Partial FCC Test Report
(Part 27)

Report No.:	RF200428C03H-2
FCC ID:	PZWBHTM80QWG
Test Model:	BHT-M80-QWG
Received Date:	Feb. 04, 2021
Test Date:	Mar. 19, 2021
Issued Date:	Mar. 25, 2021
Applicant:	DENSO WAVE INCORPORATED
Address:	1 Yoshiike Kusagi Agui-cho,Chita-gun Aichi 470-2297, Japan
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
RF200428C03H-2	Original release	Mar. 25, 2021

1 Certificate of Conformity

Product:	2D Code Handy Terminal
Brand:	DENSO
Test Model:	BHT-M80-QWG
Sample Status:	Engineering sample
Applicant:	DENSO WAVE INCORPORATED
Test Date:	Mar. 19, 2021
Standards:	FCC Part 27, Subpart C, F, H, L, M

This report is issued as a supplementary report of RF200428C03-2. This report shall be used combined together with its original report.

Prepared by : Polly Chien , **Date:** Mar. 25, 2021

Polly Chien / Specialist

Approved by : Bruce Chen , **Date:** Mar. 25, 2021

Bruce Chen / Senior Project Engineer

Note: Radiated spurious emissions below 1G are performed for the addendum. Refer to original report for the other test data.

2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2							
FCC Clause					Test Item	Result	Remarks
LTE B4	LTE B12	LTE B13	LTE B17	LTE B7			
2.1046 27.50 (d)(4)	2.1046 27.50 (c)	2.1046 27.50 (b)	2.1046 27.50 (c)	2.1046 27.50 (h)(2)	Equivalent Isotropically Radiated Power / Equivalent Radiated Power	NA	Refer to Note 1
2.1047	2.1047	2.1047	2.1047	2.1047	Modulation Characteristics	NA	Refer to Note 1
27.50 (d)(5)	----	----	----	----	Peak To Average Ratio	NA	Refer to Note 1
2.1055 27.54	2.1055 27.54	2.1055 27.54	2.1055 27.54	2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	NA	Refer to Note 1
2.1049	2.1049	2.1049	2.1049	2.1049	Occupied Bandwidth	NA	Refer to Note 1
2.1051 27.53(h)	2.1051 27.53(g)	2.1051 27.53(c)	2.1051 27.53(g)	2.1051 27.53 (m)(4)(6)	Band Edge Measurements	NA	Refer to Note 1
2.1051 27.53(h)	2.1051 27.53(g)	2.1051 27.53(c)(f)	2.1051 27.53(g)	2.1051 27.53 (m)(4)(6)	Conducted Spurious Emissions	NA	Refer to Note 1
2.1053 27.53(h)	2.1053 27.53(g)	2.1053 27.53(c)(f)	2.1053 27.53(g)	2.1053 27.53 (m)(4)(6)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -41.0dB at 212.7536MHz.

Note:

1. Radiated spurious emissions below 1G are performed for the addendum. Refer to original report for the other test data.
2. 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

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESR3	102579	Jul. 07, 2020	Jul. 06, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jun. 09, 2020	Jun. 08, 2021
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Nov. 04, 2020	Nov. 03, 2021
HORN Antenna SCHWARZBECK	9120D	209	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 22, 2020	Nov. 21, 2021
Loop Antenna TESEQ	HLA 6121	45745	Jul. 06, 2020	Jul. 05, 2021
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 16, 2020	Aug. 15, 2021
RF Coaxial Cable WOKEN With 5dB PAD	8D-FB	Cable-CH3-01	Aug. 16, 2020	Aug. 15, 2021
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 16, 2020	Aug. 15, 2021
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM -SM-8000	Cable-CH3-03 (309224+170907)	Aug. 16, 2020	Aug. 15, 2021
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Standard Temperature And Humidity Chamber TERCHY	HRM-120RF	931022	Dec. 12, 2019	Dec. 11, 2020
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
True RMS Clamp Meter Fluke	325	31130711WS	Jun. 06, 2020	Jun. 05, 2021

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 3.

3 General Information

3.1 General Description of EUT

Product	2D Code Handy Terminal		
Brand	DENSO		
Test Model	BHT-M80-QWG		
Status of EUT	Engineering Sample		
Power Supply Rating	3.85Vdc (Battery) 5.0Vdc / 9.0Vdc / 12.0Vdc (from adapter)		
Modulation Type	QPSK, 16QAM		
Operating Frequency	LTE Band 4	Channel Bandwidth 1.4MHz	1710.7MHz ~ 1754.3MHz
		Channel Bandwidth 3MHz	1711.5MHz ~ 1753.5MHz
		Channel Bandwidth 5MHz	1712.5MHz ~ 1752.5MHz
		Channel Bandwidth 10MHz	1715.0MHz ~ 1750.0MHz
		Channel Bandwidth 15MHz	1717.5MHz ~ 1747.5MHz
		Channel Bandwidth 20MHz	1720.0MHz ~ 1745.0MHz
	LTE Band 7	Channel Bandwidth 5MHz	2502.5MHz ~ 2567.5MHz
		Channel Bandwidth 10MHz	2505.0MHz ~ 2565.0MHz
		Channel Bandwidth 15MHz	2507.5MHz ~ 2562.5MHz
		Channel Bandwidth 20MHz	2510.0MHz ~ 2560.0MHz
	LTE Band 12	Channel Bandwidth 1.4MHz	699.7MHz ~ 715.3MHz
		Channel Bandwidth 3MHz	700.5MHz ~ 714.5MHz
		Channel Bandwidth 5MHz	701.5MHz ~ 713.5MHz
		Channel Bandwidth 10MHz	704.0MHz ~ 711.0MHz
	LTE Band 13	Channel Bandwidth 5MHz	779.5MHz ~ 784.5MHz
		Channel Bandwidth 10MHz	782.0MHz
	LTE Band 17	Channel Bandwidth 5MHz	706.5MHz ~ 713.5MHz
		Channel Bandwidth 10MHz	709.0MHz ~ 711.0MHz

