

## Partial FCC Test Report

### (PART 27)

**Report No.:** RF190326C26-2

**FCC ID:** B94HNC04PK

**Test Model:** HSN-C04C

**Received Date:** Mar. 26, 2019

**Test Date:** Apr. 12, 2019 ~ Apr. 22, 2019

**Issued Date:** May 09, 2019

**Applicant:** HP Inc.

**Address:** 3390 East Harmony Road, Fort Collins Colorado, 80528 United States

**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 :** B2F., No.215, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231,  
Taiwan, R.O.C

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



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specifically mentioned, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies

## Table of Contents

<b>Release Control Record .....</b>	<b>3</b>
<b>1 Certificate of Conformity .....</b>	<b>4</b>
<b>2 Summary of Test Results .....</b>	<b>5</b>
2.1 Measurement Uncertainty .....	5
2.2 Test Site and Instruments .....	6
<b>3 General Information .....</b>	<b>8</b>
3.1 General Description of EUT .....	8
3.2 Configuration of System under Test .....	10
3.2.1 Description of Support Units .....	10
3.3 Test Mode Applicability and Tested Channel Detail .....	11
3.4 EUT Operating Conditions .....	13
3.5 General Description of Applied Standards .....	13
<b>4 Test Types and Results .....</b>	<b>14</b>
4.1 Output Power Measurement .....	14
4.1.1 Limits of Output Power Measurement .....	14
4.1.2 Test Procedures .....	14
4.1.3 Test Setup .....	15
4.1.4 Test Results .....	16
4.2 Radiated Emission Measurement .....	31
4.2.1 Limits of Radiated Emission Measurement .....	31
4.2.2 Test Procedure .....	31
4.2.3 Deviation from Test Standard .....	31
4.2.4 Test Setup .....	32
4.2.5 Test Results .....	33
<b>5 Pictures of Test Arrangements .....</b>	<b>69</b>
<b>Appendix – Information of the Testing Laboratories .....</b>	<b>70</b>

### Release Control Record

Issue No.	Description	Date Issued
RF190326C26-2	Original Release	May 09, 2019

## 1 Certificate of Conformity

**Product:** Tablet  
**Brand:** HP  
**Test Model:** HSN-C04C  
**Sample Status:** Engineering Sample  
**Applicant:** HP Inc.  
**Test Date:** Apr. 12, 2019 ~ Apr. 22, 2019  
**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 :** Rona Chen, **Date:** May 09, 2019  
Rona Chen / Specialist

**Approved by :** Dylan Chiou, **Date:** May 09, 2019  
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)(2)	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 27.53(m)(6)	Occupied Bandwidth	N/A	Refer to Note
--	Peak to Average Ratio	N/A	Refer to Note
2.1051 27.53(m)(4)(6)	Out-of-Band Emissions Measurements	N/A	Refer to Note
2.1051 27.53(m)(4)(6)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53(m)(4)(6)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -22.05 dB at 5186.00 MHz.

Note:

1. This report is a partial report. Therefore, only test item of Effective Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to SGS report no.: SZEM180500437001 for module (Brand: Fibocom, Model: L860-GL)
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### 2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.0400 dB
	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 Technologies	N9038A	MY52260177	Aug. 20, 2018	Aug. 19, 2019
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	100115	Jan. 21, 2019	Jan. 20, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSW26	102023	Oct. 11, 2018	Oct. 10, 2019
BILOG Antenna SCHWARZBECK	VULB9168	9168-616	Nov. 27, 2018	Nov. 26, 2019
HORN Antenna ETS-Lindgren	3117	00143293	Nov. 25, 2018	Nov. 24, 2019
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-969	Nov. 25, 2018	Nov. 24, 2019
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 16, 2018	Apr. 15, 2019
			Apr. 15, 2019	Apr. 14, 2020
MXG Vector signal generator Agilent	N5182B	MY53050430	Nov. 19, 2018	Nov. 18, 2019
Preamplifier Agilent	310N	187226	Jun. 19, 2018	Jun. 18, 2019
Preamplifier Agilent	83017A	MY39501357	Jun. 19, 2018	Jun. 18, 2019
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(RFC -SMS-100-SMS-12 0+RFC-SMS-100-S MS-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
Communications Tester-Wireless Agilent	8960 Series 10	MY53201073	Jun. 28, 2017	Jun. 27, 2019
Radio Communication Analyzer Anritsu	MT8820C	6201300640	Aug. 16, 2017	Aug. 15, 2019
Temperature & Humidity Chamber	GTH-120-40-CP-AR	MAA1306-019	Sep. 05, 2018	Sep. 04, 2019
DC Power Supply Topward	33010D	807748	NA	NA

- 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 7450I-1.

### 3 General Information

#### 3.1 General Description of EUT

<b>Product</b>	Tablet	
<b>Brand</b>	HP	
<b>Test Model</b>	HSN-C04C	
<b>Status of EUT</b>	Engineering Sample	
<b>Power Supply Rating</b>	7.7 Vdc (Li-ion battery) 20 Vdc (Adapter)	
<b>Modulation Type</b>	QPSK, 16QAM, 64QAM	
<b>Frequency Range</b>	LTE Band 7 (Channel Bandwidth: 5 MHz)	2502.5 ~ 2567.5 MHz
	LTE Band 7 (Channel Bandwidth: 10 MHz)	2505 ~ 2565 MHz
	LTE Band 7 (Channel Bandwidth: 15 MHz)	2507.5 ~ 2562.5 MHz
	LTE Band 7 (Channel Bandwidth: 20 MHz)	2510 ~ 2560 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
<b>Max. EIRP Power</b>	LTE Band 7 (Channel Bandwidth: 5 MHz)	228.40 mW
	LTE Band 7 (Channel Bandwidth: 10 MHz)	229.99 mW
	LTE Band 7 (Channel Bandwidth: 15 MHz)	232.11 mW
	LTE Band 7 (Channel Bandwidth: 20 MHz)	233.72 mW
	LTE Band 38 (Channel Bandwidth: 5 MHz)	153.74 mW
	LTE Band 38 (Channel Bandwidth: 10 MHz)	155.27 mW
	LTE Band 38 (Channel Bandwidth: 15 MHz)	156.60 mW
	LTE Band 38 (Channel Bandwidth: 20 MHz)	157.76 mW
	LTE Band 41 (Channel Bandwidth: 5 MHz)	206.44 mW
	LTE Band 41 (Channel Bandwidth: 10 MHz)	208.50 mW
	LTE Band 41 (Channel Bandwidth: 15 MHz)	209.80 mW
	LTE Band 41 (Channel Bandwidth: 20 MHz)	211.84 mW
<b>Antenna Type</b>	PIFA Antenna	
<b>Accessory Device</b>	Refer to Note as below	
<b>Data Cable Supplied</b>	Refer to Note as below	



Note:

1. The WWAN module (Brand: Fibocom, Model: L860-GL) was installed in EUT.
2. The EUT contains following accessory devices.

Product	Brand	Model	Description
Adapter	AcBel	TPN-AA03	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 20 Vdc, 3.25 A
Battery	Dynapack	HSTNN-DB9E	7.7 Vdc, 5950 mAh
Keyboard 1	Primax	HSN-P01K	--
Keyboard 2	Cosmo	HSN-C01K	--
BT/WLAN Module	Intel® Wi-Fi 6 AX200	AX200D2WL	--
LTE Module	Fibocom	L860-GL	--

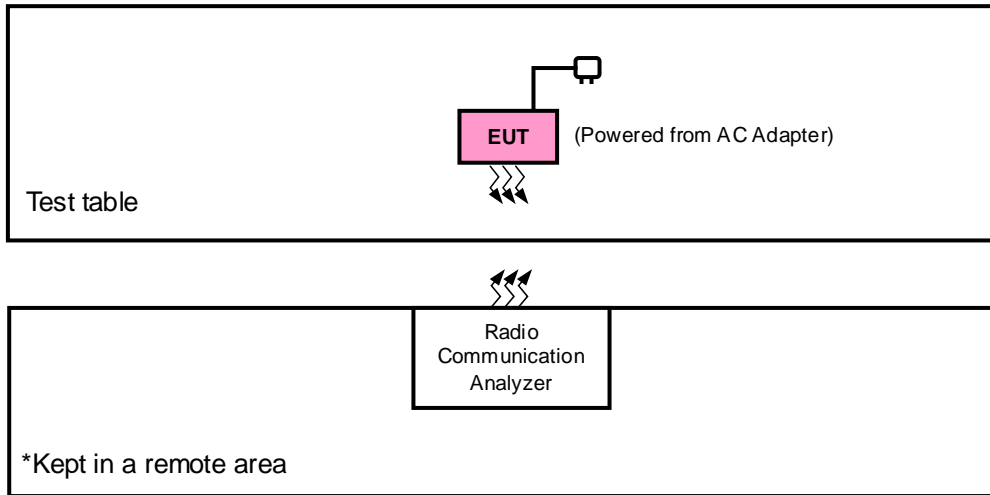
3. The antenna information of End-product is listed as below.

Ant. Type	Manufacturer	Parts Number	WWAN Antenna Gain (dBi)		
			LTE 7	LTE 38	LTE 41
PIFA	INPAQ	Main Antenna: WA-P-LTE15-02-001 (DC330029D20)	0.50	-0.05	1.63
		Aux. Antenna: WA-P-LTE15-02-002 (DC330029D30)			
		WA-P-LTE11-02-003 (DC330029D40)			
		WA-P-LTE11-02-004 (DC330029D50)			

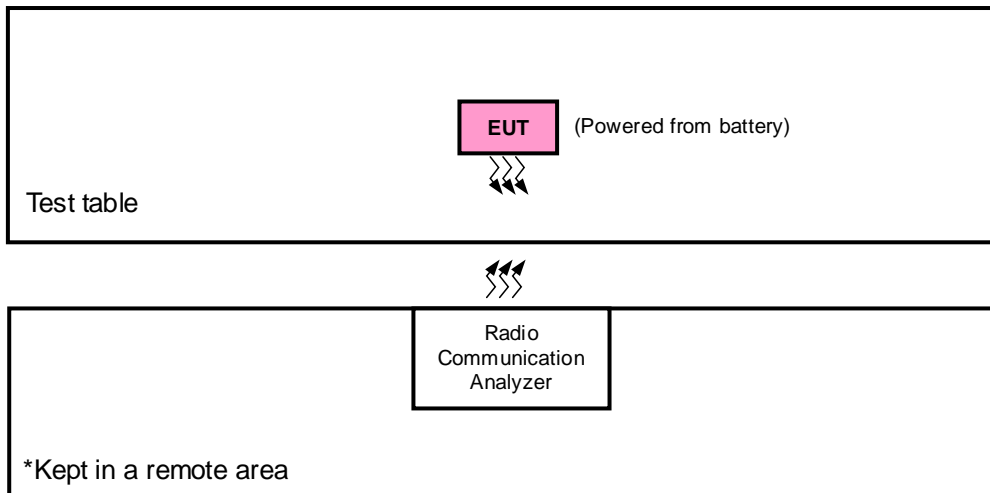
4. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

### 3.2 Configuration of System under Test

#### <Radiated Emission Test>



#### <E.I.R.P. 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 & NB Mode, 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	Y-plane	NB Mode
LTE Band 38	Y-plane	X-axis
LTE Band 41	X-plane	X-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 / 24 RB Offset
		20800 to 21400	20800, 21100, 21400	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 49 RB Offset
		20825 to 21375	20825, 21100, 21375	15 MHz	QPSK, 16QAM, 64QAM	1 RB / 74 RB Offset
		20850 to 21350	20850, 21100 21350	20 MHz	QPSK, 16QAM, 64QAM	1 RB / 99 RB Offset
-	Radiated Emission	20775 to 21425	20775, 21100, 21425	5 MHz	QPSK	1 RB / 0 RB Offset
		20850 to 21350	20850, 21100 21350	20 MHz	QPSK	1 RB / 0 RB Offset

#### Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission above 1 GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5 MHz & highest channel bandwidth for final test.

### LTE Band 38

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode	
-	EIRP	37775 to 38225	37775, 38000, 38225	5 MHz	QPSK	1 RB / 12 RB Offset	
					16QAM	1 RB / 24 RB Offset	
					64QAM	1 RB / 0 RB Offset	
		37800 to 38200	37800, 38000, 38200	10 MHz	QPSK	1 RB / 24 RB Offset	
					16QAM	1 RB / 49 RB Offset	
					64QAM	1 RB / 0 RB Offset	
		37825 to 38175	37825, 38000, 38175	15 MHz	QPSK	1 RB / 0 RB Offset	
					16QAM	1 RB / 74 RB Offset	
					64QAM	1 RB / 0 RB Offset	
		37850 to 38150	37850, 38000, 38150	20 MHz	QPSK, 16QAM, 64QAM		1 RB / 0 RB Offset
		-	Radiated Emission	37775 to 38225	37775, 38000, 38225	5 MHz	QPSK
37850 to 38150	37850, 38000, 38150			20 MHz	QPSK	1 RB / 0 RB Offset	

#### Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission above 1 GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5 MHz & highest channel bandwidth for final test.

### LTE Band 41

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	39675 to 41565	39675, 40620, 41565	5 MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		39700 to 41540	39700, 40620, 41540	10 MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		39725 to 41515	39725, 40620, 41515	15 MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20 MHz	QPSK, 16QAM, 64QAM	1 RB / 0 RB Offset
-	Radiated Emission	39675 to 41565	39675, 40620, 41565	5 MHz	QPSK	1 RB / 0 RB Offset
		39750 to 41490	39750, 40620, 41490	20 MHz	QPSK	1 RB / 0 RB Offset

#### Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.
2. For radiated emission above 1 GHz, according to 3GPP 36.521 Section 6.6.3.1.4, choose the lowest, 5 MHz & highest channel bandwidth for final test.

#### Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	25 deg. C, 65 % RH	7.7 Vdc	Karl Lee Harry Hsueh
Radiated Emission	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee Harry Hsueh

### **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 “Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2 watts transmitter output power” 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:**

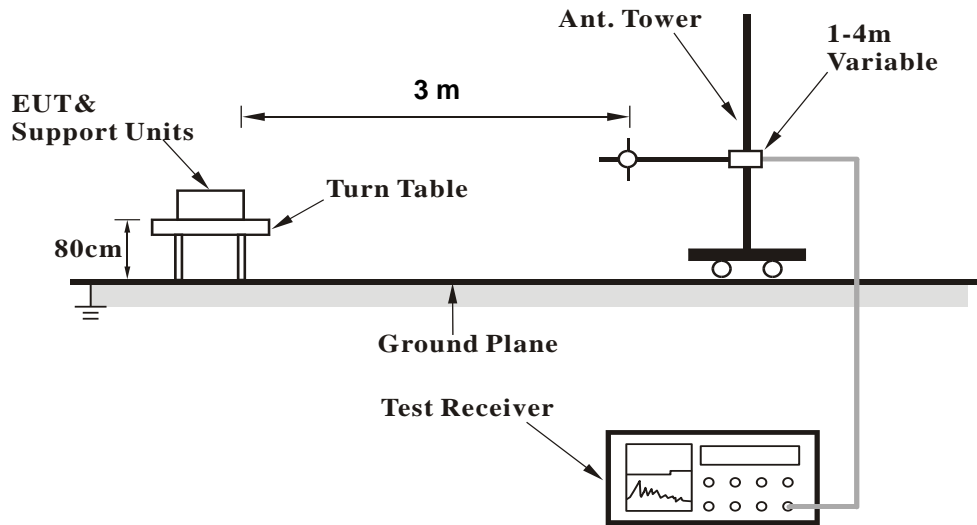
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 10 MHz for LTE mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table,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

##### **Conducted Power Measurement:**

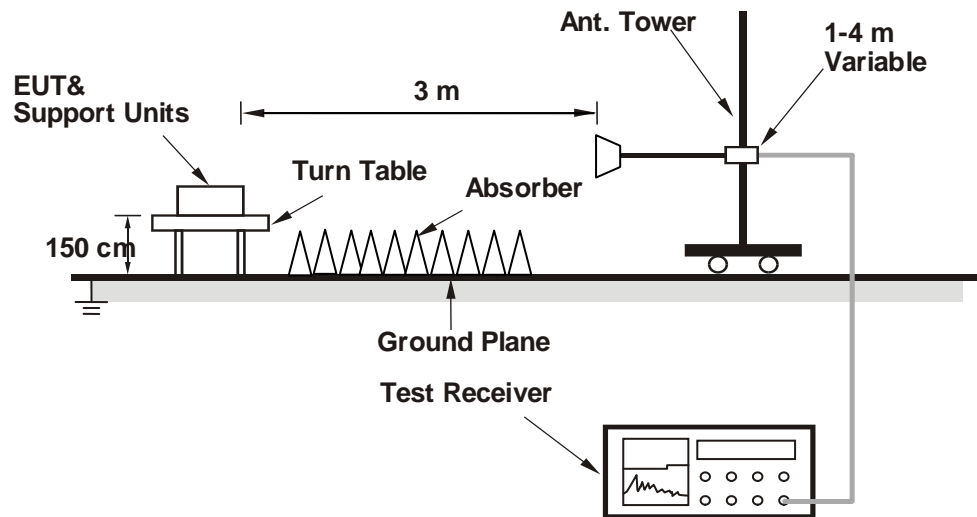
- a. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

