



FCC RADIO TEST REPORT

FCC ID : XMR2023RM520NGLT
Equipment : 5G Sub-6 GHz M.2 Module
Brand Name : Quectel
Model Name : RM520N-GL
Applicant : Quectel Wireless Solutions Co., Ltd.
Building 5, Shanghai Business Park Phase III (Area B), No.1016
Tianlin Road, Minhang District, Shanghai, China, 200233
Manufacturer : Lenovo PC HK Limited
23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay,
Hong Kong, P.R. China
Standard : FCC 47 CFR Part 2, 96

Equipment: Quectel RM520N-GL tested inside of Lenovo Notebook Computer.

The product was received on Feb. 10, 2025 and testing was performed from Mar. 04, 2025 to Mar. 18, 2025. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test	5
1.2 Product Specification of Equipment Under Test	6
1.3 Modification of EUT	6
1.4 Testing Location	6
1.5 Applied Standards	7
2 Test Configuration of Equipment Under Test	8
2.1 Test Mode.....	8
2.2 Connection Diagram of Test System	9
2.3 Support Unit used in test configuration	9
2.4 Frequency List of Low/Middle/High Channels	9
3 Conducted Test Items	10
3.1 Measuring Instruments.....	10
3.2 Conducted Output Power	11
3.3 EIRP	12
4 Radiated Test Items	13
4.1 Measuring Instruments.....	13
4.2 Test Setup	13
4.3 Test Result of Radiated Test.....	14
4.4 Radiated Spurious Emission	15
5 List of Measuring Equipment.....	16
6 Measurement Uncertainty	17
Appendix A. Test Results of Conducted Test	
Appendix B. Test Results of Radiated Test	
Appendix C. Test Setup Photographs	



History of this test report

Report No.	Version	Description	Issue Date
FG3N1058-04B	01	Initial issue of report	Mar. 27, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
-	§96.41	Peak-to-Average Ratio	Pass	See Note
3.3	§96.41	Effective Isotropic Radiated Power and EIRP PSD	Pass	-
-	§2.1049 §96.41	Occupied Bandwidth	Pass	See Note
-	§2.1051 §96.41	Conducted Band Edge Measurement	Pass	See Note
-	§2.1051 §96.41	Conducted Spurious Emission	Pass	See Note
-	§2.1055	Frequency Stability for Temperature & Voltage	Pass	See Note
4.4	§2.1051 §96.41	Radiated Spurious Emission	Pass	-
Note: 1. For host device, Radiated Spurious Emission and Equivalent Isotropic Radiated Power are verified and comply with the limit in this test report. 2. For host device, the Conducted Output Power is no difference after compared to module (Model: RM520N-GL) 3. This report is based on changes made to Host Marketing, Model name, CPU, and Motherboard. All test cases were performed according to the original report, which can be referred to as Sporton Report Number FG3N1058E. Based on the upgrades, the test cases have been verified.				

Conformity Assessment Condition:

- The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
- The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sheng Kuo

Report Producer: Clio Lo

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	5G Sub-6 GHz M.2 Module
Brand Name	Quectel
Model Name	RM520N-GL
FCC ID	XMR2023RM520NGLT
Sample 1	EUT with Host 1
Sample 2	EUT with Host 2
EUT supports Radios application	WCDMA/HSPA/LTE/5G NR/GNSS
EUT Stage	Production Unit

Remark:

1. The above EUT's information was declared by manufacturer.
2. Equipment: Quectel RM520N-GL tested inside of Lenovo Notebook Computer.

The product was installed into Notebook Computer (Brand Name: Lenovo, Model Name: TP00159C, TP00159D, TP00159E) during test, and the host information was recorded in the following table.

Host Information	
Host 1	Host with Amphenol Taiwan Corporation
Host 2	Host with AWAN Antenna

Support band and evaluated information	
Supported band	n48
Evaluated and Tested band	n48
MIMO2 Antenna	n48

WWAN Antenna Information for Host				
MIMO2 Antenna	Manufacturer	Amphenol Taiwan Corporation	Peak gain (dBi)	5GNR n48 : 0.36
	Part number	DC330022K10	Type	PIFA
	Manufacturer	AWAN	Peak gain (dBi)	5GNR n48 : 0.36
	Part number	DC330022H10	Type	PIFA

Remark: The above EUT's information was declared by manufacturer. Please refer to Disclaimer in report summary.

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx Frequency	3550 MHz ~ 3700 MHz
Rx Frequency	3550 MHz ~ 3700 MHz
Bandwidth	10 MHz / 20 MHz / 30 MHz / 40 MHz
Maximum Output Power to Antenna	<MIMO2 Antenna>: 20.86 dBm
Type of Modulation	PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333
Test Site No.	Sporton Site No.
	TH03-HY
Test Engineer	Mike Yeh
Temperature (°C)	21.4~24.4
Relative Humidity (%)	48.7~55.8

Test Site	Sporton International Inc. Wensan Laboratory.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010
Test Site No.	Sporton Site No.
	03CH22-HY (TAF Code: 3786)
Test Engineer	Bill Chang and York Huang
Temperature (°C)	18.9~22.3
Relative Humidity (%)	57.7~63.2
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190 and TW3786



1.5 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ ANSI C63.26-2015
- ♦ FCC 47 CFR Part 2, 96
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

