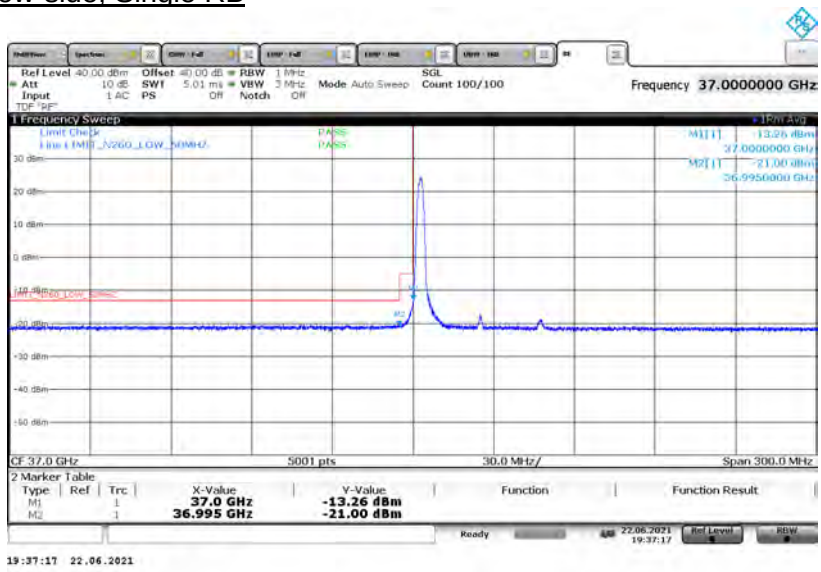
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-18.33	-5	-13.33
M1	50	L	1/0	36.99	-21.19	-13	-8.19
M0	50	L	1/0	37	-21.70	-5	-16.70
M0	50	L	1/0	36.99	-21.89	-13	-8.89
M2	50	L	1/0	37	-18.86	-5	-13.86
M2	50	L	1/0	36.99	-21.22	-13	-8.22
M1	50	H	1/65	40	-21.12	-5	-16.12
M1	50	H	1/65	40.01	-23.20	-13	-10.20
M0	50	H	1/65	40	-23.00	-5	-18.00
M0	50	H	1/65	40.01	-22.79	-13	-9.79
M2	50	H	1/65	40	-23.93	-5	-18.93
M2	50	H	1/65	40.01	-30.32	-13	-17.32

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

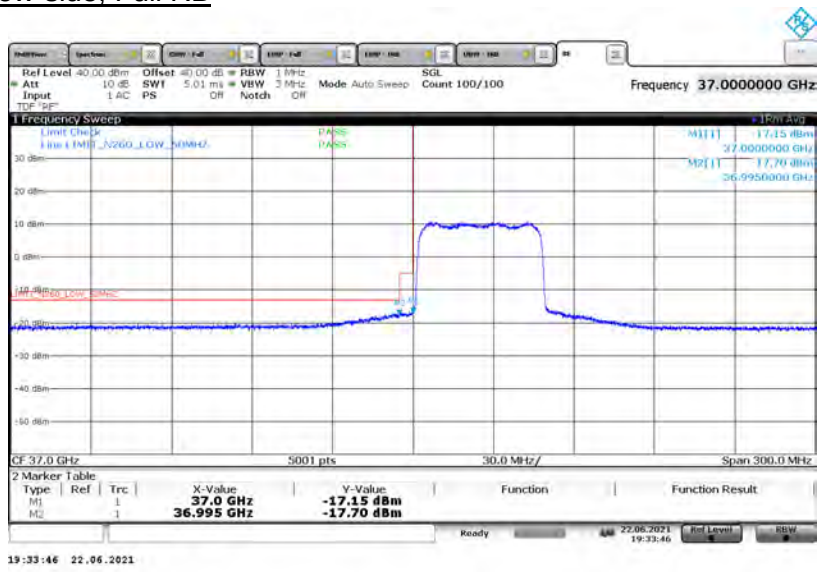
8.3.15. BAND EDGE n260 MIMO 1CC

ANT M1, 50 MHz, MIMO, 1CC, QPSK

Low-side, Single RB



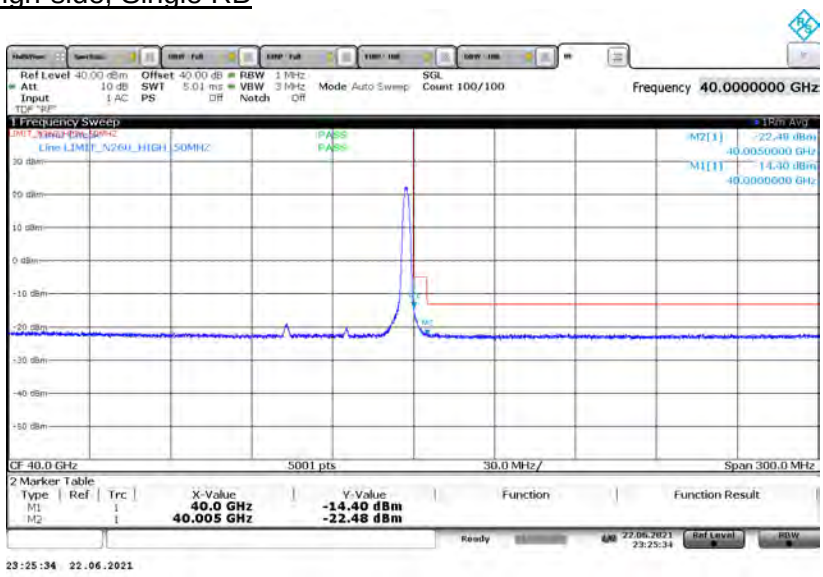
Low-side, Full RB



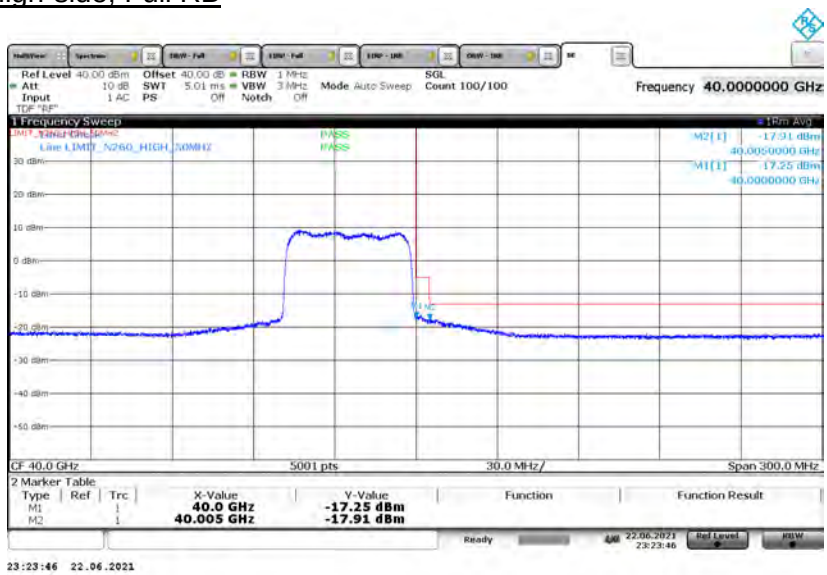
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

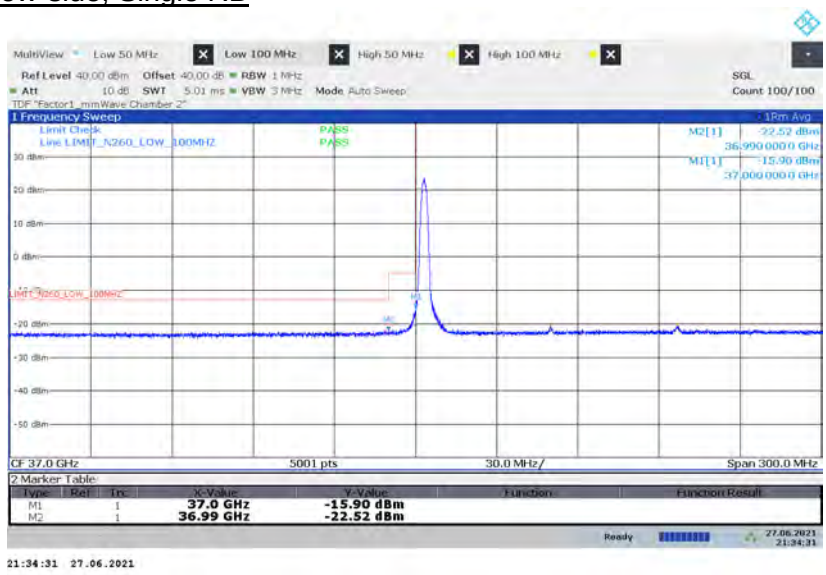
ANT M1, M0 & M2, 50 MHz, MIMO, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-13.26	-5	-8.26
M1	50	L	1/0	36.995	-21.00	-13	-8.00
M0	50	L	1/0	37	-17.66	-5	-12.66
M0	50	L	1/0	36.995	-20.94	-13	-7.94
M2	50	L	1/0	37	-15.30	-5	-10.30
M2	50	L	1/0	36.995	-20.89	-13	-7.89
M1	50	L	32/0	37	-17.15	-5	-12.15
M1	50	L	32/0	36.995	-17.70	-13	-4.70
M0	50	L	32/0	37	-21.25	-5	-16.25
M0	50	L	32/0	36.995	-21.63	-13	-8.63
M2	50	L	32/0	37	-17.76	-5	-12.76
M2	50	L	32/0	36.995	-18.46	-13	-5.46
M1	50	H	1/32	40	-14.40	-5	-9.40
M1	50	H	1/32	40.005	-22.48	-13	-9.48
M0	50	H	1/32	40	-18.95	-5	-13.95
M0	50	H	1/32	40.005	-22.35	-13	-9.35
M2	50	H	1/32	40	-15.25	-5	-10.25
M2	50	H	1/32	40.005	-21.93	-13	-8.93
M1	50	H	32/0	40	-17.25	-5	-12.25
M1	50	H	32/0	40.005	-17.91	-13	-4.91
M0	50	H	32/0	40	-23.22	-5	-18.22
M0	50	H	32/0	40.005	-23.26	-13	-10.26
M2	50	H	32/0	40	-17.13	-5	-12.13
M2	50	H	32/0	40.005	-17.41	-13	-4.41

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 1CC, QPSK

Low-side, Single RB

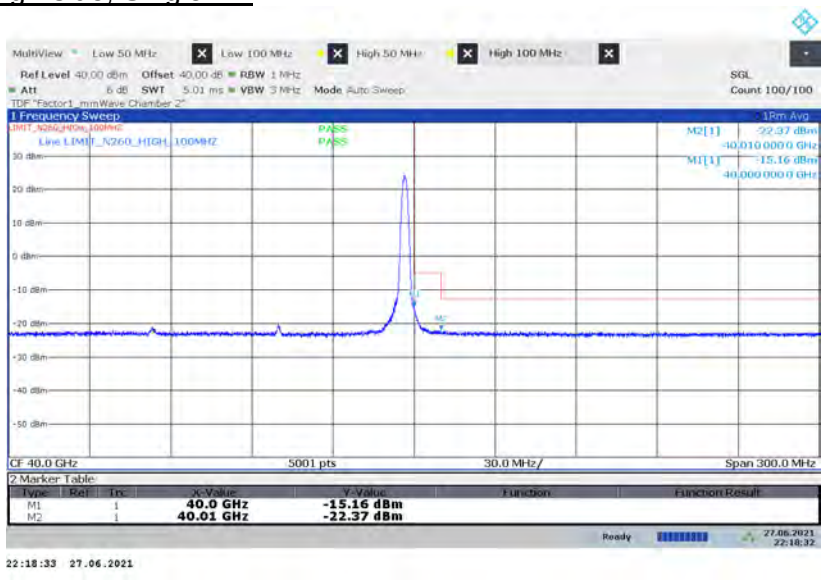


Low-side, Full RB

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 100 MHz, MIMO, 1CC, QPSK

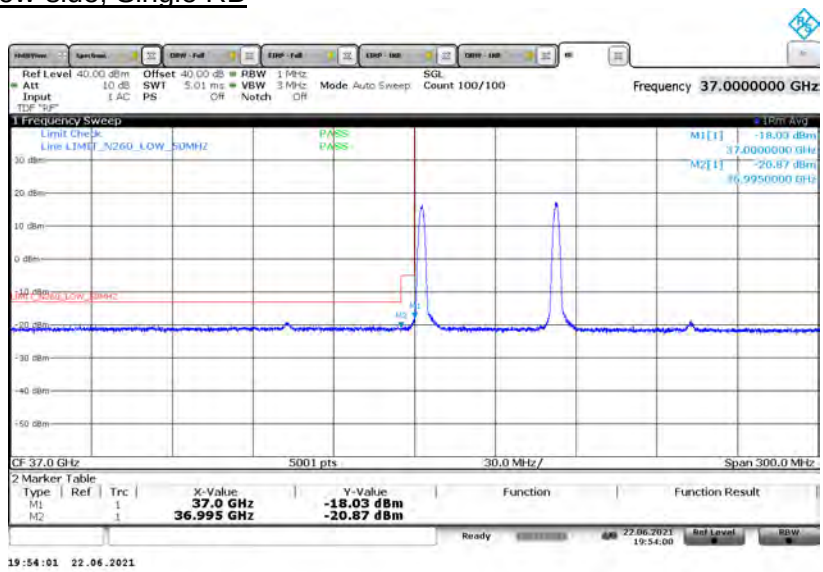
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	37	-15.90	-5	-10.90
M1	100	L	1/0	36.99	-22.52	-13	-9.52
M0	100	L	1/0	37	-18.83	-5	-13.83
M0	100	L	1/0	36.99	-21.32	-13	-8.32
M2	100	L	1/0	37	-16.25	-5	-11.25
M2	100	L	1/0	36.99	-21.59	-13	-8.59
M1	100	L	66/0	37	-20.34	-5	-15.34
M1	100	L	66/0	36.99	-20.50	-13	-7.50
M0	100	L	66/0	37	-21.44	-5	-16.44
M0	100	L	66/0	36.99	-21.22	-13	-8.22
M2	100	L	66/0	37	-17.93	-5	-12.93
M2	100	L	66/0	36.99	-19.24	-13	-6.24
M1	100	H	1/65	40	-15.16	-5	-10.16
M1	100	H	1/65	40.01	-22.37	-13	-9.37
M0	100	H	1/65	40	-21.26	-5	-16.26
M0	100	H	1/65	40.01	-23.09	-13	-10.09
M2	100	H	1/65	40	-14.70	-5	-9.70
M2	100	H	1/65	40.01	-22.74	-13	-9.74
M1	100	H	66/0	40	-18.38	-5	-13.38
M1	100	H	66/0	40.01	-18.84	-13	-5.84
M0	100	H	66/0	40	-23.31	-5	-18.31
M0	100	H	66/0	40.01	-23.04	-13	-10.04
M2	100	H	66/0	40	-17.54	-5	-12.54
M2	100	H	66/0	40.01	-18.63	-13	-5.63

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.3.16. BAND EDGE n260 MIMO 2CC

ANT M1, 50 MHz, MIMO, 2CC, QPSK

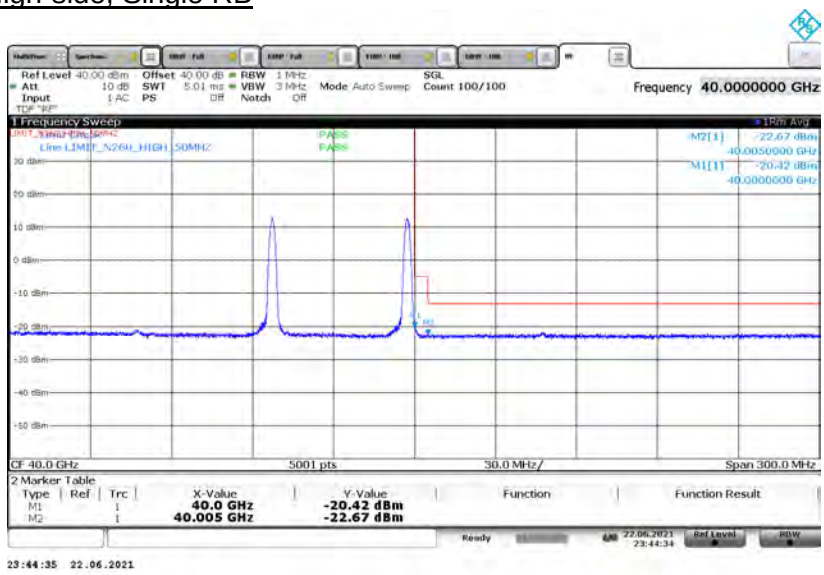
Low-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 50 MHz, MIMO, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 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	37	-18.03	-5	-13.03
M1	50	L	1/0	36.995	-20.87	-13	-7.87
M0	50	L	1/0	37	-18.03	-5	-13.03
M0	50	L	1/0	36.995	-20.87	-13	-7.87
M2	50	L	1/0	37	-20.13	-5	-15.13
M2	50	L	1/0	36.995	-21.86	-13	-8.86
M1	50	H	1/32	40	-20.42	-5	-15.42
M1	50	H	1/32	40.005	-22.67	-13	-9.67
M0	50	H	1/32	40	-23.13	-5	-18.13
M0	50	H	1/32	40.005	-22.67	-13	-9.67
M2	50	H	1/32	40	-20.60	-5	-15.60
M2	50	H	1/32	40.005	-23.11	-13	-10.11

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

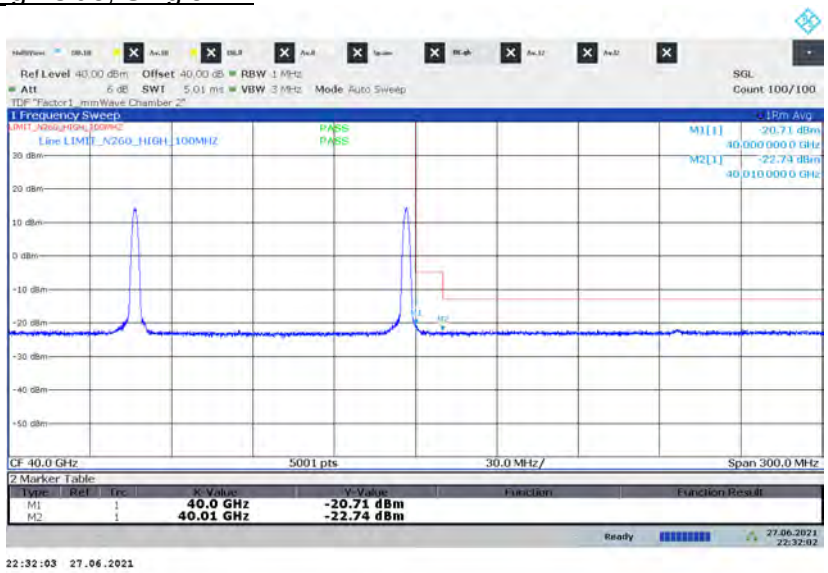
ANT M1, 100 MHz, MIMO, 2CC, QPSK

Low-side, Single RB

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, 100 MHz, MIMO, 2CC, QPSK

High-side, Single RB



UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

ANT M1, M0 & M2, 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	37	-20.75	-5	-15.75
M1	100	L	1/0	36.99	-22.87	-13	-9.87
M0	100	L	1/0	37	-25.86	-5	-20.86
M0	100	L	1/0	36.99	-25.67	-13	-12.67
M2	100	L	1/0	37	-19.62	-5	-14.62
M2	100	L	1/0	36.99	-21.13	-13	-8.13
M1	100	H	1/65	40	-20.71	-5	-15.71
M1	100	H	1/65	40.01	-22.74	-13	-9.74
M0	100	H	1/65	40	-23.47	-5	-18.47
M0	100	H	1/65	40.01	-23.90	-13	-10.90
M2	100	H	1/65	40	-20.51	-5	-15.51
M2	100	H	1/65	40.01	-22.85	-13	-9.85

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4. RADIATED SPURIOUS EMISSIONS

RULE PART(S)

FCC: §2.1051, §30.203

LIMIT

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.

