

Partial FCC Test Report

(PART 27)

Report No.: RF180629C15-7

FCC ID: O57T77W980

Test Model: T77W980

Received Date: Jun. 23, 2018

Test Date: Aug. 08, 2018 ~ Aug. 09, 2018

Issued Date: Aug. 16, 2018

Applicant: Lenovo(Shanghai) Electronics Technology Co., Ltd.

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**FCC Registration /
Designation Number:** 427177 / TW0011



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Release Control Record

Issue No.	Description	Date Issued
RF180629C15-7	Original Release	Aug. 16, 2018

1 Certificate of Conformity

Product: Gigabit RF Card

Brand: FOXCONN

Test Model: T77W980

Sample Status: Identical Prototype

Applicant: Lenovo(Shanghai) Electronics Technology Co., Ltd.

Test Date: Aug. 08, 2018 ~ Aug. 09, 2018

Standards: FCC Part 27, Subpart C, H, F, L

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 : Gina Liu , **Date:** Aug. 16, 2018
Gina Liu / Specialist

Approved by : Dylan Chiou , **Date:** Aug. 16, 2018
Dylan Chiou / Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2 (WCDMA)			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(d)(4)	Equivalent Isotropic Radiated Power	Pass	Meet the requirement of limit.
2.1055 27.54	Frequency Stability	N/A	Refer to Note
2.1049 27.53(h)	Occupied Bandwidth	N/A	Refer to Note
27.50(d)(5)	Peak to Average Ratio	N/A	Refer to Note
27.53(h)	Band Edge Measurements	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 -37.88 dB at 3424.80 MHz.

Applied Standard: FCC Part 27 & Part 2 (LTE 4)			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(d)(4)	Maximum Peak Output Power	Pass	Meet the requirement of limit.
2.1055 27.54	Frequency Stability	N/A	Refer to Note
2.1049 27.53(h)	Occupied Bandwidth	N/A	Refer to Note
27.50(d)(5)	Peak to Average Ratio	N/A	Refer to Note
27.53(h)	Band Edge Measurements	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 -36.60 dB at 3465.00 MHz.

Applied Standard: FCC Part 27 & Part 2 (LTE 12)			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(c)(10)	Maximum Peak Output 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 27.53(g)	Occupied Bandwidth	N/A	Refer to Note
27.50(d)(5)	Peak to Average Ratio	N/A	Refer to Note
27.53(g)	Band Edge Measurements	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 -42.57 dB at 1415.00 MHz.

Applied Standard: FCC Part 27 & Part 2 (LTE 13)			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(b)(10)	Maximum Peak Output 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 27.53(g)	Occupied Bandwidth	N/A	Refer to Note
27.50(d)(5)	Peak to Average Ratio	N/A	Refer to Note
27.53(g)	Band Edge Measurements	N/A	Refer to Note
2.1051 27.53(g)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53(g)(f)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -19.52 dB at 1564.00 MHz.

Applied Standard: FCC Part 27 & Part 2 (LTE 17)			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(c)(10)	Maximum Peak Output 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 27.53(g)	Occupied Bandwidth	N/A	Refer to Note
27.50(d)(5)	Peak to Average Ratio	N/A	Refer to Note
27.53(g)	Band Edge Measurements	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 -45.55 dB at 1420.00 MHz.

Applied Standard: FCC Part 27 & Part 2 (LTE 66)			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(d)(4)	Maximum Peak Output 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 27.53(h)	Occupied Bandwidth	N/A	Refer to Note
27.50(d)(5)	Peak to Average Ratio	N/A	Refer to Note
27.53(h)	Band Edge Measurements	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 -28.11 dB at 5310.00 MHz.

Note:

This report is a Class II change Partial report. Therefore, only test item of Equivalent Isotropic Radiated Power / Maximum Peak Output Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to BV CPS report no.: RF180503E05-2 for module (Brand: FOXCONN, Model: T77W980)

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	30 MHz ~ 200 MHz	2.0153 dB
	200 MHz ~ 1000 MHz	2.0224 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	1.0121 dB
	18 GHz ~ 40 GHz	1.1508 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent	N9038A	MY51210203	Mar. 16, 2018	Mar. 15, 2019
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Jan. 11, 2018	Jan. 10, 2019
BILOG Antenna SCHWARZBECK	VULB 9168	9168-153	Dec. 06, 2017	Dec. 05, 2018
Double Ridge Guide Horn Antenna EMCO	3115	5619	Nov. 30, 2017	Nov. 29, 2018
Fixed Attenuator Mini-Circuits	BW-N4W5+	PAD-ATT4-01	Jan. 29, 2018	Jan. 28, 2019
MXG Vector signal generator Agilent	N5182B	MY53050430	Oct. 24, 2017	Oct. 23, 2018
Preamplifier Agilent	310N	187226	Jun. 19, 2018	Jun. 18, 2019
Preamplifier Agilent	83017A	MY39501357	Jun. 19, 2018	Jun. 18, 2019
HORN Antenna Schwarzbeck	BBHA 9120D	BBHA 9120D	Dec. 12, 2017	Dec. 11, 2018
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(RF C-SMS-100-SMS- 120+RFC-SMS-1 00-SMS-400)	Jun. 19, 2018	Jun. 18, 2019
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RF C-SMS-100-SMS- 24)	Jun. 19, 2018	Jun. 18, 2019
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Software BV ADT	E3 8.130425b	NA	NA	NA
Antenna Tower MF	NA	NA	NA	NA
Turn Table MF	NA	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA
Radio Communication Analyzer Anritsu	MT8820C	6201010284	Dec. 28, 2017	Dec. 27, 2018
Temperature & Humidity Chamber	GTH-120-40-CP-AR	MAA1306-019	Sep. 08, 2017	Sep. 07, 2018
Digital Multimeter Fluke	87-III	70360742	Jun. 29, 2018	Jun. 28, 2018

- 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 HsinTien Chamber 1.
 3. The horn antenna and preamplifier (model: 83017A) are used only for the measurement of emission frequency above 1 GHz if tested.
 4. The IC Site Registration No. is IC7450I-1.

3 General Information

3.1 General Description of EUT

Product	Gigabit RF Card	
Brand	FOXCONN	
Test Model	T77W980	
Status of EUT	Identical Prototype	
Power Supply Rating	20 / 15 / 9 / 5 Vdc (adapter) 7.68 Vdc (Li-ion battery)	
Modulation Type	WCDMA	QPSK
	LTE	QPSK, 16QAM, 64QAM
Frequency Range	WCDMA	1712.4 ~ 1752.6 MHz
	LTE Band 4 (Channel Bandwidth: 1.4 MHz)	1710.7 ~ 1754.3 MHz
	LTE Band 4 (Channel Bandwidth: 3 MHz)	1711.5 ~ 1753.5 MHz
	LTE Band 4 (Channel Bandwidth: 5 MHz)	1712.5 ~ 1752.5 MHz
	LTE Band 4 (Channel Bandwidth: 10 MHz)	1715.0 ~ 1750.0 MHz
	LTE Band 4 (Channel Bandwidth: 15 MHz)	1717.5 ~ 1747.5 MHz
	LTE Band 4 (Channel Bandwidth: 20 MHz)	1720.0 ~ 1745.0 MHz
	LTE Band 12 (Channel Bandwidth: 1.4 MHz)	699.7 ~ 715.3 MHz
	LTE Band 12 (Channel Bandwidth: 3 MHz)	700.5 ~ 714.5 MHz
	LTE Band 12 (Channel Bandwidth: 5 MHz)	701.5 ~ 713.5 MHz
	LTE Band 12 (Channel Bandwidth: 10 MHz)	704.0 ~ 711.0 MHz
	LTE Band 13 (Channel Bandwidth: 5 MHz)	779.5 ~ 784.5 MHz
	LTE Band 13 (Channel Bandwidth: 10 MHz)	782.0 MHz
	LTE Band 17 (Channel Bandwidth: 5 MHz)	706.5 ~ 713.5 MHz
	LTE Band 17 (Channel Bandwidth: 10 MHz)	709.0 ~ 711.0 MHz
	LTE Band 66 (Channel Bandwidth: 1.4 MHz)	1710.7 ~ 1779.3 MHz
	LTE Band 66 (Channel Bandwidth: 3 MHz)	1711.5 ~ 1778.5 MHz
	LTE Band 66 (Channel Bandwidth: 5 MHz)	1712.5 ~ 1777.5 MHz
	LTE Band 66 (Channel Bandwidth: 10 MHz)	1715.0 ~ 1775.0 MHz
	LTE Band 66 (Channel Bandwidth: 15 MHz)	1717.5 ~ 1772.5 MHz
LTE Band 66 (Channel Bandwidth: 20 MHz)	1720.0 ~ 1770.0 MHz	
Max. ERP Power	LTE Band 12 (Channel Bandwidth: 1.4 MHz)	201.42 mW
	LTE Band 12 (Channel Bandwidth: 3 MHz)	203.28 mW
	LTE Band 12 (Channel Bandwidth: 5 MHz)	204.69 mW
	LTE Band 12 (Channel Bandwidth: 10 MHz)	205.97 mW
	LTE Band 13 (Channel Bandwidth: 5 MHz)	165.62 mW
	LTE Band 13 (Channel Bandwidth: 10 MHz)	166.99 mW
	LTE Band 17 (Channel Bandwidth: 5 MHz)	181.09 mW
	LTE Band 17 (Channel Bandwidth: 10 MHz)	183.10 mW

Max. EIRP Power	WCDMA	363.08 mW
	LTE Band 4 (Channel Bandwidth: 1.4 MHz)	358.67 mW
	LTE Band 4 (Channel Bandwidth: 3 MHz)	379.05 mW
	LTE Band 4 (Channel Bandwidth: 5 MHz)	350.51 mW
	LTE Band 4 (Channel Bandwidth: 10 MHz)	377.31 mW
	LTE Band 4 (Channel Bandwidth: 15 MHz)	351.32 mW
	LTE Band 4 (Channel Bandwidth: 20 MHz)	408.04 mW
	LTE Band 66 (Channel Bandwidth: 1.4 MHz)	313.26 mW
	LTE Band 66 (Channel Bandwidth: 3 MHz)	316.15 mW
	LTE Band 66 (Channel Bandwidth: 5 MHz)	319.08 mW
	LTE Band 66 (Channel Bandwidth: 10 MHz)	321.74 mW
	LTE Band 66 (Channel Bandwidth: 15 MHz)	325.01 mW
	LTE Band 66 (Channel Bandwidth: 20 MHz)	328.02 mW
Antenna Type	Refer to Note as below	
Antenna Gain	Refer to Note as below	
Accessory Device	Refer to Note as below	
Data Cable Supplied	Refer to Note as below	

Note:

- The change list for EUT is listed as below.
 - Adding a specific host.
 - Changing antenna.
 - Changing SW (to disable LTE Band 71 and to disable CA_38C for configurations of CA).
- The End-product contains following accessory devices.

Product	Brand	Model	Description
Adapter	Lenovo	ADLX45YLC3D	I/P: 100-240 Vac, 50-60 Hz, 1.3 A O/P: 20 Vdc, 2.25 A / 15 Vdc, 3A / 9 Vdc, 2A / 5 Vdc, 2A
Battery	Lenovo	L17M4PH3	7.68 Vdc, 7680 mAh
WWAN Module	FOXCONN	T77W980	--

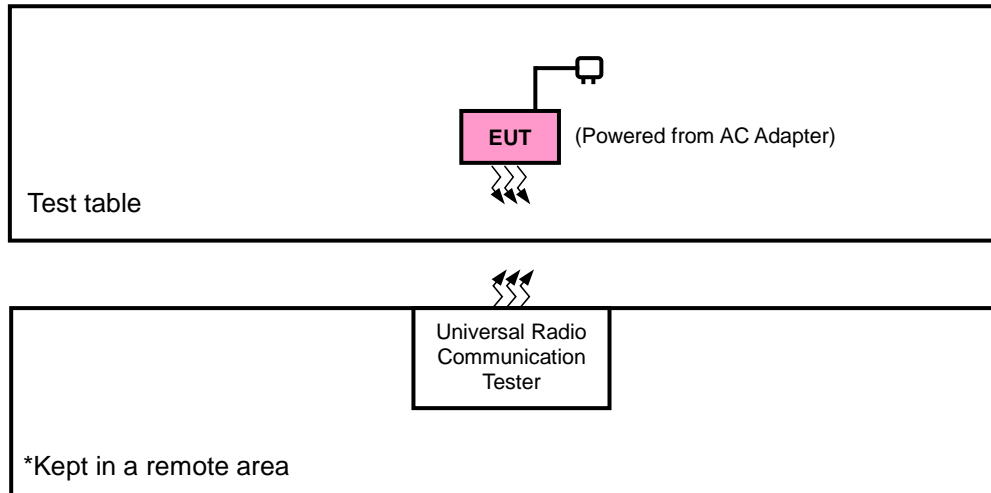
- The EUT is authorized for use in specific End-product. Please refer to below for more details.

Product	Brand	Model
Notebook Computer	Lenovo	Lenovo YOGA C630-13Q50*****, 81JL*****, (*=0~9, A~Z, a~z, "-" or blank, for marketing use only, with no impact on RF compliance of the product)

Antenna Type	Manufacturer	Parts Number	Antenna Gain					
			WCDMA IV	B4	B12	B13	B17	B66
PIFA	Tablet Mode							
	ACON Corporation	ANF6Y-100046 (DC330026L00)	-0.38	-0.38	-3.40	-4.02	-4.32	-0.38
	Laptop Mode							
ACON Corporation	ANF6Y-100046 (DC330026L00)	1.89	1.89	1.69	0.95	1.34	1.89	

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

3.2 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.

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis, and antenna ports

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

Band	ERP / EIRP	Radiated Emission
WCDMA	Z-plane	Z-axis
LTE Band 4	X-plane	Z-axis
LTE Band 12	Z-plane	Z-axis
LTE Band 13	NB-plane	Y-axis
LTE Band 17	NB-plane	Y-axis
LTE Band 66	X-plane	Z-axis

WCDMA

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
-	EIRP	1312 to 1513	1312, 1413, 1513	WCDMA
-	Radiated Emission Below 1GHz	1312 to 1513	1312	WCDMA
-	Radiated Emission Above 1GHz	1312 to 1513	1312, 1413, 1513	WCDMA

LTE Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	19957 to 20393	19957, 20175, 20393	1.4 MHz	QPSK, 16QAM, 64QAM	1 RB / 5 RB Offset
		19965 to 20385	19965, 20175, 20385	3 MHz	QPSK, 16QAM, 64QAM	1 RB / 14 RB Offset
		19975 to 20375	19975, 20175, 20375	5 MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
		20000 to 20350	20000, 20175, 20350	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 49 RB Offset
		20025 to 20325	20025, 20175, 20325	15 MHz	QPSK, 16QAM, 64QAM	1 RB / 74 RB Offset
		20050 to 20300	20050, 20175, 20300	20 MHz	QPSK, 16QAM, 64QAM	1 RB / 99 RB Offset
-	Radiated Emission Below 1GHz	20050 to 20300	20175	20 MHz	QPSK	1 RB / 99 RB Offset
-	Radiated Emission Above 1GHz	20050 to 20300	20050, 20175, 20300	20 MHz	QPSK	1 RB / 99 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE Band 12

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	ERP	23017 to 23173	23017, 23095, 23173	1.4 MHz	QPSK, 16QAM, 64QAM	1 RB / 2 RB Offset
		23025 to 23165	23025, 23095, 23165	3 MHz	QPSK, 16QAM, 64QAM	1 RB / 7 RB Offset
		23035 to 23155	23035, 23095, 23155	5 MHz	QPSK, 16QAM, 64QAM	1 RB / 12 RB Offset
		23060 to 23130	23060, 23095, 23130	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
-	Radiated Emission Below 1GHz	23060 to 23130	23095	10 MHz	QPSK	1 RB / 24 RB Offset
-	Radiated Emission Above 1GHz	23060 to 23130	23060, 23095, 23130	10 MHz	QPSK	1 RB / 24 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE Band 13

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	ERP	23205 to 23255	23205, 23230, 23255	5 MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		23230	23230	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
-	Radiated Emission Below 1GHz	23230	23230	10 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	23230	23230	10 MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE Band 17

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	ERP	23755 to 23825	23755, 23790, 23825	5 MHz	QPSK, 16QAM, 64QAM	1 RB / 12 RB Offset
		23780 to 23800	23780, 23790, 23800	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
-	Radiated Emission Below 1GHz	23780 to 23800	23790	10 MHz	QPSK	1 RB / 24 RB Offset
-	Radiated Emission Above 1GHz	23780 to 23800	23780, 23790, 23800	10 MHz	QPSK	1 RB / 24 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE Band 66

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	131979 to 132665	131979, 132322, 132665	1.4 MHz	QPSK, 16QAM, 64QAM	1 RB / 5 RB Offset
		131987 to 132657	131987, 132322, 132657	3 MHz	QPSK, 16QAM, 64QAM	1 RB / 14 RB Offset
		131997 to 132647	131997, 132322, 132647	5 MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
		132022 to 132622	132022, 132322, 132622	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 49 RB Offset
		132047 to 132597	132047, 132322, 132597	15 MHz	QPSK, 16QAM, 64QAM	1 RB / 74 RB Offset
		132072 to 132572	132072, 132322, 132572	20 MHz	QPSK, 16QAM, 64QAM	1 RB / 99 RB Offset
-	Radiated Emission Below 1GHz	132072 to 132572	132572	20 MHz	QPSK	1 RB / 99 RB Offset
-	Radiated Emission Above 1GHz	132072 to 132572	132072, 132322, 132572	20 MHz	QPSK	1 RB / 99 RB Offset

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
ERP / EIRP	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee
Radiated Emission	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee

3.4 EUT Operating Conditions

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

3.5 General Description of Applied Standards

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

FCC 47 CFR Part 2

FCC 47 CFR Part 27

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-E 2016

ANSI 63.26-2015

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

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

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

Portable stations (hand-held devices) operating in the 698-716 MHz band are limited to 3 watts ERP

4.1.2 Test Procedures

EIRP / ERP Measurement:

- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 5 MHz for WCDMA and 10 MHz for LTE mode.
- b. Substitution method is used for E.I.R.P measurement. 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.
- c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step b. Record the power level of S.G.
- d. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15 \text{ dB}$.

