

## Partial FCC Test Report (Part 27 – WCDMA B4, LTE B4/B7/B12/B13/B38/B41/B66/B71)

**Report No.:** RFCDVB-WTW-P22100073-2

**FCC ID:** QYLLN920V

**Test Model:** LN920A12-WW

**Received Date:** Oct. 11, 2022

**Test Date:** Oct. 27 ~ Oct. 31, 2022

**Issued Date:** Dec. 27, 2022

**Applicant:** Getac Technology Corporation.

**Address:** 5F., Building A, No. 209, Sec.1, Nangang Rd., Nangang Dist., Taipei City  
11568, Taiwan, R.O.C.

**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
RFCDVB-WTW-P22100073-2	Original release	Dec. 27, 2022

## 1 Certificate of Conformity

**Product:** Radio Module

**Brand:** Getac

**Test Model:** LN920A12-WW

**Sample Status:** Engineering sample

**Applicant:** Getac Technology Corporation.

**Test Date:** Oct. 27 ~ Oct. 31, 2022

**Standards:** FCC Part 27, Subpart C, F, H, L, M, N

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 :** Celine Chou , **Date:** Dec. 27, 2022  
Celine Chou / Senior Specialist

**Approved by :** Jeremy Lin , **Date:** Dec. 27, 2022  
Jeremy Lin / Project Engineer

## 2 Summary of Test Results

For WCDMA B4, LTE Band 4, LTE Band 66

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (d)	Equivalent Isotropically radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	N/A	Refer to Note
2.1055 27.54	Frequency Stability	N/A	Refer to Note
2.1049	Emission Bandwidth	N/A	Refer to Note
2.1051 27.53 (h)	Out of Band Emission Measurements	N/A	Refer to Note
27.50 (d)(5)	Peak To Average Ratio	N/A	Refer to Note
2.1051 27.53 (h)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53 (h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -15.31dB at 3558.60MHz.

Note:

1. This report is a Class II change partial report. Therefore, only test item of Radiated Spurious Emissions tests and Effective Isotropically Radiated Power were performed for this report. Other testing data please refer to SGS Taiwan Ltd. report no.: TERF2206000792ER and TERF2206000793ER for module (Brand: Telit, Model: LN920A12-WW).
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 7, LTE Band 38, LTE Band 41

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (h)(2)	Equivalent Isotropically radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	N/A	Refer to Note
2.1055 27.54	Frequency Stability	N/A	Refer to Note
2.1049	Emission Bandwidth	N/A	Refer to Note
2.1051 27.53 (m)(4)(6)	Channel Edge / Out of Band Emission Measurements	N/A	Refer to Note
--	Peak To Average Ratio	N/A	Refer to Note
2.1051 27.53 (m)(4)(6)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53 (m)(4)(6)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -2.02dB at 5375.00MHz.

**Note:**

1. This report is a Class II change partial report. Therefore, only test item of Radiated Spurious Emissions tests and Effective Isotropically Radiated Power were performed for this report. Other testing data please refer to SGS Taiwan Ltd. report no.: TERF2206000793ER for module (Brand: Telit, Model: LN920A12-WW).
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 12, LTE Band 71

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (c)	Equivalent radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	N/A	Refer to Note
2.1055 27.54	Frequency Stability	N/A	Refer to Note
2.1049	Emission Bandwidth	N/A	Refer to Note
2.1051 27.53 (g)	Out of Band Emission Measurements	N/A	Refer to Note
--	Peak To Average Ratio	N/A	Refer to Note
2.1051 27.53 (g)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53 (g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -31.67dB at 1430.60MHz.

**Note:**

1. This report is a Class II change partial report. Therefore, only test item of Radiated Spurious Emissions tests and Equivalent Radiated Power were performed for this report. Other testing data please refer to SGS Taiwan Ltd. report no.: TERF2206000793ER for module (Brand: Telit, Model: LN920A12-WW).
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

For LTE Band 13

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50 (b)	Equivalent radiated power	Pass	Meet the requirement of limit.
2.1047	Modulation characteristics	N/A	Refer to Note
2.1055 27.54	Frequency Stability	N/A	Refer to Note
2.1049	Emission Bandwidth	N/A	Refer to Note
2.1051 27.53 (c)	Out of Band Emission Measurements	N/A	Refer to Note
--	Peak To Average Ratio	N/A	Refer to Note
2.1051 27.53 (c)(f)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53 (c)(f)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -3.01dB at 1564.00MHz.

Note:

1. This report is a Class II change partial report. Therefore, only test item of Radiated Spurious Emissions tests and Equivalent Radiated Power were performed for this report. Other testing data please refer to SGS Taiwan Ltd. report no.: TERF2206000793ER for module (Brand: Telit, Model: LN920A12-WW).
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) ( $\pm$ )
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.59 dB
	30MHz ~ 200MHz	3.63 dB
	200MHz ~ 1000MHz	3.64 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 R&S	ESCI	100424	Dec. 30, 2021	Dec. 29, 2022
Spectrum Analyzer R&S	FSW43	101582	Apr. 13, 2022	Apr. 12, 2023
Loop Antenna TESEQ	HLA 6121	45745	Jul. 27, 2022	Jul. 26, 2023
Pre-amplifier EMCI	EMC001340	980201	Sep. 23, 2022	Sep. 22, 2023
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	Jan. 15, 2022	Jan. 14, 2023
Preamplifier Agilent	8447D	2944A10631	May 14, 2022	May 13, 2023
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 01, 2021	Oct. 31, 2022
RF Coaxial Cable EMCI	EMC102-KM-KM-3000	150929	Jul. 09, 2022	Jul. 08, 2023
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	Jul. 09, 2022	Jul. 08, 2023
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Oct. 20, 2022	Oct. 19, 2023
Preamplifier KEYSIGHT	83017A	MY53270295	May 14, 2022	May 13, 2023
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	May 14, 2022	May 13, 2023
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	May 14, 2022	May 13, 2023
Pre-Amplifier EMCI	EMC 184045	980116	Oct. 01, 2022	Sep. 30, 2023
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104&EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	Jan. 15, 2022	Jan. 14, 2023
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	Jan. 15, 2022	Jan. 14, 2023
Software BV ADT	ADT_Radiated_V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
Boresight antenna tower fixture BV	BAF-02	5	NA	NA
Radio Communication Analyzer Anritsu	MT8820C	6201300640	Aug. 26, 2021	Aug. 22, 2023

Note: 1. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.  
2. The test was performed in HY - 966 chamber 3.

### 3 General Information

#### 3.1 General Description of EUT

Product	Radio Module	
Brand	Getac	
Test Model	LN920A12-WW	
Sample Status	Engineering sample	
Power Supply Rating	3.3Vdc	
Modulation Type	WCDMA: BPSK, QPSK HSDPA: BPSK HSUPA: QPSK LTE: QPSK, 16QAM, 64QAM	
Operating Frequency	WCDMA Band 4	1712.4MHz ~ 1752.6MHz
	LTE Band 4 (Channel Bandwidth 1.4MHz)	1710.7MHz ~ 1754.3MHz
	LTE Band 4 (Channel Bandwidth 3MHz)	1711.5MHz ~ 1753.5MHz
	LTE Band 4 (Channel Bandwidth 5MHz)	1712.5MHz ~ 1752.5MHz
	LTE Band 4 (Channel Bandwidth 10MHz)	1715.0MHz ~ 1750.0MHz
	LTE Band 4 (Channel Bandwidth 15MHz)	1717.5MHz ~ 1747.5MHz
	LTE Band 4 (Channel Bandwidth 20MHz)	1720.0MHz ~ 1745.0MHz
	LTE Band 7 (Channel Bandwidth 5MHz)	2502.5MHz ~ 2567.5MHz
	LTE Band 7 (Channel Bandwidth 10MHz)	2505.0MHz ~ 2565.0MHz
	LTE Band 7 (Channel Bandwidth 15MHz)	2507.5MHz ~ 2562.5MHz
	LTE Band 7 (Channel Bandwidth 20MHz)	2510.0MHz ~ 2560.0MHz
	LTE Band 12 (Channel Bandwidth 1.4MHz)	699.7MHz ~ 715.3MHz
	LTE Band 12 (Channel Bandwidth 3MHz)	700.5MHz ~ 714.5MHz
	LTE Band 12 (Channel Bandwidth 5MHz)	701.5MHz ~ 713.5MHz
	LTE Band 12 (Channel Bandwidth 10MHz)	704.0MHz ~ 711.0MHz
	LTE Band 13 (Channel Bandwidth 5MHz)	779.5MHz ~ 784.5MHz
	LTE Band 13 (Channel Bandwidth 10MHz)	782.0MHz
	LTE Band 38 (Channel Bandwidth 5MHz)	2572.5MHz ~ 2617.5MHz
	LTE Band 38 (Channel Bandwidth 10MHz)	2575.0MHz ~ 2615.0MHz
	LTE Band 38 (Channel Bandwidth 15MHz)	2577.5MHz ~ 2612.5MHz
	LTE Band 38 (Channel Bandwidth 20MHz)	2580.0MHz ~ 2610.0MHz
	LTE Band 41 (Channel Bandwidth 5MHz)	2498.5MHz ~ 2687.5MHz
	LTE Band 41 (Channel Bandwidth 10MHz)	2501.0MHz ~ 2685.0 MHz
	LTE Band 41 (Channel Bandwidth 15MHz)	2503.5MHz ~ 2682.5MHz
	LTE Band 41 (Channel Bandwidth 20MHz)	2506.0MHz ~ 2680.0 MHz
	LTE Band 66 (Channel Bandwidth 1.4 MHz)	1710.7MHz ~ 1779.3 MHz
LTE Band 66 (Channel Bandwidth 3 MHz)	1711.5MHz ~ 1778.5 MHz	
LTE Band 66 (Channel Bandwidth 5 MHz)	1712.5MHz ~ 1777.5 MHz	
LTE Band 66 (Channel Bandwidth 10 MHz)	1715.0MHz ~ 1775.0 MHz	
LTE Band 66 (Channel Bandwidth 15 MHz)	1717.5MHz ~ 1772.5 MHz	
LTE Band 66 (Channel Bandwidth 20 MHz)	1720.0MHz ~ 1770.0 MHz	

Operating Frequency	LTE Band 71 (Channel Bandwidth 5 MHz)	665.5MHz ~ 695.5 MHz		
	LTE Band 71 (Channel Bandwidth 10 MHz)	668.0MHz ~ 693.0 MHz		
	LTE Band 71 (Channel Bandwidth 15 MHz)	670.5MHz ~ 690.5 MHz		
	LTE Band 71 (Channel Bandwidth 20 MHz)	673.0MHz ~ 688.0 MHz		
Max. EIRP Power	WCDMA Band 4	235.505mW (23.72dBm)		
		QPSK	16QAM	64QAM
	LTE Band 4 (Channel Bandwidth 1.4MHz)	183.231mW (22.63dBm)	142.889mW (21.55dBm)	110.408mW (20.43dBm)
	LTE Band 4 (Channel Bandwidth 3MHz)	183.231mW (22.63dBm)	141.906mW (21.52dBm)	108.643mW (20.36dBm)
	LTE Band 4 (Channel Bandwidth 5MHz)	184.077mW (22.65dBm)	142.889mW (21.55dBm)	109.648mW (20.40dBm)
	LTE Band 4 (Channel Bandwidth 10MHz)	184.502mW (22.66dBm)	143.219mW (21.56dBm)	110.408mW (20.43dBm)
	LTE Band 4 (Channel Bandwidth 15MHz)	182.810mW (22.62dBm)	142.561mW (21.54dBm)	109.396mW (20.39dBm)
	LTE Band 4 (Channel Bandwidth 20MHz)	189.234mW (22.77dBm)	143.549mW (21.57dBm)	110.408mW (20.43dBm)
	LTE Band 7 (Channel Bandwidth 5MHz)	189.671mW (22.78dBm)	147.911mW (21.70dBm)	114.288mW (20.58dBm)
	LTE Band 7 (Channel Bandwidth 10MHz)	189.671mW (22.78dBm)	148.936mW (21.73dBm)	114.288mW (20.58dBm)
	LTE Band 7 (Channel Bandwidth 15MHz)	189.234mW (22.77dBm)	147.571mW (21.69dBm)	114.025mW (20.57dBm)
	LTE Band 7 (Channel Bandwidth 20MHz)	195.434mW (22.91dBm)	149.624mW (21.75dBm)	115.611mW (20.63dBm)
	LTE Band 38 (Channel Bandwidth 5MHz)	224.905mW (23.52dBm)	174.582mW (22.42dBm)	135.519mW (21.32dBm)
	LTE Band 38 (Channel Bandwidth 10MHz)	225.944mW (23.54dBm)	174.985mW (22.43dBm)	134.896mW (21.30dBm)
	LTE Band 38 (Channel Bandwidth 15MHz)	223.872mW (23.50dBm)	174.582mW (22.42dBm)	136.458mW (21.35dBm)
	LTE Band 38 (Channel Bandwidth 20MHz)	231.206mW (23.64dBm)	176.604mW (22.47dBm)	137.088mW (21.37dBm)
	LTE Band 41 (Channel Bandwidth 5MHz)	260.016mW (24.15dBm)	207.491mW (23.17dBm)	165.577mW (22.19dBm)
	LTE Band 41 (Channel Bandwidth 10MHz)	262.422mW (24.19dBm)	204.174mW (23.10dBm)	166.341mW (22.21dBm)
	LTE Band 41 (Channel Bandwidth 15MHz)	260.016mW (24.15dBm)	207.491mW (23.17dBm)	164.059mW (22.15dBm)
	LTE Band 41 (Channel Bandwidth 20MHz)	268.534mW (24.29dBm)	207.491mW (23.17dBm)	164.437mW (22.16dBm)

Max. EIRP Power		QPSK	16QAM	64QAM
	LTE Band 66 (Channel Bandwidth 1.4 MHz)	204.644mW (23.11dBm)	159.588mW (22.03dBm)	126.183mW (21.01dBm)
	LTE Band 66 (Channel Bandwidth 3 MHz)	204.644mW (23.11dBm)	159.956mW (22.04dBm)	126.183mW (21.01dBm)
	LTE Band 66 (Channel Bandwidth 5 MHz)	205.589mW (23.13dBm)	159.956mW (22.04dBm)	126.474mW (21.02dBm)
	LTE Band 66 (Channel Bandwidth 10 MHz)	206.063mW (23.14dBm)	161.436mW (22.08dBm)	127.057mW (21.04dBm)
	LTE Band 66 (Channel Bandwidth 15 MHz)	206.538mW (23.15dBm)	159.956mW (22.04dBm)	126.765mW (21.03dBm)
	LTE Band 66 (Channel Bandwidth 20 MHz)	211.836mW (23.26dBm)	161.065mW (22.07dBm)	127.644mW (21.06dBm)
	Max. ERP Power		QPSK	16QAM
LTE Band 12 (Channel Bandwidth 1.4MHz)		238.781mW (23.78dBm)	195.434mW (22.91dBm)	139.637mW (21.45dBm)
LTE Band 12 (Channel Bandwidth 3MHz)		233.346mW (23.68dBm)	192.309mW (22.84dBm)	153.462mW (21.86dBm)
LTE Band 12 (Channel Bandwidth 5MHz)		235.505mW (23.72dBm)	194.536mW (22.89dBm)	153.109mW (21.85dBm)
LTE Band 12 (Channel Bandwidth 10MHz)		242.103mW (23.84dBm)	200.447mW (23.02dBm)	153.815mW (21.87dBm)
LTE Band 13 (Channel Bandwidth 5MHz)		137.088mW (21.37dBm)	113.501mW (20.55dBm)	86.696mW (19.38dBm)
LTE Band 13 (Channel Bandwidth 10MHz)		140.929mW (21.49dBm)	101.625mW (20.07dBm)	90.157mW (19.55dBm)
LTE Band 71 (Channel Bandwidth 5 MHz)		198.609mW (22.98dBm)	165.577mW (22.19dBm)	130.918mW (21.17dBm)
LTE Band 71 (Channel Bandwidth 10 MHz)		200.909mW (23.03dBm)	163.682mW (22.14dBm)	130.617mW (21.16dBm)
LTE Band 71 (Channel Bandwidth 15 MHz)		202.302mW (23.06dBm)	166.341mW (22.21dBm)	131.220mW (21.18dBm)
LTE Band 71 (Channel Bandwidth 20 MHz)		207.014mW (23.16dBm)	171.002mW (22.33dBm)	132.130mW (21.21dBm)
Antenna Type	Refer to Note as below			
Antenna Connector	Refer to Note as below			
Accessory Device	NA			
Cable Supplied	NA			

Note:

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

Product	Brand	Model	Difference
Notebook	Getac	V110	For marketing purpose
		V110G7	
		V110Y (Y= 10 characters, Y can be 0 to 9, A to Z, a to z, "/", "\", "-", "_ or blank)	

\* The model of the V110G7 was chosen for final test.

2. The End-product contains following accessory devices.

Part	Brand	Model	Specification
Adapter 1	FSP	FSP065-RBBN3	I/P: 100-240Vac, 50-60Hz, 1.5A O/P: 19.0Vdc, 3.42A 1.5m DC power cable with one core attached on adapter
Adapter 2	Getac	MTA190474W4	I/P: 100-240Vac, 50-60Hz, 1.6A O/P: 19.0Vdc, 4.74A 1.55m DC power cable with two cores attached on adapter
Battery	Getac	BP3S1P2100-S	Rating: 11.1Vdc, 2040mAh, 23Wh Typical name: 2100mAh, 24Wh
Digitizer Pen	EMpen Technology Corp	DIGITIZER PEN	-

3. The End-product has three SKUs for sale, after pre-test. SKU 2 was chosen for final test and presented in the test report.

