

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 96
47 CFR FCC Part 2

Report No.: RFCDVB-WTW-P25040437-3

FCC ID: QYLFN990V12

Product: 5G NR Module

Brand: Getac

Model No.: FN990A28

Received Date: 2025/4/21

Test Date: 2025/6/14 ~ 2025/6/26

Issued Date: 2025/7/11

Applicant: Getac Technology Corporation.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / (1) 788550 / TW0003

Designation Number: (2) 281270 / TW0032

Approved by: Jeremy Lin, Date: 2025/7/11
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Prepared by : Vera Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFCDVB-WTW-P25040437-3	Original Release	2025/7/11

1 Certificate

Product: 5G NR Module

Brand: Getac

Test Model: FN990A28

Sample Status: Engineering sample

Applicant: Getac Technology Corporation.

Test Date: 2025/6/14 ~ 2025/6/26

Standard: 47 CFR FCC Part 96
47 CFR FCC Part 2

Measurement ANSI/TIA/EIA-603-E 2016

procedure: ANSI C63.26-2015

KDB 971168 D01 Power Meas License Digital Systems v03r01

KDB 940660 D01 Part 96 CBRS Eqpt v03

KDB 662911 D01 Multiple Transmitter Output v02r01

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 Summary of Test Results

Standard / Clause	Test Item	Result	Remark
Part 2.1046 Part 96.41(b)	Maximum EIRP	Pass	Meet the requirement of limit.
Part 2.1047	Modulation Characteristics	N/A	Refer to Note
Part 2.1046 Part 96.41(b)	Maximum Power Spectral Density	N/A	This device is End User Device.
Part 96.41(g)	Peak to Average Ratio	N/A	Refer to Note
Part 2.1049	Bandwidth	N/A	Refer to Note
Part 2.1051 Part 96.41(e)	Conducted Spurious Emissions	N/A	Refer to Note
Part 2.1053 Part 96.41(e)	Radiated Spurious Emissions below 1GHz	Pass	Minimum passing margin is -9.94 dB at 260.86 MHz
Part 2.1053 Part 96.41(e)	Radiated Spurious Emissions above 1GHz	Pass	Minimum passing margin is -1.13 dB at 7249.98 MHz
Part 2.1055	Frequency Stability	N/A	Refer to Note

Note:

- Only test item of Maximum EIRP and Radiated Spurious Emissions were performed for this report. Other testing data please refer to WWAN module (FCC ID: RI7FN990A28) certified report.
- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Parameter	Specification	Uncertainty (±)
Effective Radiated Power and Equivalent Isotropically Radiated Power	-	1.371 dB
Radiated Spurious Emissions below 1GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Radiated Spurious Emissions above 1GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	5G NR Module
Brand	Getac
Test Model	FN990A28
Status of EUT	Engineering sample
Power Supply Rating	Refer to note
Modulation Type	DFT-s-OFDM, CP-OFDM
5G NR support SISO bands	n48
5G NR support MIMO bands	n48

Note:

1. The EUT is authorized for use in specific End-product.

Product	Brand	Model	Difference
Notebook	Getac	V120	marketing purpose
		V120Y (Y= 10 characters, Y can be 0 to 9, A to Z, a to z, "/", "\", "-", "_" or blank for marketing purpose)	

2. The End-product uses following accessories.

Item	Brand	Model	Specification
Battery 1	Getac	BP2S1P4070P	Power Rating : Rating: 7.74Vdc , 3800mAh, 29.42Wh Typical Capacity: 4070mAh, 31.51Wh
Battery 2	Getac	BP3S1P4070P	Power Rating : Rating: 11.61Vdc , 3800mAh, 44.12Wh Typical Capacity: 4070mAh, 47.26Wh
AC Adapter	FSP	FSP065-RBBN3	AC Input : 100-240 Vac : 50-60 Hz ; 1.5 A DC Output : 19.0Vdc ; 3.42A, 65.0W DC Output Cable : 1.45M / 1core AC Power Cord : 1.75M
Touch Pen	Getac	340GA8900001	-

3. EUT Overview

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)

SISO Mode

Bandwidth	TX Frequency Range (MHz)	Modulation	Max. EIRP (W)	Max. EIRP (dBm)
10 MHz	3555 ~ 3694.98	BPSK	0.115	20.59
		QPSK	0.116	20.66
		16QAM	0.076	18.78
		64QAM	0.072	18.58
		256QAM	0.042	16.24
15 MHz	3557.52 ~ 3692.49	BPSK	0.116	20.66
		QPSK	0.118	20.72
		16QAM	0.077	18.87
		64QAM	0.072	18.60
		256QAM	0.043	16.34
20 MHz	3560.01 ~ 3690	BPSK	0.119	20.76
		QPSK	0.119	20.76
		16QAM	0.077	18.87
		64QAM	0.073	18.66
		256QAM	0.043	16.38
30 MHz	3565.02 ~ 3684.99	BPSK	0.119	20.76
		QPSK	0.121	20.81
		16QAM	0.077	18.88
		64QAM	0.075	18.76
		256QAM	0.044	16.46
40 MHz	3570 ~ 3679.98	BPSK	0.121	20.82
		QPSK	0.121	20.84
		16QAM	0.078	18.92
		64QAM	0.075	18.77
		256QAM	0.045	16.55

MIMO Mode

Bandwidth	TX Frequency Range (MHz)	Modulation	Max. EIRP (W)	Max. EIRP (dBm)
10 MHz	3555 ~ 3694.98	QPSK	0.130	21.14
		16QAM	0.081	19.09
		64QAM	0.071	18.50
		256QAM	0.045	16.54
15 MHz	3557.52 ~ 3692.49	QPSK	0.130	21.14
		16QAM	0.080	19.05
		64QAM	0.071	18.52
		256QAM	0.045	16.50
20 MHz	3560.01 ~ 3690	QPSK	0.128	21.06
		16QAM	0.081	19.10
		64QAM	0.071	18.54
		256QAM	0.045	16.50
30 MHz	3565.02 ~ 3684.99	QPSK	0.129	21.11
		16QAM	0.081	19.06
		64QAM	0.071	18.51
		256QAM	0.044	16.47
40 MHz	3570 ~ 3679.98	QPSK	0.131	21.18
		16QAM	0.076	18.83
		64QAM	0.068	18.32
		256QAM	0.043	16.29

4. The EUT supports the following ENDC configuration.

5GNR	FCC 5G FR1			ENDC
	Band	SCS	Bandwidth (MHz)	
	n48	30 kHz	10/15/20/30/40	
				Band 2/5/13/66

5. For detailed information about frequency range, bandwidth mode of the product, please refer to section 3.3 of the report.

6. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Antenna Description of EUT

Antenna Type	Antenna Connector	Band	Peak Gain (dBi)			
			Ant 0 (MAIN)	Ant 2 (AUX)	Ant 1 (MIMO1)	Ant 3 (MIMO2)
PIFA	Ant 0/2/3: IPEX I Ant 1: IPEX (NGFF)	5G NR n48	1.46	0.03	2.57	1.8

*The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

*SISO mode of 5G NR n48 was fixed on Ant. 3

*MIMO mode of 5G NR n48 was fixed on Ant. 1 and Ant. 3

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. EUT can be used in the following ways: X-axis / Y-axis / Z-axis / NB-axis. Pre-scan these ways and find the worst case as a representative test condition. 2. Pre-scan Battery 1 / Battery 2 and find the worst case as a representative test condition.
Worst Case:	1. X-axis / Y-axis / Z-axis / NB-axis Worst Condition: NB-axis 2. Battery Worst Condition: Battery 1

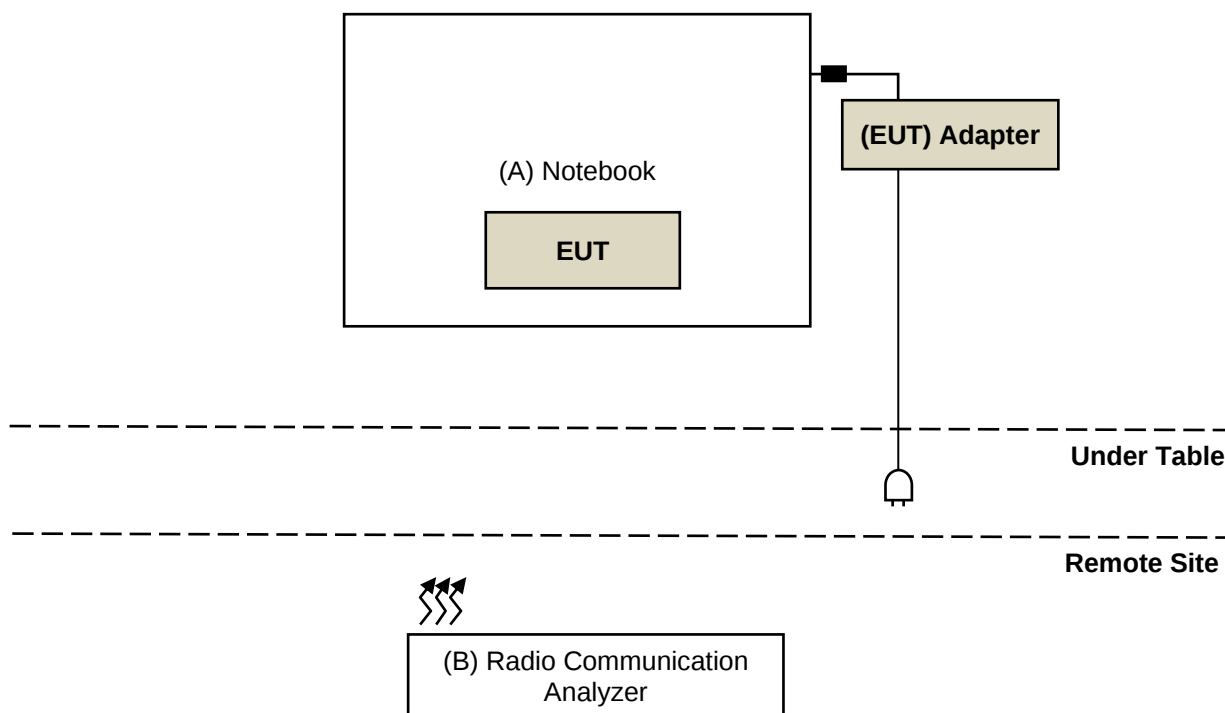
3.3.1 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)

Test Item	Tx/Rx condition	Tested Channel	Channel Bandwidth	Modulation	Mode
Maximum EIRP	1Tx	637000(3555.00 MHz) 641666(3624.99 MHz) 646332(3694.98 MHz)	10 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		637168(3557.52 MHz) 641666(3624.99 MHz) 646166(3692.49 MHz)	15 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		637334(3560.01 MHz) 641666(3624.99 MHz) 646000(3690.00 MHz)	20 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		637668(3565.02 MHz) 641666(3624.99 MHz) 645666(3684.99 MHz)	30 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		638000(3570.00 MHz) 641666(3624.99 MHz) 645332(3679.98 MHz)	40 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
	2Tx	637000(3555.00 MHz) 641666(3624.99 MHz) 646332(3694.98 MHz)	10 MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		637168(3557.52 MHz) 641666(3624.99 MHz) 646166(3692.49 MHz)	15 MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		637334(3560.01 MHz) 641666(3624.99 MHz) 646000(3690.00 MHz)	20 MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		637668(3565.02 MHz) 641666(3624.99 MHz) 645666(3684.99 MHz)	30 MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		638000(3570.00 MHz) 641666(3624.99 MHz) 645332(3679.98 MHz)	40 MHz	QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
Radiated Spurious Emissions below 1GHz	1Tx	638000(3570.00 MHz)	40 MHz	QPSK	1 RB
Radiated Spurious Emissions above 1GHz	1Tx, 2Tx	637000(3555.00 MHz) 641666(3624.99 MHz) 646332(3694.98 MHz)	10 MHz	QPSK	1 RB
	1Tx, 2Tx	637334(3560.01 MHz) 641666(3624.99 MHz) 646000(3690.00 MHz)	20 MHz	QPSK	1 RB
	1Tx, 2Tx	638000(3570.00 MHz) 641666(3624.99 MHz) 645332(3679.98 MHz)	40 MHz	QPSK	1 RB

3.4 Test Program Used and Operation Descriptions

There is no need to controlling software during the test, and the EUT can be paired with the Radio Communication Analyzer to test the connection when it is powered on.

3.5 Connection Diagram of EUT and Peripheral Devices



3.6 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Notebook	Getac	V120	N/A	N/A	Supplied by applicant
B	Radio Communication Analyzer	Anritsu	MT8000A	6272278595	N/A	Provided by Lab

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 Maximum EIRP

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Fixed Attenuator Woken	00800A1K01A-10	00800A1K01A-10-01	2025/5/23	2026/5/22
PXA Signal Analyzer Keysight	N9030B	MY57140938	2025/3/24	2026/3/23
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A
UXM 5G Wireless Test Platform Keysight	E7515B	MY58300759	2024/7/3	2025/7/2
		MY60102115	2025/5/26	2026/5/25

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2025/6/23 ~ 2025/6/26

4.2 Radiated Spurious Emissions below 1GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-1214	2024/10/15	2025/10/14
EXA Signal Analyzer Agilent	N9010A	MY52220207	2024/12/30	2025/12/29
Loop Antenna TESEQ	HLA 6121	45745	2024/8/21	2025/8/20
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier EMCI	EMC330N	980798	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201248	2025/1/14	2026/1/13
	EMCCFD400-NM-NM-3000	201249	2025/1/14	2026/1/13
	EMCCFD400-NM-NM-9000	201251(with PAD)	2025/1/14	2026/1/13
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2025/6/17

4.3 Radiated Spurious Emissions above 1GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFA-515BSN	N/A	N/A	N/A
EXA Signal Analyzer Agilent	N9010A	MY52220207	2024/12/30	2025/12/29
Horn Antenna RFSPIN	DRH18-E	210104A18E	2024/11/10	2025/11/9
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2024/11/10	2025/11/9
MXE EMI Receiver Agilent	N9038A	MY52260177	2024/9/19	2025/9/18
Preamplifier Agilent	83017A	MY39501357	2025/6/11	2026/6/10
Preamplifier EMCI	EMC184045SE	980788	2025/1/14	2026/1/13
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2025/1/14	2026/1/13
	EMC101G-KM-KM-3000	201258	2025/1/14	2026/1/13
	EMC101G-KM-KM-5000	201261	2025/1/14	2026/1/13
	EMC104-SM-SM-1000	210103	2025/1/14	2026/1/13
	EMC104-SM-SM-3000	201241	2025/1/14	2026/1/13
	EMC104-SM-SM-9000	201244	2025/1/14	2026/1/13
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MFT-201SS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208676	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 9.
2. Tested Date: 2025/6/14 ~ 2025/6/17

5 Limits of Test Items

5.1 Maximum EIRP

For NR n48 SCS 30 kHz, NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz):

Device Category	Maximum EIRP (dBm/10 MHz)
End User Device	23
Category A CBSD	30
Category B CBSD	47

5.2 Radiated Spurious Emissions below 1GHz

For NR n48 SCS 30 kHz, NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz):

The power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

5.3 Radiated Spurious Emissions above 1GHz

For NR n48 SCS 30 kHz, NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz):

