

## Partial FCC Test Report

### (PART 27)

**Report No.:** RF190805C27-2

**FCC ID:** 2ATM8EG25G

**Test Model:** EG25-G

**Received Date:** Aug. 05, 2019

**Test Date:** Aug. 24 ~ Sep. 15, 2019

**Issued Date:** Sep. 18, 2019

**Applicant:** HAWKEYE TECH CO LTD

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
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**Test Location:** B2F., No.215, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231,  
Taiwan

**FCC Registration /** 427177 / TW0011

**Designation Number:**



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## 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>7</b>
3.1 General Description of EUT.....	7
3.2 Configuration of System under Test.....	9
3.2.1 Description of Support Units.....	9
3.3 Test Mode Applicability and Tested Channel Detail .....	10
3.4 EUT Operating Conditions .....	12
3.5 General Description of Applied Standards.....	12
<b>4 Test Types and Results</b> .....	<b>13</b>
4.1 Output Power Measurement.....	13
4.1.1 Limits of Output Power Measurement .....	13
4.1.2 Test Procedures.....	13
4.1.3 Test Setup.....	14
4.1.4 Test Results .....	15
4.2 Radiated Emission Measurement.....	28
4.2.1 Limits of Radiated Emission Measurement .....	28
4.2.2 Test Procedure .....	28
4.2.3 Deviation from Test Standard .....	28
4.2.4 Test Setup.....	29
4.2.5 Test Results .....	30
<b>5 Pictures of Test Arrangements</b> .....	<b>116</b>
<b>Appendix – Information of the Testing Laboratories</b> .....	<b>117</b>

### Release Control Record

Issue No.	Description	Date Issued
RF190805C27-2	Original Release	Sep. 18, 2019

## 1 Certificate of Conformity

**Product:** LTE Module

**Brand:** Quectel

**Test Model:** EG25-G

**Sample Status:** Engineering Sample

**Applicant:** HAWKEYE TECH CO LTD

**Test Date:** Aug. 24 ~ Sep. 15, 2019

**Standards:** FCC Part 27, Subpart C, H, L, F, 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:** Sep. 18, 2019  
Polly Chien / Specialist

**Approved by :** , **Date:** Sep. 18, 2019  
Bruce Chen / Senior Project Engineer

## 2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2						
FCC Clause				Test Item	Result	Remarks
WCDMA B4 / LTE B4	LTE B12	LTE B13	LTE B7 / LTE B38 / LTE B41			
2.1046 27.50 (d)(4)	2.1046 27.50 (c)(10)	2.1046 27.50 (b)(10)	2.1046 27.50 (h)(2)	Equivalent Isotropically Radiated Power / Equivalent Radiated Power	Pass	Meet the requirement of limit.
27.50 (d)(5)	----	----	----	Peak To Average Ratio	N/A	Refer to Note
2.1055 27.54	2.1055 27.54	2.1055 27.54	2.1055 27.54	Frequency Stability Stay with the authorized bands of operation	N/A	Refer to Note
2.1049	2.1049	2.1049	2.1049	Emission Bandwidth	N/A	Refer to Note
2.1051 27.53(h)	2.1051 27.53(g)	2.1051 27.53(c)	2.1051 27.53 (m)(4)(6)	Band Edge Measurements	N/A	Refer to Note
2.1051 27.53(h)	2.1051 27.53(g)	2.1051 27.53(c) &(f)	2.1051 27.53 (m)(4)(6)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53(h)	2.1053 27.53(g)	2.1053 27.53(c)&(f)	2.1053 27.53 (m)(4)(6)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -16.71dB at 1564.00MHz.

### Note:

1. This report is a partial report. Therefore, only test item of Equivalent Isotropically Radiated Power / Effective Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch report no.: HR/2019/1001601 for module (Brand: Quectel, Model: EG25-G)
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. 26, 2019	Aug. 25, 2020
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Apr. 15, 2019	Apr. 14, 2020
BILOG Antenna SCHWARZBECK	VULB 9168	9168-616	Nov. 27, 2018	Nov. 26, 2019
HORN Antenna ETS-Lindgren	3117	00143293	Nov. 25, 2018	Nov. 24, 2019
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Nov. 25, 2018	Nov. 24, 2019
BILOG Antenna SCHWARZBECK	VULB 9168	9168-631	Nov. 26, 2018	Nov. 25, 2019
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-969	Nov. 25, 2018	Nov. 24, 2019
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 15, 2019	Apr. 14, 2020
MXG Vector signal generator Agilent	N5182B	MY53050430	Nov. 19, 2018	Nov. 18, 2019
Preamplifier Agilent	310N	187226	Jun. 18, 2019	Jun. 17, 2020
Preamplifier Agilent	83017A	MY39501357	Jun. 18, 2019	Jun. 17, 2020
Preamplifier EMCI	EMC 184045	980116	Oct. 12, 2018	Oct. 11, 2019
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-400)	Jun. 18, 2019	Jun. 17, 2020
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RFC-SMS-100-SMS-24)	Jun. 18, 2019	Jun. 17, 2020
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	Jul. 01, 2019	Jun. 30, 2020
Radio Communication Analyzer Anritsu	MT8820C	6201300640	Aug. 19, 2019	Aug. 18, 2020

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 General Information


#### 3.1 General Description of EUT

<b>Product</b>	LTE Module	
<b>Brand</b>	Quectel	
<b>Test Model</b>	EG25-G	
<b>Status of EUT</b>	Engineering Sample	
<b>Power Supply Rating</b>	3.3 Vdc (Host equipment)	
<b>Modulation Type</b>	WCDMA	QPSK
	LTE	QPSK, 16QAM
<b>Frequency Range</b>	WCDMA	1712.4 ~ 1752.6 MHz
	LTE Band 4 (Channel Bandwidth: 1.4 MHz)	1710.7 ~ 1754.3 MHz
	LTE Band 4 (Channel Bandwidth: 3 MHz)	1711.5 ~ 1753.5 MHz
	LTE Band 4 (Channel Bandwidth: 5 MHz)	1712.5 ~ 1752.5 MHz
	LTE Band 4 (Channel Bandwidth: 10 MHz)	1715.0 ~ 1750.0 MHz
	LTE Band 4 (Channel Bandwidth: 15 MHz)	1717.5 ~ 1747.5 MHz
	LTE Band 4 (Channel Bandwidth: 20 MHz)	1720.0 ~ 1745.0 MHz
	LTE Band 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 12 (Channel Bandwidth: 1.4 MHz)	699.7 ~ 715.3 MHz
	LTE Band 12 (Channel Bandwidth: 3 MHz)	700.5 ~ 714.5 MHz
	LTE Band 12 (Channel Bandwidth: 5 MHz)	701.5 ~ 713.5 MHz
	LTE Band 12 (Channel Bandwidth: 10 MHz)	704.0 ~ 711.0 MHz
	LTE Band 13 (Channel Bandwidth: 5 MHz)	779.5 ~ 784.5 MHz
	LTE Band 13 (Channel Bandwidth: 10 MHz)	782.0 MHz
	LTE Band 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. ERP Power</b>	LTE Band 12 (Channel Bandwidth: 1.4 MHz)	86.28 mW
	LTE Band 12 (Channel Bandwidth: 3 MHz)	90.80 mW
	LTE Band 12 (Channel Bandwidth: 5 MHz)	85.68 mW
	LTE Band 12 (Channel Bandwidth: 10 MHz)	99.72 mW
	LTE Band 13 (Channel Bandwidth: 5 MHz)	77.11 mW
	LTE Band 13 (Channel Bandwidth: 10 MHz)	79.01 mW

<b>Max. EIRP Power</b>	WCDMA	186.42 mW
	LTE Band 4 (Channel Bandwidth: 1.4 MHz)	218.63 mW
	LTE Band 4 (Channel Bandwidth: 3 MHz)	220.65 mW
	LTE Band 4 (Channel Bandwidth: 5 MHz)	222.69 mW
	LTE Band 4 (Channel Bandwidth: 10 MHz)	224.75 mW
	LTE Band 4 (Channel Bandwidth: 15 MHz)	226.31 mW
	LTE Band 4 (Channel Bandwidth: 20 MHz)	229.46 mW
	LTE Band 7 (Channel Bandwidth: 5 MHz)	222.89 mW
	LTE Band 7 (Channel Bandwidth: 10 MHz)	216.82 mW
	LTE Band 7 (Channel Bandwidth: 15 MHz)	225.84 mW
	LTE Band 7 (Channel Bandwidth: 20 MHz)	248.71 mW
	LTE Band 38 (Channel Bandwidth: 5 MHz)	229.46 mW
	LTE Band 38 (Channel Bandwidth: 10 MHz)	231.58 mW
	LTE Band 38 (Channel Bandwidth: 15 MHz)	233.72 mW
	LTE Band 38 (Channel Bandwidth: 20 MHz)	235.34 mW
	LTE Band 41 (Channel Bandwidth: 5 MHz)	283.14 mW
	LTE Band 41 (Channel Bandwidth: 10 MHz)	278.68 mW
LTE Band 41 (Channel Bandwidth: 15 MHz)	280.41 mW	
LTE Band 41 (Channel Bandwidth: 20 MHz)	283.14 mW	
<b>Antenna Type</b>	Dipole Antenna	
<b>Antenna Gain</b>	WCDMA	3 dBi
	LTE Band 4	3 dBi
	LTE Band 7	1.5 dBi
	LTE Band 12	2 dBi
	LTE Band 13	2 dBi
	LTE Band 38	1.5 dBi
	LTE Band 41	1.5 dBi
<b>Antenna Connector</b>	SMA	
<b>Accessory Device</b>	N/A	
<b>Data Cable Supplied</b>	N/A	

Note:

1. The EUT was installed in a specific End-product.

Product	Brand	Model
Network Services Gateway		Test model: EM-6000-8S-2X-P-4G Serial mode: EM-6000XXXXXXXXXX (X=A-Z, 0-9, blank or "-")

2. The End-product contains following accessory devices.

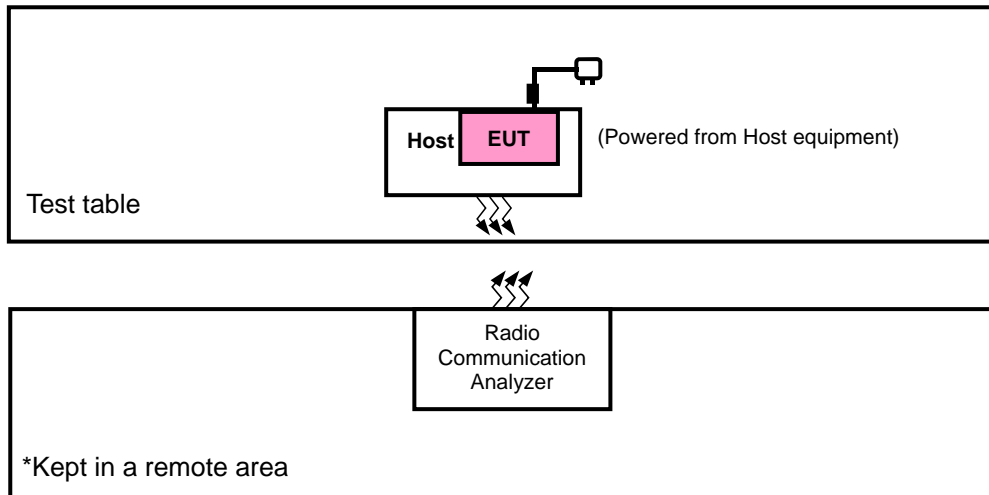
Product	Brand	Model	Description
Adapter	EDACPOWER ELEC.	EA10681U-120	I/P: 100-240 Vac, 50-60 Hz, 2.0A O/P: 12 Vdc, 6 A 1.2m DC cable with 1 core

3. 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.R.P. / 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. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	Radio Communication Analyzer	Anritsu	MT8820C	6201300640	N/A

Note:

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

### 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, antenna degree 90° and 180°, and antenna ports

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

Band	ERP / EIRP	Radiated Emission
WCDMA	90°	90°
LTE Band 4, 7, 12, 13, 38, 41	90°	90°

#### WCDMA

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

#### LTE Band 4

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	19957 to 20393	19957, 20175, 20393	1.4 MHz	QPSK, 16QAM	3 RB / 3 RB Offset
		19965 to 20385	19965, 20175, 20385	3 MHz	QPSK, 16QAM	1 RB / 8 RB Offset
		19975 to 20375	19975, 20175, 20375	5 MHz	QPSK, 16QAM	1 RB / 12 RB Offset
		20000 to 20350	20000, 20175, 20350	10 MHz	QPSK, 16QAM	25 RB / 0 RB Offset
		20025 to 20325	20025, 20175, 20325	15 MHz	QPSK, 16QAM	1 RB / 38 RB Offset
		20050 to 20300	20050, 20175, 20300	20 MHz	QPSK, 16QAM	1 RB / 49 RB Offset
-	Radiated Emission	19957 to 20393	19957, 20175, 20393	1.4 MHz	QPSK	3 RB / 3 RB Offset
		19975 to 20375	19975, 20175, 20375	5 MHz	QPSK	1 RB / 12 RB Offset
		20050 to 20300	20050, 20175, 20300	20 MHz	QPSK	1 RB / 49 RB Offset

#### 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	1 RB / 12 RB Offset
		20800 to 21400	20800, 21100, 21400	10 MHz	QPSK, 16QAM	1 RB / 24 RB Offset
		20825 to 21375	20825, 21100, 21375	15 MHz	QPSK, 16QAM	1 RB / 38 RB Offset
		20850 to 21350	20850, 21100 21350	20 MHz	QPSK, 16QAM	1 RB / 49 RB Offset
-	Radiated Emission	20775 to 21425	20775, 21100, 21425	5 MHz	QPSK	1 RB / 12 RB Offset
		20850 to 21350	20850, 21100 21350	20 MHz	QPSK	1 RB / 49 RB Offset

### LTE Band 12

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	ERP	23017 to 23173	23017, 23095, 23173	1.4 MHz	QPSK, 16QAM	3 RB / 3 RB Offset
		23025 to 23165	23025, 23095, 23165	3 MHz	QPSK, 16QAM	1 RB / 8 RB Offset
		23035 to 23155	23035, 23095, 23155	5 MHz	QPSK, 16QAM	1 RB / 12 RB Offset
		23060 to 23130	23060, 23095, 23130	10 MHz	QPSK, 16QAM	1 RB / 24 RB Offset
-	Radiated Emission	23017 to 23173	23017, 23095, 23173	1.4 MHz	QPSK	3 RB / 3 RB Offset
		23035 to 23155	23035, 23095, 23155	5 MHz	QPSK	1 RB / 12 RB Offset
		23060 to 23130	23060, 23095, 23130	10 MHz	QPSK	1 RB / 24 RB Offset

### LTE Band 13

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	ERP	23205 to 23255	23205, 23230, 23255	5 MHz	QPSK, 16QAM	1 RB / 12 RB Offset
		23230	23230	10 MHz	QPSK, 16QAM	1 RB / 24 RB Offset
-	Radiated Emission	23205 to 23255	23205, 23230, 23255	5 MHz	QPSK	1 RB / 12 RB Offset
		23230	23230	10 MHz	QPSK	1 RB / 24 RB Offset

### 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	1 RB / 12 RB Offset
		37800 to 38200	37800, 38000, 38200	10 MHz	QPSK, 16QAM	1 RB / 24 RB Offset
		37825 to 38175	37825, 38000, 38175	15 MHz	QPSK, 16QAM	1 RB / 38 RB Offset
		37850 to 38150	37850, 38000, 38150	20 MHz	QPSK, 16QAM	1 RB / 49 RB Offset
-	Radiated Emission	37775 to 38225	37775, 38000, 38225	5 MHz	QPSK	1 RB / 12 RB Offset
		37850 to 38150	37850, 38000, 38150	20 MHz	QPSK	1 RB / 49 RB Offset

### 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	1 RB / 12 RB Offset
		39700 to 41540	39700, 40620, 41540	10 MHz	QPSK, 16QAM	1 RB / 24 RB Offset
		39725 to 41515	39725, 40620, 41515	15 MHz	QPSK, 16QAM	1 RB / 38 RB Offset
		39750 to 41490	39750, 40620, 41490	20 MHz	QPSK, 16QAM	1 RB / 49 RB Offset
-	Radiated Emission	39675 to 41565	39675, 40620, 41565	5 MHz	QPSK	1 RB / 12 RB Offset
		39750 to 41490	39750, 40620, 41490	20 MHz	QPSK	1 RB / 49 RB Offset

#### Note:

1. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation and RB configurations according to Module report worst maximum output power.
2. For radiated emission, 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
ERP / EIRP	25 deg. C, 65 % RH	3.3 Vdc	Karl Lee
Radiated Emission	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee

**3.4 EUT Operating Conditions**

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

**3.5 General Description of Applied Standards**

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

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 27**

**KDB 971168 D01 Power Meas License Digital Systems v03r01**

**ANSI/TIA/EIA-603-E 2016**

**ANSI 63.26-2015**

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

## 4 Test Types and Results

### 4.1 Output Power Measurement

#### 4.1.1 Limits of Output Power Measurement

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

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

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

#### 4.1.2 Test Procedures

##### **EIRP / ERP Measurement:**

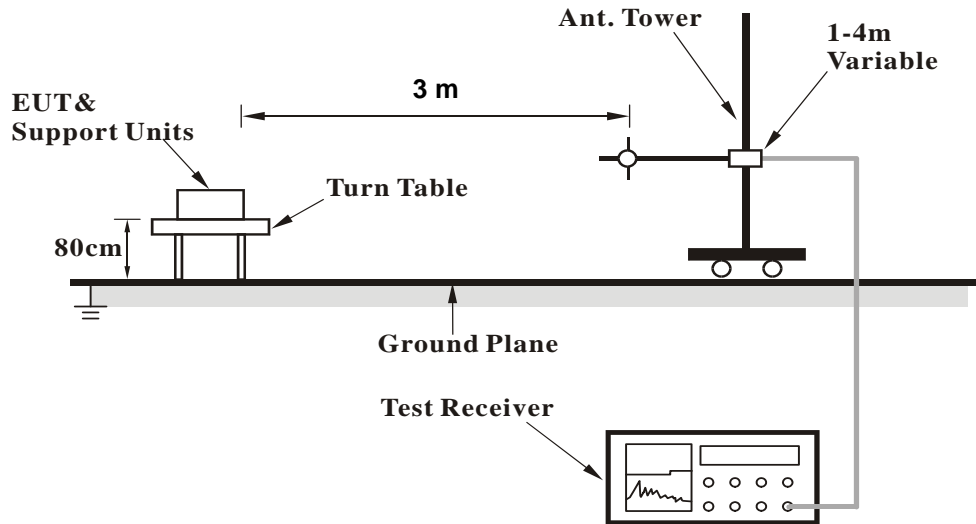
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 5 MHz for WCDMA and 10 MHz for LTE mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step b. Record the power level of S.G.
- d.  $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$ . E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,  $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15 \text{ dB}$ .

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

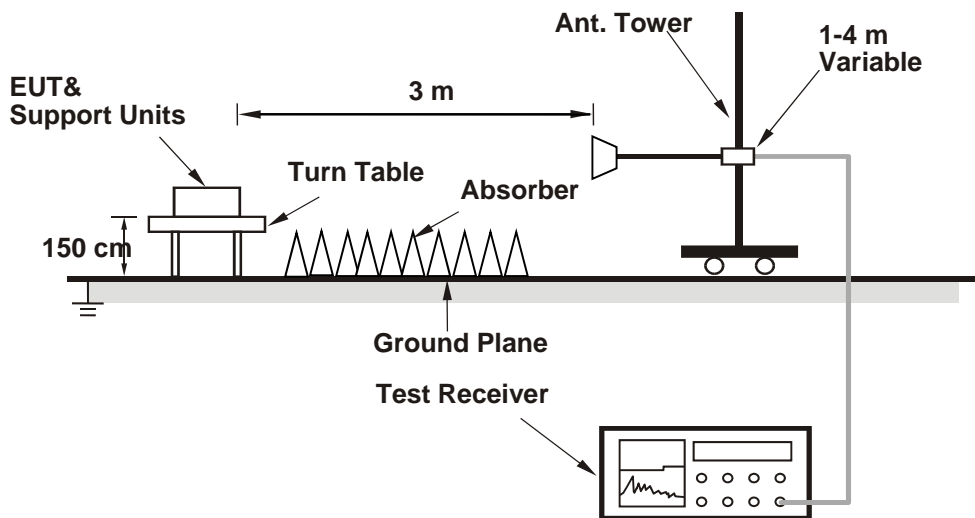
- a. The EUT was set up for the maximum power with WCDMA and LTE link data modulation and link up with simulator.
- b. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

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).

4.1.4 Test Results

ERP Power (dBm)

LTE Band 12							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
90°	23017	699.7	-11.21	32.719	19.36	<b>86.28</b>	H
	23095	707.5	-11.51	32.736	19.08	80.84	
	23173	715.3	-11.23	32.591	19.21	83.39	
	23017	699.7	-17.42	32.69	13.12	20.51	V
	23095	707.5	-17.51	32.81	13.15	20.65	
	23173	715.3	-17.55	32.74	13.04	20.14	
Channel Bandwidth: 1.4 MHz / 16QAM							
90°	23017	699.7	-12.52	32.719	18.05	63.81	H
	23095	707.5	-12.01	32.736	18.58	72.04	
	23173	715.3	-12.01	32.591	18.43	69.68	
	23017	699.7	-18.12	32.69	12.42	17.46	V
	23095	707.5	-18.14	32.81	12.52	17.86	
	23173	715.3	-18.17	32.74	12.42	17.46	

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

LTE Band 12							
Channel Bandwidth: 3 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
90°	23025	700.5	-11.51	32.719	19.06	80.52	H
	23095	707.5	-11.35	32.736	19.24	83.87	
	23165	714.5	-10.86	32.591	19.58	<b>90.80</b>	
	23025	700.5	-16.89	32.69	13.65	23.17	V
	23095	707.5	-17.25	32.81	13.41	21.93	
	23165	714.5	-17.27	32.74	13.32	21.48	
Channel Bandwidth: 3 MHz / 16QAM							
90°	23025	700.5	-12.53	32.719	18.04	63.66	H
	23095	707.5	-12.42	32.736	18.17	65.55	
	23165	714.5	-12.23	32.591	18.21	66.24	
	23025	700.5	-18.22	32.69	12.32	17.06	V
	23095	707.5	-18.01	32.81	12.65	18.41	
	23165	714.5	-18.25	32.74	12.34	17.14	

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

LTE Band 12							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
90°	23035	701.5	-11.24	32.719	19.33	<b>85.68</b>	H
	23095	707.5	-11.51	32.736	19.08	80.84	
	23155	713.5	-11.23	32.591	19.21	83.39	
	23035	701.5	-17.35	32.69	13.19	20.84	V
	23095	707.5	-17.51	32.81	13.15	20.65	
	23155	713.5	-17.26	32.74	13.33	21.53	
Channel Bandwidth: 5 MHz / 16QAM							
90°	23035	701.5	-12.36	32.719	18.21	66.21	H
	23095	707.5	-12.57	32.736	18.02	63.33	
	23155	713.5	-12.14	32.591	18.30	67.62	
	23035	701.5	-18.54	32.69	12.00	15.85	V
	23095	707.5	-18.25	32.81	12.41	17.42	
	23155	713.5	-18.22	32.74	12.37	17.26	

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

LTE Band 12							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
90°	23060	704.0	-11.01	32.727	19.57	90.51	H
	23095	707.5	-10.75	32.739	19.84	96.36	
	23130	711.0	-10.59	32.728	19.99	<b>99.72</b>	
	23060	704.0	-16.75	32.75	13.85	24.27	V
	23095	707.5	-17.25	32.81	13.41	21.93	
	23130	711.0	-17.62	32.84	13.07	20.28	
Channel Bandwidth: 10 MHz / 16QAM							
90°	23060	704.0	-11.65	32.727	18.93	78.11	H
	23095	707.5	-12.57	32.739	18.02	63.37	
	23130	711.0	-12.53	32.728	18.05	63.80	
	23060	704.0	-17.85	32.75	12.75	18.84	V
	23095	707.5	-18.25	32.81	12.41	17.42	
	23130	711.0	-18.33	32.84	12.36	17.22	

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



LTE Band 13							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
90°	23205	779.5	-11.75	32.771	18.87	<b>77.11</b>	H
	23230	782.0	-11.91	32.741	18.68	73.81	
	23255	784.5	-12.23	32.854	18.47	70.37	
	23205	779.5	-18.58	32.5	11.77	15.03	V
	23230	782.0	-18.65	32.52	11.72	14.86	
	23255	784.5	-18.79	32.62	11.68	14.72	
Channel Bandwidth: 5 MHz / 16QAM							
90°	23205	779.5	-12.91	32.771	17.71	59.03	H
	23230	782.0	-12.84	32.741	17.75	59.58	
	23255	784.5	-13.24	32.854	17.46	55.77	
	23205	779.5	-19.51	32.5	10.84	12.13	V
	23230	782.0	-19.65	32.52	10.72	11.80	
	23255	784.5	-19.71	32.62	10.76	11.91	

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

LTE Band 13							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
90°	23230	782.0	-11.61	32.737	18.98	<b>79.01</b>	H
	23230	782.0	-18.75	32.52	11.62	14.52	V
Channel Bandwidth: 10 MHz / 16QAM							
90°	23230	782.0	-12.75	32.737	17.84	60.77	H
	23230	782.0	-19.51	32.52	10.86	12.19	V

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

**EIRP Power (dBm)**

WCDMA							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
90°	1312	1712.4	-19.78	42.49	22.71	<b>186.42</b>	H
	1413	1732.6	-19.85	42.33	22.48	176.89	
	1513	1752.6	-19.76	42.10	22.34	171.40	
	1312	1712.4	-25.68	42.99	17.31	53.85	V
	1413	1732.6	-25.14	42.74	17.60	57.54	
	1513	1752.6	-25.02	42.21	17.19	52.36	

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

LTE Band 4							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
90°	19957	1710.7	-19.12	42.49	23.37	217.02	H
	20175	1732.5	-18.93	42.33	23.40	<b>218.63</b>	
	20393	1754.3	-18.83	42.10	23.27	212.32	
	19957	1710.7	-23.65	42.99	19.34	85.90	V
	20175	1732.5	-23.34	42.74	19.40	87.10	
	20393	1754.3	-22.96	42.21	19.25	84.14	
Channel Bandwidth: 1.4 MHz / 16QAM							
90°	19957	1710.7	-20.12	42.49	22.37	172.39	H
	20175	1732.5	-19.94	42.33	22.39	173.26	
	20393	1754.3	-19.84	42.10	22.26	168.27	
	19957	1710.7	-24.66	42.99	18.33	68.08	V
	20175	1732.5	-24.35	42.74	18.39	69.02	
	20393	1754.3	-23.96	42.21	18.25	66.83	

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

LTE Band 4							
Channel Bandwidth: 3 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
90°	19965	1711.5	-19.08	42.49	23.41	219.03	H
	20175	1732.5	-18.89	42.33	23.44	<b>220.65</b>	
	20385	1753.5	-18.79	42.10	23.31	214.29	
90°	19965	1711.5	-23.61	42.99	19.38	86.70	V
	20175	1732.5	-23.30	42.74	19.44	87.90	
	20385	1753.5	-22.92	42.21	19.29	84.92	
Channel Bandwidth: 3 MHz / 16QAM							
90°	19965	1711.5	-20.08	42.49	22.41	173.98	H
	20175	1732.5	-19.90	42.33	22.43	174.86	
	20385	1753.5	-19.80	42.10	22.30	169.82	
90°	19965	1711.5	-24.61	42.99	18.38	68.87	V
	20175	1732.5	-24.31	42.74	18.43	69.66	
	20385	1753.5	-23.92	42.21	18.29	67.45	

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

LTE Band 4							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
90°	19975	1712.5	-19.05	42.49	23.44	220.55	H
	20175	1732.5	-18.85	42.33	23.48	<b>222.69</b>	
	20375	1752.5	-18.75	42.10	23.35	216.27	
90°	19975	1712.5	-23.57	42.99	19.42	87.50	V
	20175	1732.5	-23.27	42.74	19.47	88.51	
	20375	1752.5	-22.88	42.21	19.33	85.70	
Channel Bandwidth: 5 MHz / 16QAM							
90°	19975	1712.5	-20.05	42.49	22.44	175.19	H
	20175	1732.5	-19.85	42.33	22.48	176.89	
	20375	1752.5	-19.75	42.10	22.35	171.79	
90°	19975	1712.5	-24.57	42.99	18.42	69.50	V
	20175	1732.5	-24.27	42.74	18.47	70.31	
	20375	1752.5	-23.89	42.21	18.32	67.92	

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

LTE Band 4							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
90°	20000	1715.0	-19.01	42.49	23.48	222.59	H
	20175	1732.5	-18.81	42.33	23.52	<b>224.75</b>	
	20350	1750.0	-18.71	42.10	23.39	218.27	
	20000	1715.0	-23.53	42.99	19.46	88.31	V
	20175	1732.5	-23.23	42.74	19.51	89.33	
	20350	1750.0	-22.84	42.21	19.37	86.50	
Channel Bandwidth: 10 MHz / 16QAM							
90°	20000	1715.0	-20.01	42.49	22.48	176.81	H
	20175	1732.5	-19.82	42.33	22.51	178.11	
	20350	1750.0	-19.72	42.10	22.38	172.98	
	20000	1715.0	-24.53	42.99	18.46	70.15	V
	20175	1732.5	-24.23	42.74	18.51	70.96	
	20350	1750.0	-23.85	42.21	18.36	68.55	

