

## Partial FCC Test Report

### (PART 27)

**Report No.:** RF180817C04-6

**FCC ID:** NKS-DUO-LTE

**Test Model:** Trimble Duo

**Received Date:** Aug. 17, 2018

**Test Date:** Aug. 29, 2018 ~ Aug. 30, 2018

**Issued Date:** Sep. 12, 2018

**Applicant:** PeopleNet Communications Corporation

**Address:** 4400 Baker Road, Minnetonka, MN 55343, USA

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

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

**FCC Registration /  
Designation Number:** 788550 / TW0003



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### Release Control Record

Issue No.	Description	Date Issued
RF180817C04-6	Original Release	Sep. 12, 2018

## 1 Certificate of Conformity

**Product:** Tablet  
**Brand:** Trimble  
**Test Model:** Trimble Duo  
**Sample Status:** Mass product  
**Applicant:** PeopleNet Communications Corporation  
**Test Date:** Aug. 29, 2018 ~ Aug. 30, 2018  
**Standards:** FCC Part 27, Subpart C, F, L

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

**Prepared by :** Rona Chen , **Date:** Sep. 12, 2018  
Rona Chen / Specialist

**Approved by :** Dylan Chiou , **Date:** Sep. 12, 2018  
Dylan Chiou / Project Engineer

## 2 Summary of Test Results

Applied Standard: FCC Part 27 & Part 2 (WCDMA)			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(d)(4)	Equivalent Isotropic Radiated Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	N/A	Refer to Note
2.1055 27.54	Frequency Stability	N/A	Refer to Note
2.1049 27.53(h)	Occupied Bandwidth	N/A	Refer to Note
27.50(d)(5)	Peak to Average Ratio	N/A	Refer to Note
27.53(h)	Band Edge Measurements	N/A	Refer to Note
2.1051 27.53(h)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53(h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -38.40 dB at 3465.20 MHz.

Applied Standard: FCC Part 27 & Part 2 (LTE 4)			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(d)(4)	Maximum Peak Output Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	N/A	Refer to Note
2.1055 27.54	Frequency Stability	N/A	Refer to Note
2.1049 27.53(h)	Occupied Bandwidth	N/A	Refer to Note
27.50(d)(5)	Peak to Average Ratio	N/A	Refer to Note
27.53(h)	Band Edge Measurements	N/A	Refer to Note
2.1051 27.53(h)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53(h)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -40.00 dB at 44.55 MHz.

Applied Standard: FCC Part 27 & Part 2 (LTE 17)			
FCC Clause	Test Item	Result	Remarks
2.1046 27.50(c)(10)	Maximum Peak Output Power	Pass	Meet the requirement of limit.
2.1047	Modulation Characteristics	N/A	Refer to Note
2.1055 27.54	Frequency Stability	N/A	Refer to Note
2.1049 27.53(g)	Occupied Bandwidth	N/A	Refer to Note
27.50(d)(5)	Peak to Average Ratio	N/A	Refer to Note
27.53(g)	Band Edge Measurements	N/A	Refer to Note
2.1051 27.53(g)	Conducted Spurious Emissions	N/A	Refer to Note
2.1053 27.53(g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -28.42 dB at 2130.00 MHz.

**Note:**

This report is a partial report. Therefore, only test item of Effective Radiated Power / Effective Isotropic Radiated Power and Radiated Spurious Emissions tests were performed for this report. Other testing data please refer to CETECOM™ report no.: 20835060b/15-C1 and 1-9521/15-01-04-A for module (Brand: GEMALTO, Model: PLS8-X)

## 2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) ( $\pm$ )
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	2.93 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	N9038A	MY51210203	Mar. 16, 2018	Mar. 15, 2019
Spectrum Analyzer Agilent	N9010A	MY52220314	Nov. 24, 2017	Nov. 23, 2018
HORN Antenna Schwarzbeck	BBHA 9120D	9120D-969	Dec. 12, 2017	Dec. 11, 2018
Horn Antenna SCHWARZBECK	BBHA 9170	148	Dec. 13, 2017	Dec. 12, 2018
BILOG Antenna SCHWARZBECK	VULB 9168	9168-472	Dec. 06, 2017	Dec. 05, 2018
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 16, 2018	Apr. 15, 2019
Preamplifier EMCI	EMC 012645	980115	Oct. 20, 2017	Oct. 19, 2018
Preamplifier EMCI	EMC 184045	980116	Oct. 20, 2017	Oct. 19, 2018
Preamplifier EMCI	EMC 330H	980112	Oct. 13, 2017	Oct. 12, 2018
Signal generator KEYSIGHT	N5173B	MY53270724	Apr. 05, 2018	Apr. 04, 2019
RF Coaxial Cable HUBER+SUHNNER	EMC104-SM-SM-800 0&3000	140811+170717	Oct. 20, 2017	Oct. 19, 2018
RF Coaxial Cable HUBER+SUHNNER	SUCOFLEX 104	EMC104-SM-SM- 1000(140807)	Oct. 20, 2017	Oct. 19, 2018
RF Coaxial Cable Worken	8D-FB	Cable-Ch10-01	Oct. 20, 2017	Oct. 19, 2018
Software BV ADT	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA
Radio Communication Analyzer	MT8820C	6201300640	Aug. 16, 2017	Aug. 15, 2019

- 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 HwaYa Chamber 10.
3. The horn antenna and preamplifier (model: EMC 184045) are used only for the measurement of emission frequency above 1 GHz if tested.
4. The IC Site Registration No. is IC7450F-10.



### 3 General Information

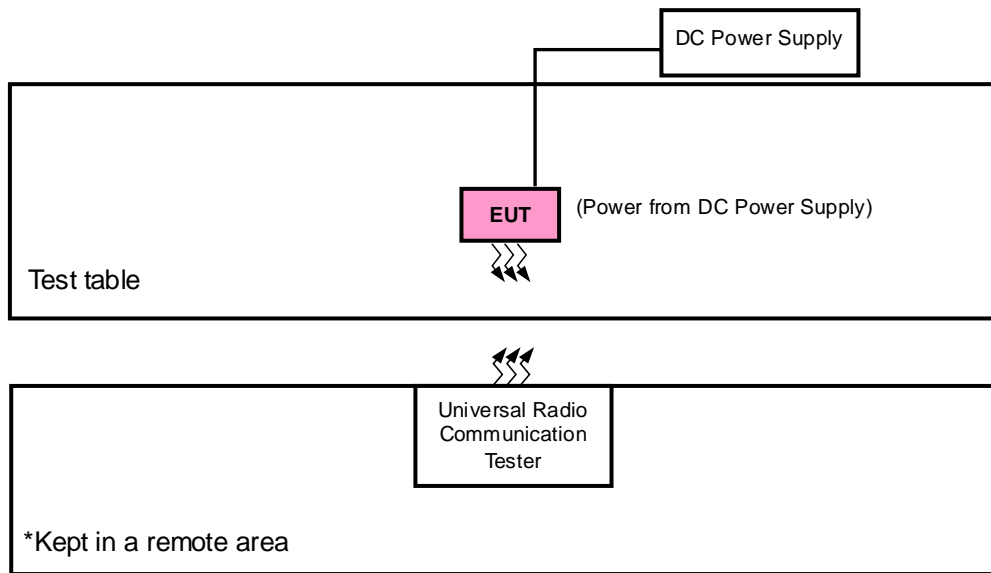
#### 3.1 General Description of EUT

<b>Product</b>	Tablet	
<b>Brand</b>	Trimble	
<b>Test Model</b>	Trimble Duo	
<b>Status of EUT</b>	Mass product	
<b>Power Supply Rating</b>	12.0 Vdc (DC Power Supply)	
<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 17 (Channel Bandwidth: 5 MHz)	706.5 ~ 713.5 MHz
	LTE Band 17 (Channel Bandwidth: 10 MHz)	709.0 ~ 711.0 MHz
<b>Max. ERP Power</b>	LTE Band 17 (Channel Bandwidth: 5 MHz)	7.73 mW
	LTE Band 17 (Channel Bandwidth: 10 MHz)	8.15 mW
<b>Max. EIRP Power</b>	WCDMA	325.09 mW
	LTE Band 4 (Channel Bandwidth: 1.4 MHz)	106.91 mW
	LTE Band 4 (Channel Bandwidth: 3 MHz)	112.98 mW
	LTE Band 4 (Channel Bandwidth: 5 MHz)	118.85 mW
	LTE Band 4 (Channel Bandwidth: 10 MHz)	125.89 mW
	LTE Band 4 (Channel Bandwidth: 15 MHz)	133.05 mW
	LTE Band 4 (Channel Bandwidth: 20 MHz)	140.28 mW
<b>Antenna Type</b>	PIFA Antenna	
<b>Antenna Gain</b>	WCDMA	1.24 dBi
	LTE Band 4	1.24 dBi
	LTE Band 17	2.28 dBi
<b>Accessory Device</b>	N/A	
<b>Data Cable Supplied</b>	N/A	

Note:

1. 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.	DC Power Supply	Topward	33010D	807748	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).

### 3.3 Test Mode Applicability and Tested Channel Detail

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

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

Band	ERP / EIRP	Radiated Emission
WCDMA	X-plane	Z-axis
LTE Band 4	X-plane	Z-axis
LTE Band 17	Z-plane	X-axis

### 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	1 RB / 0 RB Offset
		19965 to 20385	19965, 20175, 20385	3 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		19975 to 20375	19975, 20175, 20375	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		20000 to 20350	20000, 20175, 20350	10 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		20025 to 20325	20025, 20175, 20325	15 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		20050 to 20300	20050, 20175, 20300	20 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
-	Radiated Emission	19957 to 20393	19957, 20175, 20393	1.4 MHz	QPSK	1 RB / 0 RB Offset
		19975 to 20375	19975, 20175, 20375	5 MHz	QPSK	1 RB / 0 RB Offset
		20050 to 20300	20050, 20175, 20300	20 MHz	QPSK	1 RB / 0 RB Offset

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

### LTE Band 17

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	ERP	23755 to 23825	23755, 23790, 23825	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		23780 to 23800	23780, 23790, 23800	10 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
-	Radiated Emission	23755 to 23825	23755, 23790, 23825	5 MHz	QPSK	1 RB / 0 RB Offset
		23780 to 23800	23780, 23790, 23800	10 MHz	QPSK	1 RB / 0 RB Offset

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

### Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
ERP / EIRP	25 deg. C, 65 % RH	12 Vdc	Jisyong Wang
Radiated Emission	25 deg. C, 65 % RH	120 Vac, 60 Hz	Jisyong Wang

### **3.4 EUT Operating Conditions**

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

### **3.5 General Description of Applied Standards**

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

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 27**

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

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

**ANSI 63.26-2015**

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

## 4 Test Types and Results

### 4.1 Output Power Measurement

#### 4.1.1 Limits of Output Power Measurement

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

Portable stations (hand-held devices) operating in the 698-746 MHz band are limited to 3 watts ERP