TEST PROCEDURE

KDB 842590 D01 Upper Microwave Flexible Use Service v01 Section 4.4.2 and Section 4.4.3. ANSI C63.26-2015 Clause 5.5.4 and Annex C.5.2.

All radiated spurious emissions were measured as EIRP to compare with the §30.203 TRP limits to demonstrate compliance.

RSE was investigated from 30 MHz – 100 GHz on n258 SB1, n258 SB2 and n261 bands, from 30 MHz – 200 GHz on n260 band.

Plots below 18 GHz are corrected field strength levels, measured at 3 meter test distance. The average EIRP reported below is calculated per section 5.2.7 of ANSI C63.26-2015 which states: EIRP (dBm) = E (dBµV/m) + 20log(D) − 104.8; where D is the measurement distance (in the far field region) in m. The field strength E is calculated E (dBµV/m) = Spectrum Analyzer Level (dBm) + Antenna Factor (dB/m) + Cable Loss (dB) + 107. All appropriate Antenna Factor and Cable Loss have been applied in the spectrum analyzer for each measurement.

RSEs from 1 – 200 GHz were measured at 1.5 meters height.

RSEs above 18 GHz were measured at the appropriate far field distances listed on Section 5 on this report (FAR-FIELD DISTANCE AND MEASUREMENT DISTANCE). RSEs from 18 – 50 GHz were measured using a spectrum analyzer or EMI receiver with an internal preamplifier when applicable. Emissions above 50 GHz were measured using a harmonic mixer or a downconverter with spectrum analyzer, while an external LNA was used when applicable.

EIRP of RSE was calculated using the equations on ANSI C63.26-2015 Annex C.5.2. The total correction factor of cable loss, horn antenna gain, harmonic mixer loss, LNA gain 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) + Mixer Loss (dB)
– LNA Gain (dB) + Path Loss (dB)
= 4 – 23 + 12 – 30 + 71
= 34 dB

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

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

RSEs were measured using the configuration with the highest EIRP (QPSK, SISO-Dual mode and a single mid-RB) as representing the worst case. Preliminary radiated emissions tests at the low, middle and high channels indicated that the worst case radiated spurious emissions were on the channel with the highest EIRP and so only the test data for that channel is included in this report.

The following configurations with highest EIRP from Ant M1 and Ant M2 in each frequency band were used at RSE investigation at the pre-determined worst case y-axis (portrait) orientation:

n258 SB1 band:
M1: SISO-DUAL_QPSK_100 MHz BW_Mid CH_RB Offset 1/32 (1RB-M)
M2: SISO-DUAL_QPSK_100 MHz BW_Mid CH_RB Offset 1/32 (1RB-M)

n258 SB2 band:
M1: SISO-DUAL_QPSK_100 MHz BW_Low CH_RB Offset 1/32 (1RB-M)
M2: SISO-DUAL_QPSK_50 MHz BW_Low CH_RB Offset 1/15 (1RB-M)

n261 band:
M1: SISO-DUAL_QPSK_50 MHz BW_Mid CH_RB Offset 1/15 (1RB-M)
M2: SISO-DUAL_QPSK_50 MHz BW_Low CH_RB Offset 1/15 (1RB-M)

n260 band:
M1: SISO-DUAL_QPSK_50 MHz BW_Low CH_RB Offset 1/15 (1RB-M)
M2: SISO-DUAL_QPSK_500 MHz BW_High CH_RB Offset 1/15 (1RB-M)

In addition, the 2CC multi-carrier operations were verified for IMD product at the near upper and lower band edge regions, approximately 1 GHz wide. The measurements were made with the single RB active in each channel and plots showing the IMD product are provided. Both (50 MHz + 50 MHz) and (100 MHz + 100 MHz) channel bandwidths are tested and the signal level of the IMD products are similar for both modes. The test data for the worst case IMD emissions are reported.

Where the measured EIRP value is within 1 dB of the limit, a TRP measurement is made, otherwise the EIRP value is compared with the §30.203 TRP limits to demonstrate compliance.

For simultaneous transmission of multiple channels in the 4G LTE bands and 5G FR2 bands, no noticeable new emission was found.

RESULTS

See the following pages.

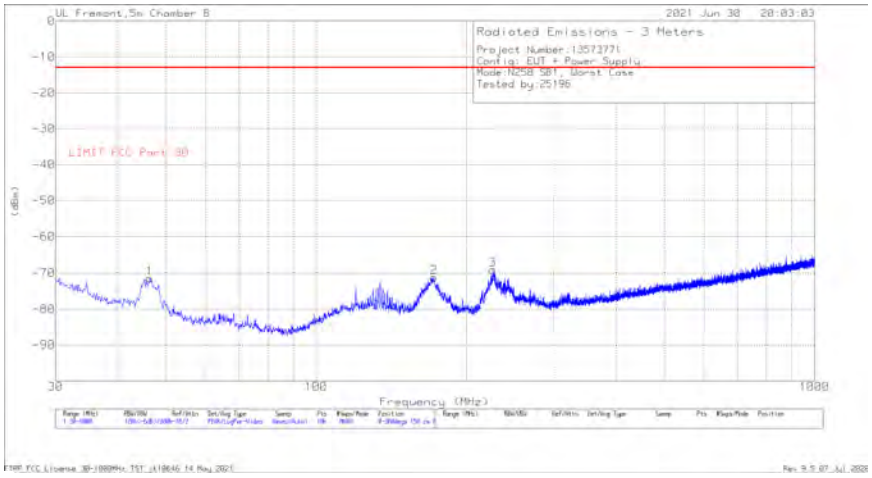
Employee IDs: 12492, 25196, 19437, 19459, 19470, 24303 & 24840
Test Date: 6/29/2021 – 7/16/2021
Test Locations: Chambers B, 1, 2 & 3

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

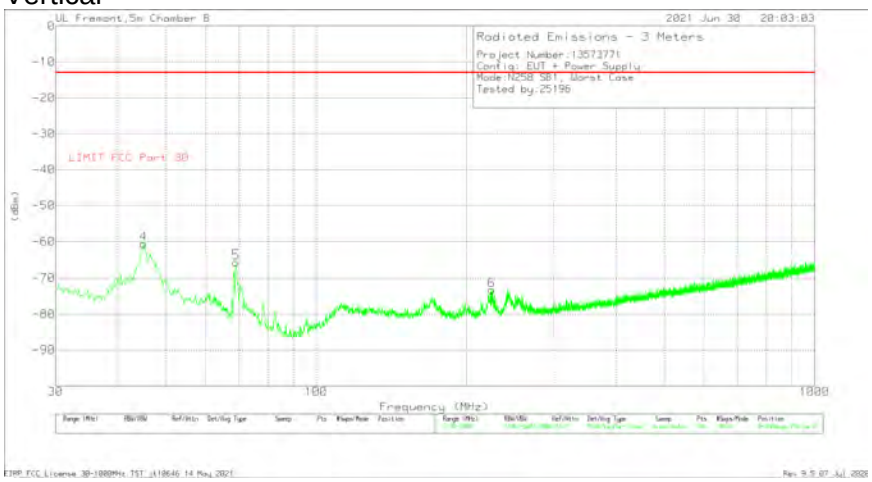
8.4.1. RSE n258 SB1 30 – 1000 MHz

30 – 1000 MHz, ANT M1 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

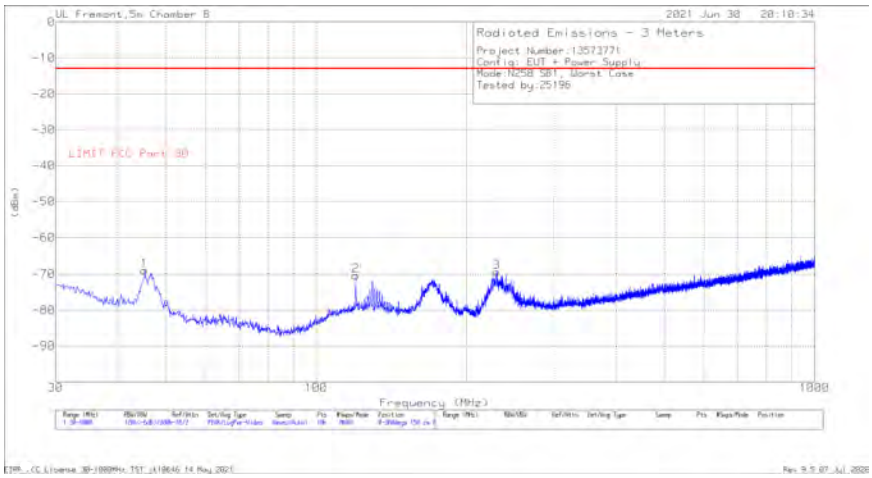
Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	45.035	-58.04	Pk	16.9	-31.2	11.7	-60.64	-13	-47.64	0-360	150	V
1	46.393	-68.01	Pk	16.1	-31.2	11.7	-71.41	-13	-58.41	0-360	150	H
5	69.0425	-60.39	Pk	14.1	-31	11.7	-65.59	-13	-52.59	0-360	150	V
2	172.299	-70.52	Pk	17.9	-30.2	11.7	-71.12	-13	-58.12	0-360	150	H
6	224.776	-72.51	Pk	17.4	-29.9	11.7	-73.31	-13	-60.31	0-360	150	V
3	225.94	-68.22	Pk	17.4	-29.9	11.7	-69.02	-13	-56.02	0-360	150	H

Pk - Peak detector

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

30 – 1000 MHz, ANT M2 (Pre-scan using Pk Det.)

Horizontal



Vertical

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	42.61	-60.54	Pk	18.5	-31.2	11.7	-61.54	-13	-48.54	0-360	150	V
5	45.035	-58.82	Pk	16.9	-31.2	11.7	-61.42	-13	-48.42	0-360	150	V
1	45.229	-66.35	Pk	16.8	-31.2	11.7	-69.05	-13	-56.05	0-360	150	H
2	120.016	-71.48	Pk	19.9	-30.5	11.7	-70.38	-13	-57.38	0-360	150	H
6	228.462	-71.83	Pk	17.5	-29.9	11.7	-72.53	-13	-59.53	0-360	150	V
3	230.3535	-68.8	Pk	17.6	-29.9	11.7	-69.4	-13	-56.4	0-360	150	H

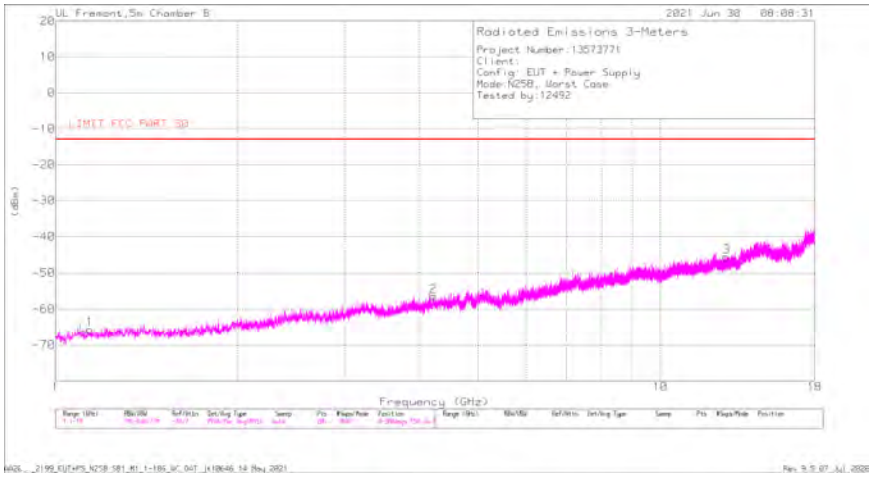
Pk - Peak detector

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

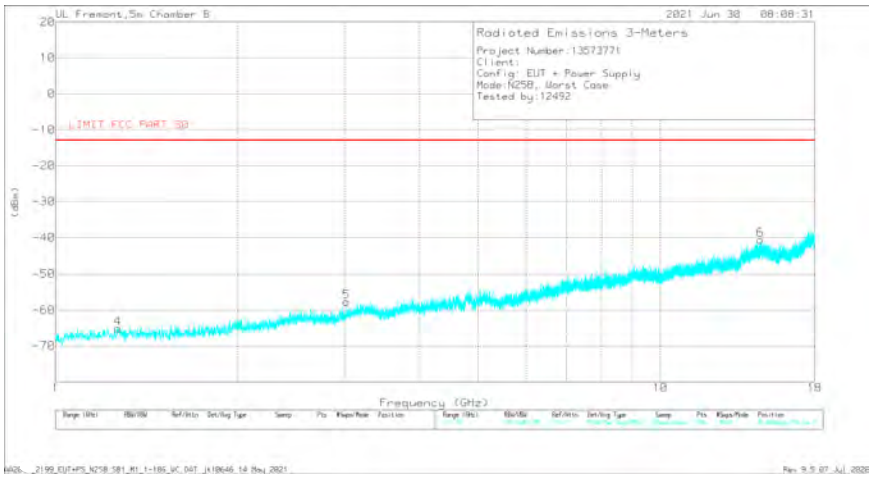
8.4.2. RSE n258 SB1 1 - 18 GHz

1 – 18 GHz, ANT M1 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

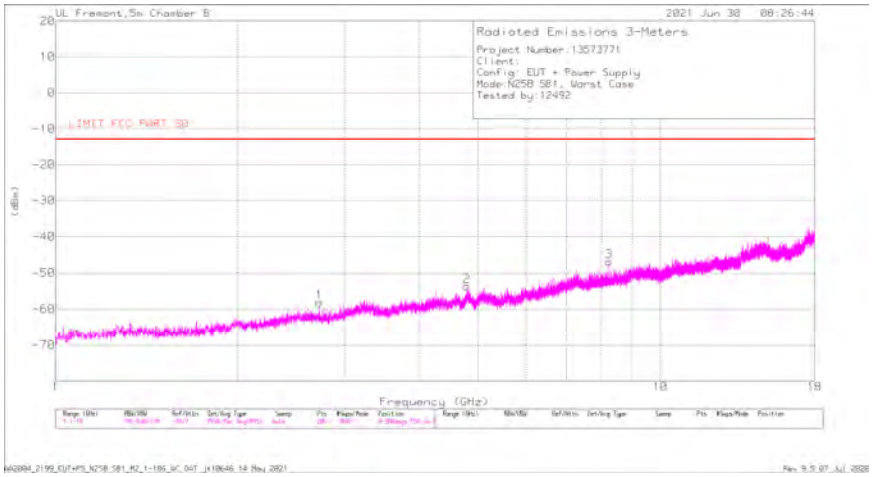
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	6.54568	-74.14	Pk	35.4	-21.9	11.7	-48.94	-13	-35.94	0-360	150	V
3	7.13816	-73.48	Pk	36.8	-21.4	11.7	-46.38	-13	-33.38	0-360	150	H
5	11.54648	-74.79	Pk	39.2	-17.5	11.7	-41.39	-13	-28.39	0-360	150	V
2	11.69779	-76.08	Pk	39.4	-17.3	11.7	-42.28	-13	-29.28	0-360	150	H
1	17.47978	-75.01	Pk	42.8	-15.2	11.7	-35.71	-13	-22.71	0-360	150	H
4	17.56819	-76.39	Pk	42.9	-14.3	11.7	-36.09	-13	-23.09	0-360	150	V

Pk - Peak detector

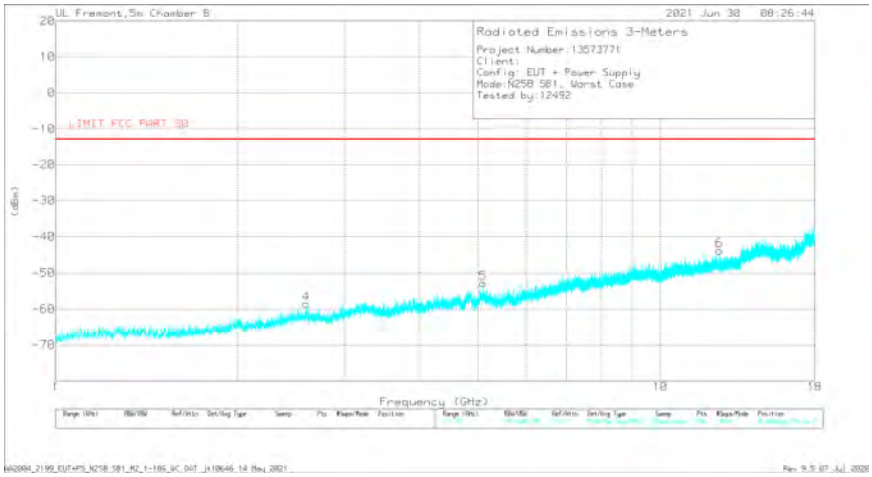
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1 – 18 GHz, ANT M2 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