### 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)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
				20850	21100	21350						20825	21100	21375			
		Channel Frequency (MHz)	2510.0	2535.0	2560.0	Channel Frequency (MHz)	2507.5			2535.0	2562.5						
20M	QPSK	1	0	22.65	22.76	22.71	0	15M	QPSK	1	0	22.57	22.67	22.67	0		
		1	50	22.74	22.85	22.80	0			1	37	22.73	22.79	22.76	0		
		1	99	23.18	<b>23.29</b>	23.24	0			1	74	23.12	23.27	23.14	0		
		50	0	21.64	21.75	21.70	1			36	0	21.63	21.71	21.61	1		
		50	25	21.78	21.89	21.84	1			36	19	21.74	21.81	21.76	1		
		50	50	22.10	<b>22.21</b>	22.16	1			36	39	22.01	22.12	22.16	1		
		100	0	21.82	<b>21.93</b>	21.88	1			75	0	21.73	21.86	21.86	1		
	16QAM	1	0	21.63	21.74	21.69	1		16QAM	1	0	21.63	21.68	21.64	1		
		1	50	21.72	21.83	21.78	1			1	37	21.70	21.77	21.69	1		
		1	99	22.16	22.27	22.22	1			1	74	22.15	22.22	22.19	1		
		50	0	20.62	20.73	20.68	2			36	0	20.57	20.63	20.64	2		
		50	25	20.76	20.87	20.82	2			36	19	20.69	20.81	20.81	2		
		50	50	21.08	21.19	21.14	2			36	39	21.03	21.19	21.11	2		
		100	0	20.80	20.91	20.86	2			75	0	20.74	20.90	20.77	2		
	64QAM	1	0	20.65	20.76	20.71	2		64QAM	1	0	20.64	20.76	20.69	2		
		1	50	20.74	20.85	20.80	2			1	37	20.69	20.80	20.79	2		
		1	99	21.18	21.29	21.24	2			1	74	21.17	21.26	21.16	2		
		50	0	19.64	19.75	19.70	3			36	0	19.61	19.75	19.63	3		
		50	25	19.78	19.89	19.84	3			36	19	19.75	19.84	19.79	3		
		50	50	20.10	20.21	20.16	3			36	39	20.08	20.15	20.12	3		
		100	0	19.82	19.93	19.88	3			75	0	19.80	19.89	19.81	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)		
				20800	21100	21400					20775	21100	21425				
				2505.0	2535.0	2565.0					2502.5	2535.0	2567.5				
10M	QPSK	1	0	22.54	22.58	22.61	0	5M	QPSK	1	0	22.59	22.69	22.47	0		
		1	24	22.64	22.71	22.56	0			1	12	22.64	22.69	22.56	0		
		1	49	23.02	23.11	23.13	0			1	24	23.10	23.15	23.03	0		
		25	0	21.55	21.71	21.60	1			12	0	21.43	21.60	21.56	1		
		25	12	21.69	21.77	21.68	1			12	6	21.69	21.75	21.55	1		
		25	25	21.98	22.01	22.07	1			12	13	22.04	22.05	21.97	1		
		50	0	21.71	21.72	21.71	1			25	0	21.66	21.81	21.67	1		
	16QAM	1	0	21.53	21.65	21.58	1		16QAM	1	0	21.47	21.62	21.52	1		
		1	24	21.65	21.59	21.69	1			1	12	21.53	21.82	21.58	1		
		1	49	22.00	22.17	22.15	1			1	24	22.03	22.17	22.02	1		
		25	0	20.42	20.57	20.63	2			12	0	20.39	20.56	20.53	2		
		25	12	20.69	20.72	20.66	2			12	6	20.63	20.78	20.71	2		
		25	25	20.97	21.00	21.05	2			12	13	21.00	21.08	21.00	2		
		50	0	20.62	20.80	20.77	2			25	0	20.70	20.74	20.74	2		
	64QAM	1	0	20.60	20.52	20.56	2		64QAM	1	0	20.46	20.64	20.62	2		
		1	24	20.61	20.69	20.69	2			1	12	20.57	20.70	20.63	2		
		1	49	21.04	21.08	21.09	2			1	24	21.15	21.26	21.23	2		
		25	0	19.56	19.64	19.58	3			12	0	19.56	19.66	19.60	3		
		25	12	19.67	19.76	19.69	3			12	6	19.63	19.70	19.80	3		
		25	25	20.00	20.02	20.00	3			12	13	19.97	20.06	20.02	3		
		50	0	19.79	19.83	19.77	3			25	0	19.77	19.82	19.81	3		



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)
				37850	38000	38150						37825	38000	38175	
				Channel Frequency (MHz)	2580.0	2595.0						2610.0	2577.5	2595.0	
20M	QPSK	1	0	22.92	22.84	22.81	0	15M	QPSK	1	0	22.88	22.74	22.75	0
		1	50	22.90	22.82	22.79	0			1	37	22.83	22.72	22.73	0
		1	99	22.89	22.81	22.78	0			1	74	22.82	22.79	22.77	0
		50	0	21.96	21.88	21.85	1			36	0	21.96	21.83	21.82	1
		50	25	21.94	21.86	21.83	1			36	19	21.90	21.81	21.77	1
		50	50	21.89	21.81	21.78	1			36	39	21.86	21.79	21.78	1
		100	0	21.90	21.82	21.79	1			75	0	21.89	21.78	21.75	1
	16QAM	1	0	21.89	21.81	21.78	1		16QAM	1	0	21.81	21.76	21.70	1
		1	50	21.87	21.79	21.76	1			1	37	21.82	21.69	21.67	1
		1	99	21.86	21.78	21.75	1			1	74	21.85	21.68	21.72	1
		50	0	20.93	20.85	20.82	2			36	0	20.86	20.82	20.74	2
		50	25	20.91	20.83	20.80	2			36	19	20.90	20.79	20.75	2
		50	50	20.86	20.78	20.75	2			36	39	20.81	20.78	20.72	2
		100	0	20.87	20.79	20.76	2			75	0	20.85	20.79	20.67	2
	64QAM	1	0	20.88	20.80	20.77	2		64QAM	1	0	20.87	20.76	20.75	2
		1	50	20.86	20.78	20.75	2			1	37	20.78	20.74	20.75	2
		1	99	20.85	20.77	20.74	2			1	74	20.84	20.76	20.66	2
		50	0	19.92	19.84	19.81	3			36	0	19.83	19.76	19.73	3
		50	25	19.90	19.82	19.79	3			36	19	19.82	19.81	19.77	3
		50	50	19.85	19.77	19.74	3			36	39	19.79	19.75	19.71	3
		100	0	19.86	19.78	19.75	3			75	0	19.79	19.74	19.71	3
37800	38000	38200	37775	38000	38225										
Channel Frequency (MHz)	2575.0	2595.0	2615.0	2572.5	2595.0	2617.5									
10M	QPSK	1	0	22.73	22.70	22.75	0	5M	QPSK	1	0	22.68	22.71	22.60	0
		1	24	22.79	22.69	22.64	0			1	12	22.81	22.64	22.60	0
		1	49	22.78	22.71	22.69	0			1	24	22.72	22.70	22.54	0
		25	0	21.91	21.67	21.76	1			12	0	21.91	21.71	21.67	1
		25	12	21.88	21.69	21.78	1			12	6	21.88	21.82	21.56	1
		25	25	21.70	21.65	21.63	1			12	13	21.67	21.67	21.68	1
		50	0	21.78	21.66	21.60	1			25	0	21.69	21.59	21.52	1
	16QAM	1	0	21.79	21.77	21.68	1		16QAM	1	0	21.72	21.60	21.65	1
		1	24	21.72	21.59	21.62	1			1	12	21.70	21.57	21.60	1
		1	49	21.80	21.65	21.59	1			1	24	21.83	21.66	21.65	1
		25	0	20.82	20.80	20.68	2			12	0	20.71	20.73	20.78	2
		25	12	20.74	20.63	20.59	2			12	6	20.74	20.71	20.69	2
		25	25	20.75	20.60	20.70	2			12	13	20.79	20.61	20.61	2
		50	0	20.80	20.74	20.71	2			25	0	20.71	20.64	20.67	2
	64QAM	1	0	20.69	20.75	20.59	2		64QAM	1	0	20.80	20.64	20.61	2
		1	24	20.70	20.60	20.66	2			1	12	20.72	20.62	20.64	2
		1	49	20.75	20.62	20.71	2			1	24	20.80	20.62	20.64	2
		25	0	19.76	19.74	19.74	3			12	0	19.82	19.74	19.77	3
		25	12	19.88	19.71	19.61	3			12	6	19.86	19.76	19.77	3
		25	25	19.81	19.63	19.59	3			12	13	19.75	19.59	19.64	3
		50	0	19.74	19.66	19.64	3			25	0	19.68	19.68	19.65	3

LTE Band 41																					
BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)		
		Channel		39750	40185	40620	41055	41490				Channel		39725	40173	40620	41068	41515			
		Frequency (MHz)		2506.0	2549.5	2593.0	2636.5	2680.0				Frequency (MHz)		2503.5	2548.3	2593.0	2637.8	2682.5			
20M	QPSK	1	0	22.89	22.88	22.81	22.87	22.82	0	15M	QPSK	1	0	22.86	22.81	22.71	22.83	22.75	0		
		1	50	22.80	22.79	22.72	22.78	22.73	0			1	37	22.78	22.74	22.65	22.77	22.64	0		
		1	99	22.78	22.77	22.70	22.76	22.71	0			1	74	22.78	22.73	22.67	22.68	22.68	0		
		50	0	21.84	21.83	21.76	21.82	21.77	1			36	0	21.82	21.79	21.73	21.76	21.70	1		
		50	25	21.81	21.80	21.73	21.79	21.74	1			36	19	21.80	21.74	21.65	21.77	21.64	1		
		50	50	21.80	21.79	21.72	21.78	21.73	1			36	39	21.72	21.79	21.65	21.71	21.73	1		
	16QAM	100	0	21.74	21.73	21.66	21.72	21.67	1		75	0	21.68	21.66	21.59	21.70	21.67	1			
		1	0	21.87	21.86	21.79	21.85	21.80	1		16QAM	1	0	21.89	21.86	21.79	21.79	21.81	1		
		1	50	21.78	21.77	21.70	21.76	21.71	1			1	37	21.79	21.74	21.67	21.76	21.64	1		
		1	99	21.76	21.75	21.68	21.74	21.69	1			1	74	21.72	21.74	21.64	21.69	21.66	1		
		50	0	20.82	20.81	20.74	20.80	20.75	2			36	0	20.83	20.73	20.69	20.72	20.71	2		
		50	25	20.79	20.78	20.71	20.77	20.72	2			36	19	20.77	20.72	20.68	20.79	20.72	2		
	50	50	20.78	20.77	20.70	20.76	20.71	2	36			39	20.71	20.69	20.62	20.71	20.68	2			
	64QAM	100	0	20.72	20.71	20.64	20.70	20.65	2		75	0	20.67	20.65	20.66	20.65	20.58	2			
		1	0	20.89	20.88	20.81	20.87	20.82	2		64QAM	1	0	20.80	20.84	20.73	20.85	20.81	2		
		1	50	20.80	20.79	20.72	20.78	20.73	2			1	37	20.74	20.76	20.71	20.68	20.65	2		
		1	99	20.78	20.77	20.70	20.76	20.71	2			1	74	20.68	20.74	20.65	20.67	20.68	2		
		50	0	19.84	19.83	19.76	19.82	19.77	3			36	0	19.78	19.79	19.69	19.77	19.69	3		
		50	25	19.81	19.80	19.73	19.79	19.74	3			36	19	19.77	19.78	19.72	19.77	19.74	3		
	50	50	19.80	19.79	19.72	19.78	19.73	3	36			39	19.70	19.78	19.69	19.76	19.73	3			
	10M	QPSK	100	0	19.74	19.73	19.66	19.72	19.67		3	75	0	19.73	19.71	19.59	19.68	19.61	3		
			1	0	22.84	22.82	22.68	22.70	22.77		0	5M	QPSK	1	0	22.80	22.81	22.68	22.81	22.69	0
			1	24	22.74	22.72	22.60	22.61	22.65		0			1	12	22.67	22.70	22.67	22.75	22.67	0
			1	49	22.67	22.64	22.56	22.65	22.60		0			1	24	22.66	22.61	22.65	22.63	22.59	0
25			0	21.71	21.68	21.60	21.71	21.74	1	12	0			21.77	21.69	21.66	21.76	21.67	1		
25			12	21.74	21.74	21.64	21.69	21.74	1	12	6			21.66	21.69	21.63	21.67	21.68	1		
25		25	21.76	21.76	21.67	21.71	21.68	1	12	13	21.76			21.73	21.61	21.78	21.65	1			
16QAM		50	0	21.64	21.54	21.58	21.57	21.56	1	25	0		21.65	21.60	21.58	21.60	21.61	1			
		1	0	21.76	21.83	21.75	21.73	21.71	1	16QAM	1		0	21.74	21.83	21.72	21.79	21.74	1		
		1	24	21.70	21.72	21.62	21.68	21.68	1		1		12	21.75	21.74	21.67	21.73	21.63	1		
		1	49	21.64	21.61	21.57	21.67	21.64	1		1		24	21.73	21.59	21.65	21.66	21.54	1		
		25	0	20.73	20.73	20.62	20.69	20.69	2		12		0	20.79	20.70	20.65	20.77	20.67	2		
		25	12	20.76	20.74	20.61	20.62	20.67	2		12		6	20.65	20.67	20.58	20.68	20.64	2		
25		25	20.77	20.68	20.70	20.74	20.67	2	12		13		20.77	20.76	20.63	20.71	20.69	2			
64QAM		50	0	20.65	20.63	20.60	20.59	20.62	2	25	0		20.70	20.60	20.53	20.70	20.59	2			
		1	0	20.82	20.82	20.75	20.79	20.74	2	64QAM	1		0	20.73	20.81	20.62	20.82	20.71	2		
		1	24	20.72	20.71	20.60	20.68	20.66	2		1		12	20.76	20.71	20.67	20.74	20.67	2		
		1	49	20.62	20.64	20.64	20.60	20.60	2		1		24	20.66	20.64	20.61	20.62	20.62	2		
		25	0	19.81	19.68	19.63	19.77	19.72	3		12		0	19.81	19.64	19.68	19.76	19.69	3		
		25	12	19.75	19.68	19.66	19.70	19.68	3		12		6	19.66	19.64	19.65	19.67	19.69	3		
25		25	19.79	19.75	19.62	19.76	19.64	3	12		13		19.76	19.71	19.62	19.74	19.70	3			
50		0	19.66	19.58	19.53	19.61	19.58	3	25	0	19.63		19.68	19.54	19.67	19.64	3				

**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)
Y	20775	2502.5	-20.72	44.24	23.52	224.80	H
	21100	2535.0	-20.61	44.20	23.59	<b>228.40</b>	
	21425	2567.5	-21.31	44.80	23.49	223.41	
	20775	2502.5	-23.67	44.19	20.52	112.75	V
	21100	2535.0	-23.52	44.09	20.57	113.97	
	21425	2567.5	-24.02	44.50	20.48	111.66	
Channel Bandwidth: 5 MHz / 16QAM							
Y	20775	2502.5	-21.72	44.24	22.52	178.57	H
	21100	2535.0	-21.61	44.20	22.59	181.43	
	21425	2567.5	-22.31	44.80	22.49	177.46	
	20775	2502.5	-24.68	44.19	19.51	89.35	V
	21100	2535.0	-24.52	44.09	19.57	90.53	
	21425	2567.5	-25.02	44.50	19.48	88.70	
Channel Bandwidth: 5 MHz / 64QAM							
Y	20775	2502.5	-22.72	44.24	21.52	141.84	H
	21100	2535.0	-22.62	44.20	21.58	143.78	
	21425	2567.5	-23.31	44.80	21.49	140.96	
	20775	2502.5	-25.68	44.19	18.51	70.97	V
	21100	2535.0	-25.52	44.09	18.57	71.91	
	21425	2567.5	-26.03	44.50	18.47	70.29	

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)
Y	20800	2505.0	-20.78	44.34	23.56	227.04	H
	21100	2535.0	-20.58	44.20	23.62	<b>229.99</b>	
	21400	2565.0	-21.19	44.72	23.53	225.58	
	20800	2505.0	-23.66	44.23	20.57	113.92	V
	21100	2535.0	-23.48	44.09	20.61	115.03	
	21400	2565.0	-23.86	44.41	20.55	113.40	
Channel Bandwidth: 10 MHz / 16QAM							
Y	20800	2505.0	-21.79	44.34	22.55	179.93	H
	21100	2535.0	-21.60	44.20	22.60	181.84	
	21400	2565.0	-22.20	44.72	22.52	178.77	
	20800	2505.0	-24.67	44.23	19.56	90.28	V
	21100	2535.0	-24.49	44.09	19.60	91.16	
	21400	2565.0	-24.88	44.41	19.53	89.66	
Channel Bandwidth: 10 MHz / 64QAM							
Y	20800	2505.0	-22.80	44.34	21.54	142.59	H
	21100	2535.0	-22.60	44.20	21.60	144.44	
	21400	2565.0	-23.21	44.72	21.51	141.68	
	20800	2505.0	-25.68	44.23	18.55	71.55	V
	21100	2535.0	-25.50	44.09	18.59	72.24	
	21400	2565.0	-25.89	44.41	18.52	71.06	

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)
Y	20825	2507.5	-20.72	44.32	23.60	228.98	H
	21100	2535.0	-20.54	44.20	23.66	<b>232.11</b>	
	21375	2562.5	-21.29	44.85	23.56	226.88	
	20825	2507.5	-23.38	43.99	20.61	115.13	V
	21100	2535.0	-23.44	44.09	20.65	116.09	
	21375	2562.5	-23.93	44.51	20.58	114.29	
Channel Bandwidth: 15 MHz / 16QAM							
Y	20825	2507.5	-21.73	44.32	22.59	181.47	H
	21100	2535.0	-21.55	44.20	22.65	183.95	
	21375	2562.5	-22.30	44.85	22.55	179.80	
	20825	2507.5	-24.39	43.99	19.60	91.24	V
	21100	2535.0	-24.44	44.09	19.65	92.21	
	21375	2562.5	-24.93	44.51	19.58	90.78	
Channel Bandwidth: 15 MHz / 64QAM							
Y	20825	2507.5	-22.74	44.32	21.58	143.81	H
	21100	2535.0	-22.56	44.20	21.64	145.78	
	21375	2562.5	-23.31	44.85	21.54	142.50	
	20825	2507.5	-25.39	43.99	18.60	72.48	V
	21100	2535.0	-25.44	44.09	18.65	73.25	
	21375	2562.5	-25.93	44.51	18.58	72.11	