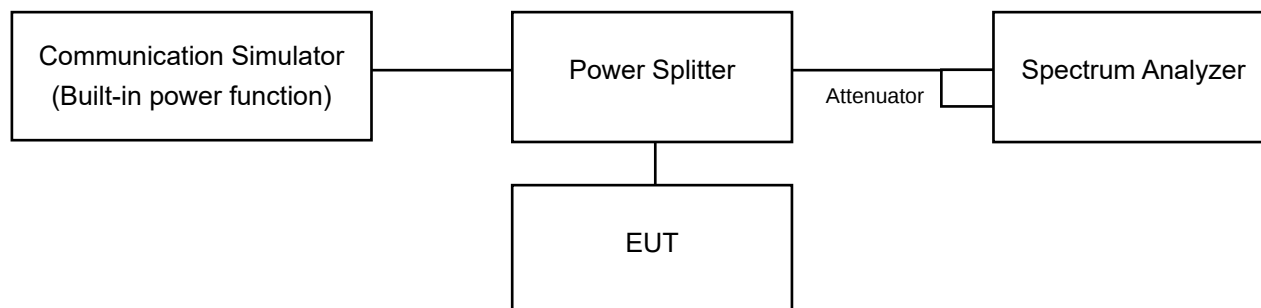
The power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz.

6 Test Arrangements

6.1 Maximum EIRP

6.1.1 Test Setup

Conducted Power Measurement:



6.1.2 Test Procedure

Conducted Power Measurement:

The EUT is configured by test software or key-in commands to set data modulation and maximum power using WWAN technology and link to spectrum analyzer measurements. Set the EUT to transmit under low, middle and high channel and record the power level shown on spectrum analyzer. Power measurements use detector average (rms).

Measurement method refers to ANSI C63.26 section 5.2.4.4.

- Set span to 2 × to 3 × the OBW.
- Set RBW = 1% to 5% of the OBW.
- Set VBW ≥ 3 × RBW.
- Set number of measurement points in sweep ≥ 2 × span / RBW.
- Set Sweep time = auto-couple.
- Detector = power averaging (rms).
- Set sweep trigger to “free run.”
- Trace average at least 100 traces in power averaging (rms) mode.
- Use the Band/Channel Power function to determine the integrated power per 10 MHz bandwidth and full bandwidth, according to the 47 CFR FCC Part 96 standard.
- If Duty cycle < 98%, Add 10 log (1/duty cycle) to the measured power level to compute the average power during continuous transmission.

Maximum EIRP / ERP

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$$\text{EIRP} = P_{\text{Meas}} + G_T$$

$$\text{ERP} = P_{\text{Meas}} + G_T - 2.15$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively

(expressed in the same units as P_{Meas} , e.g., dBm or dBW)

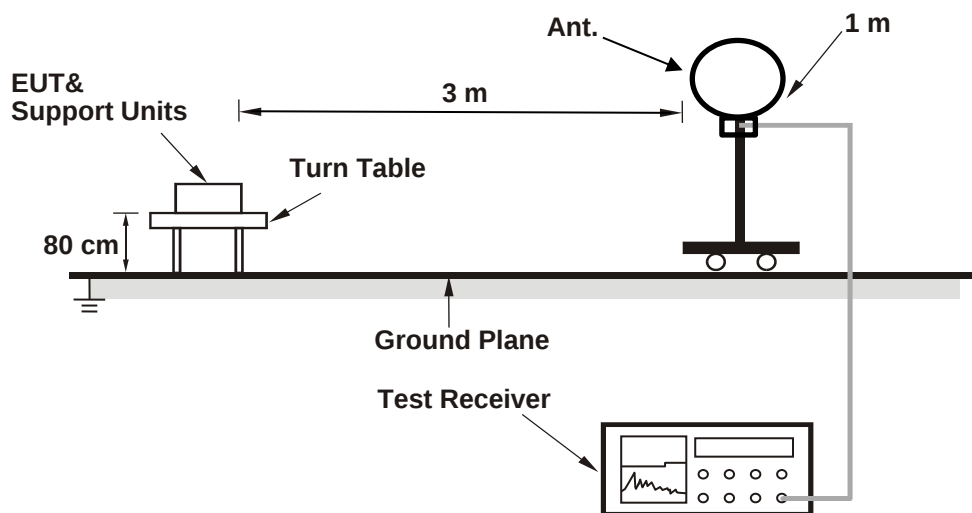
P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

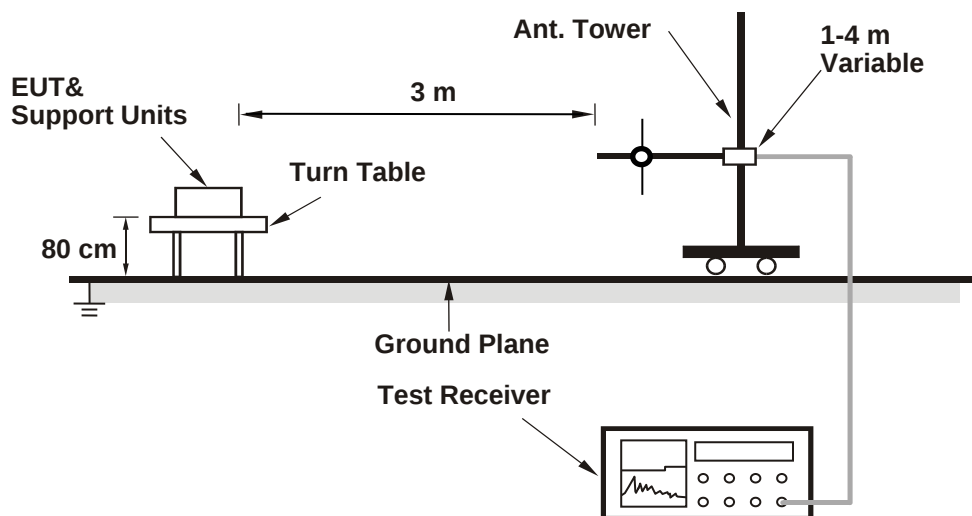
6.2 Radiated Spurious Emissions below 1GHz

6.2.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.2.2 Test Procedure

The EUT is configured to set data modulation and maximum power using WWAN technology.

- a. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) height of turn table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- d. Following ANSI C63.26 section 5.5 and 5.2.7
- e. $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.
- f. $ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$; where D is the measurement distance (in the far field region) in m.

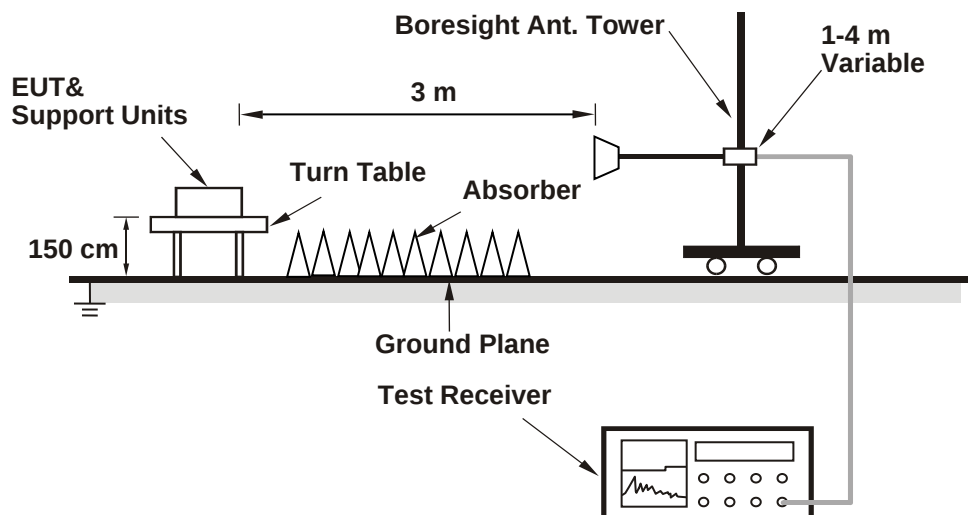
Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz. Set detector = average.
2. The amplitude of spurious emissions in the range 9 kHz to 30 MHz which are attenuated more than 20 dB below the permissible value need not be reported.