#### 4.1.2 Test Procedures

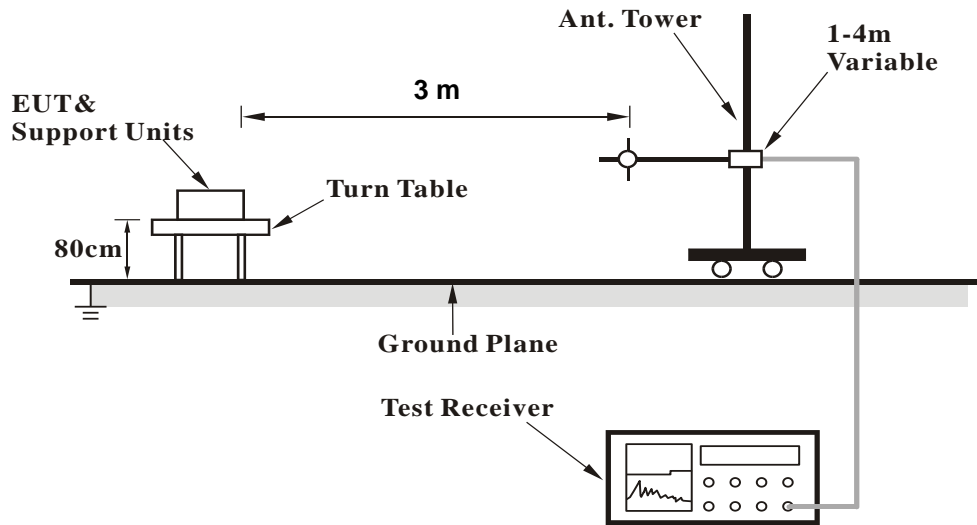
##### **EIRP / ERP Measurement:**

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

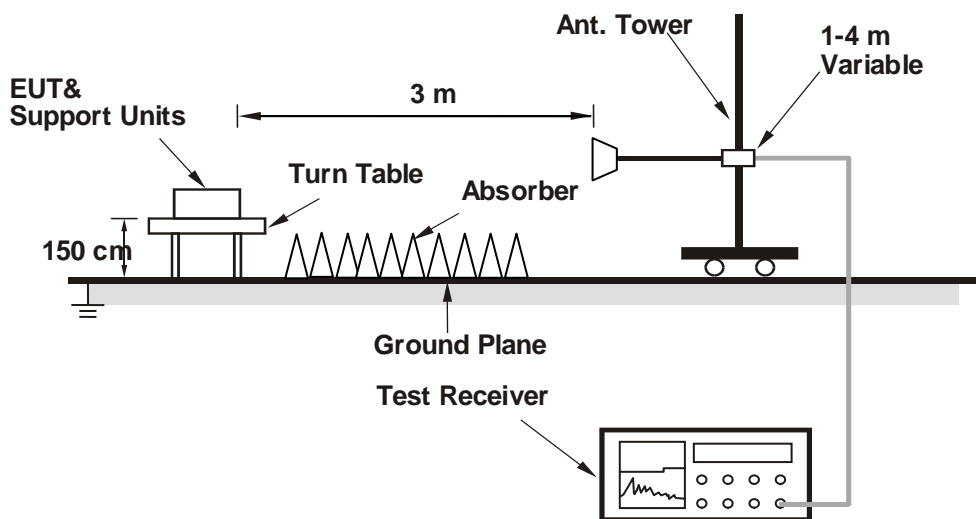
### 4.1.3 Test Setup

#### 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 17							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23755	706.5	-19.33	30.36	8.88	7.73	H
	23790	710.0	-21.36	30.17	6.66	4.63	
	23825	713.5	-19.73	30.17	8.29	6.75	
	23755	706.5	-23.10	32.03	6.78	4.76	V
	23790	710.0	-25.24	31.98	4.59	2.88	
	23825	713.5	-23.65	32.06	6.26	4.23	
Channel Bandwidth: 5 MHz / 16QAM							
Z	23755	706.5	-20.32	30.36	7.89	6.15	H
	23790	710.0	-22.35	30.17	5.67	3.69	
	23825	713.5	-20.72	30.17	7.30	5.37	
	23755	706.5	-24.09	32.03	5.79	3.79	V
	23790	710.0	-26.23	31.98	3.60	2.29	
	23825	713.5	-24.64	32.06	5.27	3.37	

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

LTE Band 17							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)
Z	23780	709.0	-18.91	30.17	9.11	8.15	H
	23790	710.0	-21.13	30.17	6.89	4.89	
	23800	711.0	-19.51	30.18	8.52	7.11	
	23780	709.0	-22.80	31.96	7.01	5.02	V
	23790	710.0	-25.01	31.98	4.82	3.03	
	23800	711.0	-23.39	32.03	6.49	4.46	
Channel Bandwidth: 10 MHz / 16QAM							
Z	23780	709.0	-20.02	30.17	8.00	6.31	H
	23790	710.0	-22.24	30.17	5.78	3.78	
	23800	711.0	-20.62	30.18	7.41	5.51	
	23780	709.0	-23.91	31.96	5.90	3.89	V
	23790	710.0	-26.12	31.98	3.71	2.35	
	23800	711.0	-24.50	32.03	5.38	3.45	

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)
X	1312	1712.4	-11.40	36.29	24.89	308.32	H
	1413	1732.6	-11.57	36.69	25.12	325.09	
	1513	1752.6	-12.66	36.98	24.32	270.40	
	1312	1712.4	-17.39	37.11	19.72	93.76	V
	1413	1732.6	-17.58	37.60	20.02	100.46	
	1513	1752.6	-18.42	37.65	19.23	83.75	

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

LTE Band 4							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19957	1710.7	-17.41	36.45	19.04	80.17	H
	20175	1732.5	-16.51	36.80	20.29	106.91	
	20393	1754.3	-17.40	36.94	19.54	89.95	
	19957	1710.7	-23.25	37.28	14.03	25.29	V
	20175	1732.5	-22.33	37.63	15.30	33.88	
	20393	1754.3	-23.13	37.64	14.51	28.25	
Channel Bandwidth: 1.4 MHz / 16QAM							
X	19957	1710.7	-18.38	36.45	18.07	64.12	H
	20175	1732.5	-17.48	36.80	19.32	85.51	
	20393	1754.3	-18.37	36.94	18.57	71.94	
	19957	1710.7	-24.22	37.28	13.06	20.23	V
	20175	1732.5	-23.30	37.63	14.33	27.10	
	20393	1754.3	-24.10	37.64	13.54	22.59	

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

LTE Band 4							
Channel Bandwidth: 3 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19965	1711.5	-17.17	36.45	19.28	84.72	H
	20175	1732.5	-16.27	36.80	20.53	112.98	
	20385	1753.5	-17.16	36.94	19.78	95.06	
	V	19965	1711.5	-23.01	37.28	14.27	26.73
		20175	1732.5	-22.09	37.63	15.54	35.81
		20385	1753.5	-22.89	37.64	14.75	29.85
Channel Bandwidth: 3 MHz / 16QAM							
X	19965	1711.5	-18.06	36.45	18.39	69.02	H
	20175	1732.5	-17.16	36.80	19.64	92.04	
	20385	1753.5	-18.05	36.94	18.89	77.45	
	V	19965	1711.5	-23.90	37.28	13.38	21.78
		20175	1732.5	-22.98	37.63	14.65	29.17
		20385	1753.5	-23.78	37.64	13.86	24.32

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

LTE Band 4							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	19975	1712.5	-16.95	36.45	19.50	89.13	H
	20175	1732.5	-16.05	36.80	20.75	118.85	
	20375	1752.5	-16.94	36.94	20.00	100.00	
	V	19975	1712.5	-22.79	37.28	14.49	28.12
		20175	1732.5	-21.87	37.63	15.76	37.67
		20375	1752.5	-22.67	37.64	14.97	31.41
Channel Bandwidth: 5 MHz / 16QAM							
X	19975	1712.5	-17.94	36.45	18.51	70.96	H
	20175	1732.5	-17.04	36.80	19.76	94.62	
	20375	1752.5	-17.93	36.94	19.01	79.62	
	V	19975	1712.5	-23.78	37.28	13.50	22.39
		20175	1732.5	-22.86	37.63	14.77	29.99
		20375	1752.5	-23.66	37.64	13.98	25.00

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

LTE Band 4							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20000	1715.0	-16.89	36.64	19.75	94.41	H
	20175	1732.5	-15.80	36.80	21.00	125.89	
	20350	1750.0	-16.55	36.80	20.25	105.93	
	20000	1715.0	-22.70	37.44	14.74	29.79	V
	20175	1732.5	-21.62	37.63	16.01	39.90	
	20350	1750.0	-22.42	37.64	15.22	33.27	
Channel Bandwidth: 10 MHz / 16QAM							
X	20000	1715.0	-17.86	36.64	18.78	75.51	H
	20175	1732.5	-16.77	36.80	20.03	100.69	
	20350	1750.0	-17.52	36.80	19.28	84.72	
	20000	1715.0	-23.67	37.44	13.77	23.82	V
	20175	1732.5	-22.59	37.63	15.04	31.92	
	20350	1750.0	-23.39	37.64	14.25	26.61	

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

LTE Band 4							
Channel Bandwidth: 15 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20025	1717.5	-16.46	36.45	19.99	99.77	H
	20175	1732.5	-15.56	36.80	21.24	133.05	
	20325	1747.5	-16.45	36.94	20.49	111.94	
	20025	1717.5	-22.30	37.28	14.98	31.48	V
	20175	1732.5	-21.38	37.63	16.25	42.17	
	20325	1747.5	-22.18	37.64	15.46	35.16	
Channel Bandwidth: 15 MHz / 16QAM							
X	20025	1717.5	-17.45	36.45	19.00	79.43	H
	20175	1732.5	-16.55	36.80	20.25	105.93	
	20325	1747.5	-17.44	36.94	19.50	89.13	
	20025	1717.5	-23.29	37.28	13.99	25.06	V
	20175	1732.5	-22.37	37.63	15.26	33.57	
	20325	1747.5	-23.17	37.64	14.47	27.99	

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

LTE Band 4							
Channel Bandwidth: 20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	Reading (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	20050	1720.0	-16.23	36.45	20.22	105.20	H
	20175	1732.5	-15.33	36.80	21.47	140.28	
	20300	1745.0	-16.22	36.94	20.72	118.03	
	20050	1720.0	-22.07	37.28	15.21	33.19	V
	20175	1732.5	-21.15	37.63	16.48	44.46	
	20300	1745.0	-21.95	37.64	15.69	37.07	
Channel Bandwidth: 20 MHz / 16QAM							
X	20050	1720.0	-17.24	36.45	19.21	83.37	H
	20175	1732.5	-16.34	36.80	20.46	111.17	
	20300	1745.0	-17.23	36.94	19.71	93.54	
	20050	1720.0	-23.08	37.28	14.20	26.30	V
	20175	1732.5	-22.16	37.63	15.47	35.24	
	20300	1745.0	-22.96	37.64	14.68	29.38	

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

## 4.2 Radiated Emission Measurement

### 4.2.1 Limits of Radiated Emission Measurement

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

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

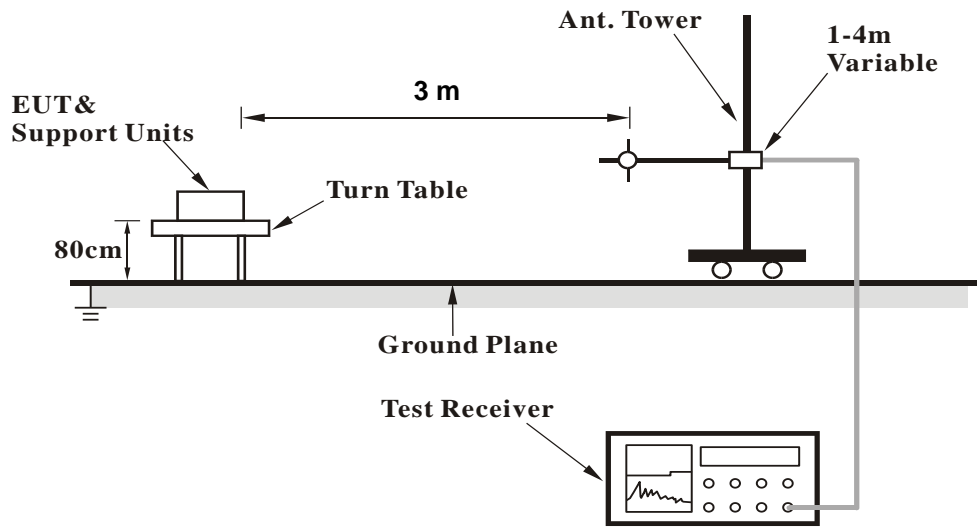
**Note:** The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