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)
Y	20850	2510.0	-20.53	44.16	23.63	230.67	H
	21100	2535.0	-20.51	44.20	23.69	<b>233.72</b>	
	21350	2560.0	-21.21	44.81	23.60	228.93	
	20850	2510.0	-24.14	44.78	20.64	115.88	V
	21100	2535.0	-23.40	44.09	20.69	117.17	
	21350	2560.0	-24.10	44.72	20.62	115.35	
Channel Bandwidth: 20 MHz / 16QAM							
Y	20850	2510.0	-21.54	44.16	22.62	182.81	H
	21100	2535.0	-21.51	44.20	22.69	185.65	
	21350	2560.0	-22.22	44.81	22.59	181.43	
	20850	2510.0	-25.14	44.78	19.64	92.04	V
	21100	2535.0	-24.41	44.09	19.68	92.85	
	21350	2560.0	-25.11	44.72	19.61	91.41	
Channel Bandwidth: 20 MHz / 64QAM							
Y	20850	2510.0	-22.54	44.16	21.62	145.21	H
	21100	2535.0	-22.51	44.20	21.69	147.47	
	21350	2560.0	-23.23	44.81	21.58	143.78	
	20850	2510.0	-26.15	44.78	18.63	72.95	V
	21100	2535.0	-25.42	44.09	18.67	73.59	
	21350	2560.0	-26.11	44.72	18.61	72.61	

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

LTE Band 38							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Y	37775	2572.5	-22.37	44.24	21.87	<b>153.74</b>	H
	38000	2595.0	-22.38	44.20	21.82	151.95	
	38225	2617.5	-23.03	44.80	21.77	150.35	
	37775	2572.5	-25.35	44.19	18.84	76.58	V
	38000	2595.0	-25.31	44.09	18.78	75.47	
	38225	2617.5	-25.78	44.50	18.72	74.46	
Channel Bandwidth: 5 MHz / 16QAM							
Y	37775	2572.5	-23.37	44.24	20.86	122.01	H
	38000	2595.0	-23.39	44.20	20.81	120.42	
	38225	2617.5	-24.03	44.80	20.77	119.43	
	37775	2572.5	-26.35	44.19	17.84	60.83	V
	38000	2595.0	-26.32	44.09	17.77	59.81	
	38225	2617.5	-26.78	44.50	17.72	59.14	
Channel Bandwidth: 5 MHz / 64QAM							
Y	37775	2572.5	-24.37	44.24	19.87	97.01	H
	38000	2595.0	-24.40	44.20	19.80	95.43	
	38225	2617.5	-25.04	44.80	19.76	94.65	
	37775	2572.5	-27.36	44.19	16.83	48.21	V
	38000	2595.0	-27.32	44.09	16.77	47.51	
	38225	2617.5	-27.79	44.50	16.71	46.87	

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)
Y	37800	2575.0	-22.43	44.34	21.91	<b>155.27</b>	H
	38000	2595.0	-22.35	44.20	21.85	153.00	
	38200	2615.0	-22.92	44.72	21.80	151.46	
	37800	2575.0	-25.35	44.23	18.88	77.20	V
	38000	2595.0	-25.27	44.09	18.82	76.17	
	38200	2615.0	-25.65	44.41	18.76	75.09	
Channel Bandwidth: 10 MHz / 16QAM							
Y	37800	2575.0	-23.44	44.34	20.90	123.06	H
	38000	2595.0	-23.36	44.20	20.84	121.26	
	38200	2615.0	-23.92	44.72	20.80	120.31	
	37800	2575.0	-26.36	44.23	17.87	61.18	V
	38000	2595.0	-26.27	44.09	17.81	60.45	
	38200	2615.0	-26.66	44.41	17.75	59.51	
Channel Bandwidth: 10 MHz / 64QAM							
Y	37800	2575.0	-24.45	44.34	19.89	97.52	H
	38000	2595.0	-24.37	44.20	19.83	96.09	
	38200	2615.0	-24.92	44.72	19.80	95.57	
	37800	2575.0	-27.36	44.23	16.87	48.60	V
	38000	2595.0	-27.28	44.09	16.81	47.95	
	38200	2615.0	-27.66	44.41	16.75	47.27	

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)
Y	37825	2577.5	-22.37	44.32	21.95	<b>156.60</b>	H
	38000	2595.0	-22.31	44.20	21.89	154.42	
	38175	2612.5	-23.01	44.85	21.84	152.69	
	37825	2577.5	-25.07	43.99	18.92	78.02	V
	38000	2595.0	-25.23	44.09	18.86	76.88	
	38175	2612.5	-25.72	44.51	18.79	75.68	
Channel Bandwidth: 15 MHz / 16QAM							
Y	37825	2577.5	-23.37	44.32	20.95	124.39	H
	38000	2595.0	-23.32	44.20	20.88	122.38	
	38175	2612.5	-24.02	44.85	20.83	121.00	
	37825	2577.5	-26.07	43.99	17.92	61.97	V
	38000	2595.0	-26.23	44.09	17.86	61.07	
	38175	2612.5	-26.72	44.51	17.79	60.12	
Channel Bandwidth: 15 MHz / 64QAM							
Y	37825	2577.5	-24.38	44.32	19.94	98.58	H
	38000	2595.0	-24.32	44.20	19.88	97.21	
	38175	2612.5	-25.02	44.85	19.83	96.12	
	37825	2577.5	-27.07	43.99	16.92	49.23	V
	38000	2595.0	-27.24	44.09	16.85	48.39	
	38175	2612.5	-27.72	44.51	16.79	47.75	

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)
Y	37850	2580.0	-22.18	44.16	21.98	<b>157.76</b>	H
	38000	2595.0	-22.27	44.20	21.93	155.85	
	38150	2610.0	-22.93	44.81	21.88	154.06	
	37850	2580.0	-25.83	44.78	18.95	78.52	V
	38000	2595.0	-25.20	44.09	18.89	77.41	
	38150	2610.0	-25.89	44.72	18.83	76.38	
Channel Bandwidth: 20 MHz / 16QAM							
Y	37850	2580.0	-23.18	44.16	20.98	125.31	H
	38000	2595.0	-23.28	44.20	20.92	123.51	
	38150	2610.0	-23.94	44.81	20.87	122.10	
	37850	2580.0	-26.83	44.78	17.95	62.37	V
	38000	2595.0	-26.21	44.09	17.88	61.35	
	38150	2610.0	-26.90	44.72	17.82	60.53	
Channel Bandwidth: 20 MHz / 64QAM							
Y	37850	2580.0	-24.19	44.16	19.97	99.31	H
	38000	2595.0	-24.28	44.20	19.92	98.11	
	38150	2610.0	-24.95	44.81	19.86	96.76	
	37850	2580.0	-27.83	44.78	16.95	49.55	V
	38000	2595.0	-27.22	44.09	16.87	48.62	
	38150	2610.0	-27.90	44.72	16.82	48.08	

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	-21.09	44.24	23.15	<b>206.44</b>	H
	40620	2593.0	-21.13	44.20	23.07	202.63	
	41565	2687.5	-21.68	44.80	23.12	205.16	
	39675	2498.5	-26.02	44.19	18.17	65.63	V
	40620	2593.0	-26.01	44.09	18.08	64.24	
	41565	2687.5	-26.37	44.50	18.13	65.00	
Channel Bandwidth: 5 MHz / 16QAM							
X	39675	2498.5	-22.10	44.24	22.14	163.61	H
	40620	2593.0	-22.14	44.20	22.06	160.58	
	41565	2687.5	-22.69	44.80	22.11	162.59	
	39675	2498.5	-27.03	44.19	17.16	52.01	V
	40620	2593.0	-27.01	44.09	17.08	51.03	
	41565	2687.5	-27.38	44.50	17.12	51.51	
Channel Bandwidth: 5 MHz / 64QAM							
X	39675	2498.5	-23.11	44.24	21.13	129.66	H
	40620	2593.0	-23.15	44.20	21.05	127.26	
	41565	2687.5	-23.70	44.80	21.10	128.85	
	39675	2498.5	-28.04	44.19	16.15	41.22	V
	40620	2593.0	-28.02	44.09	16.07	40.44	
	41565	2687.5	-28.39	44.50	16.11	40.82	

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	-21.15	44.34	23.19	<b>208.50</b>	H
	40620	2593.0	-21.10	44.20	23.10	204.03	
	41540	2685.0	-21.57	44.72	23.15	206.68	
	39700	2501.0	-26.03	44.23	18.20	66.01	V
	40620	2593.0	-25.97	44.09	18.12	64.83	
	41540	2685.0	-26.24	44.41	18.17	65.55	
Channel Bandwidth: 10 MHz / 16QAM							
X	39700	2501.0	-22.15	44.34	22.19	165.62	H
	40620	2593.0	-22.11	44.20	22.09	161.70	
	41540	2685.0	-22.57	44.72	22.15	164.17	
	39700	2501.0	-27.04	44.23	17.19	52.31	V
	40620	2593.0	-26.97	44.09	17.12	51.50	
	41540	2685.0	-27.25	44.41	17.16	51.95	
Channel Bandwidth: 10 MHz / 64QAM							
X	39700	2501.0	-23.16	44.34	21.18	131.25	H
	40620	2593.0	-23.12	44.20	21.08	128.14	
	41540	2685.0	-23.57	44.72	21.15	130.41	
	39700	2501.0	-28.05	44.23	16.18	41.46	V
	40620	2593.0	-27.97	44.09	16.12	40.91	
	41540	2685.0	-28.26	44.41	16.15	41.17	

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	-21.10	44.32	23.22	<b>209.80</b>	H
	40620	2593.0	-21.06	44.20	23.14	205.92	
	41515	2682.5	-21.66	44.85	23.19	208.35	
	39725	2503.5	-25.75	43.99	18.24	66.71	V
	40620	2593.0	-25.93	44.09	18.16	65.43	
	41515	2682.5	-26.30	44.51	18.21	66.22	
Channel Bandwidth: 15 MHz / 16QAM							
X	39725	2503.5	-22.11	44.32	22.21	166.26	H
	40620	2593.0	-22.06	44.20	22.14	163.57	
	41515	2682.5	-22.67	44.85	22.18	165.12	
	39725	2503.5	-26.75	43.99	17.24	52.99	V
	40620	2593.0	-26.93	44.09	17.16	51.98	
	41515	2682.5	-27.31	44.51	17.20	52.48	
Channel Bandwidth: 15 MHz / 64QAM							
X	39725	2503.5	-23.11	44.32	21.21	132.07	H
	40620	2593.0	-23.07	44.20	21.13	129.63	
	41515	2682.5	-23.68	44.85	21.17	130.86	
	39725	2503.5	-27.76	43.99	16.23	42.00	V
	40620	2593.0	-27.94	44.09	16.15	41.19	
	41515	2682.5	-28.32	44.51	16.19	41.59	

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	-20.90	44.16	23.26	<b>211.84</b>	H
	40620	2593.0	-21.02	44.20	23.18	207.83	
	41490	2680.0	-21.58	44.81	23.23	210.23	
	39750	2506.0	-26.50	44.78	18.28	67.30	V
	40620	2593.0	-25.90	44.09	18.19	65.89	
	41490	2680.0	-26.48	44.72	18.24	66.68	
Channel Bandwidth: 20 MHz / 16QAM							
X	39750	2506.0	-21.90	44.16	22.26	168.27	H
	40620	2593.0	-22.03	44.20	22.17	164.70	
	41490	2680.0	-22.58	44.81	22.23	166.99	
	39750	2506.0	-27.50	44.78	17.28	53.46	V
	40620	2593.0	-26.91	44.09	17.18	52.22	
	41490	2680.0	-27.48	44.72	17.24	52.97	
Channel Bandwidth: 20 MHz / 64QAM							
X	39750	2506.0	-22.91	44.16	21.25	133.35	H
	40620	2593.0	-23.04	44.20	21.16	130.53	
	41490	2680.0	-23.58	44.81	21.23	132.65	
	39750	2506.0	-28.51	44.78	16.27	42.36	V
	40620	2593.0	-27.92	44.09	16.17	41.38	
	41490	2680.0	-28.49	44.72	16.23	41.98	

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

## 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  $55 + 10 \log (P)$  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.  $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$ .
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,  $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15 \text{ dB}$ .

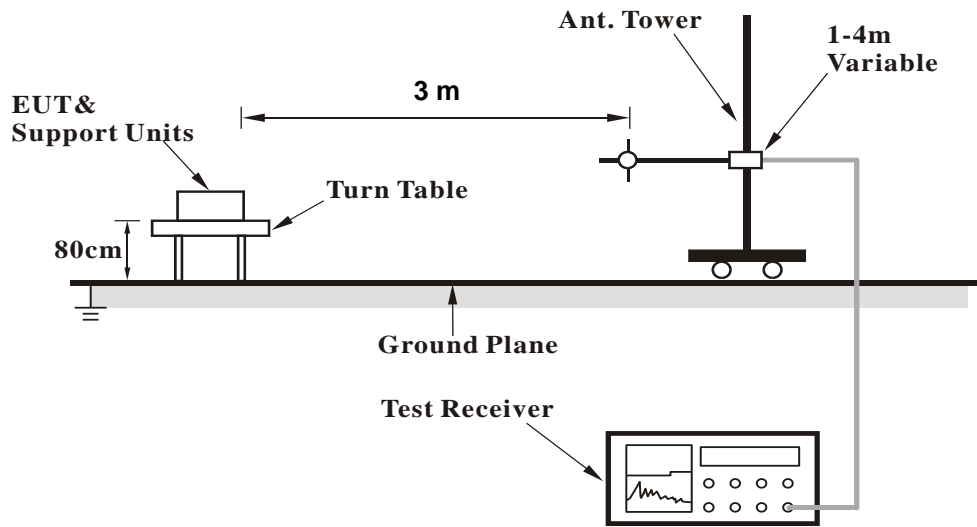
**NOTE:** The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

### 4.2.3 Deviation from Test Standard

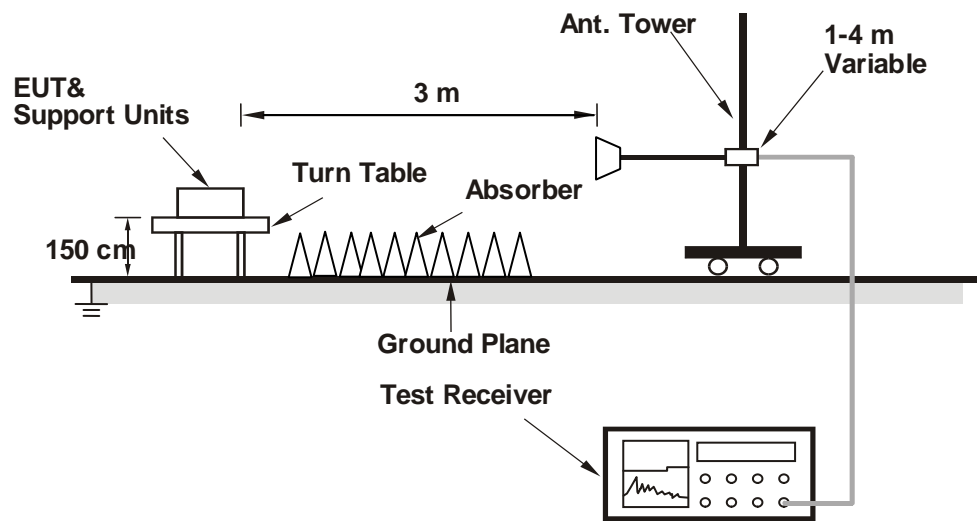
No deviation.

#### 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

LTE Band 7

Channel Bandwidth: 5 MHz / QPSK

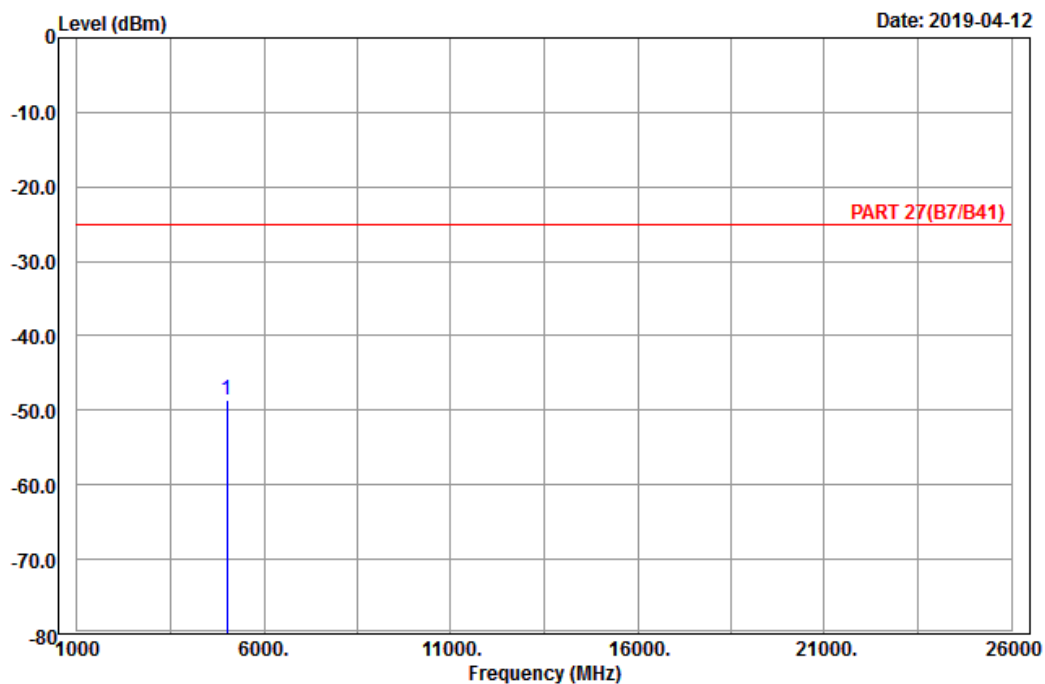
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 7\_Link\_CH20775  
 Tested by: Harry Hsueh