6.3 Radiated Spurious Emissions above 1GHz

6.3.1 Test Setup

For radiated emission above 1 GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.3.2 Test Procedure

The EUT is configured to set data modulation and maximum power using WWAN technology.

- In the semi-anechoic chamber, EUT placed on the 1.5 m height of turn table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- Following ANSI C63.26 section 5.5 and 5.2.7
- $EIRP \text{ (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.
- $ERP \text{ (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20\log(D) - 104.8 - 2.15$; where D is the measurement distance (in the far field region) in m.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz. Set detector = average.

7 Test Results of Test Item

7.1 Maximum EIRP

Input Power:	7.74 Vdc	Environmental Conditions:	23°C, 62% RH	Tested By:	Charles Hsiao
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7.1.1 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) (SISO)

NR n48 SCS 30 kHz, Channel Bandwidth: 10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637000	CH 641666	CH 646332
			3555 MHz	3624.99 MHz	3694.98 MHz
BPSK	1	1	18.79	18.69	18.56
	1	0	18.55	18.55	18.44
QPSK	1	1	18.86	18.72	18.56
	1	0	17.85	17.70	17.69
	1	11	18.72	18.45	18.57
	1	22	18.70	18.64	18.56
	1	23	18.59	18.69	18.64
	12	0	17.74	17.67	17.59
	12	6	18.73	18.74	18.57
	12	12	17.79	17.66	17.75
	24	0	17.71	17.73	17.66
16QAM	1	0	16.98	16.83	16.74
64QAM	1	0	16.78	16.62	16.73
256QAM	1	0	14.44	14.38	14.43

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	18.44	18.79	20.24	20.59	23
QPSK	17.59	18.86	19.39	20.66	23
16QAM	16.74	16.98	18.54	18.78	23
64QAM	16.62	16.78	18.42	18.58	23
256QAM	14.38	14.44	16.18	16.24	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, Channel Bandwidth: 15 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637168	CH 641666	CH 646166
			3557.52 MHz	3624.99 MHz	3692.49 MHz
BPSK	1	1	18.86	18.68	18.62
	1	0	18.65	18.63	18.50
QPSK	1	1	18.92	18.79	18.63
	1	0	17.93	17.71	17.70
	1	19	18.78	18.57	18.61
	1	36	18.72	18.68	18.62
	1	37	18.69	18.63	18.69
	18	0	17.81	17.66	17.67
	18	10	18.80	18.88	18.63
	18	20	17.81	17.74	17.75
	36	0	17.79	17.76	17.71
	38	0	17.84	17.68	17.55
16QAM	1	0	17.07	16.88	16.81
64QAM	1	0	16.80	16.67	16.78
256QAM	1	0	14.54	14.49	14.46

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	18.50	18.86	20.30	20.66	23
QPSK	17.55	18.92	19.35	20.72	23
16QAM	16.81	17.07	18.61	18.87	23
64QAM	16.67	16.80	18.47	18.60	23
256QAM	14.46	14.54	16.26	16.34	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, Channel Bandwidth: 20 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637334	CH 641666	CH 646000
			3560.01 MHz	3624.99 MHz	3690 MHz
BPSK	1	1	18.96	18.73	18.69
	1	0	18.74	18.71	18.58
QPSK	1	1	18.96	18.74	18.69
	1	0	17.95	17.71	17.80
	1	26	18.83	18.68	18.66
	1	49	18.75	18.75	18.69
	1	50	18.76	18.72	18.72
	25	0	17.91	17.81	17.76
	25	13	18.89	18.88	18.72
	25	26	17.84	17.81	17.75
	50	0	17.89	17.71	17.77
	51	0	17.85	17.79	17.64
16QAM	1	0	17.07	16.91	16.90
64QAM	1	0	16.86	16.76	16.78
256QAM	1	0	14.58	14.48	14.53

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	18.58	18.96	20.38	20.76	23
QPSK	17.64	18.96	19.44	20.76	23
16QAM	16.90	17.07	18.70	18.87	23
64QAM	16.76	16.86	18.56	18.66	23
256QAM	14.48	14.58	16.28	16.38	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, Channel Bandwidth: 30 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637668	CH 641666	CH 645666
			3565.02 MHz	3624.99 MHz	3684.99 MHz
BPSK	1	1	18.96	18.79	18.75
	1	0	18.84	18.74	18.59
QPSK	1	1	19.01	18.84	18.77
	1	0	17.95	17.81	17.80
	1	39	18.88	18.77	18.69
	1	76	18.83	18.87	18.72
	1	77	18.81	18.77	18.72
	36	0	17.95	17.73	17.86
	36	21	18.95	18.93	18.78
	36	42	17.86	17.82	17.79
	75	0	17.95	17.79	17.86
	78	0	17.88	17.84	17.74
16QAM	1	0	17.08	16.88	16.95
64QAM	1	0	16.96	16.81	16.87
256QAM	1	0	14.66	14.49	14.54

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	18.59	18.96	20.39	20.76	23
QPSK	17.73	19.01	19.53	20.81	23
16QAM	16.88	17.08	18.68	18.88	23
64QAM	16.81	16.96	18.61	18.76	23
256QAM	14.49	14.66	16.29	16.46	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, Channel Bandwidth: 40 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 638000	CH 641666	CH 645332
			3570 MHz	3624.99 MHz	3679.98 MHz
BPSK	1	1	19.02	18.76	18.76
	1	0	18.93	18.73	18.68
QPSK	1	1	19.04	18.83	18.82
	1	0	18.03	17.97	17.85
	1	53	18.91	18.81	18.73
	1	104	18.89	18.80	18.82
	1	105	18.85	18.75	18.78
	50	0	18.02	17.93	17.86
	50	28	18.98	18.95	18.85
	50	56	17.94	17.91	17.79
	100	0	17.98	17.91	17.90
	106	0	17.94	17.85	17.83
16QAM	1	0	17.12	17.00	16.95
64QAM	1	0	16.97	16.97	16.87
256QAM	1	0	14.75	14.58	14.56

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	18.68	19.02	20.48	20.82	23
QPSK	17.79	19.04	19.59	20.84	23
16QAM	16.95	17.12	18.75	18.92	23
64QAM	16.87	16.97	18.67	18.77	23
256QAM	14.56	14.75	16.36	16.55	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, Channel Bandwidth: 15 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637168	CH 641666	CH 646166
			3557.52 MHz	3624.99 MHz	3692.49 MHz
BPSK	1	1	18.84	18.62	18.56
	1	0	18.5	18.52	18.42
QPSK	1	1	18.83	18.68	18.57
	1	0	17.86	17.56	17.67
	1	19	18.72	18.56	18.6
	1	36	18.62	18.6	18.52
	1	37	18.63	18.48	18.68
	18	0	17.67	17.63	17.58
	18	10	18.69	18.88	18.51
	18	20	17.75	17.6	17.61
	36	0	16.46	16.48	16.47
	38	0	16.45	16.36	16.25
16QAM	1	0	16.92	16.78	16.72
64QAM	1	0	16.73	16.65	16.71
256QAM	1	0	14.43	14.45	14.43