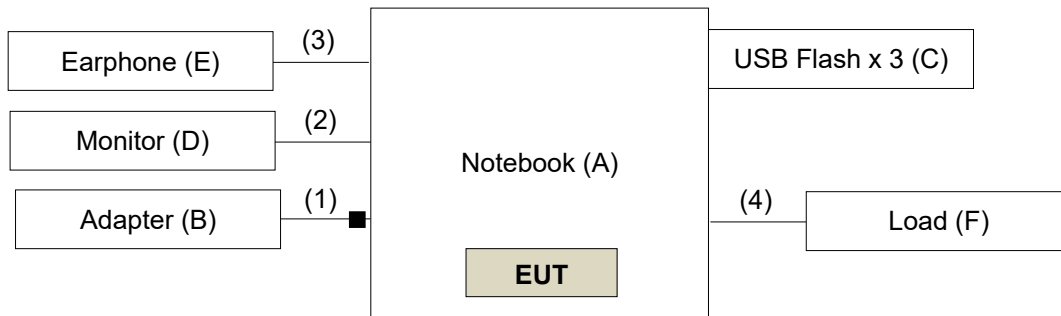
Part	Brand	Model	Specification	Configuration		
				SKU 1	SKU 2	SKU 3
CPU	Intel	Alder Lake	i5-1235U (Non Vpro)	V		V
			i7-1265U (Vpro)		V	
DDR	Kingston	---	16GB (8GB+8GB)	V		
		---	32GB (16GB+16GB)		V	
		---	64GB (32GB+32GB)			V
SSD	SSSTC	---	256GB	V		
		---	512GB		V	
		---	1TB			V
LCD Panel	AUO	G116HAN01	11.6"	V	V	V
Touchscreen	Getac	---	---	V	V	V
Finger Print	Egistec	---	---	V	V	V
WLAN Module	Intel	AX211NGW	---	V	V	V
WWAN Module	Telit	LN920A12-WW	---	V	V	V
GPS	GlobalSat	MC1010G	---	V	V	V
RFID Module	NXP	PN-7462	---		V	V
Digitizer Module	Getac	EMR116-UA00	---		V	V
Bottom Camera	FOXLINK	FN80AF-443H	---	V	V	V
	Chicony	CKAM816	---	V	V	V
Camera	FOXLINK	FN20FF-679H	---	V	V	V
IR Camera	FOXLINK	FN23FF-678H	---		V	V
Option Bay	Honeywell	N6703	Barcode	V		V
	Getac	---	SD Card reader		V	
	Getac	---	Smart Card		V	

4. The following antennas were provided to the End-product.

Ant.	Type	Connector	Gain (dBi)								
			WCDMA B2	WCDMA B4	WCDMA B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B13
Main (TX / RX)	PIFA	I-PEX	2.48	2.28	-0.69	2.48	2.28	-0.69	1.92	3.16	0.87
			LTE B14	LTE B25	LTE B26	LTE B38	LTE B41	LTE B48	LTE B66	LTE B71	
			0.78	2.48	-0.69	2.15	2.82	-1.30	2.28	2.65	
Ant.	Type	Connector	Gain (dBi)								
			WCDMA B2	WCDMA B4	WCDMA B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B13
Aux (RX only)	PIFA	I-PEX	4.17	2.69	-1.49	4.17	2.69	-1.49	-0.11	-3.06	0.60
			LTE B14	LTE B25	LTE B26	LTE B38	LTE B41	LTE B48	LTE B66	LTE B71	
			0.82	4.17	-1.49	0.48	1.31	-0.99	2.89	-4.84	

\* Detail antenna specification please refer to antenna datasheet an antenna gain measurement report.

### 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.	Notebook	Getac	V110G7	NA	NA	Provided by manufacturer
B.	Adapter	FSP	FSP065-RBBN3	NA	NA	Provided by manufacturer
C.	USB Flash x 3	SanDisk	SDDDC3-032G	NA	NA	-
D.	Monitor	ASUS	VA24EHE	LCLMTF243824	NA	-
E.	Earphone	Apple	MB77PFEB	NA	NA	-
F.	Load	NA	NA	NA	NA	-
G.	Radio Communication Analyzer	Anritsu	MT8820C	6201300640	NA	-

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Power Cable	1	1.5	N	1	Provided by manufacturer Attached on adapter
2.	HDMI Cable	1	1.0	Y	0	-
3.	Earphone Cable	1	1.5	N	0	-
4.	RJ45 Cable	1	1.5	N	0	-

Note: The core(s) is(are) originally attached to the cable(s).

### 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, NB mode and tablet mode. The worst case was found when positioned as the table below. Following channel(s) was (were) selected for the final test as listed below:

Band	Radiated Emission
WCDMA Band 4	NB mode
LTE Band 4	NB mode
LTE Band 7	NB mode
LTE Band 12	NB mode
LTE Band 13	NB mode
LTE Band 38	NB mode
LTE Band 41	NB mode
LTE Band 66	NB mode
LTE Band 71	NB mode

#### WCDMA Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
-	EIRP	1312 to 1513	1312 (1712.4MHz), 1413 (1732.6MHz), 1513 (1752.6MHz)	WCDMA, HSDPA, HSUPA
-	Radiated Emission Below 1GHz	1312 to 1513	1413 (1732.6MHz)	WCDMA
-	Radiated Emission Above 1GHz	1312 to 1513	1312 (1712.4MHz), 1413 (1732.6MHz), 1513 (1752.6MHz)	WCDMA

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



LTE Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	19957 to 20393	19957 (1710.7MHz), 20175 (1732.5MHz), 20393 (1754.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 Half Full
		19965 to 20385	19965 (1711.5MHz), 20175 (1732.5MHz), 20385 (1753.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 Half Full
		19975 to 20375	19975 (1712.5MHz), 20175 (1732.5MHz), 20375 (1752.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20000 to 20350	20000 (1715.0MHz), 20175 (1732.5MHz), 20350 (1750.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20025 to 20325	20025 (1717.5MHz), 20175 (1732.5MHz), 20325 (1747.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20050 to 20300	20050 (1720.0MHz), 20175 (1732.5MHz), 20300 (1745.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission Below 1GHz	19957 to 20393	20175 (1732.5MHz)	1.4MHz	QPSK	1
-	Radiated Emission Above 1GHz	19957 to 20393	19957 (1710.7MHz), 20175 (1732.5MHz), 20393 (1754.3MHz)	1.4MHz	QPSK	1
		19975 to 20375	19975 (1712.5MHz), 20175 (1732.5MHz), 20375 (1752.5MHz)	5MHz	QPSK	1
		20050 to 20300	20050 (1720.0MHz), 20175 (1732.5MHz), 20300 (1745.0MHz)	20MHz	QPSK	1

Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
3. 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.

LTE Band 7

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20800 to 21400	20800 (2505.0MHz), 21100 (2535.0MHz), 21400 (2565.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20825 to 21375	20825 (2507.5MHz), 21100 (2535.0MHz), 21375 (2562.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		20850 to 21350	20850 (2510.0MHz), 21100 (2535.0MHz), 21350 (2560.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission Below 1GHz	20775 to 21425	21425 (2567.5MHz)	5MHz	QPSK	1
-	Radiated Emission Above 1GHz	20775 to 21425	20775 (2502.5MHz), 21100 (2535.0MHz), 21425 (2567.5MHz)	5MHz	QPSK	1
		20850 to 21350	20850 (2510.0MHz), 21100 (2535.0MHz), 21350 (2560.0MHz)	20MHz	QPSK	1

Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
3. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest & highest channel bandwidth for final test.

### LTE Band 12

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	23017 to 23173	23017 (699.7MHz), 23095 (707.5MHz), 23173 (715.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 Half Full
		23025 to 23165	23025 (700.5MHz), 23095 (707.5MHz), 23165 (714.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 Half Full
		23035 to 23155	23035 (701.5MHz), 23095 (707.5MHz), 23155 (713.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		23060 to 23130	23060 (704.0MHz), 23095 (707.5MHz), 23130 (711.0 MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission Below 1GHz	23017 to 23173	23173 (715.3MHz)	1.4MHz	QPSK	1
-	Radiated Emission Above 1GHz	23017 to 23173	23017 (699.7MHz), 23095 (707.5MHz), 23173 (715.3MHz)	1.4MHz	QPSK	1
		23035 to 23155	23035 (701.5MHz), 23095 (707.5MHz), 23155 (713.5MHz)	5MHz	QPSK	1
		23060 to 23130	23060 (704.0MHz), 23095 (707.5MHz), 23130 (711.0MHz)	10MHz	QPSK	1

**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
3. 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.

### LTE Band 13

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	23205 to 23255	23205 (779.5MHz), 23230 (782.0MHz), 23255 (784.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		23230	23230 (782.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission Below 1GHz	23230	23230 (782.0MHz)	10MHz	QPSK	1
-	Radiated Emission Above 1GHz	23205 to 23255	23205 (779.5MHz), 23230 (782.0MHz), 23255 (784.5MHz)	5MHz	QPSK	1
		23230	23230 (782.0MHz)	10MHz	QPSK	1

**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
3. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest & highest channel bandwidth for final test.

### LTE Band 38

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	37775 to 38225	37775 (2572.5MHz), 38000 (2595.0MHz), 38225 (2617.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		37800 to 38200	37800 (2575.0MHz), 38000 (2595.0MHz), 38200 (2615.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		37825 to 38175	37825 (2577.5MHz), 38000 (2595.0MHz), 38175 (2612.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		37850 to 38150	37850 (2580.0MHz), 38000 (2595.0MHz), 38150 (2610.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission Below 1GHz	37775 to 38225	37775 (2572.5MHz)	5MHz	QPSK	1
-	Radiated Emission Above 1GHz	37775 to 38225	37775 (2572.5MHz), 38000 (2595.0MHz), 38225 (2617.5MHz)	5MHz	QPSK	1
		37850 to 38150	37850 (2580.0MHz), 38000 (2595.0MHz), 38150 (2610.0MHz)	20MHz	QPSK	1

Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
3. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest & highest channel bandwidth for final test.

**LTE Band 41**

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	EIRP	39675 to 41565	39675 (2498.5MHz), 40620 (2593.0MHz), 41565 (2687.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		39700 to 41540	39700 (2501.0MHz), 40620 (2593.0MHz), 41540 (2685.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		39725 to 41515	39725 (2503.5MHz), 40620 (2593.0MHz), 41515 (2682.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		39750 to 41490	39750 (2506.0MHz), 40620 (2593.0MHz), 41490 (2680.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission Below 1GHz	39675 to 41565	41565 (2687.5MHz)	5MHz	QPSK	1
-	Radiated Emission Above 1GHz	39675 to 41565	39675 (2498.5MHz), 40620 (2593.0MHz), 41565 (2687.5MHz)	5MHz	QPSK	1
		39750 to 41490	39750 (2506.0MHz), 40620 (2593.0MHz), 41490 (2680.0MHz)	20MHz	QPSK	1

**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
3. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest & highest channel bandwidth for final test.

LTE Band 66

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	131979 to 132665	131979 (1710.7MHz), 132322 (1745.0MHz), 132665 (1779.3MHz)	1.4MHz	QPSK / 16QAM / 64QAM	1 Half Full
		131987 to 132657	131987 (1711.5MHz), 132322 (1745.0MHz), 132657 (1778.5MHz)	3MHz	QPSK / 16QAM / 64QAM	1 Half Full
		131997 to 132647	131997 (1712.5MHz), 132322 (1745.0MHz), 132647 (1777.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		132022 to 132622	132022 (1715.0MHz), 132322 (1745.0MHz), 132622 (1775.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		132047 to 132597	132047 (1717.5MHz), 132322 (1745.0MHz), 132597 (1772.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		132072 to 132572	132072 (1720.0MHz), 132322 (1745.0MHz), 132572 (1770.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission Below 1GHz	131979 to 132665	132665 (1779.3MHz)	1.4MHz	QPSK	1
-	Radiated Emission Above 1GHz	131979 to 132665	131979 (1710.7MHz), 132322 (1745.0MHz), 132665 (1779.3MHz)	1.4MHz	QPSK	1
		131997 to 132647	131997 (1712.5MHz), 132322 (1745.0MHz), 132647 (1777.5MHz)	5MHz	QPSK	1
		132072 to 132572	132072 (1720.0MHz), 132322 (1745.0MHz), 132572 (1770.0MHz)	20MHz	QPSK	1

Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
3. 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.

### LTE Band 71

EUT Configure Mode	Test item	Available channel	Tested channel	Channel Bandwidth	Modulation	Mode
-	ERP	133147 to 133447	133147 (665.5MHz), 133297 (680.5MHz), 133447 (695.5MHz)	5MHz	QPSK / 16QAM / 64QAM	1 Half Full
		133172 to 133422	133172 (668.0MHz), 133297 (680.5MHz), 133422 (693.0MHz)	10MHz	QPSK / 16QAM / 64QAM	1 Half Full
		133197 to 133397	133197 (670.5MHz), 133297 (680.5MHz), 133397 (690.5MHz)	15MHz	QPSK / 16QAM / 64QAM	1 Half Full
		133222 to 133372	133222 (673.0MHz), 133297 (680.5MHz), 133372 (688.0MHz)	20MHz	QPSK / 16QAM / 64QAM	1 Half Full
-	Radiated Emission Below 1GHz	133222 to 133372	133372 (688.0MHz)	20MHz	QPSK	1
-	Radiated Emission Above 1GHz	133147 to 133447	133147 (665.5MHz), 133297 (680.5MHz), 133447 (695.5MHz)	5MHz	QPSK	1
		133222 to 133372	133222 (673.0MHz), 133297 (680.5MHz), 133372 (688.0MHz)	20MHz	QPSK	1

**Note:**

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
3. For radiated emission above 1GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest & highest channel bandwidth for final test.

**Test Condition:**

Test Item	Environmental Conditions	Input Power	Tested By
EIRP / ERP	25deg. C, 60%RH	120Vac, 60Hz (System)	Willy Cheng
Radiated Emission	23deg. C, 68%RH, 24deg. C, 68%RH	120Vac, 60Hz (System)	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 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

**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

For WCDMA Band 4, LTE Band 4, LTE Band 66:

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

For LTE Band 7, LTE Band 38, LTE Band 41:

Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

For LTE Band 12, LTE Band 71:

Control and mobile stations in the 698-746 MHz band are limited to 30 watts ERP.

Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

For LTE Band 13:

Control stations and mobile stations in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands and fixed stations transmitting in the 787-788 MHz and 805-806 MHz bands are limited to 30 watts ERP.

Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

#### 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 record the power level shown on simulator.

##### Maximum EIRP / ERP

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

$$\text{EIRP} = P_{\text{Meas}} + G_{\text{T}}$$

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

where

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

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

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

$G_{\text{T}}$  gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

#### 4.1.3 Test Setup

Conducted Power Measurement:



#### 4.1.4 Test Results

##### Conducted Output Power (dBm)

Band	WCDMA IV		
	1312	1413	1513
TX Channel	1312	1413	1513
Rx Channel	1537	1638	1738
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	21.44	21.35	21.38
HSDPA Subtest-1	20.44	20.37	20.32
HSDPA Subtest-2	20.40	20.33	20.37
HSDPA Subtest-3	19.95	19.89	19.77
HSDPA Subtest-4	19.92	19.86	19.78
DC-HSDPA Subtest-1	20.35	20.29	20.32
DC-HSDPA Subtest-2	20.30	20.26	20.47
DC-HSDPA Subtest-3	19.83	19.82	19.71
DC-HSDPA Subtest-4	19.80	19.78	19.97
HSUPA Subtest-1	20.33	20.32	20.34
HSUPA Subtest-2	18.28	18.27	18.32
HSUPA Subtest-3	19.35	19.36	19.25
HSUPA Subtest-4	18.40	18.28	18.31
HSUPA Subtest-5	20.30	20.21	20.47

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	20.48	<b>20.49</b>	20.46
		1	50	20.46	20.47	20.44
		1	99	20.42	20.43	20.41
		50	0	19.29	19.38	19.33
		50	25	19.26	19.36	19.28
		50	50	19.25	19.33	19.27
		100	0	19.20	19.31	19.27
20M	16QAM	1	0	19.17	19.29	19.22
		1	50	19.12	19.27	19.19
		1	99	19.13	19.26	19.20
		50	0	18.11	18.23	18.13
		50	25	18.15	18.21	18.16
		50	50	18.08	18.18	18.11
		100	0	18.07	18.16	18.07
20M	64QAM	1	0	18.12	18.15	18.04
		1	50	18.01	18.07	17.92
		1	99	18.00	18.01	17.96
		50	0	17.20	17.23	17.16
		50	25	17.13	17.15	17.12
		50	50	17.03	17.08	17.00
		100	0	17.09	17.11	17.05

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	20.28	20.33	20.30
		1	37	20.34	20.31	20.28
		1	74	20.28	20.30	20.24
		36	0	19.23	19.38	19.23
		36	19	19.20	19.34	19.20
		36	39	19.25	19.33	19.17
		75	0	19.18	19.27	19.24
15M	16QAM	1	0	19.17	19.23	19.22
		1	37	19.11	19.26	19.19
		1	74	19.03	19.16	19.16
		36	0	18.04	18.23	18.09
		36	19	18.06	18.14	18.14
		36	39	17.98	18.08	18.10
		75	0	18.05	18.15	18.06
15M	64QAM	1	0	18.05	18.11	18.00
		1	37	17.97	18.06	17.83
		1	74	17.96	17.94	17.91
		36	0	17.20	17.22	17.08
		36	19	17.10	17.05	17.10
		36	39	16.99	17.06	16.94
		75	0	17.01	17.03	17.04

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	20.31	20.38	20.29
		1	24	20.34	20.32	20.24
		1	49	20.31	20.29	20.27
		25	0	19.26	19.35	19.28
		25	12	19.24	19.32	19.28
		25	25	19.23	19.26	19.21
		50	0	19.13	19.26	19.25
10M	16QAM	1	0	19.10	19.28	19.13
		1	24	19.02	19.22	19.18
		1	49	19.10	19.18	19.13
		25	0	18.03	18.22	18.10
		25	12	18.06	18.20	18.09
		25	25	18.07	18.08	18.09
		50	0	18.01	18.15	18.05
10M	64QAM	1	0	18.06	18.15	18.01
		1	24	18.01	18.01	17.89
		1	49	17.94	17.95	17.86
		25	0	17.15	17.15	17.10
		25	12	17.10	17.08	17.08
		25	25	16.93	17.01	16.90
		50	0	17.08	17.08	17.00

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	20.33	20.37	20.27
		1	12	20.29	20.33	20.32
		1	24	20.23	20.26	20.29
		12	0	19.26	19.36	19.26
		12	6	19.26	19.30	19.21
		12	13	19.25	19.32	19.22
		25	0	19.15	19.25	19.27
5M	16QAM	1	0	19.07	19.20	19.20
		1	12	19.03	19.27	19.16
		1	24	19.09	19.20	19.17
		12	0	18.02	18.14	18.13
		12	6	18.12	18.14	18.13
		12	13	18.03	18.16	18.05
		25	0	17.98	18.06	18.05
5M	64QAM	1	0	18.06	18.12	17.99
		1	12	17.94	17.98	17.88
		1	24	17.99	17.98	17.92
		12	0	17.12	17.17	17.13
		12	6	17.03	17.15	17.04
		12	13	16.94	17.05	16.97
		25	0	17.02	17.10	17.05

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	20.33	20.33	20.28
		1	7	20.26	20.35	20.27
		1	14	20.32	20.30	20.31
		8	0	19.27	19.29	19.32
		8	3	19.22	19.36	19.28
		8	7	19.20	19.31	19.20
		15	0	19.11	19.28	19.21
3M	16QAM	1	0	19.17	19.23	19.13
		1	7	19.03	19.21	19.13
		1	14	19.12	19.24	19.14
		8	0	18.06	18.22	18.10
		8	3	18.11	18.11	18.09
		8	7	18.04	18.15	18.03
		15	0	18.07	18.10	17.97
3M	64QAM	1	0	18.08	18.08	18.00
		1	7	18.01	18.07	17.82
		1	14	17.94	17.93	17.90
		8	0	17.20	17.21	17.13
		8	3	17.09	17.10	17.09
		8	7	16.93	17.06	16.99
		15	0	17.02	17.04	17.02



LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	20.28	20.32	20.31
		1	2	20.26	20.35	20.34
		1	5	20.30	20.29	20.24
		3	0	19.21	19.38	19.27
		3	1	19.26	19.30	19.18
		3	3	19.15	19.31	19.17
		6	0	19.14	19.30	19.26
1.4M	16QAM	1	0	19.15	19.27	19.22
		1	2	19.10	19.27	19.09
		1	5	19.05	19.20	19.17
		3	0	18.05	18.15	18.06
		3	1	18.15	18.20	18.12
		3	3	18.02	18.13	18.01
		6	0	18.03	18.06	18.00
1.4M	64QAM	1	0	18.01	18.15	18.09
		1	2	17.99	18.08	18.03
		1	5	17.92	17.98	17.92
		3	0	17.95	18.06	18.03
		3	1	17.85	17.92	17.88
		3	3	17.77	17.85	17.79
		6	0	17.08	17.22	17.13

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20850	21100	21350
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	20.98	<b>20.99</b>	20.97
		1	50	20.95	20.96	20.94
		1	99	20.94	20.95	20.93
		50	0	19.90	19.94	19.89
		50	25	19.88	19.91	19.80
		50	50	19.80	19.89	19.72
		100	0	19.85	19.86	19.85
20M	16QAM	1	0	19.81	19.83	19.74
		1	50	19.81	19.81	19.71
		1	99	19.73	19.79	19.70
		50	0	18.77	18.77	18.76
		50	25	18.66	18.74	18.60
		50	50	18.73	18.73	18.69
		100	0	18.65	18.68	18.60
20M	64QAM	1	0	18.65	18.71	18.56
		1	50	18.62	18.66	18.53
		1	99	18.56	18.61	18.48
		50	0	17.75	17.82	17.73
		50	25	17.71	17.76	17.63
		50	50	17.68	17.69	17.59
		100	0	17.72	17.72	17.63

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20825	21100	21375
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	20.80	20.85	20.83
		1	37	20.79	20.82	20.78
		1	74	20.77	20.85	20.82
		36	0	19.88	19.94	19.89
		36	19	19.83	19.85	19.77
		36	39	19.78	19.81	19.68
		75	0	19.80	19.76	19.76
15M	16QAM	1	0	19.71	19.77	19.72
		1	37	19.76	19.77	19.61
		1	74	19.66	19.69	19.68
		36	0	18.76	18.75	18.67
		36	19	18.57	18.70	18.58
		36	39	18.70	18.64	18.60
		75	0	18.63	18.58	18.51
15M	64QAM	1	0	18.58	18.65	18.53
		1	37	18.52	18.61	18.49
		1	74	18.53	18.56	18.41
		36	0	17.72	17.78	17.64
		36	19	17.71	17.74	17.57
		36	39	17.61	17.68	17.51
		75	0	17.62	17.68	17.53

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20800	21100	21400
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	20.86	20.79	20.80
		1	24	20.85	20.85	20.82
		1	49	20.75	20.79	20.73
		25	0	19.82	19.87	19.87
		25	12	19.81	19.86	19.73
		25	25	19.73	19.85	19.72
		50	0	19.84	19.83	19.83
10M	16QAM	1	0	19.80	19.77	19.68
		1	24	19.81	19.76	19.70
		1	49	19.67	19.74	19.66
		25	0	18.77	18.68	18.75
		25	12	18.56	18.72	18.60
		25	25	18.65	18.72	18.60
		50	0	18.55	18.68	18.59
10M	64QAM	1	0	18.63	18.66	18.55
		1	24	18.59	18.57	18.44
		1	49	18.54	18.54	18.46
		25	0	17.75	17.79	17.63
		25	12	17.70	17.67	17.53
		25	25	17.63	17.62	17.57
		50	0	17.64	17.68	17.53

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20775	21100	21425
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	20.82	20.86	20.85
		1	12	20.77	20.77	20.83
		1	24	20.81	20.77	20.77
		12	0	19.86	19.88	19.81
		12	6	19.88	19.82	19.72
		12	13	19.76	19.79	19.68
		25	0	19.79	19.80	19.77
5M	16QAM	1	0	19.74	19.78	19.74
		1	12	19.77	19.76	19.67
		1	24	19.65	19.77	19.63
		12	0	18.69	18.76	18.67
		12	6	18.56	18.74	18.57
		12	13	18.63	18.67	18.62
		25	0	18.62	18.60	18.57
5M	64QAM	1	0	18.60	18.66	18.47
		1	12	18.60	18.66	18.45
		1	24	18.56	18.52	18.45
		12	0	17.67	17.76	17.73
		12	6	17.66	17.67	17.58
		12	13	17.62	17.63	17.49
		25	0	17.67	17.62	17.55

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23060	23095	23130
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	22.76	<b>22.83</b>	22.71
		1	24	22.61	22.66	22.59
		1	49	22.61	22.65	22.57
		25	0	21.83	21.91	21.76
		25	12	21.89	21.89	21.88
		25	25	21.78	21.87	21.69
		50	0	21.76	21.79	21.73
10M	16QAM	1	0	21.98	22.01	21.90
		1	24	21.91	21.98	21.85
		1	49	21.78	21.86	21.68
		25	0	20.96	21.02	20.96
		25	12	20.94	20.99	20.91
		25	25	20.86	20.88	20.77
		50	0	20.70	20.76	20.62
10M	64QAM	1	0	20.76	20.86	20.73
		1	24	20.77	20.79	20.70
		1	49	20.62	20.72	20.61
		25	0	19.79	19.83	19.73
		25	12	19.77	19.77	19.74
		25	25	19.69	19.70	19.62
		50	0	19.70	19.73	19.66

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23035	23095	23155
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	22.57	22.71	22.53
		1	12	22.46	22.55	22.42
		1	24	22.50	22.53	22.40
		12	0	21.73	21.75	21.62
		12	6	21.71	21.72	21.68
		12	13	21.59	21.70	21.58
		25	0	21.60	21.60	21.63
5M	16QAM	1	0	21.86	21.86	21.77
		1	12	21.73	21.88	21.65
		1	24	21.58	21.69	21.50
		12	0	20.76	20.86	20.81
		12	6	20.75	20.88	20.74
		12	13	20.75	20.78	20.59
		25	0	20.57	20.61	20.50
5M	64QAM	1	0	20.67	20.84	20.70
		1	12	20.71	20.70	20.68
		1	24	20.54	20.66	20.61
		12	0	19.71	19.77	19.64
		12	6	19.71	19.76	19.70
		12	13	19.68	19.67	19.58
		25	0	19.62	19.69	19.62

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23025	23095	23165
		Frequency (MHz)		700.5	707.5	714.5
3M	QPSK	1	0	22.57	22.67	22.60
		1	7	22.48	22.46	22.44
		1	14	22.50	22.55	22.37
		8	0	21.72	21.72	21.63
		8	3	21.76	21.78	21.73
		8	7	21.66	21.75	21.52
		15	0	21.62	21.65	21.55
3M	16QAM	1	0	21.81	21.83	21.79
		1	7	21.75	21.83	21.72
		1	14	21.62	21.66	21.58
		8	0	20.80	20.90	20.86
		8	3	20.74	20.83	20.76
		8	7	20.67	20.76	20.63
		15	0	20.51	20.56	20.44
3M	64QAM	1	0	20.76	20.85	20.67
		1	7	20.76	20.77	20.60
		1	14	20.58	20.67	20.59
		8	0	19.69	19.76	19.70
		8	3	19.71	19.72	19.74
		8	7	19.60	19.70	19.56
		15	0	19.66	19.72	19.61



LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23017	23095	23173
		Frequency (MHz)		699.7	707.5	715.3
1.4M	QPSK	1	0	22.49	22.60	22.60
		1	2	22.35	22.32	22.32
		1	5	22.39	22.50	22.31
		3	0	22.68	22.62	22.61
		3	1	22.69	22.77	22.72
		3	3	22.53	22.72	22.40
		6	0	21.61	21.51	21.50
1.4M	16QAM	1	0	21.81	21.81	21.77
		1	2	21.60	21.80	21.67
		1	5	21.56	21.62	21.55
		3	0	21.65	21.90	21.76
		3	1	21.60	21.72	21.67
		3	3	21.62	21.71	21.50
		6	0	20.36	20.46	20.42
1.4M	64QAM	1	0	20.37	20.44	20.35
		1	2	20.33	20.38	20.28
		1	5	20.28	20.31	20.20
		3	0	20.33	20.35	20.28
		3	1	20.19	20.28	20.16
		3	3	20.22	20.22	20.22
		6	0	19.38	19.39	19.30

LTE Band 13				
BW	MCS Index	RB Size	RB Offset	Low
		Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	22.77
		1	24	22.63
		1	49	22.59
		25	0	21.81
		25	12	21.79
		25	25	21.76
		50	0	21.74
10M	16QAM	1	0	21.98
		1	24	21.91
		1	49	21.89
		25	0	20.86
		25	12	20.84
		25	25	20.78
		50	0	20.77
10M	64QAM	1	0	20.83
		1	24	20.78
		1	49	20.71
		25	0	19.85
		25	12	19.80
		25	25	19.73
		50	0	19.78

LTE Band 13						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23205	23230	23255
		Frequency (MHz)		779.5	782	784.5
5M	QPSK	1	0	22.45	22.65	22.51
		1	12	22.31	22.51	22.25
		1	24	22.28	22.41	22.21
		12	0	21.48	21.66	21.45
		12	6	21.49	21.69	21.53
		12	13	21.41	21.66	21.43
		25	0	21.40	21.58	21.47
5M	16QAM	1	0	21.73	21.83	21.66
		1	12	21.71	21.78	21.52
		1	24	21.58	21.73	21.56
		12	0	20.55	20.70	20.59
		12	6	20.57	20.65	20.54
		12	13	20.40	20.65	20.43
		25	0	20.47	20.57	20.51
5M	64QAM	1	0	20.59	20.66	20.54
		1	12	20.52	20.59	20.42
		1	24	20.45	20.53	20.39
		12	0	19.61	19.71	19.54
		12	6	19.64	19.65	19.57
		12	13	19.53	19.60	19.46
		25	0	19.62	19.63	19.58

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37850	38000	38150
		Frequency (MHz)		2580	2595	2610
20M	QPSK	1	0	21.47	<b>21.49</b>	21.46
		1	50	21.44	21.45	21.44
		1	99	21.43	21.44	21.42
		50	0	20.37	20.43	20.29
		50	25	20.37	20.40	20.33
		50	50	20.29	20.38	20.22
		100	0	20.35	20.36	20.31
20M	16QAM	1	0	20.30	20.32	20.27
		1	50	20.25	20.29	20.22
		1	99	20.23	20.26	20.16
		50	0	19.20	19.25	19.17
		50	25	19.13	19.23	19.11
		50	50	19.19	19.20	19.19
		100	0	19.18	19.18	19.17
20M	64QAM	1	0	19.18	19.22	19.17
		1	50	19.13	19.18	19.13
		1	99	19.06	19.13	18.96
		50	0	18.27	18.33	18.23
		50	25	18.18	18.27	18.16
		50	50	18.19	18.21	18.18
		100	0	18.15	18.23	18.11

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37825	38000	38175
		Frequency (MHz)		2577.5	2595	2612.5
15M	QPSK	1	0	21.35	21.30	21.26
		1	37	21.25	21.29	21.34
		1	74	21.33	21.24	21.27
		36	0	20.37	20.35	20.28
		36	19	20.28	20.39	20.31
		36	39	20.23	20.35	20.21
		75	0	20.31	20.34	20.28
15M	16QAM	1	0	20.24	20.27	20.26
		1	37	20.19	20.19	20.15
		1	74	20.22	20.18	20.11
		36	0	19.12	19.16	19.16
		36	19	19.05	19.15	19.11
		36	39	19.16	19.10	19.19
		75	0	19.12	19.15	19.17
15M	64QAM	1	0	19.18	19.20	19.13
		1	37	19.07	19.15	19.07
		1	74	19.06	19.11	18.93
		36	0	18.20	18.26	18.16
		36	19	18.08	18.19	18.08
		36	39	18.09	18.20	18.08
		75	0	18.08	18.13	18.06

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37800	38000	38200
		Frequency (MHz)		2575	2595	2615
10M	QPSK	1	0	21.27	21.39	21.33
		1	24	21.29	21.30	21.25
		1	49	21.27	21.26	21.28
		25	0	20.37	20.40	20.23
		25	12	20.27	20.33	20.31
		25	25	20.26	20.29	20.12
		50	0	20.27	20.28	20.25
10M	16QAM	1	0	20.25	20.28	20.17
		1	24	20.17	20.19	20.20
		1	49	20.16	20.17	20.07
		25	0	19.15	19.24	19.16
		25	12	19.09	19.14	19.09
		25	25	19.14	19.14	19.16
		50	0	19.12	19.08	19.07
10M	64QAM	1	0	19.09	19.15	19.08
		1	24	19.12	19.09	19.05
		1	49	19.02	19.11	18.91
		25	0	18.20	18.27	18.22
		25	12	18.15	18.26	18.11
		25	25	18.11	18.13	18.08
		50	0	18.11	18.20	18.06

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37775	38000	38225
		Frequency (MHz)		2572.5	2595	2617.5
5M	QPSK	1	0	21.32	21.37	21.32
		1	12	21.34	21.31	21.29
		1	24	21.24	21.34	21.29
		12	0	20.36	20.43	20.28
		12	6	20.27	20.32	20.24
		12	13	20.22	20.38	20.20
		25	0	20.32	20.29	20.28
5M	16QAM	1	0	20.22	20.23	20.25
		1	12	20.19	20.27	20.13
		1	24	20.17	20.18	20.09
		12	0	19.15	19.22	19.17
		12	6	19.03	19.14	19.01
		12	13	19.15	19.17	19.14
		25	0	19.09	19.08	19.09
5M	64QAM	1	0	19.08	19.17	19.13
		1	12	19.08	19.16	19.05
		1	24	19.06	19.05	18.94
		12	0	18.19	18.31	18.20
		12	6	18.15	18.26	18.13
		12	13	18.09	18.15	18.13
		25	0	18.08	18.20	18.06

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	21.47	21.45	21.43
		1	50	21.45	21.43	21.41
		1	99	21.44	21.41	21.39
		50	0	20.35	20.36	20.32
		50	25	20.34	20.42	20.36
		50	50	20.39	20.35	20.29
		100	0	20.36	20.37	20.30
20M	16QAM	1	0	20.35	20.29	20.29
		1	50	20.25	20.34	20.24
		1	99	20.28	20.26	20.23
		50	0	19.30	19.32	19.20
		50	25	19.25	19.30	19.20
		50	50	19.19	19.19	19.28
		100	0	19.21	19.27	19.19
20M	64QAM	1	0	19.27	19.25	19.34
		1	50	19.26	19.28	19.26
		1	99	19.18	19.26	19.19
		50	0	18.37	18.30	18.29
		50	25	18.30	18.23	18.28
		50	50	18.19	18.18	18.21
		100	0	18.22	18.24	18.24



LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	21.31	21.32	21.26
		1	37	21.28	21.23	21.24
		1	74	21.33	21.23	21.20
		36	0	20.32	20.28	20.26
		36	19	20.30	20.42	20.29
		36	39	20.35	20.31	20.21
		75	0	20.27	20.30	20.27
15M	16QAM	1	0	20.35	20.29	20.34
		1	37	20.16	20.32	20.29
		1	74	20.18	20.21	20.32
		36	0	19.27	19.22	19.23
		36	19	19.16	19.21	19.22
		36	39	19.18	19.15	19.20
		75	0	19.18	19.18	19.13
15M	64QAM	1	0	19.21	19.25	19.33
		1	37	19.25	19.22	19.33
		1	74	19.13	19.16	19.30
		36	0	18.37	18.29	18.25
		36	19	18.26	18.20	18.30
		36	39	18.09	18.12	18.20
		75	0	18.17	18.16	18.22

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	21.37	21.31	21.28
		1	24	21.27	21.27	21.31
		1	49	21.28	21.30	21.28
		25	0	20.25	20.32	20.24
		25	12	20.30	20.40	20.30
		25	25	20.29	20.32	20.27
		50	0	20.36	20.33	20.26
10M	16QAM	1	0	20.25	20.24	20.26
		1	24	20.15	20.24	20.28
		1	49	20.28	20.18	20.28
		25	0	19.22	19.26	19.22
		25	12	19.20	19.28	19.18
		25	25	19.18	19.11	19.22
		50	0	19.19	19.25	19.15
10M	64QAM	1	0	19.20	19.21	19.39
		1	24	19.24	19.28	19.33
		1	49	19.09	19.21	19.34
		25	0	18.29	18.22	18.26
		25	12	18.25	18.18	18.32
		25	25	18.13	18.11	18.29
		50	0	18.16	18.19	18.29

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	21.30	21.29	21.29
		1	12	21.33	21.26	21.25
		1	24	21.29	21.28	21.23
		12	0	20.27	20.33	20.32
		12	6	20.33	20.32	20.32
		12	13	20.39	20.34	20.21
		25	0	20.26	20.37	20.33
5M	16QAM	1	0	20.33	20.24	20.35
		1	12	20.22	20.34	20.29
		1	24	20.25	20.20	20.25
		12	0	19.23	19.28	19.21
		12	6	19.21	19.20	19.22
		12	13	19.19	19.19	19.23
		25	0	19.11	19.20	19.13
5M	64QAM	1	0	19.18	19.25	19.37
		1	12	19.26	19.23	19.31
		1	24	19.11	19.16	19.32
		12	0	18.35	18.21	18.30
		12	6	18.29	18.15	18.31
		12	13	18.16	18.09	18.25
		25	0	18.12	18.21	18.24

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132072	132322	132572
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	20.95	<b>20.98</b>	20.94
		1	50	20.93	20.96	20.92
		1	99	20.90	20.91	20.88
		50	0	19.80	19.89	19.79
		50	25	19.74	19.81	19.63
		50	50	19.63	19.83	19.64
		100	0	19.76	19.77	19.74
20M	16QAM	1	0	19.75	19.79	19.61
		1	50	19.59	19.76	19.54
		1	99	19.73	19.70	19.68
		50	0	18.64	18.72	18.57
		50	25	18.60	18.72	18.56
		50	50	18.62	18.67	18.62
		100	0	18.63	18.68	18.58
20M	64QAM	1	0	18.68	18.78	18.58
		1	50	18.62	18.71	18.52
		1	99	18.55	18.65	18.48
		50	0	17.76	17.83	17.68
		50	25	17.76	17.77	17.66
		50	50	17.69	17.72	17.62
		100	0	17.73	17.74	17.63