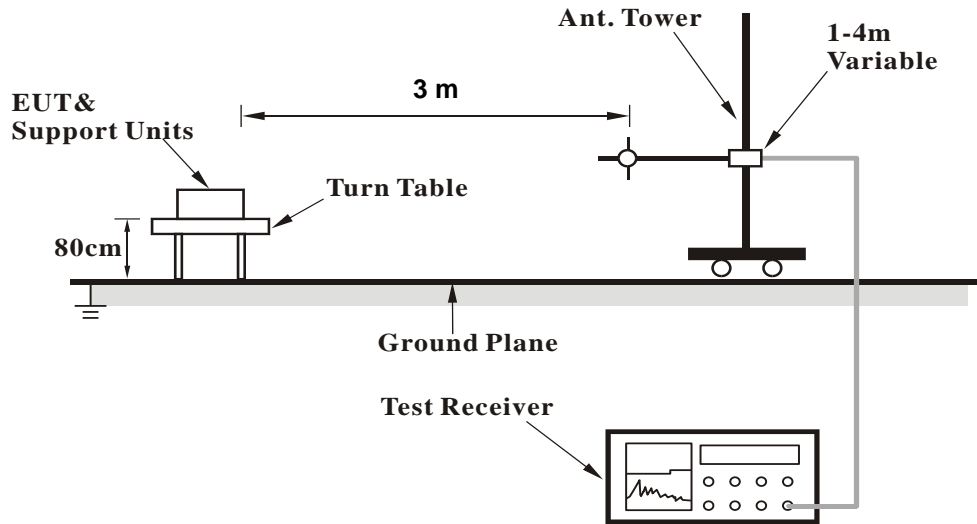
Conducted Power Measurement:

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

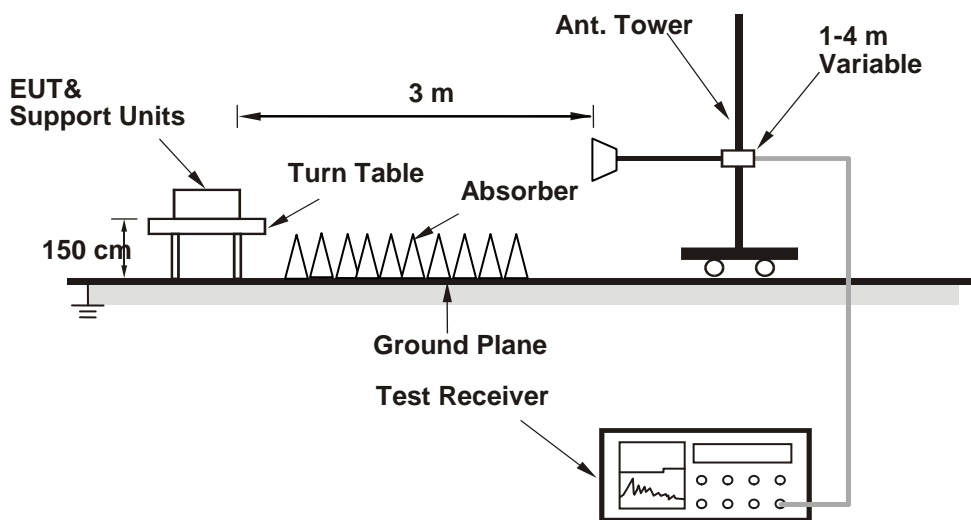
4.1.3 Test Setup

EIRP / ERP Measurement:

<Radiated Emission below or equal 1 GHz>



<Radiated Emission above 1 GHz>



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

Conducted Power Measurement:



4.1.4 Test Results

Conducted Output Power (dBm)

Band	WCDMA IV		
	1312	1413	1513
Channel	1712.4	1732.6	1752.6
Frequency (MHz)	1712.4	1732.6	1752.6
RMC 12.2K	23.55	23.65	23.36
HSDPA Subtest-1	22.64	22.74	22.45
HSDPA Subtest-2	22.61	22.71	22.42
HSDPA Subtest-3	22.13	22.23	21.94
HSDPA Subtest-4	22.12	22.22	21.93
DC-HSDPA Subtest-1	22.55	22.65	22.36
DC-HSDPA Subtest-2	22.52	22.62	22.33
DC-HSDPA Subtest-3	22.04	22.14	21.85
DC-HSDPA Subtest-4	22.03	22.13	21.84
HSUPA Subtest-1	22.64	22.74	22.45
HSUPA Subtest-2	20.62	20.72	20.43
HSUPA Subtest-3	21.66	21.76	21.47
HSUPA Subtest-4	20.67	20.77	20.48
HSUPA Subtest-5	22.63	22.73	22.44
HSPA+ Subtest-1	20.07	20.17	19.88

LTE Band 4

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
				20050	20175	20300						20025	20175	20325			
				Channel Frequency (MHz)	1720.0	1732.5						1745.0	Channel Frequency (MHz)	1717.5		1732.5	1747.5
20M	QPSK	1	0	23.47	23.43	23.41	0	15M	QPSK	1	0	23.41	23.37	23.35	0		
		1	50	23.21	23.17	23.19	0			1	37	23.15	23.11	23.13	0		
		1	99	23.09	23.05	23.07	0			1	74	23.03	22.99	23.01	0		
		50	0	22.40	22.36	22.38	1			36	0	22.34	22.30	22.32	1		
		50	25	22.29	22.25	22.27	1			36	19	22.23	22.19	22.21	1		
		50	50	22.21	22.17	22.19	1			36	39	22.15	22.11	22.13	1		
	100	0	22.31	22.27	22.29	1	75		0	22.25	22.21	22.23	1				
	16QAM	1	0	22.46	22.42	22.40	1		16QAM	1	0	22.40	22.36	22.34	1		
		1	50	22.20	22.16	22.18	1			1	37	22.14	22.10	22.12	1		
		1	99	22.08	22.04	22.06	1			1	74	22.02	21.98	22.00	1		
		50	0	21.39	21.35	21.37	2			36	0	21.33	21.29	21.31	2		
		50	25	21.28	21.24	21.26	2			36	19	21.22	21.18	21.20	2		
		50	50	21.20	21.16	21.18	2			36	39	21.14	21.10	21.12	2		
	100	0	21.30	21.26	21.28	2	75		0	21.24	21.20	21.22	2				
	64QAM	1	0	21.48	21.44	21.42	2		64QAM	1	0	21.42	21.38	21.36	2		
		1	50	21.22	21.18	21.20	2			1	37	21.16	21.12	21.14	2		
		1	99	21.10	21.06	21.08	2			1	74	21.04	21.00	21.02	2		
		50	0	20.41	20.37	20.39	3			36	0	20.35	20.31	20.33	3		
		50	25	20.30	20.26	20.28	3			36	19	20.24	20.20	20.22	3		
		50	50	20.22	20.18	20.20	3			36	39	20.16	20.12	20.14	3		
	100	0	20.32	20.28	20.30	3	75		0	20.26	20.22	20.24	3				
	10M	QPSK	1	0	23.33	23.29	23.27		0	5M	QPSK	1	0	23.30	23.26	23.24	0
			1	24	23.07	23.03	23.05		0			1	12	23.04	23.00	23.02	0
			1	49	22.95	22.91	22.93		0			1	24	22.92	22.88	22.90	0
25			0	22.26	22.22	22.24	1	12	0			22.23	22.19	22.21	1		
25			12	22.15	22.11	22.13	1	12	6			22.12	22.08	22.10	1		
25			25	22.07	22.03	22.05	1	12	13			22.04	22.00	22.02	1		
50		0	22.17	22.13	22.15	1	25	0	22.14		22.10	22.12	1				
16QAM		1	0	22.32	22.28	22.26	1	16QAM	1		0	22.29	22.25	22.23	1		
		1	24	22.06	22.02	22.04	1		1		12	22.03	21.99	22.01	1		
		1	49	21.94	21.90	21.92	1		1		24	21.91	21.87	21.89	1		
		25	0	21.25	21.21	21.23	2		12		0	21.22	21.18	21.20	2		
		25	12	21.14	21.10	21.12	2		12		6	21.11	21.07	21.09	2		
		25	25	21.06	21.02	21.04	2		12		13	21.03	20.99	21.01	2		
50		0	21.16	21.12	21.14	2	25	0	21.13		21.09	21.11	2				
64QAM		1	0	21.34	21.30	21.28	2	64QAM	1		0	21.31	21.27	21.25	2		
		1	24	21.08	21.04	21.06	2		1		12	21.05	21.01	21.03	2		
		1	49	20.96	20.92	20.94	2		1		24	20.93	20.89	20.91	2		
		25	0	20.27	20.23	20.25	3		12		0	20.24	20.20	20.22	3		
		25	12	20.16	20.12	20.14	3		12		6	20.13	20.09	20.11	3		
		25	25	20.08	20.04	20.06	3		12		13	20.05	20.01	20.03	3		
50		0	20.18	20.14	20.16	3	25	0	20.15		20.11	20.13	3				
3M		QPSK	1	0	23.27	23.23	23.21	0	1.4M		QPSK	1	0	23.22	23.18	23.16	0
			1	7	23.01	22.97	22.99	0				1	2	22.96	22.92	22.94	0
			1	14	22.89	22.85	22.87	0				1	5	22.84	22.80	22.82	0
	8		0	22.20	22.16	22.18	1	3		0		22.85	22.81	22.83	0		
	8		3	22.09	22.05	22.07	1	3		1		22.74	22.70	22.72	0		
	8		7	22.01	21.97	21.99	1	3		3		22.66	22.62	22.64	0		
	15	0	22.11	22.07	22.09	1	6	0		22.06	22.02	22.04	1				
	16QAM	1	0	22.26	22.22	22.20	1	16QAM		1	0	22.21	22.17	22.15	1		
		1	7	22.00	21.96	21.98	1			1	2	21.95	21.91	21.93	1		
		1	14	21.88	21.84	21.86	1			1	5	21.83	21.79	21.81	1		
		8	0	21.19	21.15	21.17	2			3	0	21.84	21.80	21.82	1		
		8	3	21.08	21.04	21.06	2			3	1	21.73	21.69	21.71	1		
		8	7	21.00	20.96	20.98	2			3	3	21.65	21.61	21.63	1		
	15	0	21.10	21.06	21.08	2	6	0		21.05	21.01	21.03	2				
	64QAM	1	0	21.28	21.24	21.22	2	64QAM		1	0	21.23	21.19	21.17	2		
		1	7	21.02	20.98	21.00	2			1	2	20.97	20.93	20.95	2		
		1	14	20.90	20.86	20.88	2			1	5	20.85	20.81	20.83	2		
		8	0	20.21	20.17	20.19	3			3	0	20.86	20.82	20.84	2		
		8	3	20.10	20.06	20.08	3			3	1	20.75	20.71	20.73	2		
		8	7	20.02	19.98	20.00	3			3	3	20.67	20.63	20.65	2		
	15	0	20.12	20.08	20.10	3	6	0		20.07	20.03	20.05	3				

LTE Band 12																
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	
				23060	23095	23130						23035	23095	23155		
				Channel Frequency (MHz)								704.0	707.5	711.0		Channel Frequency (MHz)
10M	QPSK	1	0	23.31	23.26	23.39	0	5M	QPSK	1	0	23.23	23.18	23.31	0	
		1	24	23.30	23.25	23.38	0			1	12	23.22	23.17	23.30	0	
		1	49	23.27	23.22	23.35	0			1	24	23.19	23.14	23.27	0	
		25	0	22.42	22.37	22.50	1			12	0	22.34	22.29	22.42	1	
		25	12	22.41	22.36	22.49	1			12	6	22.33	22.28	22.41	1	
		25	25	22.37	22.32	22.45	1			12	13	22.29	22.24	22.37	1	
	16QAM	50	0	22.38	22.33	22.46	1		25	0	22.30	22.25	22.38	1		
		1	0	22.33	22.28	22.41	1		16QAM	1	0	22.25	22.20	22.33	1	
		1	24	22.32	22.27	22.40	1			1	12	22.24	22.19	22.32	1	
		1	49	22.29	22.24	22.37	1			1	24	22.21	22.16	22.29	1	
		25	0	21.44	21.39	21.52	2			12	0	21.36	21.31	21.44	2	
		25	12	21.43	21.38	21.51	2			12	6	21.35	21.30	21.43	2	
	25	25	21.39	21.34	21.47	2	12			13	21.31	21.26	21.39	2		
	64QAM	50	0	21.40	21.35	21.48	2		25	0	21.32	21.27	21.40	2		
		1	0	21.31	21.26	21.39	2		64QAM	1	0	21.23	21.18	21.31	2	
		1	24	21.30	21.25	21.38	2			1	12	21.22	21.17	21.30	2	
		1	49	21.27	21.22	21.35	2			1	24	21.19	21.14	21.27	2	
		25	0	20.42	20.37	20.50	3			12	0	20.34	20.29	20.42	3	
		25	12	20.41	20.36	20.49	3			12	6	20.33	20.28	20.41	3	
	25	25	20.37	20.32	20.45	3	12			13	20.29	20.24	20.37	3		
	50	0	20.38	20.33	20.46	3	25		0	20.30	20.25	20.38	3			
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	
				23025	23095	23165						23017	23095	23173		
				Channel Frequency (MHz)								700.5	707.5	714.5		Channel Frequency (MHz)
3M	QPSK	1	0	23.16	23.11	23.24	0	1.4M	QPSK	1	0	23.11	23.06	23.19	0	
		1	7	23.15	23.10	23.23	0			1	2	23.10	23.05	23.18	0	
		1	14	23.12	23.07	23.20	0			1	5	23.07	23.02	23.15	0	
		8	0	22.27	22.22	22.35	1			3	0	22.72	22.67	22.80	0	
		8	3	22.26	22.21	22.34	1			3	1	22.71	22.66	22.79	0	
		8	7	22.22	22.17	22.30	1			3	3	22.67	22.62	22.75	0	
	16QAM	15	0	22.23	22.18	22.31	1		6	0	22.18	22.13	22.26	1		
		1	0	22.18	22.13	22.26	1		16QAM	1	0	22.13	22.08	22.21	1	
		1	7	22.17	22.12	22.25	1			1	2	22.12	22.07	22.20	1	
		1	14	22.14	22.09	22.22	1			1	5	22.09	22.04	22.17	1	
		8	0	21.29	21.24	21.37	2			3	0	21.74	21.69	21.82	1	
		8	3	21.28	21.23	21.36	2			3	1	21.73	21.68	21.81	1	
	8	7	21.24	21.19	21.32	2	3			3	21.69	21.64	21.77	1		
	64QAM	15	0	21.25	21.20	21.33	2		6	0	21.20	21.15	21.28	2		
		1	0	21.16	21.11	21.24	2		64QAM	1	0	21.11	21.06	21.19	2	
		1	7	21.15	21.10	21.23	2			1	2	21.10	21.05	21.18	2	
		1	14	21.12	21.07	21.20	2			1	5	21.07	21.02	21.15	2	
		8	0	20.27	20.22	20.35	3			3	0	20.72	20.67	20.80	2	
		8	3	20.26	20.21	20.34	3			3	1	20.71	20.66	20.79	2	
	8	7	20.22	20.17	20.30	3	3			3	20.67	20.62	20.75	2		
	15	0	20.23	20.18	20.31	3	6		0	20.18	20.13	20.26	3			

LTE Band 13															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Frequency (MHz)	782.0	779.5	782.0	784.5									
10M	QPSK	1	0		23.49		0	5M	QPSK	1	0	23.39	23.43	23.41	0
		1	24		23.38		0			1	12	23.34	23.38	23.36	0
		1	49		23.36		0			1	24	23.29	23.33	23.31	0
		25	0		22.48		1			12	0	22.43	22.47	22.45	1
		25	12		22.46		1			12	6	22.41	22.45	22.43	1
		25	25		22.41		1			12	13	22.38	22.42	22.40	1
	16QAM	50	0		22.43		1		25	0	22.39	22.43	22.41	1	
		1	0		22.47		1		16QAM	1	0	22.36	22.40	22.38	1
		1	24		22.36		1			1	12	22.31	22.35	22.33	1
		1	49		22.34		1			1	24	22.26	22.30	22.28	1
		25	0		21.46		2			12	0	21.40	21.44	21.42	2
		25	12		21.44		2			12	6	21.38	21.42	21.40	2
	25	25		21.39		2	12			13	21.35	21.39	21.37	2	
	64QAM	50	0		21.41		2		25	0	21.36	21.40	21.38	2	
		1	0		21.49		2		64QAM	1	0	21.38	21.42	21.40	2
		1	24		21.38		2			1	12	21.33	21.37	21.35	2
		1	49		21.36		2			1	24	21.28	21.32	21.30	2
		25	0		20.48		3			12	0	20.42	20.46	20.44	3
		25	12		20.46		3			12	6	20.40	20.44	20.42	3
	25	25		20.41		3	12			13	20.37	20.41	20.39	3	
	50	0		20.43		3	25		0	20.38	20.42	20.40	3		

LTE Band 17															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Frequency (MHz)	709.0	710.0	711.0	706.5				710.0	713.5				
10M	QPSK	1	0	23.47	23.45	23.43	0	5M	QPSK	1	0	23.41	23.39	23.37	0
		1	24	23.44	23.42	23.40	0			1	12	23.38	23.36	23.34	0
		1	49	23.43	23.41	23.39	0			1	24	23.37	23.35	23.33	0
		25	0	22.54	22.52	22.50	1			12	0	22.48	22.46	22.44	1
		25	12	22.53	22.51	22.49	1			12	6	22.47	22.45	22.43	1
		25	25	22.47	22.45	22.43	1			12	13	22.41	22.39	22.37	1
	16QAM	50	0	22.49	22.47	22.45	1		25	0	22.43	22.41	22.39	1	
		1	0	22.39	22.37	22.35	1		16QAM	1	0	22.33	22.31	22.29	1
		1	24	22.36	22.34	22.32	1			1	12	22.30	22.28	22.26	1
		1	49	22.35	22.33	22.31	1			1	24	22.29	22.27	22.25	1
		25	0	21.46	21.44	21.42	2			12	0	21.40	21.38	21.36	2
		25	12	21.45	21.43	21.41	2			12	6	21.39	21.37	21.35	2
	25	25	21.39	21.37	21.35	2	12			13	21.33	21.31	21.29	2	
	64QAM	50	0	21.41	21.39	21.37	2		25	0	21.35	21.33	21.31	2	
		1	0	21.33	21.31	21.29	2		64QAM	1	0	21.27	21.25	21.23	2
		1	24	21.30	21.28	21.26	2			1	12	21.24	21.22	21.20	2
		1	49	21.29	21.27	21.25	2			1	24	21.23	21.21	21.19	2
		25	0	20.40	20.38	20.36	3			12	0	20.34	20.32	20.30	3
		25	12	20.39	20.37	20.35	3			12	6	20.33	20.31	20.29	3
	25	25	20.33	20.31	20.29	3	12			13	20.27	20.25	20.23	3	
	50	0	20.35	20.33	20.31	3	25		0	20.29	20.27	20.25	3		

