Partial FCC Test Report

(PART 27)

Report No.: RF180629C15-9

FCC ID: O57T77W980

Test Model: T77W980

Received Date: Jun. 23, 2018

Test Date: Aug. 08, 2018 ~ Aug. 14, 2018

Issued Date: Aug. 16, 2018

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

Address: NO.68 BUILDING, 199 FENJU RD, China (Shanghai) Pilot Free Trade Zone, 200131, CHINA

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C)

Test Location (1): No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil, Kwei Shan Dist., Taoyuan City 33383, Taiwan (R.O.C)

Test Location (2): No.215, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231, Taiwan, R.O.C

FCC Registration / Designation Number: 427177 / TW0011

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RF180629C15-9	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. 14, 2018

Standards: FCC Part 27, Subpart C, M

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 : _____ , **Date:** Aug. 16, 2018

Gina Liu / Specialist

Approved by : _____ , **Date:** Aug. 16, 2018

Dylan Chiou / Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2			
FCC Clause	**Test Item**	**Result**	**Remarks**
2.1046 27.50(h)	Equivalent Isotropic 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	Occupied Bandwidth	N/A	Refer to Note
--	Peak to Average Ratio	N/A	Refer to Note
2.1051 27.53(l)	Out-of-Band Emissions Measurements	N/A	Refer to Note
2.1051 27.53(m)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53(m)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -15.90 dB at 43.58 MHz.

Note:

This report is a Class II change Partial report. Therefore, only test item of Equivalent Isotropic Radiated 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	Expended Uncertainty (k=2) (±)
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(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-400)	Jun. 19, 2018	Jun. 18, 2019
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RFC-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
Radio Communication Analyzer	MT8821C	6261786083	Dec. 21, 2017	Dec. 20, 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	QPSK, 16QAM, 64QAM	
Frequency Range	LTE Band 7 (Channel Bandwidth: 5 MHz)	2502.5 ~ 2567.5 MHz
	LTE Band 7 (Channel Bandwidth: 10 MHz)	2505.0 ~ 2565.0 MHz
	LTE Band 7 (Channel Bandwidth: 15 MHz)	2507.5 ~ 2562.5 MHz
	LTE Band 7 (Channel Bandwidth: 20 MHz)	2510.0 ~ 2560.0 MHz
	LTE Band 7 (Channel Bandwidth: 5+20 MHz)	2502.5 ~ 2555.8 MHz
	LTE Band 7 (Channel Bandwidth: 10+15 MHz)	2505.0 ~ 2553.0 MHz
	LTE Band 7 (Channel Bandwidth: 10+20 MHz)	2505.0 ~ 2550.6 MHz
	LTE Band 7 (Channel Bandwidth: 15+10 MHz)	2507.5 ~ 2550.5 MHz
	LTE Band 7 (Channel Bandwidth: 15+15 MHz)	2507.5 ~ 2547.5 MHz
	LTE Band 7 (Channel Bandwidth: 15+20 MHz)	2507.5 ~ 2545.4 MHz
	LTE Band 7 (Channel Bandwidth: 20+5 MHz)	2510.0 ~ 2548.3 MHz
	LTE Band 7 (Channel Bandwidth: 20+10 MHz)	2510.0 ~ 2545.6 MHz
	LTE Band 7 (Channel Bandwidth: 20+15 MHz)	2510.0 ~ 2542.9 MHz
	LTE Band 7 (Channel Bandwidth: 20+20 MHz)	2510.0 ~ 2540.2 MHz
	LTE Band 38 (Channel Bandwidth: 5 MHz)	2572.5 ~ 2617.5 MHz
	LTE Band 38 (Channel Bandwidth: 10 MHz)	2575.0 ~ 2615.0 MHz
	LTE Band 38 (Channel Bandwidth: 15 MHz)	2577.5 ~ 2612.5 MHz
	LTE Band 38 (Channel Bandwidth: 20 MHz)	2580.0 ~ 2610.0 MHz
	LTE Band 41 (Channel Bandwidth: 5 MHz)	2498.5 ~ 2687.5 MHz
	LTE Band 41 (Channel Bandwidth: 10 MHz)	2501.0 ~ 2685.0 MHz
	LTE Band 41 (Channel Bandwidth: 15 MHz)	2503.5 ~ 2682.5 MHz
	LTE Band 41 (Channel Bandwidth: 20 MHz)	2506.0 ~ 2680.0 MHz
	LTE Band 41 (Channel Bandwidth: 20+20 MHz)	2506.0 ~ 2660.2 MHz
	LTE Band 41 (Channel Bandwidth: 20+15 MHz)	2506.0 ~ 2662.9 MHz
	LTE Band 41 (Channel Bandwidth: 20+10 MHz)	2506.0 ~ 2665.6 MHz
	LTE Band 41 (Channel Bandwidth: 20+5 MHz)	2506.0 ~ 2668.3 MHz
	LTE Band 41 (Channel Bandwidth: 15+20 MHz)	2503.5 ~ 2665.4 MHz
	LTE Band 41 (Channel Bandwidth: 15+15 MHz)	2503.5 ~ 2667.5 MHz
	LTE Band 41 (Channel Bandwidth: 15+10 MHz)	2503.5 ~ 2670.5 MHz
	LTE Band 41 (Channel Bandwidth: 10+20 MHz)	2501.0 ~ 2670.6 MHz
	LTE Band 41 (Channel Bandwidth: 10+15 MHz)	2501.0 ~ 2673.0 MHz
	LTE Band 41 (Channel Bandwidth: 5+20 MHz)	2498.5 ~ 2675.8 MHz

Max. EIRP Power	LTE Band 7 (Channel Bandwidth: 5 MHz)	385.57 mW
	LTE Band 7 (Channel Bandwidth: 10 MHz)	388.42 mW
	LTE Band 7 (Channel Bandwidth: 15 MHz)	387.97 mW
	LTE Band 7 (Channel Bandwidth: 20 MHz)	418.50 mW
	LTE Band 7 (Channel Bandwidth: 20+20 MHz)	86.12 mW
	LTE Band 38 (Channel Bandwidth: 5 MHz)	357.03 mW
	LTE Band 38 (Channel Bandwidth: 10 MHz)	360.33 mW
	LTE Band 38 (Channel Bandwidth: 15 MHz)	363.66 mW
	LTE Band 38 (Channel Bandwidth: 20 MHz)	367.03 mW
	LTE Band 41 (Channel Bandwidth: 5 MHz)	379.93 mW
	LTE Band 41 (Channel Bandwidth: 10 MHz)	383.44 mW
	LTE Band 41 (Channel Bandwidth: 15 MHz)	386.99 mW
	LTE Band 41 (Channel Bandwidth: 20 MHz)	389.67 mW
	LTE Band 41 (Channel Bandwidth: 20+20 MHz)	93.11 mW
Antenna Type	Refer to Note as below	
Accessory Device	Refer to Note as below	
Data Cable Supplied	Refer to Note as below	

Note:

1. 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).
2. 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	--

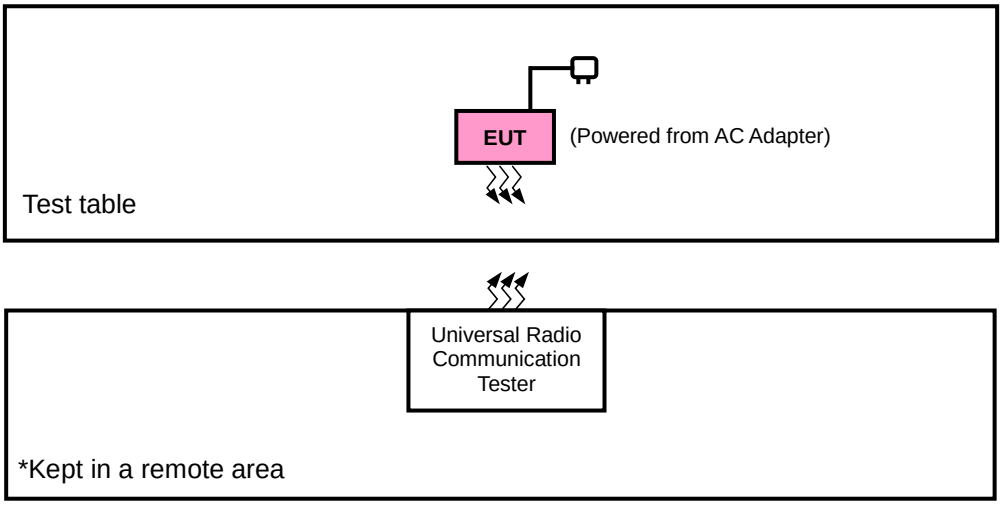
3. The EUT is authorized for use in specific End-product. Please refer to below for more details.

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		
			LTE B7	LTE B38	LTE B41
PIFA	**Tablet Mode**				
	ACON Corporation	ANF6Y-100046 (DC330026L00)	1.77	-0.53	1.77
	Laptop Mode				
	ACON Corporation	ANF6Y-100046 (DC330026L00)	1.99	1.75	1.99

4. 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	EIRP	Radiated Emission
LTE Band 7	X-plane	Z-axis
CA LTE Band 7	NB-plane	NB-axis
LTE Band 38	X-plane	Z-axis
LTE Band 41	X-plane	Z-axis
CA LTE Band 41	NB-plane	NB-axis

LTE Band 7

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	20775 to 21425	20775, 21100, 21425	5 MHz	QPSK, 16QAM, 64QAM	1 RB / 12 RB Offset
		20800 to 21400	20800, 21100, 21400	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
		20825 to 21375	20825, 21100, 21375	15 MHz	QPSK, 16QAM, 64QAM	1 RB / 37 RB Offset
		20850 to 21350	20850, 21100, 21350	20 MHz	QPSK, 16QAM, 64QAM	1 RB / 50 RB Offset
-	Radiated Emission Below 1GHz	20850 to 21350	21350	20 MHz	QPSK	1 RB / 50 RB Offset
-	Radiated Emission Above 1GHz	20850 to 21350	20850, 21100, 21350	20 MHz	QPSK	1 RB / 50 RB Offset

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

CA LTE Band 7

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	20850 to 21048	20850+21048	20+20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	20850 to 21048	20850+21048	20+20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	20850 to 21048	20850+21048	20+20 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 38

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	37775 to 38225	37775, 38000, 38225	5 MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37800 to 38200	37800, 38000, 38200	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37825 to 38175	37825, 38000, 38175	15 MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		37850 to 38150	37850, 38000, 38150	20 MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	37850 to 38150	37850	20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	37850 to 38150	37850, 38000, 38150	20 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 41

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	39675 to 41565	39675, 40620, 41565	5 MHz	QPSK, 16QAM, 64QAM	1 RB / 12 RB Offset
		39700 to 41540	39700, 40620, 41540	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 24 RB Offset
		39725 to 41515	39725, 40620, 41515	15 MHz	QPSK, 16QAM, 64QAM	1 RB / 37 RB Offset
		39750 to 41490	39750, 40620, 41490	20 MHz	QPSK, 16QAM, 64QAM	1 RB / 50 RB Offset
-	Radiated Emission Below 1GHz	39750 to 41490	41490	20 MHz	QPSK	1 RB / 50 RB Offset
-	Radiated Emission Above 1GHz	39750 to 41490	39750, 40620, 41490	20 MHz	QPSK	1 RB / 50 RB Offset

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

CA LTE Band 41

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	41055 to 41253	41055+41253	20+20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Below 1GHz	41055 to 41253	41055+41253	20+20 MHz	QPSK	1 RB / 0 RB Offset
-	Radiated Emission Above 1GHz	41055 to 41253	41055+41253	20+20 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.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	25 deg. C, 65 % RH	120 Vac, 60 Hz	Charles Hsiao, Harry Hsueh
Radiated Emission	25 deg. C, 65 % RH	120 Vac, 60 Hz	Charles Hsiao, Harry Hsueh, Jisyong Wang

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

The radiated peak output power shall be according to the specific rule Part 27.50(h)(2) that “User stations are limited to 2 watts” and 27.50(i) specific that “Peak transmit power must be measure over any interval of continuous transmission using instrumentation calibration in terms of rms-equivalent voltage.”

4.1.2 Test Procedures

EIRP Measurement:

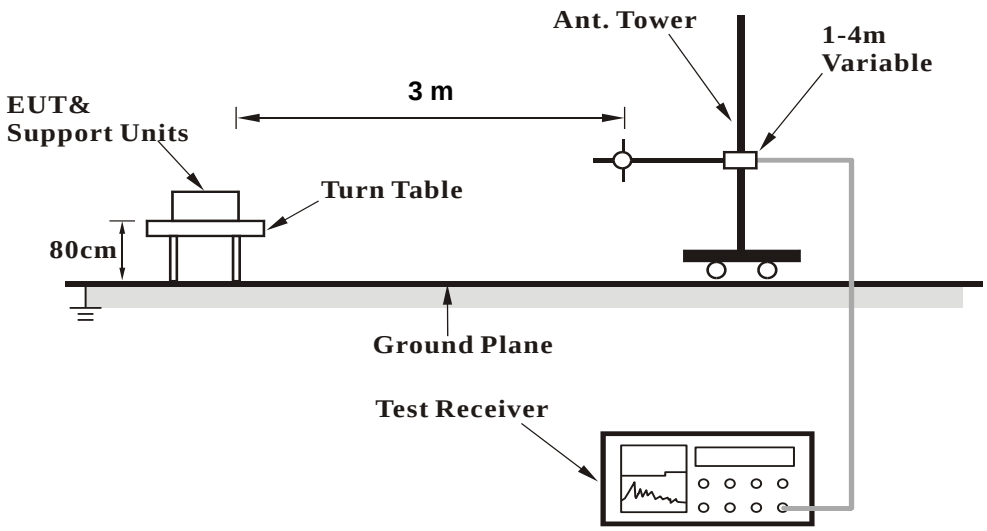
a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 10 MHz for LTE mode.
b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, 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 = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.