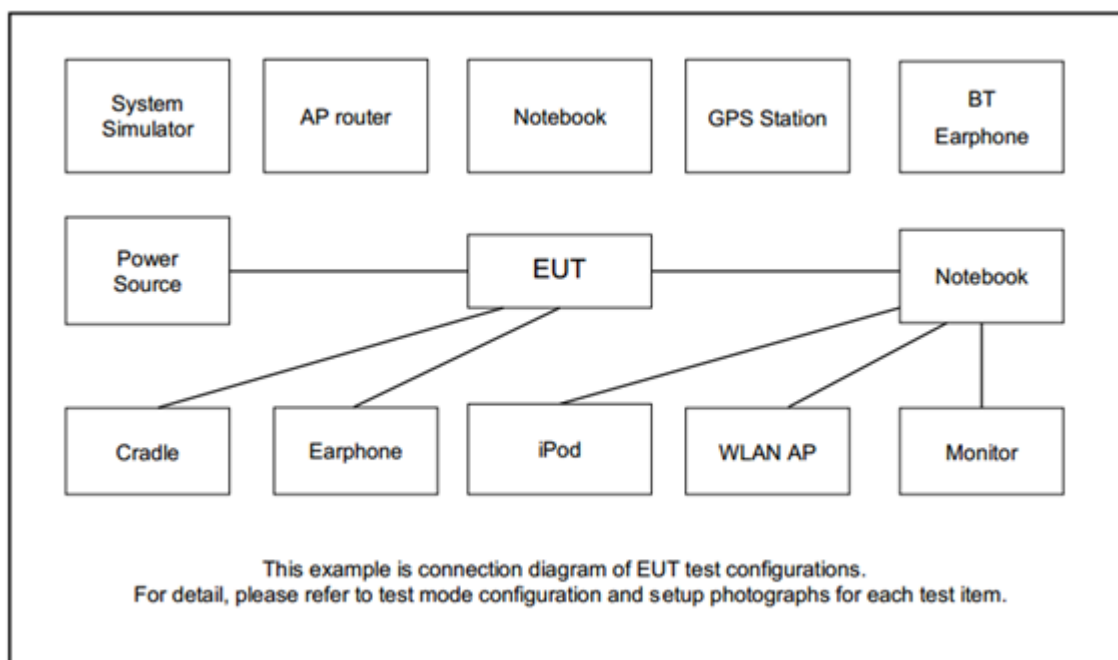
Modulation Type	Modulation	Modulation Type	Modulation
A	DFT-s-OFDM pi/2 BPSK	N/A	N/A
B	DFT-s-OFDM QPSK	F	CP-OFDM QPSK
C	DFT-s-OFDM 16QAM	G	CP-OFDM 16QAM
D	DFT-s-OFDM 64QAM	H	CP-OFDM 64QAM
E	DFT-s-OFDM 256QAM	I	CP-OFDM 256QAM

Test Item	Modulation Type	Bandwidth	RB Size	Channel
Conducted Power	A, B, C	All	1RB	L, M, H
EIRP	A, B, C	All	1RB	L, M, H
RSE	A	20 MHz	Inner_1RB	L, M, H

Remark:

1. Evaluated all the transmitter signal and reporting worst-case configuration among all modulation types.
2. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst-case emissions are reported.
3. During the RSE preliminary test, the standalone mode and charging modes were verified. It is determined that the charging modes is the worst case for the official test.
4. For modulation of pi/2 BPSK & QPSK & 16QAM, the maximum power of pi/2 BPSK & QPSK & 16QAM is higher than other modulation (64QAM/256QAM), therefore, according to engineering evaluation, we choose higher power (pi/2 BPSK & QPSK & 16QAM) to perform tests and show in the report.
5. All the radiated test cases were performed with Sample 1.

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
2.	Earphone	UGREEN	N/A	N/A	N/A	Shielded, 1.5m

2.4 Frequency List of Low/Middle/High Channels

NR Band n48 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	638000	641666	645332
	Frequency	3570.0	3624.99	3679.98
30	Channel	637668	641666	645666
	Frequency	3565.02	3624.99	3684.99
20	Channel	637334	641666	646000
	Frequency	3560.01	3624.99	3690.0
10	Channel	637000	641666	646332
	Frequency	3555.0	3624.99	3694.98

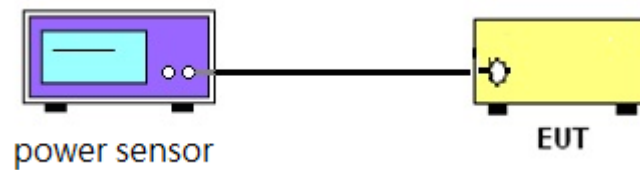
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



3.1.3 Test Result of Conducted Test

Please refer to Appendix A.



3.2 Conducted Output Power

3.2.1 Description of the Conducted Output Power Measurement

A power sensor was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

3.2.2 Test Procedures

1. The transmitter output port was connected to the power sensor.
2. Set EUT at maximum power.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the power sensor
5. The measure-and-sum technique is used for measuring in-band transmit power of a device.

Total power is the sum of the conducted power levels measured at the various output ports.

3.3 EIRP

3.3.1 Description of the EIRP Measurement

The EIRP of category A CBSD must not exceed 30 dBm / 10 megahertz.

The EIRP PSD of category A CBSD must not exceed 20 dBm / 1 megahertz.