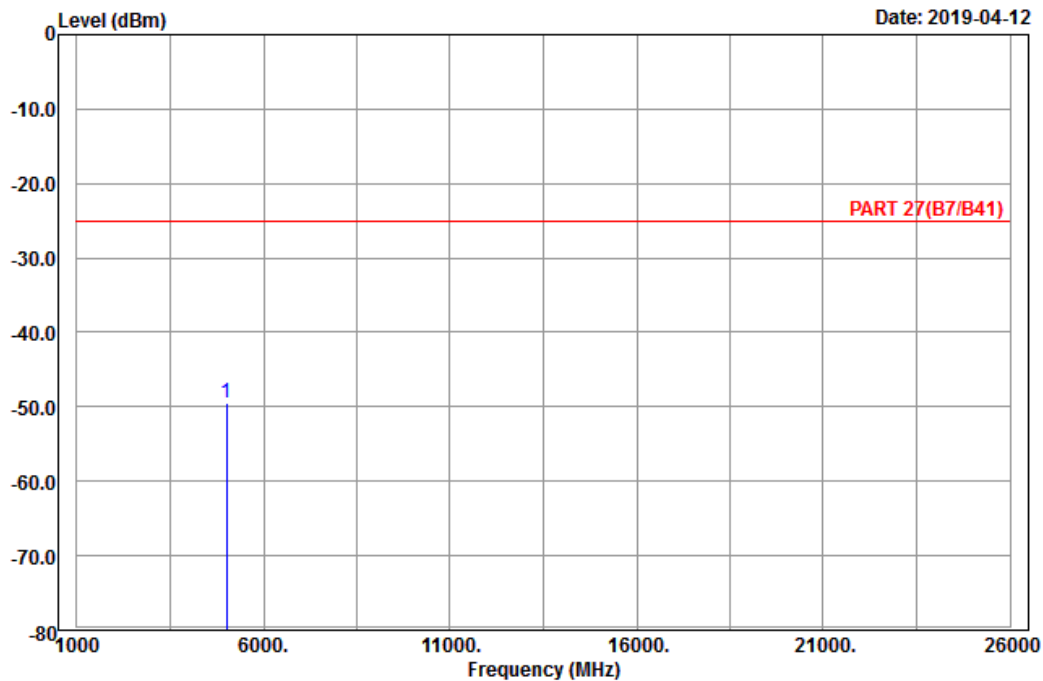
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5005.00	-48.71	-68.29	-25.00	-23.71	19.58	Peak



A D T

Data: 10

Date: 2019-04-12



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 7\_Link\_CH20775  
 Tested by: Harry Hsueh

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 5005.00	-49.43	-69.01	-25.00	-24.43	19.58	Peak

Middle Channel

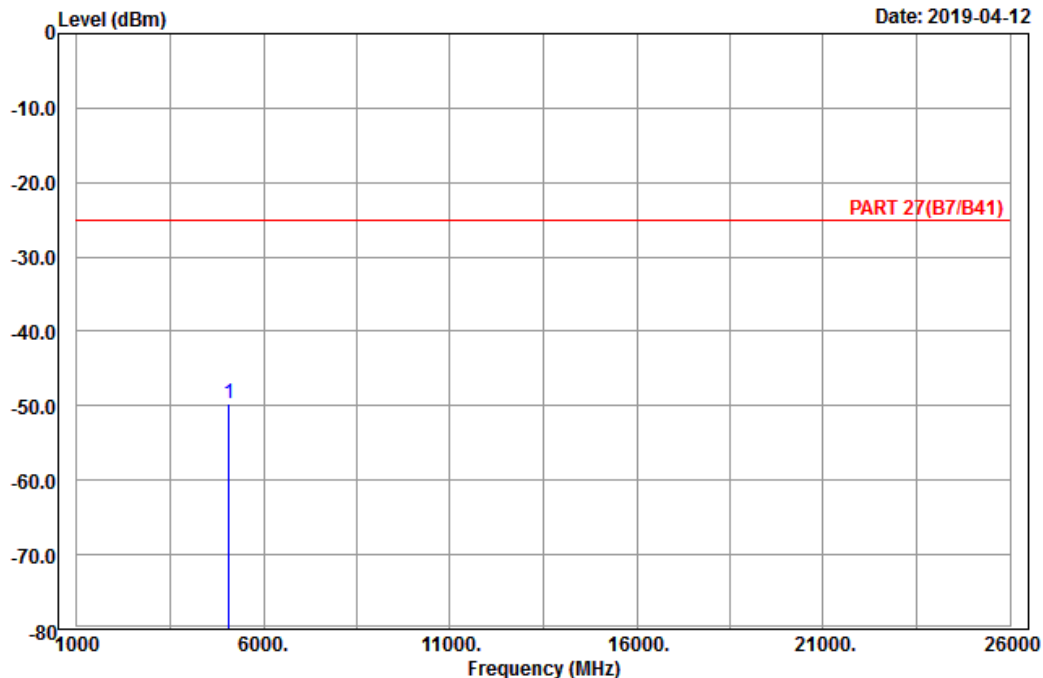


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-04-12



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 7\_Link\_CH21100  
 Tested by: Harry Hsueh

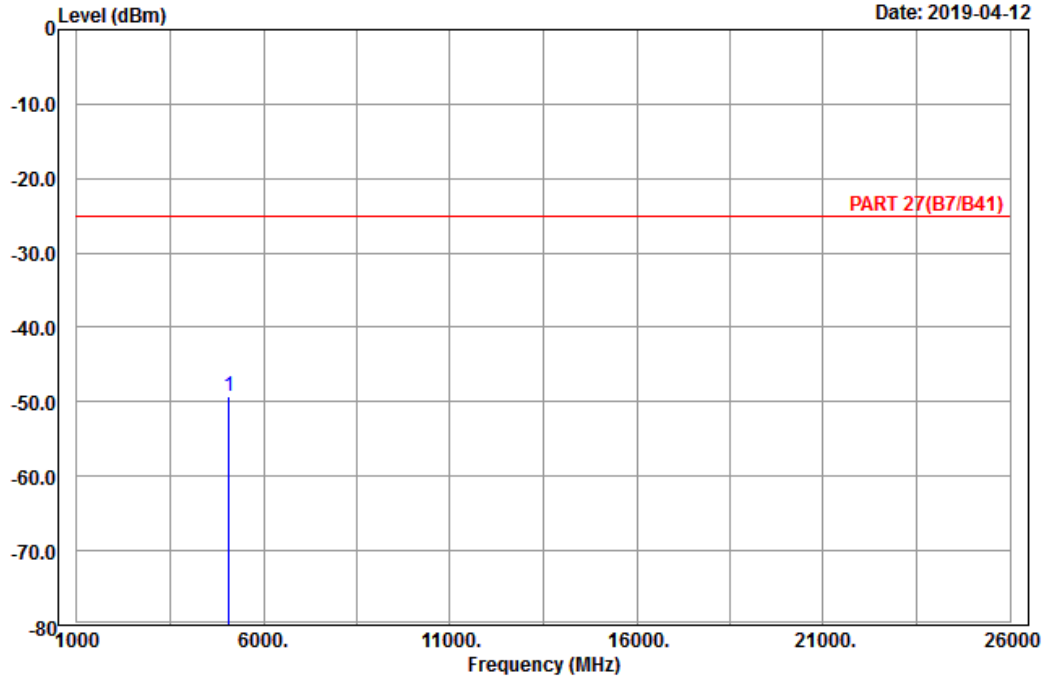
Freq	Level	Read Level	Limit	Over	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5070.00	-49.77	-69.16	-25.00	-24.77	19.39	Peak



A D T

Data: 10

Date: 2019-04-12



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	-49.17	-68.56	-25.00	-24.17	19.39	Peak

# High Channel

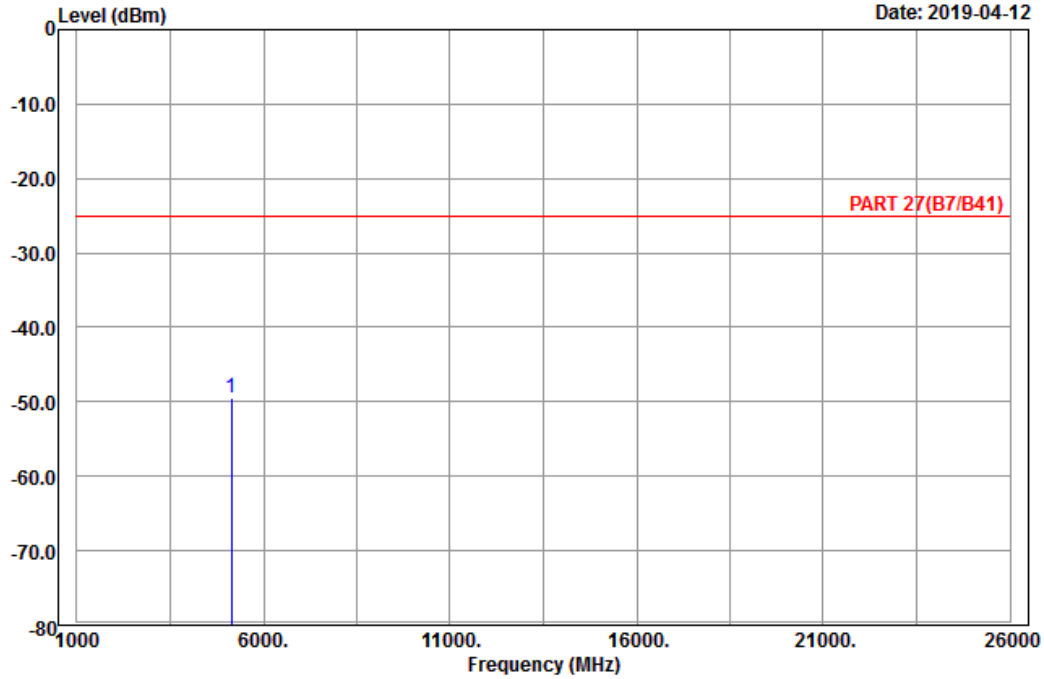


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-04-12



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 7\_Link\_CH21425  
 Tested by: Harry Hsueh

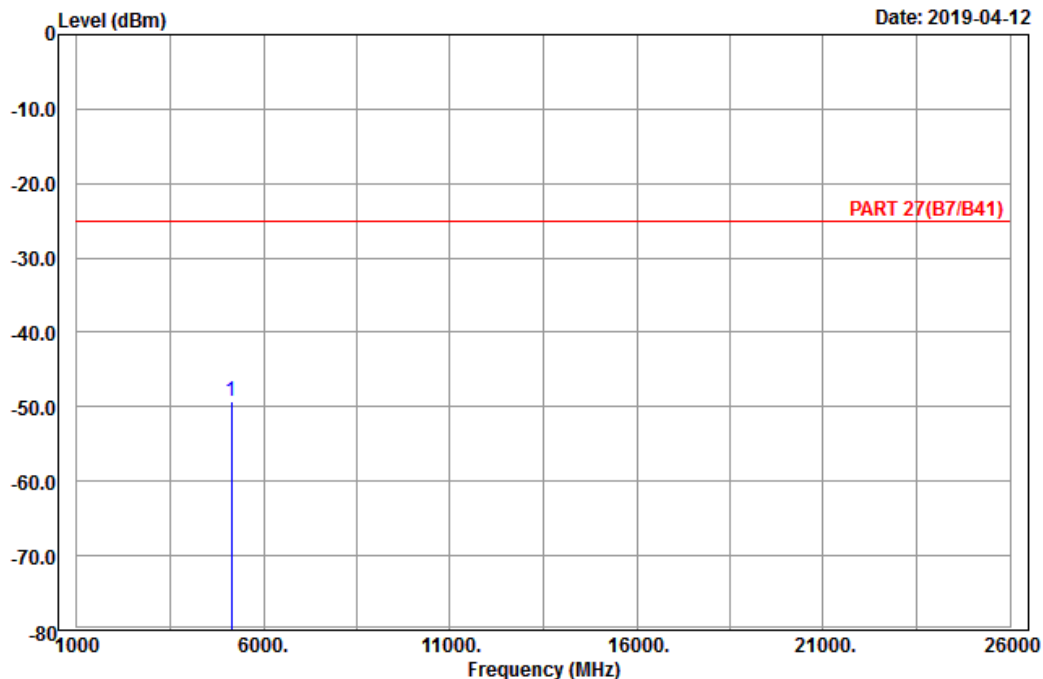
Freq	Level	Read Level	Limit	Over	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5135.00	-49.44	-69.25	-25.00	-24.44	19.81	Peak



A D T

Data: 10

Date: 2019-04-12



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 7\_Link\_CH21425  
 Tested by: Harry Hsueh

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5135.00	-49.31	-69.12	-25.00	-24.31	19.81	Peak

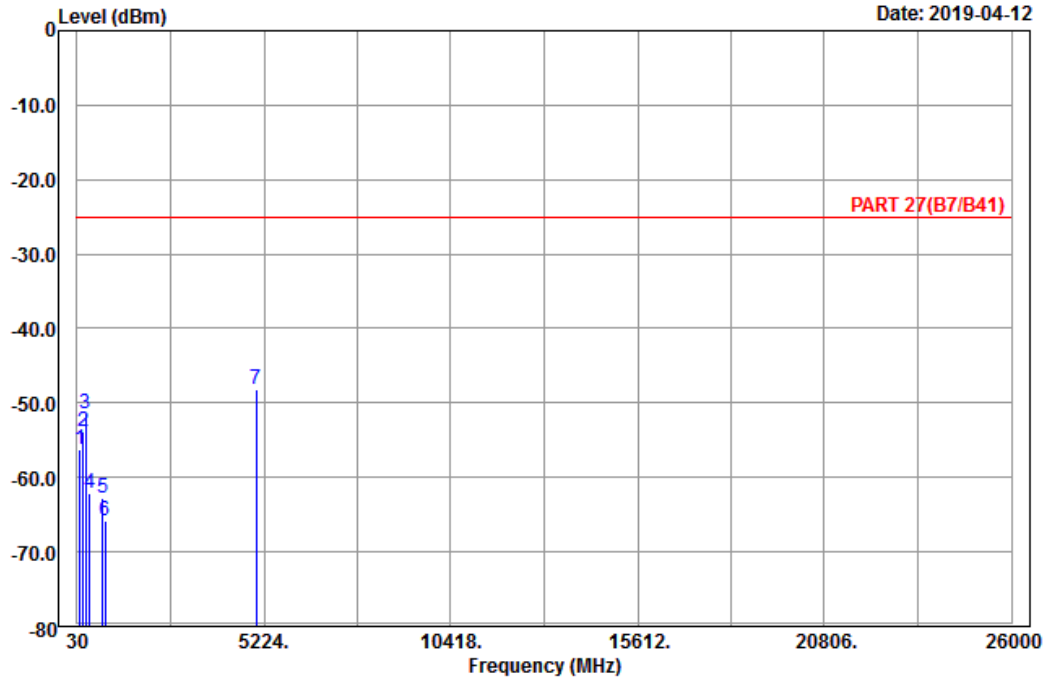
Channel Bandwidth: 20 MHz / QPSK  
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13



Site : 966 chamber 1  
Condition: PART 27(B7/B41) Horizontal  
Remark : LTE\_Band 7\_Link\_CH20850  
Tested by: Harry Hsueh

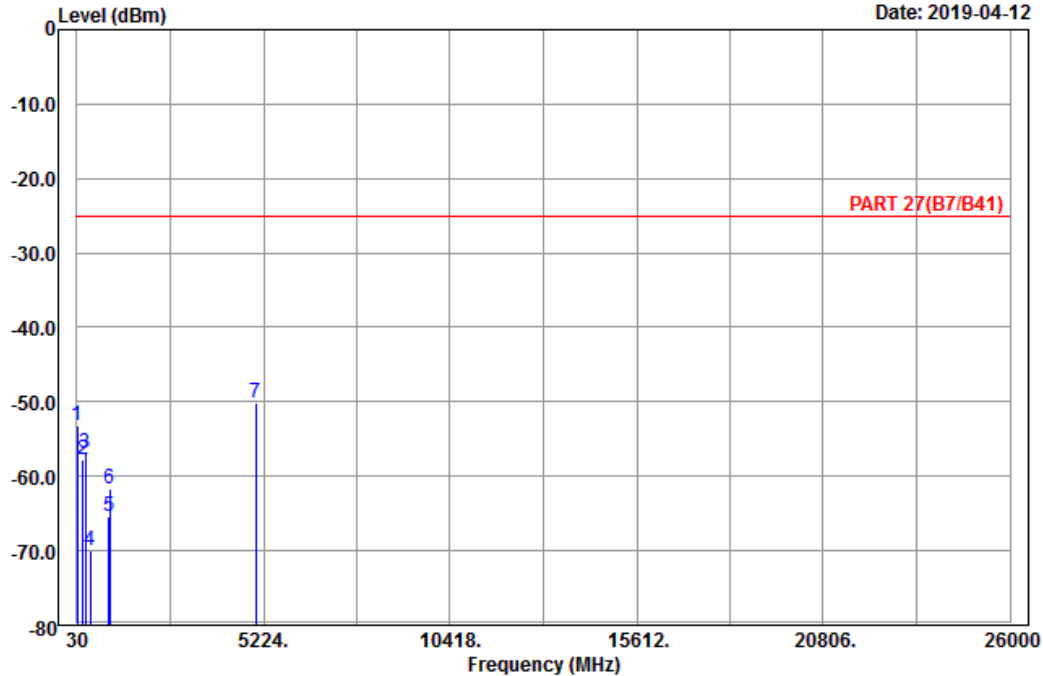
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	100.20	-56.14	-46.02	-25.00	-31.14	-10.12	Peak
2	194.70	-53.74	-47.78	-25.00	-28.74	-5.96	Peak
3	270.57	-51.53	-45.84	-25.00	-26.53	-5.69	Peak
4	386.10	-62.21	-58.75	-25.00	-37.21	-3.46	Peak
5	730.50	-62.70	-61.75	-25.00	-37.70	-0.95	Peak
6	815.20	-65.94	-67.79	-25.00	-40.94	1.85	Peak
7 pp	5020.00	-48.12	-67.20	-25.00	-23.12	19.08	Peak



A D T

Data: 14

Date: 2019-04-12



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	34.05	-53.12	-42.14	-25.00	-28.12	-10.98	Peak
2	192.00	-57.73	-51.91	-25.00	-32.73	-5.82	Peak
3	268.14	-56.86	-51.18	-25.00	-31.86	-5.68	Peak
4	393.10	-69.96	-66.86	-25.00	-44.96	-3.10	Peak
5	923.70	-65.37	-69.30	-25.00	-40.37	3.93	Peak
6	937.70	-61.68	-66.26	-25.00	-36.68	4.58	Peak
7 pp	5220.00	-50.09	-69.17	-25.00	-25.09	19.08	Peak