LTE Band 66

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
				132072	132322	132572						132047	132322	132597	
				Channel Frequency (MHz)	1720.0	1745.0						1770.0	Channel Frequency (MHz)	1717.5	
20M	QPSK	1	0	23.08	23.12	23.01	0	15M	QPSK	1	0	23.03	23.07	22.96	0
		1	50	22.93	22.97	22.86	0			1	37	22.88	22.92	22.81	0
		1	99	22.87	22.91	22.80	0			1	74	22.82	22.86	22.75	0
		50	0	22.09	22.13	22.02	1			36	0	22.04	22.08	21.97	1
		50	25	22.02	22.06	21.95	1			36	19	21.97	22.01	21.90	1
		50	50	21.92	21.96	21.85	1			36	39	21.87	21.91	21.80	1
	100	0	22.02	22.06	21.95	1	75		0	21.97	22.01	21.90	1		
	16QAM	1	0	22.05	22.09	21.98	1		16QAM	1	0	22.00	22.04	21.93	1
		1	50	21.90	21.94	21.83	1			1	37	21.85	21.89	21.78	1
		1	99	21.84	21.88	21.77	1			1	74	21.79	21.83	21.72	1
		50	0	21.06	21.10	20.99	2			36	0	21.01	21.05	20.94	2
		50	25	20.99	21.03	20.92	2			36	19	20.94	20.98	20.87	2
		50	50	20.89	20.93	20.82	2			36	39	20.84	20.88	20.77	2
	100	0	20.99	21.03	20.92	2	75		0	20.94	20.98	20.87	2		
	64QAM	1	0	21.00	21.04	20.93	2		64QAM	1	0	20.95	20.99	20.88	2
		1	50	20.85	20.89	20.78	2			1	37	20.80	20.84	20.73	2
		1	99	20.79	20.83	20.72	2			1	74	20.74	20.78	20.67	2
		50	0	20.01	20.05	19.94	3			36	0	19.96	20.00	19.89	3
50		25	19.94	19.98	19.87	3	36	19		19.89	19.93	19.82	3		
50		50	19.84	19.88	19.77	3	36	39		19.79	19.83	19.72	3		
100	0	19.94	19.98	19.87	3	75	0	19.89	19.93	19.82	3				
10M	QPSK	1	0	22.96	23.00	22.89	0	5M	QPSK	1	0	22.91	22.95	22.84	0
		1	24	22.81	22.85	22.74	0			1	12	22.76	22.80	22.69	0
		1	49	22.75	22.79	22.68	0			1	24	22.70	22.74	22.63	0
		25	0	21.97	22.01	21.90	1			12	0	21.92	21.96	21.85	1
		25	12	21.90	21.94	21.83	1			12	6	21.85	21.89	21.78	1
		25	25	21.80	21.84	21.73	1			12	13	21.75	21.79	21.68	1
	50	0	21.90	21.94	21.83	1	25		0	21.85	21.89	21.78	1		
	16QAM	1	0	21.93	21.97	21.86	1		16QAM	1	0	21.88	21.92	21.81	1
		1	24	21.78	21.82	21.71	1			1	12	21.73	21.77	21.66	1
		1	49	21.72	21.76	21.65	1			1	24	21.67	21.71	21.60	1
		25	0	20.94	20.98	20.87	2			12	0	20.89	20.93	20.82	2
		25	12	20.87	20.91	20.80	2			12	6	20.82	20.86	20.75	2
		25	25	20.77	20.81	20.70	2			12	13	20.72	20.76	20.65	2
	50	0	20.87	20.91	20.80	2	25		0	20.82	20.86	20.75	2		
	64QAM	1	0	20.88	20.92	20.81	2		64QAM	1	0	20.83	20.87	20.76	2
		1	24	20.73	20.77	20.66	2			1	12	20.68	20.72	20.61	2
		1	49	20.67	20.71	20.60	2			1	24	20.62	20.66	20.55	2
		25	0	19.89	19.93	19.82	3			12	0	19.84	19.88	19.77	3
25		12	19.82	19.86	19.75	3	12	6		19.77	19.81	19.70	3		
25		25	19.72	19.76	19.65	3	12	13		19.67	19.71	19.60	3		
50	0	19.82	19.86	19.75	3	25	0	19.77	19.81	19.70	3				
3M	QPSK	1	0	22.88	22.92	22.81	0	1.4M	QPSK	1	0	22.83	22.87	22.76	0
		1	7	22.73	22.77	22.66	0			1	2	22.68	22.72	22.61	0
		1	14	22.67	22.71	22.60	0			1	5	22.62	22.66	22.55	0
		8	0	21.89	21.93	21.82	1			3	0	22.74	22.78	22.67	0
		8	3	21.82	21.86	21.75	1			3	1	22.67	22.71	22.60	0
		8	7	21.72	21.76	21.65	1			3	3	22.57	22.61	22.51	0
	15	0	21.82	21.86	21.75	1	6		0	21.77	21.81	21.70	1		
	16QAM	1	0	21.85	21.89	21.78	1		16QAM	1	0	21.80	21.84	21.73	1
		1	7	21.70	21.74	21.63	1			1	2	21.65	21.69	21.58	1
		1	14	21.64	21.68	21.57	1			1	5	21.59	21.63	21.52	1
		8	0	20.86	20.90	20.79	2			3	0	21.71	21.75	21.64	1
		8	3	20.79	20.83	20.72	2			3	1	21.64	21.68	21.57	1
		8	7	20.69	20.73	20.62	2			3	3	21.54	21.58	21.51	1
	15	0	20.79	20.83	20.72	2	6		0	20.74	20.78	20.67	2		
	64QAM	1	0	20.80	20.84	20.73	2		64QAM	1	0	20.75	20.79	20.68	2
		1	7	20.65	20.69	20.58	2			1	2	20.60	20.64	20.53	2
		1	14	20.59	20.63	20.52	2			1	5	20.54	20.58	20.51	2
		8	0	19.81	19.85	19.74	3			3	0	20.66	20.70	20.59	2
8		3	19.74	19.78	19.67	3	3	1		20.59	20.63	20.52	2		
8		7	19.64	19.68	19.57	3	3	3		20.52	20.53	20.51	2		
15	0	19.74	19.78	19.67	3	6	0	19.69	19.73	19.62	3				

ERP Power (dBm)

LTE Band 12							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23017	699.7	-7.58	32.719	22.99	199.02	H
	23095	707.5	-7.64	32.736	22.95	197.06	
	23173	715.3	-7.40	32.591	23.04	201.42	
	23017	699.7	-10.55	32.69	19.99	99.77	V
	23095	707.5	-10.72	32.81	19.94	98.63	
	23173	715.3	-10.56	32.74	20.03	100.69	
Channel Bandwidth: 1.4 MHz / 16QAM							
Z	23017	699.7	-8.60	32.719	21.97	157.36	H
	23095	707.5	-8.65	32.736	21.94	156.17	
	23173	715.3	-8.41	32.591	22.03	159.62	
	23017	699.7	-11.56	32.69	18.98	79.07	V
	23095	707.5	-11.74	32.81	18.92	77.98	
	23173	715.3	-11.57	32.74	19.02	79.80	
Channel Bandwidth: 1.4 MHz / 64QAM							
Z	23017	699.7	-9.61	32.719	20.96	124.71	H
	23095	707.5	-9.65	32.736	20.94	124.05	
	23173	715.3	-9.42	32.591	21.02	126.50	
	23017	699.7	-12.56	32.69	17.98	62.81	V
	23095	707.5	-12.74	32.81	17.92	61.94	
	23173	715.3	-12.58	32.74	18.01	63.24	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 12							
Channel Bandwidth: 3 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23025	700.5	-7.54	32.719	23.03	200.86	H
	23095	707.5	-7.60	32.736	22.99	198.88	
	23165	714.5	-7.36	32.591	23.08	203.28	
	23025	700.5	-10.51	32.69	20.03	100.69	V
	23095	707.5	-10.68	32.81	19.98	99.54	
	23165	714.5	-10.52	32.74	20.07	101.62	
Channel Bandwidth: 3 MHz / 16QAM							
Z	23025	700.5	-8.55	32.719	22.02	159.18	H
	23095	707.5	-8.61	32.736	21.98	157.62	
	23165	714.5	-8.37	32.591	22.07	161.10	
	23025	700.5	-11.52	32.69	19.02	79.80	V
	23095	707.5	-11.69	32.81	18.97	78.89	
	23165	714.5	-11.53	32.74	19.06	80.54	
Channel Bandwidth: 3 MHz / 64QAM							
Z	23025	700.5	-9.55	32.719	21.02	126.44	H
	23095	707.5	-9.62	32.736	20.97	124.91	
	23165	714.5	-9.38	32.591	21.06	127.67	
	23025	700.5	-12.53	32.69	18.01	63.24	V
	23095	707.5	-12.70	32.81	17.96	62.52	
	23165	714.5	-12.53	32.74	18.06	63.97	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 12							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23035	701.5	-7.50	32.719	23.07	202.72	H
	23095	707.5	-7.56	32.736	23.03	200.72	
	23155	713.5	-7.33	32.591	23.11	204.69	
	23035	701.5	-10.47	32.69	20.07	101.62	V
	23095	707.5	-10.62	32.81	20.04	100.93	
	23155	713.5	-10.47	32.74	20.12	102.80	
Channel Bandwidth: 5 MHz / 16QAM							
Z	23035	701.5	-8.51	32.719	22.06	160.66	H
	23095	707.5	-8.56	32.736	22.03	159.44	
	23155	713.5	-8.34	32.591	22.10	162.22	
	23035	701.5	-11.48	32.69	19.06	80.54	V
	23095	707.5	-11.63	32.81	19.03	79.98	
	23155	713.5	-11.48	32.74	19.11	81.47	
Channel Bandwidth: 5 MHz / 64QAM							
Z	23035	701.5	-9.52	32.719	21.05	127.32	H
	23095	707.5	-9.57	32.736	21.02	126.36	
	23155	713.5	-9.35	32.591	21.09	128.56	
	23035	701.5	-12.49	32.69	18.05	63.83	V
	23095	707.5	-12.64	32.81	18.02	63.39	
	23155	713.5	-12.49	32.74	18.10	64.57	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 12							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23060	704.0	-7.48	32.727	23.10	204.03	H
	23095	707.5	-7.52	32.739	23.07	202.72	
	23130	711.0	-7.44	32.728	23.14	205.97	
	23060	704.0	-10.49	32.75	20.11	102.57	V
	23095	707.5	-10.58	32.81	20.08	101.86	
	23130	711.0	-10.53	32.84	20.16	103.75	
Channel Bandwidth: 10 MHz / 16QAM							
Z	23060	704.0	-8.49	32.727	22.09	161.70	H
	23095	707.5	-8.53	32.739	22.06	160.66	
	23130	711.0	-8.45	32.728	22.13	163.23	
	23060	704.0	-11.50	32.75	19.10	81.28	V
	23095	707.5	-11.59	32.81	19.07	80.72	
	23130	711.0	-11.53	32.84	19.16	82.41	
Channel Bandwidth: 10 MHz / 64QAM							
Z	23060	704.0	-9.50	32.727	21.08	128.14	H
	23095	707.5	-9.54	32.739	21.05	127.32	
	23130	711.0	-9.46	32.728	21.12	129.36	
	23060	704.0	-12.51	32.75	18.09	64.42	V
	23095	707.5	-12.60	32.81	18.06	63.97	
	23130	711.0	-12.54	32.84	18.15	65.31	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 13							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
NB	23205	779.5	-8.52	32.771	22.10	162.22	H
	23230	782.0	-8.40	32.741	22.19	165.62	
	23255	784.5	-8.56	32.854	22.14	163.83	
	23205	779.5	-12.20	32.5	18.15	65.31	V
	23230	782.0	-12.15	32.52	18.22	66.37	
	23255	784.5	-12.30	32.62	18.17	65.61	
Channel Bandwidth: 5 MHz / 16QAM							
NB	23205	779.5	-9.53	32.771	21.09	128.56	H
	23230	782.0	-9.41	32.741	21.18	131.25	
	23255	784.5	-9.57	32.854	21.13	129.84	
	23205	779.5	-13.21	32.5	17.14	51.76	V
	23230	782.0	-13.15	32.52	17.22	52.72	
	23255	784.5	-13.31	32.62	17.16	52.00	
Channel Bandwidth: 5 MHz / 64QAM							
NB	23205	779.5	-10.53	32.771	20.09	102.12	H
	23230	782.0	-10.41	32.741	20.18	104.26	
	23255	784.5	-10.58	32.854	20.12	102.90	
	23205	779.5	-14.22	32.5	16.13	41.02	V
	23230	782.0	-14.16	32.52	16.21	41.78	
	23255	784.5	-14.32	32.62	16.15	41.21	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 13							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
NB	23230	782.0	-8.36	32.737	22.23	166.99	H
	23230	782.0	-12.10	32.52	18.27	67.14	V
Channel Bandwidth: 10 MHz / 16QAM							
NB	23230	782.0	-9.37	32.737	21.22	132.34	H
	23230	782.0	-13.11	32.52	17.26	53.21	V
Channel Bandwidth: 10 MHz / 64QAM							
NB	23230	782.0	-10.38	32.737	20.21	104.88	H
	23230	782.0	-14.12	32.52	16.25	42.17	V

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 17							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
NB	23755	706.5	-7.99	32.719	22.58	181.09	H
	23790	710.0	-8.04	32.736	22.55	179.72	
	23825	713.5	-7.95	32.591	22.49	177.46	
	23755	706.5	-10.95	32.69	19.59	90.99	V
	23790	710.0	-11.13	32.81	19.53	89.74	
	23825	713.5	-11.08	32.74	19.51	89.33	
Channel Bandwidth: 5 MHz / 16QAM							
NB	23755	706.5	-9.00	32.719	21.57	143.52	H
	23790	710.0	-9.05	32.736	21.54	142.43	
	23825	713.5	-8.96	32.591	21.48	140.64	
	23755	706.5	-11.96	32.69	18.58	72.11	V
	23790	710.0	-12.14	32.81	18.52	71.12	
	23825	713.5	-12.09	32.74	18.50	70.79	
Channel Bandwidth: 5 MHz / 64QAM							
NB	23755	706.5	-10.00	32.719	20.57	114.00	H
	23790	710.0	-10.06	32.736	20.53	112.88	
	23825	713.5	-9.97	32.591	20.47	111.46	
	23755	706.5	-12.98	32.69	17.56	57.02	V
	23790	710.0	-13.15	32.81	17.51	56.36	
	23825	713.5	-13.11	32.74	17.48	55.98	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

LTE Band 17							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
NB	23780	709.0	-7.95	32.727	22.63	183.10	H
	23790	710.0	-8.00	32.739	22.59	181.51	
	23800	711.0	-8.04	32.728	22.54	179.39	
	23780	709.0	-10.98	32.75	19.62	91.62	V
	23790	710.0	-11.09	32.81	19.57	90.57	
	23800	711.0	-11.14	32.84	19.55	90.16	
Channel Bandwidth: 10 MHz / 16QAM							
NB	23780	709.0	-8.96	32.727	21.62	145.11	H
	23790	710.0	-9.01	32.739	21.58	143.85	
	23800	711.0	-9.04	32.728	21.54	142.50	
	23780	709.0	-11.98	32.75	18.62	72.78	V
	23790	710.0	-12.10	32.81	18.56	71.78	
	23800	711.0	-12.16	32.84	18.53	71.29	
Channel Bandwidth: 10 MHz / 64QAM							
NB	23780	709.0	-9.97	32.727	20.61	115.00	H
	23790	710.0	-10.02	32.739	20.57	114.00	
	23800	711.0	-10.05	32.728	20.53	112.93	
	23780	709.0	-13.00	32.75	17.60	57.54	V
	23790	710.0	-13.11	32.81	17.55	56.89	
	23800	711.0	-13.18	32.84	17.51	56.36	

Note: ERP (dBm) = Reading (dBm) + Correction Factor (dB) – 2.15

EIRP Power (dBm)

