

FCC Test Report (PART 24) (Spot Check)

Report No.: RF180321E03Y-1

FCC ID: MCLT77W968C9

Original FCC ID: MCLT77W968

Test Model: T77W968C9

Received Date: Dec. 26, 2019

Test Date: Jan. 08 to 17, 2020

Issued Date: Feb. 03, 2020

Applicant: HON HAI PRECISION IND. CO., LTD.

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R.O.C.

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

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Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan.

**FCC Registration /
Designation Number:** 723255 / TW2022



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Release Control Record

Issue No.	Description	Date Issued
RF180321E03Y-1	Original release.	Feb. 03, 2020

1 Certificate of Conformity

Product: LTE M.2 Module

Brand: FOXCONN

Test Model: T77W968C9

Sample Status: ENGINEERING SAMPLE

Applicant: HON HAI PRECISION IND. CO., LTD.

Test Date: Jan. 08 to 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 EMC characteristics under the conditions specified in this report.

Prepared by :



Date:

Feb. 03, 2020

Claire Kuan / Specialist

Approved by :



Date:

Feb. 03, 2020

Clark Lin / Technical Manager

2 Summary of Test Results

Applied Standard: FCC Part 24 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 24.232	Equivalent Isotropically Radiated Power	PASS	Meet the requirement of limit.
2.1053 24.238	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -30.63dB at 7634MHz.

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) ($\pm$)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.0 dB
	30MHz ~ 1GHz	5.1 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.1 dB
	6GHz ~ 18GHz	5.0 dB
	18GHz ~ 40GHz	5.2 dB

2.2 Test Site and Instruments

For radiated spurious emissions below 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 03, 2019	July 02, 2020
Pre-Amplifier EMCI	EMC001340	980142	May 30, 2019	May 29, 2020
Loop Antenna Electro-Metrics	EM-6879	264	Jan. 22, 2019	Jan. 21, 2020
RF Cable	NA	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	NA	LOOPCAB-002	Jan. 08, 2020	Jan. 07, 2021
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	Apr. 30, 2019	Apr. 29, 2020
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 11, 2019	Nov. 10, 2020
RF Cable	8D	966-3-1	Mar. 18, 2019	Mar. 17, 2020
RF Cable	8D	966-3-2	Mar. 18, 2019	Mar. 17, 2020
RF Cable	8D	966-3-3	Mar. 18, 2019	Mar. 17, 2020
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Sep. 26, 2019	Sep. 25, 2020
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA

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 966 Chamber No. 3.
3. Loop antenna was used for all emissions below 30 MHz.
4. Tested Date: Jan. 17, 2020

For radiated spurious emissions above 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 03, 2019	July 02, 2020
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 24, 2019	Nov. 23, 2020
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-1200	160922	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC104-SM-SM-2000	180601	June 10, 2019	June 09, 2020
RF Cable	EMC104-SM-SM-6000	180602	June 10, 2019	June 09, 2020
Spectrum Analyzer Keysight	N9030A	MY54490679	July 17, 2019	July 16, 2020
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 28, 2019	Jan. 27, 2020
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 24, 2019	Nov. 23, 2020
RF Cable	EMC102-KM-KM-1200	160924	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC102-KM-KM-1200	160925	Jan. 28, 2019	Jan. 27, 2020
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA

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 966 Chamber No. 3.
3. Loop antenna was used for all emissions below 30 MHz.
4. Tested Date: Jan. 08 to 09, 2020

For other test items

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	June 04, 2019	June 03, 2020
Spectrum Analyzer Agilent	E4446A	MY48250253	July 24, 2019	July 23, 2020
Power meter Anritsu	ML2495A	1014008	May 13, 2019	May 12, 2020
Power sensor Anritsu	MA2411B	0917122	May 13, 2019	May 12, 2020
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 15, 2019	Apr. 14, 2020
AC Power Source Extech Electronics	6205	1440452	NA	NA
DC Power Supply Topward	6603D	795558	NA	NA
True RMS Clamp Meter FLUKE	325	31130711WS	May 21, 2019	May 20, 2020
ESG Vector signal generator Agilent	E4438C	MY45094468/005 506 602 UK6 UNJ	Nov. 14, 2019	Nov. 13, 2020
Mech Switch Absorptive Mini-Circuits	MSP4TA-18+	0140	Feb. 11, 2019	Feb. 10, 2020
FXD ATTEN Mini-Circuits	BW-S3W2+	MN71981	Feb. 11, 2019	Feb. 10, 2020
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

- NOTE:**
1. The test was performed in Oven room 2.
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 3. Tested Date: Jan. 14, 2020