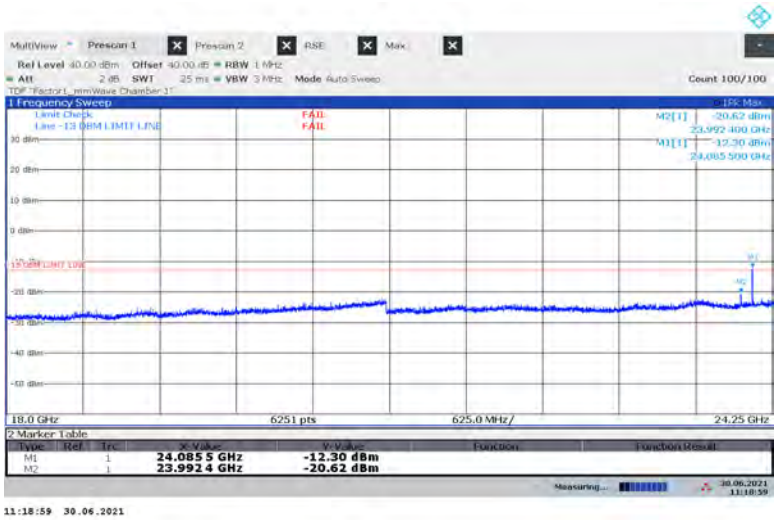
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.59638	-64.78	Pk	29.2	-34.7	11.7	-58.58	-13	-45.58	0-360	150	V
1	2.72899	-64.24	Pk	29	-34.6	11.7	-58.14	-13	-45.14	0-360	150	H
2	4.78524	-68.13	Pk	33	-30.3	11.7	-53.73	-13	-40.73	0-360	150	H
5	5.09211	-67.89	Pk	33.9	-30.5	11.7	-52.79	-13	-39.79	0-360	150	V
3	8.22197	-69.7	Pk	37.3	-26.1	11.7	-46.8	-13	-33.8	0-360	150	H
6	12.53423	-74.08	Pk	40	-21.4	11.7	-43.78	-13	-30.78	0-360	150	V

Pk - Peak detector

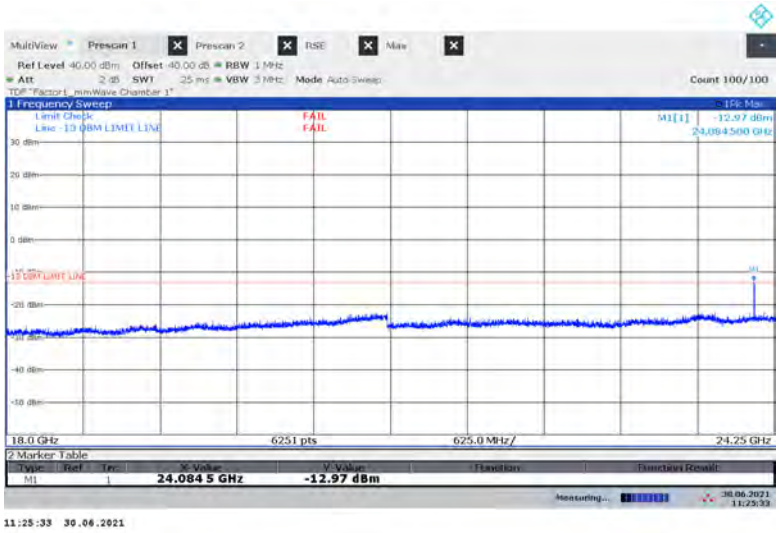
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.3. RSE n258 SB1 18 - 24.25 GHz

18 – 24.25 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Horizontal



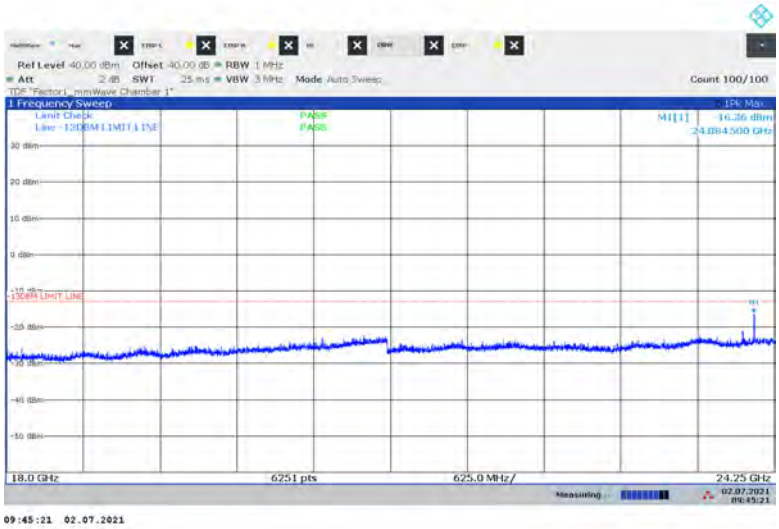
18 – 24.25 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Vertical



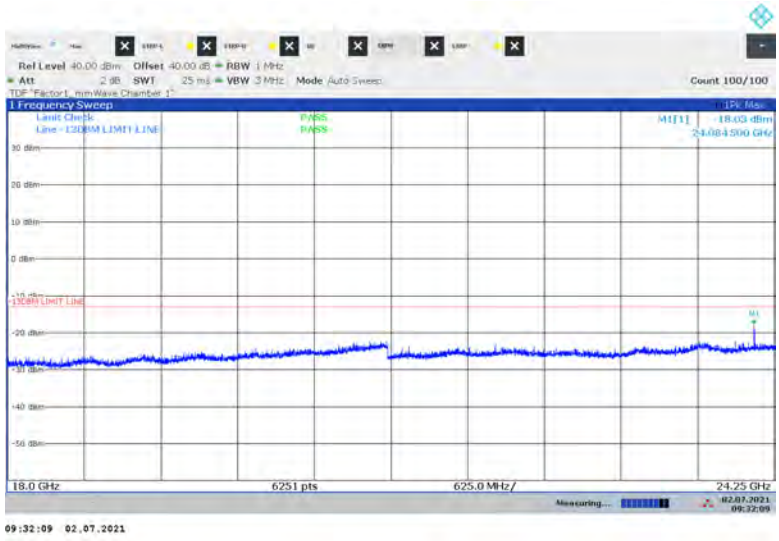
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

18 - 24.25 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Horizontal



18 - 24.25 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

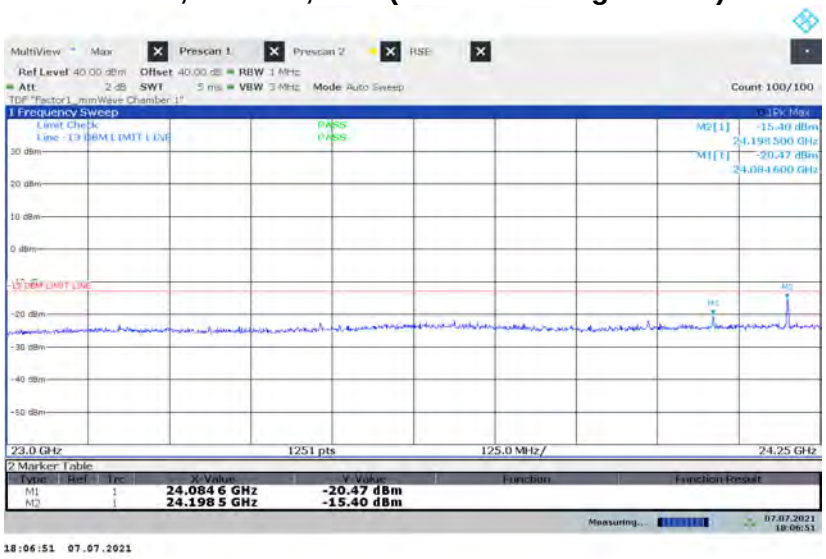
18 - 24.25 GHz n258 SB1, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.085	3.5	H	-14.75	-13	-1.75
M1	24.085	3.5	V	-19.34	-13	-6.34
M2	24.085	3.5	H	-18.79	-13	-5.79
M2	24.085	3.5	V	-30.46	-13	-17.46

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

23 - 24.25 GHz n258 SB1, 2CC

23 - 24.25 GHz, ANT M1, 2CC (Pre-scan using Pk Det.)



Worst case configuration:
SISO-DUAL_QPSK_(100 MHz + 100 MHz)_Low CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.199	3.5	H	-18.53	-13	-5.53

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

23 - 24.25 GHz, ANT M2, 2CC (Pre-scan using Pk Det.)

Worst case configuration:
SISO-DUAL_QPSK_(50 MHz + 50 MHz)_Low CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

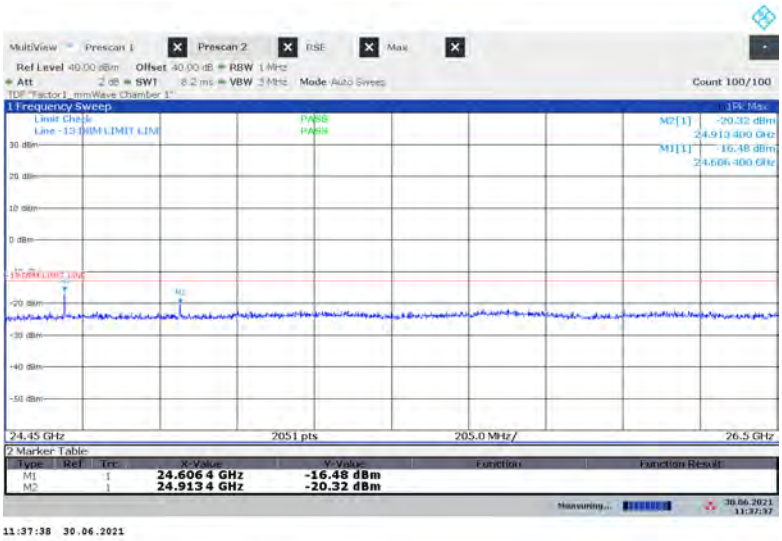
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	24.225	3.5	H	-15.52	-13	-2.52

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

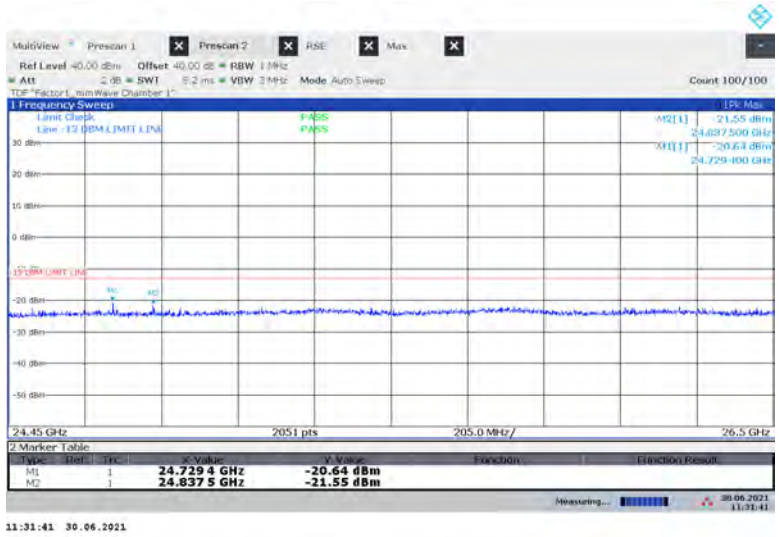
8.4.4. RSE n258 SB1 24.45 - 26.5 GHz

Note: 24.25 – 24.45 GHz covered by Fundamental and BE measurements.

24.45 - 26.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Horizontal



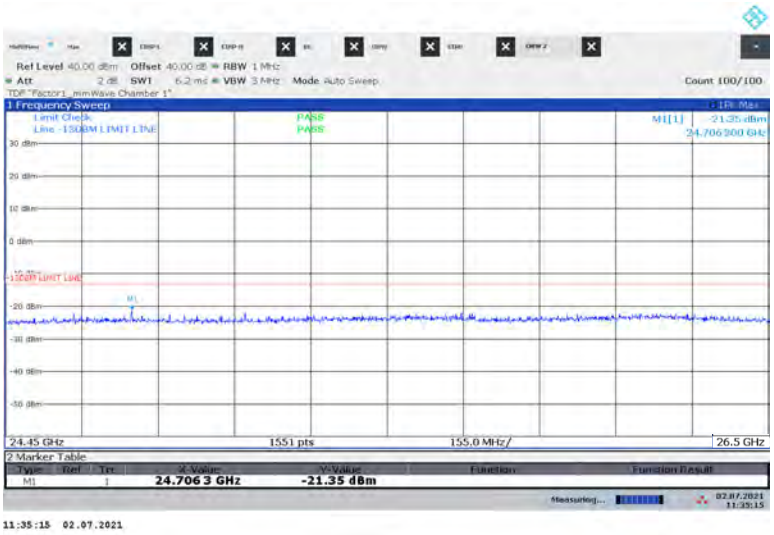
24.45 - 26.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Vertical



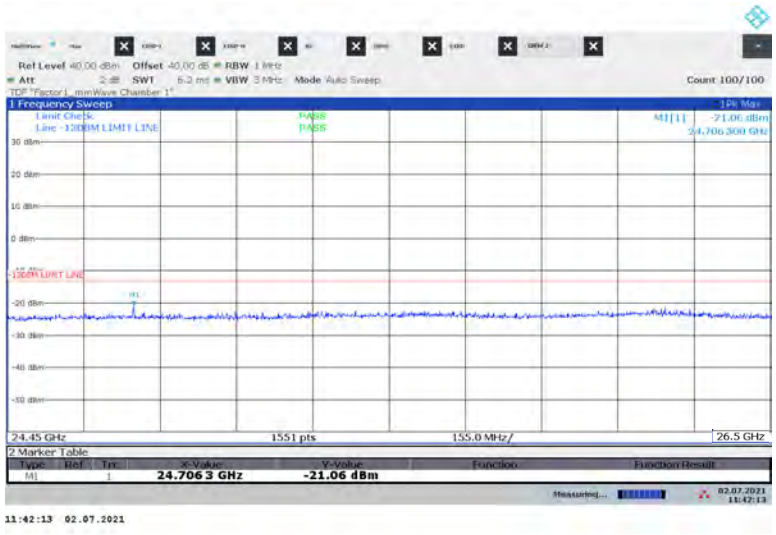
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

24.45 - 26.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Horizontal



24.45 - 26.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

24.45 - 26.5 GHz n258 SB1, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.6063	3.5	H	-19.91	-13	-6.91
M1	24.9136	3.5	H	-26.74	-13	-13.74
M1	24.7296	3.5	V	-26.25	-13	-13.25
M1	24.8367	3.5	V	-27.56	-13	-14.56
M2	24.7063	3.5	H	-25.94	-13	-12.94
M2	24.7063	3.5	V	-27.88	-13	-14.88

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

24.45 – 26 GHz n258 SB1, 2CC

24.45 – 26 GHz, ANT M1, 2CC (Pre-scan using Pk Det.)

Worst case configuration:
SISO-DUAL_QPSK_(100 MHz + 100 MHz)_High CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.499	3.5	H	-18.80	-13	-5.80

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

24.45 – 26 GHz, ANT M2, 2CC (Pre-scan using Pk Det.)