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132047	132322	132597
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	20.78	20.87	20.74
		1	37	20.81	20.84	20.73
		1	74	20.75	20.75	20.69
		36	0	19.78	19.86	19.76
		36	19	19.74	19.79	19.67
		36	39	19.71	19.79	19.62
		75	0	19.72	19.76	19.79
15M	16QAM	1	0	19.74	19.72	19.59
		1	37	19.67	19.72	19.57
		1	74	19.66	19.76	19.67
		36	0	18.62	18.71	18.57
		36	19	18.65	18.65	18.55
		36	39	18.69	18.68	18.52
		75	0	18.60	18.63	18.62
15M	64QAM	1	0	18.67	18.75	18.54
		1	37	18.57	18.66	18.45
		1	74	18.53	18.57	18.48
		36	0	17.73	17.75	17.61
		36	19	17.74	17.77	17.58
		36	39	17.61	17.70	17.62
		75	0	17.64	17.72	17.57

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132022	132322	132622
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	20.79	20.86	20.77
		1	24	20.75	20.79	20.76
		1	49	20.70	20.72	20.78
		25	0	19.82	19.83	19.76
		25	12	19.74	19.82	19.64
		25	25	19.63	19.81	19.59
		50	0	19.80	19.76	19.70
10M	16QAM	1	0	19.74	19.80	19.66
		1	24	19.62	19.77	19.59
		1	49	19.72	19.76	19.60
		25	0	18.65	18.73	18.57
		25	12	18.58	18.71	18.53
		25	25	18.64	18.62	18.54
		50	0	18.66	18.66	18.65
10M	64QAM	1	0	18.64	18.76	18.53
		1	24	18.55	18.63	18.51
		1	49	18.48	18.57	18.44
		25	0	17.70	17.81	17.58
		25	12	17.74	17.72	17.56
		25	25	17.69	17.71	17.53
		50	0	17.71	17.68	17.61

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131997	132322	132647
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	20.81	20.85	20.84
		1	12	20.79	20.83	20.76
		1	24	20.71	20.80	20.72
		12	0	19.81	19.87	19.73
		12	6	19.69	19.76	19.63
		12	13	19.70	19.79	19.58
		25	0	19.78	19.78	19.79
5M	16QAM	1	0	19.76	19.72	19.66
		1	12	19.66	19.76	19.58
		1	24	19.67	19.71	19.65
		12	0	18.66	18.70	18.59
		12	6	18.57	18.72	18.51
		12	13	18.63	18.68	18.61
		25	0	18.58	18.65	18.56
5M	64QAM	1	0	18.63	18.74	18.49
		1	12	18.53	18.71	18.43
		1	24	18.52	18.61	18.39
		12	0	17.74	17.77	17.62
		12	6	17.68	17.68	17.63
		12	13	17.61	17.66	17.53
		25	0	17.71	17.71	17.60

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131987	132322	132657
		Frequency (MHz)		1711.5	1745	1778.5
3M	QPSK	1	0	20.83	20.78	20.78
		1	7	20.73	20.76	20.76
		1	14	20.70	20.80	20.71
		8	0	19.85	19.79	19.78
		8	3	19.70	19.85	19.58
		8	7	19.69	19.76	19.68
		15	0	19.72	19.78	19.74
3M	16QAM	1	0	19.75	19.76	19.59
		1	7	19.64	19.68	19.49
		1	14	19.70	19.68	19.60
		8	0	18.67	18.71	18.57
		8	3	18.60	18.71	18.53
		8	7	18.60	18.63	18.55
		15	0	18.62	18.69	18.60
3M	64QAM	1	0	18.66	18.73	18.53
		1	7	18.54	18.66	18.46
		1	14	18.52	18.55	18.43
		8	0	17.74	17.80	17.58
		8	3	17.75	17.71	17.61
		8	7	17.60	17.72	17.61
		15	0	17.70	17.70	17.63



LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131979	132322	132665
		Frequency (MHz)		1710.7	1745	1779.3
1.4M	QPSK	1	0	20.80	20.83	20.76
		1	2	20.75	20.78	20.76
		1	5	20.74	20.80	20.70
		3	0	19.79	19.87	19.73
		3	1	19.75	19.76	19.61
		3	3	19.73	19.83	19.64
		6	0	19.79	19.73	19.77
1.4M	16QAM	1	0	19.70	19.75	19.65
		1	2	19.68	19.69	19.53
		1	5	19.73	19.68	19.61
		3	0	18.65	18.74	18.61
		3	1	18.65	18.65	18.55
		3	3	18.62	18.66	18.52
		6	0	18.66	18.61	18.57
1.4M	64QAM	1	0	18.68	18.73	18.65
		1	2	18.59	18.65	18.51
		1	5	18.51	18.60	18.41
		3	0	18.53	18.62	18.48
		3	1	18.58	18.58	18.49
		3	3	18.49	18.53	18.47
		6	0	17.69	17.72	17.61

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133222	133297	133372
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	22.47	<b>22.66</b>	22.62
		1	50	22.45	22.64	22.50
		1	99	22.43	22.51	22.43
		50	0	21.57	21.67	21.52
		50	25	21.55	21.62	21.54
		50	50	21.49	21.61	21.46
		100	0	21.40	21.54	21.42
20M	16QAM	1	0	21.74	21.83	21.74
		1	50	21.73	21.82	21.72
		1	99	21.66	21.77	21.65
		50	0	20.61	20.72	20.66
		50	25	20.52	20.65	20.60
		50	50	20.57	20.63	20.50
		100	0	20.54	20.59	20.52
20M	64QAM	1	0	20.64	20.71	20.67
		1	50	20.56	20.66	20.57
		1	99	20.55	20.61	20.56
		50	0	19.77	19.82	19.72
		50	25	19.72	19.76	19.68
		50	50	19.68	19.71	19.67
		100	0	19.67	19.72	19.62

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133197	133297	133397
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	22.27	22.56	22.48
		1	37	22.28	22.52	22.40
		1	74	22.26	22.39	22.26
		36	0	21.42	21.54	21.40
		36	19	21.43	21.42	21.36
		36	39	21.36	21.48	21.27
		75	0	21.20	21.44	21.22
15M	16QAM	1	0	21.56	21.69	21.57
		1	37	21.54	21.71	21.55
		1	74	21.56	21.57	21.47
		36	0	20.49	20.57	20.46
		36	19	20.37	20.50	20.50
		36	39	20.45	20.52	20.35
		75	0	20.42	20.46	20.32
15M	64QAM	1	0	20.64	20.68	20.57
		1	37	20.51	20.60	20.49
		1	74	20.50	20.59	20.51
		36	0	19.73	19.75	19.70
		36	19	19.66	19.70	19.68
		36	39	19.67	19.63	19.58
		75	0	19.61	19.68	19.60

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133172	133297	133422
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	22.31	22.53	22.41
		1	24	22.27	22.48	22.36
		1	49	22.33	22.31	22.23
		25	0	21.43	21.49	21.34
		25	12	21.40	21.51	21.40
		25	25	21.38	21.42	21.33
		50	0	21.28	21.37	21.23
10M	16QAM	1	0	21.63	21.64	21.55
		1	24	21.56	21.64	21.56
		1	49	21.49	21.60	21.51
		25	0	20.42	20.53	20.56
		25	12	20.34	20.47	20.49
		25	25	20.38	20.50	20.33
		50	0	20.36	20.42	20.40
10M	64QAM	1	0	20.59	20.63	20.65
		1	24	20.46	20.66	20.48
		1	49	20.52	20.54	20.54
		25	0	19.72	19.74	19.71
		25	12	19.65	19.69	19.66
		25	25	19.67	19.61	19.62
		50	0	19.65	19.64	19.56

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133147	133297	133447
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	22.31	22.46	22.40
		1	12	22.27	22.48	22.32
		1	24	22.29	22.35	22.23
		12	0	21.43	21.48	21.42
		12	6	21.37	21.51	21.38
		12	13	21.29	21.45	21.36
		25	0	21.25	21.36	21.25
5M	16QAM	1	0	21.55	21.63	21.56
		1	12	21.56	21.69	21.54
		1	24	21.52	21.62	21.55
		12	0	20.45	20.52	20.50
		12	6	20.34	20.49	20.40
		12	13	20.45	20.50	20.36
		25	0	20.41	20.40	20.38
5M	64QAM	1	0	20.64	20.67	20.57
		1	12	20.51	20.62	20.56
		1	24	20.51	20.59	20.56
		12	0	19.67	19.78	19.62
		12	6	19.71	19.71	19.63
		12	13	19.61	19.62	19.66
		25	0	19.65	19.65	19.60

**EIRP / ERP Power (dBm)**

Band	WCDMA IV		
TX Channel	1312	1413	1513
Rx Channel	1537	1638	1738
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	23.72	23.63	23.66
HSDPA Subtest-1	22.72	22.65	22.60
HSDPA Subtest-2	22.68	22.61	22.65
HSDPA Subtest-3	22.23	22.17	22.05
HSDPA Subtest-4	22.20	22.14	22.06
DC-HSDPA Subtest-1	22.63	22.57	22.60
DC-HSDPA Subtest-2	22.58	22.54	22.75
DC-HSDPA Subtest-3	22.11	22.10	21.99
DC-HSDPA Subtest-4	22.08	22.06	22.25
HSUPA Subtest-1	22.61	22.60	22.62
HSUPA Subtest-2	20.56	20.55	20.60
HSUPA Subtest-3	21.63	21.64	21.53
HSUPA Subtest-4	20.68	20.56	20.59
HSUPA Subtest-5	22.58	22.49	22.75

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20050	20175	20300
		Frequency (MHz)		1720	1732.5	1745
20M	QPSK	1	0	22.76	22.77	22.74
		1	50	22.74	22.75	22.72
		1	99	22.70	22.71	22.69
		50	0	21.57	21.66	21.61
		50	25	21.54	21.64	21.56
		50	50	21.53	21.61	21.55
		100	0	21.48	21.59	21.55
20M	16QAM	1	0	21.45	21.57	21.50
		1	50	21.40	21.55	21.47
		1	99	21.41	21.54	21.48
		50	0	20.39	20.51	20.41
		50	25	20.43	20.49	20.44
		50	50	20.36	20.46	20.39
		100	0	20.35	20.44	20.35
20M	64QAM	1	0	20.40	20.43	20.32
		1	50	20.29	20.35	20.20
		1	99	20.28	20.29	20.24
		50	0	19.48	19.51	19.44
		50	25	19.41	19.43	19.40
		50	50	19.31	19.36	19.28
		100	0	19.37	19.39	19.33

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20025	20175	20325
		Frequency (MHz)		1717.5	1732.5	1747.5
15M	QPSK	1	0	22.56	22.61	22.58
		1	37	22.62	22.59	22.56
		1	74	22.56	22.58	22.52
		36	0	21.51	21.66	21.51
		36	19	21.48	21.62	21.48
		36	39	21.53	21.61	21.45
		75	0	21.46	21.55	21.52
15M	16QAM	1	0	21.45	21.51	21.50
		1	37	21.39	21.54	21.47
		1	74	21.31	21.44	21.44
		36	0	20.32	20.51	20.37
		36	19	20.34	20.42	20.42
		36	39	20.26	20.36	20.38
		75	0	20.33	20.43	20.34
15M	64QAM	1	0	20.33	20.39	20.28
		1	37	20.25	20.34	20.11
		1	74	20.24	20.22	20.19
		36	0	19.48	19.50	19.36
		36	19	19.38	19.33	19.38
		36	39	19.27	19.34	19.22
		75	0	19.29	19.31	19.32

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)



LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20000	20175	20350
		Frequency (MHz)		1715	1732.5	1750
10M	QPSK	1	0	22.59	22.66	22.57
		1	24	22.62	22.60	22.52
		1	49	22.59	22.57	22.55
		25	0	21.54	21.63	21.56
		25	12	21.52	21.60	21.56
		25	25	21.51	21.54	21.49
		50	0	21.41	21.54	21.53
10M	16QAM	1	0	21.38	21.56	21.41
		1	24	21.30	21.50	21.46
		1	49	21.38	21.46	21.41
		25	0	20.31	20.50	20.38
		25	12	20.34	20.48	20.37
		25	25	20.35	20.36	20.37
		50	0	20.29	20.43	20.33
10M	64QAM	1	0	20.34	20.43	20.29
		1	24	20.29	20.29	20.17
		1	49	20.22	20.23	20.14
		25	0	19.43	19.43	19.38
		25	12	19.38	19.36	19.36
		25	25	19.21	19.29	19.18
		50	0	19.36	19.36	19.28

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19975	20175	20375
		Frequency (MHz)		1712.5	1732.5	1752.5
5M	QPSK	1	0	22.61	22.65	22.55
		1	12	22.57	22.61	22.60
		1	24	22.51	22.54	22.57
		12	0	21.54	21.64	21.54
		12	6	21.54	21.58	21.49
		12	13	21.53	21.60	21.50
		25	0	21.43	21.53	21.55
5M	16QAM	1	0	21.35	21.48	21.48
		1	12	21.31	21.55	21.44
		1	24	21.37	21.48	21.45
		12	0	20.30	20.42	20.41
		12	6	20.40	20.42	20.41
		12	13	20.31	20.44	20.33
		25	0	20.26	20.34	20.33
5M	64QAM	1	0	20.34	20.40	20.27
		1	12	20.22	20.26	20.16
		1	24	20.27	20.26	20.20
		12	0	19.40	19.45	19.41
		12	6	19.31	19.43	19.32
		12	13	19.22	19.33	19.25
		25	0	19.30	19.38	19.33

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19965	20175	20385
		Frequency (MHz)		1711.5	1732.5	1753.5
3M	QPSK	1	0	22.61	22.61	22.56
		1	7	22.54	22.63	22.55
		1	14	22.60	22.58	22.59
		8	0	21.55	21.57	21.60
		8	3	21.50	21.64	21.56
		8	7	21.48	21.59	21.48
		15	0	21.39	21.56	21.49
3M	16QAM	1	0	21.45	21.51	21.41
		1	7	21.31	21.49	21.41
		1	14	21.40	21.52	21.42
		8	0	20.34	20.50	20.38
		8	3	20.39	20.39	20.37
		8	7	20.32	20.43	20.31
		15	0	20.35	20.38	20.25
3M	64QAM	1	0	20.36	20.36	20.28
		1	7	20.29	20.35	20.10
		1	14	20.22	20.21	20.18
		8	0	19.48	19.49	19.41
		8	3	19.37	19.38	19.37
		8	7	19.21	19.34	19.27
		15	0	19.30	19.32	19.30

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 4						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		19957	20175	20393
		Frequency (MHz)		1710.7	1732.5	1754.3
1.4M	QPSK	1	0	22.56	22.60	22.59
		1	2	22.54	22.63	22.62
		1	5	22.58	22.57	22.52
		3	0	21.49	21.66	21.55
		3	1	21.54	21.58	21.46
		3	3	21.43	21.59	21.45
		6	0	21.42	21.58	21.54
1.4M	16QAM	1	0	21.43	21.55	21.50
		1	2	21.38	21.55	21.37
		1	5	21.33	21.48	21.45
		3	0	20.33	20.43	20.34
		3	1	20.43	20.48	20.40
		3	3	20.30	20.41	20.29
		6	0	20.31	20.34	20.28
1.4M	64QAM	1	0	20.29	20.43	20.37
		1	2	20.27	20.36	20.31
		1	5	20.20	20.26	20.20
		3	0	20.23	20.34	20.31
		3	1	20.13	20.20	20.16
		3	3	20.05	20.13	20.07
		6	0	19.36	19.50	19.41

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20850	21100	21350
		Frequency (MHz)		2510	2535	2560
20M	QPSK	1	0	22.90	22.91	22.89
		1	50	22.87	22.88	22.86
		1	99	22.86	22.87	22.85
		50	0	21.82	21.86	21.81
		50	25	21.80	21.83	21.72
		50	50	21.72	21.81	21.64
		100	0	21.77	21.78	21.77
20M	16QAM	1	0	21.73	21.75	21.66
		1	50	21.73	21.73	21.63
		1	99	21.65	21.71	21.62
		50	0	20.69	20.69	20.68
		50	25	20.58	20.66	20.52
		50	50	20.65	20.65	20.61
		100	0	20.57	20.60	20.52
20M	64QAM	1	0	20.57	20.63	20.48
		1	50	20.54	20.58	20.45
		1	99	20.48	20.53	20.40
		50	0	19.67	19.74	19.65
		50	25	19.63	19.68	19.55
		50	50	19.60	19.61	19.51
		100	0	19.64	19.64	19.55

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20825	21100	21375
		Frequency (MHz)		2507.5	2535	2562.5
15M	QPSK	1	0	22.72	22.77	22.75
		1	37	22.71	22.74	22.70
		1	74	22.69	22.77	22.74
		36	0	21.80	21.86	21.81
		36	19	21.75	21.77	21.69
		36	39	21.70	21.73	21.60
		75	0	21.72	21.68	21.68
15M	16QAM	1	0	21.63	21.69	21.64
		1	37	21.68	21.69	21.53
		1	74	21.58	21.61	21.60
		36	0	20.68	20.67	20.59
		36	19	20.49	20.62	20.50
		36	39	20.62	20.56	20.52
		75	0	20.55	20.50	20.43
15M	64QAM	1	0	20.50	20.57	20.45
		1	37	20.44	20.53	20.41
		1	74	20.45	20.48	20.33
		36	0	19.64	19.70	19.56
		36	19	19.63	19.66	19.49
		36	39	19.53	19.60	19.43
		75	0	19.54	19.60	19.45

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20800	21100	21400
		Frequency (MHz)		2505	2535	2565
10M	QPSK	1	0	22.78	22.71	22.72
		1	24	22.77	22.77	22.74
		1	49	22.67	22.71	22.65
		25	0	21.74	21.79	21.79
		25	12	21.73	21.78	21.65
		25	25	21.65	21.77	21.64
		50	0	21.76	21.75	21.75
10M	16QAM	1	0	21.72	21.69	21.60
		1	24	21.73	21.68	21.62
		1	49	21.59	21.66	21.58
		25	0	20.69	20.60	20.67
		25	12	20.48	20.64	20.52
		25	25	20.57	20.64	20.52
		50	0	20.47	20.60	20.51
10M	64QAM	1	0	20.55	20.58	20.47
		1	24	20.51	20.49	20.36
		1	49	20.46	20.46	20.38
		25	0	19.67	19.71	19.55
		25	12	19.62	19.59	19.45
		25	25	19.55	19.54	19.49
		50	0	19.56	19.60	19.45

