

## Partial FCC Test Report

### (PART 90S)

**Report No.:** RF190828C21-4

**FCC ID:** QYLEM7455Z

**Test Model:** EM7455

**Received Date:** Aug. 28, 2019

**Test Date:** Sep. 10, 2019

**Issued Date:** Oct. 31, 2019

**Applicant:** Getac Technology Corporation.

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

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

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

**Test Location:** B2F., No.215, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231, Taiwan

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



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### Release Control Record

Issue No.	Description	Date Issued
RF190828C21-4	Original Release	Oct. 31, 2019

## 1 Certificate of Conformity

**Product:** Radio module

**Brand:** Sierra wireless Inc.

**Test Model:** EM7455

**Sample Status:** Identical Prototype

**Applicant:** Getac Technology Corporation.

**Test Date:** Sep. 10, 2019

**Standards:** FCC Part 90, Subpart I, S  
FCC Part 2

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

**Prepared by :** Gina Liu, **Date:** Oct. 31, 2019  
Gina Liu / Specialist

**Approved by :** Dylan Chiou, **Date:** Oct. 31, 2019  
Dylan Chiou / Project Engineer

## 2 Summary of Test Results

Applied Standard: FCC Part 90 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 90.635 (b)	Effective Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	N/A	Refer to Note
2.1055 90.213	Frequency Stability	N/A	Refer to Note
2.1049 90.209	Occupied Bandwidth	N/A	Refer to Note
2.1051 90.210	Emission Masks	N/A	Refer to Note
2.1051 90.691	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 90.691	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -31.84 dB at 2457.00 MHz.

Note:

1. This report is a Class II change Partial report. Therefore, only test item of Radiated Spurious Emissions and Effective Radiated Power tests were performed for this report. Other testing data please refer to TTL report no.: B15W50341-FCC-RF and B15W50341-FCC-RF\_Rev1 for module (Brand: Sierra wireless Inc., Model: EM7455)
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	3.04 dB
	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~ 1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 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
Spectrum Analyzer ROHDE & SCHWARZ	FSW26	102023	Oct. 11, 2018	Oct. 10, 2019
BILOG Antenna SCHWARZBECK	VULB9168	9168-616	Nov. 27, 2018	Nov. 26, 2019
HORN Antenna ETS-Lindgren	3117	00143293	Nov. 25, 2018	Nov. 24, 2019
BILOG Antenna SCHWARZBECK	VULB9168	9168-631	Nov. 26, 2018	Nov. 25, 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
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(RFC -SMS-100-SMS-12 0+RFC-SMS-100-S MS-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
Radio Communication Analyzer Anritsu	MT8820C	6201300640	Aug. 19, 2019	Aug. 18, 2021

- 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>	Radio module	
<b>Brand</b>	Sierra wireless Inc.	
<b>Test Model</b>	EM7455	
<b>Status of EUT</b>	Identical Prototype	
<b>Power Supply Rating</b>	3.3 Vdc (Host equipment)	
<b>Modulation Type</b>	LTE	QPSK, 16QAM
<b>Frequency Range</b>	LTE Band 26 (Channel Bandwidth: 1.4 MHz)	814.7 ~ 823.3 MHz
	LTE Band 26 (Channel Bandwidth: 3 MHz)	815.5 ~ 822.5 MHz
	LTE Band 26 (Channel Bandwidth: 5 MHz)	816.5 ~ 821.5 MHz
	LTE Band 26 (Channel Bandwidth: 10 MHz)	819 MHz
<b>Max. ERP Power</b>	LTE Band 26 (Channel Bandwidth: 1.4 MHz)	187.50 mW
	LTE Band 26 (Channel Bandwidth: 3 MHz)	189.23 mW
	LTE Band 26 (Channel Bandwidth: 5 MHz)	190.99 mW
	LTE Band 26 (Channel Bandwidth: 10 MHz)	192.75 mW
<b>Antenna Type</b>	Refer to Note as below	
<b>Accessory Device</b>	Refer to Note as below	
<b>Data Cable Supplied</b>	Refer to Note as below	

Note:

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

Product	Brand	Model
Tablet	Getac	ZX70

2. The antenna information is listed as below.

Antenna Type	Brand	Model	Antenna Gain
			LTE B26
PIFA	SINBON	A9703134	2.42

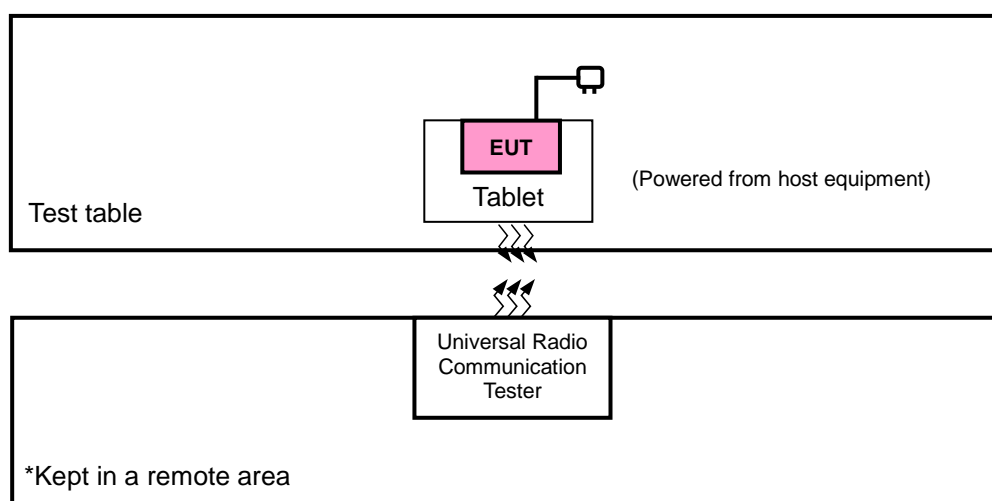
3. The End-product contains following accessory devices.

Product	Brand	Model	Description
Adapter 1	APD	WA24Q12R	I/P: 100-240 Vac, 50-60 Hz, 0.7A O/P: 12 Vdc, 2 A DC Lind: 1.75 m cable w/ 1 core
Adapter 2	APD	WB-24J12R	I/P: 100-240 Vac, 50-60 Hz, 0.7A O/P: 12 Vdc, 2 A DC Lind: 1.75 m cable w/ 1 core
Battery	Geatc	BP1S2P4240L	3.8 Vdc, 8480 mAh
LCD Panel	Truly	TDO-HD0698K61701	7"
Photo Camera	Chicony	CWFFF2520005340LH	2MPs HD Fix focus camera
Video Camera	Chicony	CYAF82520005340LH	8MPs auto focus camera
CPU	intel	Atom Z8350	592 PIN
Memory	Samsung	K4E6E304EE-EGCE	DDR3 4G (2G*2)

Product	Brand	Model	Description
Storage	Samsung	KLMAG4GEND-B031	32G
GPS Module	U-blox	MAX-M8N	--
BT/WLAN Module	AMPAK	AP6234	--
RFID Module	Jogtek	TRF7970A	--
WWAN Module	Sierra	EM7455	--
Bar Code Reader	Honeywell	N6603	--
Fingerprint	IMD	SF1115	--

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

### 3.2 Configuration of System under Test



#### 3.2.1 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. 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.	Tablet	Getac	ZX70	N/A	N/A
2.	Universal Radio Communication Tester	Anritsu	MT8820C	6201300640	N/A

No.	Signal Cable Description Of The Above Support Units
1.	N/A

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item 1 was provided by client.