The testing follows ANSI C63.26-2015 Section 5.2.5.5

According to KDB 412172 D01 Power Approach,

$EIRP = PT + GT - LC$, where

PT = transmitter output power in dBm

GT = gain of the transmitting antenna in dBi

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

Device	Maximum EIRP (dBm/10 MHz)	Maximum PSD (dBm/MHz)
End User Device	23	n/a

3.3.2 Test Procedures

1. The testing follows procedure in Section 5.2 of ANSI C63.26-2015 and KDB 940660 D01 Part 96 CBRS Eqpt v03 Section 3.2(b)(2) and 3.2(b)(3)
2. Determine the EIRP by adding the effective antenna gain to the measured average conducted power level.

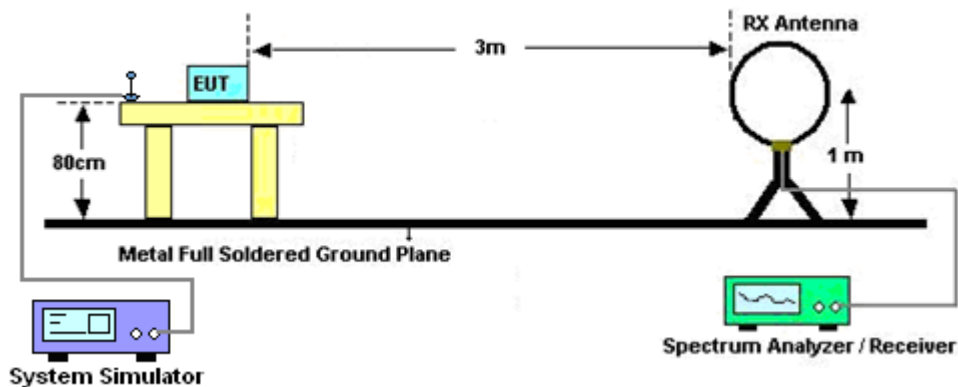
4 Radiated Test Items

4.1 Measuring Instruments

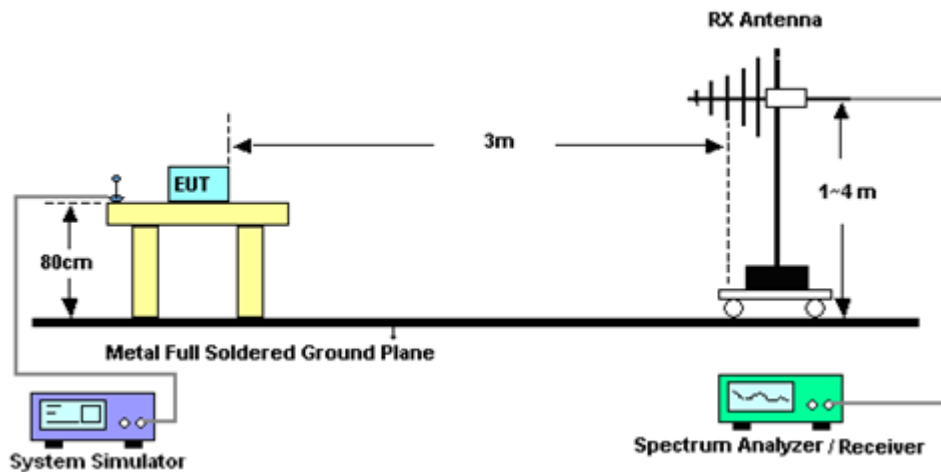
See list of measuring instruments of this test report.

4.2 Test Setup

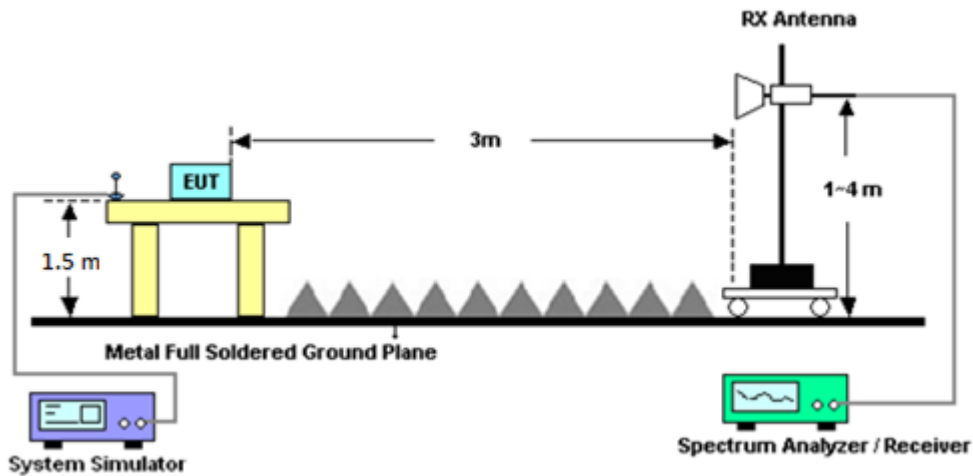
For radiated emissions below 30MHz



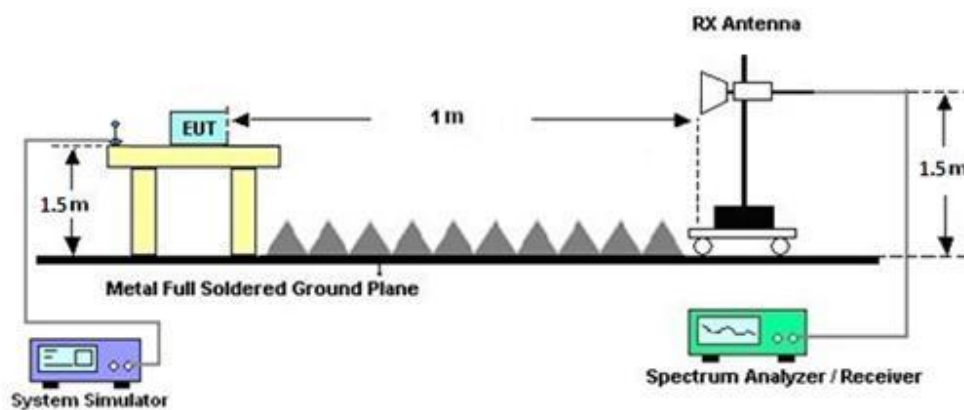
For radiated emissions from 30MHz to 1GHz



For radiated emissions from 1GHz to 18GHz



For radiated emissions above 18GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

Note:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI C63.26-2015.