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 7						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		20775	21100	21425
		Frequency (MHz)		2502.5	2535	2567.5
5M	QPSK	1	0	22.74	22.78	22.77
		1	12	22.69	22.69	22.75
		1	24	22.73	22.69	22.69
		12	0	21.78	21.80	21.73
		12	6	21.80	21.74	21.64
		12	13	21.68	21.71	21.60
		25	0	21.71	21.72	21.69
5M	16QAM	1	0	21.66	21.70	21.66
		1	12	21.69	21.68	21.59
		1	24	21.57	21.69	21.55
		12	0	20.61	20.68	20.59
		12	6	20.48	20.66	20.49
		12	13	20.55	20.59	20.54
		25	0	20.54	20.52	20.49
5M	64QAM	1	0	20.52	20.58	20.39
		1	12	20.52	20.58	20.37
		1	24	20.48	20.44	20.37
		12	0	19.59	19.68	19.65
		12	6	19.58	19.59	19.50
		12	13	19.54	19.55	19.41
		25	0	19.59	19.54	19.47

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)



LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23060	23095	23130
		Frequency (MHz)		704	707.5	711
10M	QPSK	1	0	23.77	23.84	23.72
		1	24	23.62	23.67	23.60
		1	49	23.62	23.66	23.58
		25	0	22.84	22.92	22.77
		25	12	22.90	22.90	22.89
		25	25	22.79	22.88	22.70
		50	0	22.77	22.80	22.74
10M	16QAM	1	0	22.99	23.02	22.91
		1	24	22.92	22.99	22.86
		1	49	22.79	22.87	22.69
		25	0	21.97	22.03	21.97
		25	12	21.95	22.00	21.92
		25	25	21.87	21.89	21.78
		50	0	21.71	21.77	21.63
10M	64QAM	1	0	21.77	21.87	21.74
		1	24	21.78	21.80	21.71
		1	49	21.63	21.73	21.62
		25	0	20.80	20.84	20.74
		25	12	20.78	20.78	20.75
		25	25	20.70	20.71	20.63
		50	0	20.71	20.74	20.67

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23035	23095	23155
		Frequency (MHz)		701.5	707.5	713.5
5M	QPSK	1	0	23.58	23.72	23.54
		1	12	23.47	23.56	23.43
		1	24	23.51	23.54	23.41
		12	0	22.74	22.76	22.63
		12	6	22.72	22.73	22.69
		12	13	22.60	22.71	22.59
		25	0	22.61	22.61	22.64
5M	16QAM	1	0	22.87	22.87	22.78
		1	12	22.74	22.89	22.66
		1	24	22.59	22.70	22.51
		12	0	21.77	21.87	21.82
		12	6	21.76	21.89	21.75
		12	13	21.76	21.79	21.60
		25	0	21.58	21.62	21.51
5M	64QAM	1	0	21.68	21.85	21.71
		1	12	21.72	21.71	21.69
		1	24	21.55	21.67	21.62
		12	0	20.72	20.78	20.65
		12	6	20.72	20.77	20.71
		12	13	20.69	20.68	20.59
		25	0	20.63	20.70	20.63

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23025	23095	23165
		Frequency (MHz)		700.5	707.5	714.5
3M	QPSK	1	0	23.58	23.68	23.61
		1	7	23.49	23.47	23.45
		1	14	23.51	23.56	23.38
		8	0	22.73	22.73	22.64
		8	3	22.77	22.79	22.74
		8	7	22.67	22.76	22.53
		15	0	22.63	22.66	22.56
3M	16QAM	1	0	22.82	22.84	22.80
		1	7	22.76	22.84	22.73
		1	14	22.63	22.67	22.59
		8	0	21.81	21.91	21.87
		8	3	21.75	21.84	21.77
		8	7	21.68	21.77	21.64
		15	0	21.52	21.57	21.45
3M	64QAM	1	0	21.77	21.86	21.68
		1	7	21.77	21.78	21.61
		1	14	21.59	21.68	21.60
		8	0	20.70	20.77	20.71
		8	3	20.72	20.73	20.75
		8	7	20.61	20.71	20.57
		15	0	20.67	20.73	20.62

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

LTE Band 12						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23017	23095	23173
		Frequency (MHz)		699.7	707.5	715.3
1.4M	QPSK	1	0	23.50	23.61	23.61
		1	2	23.36	23.33	23.33
		1	5	23.40	23.51	23.32
		3	0	23.69	23.63	23.62
		3	1	23.70	23.78	23.73
		3	3	23.54	23.73	23.41
		6	0	22.62	22.52	22.51
1.4M	16QAM	1	0	22.82	22.82	22.78
		1	2	22.61	22.81	22.68
		1	5	22.57	22.63	22.56
		3	0	22.66	22.91	22.77
		3	1	22.61	22.73	22.68
		3	3	22.63	22.72	22.51
		6	0	21.37	21.47	21.43
1.4M	64QAM	1	0	21.38	21.45	21.36
		1	2	21.34	21.39	21.29
		1	5	21.29	21.32	21.21
		3	0	21.34	21.36	21.29
		3	1	21.20	21.29	21.17
		3	3	21.23	21.23	21.23
		6	0	20.39	20.40	20.31

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

LTE Band 13				
BW	MCS Index	RB Size	RB Offset	Low
		Channel		23230
		Frequency (MHz)		782
10M	QPSK	1	0	21.49
		1	24	21.35
		1	49	21.31
		25	0	20.53
		25	12	20.51
		25	25	20.48
		50	0	20.46
10M	16QAM	1	0	20.70
		1	24	20.63
		1	49	20.61
		25	0	19.58
		25	12	19.56
		25	25	19.50
		50	0	19.49
10M	64QAM	1	0	19.55
		1	24	19.50
		1	49	19.43
		25	0	18.57
		25	12	18.52
		25	25	18.45
		50	0	18.50

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

LTE Band 13						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		23205	23230	23255
		Frequency (MHz)		779.5	782	784.5
5M	QPSK	1	0	21.17	21.37	21.23
		1	12	21.03	21.23	20.97
		1	24	21.00	21.13	20.93
		12	0	20.20	20.38	20.17
		12	6	20.21	20.41	20.25
		12	13	20.13	20.38	20.15
		25	0	20.12	20.30	20.19
5M	16QAM	1	0	20.45	20.55	20.38
		1	12	20.43	20.50	20.24
		1	24	20.30	20.45	20.28
		12	0	19.27	19.42	19.31
		12	6	19.29	19.37	19.26
		12	13	19.12	19.37	19.15
		25	0	19.19	19.29	19.23
5M	64QAM	1	0	19.31	19.38	19.26
		1	12	19.24	19.31	19.14
		1	24	19.17	19.25	19.11
		12	0	18.33	18.43	18.26
		12	6	18.36	18.37	18.29
		12	13	18.25	18.32	18.18
		25	0	18.34	18.35	18.30

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37850	38000	38150
		Frequency (MHz)		2580	2595	2610
20M	QPSK	1	0	23.62	23.64	23.61
		1	50	23.59	23.60	23.59
		1	99	23.58	23.59	23.57
		50	0	22.52	22.58	22.44
		50	25	22.52	22.55	22.48
		50	50	22.44	22.53	22.37
		100	0	22.50	22.51	22.46
20M	16QAM	1	0	22.45	22.47	22.42
		1	50	22.40	22.44	22.37
		1	99	22.38	22.41	22.31
		50	0	21.35	21.40	21.32
		50	25	21.28	21.38	21.26
		50	50	21.34	21.35	21.34
		100	0	21.33	21.33	21.32
20M	64QAM	1	0	21.33	21.37	21.32
		1	50	21.28	21.33	21.28
		1	99	21.21	21.28	21.11
		50	0	20.42	20.48	20.38
		50	25	20.33	20.42	20.31
		50	50	20.34	20.36	20.33
		100	0	20.30	20.38	20.26

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37825	38000	38175
		Frequency (MHz)		2577.5	2595	2612.5
15M	QPSK	1	0	23.50	23.45	23.41
		1	37	23.40	23.44	23.49
		1	74	23.48	23.39	23.42
		36	0	22.52	22.50	22.43
		36	19	22.43	22.54	22.46
		36	39	22.38	22.50	22.36
		75	0	22.46	22.49	22.43
15M	16QAM	1	0	22.39	22.42	22.41
		1	37	22.34	22.34	22.30
		1	74	22.37	22.33	22.26
		36	0	21.27	21.31	21.31
		36	19	21.20	21.30	21.26
		36	39	21.31	21.25	21.34
		75	0	21.27	21.30	21.32
15M	64QAM	1	0	21.33	21.35	21.28
		1	37	21.22	21.30	21.22
		1	74	21.21	21.26	21.08
		36	0	20.35	20.41	20.31
		36	19	20.23	20.34	20.23
		36	39	20.24	20.35	20.23
		75	0	20.23	20.28	20.21

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)



LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37800	38000	38200
		Frequency (MHz)		2575	2595	2615
10M	QPSK	1	0	23.42	23.54	23.48
		1	24	23.44	23.45	23.40
		1	49	23.42	23.41	23.43
		25	0	22.52	22.55	22.38
		25	12	22.42	22.48	22.46
		25	25	22.41	22.44	22.27
		50	0	22.42	22.43	22.40
10M	16QAM	1	0	22.40	22.43	22.32
		1	24	22.32	22.34	22.35
		1	49	22.31	22.32	22.22
		25	0	21.30	21.39	21.31
		25	12	21.24	21.29	21.24
		25	25	21.29	21.29	21.31
		50	0	21.27	21.23	21.22
10M	64QAM	1	0	21.24	21.30	21.23
		1	24	21.27	21.24	21.20
		1	49	21.17	21.26	21.06
		25	0	20.35	20.42	20.37
		25	12	20.30	20.41	20.26
		25	25	20.26	20.28	20.23
		50	0	20.26	20.35	20.21

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 38						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		37775	38000	38225
		Frequency (MHz)		2572.5	2595	2617.5
5M	QPSK	1	0	23.47	23.52	23.47
		1	12	23.49	23.46	23.44
		1	24	23.39	23.49	23.44
		12	0	22.51	22.58	22.43
		12	6	22.42	22.47	22.39
		12	13	22.37	22.53	22.35
		25	0	22.47	22.44	22.43
5M	16QAM	1	0	22.37	22.38	22.40
		1	12	22.34	22.42	22.28
		1	24	22.32	22.33	22.24
		12	0	21.30	21.37	21.32
		12	6	21.18	21.29	21.16
		12	13	21.30	21.32	21.29
		25	0	21.24	21.23	21.24
5M	64QAM	1	0	21.23	21.32	21.28
		1	12	21.23	21.31	21.20
		1	24	21.21	21.20	21.09
		12	0	20.34	20.46	20.35
		12	6	20.30	20.41	20.28
		12	13	20.24	20.30	20.28
		25	0	20.23	20.35	20.21

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39750	40620	41490
		Frequency (MHz)		2506	2593	2680
20M	QPSK	1	0	24.29	24.27	24.25
		1	50	24.27	24.25	24.23
		1	99	24.26	24.23	24.21
		50	0	23.17	23.18	23.14
		50	25	23.16	23.24	23.18
		50	50	23.21	23.17	23.11
		100	0	23.18	23.19	23.12
20M	16QAM	1	0	23.17	23.11	23.11
		1	50	23.07	23.16	23.06
		1	99	23.10	23.08	23.05
		50	0	22.12	22.14	22.02
		50	25	22.07	22.12	22.02
		50	50	22.01	22.01	22.10
		100	0	22.03	22.09	22.01
20M	64QAM	1	0	22.09	22.07	22.16
		1	50	22.08	22.10	22.08
		1	99	22.00	22.08	22.01
		50	0	21.19	21.12	21.11
		50	25	21.12	21.05	21.10
		50	50	21.01	21.00	21.03
		100	0	21.04	21.06	21.06

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39725	40620	41515
		Frequency (MHz)		2503.5	2593	2682.5
15M	QPSK	1	0	24.13	24.14	24.08
		1	37	24.10	24.05	24.06
		1	74	24.15	24.05	24.02
		36	0	23.14	23.10	23.08
		36	19	23.12	23.24	23.11
		36	39	23.17	23.13	23.03
		75	0	23.09	23.12	23.09
15M	16QAM	1	0	23.17	23.11	23.16
		1	37	22.98	23.14	23.11
		1	74	23.00	23.03	23.14
		36	0	22.09	22.04	22.05
		36	19	21.98	22.03	22.04
		36	39	22.00	21.97	22.02
		75	0	22.00	22.00	21.95
15M	64QAM	1	0	22.03	22.07	22.15
		1	37	22.07	22.04	22.15
		1	74	21.95	21.98	22.12
		36	0	21.19	21.11	21.07
		36	19	21.08	21.02	21.12
		36	39	20.91	20.94	21.02
		75	0	20.99	20.98	21.04

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39700	40620	41540
		Frequency (MHz)		2501	2593	2685
10M	QPSK	1	0	24.19	24.13	24.10
		1	24	24.09	24.09	24.13
		1	49	24.10	24.12	24.10
		25	0	23.07	23.14	23.06
		25	12	23.12	23.22	23.12
		25	25	23.11	23.14	23.09
		50	0	23.18	23.15	23.08
10M	16QAM	1	0	23.07	23.06	23.08
		1	24	22.97	23.06	23.10
		1	49	23.10	23.00	23.10
		25	0	22.04	22.08	22.04
		25	12	22.02	22.10	22.00
		25	25	22.00	21.93	22.04
		50	0	22.01	22.07	21.97
10M	64QAM	1	0	22.02	22.03	22.21
		1	24	22.06	22.10	22.15
		1	49	21.91	22.03	22.16
		25	0	21.11	21.04	21.08
		25	12	21.07	21.00	21.14
		25	25	20.95	20.93	21.11
		50	0	20.98	21.01	21.11

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 41						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		39675	40620	41565
		Frequency (MHz)		2498.5	2593	2687.5
5M	QPSK	1	0	24.12	24.11	24.11
		1	12	24.15	24.08	24.07
		1	24	24.11	24.10	24.05
		12	0	23.09	23.15	23.14
		12	6	23.15	23.14	23.14
		12	13	23.21	23.16	23.03
		25	0	23.08	23.19	23.15
5M	16QAM	1	0	23.15	23.06	23.17
		1	12	23.04	23.16	23.11
		1	24	23.07	23.02	23.07
		12	0	22.05	22.10	22.03
		12	6	22.03	22.02	22.04
		12	13	22.01	22.01	22.05
		25	0	21.93	22.02	21.95
5M	64QAM	1	0	22.00	22.07	22.19
		1	12	22.08	22.05	22.13
		1	24	21.93	21.98	22.14
		12	0	21.17	21.03	21.12
		12	6	21.11	20.97	21.13
		12	13	20.98	20.91	21.07
		25	0	20.94	21.03	21.06

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132072	132322	132572
		Frequency (MHz)		1720	1745	1770
20M	QPSK	1	0	23.23	23.26	23.22
		1	50	23.21	23.24	23.20
		1	99	23.18	23.19	23.16
		50	0	22.08	22.17	22.07
		50	25	22.02	22.09	21.91
		50	50	21.91	22.11	21.92
		100	0	22.04	22.05	22.02
20M	16QAM	1	0	22.03	22.07	21.89
		1	50	21.87	22.04	21.82
		1	99	22.01	21.98	21.96
		50	0	20.92	21.00	20.85
		50	25	20.88	21.00	20.84
		50	50	20.90	20.95	20.90
		100	0	20.91	20.96	20.86
20M	64QAM	1	0	20.96	21.06	20.86
		1	50	20.90	20.99	20.80
		1	99	20.83	20.93	20.76
		50	0	20.04	20.11	19.96
		50	25	20.04	20.05	19.94
		50	50	19.97	20.00	19.90
		100	0	20.01	20.02	19.91

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132047	132322	132597
		Frequency (MHz)		1717.5	1745	1772.5
15M	QPSK	1	0	23.06	23.15	23.02
		1	37	23.09	23.12	23.01
		1	74	23.03	23.03	22.97
		36	0	22.06	22.14	22.04
		36	19	22.02	22.07	21.95
		36	39	21.99	22.07	21.90
		75	0	22.00	22.04	22.07
15M	16QAM	1	0	22.02	22.00	21.87
		1	37	21.95	22.00	21.85
		1	74	21.94	22.04	21.95
		36	0	20.90	20.99	20.85
		36	19	20.93	20.93	20.83
		36	39	20.97	20.96	20.80
		75	0	20.88	20.91	20.90
15M	64QAM	1	0	20.95	21.03	20.82
		1	37	20.85	20.94	20.73
		1	74	20.81	20.85	20.76
		36	0	20.01	20.03	19.89
		36	19	20.02	20.05	19.86
		36	39	19.89	19.98	19.90
		75	0	19.92	20.00	19.85

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)



LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		132022	132322	132622
		Frequency (MHz)		1715	1745	1775
10M	QPSK	1	0	23.07	23.14	23.05
		1	24	23.03	23.07	23.04
		1	49	22.98	23.00	23.06
		25	0	22.10	22.11	22.04
		25	12	22.02	22.10	21.92
		25	25	21.91	22.09	21.87
		50	0	22.08	22.04	21.98
10M	16QAM	1	0	22.02	22.08	21.94
		1	24	21.90	22.05	21.87
		1	49	22.00	22.04	21.88
		25	0	20.93	21.01	20.85
		25	12	20.86	20.99	20.81
		25	25	20.92	20.90	20.82
		50	0	20.94	20.94	20.93
10M	64QAM	1	0	20.92	21.04	20.81
		1	24	20.83	20.91	20.79
		1	49	20.76	20.85	20.72
		25	0	19.98	20.09	19.86
		25	12	20.02	20.00	19.84
		25	25	19.97	19.99	19.81
		50	0	19.99	19.96	19.89

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131997	132322	132647
		Frequency (MHz)		1712.5	1745	1777.5
5M	QPSK	1	0	23.09	23.13	23.12
		1	12	23.07	23.11	23.04
		1	24	22.99	23.08	23.00
		12	0	22.09	22.15	22.01
		12	6	21.97	22.04	21.91
		12	13	21.98	22.07	21.86
		25	0	22.06	22.06	22.07
5M	16QAM	1	0	22.04	22.00	21.94
		1	12	21.94	22.04	21.86
		1	24	21.95	21.99	21.93
		12	0	20.94	20.98	20.87
		12	6	20.85	21.00	20.79
		12	13	20.91	20.96	20.89
		25	0	20.86	20.93	20.84
5M	64QAM	1	0	20.91	21.02	20.77
		1	12	20.81	20.99	20.71
		1	24	20.80	20.89	20.67
		12	0	20.02	20.05	19.90
		12	6	19.96	19.96	19.91
		12	13	19.89	19.94	19.81
		25	0	19.99	19.99	19.88

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131987	132322	132657
		Frequency (MHz)		1711.5	1745	1778.5
3M	QPSK	1	0	23.11	23.06	23.06
		1	7	23.01	23.04	23.04
		1	14	22.98	23.08	22.99
		8	0	22.13	22.07	22.06
		8	3	21.98	22.13	21.86
		8	7	21.97	22.04	21.96
		15	0	22.00	22.06	22.02
3M	16QAM	1	0	22.03	22.04	21.87
		1	7	21.92	21.96	21.77
		1	14	21.98	21.96	21.88
		8	0	20.95	20.99	20.85
		8	3	20.88	20.99	20.81
		8	7	20.88	20.91	20.83
		15	0	20.90	20.97	20.88
3M	64QAM	1	0	20.94	21.01	20.81
		1	7	20.82	20.94	20.74
		1	14	20.80	20.83	20.71
		8	0	20.02	20.08	19.86
		8	3	20.03	19.99	19.89
		8	7	19.88	20.00	19.89
		15	0	19.98	19.98	19.91