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	18.42	18.84	20.22	20.64	23
QPSK	16.25	18.88	18.05	20.68	23
16QAM	16.72	16.92	18.52	18.72	23
64QAM	16.65	16.73	18.45	18.53	23
256QAM	14.43	14.45	16.23	16.25	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, Channel Bandwidth: 20 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637334	CH 641666	CH 646000
			3560.01 MHz	3624.99 MHz	3690 MHz
BPSK	1	1	18.85	18.62	18.63
	1	0	18.6	18.6	18.43
QPSK	1	1	18.88	18.69	18.63
	1	0	17.86	17.63	17.75
	1	26	18.71	18.6	18.53
	1	49	18.6	18.71	18.62
	1	50	18.64	18.59	18.62
	25	0	17.86	17.81	17.74
	25	13	18.85	18.84	18.59
	25	26	17.74	17.8	17.64
	50	0	15.31	15.17	15.16
	51	0	15.35	15.24	15.14
16QAM	1	0	17	16.9	16.83
64QAM	1	0	16.79	16.69	16.72
256QAM	1	0	14.52	14.36	14.46

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	18.43	18.85	20.23	20.65	23
QPSK	15.14	18.88	16.94	20.68	23
16QAM	16.83	17	18.63	18.8	23
64QAM	16.69	16.79	18.49	18.59	23
256QAM	14.36	14.52	16.16	16.32	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, Channel Bandwidth: 30 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637668	CH 641666	CH 645666
			3565.02 MHz	3624.99 MHz	3684.99 MHz
BPSK	1	1	18.78	18.65	18.65
	1	0	18.75	18.61	18.52
QPSK	1	1	18.86	18.69	18.62
	1	0	17.84	17.74	17.68
	1	39	18.85	18.66	18.67
	1	76	18.81	18.76	18.6
	1	77	18.77	18.64	18.69
	36	0	16.85	16.71	16.79
	36	21	17.84	17.8	17.68
	36	42	16.84	16.76	16.78
	75	0	13.71	13.6	13.66
	78	0	13.53	13.54	13.51
16QAM	1	0	17	16.76	16.91
64QAM	1	0	16.95	16.78	16.72
256QAM	1	0	14.52	14.35	14.42

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	18.52	18.78	20.32	20.58	23
QPSK	13.51	18.86	15.31	20.66	23
16QAM	16.76	17	18.56	18.8	23
64QAM	16.72	16.95	18.52	18.75	23
256QAM	14.35	14.52	16.15	16.32	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

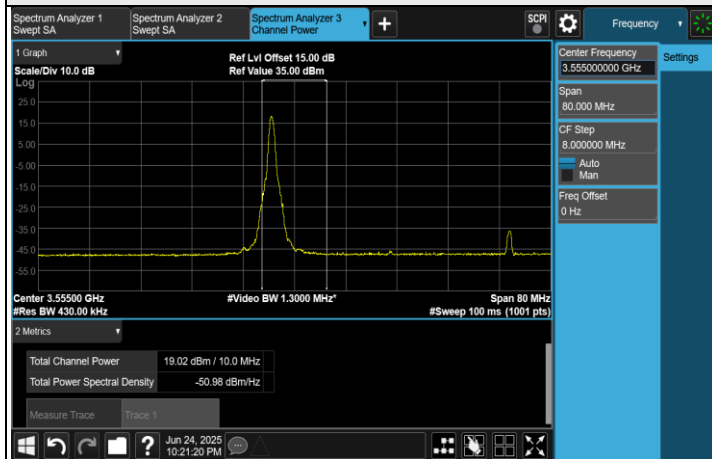
NR n48 SCS 30 kHz, Channel Bandwidth: 40 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 638000	CH 641666	CH 645332
			3570 MHz	3624.99 MHz	3679.98 MHz
BPSK	1	1	18.88	18.7	18.61
	1	0	18.81	18.7	18.59
QPSK	1	1	19.02	18.76	18.74
	1	0	17.94	17.82	17.76
	1	53	18.82	18.67	18.66
	1	104	18.76	18.73	18.8
	1	105	18.7	18.66	18.76
	50	0	15.14	15.04	15
	50	28	16.09	16.12	16
	50	56	15.08	15.07	14.92
	100	0	12.37	12.25	12.18
	106	0	12.22	12.14	12.02
16QAM	1	0	17.1	16.97	16.88
64QAM	1	0	16.96	16.91	16.8
256QAM	1	0	14.65	14.55	14.47

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	18.59	18.88	20.39	20.68	23
QPSK	12.02	19.02	13.82	20.82	23
16QAM	16.88	17.1	18.68	18.9	23
64QAM	16.8	16.96	18.6	18.76	23
256QAM	14.47	14.65	16.27	16.45	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

Spectrum Plot of Worst Value



QPSK CH 638000 (3570 MHz)

7.1.2 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) (MIMO)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz), MIMO, Channel Bandwidth: 10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637000			CH 641666			CH 646332		
			3555 MHz			3624.99 MHz			3694.98 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
QPSK	1	1	15.38	15.73	18.57	15.12	15.64	18.40	14.97	15.12	18.06
	1	0	14.37	14.60	17.50	14.13	14.53	17.34	13.98	14.10	17.05
	1	11	15.24	15.58	18.42	15.06	15.49	18.29	14.94	15.15	18.06
	1	22	15.21	15.60	18.42	15.05	15.41	18.24	14.93	15.18	18.07
	1	23	15.33	15.46	18.41	15.16	15.39	18.29	14.89	14.96	17.94
	12	0	14.21	14.69	17.47	14.09	14.59	17.36	14.08	14.00	17.05
	12	6	15.30	15.56	18.44	15.07	15.49	18.30	14.85	15.11	17.99
	12	12	14.39	14.54	17.48	14.12	14.46	17.30	13.83	14.16	17.01
	24	0	14.29	14.56	17.44	14.00	14.51	17.27	13.94	14.01	16.99
16QAM	1	0	13.37	13.65	16.52	13.06	13.47	16.28	13.02	13.13	16.09
64QAM	1	0	12.82	13.01	15.93	12.63	13.08	15.87	12.39	12.67	15.54
256QAM	1	0	10.91	11.01	13.97	10.51	10.99	13.77	10.46	10.64	13.56

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	16.99	18.57	19.56	21.14	23
16QAM	16.09	16.52	18.66	19.09	23
64QAM	15.54	15.93	18.11	18.50	23
256QAM	13.56	13.97	16.13	16.54	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, MIMO, Channel Bandwidth: 15 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637168			CH 641666			CH 646166		
			3557.52 MHz			3624.99 MHz			3692.49 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
QPSK	1	1	15.38	15.73	18.57	15.14	15.56	18.37	15.09	15.17	18.14
	1	0	14.35	14.71	17.54	14.17	14.58	17.39	13.96	14.03	17.01
	1	19	15.23	15.55	18.40	15.07	15.54	18.32	15.00	15.08	18.05
	1	36	15.19	15.68	18.45	14.97	15.50	18.25	14.93	15.17	18.06
	1	37	15.39	15.49	18.45	15.09	15.46	18.29	14.91	14.92	17.93
	18	0	14.25	14.70	17.49	14.09	14.61	17.37	13.94	14.01	16.99
	18	10	15.28	15.65	18.48	15.02	15.40	18.22	14.88	15.03	17.97
	18	20	14.28	14.56	17.43	14.18	14.54	17.37	13.86	14.13	17.01
	36	0	14.34	14.51	17.44	14.14	14.50	17.33	14.00	14.08	17.05
	38	0	14.27	14.55	17.42	14.04	14.54	17.31	13.88	14.03	16.97
16QAM	1	0	13.30	13.63	16.48	13.04	13.51	16.29	12.97	13.17	16.08
64QAM	1	0	12.88	13.00	15.95	12.62	13.00	15.82	12.43	12.63	15.54
256QAM	1	0	10.81	11.03	13.93	10.49	10.95	13.74	10.54	10.62	13.59