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least -40dBm / MHz .

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI C63.26-2015 section 5.5.4 Radiated measurement using the field strength method.

1. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
5. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
6. To convert spectrum reading E(dBuV/m) to EIRP(dBm)
$$\text{EIRP(dBm)} = \text{Level (dBuV/m)} + 20\log(d) - 104.77$$
, where d is the distance at which field strength limit is specified in the rules.
7.
$$\text{Field Strength Level (dBm)} = \text{Spectrum Reading (dBm)} + \text{Antenna Factor} + \text{Cable Loss} + \text{Read Level} - \text{Preamp Factor}.$$
8.
$$\text{ERP (dBm)} = \text{EIRP (dBm)} - 2.15$$
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.



5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9kHz~30MHz	Aug. 29, 2024	Mar. 17, 2025~ Mar. 18, 2025	Aug. 28, 2025	Radiation (03CH22-HY)
Bilog Antenna	TESEQ & WOKEN	CBL 6111D & 00802N1D-06	63304 & 002	30MHz~1GHz	Dec. 17, 2024	Mar. 17, 2025~ Mar. 18, 2025	Dec. 16, 2025	Radiation (03CH22-HY)
Amplifier	SONOMA	310N	421581	N/A	Jul. 11, 2024	Mar. 17, 2025~ Mar. 18, 2025	Jul. 10, 2025	Radiation (03CH22-HY)
Double Ridged Guide Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-02038	1GHz~18GHz	Jul. 29, 2024	Mar. 17, 2025~ Mar. 18, 2025	Jul. 28, 2025	Radiation (03CH22-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	1230	18GHz~40GHz	Oct. 25, 2024	Mar. 17, 2025~ Mar. 18, 2025	Oct. 24, 2025	Radiation (03CH22-HY)
Amplifier	EMEC	EM01G18GA	060877	N/A	Sep. 27, 2024	Mar. 17, 2025~ Mar. 18, 2025	Sep. 26, 2025	Radiation (03CH22-HY)
Preamplifier	EMEC	EM18G40G	060873	18-40GHz	Sep. 02, 2024	Mar. 17, 2025~ Mar. 18, 2025	Sep. 01, 2025	Radiation (03CH22-HY)
Signal Analyzer	Keysight	N9010B	MY62170278	10Hz~44GHz	Sep. 24, 2024	Mar. 17, 2025~ Mar. 18, 2025	Sep. 23, 2025	Radiation (03CH22-HY)
Hygrometer	TECPEL	DTM-303A	TP201998	N/A	Oct. 24, 2024	Mar. 17, 2025~ Mar. 18, 2025	Oct. 23, 2025	Radiation (03CH22-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Mar. 17, 2025~ Mar. 18, 2025	N/A	Radiation (03CH22-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Mar. 17, 2025~ Mar. 18, 2025	N/A	Radiation (03CH22-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Mar. 17, 2025~ Mar. 18, 2025	N/A	Radiation (03CH22-HY)
Software	Audix	E3 6.09824_2019122	RK-002347	N/A	N/A	Mar. 17, 2025~ Mar. 18, 2025	N/A	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 05, 2025	Mar. 17, 2025~ Mar. 18, 2025	Mar. 04, 2026	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804390/2,804 611/2,804615/ 2	N/A	Oct. 23, 2024	Mar. 17, 2025~ Mar. 18, 2025	Oct. 22, 2025	Radiation (03CH22-HY)
Signal Analyzer	Rohde & Schwarz	FSV3044	101049	10Hz~44GHz	Oct. 07, 2024	Mar. 04, 2025~ Mar. 05, 2025	Oct. 06, 2025	Conducted (TH03-HY)
Temperature Chamber	ESPEC	LHU-113	1012005860	-20℃ ~85℃	Dec. 10, 2024	Mar. 04, 2025~ Mar. 05, 2025	Dec. 09, 2025	Conducted (TH03-HY)
Hygrometer	TECPEL	DTM-303B	TP200886	NA	Mar. 03, 2025	Mar. 04, 2025~ Mar. 05, 2025	Mar. 02, 2026	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8821C	6262116725	LTE	Oct. 17, 2024	Mar. 04, 2025~ Mar. 05, 2025	Oct. 16, 2025	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8000A	6262148275	FR1	Oct. 20, 2024	Mar. 04, 2025~ Mar. 05, 2025	Oct. 19, 2025	Conducted (TH03-HY)
Coupler	MVE	MVE-4816-10	A400024	N/A	Jun. 27, 2024	Mar. 04, 2025~ Mar. 05, 2025	Jun. 26, 2025	Conducted (TH03-HY)
Power divider	Anritsu	K241C	2143398	9KHz~40GHz	Jun. 13, 2024	Mar. 04, 2025~ Mar. 05, 2025	Jun. 12, 2025	Conducted (TH03-HY)
RF Cable	MVE	MCBL-LL403P.50	E80002C	9KHz~40GHz	Aug. 23, 2024	Mar. 04, 2025~ Mar. 05, 2025	Aug. 22, 2025	Conducted (TH03-HY)
Software 1	Sporton	FCC 5GNR_FSV3044_ 20231106	N/A	Conducted Test Item	N/A	Mar. 04, 2025~ Mar. 05, 2025	N/A	Conducted (TH03-HY)