Worst case configuration:
SISO-DUAL_QPSK_(100 MHz + 100 MHz)_High CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

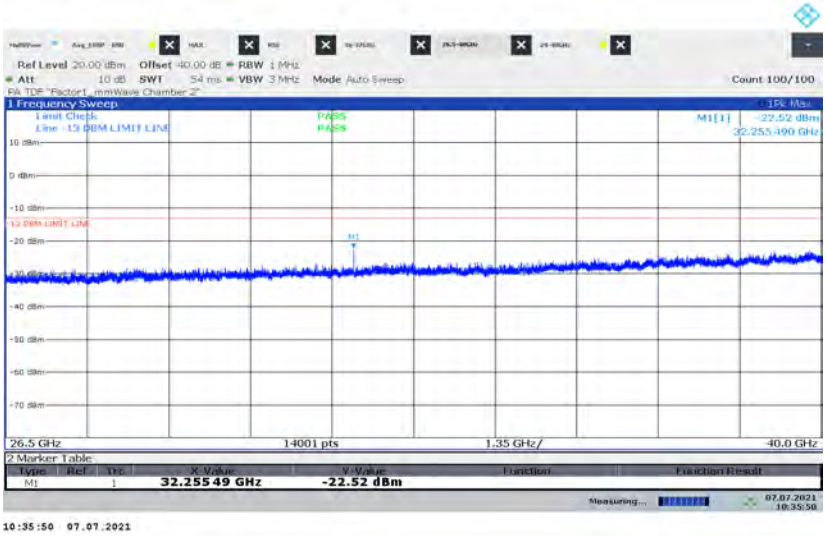
Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	24.499	3.5	H	-17.56	-13	-4.56

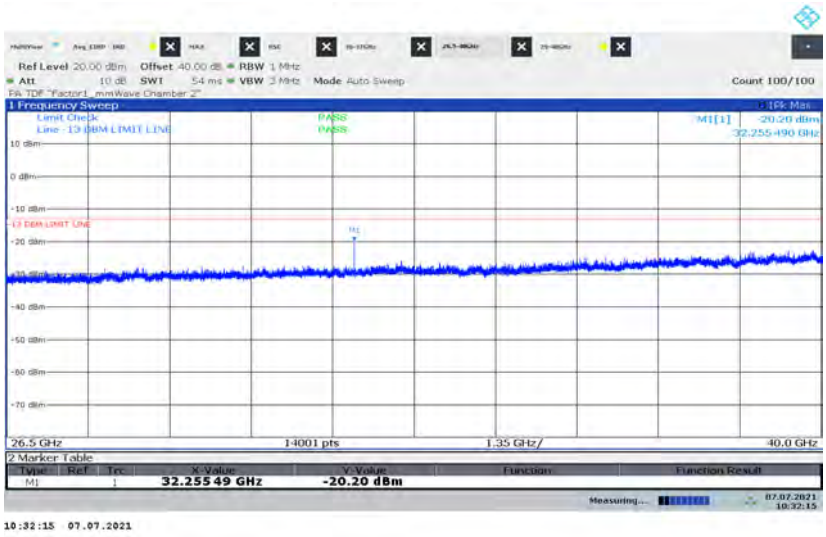
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.5. RSE n258 SB1 26.5 - 40 GHz

26.5 - 40 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal



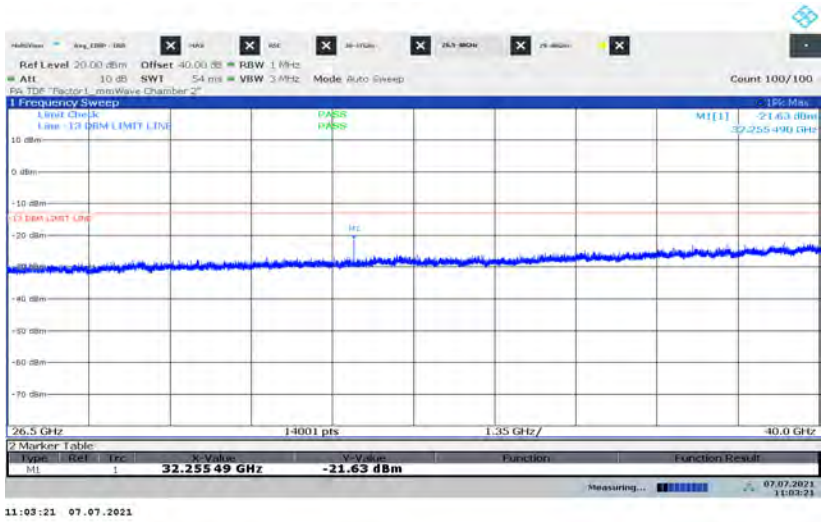
26.5 - 40 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical



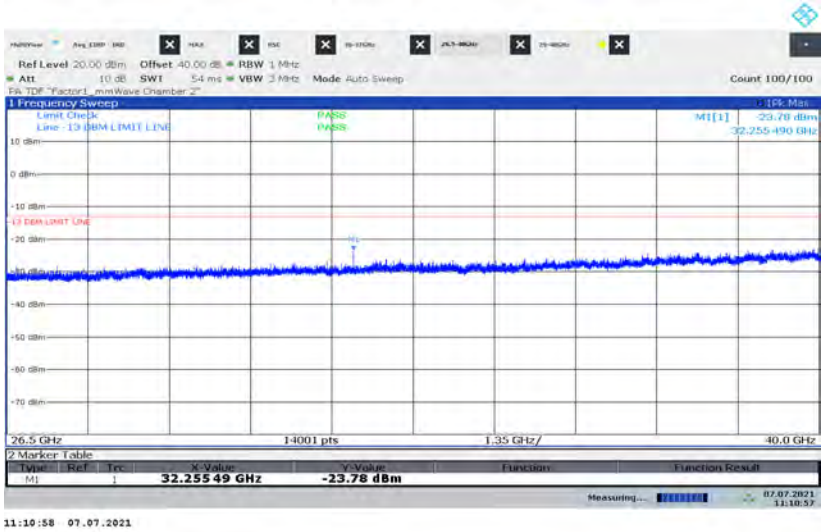
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

26.5 - 40 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal



26.5 - 40 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

26.5 - 40 GHz n258 SB1, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	32.256	3	H	-26.99	-13	-13.99
M1	32.256	3	V	-23.29	-13	-10.29
M2	32.256	3	H	-25.29	-13	-12.29
M2	32.256	3	V	-27.85	-13	-14.85

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.6. RSE n258 SB1 40 - 50 GHz

40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal

40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal

40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

40 – 50 GHz n258 SB1, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	48.698	3	H	-22.18	-13	-9.18
M1	48.698	3	V	-35.86	-13	-22.86
M2	48.698	3	H	-28.80	-13	-15.80
M2	48.698	3	V	-30.65	-13	-17.65

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.7. RSE n258 SB1 50 - 75 GHz

50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal

50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal

50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

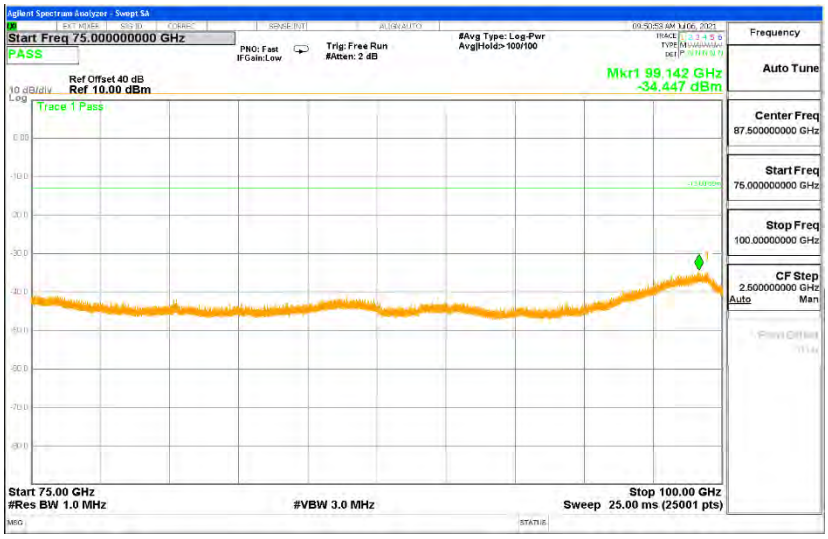
50 - 75 GHz n258 SB1

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	73.047	1.5	H	-30.38	-13	-17.38
M1	73.047	1.5	V	-20.42	-13	-7.42
M2	73.047	1.5	H	-35.67	-13	-22.67
M2	73.047	1.5	V	-20.62	-13	-7.62

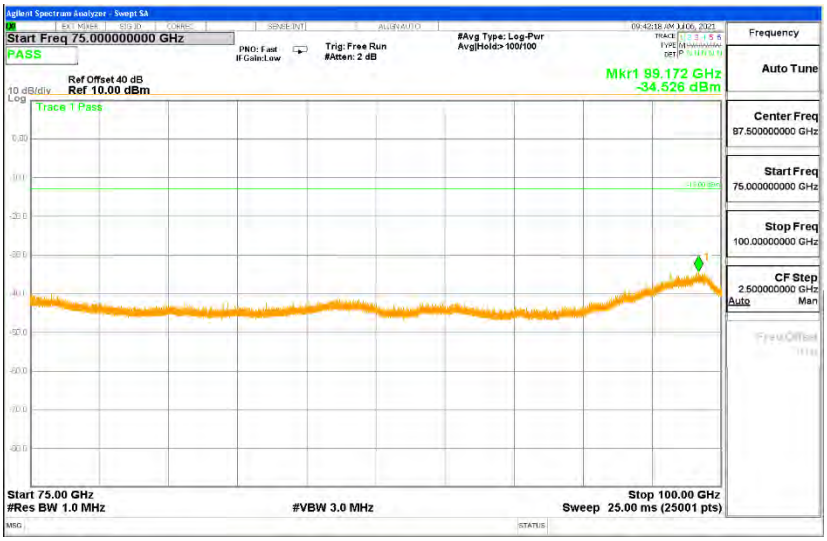
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.8. RSE n258 SB1 75 - 100 GHz

75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal



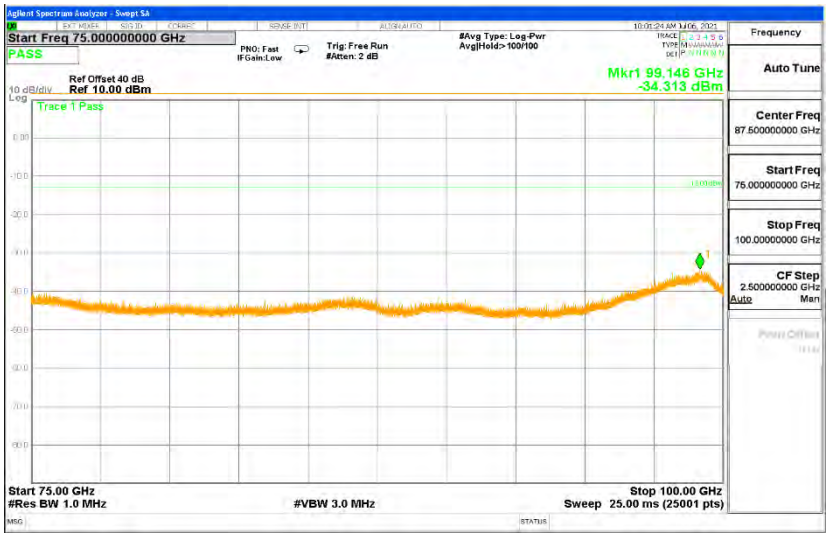
75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical



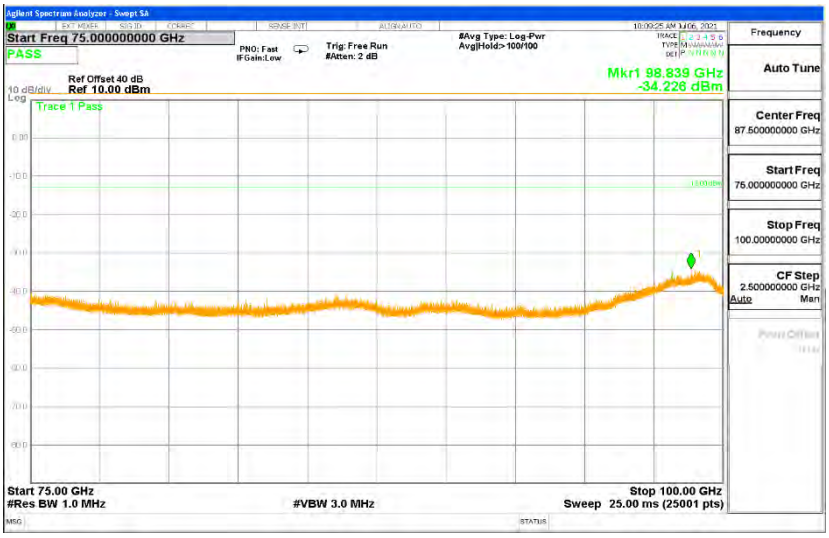
No emission detected using Peak Detection.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal



75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical



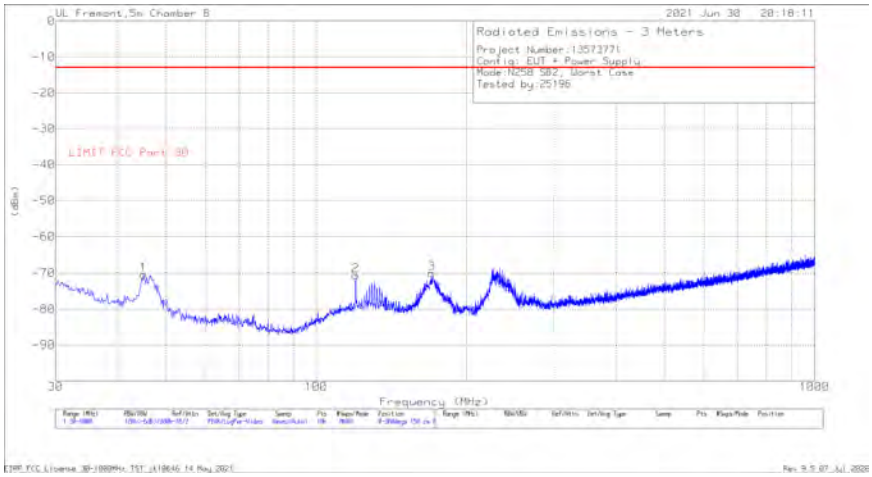
No emission detected using Peak Detection.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

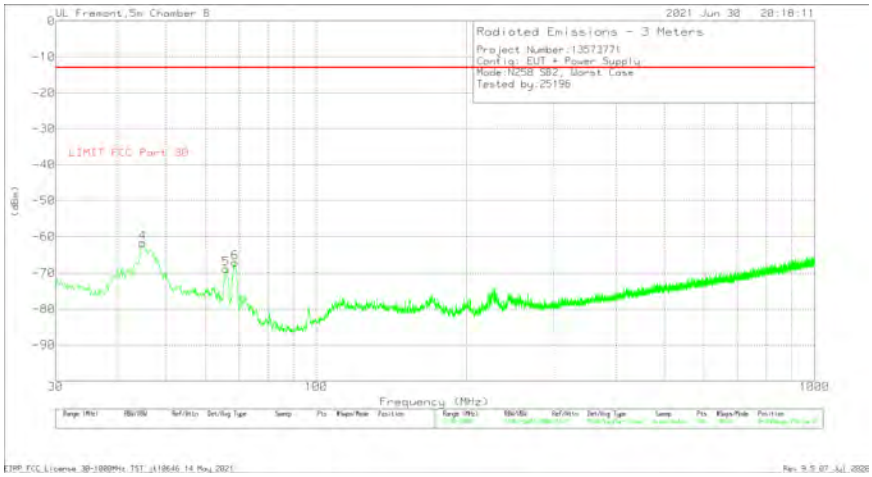
8.4.9. RSE n258 SB2 30 – 1000 MHz

30 – 1000 MHz, ANT M1 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

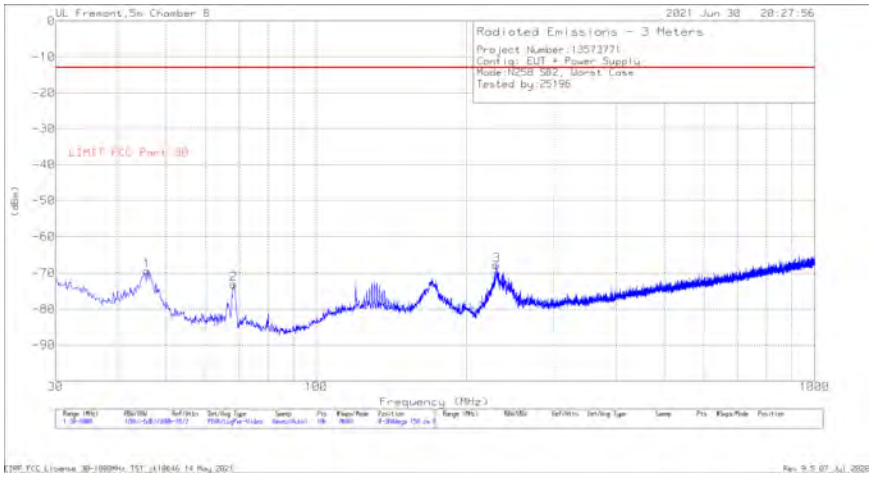
Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	44.841	-59.2	Pk	17	-31.2	11.7	-61.7	-13	-48.7	0-360	150	V
1	45.035	-67.83	Pk	16.9	-31.2	11.7	-70.43	-13	-57.43	0-360	150	H
5	65.987	-63.38	Pk	13.9	-31	11.7	-68.78	-13	-55.78	0-360	150	V
6	68.703	-61.85	Pk	14.1	-31	11.7	-67.05	-13	-54.05	0-360	150	V
2	120.016	-71.8	Pk	19.9	-30.5	11.7	-70.7	-13	-57.7	0-360	150	H
3	170.456	-69.53	Pk	18	-30.2	11.7	-70.03	-13	-57.03	0-360	150	H

Pk - Peak detector

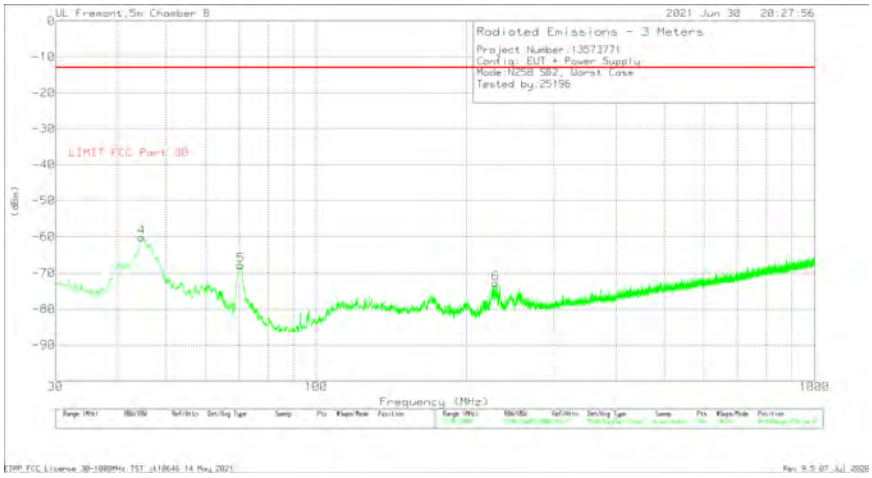
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

30 – 1000 MHz, ANT M2 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	44.647	-57.8	Pk	17.1	-31.2	11.7	-60.2	-13	-47.2	0-360	150	V
1	45.811	-66.28	Pk	16.4	-31.2	11.7	-69.38	-13	-56.38	0-360	150	H
2	68.315	-67.7	Pk	14	-31	11.7	-73	-13	-60	0-360	150	H
5	70.546	-62.73	Pk	14.1	-30.9	11.7	-67.83	-13	-54.83	0-360	150	V
6	229.044	-72.16	Pk	17.5	-29.9	11.7	-72.86	-13	-59.86	0-360	150	V
3	229.917	-67.18	Pk	17.6	-29.9	11.7	-67.78	-13	-54.78	0-360	150	H