3 General Information

3.1 General Description of EUT

Product	LTE M.2 Module	
Brand	FOXCONN	
Test Model	T77W968C9	
Status of EUT	ENGINEERING SAMPLE	
Power Supply Rating	DC 3.3V from host equipment	
Modulation Type	WCDMA, HSDPA, HSUPA	BPSK
	LTE Band 2	QPSK, 16QAM, 64QAM
	LTE Band 25	QPSK, 16QAM, 64QAM
Operating Frequency	WCDMA, HSDPA, HSUPA	1852.4MHz ~ 1907.6MHz
	LTE Band 2	1850.7MHz ~ 1909.3MHz
	LTE Band 25	1850.7MHz ~ 1914.3MHz
Max. EIRP Power	WCDMA Band 2	29.04dBm
	LTE Band 2	28.42dBm
	LTE Band 2 (Channel Bandwidth 1.4MHz)	28.42dBm
	LTE Band 2 (Channel Bandwidth 3MHz)	28.45dBm
	LTE Band 2 (Channel Bandwidth 5MHz)	28.44dBm
	LTE Band 2 (Channel Bandwidth 10MHz)	28.42dBm
	LTE Band 2 (Channel Bandwidth 15MHz)	28.35dBm
	LTE Band 2 (Channel Bandwidth 20MHz)	28.37dBm
	LTE Band 25 (Channel Bandwidth 1.4MHz)	28.32dBm
	LTE Band 25 (Channel Bandwidth 3MHz)	28.35dBm
	LTE Band 25 (Channel Bandwidth 5MHz)	28.37dBm
	LTE Band 25 (Channel Bandwidth 10MHz)	28.48dBm
	LTE Band 25 (Channel Bandwidth 15MHz)	28.42dBm
	LTE Band 25 (Channel Bandwidth 20MHz)	28.61dBm

Emission Designator	WCDMA Band 2	4M16F9W
	LTE Band 2 (Channel Bandwidth 1.4MHz)	QPSK: 1M09G7D 16QAM: 1M09D7W 64QAW: 1M09D7W
	LTE Band 2 (Channel Bandwidth 3MHz)	QPSK: 2M70G7D 16QAM: 2M70D7W 64QAW: 2M70D7W
	LTE Band 2 (Channel Bandwidth 5MHz)	QPSK: 4M49G7D 16QAM: 4M49D7W 64QAW: 4M49D7W
	LTE Band 2 (Channel Bandwidth 10MHz)	QPSK: 8M96G7D 16QAM: 8M97D7W 64QAW: 8M96D7W
	LTE Band 2 (Channel Bandwidth 15MHz)	QPSK: 13M5G7D 16QAM: 13M4D7W 64QAW: 13M4D7W
	LTE Band 2 (Channel Bandwidth 20MHz)	QPSK: 17M9G7D 16QAM: 17M9D7W 64QAW: 18M0D7W
	LTE Band 25 (Channel Bandwidth 1.4MHz)	QPSK: 1M09G7D 16QAM: 1M09D7W 64QAW: 1M09D7W
	LTE Band 25 (Channel Bandwidth 3MHz)	QPSK: 2M71G7D 16QAM: 2M71D7W 64QAW: 2M72D7W
	LTE Band 25 (Channel Bandwidth 5MHz)	QPSK: 4M50G7D 16QAM: 4M50D7W 64QAW: 4M50D7W
	LTE Band 25 (Channel Bandwidth 10MHz)	QPSK: 8M99G7D 16QAM: 9M01D7W 64QAW: 8M99D7W
	LTE Band 25 (Channel Bandwidth 15MHz)	QPSK: 13M5G7D 16QAM: 13M5D7W 64QAW: 13M5D7W
	LTE Band 25 (Channel Bandwidth 20MHz)	QPSK: 18M0G7D 16QAM: 18M0D7W 64QAW: 18M0D7W
	Antenna Type	Refer to Note
	Antenna Connector	Refer to Note
	Accessory Device	NA
	Data Cable Supplied	NA

Note:

1. Exhibit prepared for FCC Spot Check Verification Report, the format, test items and amount of spot-check test data are decided by applicant's engineering judgment, for more details please refer to declaration letter exhibit. (Original FCC ID: MCLT77W968)

2. The antennas provided to the EUT, please refer to the following table:

Antenna No.	Antenna Net Gain(dBi)	Frequency range (MHz)	Antenna Type	Connector Type	Cable Length
1	Please refer to below table	699~803	PIFA	i-pex(MHF)	100mm
2	Please refer to below table	791~960 1447.9~1606	PIFA	i-pex(MHF)	100mm
3	Please refer to below table	1710~2170 2500~2690	PIFA	i-pex(MHF)	100mm
4	Please refer to below table	2305~2315	Dipole	i-pex(MHF)	80mm

Antenna gain list			
Antenna No.	Band	Freq. Range (MHz)	Gain (dBi)
3	WCDMA II (B2)	1850~1910	4.92
3	WCDMA IV (B4)	1710~1755	5.99
2	WCDMA V (B5)	824~849	2.68
3	LTE Band (2)	1850~1910	4.92
3	LTE Band (4)	1710~1755	5.99
2	LTE Band (5)	824~849	2.68
3	LTE Band (7)	2500~2570	5.2
1	LTE Band (12)	698~716	4.17
1	LTE Band (13)	777~787	3.05
1	LTE Band (17)	704~716	4.17
3	LTE Band (25)	1850~1915	4.92
2	LTE Band (26)	814~849	2.92
4	LTE Band (30)	2305~2315	3.02
3	LTE Band (38)	2570~2620	4.82
3	LTE Band (41)	2496~2690	5.38
3	LTE Band (66)	1710~1780	5.99

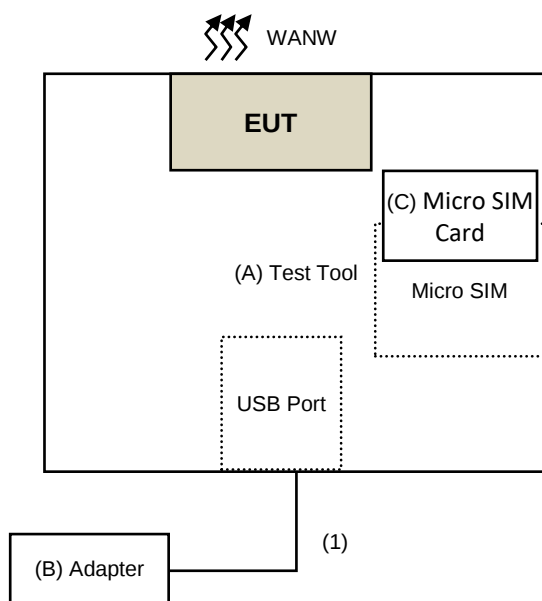
3. The EUT was pre-tested under the following modes:

Test Mode	Description
Mode A	Without e-SIM
Mode B	With e-SIM

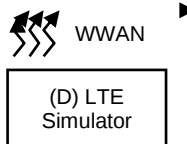
Note: From the above modes, radiated emission the worst case was found in **Mode A**. Therefore only the test data of the mode was recorded in this report.

4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Configuration of System under Test



Remote Site



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.	Test Tool	Foxconn	T77W968	NA	NA	Supplied by client
B.	Adapter	ASUS	EXA1205UA	NA	NA	Provided by Lab
C.	Micro SIM Card	NA	NA	NA	NA	Provided by Lab
D.	Simulator	Keysight	E7515A	MY56030229	NA	Provided by Lab

Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB Cable	1	1	Yes	0	Provided by Lab

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

In the original test report, the worst case was found when positioned on X-plane. Following channel(s) was (were) selected for the final test as listed below:

WCDMA Band 2

Test Item	Available Channel	Tested Channel	Mode
EIRP	9262 to 9538	9262, 9400, 9538	WCDMA
Radiated Emission	9262 to 9538	9400	WCDMA

LTE Band 2

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
Radiated Emission	18615 to 19185	19185	3MHz	QPSK	1 RB / 0 RB Offset

LTE Band 25

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
EIRP	26047 to 26683	26047, 26365, 26683	1.4MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	26065 to 26665	26065, 26365, 26665	5MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	26090 to 26640	26090, 26365, 26640	10MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK/16QAM/64QAM	1RB / 0 RB offset
Radiated Emission	26140 to 26590	26590	20MHz	QPSK	1RB / 0 RB offset

NOTE:

All supported modulation types were evaluated. The Worst case of QPSK was selected.

Test Condition:

Test Item	Environmental Conditions	Input Power (System)	Tested By
EIRP	25deg. C, 60%RH	120Vac, 60Hz	Jyunchun Lin
Radiated Emission	25deg. C, 60%RH	120Vac, 60Hz	Gary Cheng

3.4 EUT Operating Conditions

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 and References

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

Test Standard:

FCC 47 CFR Part 2

FCC 47 CFR Part 24 Subpart E

ANSI/TIA/EIA-603-E 2016

ANSI 63.26-2015

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

References Test Guidance:

KDB 971168 D01 Power Meas License Digital Systems v03r01

All test items have been performed as a reference to the above KDB test guidance.

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

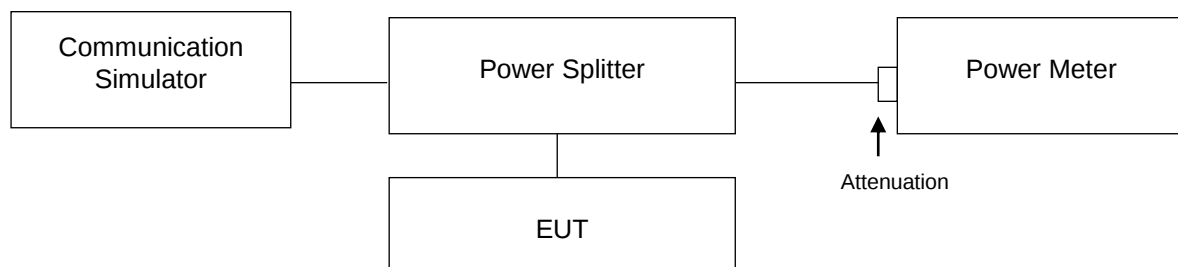
Conducted Power Measurement:

The EUT was set up for the maximum power with WCDMA/LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and difference RB size/ RB offset for difference bandwidth record the power level shown on power meter.

EIRP Measurement:

- a. $EIRP = \text{Conducted Output power level} + \text{Antenna gain.}$

4.1.3 Test Setup



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

4.1.4 Test Results

CONDUCTED OUTPUT POWER (dBm)

Band	WCDMA B2		
Channel	9262	9400	9538
Frequency (MHz)	1852.4	1880.0	1907.6
RMC	23.97	24.12	23.93
HSDPA Subtest-1	23.36	23.44	23.29
HSDPA Subtest-2	23.43	23.62	23.47
HSDPA Subtest-3	23.81	23.74	23.70
HSDPA Subtest-4	23.58	23.60	23.42
HSUPA Subtest-1	23.61	23.73	23.65
HSUPA Subtest-2	23.57	23.54	23.62
HSUPA Subtest-3	23.24	23.31	23.36
HSUPA Subtest-4	23.49	23.62	23.59
HSUPA Subtest-5	23.53	23.54	23.46