6 Measurement Uncertainty

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.6 dB
---	--------

Uncertainty of Radiated Emission Measurement (1 GHz ~ 6 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.2 dB
---	--------

Uncertainty of Radiated Emission Measurement (6 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0 dB
---	--------

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.7 dB
---	--------



Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power) and EIRP

NR n48 Maximum Average Power [dBm] (GT - LC = 0.36 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	20.24	20.54	20.66	21.02	0.1265
10	1	1	QPSK	20.28	20.54	20.64		
10	1	1	16-QAM	19.07	19.43	19.51	19.87	0.0971
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n48 Maximum Average Power [dBm] (GT - LC = 0.36 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	20.53	20.67	20.65	21.10	0.1288
20	1	1	QPSK	20.53	20.62	20.74		
20	1	1	16-QAM	19.38	19.47	19.60	19.96	0.0991
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n48 Maximum Average Power [dBm] (GT - LC = 0.36 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
30	1	1	PI/2 BPSK	20.53	20.80	20.85	21.21	0.1321
30	1	1	QPSK	20.53	20.82	20.78		
30	1	1	16-QAM	19.38	19.70	19.75	20.11	0.1026
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n48 Maximum Average Power [dBm] (GT - LC = 0.36 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	20.58	20.77	20.86	21.22	0.1324
40	1	1	QPSK	20.54	20.77	20.82		
40	1	1	16-QAM	19.33	19.61	19.70	20.06	0.1014
Limit	EIRP < 23dBm/10MHz			Result			Pass	

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



Appendix B. Test Results of Radiated Test

B1. Summary of each worse mode

Mode	Part	Band	Ch	Freq (MHz)	Level (dBm)	Det	Ant Factor (dB)	Amp\Cbl (dB)	Filter (dB)	EIRPCF (dB)	Reading (dBuV)	Limit (dBm)	Margin (dB)	Pol	Ant
1	Part 96	NR SA n48	L	7103	-44.41	RMS	36.22	-21.12	2.48	-95.23	33.24	-40.00	-4.41	V	MIMO2