Conducted Power Measurement:

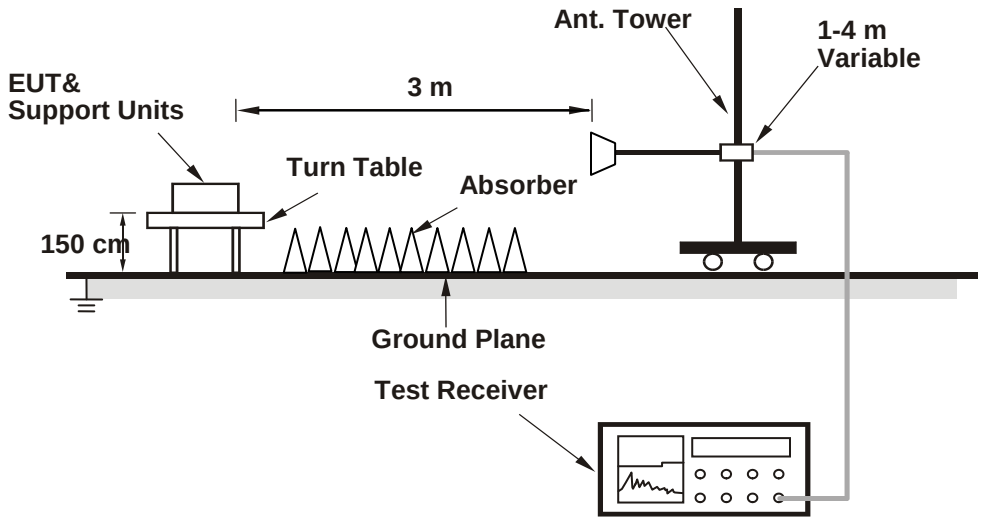
a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

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)

LTE Band 7

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20850	21100	21350	
		Frequency (MHz)		2510.0	2535.0	2560.0	
20M	QPSK	1	0	23.43	23.36	23.48	0
		1	50	23.40	23.33	23.45	0
		1	99	23.34	23.27	23.39	0
		50	0	22.39	22.32	22.44	1
		50	25	22.36	22.29	22.41	1
		50	50	22.33	22.26	22.38	1
		100	0	22.36	22.29	22.41	1
	16QAM	1	0	22.41	22.34	22.46	1
		1	50	22.38	22.31	22.43	1
		1	99	22.32	22.25	22.37	1
		50	0	21.37	21.30	21.42	2
		50	25	21.34	21.27	21.39	2
		50	50	21.31	21.24	21.36	2
		100	0	21.34	21.27	21.39	2
	64QAM	1	0	21.43	21.36	21.48	2
		1	50	21.40	21.33	21.45	2
		1	99	21.34	21.27	21.39	2
		50	0	20.39	20.32	20.44	3
		50	25	20.36	20.29	20.41	3
		50	50	20.33	20.26	20.38	3
		100	0	20.36	20.29	20.41	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20825	21100	21375	
		Frequency (MHz)		2507.5	2535.0	2562.5	
15M	QPSK	1	0	23.36	23.29	23.41	0
		1	37	23.33	23.26	23.38	0
		1	74	23.27	23.20	23.32	0
		36	0	22.32	22.25	22.37	1
		36	19	22.29	22.22	22.34	1
		36	39	22.26	22.19	22.31	1
		75	0	22.29	22.22	22.34	1
	16QAM	1	0	22.34	22.27	22.39	1
		1	37	22.31	22.24	22.36	1
		1	74	22.25	22.18	22.30	1
		36	0	21.30	21.23	21.35	2
		36	19	21.27	21.20	21.32	2
		36	39	21.24	21.17	21.29	2
		75	0	21.27	21.20	21.32	2
	64QAM	1	0	21.36	21.29	21.41	2
		1	37	21.33	21.26	21.38	2
		1	74	21.27	21.20	21.32	2
		36	0	20.32	20.25	20.37	3
		36	19	20.29	20.22	20.34	3
		36	39	20.26	20.19	20.31	3
		75	0	20.29	20.22	20.34	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20800	21100	21400	
		Frequency (MHz)		2505.0	2535.0	2565.0	
10M	QPSK	1	0	23.31	23.24	23.36	0
		1	24	23.28	23.21	23.33	0
		1	49	23.22	23.15	23.27	0
		25	0	22.27	22.20	22.32	1
		25	12	22.24	22.17	22.29	1
		25	25	22.21	22.14	22.26	1
		50	0	22.24	22.17	22.29	1
	16QAM	1	0	22.29	22.22	22.34	1
		1	24	22.26	22.19	22.31	1
		1	49	22.20	22.13	22.25	1
		25	0	21.25	21.18	21.30	2
		25	12	21.22	21.15	21.27	2
		25	25	21.19	21.12	21.24	2
		50	0	21.22	21.15	21.27	2
	64QAM	1	0	21.31	21.24	21.36	2
		1	24	21.28	21.21	21.33	2
		1	49	21.22	21.15	21.27	2
		25	0	20.27	20.20	20.32	3
		25	12	20.24	20.17	20.29	3
		25	25	20.21	20.14	20.26	3
		50	0	20.24	20.17	20.29	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20775	21100	21425	
		Frequency (MHz)		2502.5	2535.0	2567.5	
5M	QPSK	1	0	23.26	23.19	23.31	0
		1	12	23.23	23.16	23.28	0
		1	24	23.17	23.10	23.22	0
		12	0	22.22	22.15	22.27	1
		12	6	22.19	22.12	22.24	1
		12	13	22.16	22.09	22.21	1
		25	0	22.19	22.12	22.24	1
	16QAM	1	0	22.24	22.17	22.29	1
		1	12	22.21	22.14	22.26	1
		1	24	22.15	22.08	22.20	1
		12	0	21.20	21.13	21.25	2
		12	6	21.17	21.10	21.22	2
		12	13	21.14	21.07	21.19	2
		25	0	21.17	21.10	21.22	2
	64QAM	1	0	21.26	21.19	21.31	2
		1	12	21.23	21.16	21.28	2
		1	24	21.17	21.10	21.22	2
		12	0	20.22	20.15	20.27	3
		12	6	20.19	20.12	20.24	3
		12	13	20.16	20.09	20.21	3
		25	0	20.19	20.12	20.24	3

CA LTE Band 7

PCC							SCC							Power	
Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Single Carrier Tx Power (dBm)	Tx Power with DL-CA Active (dBm)
7	20	QPSK	1	0	20850	2510	7	20	QPSK	1	99	21048	2529.8	23.43	14.15
			1	99						1	0			23.34	23.31
7	20	QPSK	1	0	21100	2535	7	20	QPSK	1	99	21298	2554.8	23.36	14.20
			1	99						1	0			23.27	23.12
7	20	QPSK	1	0	21152	2540.2	7	20	QPSK	1	99	21350	2560	23.48	14.28
			1	99						1	0			23.39	23.28

LTE Band 38

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)
		Channel		37850	38000	38150				Channel		37825	38000	38175	
		Frequency (MHz)		2580.0	2595.0	2610.0				Frequency (MHz)		2577.5	2595.0	2612.5	
20M	QPSK	1	0	23.68	23.82	23.76	0	15M	QPSK	1	0	23.62	23.76	23.70	0
		1	50	23.57	23.71	23.65	0			1	37	23.51	23.65	23.59	0
		1	99	23.45	23.59	23.53	0			1	74	23.39	23.53	23.47	0
		50	0	22.74	22.88	22.82	1			36	0	22.68	22.82	22.76	1
		50	25	22.68	22.82	22.76	1			36	19	22.62	22.76	22.70	1
		50	50	22.61	22.75	22.69	1			36	39	22.55	22.69	22.63	1
		100	0	22.67	22.81	22.75	1			75	0	22.61	22.75	22.69	1
	16QAM	1	0	22.66	22.80	22.74	1		16QAM	1	0	22.60	22.74	22.68	1
		1	50	22.55	22.69	22.63	1			1	37	22.49	22.63	22.57	1
		1	99	22.43	22.57	22.51	1			1	74	22.37	22.51	22.45	1
		50	0	21.72	21.86	21.80	2			36	0	21.66	21.80	21.74	2
		50	25	21.66	21.80	21.74	2			36	19	21.60	21.74	21.68	2
		50	50	21.59	21.73	21.67	2			36	39	21.53	21.67	21.61	2
		100	0	21.65	21.79	21.73	2			75	0	21.59	21.73	21.67	2
	64QAM	1	0	21.61	21.75	21.69	2		64QAM	1	0	21.49	21.63	21.57	2
		1	50	21.50	21.64	21.58	2			1	37	21.38	21.52	21.46	2
		1	99	21.38	21.52	21.46	2			1	74	21.26	21.40	21.34	2
		50	0	20.67	20.81	20.75	3			36	0	20.55	20.69	20.63	3
		50	25	20.61	20.75	20.69	3			36	19	20.49	20.63	20.57	3
		50	50	20.54	20.68	20.62	3			36	39	20.42	20.56	20.50	3
		100	0	20.60	20.74	20.68	3			75	0	20.48	20.62	20.56	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)
		Channel		37800	38000	38200				Channel		37775	38000	38225	
		Frequency (MHz)		2575.0	2595.0	2615.0				Frequency (MHz)		2572.5	2595.0	2617.5	
10M	QPSK	1	0	23.55	23.69	23.63	0	5M	QPSK	1	0	23.48	23.62	23.56	0
		1	24	23.44	23.58	23.52	0			1	12	23.37	23.51	23.45	0
		1	49	23.32	23.46	23.40	0			1	24	23.25	23.39	23.33	0
		25	0	22.61	22.75	22.69	1			12	0	22.54	22.68	22.62	1
		25	12	22.55	22.69	22.63	1			12	6	22.48	22.62	22.56	1
		25	25	22.48	22.62	22.56	1			12	13	22.41	22.55	22.49	1
		50	0	22.54	22.68	22.62	1			25	0	22.47	22.61	22.55	1
	16QAM	1	0	22.53	22.67	22.61	1		16QAM	1	0	22.46	22.60	22.54	1
		1	24	22.42	22.56	22.50	1			1	12	22.35	22.49	22.43	1
		1	49	22.30	22.44	22.38	1			1	24	22.23	22.37	22.31	1
		25	0	21.59	21.73	21.67	2			12	0	21.52	21.66	21.60	2
		25	12	21.53	21.67	21.61	2			12	6	21.46	21.60	21.54	2
		25	25	21.46	21.60	21.54	2			12	13	21.39	21.53	21.47	2
		50	0	21.52	21.66	21.60	2			25	0	21.45	21.59	21.53	2
	64QAM	1	0	21.36	21.50	21.44	2		64QAM	1	0	21.27	21.41	21.35	2
		1	24	21.25	21.39	21.33	2			1	12	21.16	21.30	21.24	2
		1	49	21.13	21.27	21.21	2			1	24	21.04	21.18	21.12	2
		25	0	20.42	20.56	20.50	3			12	0	20.33	20.47	20.41	3
		25	12	20.36	20.50	20.44	3			12	6	20.27	20.41	20.35	3
		25	25	20.29	20.43	20.37	3			12	13	20.20	20.34	20.28	3
		50	0	20.35	20.49	20.43	3			25	0	20.26	20.40	20.34	3

LTE Band 41

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)
		Channel		39750	40185	40620	41055	41490	
		Frequency (MHz)		2506.0	2549.5	2593.0	2636.5	2680.0	
20M	QPSK	1	0	23.51	23.56	23.82	23.55	23.43	0
		1	50	23.22	23.27	23.53	23.26	23.14	0
		1	99	23.16	23.21	23.47	23.20	23.08	0
		50	0	22.34	22.39	22.65	22.38	22.26	1
		50	25	22.27	22.32	22.58	22.31	22.19	1
		50	50	22.22	22.27	22.53	22.26	22.14	1
		100	0	22.26	22.31	22.57	22.30	22.18	1
	16QAM	1	0	22.46	22.51	22.77	22.50	22.38	1
		1	50	22.17	22.22	22.48	22.21	22.09	1
		1	99	22.11	22.16	22.42	22.15	22.03	1
		50	0	21.29	21.34	21.60	21.33	21.21	2
		50	25	21.22	21.27	21.53	21.26	21.14	2
		50	50	21.17	21.22	21.48	21.21	21.09	2
		100	0	21.21	21.26	21.52	21.25	21.13	2
	64QAM	1	0	21.44	21.49	21.75	21.48	21.36	2
		1	50	21.15	21.20	21.46	21.19	21.07	2
		1	99	21.09	21.14	21.40	21.13	21.01	2
		50	0	20.27	20.32	20.58	20.31	20.19	3
		50	25	20.20	20.25	20.51	20.24	20.12	3
		50	50	20.15	20.20	20.46	20.19	20.07	3
		100	0	20.19	20.24	20.50	20.23	20.11	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)
		Channel		39725	40173	40620	41068	41515	
		Frequency (MHz)		2503.5	2548.3	2593.0	2637.8	2682.5	
15M	QPSK	1	0	23.46	23.51	23.77	23.50	23.38	0
		1	37	23.17	23.22	23.48	23.21	23.09	0
		1	74	23.11	23.16	23.42	23.15	23.03	0
		36	0	22.29	22.34	22.60	22.33	22.21	1
		36	19	22.22	22.27	22.53	22.26	22.14	1
		36	39	22.17	22.22	22.48	22.21	22.09	1
		75	0	22.21	22.26	22.52	22.25	22.13	1
	16QAM	1	0	22.41	22.46	22.72	22.45	22.33	1
		1	37	22.12	22.17	22.43	22.16	22.04	1
		1	74	22.06	22.11	22.37	22.10	21.98	1
		36	0	21.24	21.29	21.55	21.28	21.16	2
		36	19	21.17	21.22	21.48	21.21	21.09	2
		36	39	21.12	21.17	21.43	21.16	21.04	2
		75	0	21.16	21.21	21.47	21.20	21.08	2
	64QAM	1	0	21.31	21.36	21.62	21.35	21.23	2
		1	37	21.02	21.07	21.33	21.06	20.94	2
		1	74	20.96	21.01	21.27	21.00	20.88	2
		36	0	20.14	20.19	20.45	20.18	20.06	3
		36	19	20.07	20.12	20.38	20.11	19.99	3
		36	39	20.02	20.07	20.33	20.06	19.94	3
		75	0	20.06	20.11	20.37	20.10	19.98	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)
		Channel		39700	40160	40620	41080	41540	
		Frequency (MHz)		2501.0	2547.0	2593.0	2639.0	2685.0	
10M	QPSK	1	0	23.39	23.44	23.70	23.43	23.31	0
		1	24	23.10	23.15	23.41	23.14	23.02	0
		1	49	23.04	23.09	23.35	23.08	22.96	0
		25	0	22.22	22.27	22.53	22.26	22.14	1
		25	12	22.15	22.20	22.46	22.19	22.07	1
		25	25	22.10	22.15	22.41	22.14	22.02	1
		50	0	22.14	22.19	22.45	22.18	22.06	1
	16QAM	1	0	22.34	22.39	22.65	22.38	22.26	1
		1	24	22.05	22.10	22.36	22.09	21.97	1
		1	49	21.99	22.04	22.30	22.03	21.91	1
		25	0	21.17	21.22	21.48	21.21	21.09	2
		25	12	21.10	21.15	21.41	21.14	21.02	2
		25	25	21.05	21.10	21.36	21.09	20.97	2
		50	0	21.09	21.14	21.40	21.13	21.01	2
	64QAM	1	0	21.17	21.22	21.48	21.21	21.09	2
		1	24	20.88	20.93	21.19	20.92	20.80	2
		1	49	20.82	20.87	21.13	20.86	20.74	2
		25	0	20.00	20.05	20.31	20.04	19.92	3
		25	12	19.93	19.98	20.24	19.97	19.85	3
		25	25	19.88	19.93	20.19	19.92	19.80	3
		50	0	19.92	19.97	20.23	19.96	19.84	3

BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)
		Channel		39675	40148	40620	41093	41565	
		Frequency (MHz)		2498.5	2545.8	2593.0	2640.3	2687.5	
5M	QPSK	1	0	23.31	23.36	23.62	23.35	23.23	0
		1	12	23.02	23.07	23.33	23.06	22.94	0
		1	24	22.96	23.01	23.27	23.00	22.88	0
		12	0	22.14	22.19	22.45	22.18	22.06	1
		12	6	22.07	22.12	22.38	22.11	21.99	1
		12	13	22.02	22.07	22.33	22.06	21.94	1
		25	0	22.06	22.11	22.37	22.10	21.98	1
	16QAM	1	0	22.26	22.31	22.57	22.30	22.18	1
		1	12	21.97	22.02	22.28	22.01	21.89	1
		1	24	21.91	21.96	22.22	21.95	21.83	1
		12	0	21.09	21.14	21.40	21.13	21.01	2
		12	6	21.02	21.07	21.33	21.06	20.94	2
		12	13	20.97	21.02	21.28	21.01	20.89	2
		25	0	21.01	21.06	21.32	21.05	20.93	2
	64QAM	1	0	21.06	21.11	21.37	21.10	20.98	2
		1	12	20.77	20.82	21.08	20.81	20.69	2
		1	24	20.71	20.76	21.02	20.75	20.63	2
		12	0	19.89	19.94	20.20	19.93	19.81	3
		12	6	19.82	19.87	20.13	19.86	19.74	3
		12	13	19.77	19.82	20.08	19.81	19.69	3
		25	0	19.81	19.86	20.12	19.85	19.73	3

CA LTE Band 41

PCC							SCC							Power	
Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Band	BW (MHz)	Modulation	RB Size	RB Offset	UL Channel	UL Frequency (MHz)	Single Carrier Tx Power (dBm)	Tx Power with DL-CA Active (dBm)
41	20	QPSK	1	0	39750	2506	41	20	QPSK	1	99	39948	2525.8	23.51	15.23
			1	99						1	0			23.16	23.13
41	20	QPSK	1	0	40185	2549.5	41	20	QPSK	1	99	40383	2569.3	23.56	15.25
			1	99						1	0			23.21	23.21
41	20	QPSK	1	0	40620	2593	41	20	QPSK	1	99	40818	2612.8	23.82	15.33
			1	99						1	0			23.47	23.45
41	20	QPSK	1	0	41055	2636.5	41	20	QPSK	1	99	41253	2656.3	23.55	14.93
			1	99						1	0			23.2	23.08
41	20	QPSK	1	0	41292	2660.2	41	20	QPSK	1	99	41490	2680	23.43	14.83
			1	99						1	0			23.08	23.06

EIRP Power (dBm)

LTE Band 7							
Channel Bandwidth: 5 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
X	20775	2502.5	-18.85	44.24	25.39	345.78	H
	21100	2535.0	-18.75	44.20	25.45	350.51	
	21425	2567.5	-18.94	44.80	25.86	385.57	
	20775	2502.5	-22.12	44.19	22.07	161.10	V
	21100	2535.0	-21.85	44.09	22.24	167.42	
	21425	2567.5	-21.76	44.50	22.74	187.85	
Channel Bandwidth: 5 MHz / 16QAM							
X	20775	2502.5	-20.12	44.24	24.12	258.11	H
	21100	2535.0	-19.86	44.20	24.34	271.46	
	21425	2567.5	-19.89	44.80	24.91	309.81	
	20775	2502.5	-22.52	44.19	21.67	146.93	V
	21100	2535.0	-22.14	44.09	21.95	156.60	
	21425	2567.5	-22.61	44.50	21.89	154.49	
Channel Bandwidth: 5 MHz / 64QAM							
X	20775	2502.5	-20.12	44.24	24.12	258.11	H
	21100	2535.0	-19.86	44.20	24.34	271.46	
	21425	2567.5	-19.89	44.80	24.91	309.81	
	20775	2502.5	-22.52	44.19	21.67	146.93	V
	21100	2535.0	-22.14	44.09	21.95	156.60	
	21425	2567.5	-22.61	44.50	21.89	154.49	

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

LTE Band 7							
Channel Bandwidth: 10 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
X	20800	2505.0	-18.76	44.34	25.58	361.49	H
	21100	2535.0	-18.68	44.20	25.52	356.20	
	21400	2565.0	-18.83	44.72	25.89	388.42	
	20800	2505.0	-22.23	44.23	22.00	158.34	V
	21100	2535.0	-21.76	44.09	22.33	170.92	
	21400	2565.0	-21.96	44.41	22.45	175.79	
Channel Bandwidth: 10 MHz / 16QAM							
X	20800	2505.0	-20.01	44.34	24.33	271.08	H
	21100	2535.0	-19.74	44.20	24.46	279.06	
	21400	2565.0	-19.84	44.72	24.88	307.82	
	20800	2505.0	-22.69	44.23	21.54	142.43	V
	21100	2535.0	-22.58	44.09	21.51	141.51	
	21400	2565.0	-22.74	44.41	21.67	146.76	
Channel Bandwidth: 10 MHz / 64QAM							
X	20800	2505.0	-20.01	44.34	24.33	271.08	H
	21100	2535.0	-19.74	44.20	24.46	279.06	
	21400	2565.0	-19.84	44.72	24.88	307.82	
	20800	2505.0	-22.69	44.23	21.54	142.43	V
	21100	2535.0	-22.58	44.09	21.51	141.51	
	21400	2565.0	-22.74	44.41	21.67	146.76	

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

LTE Band 7							
Channel Bandwidth: 15 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
X	20825	2507.5	-18.56	44.32	25.76	376.53	H
	21100	2535.0	-18.74	44.20	25.46	351.32	
	21375	2562.5	-18.96	44.85	25.89	387.97	
	20825	2507.5	-21.87	43.99	22.12	163.00	V
	21100	2535.0	-21.56	44.09	22.53	178.98	
	21375	2562.5	-21.74	44.51	22.77	189.23	
Channel Bandwidth: 15 MHz / 16QAM							
X	20825	2507.5	-20.24	44.32	24.08	255.74	H
	21100	2535.0	-19.74	44.20	24.46	279.06	
	21375	2562.5	-19.96	44.85	24.89	308.18	
	20825	2507.5	-22.55	43.99	21.44	139.38	V
	21100	2535.0	-22.75	44.09	21.34	136.08	
	21375	2562.5	-22.69	44.51	21.82	152.05	
Channel Bandwidth: 15 MHz / 64QAM							
X	20825	2507.5	-20.24	44.32	24.08	255.74	H
	21100	2535.0	-19.74	44.20	24.46	279.06	
	21375	2562.5	-19.96	44.85	24.89	308.18	
	20825	2507.5	-22.55	43.99	21.44	139.38	V
	21100	2535.0	-22.75	44.09	21.34	136.08	
	21375	2562.5	-22.69	44.51	21.82	152.05	

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

LTE Band 7							
Channel Bandwidth: 20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20850.0	2510.0	-18.74	44.16	25.42	348.34	H
	21100.0	2535.0	-18.56	44.20	25.64	366.18	
	21350.0	2560.0	-18.59	44.81	26.22	418.50	
	20850.0	2510.0	-21.85	44.78	22.93	196.34	V
	21100.0	2535.0	-21.76	44.09	22.33	170.92	
	21350.0	2560.0	-21.91	44.72	22.81	190.99	
Channel Bandwidth: 20 MHz / 16QAM							
X	20850.0	2510.0	-20.12	44.16	24.04	253.51	H
	21100.0	2535.0	-19.86	44.20	24.34	271.46	
	21350.0	2560.0	-19.78	44.81	25.03	318.20	
	20850.0	2510.0	-22.98	44.78	21.80	151.36	V
	21100.0	2535.0	-23.01	44.09	21.08	128.17	
	21350.0	2560.0	-22.78	44.72	21.94	156.31	
Channel Bandwidth: 20 MHz / 64QAM							
X	20850.0	2510.0	-20.12	44.16	24.04	253.51	H
	21100.0	2535.0	-19.86	44.20	24.34	271.46	
	21350.0	2560.0	-19.78	44.81	25.03	318.20	
	20850.0	2510.0	-22.98	44.78	21.80	151.36	V
	21100.0	2535.0	-23.01	44.09	21.08	128.17	
	21350.0	2560.0	-22.78	44.72	21.94	156.31	

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

CA LTE Band 7							
Channel Bandwidth: 20+20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
NB	20850+21048	2519.9	-19.01	38.36	19.35	86.12	H
	20850+21048	2519.9	-25.75	39.26	13.51	22.44	V

LTE Band 38							
Channel Bandwidth: 5 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
X	37775	2572.5	-18.81	44.24	25.43	348.98	H
	38000	2595.0	-18.67	44.20	25.53	357.03	
	38225	2617.5	-19.33	44.80	25.47	352.45	
	37775	2572.5	-23.78	44.19	20.41	109.93	V
	38000	2595.0	-23.57	44.09	20.52	112.67	
	38225	2617.5	-24.01	44.50	20.49	111.92	
Channel Bandwidth: 5 MHz / 16QAM							
X	37775	2572.5	-19.82	44.24	24.42	276.57	H
	38000	2595.0	-19.68	44.20	24.52	282.94	
	38225	2617.5	-20.34	44.80	24.46	279.32	
	37775	2572.5	-24.78	44.19	19.41	87.32	V
	38000	2595.0	-24.58	44.09	19.51	89.29	
	38225	2617.5	-25.01	44.50	19.49	88.90	
Channel Bandwidth: 5 MHz / 64QAM							
X	37775	2572.5	-20.83	44.24	23.41	219.18	H
	38000	2595.0	-20.68	44.20	23.52	224.75	
	38225	2617.5	-21.35	44.80	23.45	221.36	
	37775	2572.5	-25.78	44.19	18.41	69.36	V
	38000	2595.0	-25.59	44.09	18.50	70.76	
	38225	2617.5	-26.01	44.50	18.49	70.62	

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

LTE Band 38							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	37800	2575.0	-18.87	44.34	25.47	352.45	H
	38000	2595.0	-18.63	44.20	25.57	360.33	
	38200	2615.0	-19.20	44.72	25.52	356.70	
	37800	2575.0	-23.78	44.23	20.45	110.82	V
	38000	2595.0	-23.53	44.09	20.56	113.71	
	38200	2615.0	-23.89	44.41	20.52	112.62	
Channel Bandwidth: 10 MHz / 16QAM							
X	37800	2575.0	-19.88	44.34	24.46	279.32	H
	38000	2595.0	-19.64	44.20	24.56	285.56	
	38200	2615.0	-20.20	44.72	24.52	283.33	
	37800	2575.0	-24.78	44.23	19.45	88.02	V
	38000	2595.0	-24.53	44.09	19.56	90.32	
	38200	2615.0	-24.90	44.41	19.51	89.25	
Channel Bandwidth: 10 MHz / 64QAM							
X	37800	2575.0	-20.89	44.34	23.45	221.36	H
	38000	2595.0	-20.65	44.20	23.55	226.31	
	38200	2615.0	-21.20	44.72	23.52	225.06	
	37800	2575.0	-25.78	44.23	18.45	69.92	V
	38000	2595.0	-25.53	44.09	18.56	71.75	
	38200	2615.0	-25.91	44.41	18.50	70.73	

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

LTE Band 38							
Channel Bandwidth: 15 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
X	37825	2577.5	-18.80	44.32	25.52	356.29	H
	38000	2595.0	-18.59	44.20	25.61	363.66	
	38175	2612.5	-19.29	44.85	25.56	359.58	
	37825	2577.5	-23.49	43.99	20.50	112.25	V
	38000	2595.0	-23.49	44.09	20.60	114.76	
	38175	2612.5	-23.95	44.51	20.56	113.76	
Channel Bandwidth: 15 MHz / 16QAM							
X	37825	2577.5	-19.81	44.32	24.51	282.36	H
	38000	2595.0	-19.60	44.20	24.60	288.20	
	38175	2612.5	-20.30	44.85	24.55	284.97	
	37825	2577.5	-24.50	43.99	19.49	88.96	V
	38000	2595.0	-24.51	44.09	19.58	90.74	
	38175	2612.5	-24.96	44.51	19.55	90.16	
Channel Bandwidth: 15 MHz / 64QAM							
X	37825	2577.5	-20.82	44.32	23.50	223.77	H
	38000	2595.0	-20.61	44.20	23.59	228.40	
	38175	2612.5	-21.31	44.85	23.54	225.84	
	37825	2577.5	-25.51	43.99	18.48	70.50	V
	38000	2595.0	-25.52	44.09	18.57	71.91	
	38175	2612.5	-25.97	44.51	18.54	71.45	

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

LTE Band 38							
Channel Bandwidth: 20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	37850	2580.0	-18.60	44.16	25.56	359.75	H
	38000	2595.0	-18.55	44.20	25.65	367.03	
	38150	2610.0	-19.20	44.81	25.61	363.66	
	37850	2580.0	-24.24	44.78	20.54	113.24	V
	38000	2595.0	-23.45	44.09	20.64	115.82	
	38150	2610.0	-24.11	44.72	20.61	115.08	
Channel Bandwidth: 20 MHz / 16QAM							
X	37850	2580.0	-19.61	44.16	24.55	285.10	H
	38000	2595.0	-19.56	44.20	24.64	290.87	
	38150	2610.0	-20.21	44.81	24.60	288.20	
	37850	2580.0	-25.26	44.78	19.52	89.54	V
	38000	2595.0	-24.45	44.09	19.64	92.00	
	38150	2610.0	-25.12	44.72	19.60	91.20	
Channel Bandwidth: 20 MHz / 64QAM							
X	37850	2580.0	-20.61	44.16	23.55	226.46	H
	38000	2595.0	-20.56	44.20	23.64	231.05	
	38150	2610.0	-21.22	44.81	23.59	228.40	
	37850	2580.0	-26.27	44.78	18.51	70.96	V
	38000	2595.0	-25.46	44.09	18.63	72.91	
	38150	2610.0	-26.12	44.72	18.60	72.44	