### 3.3 Test Mode Applicability and Tested Channel Detail

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

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

Band	ERP	Radiated Emission
LTE Band 26	Z-plane	Z-axis

#### LTE Band 26

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	ERP	26697 to 26783	26697, 26740, 26783	1.4 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26705 to 26775	26705, 26740, 26775	3 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26715 to 26765	26715, 26740, 26765	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		26740	26740	10 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
-	Radiated Emission	26697 to 26783	26697, 26740, 26783	1.4 MHz	QPSK	1 RB / 0 RB Offset
		26715 to 26765	26715, 26740, 26765	5 MHz	QPSK	1 RB / 0 RB Offset
		26740	26740	10 MHz	QPSK	1 RB / 0 RB Offset

#### Note:

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

#### Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
ERP	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 90**

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

**KDB 971168 D02 Misc Rev Approv License Devices v02r01**

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

**ANSI 63.26-2015**

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

## 4 Test Types and Results

### 4.1 Output Power Measurement

#### 4.1.1 Limits of Output Power Measurement

The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw) ERP.

#### 4.1.2 Test Procedures

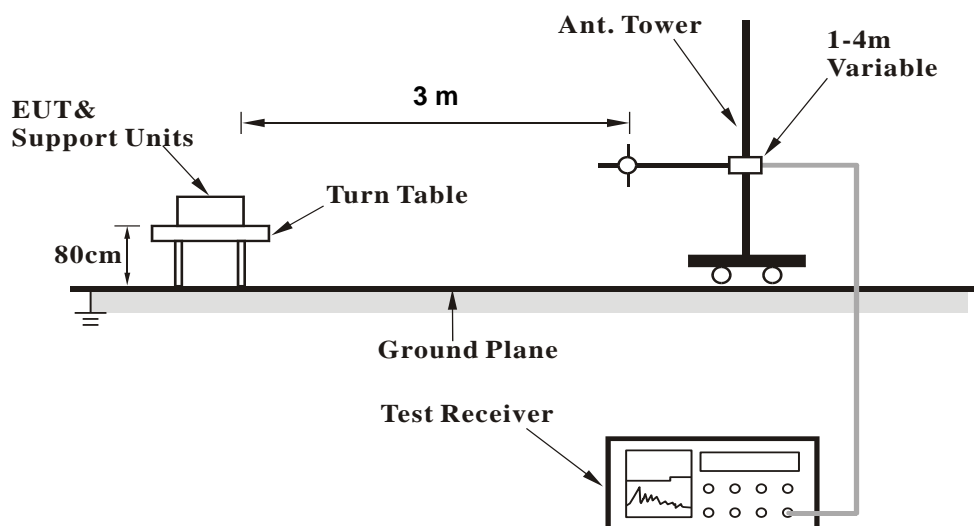
##### **EIRP / ERP Measurement:**

- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 5 MHz for CDMA 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,  $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15 \text{ dB}$ .

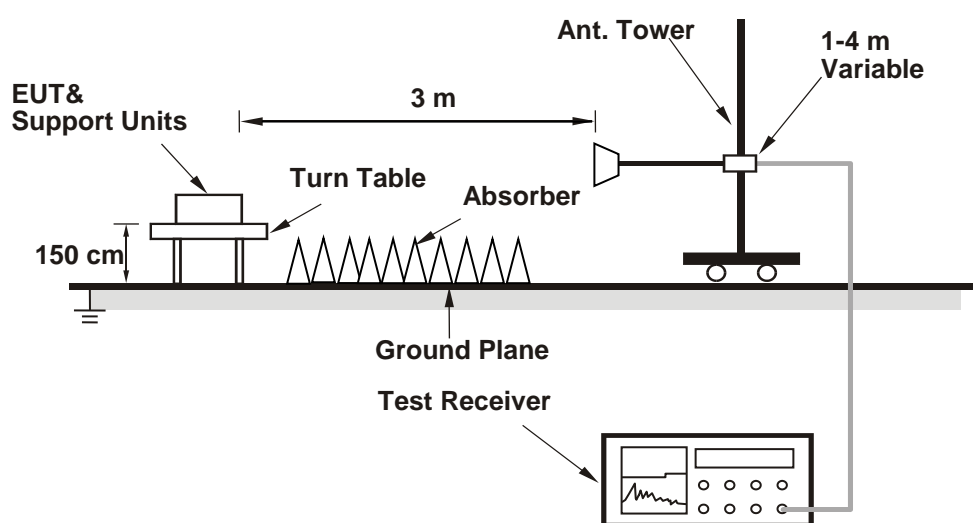
#### 4.1.3 Test Setup

##### 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 26							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	26697	814.7	-6.47	31.208	22.59	181.47	H
	26740	819.0	-6.42	31.3	22.73	187.50	
	26783	823.3	-6.41	31.222	22.66	184.59	
	26697	814.7	-11.79	31.504	17.56	57.07	V
	26740	819.0	-11.28	31.117	17.69	58.71	
	26783	823.3	-12.15	31.922	17.62	57.84	
Channel Bandwidth: 1.4 MHz / 16QAM							
Z	26697	814.7	-7.48	31.208	21.58	143.81	H
	26740	819.0	-7.42	31.3	21.73	148.94	
	26783	823.3	-7.41	31.222	21.66	146.62	
	26697	814.7	-12.79	31.504	16.56	45.33	V
	26740	819.0	-12.29	31.117	16.68	46.53	
	26783	823.3	-13.15	31.922	16.62	45.94	

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

LTE Band 26							
Channel Bandwidth: 3 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	26705	815.5	-6.43	31.208	22.63	183.02	H
	26740	819.0	-6.38	31.3	22.77	189.23	
	26775	822.5	-6.37	31.222	22.70	186.29	
	26705	815.5	-11.75	31.504	17.60	57.60	V
	26740	819.0	-11.24	31.117	17.73	59.25	
	26775	822.5	-12.10	31.922	17.67	58.51	
Channel Bandwidth: 3 MHz / 16QAM							
Z	26705	815.5	-7.44	31.208	21.62	145.14	H
	26740	819.0	-7.38	31.3	21.77	150.31	
	26775	822.5	-7.37	31.222	21.70	147.98	
	26705	815.5	-12.75	31.504	16.60	45.75	V
	26740	819.0	-12.25	31.117	16.72	46.96	
	26775	822.5	-13.11	31.922	16.66	46.37	

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

LTE Band 26							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	26715	816.5	-6.39	31.208	22.67	184.84	H
	26740	819.0	-6.34	31.3	22.81	190.99	
	26765	821.5	-6.33	31.222	22.74	188.02	
	26715	816.5	-11.71	31.504	17.64	58.13	V
	26740	819.0	-11.20	31.117	17.77	59.80	
	26765	821.5	-12.06	31.922	17.71	59.05	
Channel Bandwidth: 5 MHz / 16QAM							
Z	26715	816.5	-7.40	31.208	21.66	146.49	H
	26740	819.0	-7.35	31.3	21.80	151.46	
	26765	821.5	-7.33	31.222	21.74	149.35	
	26715	816.5	-12.71	31.504	16.64	46.17	V
	26740	819.0	-12.20	31.117	16.77	47.50	
	26765	821.5	-13.07	31.922	16.70	46.80	

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

LTE Band 26							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	26740	819.0	-6.30	31.3	22.85	192.75	H
	26740	819.0	-11.16	31.117	17.81	60.35	V
Channel Bandwidth: 10 MHz / 16QAM							
Z	26740	819.0	-7.30	31.3	21.85	153.11	H
	26740	819.0	-12.16	31.117	16.81	47.94	V

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

## 4.2 Radiated Emission Measurement

### 4.2.1 Limits of Radiated Emission Measurement

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB. The limit of emission is equal to -13 dBm.

