FCC Test Report
(Part 24: FR1 n2A)

Report No.: RF191031C08-9

FCC ID: PY319400469

Test Model: MR5100

Received Date: Nov. 04, 2019

Test Date: Jan. 16 ~ Jan. 17, 2020

Issued Date: Feb. 01, 2020

Applicant: Netgear, Inc.

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

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RF191031C08-9	Original release	Feb. 01, 2020

1 Certificate of Conformity

Product: 5G MHS Travel Router

Brand: NETGEAR

Test Model: MR5100

Sample Status: ENGINEERING SAMPLE

Applicant: Netgear, Inc.

Test Date: Jan. 16 ~ Jan. 17, 2020

Standards: FCC Part 24, Subpart E

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.

Prepared by : Pettie Chen , **Date:** Feb. 01, 2020

Pettie Chen / Senior Specialist

Approved by : Bruce Chen , **Date:** Feb. 01, 2020

Bruce Chen / Senior Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 24 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 24.232	Effective radiated power	Pass	Meet the requirement of limit.
2.1046 24.232(d)	Peak To Average Ratio	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	Pass	Meet the requirement
2.1055 24.235	Frequency Stability	Pass	Meet the requirement of limit.
2.1049	Occupied Bandwidth	Pass	Meet the requirement of limit.
24.238	Band Edge Measurements	Pass	Meet the requirement of limit.
2.1051 24.238	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 24.238	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -14.6dB at 895.24MHz.

Note: 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:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.59 dB
	200MHz ~1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 30, 2019	May 29, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 23, 2019	Sep. 22, 2020
Spectrum Analyzer KEYSIGHT	N9030B	MY57140953	Jun. 28, 2019	Jun. 27, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 11, 2019	Nov. 10, 2020
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10631	Jul. 11, 2019	Jul. 10, 2020
Preamplifier KEYSIGHT (Above 1GHz)	83017A	MY53270295	Jun. 11, 2019	Jun. 10, 2020
RF Coaxial Cable WORKEN With 5dB PAD	8D-FB	Cable-CH4-01	Aug. 20, 2019	Aug. 19, 2020
RF Coaxial Cable EMCI	EMC102-KM-KM-3000	150929	Aug. 20, 2019	Aug. 19, 2020
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Jul. 11, 2019	Jul. 10, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Jul. 11, 2019	Jul. 10, 2020
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 03, 2019	Jun. 02, 2020
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	May 21, 2019	May 20, 2020

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 4.

3 General Information

3.1 General Description of EUT

Product	5G MHS Travel Router			
Brand	NETGEAR			
Test Model	MR5100			
Sample Status	Engineering Sample			
Power Supply Rating	5 or 9Vdc (adapter) 5Vdc (host equipment) 3.85Vdc (battery)			
Modulation Type	QPSK, 16QAM, 64QAM			
Operating Frequency	NR Band 2 (Channel Bandwidth 5MHz)	1852.5~1907.5MHz		
	NR Band 2 (Channel Bandwidth 10MHz)	1855.0~1905.0MHz		
	NR Band 2 (Channel Bandwidth 15MHz)	1857.5~1902.5MHz		
	NR Band 2 (Channel Bandwidth 20MHz)	1860.0~1900.0MHz		
Max. EIRP Power	**1RB**	QPSK	16QAM	64QAM
	NR Band 2 (Channel Bandwidth 5MHz)	128.825mW (21.1dBm)	112.202mW (20.5dBm)	89.125mW (19.5dBm)
	NR Band 2 (Channel Bandwidth 10MHz)	123.027mW (20.9dBm)	109.648mW (20.4dBm)	87.096mW (19.4dBm)
	NR Band 2 (Channel Bandwidth 15MHz)	123.027mW (20.9dBm)	104.713mW (20.2dBm)	79.433mW (19.0dBm)
	NR Band 2 (Channel Bandwidth 20MHz)	128.825mW (21.1dBm)	109.648mW (20.4dBm)	83.176mW (19.2dBm)
	Full RB	QPSK	16QAM	64QAM
	NR Band 2 (Channel Bandwidth 5MHz)	102.329mW (20.1dBm)	89.125mW (19.5dBm)	70.765mW (18.5dBm)
	NR Band 2 (Channel Bandwidth 10MHz)	102.329mW (20.1dBm)	87.096mW (19.4dBm)	67.608mW (18.3dBm)
	NR Band 2 (Channel Bandwidth 15MHz)	95.499mW (19.8dBm)	83.176mW (19.2dBm)	64.565mW (18.1dBm)
	NR Band 2 (Channel Bandwidth 20MHz)	100.000mW (20.0dBm)	85.114mW (19.3dBm)	66.069mW (18.2dBm)
Emission Designator		QPSK	16QAM	64QAM
	NR Band 2 (Channel Bandwidth 5MHz)	4M49G7D	4M49D7W	4M49D7W
	NR Band 2 (Channel Bandwidth 10MHz)	8M96G7D	8M96D7W	8M95D7W
	NR Band 2 (Channel Bandwidth 15MHz)	13M5G7D	13M5D7W	13M4D7W
	NR Band 2 (Channel Bandwidth 20MHz)	17M9G7D	17M9D7W	17M9D7W
Antenna Type	Refer to note			
Antenna Connector	Refer to note			
Accessory Device	Adapter x1, battery x1			
Cable Supplied	1m shielded USB cable without core (Brand: NIENYI, model: NYS2371-1)			

Note:

1. The following antennas were provided to the EUT.

Antenna Type	monopole	
Antenna Connector	NA	
Antenna Gain (dBi)	NR Band 2	1.13

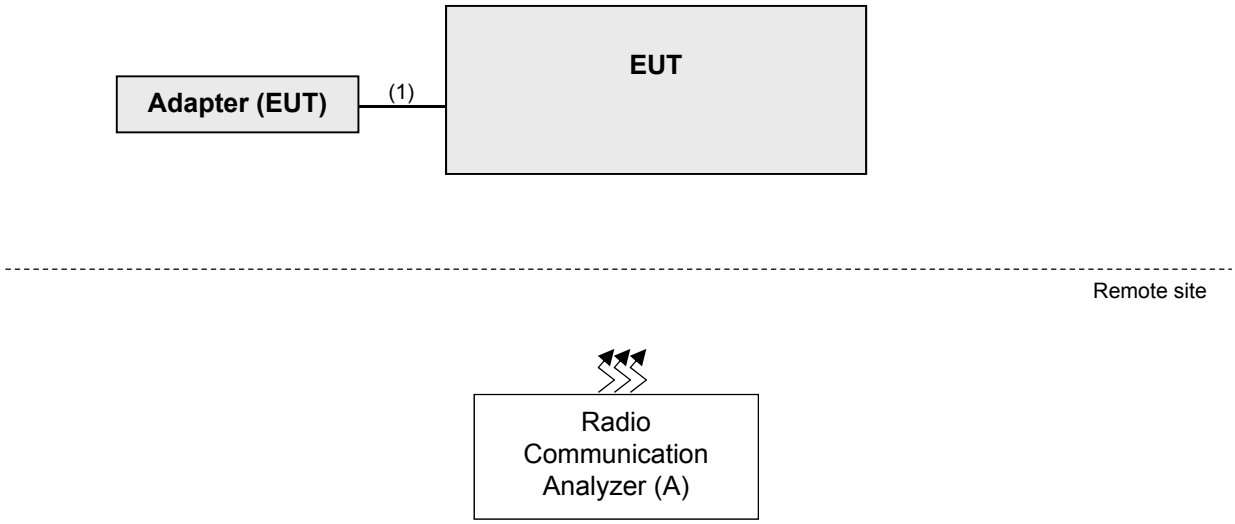
2. The EUT must be supplied with a power adapter or battery as following table:

Items	Brand	Model No.	Spec.
Adapter	NETGEAR	AD2122F20	Input: 100-240Vac~50/60Hz, 0.5A Output: 5Vdc / 2.0A or 9Vdc /1.8A
Battery	NETGEAR	W-20	3.85Vdc, 19.40Wh

3. The EUT support Bandwidth information

Band	SCS (kHz)	Channel Bandwidth (MHz)			
		5	10	15	20
n2	15	Support	Support	Support	Support
n5	15	Support	Support	Support	Support
n66	15	Support	Support	Support	Support

3.2 Configuration of System under Test



3.2.1 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Radio Communication Analyzer	Keysight	E7515B	MY58300759	NA	-

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1	Y	0	Accessory of EUT

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found when positioned on X-plane. Following channel(s) was (were) selected for the final test as listed below.

NR Band 2

EUT Configure Mode	Test item	Available channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	370500 to 381500	370500 (1852.50MHz), 376000 (1880.00MHz), 381500 (1907.50MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		371000 to 381000	371000 (1855.00MHz), 376000 (1880.00MHz), 381000 (1905.00MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		371500 to 380500	371500 (1857.50MHz), 376000 (1880.00MHz), 380500 (1902.50MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		372000 to 380000	372000 (1860.00MHz), 376000 (1880.00MHz), 380000 (1900.00MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Modulation Characteristics	372000 to 380000	376000 (1880.00MHz)	20MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset
-	Frequency Stability	370500 to 381500	370500 (1852.50MHz), 381500 (1907.50MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		371000 to 381000	371000 (1855.00MHz), 381000 (1905.00MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		371500 to 380500	371500 (1857.50MHz), 380500 (1902.50MHz)	15MHz	QPSK	1 RB / 0 RB Offset
		372000 to 380000	372000 (1860.00MHz), 380000 (1900.00MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Occupied Bandwidth	370500 to 381500	370500 (1852.50MHz), 376000 (1880.00MHz), 381500 (1907.50MHz)	5MHz	QPSK / 16QAM / 64QAM	25RB / 0RB Offset
		371000 to 381000	371000 (1855.00MHz), 376000 (1880.00MHz), 381000 (1905.00MHz)	10MHz	QPSK / 16QAM / 64QAM	50RB / 0RB Offset
		371500 to 380500	371500 (1857.50MHz), 376000 (1880.00MHz), 380500 (1902.50MHz)	15MHz	QPSK / 16QAM / 64QAM	75 RB / 0 RB Offset
		372000 to 380000	372000 (1860.00MHz), 376000 (1880.00MHz), 380000 (1900.00MHz)	20MHz	QPSK / 16QAM / 64QAM	100 RB / 0 RB Offset

EUT Configure Mode	Test item	Available channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	Band Edge	370500 to 381500	370500 (1852.50MHz), 381500 (1907.50MHz)	5MHz	QPSK	1 RB / 0 RB Offset 1 RB / 24 RB Offset 25 RB / 0 RB Offset
		371000 to 381000	371000 (1855.00MHz), 381000 (1905.00MHz)	10MHz	QPSK	1 RB / 0 RB Offset 1 RB / 51 RB Offset 52 RB / 0 RB Offset
		371500 to 380500	371500 (1857.50MHz), 380500 (1902.50MHz)	15MHz	QPSK	1 RB / 0 RB Offset 1 RB / 78 RB Offset 79 RB / 0 RB Offset
		372000 to 380000	372000 (1860.00MHz), 380000 (1900.00MHz)	20MHz	QPSK	1 RB / 0 RB Offset 1 RB / 105 RB Offset 106 RB / 0 RB Offset
-	Peak to Average Ratio	370500 to 381500	370500 (1852.50MHz), 376000 (1880.00MHz), 381500 (1907.50MHz)	5MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		371000 to 381000	371000 (1855.00MHz), 376000 (1880.00MHz), 381000 (1905.00MHz)	10MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		371500 to 380500	371500 (1857.50MHz), 376000 (1880.00MHz), 380500 (1902.50MHz)	15MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
		372000 to 380000	372000 (1860.00MHz), 376000 (1880.00MHz), 380000 (1900.00MHz)	20MHz	QPSK / 16QAM / 64QAM	1 RB / 0 RB Offset
-	Conducted Emission	370500 to 381500	370500 (1852.50MHz), 376000 (1880.00MHz), 381500 (1907.50MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		371000 to 381000	371000 (1855.00MHz), 376000 (1880.00MHz), 381000 (1905.00MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		371500 to 380500	371500 (1857.50MHz), 376000 (1880.00MHz), 380500 (1902.50MHz)	15MHz	QPSK	1 RB / 0 RB Offset
		372000 to 380000	372000 (1860.00MHz), 376000 (1880.00MHz), 380000 (1900.00MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	370500 to 381500	370500 (1852.50MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		371000 to 381000	371000 (1855.00MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		372000 to 380000	372000 (1860.00MHz)	20MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	370500 to 381500	370500 (1852.50MHz), 376000 (1880.00MHz), 381500 (1907.50MHz)	5MHz	QPSK	1 RB / 0 RB Offset
		371000 to 381000	371000 (1855.00MHz), 376000 (1880.00MHz), 381000 (1905.00MHz)	10MHz	QPSK	1 RB / 0 RB Offset
		372000 to 380000	372000 (1860.00MHz), 376000 (1880.00MHz), 380000 (1900.00MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note:

1. For radiated emission below 1GHz, low, mid and high channels were pre-tested in chamber with 5MHz mode. Low channel was found to be the worst case and therefore had been chosen for all final tests.
2. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5MHz & highest channel bandwidth for final test.
3. The conducted output power for QPSK, 16QAM and 64QAM, measured value of QPSK is higher than 16QAM and 64QAM mode. Therefore, only Modulation characteristics, occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM and 64QAM modes, the other test items were performed under QPSK mode only.

Test Condition:

Test Item	Environmental Conditions	Input Power (system)	Tested By
EIRP	25deg. C, 70%RH	120Vac, 60Hz	Luis Lee
Modulation Characteristics	24deg. C, 64%RH	120Vac, 60Hz	James Yang
Frequency Stability	24deg. C, 64%RH	3.85Vdc	James Yang
Occupied Bandwidth	24deg. C, 64%RH	120Vac, 60Hz	James Yang
Band Edge	24deg. C, 64%RH	120Vac, 60Hz	James Yang
Peak To Average Ratio	24deg. C, 64%RH	120Vac, 60Hz	James Yang
Conducted Emission	24deg. C, 64%RH	120Vac, 60Hz	James Yang
Radiated Emission	25deg. C, 70%RH	120Vac, 60Hz	Luis Lee

3.4 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 24

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-E 2016

ANSI 63.26-2015

ANSI 63.2 -1996

All test items have been performed and recorded as per the above standards.

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

Mobile / Portable station are limited to 2 watts e.i.r.p.

4.1.2 Test Procedures

EIRP / ERP Measurement:

a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 20MHz for NR mode.

b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) 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 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.

c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step b. Record the power level of S.G

d. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power - 2.15dBi.

Where:

$ERP/EIRP = P_{Meas} + G_T - L_C$

P_{Meas} : Measure transmitter output power.
G_T : Gain of the transmitting antenna.
L_C : signal attenuation in the connecting cable between the transmitter and antenna.