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	16.97	18.57	19.54	21.14	23
16QAM	16.08	16.48	18.65	19.05	23
64QAM	15.54	15.95	18.11	18.52	23
256QAM	13.59	13.93	16.16	16.50	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, MIMO, Channel Bandwidth: 20 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637334			CH 641666			CH 646000		
			3560.01 MHz			3624.99 MHz			3690 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
QPSK	1	1	15.30	15.63	18.48	15.21	15.66	18.45	15.07	15.16	18.13
	1	0	14.33	14.67	17.51	14.19	14.63	17.43	14.01	14.11	17.07
	1	26	15.24	15.55	18.41	14.97	15.55	18.28	14.95	15.12	18.05
	1	49	15.19	15.55	18.38	15.09	15.53	18.33	14.88	15.14	18.02
	1	50	15.33	15.41	18.38	15.09	15.49	18.30	14.91	15.00	17.97
	25	0	14.22	14.57	17.41	14.12	14.59	17.37	14.07	14.00	17.05
	25	13	15.33	15.62	18.49	15.08	15.40	18.25	14.85	15.09	17.98
	25	26	14.27	14.53	17.41	14.16	14.55	17.37	13.95	14.03	17.00
	50	0	14.30	14.52	17.42	14.00	14.54	17.29	13.99	14.01	17.01
	51	0	14.27	14.44	17.37	14.04	14.53	17.30	13.90	14.04	16.98
16QAM	1	0	13.34	13.70	16.53	13.06	13.56	16.33	12.95	13.11	16.04
64QAM	1	0	12.85	13.07	15.97	12.60	13.08	15.86	12.43	12.64	15.55
256QAM	1	0	10.80	11.04	13.93	10.60	10.95	13.79	10.52	10.60	13.57

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	16.98	18.49	19.55	21.06	23
16QAM	16.04	16.53	18.61	19.10	23
64QAM	15.55	15.97	18.12	18.54	23
256QAM	13.57	13.93	16.14	16.50	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, MIMO, Channel Bandwidth: 30 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637668			CH 641666			CH 645666		
			3565.02 MHz			3624.99 MHz			3684.99 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
QPSK	1	1	15.34	15.72	18.54	15.16	15.63	18.41	14.99	15.21	18.11
	1	0	14.31	14.59	17.46	14.17	14.53	17.36	14.05	14.05	17.06
	1	39	15.33	15.62	18.49	15.03	15.44	18.25	15.06	15.09	18.09
	1	76	15.11	15.56	18.35	15	15.45	18.24	14.98	15.08	18.04
	1	77	15.33	15.4	18.38	15.12	15.49	18.32	14.92	14.95	17.95
	36	0	14.15	14.59	17.39	14.15	14.62	17.40	14.08	14.05	17.08
	36	21	15.26	15.67	18.48	15.07	15.49	18.30	14.87	15.12	18.01
	36	42	14.29	14.58	17.45	14.18	14.54	17.37	13.83	14.04	16.95
	75	0	14.27	14.56	17.43	14.14	14.49	17.33	14.06	14.03	17.06
	78	0	14.2	14.55	17.39	14.1	14.57	17.35	13.95	14.15	17.06
16QAM	1	0	13.36	13.6	16.49	12.96	13.56	16.28	12.89	13.16	16.04
64QAM	1	0	12.81	13.05	15.94	12.74	13.02	15.89	12.4	12.62	15.52
256QAM	1	0	10.8	10.98	13.90	10.49	10.92	13.72	10.56	10.56	13.57

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	16.95	18.54	19.52	21.11	23
16QAM	16.04	16.49	18.61	19.06	23
64QAM	15.52	15.94	18.09	18.51	23
256QAM	13.57	13.90	16.14	16.47	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, MIMO, Channel Bandwidth: 40 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 638000			CH 641666			CH 645332		
			3570 MHz			3624.99 MHz			3679.98 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
QPSK	1	1	15.45	15.75	18.61	15.26	15.69	18.49	15.11	15.24	18.19
	1	0	14.34	14.63	17.50	14.12	14.57	17.36	13.99	14.11	17.06
	1	53	15.3	15.59	18.46	15.09	15.53	18.33	14.95	15.1	18.04
	1	104	15.28	15.55	18.43	15.08	15.49	18.30	14.91	15.09	18.01
	1	105	15.25	15.51	18.39	15.04	15.47	18.27	14.87	15.05	17.97
	50	0	14.24	14.48	17.37	14	14.43	17.23	13.85	14.04	16.96
	50	28	15.22	15.46	18.35	14.98	15.39	18.20	14.82	15.01	17.93
	50	56	14.19	14.42	17.32	13.94	14.36	17.17	13.81	13.97	16.90
	100	0	14.2	14.43	17.33	13.95	14.37	17.18	13.84	14	16.93
	106	0	14.14	14.39	17.28	13.89	14.34	17.13	13.76	13.92	16.85
16QAM	1	0	13.12	13.38	16.26	12.87	13.3	16.10	12.75	12.88	15.83
64QAM	1	0	12.61	12.86	15.75	12.34	12.76	15.57	12.23	12.35	15.30
256QAM	1	0	10.57	10.85	13.72	10.31	10.74	13.54	10.21	10.34	13.29

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	16.85	18.61	19.42	21.18	23
16QAM	15.83	16.26	18.40	18.83	23
64QAM	15.30	15.75	17.87	18.32	23
256QAM	13.29	13.72	15.86	16.29	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, MIMO, Channel Bandwidth: 15 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637168			CH 641666			CH 646166		
			3557.52 MHz			3624.99 MHz			3692.49 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
QPSK	1	1	15.25	15.67	18.48	14.99	15.48	18.25	14.95	15.1	18.04
	1	0	14.26	14.69	17.49	14.02	14.46	17.26	13.84	13.99	16.93
	1	19	15.18	15.4	18.30	14.92	15.49	18.22	14.87	15.02	17.96
	1	36	15.14	15.66	18.42	14.83	15.36	18.11	14.82	15.08	17.96
	1	37	15.3	15.37	18.35	14.94	15.42	18.20	14.79	14.78	17.80
	18	0	14.19	14.61	17.42	13.96	14.53	17.26	13.79	13.9	16.86
	18	10	15.17	15.64	18.42	14.91	15.26	18.10	14.77	15.02	17.91
	18	20	14.25	14.54	17.41	14.11	14.49	17.31	13.73	14.04	16.90
	36	0	12.95	13.12	16.05	12.82	13.16	16.00	12.59	12.72	15.67
	38	0	12.91	13.2	16.07	12.73	13.14	15.95	12.45	12.66	15.57
16QAM	1	0	13.24	13.6	16.43	12.98	13.39	16.20	12.95	13.06	16.02
64QAM	1	0	12.76	12.92	15.85	12.49	12.99	15.76	12.35	12.6	15.49
256QAM	1	0	10.7	10.97	13.85	10.47	10.8	13.65	10.48	10.55	13.53

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	15.57	18.48	18.14	21.05	23
16QAM	16.02	16.43	18.59	19	23
64QAM	15.49	15.85	18.06	18.42	23
256QAM	13.53	13.85	16.1	16.42	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, MIMO, Channel Bandwidth: 20 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637334			CH 641666			CH 646000		
			3560.01 MHz			3624.99 MHz			3690 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
QPSK	1	1	15.27	15.56	18.43	15.06	15.61	18.35	14.98	15.05	18.03
	1	0	14.19	14.55	17.38	14.17	14.6	17.40	13.94	14.01	16.99
	1	26	15.16	15.48	18.33	14.91	15.42	18.18	14.86	15.02	17.95
	1	49	15.07	15.46	18.28	15.05	15.51	18.30	14.76	15.02	17.90
	1	50	15.31	15.27	18.30	15.04	15.36	18.21	14.83	14.87	17.86
	25	0	14.18	14.56	17.38	13.99	14.58	17.31	13.99	13.85	16.93
	25	13	15.24	15.6	18.43	15.04	15.35	18.21	14.71	15	17.87
	25	26	14.22	14.39	17.32	14.09	14.44	17.28	13.91	13.95	16.94
	50	0	11.71	11.98	14.86	11.4	11.98	14.71	11.41	11.49	14.46
	51	0	11.77	11.81	14.80	11.46	12.03	14.76	11.27	11.45	14.37
16QAM	1	0	13.21	13.62	16.43	13.04	13.5	16.29	12.87	13.06	15.98
64QAM	1	0	12.76	13.03	15.91	12.45	13.07	15.78	12.4	12.54	15.48
256QAM	1	0	10.75	10.93	13.85	10.49	10.85	13.68	10.4	10.57	13.50