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

LTE Band 41							
Channel Bandwidth: 5 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
X	39675	2498.5	-18.49	44.24	25.75	375.66	H
	40620	2593.0	-18.40	44.20	25.80	379.93	
	41565	2687.5	-19.11	44.80	25.69	370.77	
	39675	2498.5	-21.46	44.19	22.73	187.54	V
	40620	2593.0	-21.28	44.09	22.81	190.90	
	41565	2687.5	-21.82	44.50	22.68	185.31	
Channel Bandwidth: 5 MHz / 16QAM							
X	39675	2498.5	-19.50	44.24	24.74	297.71	H
	40620	2593.0	-19.41	44.20	24.79	301.09	
	41565	2687.5	-20.12	44.80	24.68	293.83	
	39675	2498.5	-22.46	44.19	21.73	148.97	V
	40620	2593.0	-22.29	44.09	21.80	151.29	
	41565	2687.5	-22.83	44.50	21.67	146.86	
Channel Bandwidth: 5 MHz / 64QAM							
X	39675	2498.5	-20.51	44.24	23.73	235.94	H
	40620	2593.0	-20.42	44.20	23.78	238.62	
	41565	2687.5	-21.13	44.80	23.67	232.86	
	39675	2498.5	-23.47	44.19	20.72	118.06	V
	40620	2593.0	-23.30	44.09	20.79	119.89	
	41565	2687.5	-23.84	44.50	20.66	116.39	

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

LTE Band 41							
Channel Bandwidth: 10 MHz / QPSK							
Plane	**Channel**	**Frequency (MHz)**	**Reading (dBm)**	**Correction Factor (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Polarization (H/V)**
X	39700	2501.0	-18.55	44.34	25.79	379.40	H
	40620	2593.0	-18.36	44.20	25.84	383.44	
	41540	2685.0	-18.98	44.72	25.74	375.23	
	39700	2501.0	-21.45	44.23	22.78	189.50	V
	40620	2593.0	-21.24	44.09	22.85	192.66	
	41540	2685.0	-21.68	44.41	22.73	187.33	
Channel Bandwidth: 10 MHz / 16QAM							
X	39700	2501.0	-19.56	44.34	24.78	300.68	H
	40620	2593.0	-19.36	44.20	24.84	304.58	
	41540	2685.0	-19.98	44.72	24.74	298.06	
	39700	2501.0	-22.45	44.23	21.78	150.52	V
	40620	2593.0	-22.24	44.09	21.85	153.04	
	41540	2685.0	-22.69	44.41	21.72	148.46	
Channel Bandwidth: 10 MHz / 64QAM							
X	39700	2501.0	-20.57	44.34	23.77	238.29	H
	40620	2593.0	-20.37	44.20	23.83	241.38	
	41540	2685.0	-20.99	44.72	23.73	236.21	
	39700	2501.0	-23.46	44.23	20.77	119.29	V
	40620	2593.0	-23.25	44.09	20.84	121.28	
	41540	2685.0	-23.70	44.41	20.71	117.65	

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

LTE Band 41							
Channel Bandwidth: 15 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	39725	2503.5	-18.49	44.32	25.83	382.65	H
	40620	2593.0	-18.32	44.20	25.88	386.99	
	41515	2682.5	-19.06	44.85	25.79	379.14	
	39725	2503.5	-21.17	43.99	22.82	191.51	V
	40620	2593.0	-21.20	44.09	22.89	194.45	
	41515	2682.5	-21.74	44.51	22.77	189.23	
Channel Bandwidth: 15 MHz / 16QAM							
X	39725	2503.5	-19.50	44.32	24.82	303.25	H
	40620	2593.0	-19.32	44.20	24.88	307.40	
	41515	2682.5	-20.07	44.85	24.78	300.47	
	39725	2503.5	-22.18	43.99	21.81	151.77	V
	40620	2593.0	-22.21	44.09	21.88	154.10	
	41515	2682.5	-22.75	44.51	21.76	149.97	
Channel Bandwidth: 15 MHz / 64QAM							
X	39725	2503.5	-20.51	44.32	23.81	240.33	H
	40620	2593.0	-20.33	44.20	23.87	243.61	
	41515	2682.5	-21.08	44.85	23.77	238.12	
	39725	2503.5	-23.19	43.99	20.80	120.28	V
	40620	2593.0	-23.22	44.09	20.87	122.12	
	41515	2682.5	-23.76	44.51	20.75	118.85	

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

LTE Band 41							
Channel Bandwidth: 20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	39750	2506.0	-18.29	44.16	25.87	386.37	H
	40620	2593.0	-18.29	44.20	25.91	389.67	
	41490	2680.0	-18.98	44.81	25.83	382.56	
	39750	2506.0	-21.92	44.78	22.86	193.20	V
	40620	2593.0	-21.16	44.09	22.93	196.25	
	41490	2680.0	-21.90	44.72	22.82	191.43	
Channel Bandwidth: 20 MHz / 16QAM							
X	39750	2506.0	-19.30	44.16	24.86	306.20	H
	40620	2593.0	-19.30	44.20	24.90	308.82	
	41490	2680.0	-20.00	44.81	24.81	302.48	
	39750	2506.0	-22.93	44.78	21.85	153.11	V
	40620	2593.0	-22.17	44.09	21.92	155.52	
	41490	2680.0	-22.91	44.72	21.81	151.71	
Channel Bandwidth: 20 MHz / 64QAM							
X	39750	2506.0	-20.31	44.16	23.85	242.66	H
	40620	2593.0	-20.31	44.20	23.89	244.74	
	41490	2680.0	-21.00	44.81	23.81	240.27	
	39750	2506.0	-23.93	44.78	20.85	121.62	V
	40620	2593.0	-23.17	44.09	20.92	123.54	
	41490	2680.0	-23.92	44.72	20.80	120.23	

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

CA LTE Band 41							
Channel Bandwidth: 20+20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
NB	41055+41253	2646.4	-19.02	38.71	19.69	93.11	H
	41055+41253	2646.4	-27.12	38.76	11.64	14.59	V

4.2 Radiated Emission Measurement

4.2.1 Limits of Radiated Emission Measurement

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 55 +10 log10(P) dB. The limit of emission is equal to -25 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 = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power - 2.15 dB.

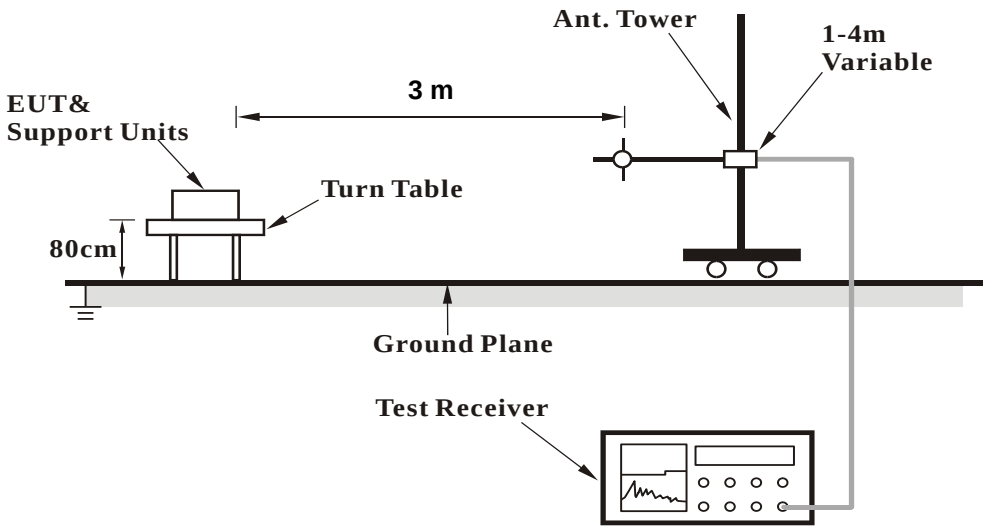
NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

4.2.3 Deviation from Test Standard

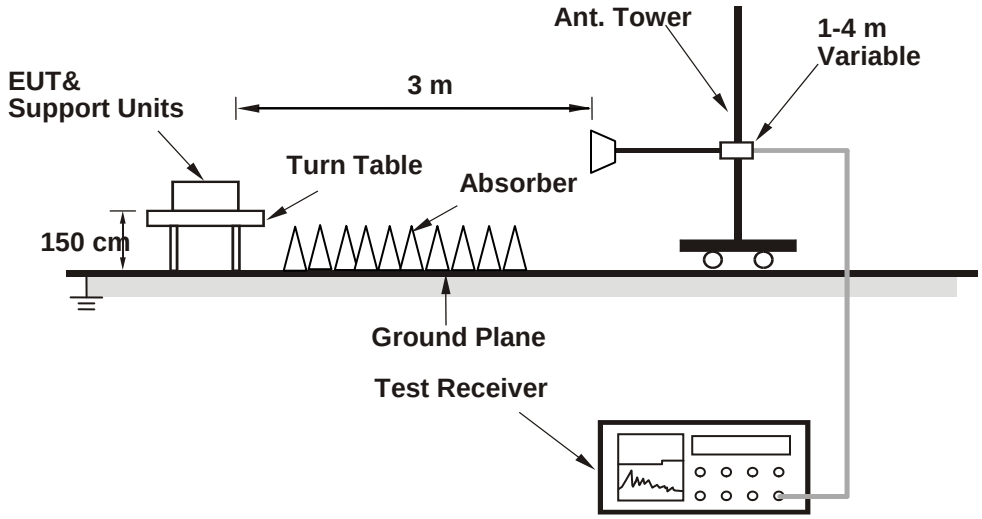
No deviation.

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).

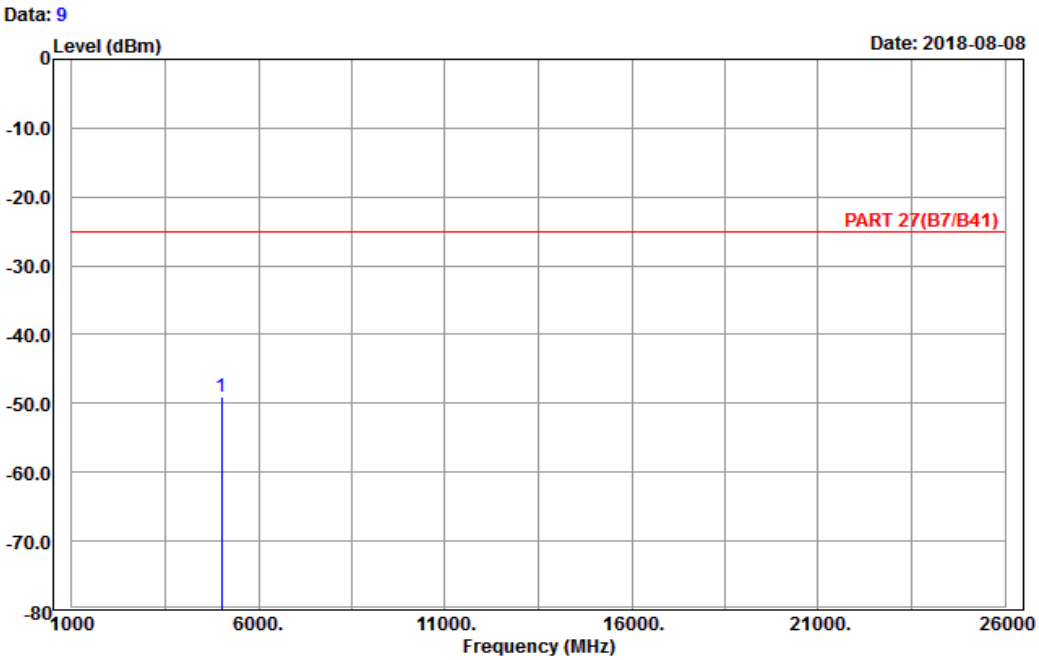
4.2.5 Test Results

LTE Band 7

Channel Bandwidth: 20 MHz / QPSK

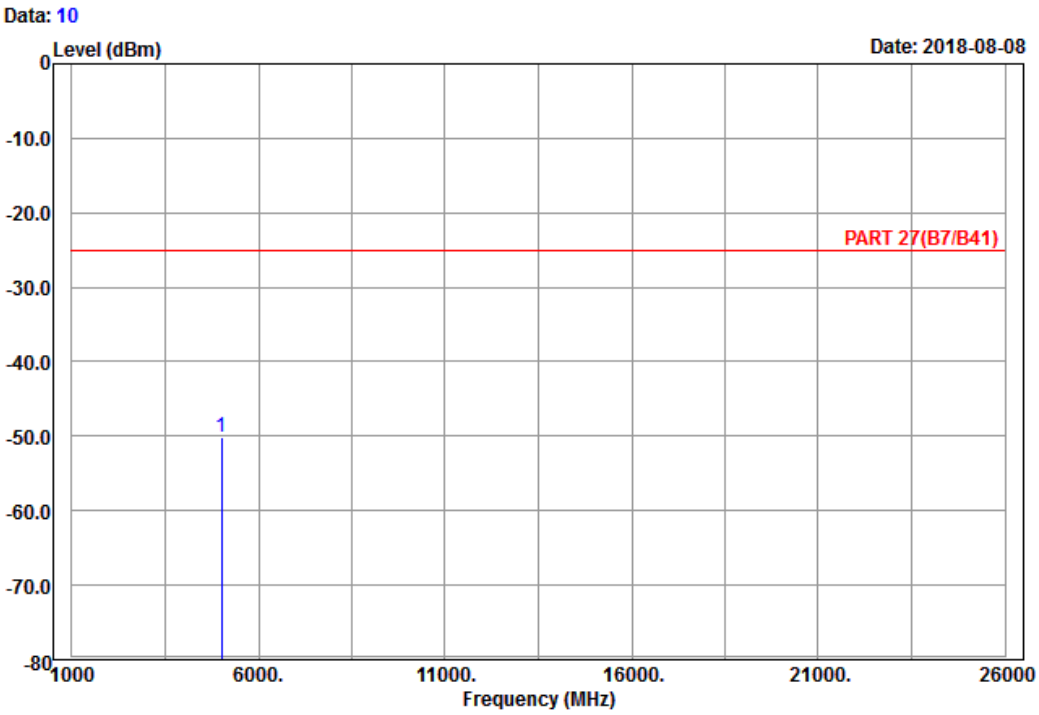
Low Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch




```
Site      : 966 chamber 1
Condition: PART 27(B7/B41) Horizontal
Remark    : LTE_Band 7_Link_CH20850
Tested by: Harry Hsueh
                          Read  Limit   Over
           Freq  Level   Level   Line  Limit Factor Remark
        ________ ______ ______ ______ ______ ______ ________
              MHz    dBm    dBm    dBm     dB     dB

  1 pp  5020.00 -49.07 -68.15 -25.00 -24.07  19.08 Peak
```