LTE Band 2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18607	18900	19193		18607	18900	19193		18607	18900	19193	
			1850.7	1880	1909.3		1850.7	1880	1909.3		1850.7	1880	1909.3	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
2 / 1.4M	1	0	23.45	23.43	23.50	0	22.22	22.19	22.41	1	23.34	21.26	21.26	2
	1	2	23.40	23.26	23.45	0	22.02	21.99	22.27	1	20.90	21.25	21.24	2
	1	5	23.25	23.28	23.26	0	22.00	22.14	22.24	1	20.97	21.20	21.22	2
	3	0	23.33	23.16	23.27	0	22.02	21.98	22.40	1	21.27	21.17	21.19	2
	3	1	23.30	23.00	23.09	0	22.21	22.18	22.23	1	21.33	21.22	21.19	2
	3	3	23.27	22.87	23.19	0	22.20	22.02	22.38	1	21.30	21.23	21.22	2
	6	0	22.11	22.01	22.44	1	21.18	21.10	21.32	2	20.33	20.30	20.38	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18615	18900	19185		18615	18900	19185		18615	18900	19185	
			1851.5	1880	1908.5		1851.5	1880	1908.5		1851.5	1880	1908.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
2 / 3M	1	0	23.25	23.30	23.53	0	22.38	22.30	22.38	1	21.13	21.06	21.31	2
	1	7	23.32	23.47	23.48	0	22.40	22.11	22.47	1	21.25	21.23	21.32	2
	1	14	23.25	23.34	23.34	0	22.42	22.05	22.32	1	21.14	21.14	21.42	2
	8	0	22.29	21.96	22.60	1	21.26	20.83	21.52	2	20.48	20.23	20.08	3
	8	3	22.17	22.16	22.44	1	21.11	20.87	21.35	2	20.33	20.30	20.26	3
	8	7	22.34	22.04	22.31	1	21.23	20.99	21.24	2	20.32	20.41	19.97	3
	15	0	22.21	22.09	22.26	1	21.10	21.14	21.36	2	20.36	20.30	20.39	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18625	18900	19175		18625	18900	19175		18625	18900	19175	
			1852.5	1880	1907.5		1852.5	1880	1907.5		1852.5	1880	1907.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
2 / 5M	1	0	23.43	23.34	23.52	0	22.13	22.02	22.25	1	21.03	21.09	21.24	2
	1	12	23.41	23.29	23.42	0	22.10	22.01	22.19	1	21.02	21.07	21.18	2
	1	24	23.35	23.31	23.37	0	22.11	22.01	22.21	1	21.02	21.08	21.20	2
	12	0	22.17	22.30	22.52	1	21.21	20.99	21.44	2	20.31	20.48	20.25	3
	12	6	22.17	22.21	22.53	1	21.38	21.12	21.30	2	20.09	20.12	20.29	3
	12	13	22.26	22.23	22.43	1	21.25	21.02	21.41	2	20.27	20.25	20.28	3
	25	0	22.32	22.19	22.31	1	21.27	21.15	21.43	2	20.43	20.24	20.40	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18650	18900	19150		18650	18900	19150		18650	18900	19150	
			1855	1880	1905		1855	1880	1905		1855	1880	1905	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
2 / 10M	1	0	23.29	23.32	23.50	0	22.26	22.01	22.50	1	21.11	21.27	21.31	2
	1	24	23.23	23.26	23.24	0	22.27	22.00	22.24	1	20.92	21.12	21.20	2
	1	49	23.26	23.19	23.43	0	22.13	21.84	22.74	1	21.06	21.26	21.30	2
	25	0	22.06	22.36	22.40	1	21.28	21.21	21.34	2	20.28	20.57	20.19	3
	25	12	22.19	22.12	22.37	1	21.37	21.28	21.43	2	20.21	20.50	20.40	3
	25	25	22.12	21.98	22.44	1	21.38	21.10	21.53	2	20.42	20.34	20.43	3
	50	0	22.13	21.99	22.22	1	21.33	21.17	21.48	2	20.38	20.29	20.31	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18675	18900	19125		18675	18900	19125		18675	18900	19125	
			1857.5	1880	1902.5		1857.5	1880	1902.5		1857.5	1880	1902.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
2 / 15M	1	0	23.33	23.37	23.43	0	22.33	22.33	22.35	1	21.06	21.21	21.28	2
	1	37	23.27	23.28	23.25	0	21.96	22.14	22.13	1	21.07	21.11	21.27	2
	1	74	23.30	23.25	23.34	0	21.97	22.16	22.30	1	21.06	21.09	21.25	2
	36	0	22.18	22.06	22.35	1	21.39	21.08	21.23	2	20.07	20.41	20.17	3
	36	19	22.03	21.99	22.39	1	21.28	21.22	21.47	2	20.20	20.25	20.19	3
	36	39	22.14	22.03	22.46	1	21.19	21.02	21.38	2	20.33	20.20	20.23	3
	75	0	22.03	22.04	22.32	1	21.05	21.20	21.46	2	20.22	20.17	20.38	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18700	18900	19100		18700	18900	19100		18700	18900	19100	
			1860	1880	1900		1860	1880	1900		1860	1880	1900	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
2 / 20M	1	0	23.33	23.45	23.44	0	22.34	21.94	22.19	1	21.04	21.06	20.99	2
	1	50	23.29	23.42	23.30	0	22.26	21.84	22.12	1	21.03	21.05	20.98	2
	1	99	23.22	23.38	23.28	0	22.22	21.89	22.18	1	21.01	21.04	20.97	2
	50	0	22.32	22.25	22.39	1	21.31	21.08	21.28	2	20.18	20.32	20.22	3
	50	25	22.20	22.03	22.39	1	21.21	21.13	21.33	2	20.27	20.31	20.33	3
	50	50	22.05	22.05	22.31	1	21.36	21.26	21.47	2	20.16	20.23	20.27	3
	100	0	21.95	22.02	22.39	1	21.28	21.08	21.40	2	20.28	20.24	20.39	3