### 4.2.2 Test Procedure

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

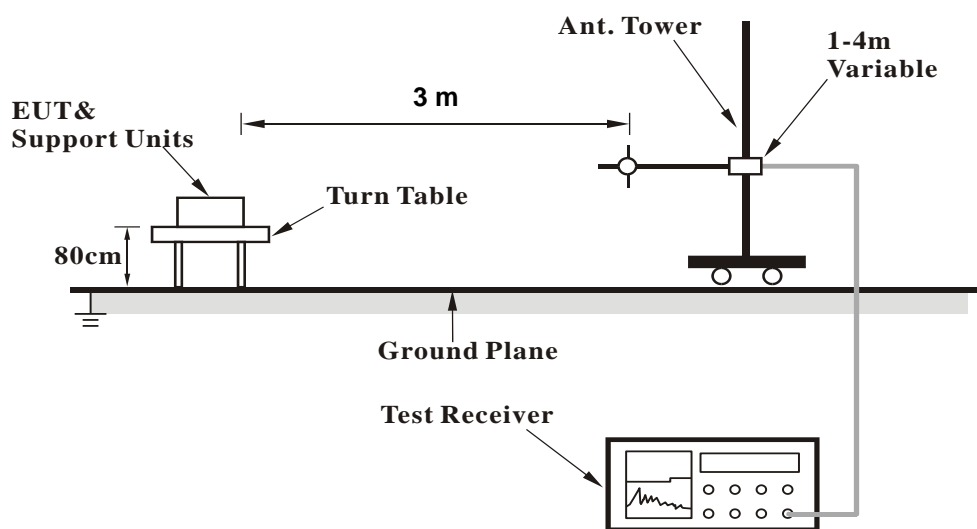
**Note:** The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

### 4.2.3 Deviation from Test Standard

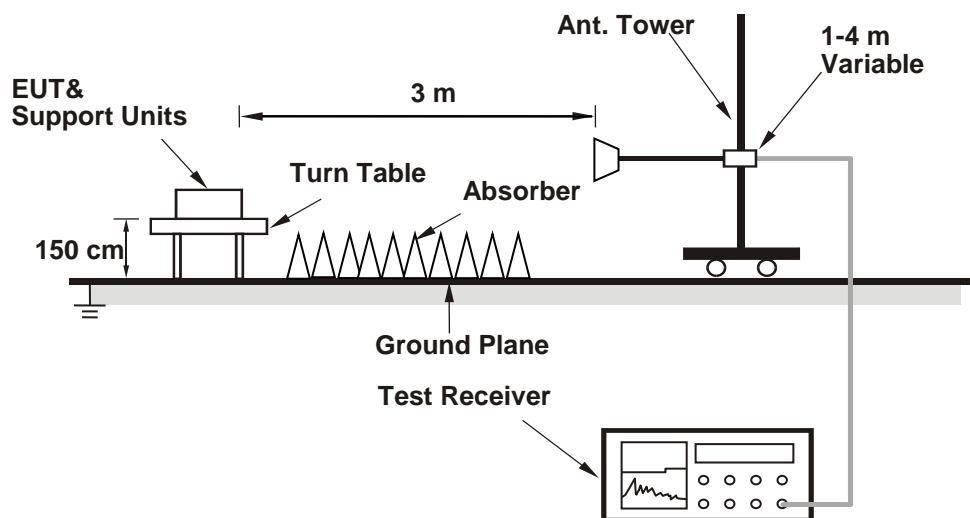
No deviation.

#### 4.2.4 Test Setup

##### <Radiated Emission below or equal 1 GHz>



##### <Radiated Emission above 1 GHz>



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



#### 4.2.5 Test Results

LTE Band 26

Channel Bandwidth: 1.4 MHz / QPSK

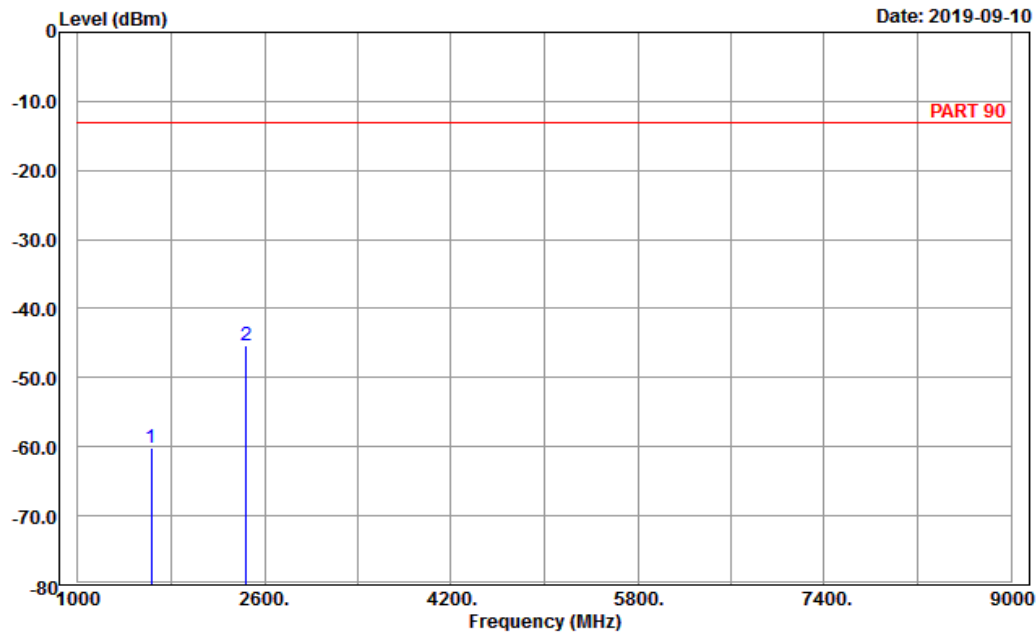
Low Channel



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A D T

Data: 5



Site : 966 chamber 1

Condition: PART 90 Horizontal

Remark : LTE\_Band 26\_Link\_L-Ch

Tested by: Karl Lee

		Read	Limit	Over			
	Freq	Level	Level	Line	Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1629.40	-60.27	-67.83	-13.00	-47.27	7.56	Peak
2 pp	2444.10	-45.30	-56.30	-13.00	-32.30	11.00	Peak