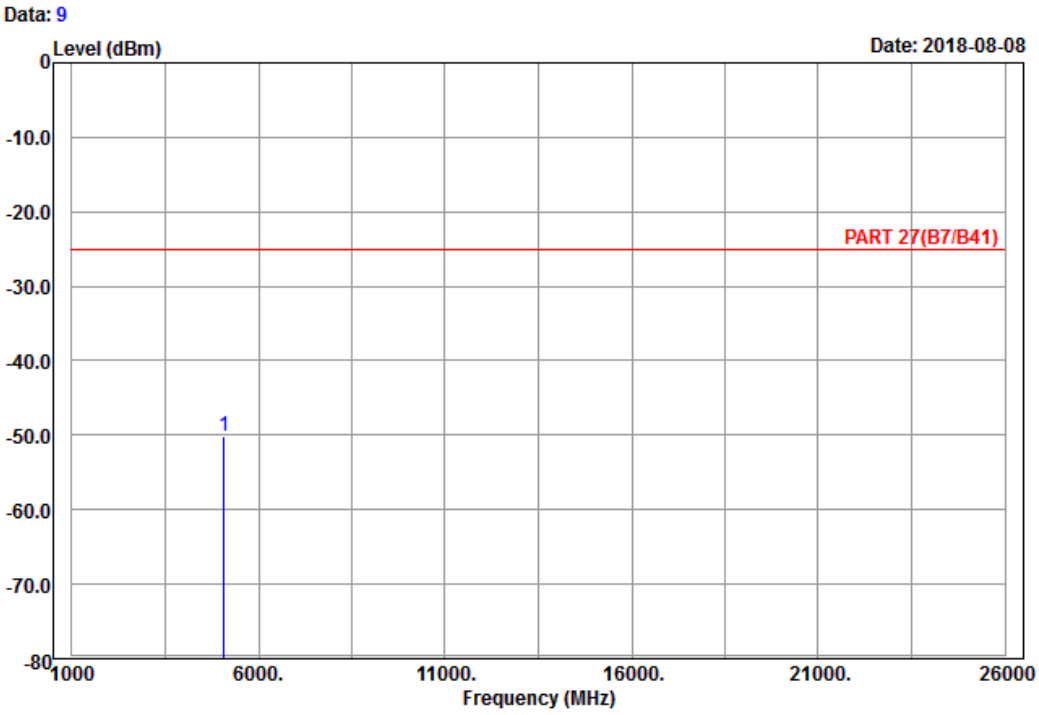


Site : 966 chamber 1
Condition: PART 27(B7/B41) Vertical
Remark : LTE_Band 7_Link_CH20850
Tested by: Harry Hsueh

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5020.00	-50.24	-69.32	-25.00	-25.24	19.08	Peak

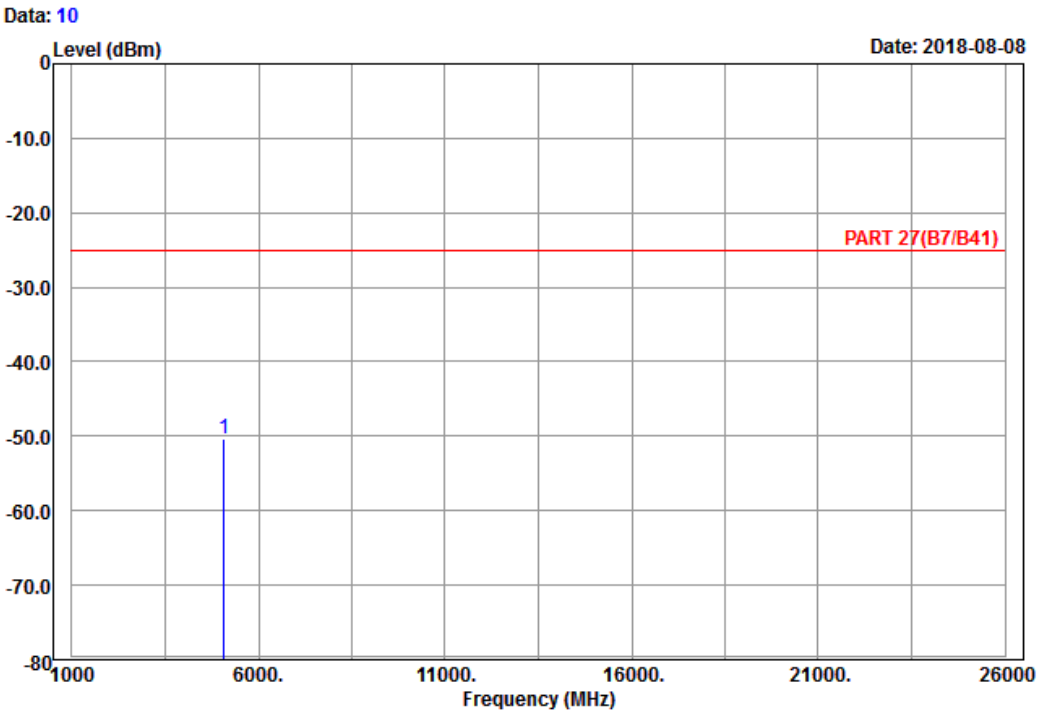
Middle Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 chamber 1
Condition: PART 27(B7/B41) Horizontal
Remark : LTE_Band 7_Link_CH21100
Tested by: Harry Hsueh

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5070.00	-50.16	-69.55	-25.00	-25.16	19.39	Peak

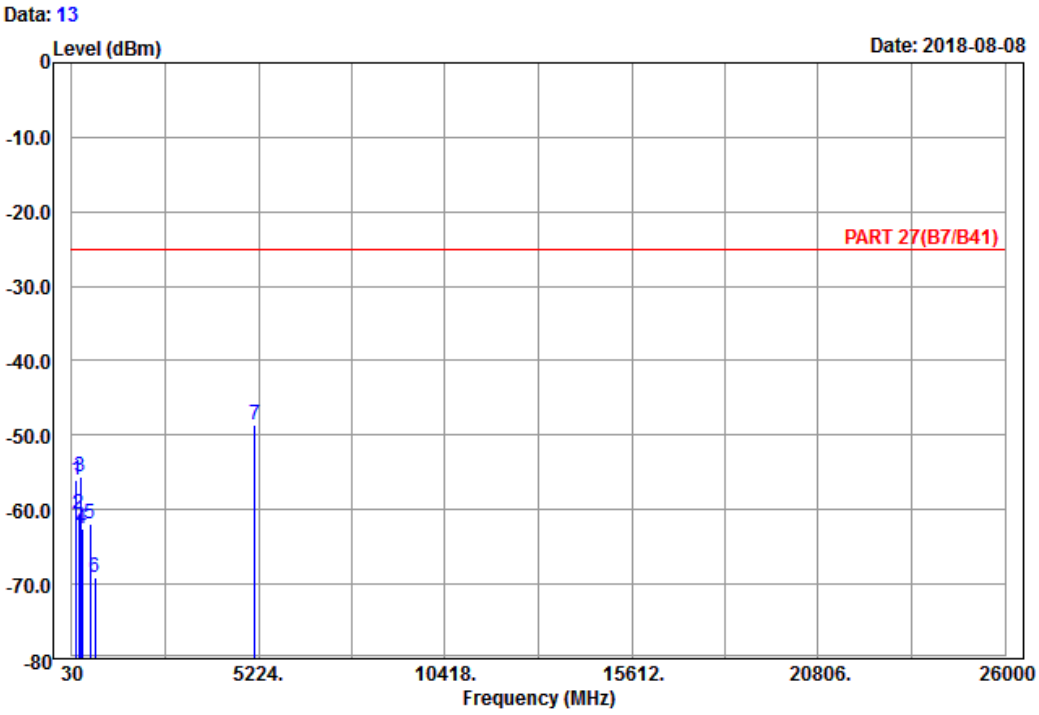


Site : 966 chamber 1
Condition: PART 27(B7/B41) Vertical
Remark : LTE_Band 7_Link_CH21100
Tested by: Harry Hsueh

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5070.00	-50.39	-69.78	-25.00	-25.39	19.39	Peak

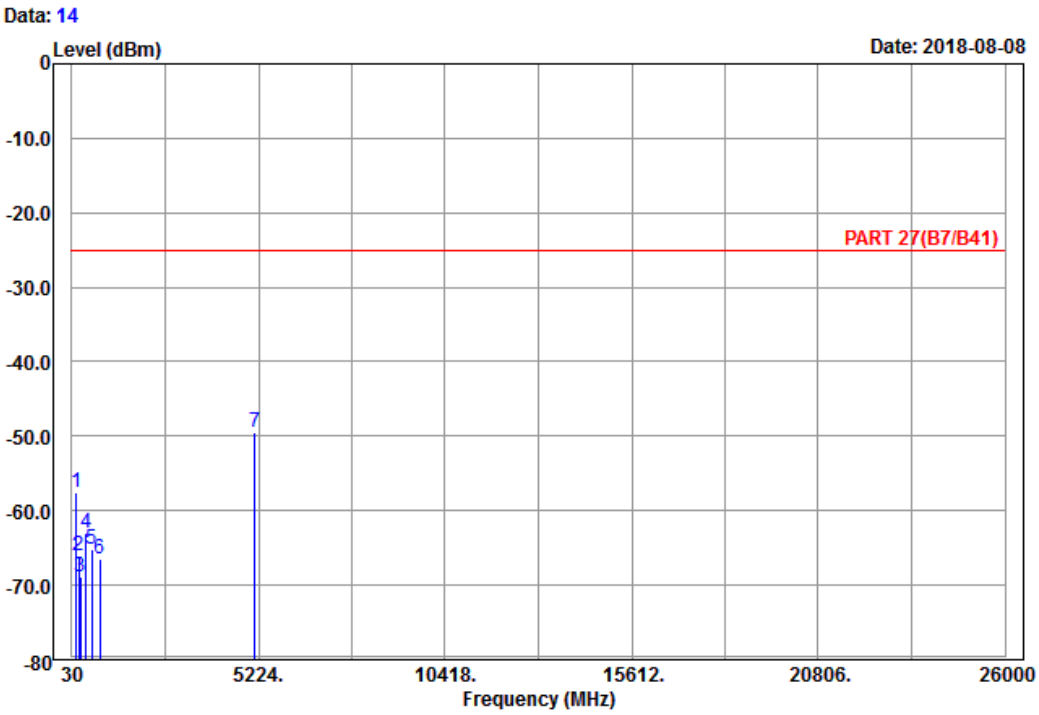
High Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 chamber 1
Condition: PART 27(B7/B41) Horizontal
Remark : LTE_Band 7_Link_CH21350
Tested by: Harry Hsueh

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	164.19	-56.11	-48.83	-25.00	-31.11	-7.28	Peak
2	225.21	-60.51	-54.66	-25.00	-35.51	-5.85	Peak
3	277.32	-55.63	-49.87	-25.00	-30.63	-5.76	Peak
4	321.70	-62.67	-56.97	-25.00	-37.67	-5.70	Peak
5	532.40	-61.84	-58.90	-25.00	-36.84	-2.94	Peak
6	683.60	-69.08	-68.78	-25.00	-44.08	-0.30	Peak
7 pp	5120.00	-48.55	-68.26	-25.00	-23.55	19.71	Peak

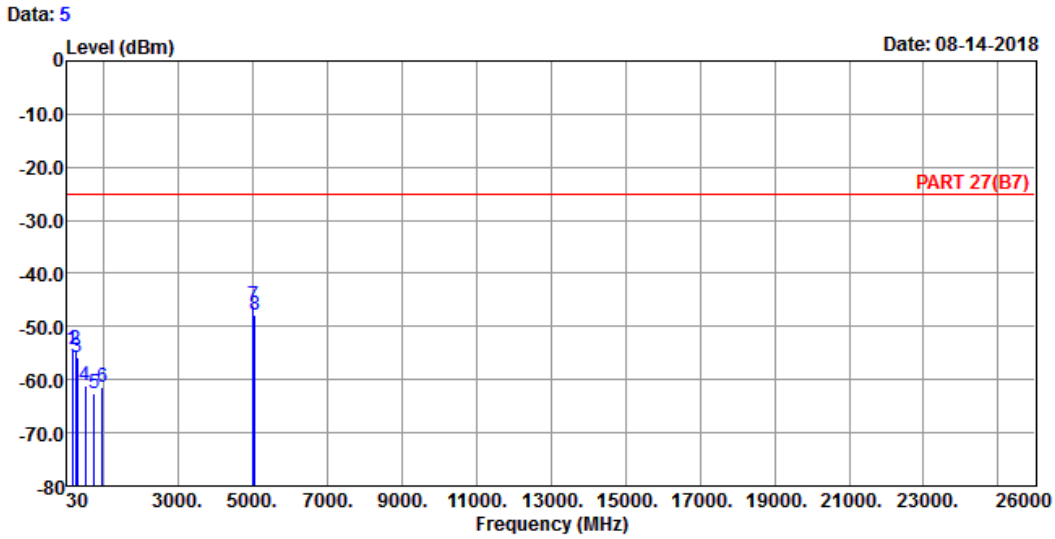


Site : 966 chamber 1
Condition: PART 27(B7/B41) Vertical
Remark : LTE_Band 7_Link_CH21350
Tested by: Harry Hsueh

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	156.63	-57.59	-49.84	-25.00	-32.59	-7.75	Peak
2	211.98	-66.00	-59.99	-25.00	-41.00	-6.01	Peak
3	263.28	-68.96	-63.34	-25.00	-43.96	-5.62	Peak
4	433.70	-62.97	-59.49	-25.00	-37.97	-3.48	Peak
5	581.40	-65.26	-64.88	-25.00	-40.26	-0.38	Peak
6	811.70	-66.39	-68.27	-25.00	-41.39	1.88	Peak
7 pp	5120.00	-49.47	-69.18	-25.00	-24.47	19.71	Peak