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	14.37	18.43	16.94	21	23
16QAM	15.98	16.43	18.55	19	23
64QAM	15.48	15.91	18.05	18.48	23
256QAM	13.5	13.85	16.07	16.42	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz, MIMO, Channel Bandwidth: 30 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637668			CH 641666			CH 645666		
			3565.02 MHz			3624.99 MHz			3684.99 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
QPSK	1	1	15.26	15.57	18.43	15.09	15.5	18.31	14.95	15.17	18.07
	1	0	14.24	14.46	17.36	14.14	14.43	17.30	13.9	14	16.96
	1	39	15.19	15.55	18.38	15	15.29	18.16	14.98	15.04	18.02
	1	76	15	15.43	18.23	14.97	15.35	18.17	14.96	14.97	17.98
	1	77	15.26	15.28	18.28	15.07	15.38	18.24	14.9	14.85	17.89
	36	0	13.01	13.5	16.27	13.04	13.58	16.33	12.96	12.97	15.98
	36	21	14.14	14.67	17.42	13.93	14.41	17.19	13.77	14.05	16.92
	36	42	13.22	13.47	16.36	13.09	13.4	16.26	12.75	12.9	15.84
	75	0	10	10.27	13.15	9.82	10.23	13.04	9.76	9.83	12.81
	78	0	9.98	10.35	13.18	9.82	10.3	13.08	9.62	9.81	12.73
16QAM	1	0	13.21	13.54	16.39	12.81	13.41	16.13	12.78	13.13	15.97
64QAM	1	0	12.78	12.97	15.89	12.59	12.98	15.80	12.36	12.55	15.47
256QAM	1	0	10.77	10.97	13.88	10.43	10.83	13.64	10.48	10.43	13.47

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	12.73	18.43	15.3	21	23
16QAM	15.97	16.39	18.54	18.96	23
64QAM	15.47	15.89	18.04	18.46	23
256QAM	13.47	13.88	16.04	16.45	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

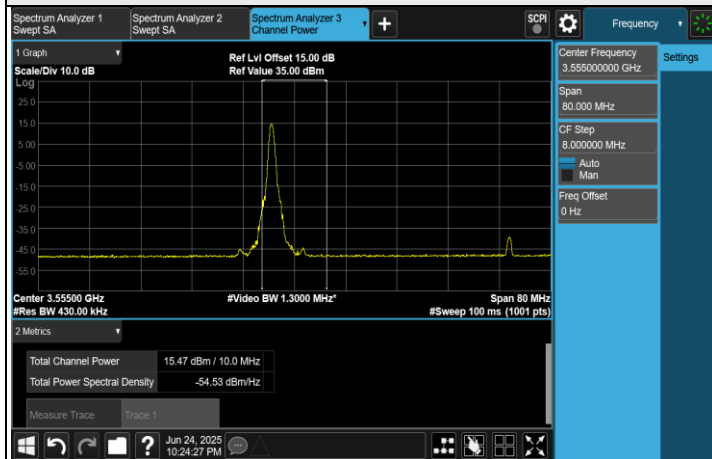
NR n48 SCS 30 kHz, MIMO, Channel Bandwidth: 40 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 638000			CH 641666			CH 645332		
			3570 MHz			3624.99 MHz			3679.98 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
QPSK	1	1	15.47	15.67	18.58	15.18	15.65	18.43	15.02	15.13	18.09
	1	0	14.22	14.53	17.39	14.06	14.55	17.32	13.85	14.01	16.94
	1	53	15.2	15.46	18.34	15.02	15.4	18.22	14.93	15	17.98
	1	104	15.19	15.46	18.34	15.07	15.43	18.26	14.85	15.06	17.97
	1	105	15.18	15.47	18.34	14.91	15.46	18.20	14.83	14.98	17.92
	50	0	11.32	11.61	14.48	11.09	11.58	14.35	10.92	11.2	14.07
	50	28	12.38	12.54	15.47	12.06	12.49	15.29	12.01	12.17	15.10
	50	56	11.36	11.57	14.48	11.05	11.51	14.30	11	11.13	14.08
	100	0	8.58	8.69	11.65	8.3	8.71	11.52	8.18	8.34	11.27
	106	0	8.4	8.61	11.52	8.18	8.56	11.38	8.01	8.14	11.09
16QAM	1	0	13.08	13.25	16.18	12.74	13.22	16.00	12.69	12.77	15.74
64QAM	1	0	12.5	12.74	15.63	12.3	12.68	15.50	12.15	12.22	15.20
256QAM	1	0	10.46	10.71	13.60	10.2	10.64	13.44	10.12	10.19	13.17

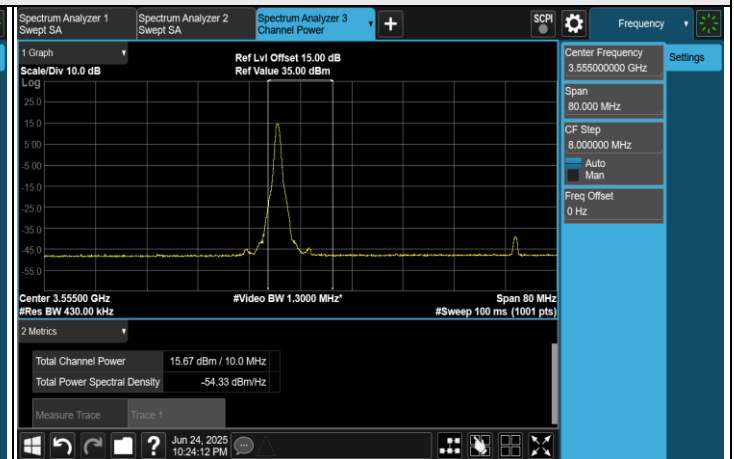
Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
QPSK	11.09	18.58	13.66	21.15	23
16QAM	15.74	16.18	18.31	18.75	23
64QAM	15.2	15.63	17.77	18.2	23
256QAM	13.17	13.6	15.74	16.17	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

Spectrum Plot of Worst Value



QPSK CH 638000 (3570 MHz) Ant.1



QPSK CH 638000 (3570 MHz) Ant.3

7.2 Radiated Spurious Emissions below 1GHz

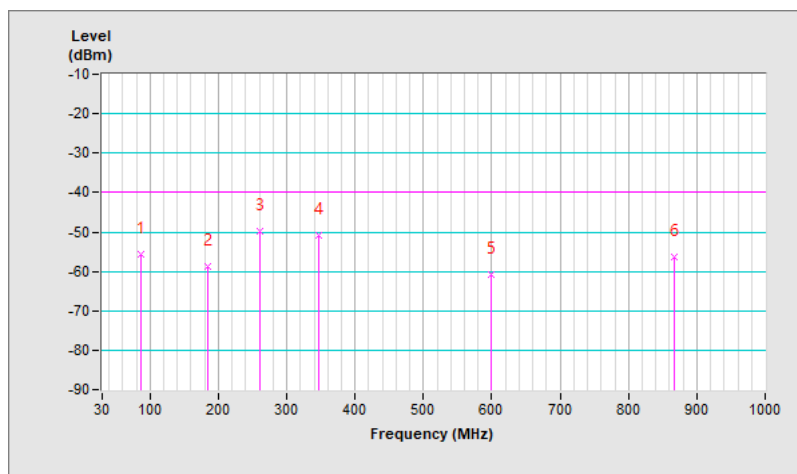
7.2.1 NR n48 (SISO)