### 4.2.3 Deviation from Test Standard

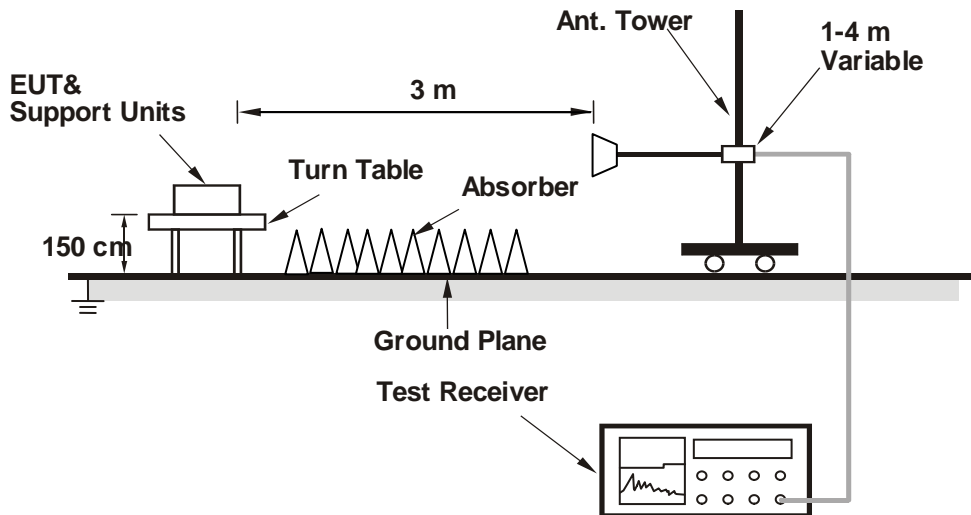
No deviation.

#### 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

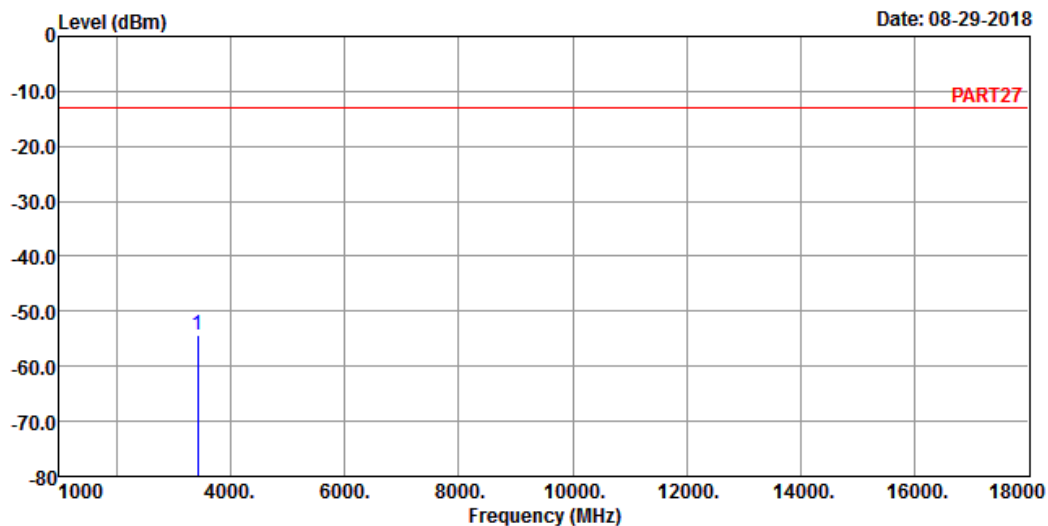
WCDMA:  
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 Chamber 5  
Condition: PART27 HORIZONTAL  
Remark : WCDMA Band 4 Link\_L-CH  
Tested by: Jisyong Wang

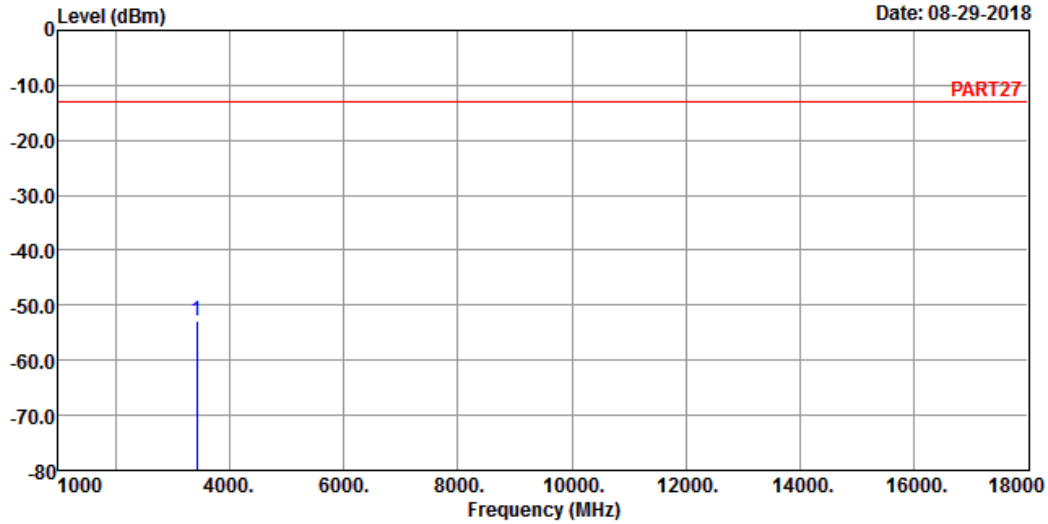
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3424.80	-54.46	-46.12	-13.00	-41.46	-8.34	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remark : WCDMA Band 4 Link\_L-CH  
 Tested by: Jisyong Wang

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3424.80	-52.93	-44.59	-13.00	-39.93	-8.34	Peak



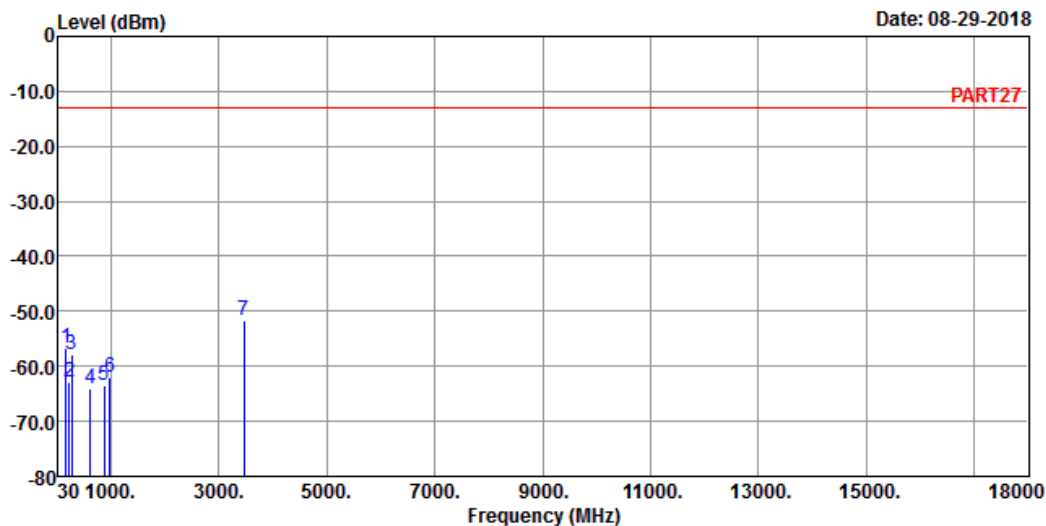
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remark : WCDMA Band 4 Link\_M-CH  
 Tested by: Jisyong Wang

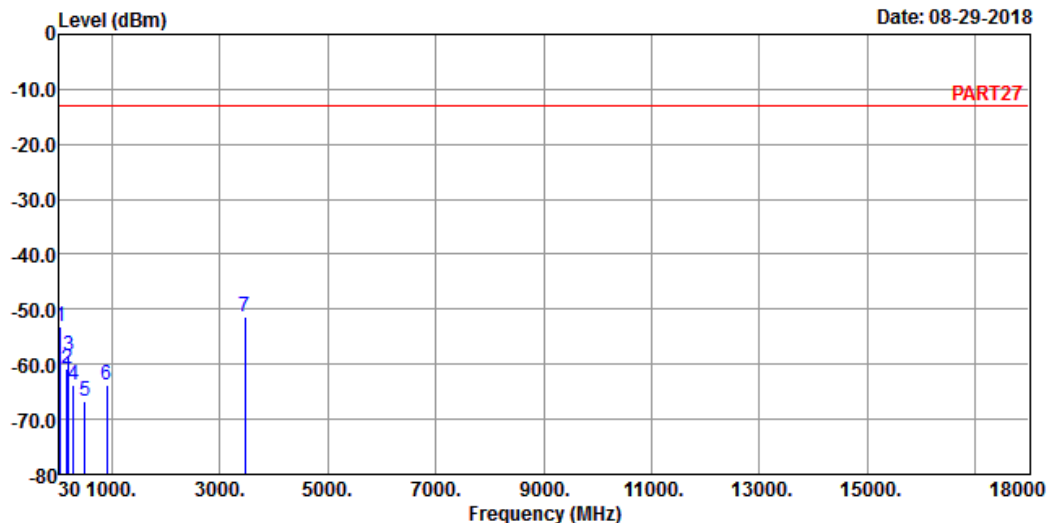
	Freq	Level	Read Level	Limit	Over	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	168.71	-56.55	443.45	-13.00	-43.55	-500.00	Peak
2	227.88	-62.82	437.18	-13.00	-49.82	-500.00	Peak
3	281.23	-57.86	442.14	-13.00	-44.86	-500.00	Peak
4	616.85	-64.04	435.96	-13.00	-51.04	-500.00	Peak
5	873.90	-63.42	436.58	-13.00	-50.42	-500.00	Peak
6	984.48	-62.05	437.95	-13.00	-49.05	-500.00	Peak
7 pp	3465.20	-51.77	-43.89	-13.00	-38.77	-7.88	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remark : WCDMA Band 4 Link\_M-CH  
 Tested by: Jisyong Wang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	44.55	-53.00	447.00	-13.00	-40.00-500.00		Peak
2	168.71	-60.87	439.13	-13.00	-47.87-500.00		Peak
3	198.78	-58.32	441.68	-13.00	-45.32-500.00		Peak
4	286.08	-63.66	436.34	-13.00	-50.66-500.00		Peak
5	503.36	-66.86	433.14	-13.00	-53.86-500.00		Peak
6	902.03	-63.71	436.29	-13.00	-50.71-500.00		Peak
7 pp	3465.20	-51.40	-43.52	-13.00	-38.40	-7.88	Peak