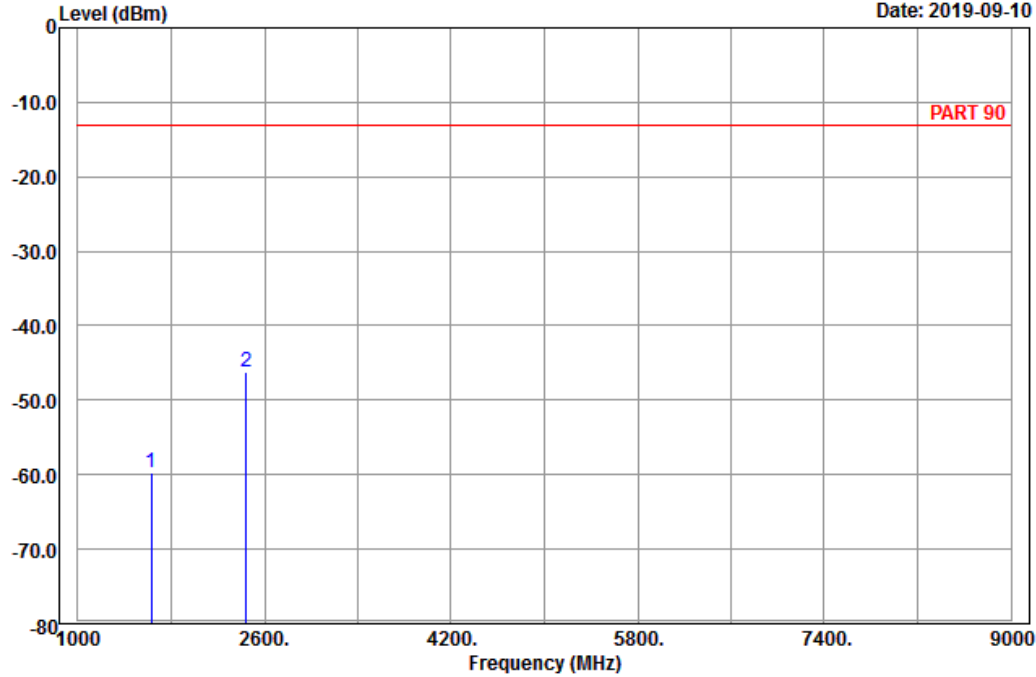


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2019-09-10



Site : 966 chamber 1  
Condition: PART 90 Vertical  
Remark : LTE\_Band 26\_Link\_L-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1629.40	-59.67	-67.23	-13.00	-46.67	7.56	Peak
2 pp	2444.10	-46.29	-57.29	-13.00	-33.29	11.00	Peak

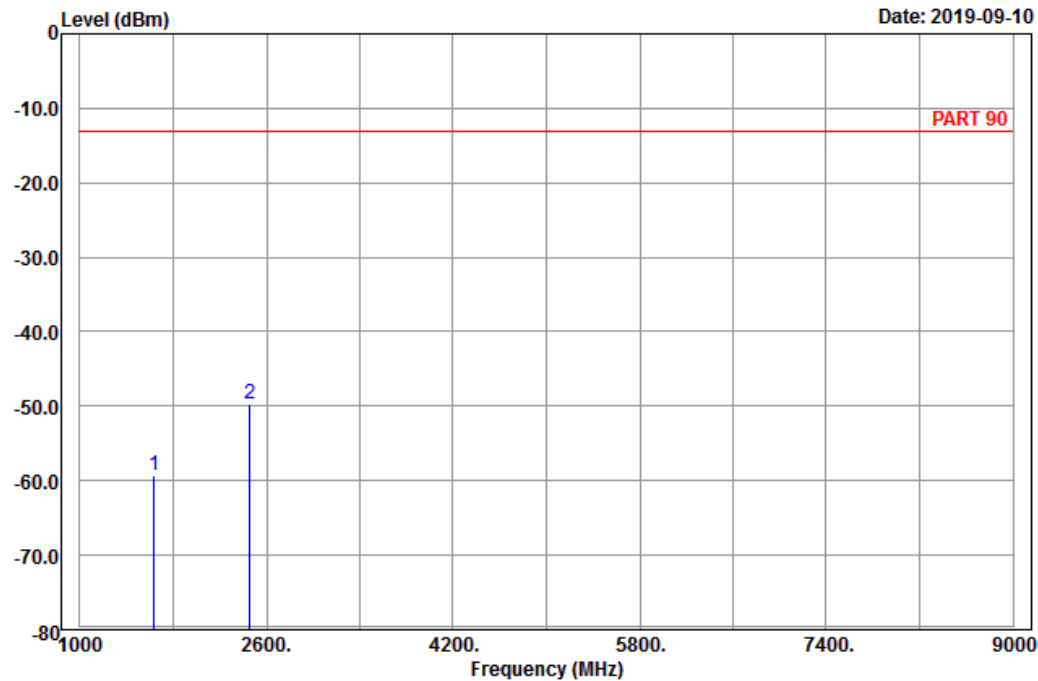
## Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 90 Horizontal  
 Remark : LTE\_Band 26\_Link\_M-Ch  
 Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1	1638.00	-59.37	-66.93	-13.00	-46.37	7.56 Peak
2 pp	2457.00	-49.76	-60.78	-13.00	-36.76	11.02 Peak

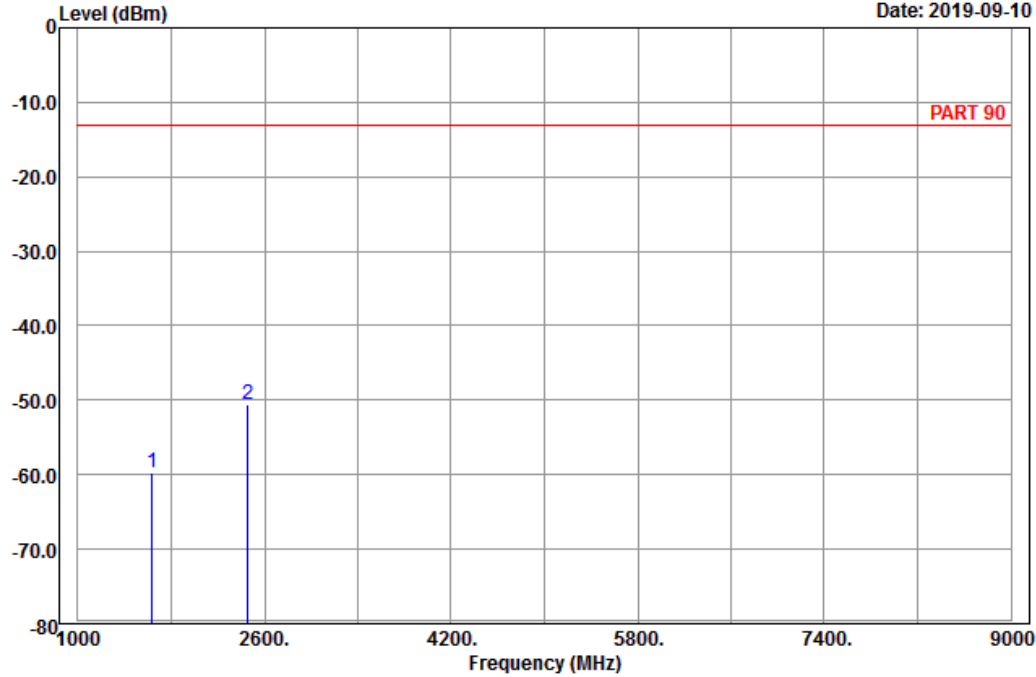


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A D T

Data: 6

Date: 2019-09-10



Site : 966 chamber 1  
Condition: PART 90 Vertical  
Remark : LTE\_Band 26\_Link\_M-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1638.00	-59.77	-67.33	-13.00	-46.77	7.56	Peak
2 pp	2457.00	-50.57	-61.59	-13.00	-37.57	11.02	Peak