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

LTE Band 4							
Channel Bandwidth: 15 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
90°	20025	1717.5	-18.98	42.49	23.51	224.13	H
	20175	1732.5	-18.78	42.33	23.55	<b>226.31</b>	
	20325	1747.5	-18.67	42.10	23.43	220.29	
	20025	1717.5	-23.49	42.99	19.50	89.13	V
	20175	1732.5	-23.20	42.74	19.54	89.95	
	20325	1747.5	-22.80	42.21	19.41	87.30	
Channel Bandwidth: 15 MHz / 16QAM							
90°	20025	1717.5	-19.99	42.49	22.50	177.62	H
	20175	1732.5	-19.78	42.33	22.55	179.76	
	20325	1747.5	-19.67	42.10	22.43	174.98	
	20025	1717.5	-24.50	42.99	18.49	70.63	V
	20175	1732.5	-24.21	42.74	18.53	71.29	
	20325	1747.5	-23.81	42.21	18.40	69.18	

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

LTE Band 4							
Channel Bandwidth: 20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
90°	20050	1720.0	-18.94	42.49	23.55	226.20	H
	20175	1732.5	-18.72	42.33	23.61	<b>229.46</b>	
	20300	1745.0	-18.63	42.10	23.47	222.33	
	20050	1720.0	-23.45	42.99	19.54	89.95	V
	20175	1732.5	-23.16	42.74	19.58	90.78	
	20300	1745.0	-22.76	42.21	19.45	88.10	
Channel Bandwidth: 20 MHz / 16QAM							
90°	20050	1720.0	-19.94	42.49	22.55	179.68	H
	20175	1732.5	-19.72	42.33	22.61	182.26	
	20300	1745.0	-19.64	42.10	22.46	176.20	
	20050	1720.0	-24.45	42.99	18.54	71.45	V
	20175	1732.5	-24.16	42.74	18.58	72.11	
	20300	1745.0	-23.77	42.21	18.44	69.82	

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

LTE Band 7							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
90°	20775	2502.5	-20.85	44.24	23.39	218.17	H
	21100	2535.0	-20.95	44.20	23.25	211.20	
	21425	2567.5	-21.32	44.80	23.48	<b>222.89</b>	
	20775	2502.5	-24.68	44.19	19.51	89.35	V
	21100	2535.0	-24.84	44.09	19.25	84.10	
	21425	2567.5	-24.75	44.50	19.75	94.38	
Channel Bandwidth: 5 MHz / 16QAM							
90°	20775	2502.5	-21.68	44.24	22.56	180.22	H
	21100	2535.0	-21.84	44.20	22.36	172.07	
	21425	2567.5	-22.42	44.80	22.38	173.02	
	20775	2502.5	-25.47	44.19	18.72	74.49	V
	21100	2535.0	-25.49	44.09	18.60	72.41	
	21425	2567.5	-25.77	44.50	18.73	74.63	

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)
90°	20800	2505.0	-20.98	44.34	23.36	<b>216.82</b>	H
	21100	2535.0	-20.85	44.20	23.35	216.12	
	21400	2565.0	-21.37	44.72	23.35	216.42	
	20800	2505.0	-24.51	44.23	19.72	93.67	V
	21100	2535.0	-24.56	44.09	19.53	89.70	
	21400	2565.0	-24.85	44.41	19.56	90.28	
Channel Bandwidth: 10 MHz / 16QAM							
90°	20800	2505.0	-21.81	44.34	22.53	179.10	H
	21100	2535.0	-21.75	44.20	22.45	175.67	
	21400	2565.0	-22.56	44.72	22.16	164.55	
	20800	2505.0	-25.62	44.23	18.61	72.54	V
	21100	2535.0	-25.49	44.09	18.60	72.41	
	21400	2565.0	-25.71	44.41	18.70	74.06	

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)
90°	20825	2507.5	-20.78	44.32	23.54	<b>225.84</b>	H
	21100	2535.0	-20.81	44.20	23.38	217.92	
	21375	2562.5	-21.42	44.85	23.43	220.19	
	20825	2507.5	-24.21	43.99	19.78	95.10	V
	21100	2535.0	-24.34	44.09	19.75	94.36	
	21375	2562.5	-24.78	44.51	19.73	93.97	
Channel Bandwidth: 15 MHz / 16QAM							
90°	20825	2507.5	-21.85	44.32	22.47	176.52	H
	21100	2535.0	-21.91	44.20	22.29	169.32	
	21375	2562.5	-22.82	44.85	22.03	159.51	
	20825	2507.5	-25.45	43.99	18.54	71.48	V
	21100	2535.0	-25.58	44.09	18.51	70.93	
	21375	2562.5	-25.95	44.51	18.56	71.78	

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)
90°	20850	2510.0	-20.56	44.16	23.60	229.09	H
	21100	2535.0	-20.24	44.20	23.96	<b>248.71</b>	
	21350	2560.0	-21.22	44.81	23.59	228.40	
	20850	2510.0	-25.42	44.78	19.36	86.30	V
	21100	2535.0	-24.60	44.09	19.49	88.88	
	21350	2560.0	-24.74	44.72	19.98	99.54	
Channel Bandwidth: 20 MHz / 16QAM							
90°	20850	2510.0	-21.24	44.16	22.92	195.88	H
	21100	2535.0	-21.56	44.20	22.64	183.53	
	21350	2560.0	-22.25	44.81	22.56	180.18	
	20850	2510.0	-26.14	44.78	18.64	73.11	V
	21100	2535.0	-25.58	44.09	18.51	70.93	
	21350	2560.0	-25.84	44.72	18.88	77.27	

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)
90°	37775	2572.5	-20.68	44.24	23.56	226.88	H
	38000	2595.0	-20.59	44.20	23.61	<b>229.46</b>	
	38225	2617.5	-21.31	44.80	23.49	223.41	
	37775	2572.5	-25.70	44.19	18.49	70.65	V
	38000	2595.0	-25.55	44.09	18.54	71.42	
	38225	2617.5	-26.16	44.50	18.34	68.22	
Channel Bandwidth: 5 MHz / 16QAM							
90°	37775	2572.5	-21.68	44.24	22.56	180.22	H
	38000	2595.0	-21.59	44.20	22.61	182.26	
	38225	2617.5	-22.32	44.80	22.48	177.05	
	37775	2572.5	-26.70	44.19	17.49	56.12	V
	38000	2595.0	-26.55	44.09	17.54	56.73	
	38225	2617.5	-27.16	44.50	17.34	54.19	

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)
90°	37800	2575.0	-20.75	44.34	23.59	228.61	H
	38000	2595.0	-20.55	44.20	23.65	<b>231.58</b>	
	38200	2615.0	-21.19	44.72	23.53	225.58	
	37800	2575.0	-25.70	44.23	18.53	71.22	V
	38000	2595.0	-25.52	44.09	18.57	71.91	
	38200	2615.0	-26.04	44.41	18.37	68.64	
Channel Bandwidth: 10 MHz / 16QAM							
90°	37800	2575.0	-21.76	44.34	22.58	181.18	H
	38000	2595.0	-21.55	44.20	22.65	183.95	
	38200	2615.0	-22.19	44.72	22.53	179.18	
	37800	2575.0	-26.70	44.23	17.53	56.57	V
	38000	2595.0	-26.53	44.09	17.56	56.99	
	38200	2615.0	-27.05	44.41	17.36	54.40	

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)
90°	37825	2577.5	-20.69	44.32	23.63	230.57	H
	38000	2595.0	-20.51	44.20	23.69	<b>233.72</b>	
	38175	2612.5	-21.28	44.85	23.57	227.40	
	37825	2577.5	-25.49	43.99	18.50	70.83	V
	38000	2595.0	-25.48	44.09	18.61	72.58	
	38175	2612.5	-26.10	44.51	18.41	69.34	
Channel Bandwidth: 15 MHz / 16QAM							
90°	37825	2577.5	-21.70	44.32	22.62	182.73	H
	38000	2595.0	-21.51	44.20	22.69	185.65	
	38175	2612.5	-22.29	44.85	22.56	180.22	
	37825	2577.5	-26.49	43.99	17.50	56.26	V
	38000	2595.0	-26.48	44.09	17.61	57.65	
	38175	2612.5	-27.10	44.51	17.41	55.08	

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)
90°	37850	2580.0	-20.49	44.16	23.67	232.81	H
	38000	2595.0	-20.48	44.20	23.72	<b>235.34</b>	
	38150	2610.0	-21.20	44.81	23.61	229.67	
	37850	2580.0	-26.24	44.78	18.54	71.45	V
	38000	2595.0	-25.44	44.09	18.65	73.25	
	38150	2610.0	-26.26	44.72	18.46	70.15	
Channel Bandwidth: 20 MHz / 16QAM							
90°	37850	2580.0	-21.49	44.16	22.67	184.93	H
	38000	2595.0	-21.48	44.20	22.72	186.94	
	38150	2610.0	-22.21	44.81	22.60	181.84	
	37850	2580.0	-27.25	44.78	17.53	56.62	V
	38000	2595.0	-26.45	44.09	17.64	58.05	
	38150	2610.0	-27.26	44.72	17.46	55.72	

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)
90°	39750	2506.0	-19.64	44.16	24.52	<b>283.14</b>	H
	40620	2593.0	-19.74	44.20	24.46	279.06	
	41490	2680.0	-20.40	44.81	24.41	275.87	
	39750	2506.0	-24.23	44.78	20.55	113.50	V
	40620	2593.0	-23.64	44.09	20.45	110.87	
	41490	2680.0	-24.35	44.72	20.37	108.89	
Channel Bandwidth: 5 MHz / 16QAM							
90°	39675	2498.5	-20.83	44.24	23.41	219.18	H
	40620	2593.0	-20.86	44.20	23.34	215.63	
	41565	2687.5	-21.51	44.80	23.29	213.35	
	39675	2498.5	-24.69	44.19	19.50	89.15	V
	40620	2593.0	-24.75	44.09	19.34	85.86	
	41565	2687.5	-25.26	44.50	19.24	83.93	

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)
90°	39700	2501.0	-19.89	44.34	24.45	<b>278.68</b>	H
	40620	2593.0	-19.82	44.20	24.38	273.97	
	41540	2685.0	-20.38	44.72	24.34	271.83	
	39700	2501.0	-23.69	44.23	20.54	113.14	V
	40620	2593.0	-23.72	44.09	20.37	108.84	
	41540	2685.0	-24.12	44.41	20.29	106.81	
Channel Bandwidth: 10 MHz / 16QAM							
90°	39700	2501.0	-20.89	44.34	23.45	221.36	H
	40620	2593.0	-20.82	44.20	23.38	217.62	
	41540	2685.0	-21.39	44.72	23.33	215.43	
	39700	2501.0	-24.69	44.23	19.54	89.87	V
	40620	2593.0	-24.72	44.09	19.37	86.46	
	41540	2685.0	-25.13	44.41	19.28	84.64	

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)
90°	39725	2503.5	-19.84	44.32	24.48	<b>280.41</b>	H
	40620	2593.0	-19.78	44.20	24.42	276.50	
	41515	2682.5	-20.47	44.85	24.38	274.03	
	39725	2503.5	-23.48	43.99	20.51	112.51	V
	40620	2593.0	-23.68	44.09	20.41	109.85	
	41515	2682.5	-24.18	44.51	20.33	107.89	
Channel Bandwidth: 15 MHz / 16QAM							
90°	39725	2503.5	-20.84	44.32	23.48	222.74	H
	40620	2593.0	-20.78	44.20	23.42	219.63	
	41515	2682.5	-21.48	44.85	23.37	217.17	
	39725	2503.5	-24.48	43.99	19.51	89.37	V
	40620	2593.0	-24.68	44.09	19.41	87.26	
	41515	2682.5	-25.19	44.51	19.32	85.51	

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)
90°	39750	2506.0	-19.64	44.16	24.52	<b>283.14</b>	H
	40620	2593.0	-19.74	44.20	24.46	279.06	
	41490	2680.0	-20.40	44.81	24.41	275.87	
	39750	2506.0	-24.23	44.78	20.55	113.50	V
	40620	2593.0	-23.64	44.09	20.45	110.87	
	41490	2680.0	-24.35	44.72	20.37	108.89	
Channel Bandwidth: 20 MHz / 16QAM							
90°	39750	2506.0	-20.64	44.16	23.52	224.91	H
	40620	2593.0	-20.74	44.20	23.46	221.67	
	41490	2680.0	-21.41	44.81	23.40	218.63	
	39750	2506.0	-25.23	44.78	19.55	90.16	V
	40620	2593.0	-24.65	44.09	19.44	87.86	
	41490	2680.0	-25.36	44.72	19.36	86.30	

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

## 4.2 Radiated Emission Measurement

### 4.2.1 Limits of Radiated Emission Measurement

For LTE WCDMA, LTE B4, B12, B13:

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

For LTE B7, B38, B41:

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,  $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15 \text{ dB}$ .

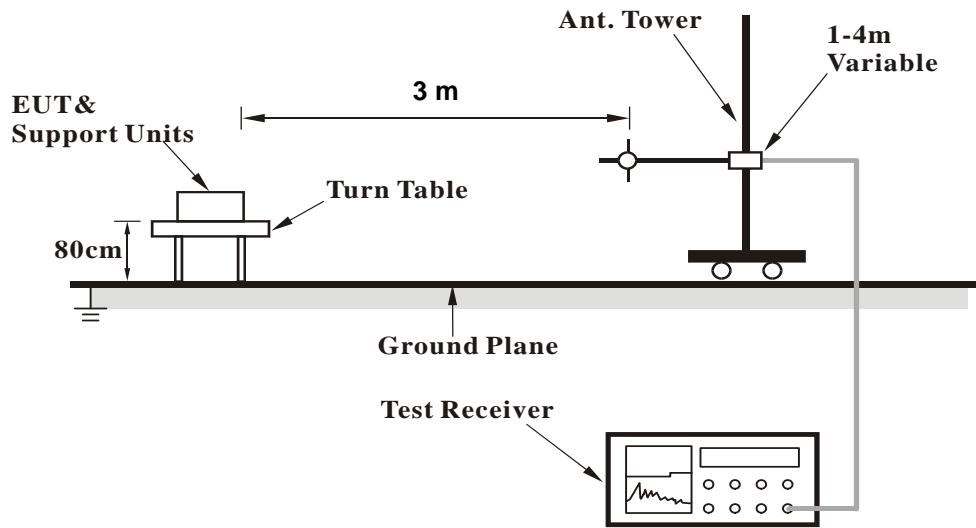
**Note:** The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

### 4.2.3 Deviation from Test Standard

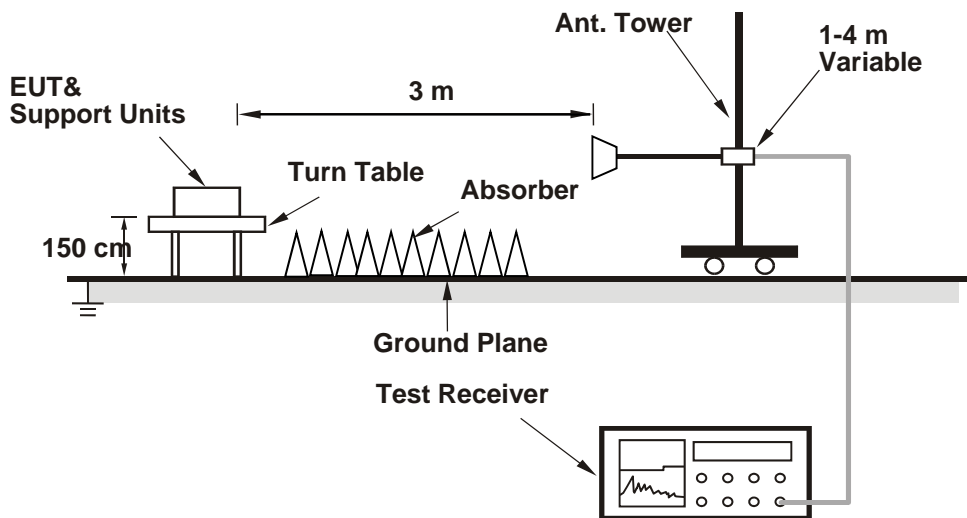
No deviation.

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

WCDMA:

Low Channel

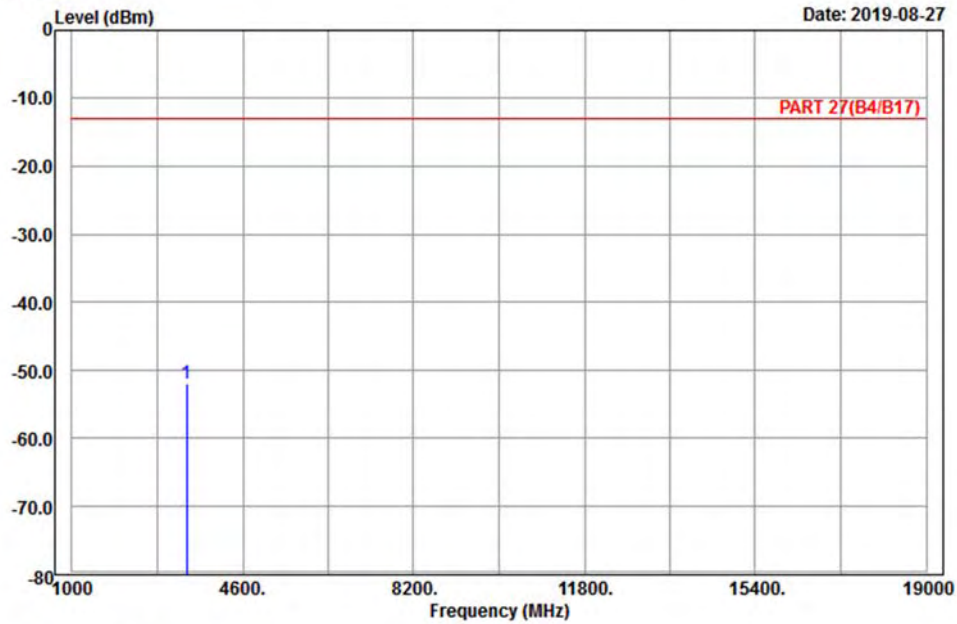


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A D T

Data: 9

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : Band IV\_Link\_L-Ch  
 Tested by: Harry Hsueh

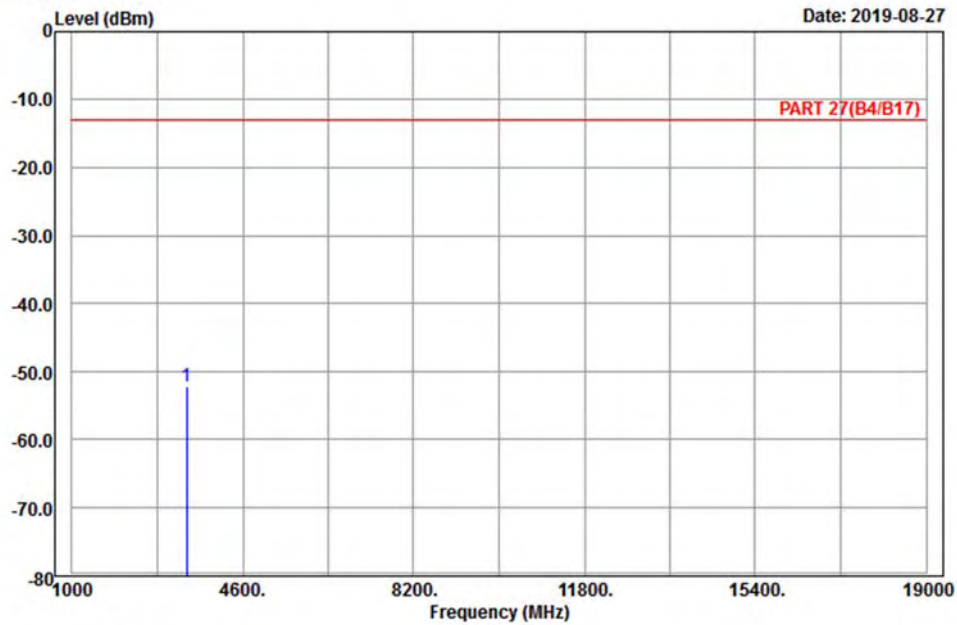
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3424.80	-51.82	-66.19	14.37	-13.00
				-38.82 Peak



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A D T

Data: 10



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : Band IV\_Link\_L-Ch  
 Tested by: Harry Hsueh

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3424.80	-52.19	-66.56	14.37	-13.00
				-39.19
				Peak

Middle Channel

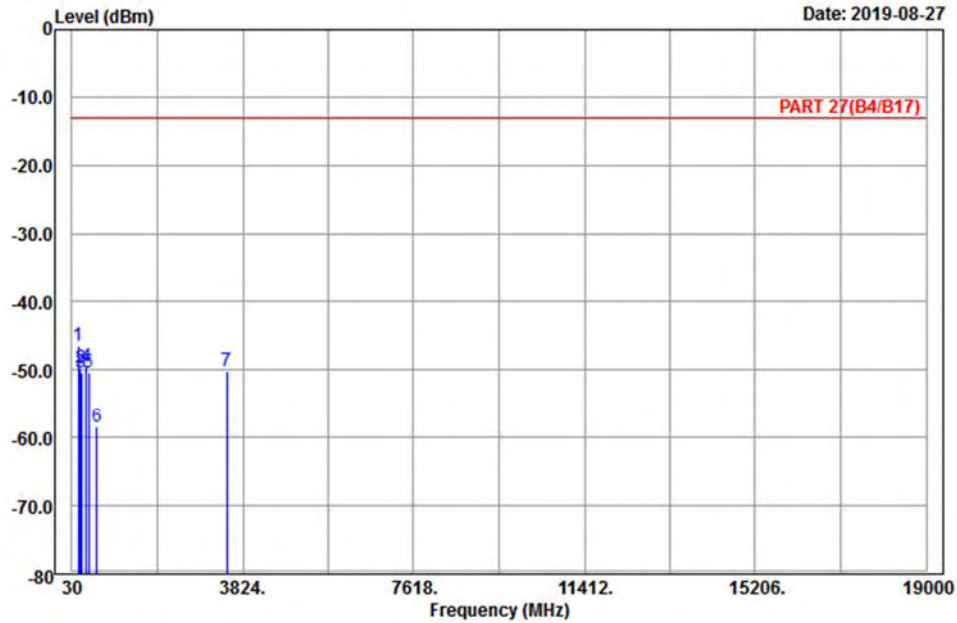


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A D T

Data: 13

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : Band IV\_Link\_M-Ch  
 Tested by: Charles Hsiao

	Read	Limit	Over				
Freq	Level	Level	Factor	Line	Limit	Remark	
MHz	dBm	dBm	dB	dBm	dB		
1 pp	164.73	-46.42	-39.23	-7.19	-13.00	-33.42	Peak
2	221.16	-49.62	-43.72	-5.90	-13.00	-36.62	Peak
3	243.30	-50.28	-44.68	-5.60	-13.00	-37.28	Peak
4	358.10	-49.38	-44.42	-4.96	-13.00	-36.38	Peak
5	402.20	-50.29	-47.49	-2.80	-13.00	-37.29	Peak
6	587.70	-58.43	-58.33	-0.10	-13.00	-45.43	Peak
7	3465.20	-50.17	-64.51	14.34	-13.00	-37.17	Peak

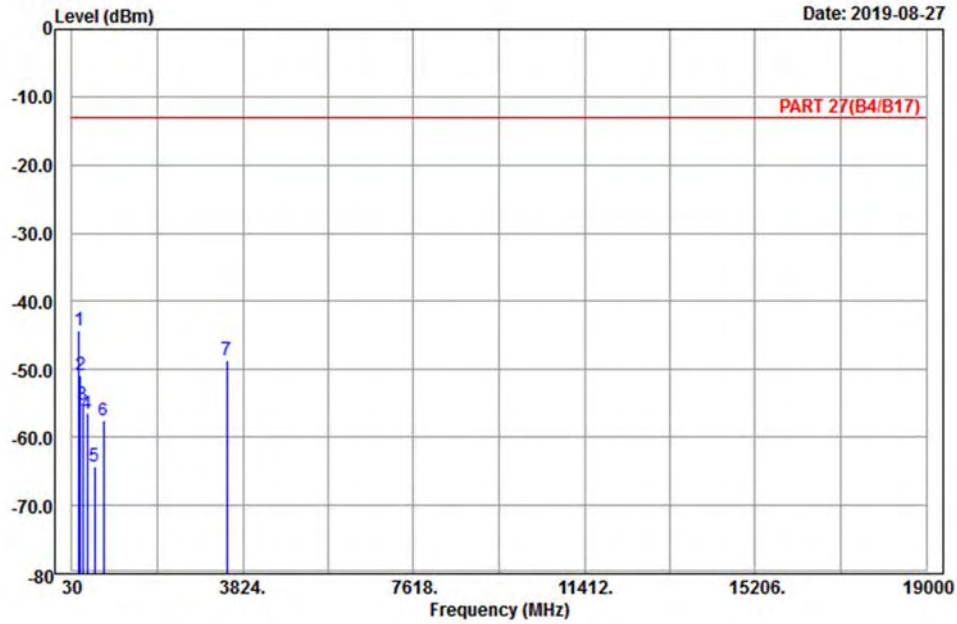




A D T

Data: 14

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : Band IV\_Link\_M-Ch  
 Tested by: Charles Hsiao

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp	190.92	-44.31	-38.53	-5.78	-13.00	-31.31 Peak
2	212.25	-50.71	-44.70	-6.01	-13.00	-37.71 Peak
3	264.09	-55.24	-49.61	-5.63	-13.00	-42.24 Peak
4	360.90	-56.41	-51.60	-4.81	-13.00	-43.41 Peak
5	528.20	-64.38	-61.16	-3.22	-13.00	-51.38 Peak
6	738.20	-57.44	-56.35	-1.09	-13.00	-44.44 Peak
7	3465.20	-48.64	-62.98	14.34	-13.00	-35.64 Peak

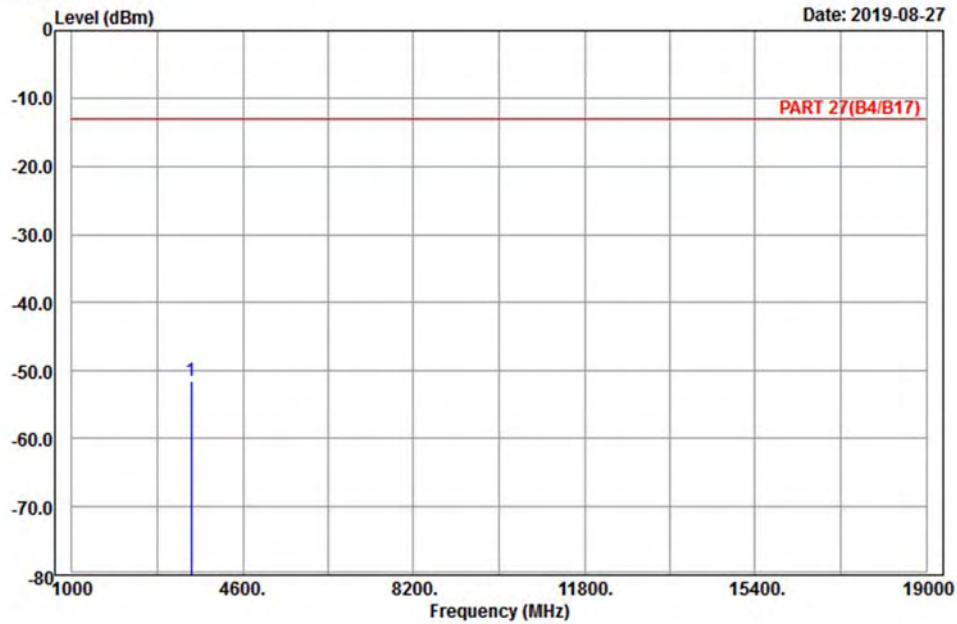
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : Band IV\_Link\_H-Ch  
 Tested by: Harry Hsueh

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3505.20	-51.39	-65.67	14.28	-13.00
				-38.39 Peak

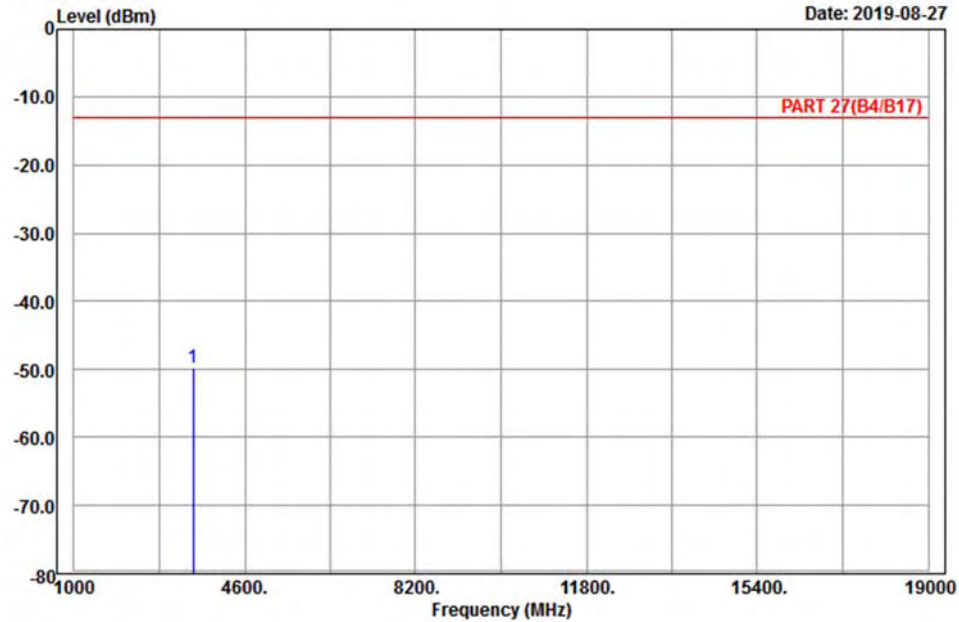


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A D T

Data: 10

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : Band IV\_Link\_H-Ch  
 Tested by: Harry Hsueh

Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 3505.20	-49.64	-63.92	14.28	-13.00	-36.64	Peak

LTE Band 4  
 Channel Bandwidth: 1.4 MHz / QPSK  
 Low Channel

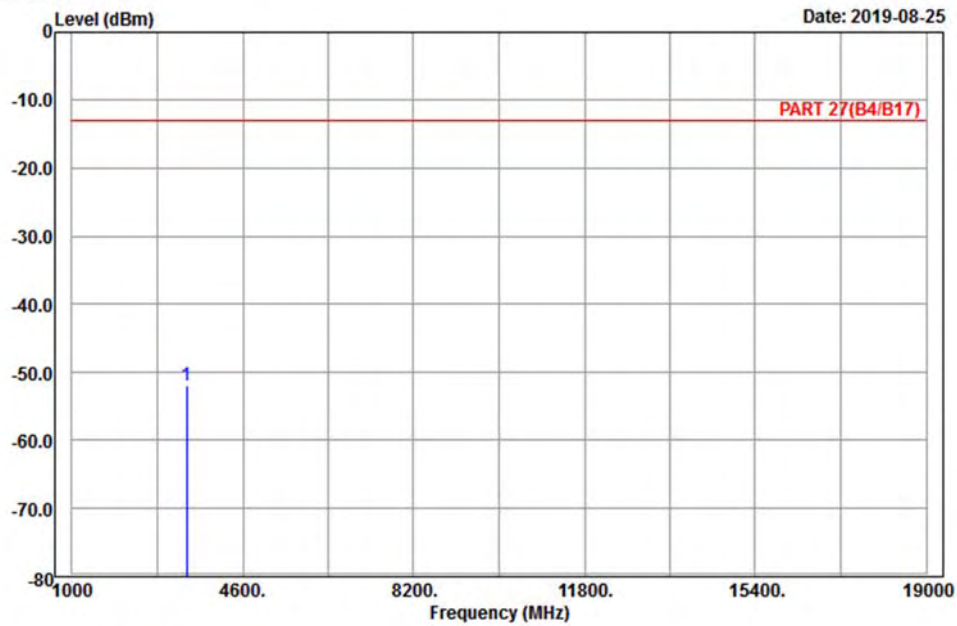


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-08-25



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : LTE\_Band 4\_Link\_L-CH  
 Tested by: Karl Lee

Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 3421.40	-51.87	-66.24	14.37	-13.00	-38.87	Peak

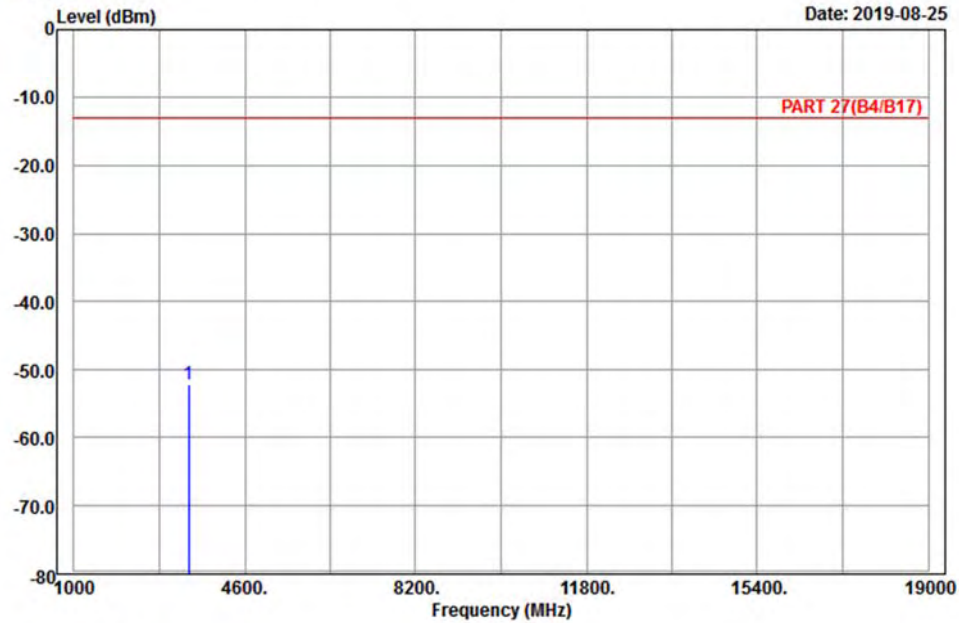


## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-25



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : LTE\_Band 4\_Link\_L-CH  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3421.40	-52.00	-66.37	14.37	-13.00
				-39.00
				Peak

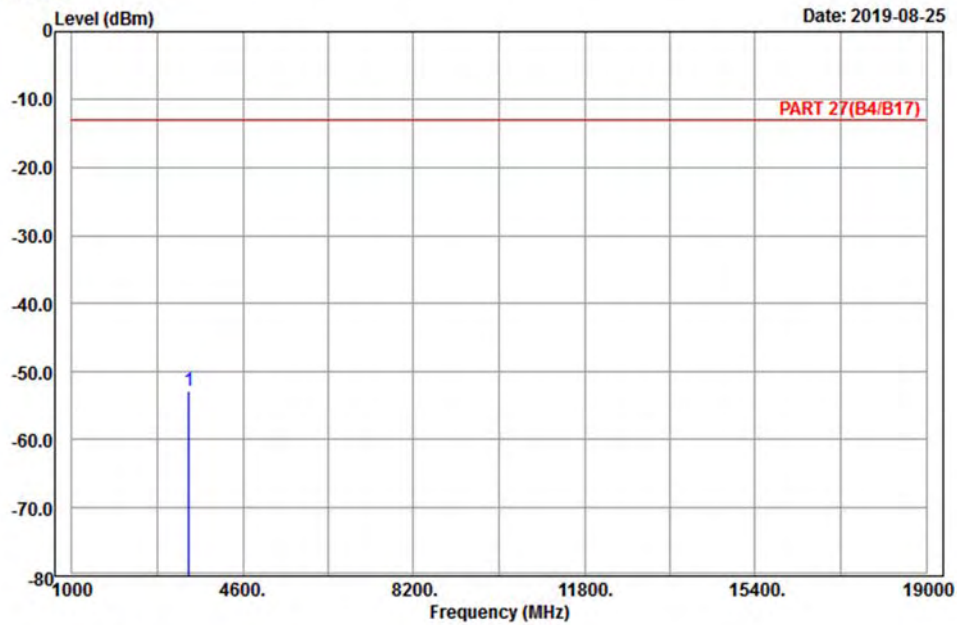
Middle Channel



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A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : LTE\_Band 4\_Link\_M-CH  
 Tested by: Karl Lee

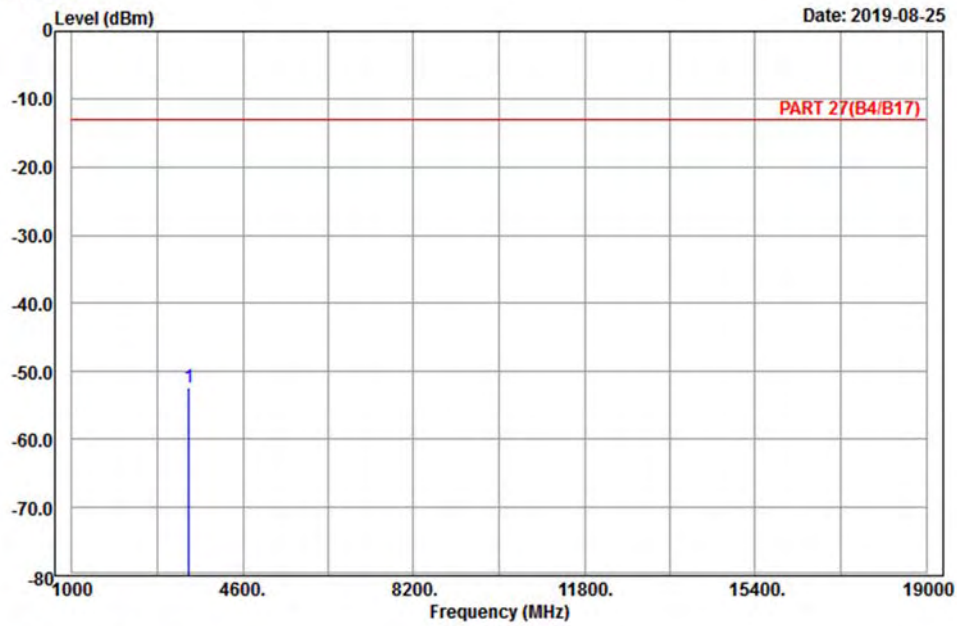
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3465.00	-52.75	-67.09	14.34	-13.00
				-39.75 Peak



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A D T

Data: 10



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : LTE\_Band 4\_Link\_M-CH  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3465.00	-52.26	-66.60	14.34	-13.00
				-39.26
				Peak

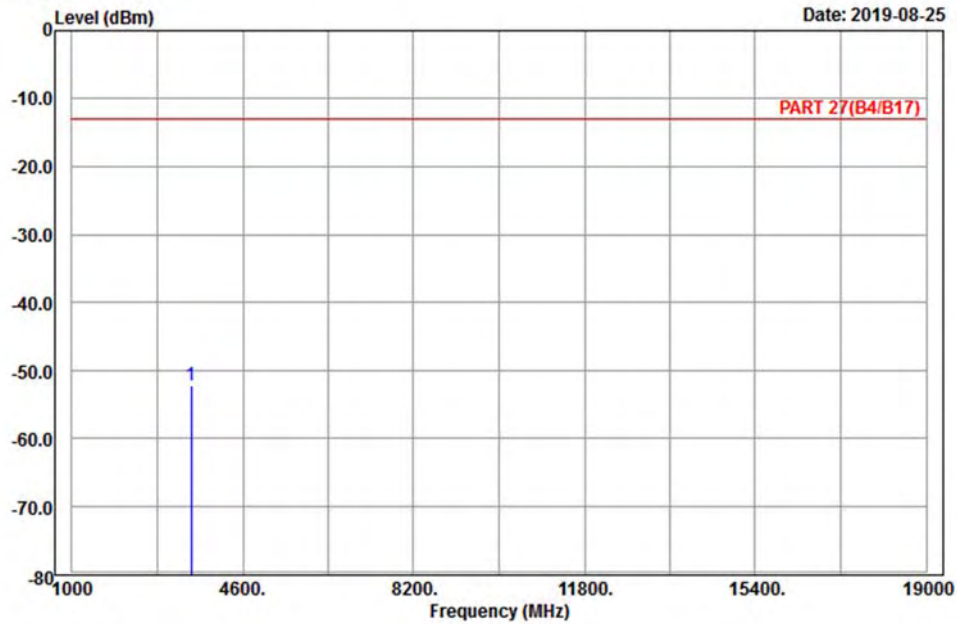
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : LTE\_Band 4\_Link\_H-CH  
 Tested by: Karl Lee

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 3508.60	-52.06	-66.34	14.28	-13.00	-39.06	Peak

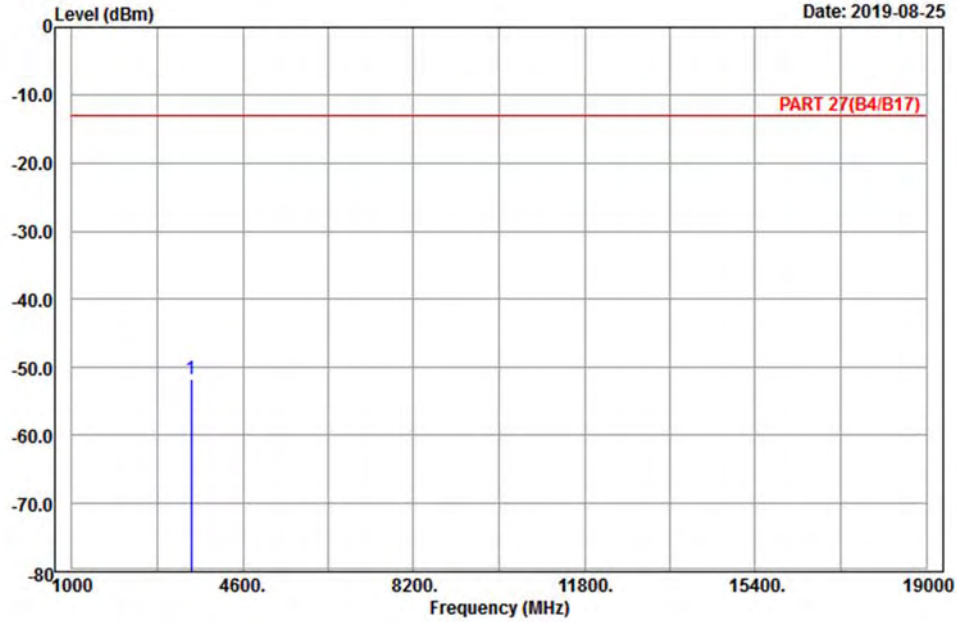




A D T

Data: 10

Date: 2019-08-25



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : LTE\_Band 4\_Link\_H-CH  
 Tested by: Karl Lee

Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 3508.60	-51.72	-66.00	14.28	-13.00	-38.72	Peak

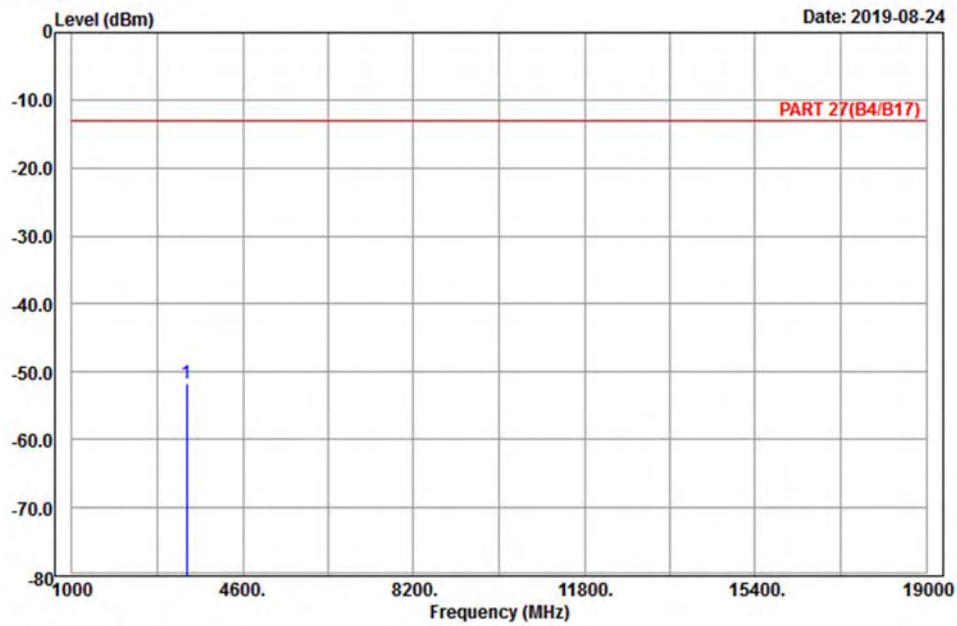
Channel Bandwidth: 5 MHz / QPSK  
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
Condition: PART 27(B4/B17) Horizontal  
Remark : LTE\_Band 4\_Link\_L-CH  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	3425.00	-51.63	-66.00	14.37	-13.00	-38.63	Peak

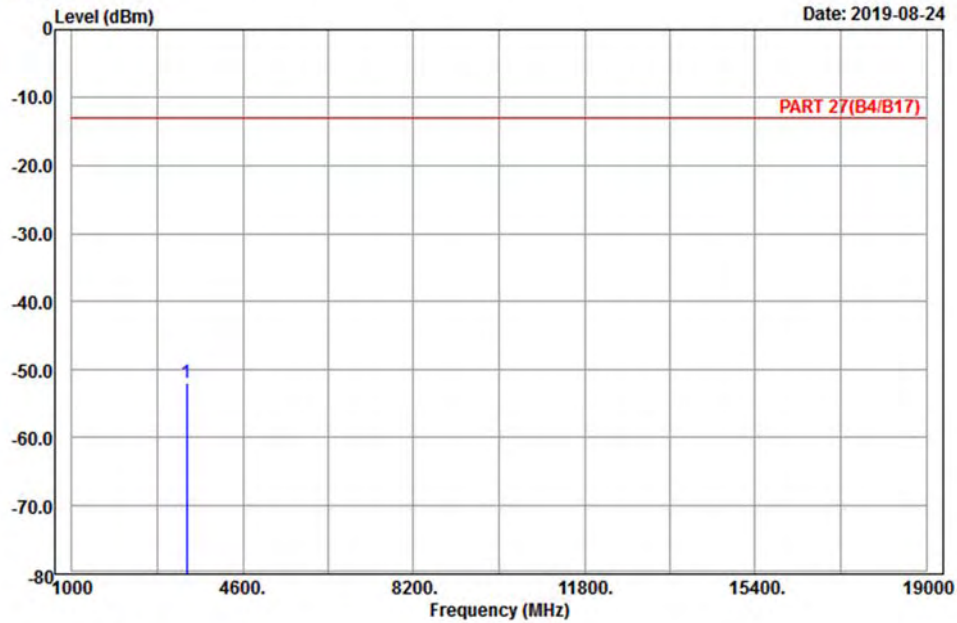


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A D T

Data: 10

Date: 2019-08-24



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : LTE\_Band 4\_Link\_L-CH  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3425.00	-51.94	-66.31	14.37	-13.00
				-38.94
				Peak

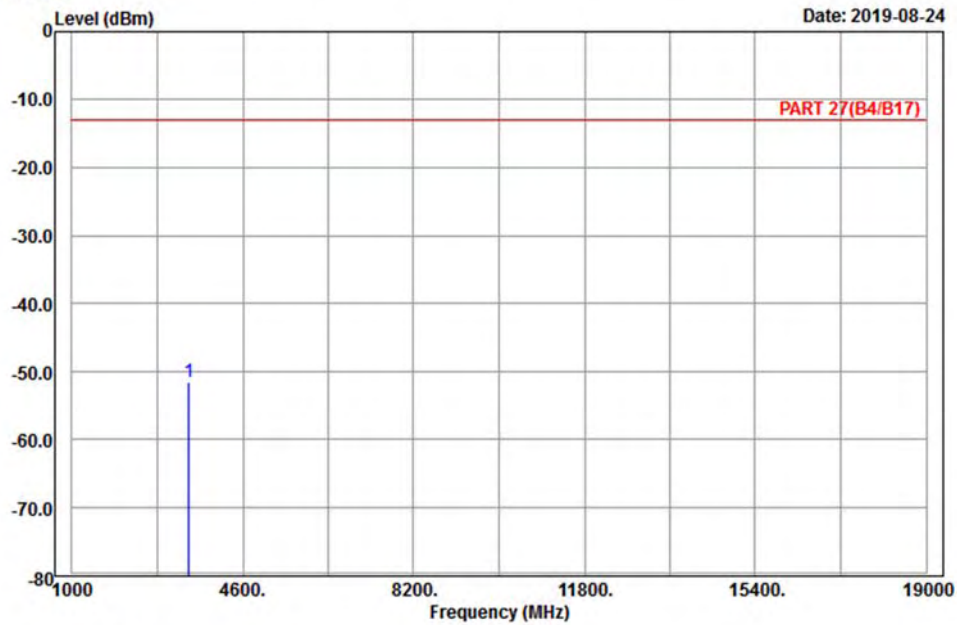
Middle Channel



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A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : LTE\_Band 4\_Link\_M-CH  
 Tested by: Karl Lee

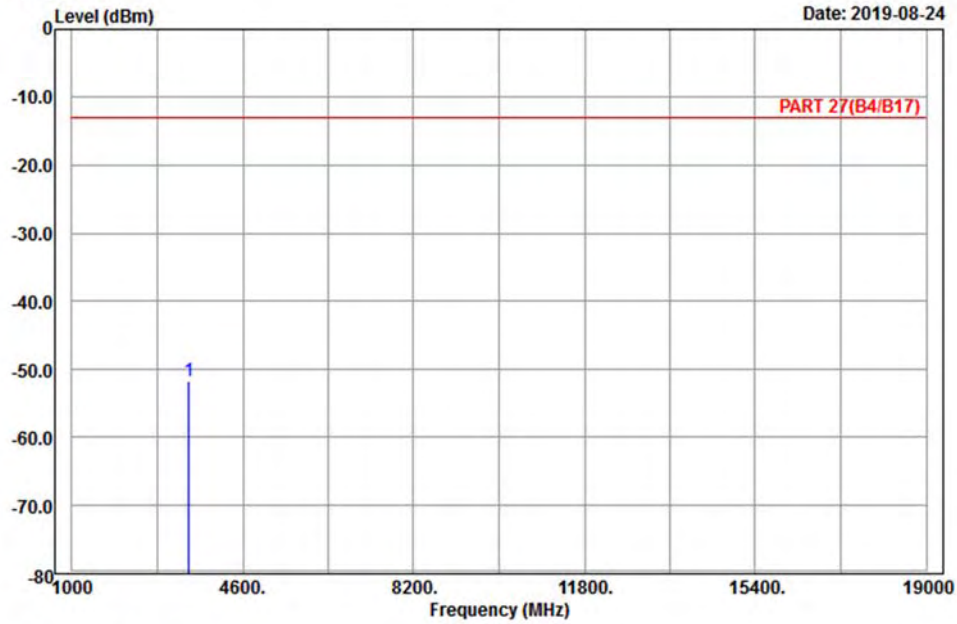
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3465.00	-51.48	-65.82	14.34	-13.00
				-38.48 Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : LTE\_Band 4\_Link\_M-CH  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3465.00	-51.61	-65.95	14.34	-13.00
				-38.61 Peak

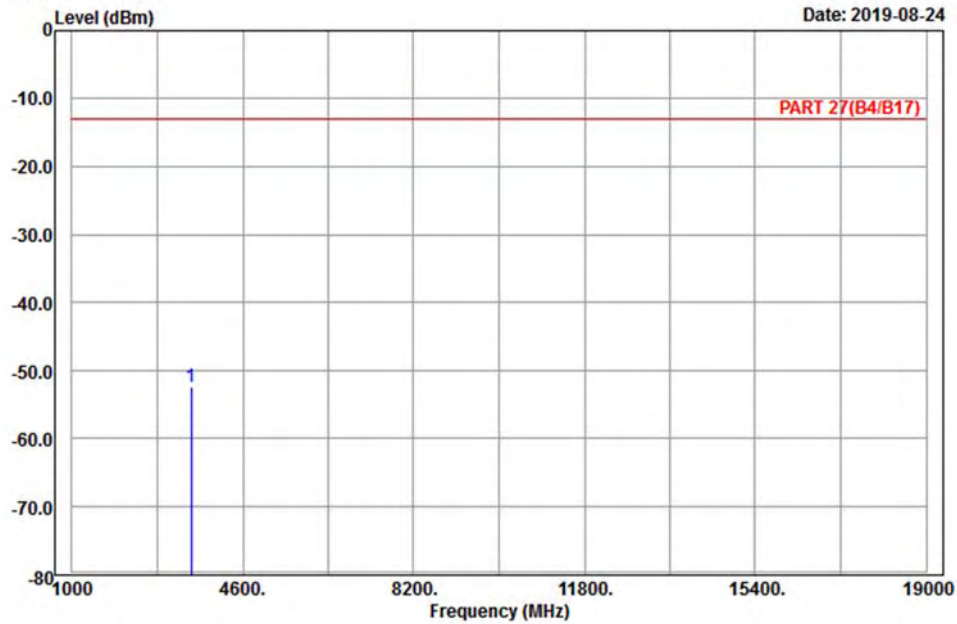
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : LTE\_Band 4\_Link\_H-CH  
 Tested by: Karl Lee

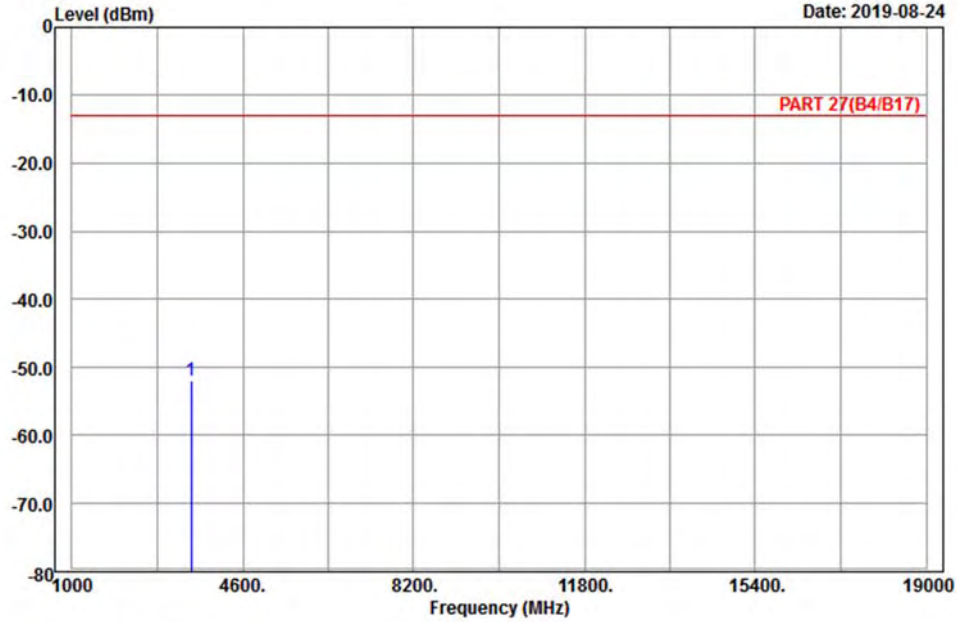
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3505.00	-52.34	-66.62	14.28	-13.00
				-39.34 Peak



A D T

Data: 10

Date: 2019-08-24



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : LTE\_Band 4\_Link\_H-CH  
 Tested by: Karl Lee

Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 3505.00	-51.90	-66.18	14.28	-13.00	-38.90	Peak

Channel Bandwidth: 20 MHz / QPSK  
 Low Channel

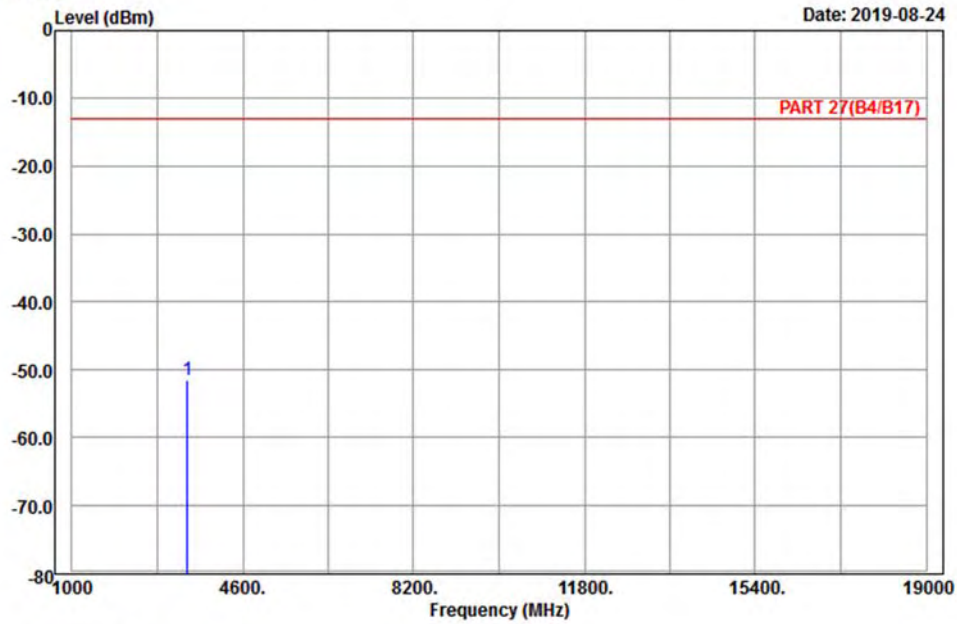


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-08-24



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : LTE\_Band 4\_Link\_L-CH  
 Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	3440.00	-51.51	-65.86	14.35	-13.00	-38.51	Peak



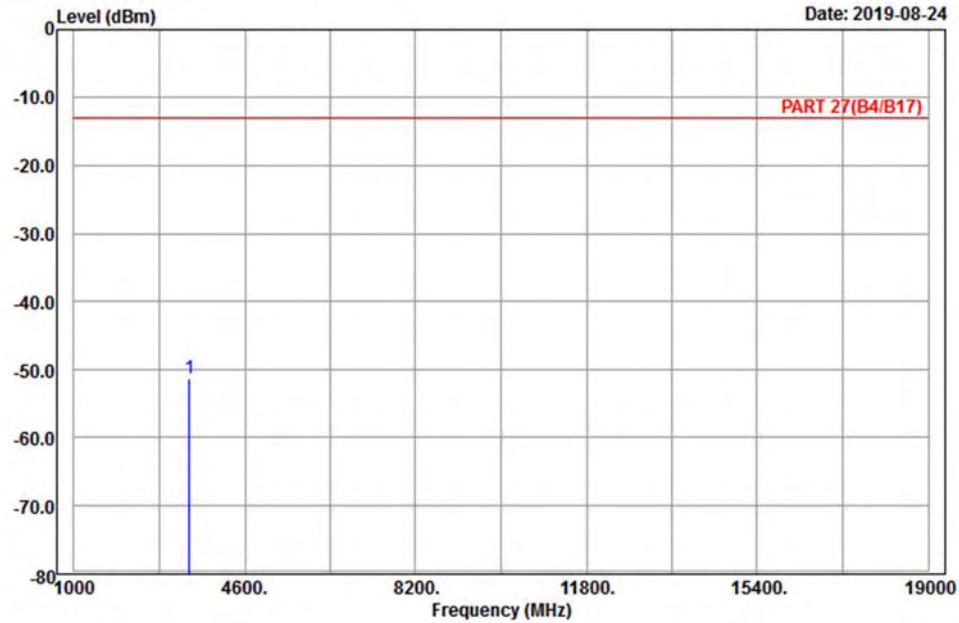


## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-24



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : LTE\_Band 4\_Link\_L-CH  
 Tested by: Karl Lee