			QPSK	16QAM
Max. EIRP Power	LTE Band 4	Channel Bandwidth 1.4MHz	144.544mW (21.6dBm)	117.490mW (20.7dBm)
		Channel Bandwidth 3MHz	134.896mW (21.3dBm)	109.648mW (20.4dBm)
		Channel Bandwidth 5MHz	144.544mW (21.6dBm)	114.815mW (20.6dBm)
		Channel Bandwidth 10MHz	138.038mW (21.4dBm)	112.202mW (20.5dBm)
		Channel Bandwidth 15MHz	141.254mW (21.5dBm)	112.202mW (20.5dBm)
		Channel Bandwidth 20MHz	134.896mW (21.3dBm)	109.648mW (20.4dBm)
	LTE Band 7	Channel Bandwidth 5MHz	169.824mW (22.3dBm)	131.826mW (21.2dBm)
		Channel Bandwidth 10MHz	165.959mW (22.2dBm)	134.896mW (21.3dBm)
		Channel Bandwidth 15MHz	158.489mW (22.0dBm)	128.825mW (21.1dBm)
		Channel Bandwidth 20MHz	177.828mW (22.5dBm)	134.896mW (21.3dBm)
Max. ERP Power			QPSK	16QAM
	LTE Band 12	Channel Bandwidth 1.4MHz	91.201mW (19.6dBm)	70.795mW (18.5dBm)
		Channel Bandwidth 3MHz	97.724mW (19.9dBm)	81.283mW (19.1dBm)
		Channel Bandwidth 5MHz	87.096mW (19.4dBm)	67.608mW (18.3dBm)
		Channel Bandwidth 10MHz	95.499mW (19.8dBm)	74.131mW (18.7dBm)
	LTE Band 13	Channel Bandwidth 5MHz	112.202mW (20.5dBm)	91.201mW (19.6dBm)
		Channel Bandwidth 10MHz	112.202mW (20.5dBm)	85.114mW (19.3dBm)
	LTE Band 17	Channel Bandwidth 5MHz	87.096mW (19.4dBm)	69.183mW (18.4dBm)
		Channel Bandwidth 10MHz	93.325mW (19.7dBm)	75.858mW (18.8dBm)

			QPSK	16QAM
Emission Designator	LTE Band 4	Channel Bandwidth 1.4MHz	1M09G7D	1M09D7W
		Channel Bandwidth 3MHz	2M71G7D	2M70D7W
		Channel Bandwidth 5MHz	4M50G7D	4M50D7W
		Channel Bandwidth 10MHz	8M98G7D	8M98D7W
		Channel Bandwidth 15MHz	13M5G7D	13M5D7W
		Channel Bandwidth 20MHz	17M9G7D	18M0D7W
	LTE Band 7	Channel Bandwidth 5MHz	4M49G7D	4M50D7W
		Channel Bandwidth 10MHz	8M97G7D	8M98D7W
		Channel Bandwidth 15MHz	13M5G7D	13M5D7W
		Channel Bandwidth 20MHz	17M9G7D	18M0D7W
	LTE Band 12	Channel Bandwidth 1.4MHz	1M09G7D	1M09D7W
		Channel Bandwidth 3MHz	2M70G7D	2M70D7W
		Channel Bandwidth 5MHz	4M49G7D	4M49D7W
		Channel Bandwidth 10MHz	8M97G7D	8M97D7W
	LTE Band 13	Channel Bandwidth 5MHz	4M49G7D	4M50D7W
		Channel Bandwidth 10MHz	8M94G7D	8M95D7W
	LTE Band 17	Channel Bandwidth 5MHz	4M50G7D	4M50D7W
		Channel Bandwidth 10MHz	8M97G7D	8M97D7W
Antenna Type	Refer to note			
Antenna Connector	Refer to note			
Accessory Device	Refer to note			
Cable Supplied	Refer to note			

Note:

1. This report is prepared for FCC class II permissive change. This report is issued as a supplementary report of the original BV CPS report no.: RF200428C03-2. The differences compared with original report are adding large battery, WPC battery and updating S/W. Therefore, only Radiated spurious emissions below 1G are performed for the addendum. Refer to original report for the other test data.
2. The EUT contains following accessory devices. (Battery 3, 4 are new)

Battery 1	
Brand	DENSO
Model	BT1
Rating	3.85Vdc, 4020mAh, 15.47Wh

Battery 2	
Brand	DENSO
Model	BT1S
Rating	3.85Vdc, 2900mAh, 11.16Wh

3. Battery 3 (New)	
Brand	DENSO
Model	BT1L
Rating	3.85Vdc, 5800mAh, 22.33Wh

Battery 4 for WPC (New)	
Brand	DENSO
Model	BT1S-W
Rating	3.85Vdc, 2900mAh, 11.16Wh

Adapter	
Brand	CHANNEL WELL TECHNOLOGY
Model	2ACP0183C
Input Power	100-240Vac~0.5A , 50/60Hz
Output Power	5.0Vdc / 3.0A, 15.0W 9.0Vdc / 2.0A, 18.0W 12.0Vdc / 1.5A, 18.0W
Data Cable	1.45 m shielded USB cable without core

Cradle 1: QC3.0 charge single Cradle (Option)	
Brand	DENSO
Model	CU-M80UQ
Adapter	
Brand	CHANNEL WELL TECHNOLOGY
Model	2ACP0183C
Input Power	100-240Vac, 50/60Hz, 0.5A
Output Power	5.0Vdc / 3.0A, 15.0W 9.0Vdc / 2.0A, 18.0W 12.0Vdc / 1.5A, 18.0W
Data Cable	1.45 m shielded USB cable without core

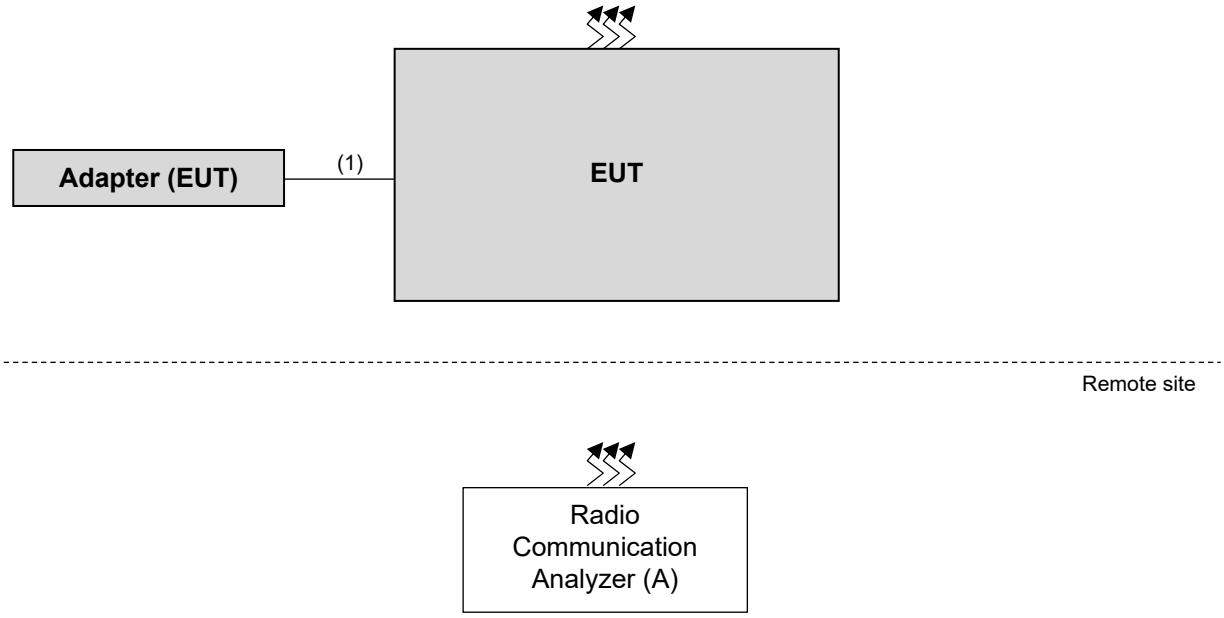
Cradle 2: USB Cradle with spare battery charge (Option)	
Brand	DENSO
Model	CU-M80U
Adapter	
Brand	Sunny
Model	SYS1548-5012-T3
Input Power	100-240Vac, 1.5A MAX, 50-60Hz
Output Power	+12.0Vdc, 4.16A
Power cable	DC: 1.16m cable with one core AC: 1.71m non-shielded cable without core
Data Cable	1.45 m shielded USB cable without core