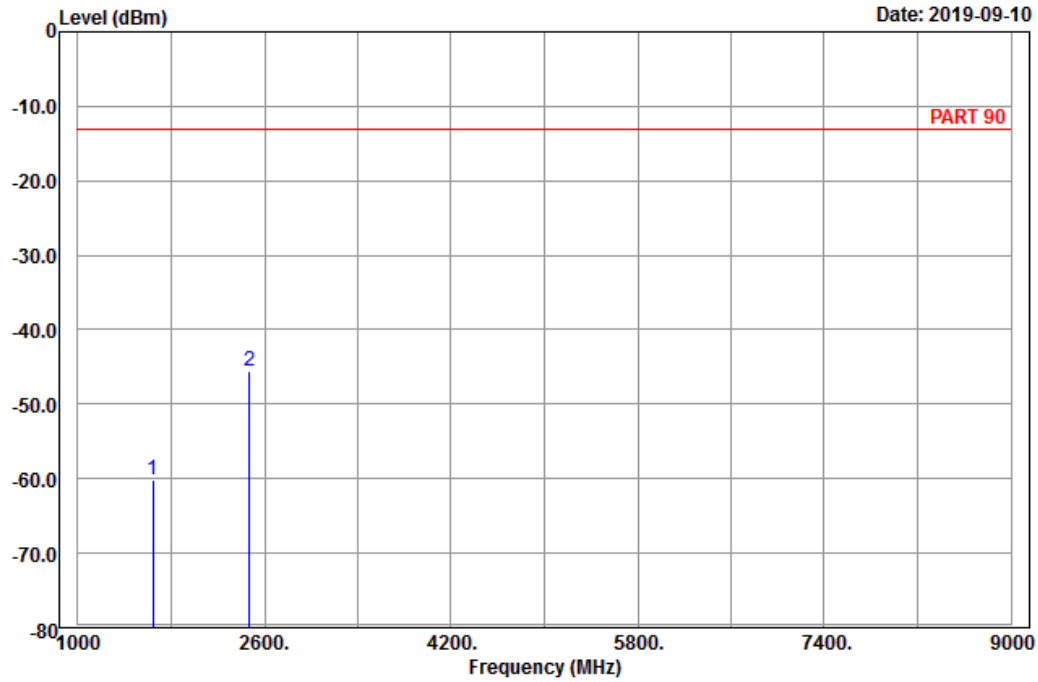
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 90 Horizontal  
 Remark : LTE\_Band 26\_Link\_H-Ch  
 Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1	1646.60	-60.22	-67.95	-13.00	-47.22	7.73 Peak
2 pp	2469.90	-45.46	-56.49	-13.00	-32.46	11.03 Peak

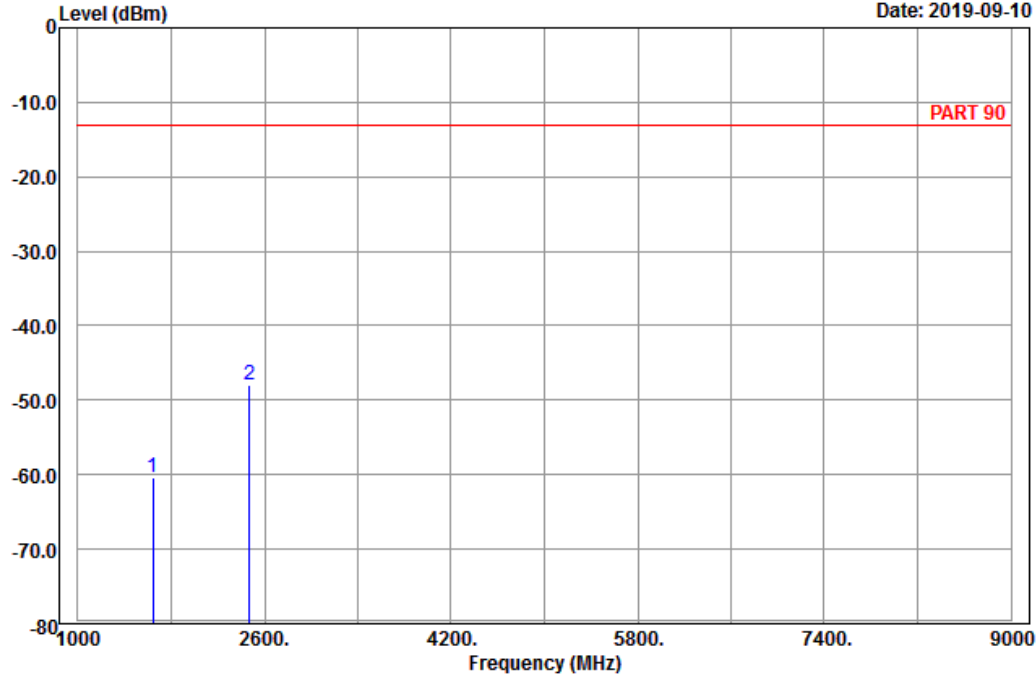


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2019-09-10



Site : 966 chamber 1  
Condition: PART 90 Vertical  
Remark : LTE\_Band 26\_Link\_H-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1646.60	-60.33	-68.06	-13.00	-47.33	7.73	Peak
2 pp	2469.90	-48.02	-59.05	-13.00	-35.02	11.03	Peak