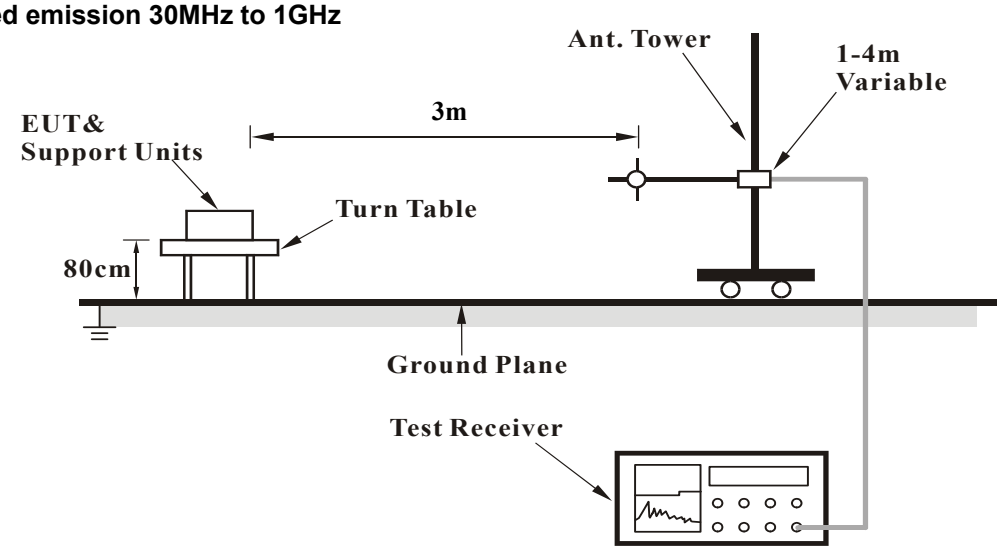
Conducted Power Measurement:

The EUT was set up for the maximum power with NR link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

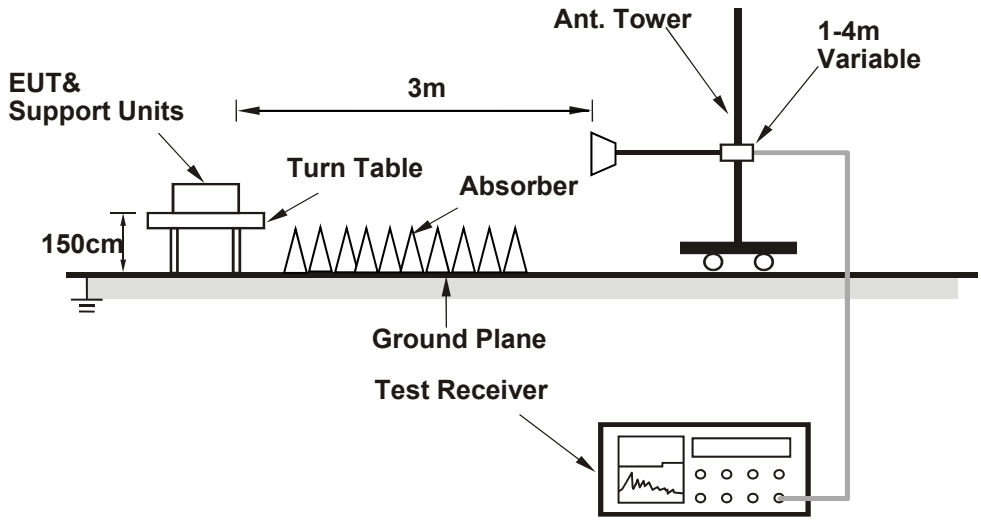
4.1.3 Test Setup

EIRP / ERP Measurement:

For radiated emission 30MHz to 1GHz

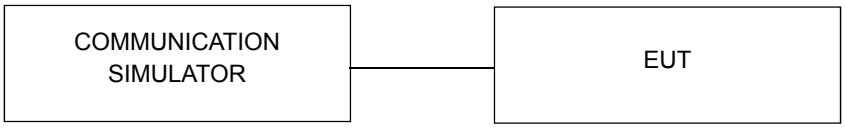


For radiated emission above 1GHz



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

Conducted Power Measurement:



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

4.1.4 Test Results

Conducted Output Power (dBm)

NR Band 2							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		370500	376000	381500	
		Frequency (MHz)		1852.5	1880	1907.5	
5M	DFT-S_QPSK	1	0	19.00	19.34	19.27	0
		1	12	19.09	19.43	19.36	0
		1	24	19.22	19.56	19.49	0
		12	0	18.89	19.23	19.16	0
		12	6	18.93	19.27	19.20	0
		12	13	19.08	19.42	19.35	0
		25	0	18.90	19.24	19.17	0
	DFT-S_16QAM	1	0	18.98	19.32	19.25	0
		1	12	18.99	19.33	19.26	0
		1	24	19.03	19.37	19.30	0
		12	0	18.89	19.23	19.16	0
		12	6	18.92	19.26	19.19	0
		12	13	18.99	19.33	19.26	0
		25	0	18.95	19.29	19.22	0
	DFT-S_64QAM	1	0	18.92	19.26	19.19	0
		1	12	19.00	19.34	19.27	0
		1	24	19.04	19.38	19.31	0
		12	0	18.89	19.23	19.16	0
		12	6	18.98	19.32	19.25	0
		12	13	19.03	19.37	19.30	0
		25	0	19.02	19.36	19.29	0

NR Band 2							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		370500	376000	381500	
		Frequency (MHz)		1852.5	1880	1907.5	
5M	CP_QPSK	1	0	18.99	19.33	19.26	0
		1	12	19.01	19.35	19.28	0
		1	24	19.08	19.42	19.35	0
		12	0	18.88	19.22	19.15	0
		12	6	18.99	19.33	19.26	0
		12	13	19.02	19.36	19.29	0
		25	0	18.95	19.29	19.22	0
	CP_16QAM	1	0	18.88	19.22	19.15	0
		1	12	18.93	19.27	19.20	0
		1	24	18.85	19.19	19.12	0
		12	0	18.86	19.20	19.13	0
		12	6	18.90	19.24	19.17	0
		12	13	18.86	19.20	19.13	0
		25	0	18.84	19.18	19.11	0
	CP_64QAM	1	0	18.63	18.97	18.90	0
		1	12	18.78	19.12	19.05	0
		1	24	18.89	19.23	19.16	0
		12	0	18.74	19.08	19.01	0
		12	6	18.82	19.16	19.09	0
		12	13	18.88	19.22	19.15	0
		25	0	18.86	19.20	19.13	0

NR Band 2							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		371000	376000	381000	
		Frequency (MHz)		1855	1880	1905	
10M	DFT-S_QPSK	1	0	19.02	19.36	19.29	0
		1	26	19.11	19.45	19.38	0
		1	51	19.24	19.58	19.51	0
		26	0	18.91	19.25	19.18	0
		26	13	18.95	19.29	19.22	0
		26	26	19.10	19.44	19.37	0
		52	0	18.92	19.26	19.19	0
	DFT-S_16QAM	1	0	19.00	19.34	19.27	0
		1	26	19.01	19.35	19.28	0
		1	51	19.05	19.39	19.32	0
		26	0	18.91	19.25	19.18	0
		26	13	18.94	19.28	19.21	0
		26	26	19.01	19.35	19.28	0
		52	0	18.97	19.31	19.24	0
	DFT-S_64QAM	1	0	18.94	19.28	19.21	0
		1	26	19.02	19.36	19.29	0
		1	51	19.06	19.40	19.33	0
		26	0	18.91	19.25	19.18	0
		26	13	19.00	19.34	19.27	0
		26	26	19.05	19.39	19.32	0
		52	0	19.04	19.38	19.31	0

NR Band 2							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		371000	376000	381000	
		Frequency (MHz)		1855	1880	1905	
10M	CP_QPSK	1	0	19.01	19.35	19.28	0
		1	26	19.03	19.37	19.30	0
		1	51	19.10	19.44	19.37	0
		26	0	18.90	19.24	19.17	0
		26	13	19.01	19.35	19.28	0
		26	26	19.04	19.38	19.31	0
		52	0	18.97	19.31	19.24	0
	CP_16QAM	1	0	18.90	19.24	19.17	0
		1	26	18.95	19.29	19.22	0
		1	51	18.87	19.21	19.14	0
		26	0	18.88	19.22	19.15	0
		26	13	18.92	19.26	19.19	0
		26	26	18.88	19.22	19.15	0
		52	0	18.86	19.20	19.13	0
	CP_64QAM	1	0	18.65	18.99	18.92	0
		1	26	18.80	19.14	19.07	0
		1	51	18.91	19.25	19.18	0
		26	0	18.76	19.10	19.03	0
		26	13	18.84	19.18	19.11	0
		26	26	18.90	19.24	19.17	0
		52	0	18.88	19.22	19.15	0

NR Band 2							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		371500	376000	380500	
		Frequency (MHz)		1857.5	1880	1902.5	
15M	DFT-S_QPSK	1	0	19.06	19.40	19.33	0
		1	39	19.15	19.49	19.42	0
		1	78	19.28	19.62	19.55	0
		39	0	18.95	19.29	19.22	0
		39	19	18.99	19.33	19.26	0
		39	40	19.14	19.48	19.41	0
		79	0	18.96	19.30	19.23	0
	DFT-S_16QAM	1	0	19.04	19.38	19.31	0
		1	39	19.05	19.39	19.32	0
		1	78	19.09	19.43	19.36	0
		39	0	18.95	19.29	19.22	0
		39	19	18.98	19.32	19.25	0
		39	40	19.05	19.39	19.32	0
		79	0	19.01	19.35	19.28	0
	DFT-S_64QAM	1	0	18.98	19.32	19.25	0
		1	39	19.06	19.40	19.33	0
		1	78	19.10	19.44	19.37	0
		39	0	18.95	19.29	19.22	0
		39	19	19.04	19.38	19.31	0
		39	40	19.09	19.43	19.36	0
		79	0	19.08	19.42	19.35	0

NR Band 2							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		371500	376000	380500	
		Frequency (MHz)		1857.5	1880	1902.5	
15M	CP_QPSK	1	0	19.05	19.39	19.32	0
		1	39	19.07	19.41	19.34	0
		1	78	19.14	19.48	19.41	0
		39	0	18.94	19.28	19.21	0
		39	19	19.05	19.39	19.32	0
		39	40	19.08	19.42	19.35	0
		79	0	19.01	19.35	19.28	0
	CP_16QAM	1	0	18.94	19.28	19.21	0
		1	39	18.99	19.33	19.26	0
		1	78	18.91	19.25	19.18	0
		39	0	18.92	19.26	19.19	0
		39	19	18.96	19.30	19.23	0
		39	40	18.92	19.26	19.19	0
		79	0	18.90	19.24	19.17	0
	CP_64QAM	1	0	18.69	19.03	18.96	0
		1	39	18.84	19.18	19.11	0
		1	78	18.95	19.29	19.22	0
		39	0	18.80	19.14	19.07	0
		39	19	18.88	19.22	19.15	0
		39	40	18.94	19.28	19.21	0
		79	0	18.92	19.26	19.19	0

NR Band 2							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		372000	376000	380000	
		Frequency (MHz)		1860	1880	1900	
20M	DFT-S_QPSK	1	0	19.09	19.43	19.36	0
		1	53	19.18	19.52	19.45	0
		1	105	19.31	19.65	19.58	0
		50	0	18.98	19.32	19.25	0
		50	25	19.02	19.36	19.29	0
		50	50	19.17	19.51	19.44	0
		100	0	18.99	19.33	19.26	0
	DFT-S_16QAM	1	0	19.07	19.41	19.34	0
		1	53	19.08	19.42	19.35	0
		1	105	19.12	19.46	19.39	0
		50	0	18.98	19.32	19.25	0
		50	25	19.01	19.35	19.28	0
		50	50	19.08	19.42	19.35	0
		100	0	19.04	19.38	19.31	0
	DFT-S_64QAM	1	0	19.01	19.35	19.28	0
		1	53	19.09	19.43	19.36	0
		1	105	19.13	19.47	19.40	0
		50	0	18.98	19.32	19.25	0
		50	25	19.07	19.41	19.34	0
		50	50	19.12	19.46	19.39	0
		100	0	19.11	19.45	19.38	0

NR Band 2							
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		372000	376000	380000	
		Frequency (MHz)		1860	1880	1900	
20M	CP_QPSK	1	0	19.08	19.42	19.35	0
		1	53	19.10	19.44	19.37	0
		1	105	19.17	19.51	19.44	0
		50	0	18.97	19.31	19.24	0
		53	26	19.08	19.42	19.35	0
		50	50	19.11	19.45	19.38	0
		106	0	19.04	19.38	19.31	0
	CP_16QAM	1	0	18.97	19.31	19.24	0
		1	53	19.02	19.36	19.29	0
		1	105	18.94	19.28	19.21	0
		50	0	18.95	19.29	19.22	0
		53	26	18.99	19.33	19.26	0
		50	50	18.95	19.29	19.22	0
		106	0	18.93	19.27	19.20	0
	CP_64QAM	1	0	18.72	19.06	18.99	0
		1	53	18.87	19.21	19.14	0
		1	105	18.98	19.32	19.25	0
		50	0	18.83	19.17	19.10	0
		53	26	18.91	19.25	19.18	0
		50	50	18.97	19.31	19.24	0
		106	0	18.95	19.29	19.22	0

EIRP Power

1RB

Modulation Type: QPSK

NR Band 2, Channel Bandwidth 5MHz

Mode		TX channel 370500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-20.1	19.8	1.0	20.8	33.0	-12.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-26.5	12.3	1.0	13.3	33.0	-19.7

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-20.2	19.9	1.1	21.0	33.0	-12.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-27.3	11.2	1.1	12.3	33.0	-20.7

Mode		TX channel 381500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-20.4	20.0	1.1	21.1	33.0	-11.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-27.6	10.8	1.1	11.9	33.0	-21.1

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 10MHz

Mode		TX channel 371000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-20.3	19.7	1.0	20.7	33.0	-12.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-26.6	12.2	1.0	13.2	33.0	-19.8

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-20.5	19.6	1.1	20.7	33.0	-12.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-27.4	11.1	1.1	12.2	33.0	-20.8

Mode		TX channel 381000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-20.6	19.8	1.1	20.9	33.0	-12.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-27.8	10.6	1.1	11.7	33.0	-21.3

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 15MHz

Mode		TX channel 371500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-20.4	19.5	1.1	20.6	33.0	-12.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-26.9	11.8	1.1	12.9	33.0	-20.1

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-20.5	19.6	1.1	20.7	33.0	-12.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-27.8	10.7	1.1	11.8	33.0	-21.2

Mode		TX channel 380500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-20.6	19.8	1.1	20.9	33.0	-12.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-28.0	10.4	1.1	11.5	33.0	-21.5

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 20MHz

Mode		TX channel 372000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-20.3	19.6	1.1	20.7	33.0	-12.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-26.7	11.9	1.1	13.0	33.0	-20.0

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-20.4	19.7	1.1	20.8	33.0	-12.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-27.6	10.9	1.1	12.0	33.0	-21.0

Mode		TX channel 380000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-20.4	20.0	1.1	21.1	33.0	-11.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-27.7	10.6	1.1	11.7	33.0	-21.3

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 16QAM

NR Band 2, Channel Bandwidth 5MHz

Mode		TX channel 370500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-20.6	19.3	1.0	20.3	33.0	-12.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-27.1	11.7	1.0	12.7	33.0	-20.3

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-20.8	19.3	1.1	20.4	33.0	-12.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-27.9	10.6	1.1	11.7	33.0	-21.3

Mode		TX channel 381500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-21.0	19.4	1.1	20.5	33.0	-12.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-28.2	10.2	1.1	11.3	33.0	-21.7

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 10MHz

Mode		TX channel 371000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-20.7	19.3	1.0	20.3	33.0	-12.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-27.2	11.6	1.0	12.6	33.0	-20.4

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-20.8	19.3	1.1	20.4	33.0	-12.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-28.0	10.5	1.1	11.6	33.0	-21.4

Mode		TX channel 381000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-21.1	19.3	1.1	20.4	33.0	-12.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-28.3	10.1	1.1	11.2	33.0	-21.8