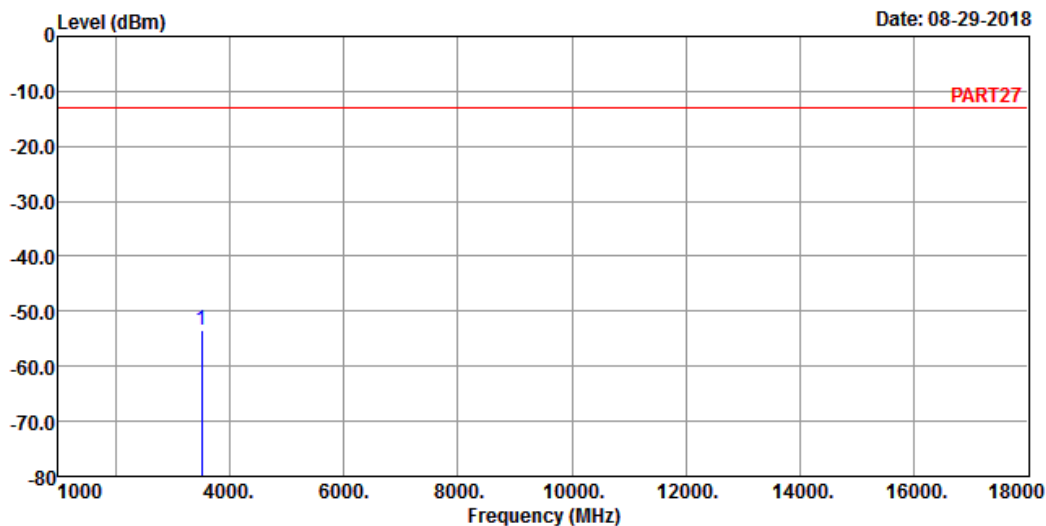
# High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remark : WCDMA Band 4 Link\_H-CH  
 Tested by: Jisyong Wang

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	

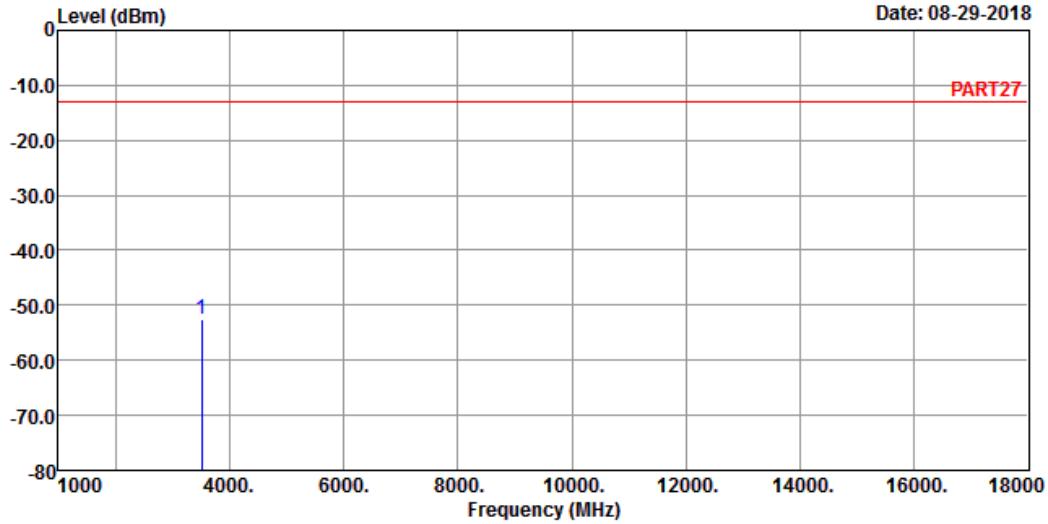
1 pp 3505.20 -53.55 -46.10 -13.00 -40.55 -7.45 Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remark : WCDMA Band 4 Link\_H-CH  
 Tested by: Jisyong Wang

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3505.20	-52.50	-45.05	-13.00	-39.50	-7.45	Peak

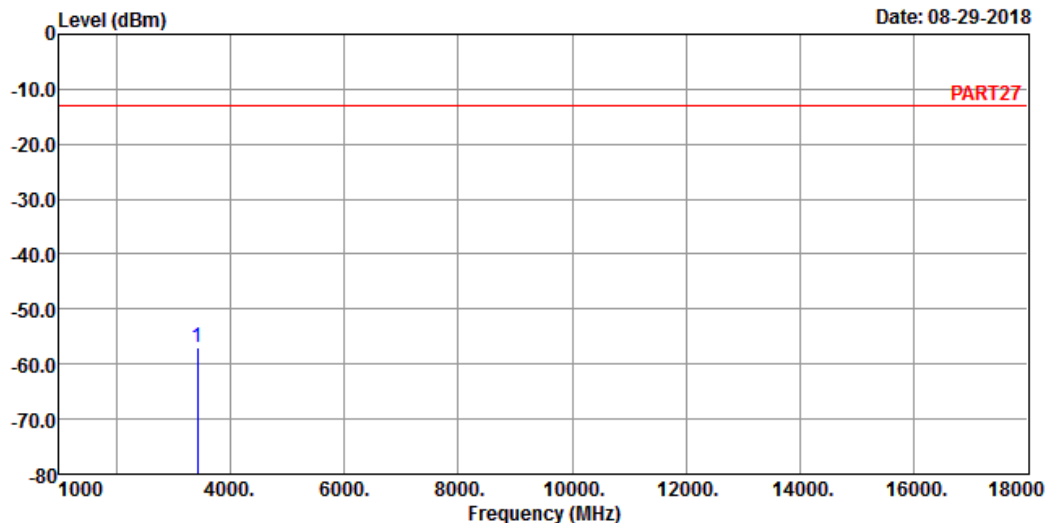
LTE Band 4  
 Channel Bandwidth: 1.4 MHz / QPSK  
 Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 1



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 4 QPSK\_1.4M Link\_L-CH  
 Tested by: Thomas Wei

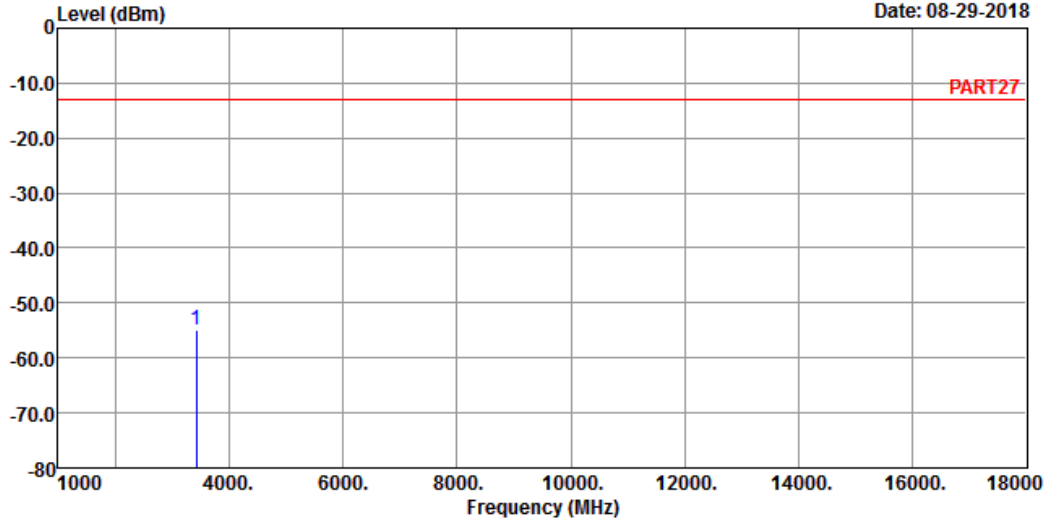
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3421.40	-56.89	-48.55	-13.00	-43.89	-8.34	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 2



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 4 QPSK\_1.4M Link\_L-CH  
 Tested by: Thomas Wei

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3421.40	-54.95	-46.61	-13.00	-41.95	-8.34	Peak

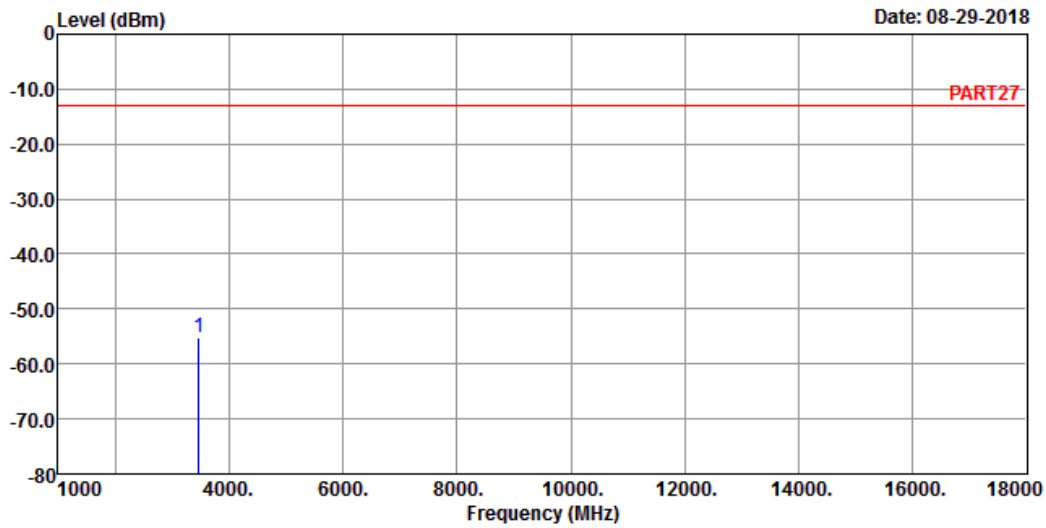
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 1



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 4 QPSK\_1.4M Link\_M-CH  
 Tested by: Thomas Wei

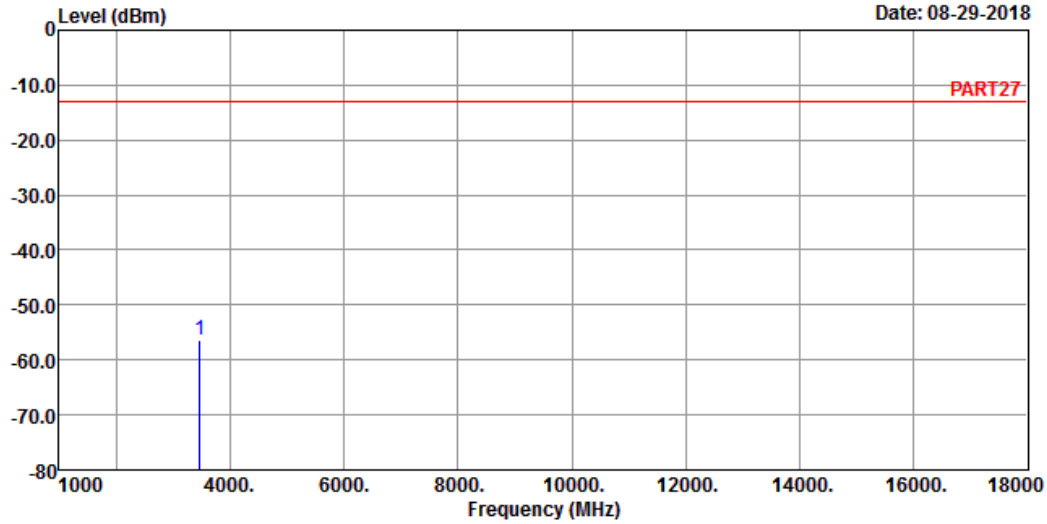
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.00	-55.16	-47.28	-13.00	-42.16	-7.88	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 2



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 4 QPSK\_1.4M Link\_M-CH  
 Tested by: Thomas Wei

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.00	-56.38	-48.50	-13.00	-43.38	-7.88	Peak