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 3440.00	-51.28	-65.63	14.35	-13.00	-38.28	Peak

Middle Channel

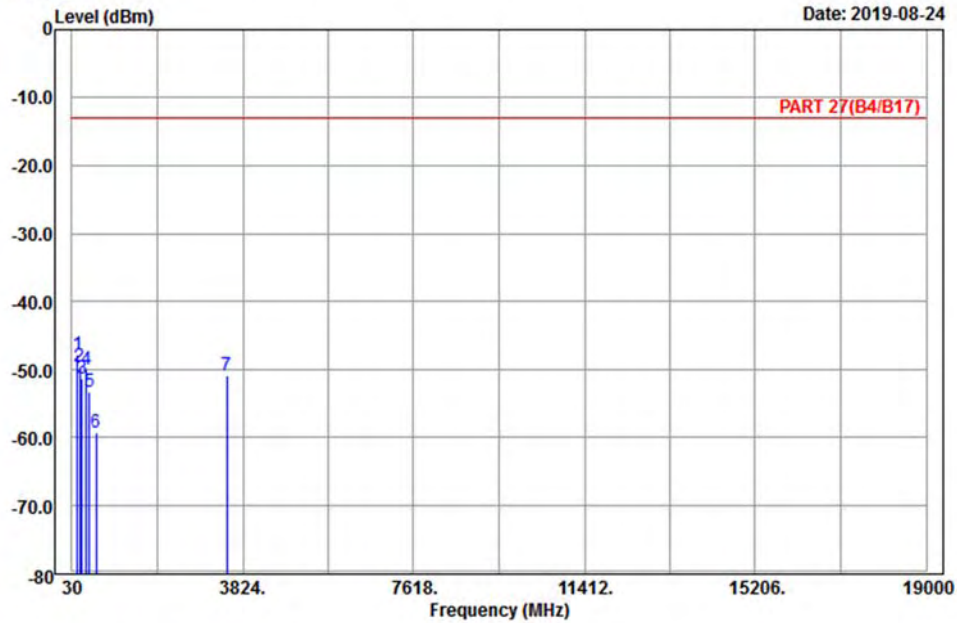


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13

Date: 2019-08-24



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : LTE\_Band 4\_Link\_M-CH  
 Tested by: Karl Lee

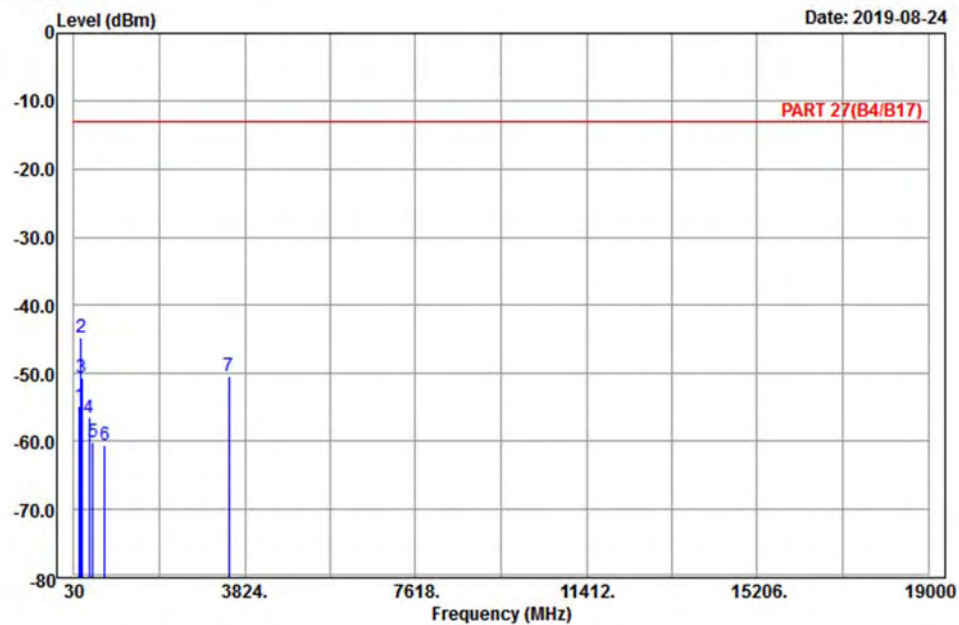
	Read	Limit	Over					
Req	Level	Level	Factor	Line	Limit	Remark		
MHz	dBm	dBm	dB	dBm	dB			
1 pp	148.26	-47.63	-39.73	-7.90	-13.00	-34.63	Peak	
2	197.94	-49.43	-43.34	-6.09	-13.00	-36.43	Peak	
3	252.48	-51.13	-45.61	-5.52	-13.00	-38.13	Peak	
4	357.40	-50.00	-45.04	-4.96	-13.00	-37.00	Peak	
5	412.70	-53.25	-50.21	-3.04	-13.00	-40.25	Peak	
6	568.10	-59.29	-58.39	-0.90	-13.00	-46.29	Peak	
7	3465.00	-50.83	-65.17	14.34	-13.00	-37.83	Peak	



## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 14



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : LTE\_Band 4\_Link\_M-CH  
 Tested by: Karl Lee

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1	154.74	-54.67	-46.86	-7.81	-13.00	-41.67 Peak
2	pp 190.38	-44.58	-38.85	-5.73	-13.00	-31.58 Peak
3	211.17	-50.56	-44.53	-6.03	-13.00	-37.56 Peak
4	373.50	-56.55	-52.41	-4.14	-13.00	-43.55 Peak
5	456.80	-60.08	-56.04	-4.04	-13.00	-47.08 Peak
6	713.70	-60.60	-59.97	-0.63	-13.00	-47.60 Peak
7	3465.00	-50.32	-64.66	14.34	-13.00	-37.32 Peak

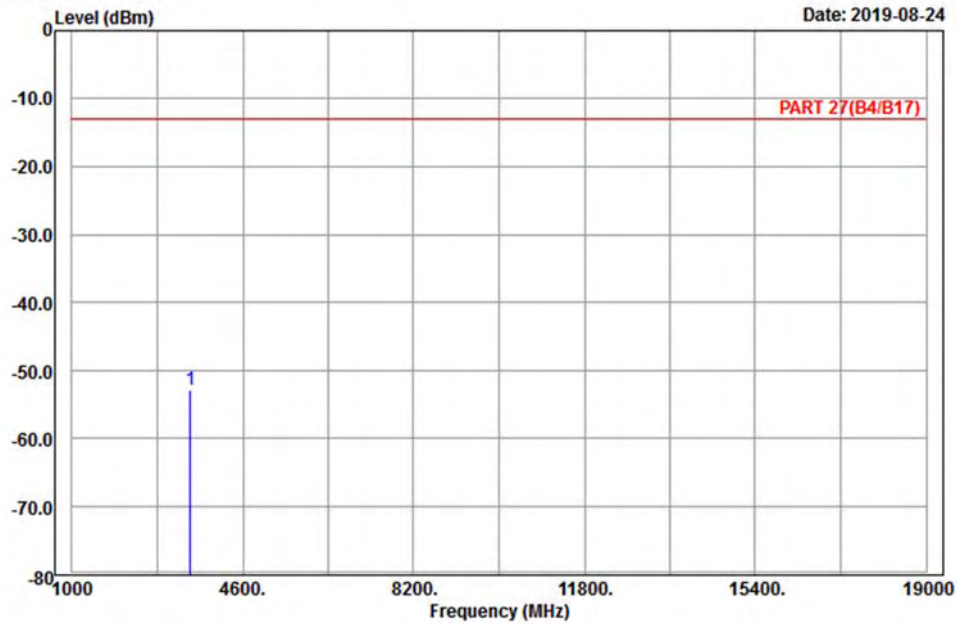
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Horizontal  
 Remark : LTE\_Band 4\_Link\_H-CH  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 3490.00	-52.79	-67.10	14.31	-13.00
				-39.79 Peak

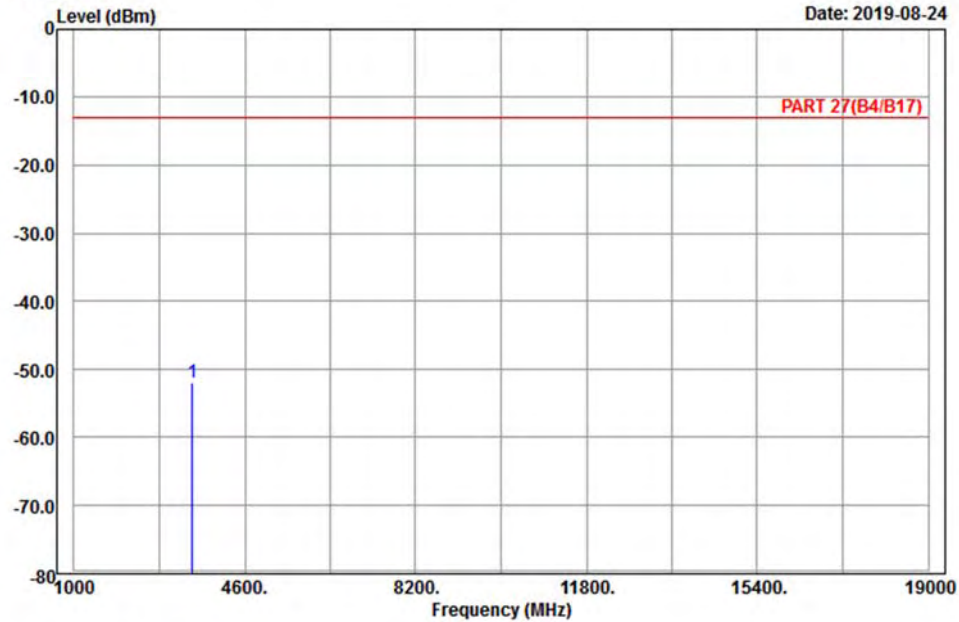


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-24



Site : 966 chamber 1  
 Condition: PART 27(B4/B17) Vertical  
 Remark : LTE\_Band 4\_Link\_H-CH  
 Tested by: Karl Lee

Freq	Level	Read	Limit	Over	Remark
MHz	dBm	Level	Line	Limit	
		dBm	dB	dB	
1 pp 3490.00	-51.88	-66.19	-13.00	-38.88	Peak

LTE Band 7  
Channel Bandwidth: 5MHz / QPSK  
Low Channel

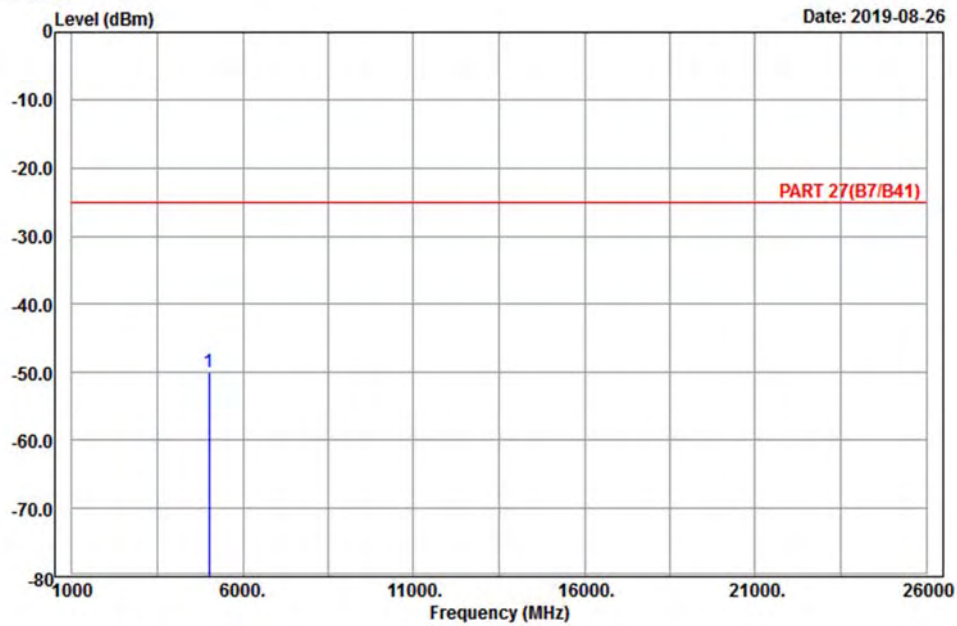


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-08-26



Site : 966 chamber 1  
Condition: PART 27(B7/B41) Horizontal  
Remark : LTE\_Band 7\_Link\_L-Ch  
Tested by: Charles Hsiao

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 5005.00	-49.87	-69.45	19.58	-25.00
				-24.87 Peak

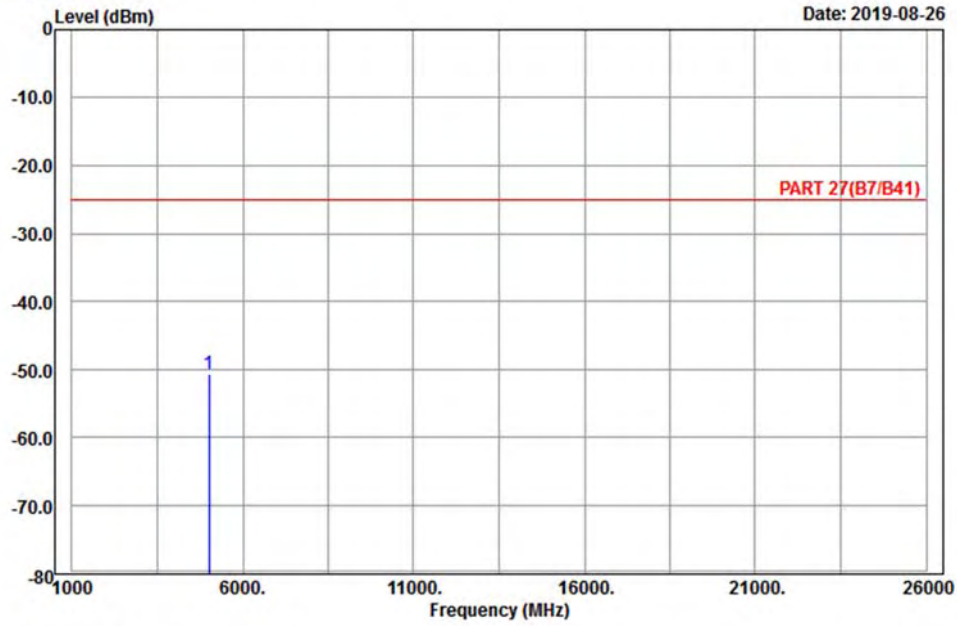


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-26



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 7\_Link\_L-Ch  
 Tested by: Charles Hsiao

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5005.00	-50.48	-70.06	19.58	-25.00	-25.48	Peak

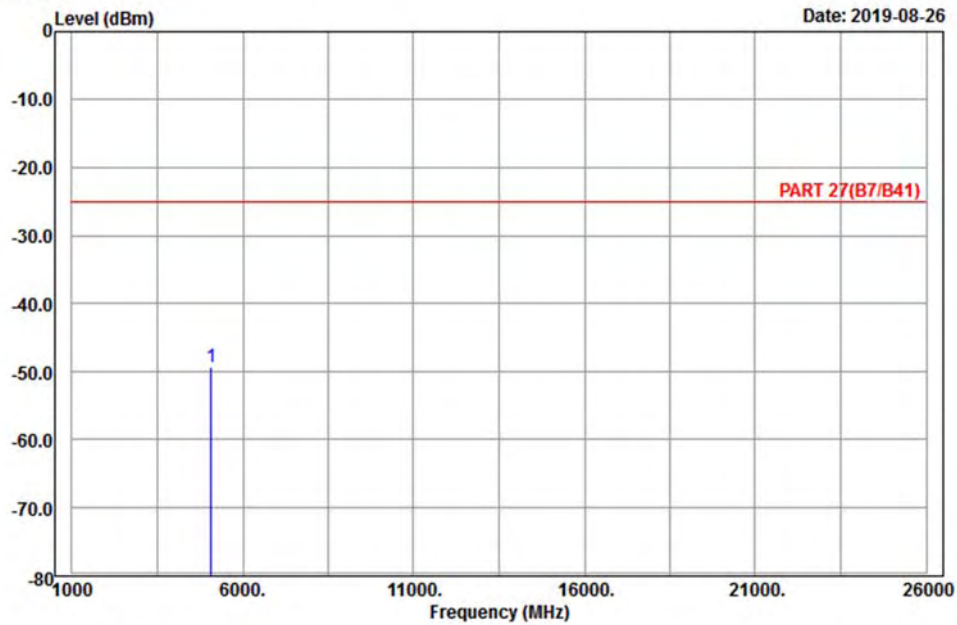
Middle Channel



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\_M-Ch  
 Tested by: Harry Hsueh

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5070.00	-49.22	-68.61	19.39	-25.00	-24.22	Peak

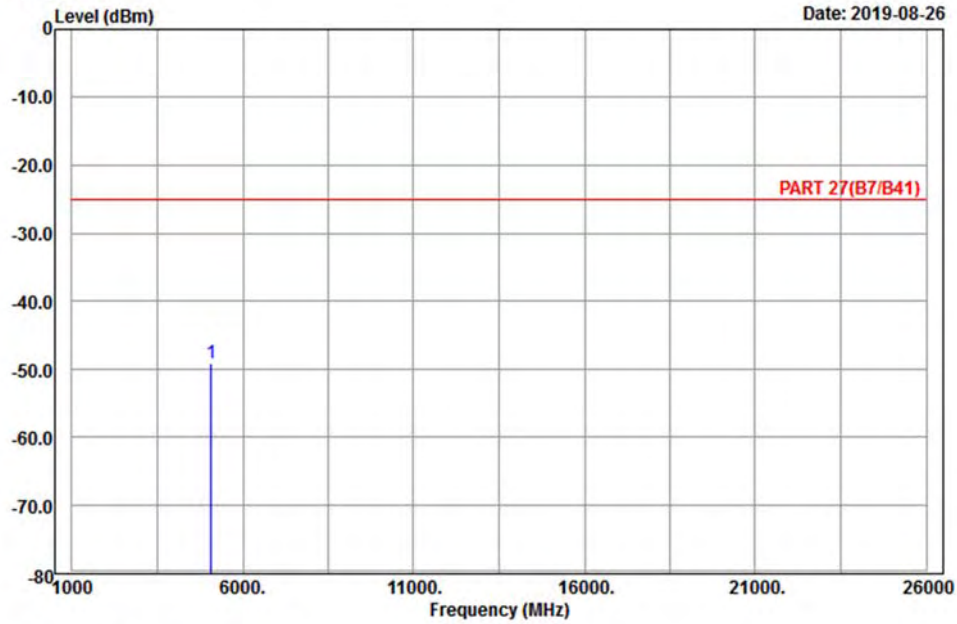




A D T

Data: 10

Date: 2019-08-26



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

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5070.00	-49.03	-68.42	19.39	-25.00	-24.03	Peak

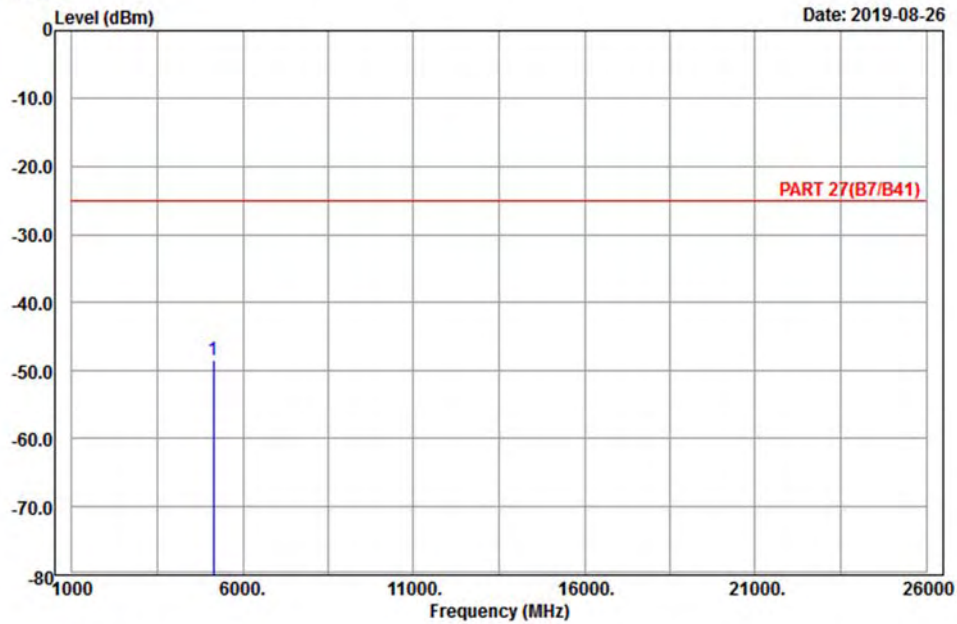
## High Channel



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\_Link\_H-Ch  
 Tested by: Charles Hsiao

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 5135.00	-48.38	-68.19	19.81	-25.00
				-23.38 Peak

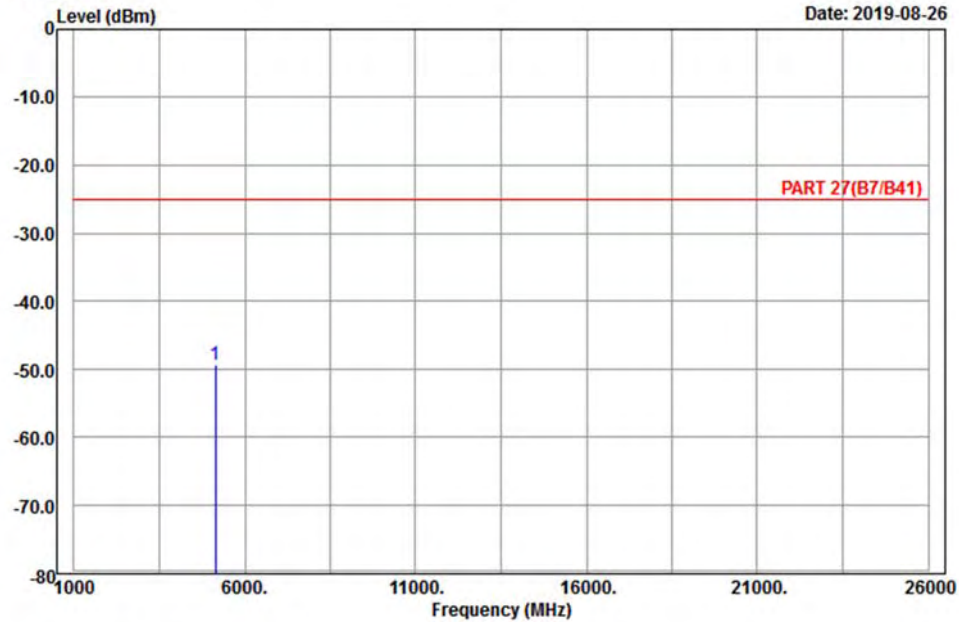


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-26



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band\_Link\_H-Ch  
 Tested by: Charles Hsiao

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

Channel Bandwidth: 20 MHz / QPSK  
Low Channel

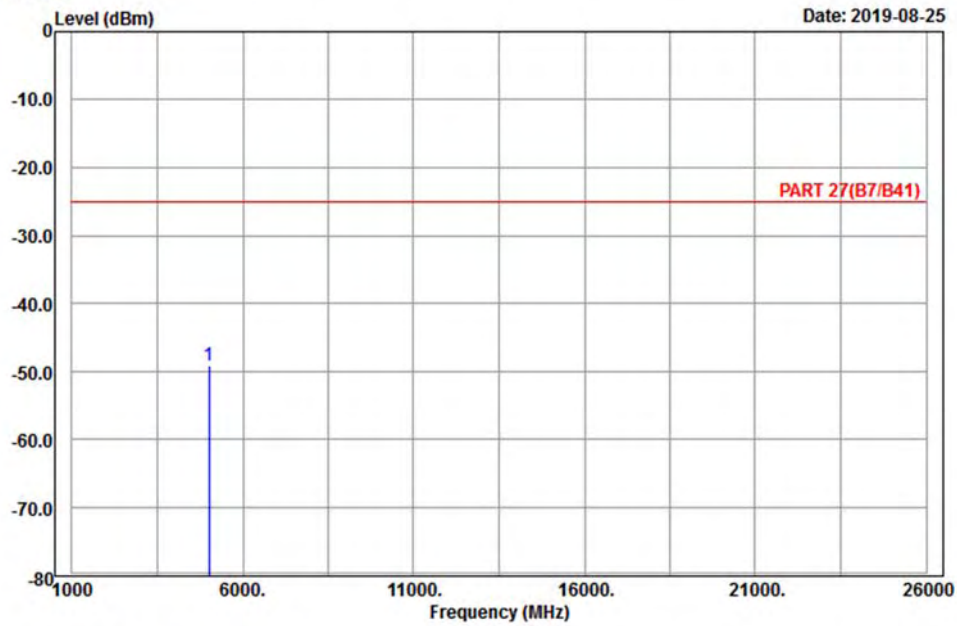


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-08-25



Site : 966 chamber 1  
Condition: PART 27(B7/B41) Horizontal  
Remark : LTE\_Band 7\_Link\_L-Ch  
Tested by: Charles Hsiao

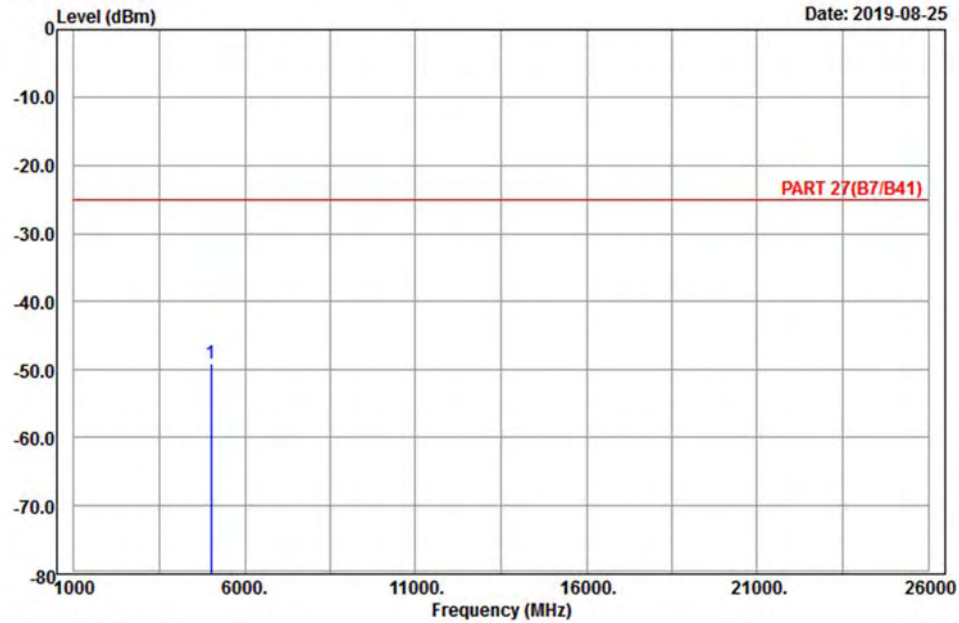
	Read	Limit	Over		
Freq	Level	Level	Factor	Line	
MHz	dBm	dBm	dB	dBm	
1 pp 5020.00	-49.11	-68.19	19.08	-25.00	-24.11 Peak



## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 7\_Link\_L-Ch  
 Tested by: Charles Hsiao

	Read	Limit	Over		
Freq	Level	Level	Factor	Line	Limit
MHz	dBm	dBm	dB	dBm	dB
1 pp 5020.00	-49.02	-68.10	19.08	-25.00	-24.02 Peak

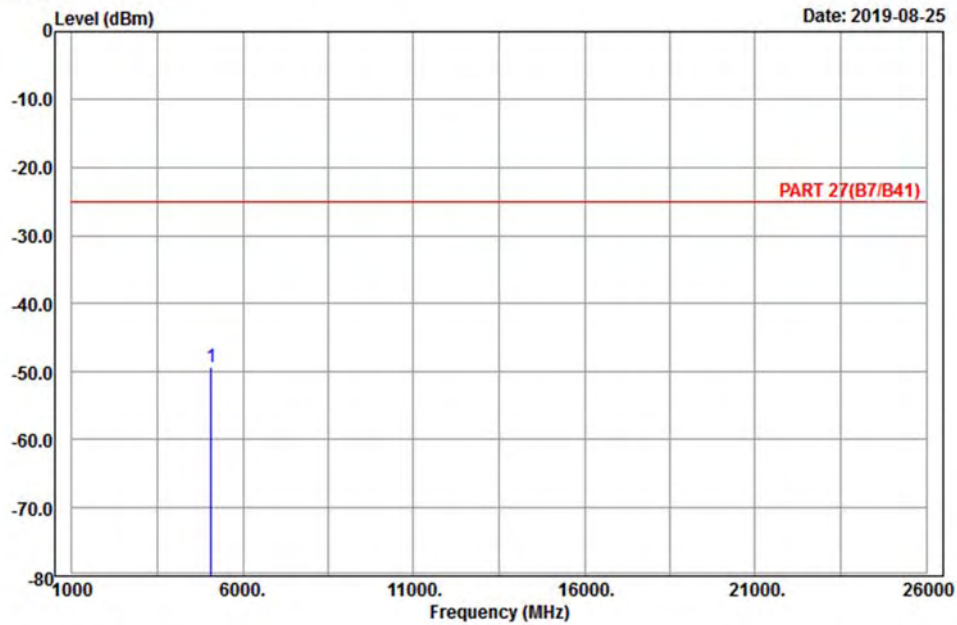
Middle Channel



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\_M-Ch  
 Tested by: Charles Hsiao