WCDMA							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	1312	1712.4	-16.95	42.49	25.54	357.68	H
	1413	1732.6	-16.74	42.33	25.59	361.99	
	1513	1752.6	-16.50	42.10	25.60	363.08	
	1312	1712.4	-20.96	42.99	22.03	159.59	V
	1413	1732.6	-20.67	42.74	22.07	161.06	
	1513	1752.6	-20.10	42.21	22.11	162.55	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 4							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19957	1710.7	-17.22	42.49	25.27	336.12	H
	20175	1732.5	-16.78	42.33	25.55	358.67	
	20393	1754.3	-16.56	42.10	25.54	358.10	
	19957	1710.7	-21.23	42.99	21.76	149.97	V
	20175	1732.5	-20.88	42.74	21.86	153.43	
	20393	1754.3	-20.76	42.21	21.45	139.64	
Channel Bandwidth: 1.4 MHz / 16QAM							
X	19957	1710.7	-17.51	42.49	24.98	314.41	H
	20175	1732.5	-17.88	42.33	24.45	278.42	
	20393	1754.3	-17.26	42.10	24.84	304.79	
	19957	1710.7	-22.01	42.99	20.98	125.31	V
	20175	1732.5	-21.75	42.74	20.99	125.60	
	20393	1754.3	-21.96	42.21	20.25	105.93	
Channel Bandwidth: 1.4 MHz / 64QAM							
X	19957	1710.7	-18.52	42.49	23.97	249.17	H
	20175	1732.5	-18.36	42.33	23.97	249.29	
	20393	1754.3	-18.46	42.10	23.64	231.42	
	19957	1710.7	-23.12	42.99	19.87	97.05	V
	20175	1732.5	-22.75	42.74	19.99	99.77	
	20393	1754.3	-22.58	42.21	19.63	91.83	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 4							
Channel Bandwidth: 3 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19965	1711.5	-17.35	42.49	25.14	326.21	H
	20175	1732.5	-16.54	42.33	25.79	379.05	
	20385	1753.5	-16.47	42.10	25.63	365.59	
	19965	1711.5	-21.35	42.99	21.64	145.88	V
	20175	1732.5	-20.76	42.74	21.98	157.83	
	20385	1753.5	-20.56	42.21	21.65	146.22	
Channel Bandwidth: 3 MHz / 16QAM							
X	19965	1711.5	-17.63	42.49	24.86	305.84	H
	20175	1732.5	-17.85	42.33	24.48	280.35	
	20385	1753.5	-17.33	42.10	24.77	299.92	
	19965	1711.5	-22.25	42.99	20.74	118.58	V
	20175	1732.5	-21.86	42.74	20.88	122.46	
	20385	1753.5	-22.12	42.21	20.09	102.09	
Channel Bandwidth: 3 MHz / 64QAM							
X	19965	1711.5	-18.51	42.49	23.98	249.75	H
	20175	1732.5	-18.42	42.33	23.91	245.87	
	20385	1753.5	-18.35	42.10	23.75	237.14	
	19965	1711.5	-23.25	42.99	19.74	94.19	V
	20175	1732.5	-22.95	42.74	19.79	95.28	
	20385	1753.5	-22.78	42.21	19.43	87.70	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 4							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19975	1712.5	-17.23	42.49	25.26	335.35	H
	20175	1732.5	-16.88	42.33	25.45	350.51	
	20375	1752.5	-16.75	42.10	25.35	342.77	
	19975	1712.5	-21.25	42.99	21.74	149.28	V
	20175	1732.5	-20.85	42.74	21.89	154.60	
	20375	1752.5	-20.75	42.21	21.46	139.96	
Channel Bandwidth: 5 MHz / 16QAM							
X	19975	1712.5	-17.57	42.49	24.92	310.10	H
	20175	1732.5	-17.91	42.33	24.42	276.50	
	20375	1752.5	-17.86	42.10	24.24	265.46	
	19975	1712.5	-22.57	42.99	20.42	110.20	V
	20175	1732.5	-21.97	42.74	20.77	119.40	
	20375	1752.5	-22.00	42.21	20.21	104.95	
Channel Bandwidth: 5 MHz / 64QAM							
X	19975	1712.5	-18.75	42.49	23.74	236.32	H
	20175	1732.5	-18.85	42.33	23.48	222.69	
	20375	1752.5	-18.59	42.10	23.51	224.39	
	19975	1712.5	-23.36	42.99	19.63	91.83	V
	20175	1732.5	-22.86	42.74	19.88	97.27	
	20375	1752.5	-22.88	42.21	19.33	85.70	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 4							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20000	1715.0	-17.26	42.49	25.23	333.04	H
	20175	1732.5	-16.56	42.33	25.77	377.31	
	20350	1750.0	-16.51	42.10	25.59	362.24	
	20000	1715.0	-21.61	42.99	21.38	137.34	V
	20175	1732.5	-20.91	42.74	21.83	152.41	
	20350	1750.0	-20.93	42.21	21.28	134.28	
Channel Bandwidth: 10 MHz / 16QAM							
X	20000	1715.0	-17.84	42.49	24.65	291.41	H
	20175	1732.5	-17.45	42.33	24.88	307.40	
	20350	1750.0	-17.77	42.10	24.33	271.02	
	20000	1715.0	-22.41	42.99	20.58	114.29	V
	20175	1732.5	-21.87	42.74	20.87	122.18	
	20350	1750.0	-22.21	42.21	20.00	100.00	
Channel Bandwidth: 10 MHz / 64QAM							
X	20000	1715.0	-18.75	42.49	23.74	236.32	H
	20175	1732.5	-18.69	42.33	23.64	231.05	
	20350	1750.0	-18.81	42.10	23.29	213.30	
	20000	1715.0	-23.56	42.99	19.43	87.70	V
	20175	1732.5	-22.78	42.74	19.96	99.08	
	20350	1750.0	-22.81	42.21	19.40	87.10	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 4							
Channel Bandwidth: 15 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20025	1717.5	-17.14	42.49	25.35	342.37	H
	20175	1732.5	-16.87	42.33	25.46	351.32	
	20325	1747.5	-16.84	42.10	25.26	335.74	
	20025	1717.5	-21.52	42.99	21.47	140.28	V
	20175	1732.5	-20.85	42.74	21.89	154.53	
	20325	1747.5	-20.78	42.21	21.43	139.00	
Channel Bandwidth: 15 MHz / 16QAM							
X	20025	1717.5	-17.71	42.49	24.78	300.26	H
	20175	1732.5	-17.56	42.33	24.77	299.71	
	20325	1747.5	-17.62	42.10	24.48	280.54	
	20025	1717.5	-22.33	42.99	20.66	116.41	V
	20175	1732.5	-21.75	42.74	20.99	125.49	
	20325	1747.5	-21.75	42.21	20.46	111.17	
Channel Bandwidth: 15 MHz / 64QAM							
X	20025	1717.5	-18.68	42.49	23.81	240.16	H
	20175	1732.5	-18.78	42.33	23.55	226.31	
	20325	1747.5	-18.84	42.10	23.26	211.84	
	20025	1717.5	-23.65	42.99	19.34	85.90	V
	20175	1732.5	-22.94	42.74	19.80	95.50	
	20325	1747.5	-22.75	42.21	19.46	88.29	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 4							
Channel Bandwidth: 20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20050	1720.0	-17.10	42.49	25.39	345.54	H
	20175	1732.5	-16.22	42.33	26.11	408.04	
	20300	1745.0	-16.75	42.10	25.35	342.77	
	20050	1720.0	-21.01	42.99	21.98	157.76	V
	20175	1732.5	-20.89	42.74	21.85	153.11	
	20300	1745.0	-20.90	42.21	21.31	135.21	
Channel Bandwidth: 20 MHz / 16QAM							
X	20050	1720.0	-17.30	42.49	25.19	329.99	H
	20175	1732.5	-17.54	42.33	24.79	301.09	
	20300	1745.0	-17.88	42.10	24.22	264.24	
	20050	1720.0	-22.25	42.99	20.74	118.58	V
	20175	1732.5	-21.85	42.74	20.89	122.74	
	20300	1745.0	-21.67	42.21	20.54	113.24	
Channel Bandwidth: 20 MHz / 64QAM							
X	20050	1720.0	-18.42	42.49	24.07	254.98	H
	20175	1732.5	-18.58	42.33	23.75	236.97	
	20300	1745.0	-18.66	42.10	23.44	220.80	
	20050	1720.0	-23.25	42.99	19.74	94.19	V
	20175	1732.5	-22.84	42.74	19.90	97.72	
	20300	1745.0	-22.87	42.21	19.34	85.90	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 66							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131979	1710.7	-11.54	36.45	24.91	309.74	H
	132322	1745.0	-11.84	36.80	24.96	313.26	
	132665	1779.3	-12.06	36.94	24.88	307.82	
	131979	1710.7	-17.38	37.28	19.90	97.66	V
	132322	1745.0	-17.68	37.63	19.95	98.86	
	132665	1779.3	-17.79	37.64	19.85	96.61	
Channel Bandwidth: 1.4 MHz / 16QAM							
X	131979	1710.7	-12.55	36.45	23.90	245.47	H
	132322	1745.0	-12.85	36.80	23.95	248.26	
	132665	1779.3	-13.06	36.94	23.88	244.51	
	131979	1710.7	-18.39	37.28	18.89	77.39	V
	132322	1745.0	-18.69	37.63	18.94	78.34	
	132665	1779.3	-18.80	37.64	18.84	76.56	
Channel Bandwidth: 1.4 MHz / 64QAM							
X	131979	1710.7	-13.55	36.45	22.90	194.98	H
	132322	1745.0	-13.85	36.80	22.95	197.20	
	132665	1779.3	-14.07	36.94	22.87	193.78	
	131979	1710.7	-19.40	37.28	17.88	61.33	V
	132322	1745.0	-19.70	37.63	17.93	62.09	
	132665	1779.3	-19.81	37.64	17.83	60.67	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 66							
Channel Bandwidth: 3 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131987	1711.5	-11.50	36.45	24.95	312.61	H
	132322	1745.0	-11.80	36.80	25.00	316.15	
	132657	1778.5	-12.02	36.94	24.92	310.67	
	131987	1711.5	-17.34	37.28	19.94	98.56	V
	132322	1745.0	-17.64	37.63	19.99	99.77	
	132657	1778.5	-17.74	37.64	19.90	97.72	
Channel Bandwidth: 3 MHz / 16QAM							
X	131987	1711.5	-12.51	36.45	23.94	247.74	H
	132322	1745.0	-12.81	36.80	23.99	250.55	
	132657	1778.5	-13.02	36.94	23.92	246.77	
	131987	1711.5	-18.35	37.28	18.93	78.11	V
	132322	1745.0	-18.65	37.63	18.98	79.07	
	132657	1778.5	-18.75	37.64	18.89	77.45	
Channel Bandwidth: 3 MHz / 64QAM							
X	131987	1711.5	-13.52	36.45	22.93	196.34	H
	132322	1745.0	-13.82	36.80	22.98	198.56	
	132657	1778.5	-14.03	36.94	22.91	195.57	
	131987	1711.5	-19.36	37.28	17.92	61.90	V
	132322	1745.0	-19.66	37.63	17.97	62.66	
	132657	1778.5	-19.76	37.64	17.88	61.38	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 66							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	131997	1712.5	-11.46	36.45	24.99	315.50	H
	132322	1745.0	-11.76	36.80	25.04	319.08	
	132647	1777.5	-11.97	36.94	24.97	314.27	
	131997	1712.5	-17.30	37.28	19.98	99.47	V
	132322	1745.0	-17.60	37.63	20.03	100.69	
	132647	1777.5	-17.70	37.64	19.94	98.63	
Channel Bandwidth: 5 MHz / 16QAM							
X	131997	1712.5	-12.46	36.45	23.99	250.61	H
	132322	1745.0	-12.77	36.80	24.03	252.87	
	132647	1777.5	-12.98	36.94	23.96	249.06	
	131997	1712.5	-18.31	37.28	18.97	78.83	V
	132322	1745.0	-18.60	37.63	19.03	79.98	
	132647	1777.5	-18.70	37.64	18.94	78.34	
Channel Bandwidth: 5 MHz / 64QAM							
X	131997	1712.5	-13.47	36.45	22.98	198.61	H
	132322	1745.0	-13.78	36.80	23.02	200.40	
	132647	1777.5	-13.99	36.94	22.95	197.38	
	131997	1712.5	-19.32	37.28	17.96	62.47	V
	132322	1745.0	-19.61	37.63	18.02	63.39	
	132647	1777.5	-19.71	37.64	17.93	62.09	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 66							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132022	1715.0	-11.60	36.64	25.04	319.15	H
	132322	1745.0	-11.72	36.80	25.08	321.74	
	132622	1775.0	-11.79	36.80	25.01	316.96	
	132022	1715.0	-17.42	37.44	20.02	100.44	V
	132322	1745.0	-17.56	37.63	20.07	101.60	
	132622	1775.0	-17.66	37.64	19.98	99.43	
Channel Bandwidth: 10 MHz / 16QAM							
X	132022	1715.0	-12.61	36.64	24.03	252.93	H
	132322	1745.0	-12.72	36.80	24.08	255.56	
	132622	1775.0	-12.80	36.80	24.00	251.19	
	132022	1715.0	-18.43	37.44	19.01	79.60	V
	132322	1745.0	-18.57	37.63	19.06	80.52	
	132622	1775.0	-18.67	37.64	18.97	78.80	
Channel Bandwidth: 10 MHz / 64QAM							
X	132022	1715.0	-13.62	36.64	23.02	200.45	H
	132322	1745.0	-13.72	36.80	23.08	203.00	
	132622	1775.0	-13.81	36.80	22.99	199.07	
	132022	1715.0	-19.44	37.44	18.00	63.08	V
	132322	1745.0	-19.58	37.63	18.05	63.81	
	132622	1775.0	-19.68	37.64	17.96	62.45	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 66							
Channel Bandwidth: 15 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132047	1717.5	-11.37	36.45	25.08	322.11	H
	132322	1745.0	-11.68	36.80	25.12	325.01	
	132597	1772.5	-11.89	36.94	25.05	320.11	
	132047	1717.5	-17.22	37.28	20.06	101.32	V
	132322	1745.0	-17.52	37.63	20.11	102.57	
	132597	1772.5	-17.61	37.64	20.03	100.69	
Channel Bandwidth: 15 MHz / 16QAM							
X	132047	1717.5	-12.37	36.45	24.08	255.86	H
	132322	1745.0	-12.68	36.80	24.12	258.17	
	132597	1772.5	-12.90	36.94	24.04	253.69	
	132047	1717.5	-18.23	37.28	19.05	80.30	V
	132322	1745.0	-18.52	37.63	19.11	81.47	
	132597	1772.5	-18.62	37.64	19.02	79.80	
Channel Bandwidth: 15 MHz / 64QAM							
X	132047	1717.5	-13.38	36.45	23.07	202.77	H
	132322	1745.0	-13.69	36.80	23.11	204.60	
	132597	1772.5	-13.91	36.94	23.03	201.05	
	132047	1717.5	-19.24	37.28	18.04	63.64	V
	132322	1745.0	-19.53	37.63	18.10	64.57	
	132597	1772.5	-19.63	37.64	18.01	63.24	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

LTE Band 66							
Channel Bandwidth: 20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	132072	1720.0	-11.33	36.45	25.12	325.09	H
	132322	1745.0	-11.64	36.80	25.16	328.02	
	132572	1770.0	-11.85	36.94	25.09	323.07	
	132072	1720.0	-17.18	37.28	20.10	102.26	V
	132322	1745.0	-17.48	37.63	20.15	103.51	
	132572	1770.0	-17.57	37.64	20.07	101.62	
Channel Bandwidth: 20 MHz / 16QAM							
X	132072	1720.0	-12.34	36.45	24.11	257.63	H
	132322	1745.0	-12.65	36.80	24.15	259.96	
	132572	1770.0	-12.86	36.94	24.08	256.04	
	132072	1720.0	-18.19	37.28	19.09	81.04	V
	132322	1745.0	-18.49	37.63	19.14	82.04	
	132572	1770.0	-18.58	37.64	19.06	80.54	
Channel Bandwidth: 20 MHz / 64QAM							
X	132072	1720.0	-13.35	36.45	23.10	204.17	H
	132322	1745.0	-13.66	36.80	23.14	206.02	
	132572	1770.0	-13.87	36.94	23.07	202.91	
	132072	1720.0	-19.20	37.28	18.08	64.22	V
	132322	1745.0	-19.50	37.63	18.13	65.01	
	132572	1770.0	-19.58	37.64	18.06	63.97	

Note: EIRP (dBm) = Reading (dBm) + Correction Factor (dB)

4.2 Radiated Emission Measurement

4.2.1 Limits of Radiated Emission Measurement

- a. The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P)$ dB. The limit of emission is equal to -13 dBm.
- b. For operations in the 775-788 MHz, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz. The limit of emissions is equal to -40 dBm.

4.2.2 Test Procedure

- a. Substitution method is used for E.I.R.P measurement. 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 substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- c. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15 \text{ dB}$.

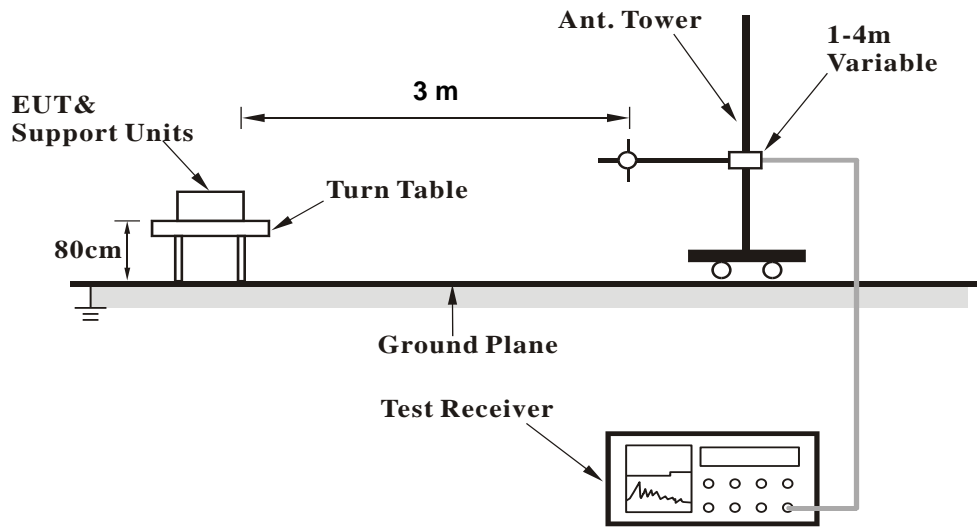
Note: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

4.2.3 Deviation from Test Standard

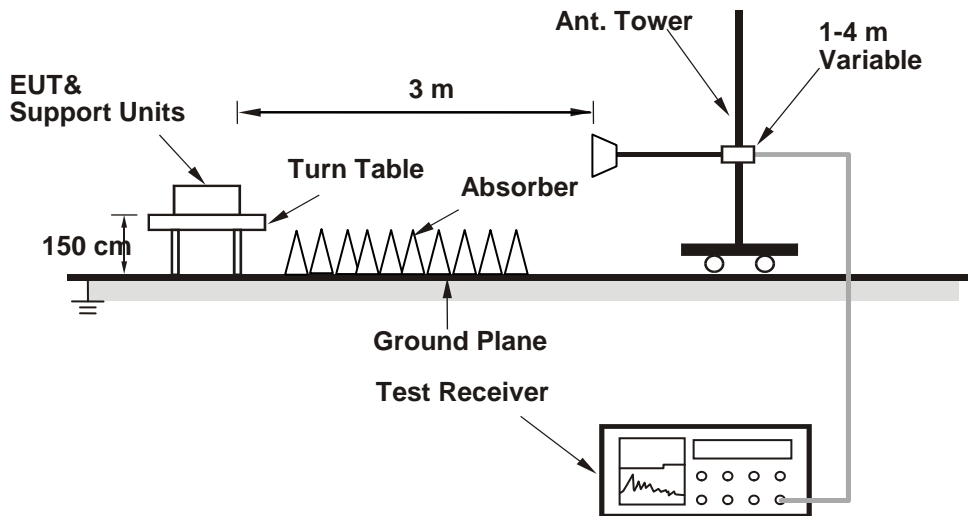
No deviation.

4.2.4 Test Setup

<Radiated Emission below or equal 1 GHz>



<Radiated Emission above 1 GHz>



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

4.2.5 Test Results

WCDMA:
Low Channel

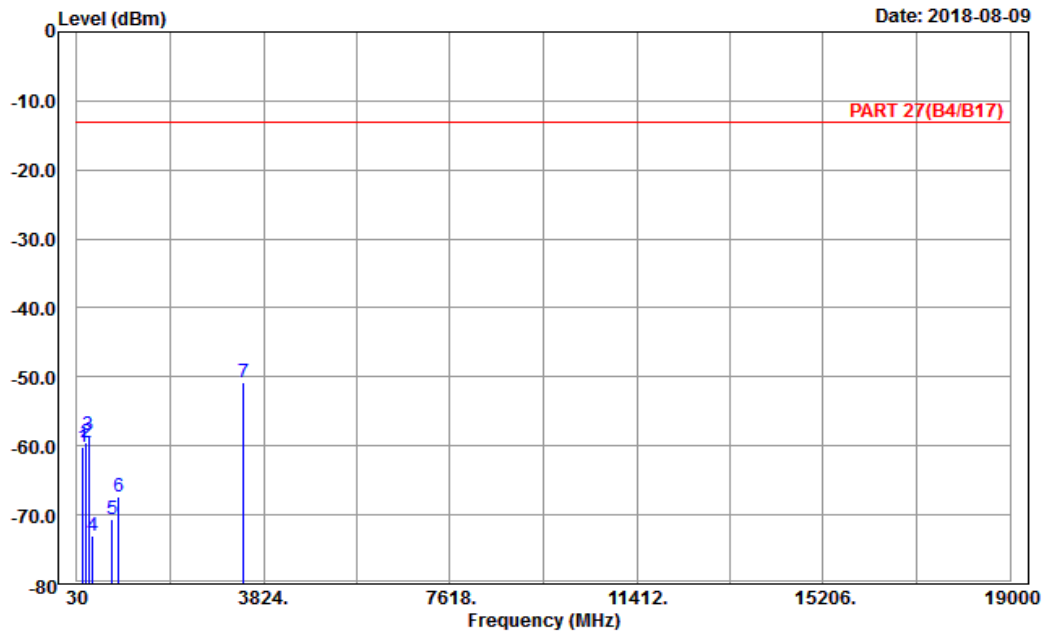


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A D T

Data: 13

Date: 2018-08-09



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : Band IV_Link_CH1312
Tested by: Karl Lee

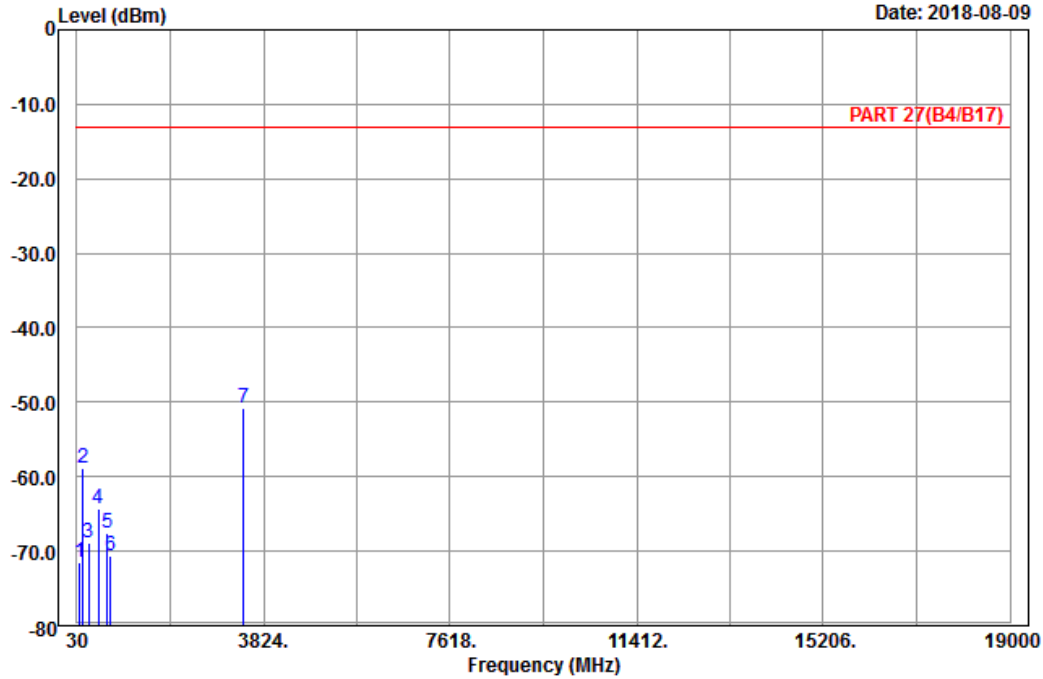
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	147.18	-60.13	-52.25	-13.00	-47.13	-7.88	Peak
2	214.95	-59.61	-53.63	-13.00	-46.61	-5.98	Peak
3	273.54	-58.40	-52.68	-13.00	-45.40	-5.72	Peak
4	352.50	-73.03	-67.76	-13.00	-60.03	-5.27	Peak
5	755.00	-70.71	-69.72	-13.00	-57.71	-0.99	Peak
6	884.50	-67.32	-69.76	-13.00	-54.32	2.44	Peak
7 pp	3424.80	-50.90	-65.27	-13.00	-37.90	14.37	Peak



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Data: 14

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Vertical
 Remark : Band IV_Link_CH1312
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	84.27	-71.52	-60.19	-13.00	-58.52	-11.33	Peak
2	157.98	-58.76	-51.04	-13.00	-45.76	-7.72	Peak
3	263.28	-68.96	-63.34	-13.00	-55.96	-5.62	Peak
4	459.60	-64.37	-60.25	-13.00	-51.37	-4.12	Peak
5	645.80	-67.47	-67.38	-13.00	-54.47	-0.09	Peak
6	719.30	-70.65	-69.91	-13.00	-57.65	-0.74	Peak
7 pp	3424.80	-50.88	-65.25	-13.00	-37.88	14.37	Peak