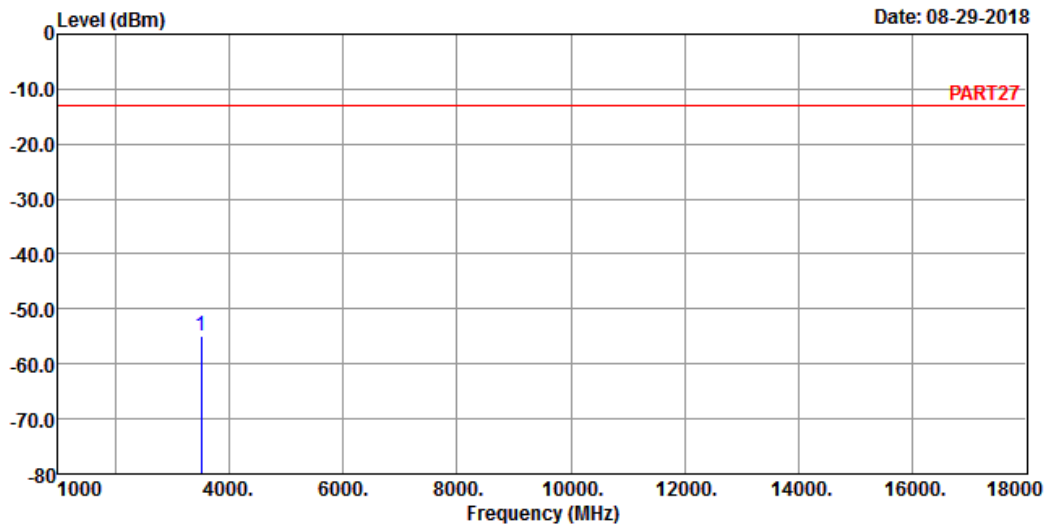
High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 1



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 4 QPSK\_1.4M Link\_H-CH  
 Tested by: Thomas Wei

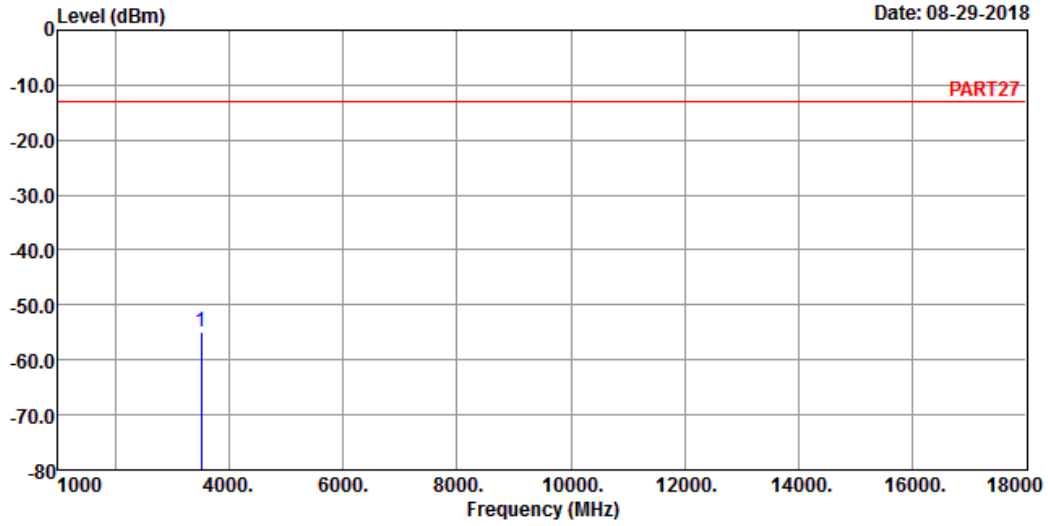
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3508.60	-55.04	-47.59	-13.00	-42.04	-7.45	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 2



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 4 QPSK\_1.4M Link\_H-CH  
 Tested by: Thomas Wei

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3508.60	-54.82	-47.37	-13.00	-41.82	-7.45	Peak

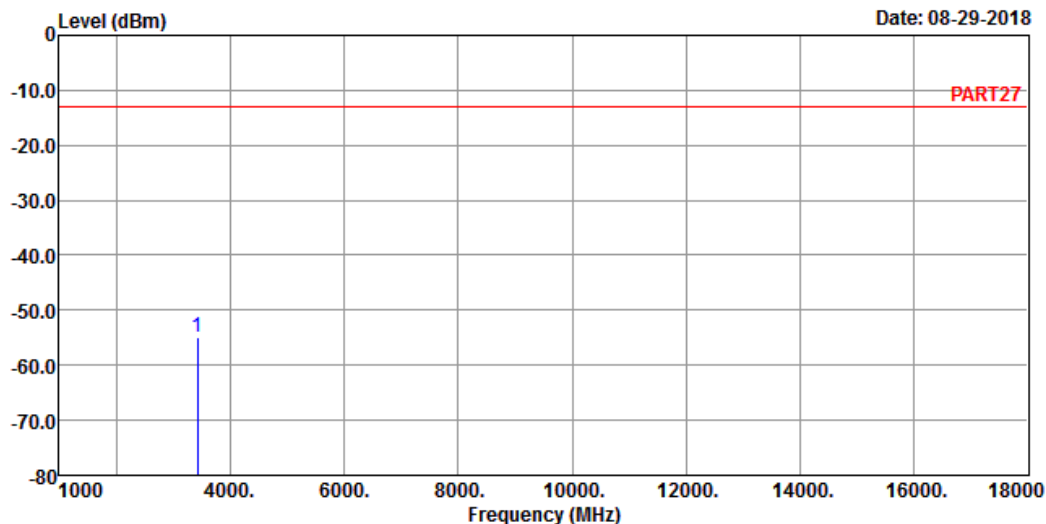
Channel Bandwidth: 5 MHz / QPSK  
Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 1



Site : 966 Chamber 5  
Condition: PART27 HORIZONTAL  
Remak : LTE Band 4 QPSK\_5M Link\_L-CH  
Tested by: Thomas Wei

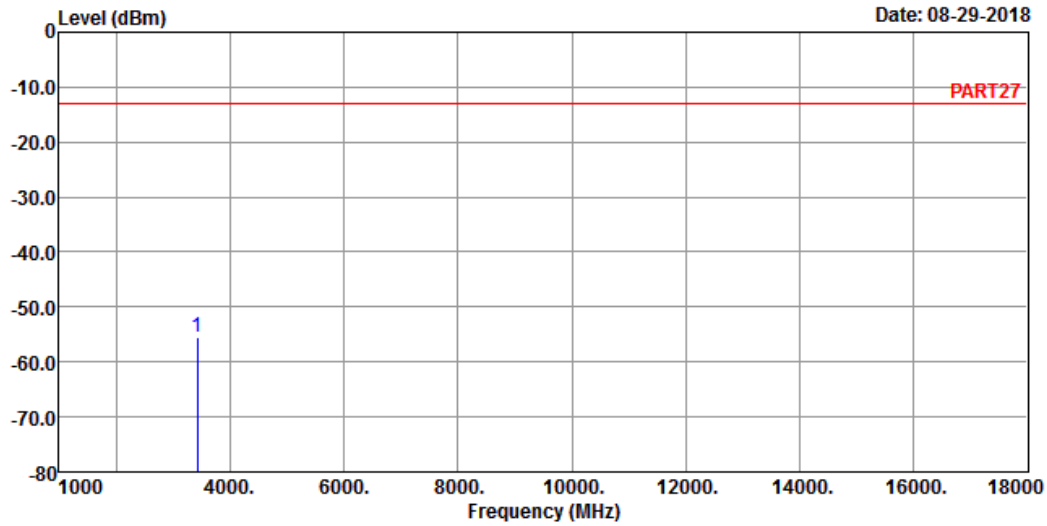
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3425.00	-54.91	-46.57	-13.00	-41.91	-8.34	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 2



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 4 QPSK\_5M Link\_L-CH  
 Tested by: Thomas Wei

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3425.00	-55.56	-47.22	-13.00	-42.56	-8.34	Peak

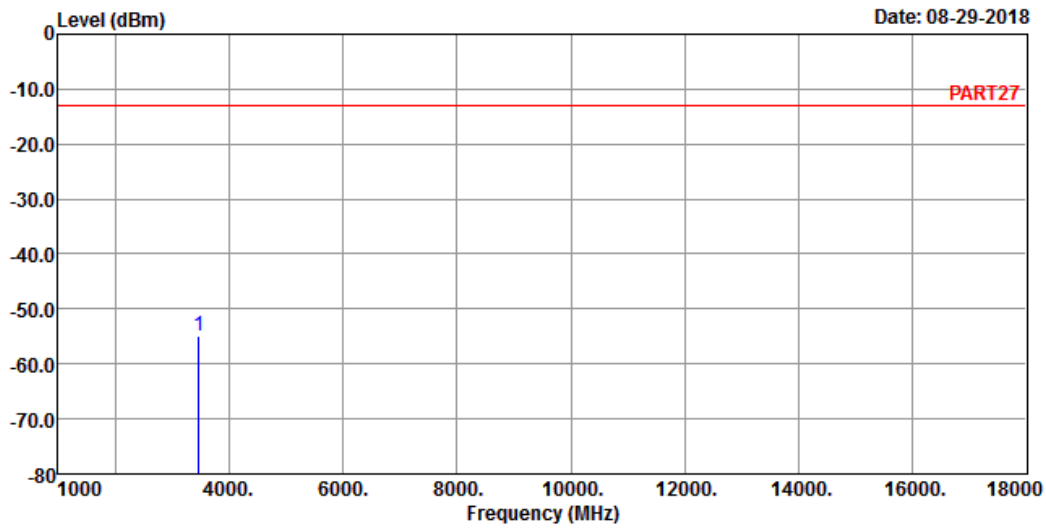
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 1



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 4 QPSK\_5M Link\_M-CH  
 Tested by: Thomas Wei

Freq	Level	Read Level	Limit	Over	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	

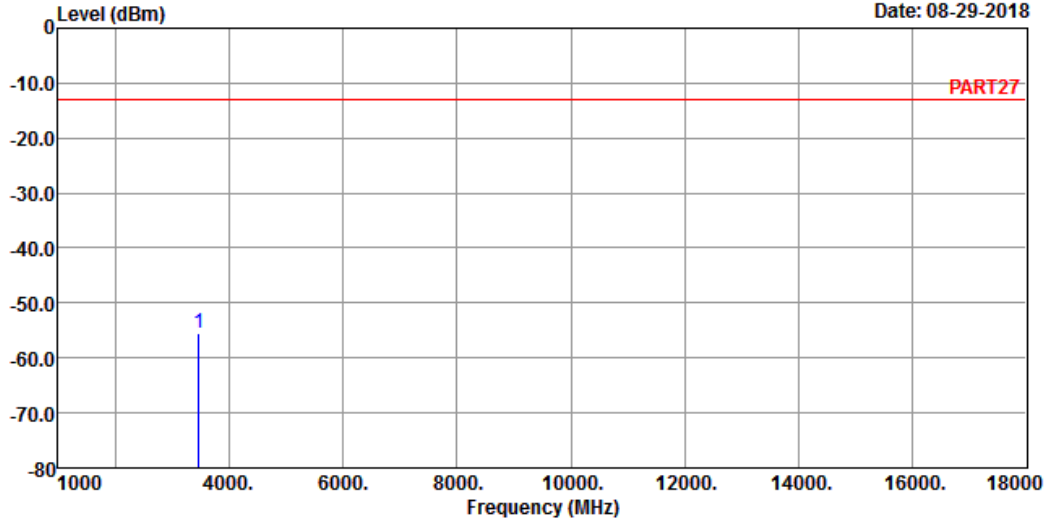
1 pp 3465.00 -54.91 -47.03 -13.00 -41.91 -7.88 Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 2



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 4 QPSK\_5M Link\_M-CH  
 Tested by: Thomas Wei

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.00	-55.62	-47.74	-13.00	-42.62	-7.88	Peak