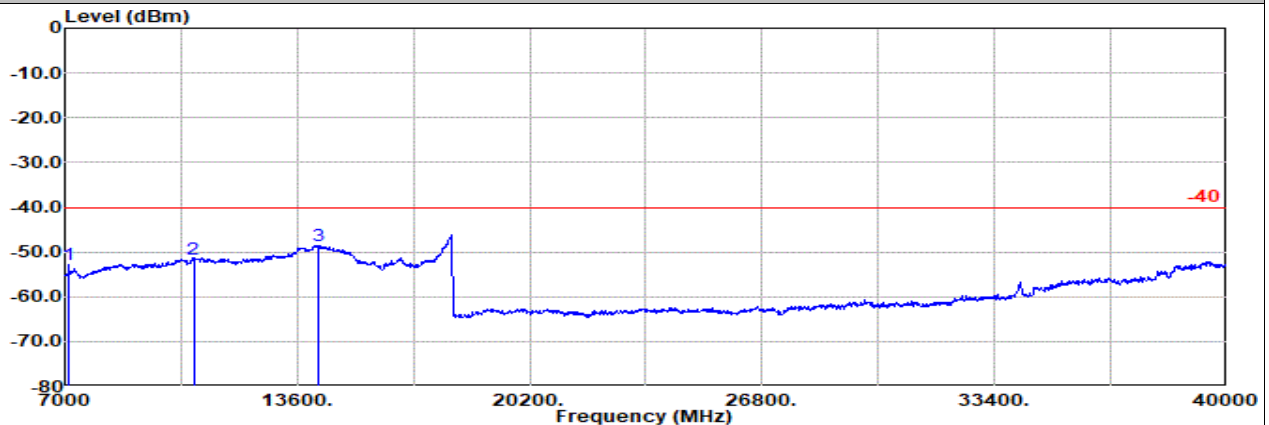


MIMO2 Antenna

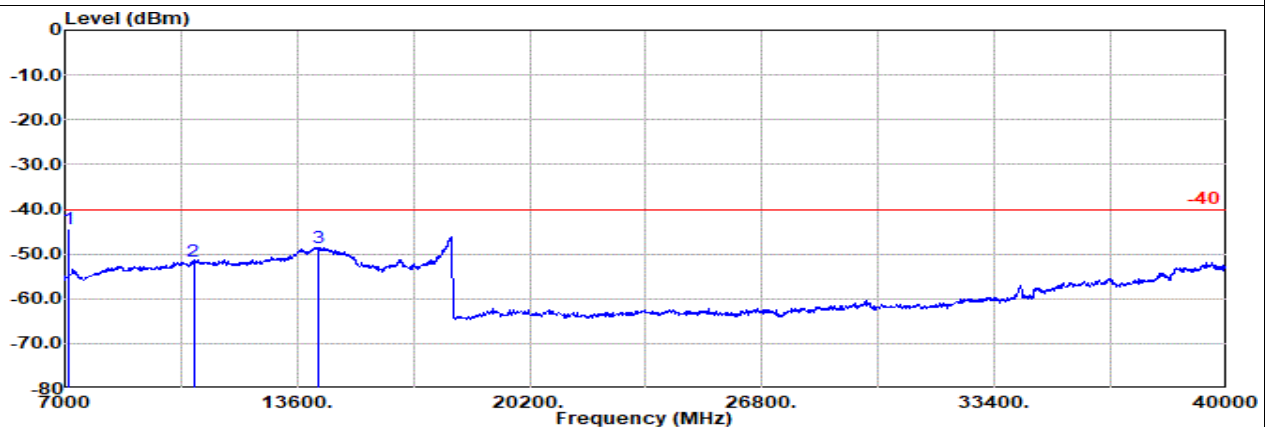
Part 96 Mode 1

NR SA n48 20M Ch637334 1RB1 BPSK

L



	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit		Margin	Pol
				Factor	1						
1	7103.00	-52.85	RMS	36.22	-21.12	2.48	-95.23	24.80	-40.00	-12.85	Horizontal
2	10654.00	-51.59	RMS	38.99	-21.09	2.19	-95.23	23.55	-40.00	-11.59	Horizontal
3	14205.00	-48.61	RMS	40.98	-21.31	2.36	-95.23	24.59	-40.00	-8.61	Horizontal



	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit		Margin	Pol
				Factor	1						
1	7103.00	-44.41	RMS	36.22	-21.12	2.48	-95.23	33.24	-40.00	-4.41	Vertical
2	10654.00	-51.62	RMS	38.99	-21.09	2.19	-95.23	23.52	-40.00	-11.62	Vertical
3	14205.00	-48.65	RMS	40.98	-21.31	2.36	-95.23	24.55	-40.00	-8.65	Vertical

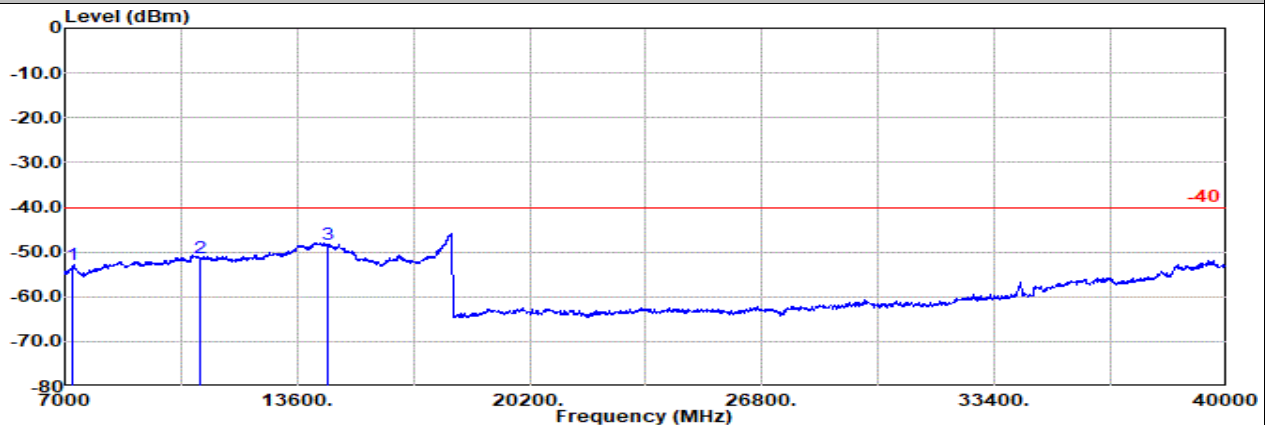


MIMO2 Antenna

Part 96 Mode 1

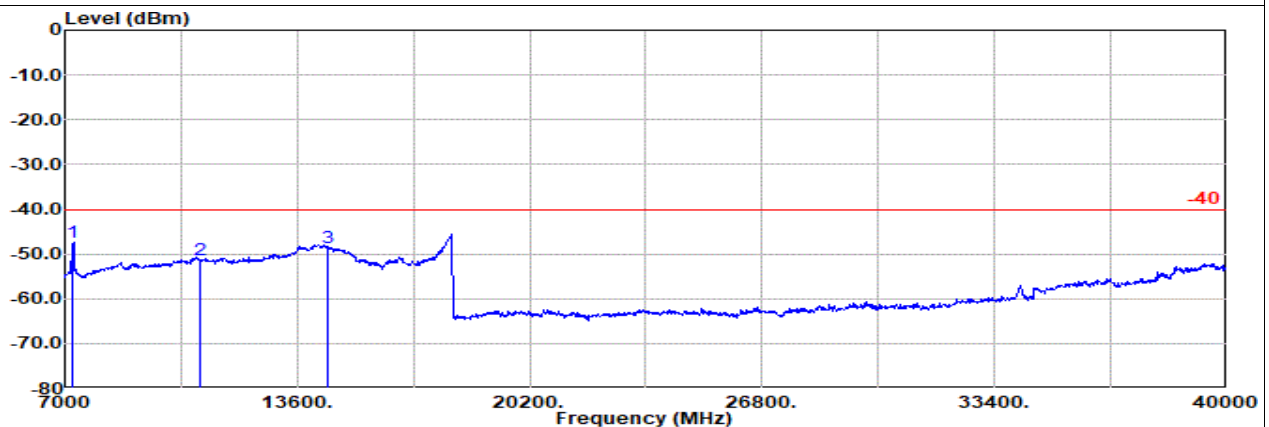
NR SA n48 20M Ch641666 1RB1 BPSK

M



Site : 03CH22-HY
Condition: -40 1m SHF_1230_241025 Horizontal
: SA n48 20M Ch641666 1RB1 BPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit	Margin	Pol
				Factor	1					
1	7233.00	-52.93	RMS	36.73	-21.17	2.34 -95.23	24.40	-40.00	-12.93	Horizontal
2	10849.00	-51.45	RMS	38.90	-21.08	2.19 -95.23	23.77	-40.00	-11.45	Horizontal
3	14465.00	-48.44	RMS	40.63	-21.41	2.35 -95.23	25.22	-40.00	-8.44	Horizontal