4. The EUT uses the following antennas.

Ant. Type	PIFA		
Ant. Connector	Spring		
LTE Band 4			
Frequency (MHz)	1710	1732	1755
Peak Gain (dBi)	**1.23**	1.15	1.10
LTE Band 7			
Frequency (MHz)	2500	2535	2570
Peak Gain (dBi)	**2.51**	2.19	2.40
LTE Band 12			
Frequency (MHz)	698	707	716
Peak Gain (dBi)	-1.23	-0.94	**-0.69**
LTE Band 13			
Frequency (MHz)	777	782	787
Peak Gain (dBi)	0.31	**0.58**	0.40
LTE Band 17			
Frequency (MHz)	704	710	716
Peak Gain (dBi)	-0.84	-0.73	**-0.69**

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

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	Anritsu	MT8821C	6201462755	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	1.45	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 (For LTE Band 4, 7) and Y-plane (For LTE Band 12, 13, 17). Following channel(s) was (were) selected for the final test as listed below.

Test results are presented in the report as below.

Test Mode	Test Condition
A	EUT + Battery 3 + Adapter
B	EUT + Battery 4 + Adapter

LTE Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
A, B	Radiated Emission Below 1GHz	20050 to 20300	20175(1732.5MHz)	20MHz	QPSK	1 RB / 0 RB Offset

Note: For radiated emissions below 1 GHz, select the worst radiated emission (above 1GHz) channel for final testing.

LTE Band 7

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A, B	Radiated Emission Below 1GHz	20775 to 21425	21100 (2535.0MHz)	5 MHz	QPSK	1 RB / 0 RB Offset

Note: For radiated emissions below 1 GHz, select the worst radiated emission (above 1GHz) channel for final testing.

LTE Band 12

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A, B	Radiated Emission Below 1GHz	23035 to 23155	23155(713.5MHz)	5MHz	QPSK	1 RB / 0 RB Offset

Note: For radiated emissions below 1 GHz, select the worst radiated emission (above 1GHz) channel for final testing.

LTE Band 13

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A, B	Radiated Emission Below 1GHz	23230	23230(782.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

Note: For radiated emissions below 1 GHz, select the worst radiated emission (above 1GHz) channel for final testing.

LTE Band 17

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
A, B	Radiated Emission Below 1GHz	23780 to 23800	23800(711.0MHz)	10MHz	QPSK	1 RB / 0 RB Offset

Note: For radiated emissions below 1 GHz, select the worst radiated emission (above 1GHz) channel for final testing.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
Radiated Emission	23deg. C, 66%RH	120Vac, 60Hz	Edison 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 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 and References:

Test Standard:

FCC 47 CFR Part 2

FCC 47 CFR Part 27

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 Radiated Emission Measurement

4.1.1 Limits of Radiated Emission Measurement

For LTE Band 4
According to FCC 27.53(h) for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log (P) dB.

For LTE Band 7
In the FCC 27.53(m)(4),On any frequency outside a licensee’s frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least 55 + 10 log (P) dB. The emission limit equal to –25dBm.

For LTE Band 12, 17
According to FCC 27.53(g) for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater.

For LTE Band 13
According to FCC 27.53(c)(2) for on any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB.

According to FCC 27.53(f) for operations in the 775-788 MHz, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz. The limit of emissions is equal to -40 dBm

4.1.2 Test Procedure

a. 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.

b. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.

d. Following C63.26 section 5.5 and 5.2.7.
   - EIRP (dBm) = E (dBμV/m) + 20log(D) - 104.8; where D is the measurement distance (in the far field region) in m.
   - ERP (dBm) = E (dBμV/m) + 20log(D) - 104.8 - 2.15; where D is the measurement distance (in the far field region) in m.

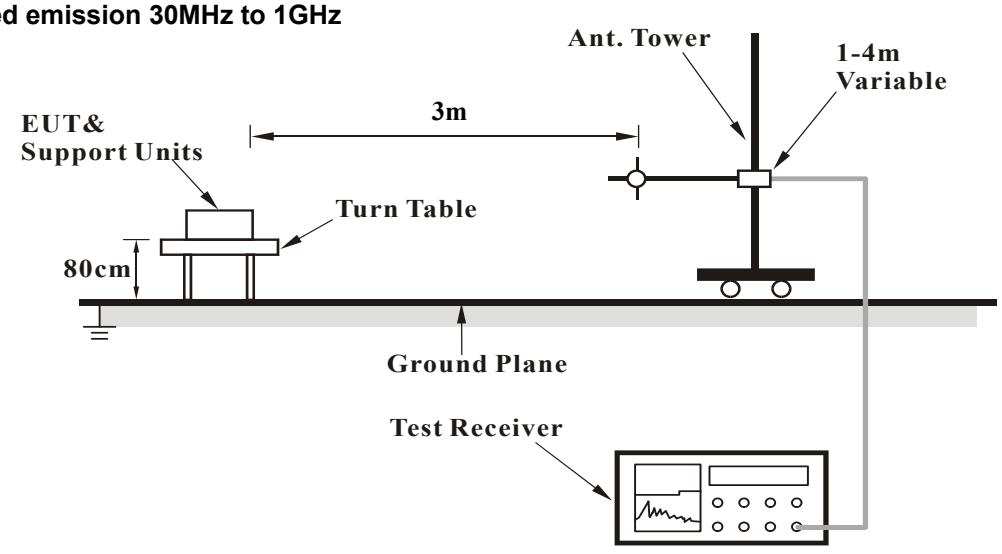
Note:
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
2. The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:
   The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

4.1.3 Deviation from Test Standard

No deviation.