Channel Bandwidth: 5 MHz / QPSK  
Low Channel

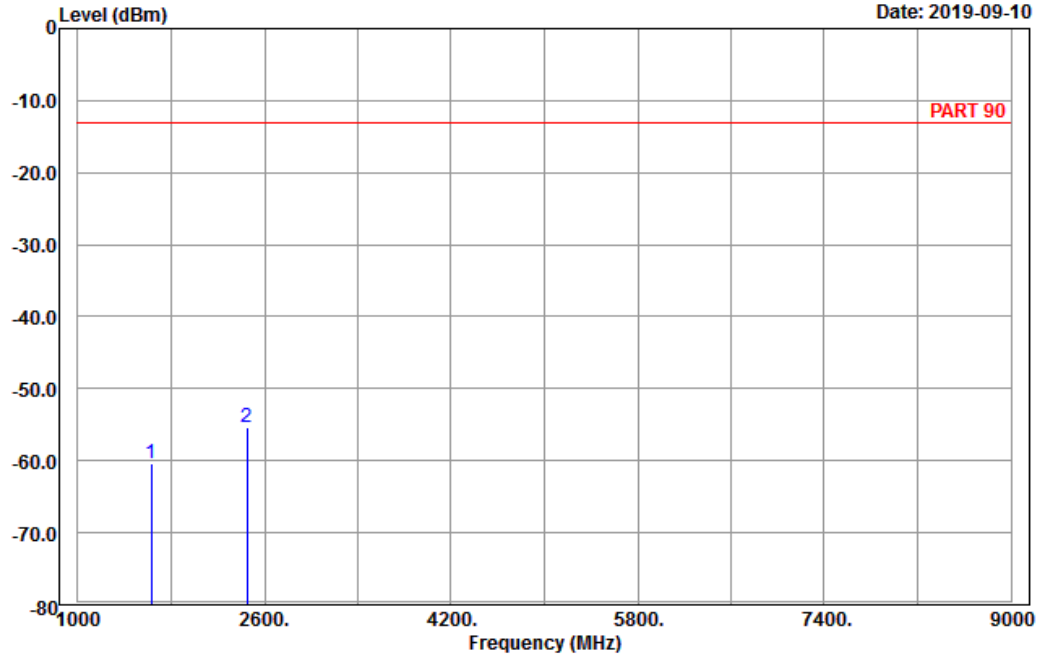


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5

Date: 2019-09-10



Site : 966 chamber 1  
Condition: PART 90 Horizontal  
Remark : LTE\_Band 26\_Link\_L-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1633.00	-60.36	-67.92	-13.00	-47.36	7.56	Peak
2	2449.50	-55.44	-66.46	-13.00	-42.44	11.02	Peak

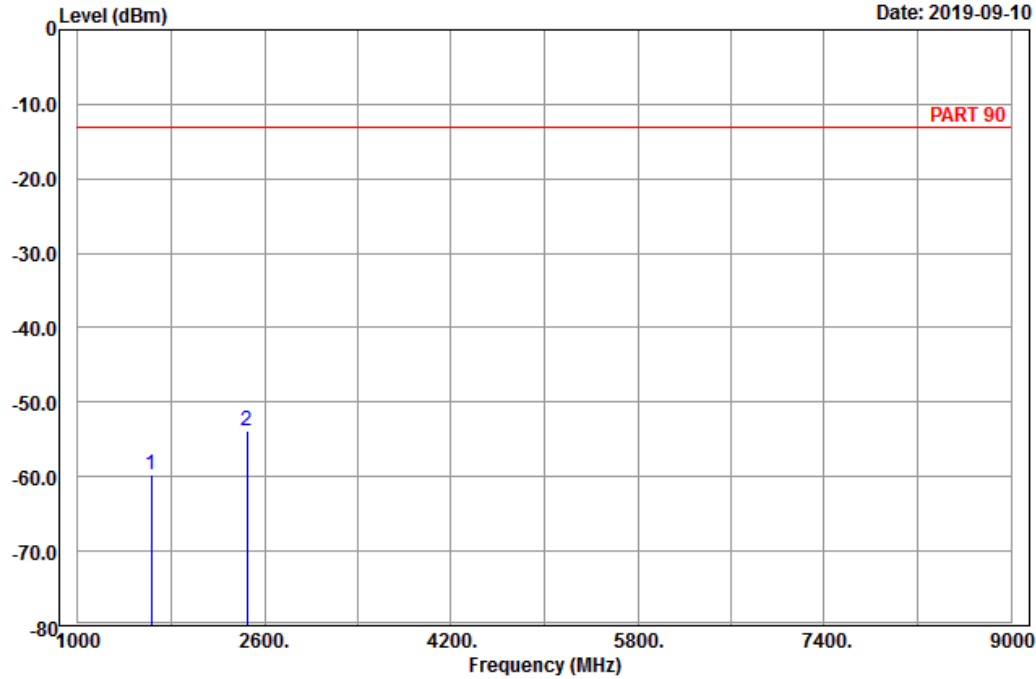


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2019-09-10



Site : 966 chamber 1  
Condition: PART 90 Vertical  
Remark : LTE\_Band 26\_Link\_L-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1633.00	-59.70	-67.26	-13.00	-46.70	7.56	Peak
2 pp	2449.50	-53.95	-64.97	-13.00	-40.95	11.02	Peak



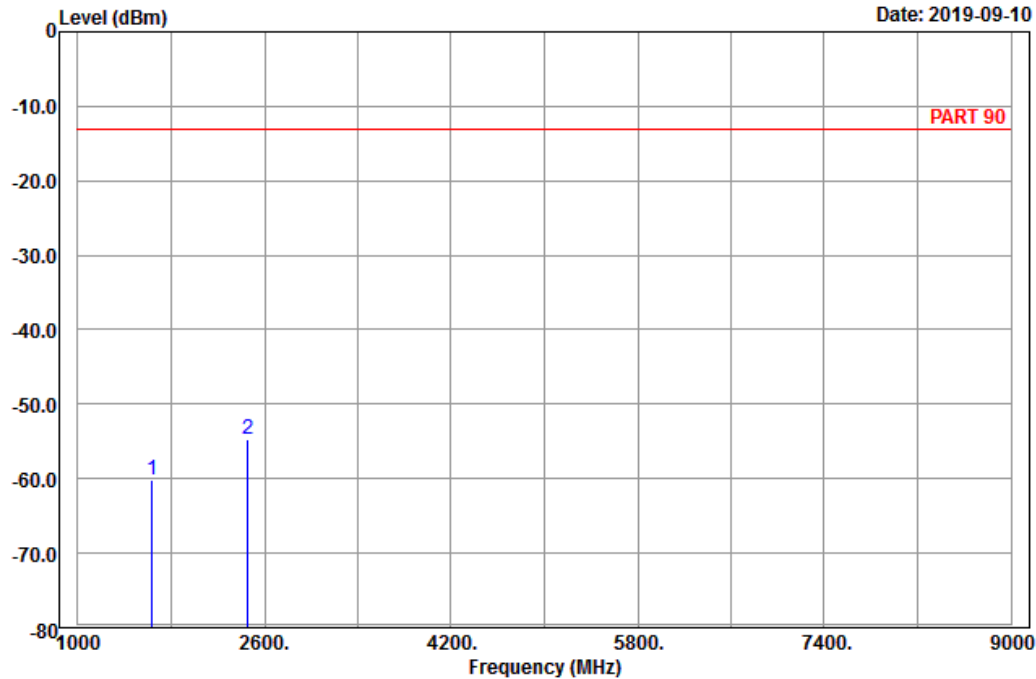
## Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 90 Horizontal  
 Remark : LTE\_Band 26\_Link\_M-Ch  
 Tested by: Karl Lee

		Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark	
MHz	dBm	dBm	dBm	dB	dB		
1	1638.00	-60.27	-67.83	-13.00	-47.27	7.56	Peak
2 pp	2457.00	-54.81	-65.83	-13.00	-41.81	11.02	Peak