RF Mode	NR n48 Channel Bandwidth: 40MHz	Channel	CH 638000 : 3570 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	87.23	-55.55	-40.00	-15.55	1.49 H	261	58.63	-114.18
2	184.23	-58.70	-40.00	-18.70	1.00 H	259	51.73	-110.43
3	260.86	-49.94	-40.00	-9.94	1.00 H	238	59.03	-108.97
4	346.22	-50.88	-40.00	-10.88	1.00 H	3	55.62	-106.50
5	598.42	-60.65	-40.00	-20.65	1.49 H	199	39.64	-100.29
6	866.14	-56.39	-40.00	-16.39	1.49 H	93	40.33	-96.72

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

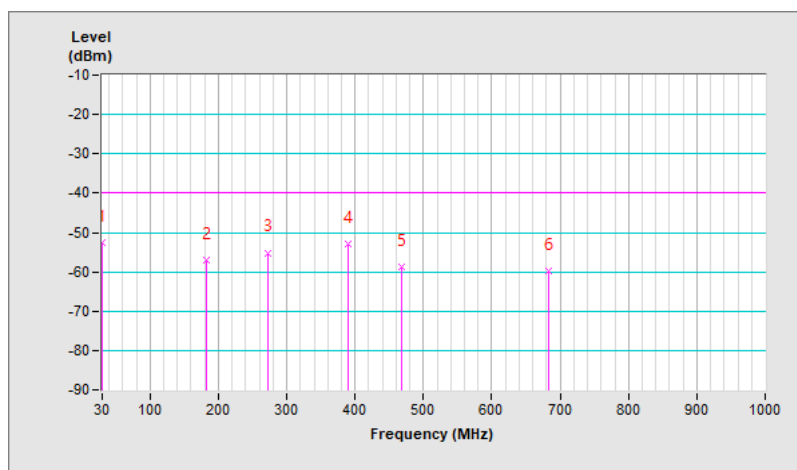


RF Mode	NR n48 Channel Bandwidth: 40MHz	Channel	CH 638000 : 3570 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.97	-52.42	-40.00	-12.42	2.00 V	308	57.35	-109.77
2	183.26	-57.07	-40.00	-17.07	1.00 V	296	53.19	-110.26
3	271.53	-55.15	-40.00	-15.15	1.49 V	10	53.30	-108.45
4	389.87	-52.93	-40.00	-12.93	1.00 V	224	52.43	-105.36
5	467.47	-58.76	-40.00	-18.76	1.00 V	158	44.45	-103.21
6	683.78	-59.77	-40.00	-19.77	1.00 V	194	39.27	-99.04

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



7.3 Radiated Spurious Emissions above 1GHz

7.3.1 NR n48 (SISO)

RF Mode	NR n48 Channel Bandwidth: 10MHz	Channel	CH 637000 : 3555 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7110.00	-43.13	-40.00	-3.13	2.58 H	31	42.53	-85.66
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7110.00	-42.34	-40.00	-2.34	3.66 V	305	43.32	-85.66

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 10MHz	Channel	CH 641666 : 3624.99 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-42.98	-40.00	-2.98	2.53 H	36	42.55	-85.53
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-42.18	-40.00	-2.18	3.61 V	308	43.35	-85.53

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 10MHz	Channel	CH 646332 : 3694.98 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7389.96	-43.14	-40.00	-3.14	2.59 H	36	42.53	-85.67
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7389.96	-42.33	-40.00	-2.33	3.64 V	301	43.34	-85.67

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 20MHz	Channel	CH 637334 : 3560.01 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7120.02	-43.17	-40.00	-3.17	2.62 H	33	42.53	-85.70
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7120.02	-42.58	-40.00	-2.58	3.63 V	308	43.12	-85.70

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 20MHz	Channel	CH 641666 : 3624.99 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-42.94	-40.00	-2.94	2.55 H	35	42.59	-85.53
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-42.38	-40.00	-2.38	3.66 V	306	43.15	-85.53

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 20MHz	Channel	CH 646000 : 3690 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7380.00	-43.15	-40.00	-3.15	2.62 H	37	42.55	-85.70
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7380.00	-42.44	-40.00	-2.44	3.68 V	301	43.26	-85.70

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 40MHz	Channel	CH 638000 : 3570 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7140.00	-43.26	-40.00	-3.26	2.61 H	34	42.51	-85.77
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7140.00	-42.72	-40.00	-2.72	3.66 V	302	43.05	-85.77

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 40MHz	Channel	CH 641666 : 3624.99 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-42.86	-40.00	-2.86	2.57 H	34	42.67	-85.53
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-42.17	-40.00	-2.17	3.63 V	304	43.36	-85.53

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 40MHz	Channel	CH 645332 : 3679.98 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7359.96	-43.42	-40.00	-3.42	2.62 H	37	42.34	-85.76
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7359.96	-42.52	-40.00	-2.52	3.67 V	306	43.24	-85.76

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

7.3.2 NR n48 (MIMO)

RF Mode	NR n48 Channel Bandwidth: 10MHz	Channel	CH 637000 : 3555 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7110.00	-42.18	-40.00	-2.18	1.44 H	43	43.48	-85.66
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7110.00	-41.75	-40.00	-1.75	1.15 V	128	43.91	-85.66

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 10MHz	Channel	CH 641666 : 3624.99 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-41.71	-40.00	-1.71	1.37 H	42	43.82	-85.53
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-41.13	-40.00	-1.13	1.18 V	126	44.40	-85.53

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 10MHz	Channel	CH 646332 : 3694.98 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7389.96	-42.12	-40.00	-2.12	1.38 H	41	43.55	-85.67
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7389.96	-41.54	-40.00	-1.54	1.20 V	132	44.13	-85.67

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 20MHz	Channel	CH 637334 : 3560.01 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7120.02	-42.13	-40.00	-2.13	1.35 H	41	43.57	-85.70
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7120.02	-41.65	-40.00	-1.65	1.13 V	129	44.05	-85.70

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 20MHz	Channel	CH 641666 : 3624.99 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-42.04	-40.00	-2.04	1.42 H	41	43.49	-85.53
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-41.58	-40.00	-1.58	1.13 V	125	43.95	-85.53

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 20MHz	Channel	CH 646000 : 3690 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7380.00	-41.89	-40.00	-1.89	1.42 H	39	43.81	-85.70
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7380.00	-41.64	-40.00	-1.64	1.17 V	124	44.06	-85.70

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 40MHz	Channel	CH 638000 : 3570 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7140.00	-41.96	-40.00	-1.96	1.36 H	41	43.81	-85.77
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7140.00	-41.89	-40.00	-1.89	1.16 V	128	43.88	-85.77

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 40MHz	Channel	CH 641666 : 3624.99 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-41.72	-40.00	-1.72	1.39 H	42	43.81	-85.53
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7249.98	-41.34	-40.00	-1.34	1.18 V	127	44.19	-85.53

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

RF Mode	NR n48 Channel Bandwidth: 40MHz	Channel	CH 645332 : 3679.98 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	1 MHz/3 MHz (RMS)
Input Power	120 Vac, 60 Hz	Environmental Conditions	22 °C, 68% RH
Tested By	Greg Lin		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7359.96	-42.20	-40.00	-2.20	1.44 H	41	43.56	-85.76
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	7359.96	-41.85	-40.00	-1.85	1.21 V	125	43.91	-85.76

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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The address and road map of all our labs can be found in our web site also.

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