LTE Band 25

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26047	26365	26683		26047	26365	26683		26047	26365	26683	
			1850.7	1882.5	1914.3		1850.7	1882.5	1914.3		1850.7	1882.5	1914.3	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 1.4M	1	0	23.12	23.40	23.33	0	22.31	22.44	22.35	1	21.19	21.11	21.08	2
	1	2	23.06	23.32	23.32	0	22.29	22.41	22.28	1	21.05	21.01	20.89	2
	1	5	23.11	23.33	23.31	0	22.23	22.34	22.33	1	21.01	20.99	20.97	2
	3	0	23.08	23.38	23.19	0	22.28	22.36	22.30	1	21.03	20.98	20.94	2
	3	1	23.20	23.47	23.37	0	22.32	22.42	22.21	1	21.11	20.99	20.87	2
	3	3	23.22	23.26	23.31	0	22.42	22.43	22.15	1	21.13	20.97	21.02	2
	6	0	22.26	22.24	22.39	1	21.19	21.14	20.89	2	20.38	20.41	20.53	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26055	26365	26675		26055	26365	26675		26055	26365	26675	
			1851.5	1882.5	1913.5		1851.5	1882.5	1913.5		1851.5	1882.5	1913.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 3M	1	0	23.43	23.18	23.41	0	22.00	22.10	22.23	1	21.19	21.32	21.18	2
	1	7	23.34	23.18	23.19	0	22.00	21.91	22.10	1	21.18	21.18	21.13	2
	1	14	23.20	23.07	23.36	0	21.94	22.09	22.02	1	21.09	21.06	21.09	2
	8	0	22.32	22.15	22.33	1	21.14	21.20	21.24	2	20.27	20.19	20.27	3
	8	3	22.05	22.33	22.15	1	20.92	21.19	21.29	2	20.24	20.22	20.23	3
	8	7	22.11	22.25	22.37	1	20.96	21.06	21.10	2	20.15	20.26	20.23	3
	15	0	22.34	22.32	22.33	1	21.19	21.22	21.21	2	20.34	20.08	20.12	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26065	26365	26665		26065	26365	26665		26065	26365	26665	
			1852.5	1882.5	1912.5		1852.5	1882.5	1912.5		1852.5	1882.5	1912.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 5M	1	0	23.45	23.40	23.44	0	22.23	22.10	22.14	1	21.23	21.31	21.06	2
	1	12	23.30	23.36	23.33	0	22.20	22.02	22.12	1	21.04	21.07	21.03	2
	1	24	23.33	23.28	23.43	0	22.21	22.05	22.13	1	21.04	21.17	21.20	2
	12	0	21.98	22.31	22.04	1	21.37	21.18	21.29	2	20.31	20.20	20.13	3
	12	6	22.15	22.07	22.25	1	21.22	21.11	21.29	2	20.17	20.31	19.89	3
	12	13	22.09	22.16	21.93	1	21.20	21.12	21.14	2	20.17	20.15	20.24	3
	25	0	22.00	21.98	22.18	1	21.04	21.02	21.12	2	20.24	20.12	20.03	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26090	26365	26640		26090	26365	26640		26090	26365	26640	
			1855	1882.5	1910		1855	1882.5	1910		1855	1882.5	1910	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 10M	1	0	23.46	23.56	23.51	0	22.09	22.32	22.27	1	21.25	21.31	21.29	2
	1	24	23.29	23.29	23.44	0	22.07	22.04	22.23	1	21.16	21.18	21.21	2
	1	49	23.42	23.42	23.50	0	22.08	21.94	21.96	1	21.04	21.30	21.28	2
	25	0	22.29	22.42	22.32	1	20.91	21.06	21.35	2	20.27	20.36	20.26	3
	25	12	21.89	22.12	22.15	1	21.01	21.27	21.28	2	20.09	20.18	20.34	3
	25	25	22.05	22.13	22.28	1	21.09	21.22	21.33	2	19.91	20.15	20.21	3
	50	0	22.06	22.13	22.25	1	20.94	21.16	21.37	2	20.00	20.23	20.19	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26115	26365	26615		26115	26365	26615		26115	26365	26615	
			1857.5	1882.5	1907.5		1857.5	1882.5	1907.5		1857.5	1882.5	1907.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 15M	1	0	23.29	23.31	23.50	0	22.32	22.36	22.25	1	21.19	21.24	21.29	2
	1	37	23.25	23.22	23.47	0	22.17	22.19	22.17	1	21.07	21.07	21.09	2
	1	74	23.21	23.25	23.49	0	22.26	22.34	22.24	1	21.17	21.22	21.16	2
	36	0	22.15	21.93	22.24	1	21.11	21.06	21.34	2	20.17	20.11	20.18	3
	36	19	22.08	22.00	22.33	1	20.99	21.12	21.32	2	20.15	20.29	20.13	3
	36	39	22.02	22.12	22.20	1	21.06	21.03	21.11	2	20.29	20.34	20.38	3
	75	0	21.91	21.96	22.31	1	21.04	21.14	21.27	2	20.27	20.19	20.42	3