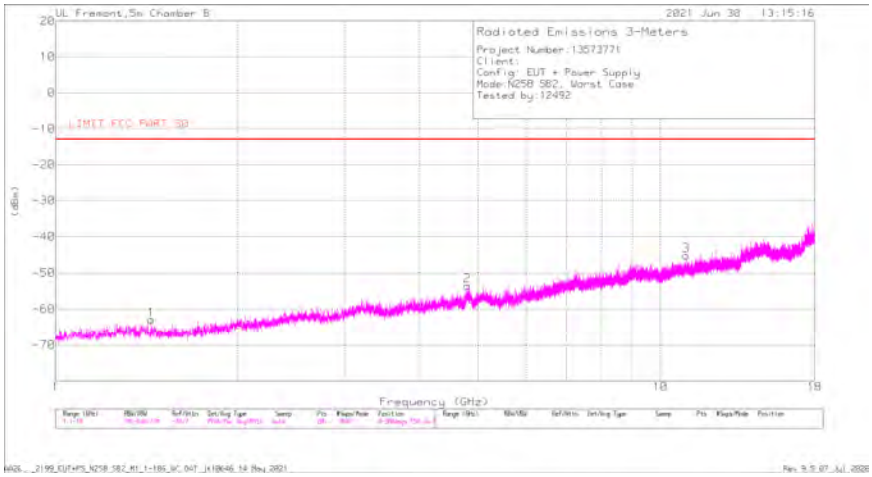
Pk - Peak detector

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

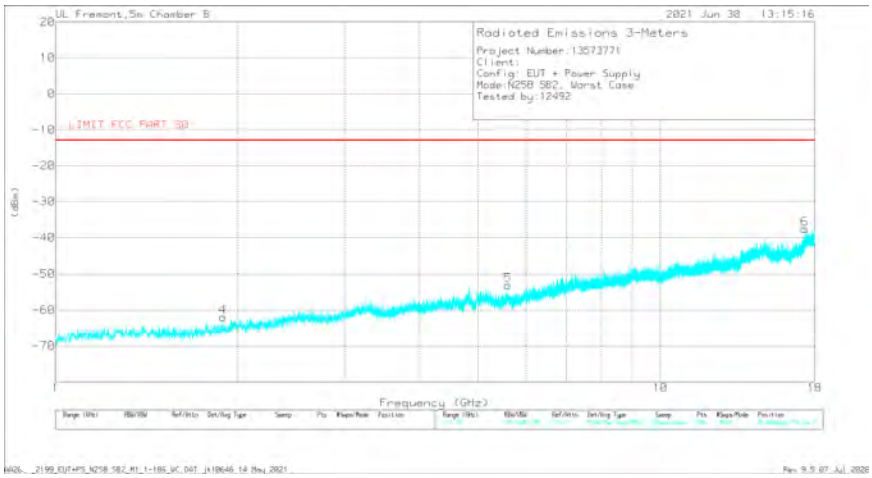
8.4.10. RSE n258 SB2 1 - 18 GHz

1 – 18 GHz, ANT M1 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

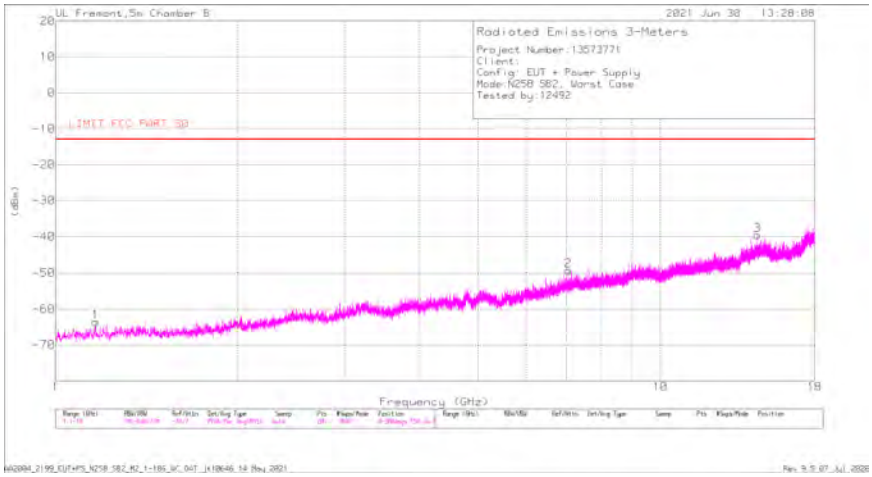
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.43947	-64.92	Pk	25.1	-34.9	11.7	-63.02	-13	-50.02	0-360	150	H
4	1.89085	-64.93	Pk	26	-34.8	11.7	-62.03	-13	-49.03	0-360	150	V
2	4.79289	-67.8	Pk	33	-30.4	11.7	-53.5	-13	-40.5	0-360	150	H
5	5.59618	-68.01	Pk	33.3	-30	11.7	-53.01	-13	-40.01	0-360	150	V
3	11.03646	-73	Pk	39.4	-23.2	11.7	-45.1	-13	-32.1	0-360	150	H
6	17.34123	-74.62	Pk	42.3	-17	11.7	-37.62	-13	-24.62	0-360	150	V

Pk - Peak detector

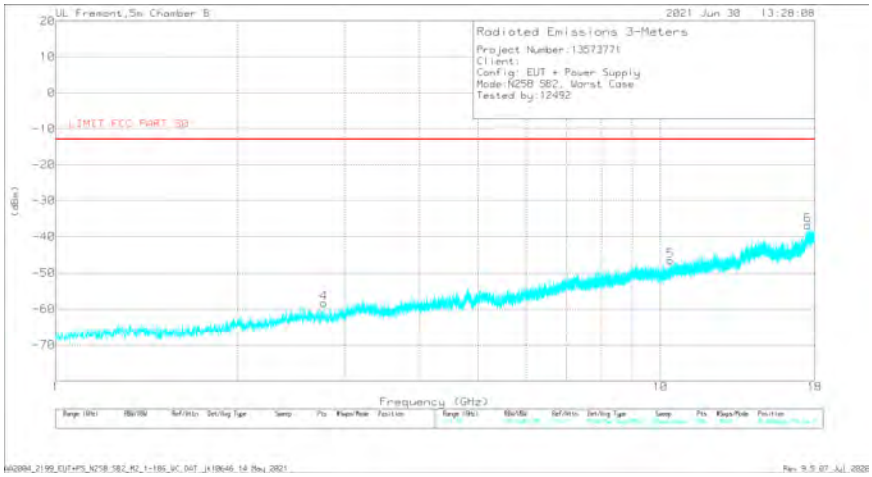
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1 – 18 GHz, ANT M2 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

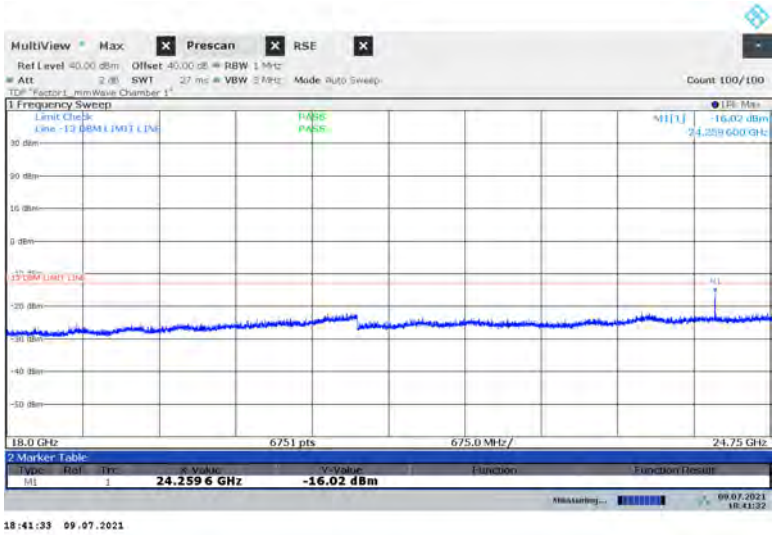
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.16406	-65.25	Pk	24.7	-34.8	11.7	-63.65	-13	-50.65	0-360	150	H
4	2.77574	-64.47	Pk	28.9	-34.5	11.7	-58.37	-13	-45.37	0-360	150	V
2	7.04551	-70.63	Pk	36.6	-27	11.7	-49.33	-13	-36.33	0-360	150	H
5	10.39468	-72.98	Pk	39.3	-24.6	11.7	-46.58	-13	-33.58	0-360	150	V
3	14.46128	-73.62	Pk	41.5	-19.2	11.7	-39.62	-13	-26.62	0-360	150	H
6	17.54099	-74.57	Pk	42.9	-16.9	11.7	-36.87	-13	-23.87	0-360	150	V

Pk - Peak detector

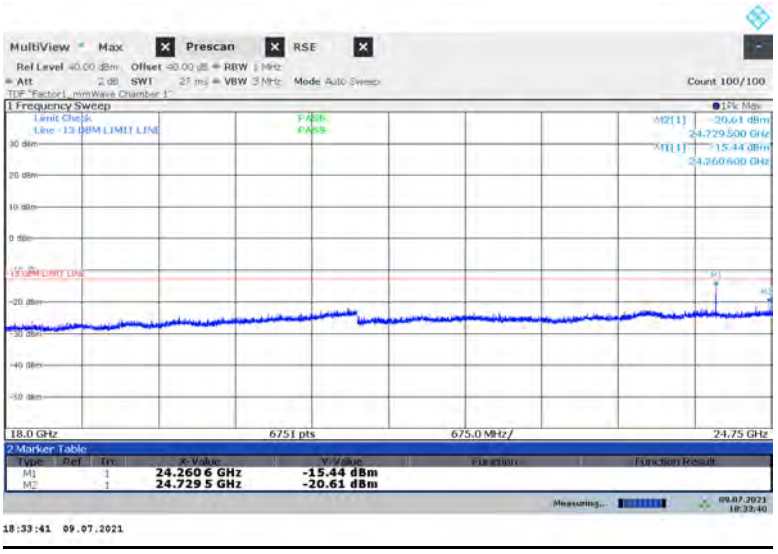
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.11. RSE n258 SB2 18 - 24.75 GHz

18 - 24.75 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Horizontal



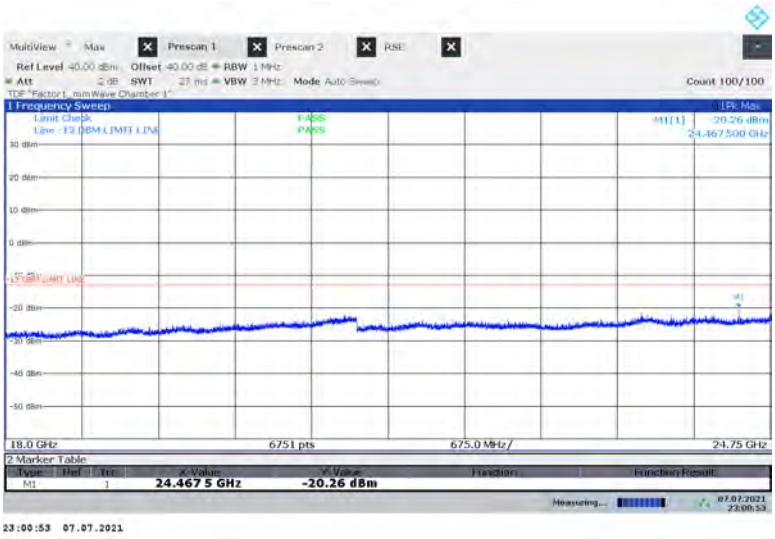
18 - 24.75 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Vertical



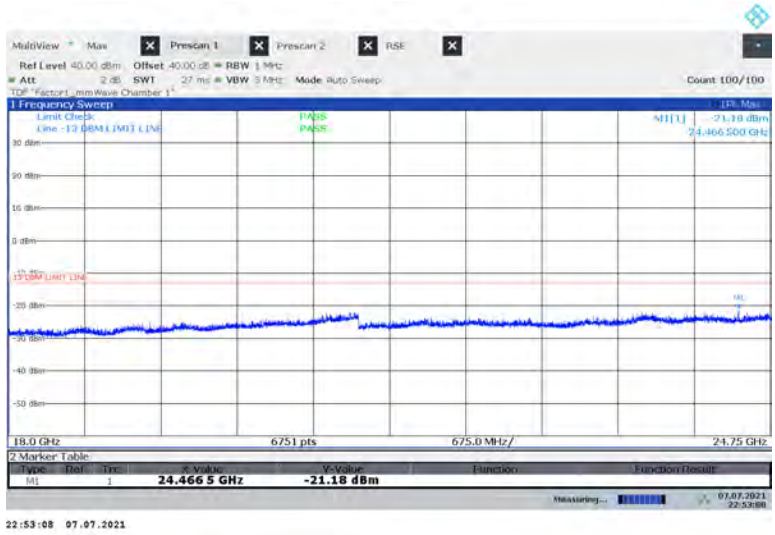
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

18 - 24.75 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Horizontal



18 - 24.75 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

18 – 24.75 GHz n258 SB2, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.260	3.5	H	-22.68	-13	-9.68
M1	24.260	3.5	V	-17.09	-13	-4.09
M1	24.730	3.5	H	-33.09	-13	-20.09
M1	24.730	3.5	V	-26.10	-13	-13.10
M2	24.467	3.5	H	-25.82	-13	-12.82
M2	24.467	3.5	V	-29.59	-13	-16.59

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

24 – 24.75 GHz n258 SB2, 2CC

24 – 24.75 GHz, ANT M1, 2CC (Pre-scan using Pk Det.)

Worst case configuration:
SISO-DUAL_QPSK_(100 MHz + 100 MHz)_Low CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.699	3.5	H	-17.32	-13	-4.32

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

24 – 24.75 GHz, ANT M2, 2CC (Pre-scan using Pk Det.)

Worst case configuration:
SISO-DUAL_QPSK_(100 MHz + 100 MHz)_Low CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

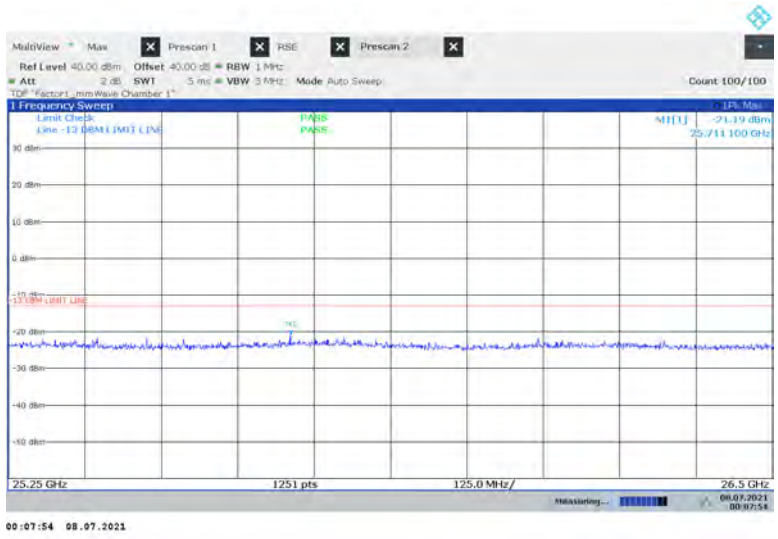
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	24.699	3.5	V	-15.81	-13	-2.81

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

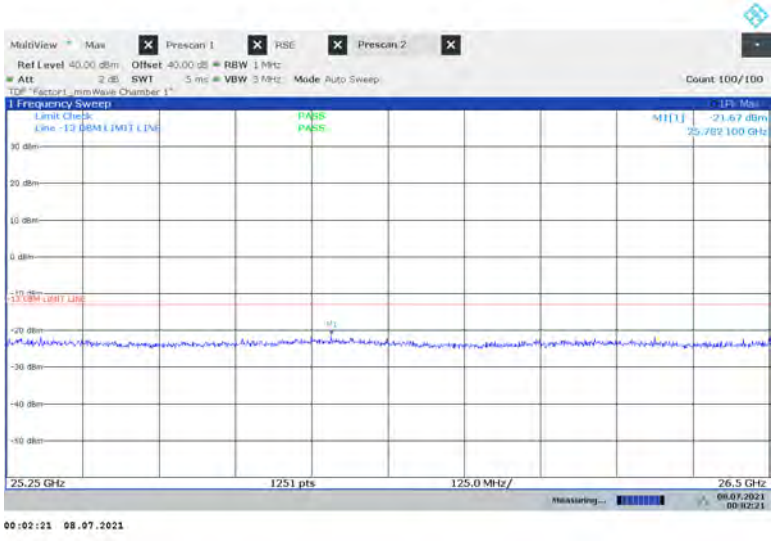
8.4.12. RSE n258 SB2 25.25 - 26.5 GHz

Note: 24.75 – 25.25 GHz covered by Fundamental and BE measurements.