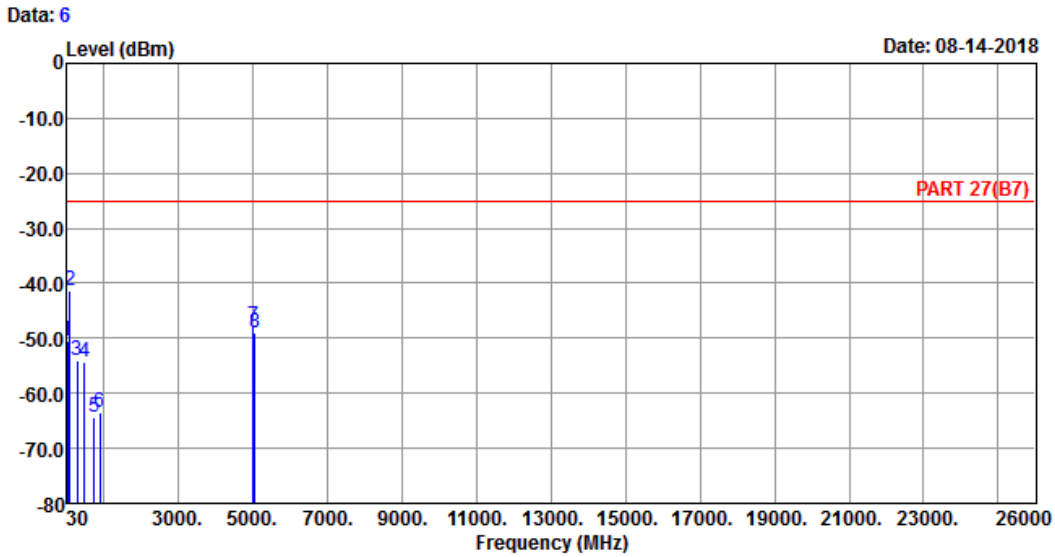
CA LTE Band 7
Channel Bandwidth: 20+20 MHz / QPSK

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART 27(B7) HORIZONTAL
Remak : LTE Band 7 QPSK_40M_CH20850+CH21048
Tested by: Jisyong Wang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	167.74	-54.35	-48.96	-13.00	-41.35	-5.39	Peak
2	258.92	-54.18	-48.01	-13.00	-41.18	-6.17	Peak
3	305.48	-55.72	-48.80	-13.00	-42.72	-6.92	Peak
4	514.03	-61.13	-57.00	-13.00	-48.13	-4.13	Peak
5	763.32	-62.66	-63.50	-13.00	-49.66	0.84	Peak
6	969.93	-61.52	-64.04	-13.00	-48.52	2.52	Peak
7 pp	5020.00	-46.15	-42.92	-25.00	-21.15	-3.23	Peak
8	5059.60	-47.85	-44.73	-25.00	-22.85	-3.12	Peak



Site : 966 Chamber 5
Condition: PART 27(B7) VERTICAL
Remak : LTE Band 7 QPSK_40M_CH20850+CH21048
Tested by: Jisyong Wang

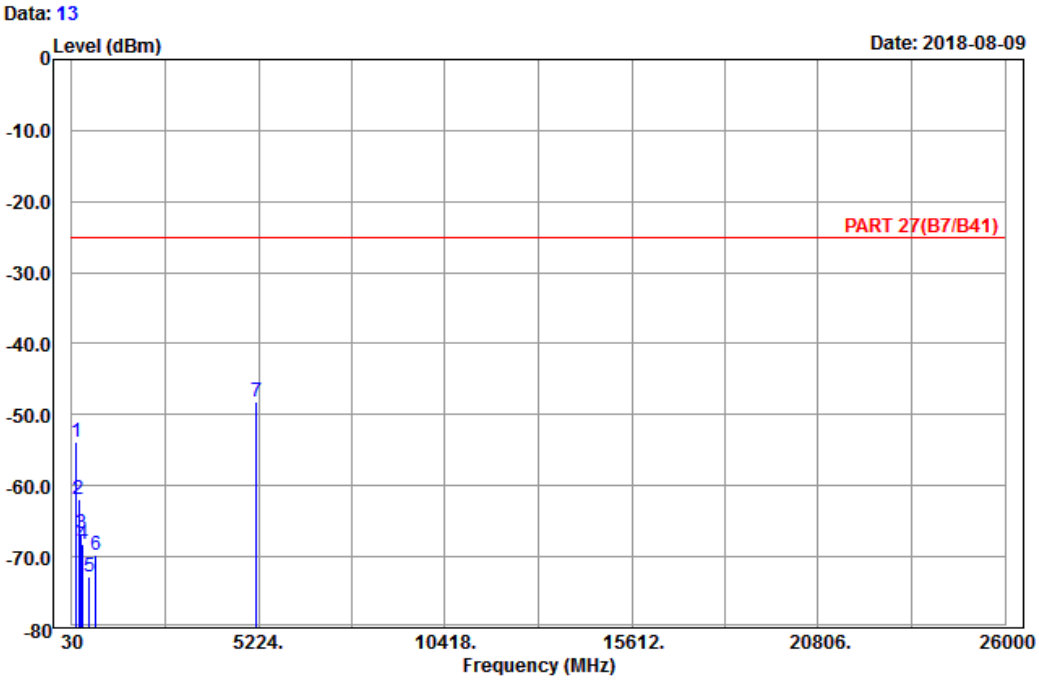
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	40.67	-50.41	-50.53	-13.00	-37.41	0.12	Peak
2	97.90	-41.19	-30.52	-13.00	-28.19	-10.67	Peak
3	297.72	-53.94	-46.97	-13.00	-40.94	-6.97	Peak
4	504.33	-54.36	-49.89	-13.00	-41.36	-4.47	Peak
5	758.47	-64.29	-65.14	-13.00	-51.29	0.85	Peak
6	910.76	-63.61	-64.45	-13.00	-50.61	0.84	Peak
7 pp	5020.00	-47.85	-44.62	-25.00	-22.85	-3.23	Peak
8	5059.60	-49.02	-45.90	-25.00	-24.02	-3.12	Peak

LTE Band 38

Channel Bandwidth: 20 MHz / QPSK

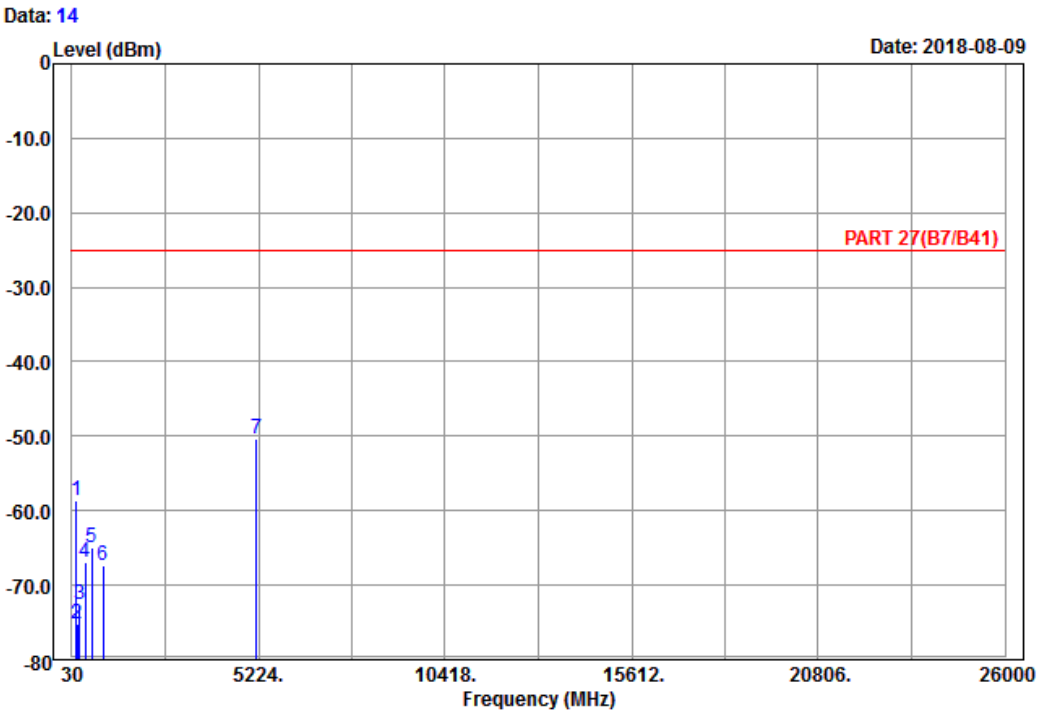
Low Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 chamber 1
Condition: PART 27(B7/B41) Horizontal
Remark : LTE_Band 38_Link_CH37850
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	162.30	-53.90	-46.43	-25.00	-28.90	-7.47	Peak
2	221.97	-61.83	-55.95	-25.00	-36.83	-5.88	Peak
3	296.76	-66.75	-60.82	-25.00	-41.75	-5.93	Peak
4	325.90	-68.27	-62.61	-25.00	-43.27	-5.66	Peak
5	526.10	-72.81	-69.37	-25.00	-47.81	-3.44	Peak
6	695.50	-69.83	-69.48	-25.00	-44.83	-0.35	Peak
7 pp	5160.00	-48.21	-68.13	-25.00	-23.21	19.92	Peak

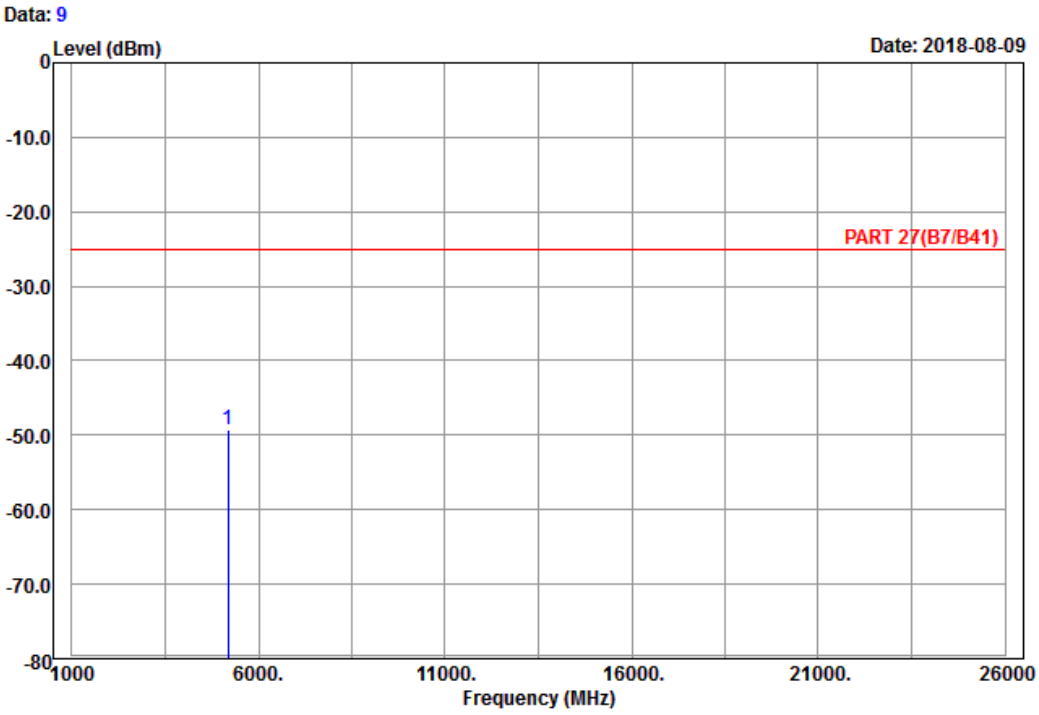


Site : 966 chamber 1
Condition: PART 27(B7/B41) Vertical
Remark : LTE_Band 38_Link_CH37850
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	156.36	-58.64	-50.86	-25.00	-33.64	-7.78	Peak
2	175.53	-75.29	-69.20	-25.00	-50.29	-6.09	Peak
3	243.30	-72.66	-67.06	-25.00	-47.66	-5.60	Peak
4	398.00	-67.03	-64.19	-25.00	-42.03	-2.84	Peak
5	594.00	-65.01	-65.16	-25.00	-40.01	0.15	Peak
6	910.40	-67.34	-70.71	-25.00	-42.34	3.37	Peak
7 pp	5160.00	-50.26	-70.18	-25.00	-25.26	19.92	Peak

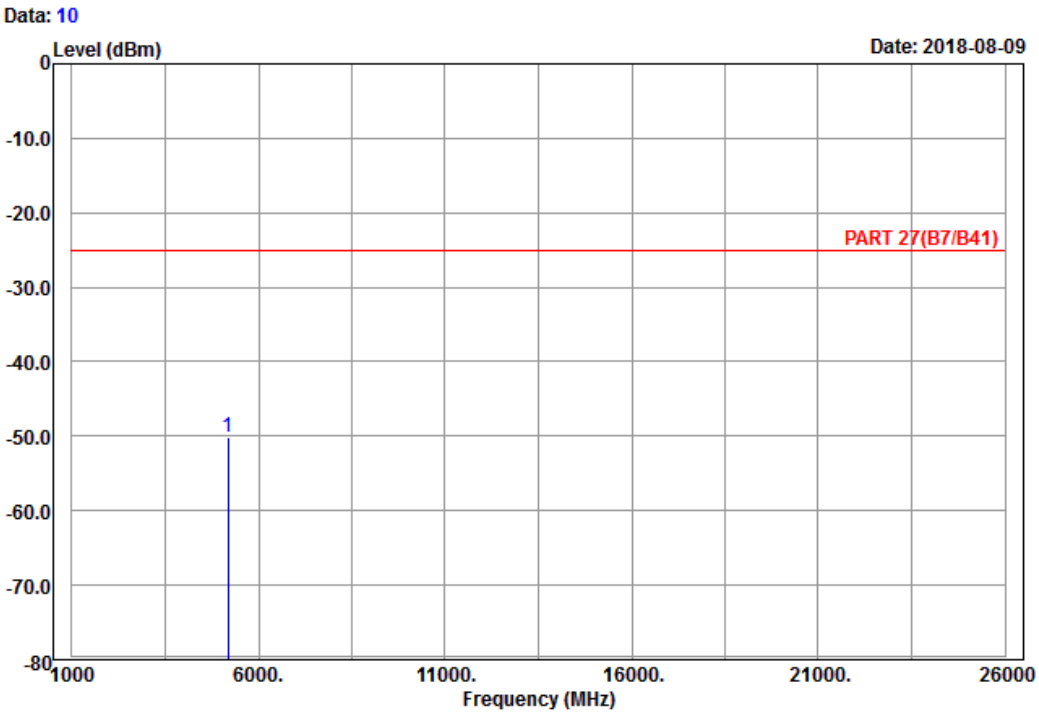
Middle Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 chamber 1
Condition: PART 27(B7/B41) Horizontal
Remark : LTE_Band 38_Link_CH38000
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5190.00	-49.33	-69.45	-25.00	-24.33	20.12	Peak