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 15MHz

Mode		TX channel 371500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-20.8	19.1	1.1	20.2	33.0	-12.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-27.5	11.2	1.1	12.3	33.0	-20.7

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-21.0	19.1	1.1	20.2	33.0	-12.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-28.3	10.2	1.1	11.3	33.0	-21.7

Mode		TX channel 380500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-21.3	19.1	1.1	20.2	33.0	-12.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-28.5	9.9	1.1	11.0	33.0	-22.0

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 20MHz

Mode		TX channel 372000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-20.6	19.3	1.1	20.4	33.0	-12.6
Antenna Polarity & Tes372000t Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-27.3	11.3	1.1	12.4	33.0	-20.6

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-20.9	19.2	1.1	20.3	33.0	-12.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-28.1	10.4	1.1	11.5	33.0	-21.5

Mode		TX channel 380000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-21.1	19.3	1.1	20.4	33.0	-12.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-28.3	10.0	1.1	11.1	33.0	-21.9

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 64QAM

NR Band 2, Channel Bandwidth 5MHz

Mode		TX channel 370500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-21.6	18.3	1.0	19.3	33.0	-13.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-27.1	11.7	1.0	12.7	33.0	-20.3

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-21.8	18.3	1.1	19.4	33.0	-13.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-28.9	9.6	1.1	10.7	33.0	-22.3

Mode		TX channel 381500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-22.0	18.4	1.1	19.5	33.0	-13.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-29.2	9.2	1.1	10.3	33.0	-22.7

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 10MHz

Mode		TX channel 371000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-21.7	18.3	1.0	19.3	33.0	-13.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-27.8	11.0	1.0	12.0	33.0	-21.0

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-21.9	18.2	1.1	19.3	33.0	-13.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-29.0	9.5	1.1	10.6	33.0	-22.4

Mode		TX channel 381000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-22.1	18.3	1.1	19.4	33.0	-13.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-29.3	9.1	1.1	10.2	33.0	-22.8

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 15MHz

Mode		TX channel 371500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-22.0	17.9	1.1	19.0	33.0	-14.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-27.8	10.9	1.1	12.0	33.0	-21.0

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-22.2	17.9	1.1	19.0	33.0	-14.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-29.2	9.3	1.1	10.4	33.0	-22.6

Mode		TX channel 380500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-22.5	17.9	1.1	19.0	33.0	-14.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-29.5	8.9	1.1	10.0	33.0	-23.0

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 20MHz

Mode		TX channel 372000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-21.8	18.1	1.1	19.2	33.0	-13.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-27.4	11.2	1.1	12.3	33.0	-20.7

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-22.0	18.1	1.1	19.2	33.0	-13.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-29.1	9.4	1.1	10.5	33.0	-22.5

Mode		TX channel 380000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-22.3	18.1	1.1	19.2	33.0	-13.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-29.3	9.0	1.1	10.1	33.0	-22.9

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Full RB

Modulation Type: QPSK

NR Band 2, Channel Bandwidth 5MHz

Mode		TX channel 370500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-21.1	18.8	1.0	19.8	33.0	-13.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-27.1	11.7	1.0	12.7	33.0	-20.3

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-21.2	18.9	1.1	20.0	33.0	-13.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-28.3	10.2	1.1	11.3	33.0	-21.7

Mode		TX channel 381500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-21.4	19.0	1.1	20.1	33.0	-12.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-28.6	9.8	1.1	10.9	33.0	-22.1

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 10MHz

Mode		TX channel 371000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-21.2	18.8	1.0	19.8	33.0	-13.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-27.6	11.2	1.0	12.2	33.0	-20.8

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-21.3	18.8	1.1	19.9	33.0	-13.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-28.4	10.1	1.1	11.2	33.0	-21.8

Mode		TX channel 381000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-21.4	19.0	1.1	20.1	33.0	-12.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-28.6	9.8	1.1	10.9	33.0	-22.1

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 15MHz

Mode		TX channel 371500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-21.3	18.6	1.1	19.7	33.0	-13.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-27.8	10.9	1.1	12.0	33.0	-21.0

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-21.6	18.5	1.1	19.6	33.0	-13.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-28.6	9.9	1.1	11.0	33.0	-22.0

Mode		TX channel 380500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-21.7	18.7	1.1	19.8	33.0	-13.2
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-29.0	9.4	1.1	10.5	33.0	-22.5

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 20MHz

Mode		TX channel 372000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-21.1	18.8	1.1	19.9	33.0	-13.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-27.6	11.0	1.1	12.1	33.0	-20.9

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-21.3	18.8	1.1	19.9	33.0	-13.1
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-28.4	10.1	1.1	11.2	33.0	-21.8

Mode		TX channel 380000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-21.5	18.9	1.1	20.0	33.0	-13.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-28.7	9.6	1.1	10.7	33.0	-22.3

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 16QAM

NR Band 2, Channel Bandwidth 5MHz

Mode		TX channel 370500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-21.7	18.2	1.0	19.2	33.0	-13.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-28.2	10.6	1.0	11.6	33.0	-21.4

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-21.8	18.3	1.1	19.4	33.0	-13.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-28.9	9.6	1.1	10.7	33.0	-22.3

Mode		TX channel 381500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-22.0	18.4	1.1	19.5	33.0	-13.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-29.2	9.2	1.1	10.3	33.0	-22.7

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 10MHz

Mode		TX channel 371000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-21.8	18.2	1.0	19.2	33.0	-13.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-28.3	10.5	1.0	11.5	33.0	-21.5

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-22.0	18.1	1.1	19.2	33.0	-13.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-29.0	9.5	1.1	10.6	33.0	-22.4

Mode		TX channel 381000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-22.1	18.3	1.1	19.4	33.0	-13.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-29.4	9.0	1.1	10.1	33.0	-22.9

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 15MHz

Mode		TX channel 371500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-22.0	17.9	1.1	19.0	33.0	-14.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-28.7	10.0	1.1	11.1	33.0	-21.9

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-22.1	18.0	1.1	19.1	33.0	-13.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-29.3	9.2	1.1	10.3	33.0	-22.7

Mode		TX channel 380500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-22.3	18.1	1.1	19.2	33.0	-13.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-29.5	8.9	1.1	10.0	33.0	-23.0

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 20MHz

Mode		TX channel 372000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-21.9	18.0	1.1	19.1	33.0	-13.9
Antenna Polarity & Tes372000t Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-28.3	10.3	1.1	11.4	33.0	-21.6

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-21.9	18.2	1.1	19.3	33.0	-13.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-29.1	9.4	1.1	10.5	33.0	-22.5

Mode		TX channel 380000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-22.2	18.2	1.1	19.3	33.0	-13.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-29.3	9.0	1.1	10.1	33.0	-22.9

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

Modulation Type: 64QAM

NR Band 2, Channel Bandwidth 5MHz

Mode		TX channel 370500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-22.6	17.3	1.0	18.3	33.0	-14.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1852.50	-29.1	9.7	1.0	10.7	33.0	-22.3

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-22.8	17.3	1.1	18.4	33.0	-14.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-29.9	8.6	1.1	9.7	33.0	-23.3

Mode		TX channel 381500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-23.0	17.4	1.1	18.5	33.0	-14.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1907.50	-30.2	8.2	1.1	9.3	33.0	-23.7

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 10MHz

Mode		TX channel 371000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-22.7	17.3	1.0	18.3	33.0	-14.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1855.00	-28.7	10.1	1.0	11.1	33.0	-21.9

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-22.9	17.2	1.1	18.3	33.0	-14.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-30.1	8.4	1.1	9.5	33.0	-23.5

Mode		TX channel 381000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-23.2	17.2	1.1	18.3	33.0	-14.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1905.00	-30.4	8.0	1.1	9.1	33.0	-23.9

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 15MHz

Mode		TX channel 371500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-23.0	16.9	1.1	18.0	33.0	-15.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1857.50	-28.8	9.9	1.1	11.0	33.0	-22.0

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-23.1	17.0	1.1	18.1	33.0	-14.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-30.3	8.2	1.1	9.3	33.0	-23.7

Mode		TX channel 380500					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-23.5	16.9	1.1	18.0	33.0	-15.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1902.50	-30.7	7.7	1.1	8.8	33.0	-24.2

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

NR Band 2, Channel Bandwidth 20MHz

Mode		TX channel 372000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-22.9	17.0	1.1	18.1	33.0	-14.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1860.00	-28.6	10.0	1.1	11.1	33.0	-21.9

Mode		TX channel 376000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-23.0	17.1	1.1	18.2	33.0	-14.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-30.2	8.3	1.1	9.4	33.0	-23.6

Mode		TX channel 380000					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-23.3	17.1	1.1	18.2	33.0	-14.8
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1900.00	-30.4	7.9	1.1	9.0	33.0	-24.0

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

4.2 Modulation Characteristics Measurement

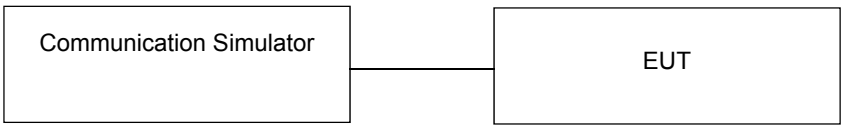
4.2.1 Limits of Modulation Characteristics

N/A

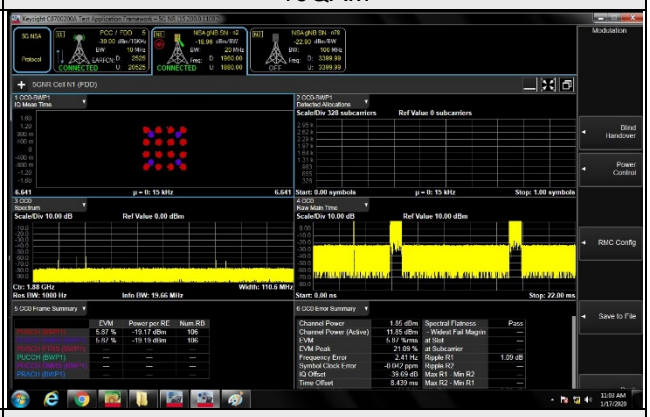
4.2.2 Test Procedure

Connect the EUT to Communication Simulator via the antenna connector, The frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

4.2.3 Test Setup



4.2.4 Test Results

NR Band 2	
Spectrum Plot of Measurement Value	
Channel: 376000 / Frequency (MHz): 1880.0MHz	
QPSK	16QAM
	
64QAM	

4.3 Frequency Stability Measurement

4.3.1 Limits of Frequency Stabiliity Measurement

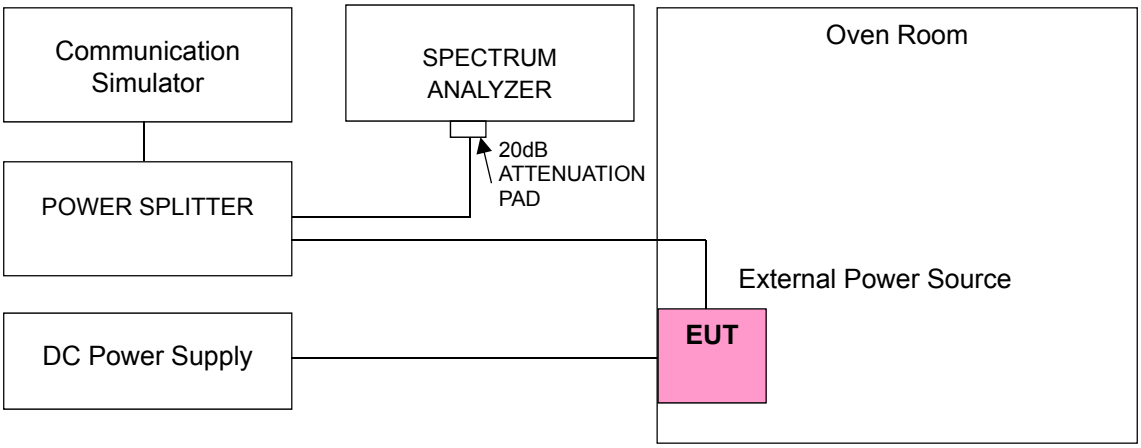
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

4.3.2 Test Procedure

a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5 ℃ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

Note: The frequency error was recorded frequency error from the communication simulator.

4.3.3 Conducted Setup



4.3.4 Test Results

Frequency Error vs. Voltage

Voltage (Volts)	NR Band 2			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.4	1852.500002	0.001	1907.500001	0.001
3.85	1852.500001	0.001	1907.500003	0.002
4.4	1852.500003	0.001	1907.500002	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.4Vdc.

Frequency Error vs. Temperature

Temp. (℃)	NR Band 2			
	Channel Bandwidth: 5 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1852.500003	0.002	1907.500003	0.002
-20	1852.500004	0.002	1907.500004	0.002
-10	1852.500004	0.002	1907.500004	0.002
0	1852.500004	0.002	1907.500002	0.001
10	1852.500001	0.001	1907.500002	0.001
20	1852.499997	-0.002	1907.499997	-0.001
30	1852.499998	-0.001	1907.499997	-0.002
40	1852.499997	-0.002	1907.499998	-0.001
50	1852.499996	-0.002	1907.499997	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	NR Band 2			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.4	1855.000002	0.001	1905.000002	0.001
3.85	1855.000002	0.001	1905.000001	0.001
4.4	1855.000004	0.002	1905.000002	0.001

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.4Vdc.

Frequency Error vs. Temperature

Temp. (℃)	NR Band 2			
	Channel Bandwidth: 10 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1855.000002	0.001	1905.000004	0.002
-20	1855.000004	0.002	1905.000002	0.001
-10	1855.000001	0.001	1905.000002	0.001
0	1855.000003	0.002	1905.000002	0.001
10	1855.000002	0.001	1905.000003	0.001
20	1854.999998	-0.001	1904.999996	-0.002
30	1854.999997	-0.002	1904.999996	-0.002
40	1854.999998	-0.001	1904.999997	-0.002
50	1854.999997	-0.002	1904.999998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	NR Band 2			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.4	1857.500002	0.001	1902.500002	0.001
3.85	1857.500003	0.002	1902.500004	0.002
4.4	1857.500001	0.001	1902.500004	0.002

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.4Vdc.

Frequency Error vs. Temperature

Temp. (℃)	NR Band 2			
	Channel Bandwidth: 15 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1857.500001	0.001	1902.500003	0.002
-20	1857.500002	0.001	1902.500003	0.002
-10	1857.500002	0.001	1902.500002	0.001
0	1857.500001	0.001	1902.500003	0.002
10	1857.500003	0.002	1902.500002	0.001
20	1857.499996	-0.002	1902.499997	-0.002
30	1857.499999	-0.001	1902.499998	-0.001
40	1857.499996	-0.002	1902.499998	-0.001
50	1857.499998	-0.001	1902.499998	-0.001

Frequency Error vs. Voltage

Voltage (Volts)	NR Band 2			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
3.4	1860.000003	0.001	1900.000004	0.002
3.85	1860.000004	0.002	1900.000002	0.001
4.4	1860.000002	0.001	1900.000003	0.002

Note: The applicant defined the normal working voltage is from 3.4Vdc to 4.4Vdc.