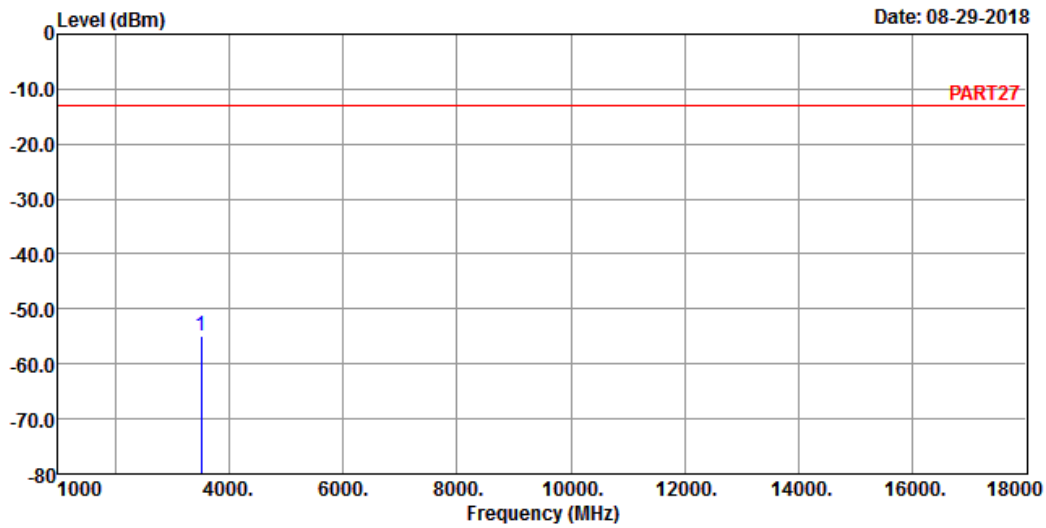
High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 1



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 4 QPSK\_5M Link\_H-CH  
 Tested by: Thomas Wei

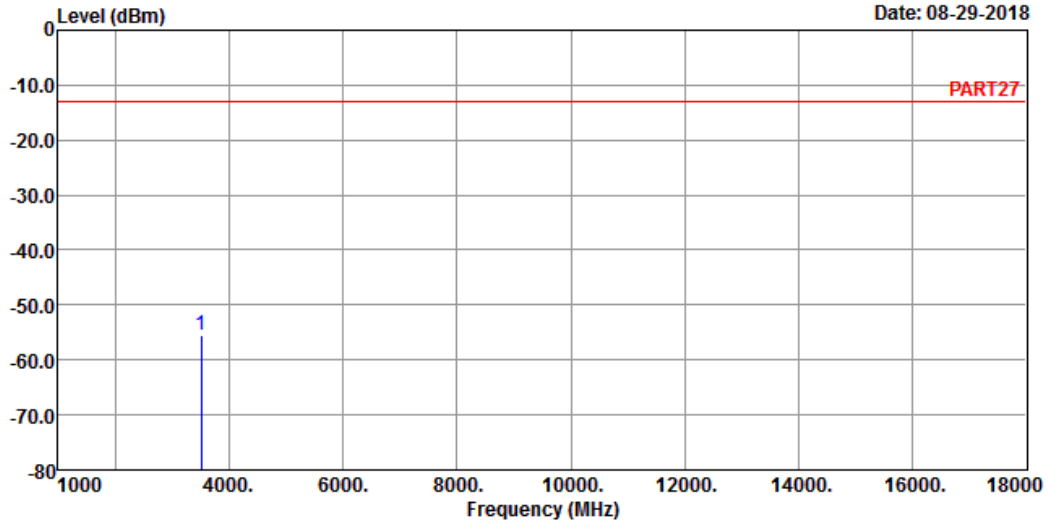
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3505.00	-54.90	-47.45	-13.00	-41.90	-7.45	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 2



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 4 QPSK\_5M Link\_H-CH  
 Tested by: Thomas Wei

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3505.00	-55.58	-48.13	-13.00	-42.58	-7.45	Peak



Channel Bandwidth: 20 MHz / QPSK  
Low Channel

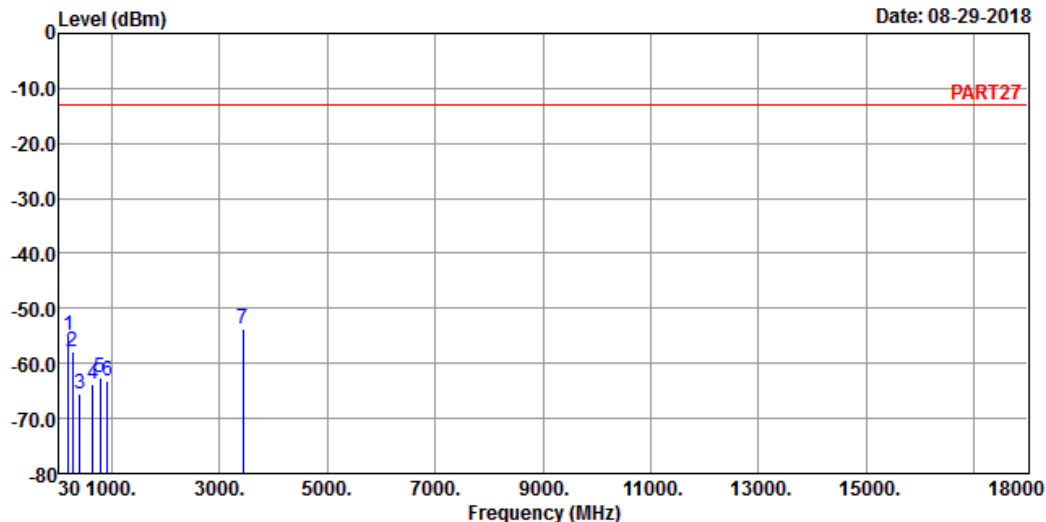


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5

Date: 08-29-2018



Site : 966 Chamber 5  
Condition: PART27 HORIZONTAL  
Remak : LTE Band 4 QPSK\_20M Link\_L-CH  
Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	199.75	-54.86	-46.84	-13.00	-41.86	-8.02	Peak
2	281.23	-57.86	-51.23	-13.00	-44.86	-6.63	Peak
3	405.39	-65.60	-59.70	-13.00	-52.60	-5.90	Peak
4	648.86	-63.91	-63.03	-13.00	-50.91	-0.88	Peak
5	792.42	-62.59	-63.35	-13.00	-49.59	0.76	Peak
6	921.43	-63.16	-64.26	-13.00	-50.16	1.10	Peak
7 pp	3440.00	-53.85	-45.63	-13.00	-40.85	-8.22	Peak

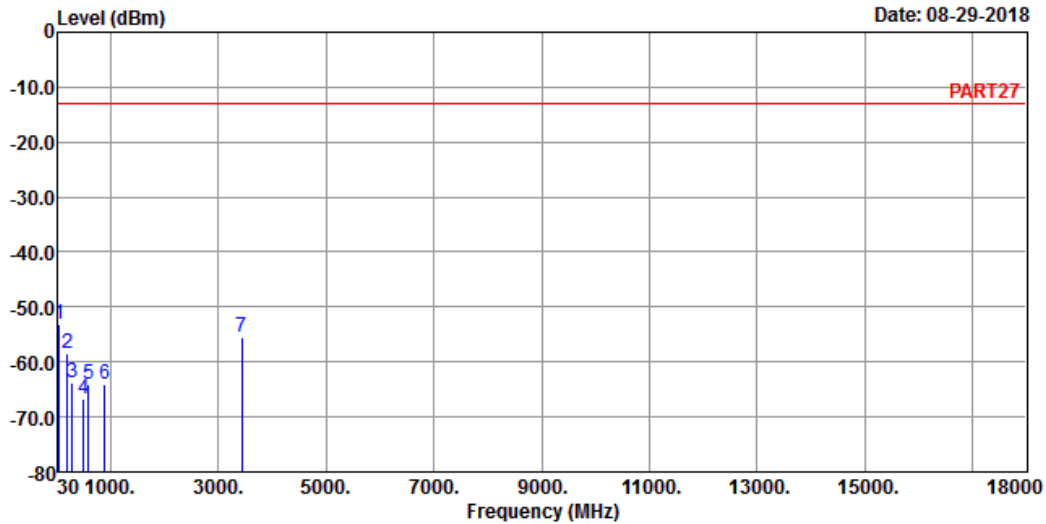


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 08-29-2018



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 4 QPSK\_20M Link\_L-CH  
 Tested by: Thomas Wei

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	44.55	-53.00	-51.01	-13.00	-40.00	-1.99	Peak
2	198.78	-58.32	-50.39	-13.00	-45.32	-7.93	Peak
3	286.08	-63.66	-56.93	-13.00	-50.66	-6.73	Peak
4	503.36	-66.86	-62.35	-13.00	-53.86	-4.51	Peak
5	594.54	-64.00	-63.01	-13.00	-51.00	-0.99	Peak
6	890.39	-63.96	-64.48	-13.00	-50.96	0.52	Peak
7	3440.00	-55.64	-47.42	-13.00	-42.64	-8.22	Peak

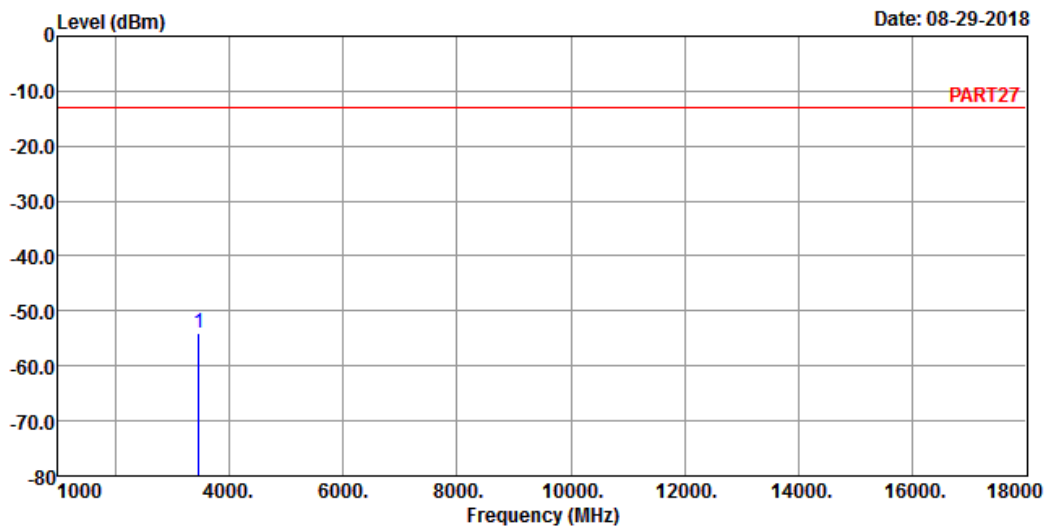
Middle Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 1



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 4 QPSK\_20M Link\_M-CH  
 Tested by: Thomas Wei

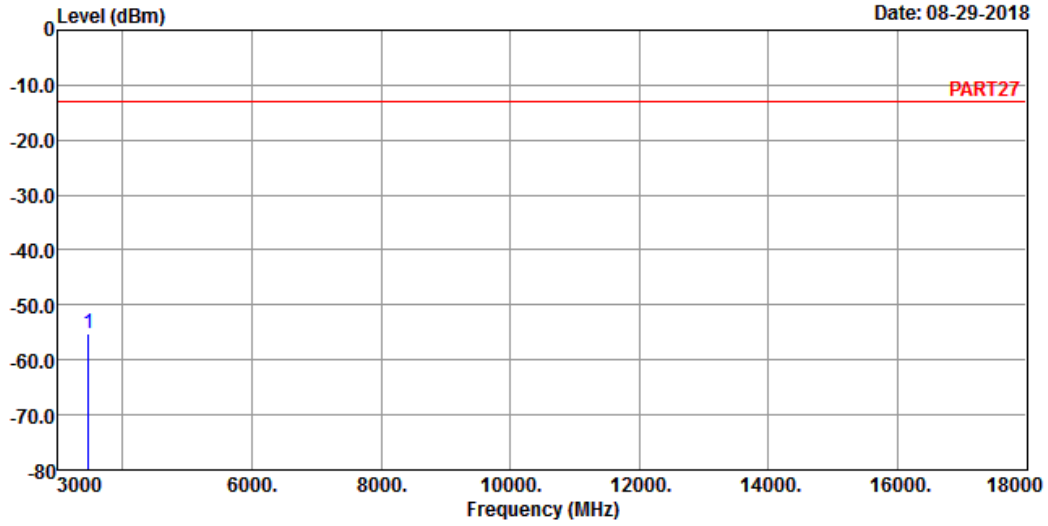
	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.00	-54.09	-46.21	-13.00	-41.09	-7.88	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 2