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 66						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		131979	132322	132665
		Frequency (MHz)		1710.7	1745	1779.3
1.4M	QPSK	1	0	23.08	23.11	23.04
		1	2	23.03	23.06	23.04
		1	5	23.02	23.08	22.98
		3	0	22.07	22.15	22.01
		3	1	22.03	22.04	21.89
		3	3	22.01	22.11	21.92
		6	0	22.07	22.01	22.05
1.4M	16QAM	1	0	21.98	22.03	21.93
		1	2	21.96	21.97	21.81
		1	5	22.01	21.96	21.89
		3	0	20.93	21.02	20.89
		3	1	20.93	20.93	20.83
		3	3	20.90	20.94	20.80
		6	0	20.94	20.89	20.85
1.4M	64QAM	1	0	20.96	21.01	20.93
		1	2	20.87	20.93	20.79
		1	5	20.79	20.88	20.69
		3	0	20.81	20.90	20.76
		3	1	20.86	20.86	20.77
		3	3	20.77	20.81	20.75
		6	0	19.97	20.00	19.89

\*EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133222	133297	133372
		Frequency (MHz)		673	680.5	688
20M	QPSK	1	0	22.97	23.16	23.12
		1	50	22.95	23.14	23.00
		1	99	22.93	23.01	22.93
		50	0	22.07	22.17	22.02
		50	25	22.05	22.12	22.04
		50	50	21.99	22.11	21.96
		100	0	21.90	22.04	21.92
20M	16QAM	1	0	22.24	22.33	22.24
		1	50	22.23	22.32	22.22
		1	99	22.16	22.27	22.15
		50	0	21.11	21.22	21.16
		50	25	21.02	21.15	21.10
		50	50	21.07	21.13	21.00
		100	0	21.04	21.09	21.02
20M	64QAM	1	0	21.14	21.21	21.17
		1	50	21.06	21.16	21.07
		1	99	21.05	21.11	21.06
		50	0	20.27	20.32	20.22
		50	25	20.22	20.26	20.18
		50	50	20.18	20.21	20.17
		100	0	20.17	20.22	20.12

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133197	133297	133397
		Frequency (MHz)		670.5	680.5	690.5
15M	QPSK	1	0	22.77	23.06	22.98
		1	37	22.78	23.02	22.90
		1	74	22.76	22.89	22.76
		36	0	21.92	22.04	21.90
		36	19	21.93	21.92	21.86
		36	39	21.86	21.98	21.77
		75	0	21.70	21.94	21.72
15M	16QAM	1	0	22.06	22.19	22.07
		1	37	22.04	22.21	22.05
		1	74	22.06	22.07	21.97
		36	0	20.99	21.07	20.96
		36	19	20.87	21.00	21.00
		36	39	20.95	21.02	20.85
		75	0	20.92	20.96	20.82
15M	64QAM	1	0	21.14	21.18	21.07
		1	37	21.01	21.10	20.99
		1	74	21.00	21.09	21.01
		36	0	20.23	20.25	20.20
		36	19	20.16	20.20	20.18
		36	39	20.17	20.13	20.08
		75	0	20.11	20.18	20.10

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133172	133297	133422
		Frequency (MHz)		668	680.5	693
10M	QPSK	1	0	22.81	23.03	22.91
		1	24	22.77	22.98	22.86
		1	49	22.83	22.81	22.73
		25	0	21.93	21.99	21.84
		25	12	21.90	22.01	21.90
		25	25	21.88	21.92	21.83
		50	0	21.78	21.87	21.73
10M	16QAM	1	0	22.13	22.14	22.05
		1	24	22.06	22.14	22.06
		1	49	21.99	22.10	22.01
		25	0	20.92	21.03	21.06
		25	12	20.84	20.97	20.99
		25	25	20.88	21.00	20.83
		50	0	20.86	20.92	20.90
10M	64QAM	1	0	21.09	21.13	21.15
		1	24	20.96	21.16	20.98
		1	49	21.02	21.04	21.04
		25	0	20.22	20.24	20.21
		25	12	20.15	20.19	20.16
		25	25	20.17	20.11	20.12
		50	0	20.15	20.14	20.06

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15

LTE Band 71						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		133147	133297	133447
		Frequency (MHz)		665.5	680.5	695.5
5M	QPSK	1	0	22.81	22.96	22.90
		1	12	22.77	22.98	22.82
		1	24	22.79	22.85	22.73
		12	0	21.93	21.98	21.92
		12	6	21.87	22.01	21.88
		12	13	21.79	21.95	21.86
		25	0	21.75	21.86	21.75
5M	16QAM	1	0	22.05	22.13	22.06
		1	12	22.06	22.19	22.04
		1	24	22.02	22.12	22.05
		12	0	20.95	21.02	21.00
		12	6	20.84	20.99	20.90
		12	13	20.95	21.00	20.86
		25	0	20.91	20.90	20.88
5M	64QAM	1	0	21.14	21.17	21.07
		1	12	21.01	21.12	21.06
		1	24	21.01	21.09	21.06
		12	0	20.17	20.28	20.12
		12	6	20.21	20.21	20.13
		12	13	20.11	20.12	20.16
		25	0	20.15	20.15	20.10

\*ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15



## 4.2 Radiated Emission Measurement

### 4.2.1 Limits of Radiated Emission Measurement

For WCDMA Band 4, LTE Band 4, LTE Band 66:

According to FCC 27.53(h), for operations in the 1695-1710MHz, 1710-1755MHz, 1755-1780 MHz 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, LTE Band 38, LTE Band 41:

According to 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  $-25\text{dBm}$ .

For LTE Band 12, LTE Band 71:

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. The limit of emissions is equal to  $-13$  dBm.

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. The limit of emissions is equal to  $-13$  dBm.

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

#### 4.2.2 Test Procedure

- a. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- b. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- d. Following C63.26 section 5.5 and 5.2.7.  
EIRP (dBm) = E (dB $\mu$ V/m) + 20log (D) - 104.8; where D is the measurement distance (in the far field region) in m.  
ERP (dBm) = E (dB $\mu$ V/m) + 20log (D) - 104.8 - 2.15; where D is the measurement distance (in the far field region) in m.

Note:

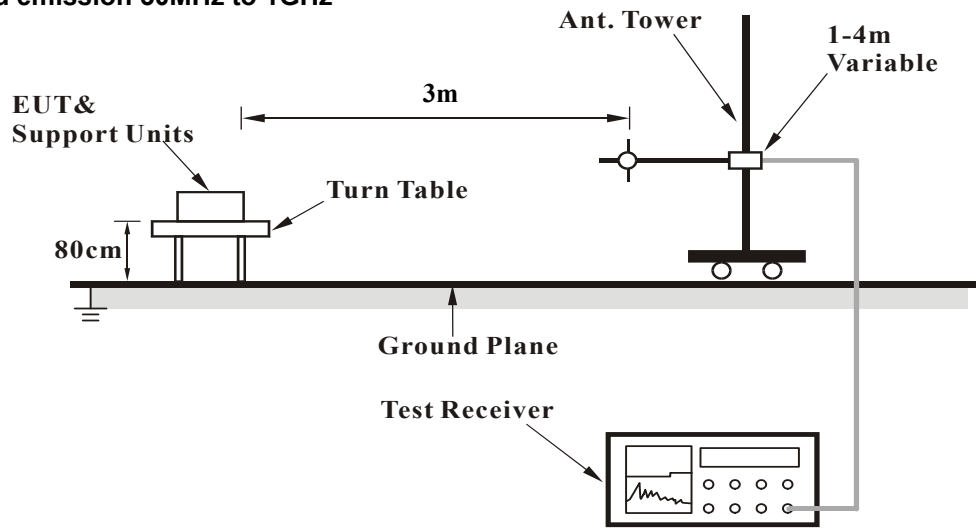
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.
2. The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:  
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

#### 4.2.3 Deviation from Test Standard

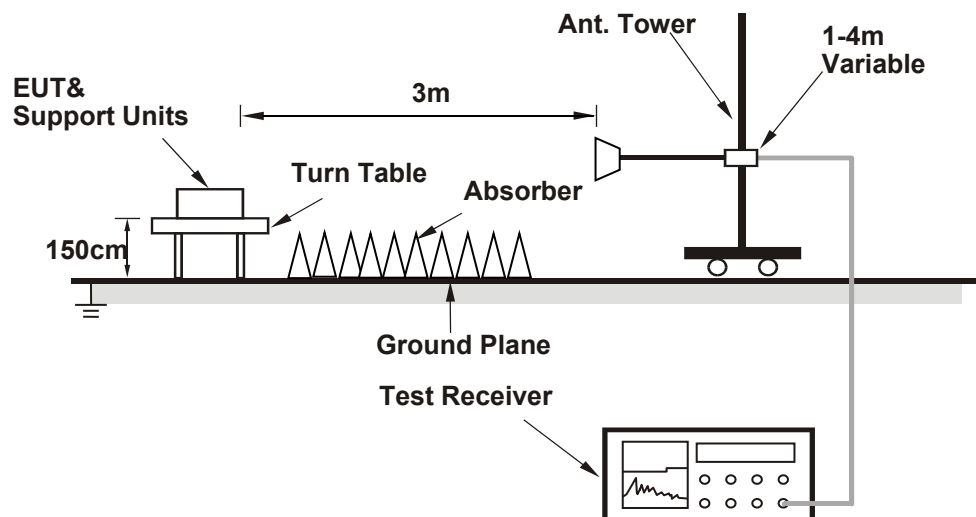
No deviation.

#### 4.2.4 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).

#### 4.2.5 Test Results

Below 1GHz

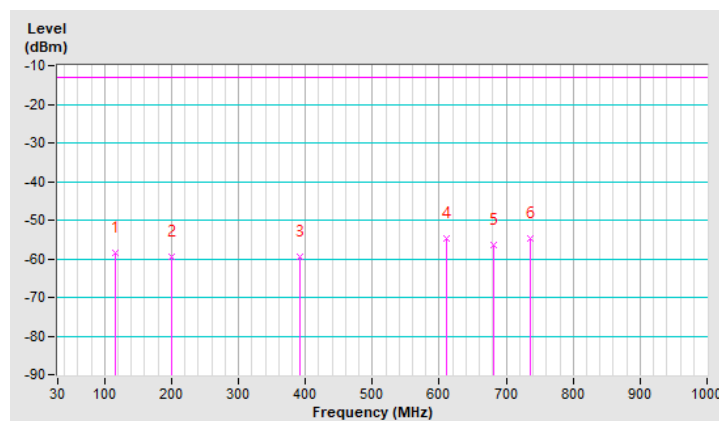
WCDMA Band 4

Mode	TX channel 1413 (1732.6MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	115.36	-58.59	-13.00	-45.59	1.01 H	220	48.00	-106.59
2	200.72	-59.57	-13.00	-46.57	1.01 H	109	47.12	-106.69
3	390.84	-59.34	-13.00	-46.34	1.01 H	199	41.86	-101.20
4	610.06	-54.84	-13.00	-41.84	1.01 H	8	41.77	-96.61
5	681.84	-56.34	-13.00	-43.34	1.01 H	122	39.33	-95.67
6	736.16	-54.84	-13.00	-41.84	1.01 H	16	39.23	-94.07

Remarks:

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

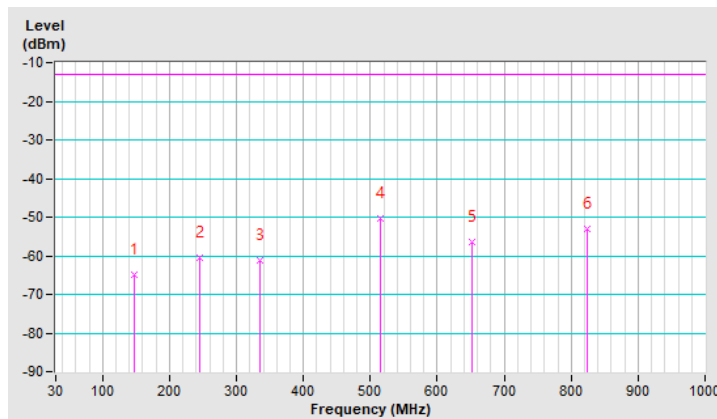


Mode	TX channel 1413 (1732.6MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	146.40	-65.00	-13.00	-52.00	1.50 V	61	38.86	-103.86
2	245.34	-60.56	-13.00	-47.56	1.50 V	235	43.99	-104.55
3	334.58	-61.06	-13.00	-48.06	1.01 V	16	40.91	-101.97
4	515.00	-50.26	-13.00	-37.26	1.50 V	340	48.96	-99.22
5	652.74	-56.44	-13.00	-43.44	1.50 V	273	39.69	-96.13
6	823.46	-53.09	-13.00	-40.09	1.50 V	166	38.83	-91.92

Remarks:

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



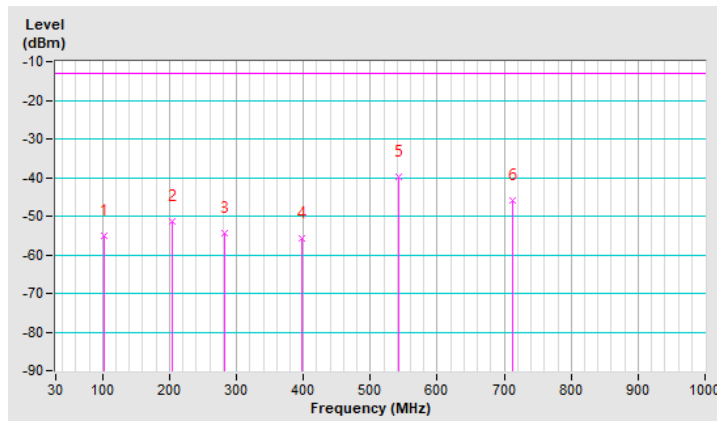
LTE Band 4, Channel Bandwidth 1.4MHz

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	101.78	-55.15	-13.00	-42.15	1.49 H	228	53.03	-108.18
2	204.60	-51.51	-13.00	-38.51	1.00 H	181	55.19	-106.70
3	282.20	-54.46	-13.00	-41.46	1.00 H	177	48.61	-103.07
4	398.60	-55.88	-13.00	-42.88	1.49 H	297	45.34	-101.22
5	542.16	-39.92	-13.00	-26.92	1.00 H	119	58.82	-98.74
6	712.88	-45.78	-13.00	-32.78	1.49 H	27	49.20	-94.98

Remarks:

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

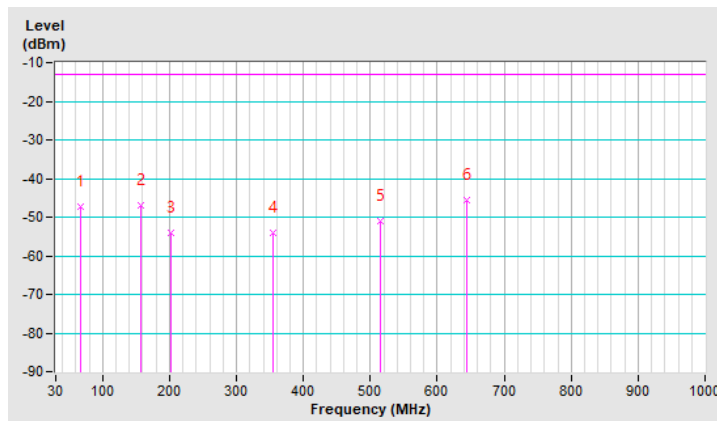


Mode	TX channel 20175 (1732.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	66.86	-47.24	-13.00	-34.24	1.50 V	175	58.06	-105.30
2	158.04	-47.04	-13.00	-34.04	1.50 V	177	56.61	-103.65
3	202.66	-54.02	-13.00	-41.02	1.01 V	259	52.67	-106.69
4	353.98	-54.11	-13.00	-41.11	1.01 V	276	47.77	-101.88
5	515.00	-51.02	-13.00	-38.02	1.50 V	358	48.20	-99.22
6	644.98	-45.67	-13.00	-32.67	1.50 V	119	50.39	-96.06

Remarks:

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



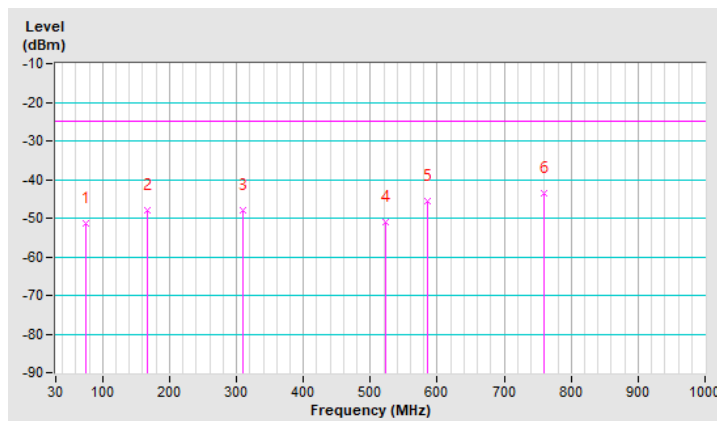
LTE Band 7, Channel Bandwidth 5MHz

Mode	TX channel 21425 (2567.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	74.62	-51.20	-25.00	-26.20	1.01 H	350	55.49	-106.69
2	167.74	-48.13	-25.00	-23.13	1.50 H	184	55.94	-104.07
3	309.36	-48.05	-25.00	-23.05	1.50 H	183	54.37	-102.42
4	522.76	-51.14	-25.00	-26.14	1.50 H	6	47.93	-99.07
5	584.84	-45.60	-25.00	-20.60	1.50 H	186	52.01	-97.61
6	759.44	-43.53	-25.00	-18.53	1.50 H	187	49.84	-93.37

Remarks:

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



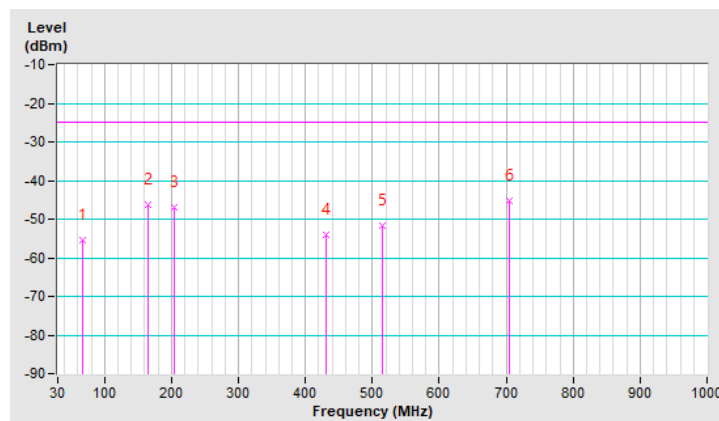


Mode	TX channel 21425 (2567.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	66.86	-55.37	-25.00	-30.37	1.49 V	214	49.93	-105.30
2	165.80	-46.38	-25.00	-21.38	1.49 V	16	57.59	-103.97
3	204.60	-47.06	-25.00	-22.06	1.00 V	181	59.64	-106.70
4	431.58	-54.14	-25.00	-29.14	1.00 V	121	46.17	-100.31
5	515.00	-51.60	-25.00	-26.60	1.00 V	22	47.62	-99.22
6	705.12	-45.40	-25.00	-20.40	1.49 V	216	49.80	-95.20

Remarks:

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



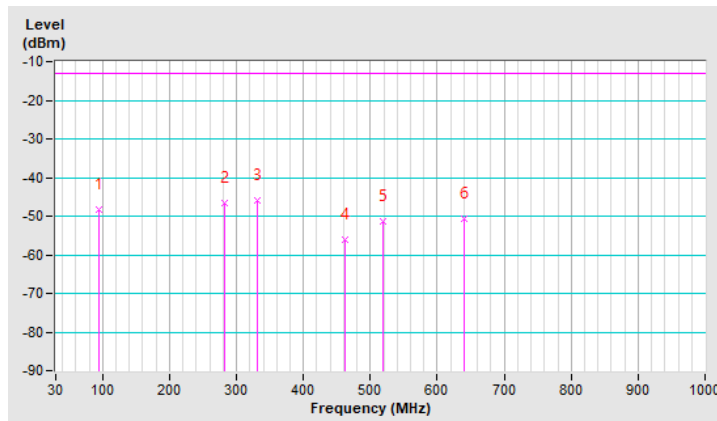
LTE Band 12, Channel Bandwidth 1.4MHz

Mode	TX channel 23173 (715.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	94.02	-48.44	-13.00	-35.44	1.00 H	225	63.00	-111.44
2	282.20	-46.63	-13.00	-33.63	1.00 H	123	58.59	-105.22
3	330.70	-45.96	-13.00	-32.96	1.00 H	123	58.17	-104.13
4	462.62	-56.08	-13.00	-43.08	1.49 H	182	45.94	-102.02
5	518.88	-51.33	-13.00	-38.33	1.49 H	100	49.98	-101.31
6	641.10	-50.71	-13.00	-37.71	1.00 H	181	47.63	-98.34

Remarks:

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

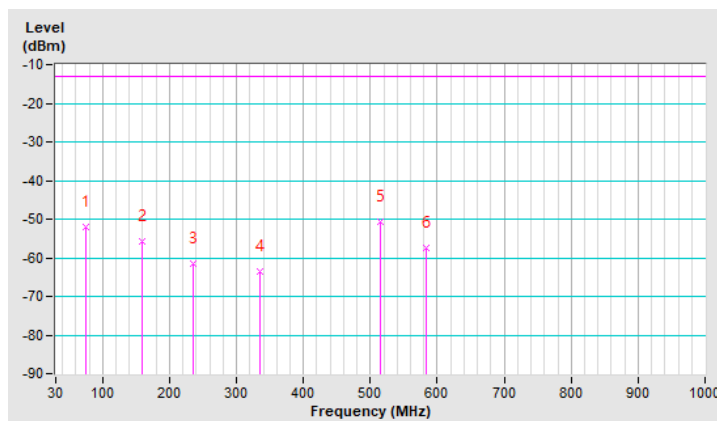


Mode	TX channel 23173 (715.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical 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	74.62	-52.02	-13.00	-39.02	1.50 V	316	56.82	-108.84
2	159.98	-55.83	-13.00	-42.83	1.50 V	119	50.02	-105.85
3	235.64	-61.47	-13.00	-48.47	1.01 V	108	46.02	-107.49
4	334.58	-63.62	-13.00	-50.62	1.01 V	268	40.50	-104.12
5	515.00	-50.77	-13.00	-37.77	1.50 V	157	50.60	-101.37
6	582.90	-57.59	-13.00	-44.59	1.50 V	170	42.23	-99.82

Remarks:

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



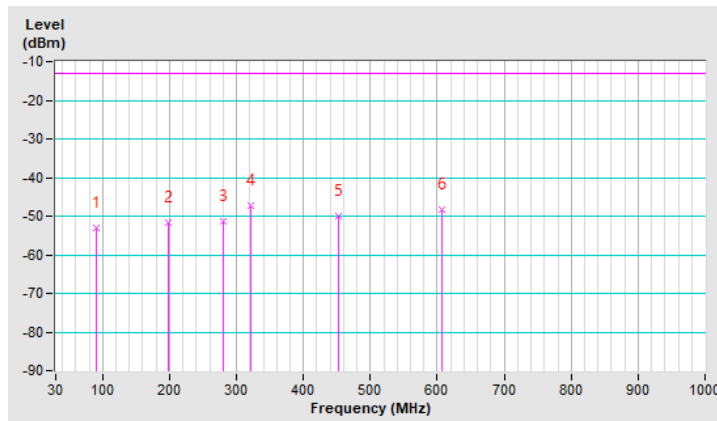
LTE Band 13, Channel Bandwidth 10MHz

Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	90.14	-53.06	-13.00	-40.06	1.01 H	26	58.70	-111.76
2	198.78	-51.82	-13.00	-38.82	1.49 H	124	57.06	-108.88
3	280.26	-51.44	-13.00	-38.44	1.49 H	131	53.81	-105.25
4	321.00	-47.16	-13.00	-34.16	1.49 H	133	57.13	-104.29
5	452.92	-50.13	-13.00	-37.13	1.49 H	126	52.01	-102.14
6	606.18	-48.44	-13.00	-35.44	1.49 H	126	50.54	-98.98

Remarks:

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

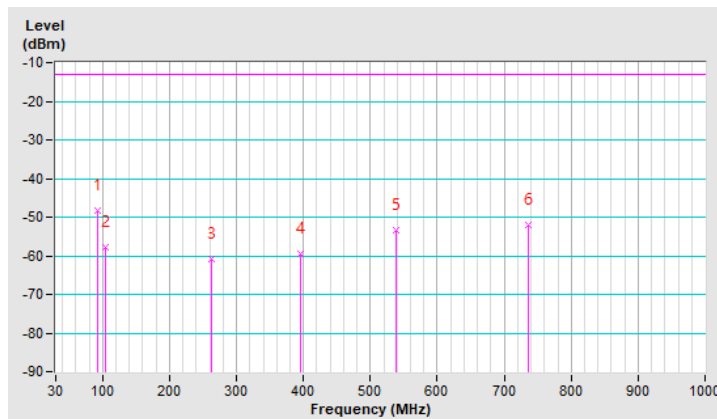


Mode	TX channel 23230 (782.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical 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	92.08	-48.46	-13.00	-35.46	1.00 V	169	63.11	-111.57
2	103.72	-57.76	-13.00	-44.76	1.00 V	101	52.22	-109.98
3	262.80	-61.01	-13.00	-48.01	1.49 V	113	45.01	-106.02
4	396.66	-59.35	-13.00	-46.35	1.00 V	271	44.02	-103.37
5	538.28	-53.39	-13.00	-40.39	1.49 V	307	47.56	-100.95
6	736.16	-51.89	-13.00	-38.89	1.00 V	172	44.33	-96.22

Remarks:

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



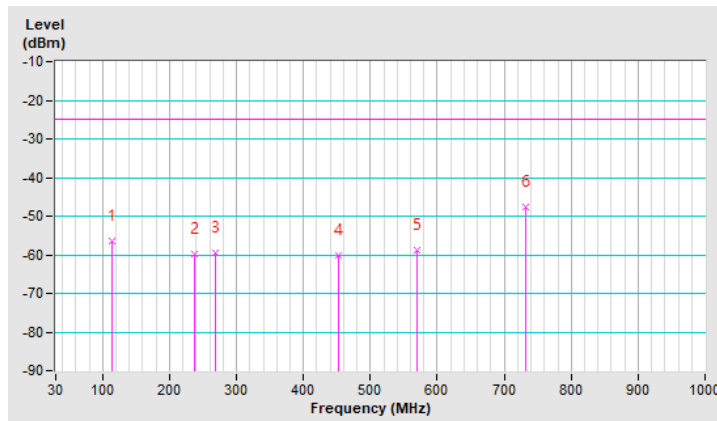
LTE Band 38, Channel Bandwidth 5MHz

Mode	TX channel 37775 (2572.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	113.42	-56.58	-25.00	-31.58	1.00 H	94	50.18	-106.76
2	237.58	-59.78	-25.00	-34.78	1.00 H	78	45.35	-105.13
3	268.62	-59.36	-25.00	-34.36	1.00 H	281	44.22	-103.58
4	452.92	-60.22	-25.00	-35.22	1.49 H	176	39.77	-99.99
5	569.32	-58.92	-25.00	-33.92	1.49 H	13	39.28	-98.20
6	732.28	-47.72	-25.00	-22.72	1.00 H	271	46.46	-94.18

Remarks:

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

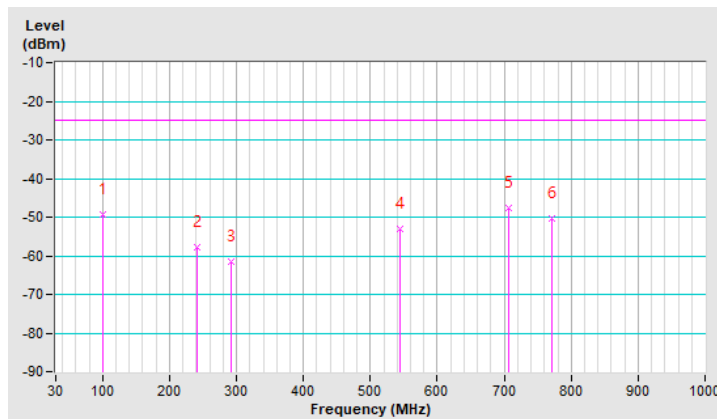


Mode	TX channel 37775 (2572.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	99.84	-49.24	-25.00	-24.24	1.01 V	16	59.21	-108.45
2	241.46	-57.95	-25.00	-32.95	1.01 V	73	46.84	-104.79
3	291.90	-61.63	-25.00	-36.63	1.01 V	294	41.33	-102.96
4	544.10	-52.97	-25.00	-27.97	1.50 V	18	45.76	-98.73
5	707.06	-47.62	-25.00	-22.62	1.01 V	204	47.53	-95.15
6	771.08	-50.22	-25.00	-25.22	1.01 V	350	42.79	-93.01

Remarks:

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



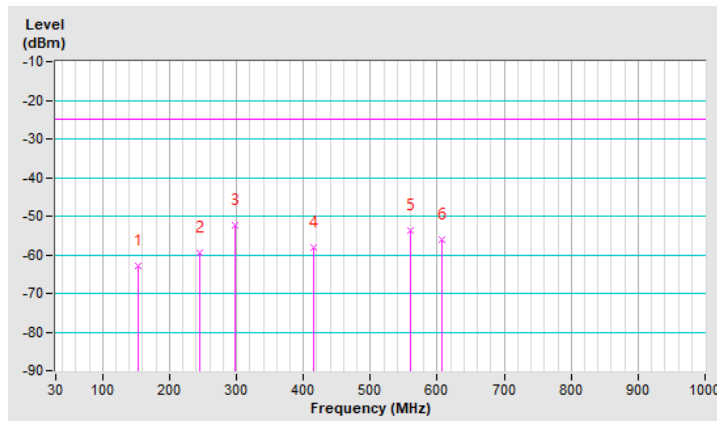
LTE Band 41, Channel Bandwidth 5MHz

Mode	TX channel 41565 (2687.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	154.16	-63.03	-25.00	-38.03	1.00 H	229	40.66	-103.69
2	245.34	-59.39	-25.00	-34.39	1.00 H	87	45.16	-104.55
3	297.72	-52.46	-25.00	-27.46	1.49 H	112	50.31	-102.77
4	416.06	-58.27	-25.00	-33.27	1.00 H	16	42.57	-100.84
5	559.62	-53.84	-25.00	-28.84	1.49 H	10	44.62	-98.46
6	606.18	-56.04	-25.00	-31.04	1.49 H	84	40.79	-96.83

Remarks:

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



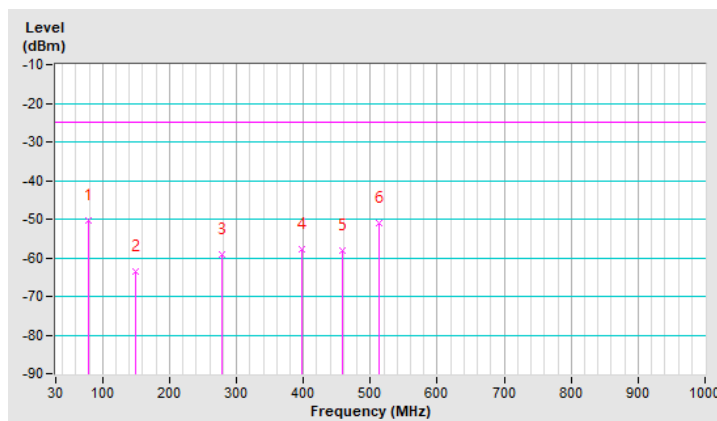


Mode	TX channel 41565 (2687.5MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	78.50	-50.19	-25.00	-25.19	1.49 V	16	57.60	-107.79
2	148.34	-63.39	-25.00	-38.39	1.49 V	217	40.52	-103.91
3	278.32	-59.08	-25.00	-34.08	1.00 V	267	44.09	-103.17
4	398.60	-57.91	-25.00	-32.91	1.00 V	280	43.31	-101.22
5	458.74	-58.24	-25.00	-33.24	1.49 V	186	41.65	-99.89
6	513.06	-50.94	-25.00	-25.94	1.49 V	16	48.29	-99.23

Remarks:

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



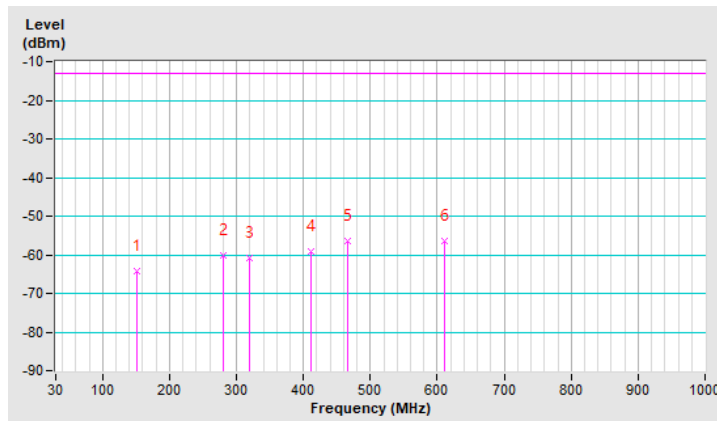
LTE Band 66, Channel Bandwidth 1.4MHz

Mode	TX channel 132665 (1779.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	150.28	-64.09	-13.00	-51.09	1.49 H	174	39.70	-103.79
2	280.26	-60.13	-13.00	-47.13	1.49 H	359	42.97	-103.10
3	319.06	-60.78	-13.00	-47.78	1.49 H	48	41.41	-102.19
4	412.18	-59.26	-13.00	-46.26	1.49 H	326	41.70	-100.96
5	466.50	-56.29	-13.00	-43.29	1.00 H	184	43.57	-99.86
6	610.06	-56.42	-13.00	-43.42	1.00 H	102	40.19	-96.61

Remarks:

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

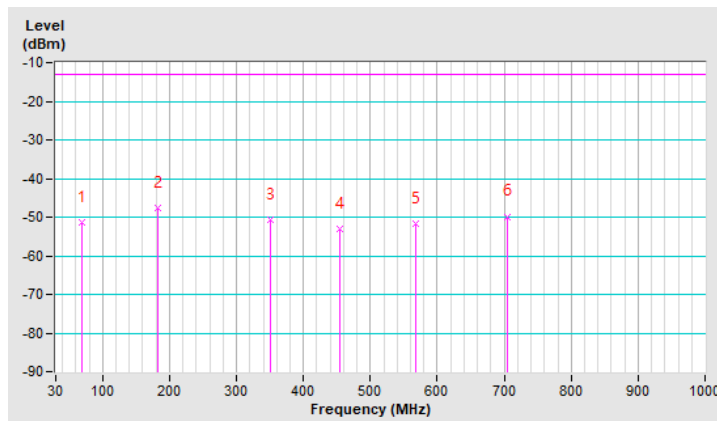


Mode	TX channel 132665 (1779.3MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	68.80	-51.50	-13.00	-38.50	1.50 V	140	54.45	-105.95
2	183.26	-47.64	-13.00	-34.64	1.50 V	111	57.93	-105.57
3	350.10	-50.65	-13.00	-37.65	1.50 V	111	51.35	-102.00
4	454.86	-52.95	-13.00	-39.95	1.01 V	105	46.98	-99.93
5	567.38	-51.66	-13.00	-38.66	1.01 V	253	46.61	-98.27
6	705.12	-49.83	-13.00	-36.83	1.50 V	217	45.37	-95.20

Remarks:

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



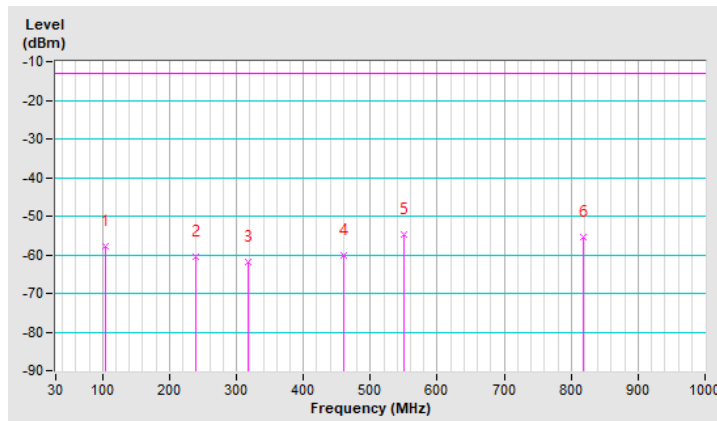
LTE Band 71, Channel Bandwidth 20MHz

Mode	TX channel 133372 (688.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	103.72	-57.66	-13.00	-44.66	1.50 H	123	52.32	-109.98
2	239.52	-60.57	-13.00	-47.57	1.50 H	248	46.51	-107.08
3	317.12	-61.70	-13.00	-48.70	1.50 H	9	42.68	-104.38
4	460.68	-60.02	-13.00	-47.02	1.50 H	306	41.99	-102.01
5	549.92	-54.68	-13.00	-41.68	1.01 H	155	46.19	-100.87
6	817.64	-55.58	-13.00	-42.58	1.50 H	5	38.60	-94.18