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5070.00	-49.19	-68.58	19.39	-25.00	-24.19	Peak

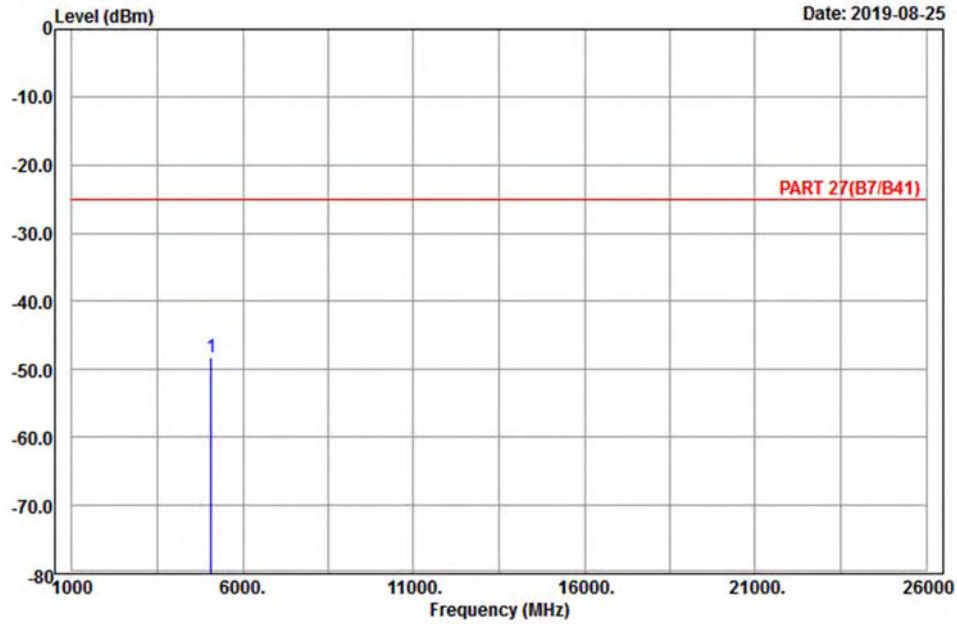


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-25



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band 7\_Link\_M-Ch  
 Tested by: Charles Hsiao

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5070.00	-48.20	-67.59	19.39	-25.00	-23.20	Peak

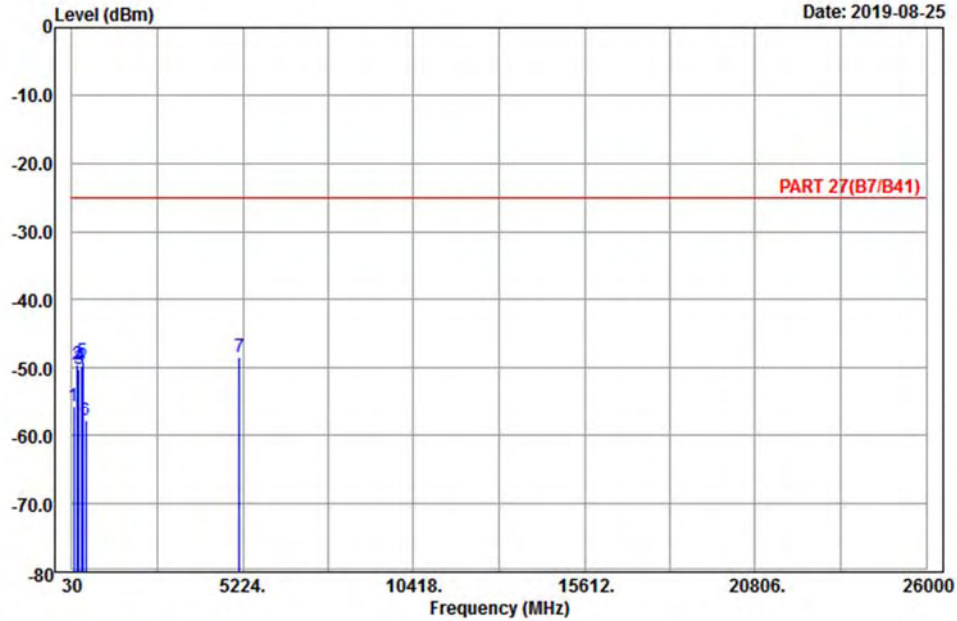
## High Channel



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\_Link\_H-Ch  
 Tested by: Charles Hsiao

	Read	Limit	Over				
Freq	Level	Level	Factor	Line	Limit	Remark	
MHz	dBm	dBm	dB	dBm	dB		
1	96.96	-55.56	-45.27	-10.29	-25.00	-30.56	Peak
2	198.75	-49.37	-43.23	-6.14	-25.00	-24.37	Peak
3	241.41	-50.10	-44.48	-5.62	-25.00	-25.10	Peak
4	312.60	-49.66	-43.85	-5.81	-25.00	-24.66	Peak
5	354.60	-49.07	-43.95	-5.12	-25.00	-24.07	Peak
6	449.80	-57.83	-53.98	-3.85	-25.00	-32.83	Peak
7 pp	5120.00	-48.33	-68.04	19.71	-25.00	-23.33	Peak



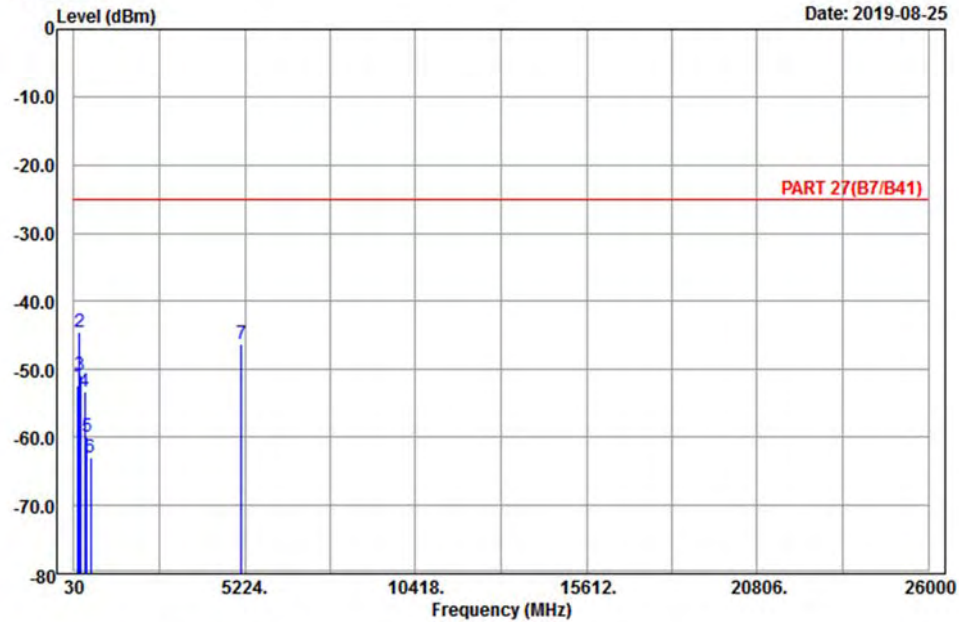


## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 14

Date: 2019-08-25



Site : 966 chamber 1  
 Condition: PART 27(B7/B41) Vertical  
 Remark : LTE\_Band\_Link\_H-Ch  
 Tested by: Charles Hsiao

	Freq	Level	Read	Limit	Over	Remark
	MHz	dBm	Level	Line	Limit	
			dBm	dBm	dB	
1	161.22	-52.25	-44.68	-25.00	-27.25	Peak
2 pp	190.65	-44.55	-38.77	-25.00	-19.55	Peak
3	211.71	-50.77	-44.74	-25.00	-25.77	Peak
4	356.00	-53.29	-48.22	-25.00	-28.29	Peak
5	433.00	-59.99	-56.53	-25.00	-34.99	Peak
6	543.60	-63.02	-60.86	-25.00	-38.02	Peak
7	5120.00	-46.15	-65.86	-25.00	-21.15	Peak

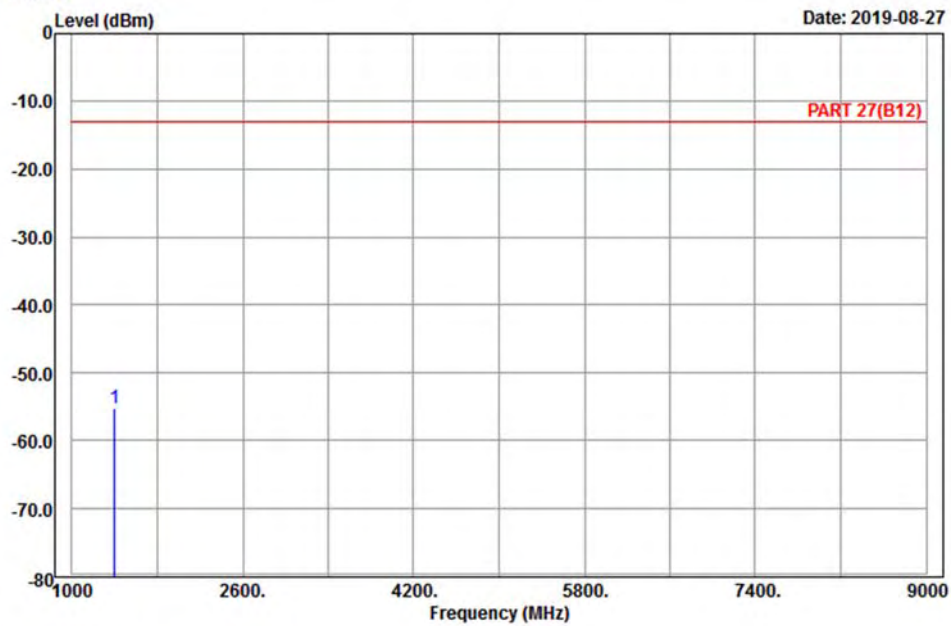
LTE Band 12  
Channel Bandwidth: 1.4 MHz / QPSK  
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_L-Ch  
Tested by: Karl Lee

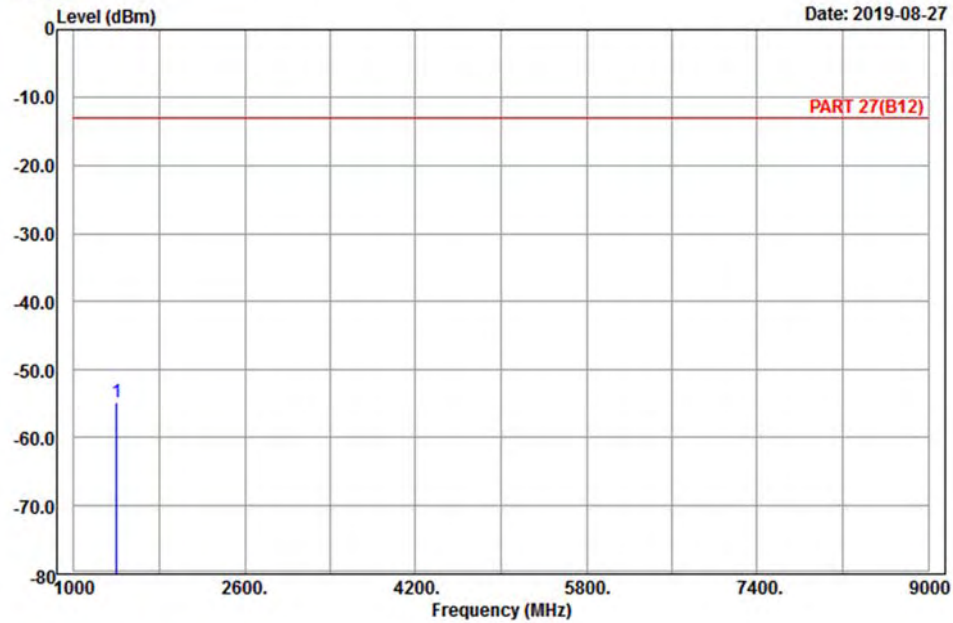
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1399.40	-55.11	-61.21	6.10	-13.00	-42.11	Peak



## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 chamber 1  
 Condition: PART 27(B12) Vertical  
 Remark : LTE\_Band 12\_Link\_L-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1399.40	-54.71	-60.81	6.10	-13.00
				-41.71 Peak

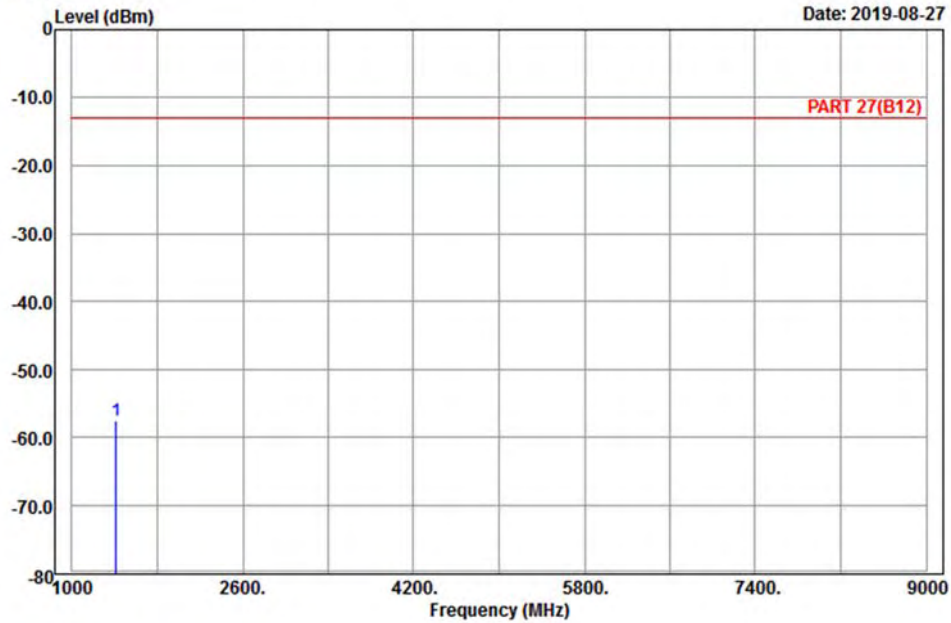
## Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 27(B12) Horizontal  
 Remark : LTE\_Band 12\_Link\_M-Ch  
 Tested by: Karl Lee

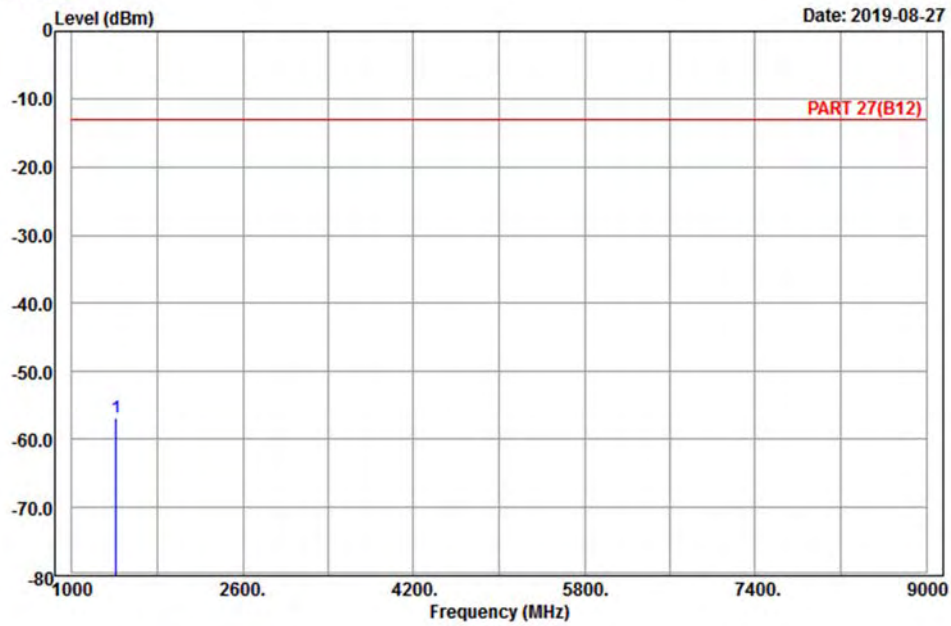
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1415.00	-57.46	-63.82	6.36	-13.00
				-44.46 Peak



A D T

Data: 6

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B12) Vertical  
 Remark : LTE\_Band 12 \_Link\_M-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1415.00	-56.94	-63.30	6.36	-13.00
				-43.94
				Peak

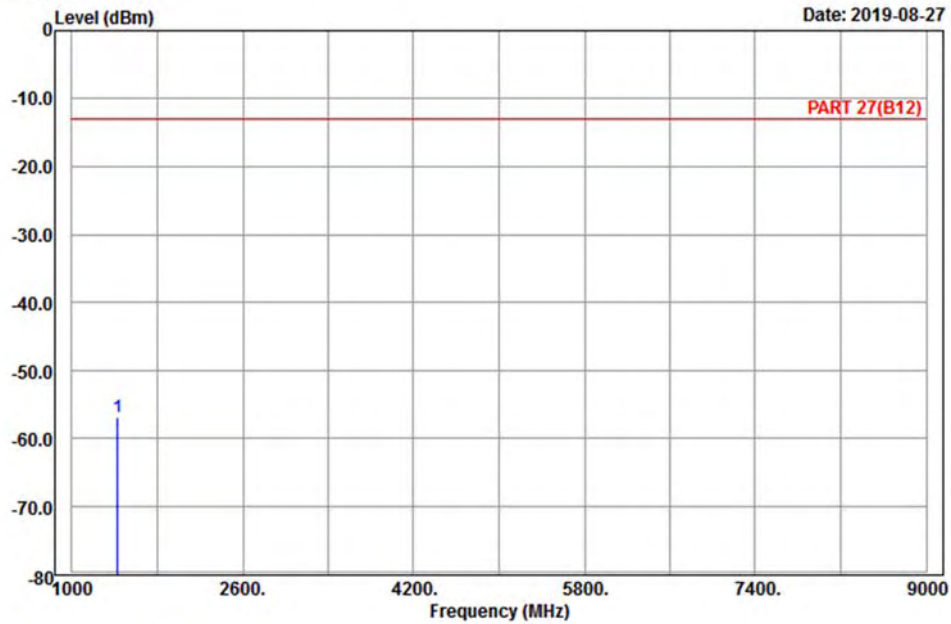
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 27(B12) Horizontal  
 Remark : LTE\_Band 12\_Link\_H-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1430.60	-56.91	-63.15	6.24	-13.00
				-43.91 Peak

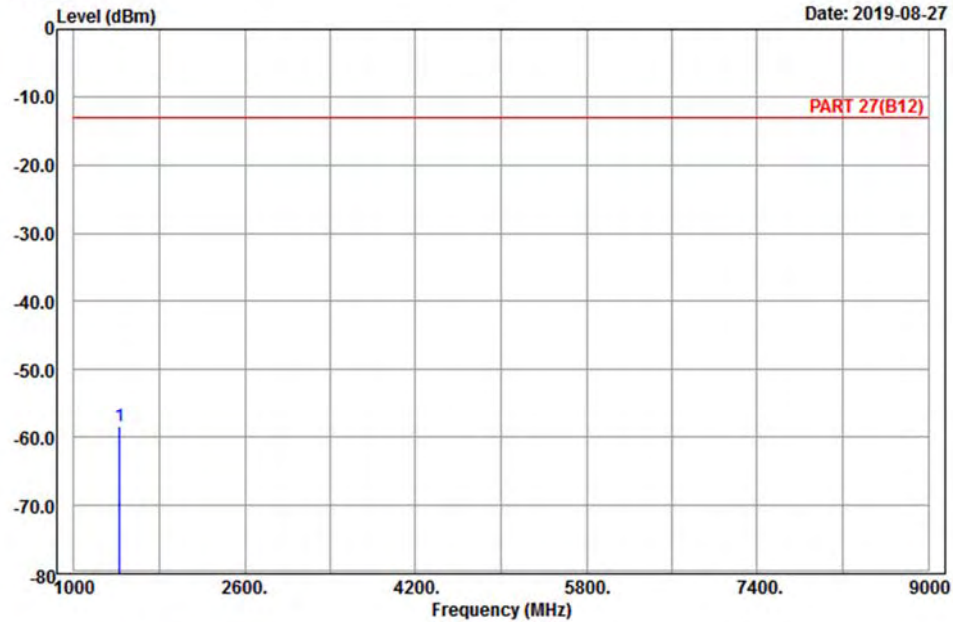


## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B12) Vertical  
 Remark : LTE\_Band 12 \_Link\_H-Ch  
 Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1430.60	-58.34	-64.58	6.24	-13.00	-45.34	Peak

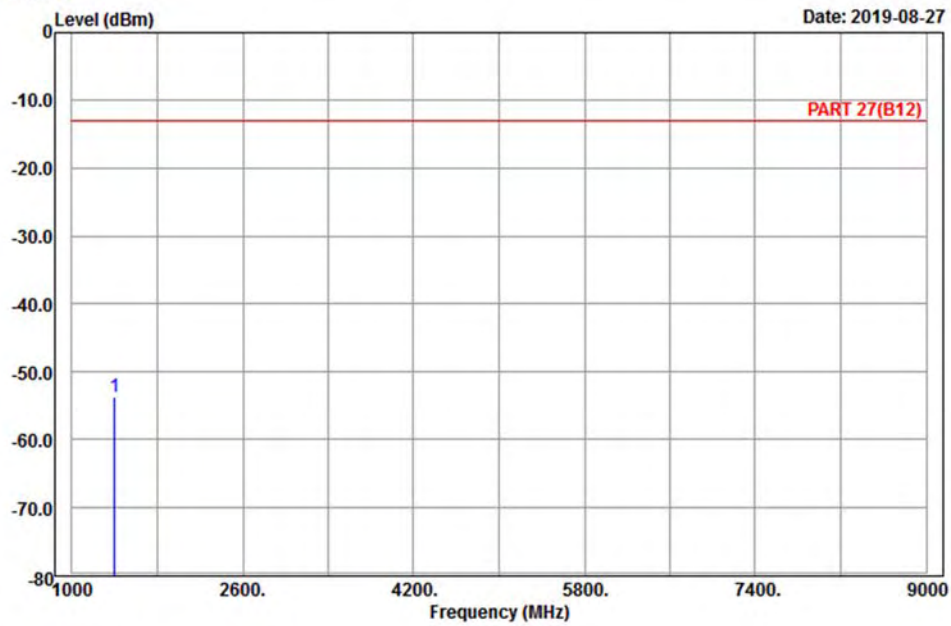
Channel Bandwidth: 5 MHz / QPSK  
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_L-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1403.00	-53.60	-59.70	6.10	-13.00	-40.60	Peak

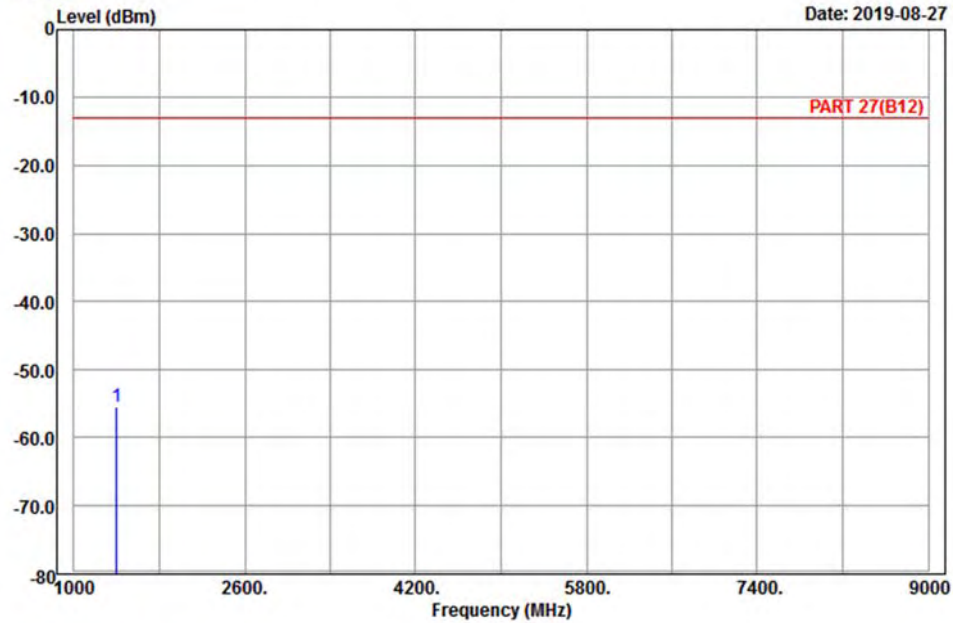




## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 chamber 1  
 Condition: PART 27(B12) Vertical  
 Remark : LTE\_Band 12\_Link\_L-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1403.00	-55.41	-61.51	6.10	-13.00
				-42.41 Peak

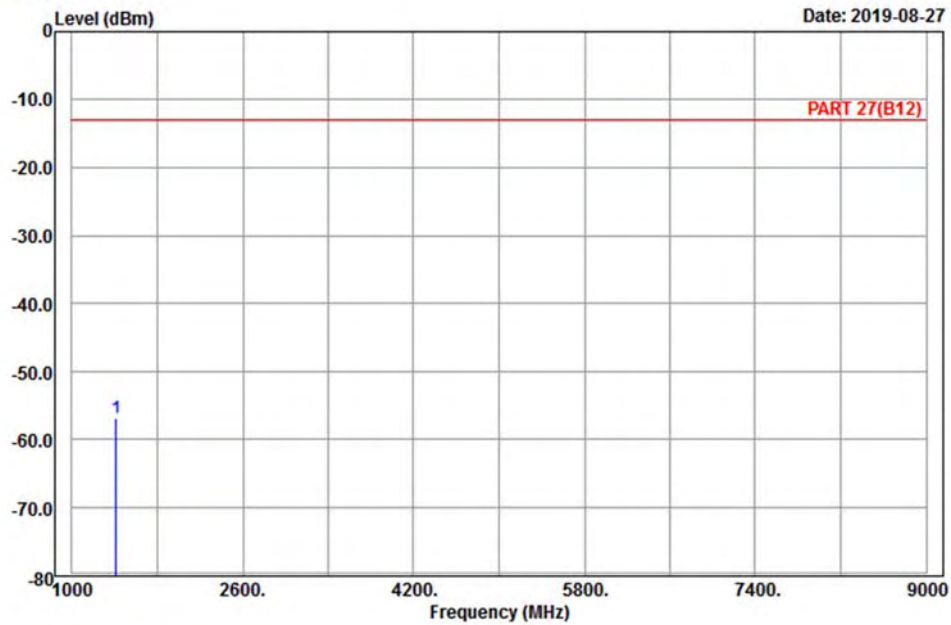
## Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 27(B12) Horizontal  
 Remark : LTE\_Band 12\_Link\_M-Ch  
 Tested by: Karl Lee

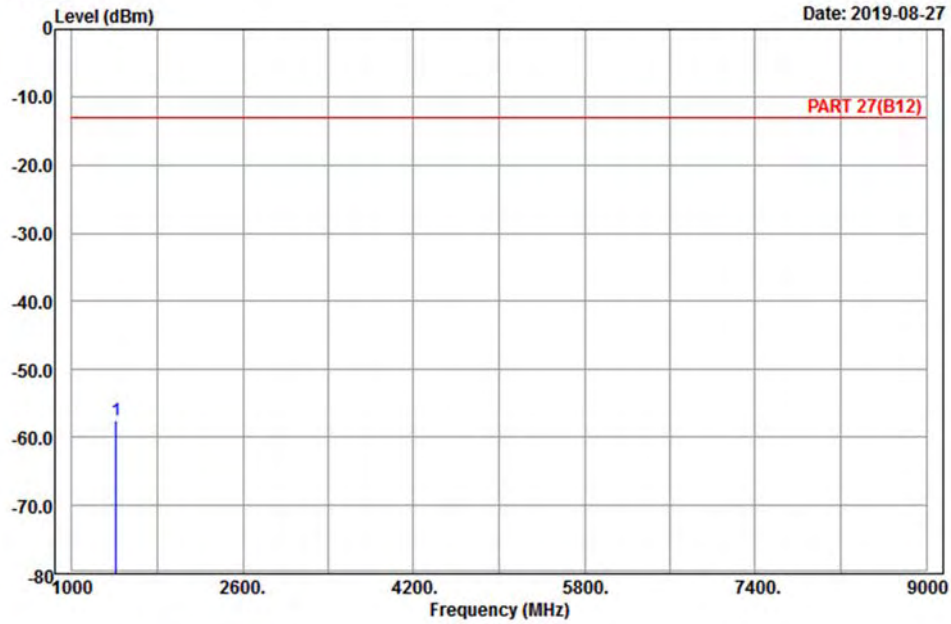
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1415.00	-56.81	-63.17	6.36	-13.00
				-43.81 Peak



A D T

Data: 6

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B12) Vertical  
 Remark : LTE\_Band 12 \_Link\_M-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1415.00	-57.60	-63.96	6.36	-13.00
				-44.60
				Peak