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26140	26365	26590		26140	26365	26590		26140	26365	26590	
			1860	1882.5	1905		1860	1882.5	1905		1860	1882.5	1905	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 20M	1	0	23.52	23.58	23.69	0	22.22	22.31	22.44	1	21.19	21.32	21.32	2
	1	50	23.37	23.52	23.34	0	22.22	22.20	22.43	1	21.13	21.25	21.18	2
	1	99	23.33	23.25	23.53	0	22.08	22.05	22.23	1	21.17	21.29	21.29	2
	50	0	22.00	22.22	22.14	1	21.45	21.24	21.43	2	20.14	20.44	20.32	3
	50	25	22.09	22.09	22.31	1	21.41	21.10	21.46	2	20.16	20.13	20.28	3
	50	50	22.04	22.06	22.21	1	21.04	21.29	21.33	2	20.31	20.14	20.21	3
	100	0	22.09	22.21	22.48	1	21.38	21.31	21.29	2	20.17	20.19	20.34	3

EIRP POWER

Band	WCDMA B2		
Channel	9262	9400	9538
Frequency (MHz)	1852.4	1880	1907.6
RMC 12.2K	23.97	24.12	23.93
Gain (dBi)	4.92	4.92	4.92
Max EIRP Power (dBm)	28.89	29.04	28.85

LTE Band 2

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18607	18900	19193		18607	18900	19193		18607	18900	19193	
			1850.7	1880	1909.3		1850.7	1880	1909.3		1850.7	1880	1909.3	
2 / 1.4M	1	0	23.45	23.43	23.50	0	22.22	22.19	22.41	1	23.34	21.26	21.26	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.37	28.35	28.42		27.14	27.11	27.33		28.26	26.18	26.18	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18615	18900	19185		18615	18900	19185		18615	18900	19185	
			1851.5	1880	1908.5		1851.5	1880	1908.5		1851.5	1880	1908.5	
2 / 3M	1	0	23.25	23.30	23.53	0	22.38	22.30	22.38	1	21.13	21.06	21.31	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.17	28.22	28.45		27.30	27.22	27.30		26.05	25.98	26.23	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18625	18900	19175		18625	18900	19175		18625	18900	19175	
			1852.5	1880	1907.5		1852.5	1880	1907.5		1852.5	1880	1907.5	
2 / 5M	1	0	23.43	23.34	23.52	0	22.13	22.02	22.25	1	21.03	21.09	21.24	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.35	28.26	28.44		27.05	26.94	27.17		25.95	26.01	26.16	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18650	18900	19150		20000	20175	20350		20000	20175	20350	
			1855	1880	1905		1715	1732.5	1750		1715	1732.5	1750	
2 / 10M	1	0	23.29	23.32	23.50	0	22.26	22.01	22.50	1	21.11	21.27	21.31	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.21	28.24	28.42		27.18	26.93	27.42		26.03	26.19	26.23	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18675	18900	19125		18675	18900	19125		18675	18900	19125	
			1857.5	1880	1902.5		1857.5	1880	1902.5		1857.5	1880	1902.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
2 / 15M	1	0	23.33	23.37	23.43	0	22.33	22.33	22.35	1	21.06	21.21	21.28	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.25	28.29	28.35		27.25	27.25	27.27		25.98	26.13	26.20	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			18700	18900	19100		18700	18900	19100		18700	18900	19100	
			1860	1880	1900		1860	1880	1900		1860	1880	1900	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
2 / 20M	1	0	23.33	23.45	23.44	0	22.34	21.94	22.19	1	21.04	21.06	20.99	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.25	28.37	28.36		27.26	26.86	27.11		25.96	25.98	25.91	

LTE Band 25

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26047	26365	26683		26047	26365	26683		26047	26365	26683	
			1850.7	1882.5	1914.3		1850.7	1882.5	1914.3		1850.7	1882.5	1914.3	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 1.4M	1	0	23.12	23.40	23.33	0	22.31	22.44	22.35	1	21.19	21.11	21.08	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.04	28.32	28.25		27.23	27.36	27.27		26.11	26.03	26.00	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26055	26365	26675		26055	26365	26675		26055	26365	26675	
			1851.5	1882.5	1913.5		1851.5	1882.5	1913.5		1851.5	1882.5	1913.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 3M	1	0	23.43	23.18	23.41	0	22.00	22.10	22.23	1	21.19	21.32	21.18	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.35	28.10	28.33		26.92	27.02	27.15		26.11	26.24	26.10	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26065	26365	26665		26065	26365	26665		26065	26365	26665	
			1852.5	1882.5	1912.5		1852.5	1882.5	1912.5		1852.5	1882.5	1912.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 5M	1	0	23.45	23.40	23.44	0	22.23	22.10	22.14	1	21.23	21.31	21.06	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.37	28.32	28.36		27.15	27.02	27.06		26.15	26.23	25.98	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26090	26365	26640		26090	26365	26640		26090	26365	26640	
			1855	1882.5	1910		1855	1882.5	1910		1855	1882.5	1910	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 10M	1	0	23.46	23.56	23.51	0	22.09	22.32	22.27	1	21.25	21.31	21.29	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.38	28.48	28.43		27.01	27.24	27.19		26.17	26.23	26.21	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26115	26365	26615		26115	26365	26615		26115	26365	26615	
			1857.5	1882.5	1907.5		1857.5	1882.5	1907.5		1857.5	1882.5	1907.5	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 15M	1	0	23.29	23.31	23.50	0	22.32	22.36	22.25	1	21.19	21.24	21.29	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.21	28.23	28.42		27.24	27.28	27.17		26.11	26.16	26.21	

Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26140	26365	26590		26140	26365	26590		26140	26365	26590	
			1860	1882.5	1905		1860	1882.5	1905		1860	1882.5	1905	
			MHz	MHz	MHz		MHz	MHz	MHz		MHz	MHz	MHz	
25 / 20M	1	0	23.52	23.58	23.69	0	22.22	22.31	22.44	1	21.19	21.32	21.32	2
Gain (dBi)			4.92	4.92	4.92		4.92	4.92	4.92		4.92	4.92	4.92	
Max EIRP Power (dBm)			28.44	28.50	28.61		27.14	27.23	27.36		26.11	26.24	26.24	

4.2 Radiated Emission Measurement

4.2.1 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 .