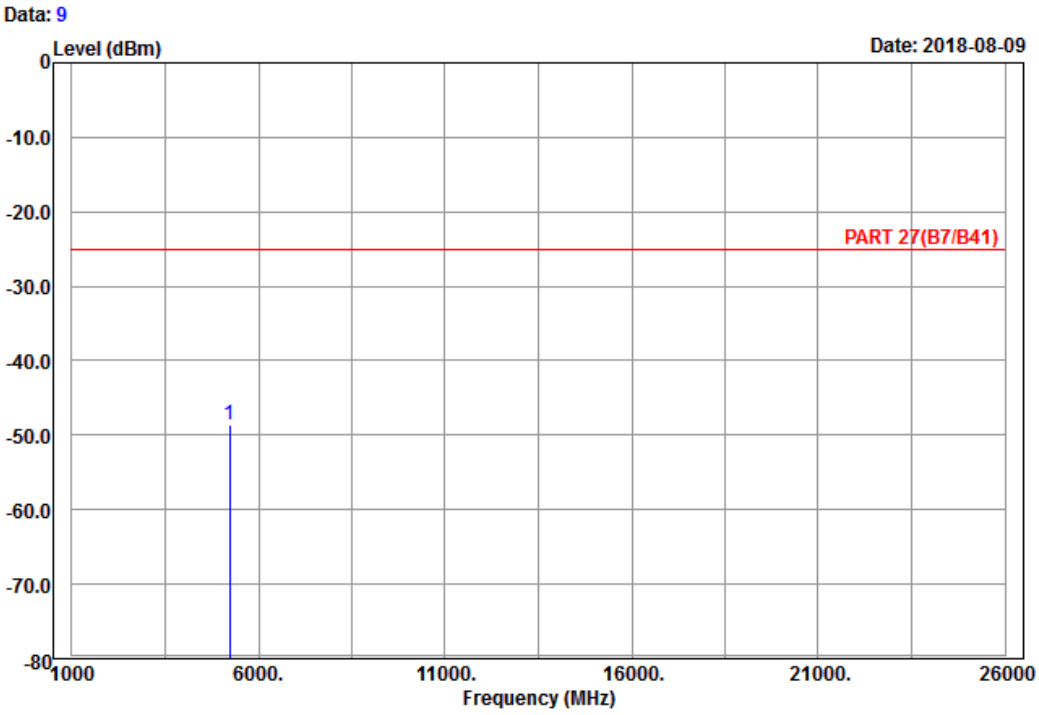


Site : 966 chamber 1
Condition: PART 27(B7/B41) Vertical
Remark : LTE_Band 38_Link_CH38000
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5190.00	-50.22	-70.34	-25.00	-25.22	20.12	Peak

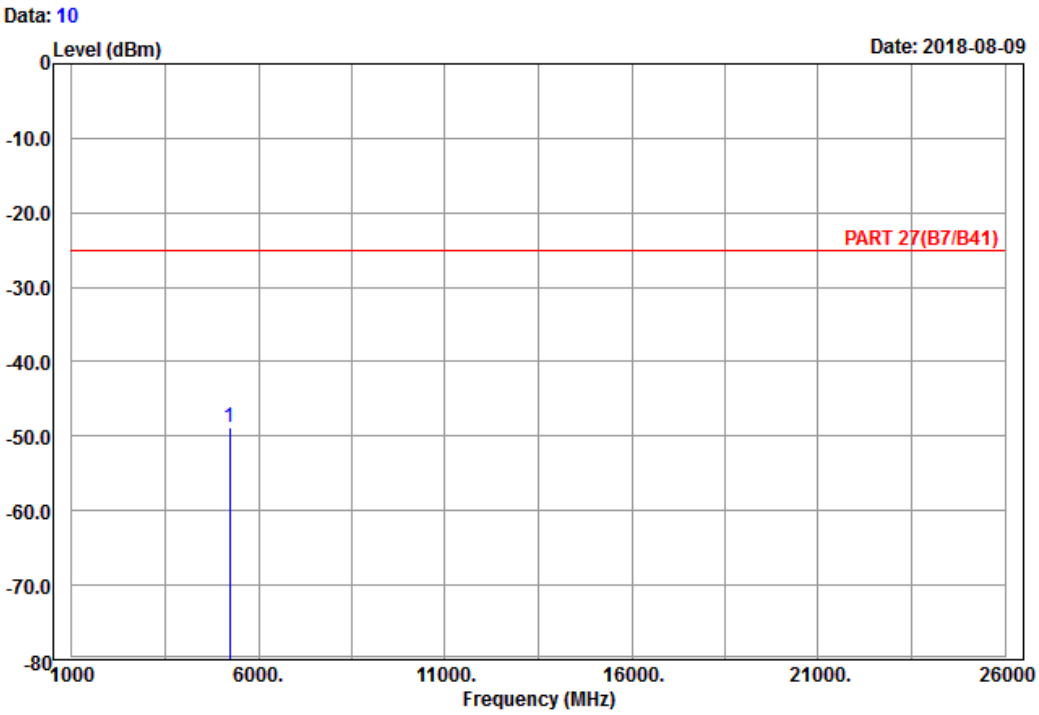
High Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 chamber 1
Condition: PART 27(B7/B41) Horizontal
Remark : LTE_Band 38_Link_CH38200
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5220.00	-48.59	-68.73	-25.00	-23.59	20.14	Peak



Site : 966 chamber 1
Condition: PART 27(B7/B41) Vertical
Remark : LTE_Band 38_Link_CH38200
Tested by: Charles Hsiao

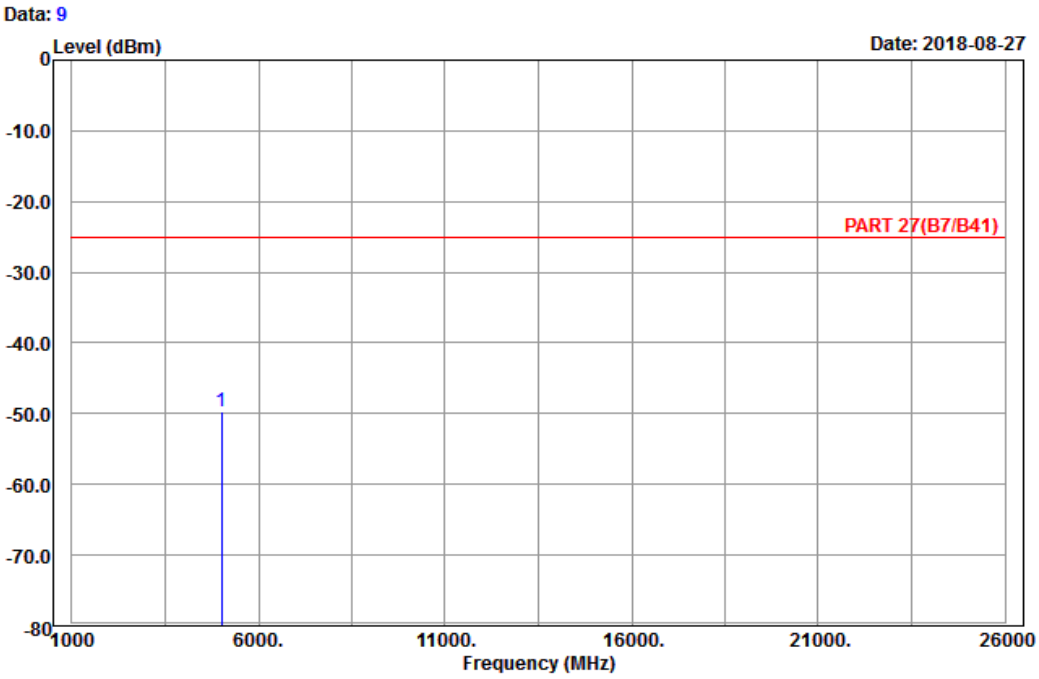
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5220.00	-48.90	-69.04	-25.00	-23.90	20.14	Peak

LTE Band 41

Channel Bandwidth: 20 MHz / QPSK

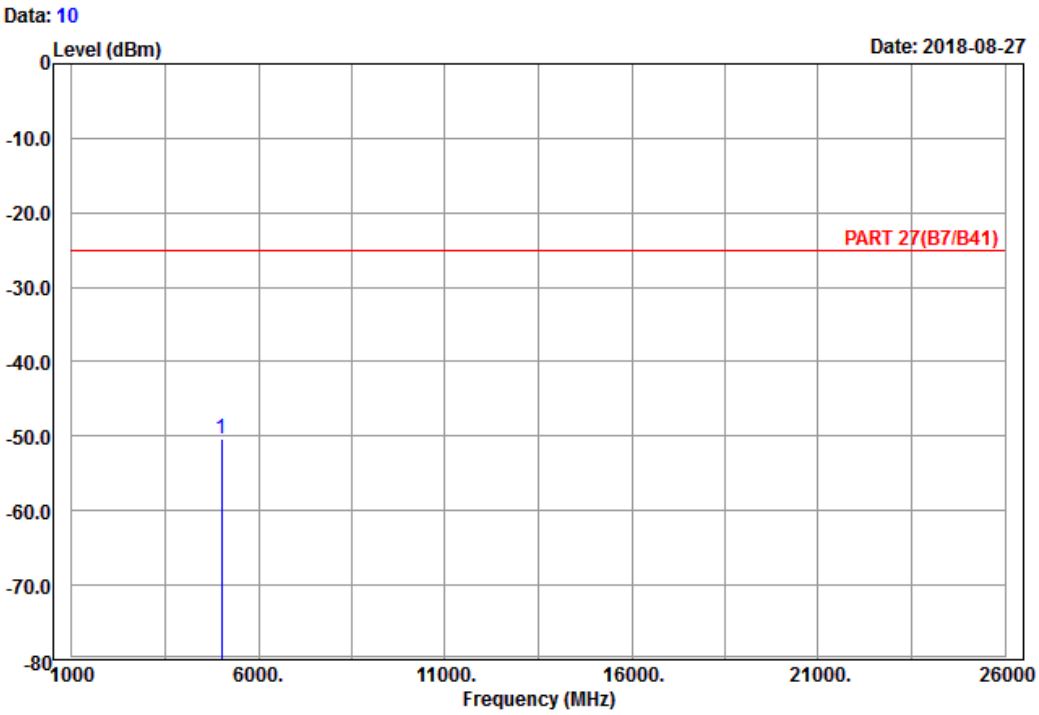
Low Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch




```
Site      : 966 chamber 1
Condition: PART 27(B7/B41) Horizontal
Remark    : LTE_Band 41_Link_CH39750
Tested by: Charles Hsiao
                        Read  Limit   Over
          Freq  Level  Level   Line  Limit Factor Remark
        _________ ______ ______ ______ ______ ______ ________
              MHz    dBm    dBm    dBm     dB     dB

  1 pp  5012.00 -49.62 -68.70 -25.00 -24.62  19.08 Peak
```

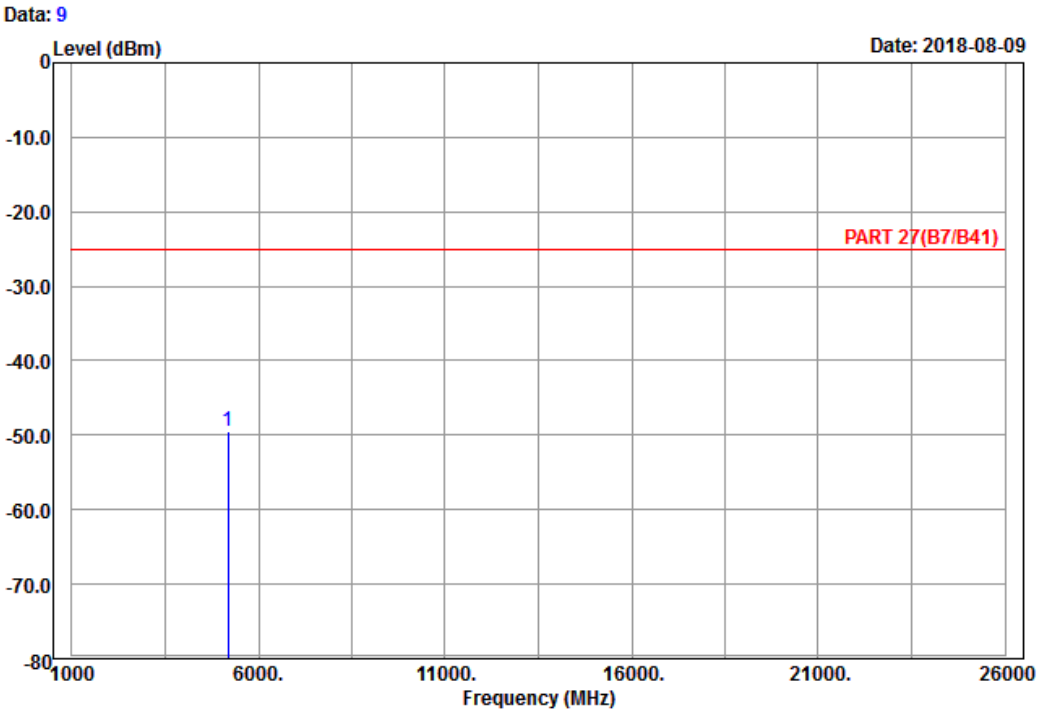


Site : 966 chamber 1
Condition: PART 27(B7/B41) Vertical
Remark : LTE_Band 41_Link_CH39750
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5012.00	-50.40	-69.48	-25.00	-25.40	19.08	Peak