Frequency Error vs. Temperature

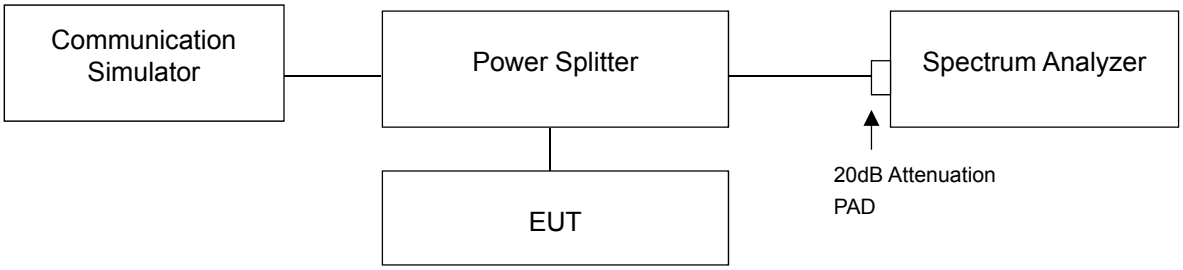
Temp. (℃)	NR Band 2			
	Channel Bandwidth: 20 MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	1860.000003	0.001	1900.000002	0.001
-20	1860.000001	0.001	1900.000002	0.001
-10	1860.000001	0.001	1900.000004	0.002
0	1860.000004	0.002	1900.000001	0.001
10	1860.000004	0.002	1900.000003	0.002
20	1859.999997	-0.002	1899.999997	-0.002
30	1859.999998	-0.001	1899.999996	-0.002
40	1859.999998	-0.001	1899.999998	-0.001
50	1859.999996	-0.002	1899.999998	-0.001

4.4 Occupied Bandwidth Measurement

4.4.1 Test Procedure

The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

4.4.2 Test Setup



4.4.3 Test Result

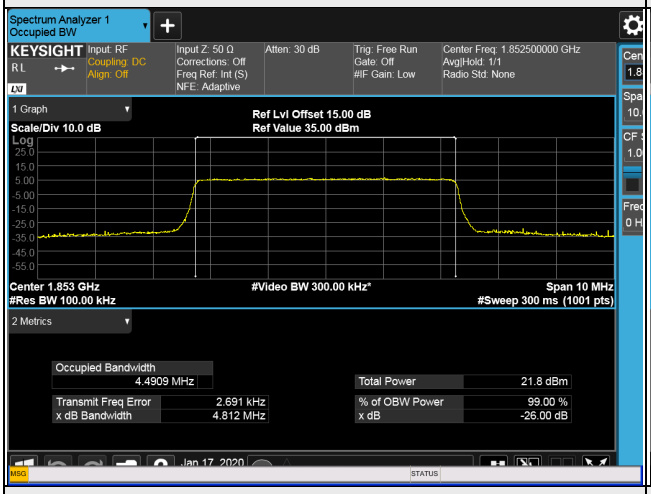
Occupied Bandwidth

NR Band 2

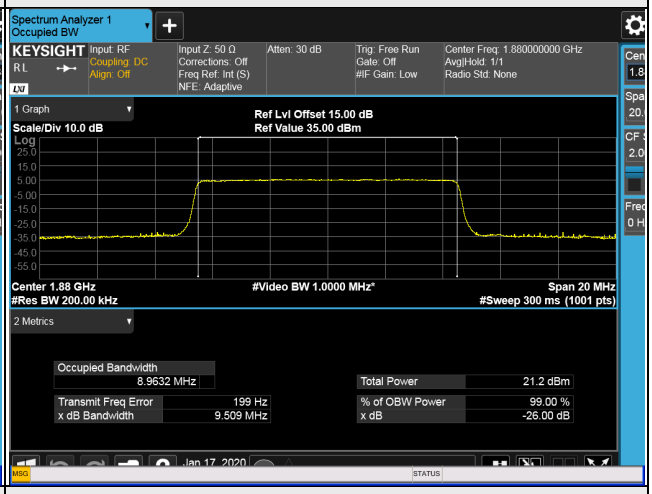
NR Band 2, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
370500	1852.5	4.49	4.49	4.49
376000	1880.0	4.49	4.49	4.49
381500	1907.5	4.49	4.49	4.49
NR Band 2, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
371000	1855.0	8.95	8.96	8.95
376000	1880.0	8.96	8.96	8.95
381000	1905.0	8.96	8.96	8.95
NR Band 2, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
371500	1857.5	13.46	13.44	13.43
376000	1880.0	13.46	13.45	13.44
380500	1902.5	13.46	13.44	13.43
NR Band 2, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		
		QPSK	16QAM	64QAM
372000	1860.0	17.91	17.94	17.94
376000	1880.0	17.92	17.93	17.94
380000	1900.0	17.91	17.93	17.92

Spectrum Plot of Worst Value

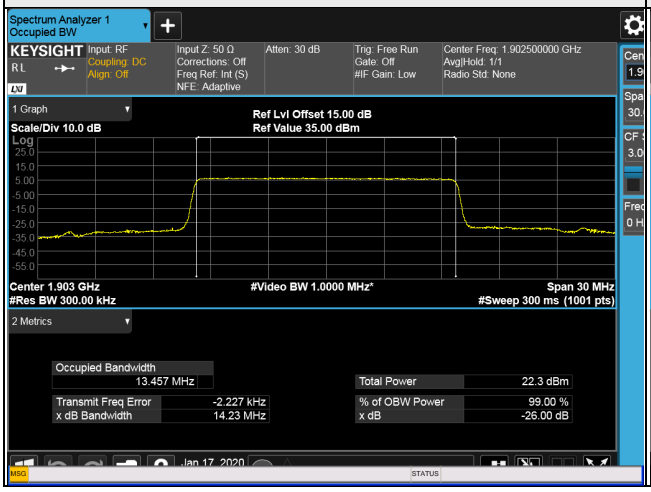
5MHz / 64QAM



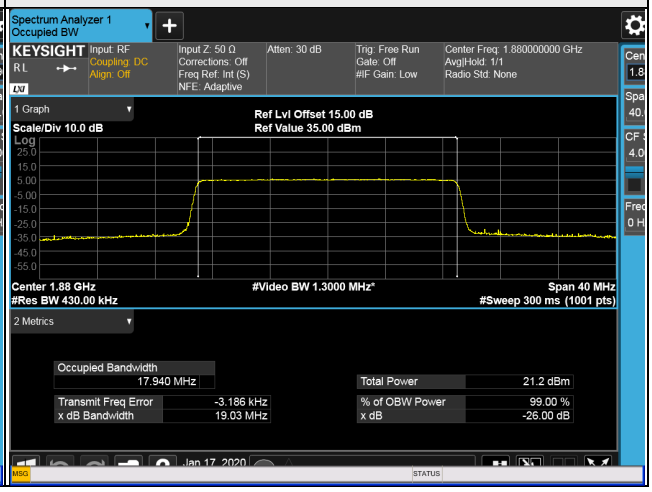
10MHz / 16QAM



15MHz / QPSK



20MHz / 64QAM



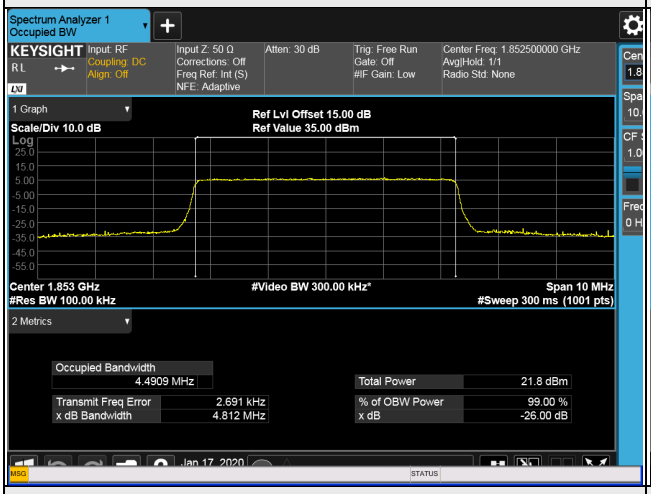
26dB Bandwidth

NR Band 2

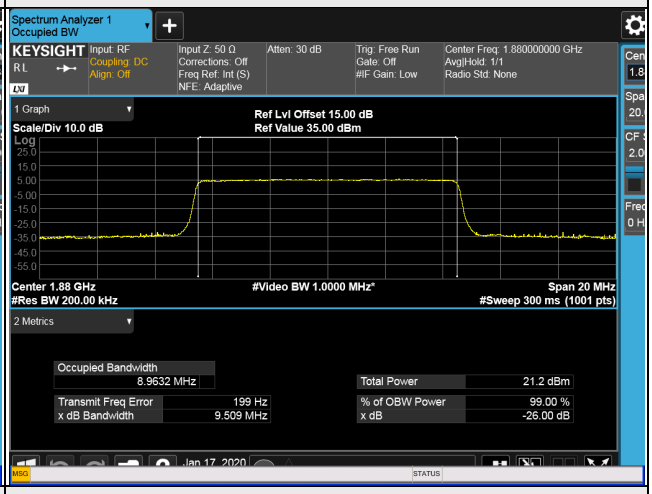
NR Band 2, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
370500	1852.5	4.79	4.80	4.81
376000	1880.0	4.81	4.79	4.80
381500	1907.5	4.80	4.81	4.79
NR Band 2, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
371000	1855.0	9.50	9.51	9.51
376000	1880.0	9.50	9.51	9.51
381000	1905.0	9.50	9.51	9.51
NR Band 2, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
371500	1857.5	14.27	14.25	14.24
376000	1880.0	14.24	14.26	14.22
380500	1902.5	14.23	14.25	14.25
NR Band 2, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		
		QPSK	16QAM	64QAM
372000	1860.0	19.00	19.03	19.05
376000	1880.0	19.02	19.03	19.03
380000	1900.0	19.02	19.02	19.03

Spectrum Plot of Worst Value

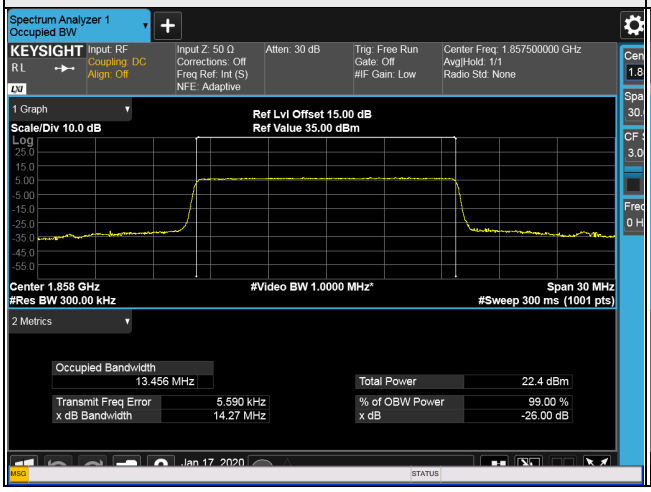
5MHz / 64QAM



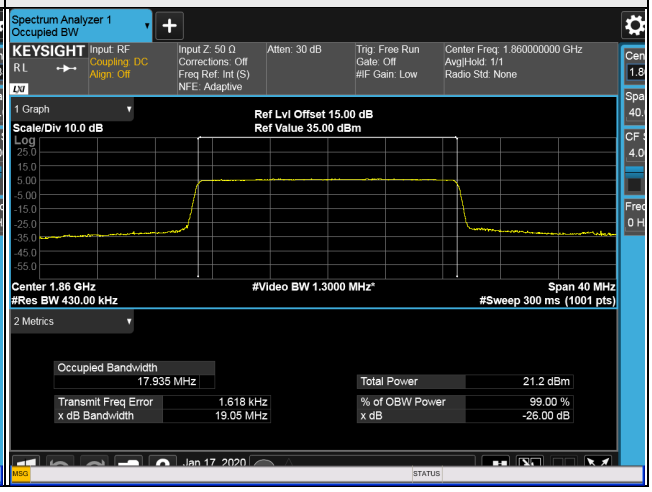
10MHz / 16QAM



15MHz / QPSK



20MHz / 64QAM

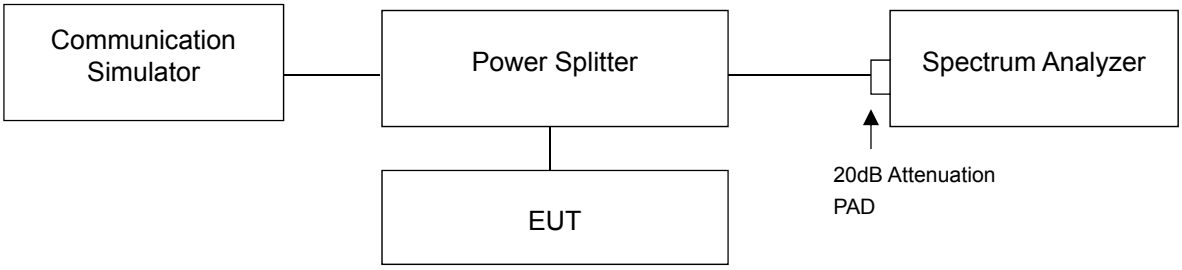


4.5 Band Edge Measurement

4.5.1 Limits of Band Edge Measurement

Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

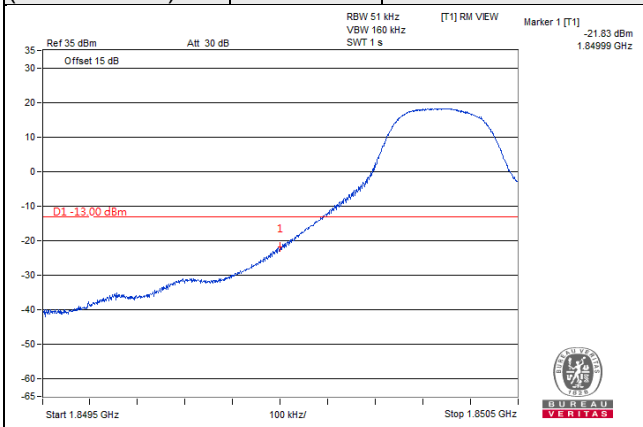
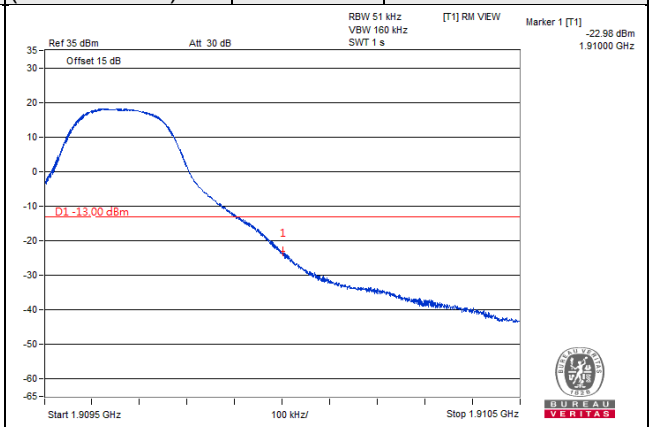
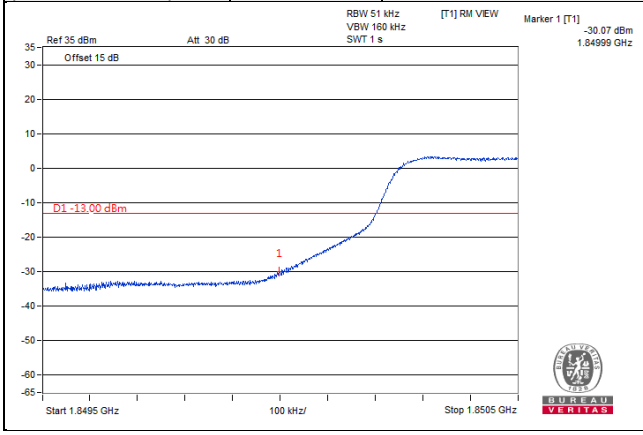
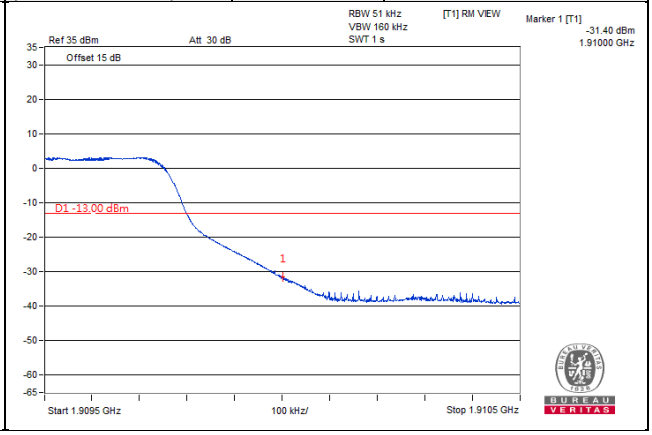
4.5.2 Test Setup