4.1.4 Test Setup

For radiated emission 30MHz to 1GHz



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

4.1.5 Test Results

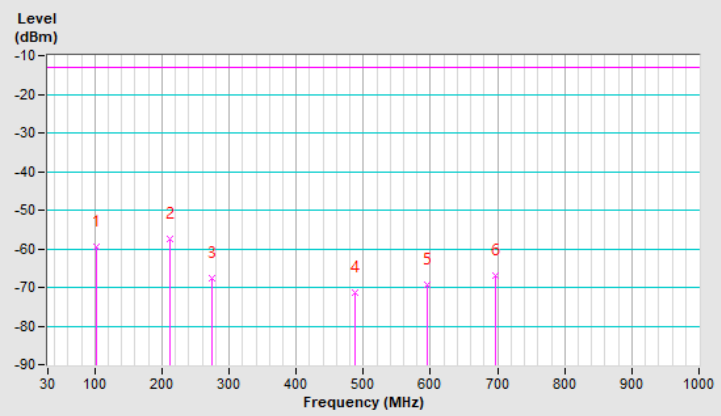
9 kHz ~ 30 MHz Data:
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.
Below 1GHz
LTE Band 4, Channel Bandwidth: 20MHz

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	103.1014	-59.6	-13.0	-46.6	1.00 H	237	48.4	-108.0
2	212.7536	-57.4	-13.0	-44.4	1.50 H	264	48.7	-106.1
3	274.6087	-67.5	-13.0	-54.5	1.50 H	320	35.0	-102.5
4	486.8841	-71.3	-13.0	-58.3	1.00 H	111	26.6	-97.9
5	595.1304	-69.2	-13.0	-56.2	2.00 H	284	25.9	-95.1
6	696.3478	-66.8	-13.0	-53.8	1.50 H	307	26.7	-93.5

Remarks:

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

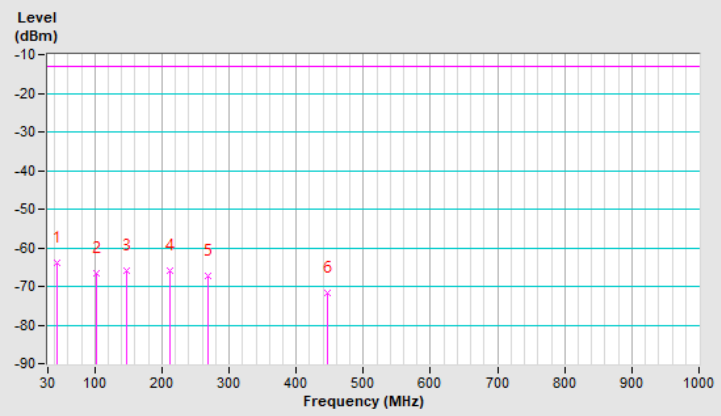


Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	44.0580	-64.0	-13.0	-51.0	1.50 V	17	40.5	-104.5
2	103.1014	-66.5	-13.0	-53.5	1.50 V	154	41.5	-108.0
3	148.0870	-65.9	-13.0	-52.9	1.50 V	175	38.1	-104.0
4	212.7536	-66.1	-13.0	-53.1	1.50 V	202	40.0	-106.1
5	268.9855	-67.4	-13.0	-54.4	1.50 V	167	35.4	-102.8
6	446.1159	-71.8	-13.0	-58.8	1.50 V	27	26.9	-98.7

Remarks:

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

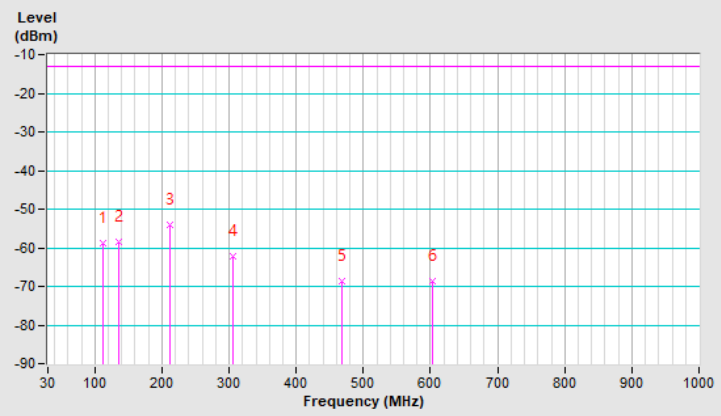


Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	111.5362	-58.9	-13.0	-45.9	1.00 H	31	48.2	-107.1
2	135.4348	-58.5	-13.0	-45.5	1.50 H	99	46.2	-104.7
3	**212.7536**	**-54.0**	**-13.0**	**-41.0**	**1.50 H**	**61**	**52.1**	**-106.1**
4	305.5362	-62.2	-13.0	-49.2	1.00 H	69	39.5	-101.7
5	467.2029	-68.7	-13.0	-55.7	1.50 H	306	29.5	-98.2
6	603.5652	-68.6	-13.0	-55.6	2.00 H	258	26.3	-94.9

Remarks:

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

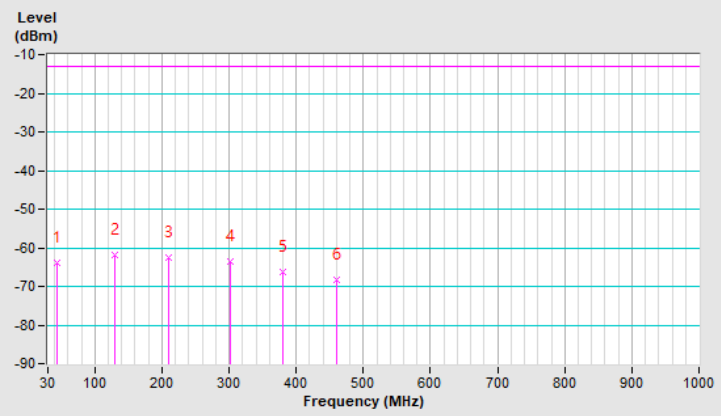


Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	44.0580	-63.9	-13.0	-50.9	1.00 V	297	40.6	-104.5
2	129.8116	-61.9	-13.0	-48.9	1.00 V	249	43.4	-105.3
3	209.9420	-62.7	-13.0	-49.7	1.50 V	226	43.6	-106.3
4	302.7246	-63.6	-13.0	-50.6	2.00 V	175	38.2	-101.8
5	380.0435	-66.2	-13.0	-53.2	1.50 V	182	34.1	-100.3
6	460.1739	-68.4	-13.0	-55.4	1.50 V	158	29.9	-98.3