Middle Channel

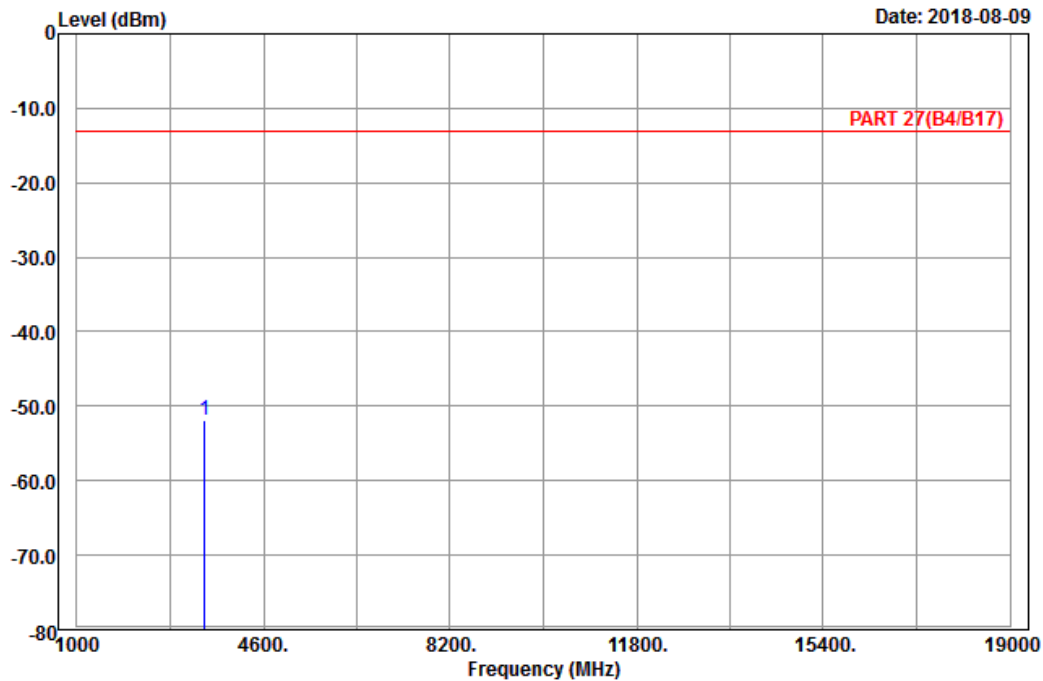


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A D T

Data: 9

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Horizontal
 Remark : Band IV_Link_CH1413
 Tested by: Karl Lee

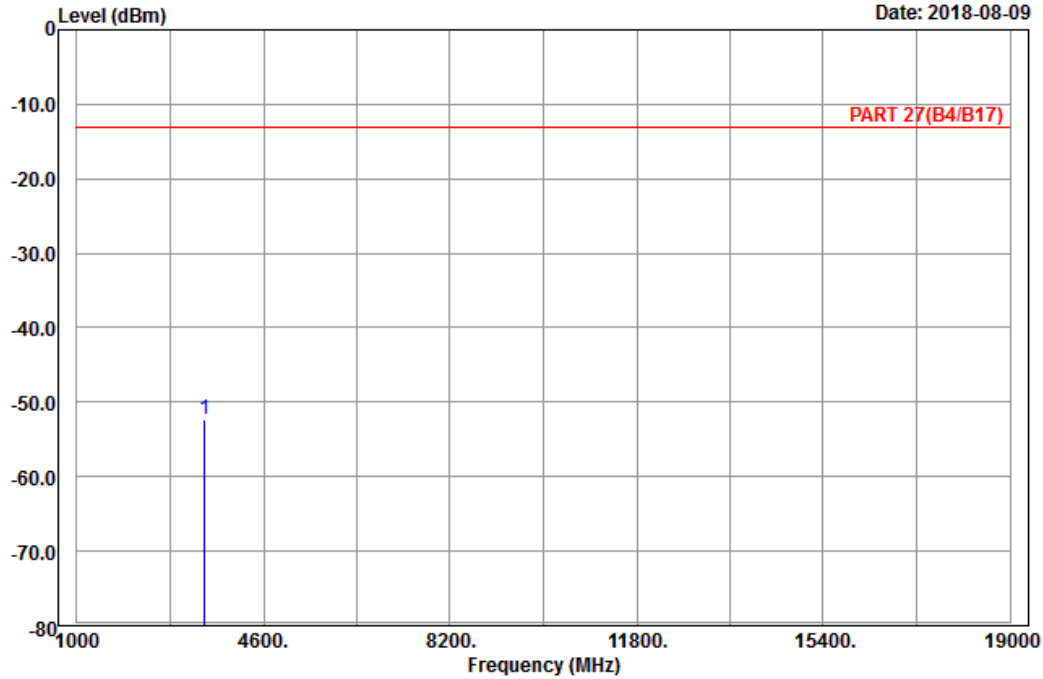
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.20	-51.88	-66.22	-13.00	-38.88	14.34	Peak



A D T

Data: 10

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Vertical
 Remark : Band IV_Link_CH1413
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 3465.20	-52.28	-66.62	-13.00	-39.28	14.34	Peak

High Channel

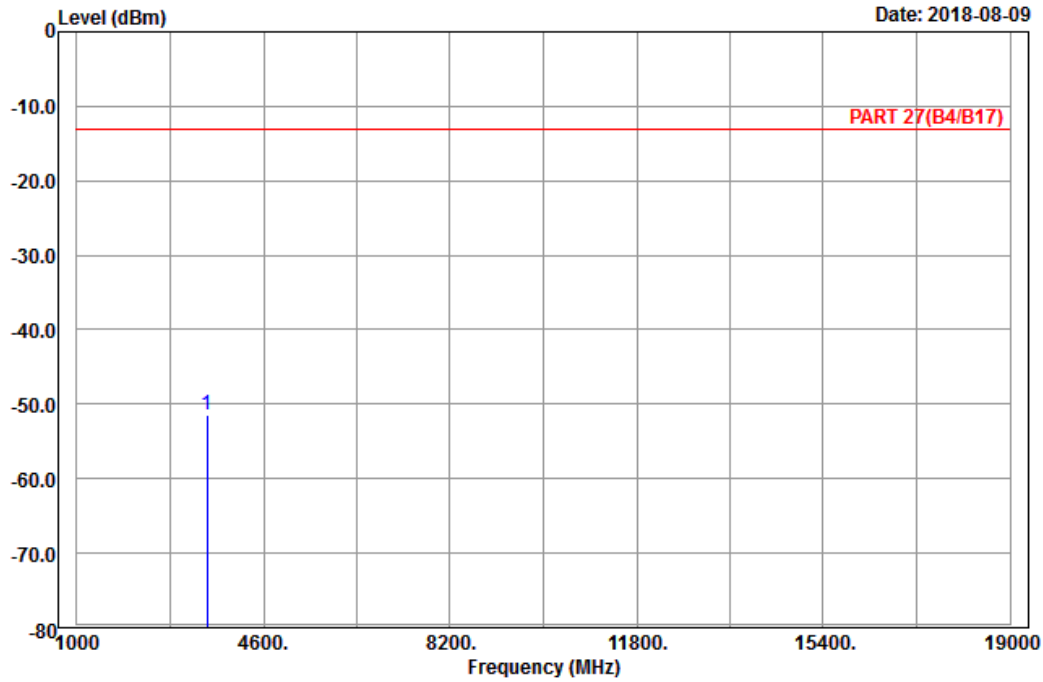


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Horizontal
 Remark : Band IV_Link_CH1513
 Tested by: Karl Lee

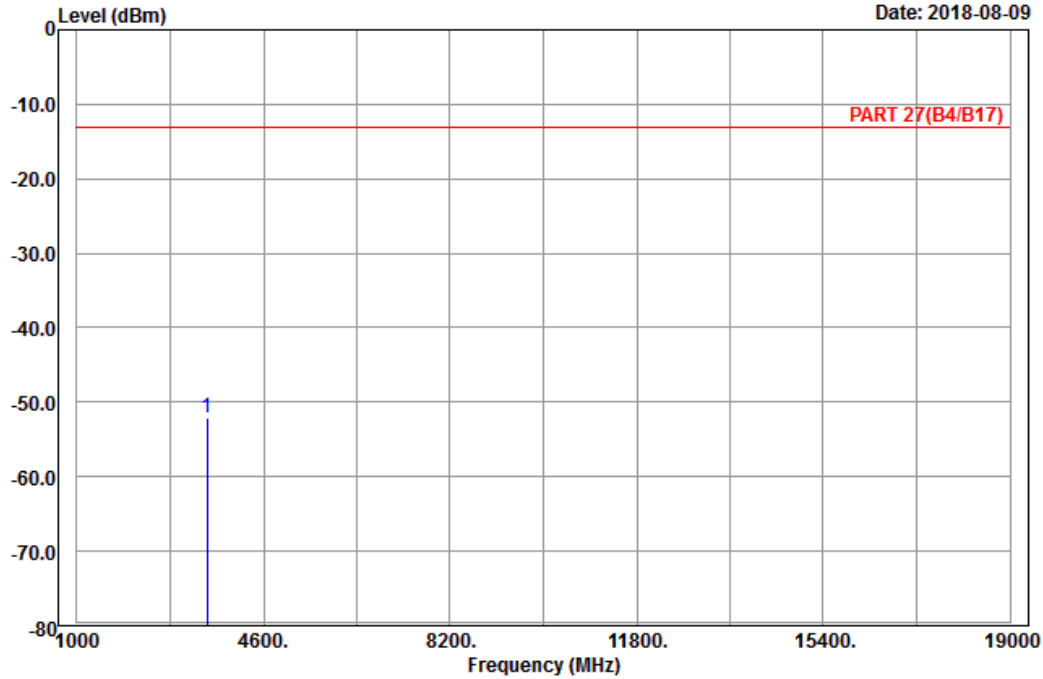
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3505.20	-51.54	-65.82	-13.00	-38.54	14.28	Peak



A D T

Data: 10

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Vertical
 Remark : Band IV_Link_CH1513
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 3505.20	-52.12	-66.40	-13.00	-39.12	14.28	Peak

LTE Band 4
 Channel Bandwidth: 20 MHz / QPSK
 Low Channel

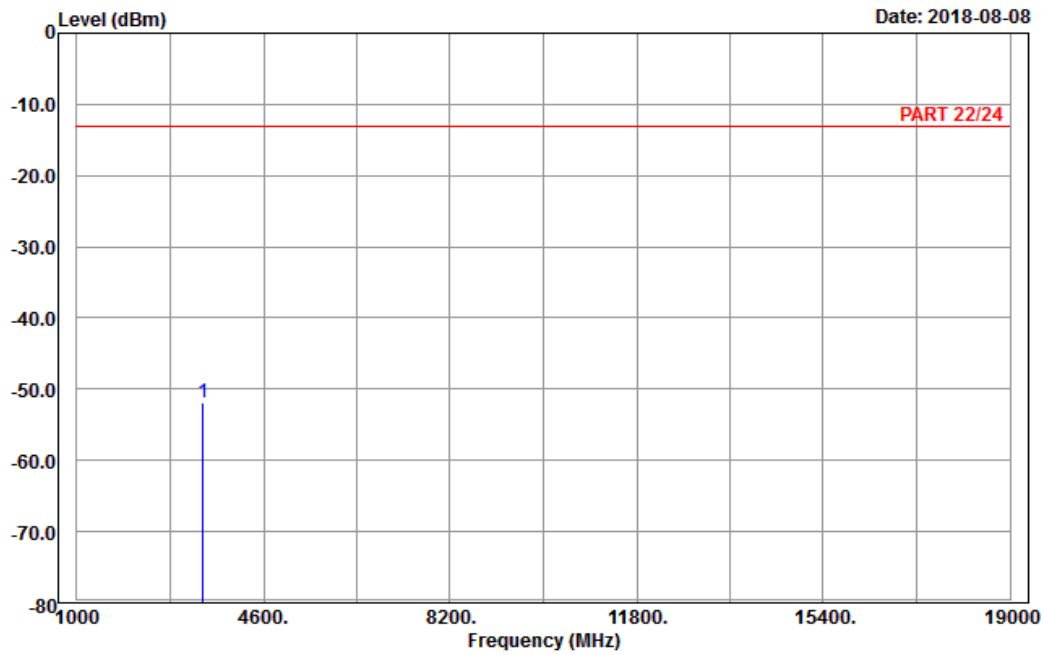


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A D T

Data: 9

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 22/24 Horizontal
 Remark : LTE_Band 4_Link_CH20050
 Tested by: Karl Lee

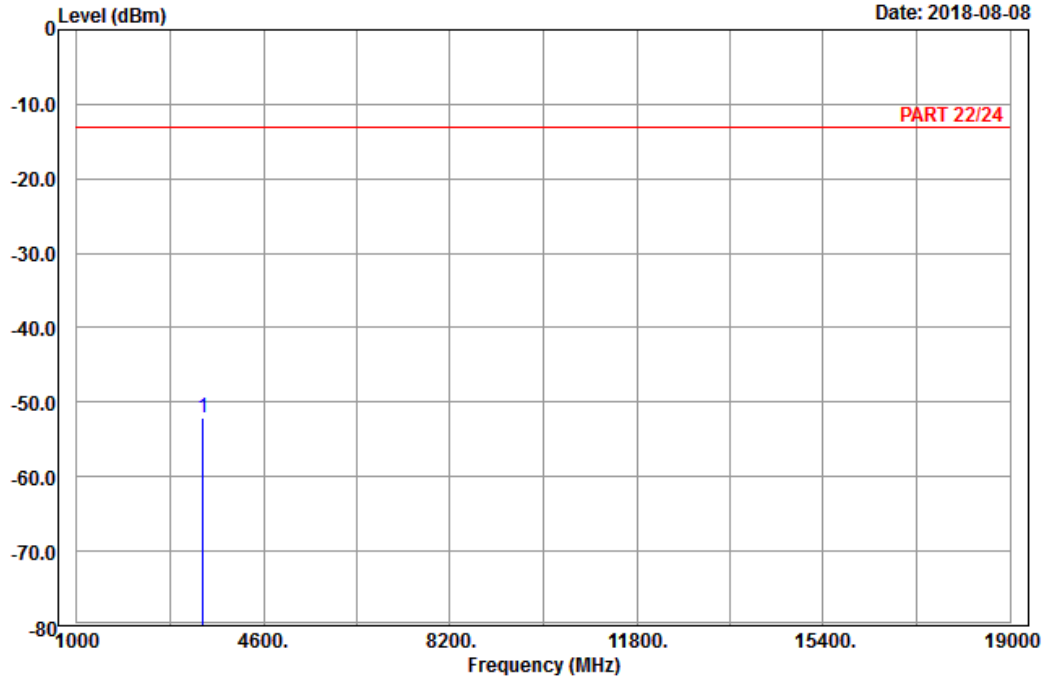
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3440.00	-51.97	-66.32	-13.00	-38.97	14.35	Peak



A D T

Data: 10

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 22/24 Vertical
 Remark : LTE_Band 4_Link_CH20050
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 3440.00	-52.14	-66.49	-13.00	-39.14	14.35	Peak

Middle Channel

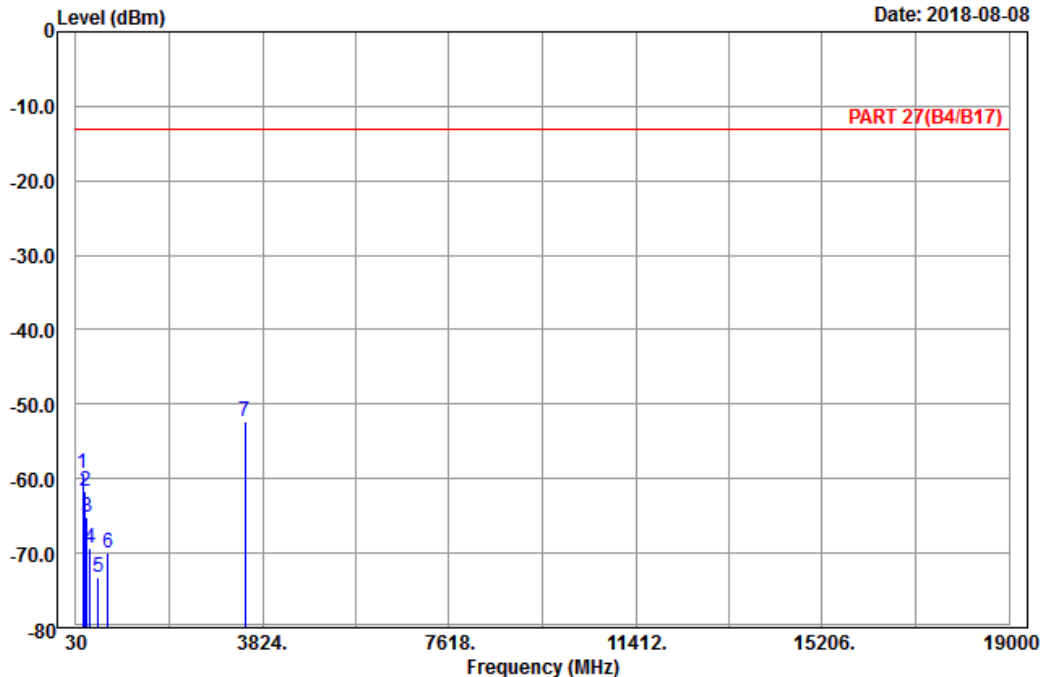


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Horizontal
 Remark : LTE_Band 4_Link_CH20175
 Tested by: Karl Lee

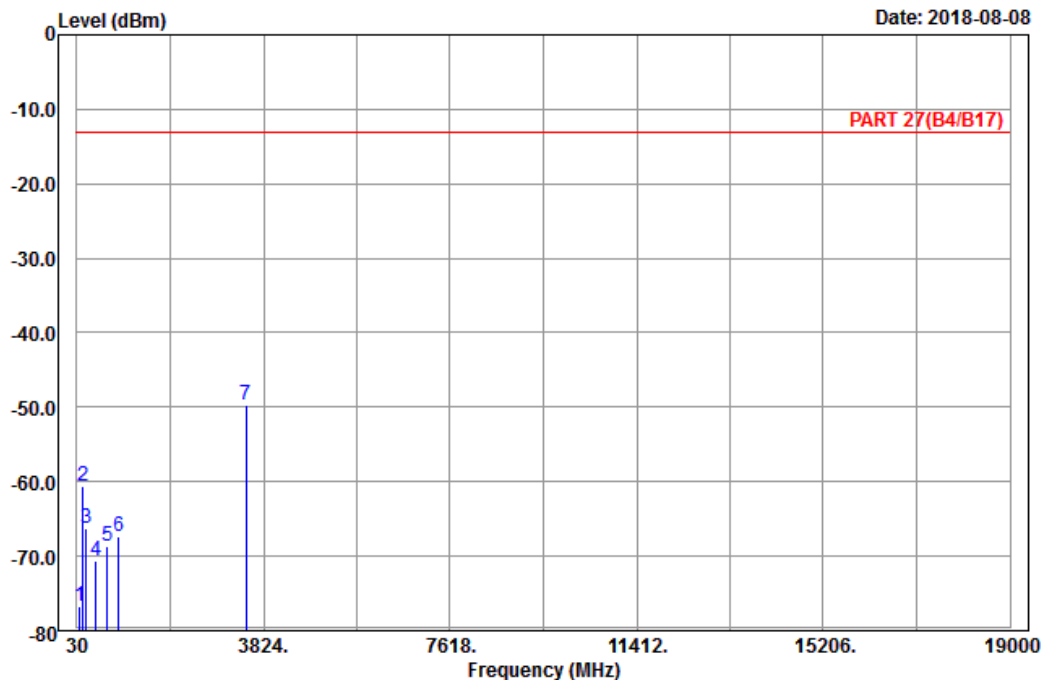
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	167.16	-59.26	-52.27	-13.00	-46.26	-6.99	Peak
2	225.48	-61.78	-55.95	-13.00	-48.78	-5.83	Peak
3	257.88	-65.15	-59.57	-13.00	-52.15	-5.58	Peak
4	324.50	-69.28	-63.61	-13.00	-56.28	-5.67	Peak
5	487.60	-73.17	-68.25	-13.00	-60.17	-4.92	Peak
6	673.80	-69.96	-69.71	-13.00	-56.96	-0.25	Peak
7 pp	3465.00	-52.24	-66.58	-13.00	-39.24	14.34	Peak



A D T

Data: 14

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Vertical
 Remark : LTE_Band 4_Link_CH20175
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	89.67	-76.72	-66.05	-13.00	-63.72	-10.67	Peak
2	148.26	-60.56	-52.66	-13.00	-47.56	-7.90	Peak
3	218.19	-66.34	-60.40	-13.00	-53.34	-5.94	Peak
4	423.90	-70.53	-67.26	-13.00	-57.53	-3.27	Peak
5	654.90	-68.59	-68.43	-13.00	-55.59	-0.16	Peak
6	877.50	-67.31	-69.56	-13.00	-54.31	2.25	Peak
7 pp	3465.00	-49.60	-63.94	-13.00	-36.60	14.34	Peak