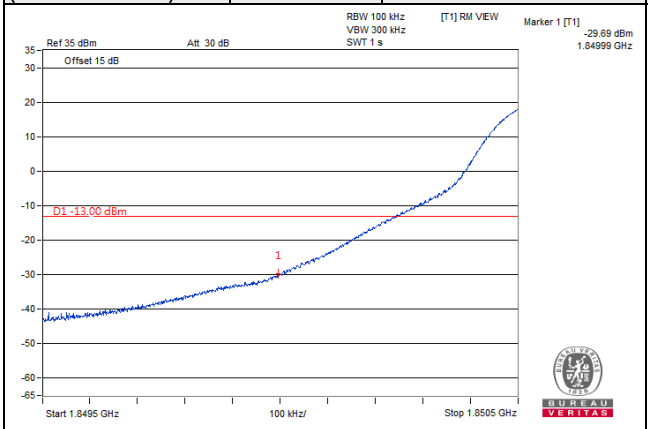
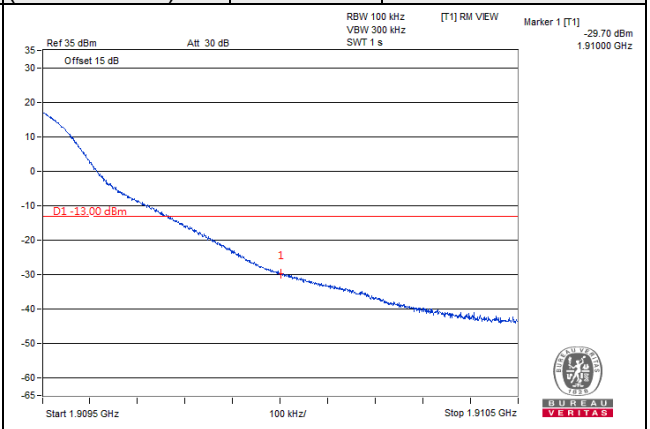
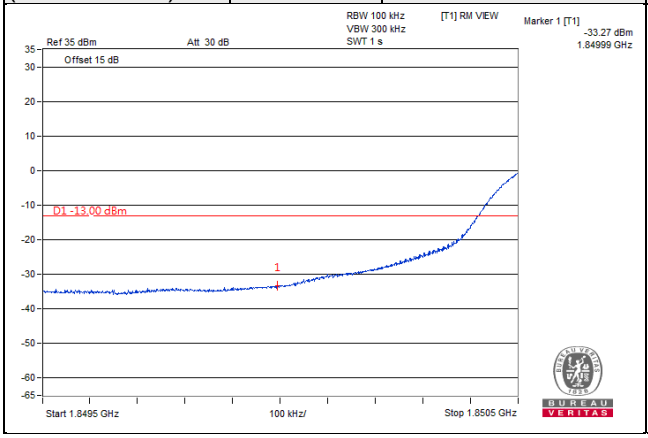
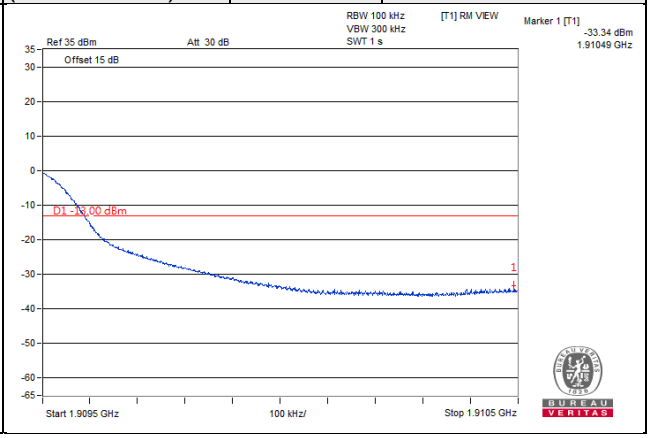


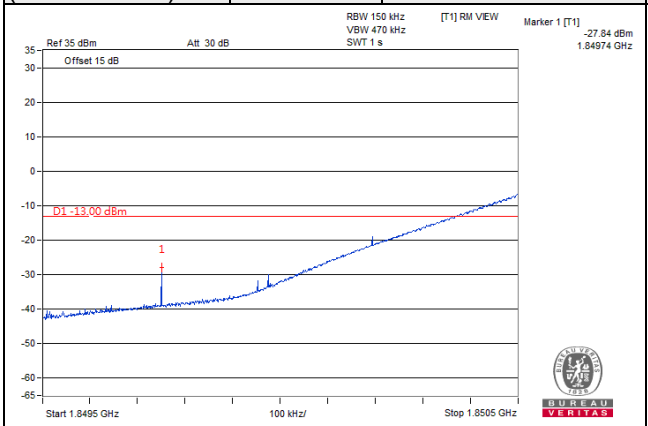
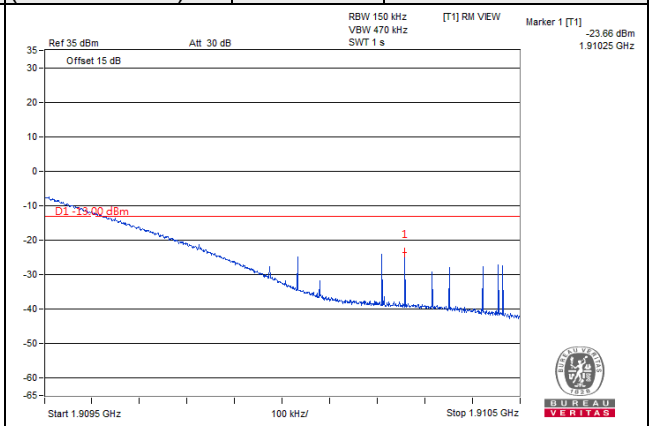
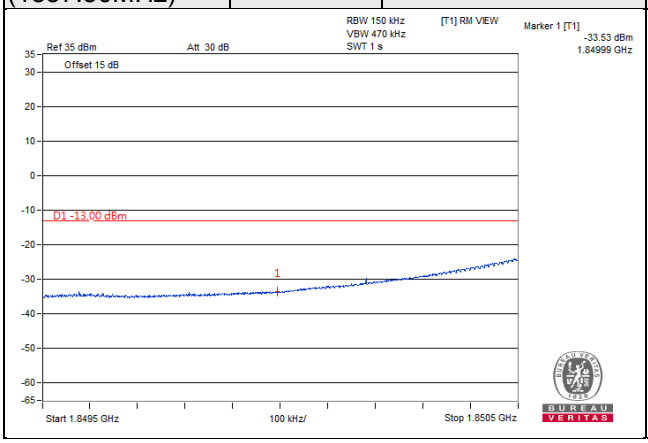
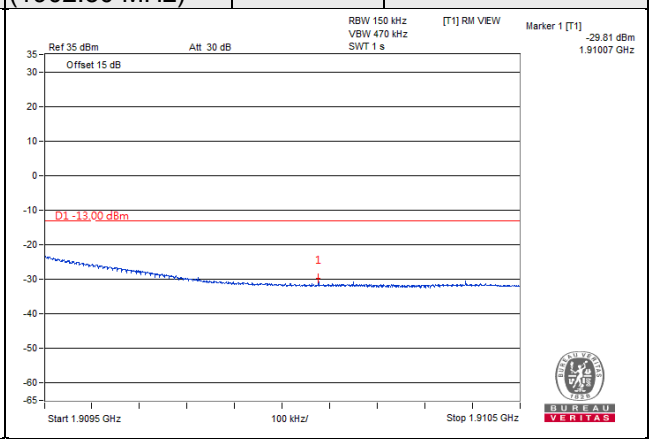
4.5.3 Test Procedures

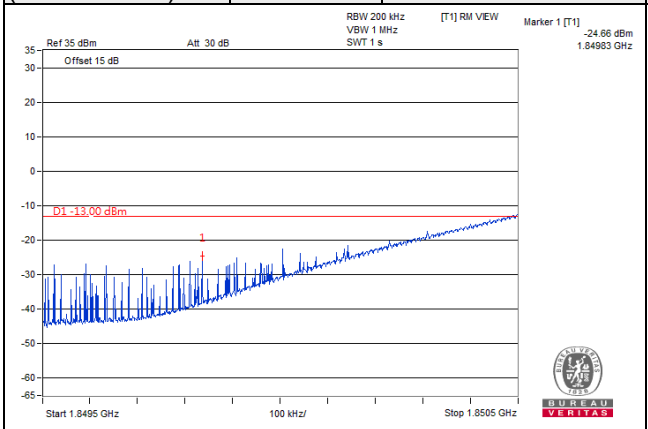
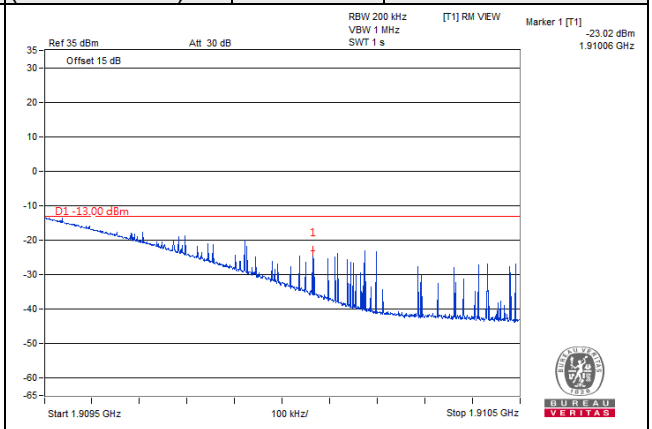
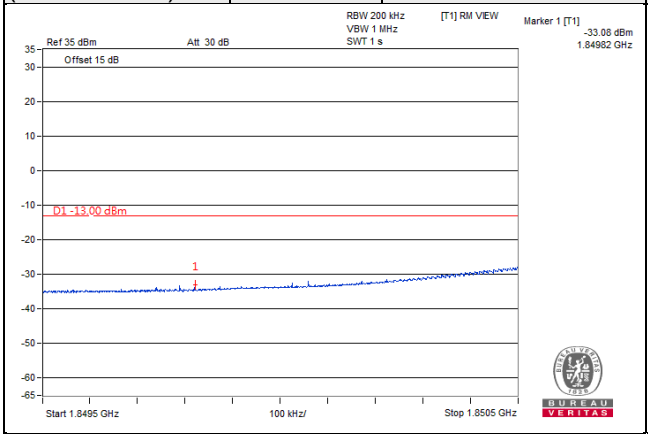
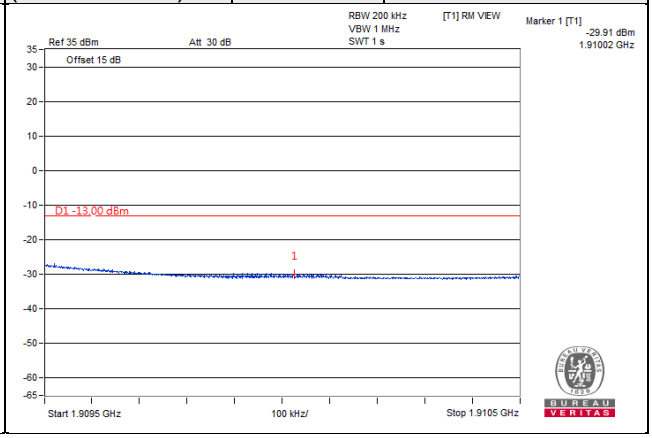
a. All measurements were done at low and high operational frequency range.
b. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 51kHz and VB of the spectrum is 160kHz (LTE Channel Bandwidth 5MHz).
c. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 100kHz and VB of the spectrum is 300kHz (LTE Channel Bandwidth 10MHz).
d. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 150kHz and VB of the spectrum is 470kHz (LTE Channel Bandwidth 15MHz).
e. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 200kHz and VB of the spectrum is 1MHz (LTE Channel Bandwidth 20MHz).
f. Record the max trace plot into the test report.

4.5.4 Test Results

NR Band 2, Channel Bandwidth 5MHz					
Channel 370500 (1852.50MHz)	QPSK	1 RB / 0 RB Offset	Channel 381500 (1907.50MHz)	QPSK	1 RB / 24 RB Offset
					
Channel 370500 (1852.50MHz)	QPSK	25 RB / 0 RB Offset	Channel 381500 (1907.50MHz)	QPSK	25 RB / 0 RB Offset
					

NR Band 2, Channel Bandwidth 10MHz					
Channel 371000 (1855.00MHz)	QPSK	1 RB / 0 RB Offset	Channel 381000 (1905.00MHz)	QPSK	1 RB / 51 RB Offset
					
Channel 371000 (1855.00MHz)	QPSK	52 RB / 0 RB Offset	Channel 381000 (1905.00MHz)	QPSK	52 RB / 0 RB Offset
					

NR Band 2, Channel Bandwidth 15MHz					
Channel 371500 (1857.50MHz)	QPSK	1 RB / 0 RB Offset	Channel 380500 (1902.50 MHz)	QPSK	1 RB / 78 RB Offset
					
Channel 371500 (1857.50MHz)	QPSK	79 RB / 0 RB Offset	Channel 380500 (1902.50 MHz)	QPSK	79 RB / 0 RB Offset
					

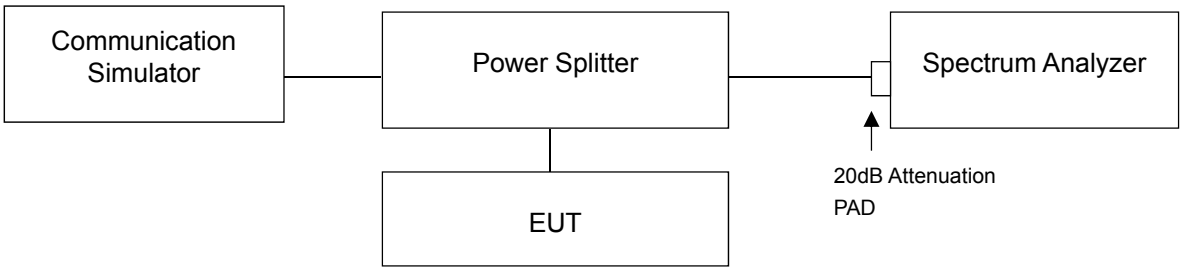
NR Band 2, Channel Bandwidth 20MHz					
Channel 372000 (1860.00MHz)	QPSK	1 RB / 0 RB Offset	Channel 380000 (1900.00 MHz)	QPSK	1 RB / 105 RB Offset
					
Channel 372000 (1860.00MHz)	QPSK	106 RB / 0 RB Offset	Channel 380000 (1900.00 MHz)	QPSK	106 RB / 0 RB Offset
					

4.6 Peak to Average Ratio

4.6.1 Limits of Peak to Average Ratio Measurement

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

4.6.2 Test Setup



4.6.3 Test Procedures

a. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
b. Set the number of counts to a value that stabilizes the measured CCDF curve;
c. Record the maximum PAPR level associated with a probability of 0.1%.