Remarks:

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



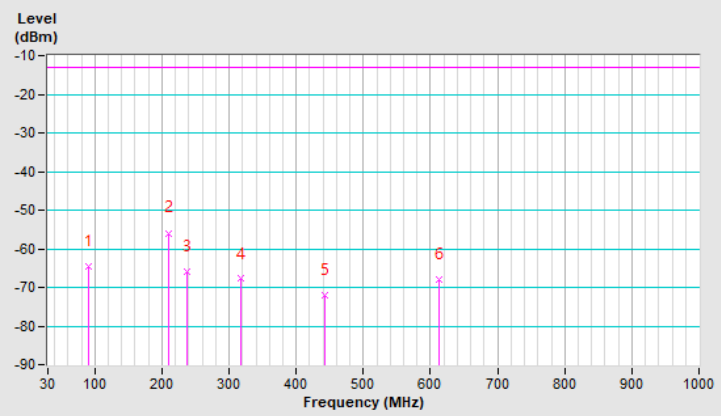
LTE Band 7, Channel Bandwidth: 5MHz

Mode	TX channel 21100 (2535.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	90.4493	-64.6	-13.0	-51.6	1.00 H	291	45.1	-109.7
2	209.9420	-55.9	-13.0	-42.9	1.00 H	264	50.4	-106.3
3	238.0580	-65.9	-13.0	-52.9	1.00 H	83	38.8	-104.7
4	316.7826	-67.8	-13.0	-54.8	1.00 H	259	33.6	-101.4
5	443.3043	-72.1	-13.0	-59.1	1.00 H	54	26.6	-98.7
6	612.0000	-68.0	-13.0	-55.0	1.00 H	170	26.6	-94.6

Remarks:

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

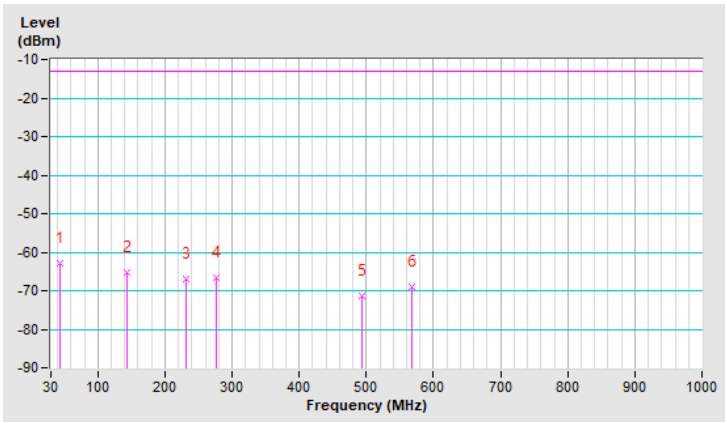


Mode	TX channel 21100 (2535.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	44.0580	-62.9	-13.0	-49.9	1.50 V	62	41.6	-104.5
2	142.4638	-65.1	-13.0	-52.1	2.00 V	301	39.1	-104.2
3	231.0290	-67.0	-13.0	-54.0	1.00 V	207	38.6	-105.6
4	276.0145	-66.7	-13.0	-53.7	1.00 V	187	35.7	-102.4
5	493.9130	-71.2	-13.0	-58.2	1.50 V	15	26.6	-97.8
6	568.4203	-69.0	-13.0	-56.0	1.00 V	240	27.1	-96.1

Remarks:

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

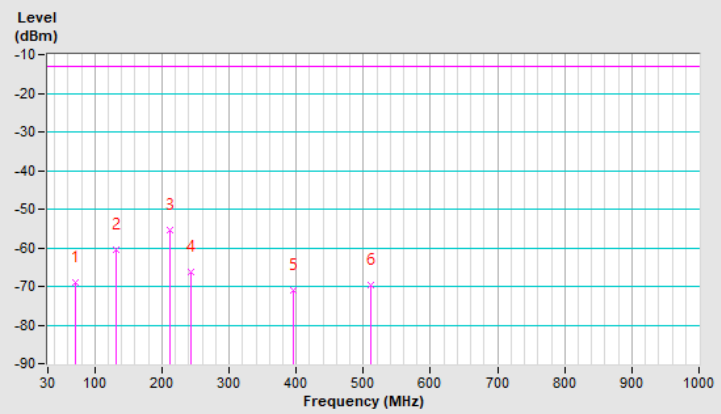


Mode	TX channel 21100 (2535.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	70.7681	-68.9	-13.0	-55.9	1.00 H	171	37.5	-106.4
2	132.6232	-60.5	-13.0	-47.5	1.50 H	113	44.5	-105.0
3	211.3478	-55.4	-13.0	-42.4	1.00 H	100	50.8	-106.2
4	243.6812	-66.2	-13.0	-53.2	1.50 H	75	38.0	-104.2
5	395.5072	-71.1	-13.0	-58.1	1.00 H	271	28.9	-100.0
6	510.7826	-69.6	-13.0	-56.6	1.50 H	138	27.8	-97.4

Remarks:

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

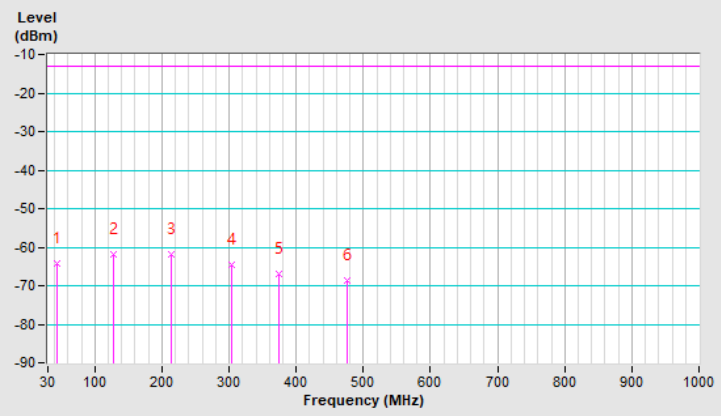


Mode	TX channel 21100 (2535.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	44.0580	-64.2	-13.0	-51.2	1.00 V	16	40.3	-104.5
2	128.4058	-61.7	-13.0	-48.7	1.50 V	242	43.7	-105.4
3	214.1594	-62.0	-13.0	-49.0	2.00 V	232	44.1	-106.1
4	304.1304	-64.7	-13.0	-51.7	1.50 V	171	37.1	-101.8
5	374.4203	-66.9	-13.0	-53.9	1.50 V	179	33.5	-100.4
6	475.6377	-68.7	-13.0	-55.7	1.50 V	165	29.3	-98.0