High Channel

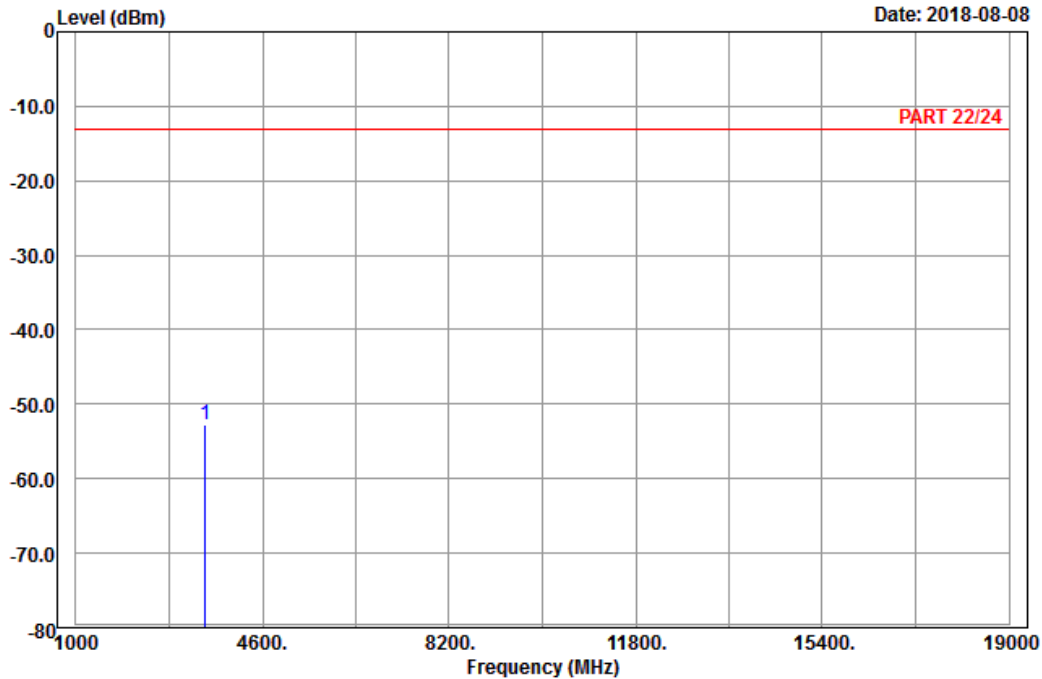


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A D T

Data: 9

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 22/24 Horizontal
 Remark : LTE_Band 4_Link_CH20300
 Tested by: Karl Lee

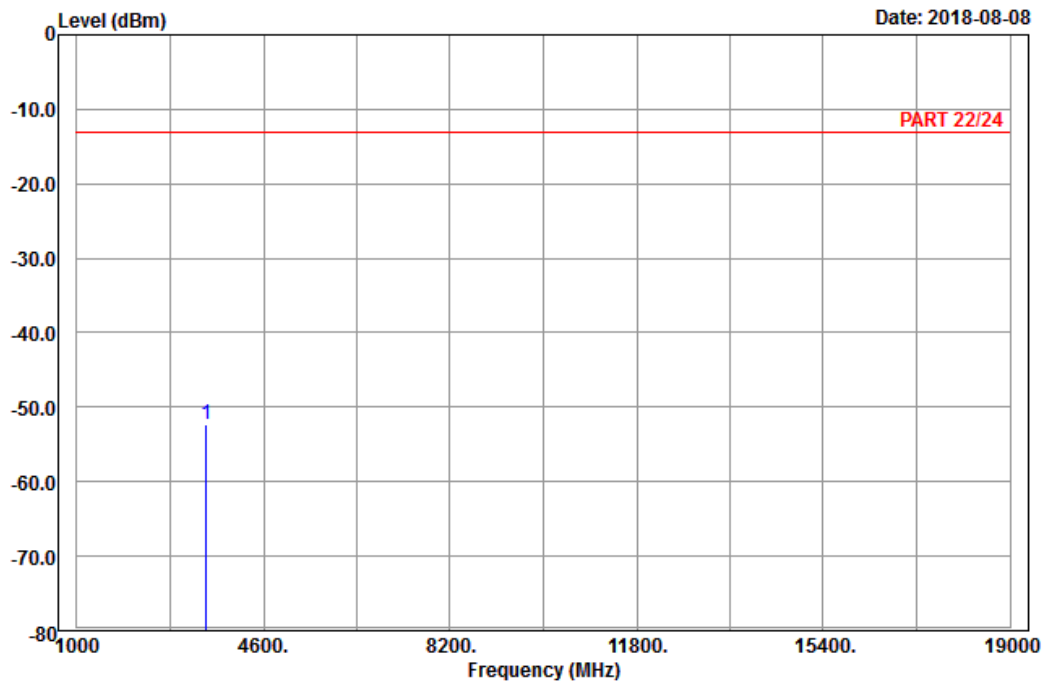
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3490.00	-52.74	-67.05	-13.00	-39.74	14.31	Peak



A D T

Data: 10

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 22/24 Vertical
 Remark : LTE_Band 4_Link_CH20300
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 3490.00	-52.25	-66.56	-13.00	-39.25	14.31	Peak

LTE Band 12
 Channel Bandwidth: 10 MHz / QPSK
 Low Channel

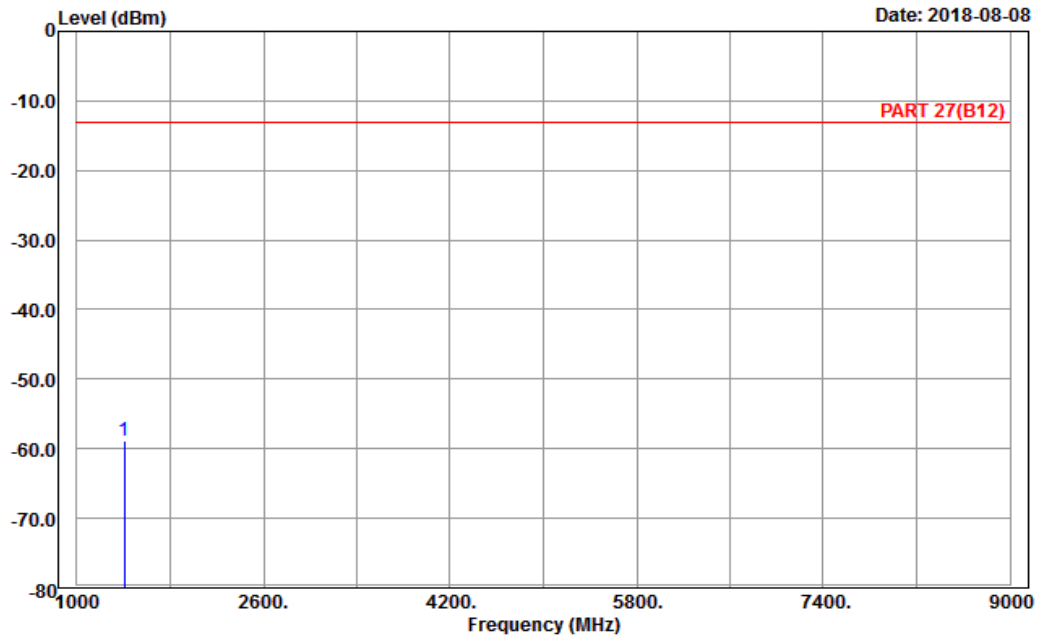


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A D T

Data: 5

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 27(B12) Horizontal
 Remark : LTE_Band 12_Link_CH23060
 Tested by: Karl Lee

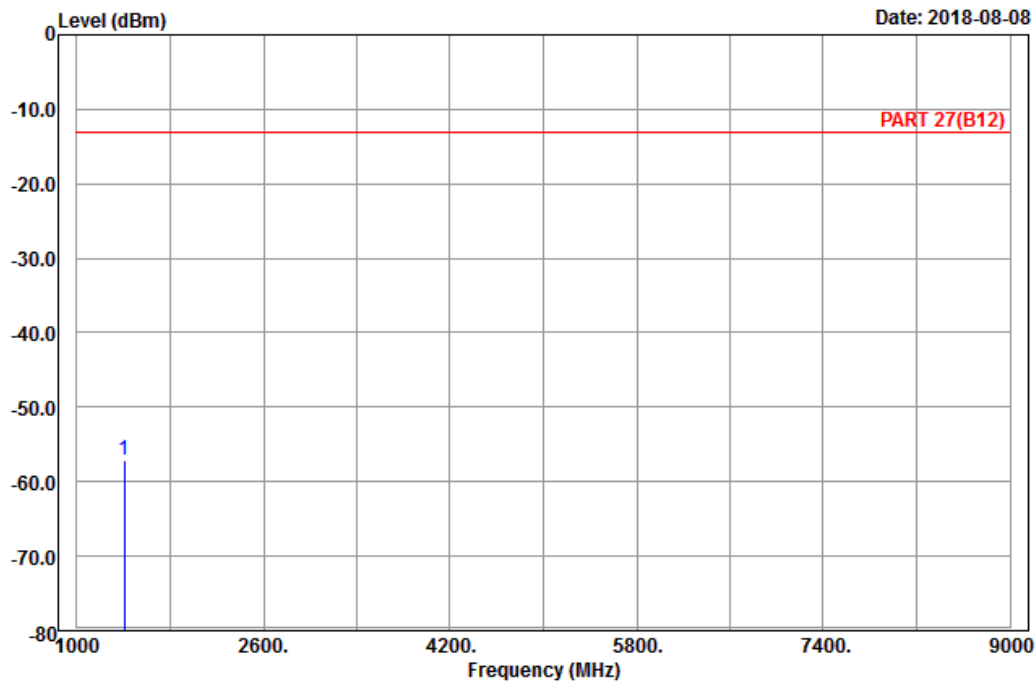
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 1408.00	-58.90	-65.26	-13.00	-45.90	6.36	Peak



A D T

Data: 6

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 27(B12) Vertical
 Remark : LTE_Band 12_Link_CH23060
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 1408.00	-57.05	-63.41	-13.00	-44.05	6.36	Peak

Middle Channel

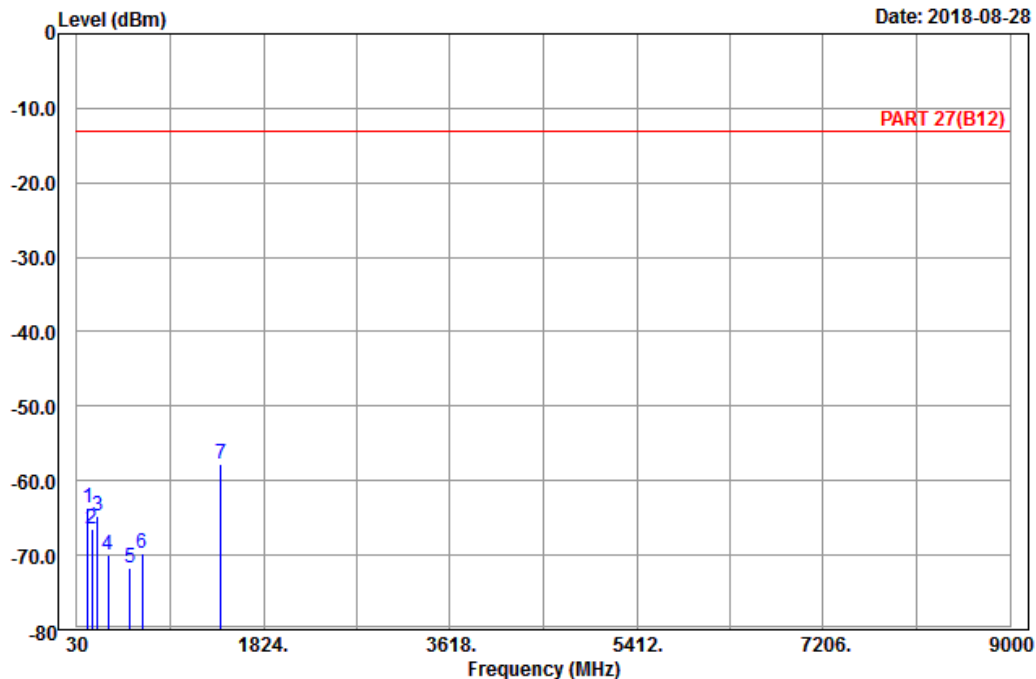


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2018-08-28



Site : 966 chamber 1
 Condition: PART 27(B12) Horizontal
 Remark : LTE_Band 12_Link_CH23095
 Tested by: Karl Lee

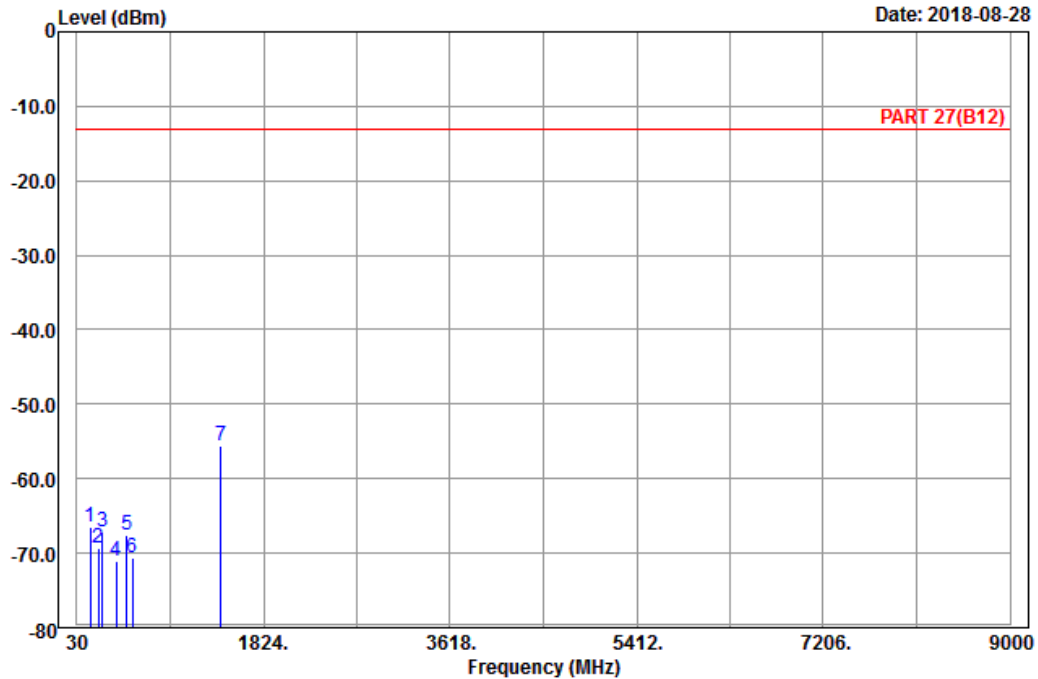
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	135.57	-63.67	-56.00	-13.00	-50.67	-7.67	Peak
2	177.96	-66.50	-60.72	-13.00	-53.50	-5.78	Peak
3	227.91	-64.83	-59.02	-13.00	-51.83	-5.81	Peak
4	331.50	-69.88	-64.29	-13.00	-56.88	-5.59	Peak
5	539.40	-71.61	-69.17	-13.00	-58.61	-2.44	Peak
6	657.70	-69.70	-69.53	-13.00	-56.70	-0.17	Peak
7 pp	1415.00	-57.68	-64.04	-13.00	-44.68	6.36	Peak



A D T

Data: 10

Date: 2018-08-28



Site : 966 chamber 1
 Condition: PART 27(B12) Vertical
 Remark : LTE_Band 12_Link_CH23095
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	162.30	-66.38	-58.91	-13.00	-53.38	-7.47	Peak
2	233.31	-69.42	-63.69	-13.00	-56.42	-5.73	Peak
3	278.40	-67.22	-61.46	-13.00	-54.22	-5.76	Peak
4	405.70	-71.04	-68.17	-13.00	-58.04	-2.87	Peak
5	505.80	-67.62	-62.76	-13.00	-54.62	-4.86	Peak
6	566.00	-70.54	-69.56	-13.00	-57.54	-0.98	Peak
7 pp	1415.00	-55.57	-61.93	-13.00	-42.57	6.36	Peak

High Channel

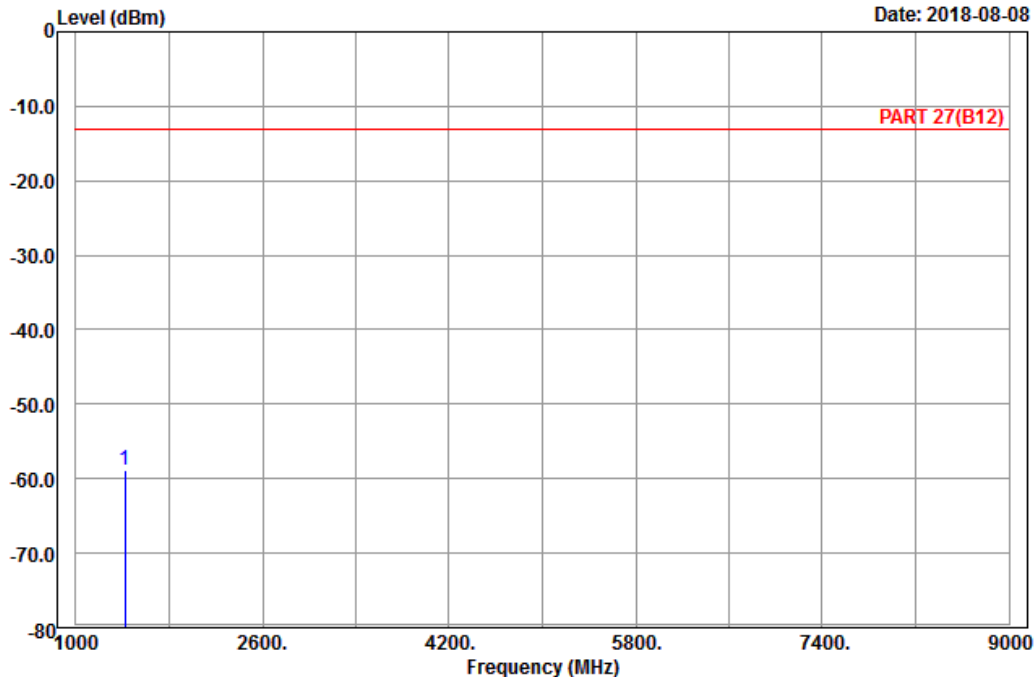


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 27(B12) Horizontal
 Remark : LTE_Band 12_Link_CH23130
 Tested by: Karl Lee

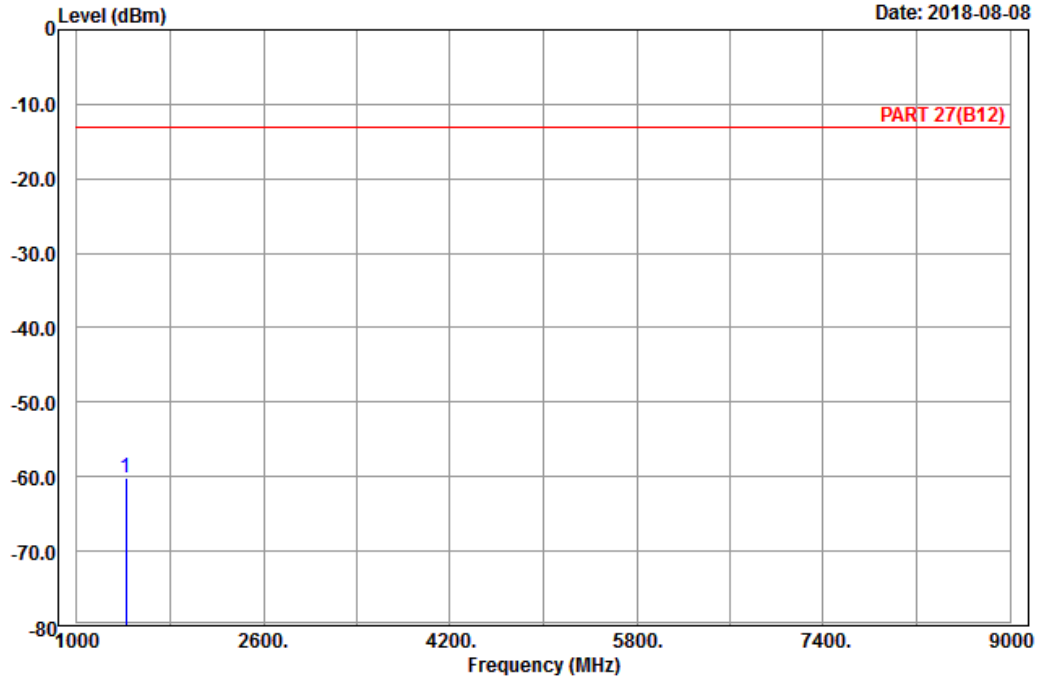
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 1422.00	-58.78	-65.14	-13.00	-45.78	6.36	Peak