25.25 - 26.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Horizontal



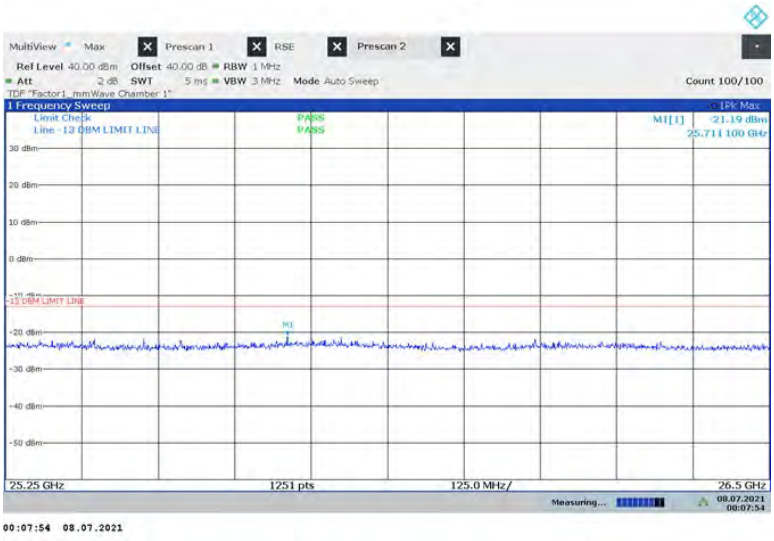
25.25 - 26.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Vertical



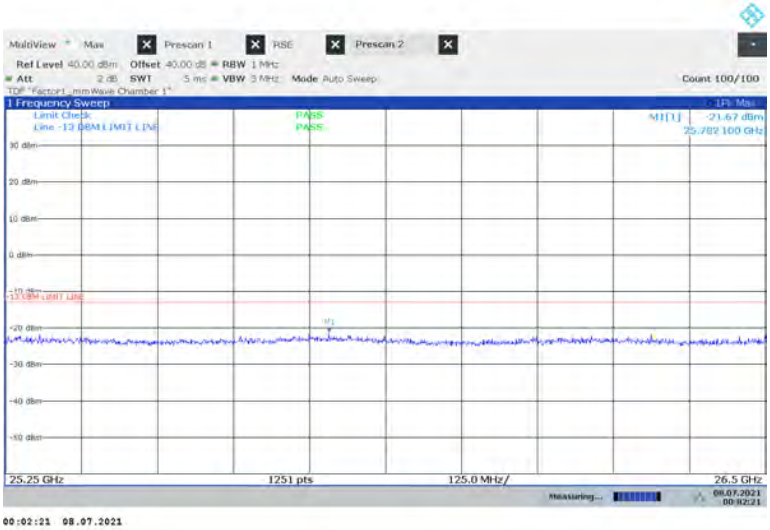
No emission detected using Peak Detection.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

25.25 - 26.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Horizontal



25.25 - 26.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Vertical

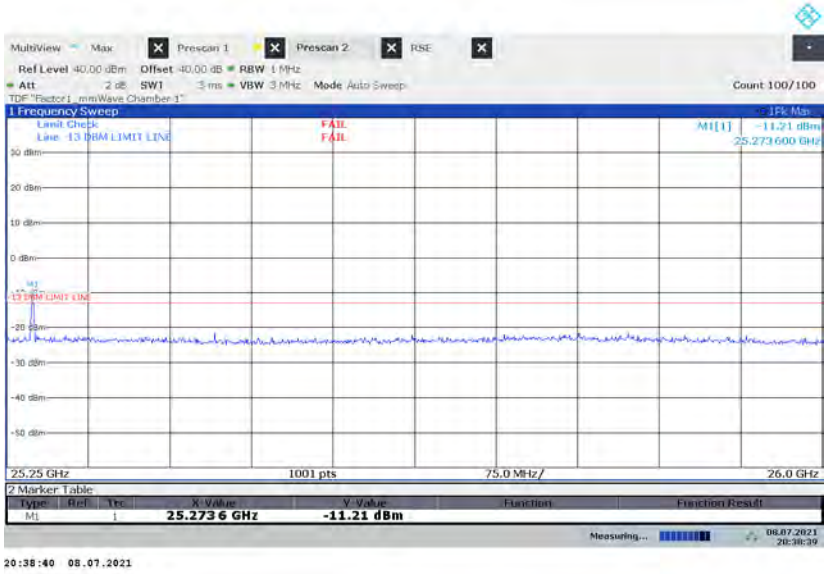


No emission detected using Peak Detection.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

25.25 - 26 GHz n258 SB2, 2CC

25.25 – 26 GHz, ANT M1, 2CC (Pre-scan using Pk Det.)



Worst case configuration:
SISO-DUAL_QPSK_(50 MHz + 50 MHz)_High CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	25.274	3.5	H	-15.42	-13	-2.42

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

25.25 – 26 GHz, ANT M2, 2CC (Pre-scan using Pk Det.)

Worst case configuration:
SISO-DUAL_QPSK_(50 MHz + 50 MHz)_High CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

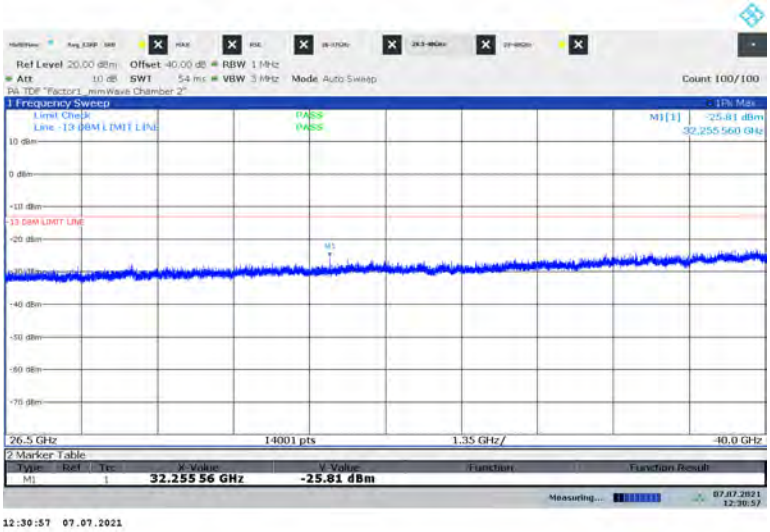
Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	25.274	3.5	H	-17.01	-13	-4.01

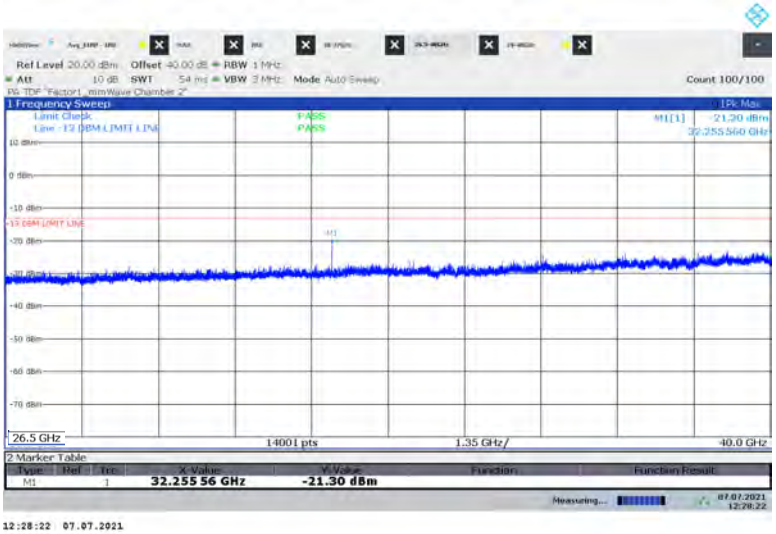
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.13. RSE n258 SB2 26.5 - 40 GHz

26.5 - 40 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal



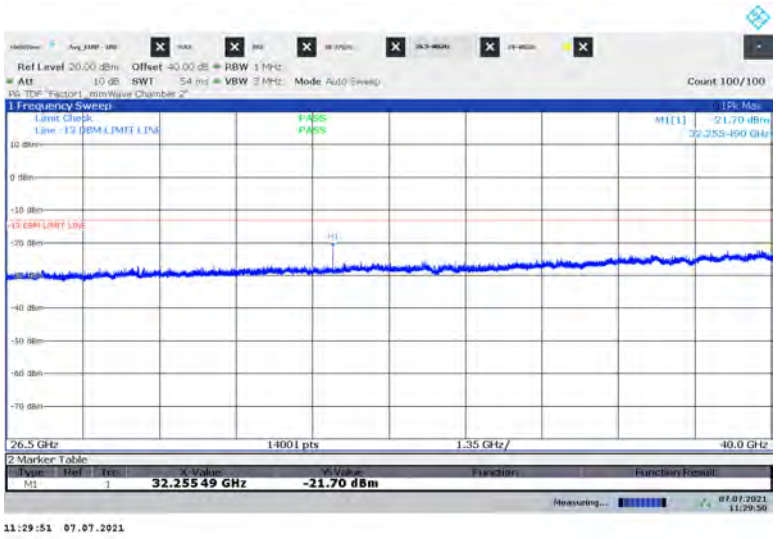
26.5 - 40 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical



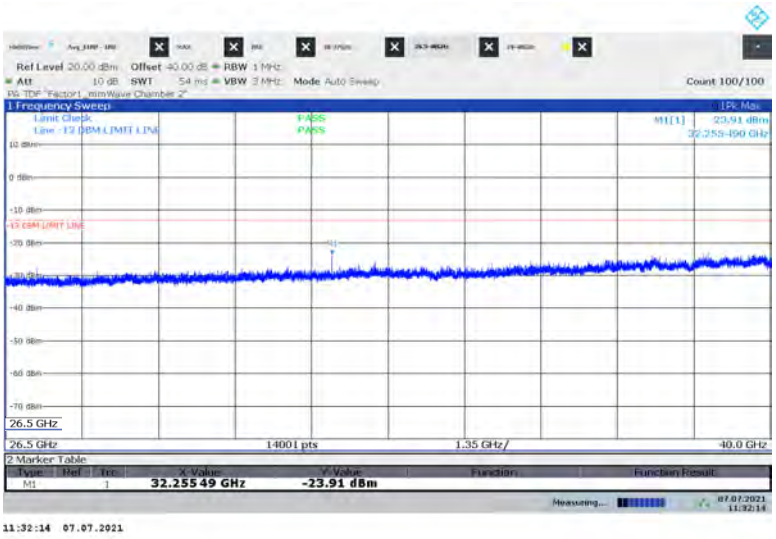
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

26.5 - 40 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal



26.5 - 40 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

26.5 - 40 GHz n258 SB2, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	32.256	3	H	-30.63	-13	-17.63
M1	32.256	3	V	-25.21	-13	-12.21
M2	32.256	3	H	-25.33	-13	-12.33
M2	32.256	3	V	-27.92	-13	-14.92

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.14. RSE n258 SB2 40 - 50 GHz

40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal

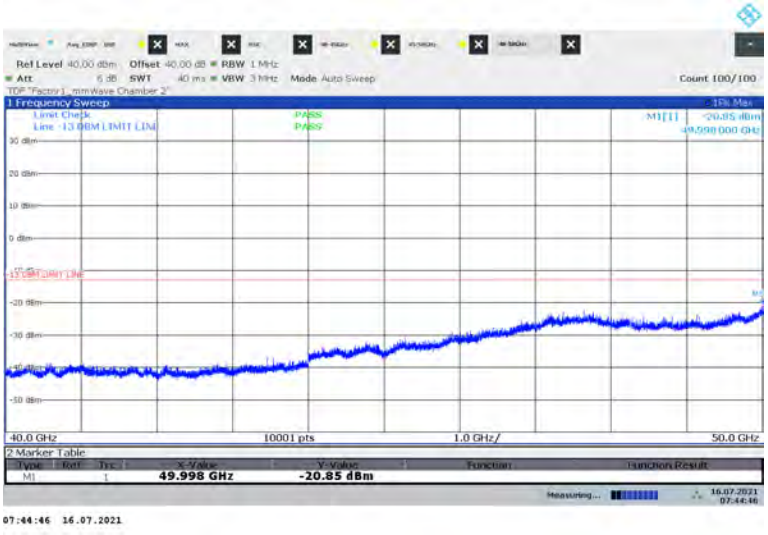
40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal

40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

40 – 50 GHz n258 SB2, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	49.998	3	H	-25.59	-13	-12.59
M1	49.998	3	V	-23.34	-13	-10.34
M2	49.998	3	H	-31.51	-13	-18.51
M2	49.998	3	V	-32.1	-13	-19.10

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.15. RSE n258 SB2 50 - 75 GHz

50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal

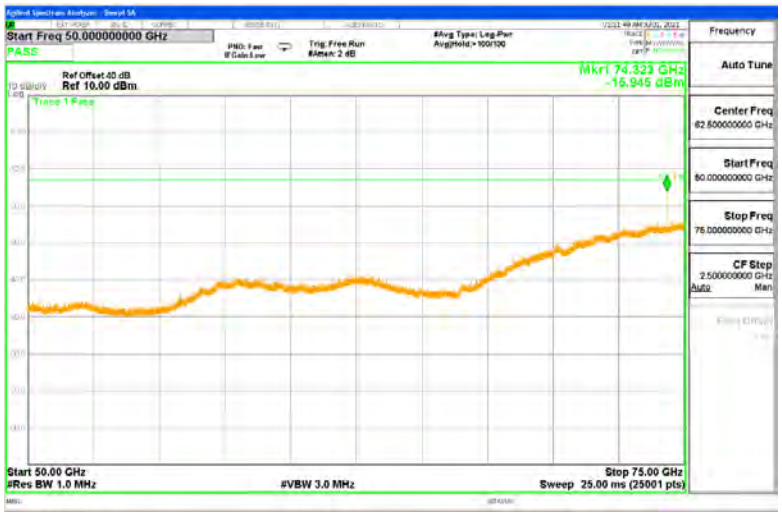
50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal

50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

50 - 75 GHz n258 SB2

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	74.398	1.5	H	-25.39	-13	-12.39
M1	74.398	1.5	V	-21.42	-13	-8.42
M2	74.322	1.5	H	-24.35	-13	-11.35
M2	74.322	1.5	V	-29.44	-13	-16.44

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.16. RSE n258 SB2 75 - 100 GHz

75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal

75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical

No emission detected using Peak Detection.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal

75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical

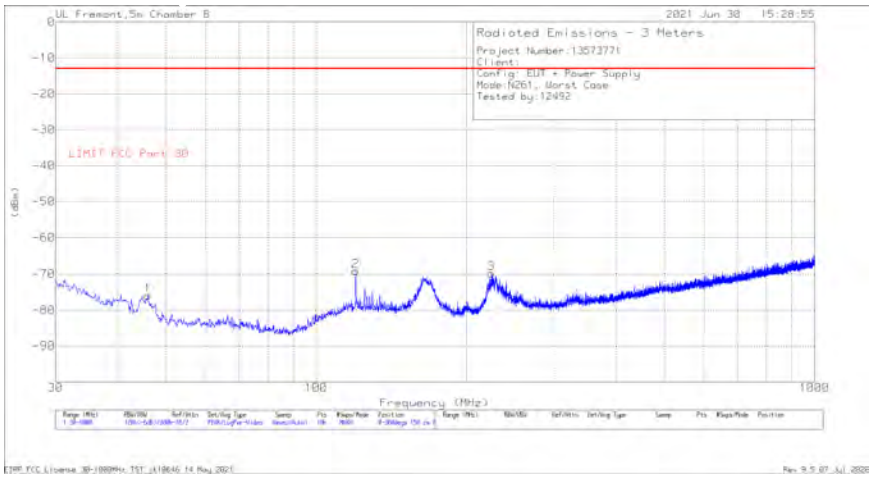
No emission detected using Peak Detection.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

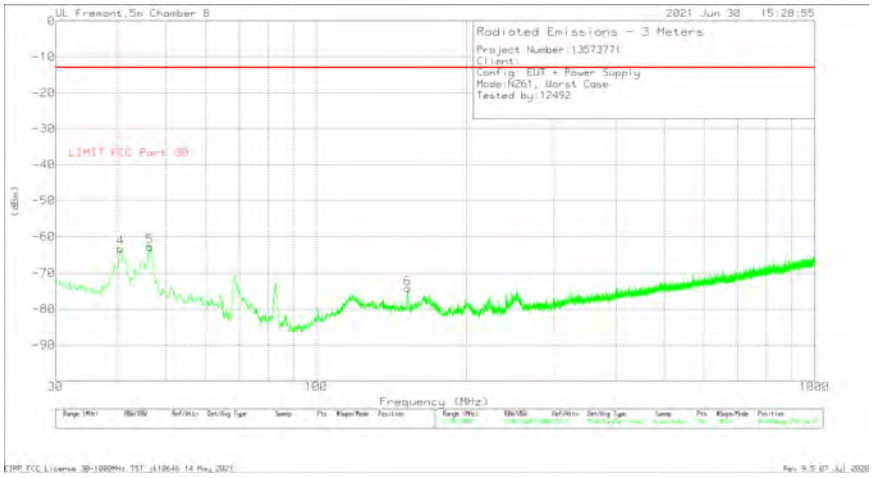
8.4.17. RSE n261 30 – 1000 MHz

30 – 1000 MHz, ANT M1 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

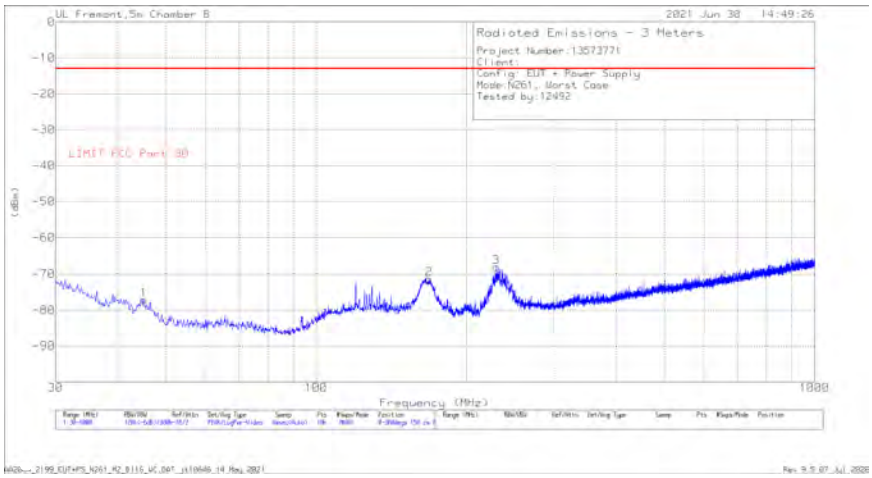
Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	40.476	-63.48	Pk	20	-31.3	11.7	-63.08	-13	-50.08	0-360	150	V
1	46.005	-72.79	Pk	16.3	-31.2	11.7	-75.99	-13	-62.99	0-360	150	H
5	46.393	-59.31	Pk	16.1	-31.2	11.7	-62.71	-13	-49.71	0-360	150	V
2	120.016	-70.32	Pk	19.9	-30.5	11.7	-69.22	-13	-56.22	0-360	150	H
6	152.608	-74.26	Pk	18.7	-30.3	11.7	-74.16	-13	-61.16	0-360	150	V
3	224.582	-69.03	Pk	17.4	-29.9	11.7	-69.83	-13	-56.83	0-360	150	H
4	40.476	-63.48	Pk	20	-31.3	11.7	-63.08	-13	-50.08	0-360	150	V