4.2.2 Test Procedure

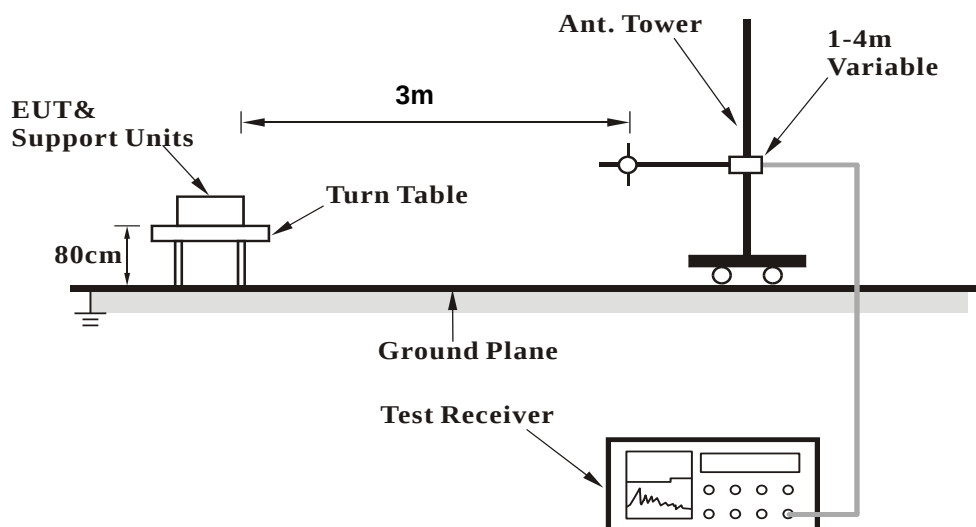
- a. The power was measured with Spectrum Analyzer.
- b. Substitution method is used for EIRP measurement. In the semi-anechoic chamber, EUT placed on the 0.8m/1.5m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical 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. Follow ANSI 63.26 section 5.2.7 d), $\text{EIRP Value (dBm)} = \text{Read Value (dB}\mu\text{V/m)} - \text{Correction Factor @ 3m}$
- d. $\text{Correction Factor (dB) @ 3m} = 20\log(D) - 104.8$; where D is the measurement distance @3m $= -95.26\text{dB}$
- e. ERP power can be calculated form EIRP power by subtracting the gain of dipole, $\text{ERP power} = \text{EIPR power} - 2.15\text{dBi}$.

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

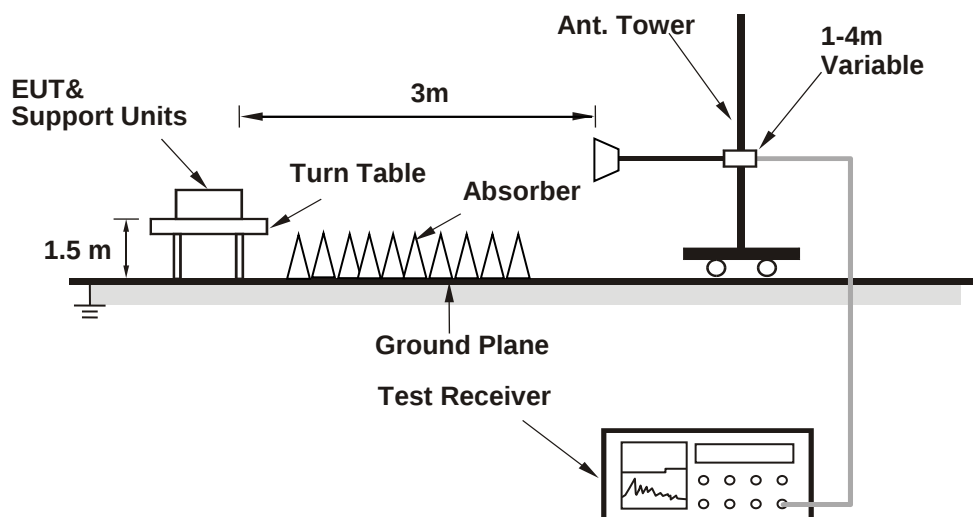
4.2.3 Deviation from Test Standard

No deviation.

4.2.4 Test Setup For Below 1GHz



For Above 1GHz:



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

4.2.5 Test Results

BELOW 1GHz

WCDMA B2:

Mode	TX channel 9400	Frequency Range	Below 1000 MHz
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Antenna Polarity & Test Distance: Horizontal at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	83.27	32.29	-95.26	-62.97	-13	-49.97
2	136.1	27.81	-95.26	-67.45	-13	-54.45
3	289.13	28.64	-95.26	-66.62	-13	-53.62
4	346.73	29.8	-95.26	-65.46	-13	-52.46
5	471.43	28.6	-95.26	-66.66	-13	-53.66
6	737.67	25.67	-95.26	-69.59	-13	-56.59
Antenna Polarity & Test Distance: Vertical at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	65.8	26.1	-95.26	-69.16	-13	-56.16
2	93.29	29.03	-95.26	-66.23	-13	-53.23
3	127.18	26.02	-95.26	-69.24	-13	-56.24
4	239.5	26.17	-95.26	-69.09	-13	-56.09
5	509.73	29.66	-95.26	-65.60	-13	-52.60
6	608.6	28.04	-95.26	-67.22	-13	-54.22

Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB μ V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @3m.