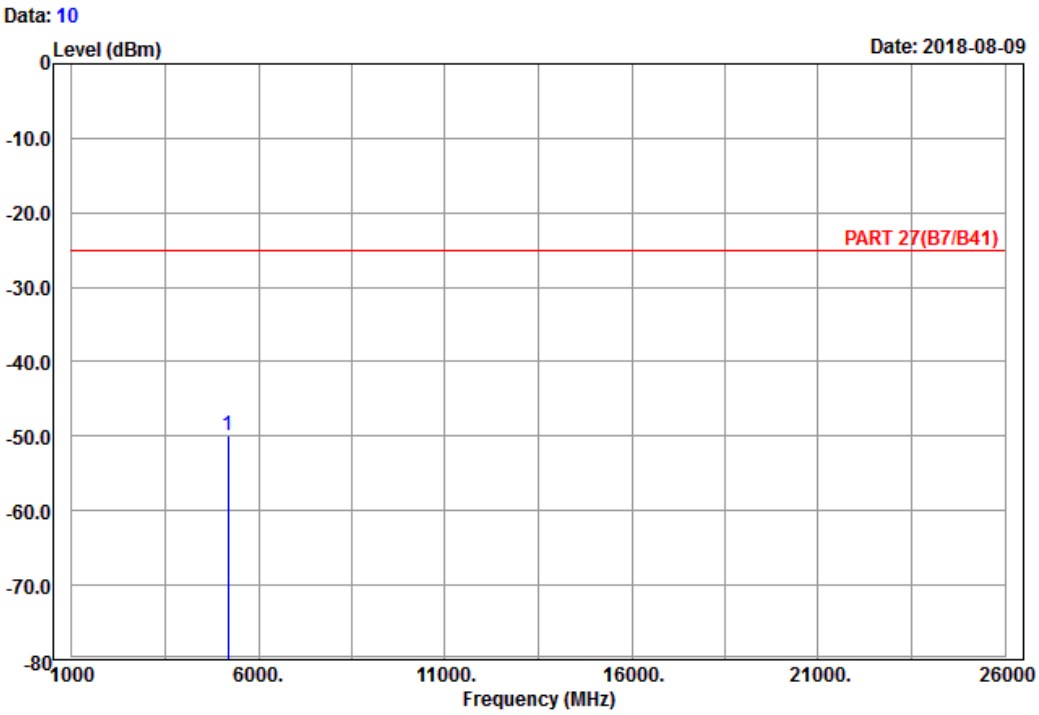
Middle Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 chamber 1
Condition: PART 27(B7/B41) Horizontal
Remark : LTE_Band 41_Link_CH40620
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5186.00	-49.40	-69.52	-25.00	-24.40	20.12	Peak

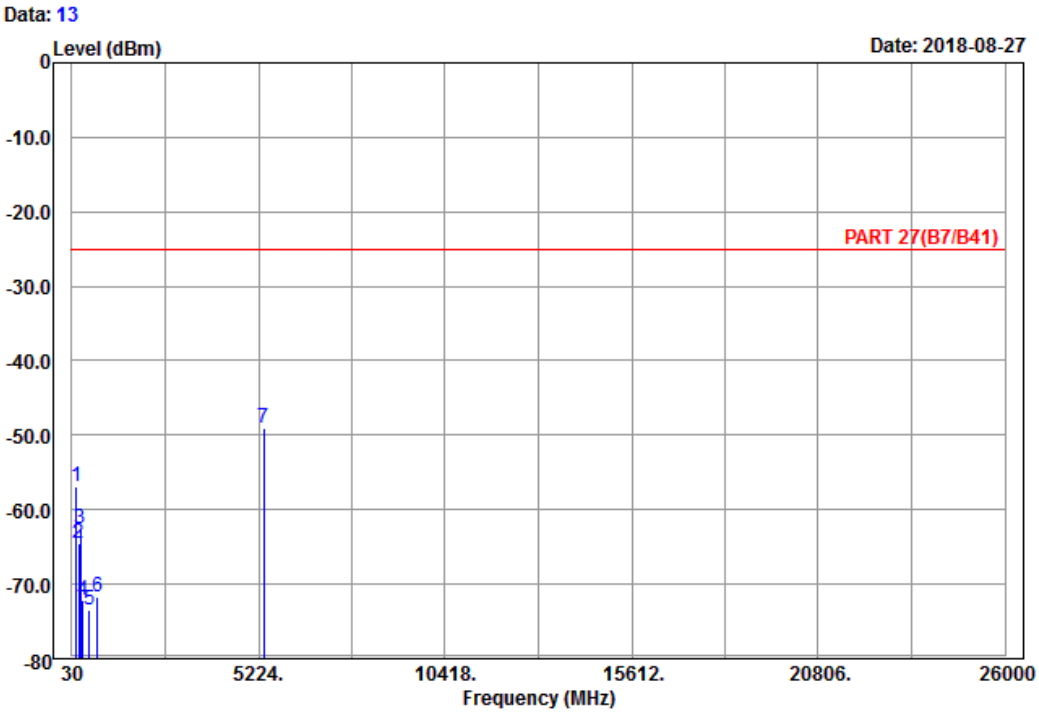


Site : 966 chamber 1
Condition: PART 27(B7/B41) Vertical
Remark : LTE_Band 41_Link_CH40620
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5186.00	-49.85	-69.97	-25.00	-24.85	20.12	Peak

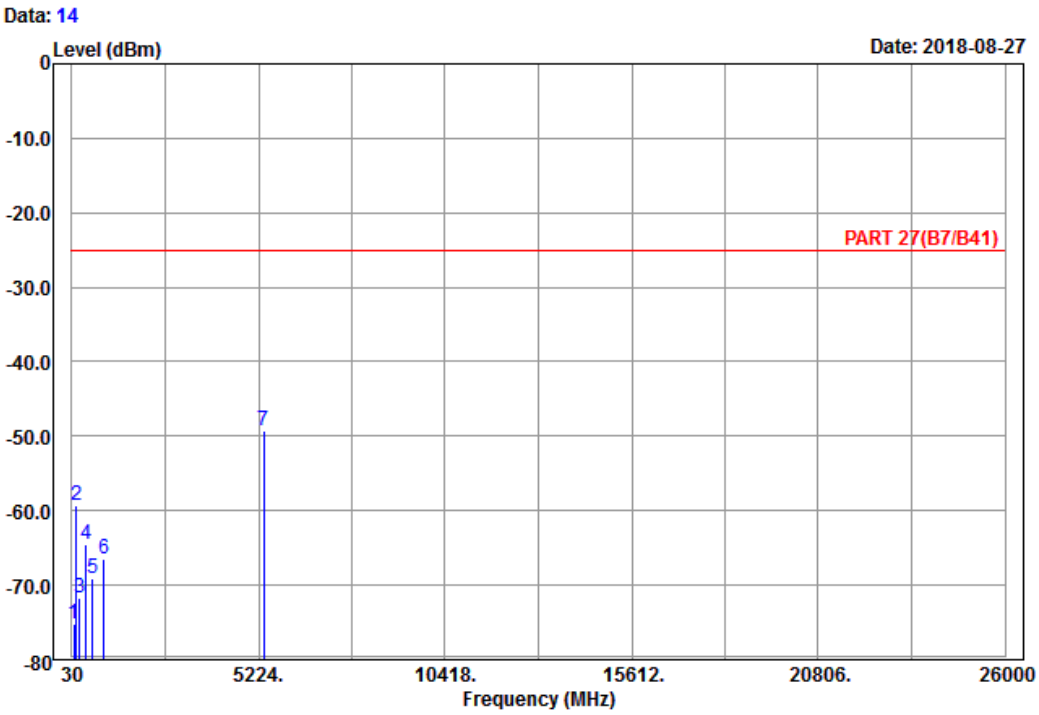
High Channel

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 chamber 1
Condition: PART 27(B7/B41) Horizontal
Remark : LTE_Band 41_Link_CH41490
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	164.73	-56.86	-49.67	-25.00	-31.86	-7.19	Peak
2	229.53	-64.53	-58.75	-25.00	-39.53	-5.78	Peak
3	264.90	-62.63	-56.99	-25.00	-37.63	-5.64	Peak
4	330.80	-72.18	-66.58	-25.00	-47.18	-5.60	Peak
5	505.80	-73.50	-68.64	-25.00	-48.50	-4.86	Peak
6	734.70	-71.75	-70.73	-25.00	-46.75	-1.02	Peak
7 pp	5360.00	-49.00	-69.30	-25.00	-24.00	20.30	Peak

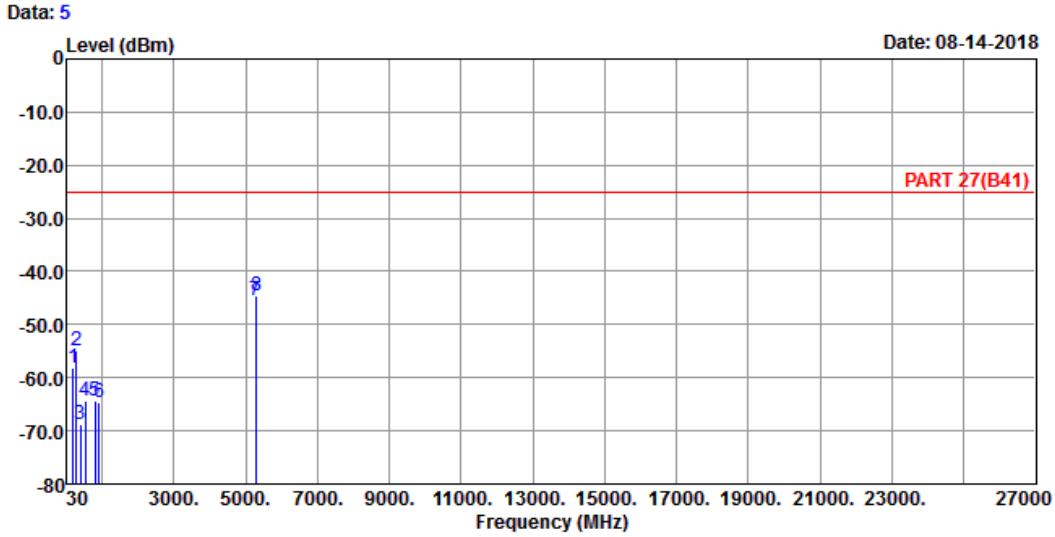


Site : 966 chamber 1
Condition: PART 27(B7/B41) Vertical
Remark : LTE_Band 41_Link_CH41490
Tested by: Charles Hsiao

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	86.16	-75.23	-64.12	-25.00	-50.23	-11.11	Peak
2	159.33	-59.37	-51.67	-25.00	-34.37	-7.70	Peak
3	255.18	-71.68	-66.13	-25.00	-46.68	-5.55	Peak
4	431.60	-64.52	-61.08	-25.00	-39.52	-3.44	Peak
5	605.90	-69.13	-69.49	-25.00	-44.13	0.36	Peak
6	913.20	-66.44	-69.94	-25.00	-41.44	3.50	Peak
7 pp	5360.00	-49.22	-69.52	-25.00	-24.22	20.30	Peak

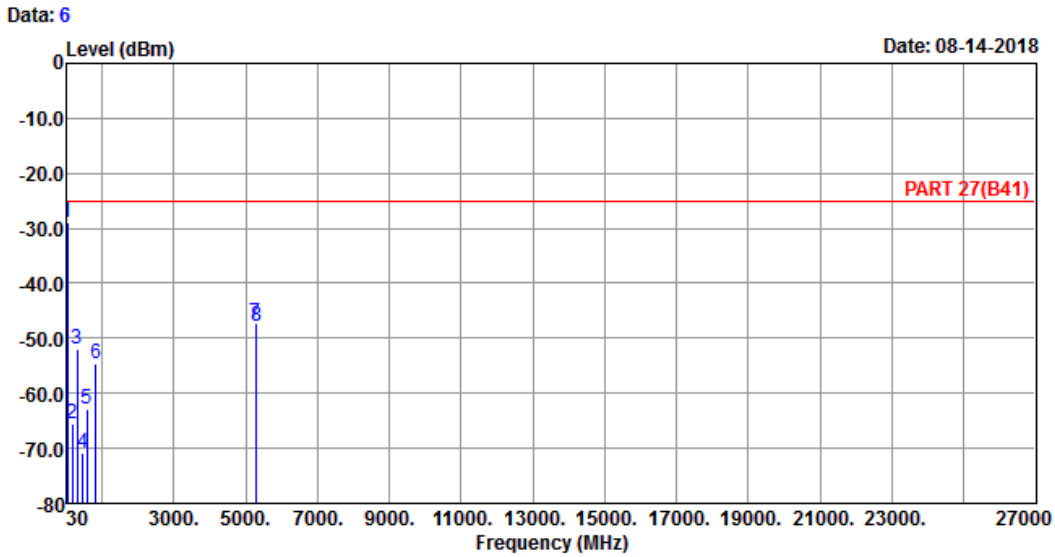
CA LTE Band 41
Channel Bandwidth: 20+20 MHz / QPSK

Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch



Site : 966 Chamber 5
Condition: PART 27(B41) HORIZONTAL
Remak : LTE Band 41 QPSK_40M_CH41055+CH41253
Tested by: Jisyong Wang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	205.57	-58.02	-50.23	-13.00	-45.02	-7.79	Peak
2	278.32	-54.84	-48.27	-13.00	-41.84	-6.57	Peak
3	399.57	-68.65	-62.70	-13.00	-55.65	-5.95	Peak
4	522.76	-64.38	-60.56	-13.00	-51.38	-3.82	Peak
5	801.15	-64.43	-65.16	-13.00	-51.43	0.73	Peak
6	906.88	-64.63	-65.37	-13.00	-51.63	0.74	Peak
7	5273.00	-45.52	-43.04	-25.00	-20.52	-2.48	Peak
8 pp	5312.60	-44.63	-42.44	-25.00	-19.63	-2.19	Peak



Site : 966 Chamber 5
Condition: PART 27(B41) VERTICAL
Remak : LTE Band 41 QPSK_40M_CH41055+CH41253
Tested by: Jisyong Wang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	43.58	-28.90	-27.43	-13.00	-15.90	-1.47	Peak
2	183.26	-65.62	-58.31	-13.00	-52.62	-7.31	Peak
3	297.72	-51.94	-44.97	-13.00	-38.94	-6.97	Peak
4	459.71	-70.81	-65.44	-13.00	-57.81	-5.37	Peak
5	573.20	-62.89	-61.01	-13.00	-49.89	-1.88	Peak
6	830.25	-54.57	-55.04	-13.00	-41.57	0.47	Peak
7	5273.00	-47.25	-44.77	-25.00	-22.25	-2.48	Peak
8	5312.60	-47.95	-45.76	-25.00	-22.95	-2.19	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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Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
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Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

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