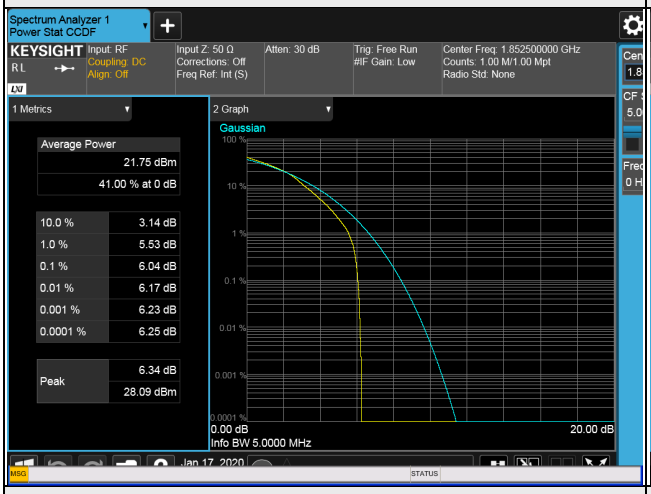
4.6.4 Test Results

NR Band 2

NR Band 2, Channel Bandwidth 5MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
370500	1852.5	3.64	5.98	6.04
376000	1880.0	3.81	5.87	6.04
381500	1907.5	3.73	5.40	5.49
NR Band 2, Channel Bandwidth 10MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
371000	1855.0	3.92	5.64	6.01
376000	1880.0	3.75	5.99	6.18
381000	1905.0	3.78	5.52	5.65
NR Band 2, Channel Bandwidth 15MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
371500	1857.5	3.90	5.82	5.90
376000	1880.0	3.77	5.72	5.75
380500	1902.5	3.67	5.37	5.49
NR Band 2, Channel Bandwidth 20MHz				
Channel	Frequency (MHz)	Peak To Average Ratio (dB)		
		QPSK	16QAM	64QAM
372000	1860.0	3.55	5.64	5.45
376000	1880.0	3.56	5.42	5.74
380000	1900.0	3.68	5.45	5.48

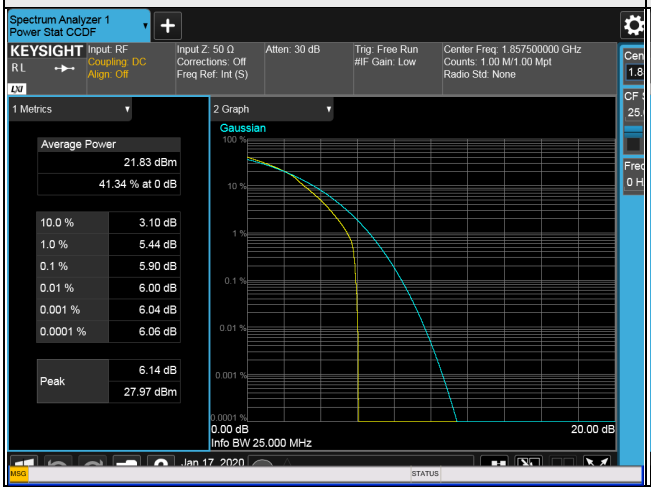
Spectrum Plot of Worst Value

5MHz / 64QAM



10MHz / 64QAM

15MHz / 64QAM



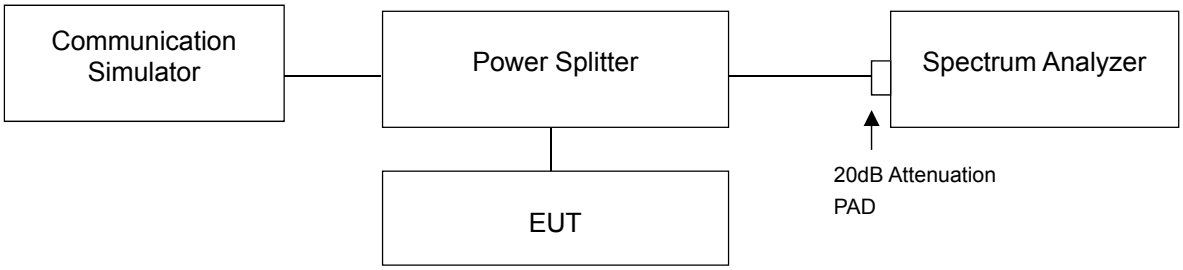
20MHz / 64QAM

4.7 Conducted Spurious Emissions

4.7.1 Limits of Conducted Spurious Emissions Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to –13dBm.

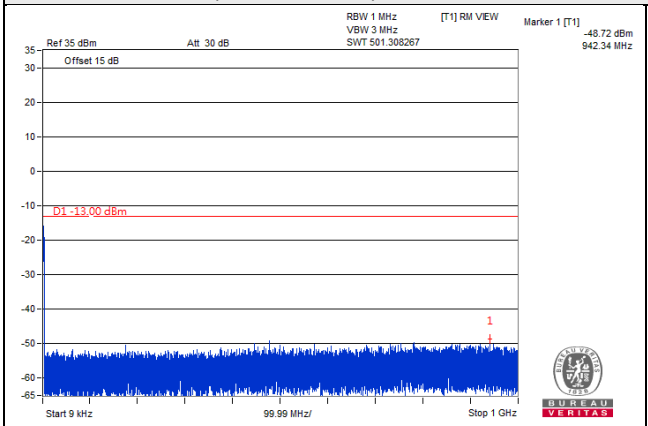
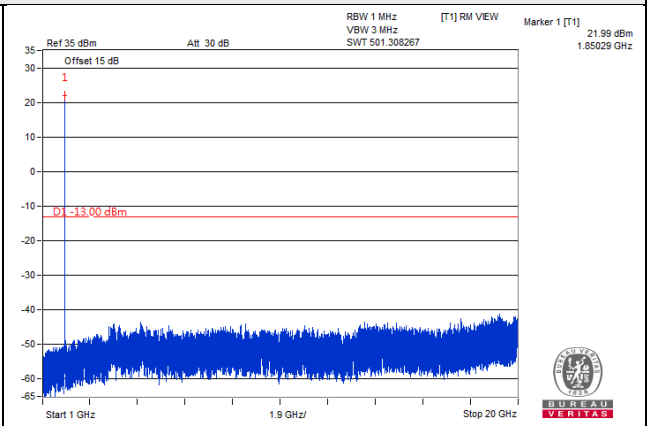
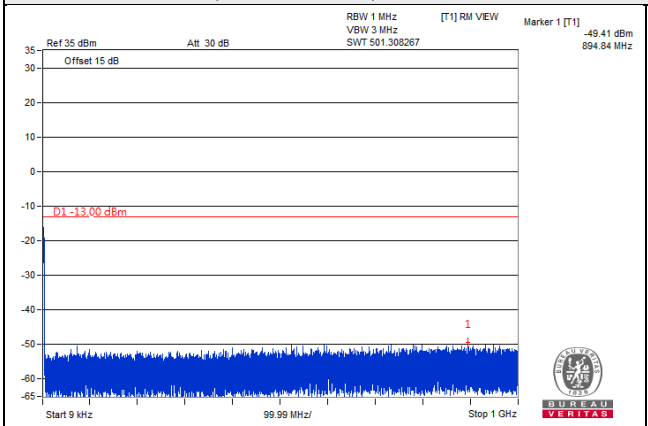
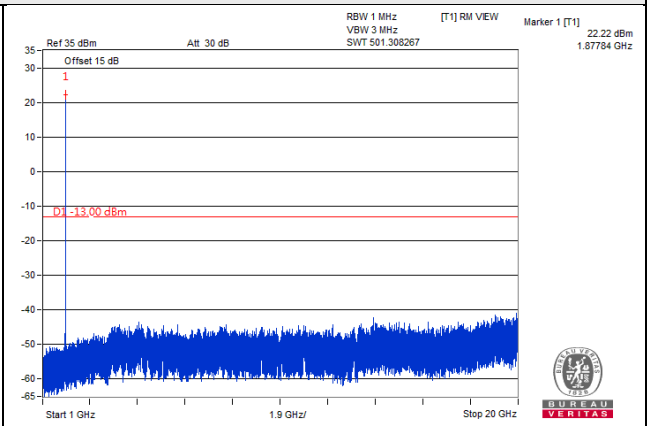
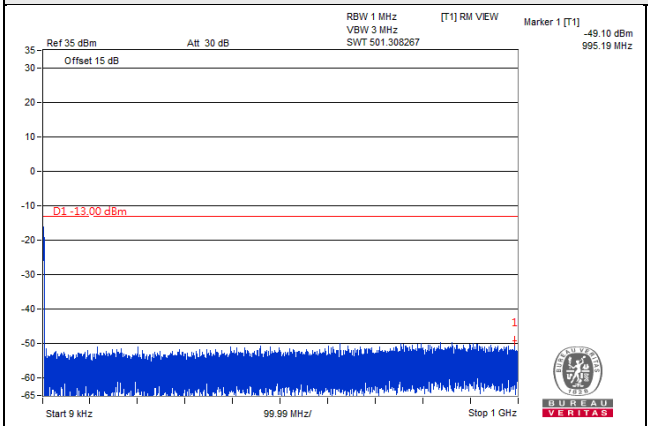
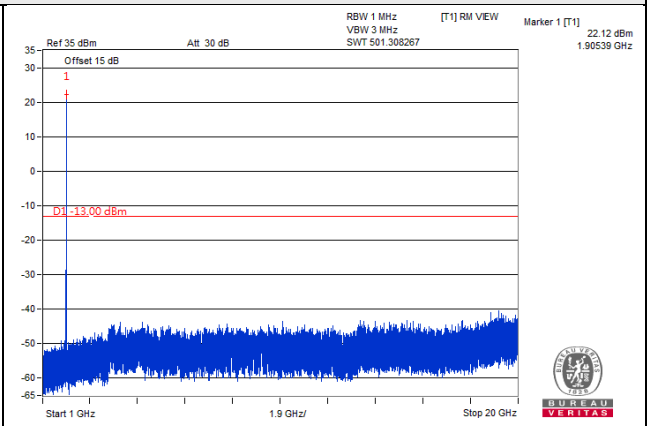
4.7.2 Test Setup

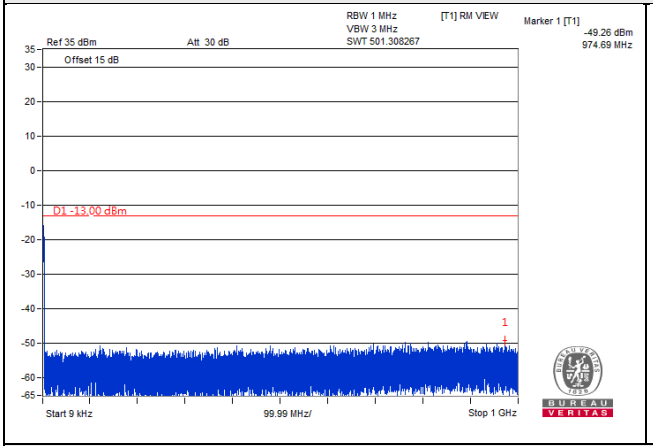
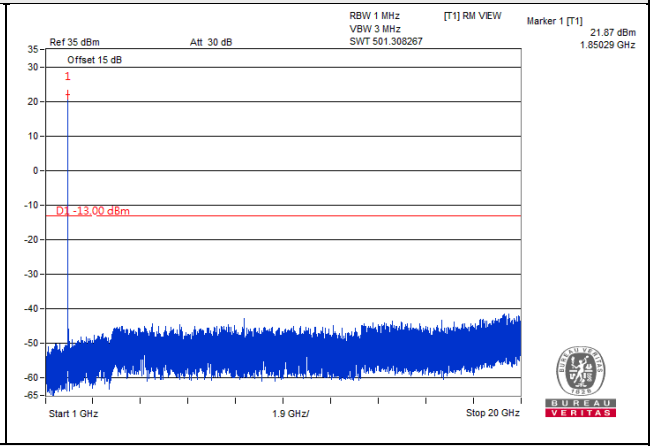
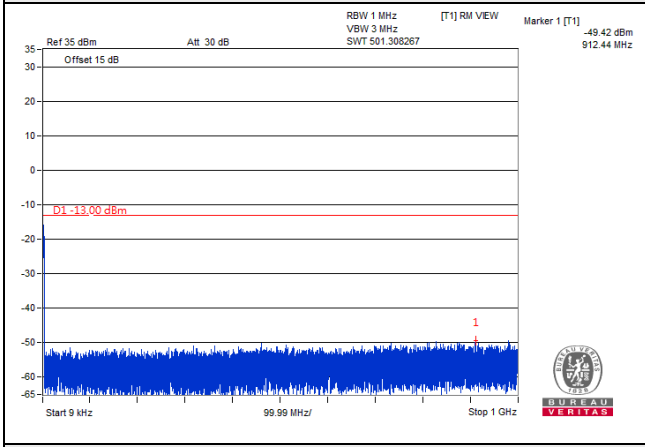
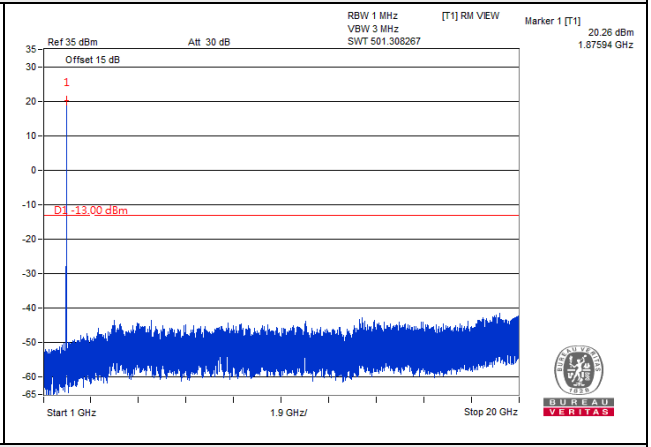
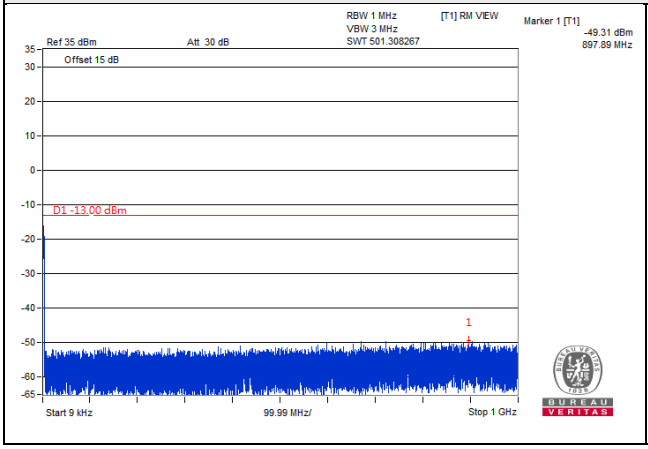
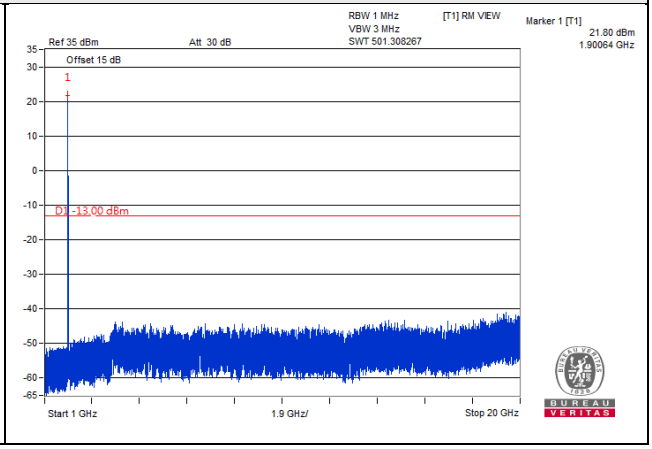