LTE Band 2: 3 MHz

Mode	TX channel 19185	Frequency Range	Below 1000 MHz
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Antenna Polarity & Test Distance: Horizontal at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	83.51	32.51	-95.26	-62.75	-13	-49.75
2	136.08	29.21	-95.26	-66.05	-13	-53.05
3	289.58	29.26	-95.26	-66.00	-13	-53.00
4	347.28	30.21	-95.26	-65.05	-13	-52.05
5	470.52	30.05	-95.26	-65.21	-13	-52.21
6	737.04	26.37	-95.26	-68.89	-13	-55.89
Antenna Polarity & Test Distance: Vertical at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	66.27	29.17	-95.26	-66.09	-13	-53.09
2	93.6	29.86	-95.26	-65.40	-13	-52.40
3	128.17	26.43	-95.26	-68.83	-13	-55.83
4	238.51	27.17	-95.26	-68.09	-13	-55.09
5	509.27	29.72	-95.26	-65.54	-13	-52.54
6	607.65	29.01	-95.26	-66.25	-13	-53.25

Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB μ V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @3m.

LTE Band 25: 20 MHz

Mode	TX channel 26590	Frequency Range	Below 1000 MHz
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Antenna Polarity & Test Distance: Horizontal at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	83.62	32.17	-95.26	-63.09	-13	-50.09
2	136.17	30.13	-95.26	-65.13	-13	-52.13
3	291.46	28.42	-95.26	-66.84	-13	-53.84
4	346.67	30.2	-95.26	-65.06	-13	-52.06
5	470.84	31.2	-95.26	-64.06	-13	-51.06
6	736.35	27.81	-95.26	-67.45	-13	-54.45
Antenna Polarity & Test Distance: Vertical at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	66.23	28.77	-95.26	-66.49	-13	-53.49
2	93.86	28.06	-95.26	-67.20	-13	-54.20
3	130.86	26.11	-95.26	-69.15	-13	-56.15
4	239.34	27.13	-95.26	-68.13	-13	-55.13
5	510.16	29.65	-95.26	-65.61	-13	-52.61
6	607.35	29.2	-95.26	-66.06	-13	-53.06

Remarks:

- Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB μ V/m) - Correction Factor @ 3m.
- Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @3m.

ABOVE 1GHz

WCDMA B2:

Mode	TX channel 9400	Frequency Range	Above 1000 MHz
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Antenna Polarity & Test Distance: Horizontal at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760	37.54	-95.26	-57.72	-13	-44.72
2	5640	46.93	-95.26	-48.33	-13	-35.33
3	7520	43.11	-95.26	-52.15	-13	-39.15
4	9400	48.48	-95.26	-46.78	-13	-33.78
Antenna Polarity & Test Distance: Vertical at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760	36.64	-95.26	-58.62	-13	-45.62
2	5640	42.34	-95.26	-52.92	-13	-39.92
3	7520	45.71	-95.26	-49.55	-13	-36.55
4	9400	48.24	-95.26	-47.02	-13	-34.02

Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB μ V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @3m.

LTE Band 2: 3 MHz

Mode	TX channel 19185	Frequency Range	Above 1000 MHz
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Antenna Polarity & Test Distance: Horizontal at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3817	40.12	-95.26	-55.14	-13	-42.14
2	5725.5	43.35	-95.26	-51.91	-13	-38.91
3	7634	48.33	-95.26	-46.93	-13	-33.93
4	9542.5	49.07	-95.26	-46.19	-13	-33.19
Antenna Polarity & Test Distance: Vertical at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3817	39.15	-95.26	-56.11	-13	-43.11
2	5725.5	43.59	-95.26	-51.67	-13	-38.67
3	7634	51.63	-95.26	-43.63	-13	-30.63
4	9542.5	50.17	-95.26	-45.09	-13	-32.09

Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB μ V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @3m.

LTE Band 25: 20 MHz

Mode	TX channel 26590	Frequency Range	Above 1000 MHz
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Antenna Polarity & Test Distance: Horizontal at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3810	39.66	-95.26	-55.60	-13	-42.60
2	5715	44.73	-95.26	-50.53	-13	-37.53
3	7620	48.12	-95.26	-47.14	-13	-34.14
4	9525	50.47	-95.26	-44.79	-13	-31.79
Antenna Polarity & Test Distance: Vertical at 3 M						
No.	Freq. (MHz)	Reading (dB μ V/m)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3810	37.6	-95.26	-57.66	-13	-44.66
2	5715	43.12	-95.26	-52.14	-13	-39.14
3	7620	45.69	-95.26	-49.57	-13	-36.57
4	9525	49.66	-95.26	-45.60	-13	-32.60

Remarks:

1. Follow ANSI 63.26 section 5.2.7 d), EIRP Value (dBm) = E (dB μ V/m) - Correction Factor @ 3m.
2. Correction Factor (dB) = 20log(D) – 104.8; where D is the measurement distance @3m.

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 accredited and approved according to ISO/IEC 17025.

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

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