Site : 03CH22-HY
Condition: -40 1m SHF_1230_241025 Vertical
: SA n48 20M Ch641666 1RB1 BPSK

	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit	Margin	Pol
				Factor	1					
1	7233.00	-47.42	RMS	36.73	-21.17	2.34 -95.23	29.91	-40.00	-7.42	Vertical
2	10849.00	-51.30	RMS	38.90	-21.08	2.19 -95.23	23.92	-40.00	-11.30	Vertical
3	14465.00	-48.61	RMS	40.63	-21.41	2.35 -95.23	25.05	-40.00	-8.61	Vertical

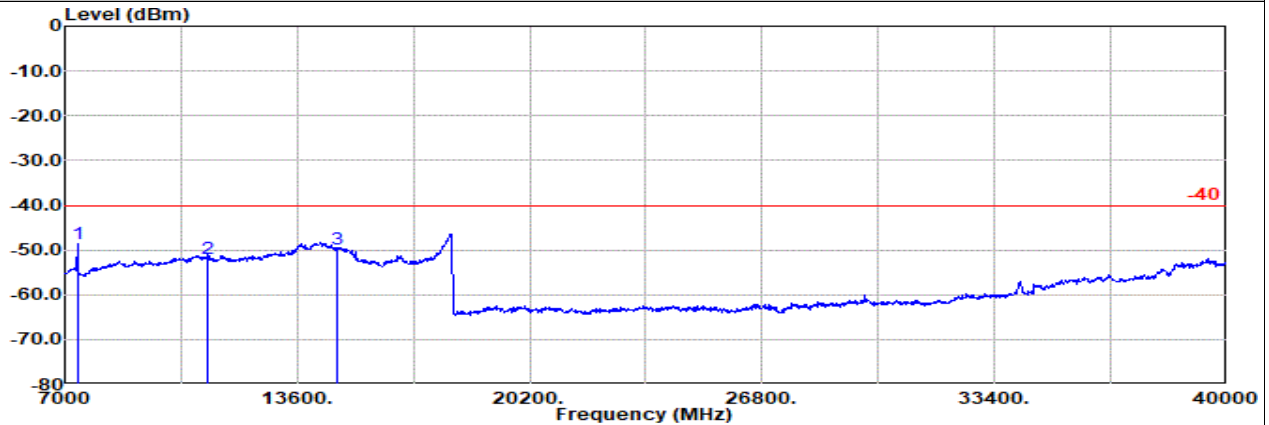


MIMO2 Antenna

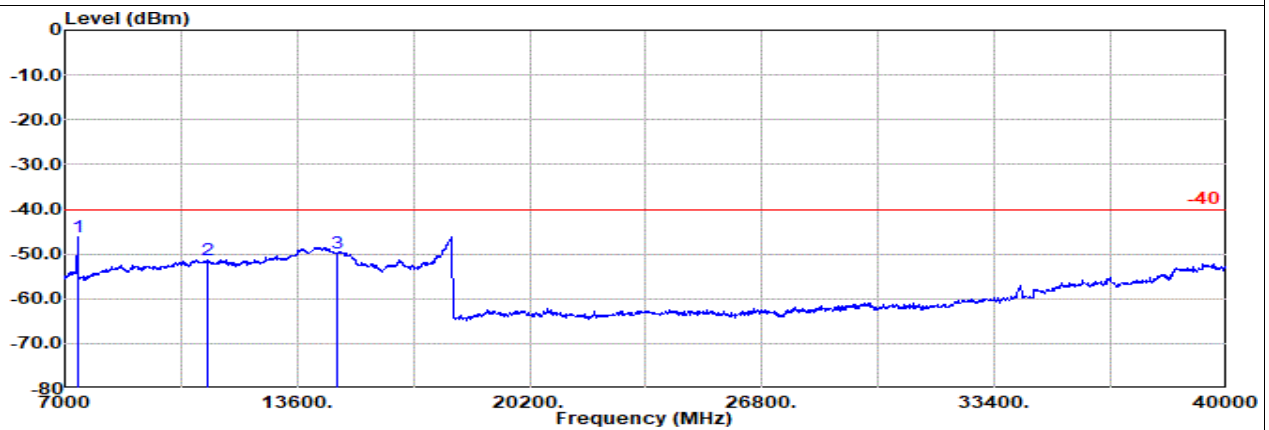
Part 96 Mode 1

NR SA n48 20M Ch646000 1RB1 BPSK

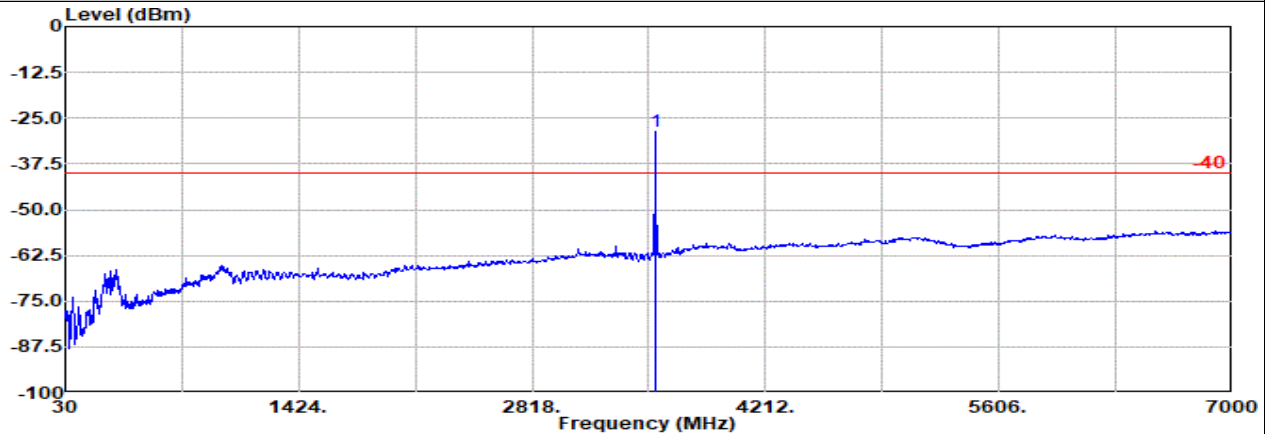
H



	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit	Margin	Pol
				Factor	1					
1	7363.00	-48.52	RMS	36.52	-21.21	2.27 -95.23	29.13	-40.00	-8.52	Horizontal
2	11044.00	-51.82	RMS	38.51	-21.07	2.18 -95.23	23.79	-40.00	-11.82	Horizontal
3	14725.00	-49.94	RMS	40.40	-21.56	2.35 -95.23	24.10	-40.00	-9.94	Horizontal

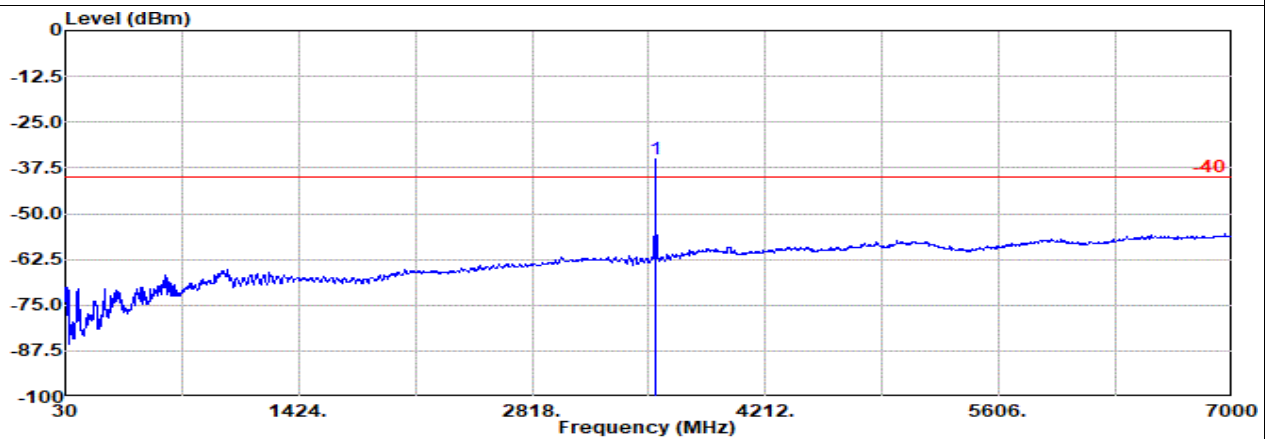