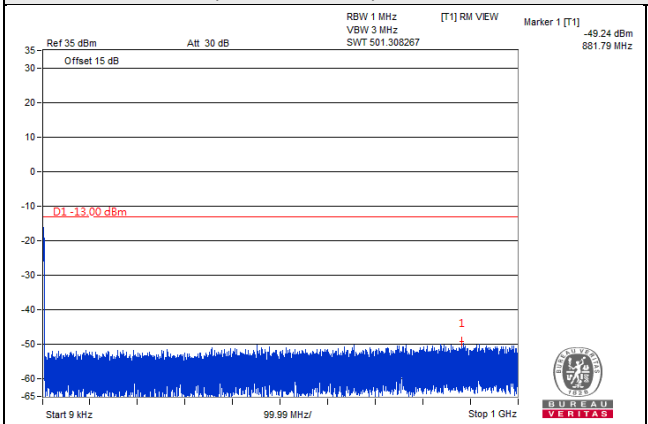
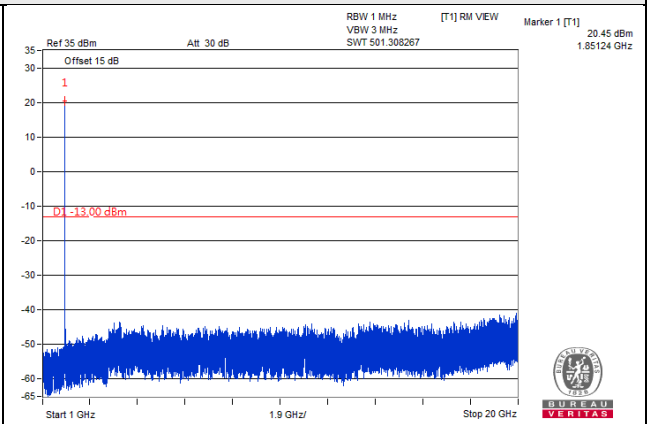
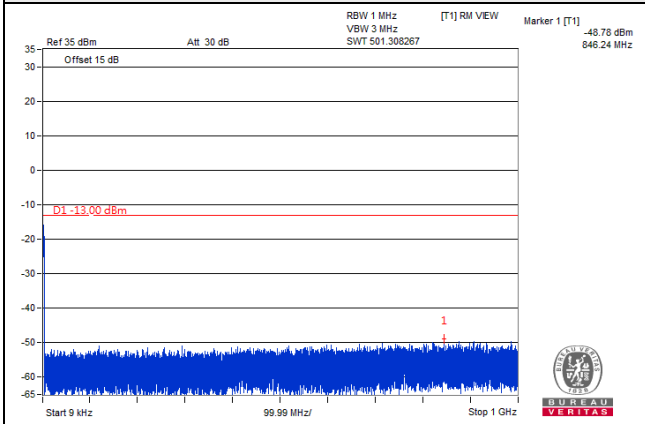
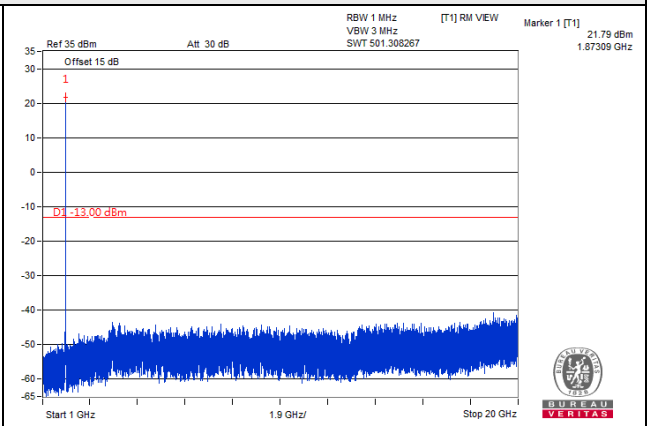
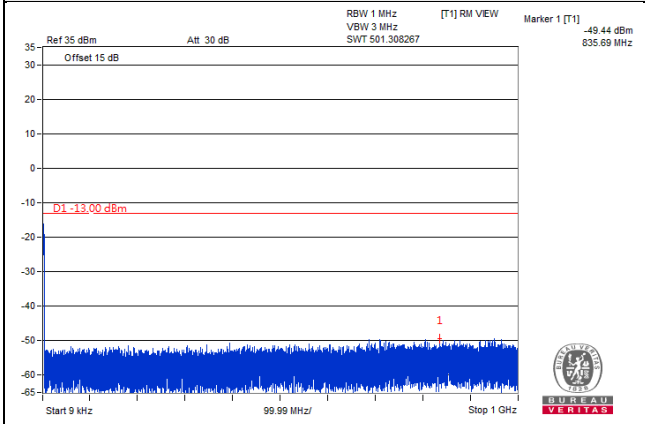
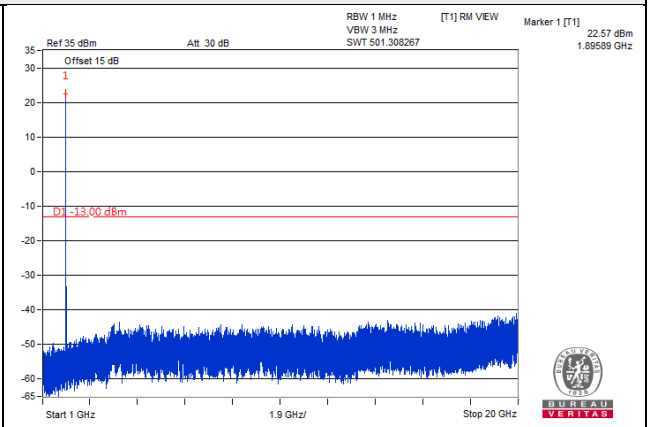
4.7.3 Test Procedure

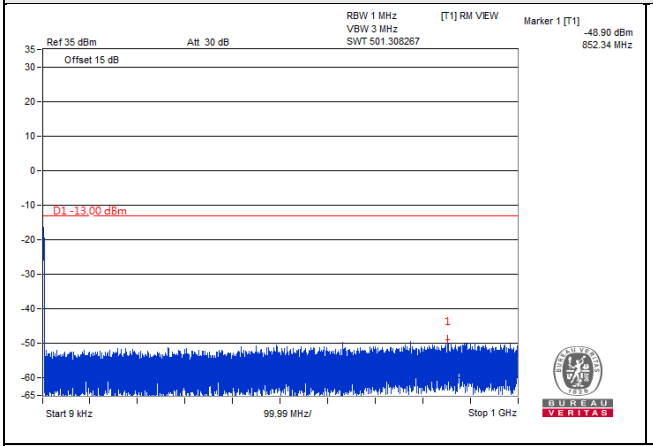
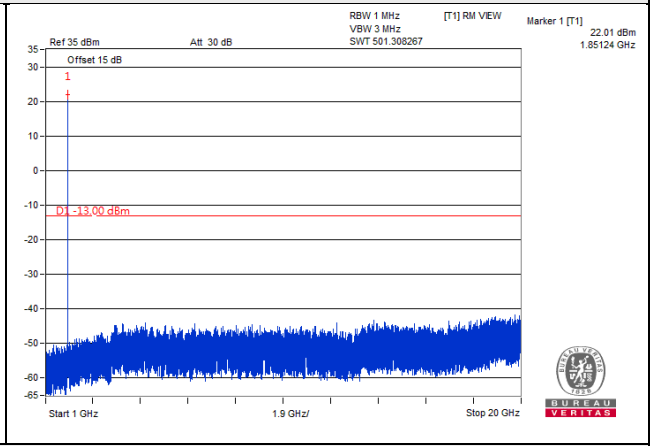
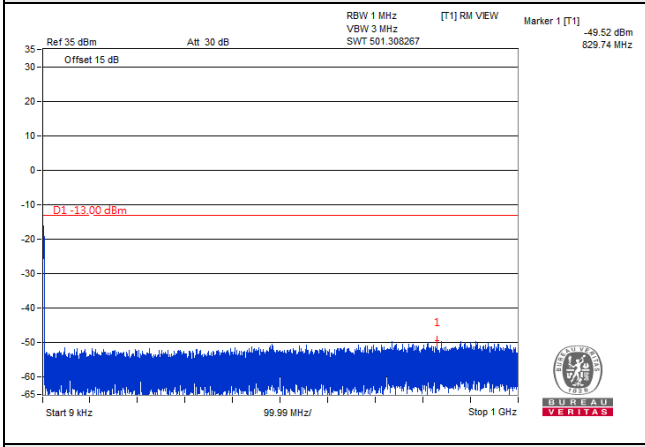
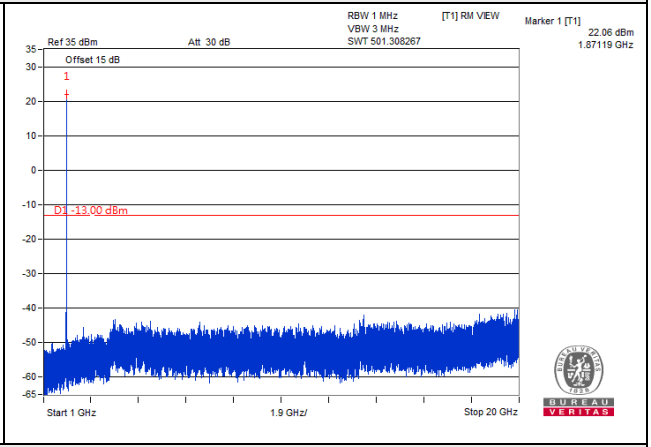
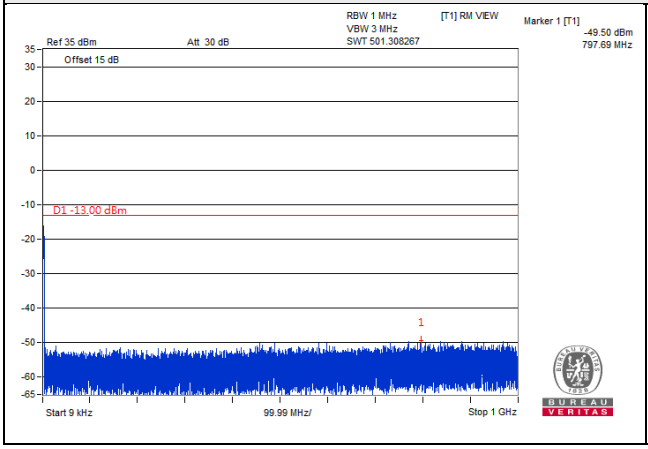
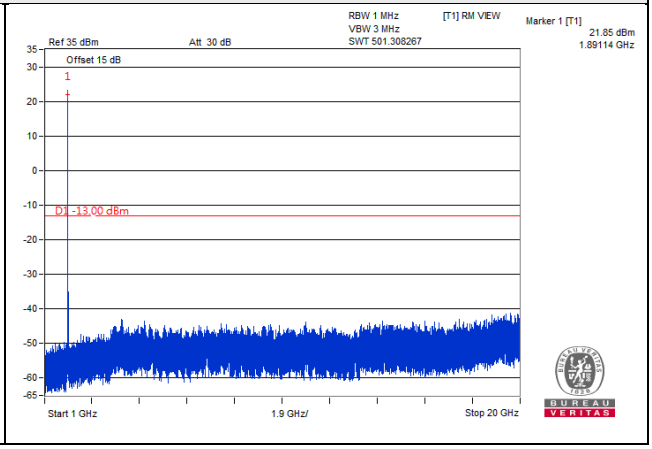
a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
b. Measuring frequency range is from 9kHz to 20GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.
c. Spectrum RBW settings are referenced to ANSI 63.2-1996 section 8.2.2.

4.7.4 Test Results

NR Band 2, Channel Bandwidth 5MHz	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~20GHz
Channel 370500 (1852.50MHz)	
	
Channel 376000 (1880.00MHz)	
	
Channel 381500 (1907.50MHz)	
	

NR Band 2, Channel Bandwidth 10MHz	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~20GHz
Channel 371000 (1855.00MHz)	
	
Channel 376000 (1880.00MHz)	
	
Channel 381000 (1905.00MHz)	
	

NR Band 2, Channel Bandwidth 15MHz	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~20GHz
Channel 371500 (1857.50MHz)	
	
Channel 376000 (1880.00MHz)	
	
Channel 380500 (1902.50MHz)	
	

NR Band 2, Channel Bandwidth 20MHz	
Frequency Range : 9kHz~1GHz	Frequency Range : 1GHz~20GHz
Channel 372000 (1860.00MHz)	
	
Channel 376000 (1880.00MHz)	
	
Channel 380000 (1900.00MHz)	
	

4.8 Radiated Emission Measurement

4.8.1 Limits of Radiated Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to –13dBm.

4.8.2 Test Procedure

a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m 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 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G
c. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power - 2.15dBi.

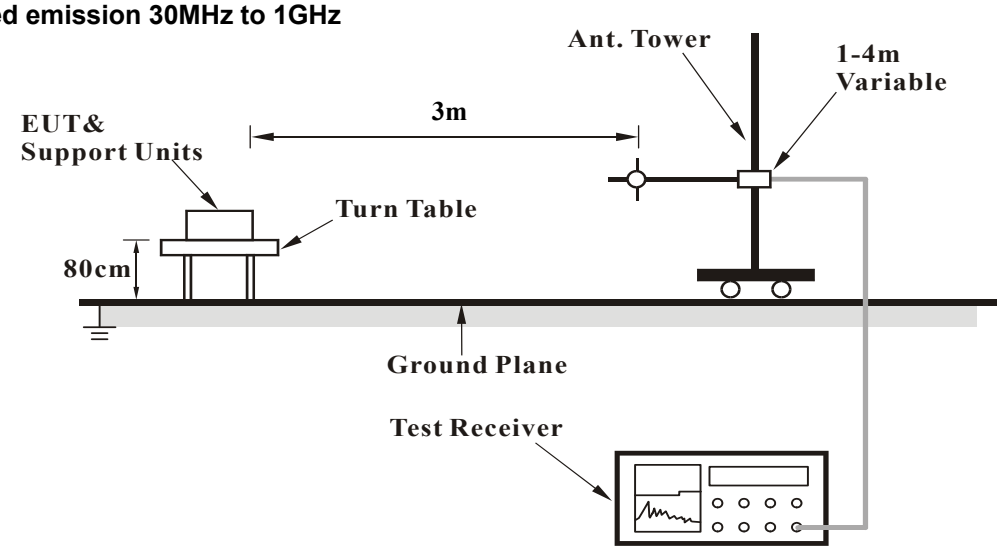
NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

4.8.3 Deviation from Test Standard

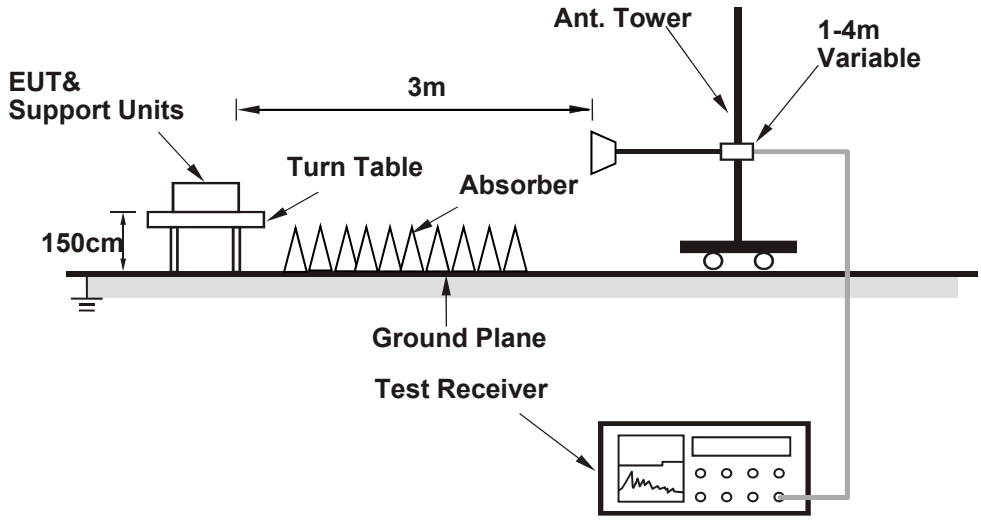
No deviation.