A D T

Data: 6

Date: 2018-08-08



Site : 966 chamber 1
 Condition: PART 27(B12) Vertical
 Remark : LTE_Band 12_Link_CH23130
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 1422.00	-60.23	-66.59	-13.00	-47.23	6.36	Peak

LTE Band 13
Channel Bandwidth: 10 MHz / QPSK

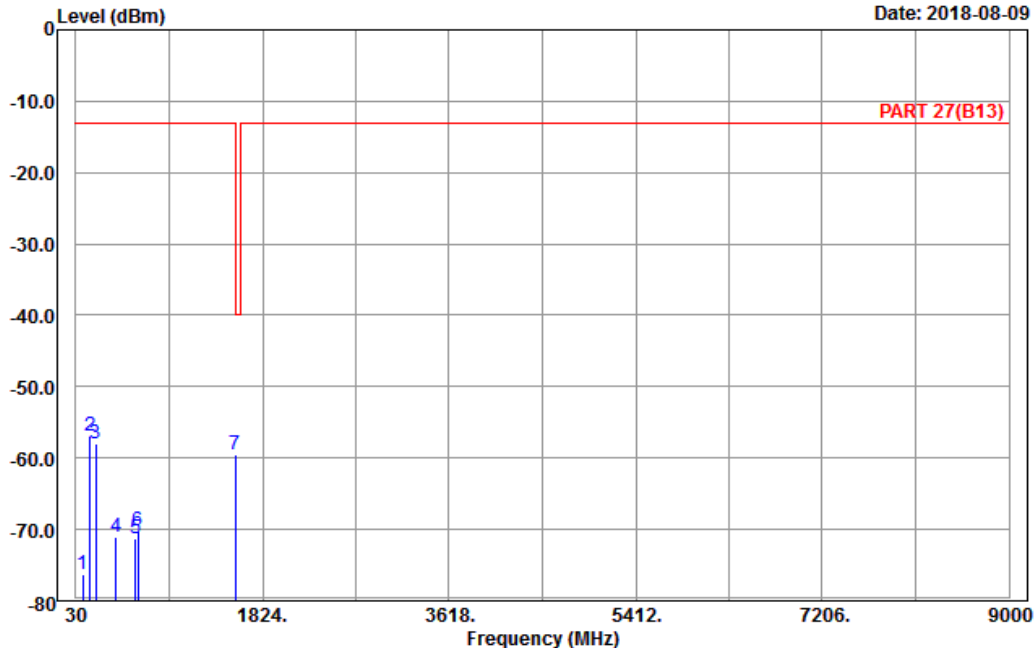


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A D T

Data: 9

Date: 2018-08-09



Site : 966 chamber 1
Condition: PART 27(B13) Horizontal
Remark : LTE_Band 13_Link_CH23230
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	96.42	-76.24	-65.90	-13.00	-63.24	-10.34	Peak
2	165.00	-56.92	-49.73	-13.00	-43.92	-7.19	Peak
3	219.81	-57.94	-52.03	-13.00	-44.94	-5.91	Peak
4	419.70	-71.15	-67.96	-13.00	-58.15	-3.19	Peak
5	602.40	-71.21	-71.61	-13.00	-58.21	0.40	Peak
6	625.50	-70.10	-70.24	-13.00	-57.10	0.14	Peak
7 pp	1564.00	-59.55	-66.41	-40.00	-19.55	6.86	Peak

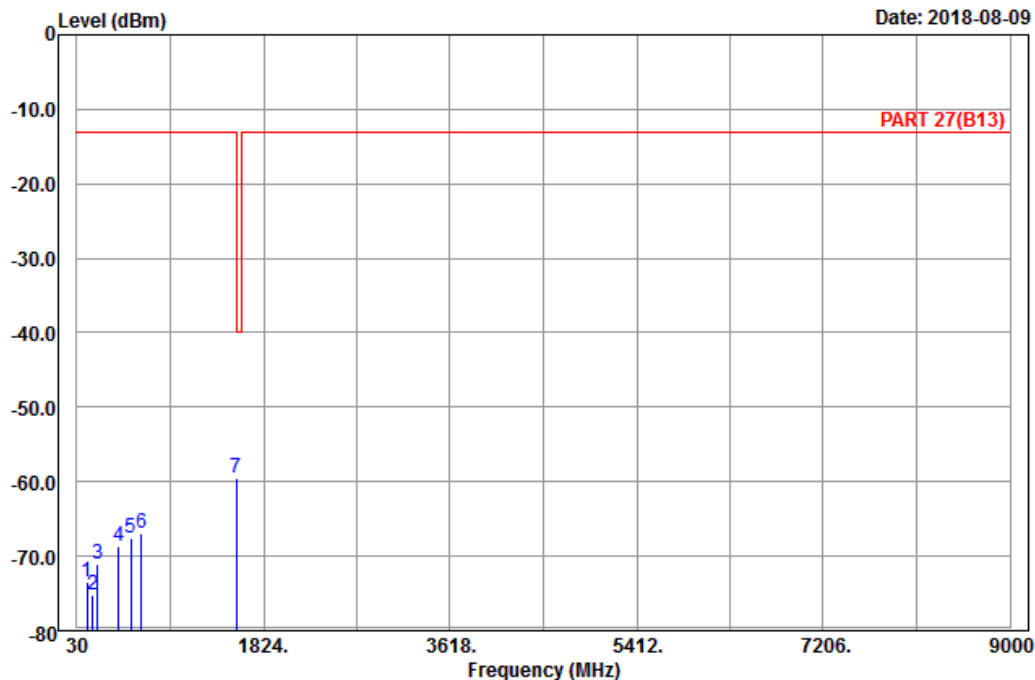


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A D T

Data: 10

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B13) Vertical
 Remark : LTE_Band 13_Link_CH23230
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	130.98	-73.40	-65.75	-13.00	-60.40	-7.65	Peak
2	184.71	-75.11	-69.47	-13.00	-62.11	-5.64	Peak
3	226.56	-70.97	-65.15	-13.00	-57.97	-5.82	Peak
4	428.80	-68.73	-65.35	-13.00	-55.73	-3.38	Peak
5	547.10	-67.48	-65.61	-13.00	-54.48	-1.87	Peak
6	652.10	-66.83	-66.69	-13.00	-53.83	-0.14	Peak
7 pp	1564.00	-59.52	-66.38	-40.00	-19.52	6.86	Peak

LTE Band 17
Channel Bandwidth: 10 MHz / QPSK
Low Channel

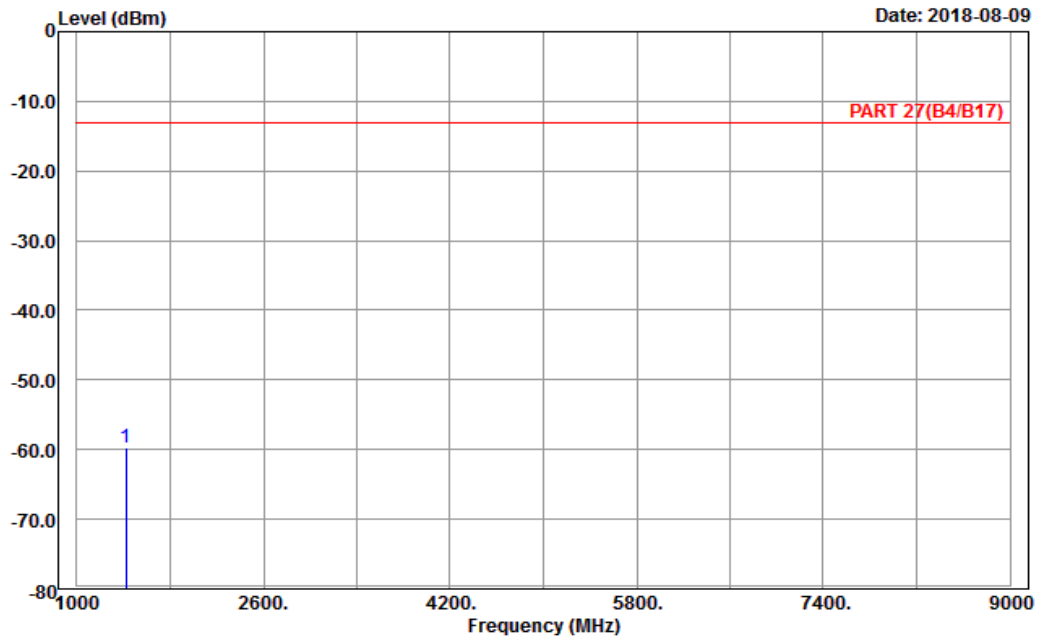


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A D T

Data: 5

Date: 2018-08-09



Site : 966 chamber 1
Condition: PART 27(B4/B17) Horizontal
Remark : LTE_Band 17_Link_CH23780
Tested by: Karl Lee

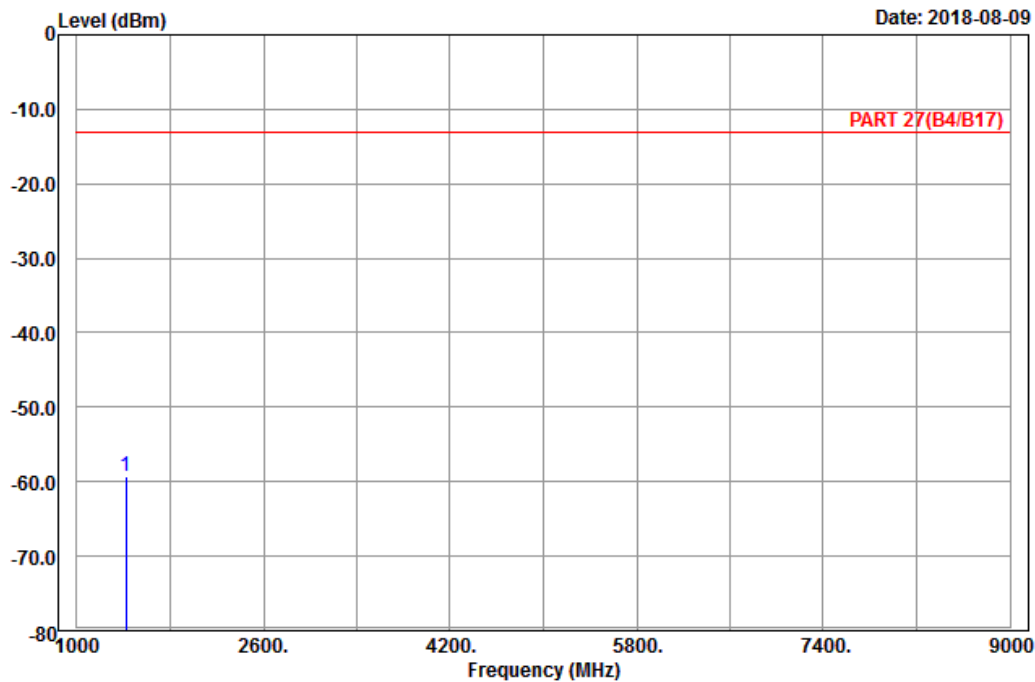
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 1418.00	-59.73	-66.09	-13.00	-46.73	6.36	Peak



A D T

Data: 6

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Vertical
 Remark : LTE_Band 17_Link_CH23780
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 1418.00	-59.34	-65.70	-13.00	-46.34	6.36	Peak

Middle Channel

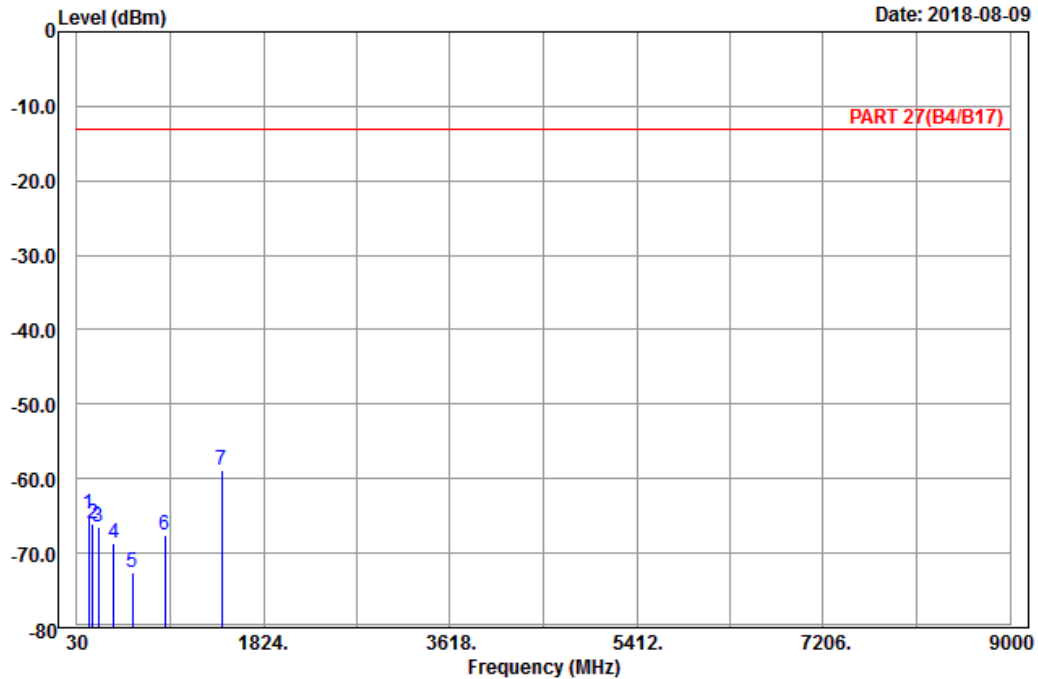


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A D T

Data: 9

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Horizontal
 Remark : LTE_Band 17_Link_CH23790
 Tested by: Karl Lee

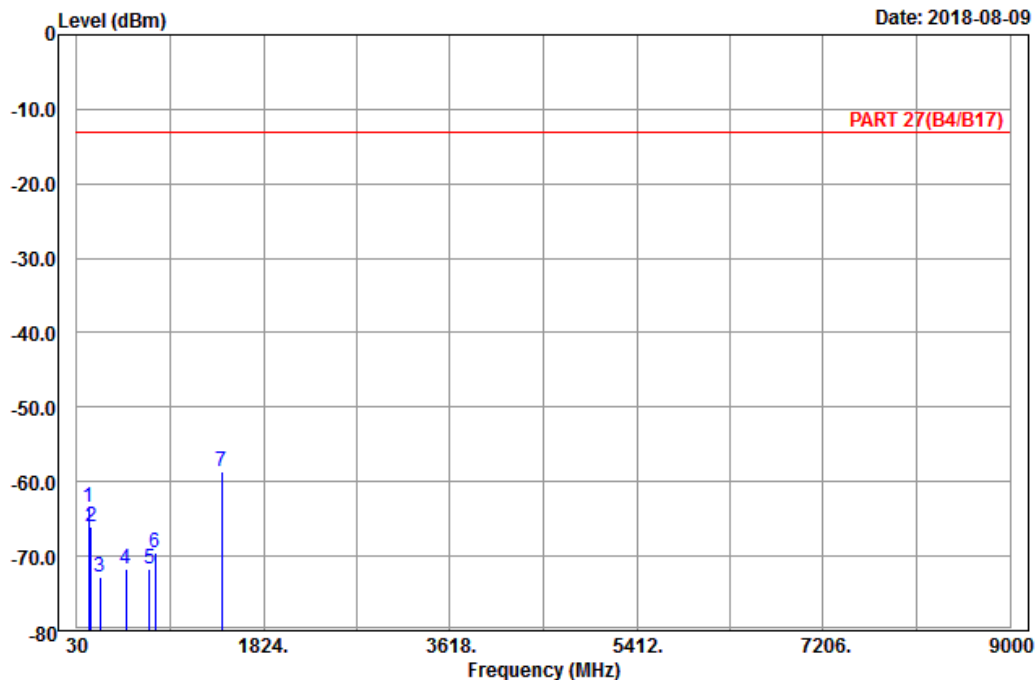
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	139.62	-64.69	-57.00	-13.00	-51.69	-7.69	Peak
2	178.50	-66.08	-60.30	-13.00	-53.08	-5.78	Peak
3	238.98	-66.40	-60.74	-13.00	-53.40	-5.66	Peak
4	381.90	-68.73	-65.06	-13.00	-55.73	-3.67	Peak
5	565.30	-72.55	-71.53	-13.00	-59.55	-1.02	Peak
6	878.90	-67.50	-69.78	-13.00	-54.50	2.28	Peak
7 pp	1420.00	-58.81	-65.17	-13.00	-45.81	6.36	Peak



A D T

Data: 10

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Vertical
 Remark : LTE_Band 17_Link_CH23790
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	143.40	-63.41	-55.62	-13.00	-50.41	-7.79	Peak
2	164.73	-66.06	-58.87	-13.00	-53.06	-7.19	Peak
3	249.78	-72.86	-67.35	-13.00	-59.86	-5.51	Peak
4	500.90	-71.81	-66.53	-13.00	-58.81	-5.28	Peak
5	728.40	-71.68	-70.77	-13.00	-58.68	-0.91	Peak
6	783.70	-69.58	-70.50	-13.00	-56.58	0.92	Peak
7 pp	1420.00	-58.55	-64.91	-13.00	-45.55	6.36	Peak

High Channel

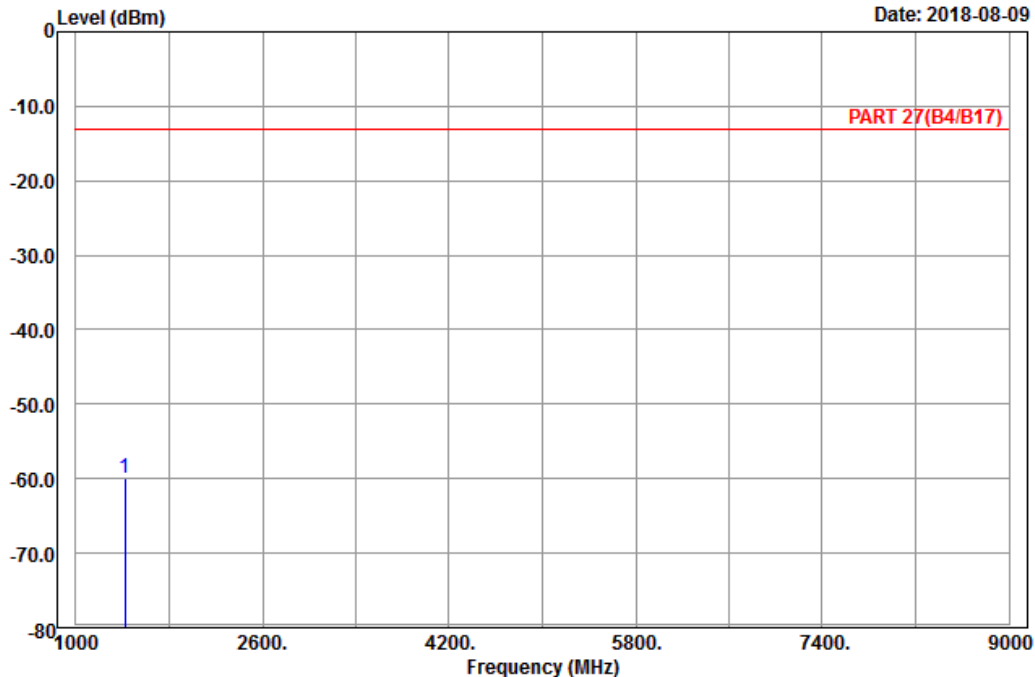


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A D T

Data: 5

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Horizontal
 Remark : LTE_Band 17_Link_CH23800
 Tested by: Karl Lee