Middle Channel

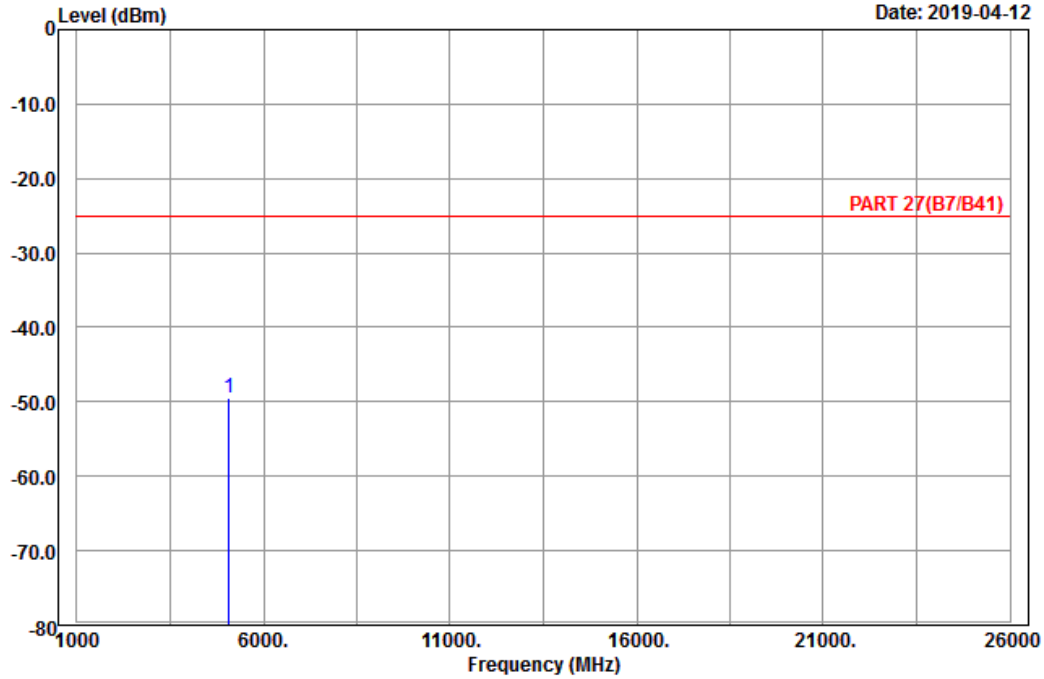


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-04-12



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 7\_Link\_CH21100  
 Tested by: Harry Hsueh

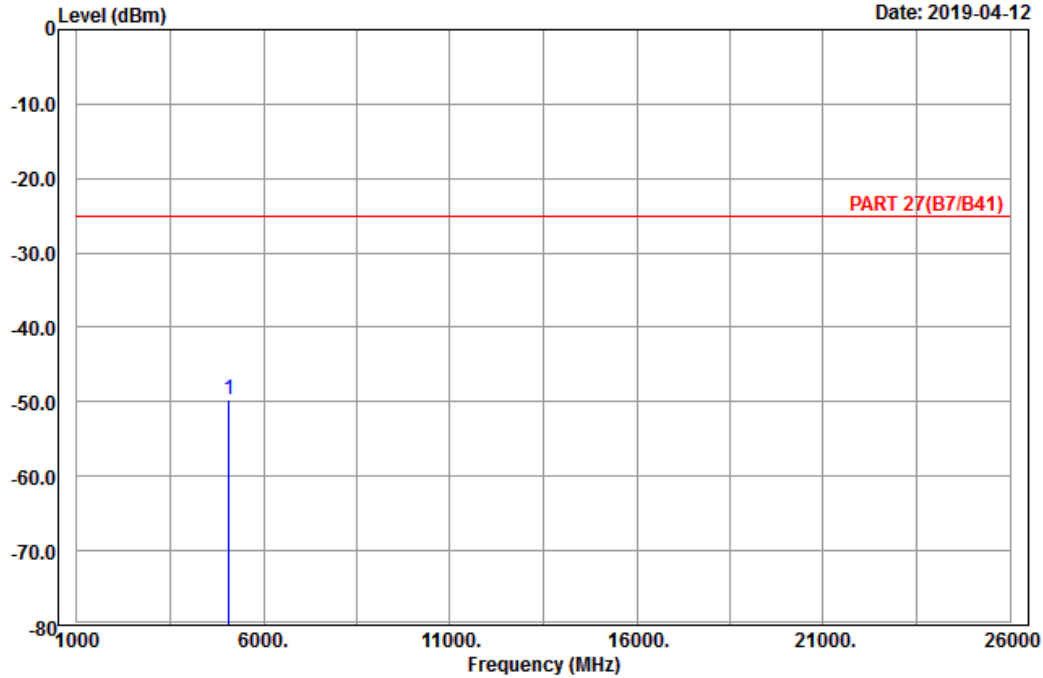
Freq	Level	Read Level	Limit	Over	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5070.00	-49.43	-68.82	-25.00	-24.43	19.39	Peak



A D T

Data: 10

Date: 2019-04-12



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 7\_Link\_CH21100  
 Tested by: Harry Hsueh

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5070.00	-49.65	-69.04	-25.00	-24.65	19.39	Peak

High Channel

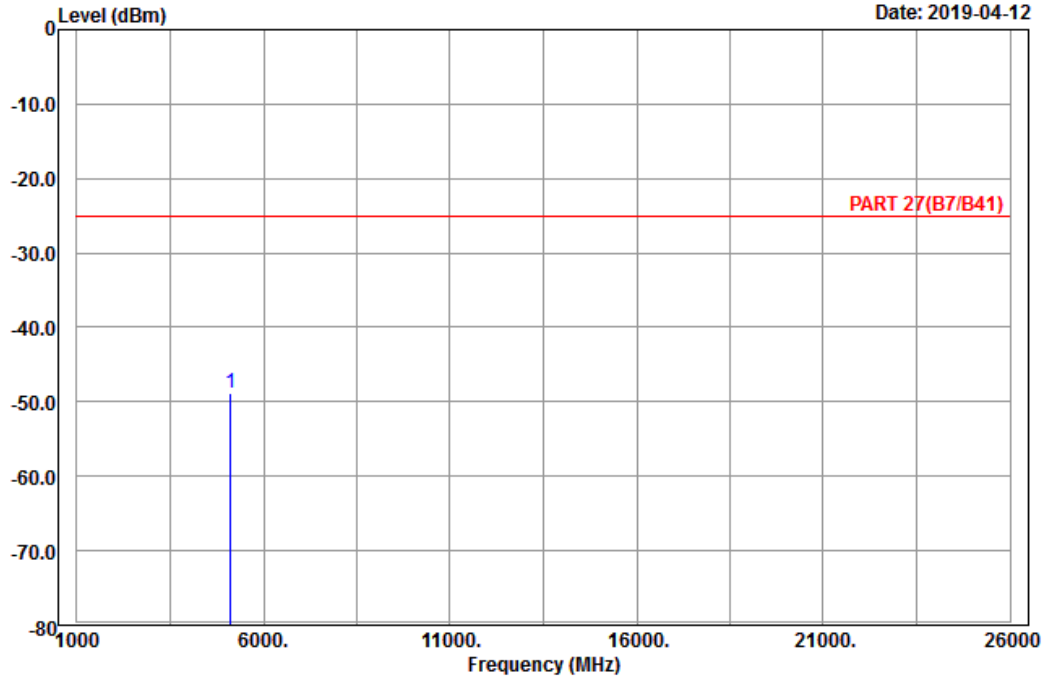


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-04-12



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 7\_Link\_CH21350  
 Tested by: Harry Hsueh

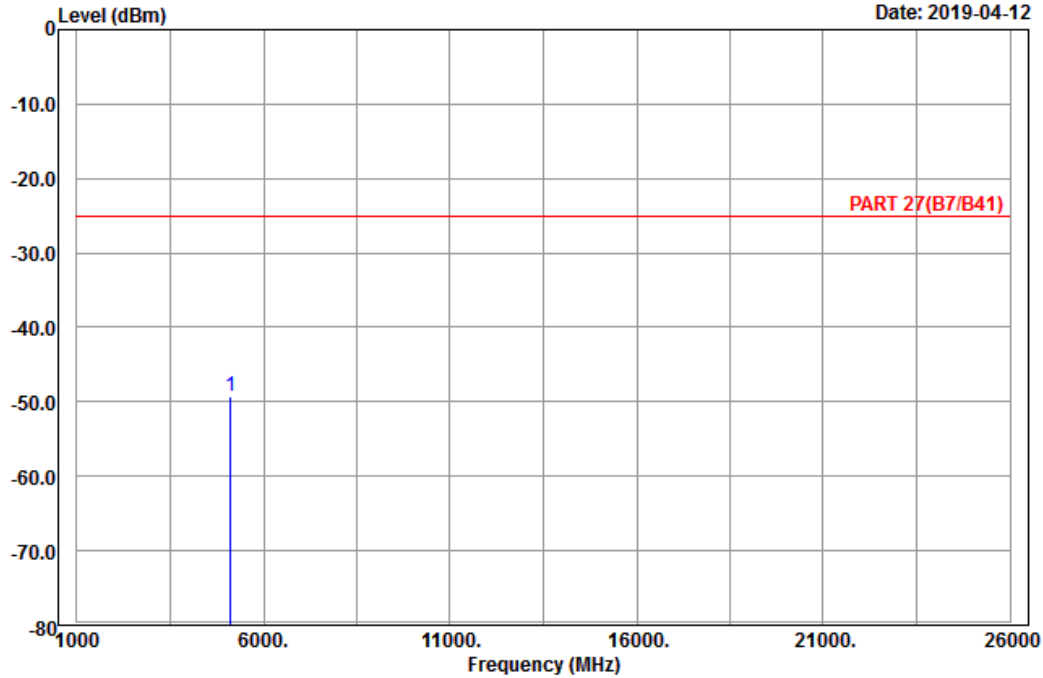
Freq	Level	Read Level	Limit	Over	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5120.00	-48.92	-68.63	-25.00	-23.92	19.71	Peak



A D T

Data: 10

Date: 2019-04-12



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	pp 5120.00	-49.28	-68.99	-25.00	-24.28	19.71	Peak

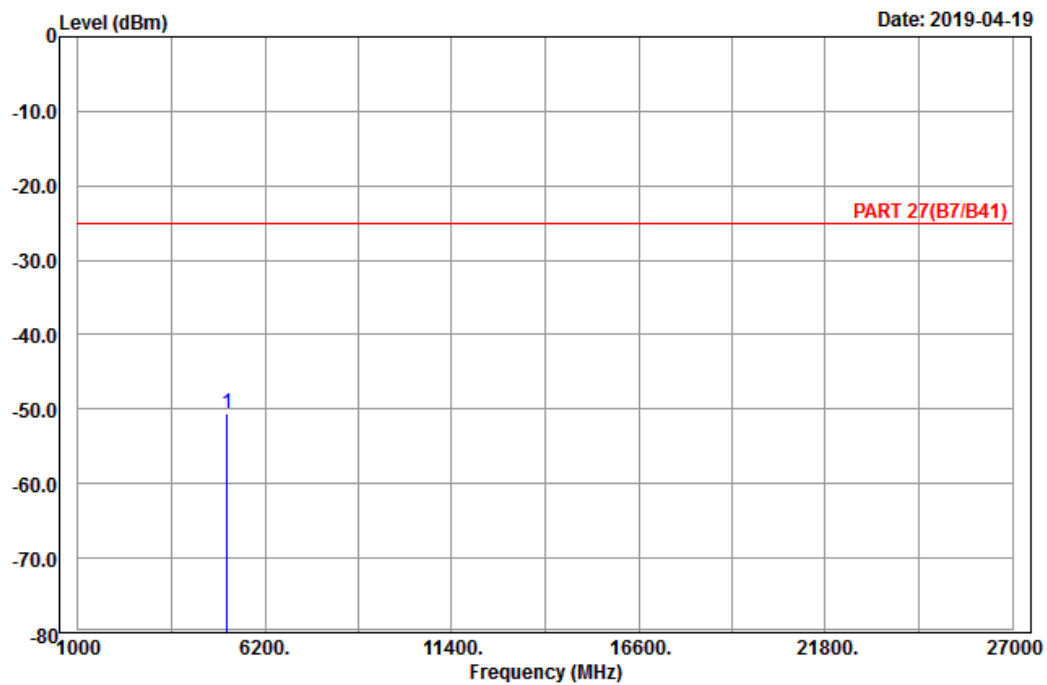
LTE Band 38  
Channel Bandwidth: 5 MHz / QPSK  
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
Condition: PART 27(B7/B41) Horizontal  
Remark : LTE\_Band 38\_Link\_CH37775  
Tested by: Karl Lee

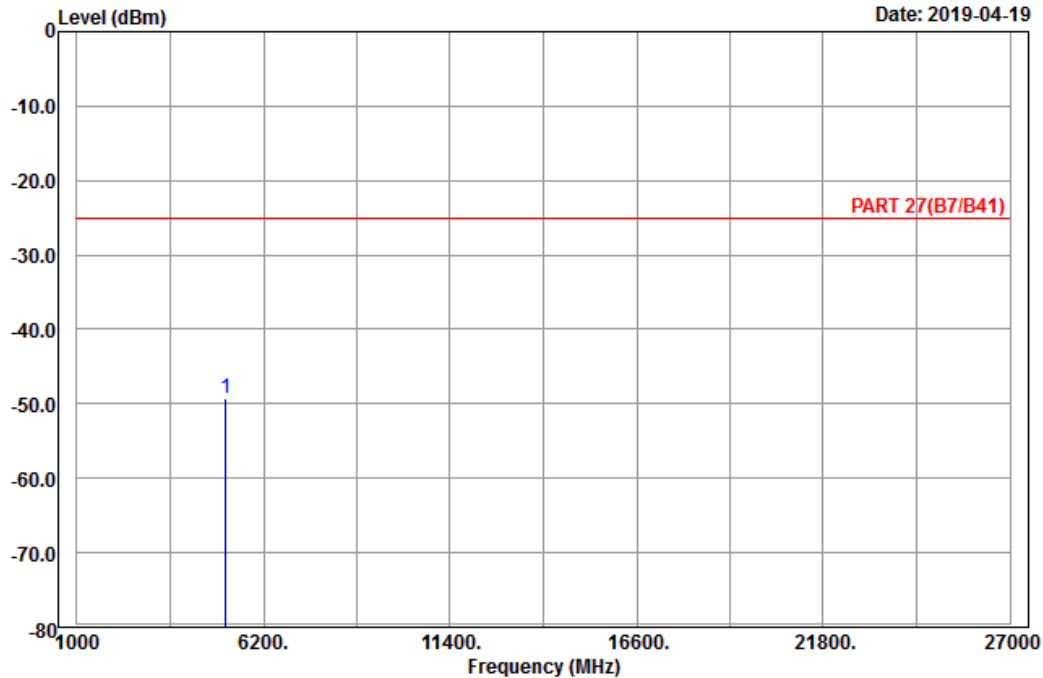
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5145.00	-50.58	-70.39	-25.00	-25.58	19.81	Peak



A D T

Data: 10

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 38\_Link\_CH37775  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5145.00	-49.27	-69.08	-25.00	-24.27	19.81	Peak

Middle Channel

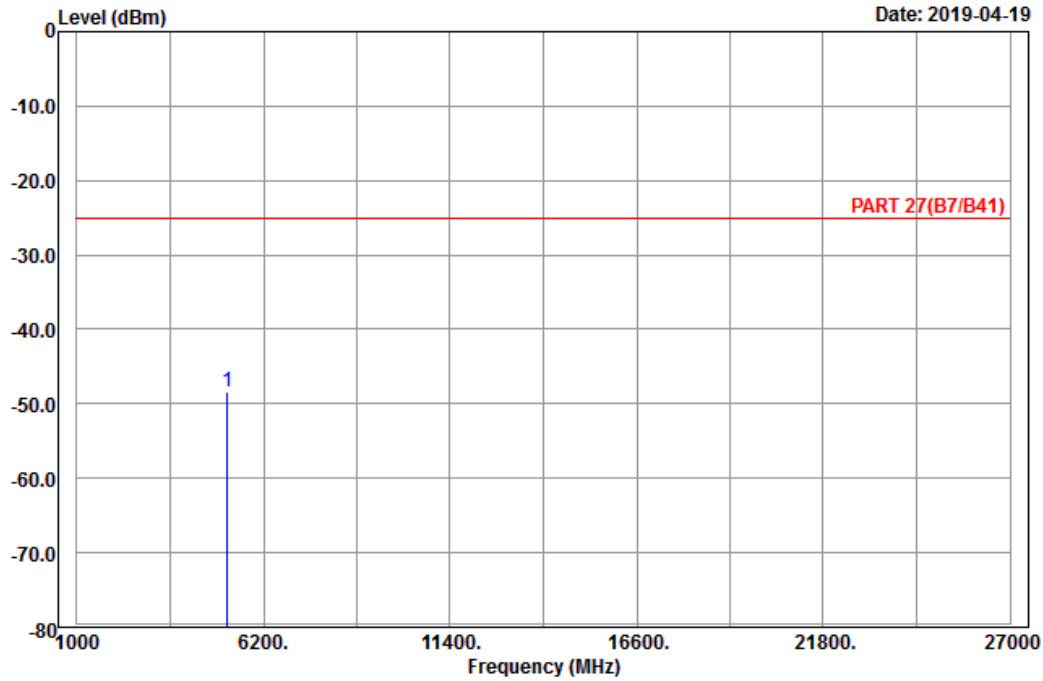


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 38\_Link\_CH38000  
 Tested by: Karl Lee