Pk - Peak detector

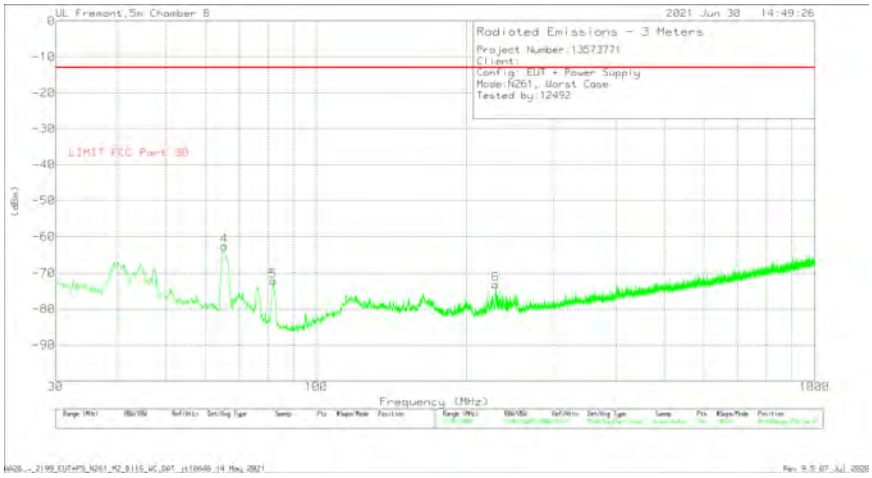
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

30 – 1000 MHz, ANT M2 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	45.132	-74.45	Pk	16.8	-31.2	11.7	-77.15	-13	-64.15	0-360	150	H
4	65.405	-57.27	Pk	13.9	-31	11.7	-62.67	-13	-49.67	0-360	150	V
5	81.992	-66.73	Pk	13.7	-30.9	11.7	-72.23	-13	-59.23	0-360	150	V
2	168.322	-71.17	Pk	18.2	-30.2	11.7	-71.47	-13	-58.47	0-360	150	H
6	229.335	-72.42	Pk	17.5	-29.9	11.7	-73.12	-13	-60.12	0-360	150	V
3	229.529	-67.44	Pk	17.6	-29.9	11.7	-68.04	-13	-55.04	0-360	150	H

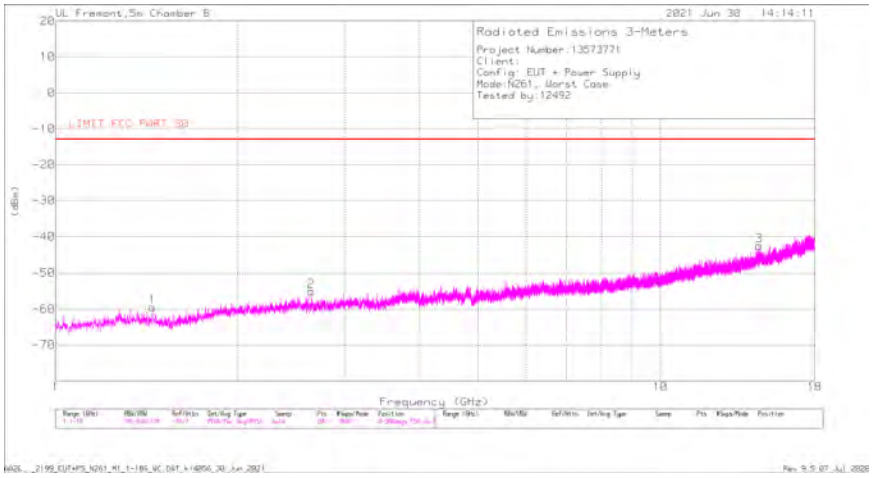
Pk - Peak detector

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

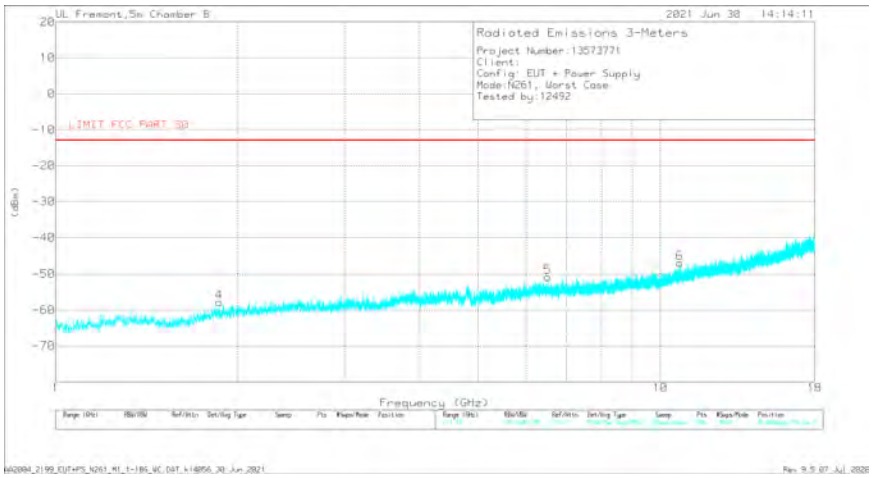
8.4.18. RSE n261 1 - 18 GHz

1 – 18 GHz, ANT M1 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

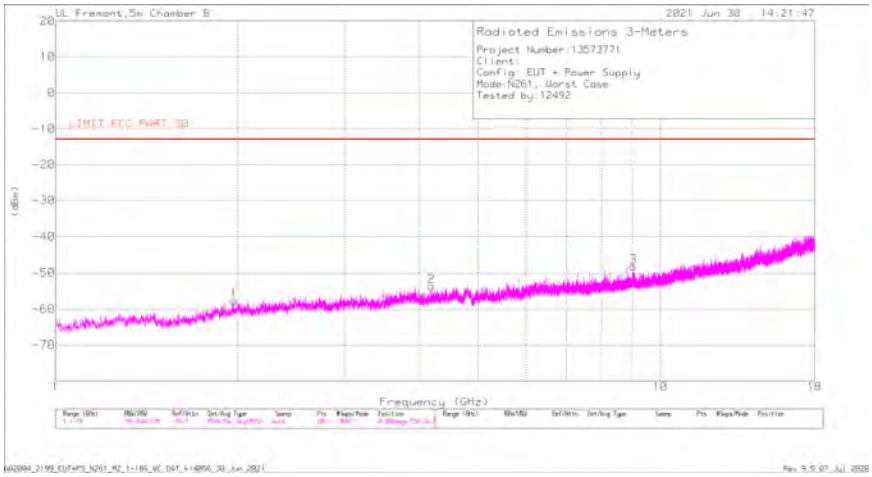
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.44627	-65.06	Pk	28.8	-34.9	11.7	-59.46	-13	-46.46	0-360	150	H
4	1.86619	-65.46	Pk	30.7	-34.8	11.7	-57.86	-13	-44.86	0-360	150	V
2	2.64908	-64.56	Pk	32.4	-34.6	11.7	-55.06	-13	-42.06	0-360	150	H
5	6.51423	-70.83	Pk	35.8	-27.5	11.7	-50.83	-13	-37.83	0-360	150	V
6	10.77379	-72.76	Pk	38	-23.8	11.7	-46.86	-13	-33.86	0-360	150	V
3	14.57519	-74.15	Pk	39.7	-19.8	11.7	-42.55	-13	-29.55	0-360	150	H

Pk - Peak detector

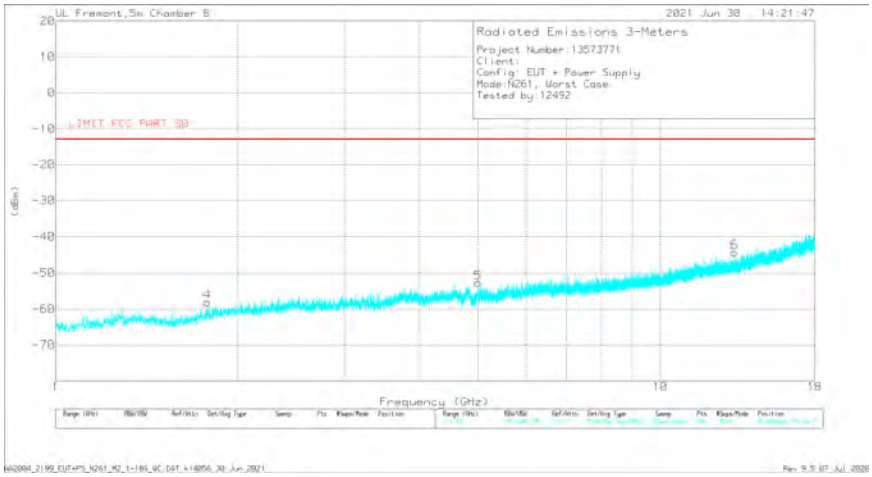
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

1 – 18 GHz, ANT M2 (Pre-scan using Pk Det.)

Horizontal



Vertical



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.78204	-64.84	Pk	30	-34.9	11.7	-58.04	-13	-45.04	0-360	150	V
1	1.97245	-65.74	Pk	31.2	-34.9	11.7	-57.74	-13	-44.74	0-360	150	H
2	4.19106	-67.49	Pk	33.5	-31.4	11.7	-53.69	-13	-40.69	0-360	150	H
5	4.99945	-67.68	Pk	34	-30.7	11.7	-52.68	-13	-39.68	0-360	150	V
3	9.03036	-71.77	Pk	36.2	-24.3	11.7	-48.17	-13	-35.17	0-360	150	H
6	13.26272	-74.32	Pk	39	-20.7	11.7	-44.32	-13	-31.32	0-360	150	V

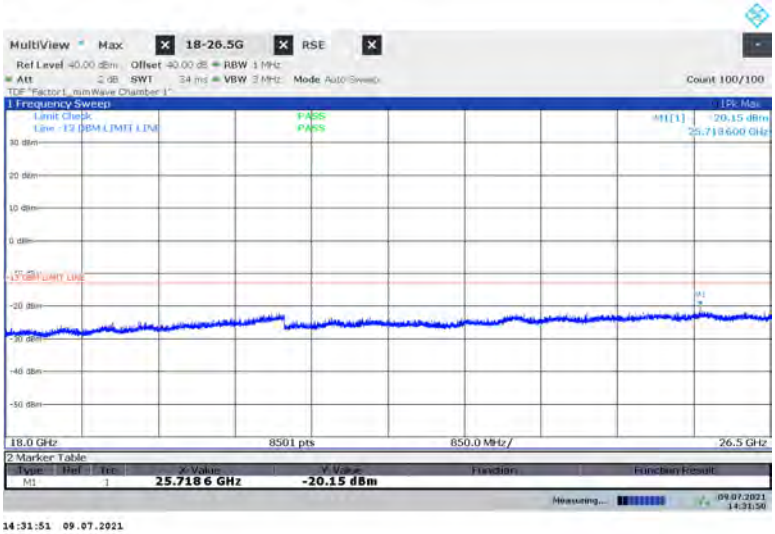
Pk - Peak detector

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.19. RSE n261 18 - 26.5 GHz

18 - 26.5 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal

18 - 26.5 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical

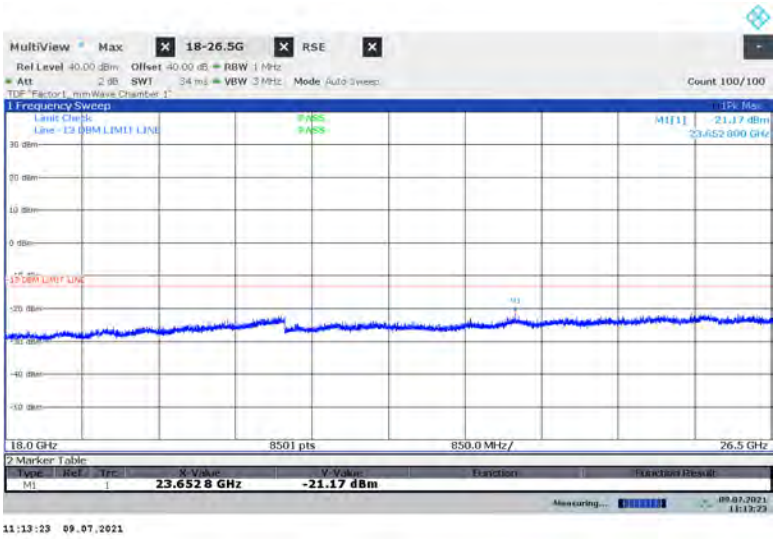


No emission detected using Peak Detection.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

18 - 26.5 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal

18 - 26.5 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical

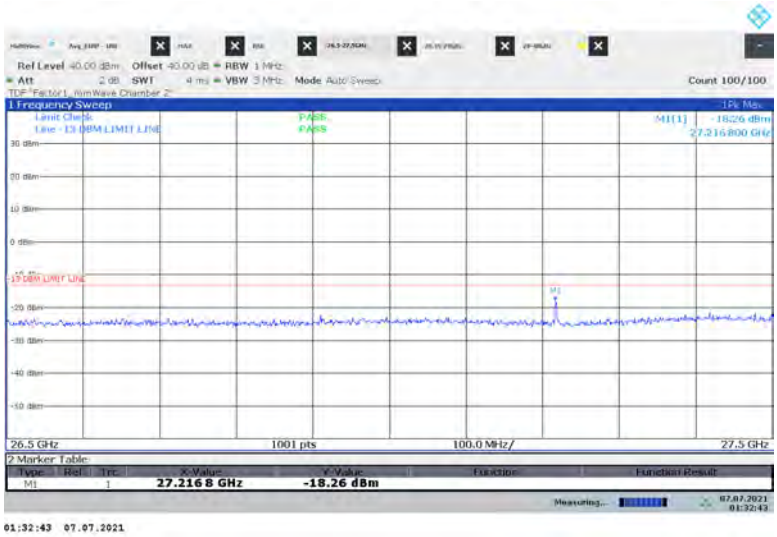


No emission detected using Peak Detection.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.20. RSE n261 26.5 - 27.5 GHz

26.5 - 27.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Horizontal



26.5 - 27.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

26.5 - 27.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Horizontal

26.5 - 27.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

26.5 - 27.5 GHz n261, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	27.217	3	H	-21.58	-13	-8.58
M1	26.974	3	V	-33.82	-13	-20.82
M2	27.217	3	H	-27.82	-13	-14.82
M2	27.217	3	V	-24.12	-13	-11.12

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

26.5 – 27.5 GHz n261, 2CC

26.5 - 27.5 GHz, ANT M1, 2CC (Pre-scan using Pk Det.)

Worst case configuration:
SISO-DUAL_QPSK_(50 MHz + 50 MHz)_Low CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	27.474	3	H	-14.93	-13	-1.93

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

26.5 - 27.5 GHz, ANT M2, 2CC (Pre-scan using Pk Det.)

Worst case configuration:
SISO-DUAL_QPSK_(100 MHz + 100 MHz)_Low CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

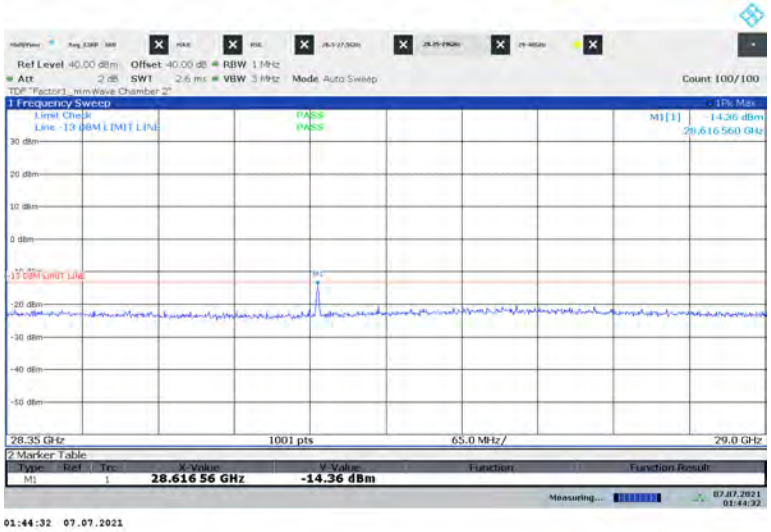
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	27.449	3	V	-15.00	-13	-2.00

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.21. RSE n261 28.35 - 29 GHz

Note: 27.5 - 28.35 GHz covered by Fundamental and BE measurements.

28.35 - 29 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Horizontal



28.35 - 29 GHz, ANT M1, 1CC (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

28.35 - 29 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Horizontal

28.35 - 29 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

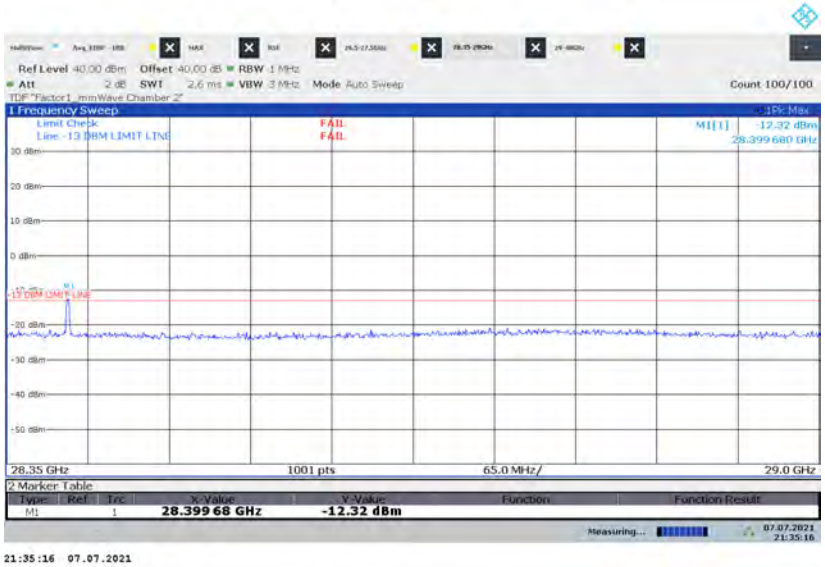
28.35 - 29 GHz n261, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	28.616	3	H	-17.66	-13	-4.66
M1	28.616	3	V	-30.87	-13	-17.87
M2	28.616	3	H	-34.05	-13	-21.05
M2	28.616	3	V	-23.76	-13	-10.76

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

28.35 - 29 GHz n261, 2CC

28.35 - 29 GHz, ANT M1, 2CC (Pre-scan using Pk Det.)