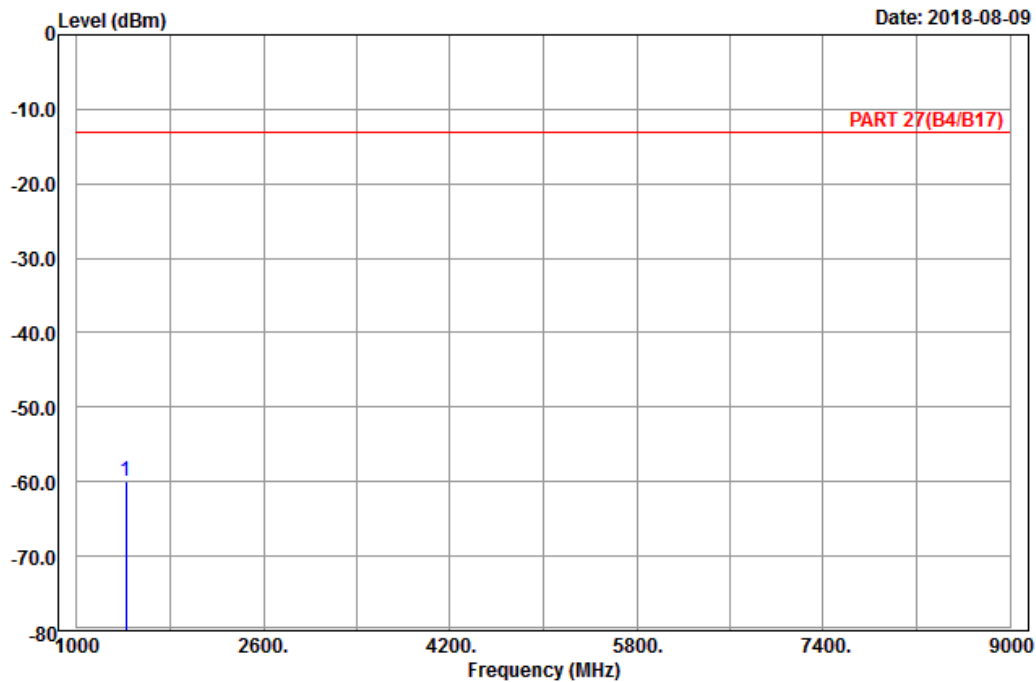
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 1422.00	-59.94	-66.30	-13.00	-46.94	6.36	Peak



A D T

Data: 6

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 27(B4/B17) Vertical
 Remark : LTE_Band 17_Link_CH23800
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 1422.00	-60.02	-66.38	-13.00	-47.02	6.36	Peak

LTE Band 66:
Channel Bandwidth: 20 MHz / QPSK
Low Channel

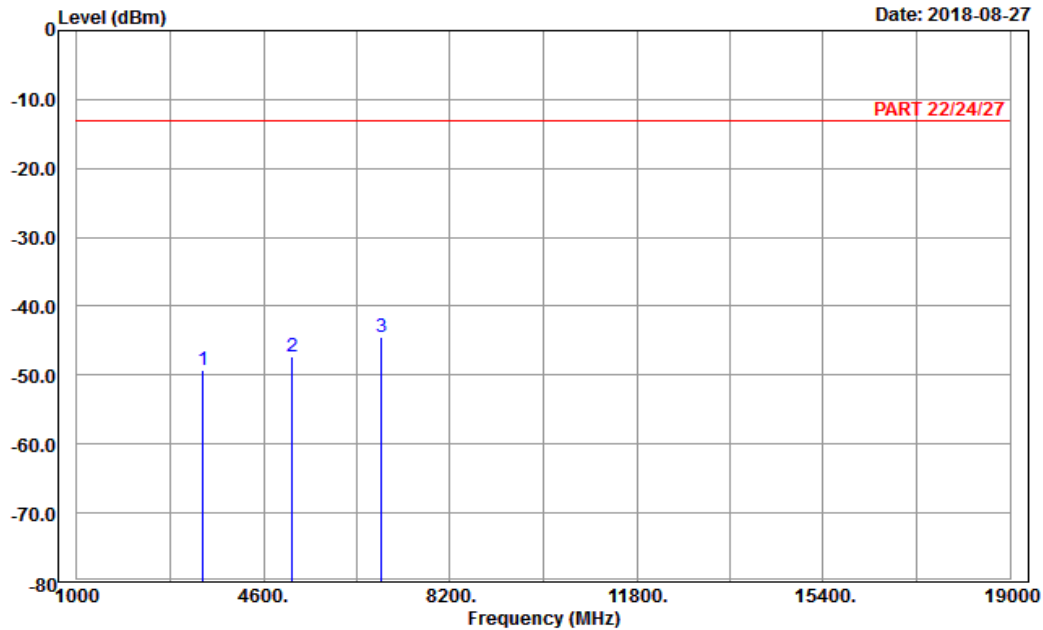


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2018-08-27



Site : 966 chamber 1
Condition: PART 22/24/27 Horizontal
Remark : LTE_Band 66_Link_CH132072
Tested by: Karl Lee

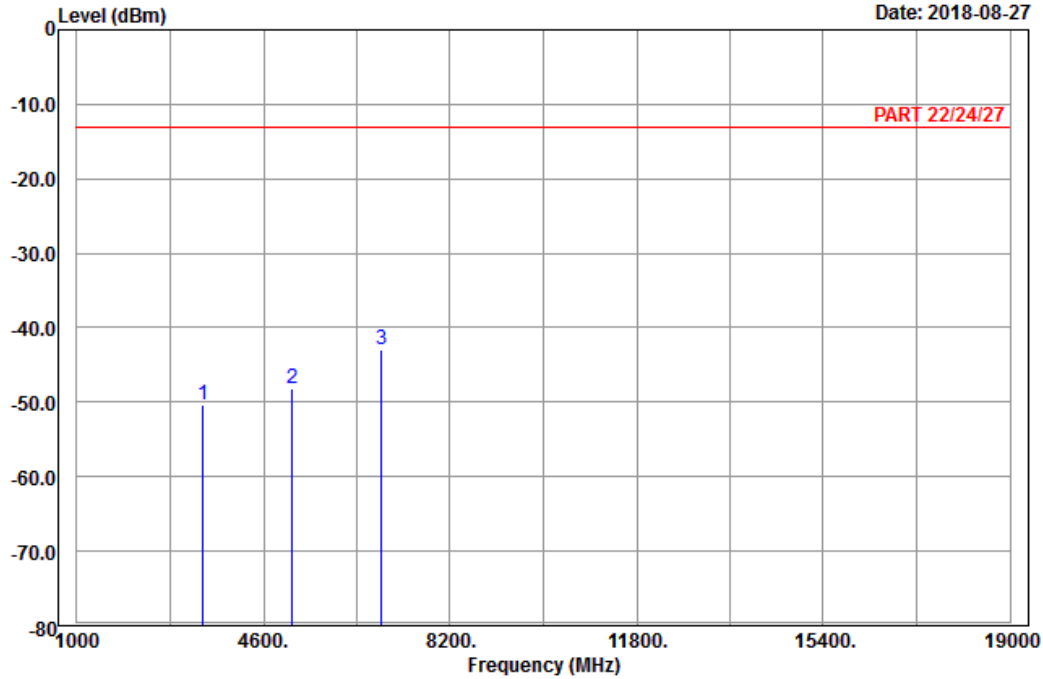
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3440.00	-49.17	-63.52	-13.00	-36.17	14.35	Peak
2	5160.00	-47.24	-67.16	-13.00	-34.24	19.92	Peak
3 pp	6880.00	-44.37	-67.17	-13.00	-31.37	22.80	Peak



A D T

Data: 10

Date: 2018-08-27



Site : 966 chamber 1
 Condition: PART 22/24/27 Vertical
 Remark : LTE_Band 66_Link_CH132072
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3440.00	-50.29	-64.64	-13.00	-37.29	14.35	Peak
2	5160.00	-48.11	-68.03	-13.00	-35.11	19.92	Peak
3 pp	6880.00	-42.89	-65.69	-13.00	-29.89	22.80	Peak

Middle Channel

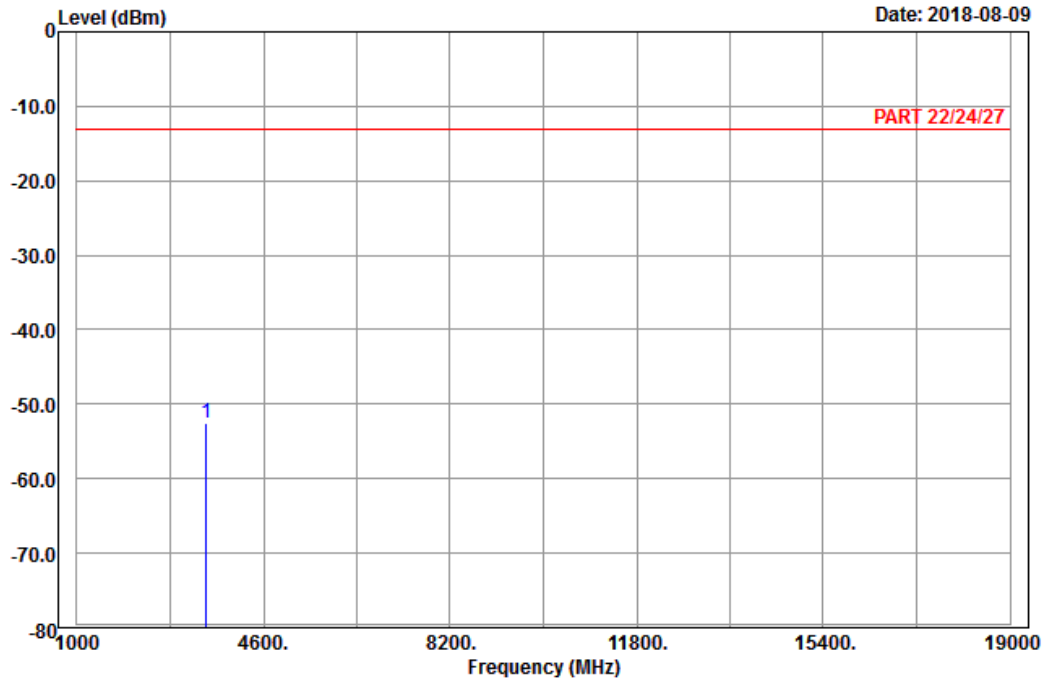


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A D T

Data: 9

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 22/24/27 Horizontal
 Remark : LTE_Band 66_Link_CH132322
 Tested by: Karl Lee

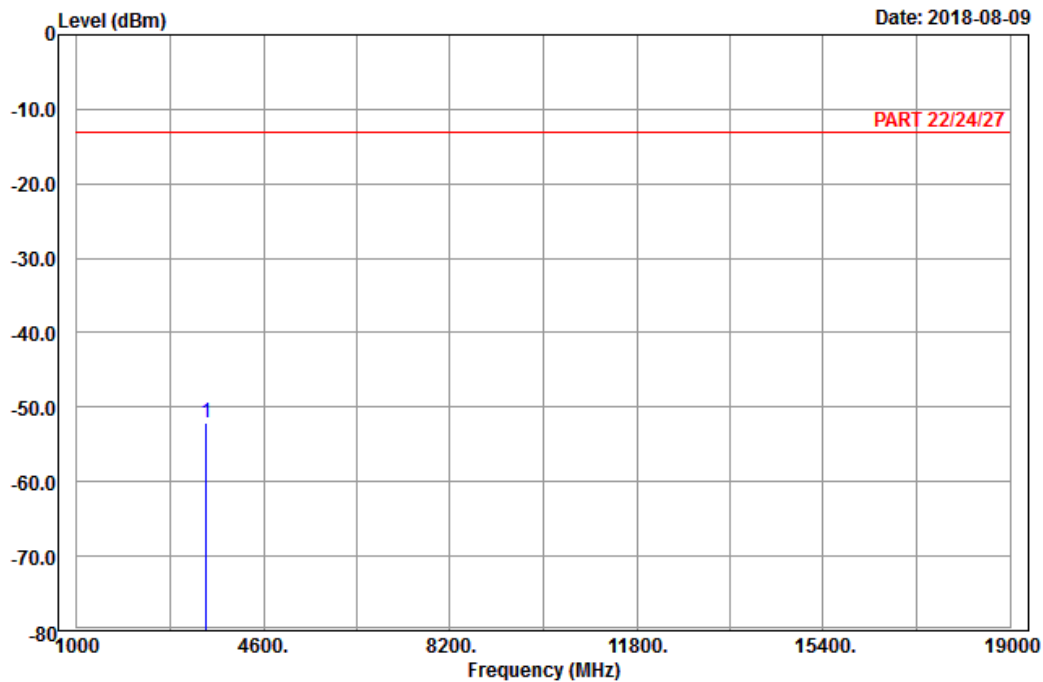
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3490.00	-52.46	-66.77	-13.00	-39.46	14.31	Peak



A D T

Data: 10

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 22/24/27 Vertical
 Remark : LTE_Band 66_Link_CH132322
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 3490.00	-52.11	-66.42	-13.00	-39.11	14.31	Peak

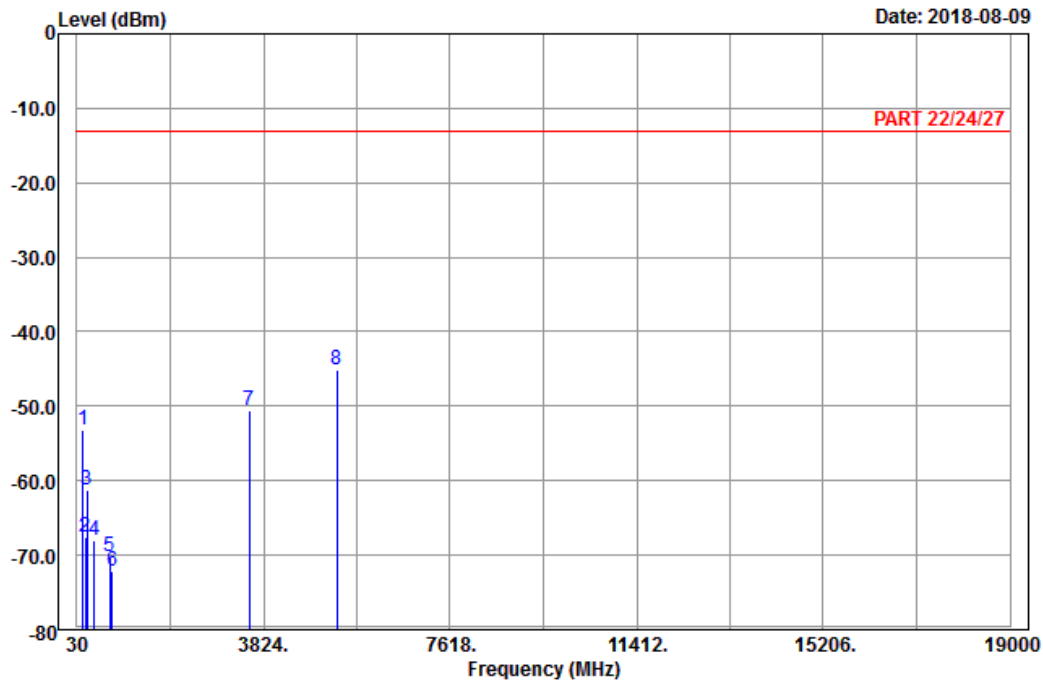
High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13



Site : 966 chamber 1
 Condition: PART 22/24/27 Horizontal
 Remark : LTE_Band 66_Link_CH132572
 Tested by: Karl Lee

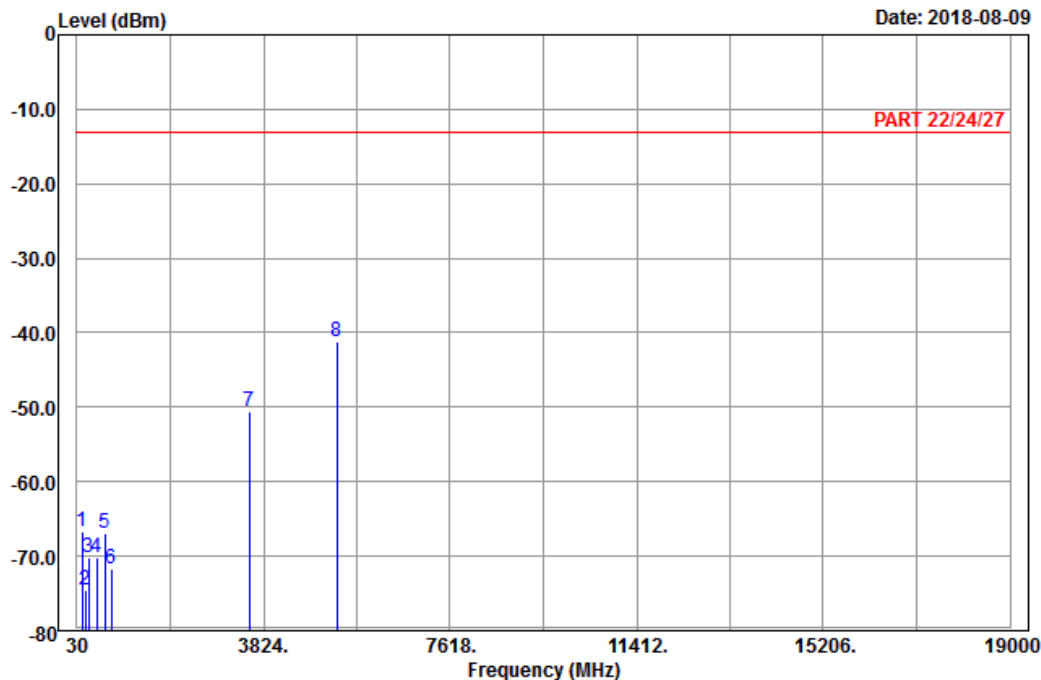
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	161.22	-53.24	-45.67	-13.00	-40.24	-7.57	Peak
2	195.51	-67.49	-61.49	-13.00	-54.49	-6.00	Peak
3	233.58	-61.23	-55.50	-13.00	-48.23	-5.73	Peak
4	379.10	-67.93	-64.10	-13.00	-54.93	-3.83	Peak
5	697.60	-70.24	-69.88	-13.00	-57.24	-0.36	Peak
6	749.40	-72.08	-70.77	-13.00	-59.08	-1.31	Peak
7	3540.00	-50.55	-65.44	-13.00	-37.55	14.89	Peak
8 pp	5310.00	-45.21	-65.45	-13.00	-32.21	20.24	Peak



A D T

Data: 14

Date: 2018-08-09



Site : 966 chamber 1
 Condition: PART 22/24/27 Vertical
 Remark : LTE_Band 66_Link_CH132572
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	140.43	-66.78	-59.06	-13.00	-53.78	-7.72	Peak
2	197.40	-74.52	-68.43	-13.00	-61.52	-6.09	Peak
3	261.12	-70.17	-64.57	-13.00	-57.17	-5.60	Peak
4	441.40	-70.10	-66.45	-13.00	-57.10	-3.65	Peak
5	598.20	-66.90	-67.25	-13.00	-53.90	0.35	Peak
6	728.40	-71.68	-70.77	-13.00	-58.68	-0.91	Peak
7	3540.00	-50.49	-65.38	-13.00	-37.49	14.89	Peak
8 pp	5310.00	-41.11	-61.35	-13.00	-28.11	20.24	Peak

5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

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

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