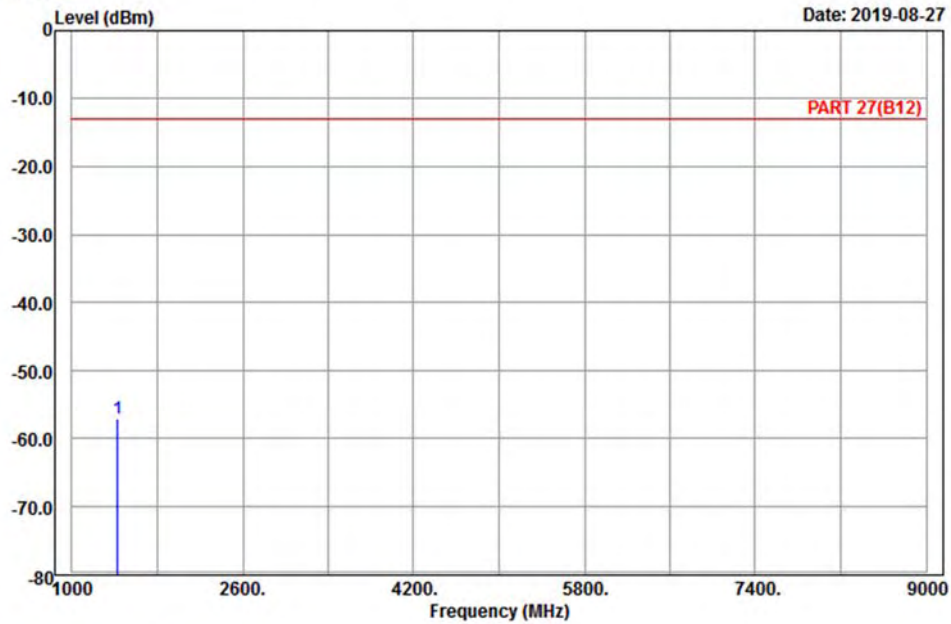
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 27(B12) Horizontal  
 Remark : LTE\_Band 12\_Link\_H-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1427.00	-57.13	-63.37	6.24	-13.00
				-44.13 Peak

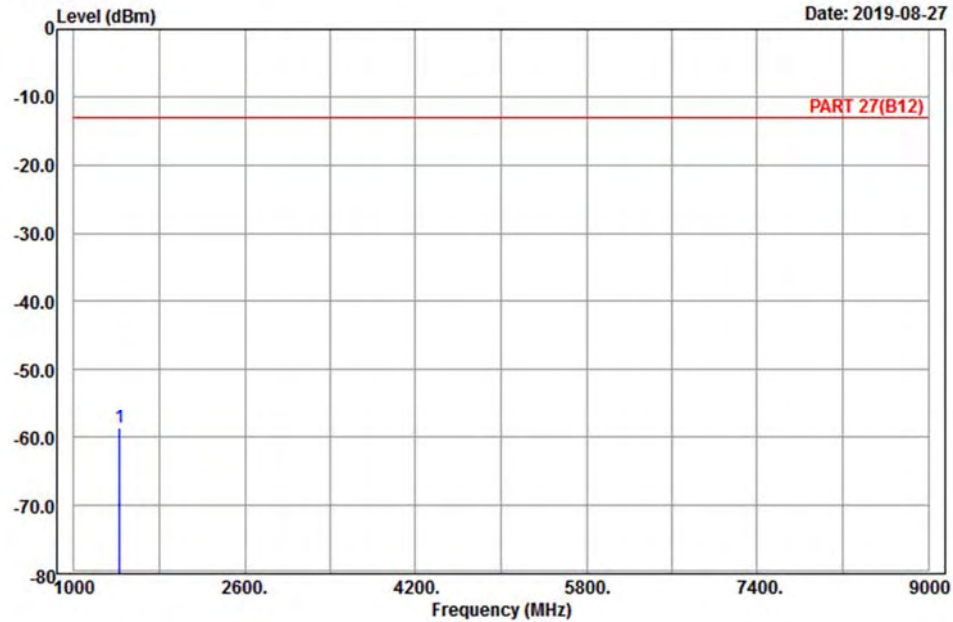


## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B12) Vertical  
 Remark : LTE\_Band 12 \_Link\_H-Ch  
 Tested by: Karl Lee

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1427.00	-58.71	-64.95	6.24	-13.00	-45.71	Peak

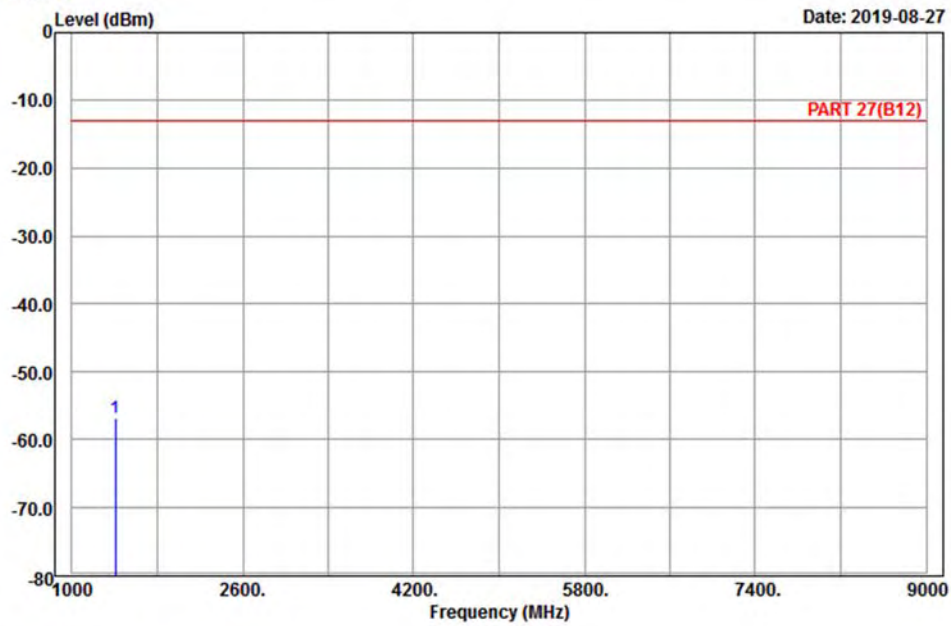
Channel Bandwidth: 10 MHz / QPSK  
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
Condition: PART 27(B12) Horizontal  
Remark : LTE\_Band 12\_Link\_L-Ch  
Tested by: Karl Lee

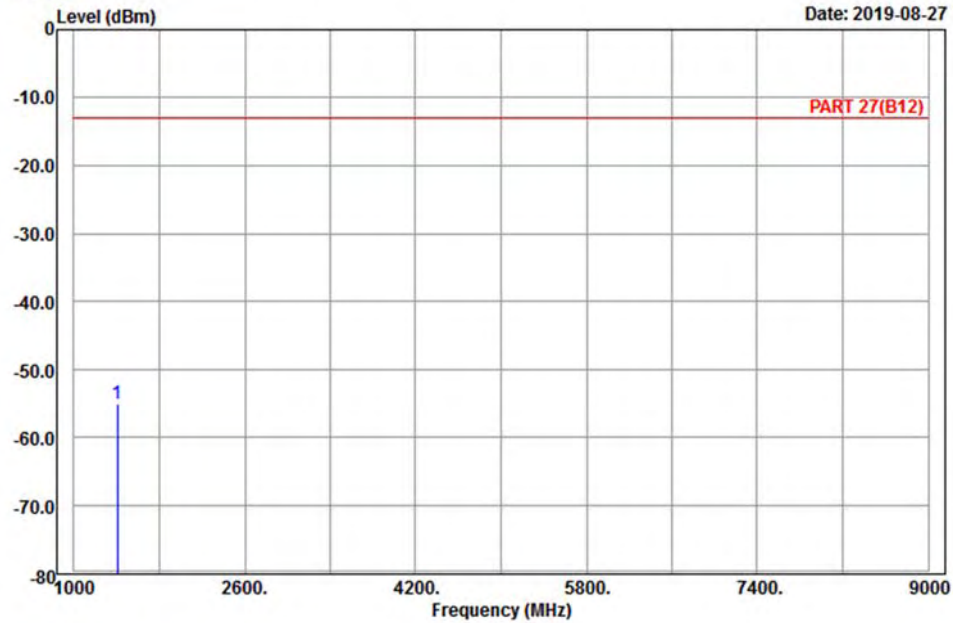
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1408.00	-56.88	-63.24	6.36	-13.00
				-43.88 Peak



## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 chamber 1  
 Condition: PART 27(B12) Vertical  
 Remark : LTE\_Band 12\_Link\_L-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1408.00	-54.94	-61.30	6.36	-13.00
				-41.94 Peak

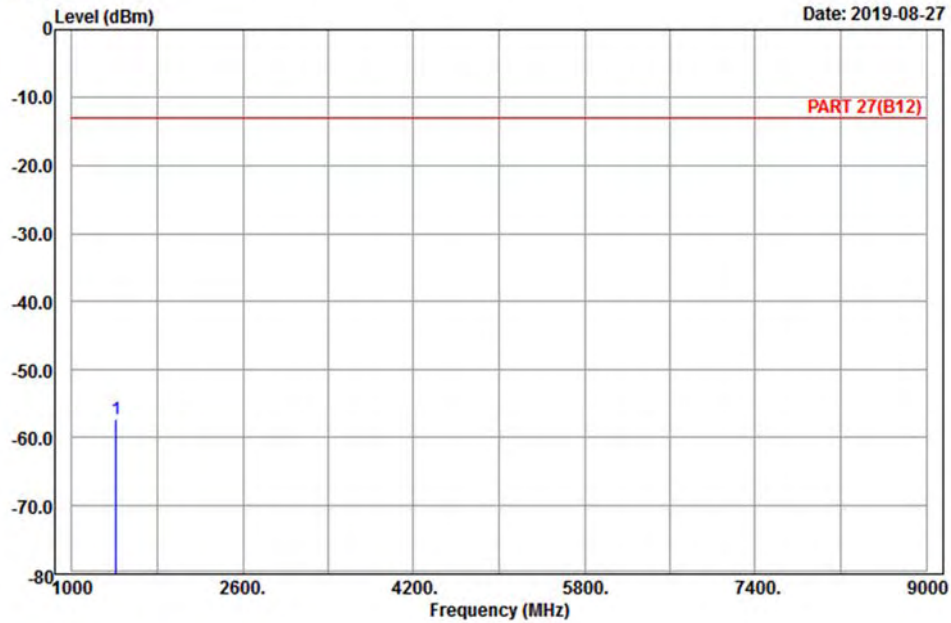
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 27(B12) Horizontal  
 Remark : LTE\_Band 12\_Link\_M-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1415.00	-57.38	-63.74	6.36	-13.00
				-44.38 Peak



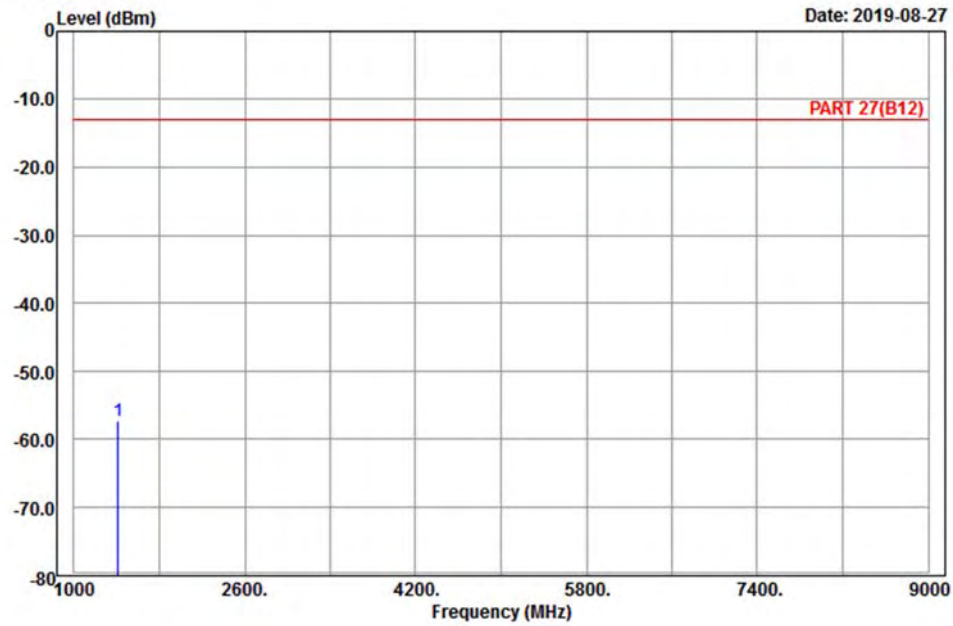


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B12) Vertical  
 Remark : LTE\_Band 12 \_Link\_M-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1415.00	-57.40	-63.76	6.36	-13.00
				-44.40
				Peak

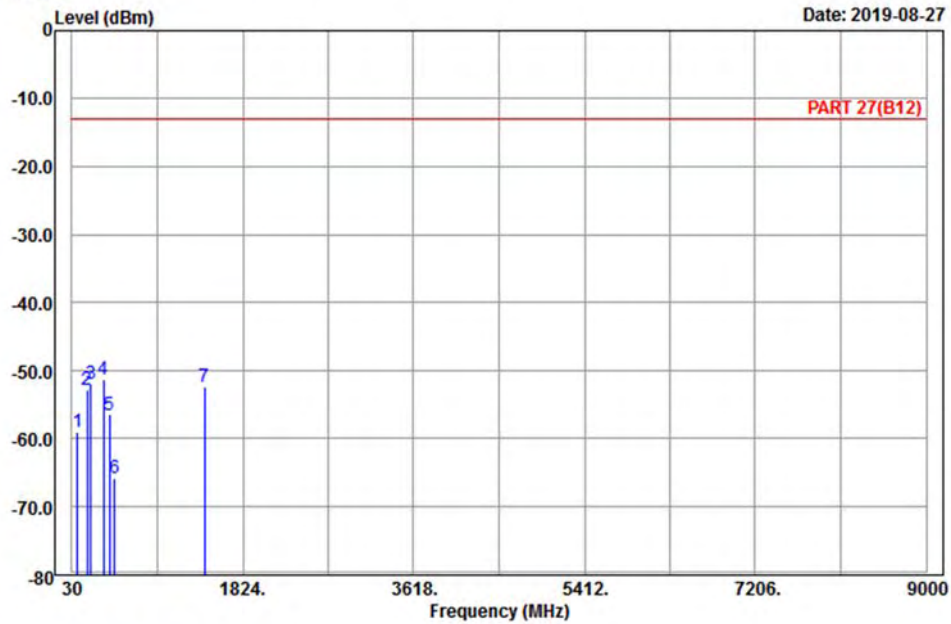
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 chamber 1  
 Condition: PART 27(B12) Horizontal  
 Remark : LTE\_Band 12\_Link\_H-Ch  
 Tested by: Karl Lee

	Read	Limit	Over				
Freq	Level	Level	Factor	Line	Limit	Remark	
MHz	dBm	dBm	dB	dBm	dB		
1	89.94	-59.07	-48.40	-10.67	-13.00	-46.07	Peak
2	192.81	-52.76	-46.89	-5.87	-13.00	-39.76	Peak
3	227.37	-51.85	-46.03	-5.82	-13.00	-38.85	Peak
4 pp	360.90	-51.33	-46.52	-4.81	-13.00	-38.33	Peak
5	426.00	-56.51	-53.20	-3.31	-13.00	-43.51	Peak
6	475.70	-65.75	-61.19	-4.56	-13.00	-52.75	Peak
7	1422.00	-52.35	-58.71	6.36	-13.00	-39.35	Peak

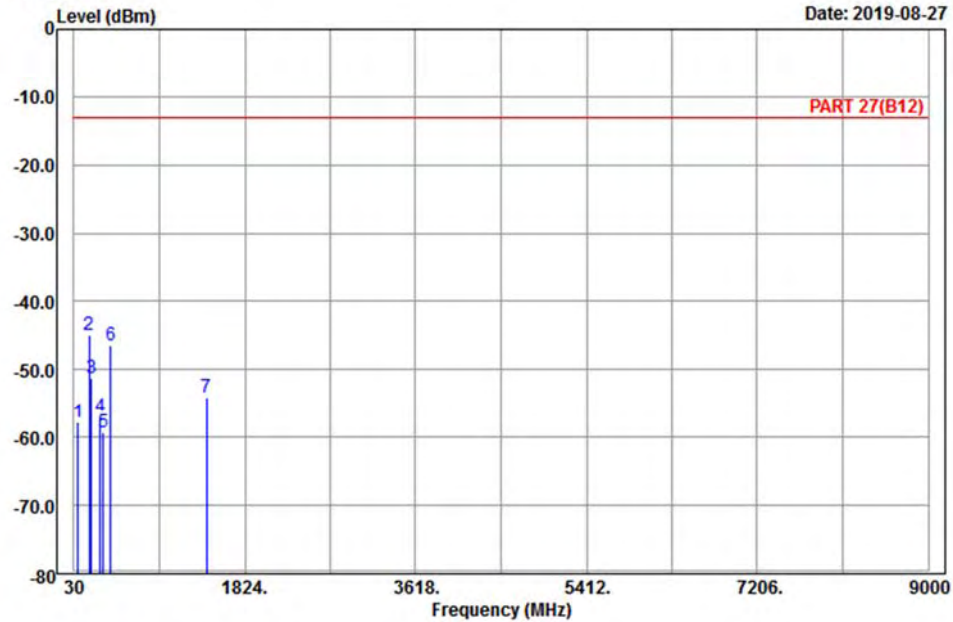


## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B12) Vertical  
 Remark : LTE\_Band 12 \_Link\_H-Ch  
 Tested by: Karl Lee

	Freq	Level	Read	Limit	Over	
	MHz	dBm	Level	Line	Limit	Remark
			dBm	dBm	dB	
1	69.15	-57.75	-44.93	-12.82	-13.00	-44.75 Peak
2	pp 190.11	-44.87	-39.14	-5.73	-13.00	-31.87 Peak
3	210.63	-51.18	-45.14	-6.04	-13.00	-38.18 Peak
4	309.10	-56.82	-50.97	-5.85	-13.00	-43.82 Peak
5	340.60	-59.37	-53.88	-5.49	-13.00	-46.37 Peak
6	416.20	-46.46	-43.36	-3.10	-13.00	-33.46 Peak
7	1422.00	-54.09	-60.45	6.36	-13.00	-41.09 Peak

LTE Band 13  
Channel Bandwidth: 5 MHz / QPSK  
Low Channel

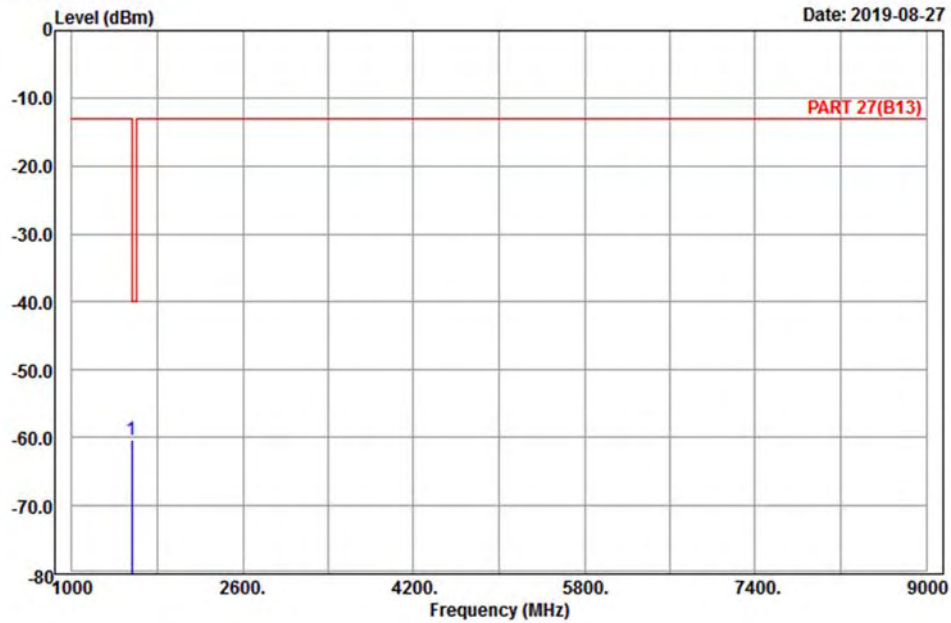


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5

Date: 2019-08-27



Site : 966 chamber 1  
Condition: PART 27(B13) Horizontal  
Remark : LTE\_Band 13 \_Link\_L-Ch  
Tested by: Karl Lee

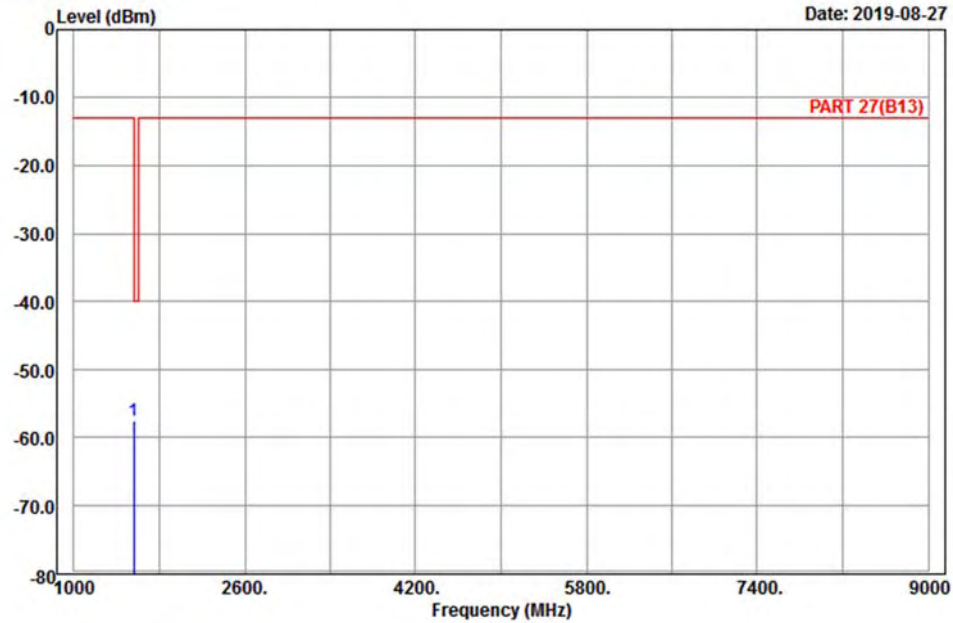
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	1559.00	-60.45	-67.31	6.86	-40.00	-20.45	Peak



## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 chamber 1  
 Condition: PART 27(B13) Vertical  
 Remark : LTE\_Band 13\_Link\_L-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1559.00	-57.53	-64.39	6.86	-40.00
				-17.53 Peak

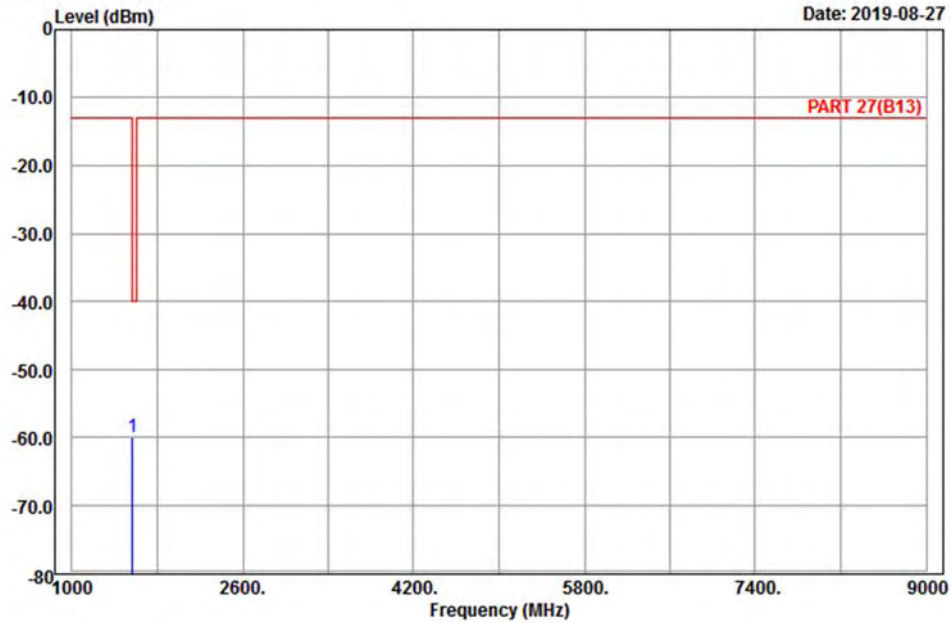
### Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 27(B13) Horizontal  
 Remark : LTE\_Band 13\_Link\_M-Ch  
 Tested by: Karl Lee

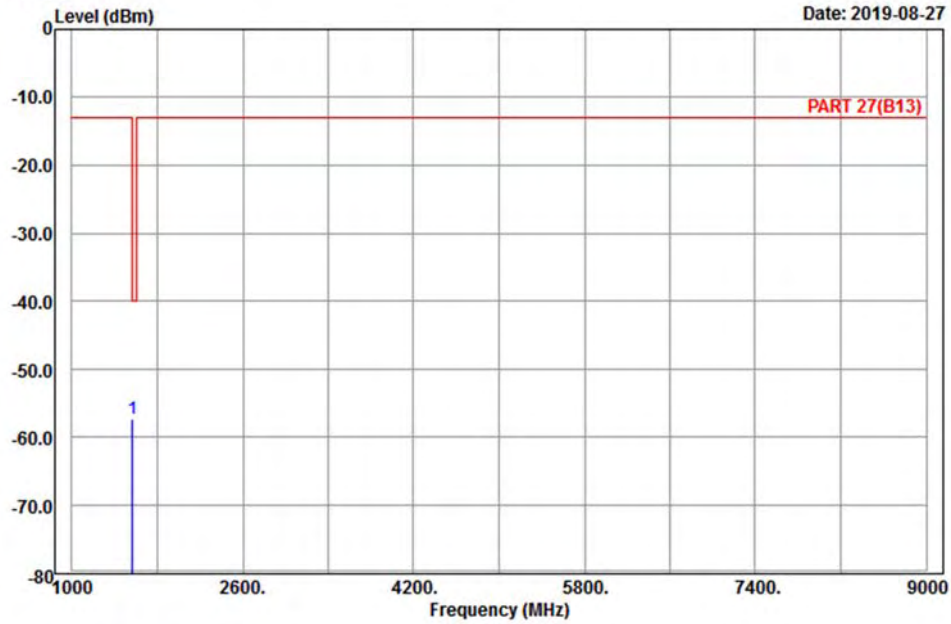
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1564.00	-60.02	-66.88	6.86	-40.00
				-20.02 Peak



A D T

Data: 6

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B13) Vertical  
 Remark : LTE\_Band 13 \_Link\_M-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1564.00	-57.36	-64.22	6.86	-40.00
				-17.36 Peak

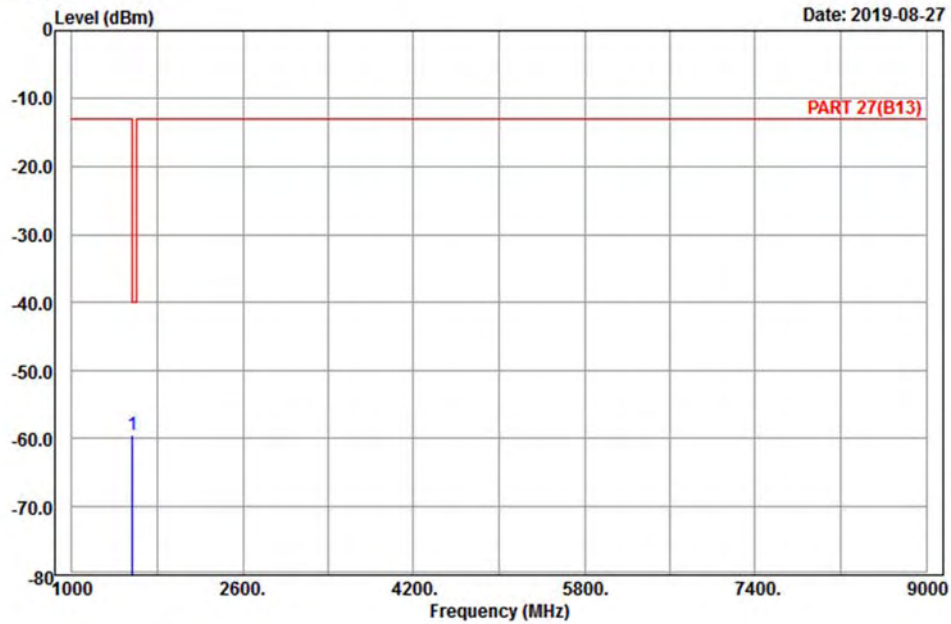
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 27(B13) Horizontal  
 Remark : LTE\_Band 13\_Link\_H-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1569.00	-59.46	-66.50	7.04	-40.00
				-19.46 Peak



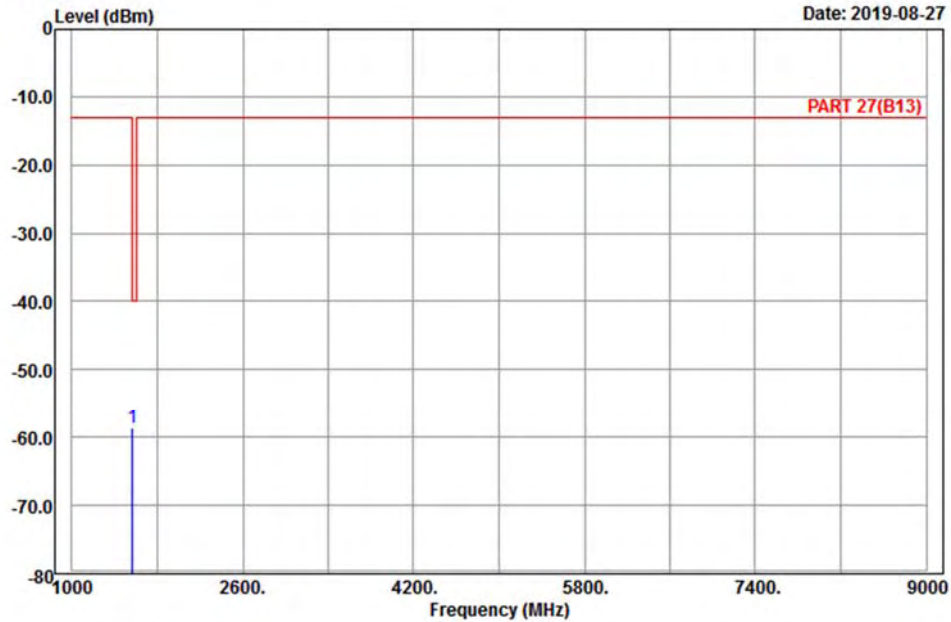


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2019-08-27



Site : 966 chamber 1  
 Condition: PART 27(B13) Vertical  
 Remark : LTE\_Band 13 \_Link\_H-Ch  
 Tested by: Karl Lee