Remarks:

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

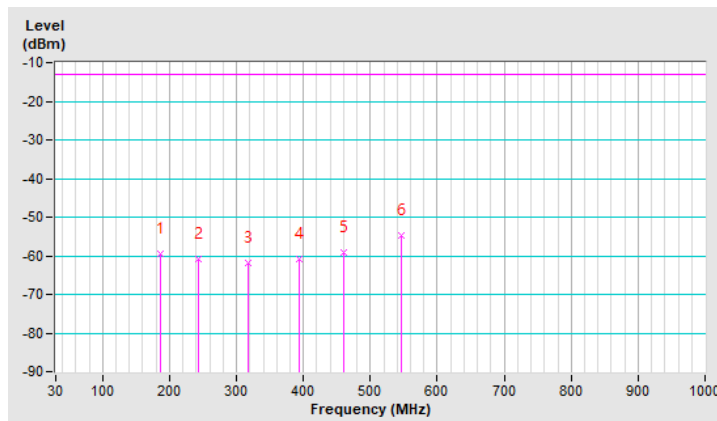


Mode	TX channel 133372 (688.0MHz)	Frequency Range	Below 1000 MHz
Environmental Conditions	23deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

Antenna Polarity & Test Distance : Vertical 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	187.14	-59.54	-13.00	-46.54	1.00 V	214	48.62	-108.16
2	243.40	-60.68	-13.00	-47.68	1.49 V	204	46.14	-106.82
3	317.12	-62.00	-13.00	-49.00	1.49 V	16	42.38	-104.38
4	394.72	-60.96	-13.00	-47.96	1.49 V	304	42.40	-103.36
5	460.68	-59.28	-13.00	-46.28	1.00 V	182	42.73	-102.01
6	546.04	-54.77	-13.00	-41.77	1.00 V	347	46.09	-100.86

Remarks:

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



Above 1GHz  
WCDMA Band 4

Mode	TX channel 1312 (1712.4MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3424.80	-42.35	-13.00	-29.35	1.00 H	73	46.91	-89.26
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3424.80	-33.99	-13.00	-20.99	1.00 V	269	55.27	-89.26

Remarks:

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

Mode	TX channel 1413 (1732.6MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3465.20	-42.01	-13.00	-29.01	1.00 H	79	47.32	-89.33
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.20	-33.97	-13.00	-20.97	1.00 V	277	55.36	-89.33

Remarks:

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

Mode	TX channel 1513 (1752.6MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3505.20	-42.31	-13.00	-29.31	1.00 H	77	46.96	-89.27
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3505.20	-34.01	-13.00	-21.01	1.00 V	265	55.26	-89.27

Remarks:

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

LTE Band 4, Channel Bandwidth 1.4MHz

Mode	TX channel 19957 (1710.7MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3421.40	-39.78	-13.00	-26.78	1.06 H	75	49.46	-89.24
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3421.40	-33.37	-13.00	-20.37	1.08 V	261	55.87	-89.24

Remarks:

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

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3465.00	-39.67	-13.00	-26.67	1.08 H	70	49.66	-89.33
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-33.30	-13.00	-20.30	1.10 V	255	56.03	-89.33

Remarks:

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



Mode	TX channel 20393 (1754.3MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3508.60	-39.54	-13.00	-26.54	1.13 H	70	49.69	-89.23
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3508.60	-33.88	-13.00	-20.88	1.05 V	256	55.35	-89.23

Remarks:

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

LTE Band 4, Channel Bandwidth 5MHz

Mode	TX channel 19975 (1712.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3425.00	-39.52	-13.00	-26.52	1.06 H	74	49.73	-89.25
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-33.48	-13.00	-20.48	1.05 V	260	55.77	-89.25

Remarks:

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

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3465.00	-39.82	-13.00	-26.82	1.06 H	77	49.51	-89.33
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-33.68	-13.00	-20.68	1.10 V	265	55.65	-89.33

Remarks:

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

Mode	TX channel 20375 (1752.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3505.00	-39.61	-13.00	-26.61	1.14 H	71	49.66	-89.27
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3505.00	-33.88	-13.00	-20.88	1.01 V	256	55.39	-89.27

Remarks:

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

LTE Band 4, Channel Bandwidth 20MHz

Mode	TX channel 20050 (1720.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3440.00	-39.56	-13.00	-26.56	1.05 H	72	49.74	-89.30
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-33.65	-13.00	-20.65	1.00 V	261	55.65	-89.30

Remarks:

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

Mode	TX channel 20175 (1732.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3465.00	-39.43	-13.00	-26.43	1.07 H	77	49.90	-89.33
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3465.00	-33.34	-13.00	-20.34	1.06 V	255	55.99	-89.33

Remarks:

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

Mode	TX channel 20300 (1745.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3490.00	-39.43	-13.00	-26.43	1.07 H	71	49.88	-89.31
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-33.53	-13.00	-20.53	1.10 V	262	55.78	-89.31

Remarks:

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

LTE Band 7, Channel Bandwidth 5MHz

Mode	TX channel 20775 (2502.5MHz)	Frequency Range	1GHz ~ 26GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5005.00	-39.68	-25.00	-14.68	1.08 H	122	43.78	-83.46
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5005.00	-30.30	-25.00	-5.30	1.00 V	73	53.16	-83.46

Remarks:

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

Mode	TX channel 21100 (2535.0MHz)	Frequency Range	1GHz ~ 26GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5070.00	-39.69	-25.00	-14.69	1.17 H	122	42.98	-82.67
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5070.00	-30.13	-25.00	-5.13	1.05 V	79	52.54	-82.67

Remarks:

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

Mode	TX channel 21425 (2567.5MHz)	Frequency Range	1GHz ~ 26GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5135.00	-39.67	-25.00	-14.67	1.20 H	116	42.83	-82.50
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5135.00	-29.99	-25.00	-4.99	1.04 V	73	52.51	-82.50

Remarks:

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

LTE Band 7, Channel Bandwidth 20MHz

Mode	TX channel 20850 (2510.0MHz)	Frequency Range	1GHz ~ 26GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5020.00	-39.21	-25.00	-14.21	1.16 H	119	44.08	-83.29
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5020.00	-30.20	-25.00	-5.20	1.02 V	73	53.09	-83.29

Remarks:

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

Mode	TX channel 21100 (2535.0MHz)	Frequency Range	1GHz ~ 26GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5070.00	-39.72	-25.00	-14.72	1.17 H	120	42.95	-82.67
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5070.00	-30.38	-25.00	-5.38	1.08 V	77	52.29	-82.67

Remarks:

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



Mode	TX channel 21350 (2560.0MHz)	Frequency Range	1GHz ~ 26GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5120.00	-39.76	-25.00	-14.76	1.20 H	116	42.66	-82.42
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5120.00	-30.34	-25.00	-5.34	1.06 V	79	52.08	-82.42

Remarks:

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

LTE Band 12, Channel Bandwidth 1.4MHz

Mode	TX channel 23017 (699.7MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1399.40	-47.77	-13.00	-34.77	1.32 H	54	52.06	-99.83
Antenna Polarity & Test Distance : Vertical 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	1399.40	-44.99	-13.00	-31.99	1.07 V	76	54.84	-99.83

Remarks:

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

Mode	TX channel 23095 (707.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1415.00	-48.07	-13.00	-35.07	1.34 H	51	51.73	-99.80
Antenna Polarity & Test Distance : Vertical 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	1415.00	-45.22	-13.00	-32.22	1.06 V	82	54.58	-99.80

Remarks:

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

Mode	TX channel 23173 (715.3MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1430.60	-47.75	-13.00	-34.75	1.36 H	51	52.02	-99.77
Antenna Polarity & Test Distance : Vertical 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)
<b>1</b>	<b>1430.60</b>	<b>-44.67</b>	<b>-13.00</b>	<b>-31.67</b>	<b>1.06 V</b>	<b>81</b>	<b>55.10</b>	<b>-99.77</b>

Remarks:

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

LTE Band 12, Channel Bandwidth 5MHz

Mode	TX channel 23035 (701.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1403.00	-47.41	-13.00	-34.41	1.40 H	57	52.41	-99.82
Antenna Polarity & Test Distance : Vertical 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	1403.00	-45.44	-13.00	-32.44	1.07 V	80	54.38	-99.82

Remarks:

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

Mode	TX channel 23095 (707.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1415.00	-47.34	-13.00	-34.34	1.31 H	57	52.46	-99.80
Antenna Polarity & Test Distance : Vertical 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	1415.00	-44.69	-13.00	-31.69	1.08 V	77	55.11	-99.80

Remarks:

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

Mode	TX channel 23155 (713.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1427.00	-47.38	-13.00	-34.38	1.34 H	58	52.39	-99.77
Antenna Polarity & Test Distance : Vertical 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	1427.00	-45.60	-13.00	-32.60	1.05 V	78	54.17	-99.77

Remarks:

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

LTE Band 12, Channel Bandwidth 10MHz

Mode	TX channel 23060 (704.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1408.00	-47.34	-13.00	-34.34	1.34 H	56	52.48	-99.82
Antenna Polarity & Test Distance : Vertical 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	1408.00	-45.74	-13.00	-32.74	1.03 V	76	54.08	-99.82

Remarks:

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

Mode	TX channel 23095 (707.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1415.00	-47.92	-13.00	-34.92	1.31 H	57	51.88	-99.80
Antenna Polarity & Test Distance : Vertical 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	1415.00	-45.18	-13.00	-32.18	1.05 V	83	54.62	-99.80

Remarks:

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

Mode	TX channel 23130 (711.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1422.00	-47.66	-13.00	-34.66	1.40 H	58	52.12	-99.78
Antenna Polarity & Test Distance : Vertical 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	1422.00	-45.48	-13.00	-32.48	1.00 V	78	54.30	-99.78

Remarks:

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

LTE Band 13, Channel Bandwidth 5MHz

Mode	TX channel 23205 (779.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1559.00	-43.21	-40.00	-3.21	1.32 H	310	53.99	-97.20
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1559.00	-44.39	-40.00	-4.39	1.00 V	255	52.81	-97.20

Remarks:

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

Mode	TX channel 23230 (782.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1564.00	-43.21	-40.00	-3.21	1.37 H	309	53.98	-97.19
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1564.00	-44.37	-40.00	-4.37	1.00 V	259	52.82	-97.19

Remarks:

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



Mode	TX channel 23255 (784.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1569.00	-43.59	-40.00	-3.59	1.32 H	306	53.61	-97.20
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1569.00	-45.29	-40.00	-5.29	1.00 V	252	51.91	-97.20

Remarks:

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

LTE Band 13, Channel Bandwidth 10MHz

Mode	TX channel 23230 (782.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1564.00	-43.01	-40.00	-3.01	1.41 H	308	54.18	-97.19
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBUV)	Correction Factor (dB/m)
1	1564.00	-45.01	-40.00	-5.01	1.02 V	260	52.18	-97.19

Remarks:

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

LTE Band 38, Channel Bandwidth 5MHz

Mode	TX channel 37775 (2572.5MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5145.00	-30.18	-25.00	-5.18	1.00 H	123	52.39	-82.57
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5145.00	-27.17	-25.00	-2.17	1.39 V	280	55.40	-82.57

Remarks:

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

Mode	TX channel 38000 (2595.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5190.00	-30.12	-25.00	-5.12	1.00 H	123	52.82	-82.94
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5190.00	-27.70	-25.00	-2.70	1.41 V	274	55.24	-82.94

Remarks:

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

Mode	TX channel 38225 (2617.5MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5235.00	-30.00	-25.00	-5.00	1.00 H	121	53.20	-83.20
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5235.00	-28.45	-25.00	-3.45	1.00 V	280	54.75	-83.20

Remarks:

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

LTE Band 38, Channel Bandwidth 20MHz

Mode	TX channel 37850 (2580.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5160.00	-29.31	-25.00	-4.31	1.00 H	120	53.38	-82.69
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5160.00	-27.78	-25.00	-2.78	1.40 V	280	54.91	-82.69

Remarks:

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

Mode	TX channel 38000 (2595.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5190.00	-30.05	-25.00	-5.05	1.00 H	118	52.89	-82.94
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5190.00	-27.59	-25.00	-2.59	1.41 V	282	55.35	-82.94

Remarks:

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

Mode	TX channel 38150 (2610.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5220.00	-30.01	-25.00	-5.01	1.00 H	119	53.12	-83.13
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5220.00	-27.69	-25.00	-2.69	1.33 V	274	55.44	-83.13

Remarks:

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

LTE Band 41, Channel Bandwidth 5MHz

Mode	TX channel 39675 (2498.5MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	4997.00	-32.65	-25.00	-7.65	1.00 H	127	50.89	-83.54
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	4997.00	-28.05	-25.00	-3.05	1.03 V	281	55.49	-83.54

Remarks:

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

Mode	TX channel 40620 (2593.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5186.00	-32.10	-25.00	-7.10	1.07 H	125	50.81	-82.91
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5186.00	-27.53	-25.00	-2.53	1.04 V	276	55.38	-82.91

Remarks:

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

Mode	TX channel 41565 (2687.5MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5375.00	-30.77	-25.00	-5.77	1.00 H	129	51.89	-82.66
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
<b>1</b>	<b>5375.00</b>	<b>-27.02</b>	<b>-25.00</b>	<b>-2.02</b>	<b>1.01 V</b>	<b>278</b>	<b>55.64</b>	<b>-82.66</b>

Remarks:

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



LTE Band 41, Channel Bandwidth 20MHz

Mode	TX channel 39750 (2506.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5012.00	-31.67	-25.00	-6.67	1.00 H	125	51.71	-83.38
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5012.00	-27.13	-25.00	-2.13	1.05 V	278	56.25	-83.38

Remarks:

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

Mode	TX channel 40620 (2593.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5186.00	-31.47	-25.00	-6.47	1.07 H	132	51.44	-82.91
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5186.00	-27.26	-25.00	-2.26	1.02 V	280	55.65	-82.91

Remarks:

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

Mode	TX channel 41490 (2680.0MHz)	Frequency Range	1GHz ~ 27GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	5360.00	-31.89	-25.00	-6.89	1.09 H	131	50.88	-82.77
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5360.00	-27.34	-25.00	-2.34	1.01 V	280	55.43	-82.77

Remarks:

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

LTE Band 66, Channel Bandwidth 1.4MHz

Mode	TX channel 131979 (1710.7MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3421.40	-33.37	-13.00	-20.37	1.08 H	80	55.87	-89.24
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3421.40	-29.09	-13.00	-16.09	1.00 V	246	60.15	-89.24

Remarks:

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

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3490.00	-33.79	-13.00	-20.79	1.12 H	80	55.52	-89.31
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-29.39	-13.00	-16.39	1.02 V	250	59.92	-89.31

Remarks:

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

Mode	TX channel 132665 (1779.3MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3558.60	-33.10	-13.00	-20.10	1.02 H	77	55.75	-88.85
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
<b>1</b>	<b>3558.60</b>	<b>-28.31</b>	<b>-13.00</b>	<b>-15.31</b>	<b>1.04 V</b>	<b>246</b>	<b>60.54</b>	<b>-88.85</b>

Remarks:

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

LTE Band 66, Channel Bandwidth 5MHz

Mode	TX channel 131997 (1712.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3425.00	-33.43	-13.00	-20.43	1.10 H	79	55.82	-89.25
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3425.00	-29.46	-13.00	-16.46	1.08 V	245	59.79	-89.25

Remarks:

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

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3490.00	-33.35	-13.00	-20.35	1.10 H	79	55.96	-89.31
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-28.89	-13.00	-15.89	1.07 V	252	60.42	-89.31

Remarks:

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

Mode	TX channel 132647 (1777.5MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3550.00	-33.12	-13.00	-20.12	1.12 H	79	55.77	-88.89
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3550.00	-28.66	-13.00	-15.66	1.05 V	246	60.23	-88.89

Remarks:

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

LTE Band 66, Channel Bandwidth 20MHz

Mode	TX channel 132072 (1720.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3440.00	-33.23	-13.00	-20.23	1.03 H	80	56.07	-89.30
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-28.92	-13.00	-15.92	1.01 V	250	60.38	-89.30

Remarks:

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

Mode	TX channel 132322 (1745.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3490.00	-33.65	-13.00	-20.65	1.07 H	78	55.66	-89.31
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3490.00	-28.97	-13.00	-15.97	1.00 V	245	60.34	-89.31

Remarks:

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

Mode	TX channel 132572 (1770.0MHz)	Frequency Range	1GHz ~ 20GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	3540.00	-33.43	-13.00	-20.43	1.04 H	75	55.55	-88.98
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3540.00	-28.44	-13.00	-15.44	1.00 V	252	60.54	-88.98

Remarks:

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



LTE Band 71, Channel Bandwidth 5MHz

Mode	TX channel 133147 (665.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1331.00	-53.52	-13.00	-40.52	1.08 H	229	46.87	-100.39
Antenna Polarity & Test Distance : Vertical 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	1331.00	-51.61	-13.00	-38.61	1.59 V	123	48.78	-100.39

Remarks:

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

Mode	TX channel 133297 (680.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1361.00	-52.84	-13.00	-39.84	1.03 H	226	47.43	-100.27
Antenna Polarity & Test Distance : Vertical 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	1361.00	-51.35	-13.00	-38.35	1.65 V	116	48.92	-100.27

Remarks:

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

Mode	TX channel 133447 (695.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1391.00	-52.39	-13.00	-39.39	1.08 H	228	47.54	-99.93
Antenna Polarity & Test Distance : Vertical 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	1391.00	-51.17	-13.00	-38.17	1.60 V	121	48.76	-99.93

Remarks:

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

LTE Band 71, Channel Bandwidth 20MHz

Mode	TX channel 133222 (673.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1346.00	-53.02	-13.00	-40.02	1.07 H	228	47.36	-100.38
Antenna Polarity & Test Distance : Vertical 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	1346.00	-51.80	-13.00	-38.80	1.62 V	119	48.58	-100.38

Remarks:

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

Mode	TX channel 133297 (680.5MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1361.00	-53.00	-13.00	-40.00	1.01 H	229	47.27	-100.27
Antenna Polarity & Test Distance : Vertical 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	1361.00	-51.38	-13.00	-38.38	1.64 V	116	48.89	-100.27

Remarks:

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

Mode	TX channel 133372 (688.0MHz)	Frequency Range	1GHz ~ 10GHz
Environmental Conditions	24deg. C, 68%RH	Input Power	120Vac, 60Hz (System)
Tested By	Luis Lee		

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	1376.00	-52.69	-13.00	-39.69	1.02 H	228	47.41	-100.10
Antenna Polarity & Test Distance : Vertical 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	1376.00	-51.10	-13.00	-38.10	1.64 V	122	49.00	-100.10

Remarks:

1.  $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2.  $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
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.

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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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