Worst case configuration:
SISO-DUAL_QPSK_(100 MHz + 100 MHz)_High CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	28.399	3	H	-16.52	-13	-3.52

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

28.35 - 29 GHz, ANT M2, 2CC (Pre-scan using Pk Det.)

Worst case configuration:
SISO-DUAL_QPSK_(100 MHz + 100 MHz)_High CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

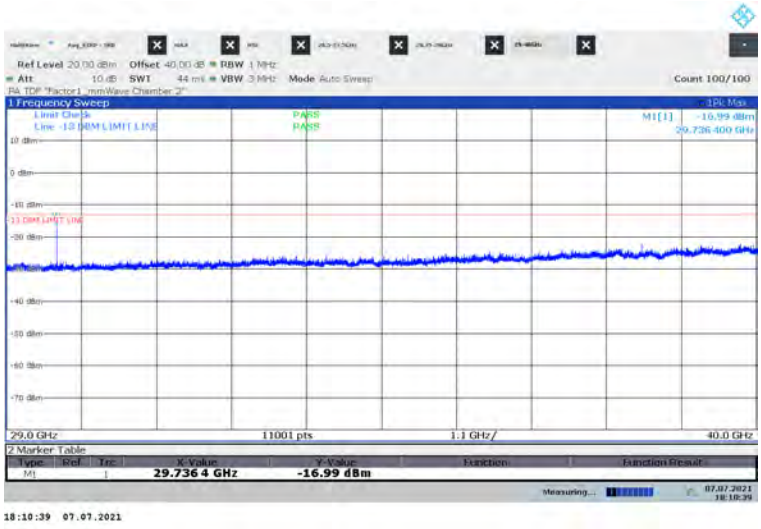
Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	28.399	3	H	-17.77	-13	-4.77

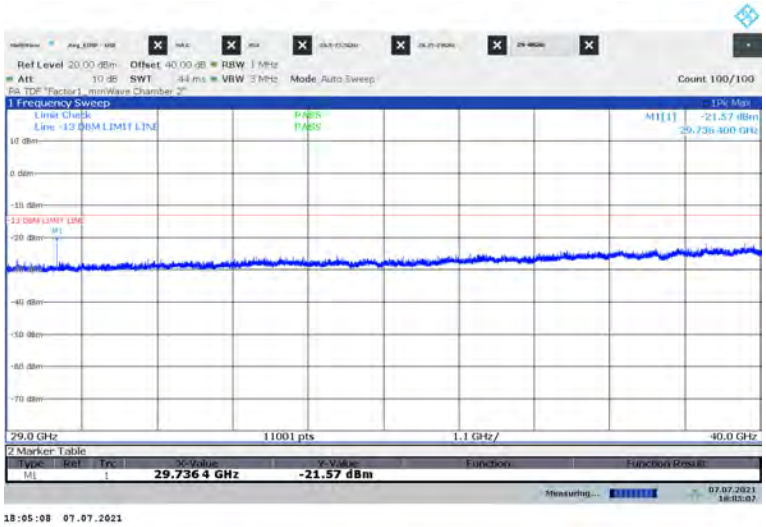
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.22. RSE n261 29 - 40 GHz

29 - 40 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal



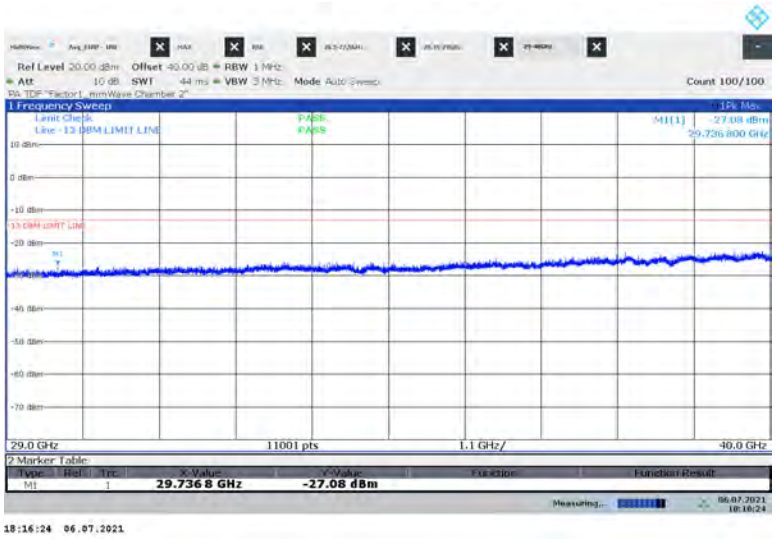
29 - 40 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical



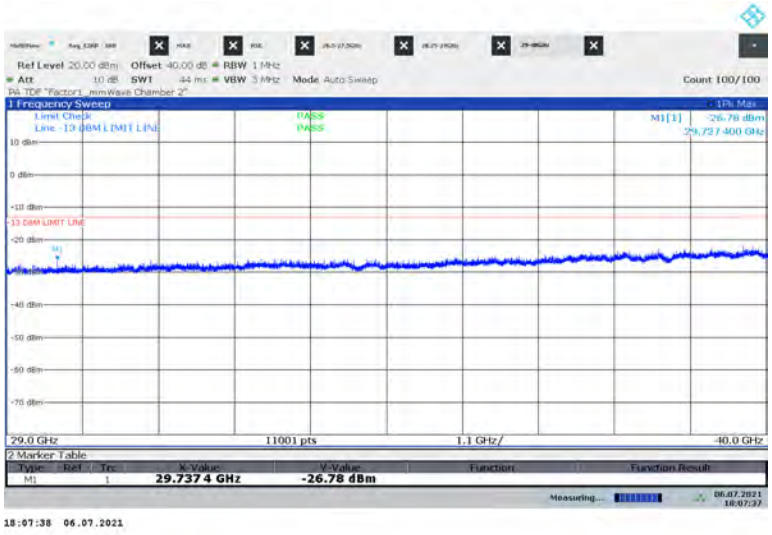
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

29 - 40 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal



29 - 40 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

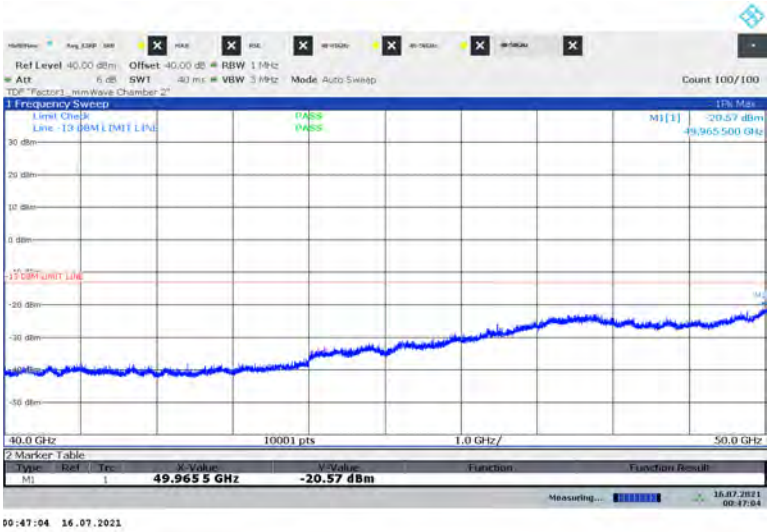
29 - 40 GHz n261, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	29.737	3	H	-20.45	-13	-7.45
M1	29.737	3	V	-31.57	-13	-18.57
M2	29.737	3	H	-32.98	-13	-19.98
M2	29.737	3	V	-24.73	-13	-11.73

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.23. RSE n261 40 - 50 GHz

40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal



40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical

No emission detected using Peak Detection.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal

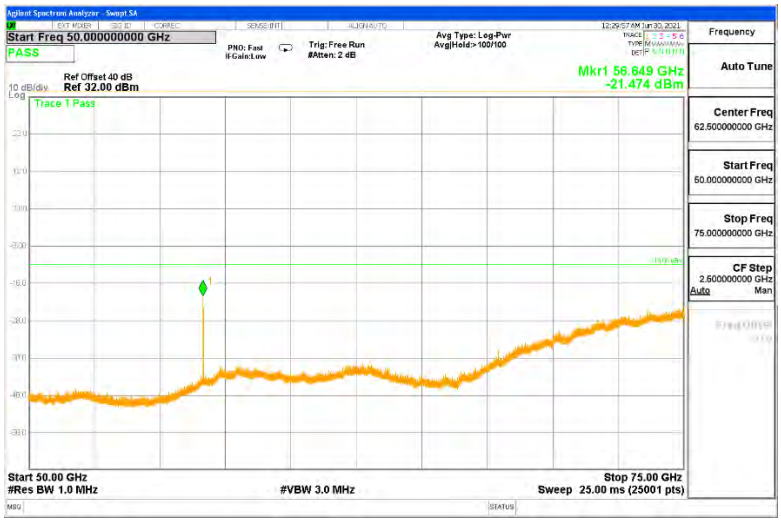
40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical

No emission detected using Peak Detection.

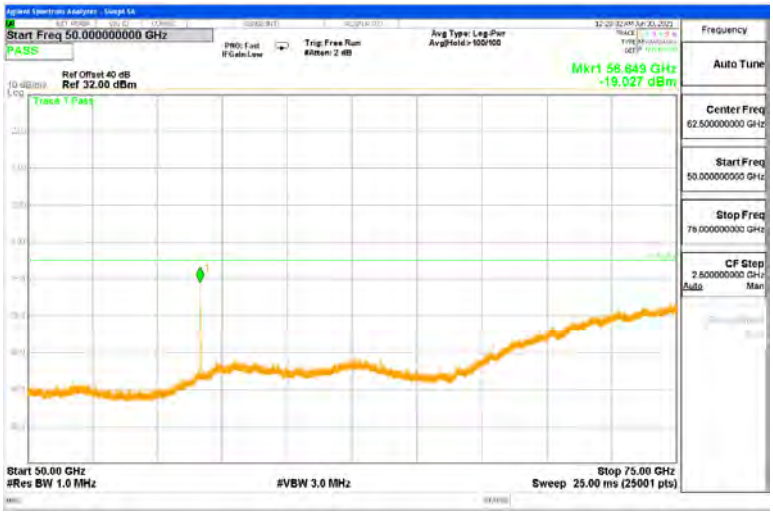
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.24. RSE n261 50 - 75 GHz

50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal



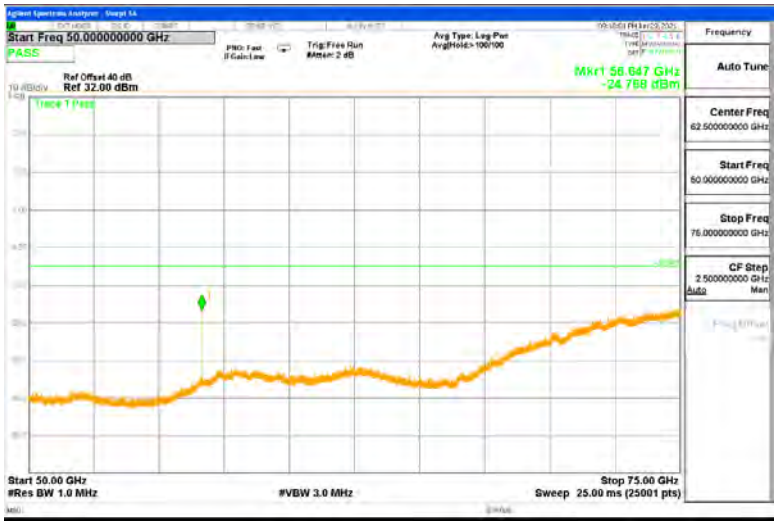
50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical



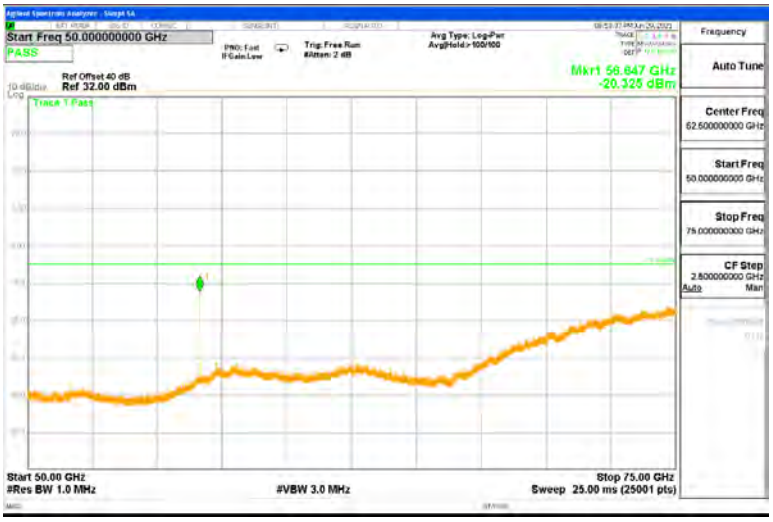
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal



50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

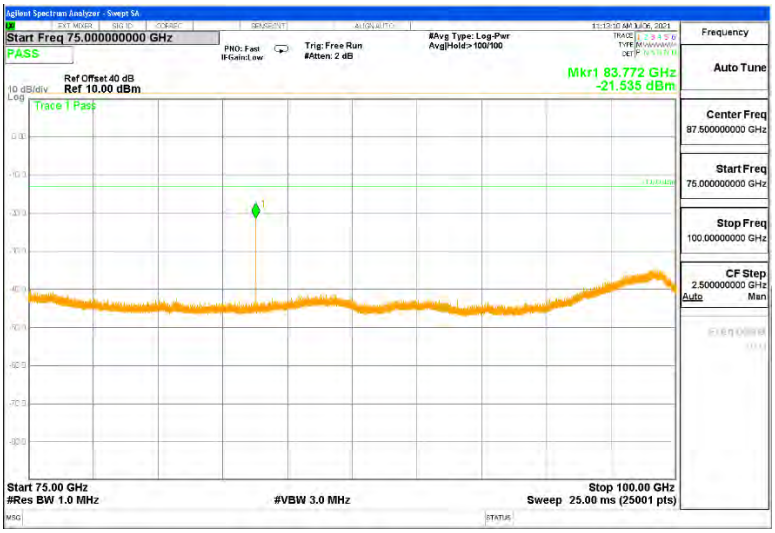
50 - 75 GHz n261, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	56.648	1.5	H	-23.84	-13	-10.84
M1	56.648	1.5	V	-34.58	-13	-21.58
M2	56.648	1.5	H	-26.37	-13	-13.37
M2	56.648	1.5	V	-31.48	-13	-18.48

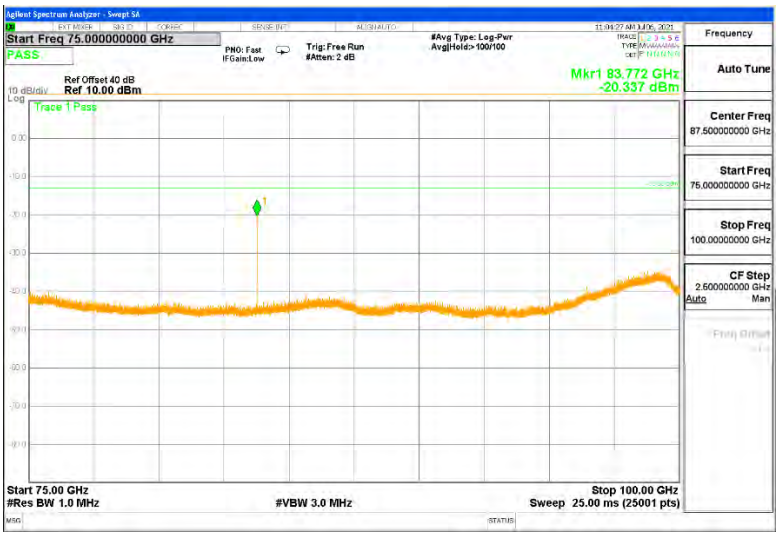
UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

8.4.25. RSE n261 75 - 100 GHz

75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.)
Horizontal



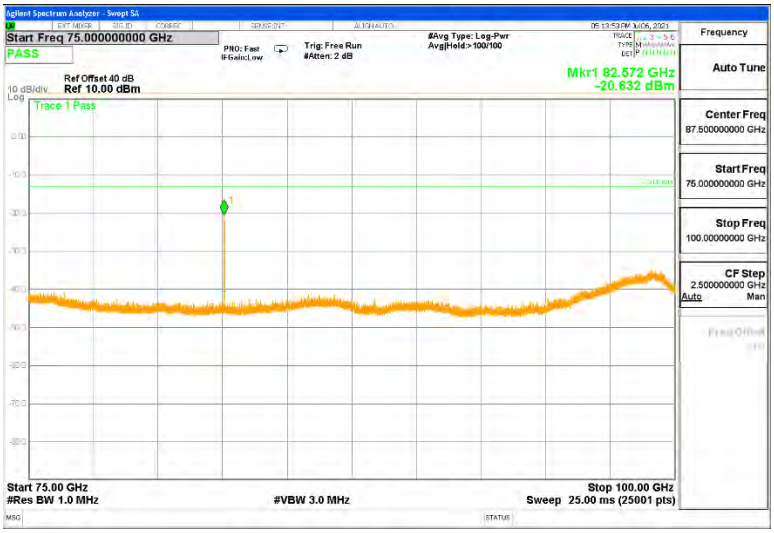
75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.)
Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal



75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured

UL VERIFICATION SERVICES INC
47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 319-4000 FAX: (510) 661-0888
This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.