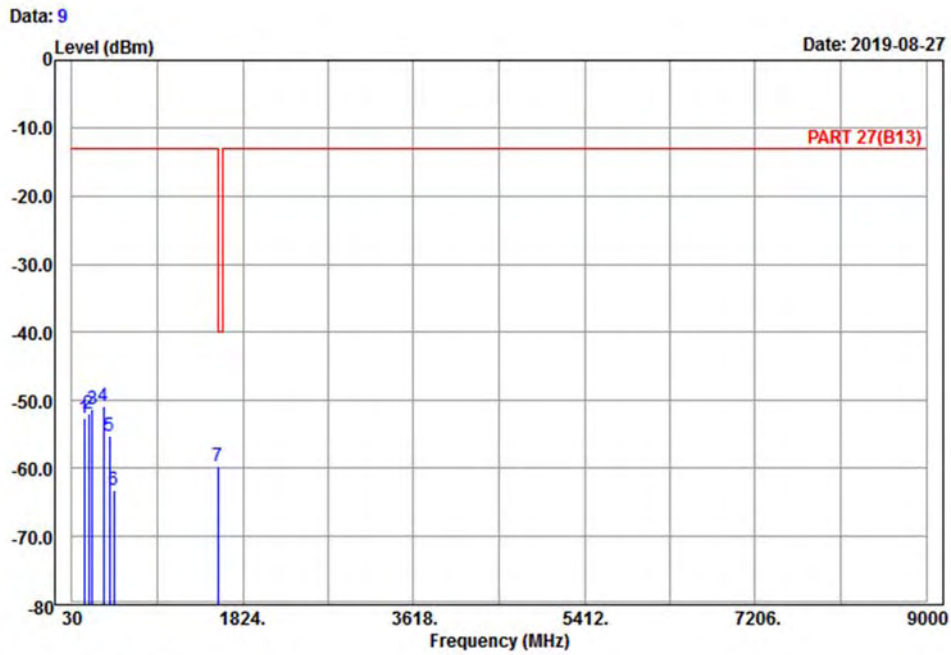
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 1569.00	-58.68	-65.72	7.04	-40.00
				-18.68 Peak

Channel Bandwidth: 10 MHz / QPSK  
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T



Site : 966 chamber 1  
Condition: PART 27(B13) Horizontal  
Remark : LTE\_Band 13 \_Link\_M-Ch  
Tested by: Karl Lee

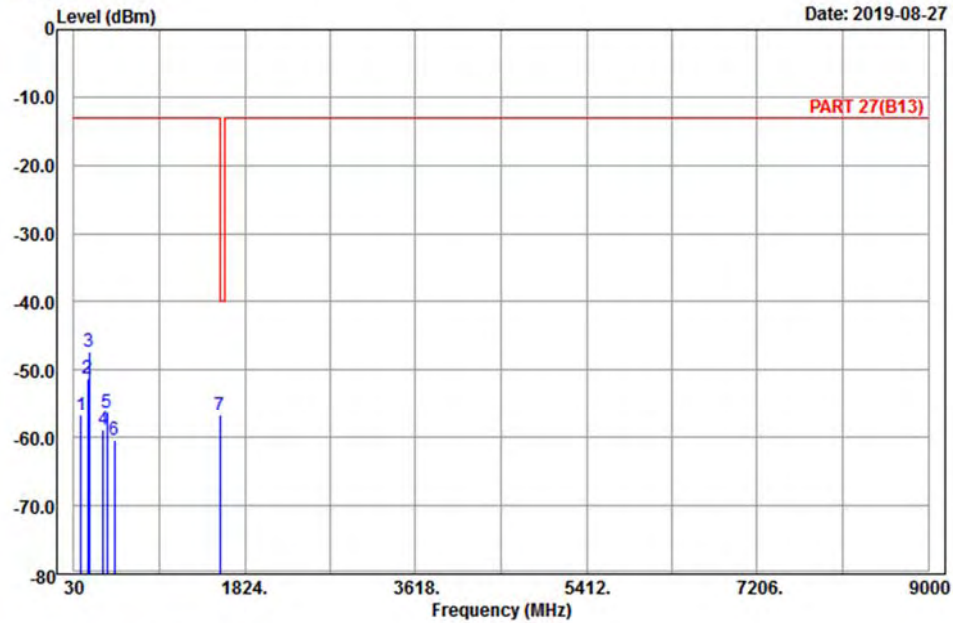
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	155.28	-52.59	-44.78	-7.81	-13.00	-39.59	Peak
2	208.74	-51.82	-45.75	-6.07	-13.00	-38.82	Peak
3	241.41	-51.20	-45.58	-5.62	-13.00	-38.20	Peak
4	359.50	-50.74	-45.88	-4.86	-13.00	-37.74	Peak
5	426.00	-55.25	-51.94	-3.31	-13.00	-42.25	Peak
6	470.10	-63.15	-58.72	-4.43	-13.00	-50.15	Peak
7 pp	1564.00	-59.73	-66.59	6.86	-40.00	-19.73	Peak



## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10



Site : 966 chamber 1  
 Condition: PART 27(B13) Vertical  
 Remark : LTE\_Band 13\_Link\_M-Ch  
 Tested by: Karl Lee

	Read	Limit	Over				
Freq	Level	Level	Factor	Line	Limit	Remark	
MHz	dBm	dBm	dB	dBm	dB		
1	106.95	-56.57	-47.27	-9.30	-13.00	-43.57	Peak
2	170.67	-51.23	-44.63	-6.60	-13.00	-38.23	Peak
3	193.62	-47.35	-41.44	-5.91	-13.00	-34.35	Peak
4	342.00	-58.82	-53.35	-5.47	-13.00	-45.82	Peak
5	373.50	-56.31	-52.17	-4.14	-13.00	-43.31	Peak
6	455.40	-60.33	-56.32	-4.01	-13.00	-47.33	Peak
7 pp	1564.00	-56.71	-63.57	6.86	-40.00	-16.71	Peak

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

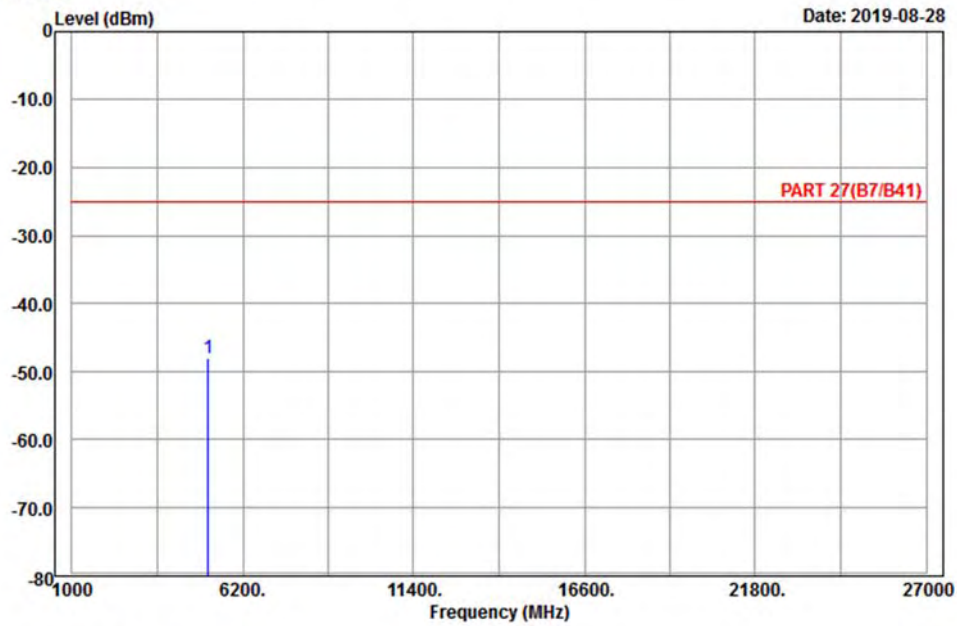


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-08-28



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

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	5145.00	-47.89	-67.70	19.81	-25.00	-22.89	Peak

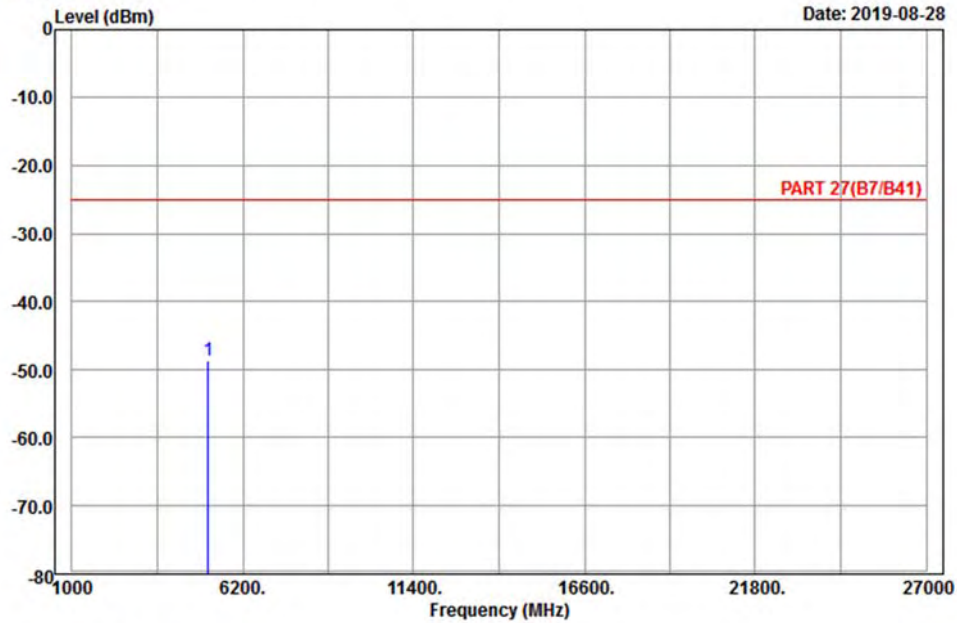


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-28



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

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 5145.00	-48.53	-68.34	19.81	-25.00
				-23.53 Peak

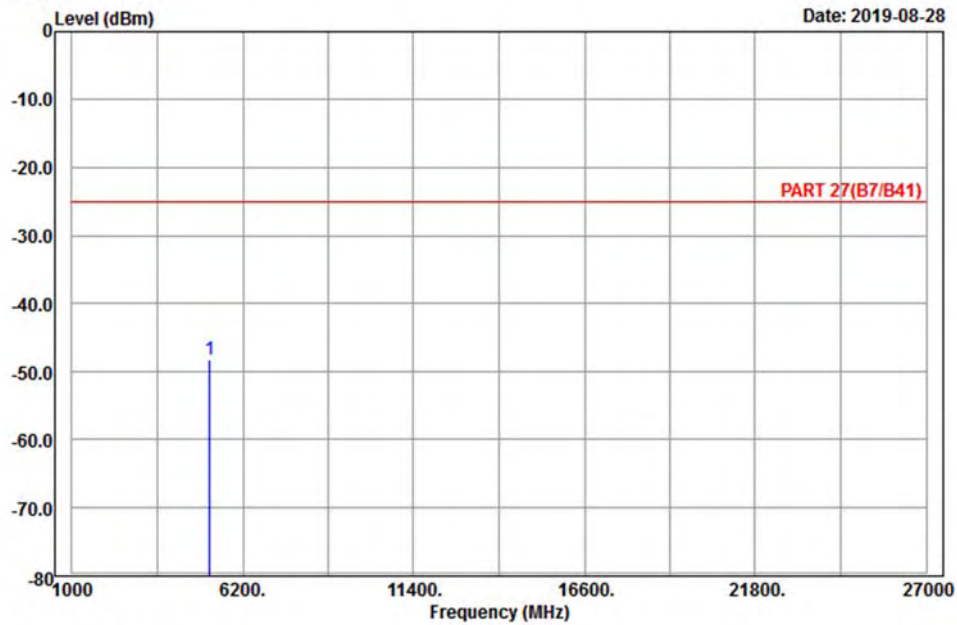
Middle Channel



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\_M-Ch  
 Tested by: Karl Lee

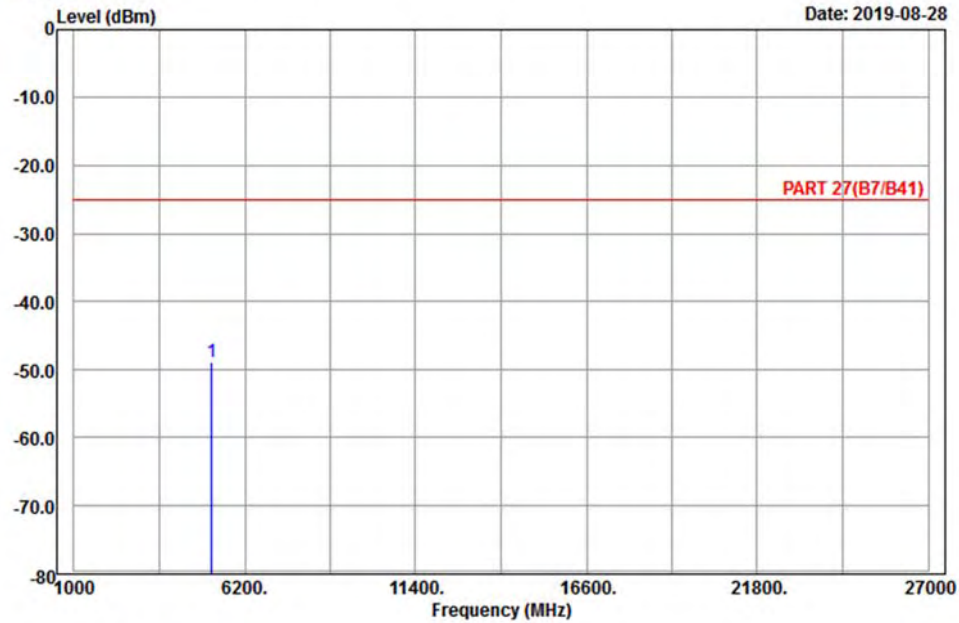
	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5190.00	-48.22	-68.34	20.12	-25.00	-23.22	Peak



## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10



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

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 5190.00	-48.86	-68.98	20.12	-25.00
				-23.86 Peak

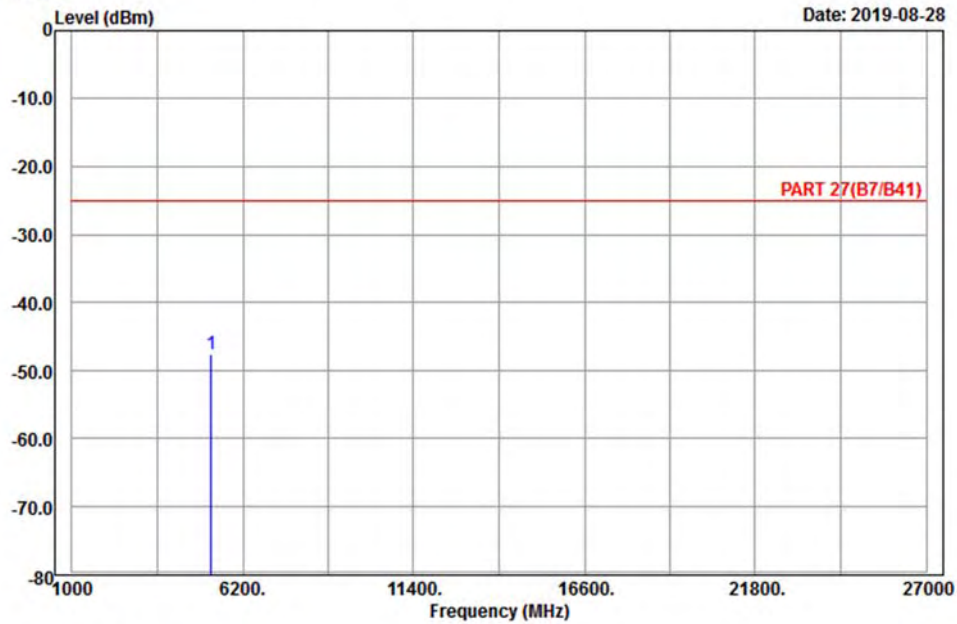
## High Channel



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\_H-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 5235.00	-47.58	-67.74	20.16	-25.00
				-22.58 Peak



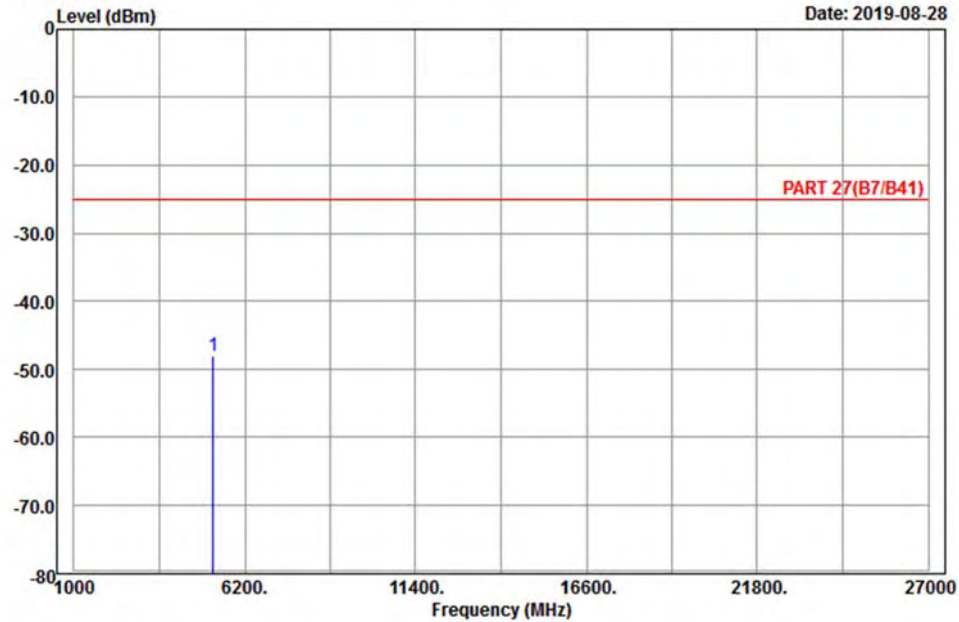


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-28



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

Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5235.00	-48.06	-68.22	20.16	-25.00	-23.06	Peak

Channel Bandwidth: 20MHz / QPSK  
Low Channel

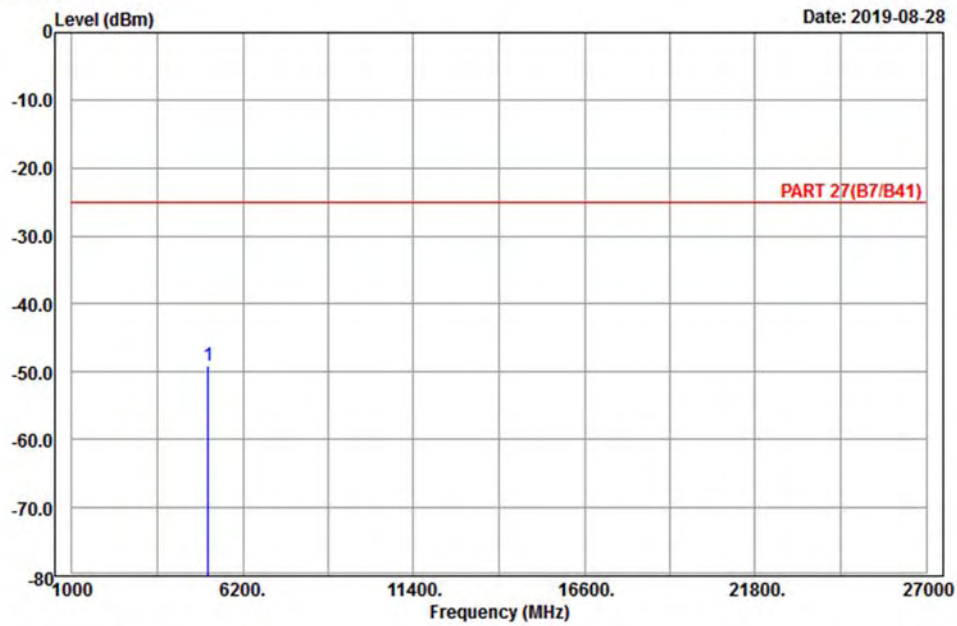


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-08-28



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

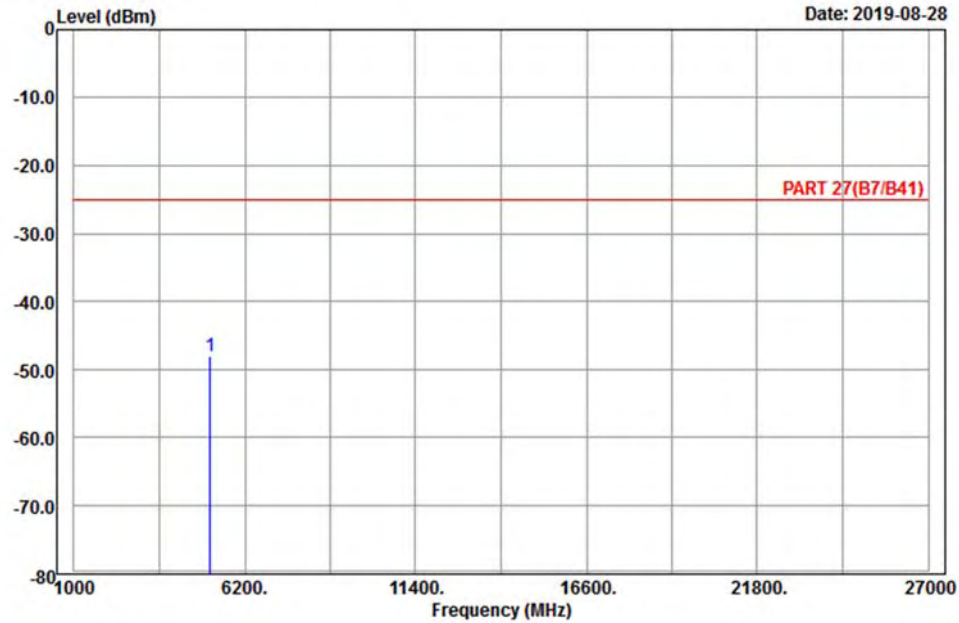
	Freq	Level	Read Level	Limit Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	5160.00	-49.07	-68.99	19.92	-25.00	-24.07	Peak



## Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10



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

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 5160.00	-47.90	-67.82	19.92	-25.00
				-22.90 Peak

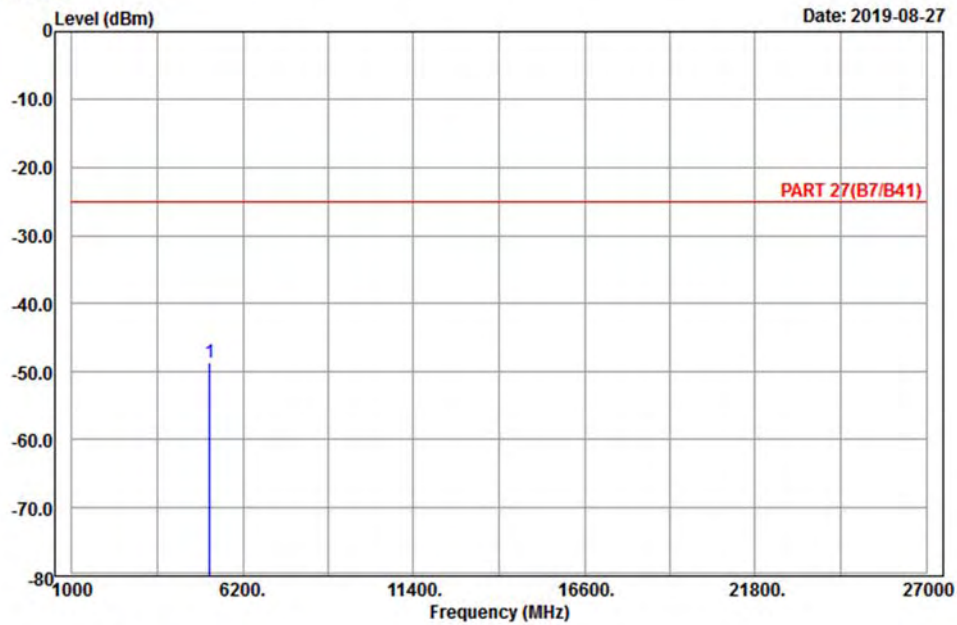
Middle Channel



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\_M-Ch  
 Tested by: Karl Lee

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 5190.00	-48.61	-68.73	20.12	-25.00
				-23.61 Peak

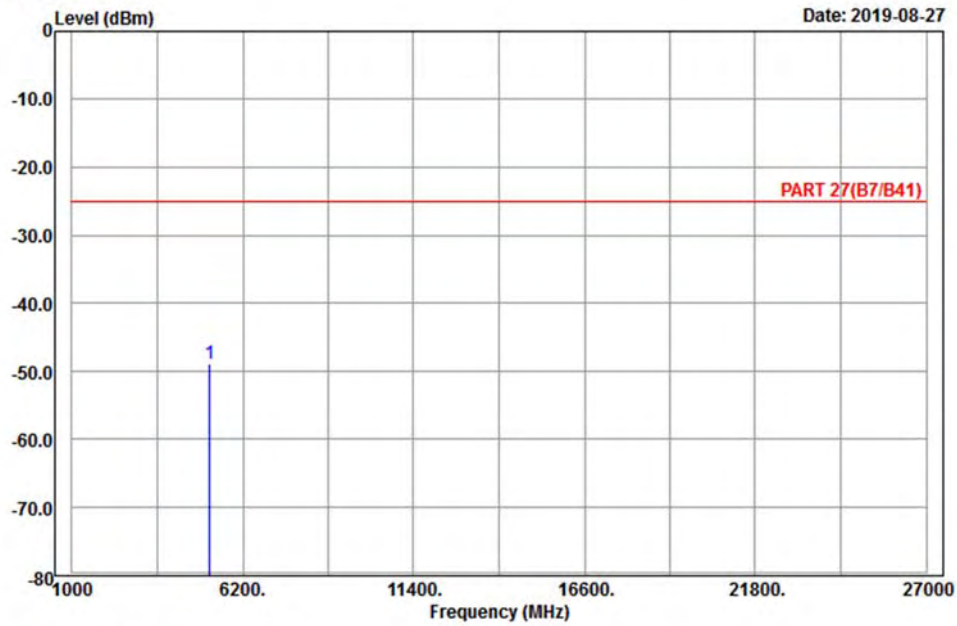


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-27



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

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5190.00	-48.92	-69.04	20.12	-25.00	-23.92	Peak

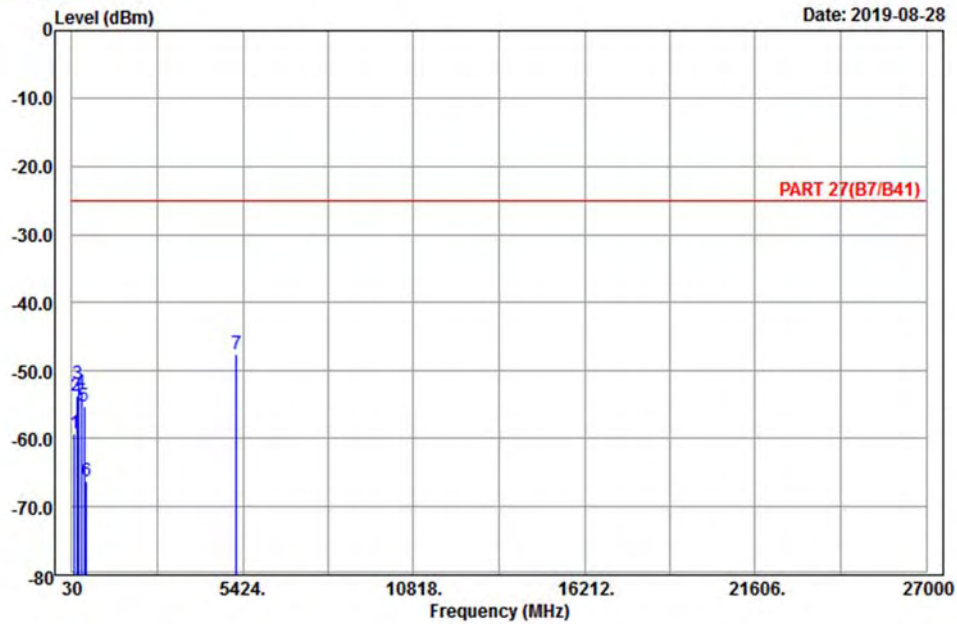
## High Channel



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 38\_Link\_H-Ch  
 Tested by: Karl Lee

	Freq	Level	Read Level	Limit Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	102.36	-59.33	-49.56	-9.77	-25.00	-34.33	Peak
2	193.62	-53.64	-47.73	-5.91	-25.00	-28.64	Peak
3	231.15	-51.91	-46.14	-5.77	-25.00	-26.91	Peak
4	325.20	-53.20	-47.53	-5.67	-25.00	-28.20	Peak
5	413.40	-55.07	-52.03	-3.04	-25.00	-30.07	Peak
6	475.70	-66.24	-61.68	-4.56	-25.00	-41.24	Peak
7 pp	5220.00	-47.55	-67.69	20.14	-25.00	-22.55	Peak