Remarks:

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



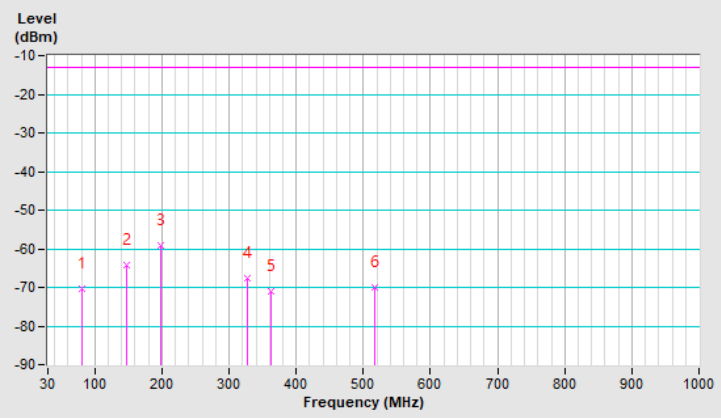
LTE Band 12, Channel Bandwidth: 5MHz

Mode	TX channel 23155 (713.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	80.6087	-70.5	-13.0	-57.5	2.00 H	357	38.3	-108.8
2	148.0870	-64.4	-13.0	-51.4	1.00 H	105	39.6	-104.0
3	197.2899	-59.1	-13.0	-46.1	1.00 H	274	47.5	-106.6
4	326.6232	-67.6	-13.0	-54.6	1.00 H	239	33.5	-101.1
5	363.1739	-71.1	-13.0	-58.1	1.50 H	80	29.5	-100.6
6	517.8116	-70.1	-13.0	-57.1	2.00 H	24	27.1	-97.2

Remarks:

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

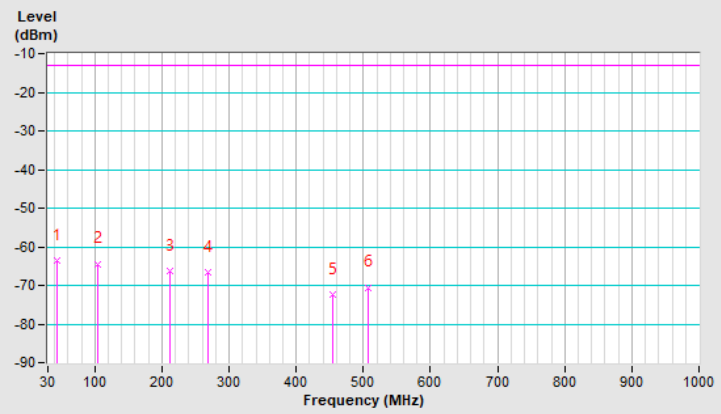


Mode	TX channel 23155 (713.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	44.0580	-63.4	-13.0	-50.4	1.50 V	332	41.1	-104.5
2	104.5072	-64.4	-13.0	-51.4	1.00 V	203	43.4	-107.8
3	212.7536	-66.2	-13.0	-53.2	1.00 V	213	39.9	-106.1
4	268.9855	-66.7	-13.0	-53.7	2.00 V	185	36.1	-102.8
5	454.5507	-72.5	-13.0	-59.5	1.50 V	66	25.9	-98.4
6	507.9710	-70.5	-13.0	-57.5	1.00 V	103	27.1	-97.6

Remarks:

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

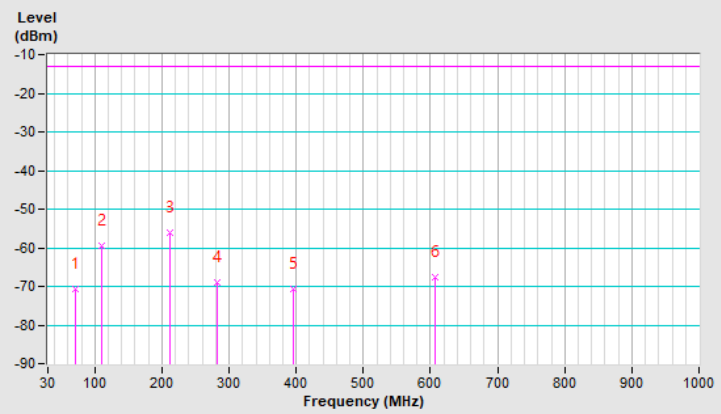


Mode	TX channel 23155 (713.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	70.7681	-70.6	-13.0	-57.6	1.00 H	142	35.8	-106.4
2	110.1304	-59.5	-13.0	-46.5	1.50 H	315	47.8	-107.3
3	211.3478	-56.0	-13.0	-43.0	1.00 H	95	50.2	-106.2
4	283.0435	-69.1	-13.0	-56.1	1.50 H	317	33.1	-102.2
5	395.5072	-70.6	-13.0	-57.6	2.00 H	272	29.4	-100.0
6	606.3768	-67.5	-13.0	-54.5	1.50 H	65	27.2	-94.7

Remarks:

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

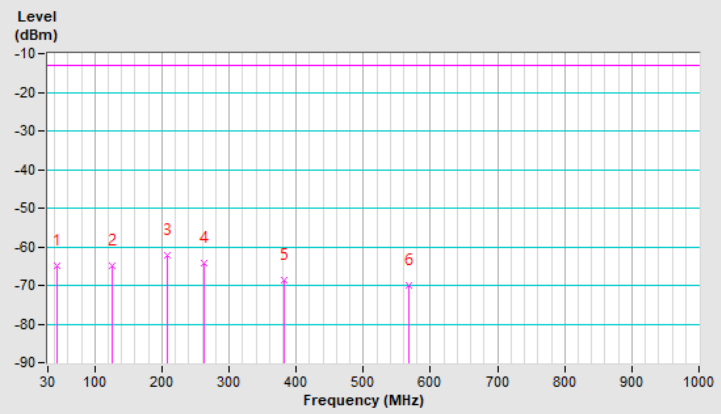


Mode	TX channel 23155 (713.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	44.0580	-64.8	-13.0	-51.8	1.00 V	15	39.7	-104.5
2	125.5942	-64.8	-13.0	-51.8	1.50 V	256	40.9	-105.7
3	208.5362	-62.2	-13.0	-49.2	1.00 V	228	44.1	-106.3
4	263.3623	-64.2	-13.0	-51.2	1.50 V	182	38.9	-103.1
5	382.8551	-68.7	-13.0	-55.7	1.50 V	15	31.6	-100.3
6	567.0145	-70.1	-13.0	-57.1	2.00 V	291	26.0	-96.1