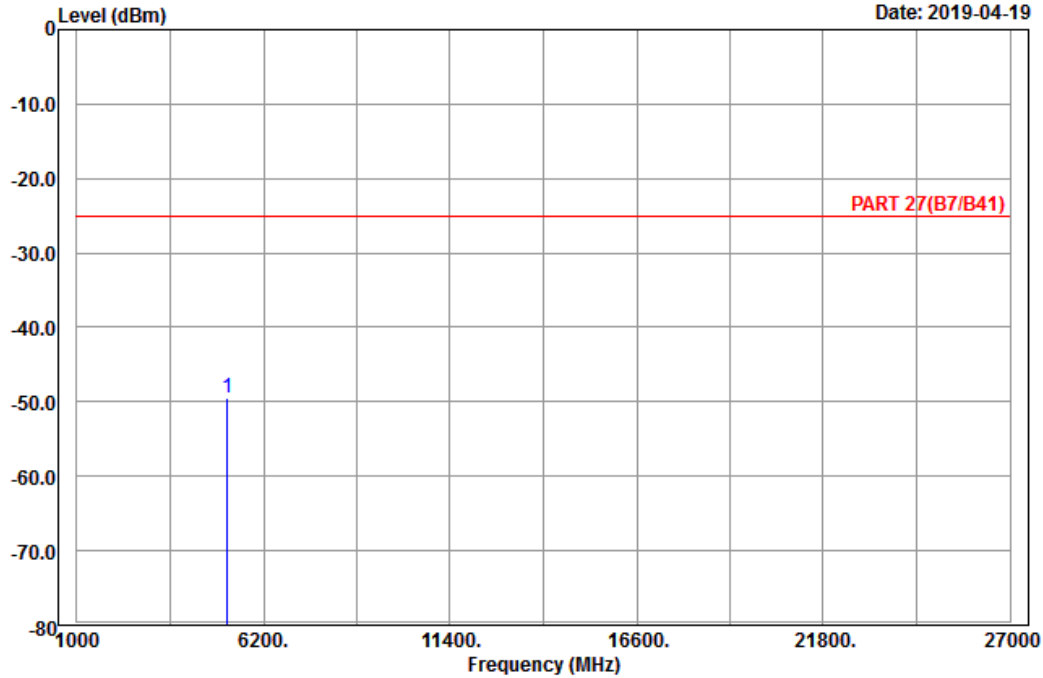
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5190.00	-48.45	-68.57	-25.00	-23.45	20.12	Peak



A D T

Data: 10

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 38\_Link\_CH38000  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 5190.00	-49.56	-69.68	-25.00	-24.56	20.12	Peak



# High Channel

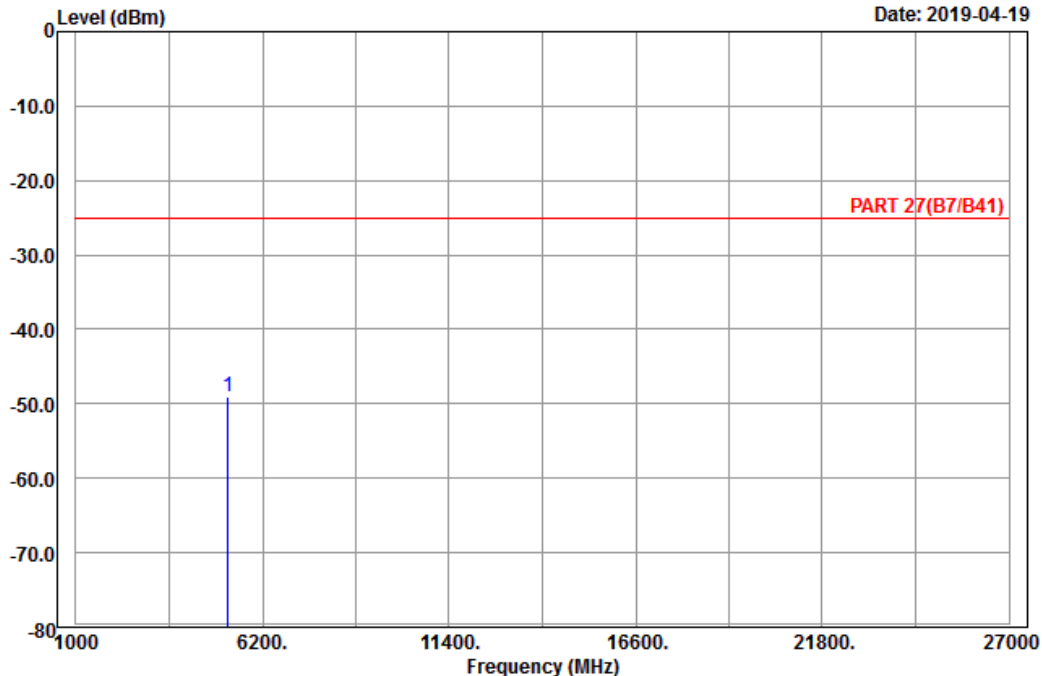


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 38\_Link\_CH38225  
 Tested by: Karl Lee

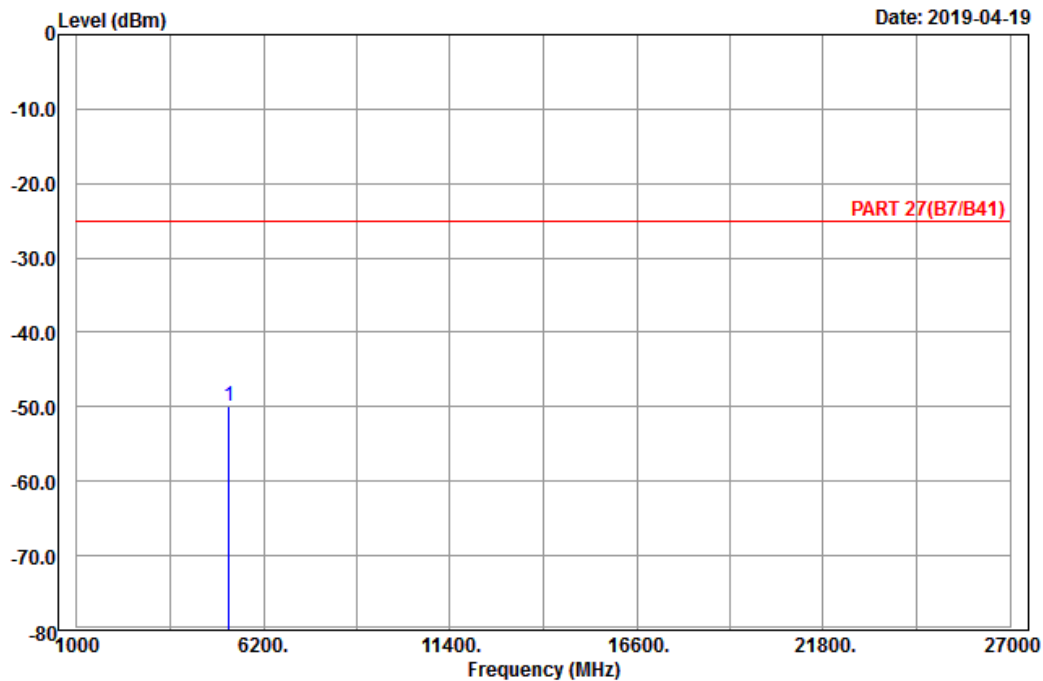
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5235.00	-49.03	-69.19	-25.00	-24.03	20.16	Peak



A D T

Data: 10

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 38\_Link\_CH38225  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5235.00	-49.98	-70.14	-25.00	-24.98	20.16	Peak

Channel Bandwidth: 20 MHz / QPSK  
Low Channel

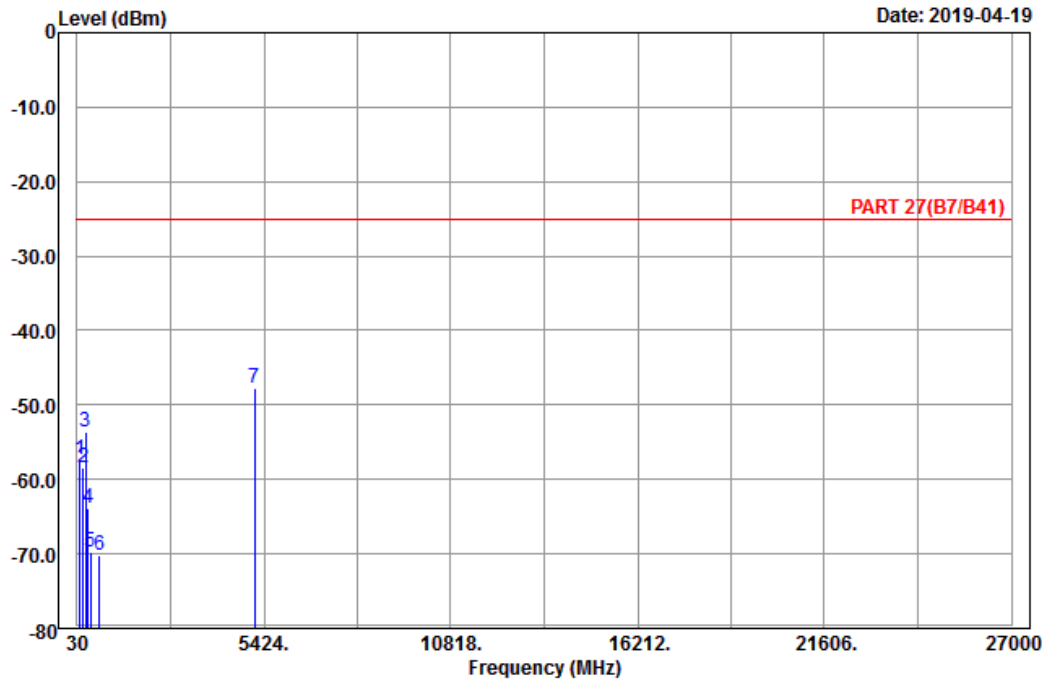


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13

Date: 2019-04-19



Site : 966 chamber 1  
Condition: PART 27(B7/B41) Horizontal  
Remark : LTE\_Band 38\_Link\_CH37850  
Tested by: Karl Lee

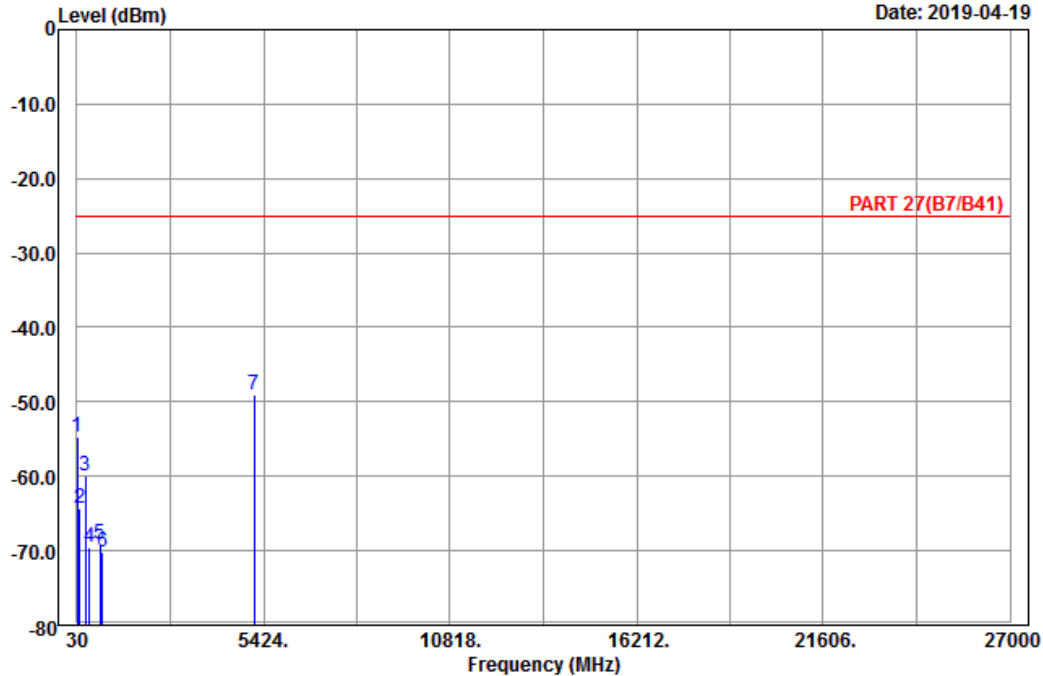
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	101.55	-57.42	-47.53	-25.00	-32.42	-9.89	Peak
2	197.40	-58.52	-52.43	-25.00	-33.52	-6.09	Peak
3	273.54	-53.64	-47.92	-25.00	-28.64	-5.72	Peak
4	351.80	-63.83	-58.56	-25.00	-38.83	-5.27	Peak
5	414.80	-69.76	-66.68	-25.00	-44.76	-3.08	Peak
6	668.90	-70.22	-69.99	-25.00	-45.22	-0.23	Peak
7 pp	5160.00	-47.74	-67.66	-25.00	-22.74	19.92	Peak



A D T

Data: 14

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 38\_Link\_CH37850  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	33.78	-54.69	-43.71	-25.00	-29.69	-10.98	Peak
2	102.90	-64.33	-54.56	-25.00	-39.33	-9.77	Peak
3	272.73	-60.05	-54.34	-25.00	-35.05	-5.71	Peak
4	395.90	-69.55	-66.60	-25.00	-44.55	-2.95	Peak
5	692.70	-69.15	-68.81	-25.00	-44.15	-0.34	Peak
6	769.70	-70.11	-70.14	-25.00	-45.11	0.03	Peak
7 pp	5160.00	-49.12	-69.04	-25.00	-24.12	19.92	Peak

Middle Channel

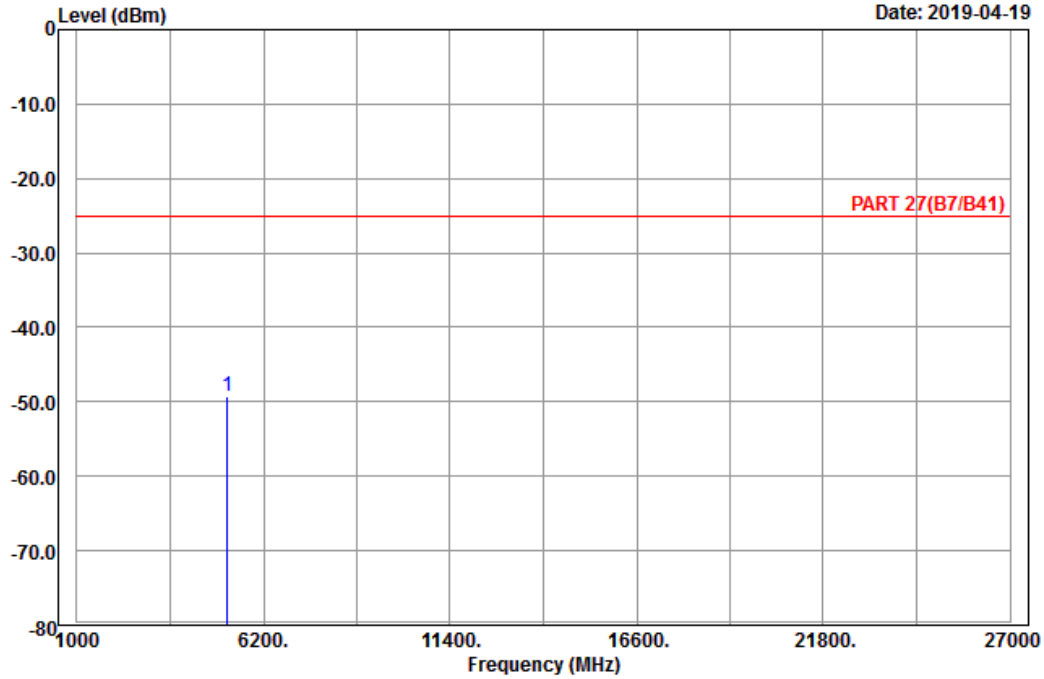


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 38\_Link\_CH38000  
 Tested by: Karl Lee

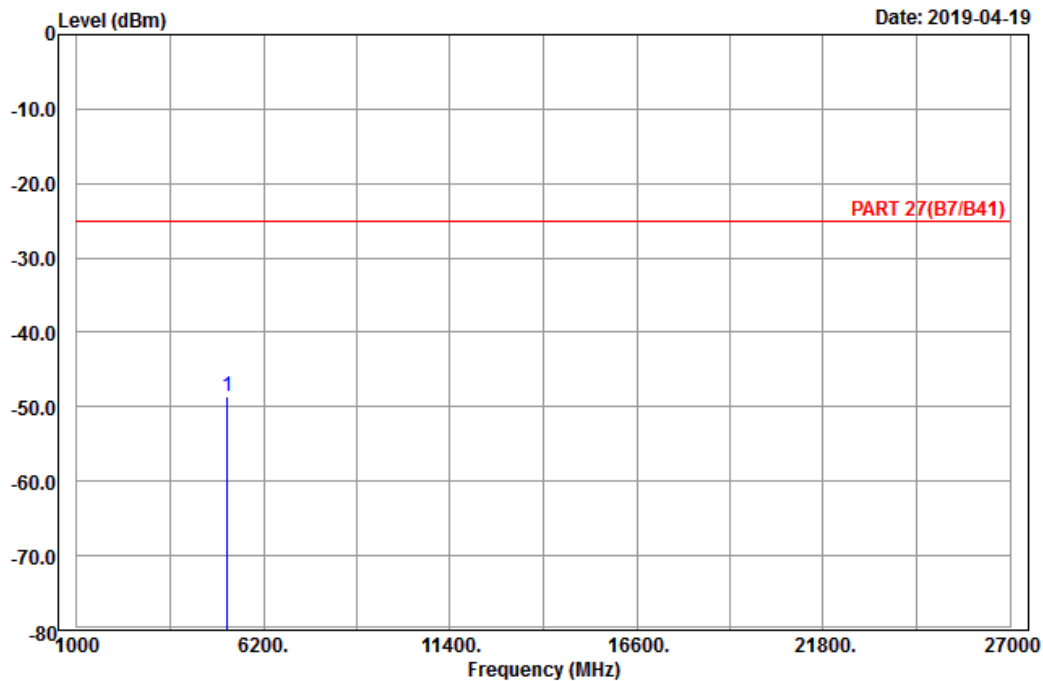
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5190.00	-49.30	-69.42	-25.00	-24.30	20.12	Peak



A D T

Data: 10

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 38\_Link\_CH38000  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 5190.00	-48.63	-68.75	-25.00	-23.63	20.12	Peak