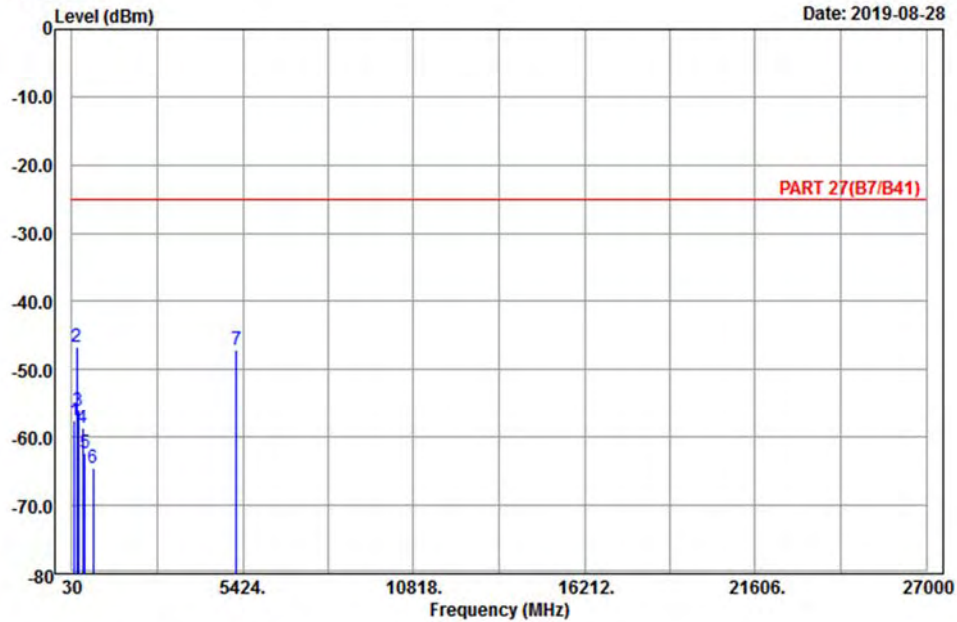


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 14

Date: 2019-08-28



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

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	105.87	-57.51	-48.09	-9.42	-25.00	-32.51	Peak
2	187.41	-46.60	-40.91	-5.69	-25.00	-21.60	Peak
3	232.50	-55.92	-50.18	-5.74	-25.00	-30.92	Peak
4	377.00	-58.62	-54.69	-3.93	-25.00	-33.62	Peak
5	449.80	-62.36	-58.51	-3.85	-25.00	-37.36	Peak
6	703.20	-64.46	-64.03	-0.43	-25.00	-39.46	Peak
7	5220.00	-47.09	-67.23	20.14	-25.00	-22.09	Peak

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

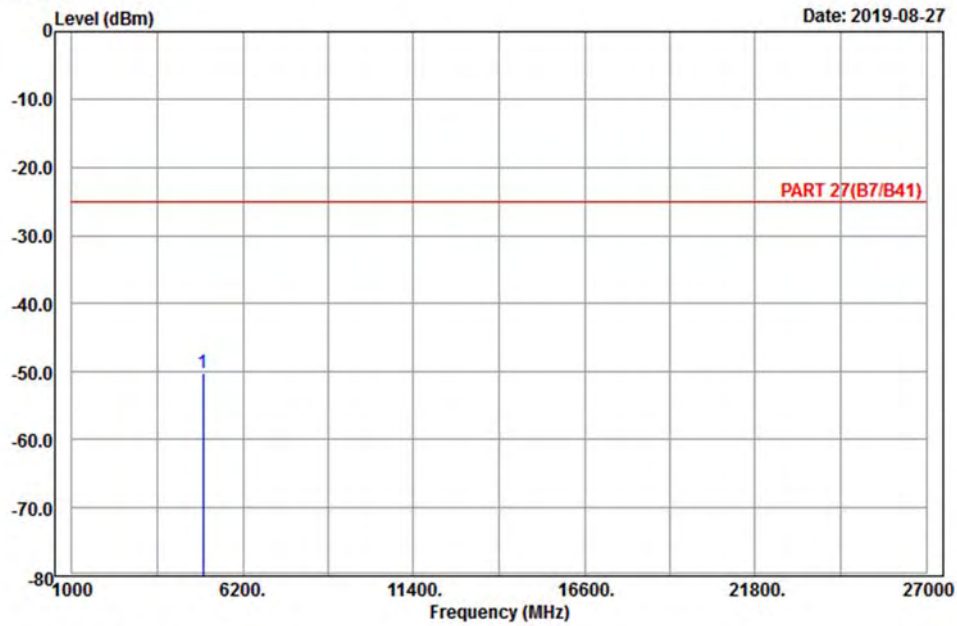


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-08-27



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

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	4997.00	-50.18	-69.76	19.58	-25.00	-25.18	Peak

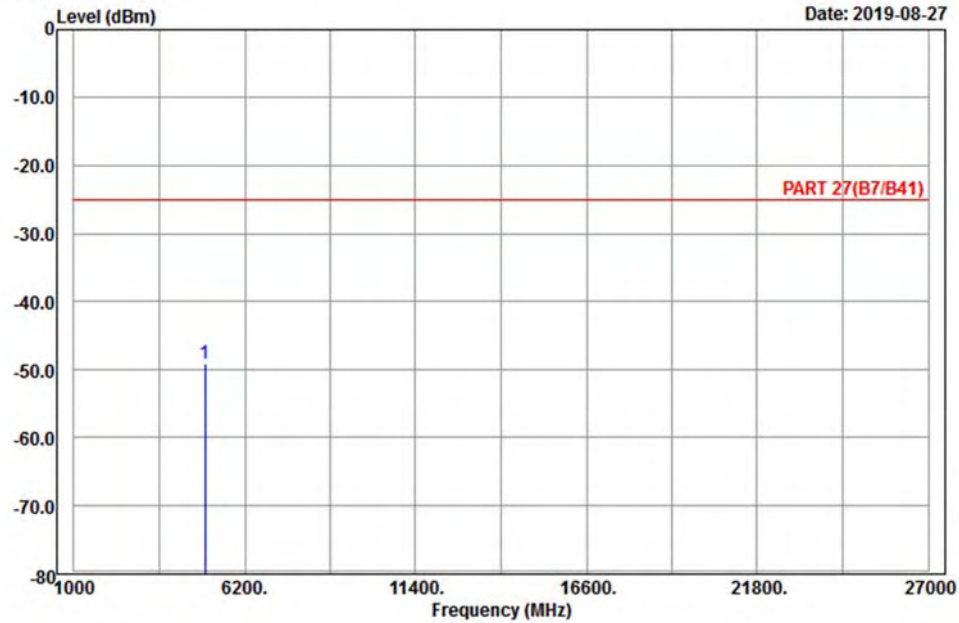




Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10



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

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 4997.00	-49.06	-68.64	19.58	-25.00
				-24.06 Peak

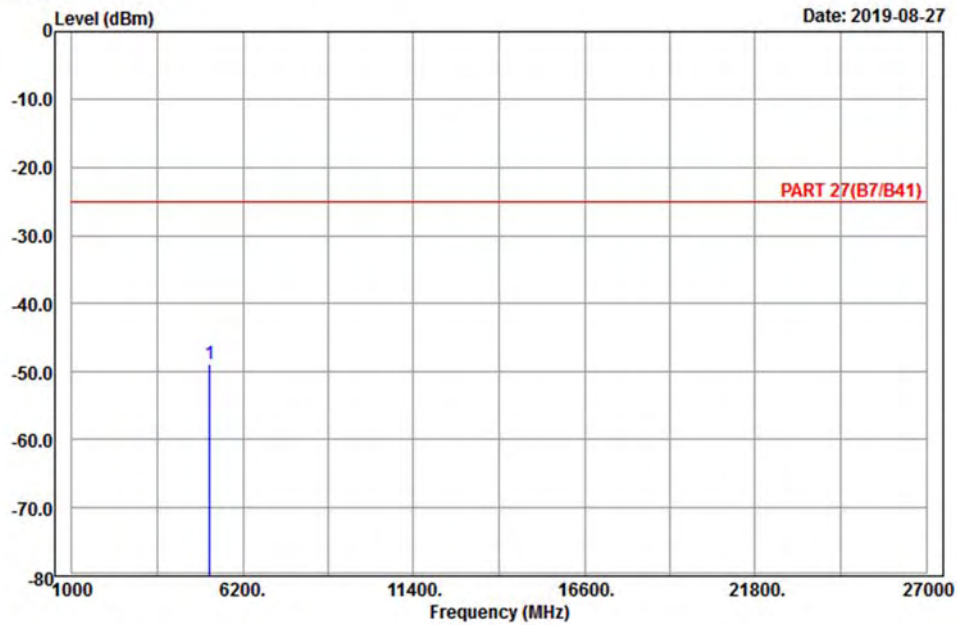
Middle Channel



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\_M-Ch  
 Tested by: Karl Lee

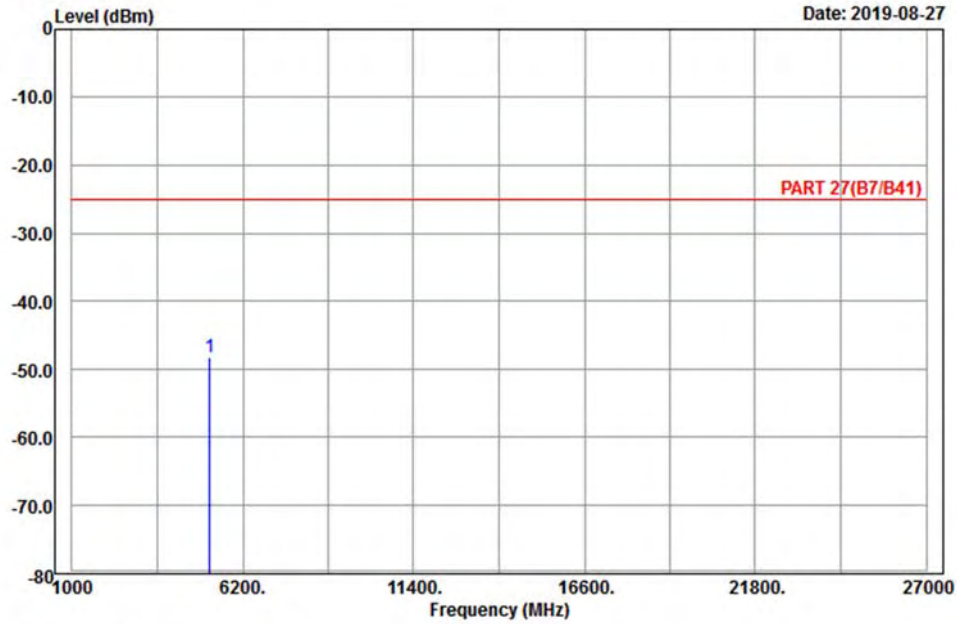
	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 5186.00	-48.74	-68.86	20.12	-25.00
				-23.74 Peak



A D T

Data: 10

Date: 2019-08-27



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

	Read	Limit	Over			
Freq	Level	Level	Factor	Line	Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5186.00	-48.22	-68.34	20.12	-13.00	-35.22	Peak

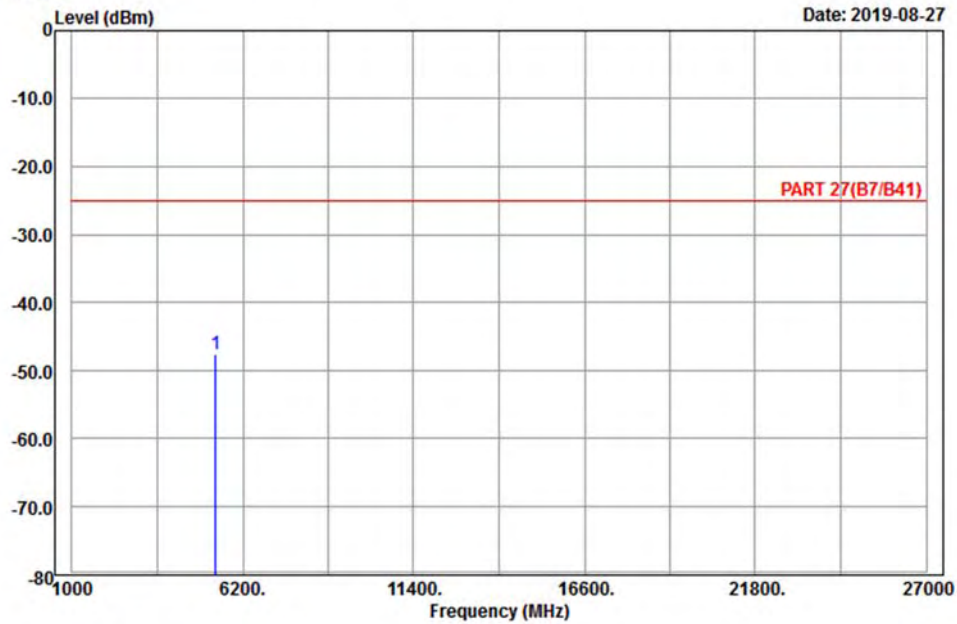
## High Channel



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\_H-Ch  
 Tested by: Karl Lee

Freq	Level	Read Level	Limit Factor	Limit Line	Over Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5375.00	-47.47	-67.79	20.32	-25.00	-22.47	Peak

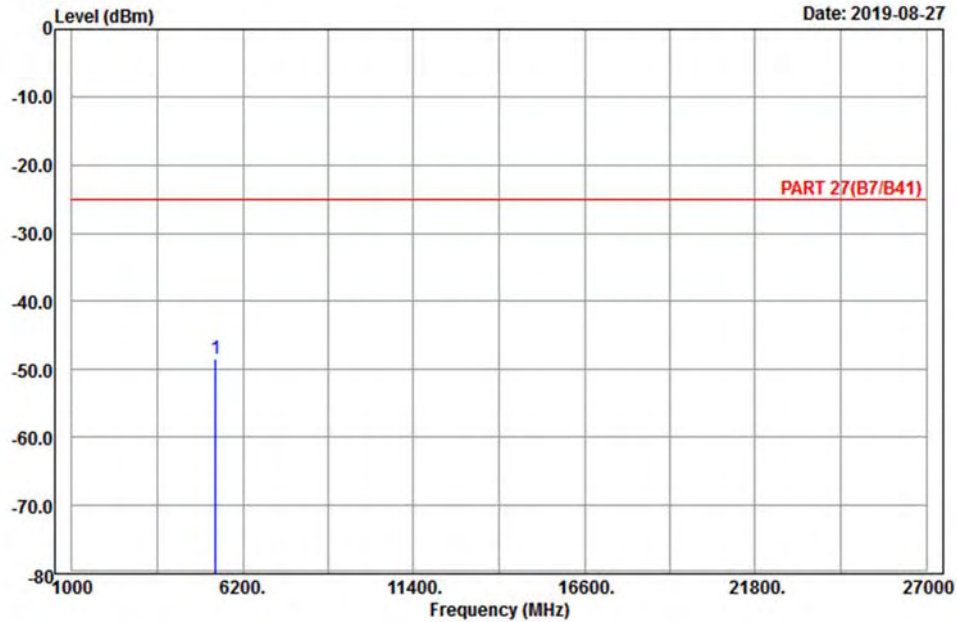


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-27



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

Freq	Level	Read Level	Factor	Limit Line	Over Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5375.00	-48.38	-68.70	20.32	-25.00	-23.38	Peak

Channel Bandwidth: 20MHz / QPSK  
Low Channel

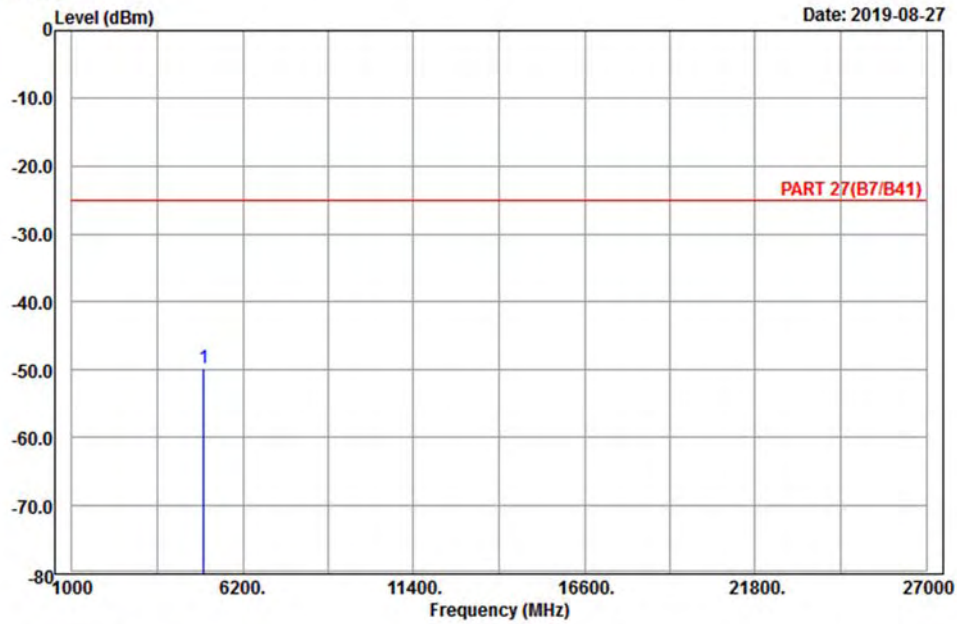


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-08-27



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

	Freq	Level	Read Level	Limit Factor	Limit Line	Over Limit	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1 pp	5012.00	-49.73	-68.81	19.08	-25.00	-24.73	Peak

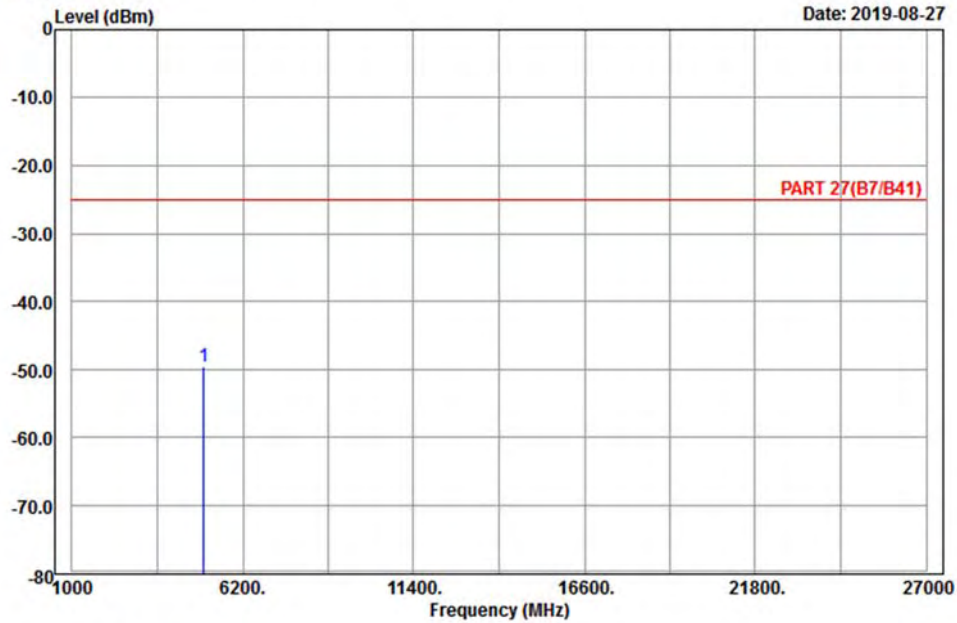


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-27



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

	Read	Limit	Over	
Freq	Level	Level	Factor	Line
MHz	dBm	dBm	dB	dBm
1 pp 5012.00	-49.58	-68.66	19.08	-25.00
				-24.58 Peak

## Middle Channel

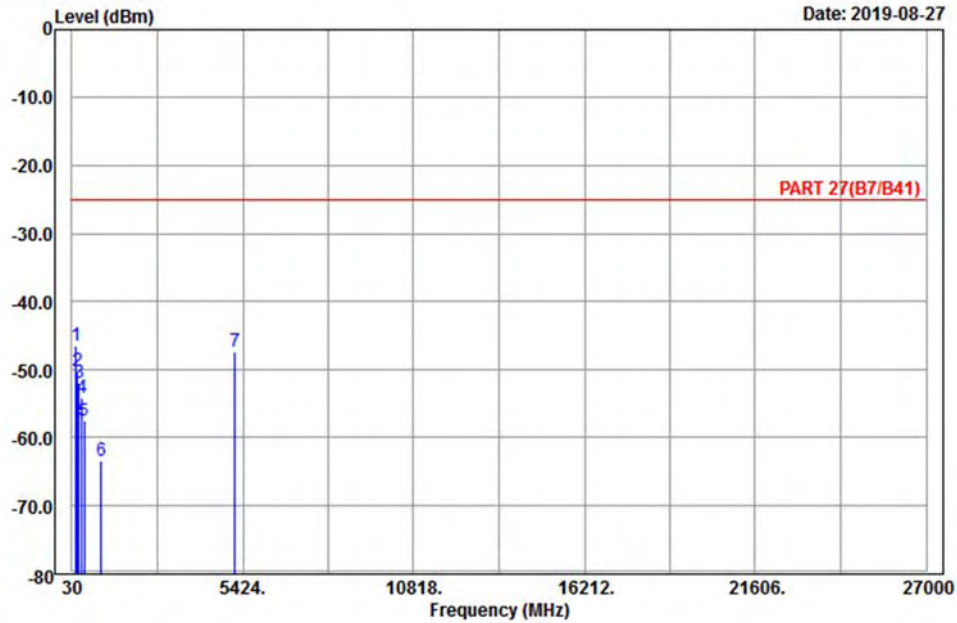


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A D T

Data: 13

Date: 2019-08-27



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

	Read	Limit	Over				
Freq	Level	Level	Factor	Line	Limit	Remark	
MHz	dBm	dBm	dB	dBm	dB		
1 pp	153.12	-46.50	-38.64	-7.86	-25.00	-21.50	Peak
2	196.05	-50.07	-44.07	-6.00	-25.00	-25.07	Peak
3	253.83	-51.95	-46.41	-5.54	-25.00	-26.95	Peak
4	345.50	-53.98	-48.55	-5.43	-25.00	-28.98	Peak
5	416.90	-57.48	-54.36	-3.12	-25.00	-32.48	Peak
6	944.70	-63.51	-68.40	4.89	-25.00	-38.51	Peak
7	5186.00	-47.37	-67.49	20.12	-25.00	-22.37	Peak

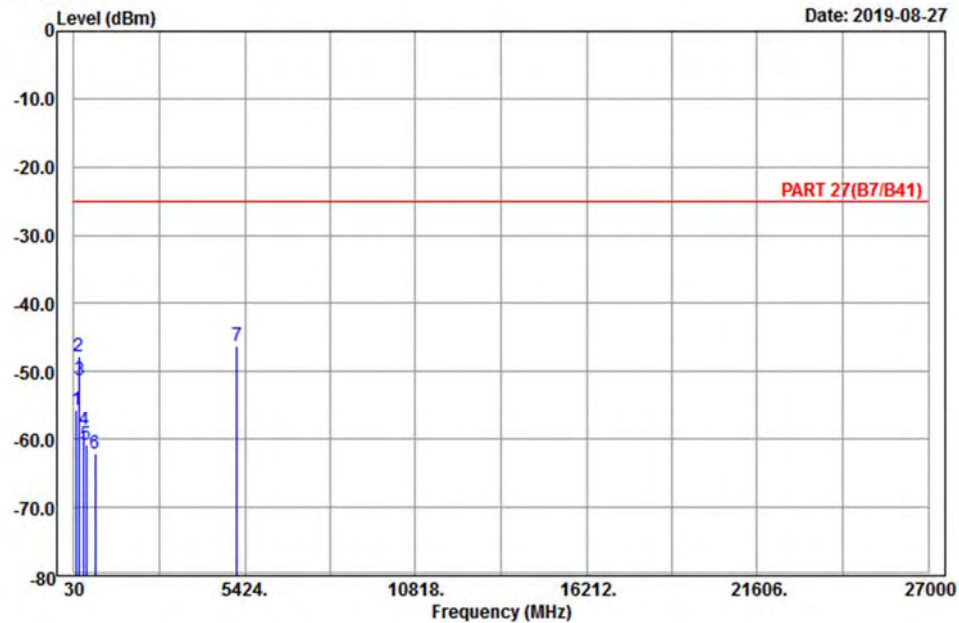




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A D T

Data: 14



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

	Freq	Level	Read	Limit	Over	
	MHz	dBm	Level	Line	Limit	Remark
			Factor			
			dB	dBm	dB	
1	118.29	-55.61	-47.23	-8.38	-25.00	-30.61 Peak
2	184.44	-47.65	-42.01	-5.64	-25.00	-22.65 Peak
3	217.38	-51.25	-45.30	-5.95	-25.00	-26.25 Peak
4	342.70	-58.53	-53.06	-5.47	-25.00	-33.53 Peak
5	418.30	-60.77	-57.63	-3.14	-25.00	-35.77 Peak
6	707.40	-62.07	-61.56	-0.51	-25.00	-37.07 Peak
7 pp	5186.00	-46.23	-66.35	20.12	-25.00	-21.23 Peak

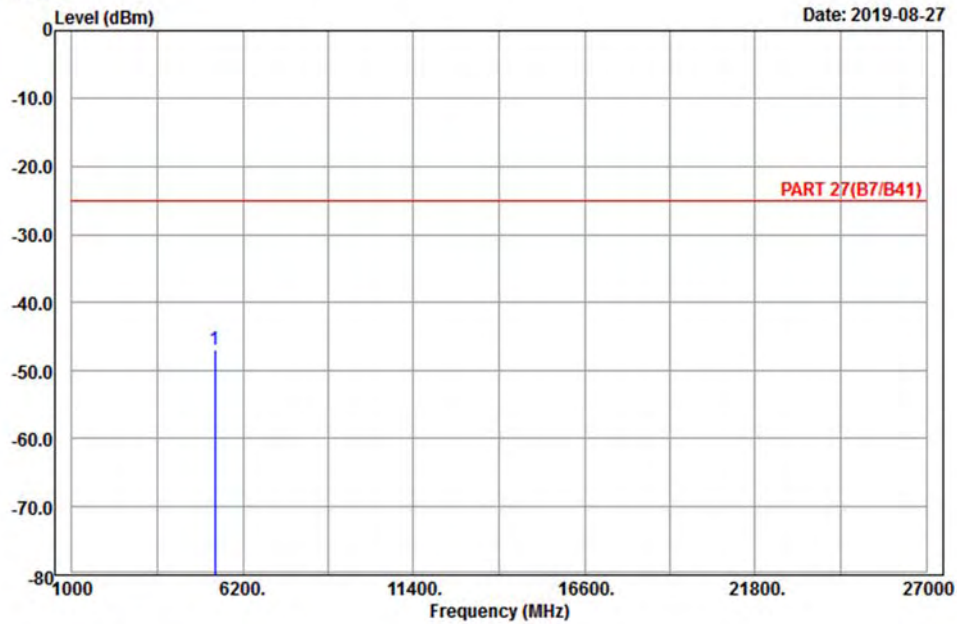
## High Channel



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\_H-Ch  
 Tested by: Karl Lee

Freq	Level	Read Level	Limit Factor	Limit Line	Over Limit	Remark
MHz	dBm	dBm	dB	dBm	dB	
1 pp 5360.00	-46.91	-67.21	20.30	-25.00	-21.91	Peak

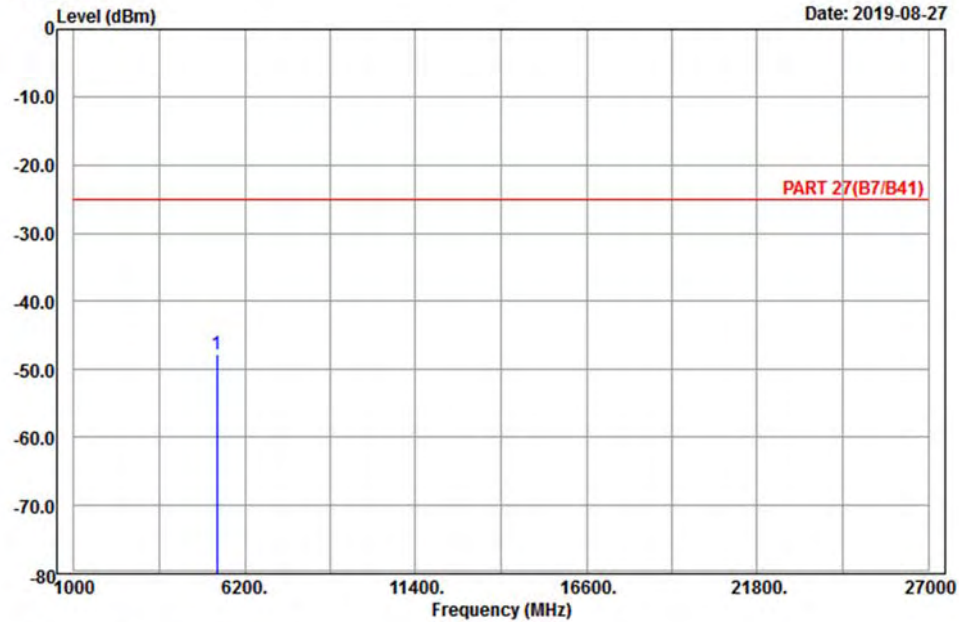


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-08-27



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

Freq	Level	Read	Limit	Over	Remark
MHz	dBm	Level	Line	Limit	
		Factor			
		dB	dBm	dB	
1 pp 5360.00	-47.80	-68.10	20.30	-25.00	-22.80 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:

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

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