Remarks:

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



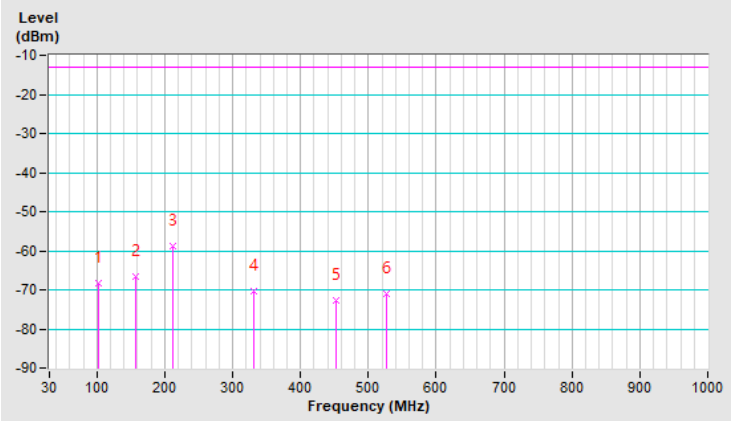
LTE Band 13, Channel Bandwidth: 10MHz

Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	101.6957	-68.4	-13.0	-55.4	1.50 H	204	42.1	-110.5
2	156.5217	-66.6	-13.0	-53.6	1.00 H	115	39.3	-105.9
3	212.7536	-58.9	-13.0	-45.9	1.00 H	264	49.4	-108.2
4	330.8406	-70.2	-13.0	-57.2	1.00 H	259	32.9	-103.1
5	451.7391	-72.6	-13.0	-59.6	2.00 H	103	28.1	-100.7
6	527.6522	-70.9	-13.0	-57.9	1.00 H	7	28.1	-99.0

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

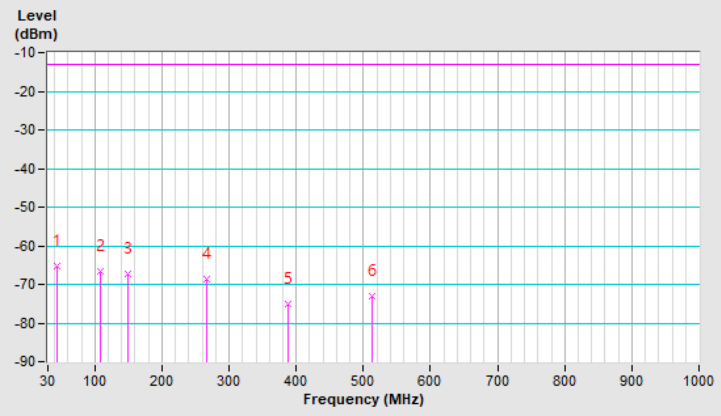


Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	44.0580	-65.3	-13.0	-52.3	2.00 V	78	41.4	-106.7
2	107.3188	-66.5	-13.0	-53.5	1.00 V	9	43.2	-109.7
3	149.4928	-67.2	-13.0	-54.2	1.00 V	33	38.9	-106.1
4	267.5797	-68.8	-13.0	-55.8	2.00 V	190	36.3	-105.1
5	387.0725	-75.1	-13.0	-62.1	1.00 V	12	27.3	-102.4
6	513.5942	-73.0	-13.0	-60.0	2.00 V	63	26.5	-99.5

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

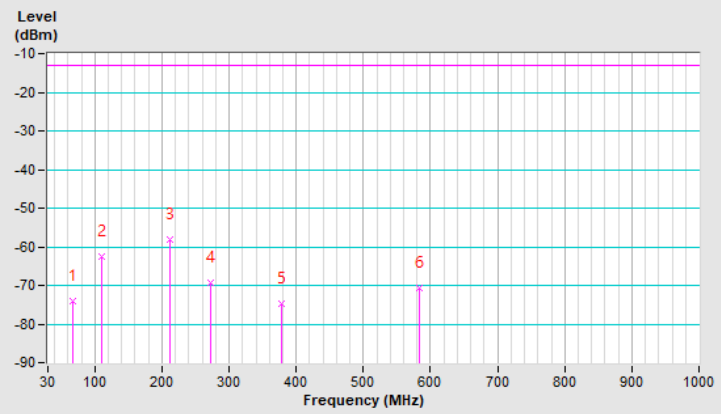


Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	67.9565	-74.2	-13.0	-61.2	1.50 H	179	33.8	-108.0
2	110.1304	-62.7	-13.0	-49.7	1.50 H	291	46.7	-109.4
3	212.7536	-58.3	-13.0	-45.3	1.50 H	91	50.0	-108.2
4	273.2029	-69.2	-13.0	-56.2	1.50 H	312	35.5	-104.7
5	377.2319	-74.7	-13.0	-61.7	1.50 H	207	27.8	-102.5
6	582.4783	-70.8	-13.0	-57.8	1.50 H	179	27.0	-97.8

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

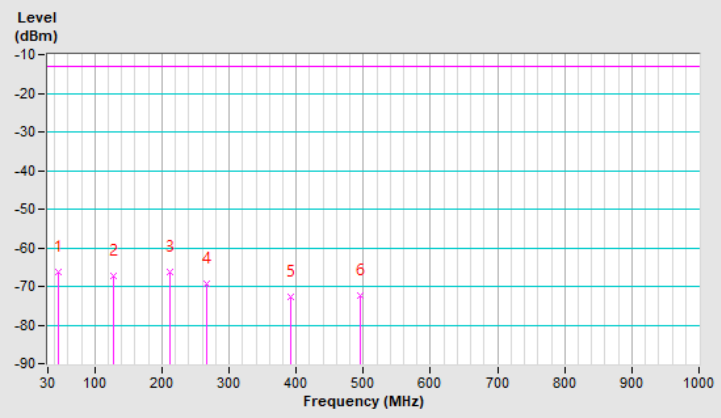


Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	45.4638	-66.4	-13.0	-53.4	1.00 V	323	40.2	-106.6
2	128.4058	-67.4	-13.0	-54.4	1.50 V	250	40.2	-107.6
3	212.7536	-66.2	-13.0	-53.2	1.50 V	229	42.0	-108.2
4	267.5797	-69.3	-13.0	-56.3	2.00 V	201	35.8	-105.1
5	391.2899	-72.8	-13.0	-59.8	1.50 V	351	29.5	-102.2
6	495.3188	-72.3	-13.0	-59.3	2.00 V	34	27.5	-99.8

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.