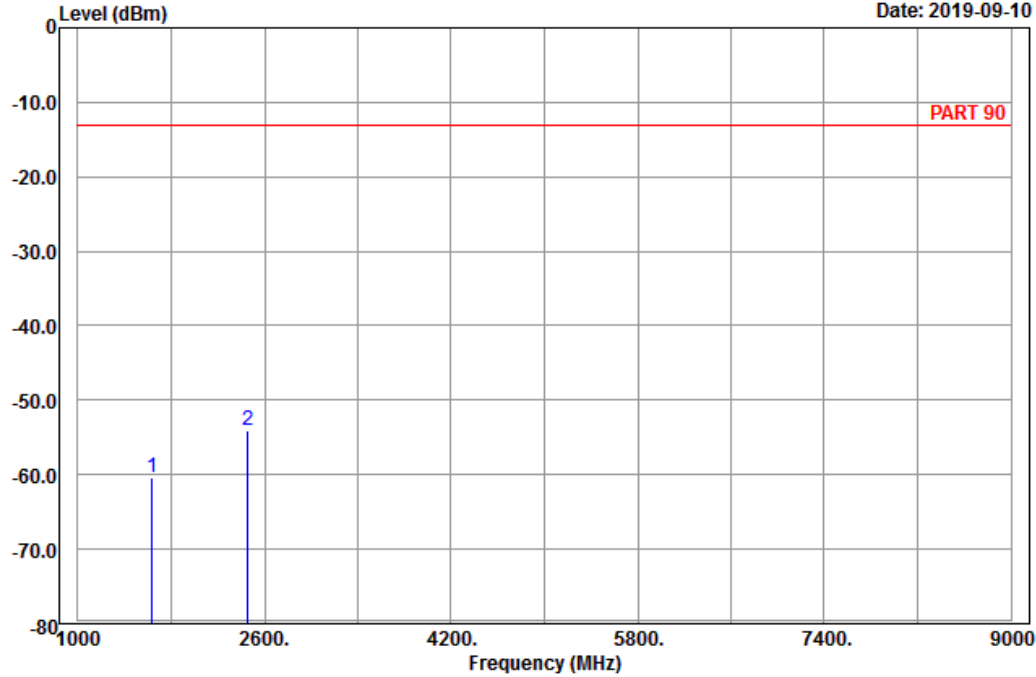


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2019-09-10



Site : 966 chamber 1  
Condition: PART 90 Vertical  
Remark : LTE\_Band 26\_Link\_M-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1638.00	-60.46	-68.02	-13.00	-47.46	7.56	Peak
2	2457.00	-54.08	-65.10	-13.00	-41.08	11.02	Peak

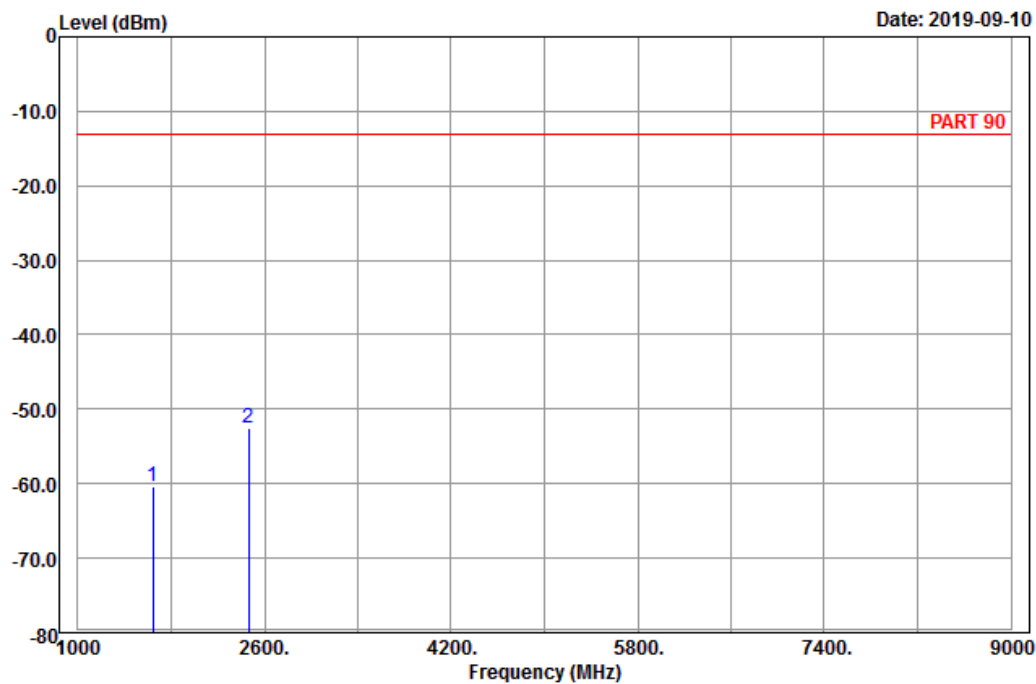
## High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 chamber 1  
 Condition: PART 90 Horizontal  
 Remark : LTE\_Band 26\_Link\_H-Ch  
 Tested by: Karl Lee

		Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1	1643.00	-60.47	-68.20	-13.00	-47.47	7.73 Peak
2 pp	2464.50	-52.57	-63.59	-13.00	-39.57	11.02 Peak

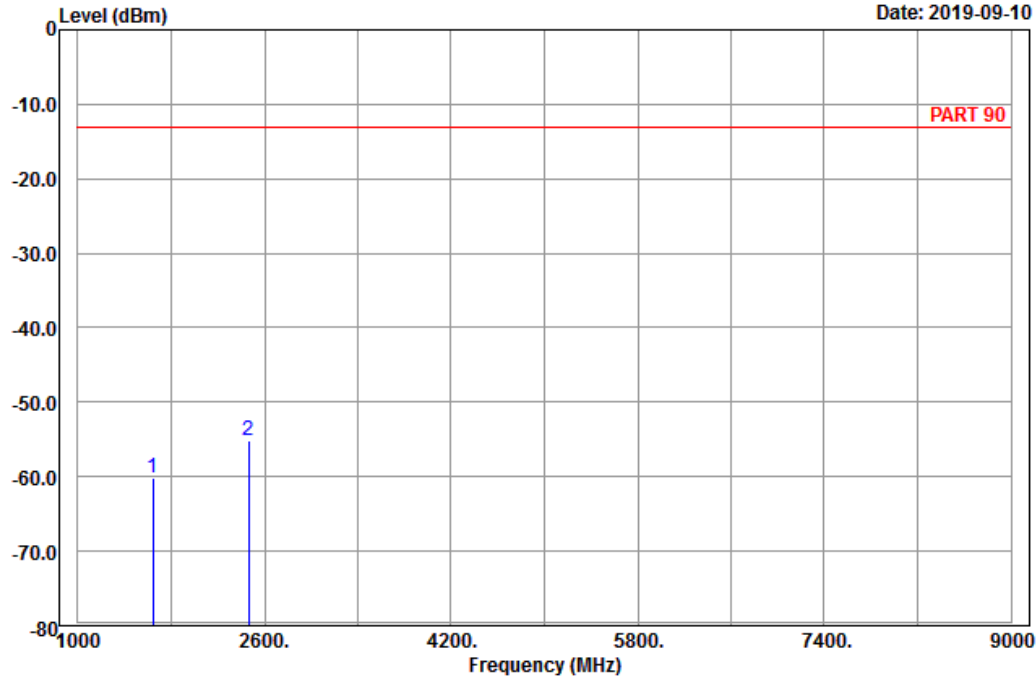


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2019-09-10



Site : 966 chamber 1  
Condition: PART 90 Vertical  
Remark : LTE\_Band 26\_Link\_H-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1643.00	-60.11	-67.84	-13.00	-47.11	7.73	Peak
2	2464.50	-55.05	-66.07	-13.00	-42.05	11.02	Peak