	Freq MHz	Level dBm	Detector	Ant Amp\Cb Filter		EIRPCF	Readin g	Limit	Margin	Pol
				Factor	1					
1	7363.00	-46.29	RMS	36.52	-21.21	2.27 -95.23	31.36	-40.00	-6.29	Vertical
2	11044.00	-51.21	RMS	38.51	-21.07	2.18 -95.23	24.40	-40.00	-11.21	Vertical
3	14725.00	-49.84	RMS	40.40	-21.56	2.35 -95.23	24.20	-40.00	-9.84	Vertical

MIMO2 Antenna
Part 96 Mode 1
NR SA n48 20M Ch637334 1RB1 BPSK
L


Site : 03CH22-HY
 Condition: -40 3m 9120D_02038_240729 Horizontal
 : SA n48 20M Ch637334 1RB1 BPSK
 : #1 is fundamental signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm									
1	3556.00	-28.73	RMS	29.50	-22.75	1.52	-95.23	58.23	-40.00	11.27	Horizontal



Site : 03CH22-HY
 Condition: -40 3m 9120D_02038_240729 Vertical
 : SA n48 20M Ch637334 1RB1 BPSK
 : #1 is fundamental signal which can be ignored.

	Freq	Level	Detector	Ant Factor	Amp\Cb	Filter 1	EIRPCF	Readin g	Limit	Margin	Pol
	MHz	dBm									
1	3556.00	-34.93	RMS	29.50	-22.75	1.52	-95.23	52.03	-40.00	5.07	Vertical

Remark: #1 is fundamental signal which can be ignored.