4.8.4 Test Setup

For radiated emission 30MHz to 1GHz



For radiated emission above 1GHz



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

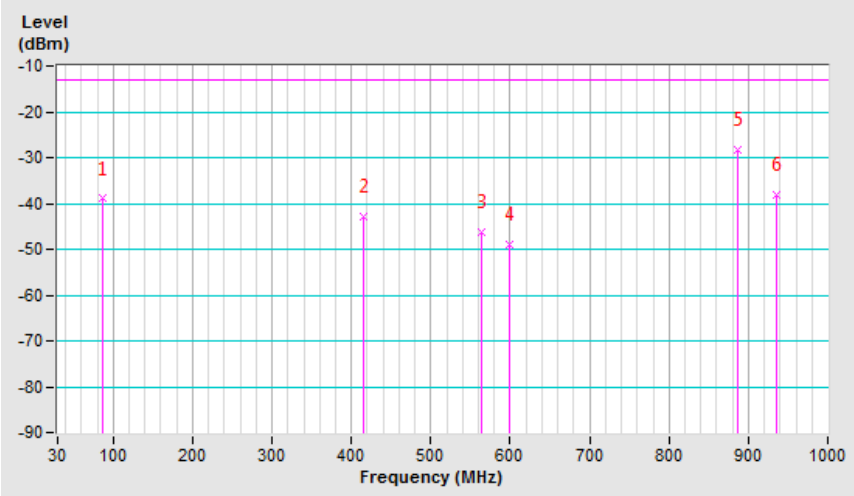
4.8.5 Test Results

Below 1GHz
NR Band 2, Channel Bandwidth: 5MHz

Mode	TX channel 370500 (1852.50MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Noah Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	86.26	-32.3	-39.1	0.1	-39.0	-13.0	-26.0
2	416.06	-41.7	-48.0	5.2	-42.8	-13.0	-29.8
3	563.50	-45.9	-50.7	4.5	-46.2	-13.0	-33.2
4	598.42	-49.4	-53.4	4.4	-49.0	-13.0	-36.0
5	887.48	-34.9	-32.2	3.9	-28.3	-13.0	-15.3
6	935.98	-45.1	-42.0	3.9	-38.1	-13.0	-25.1

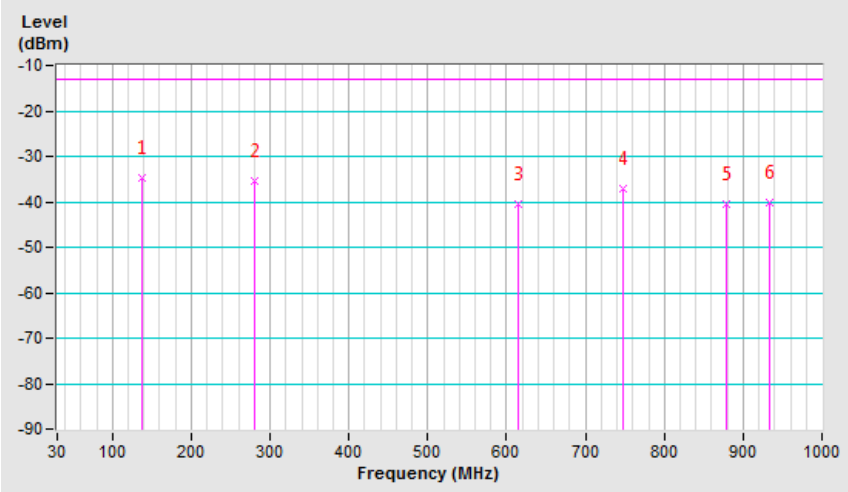
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 370500 (1852.50MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Noah Chang		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	136.70	-30.5	-34.4	-0.3	-34.7	-13.0	-21.7
2	280.26	-36.9	-40.7	5.3	-35.4	-13.0	-22.4
3	613.94	-45.4	-45.1	4.6	-40.5	-13.0	-27.5
4	747.80	-42.7	-41.8	4.7	-37.1	-13.0	-24.1
5	879.72	-46.9	-44.3	3.9	-40.4	-13.0	-27.4
6	934.04	-48.8	-44.0	3.9	-40.1	-13.0	-27.1

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

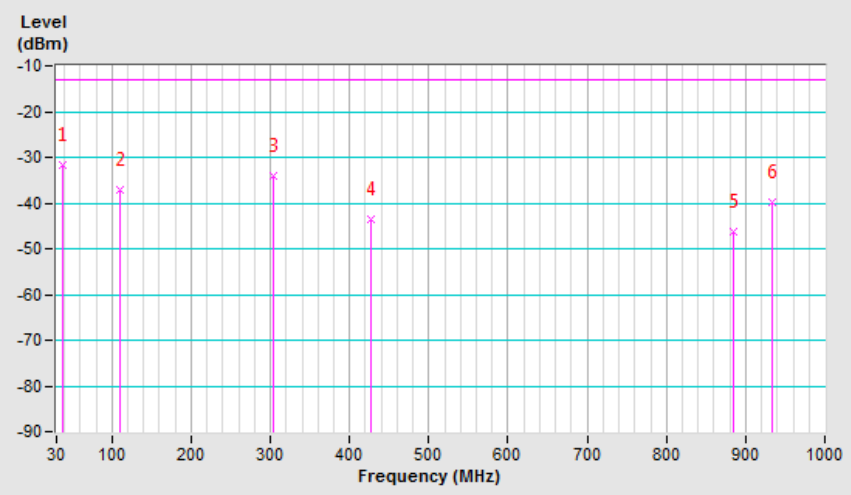


NR Band 2, Channel Bandwidth: 10MHz

Mode	TX channel 371000 (1880.00MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Noah Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	37.76	-34.8	-20.5	-11.2	-31.7	-13.0	-18.7
2	109.54	-29.4	-37.6	0.5	-37.1	-13.0	-24.1
3	303.54	-29.3	-39.3	5.1	-34.2	-13.0	-21.2
4	427.70	-41.9	-48.7	5.2	-43.5	-13.0	-30.5
5	885.54	-52.8	-50.3	3.9	-46.4	-13.0	-33.4
6	934.04	-46.8	-43.6	3.9	-39.7	-13.0	-26.7

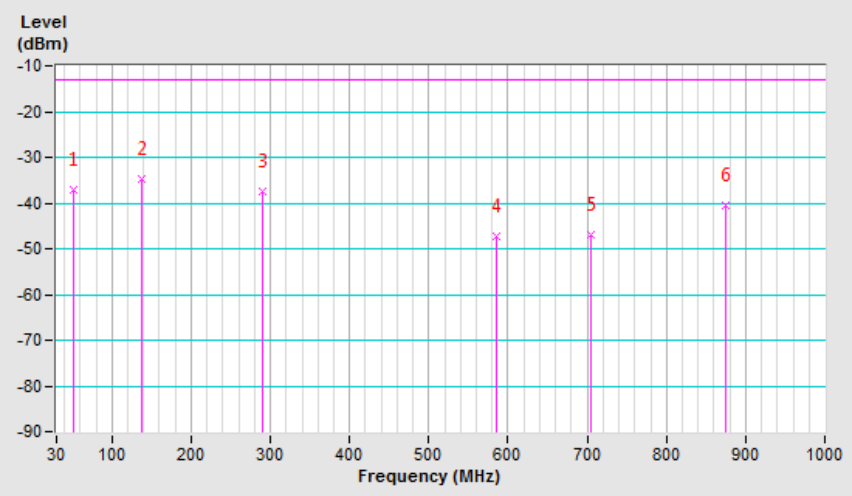
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 371000 (1880.00MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Noah Chang		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	51.34	-30.5	-28.3	-8.9	-37.2	-13.0	-24.2
2	136.70	-30.4	-34.3	-0.3	-34.6	-13.0	-21.6
3	289.96	-37.7	-42.7	5.2	-37.5	-13.0	-24.5
4	584.84	-49.9	-51.7	4.5	-47.2	-13.0	-34.2
5	705.12	-52.0	-52.0	5.1	-46.9	-13.0	-33.9
6	873.90	-47.1	-44.4	3.9	-40.5	-13.0	-27.5

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

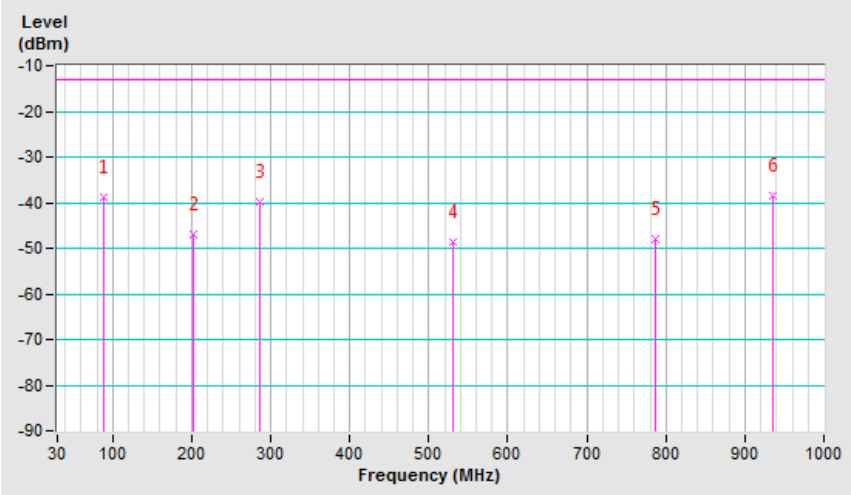


NR Band 2, Channel Bandwidth: 20MHz

Mode	TX channel 372000 (1860.00MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Noah Chang		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	88.20	-31.5	-39.5	0.6	-38.9	-13.0	-25.9
2	202.66	-38.4	-52.4	5.4	-47.0	-13.0	-34.0
3	286.08	-36.3	-44.9	5.2	-39.7	-13.0	-26.7
4	530.52	-47.7	-53.2	4.7	-48.5	-13.0	-35.5
5	786.60	-53.2	-52.1	4.2	-47.9	-13.0	-34.9
6	935.98	-45.6	-42.5	3.9	-38.6	-13.0	-25.6

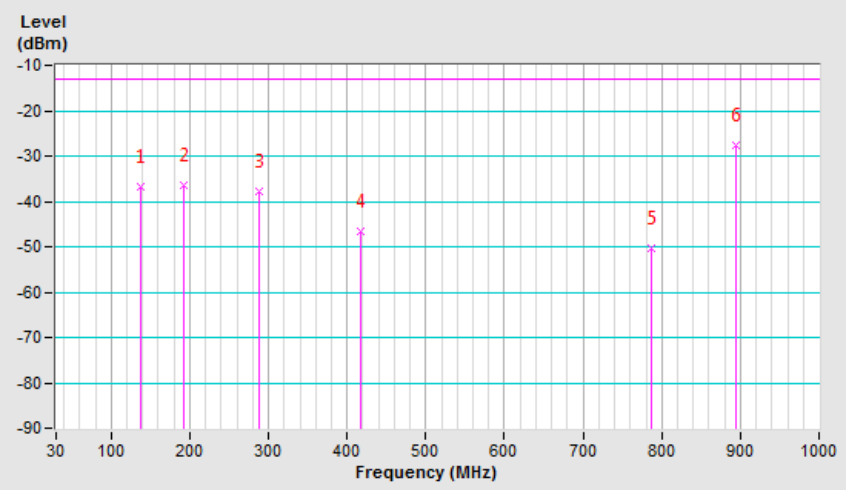
Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 372000 (1860.00MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Noah Chang		

Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	136.70	-32.7	-36.6	-0.3	-36.9	-13.0	-23.9
2	192.96	-32.6	-41.1	4.6	-36.5	-13.0	-23.5
3	288.02	-38.3	-43.1	5.2	-37.9	-13.0	-24.9
4	418.00	-45.1	-51.8	5.2	-46.6	-13.0	-33.6
5	786.60	-56.5	-54.5	4.2	-50.3	-13.0	-37.3
6	**895.24**	**-34.6**	**-31.5**	**3.9**	**-27.6**	**-13.0**	**-14.6**

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Above 1GHz
NR Band 2, Channel Bandwidth 5MHz

Mode	TX channel 370500 (1852.50MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3705.00	-65.0	-59.0	7.1	-51.9	-13.0	-38.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3705.00	-66.7	-59.6	7.1	-52.5	-13.0	-39.5

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 376000 (1880.00MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760.00	-65.1	-58.6	7.1	-51.5	-13.0	-38.5
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760.00	-67.0	-59.6	7.1	-52.5	-13.0	-39.5

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 381500 (1907.50MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3815.00	-65.3	-58.5	7.1	-51.4	-13.0	-38.4
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3815.00	-67.2	-59.5	7.1	-52.4	-13.0	-39.4

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

NR Band 2, Channel Bandwidth 10MHz

Mode	TX channel 371000 (1855.00MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3710.00	-65.2	-59.1	7.1	-52.0	-13.0	-39.0
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3710.00	-66.9	-59.8	7.1	-52.7	-13.0	-39.7

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 376000 (1880.00MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760.00	-65.2	-58.7	7.1	-51.6	-13.0	-38.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760.00	-67.2	-59.8	7.1	-52.7	-13.0	-39.7

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 381000 (1905.00MH)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3810.00	-65.5	-58.7	7.1	-51.6	-13.0	-38.6
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3810.00	-67.1	-59.4	7.1	-52.3	-13.0	-39.3

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

NR Band 2, Channel Bandwidth 20MHz

Mode	TX channel 372000 (1860.00MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3720.00	-65.2	-59.0	7.1	-51.9	-13.0	-38.9
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3720.00	-66.9	-59.7	7.1	-52.6	-13.0	-39.6

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 376000 (1880.00MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760.00	-65.3	-58.8	7.1	-51.7	-13.0	-38.7
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760.00	-67.1	-59.7	7.1	-52.6	-13.0	-39.6

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 380000 (1900.00MHz)	Frequency Range	1GHz ~ 18GHz
Environmental Conditions	25deg. C, 70%RH	Input Power	120Vac, 60Hz
Tested By	Luis Lee		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3800.00	-65.5	-59.4	7.1	-52.3	-13.0	-39.3
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3800.00	-67.3	-59.6	7.1	-52.5	-13.0	-39.5

Remarks:
1. EIRP (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – 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 and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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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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