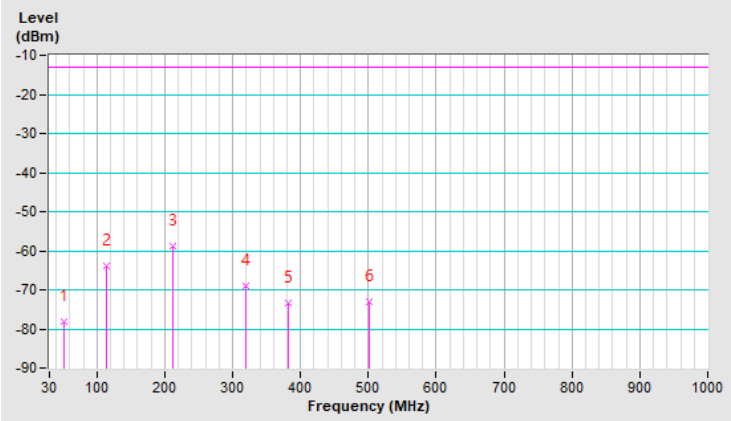
LTE Band 17, Channel Bandwidth: 10MHz

Mode	TX channel 23800 (711.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	51.0870	-78.0	-13.0	-65.0	1.50 H	328	28.5	-106.5
2	114.3478	-64.0	-13.0	-51.0	1.00 H	115	45.1	-109.1
3	211.3478	-58.9	-13.0	-45.9	1.50 H	258	49.4	-108.3
4	319.5942	-69.1	-13.0	-56.1	1.00 H	250	34.5	-103.6
5	381.4493	-73.4	-13.0	-60.4	1.00 H	46	29.0	-102.5
6	500.9420	-73.1	-13.0	-60.1	1.50 H	311	26.6	-99.7

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

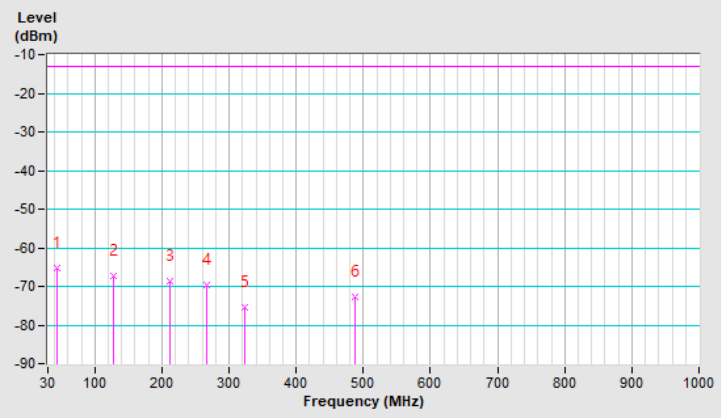


Mode	TX channel 23800 (711.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	A

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	44.0580	-65.3	-13.0	-52.3	1.00 V	7	41.4	-106.7
2	128.4058	-67.4	-13.0	-54.4	1.00 V	238	40.2	-107.6
3	212.7536	-68.8	-13.0	-55.8	1.50 V	207	39.5	-108.2
4	267.5797	-69.6	-13.0	-56.6	1.00 V	183	35.5	-105.1
5	322.4058	-75.5	-13.0	-62.5	1.50 V	164	28.0	-103.5
6	488.2899	-72.7	-13.0	-59.7	2.00 V	323	27.2	-99.9

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

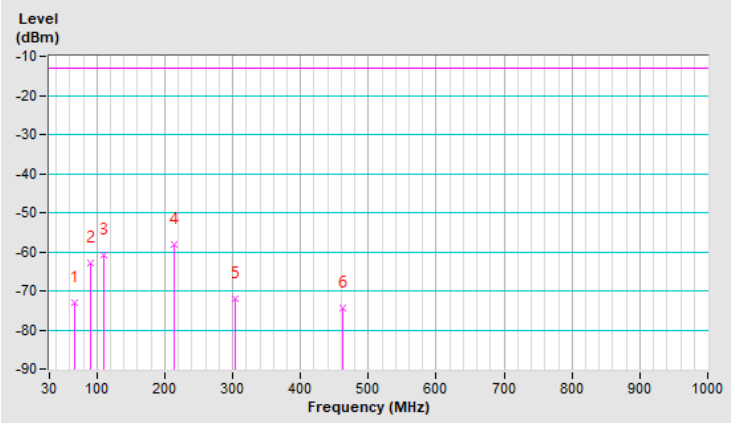


Mode	TX channel 23800 (711.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	67.9565	-73.2	-13.0	-60.2	1.00 H	168	34.8	-108.0
2	90.4493	-63.0	-13.0	-50.0	1.50 H	239	48.8	-111.8
3	110.1304	-60.8	-13.0	-47.8	2.00 H	108	48.6	-109.4
4	214.1594	-58.1	-13.0	-45.1	1.50 H	95	50.1	-108.2
5	304.1304	-72.0	-13.0	-59.0	1.00 H	243	32.0	-104.0
6	461.5797	-74.5	-13.0	-61.5	1.50 H	109	26.0	-100.5

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

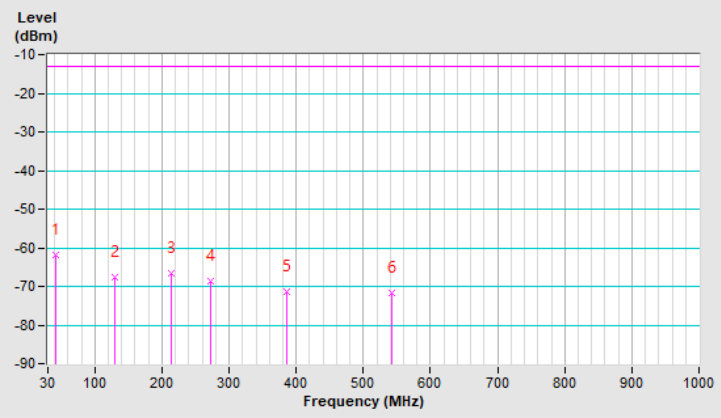


Mode	TX channel 23800 (711.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 66%RH	Input Power	120Vac, 60Hz
Tested By	Edison Lee	Test Mode	B

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	41.2464	-61.7	-13.0	-48.7	1.00 V	307	45.0	-106.8
2	129.8116	-67.6	-13.0	-54.6	1.50 V	64	39.9	-107.5
3	214.1594	-66.7	-13.0	-53.7	1.50 V	223	41.5	-108.2
4	271.7971	-68.6	-13.0	-55.6	1.50 V	186	36.2	-104.8
5	385.6667	-71.5	-13.0	-58.5	2.00 V	7	30.9	-102.4
6	541.7101	-71.7	-13.0	-58.7	2.00 V	144	27.1	-98.8

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 - 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.



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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