# High Channel

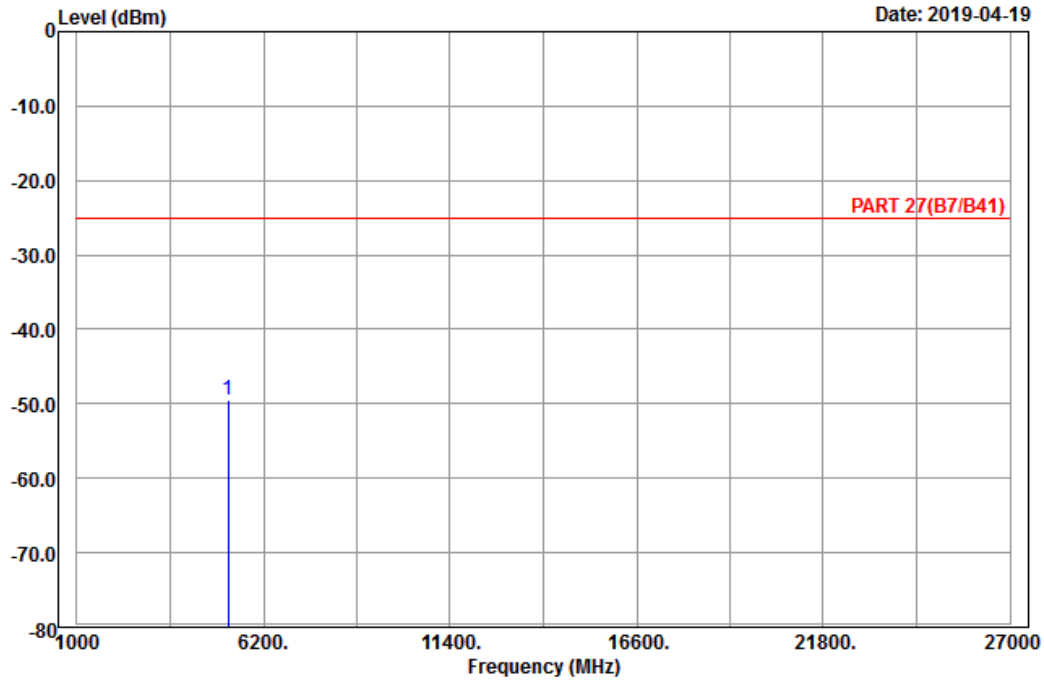


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 38\_Link\_CH38150  
 Tested by: Karl Lee

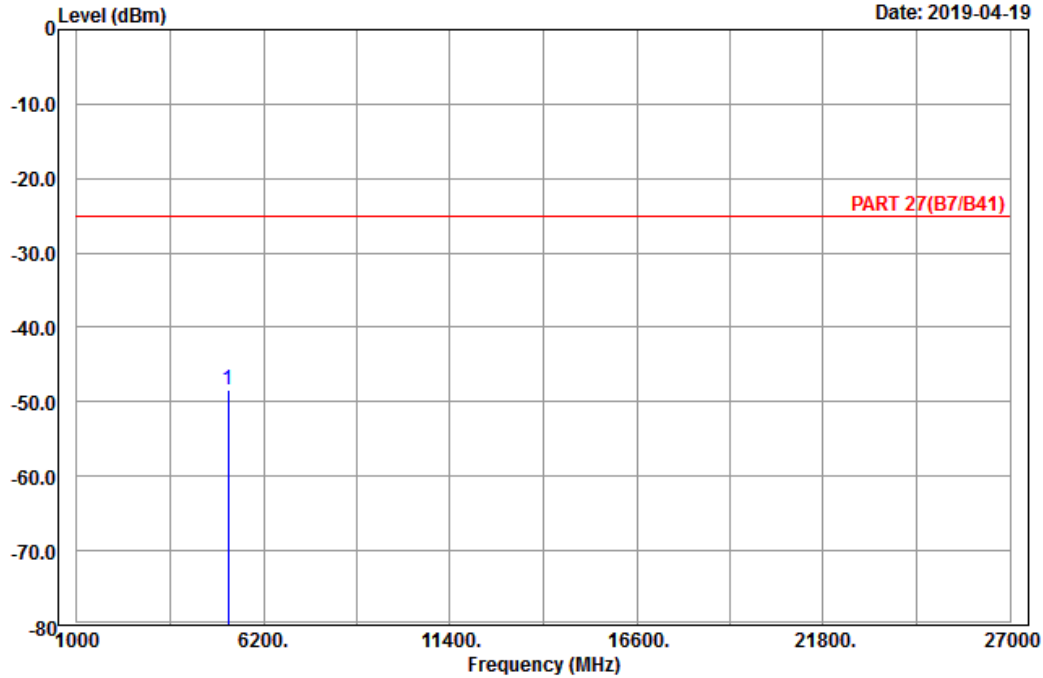
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5220.00	-49.52	-69.66	-25.00	-24.52	20.14	Peak



A D T

Data: 10

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 38\_Link\_CH38150  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5220.00	-48.47	-68.61	-25.00	-23.47	20.14	Peak



LTE Band 41  
 Channel Bandwidth: 5 MHz / QPSK  
 Low Channel

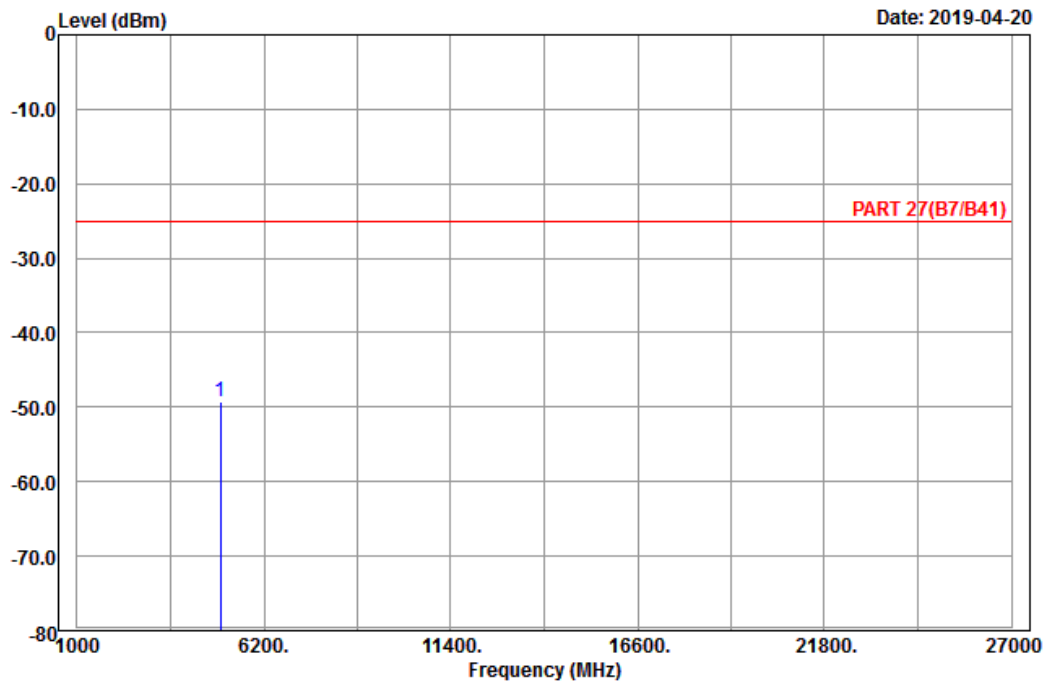


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2019-04-20



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 41\_Link\_CH39675  
 Tested by: Karl Lee

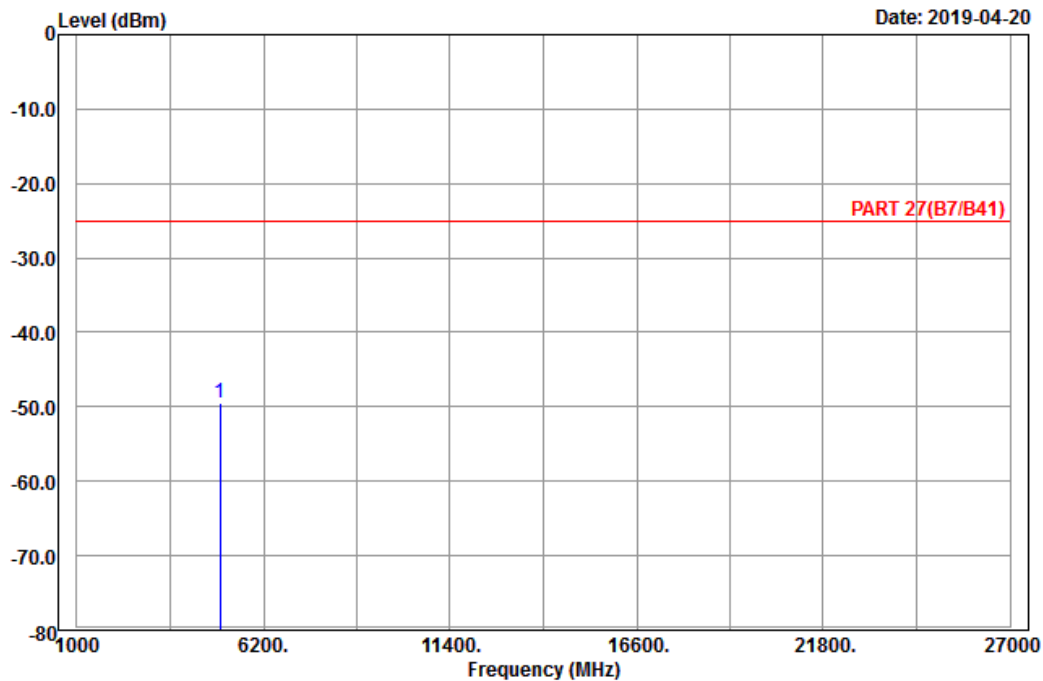
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 4997.00	-49.34	-68.92	-25.00	-24.34	19.58	Peak



A D T

Data: 4

Date: 2019-04-20



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 41\_Link\_CH39675  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	pp 4997.00	-49.47	-69.05	-25.00	-24.47	19.58	Peak

Middle Channel

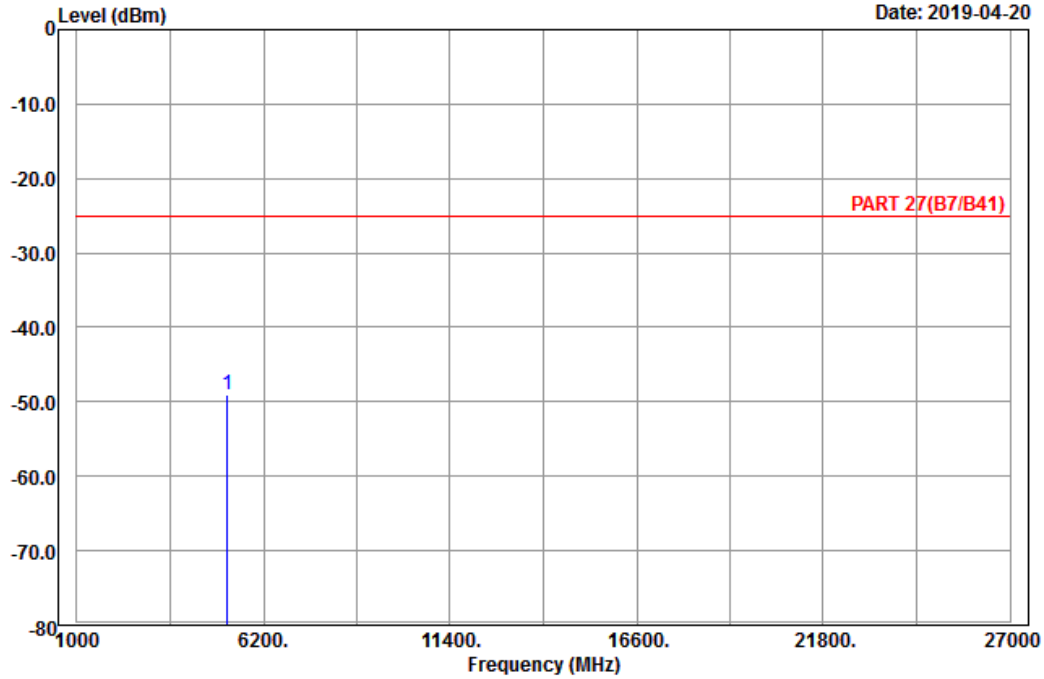


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2019-04-20



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 41\_Link\_CH40620  
 Tested by: Karl Lee

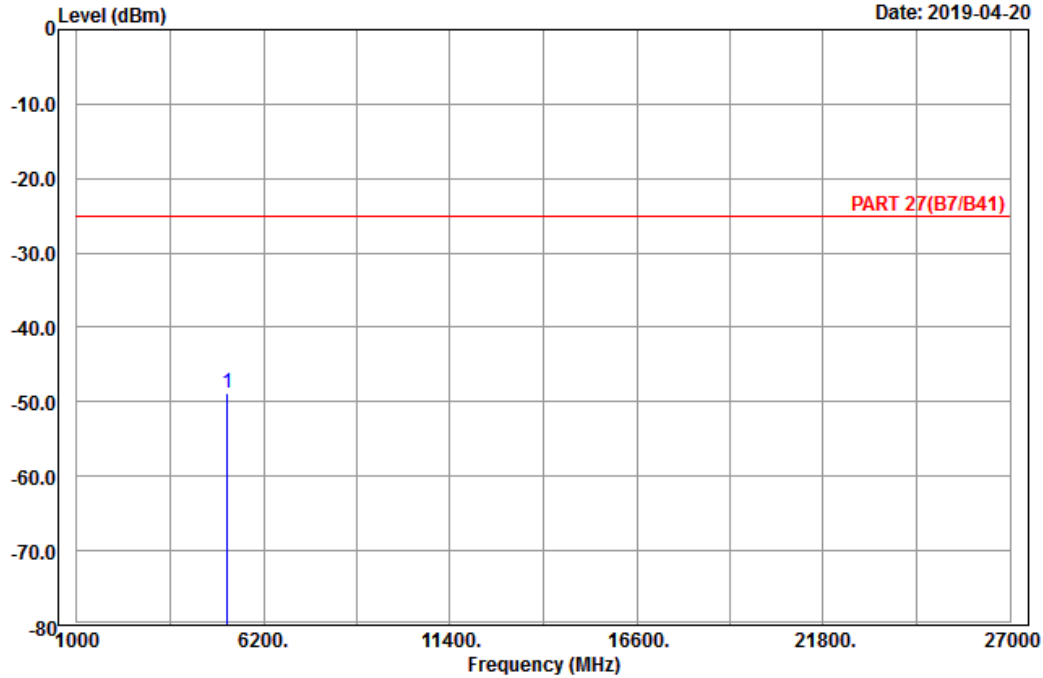
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5186.00	-49.00	-69.12	-25.00	-24.00	20.12	Peak



A D T

Data: 4

Date: 2019-04-20



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 41\_Link\_CH40620  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5186.00	-48.87	-68.99	-25.00	-23.87	20.12	Peak

# High Channel

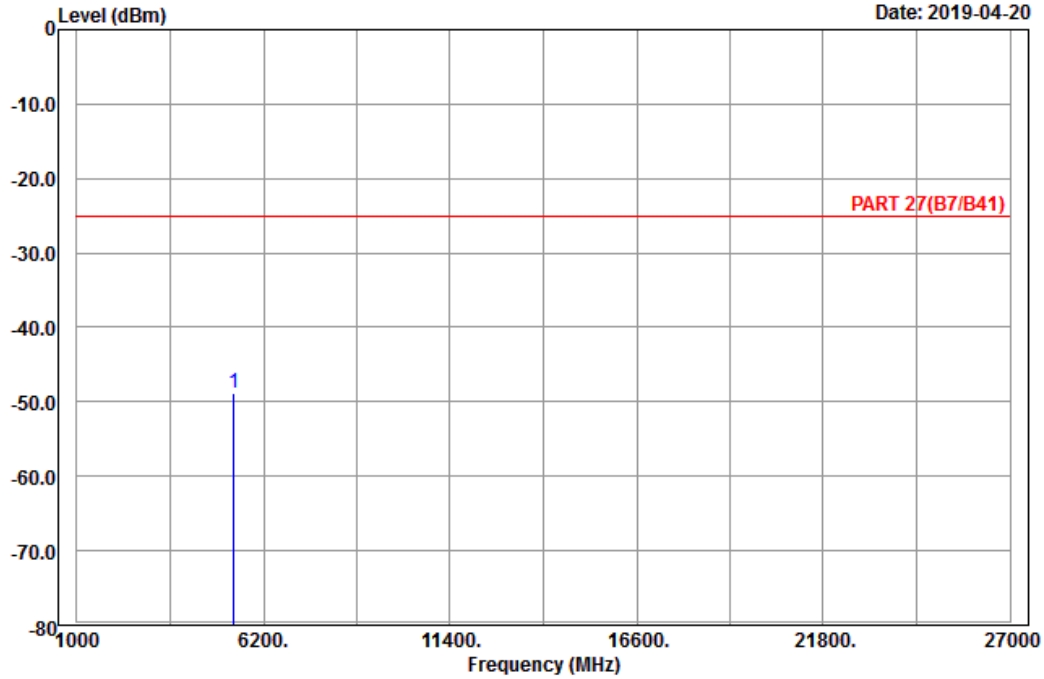


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2019-04-20



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 41\_Link\_CH41565  
 Tested by: Karl Lee