Channel Bandwidth: 10 MHz / QPSK  
Middle Channel

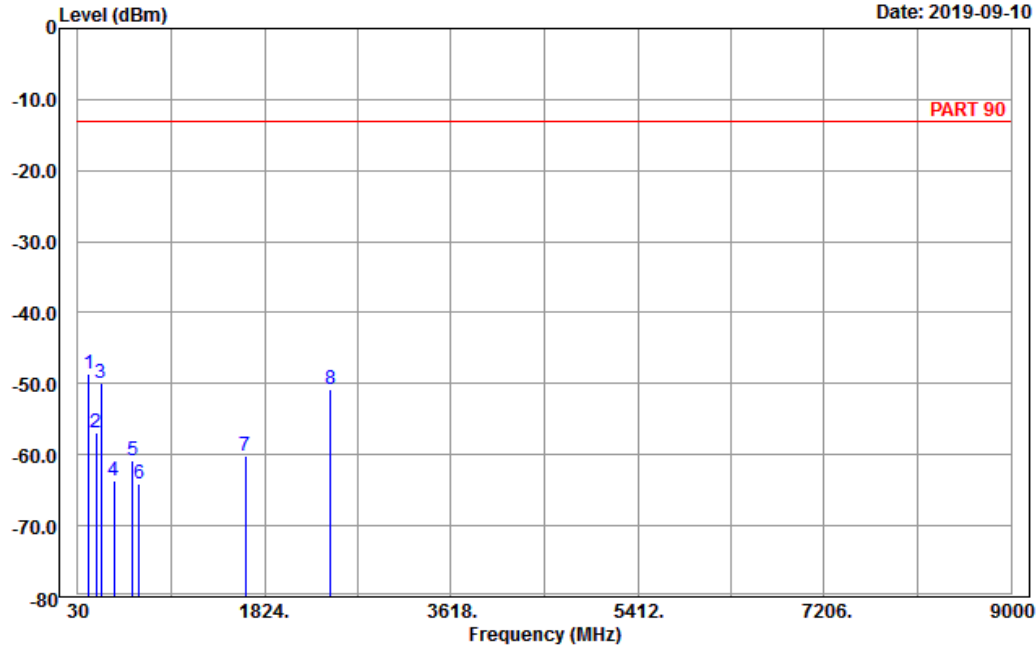


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2019-09-10



Site : 966 chamber 1  
Condition: PART 90 Horizontal  
Remark : LTE\_Band 26\_Link\_M-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	133.41	-48.54	-40.88	-13.00	-35.54	-7.66	Peak
2	202.53	-56.98	-50.84	-13.00	-43.98	-6.14	Peak
3	249.24	-49.85	-44.33	-13.00	-36.85	-5.52	Peak
4	375.60	-63.59	-59.56	-13.00	-50.59	-4.03	Peak
5	560.40	-60.92	-59.70	-13.00	-47.92	-1.22	Peak
6	615.70	-64.19	-64.44	-13.00	-51.19	0.25	Peak
7	1638.00	-60.18	-67.74	-13.00	-47.18	7.56	Peak
8	2457.00	-50.85	-61.87	-13.00	-37.85	11.02	Peak

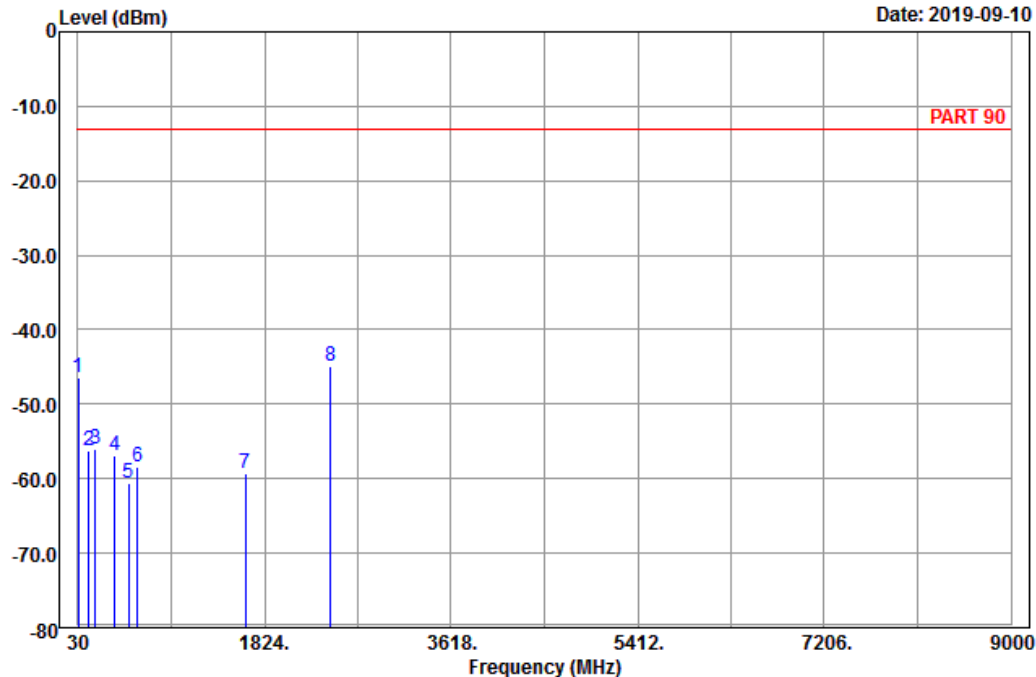


# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2019-09-10



Site : 966 chamber 1  
Condition: PART 90 Vertical  
Remark : LTE\_Band 26\_Link\_M-Ch  
Tested by: Karl Lee

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	31.35	-46.44	-35.79	-13.00	-33.44	-10.65	Peak
2	133.95	-56.21	-48.55	-13.00	-43.21	-7.66	Peak
3	195.24	-55.94	-49.98	-13.00	-42.94	-5.96	Peak
4	381.90	-56.79	-53.12	-13.00	-43.79	-3.67	Peak
5	521.20	-60.63	-56.84	-13.00	-47.63	-3.79	Peak
6	606.60	-58.47	-58.83	-13.00	-45.47	0.36	Peak
7	1638.00	-59.23	-66.79	-13.00	-46.23	7.56	Peak
8 pp	2457.00	-44.84	-55.86	-13.00	-31.84	11.02	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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**Web Site:** [www.bureauveritas-adt.com](http://www.bureauveritas-adt.com)

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

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