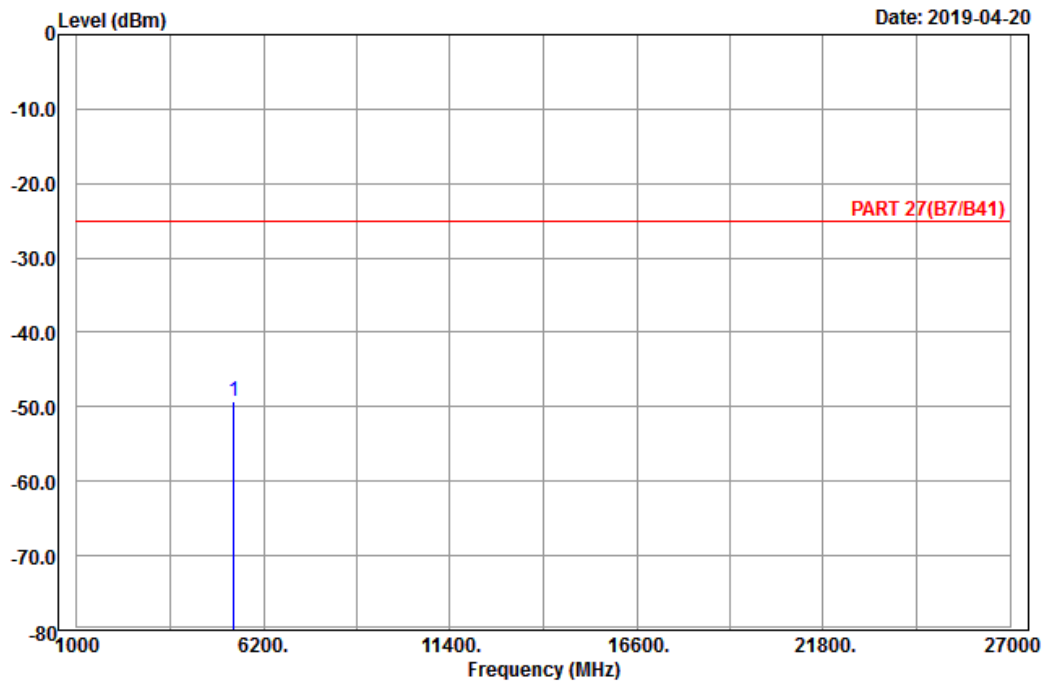
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5375.00	-48.86	-69.18	-25.00	-23.86	20.32	Peak



A D T

Data: 4

Date: 2019-04-20



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 41\_Link\_CH41565  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5375.00	-49.24	-69.56	-25.00	-24.24	20.32	Peak

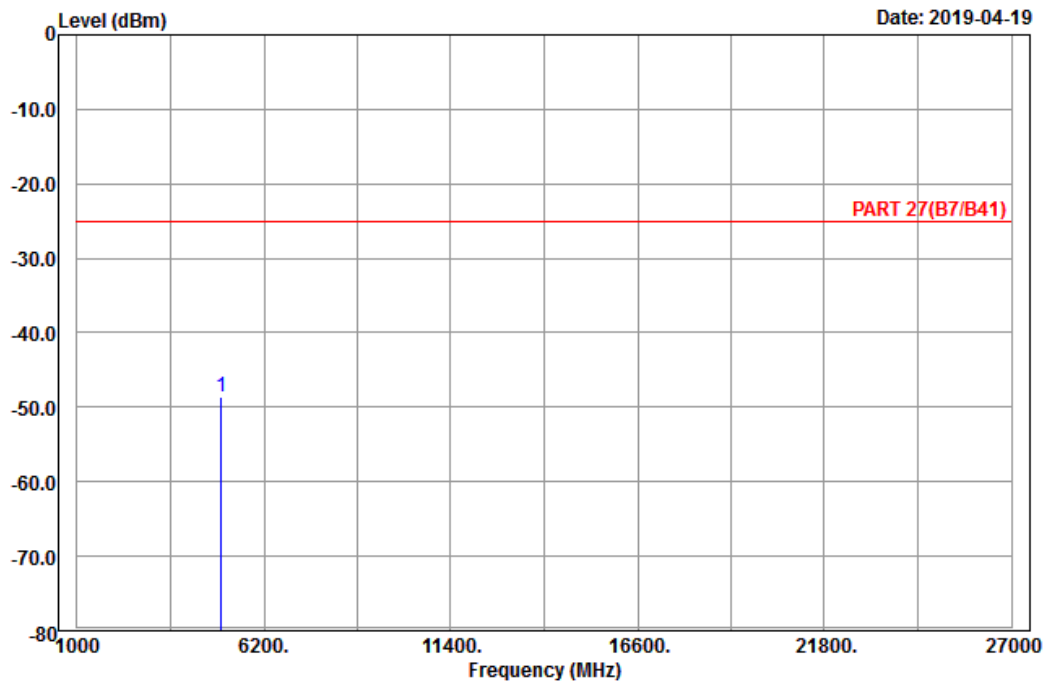
Channel Bandwidth: 20 MHz / QPSK  
 Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 41\_Link\_CH39750  
 Tested by: Karl Lee

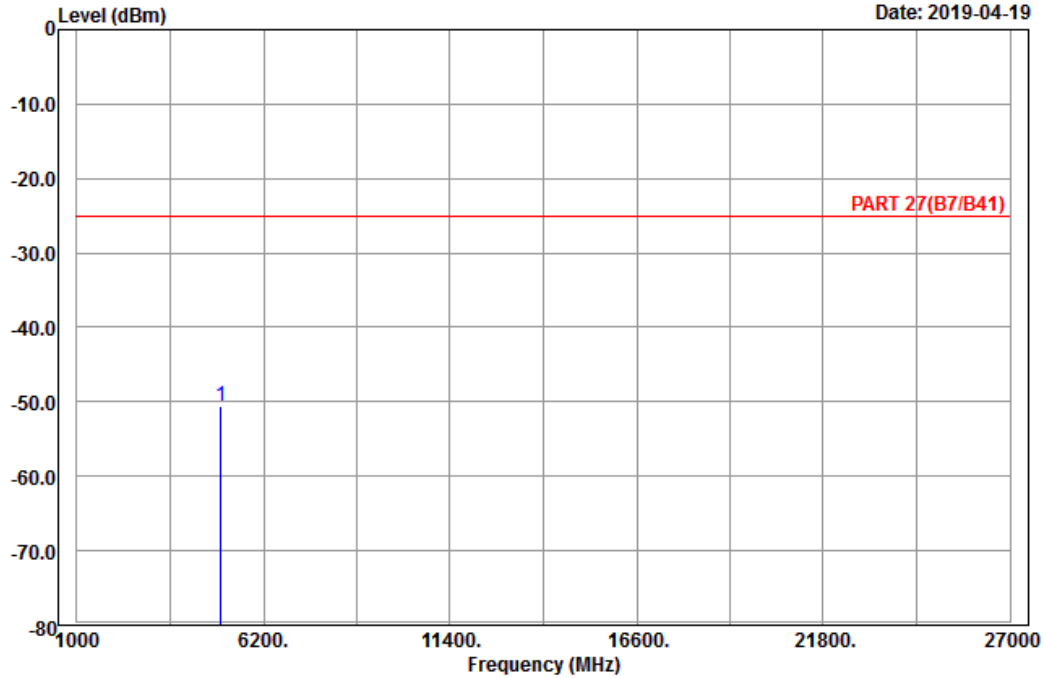
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5012.00	-48.71	-67.79	-25.00	-23.71	19.08	Peak



A D T

Data: 10

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 41\_Link\_CH39750  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5012.00	-50.60	-69.68	-25.00	-25.60	19.08	Peak



Middle Channel

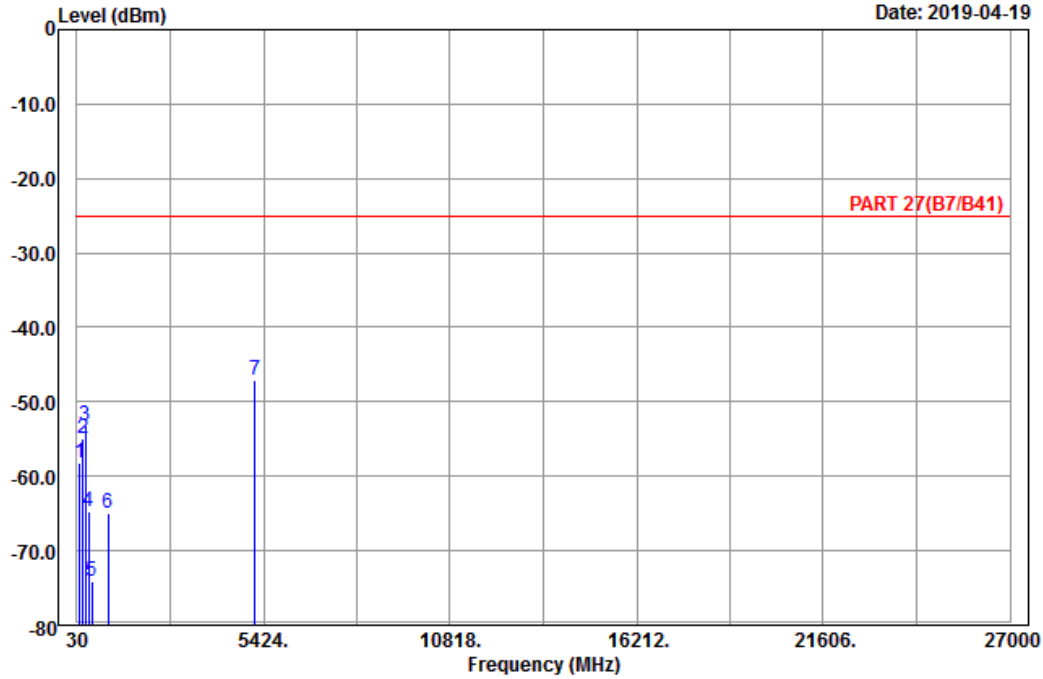


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 41\_Link\_CH40620  
 Tested by: Karl Lee

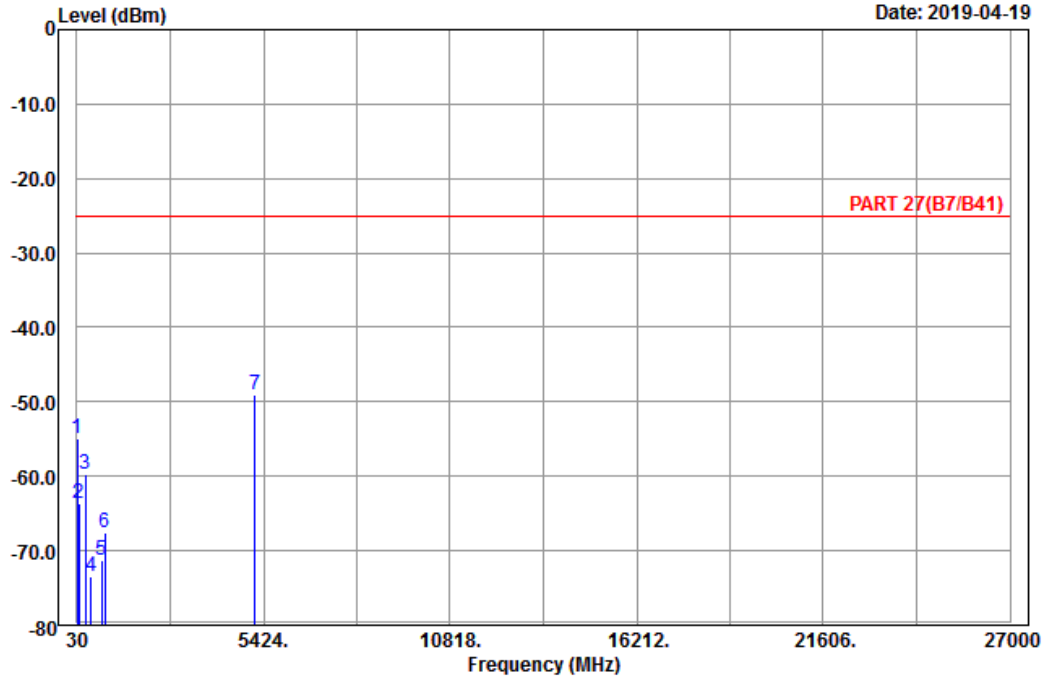
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	102.09	-58.15	-48.26	-25.00	-33.15	-9.89	Peak
2	197.94	-55.00	-48.91	-25.00	-30.00	-6.09	Peak
3	270.84	-53.08	-47.39	-25.00	-28.08	-5.69	Peak
4	370.70	-64.85	-60.56	-25.00	-39.85	-4.29	Peak
5	464.50	-74.01	-69.75	-25.00	-49.01	-4.26	Peak
6	930.00	-65.05	-69.29	-25.00	-40.05	4.24	Peak
7 pp	5186.00	-47.05	-67.17	-25.00	-22.05	20.12	Peak



A D T

Data: 14

Date: 2019-04-19



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 41\_Link\_CH40620  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	34.32	-55.03	-44.05	-25.00	-30.03	-10.98	Peak
2	85.35	-63.65	-52.43	-25.00	-38.65	-11.22	Peak
3	270.03	-59.73	-54.05	-25.00	-34.73	-5.68	Peak
4	430.90	-73.50	-70.08	-25.00	-48.50	-3.42	Peak
5	754.30	-71.21	-70.22	-25.00	-46.21	-0.99	Peak
6	841.80	-67.59	-69.13	-25.00	-42.59	1.54	Peak
7 pp	5186.00	-48.99	-69.11	-25.00	-23.99	20.12	Peak

# High Channel

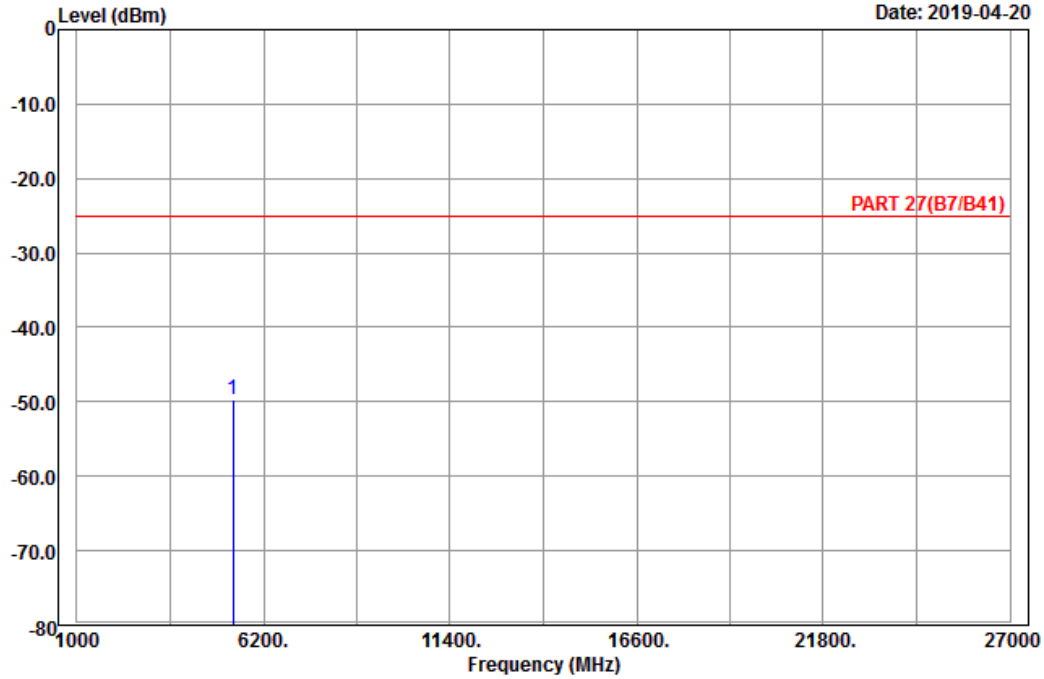


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 2019-04-20



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Horizontal  
 Remark : LTE\_Band 41\_Link\_CH41490  
 Tested by: Karl Lee

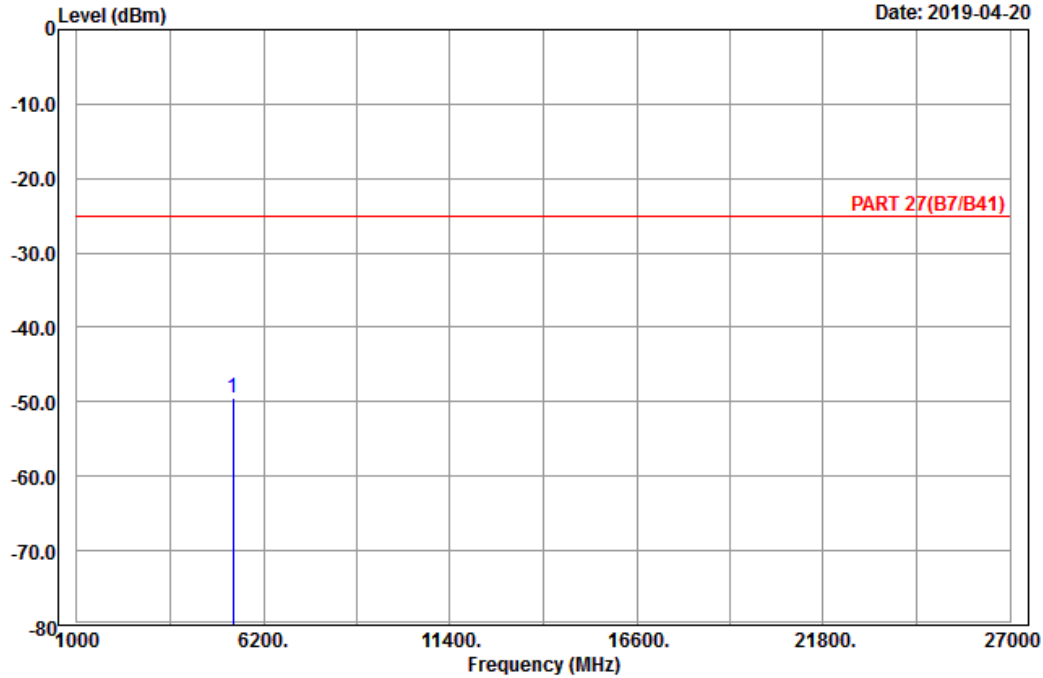
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 5360.00	-49.60	-69.90	-25.00	-24.60	20.30	Peak



A D T

Data: 4

Date: 2019-04-20



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 41\_Link\_CH41490  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	5360.00	-49.45	-69.75	-25.00	-24.45	20.30	Peak

## 5 Pictures of Test Arrangements

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

## Appendix – Information of the Testing Laboratories

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

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

**Lin Kou EMC/RF Lab**

Tel: 886-2-26052180

Fax: 886-2-26051924

**Hsin Chu EMC/RF/Telecom Lab**

Tel: 886-3-6668565

Fax: 886-3-6668323

**Hwa Ya EMC/RF/Safety**

Tel: 886-3-3183232

Fax: 886-3-3270892

**Email:** [service.adt@tw.bureauveritas.com](mailto:service.adt@tw.bureauveritas.com)

**Web Site:** [www.bureauveritas-adt.com](http://www.bureauveritas-adt.com)

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

--- END ---