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 4 QPSK\_20M Link\_M-CH  
 Tested by: Thomas Wei

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3465.00	-55.12	-47.24	-13.00	-42.12	-7.88	Peak

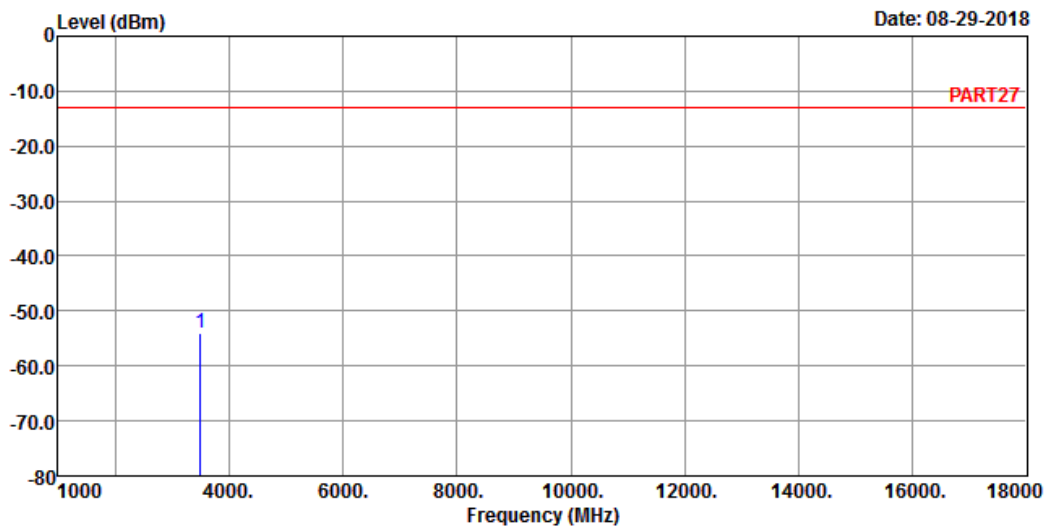
# High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 1



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 4 QPSK\_20M Link\_H-CH  
 Tested by: Thomas Wei

	Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor
MHz	dBm	dBm	dBm	dB	dB

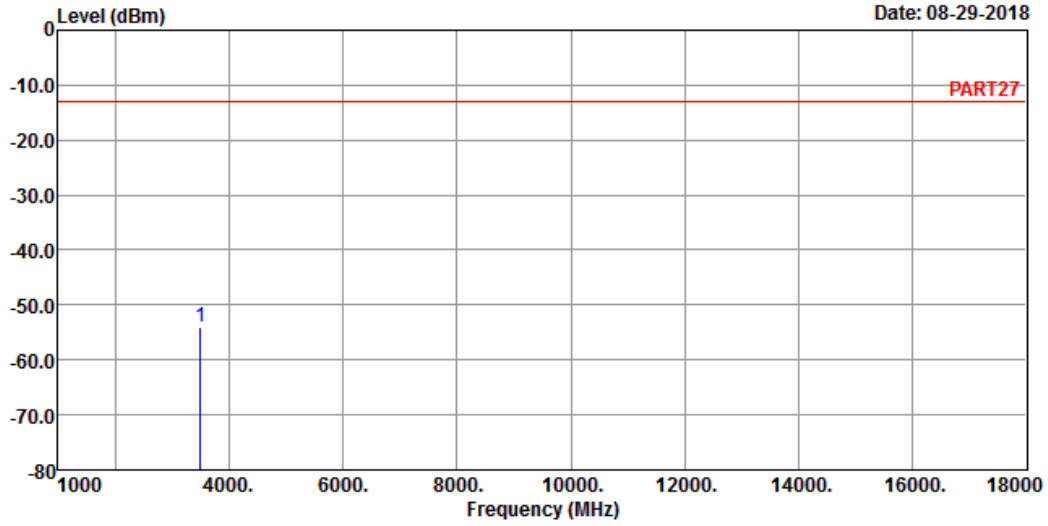
1 pp 3490.00 -54.15 -46.50 -13.00 -41.15 -7.65 Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 2



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 4 QPSK\_20M Link\_H-CH  
 Tested by: Thomas Wei

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 3490.00	-54.02	-46.37	-13.00	-41.02	-7.65	Peak

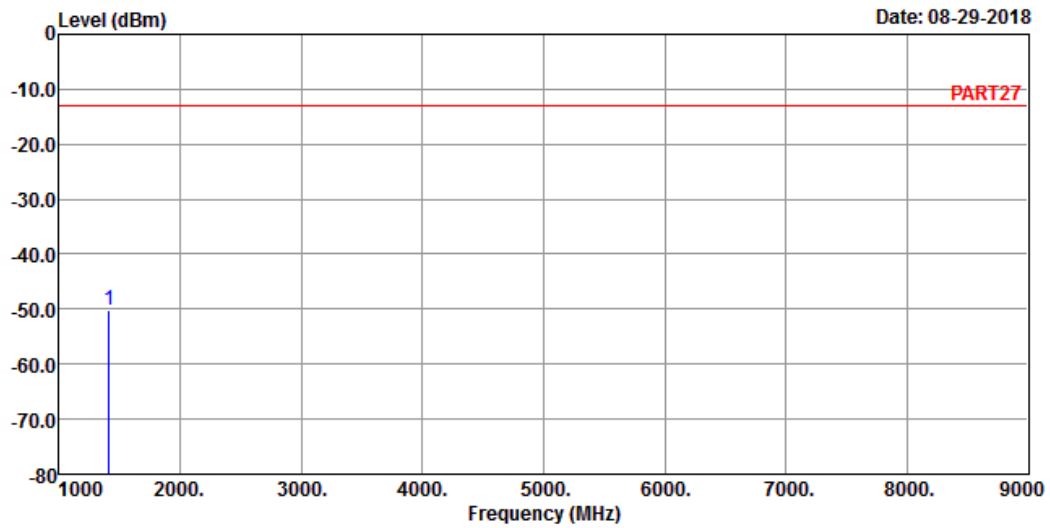
LTE Band 17  
 Channel Bandwidth: 5 MHz / QPSK  
 Low Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 17 QPSK\_5M Link\_L-CH  
 Tested by: Jisyong Wang

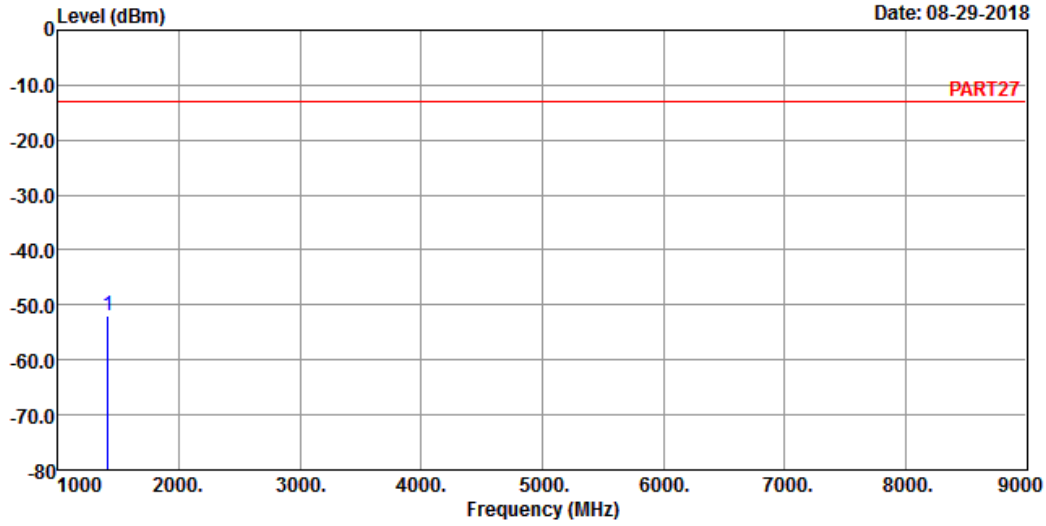
Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 1413.00	-50.12	-38.10	-13.00	-37.12	-12.02	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 17 QPSK\_5M Link\_L-CH  
 Tested by: Jisyong Wang

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1413.00	-51.99	-39.97	-13.00	-38.99	-12.02	Peak



Middle Channel

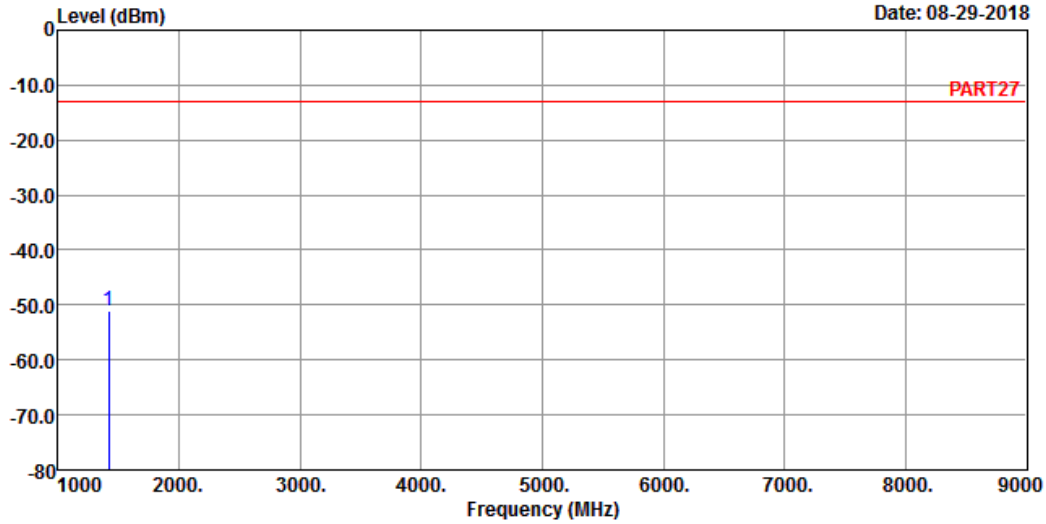


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 08-29-2018



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 17 QPSK\_5M Link\_M-CH  
 Tested by: Jisyong Wang

	Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor
MHz	dBm	dBm	dBm	dB	dB

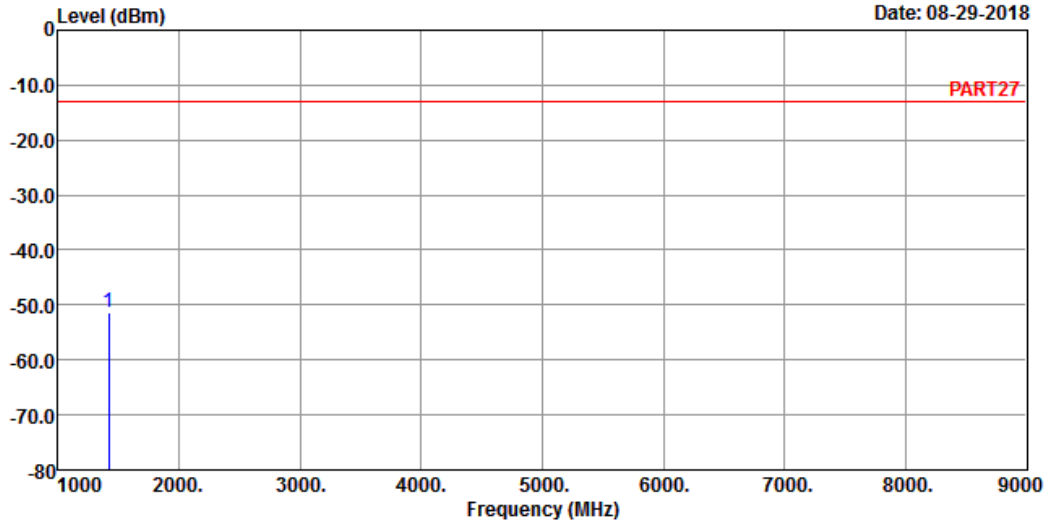
1 pp 1420.00 -50.98 -38.84 -13.00 -37.98 -12.14 Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 17 QPSK\_5M Link\_M-CH  
 Tested by: Jisyong Wang

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 1420.00	-51.23	-39.09	-13.00	-38.23	-12.14	Peak

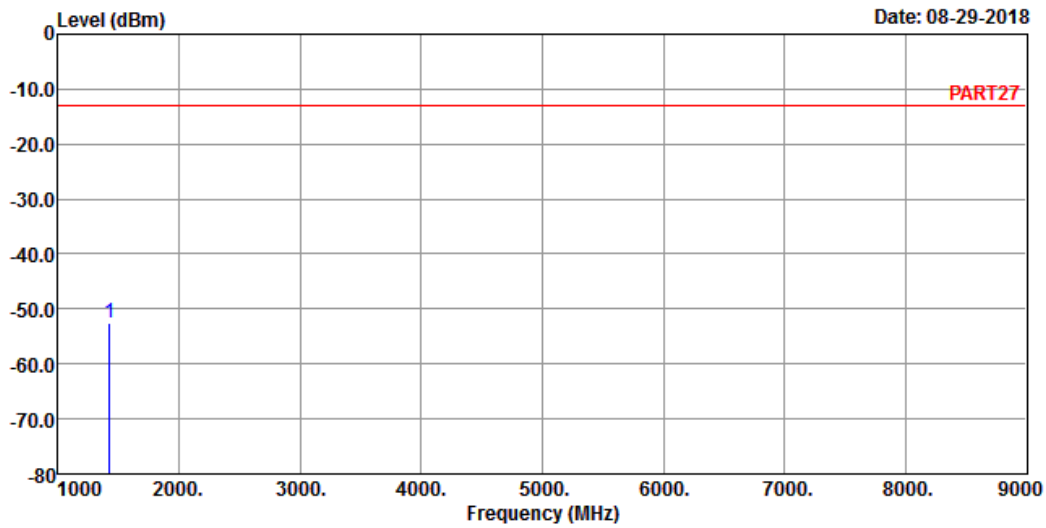
# High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 17 QPSK\_5M Link\_H-CH  
 Tested by: Jisyong Wang

	Read	Limit	Over		
Freq	Level	Level	Line	Limit	Factor Remark
MHz	dBm	dBm	dBm	dB	dB

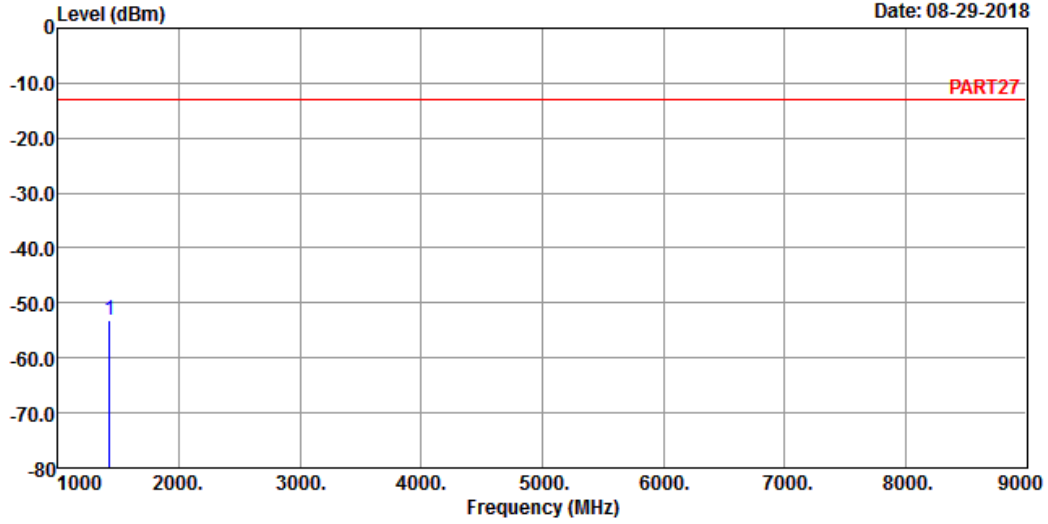
1 pp 1427.00 -52.45 -40.20 -13.00 -39.45 -12.25 Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 17 QPSK\_5M Link\_H-CH  
 Tested by: Jisyong Wang

Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
MHz	dBm	dBm	dBm	dB	dB	
1 pp 1427.00	-53.11	-40.86	-13.00	-40.11	-12.25	Peak

Channel Bandwidth: 10 MHz / QPSK  
Low Channel

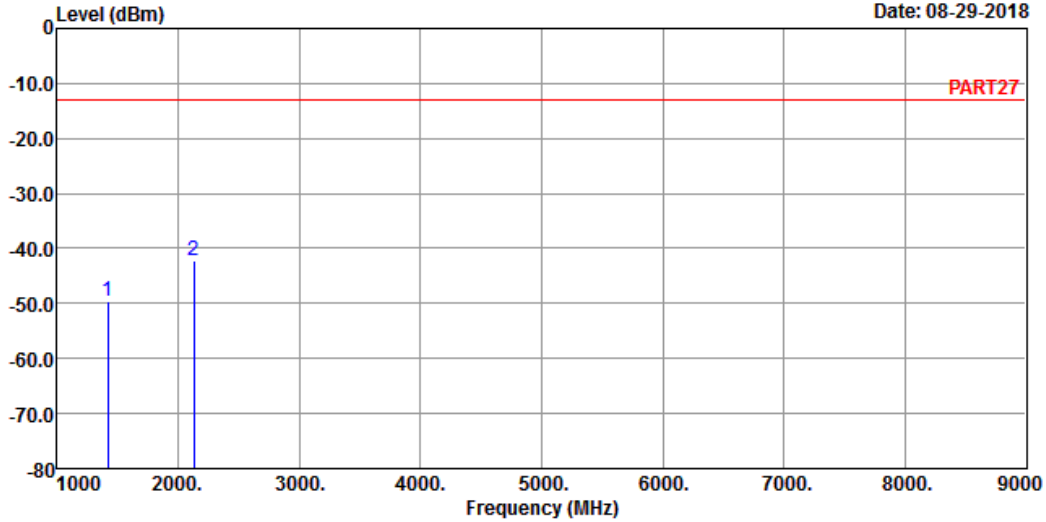


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3

Date: 08-29-2018



Site : 966 Chamber 5  
Condition: PART27 HORIZONTAL  
Remak : LTE Band 17 QPSK\_10M Link\_L-CH  
Tested by: Jisyong Wang

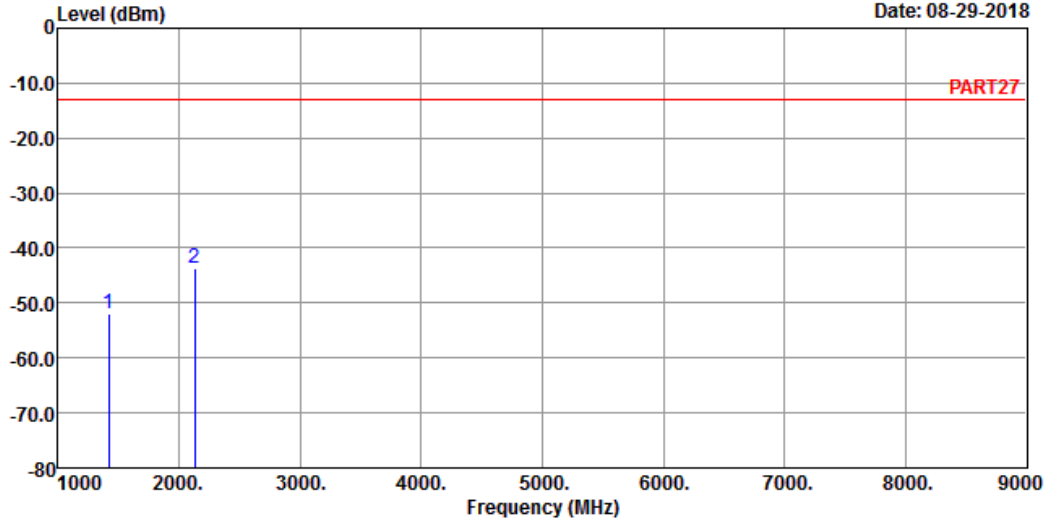
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1418.00	-49.74	-37.60	-13.00	-36.74	-12.14	Peak
2 pp	2127.00	-42.17	-32.40	-13.00	-29.17	-9.77	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 17 QPSK\_10M Link\_L-CH  
 Tested by: Jisyong Wang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1418.00	-51.81	-39.67	-13.00	-38.81	-12.14	Peak
2 pp	2127.00	-43.74	-33.97	-13.00	-30.74	-9.77	Peak

Middle Channel

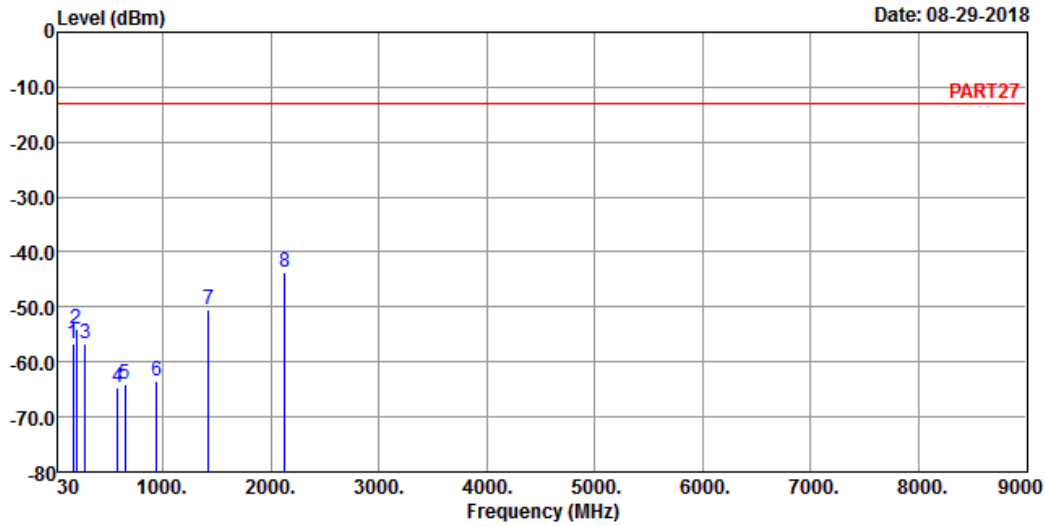


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5

Date: 08-29-2018



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 17 QPSK\_10M Link\_M-CH  
 Tested by: Jisyong Wang

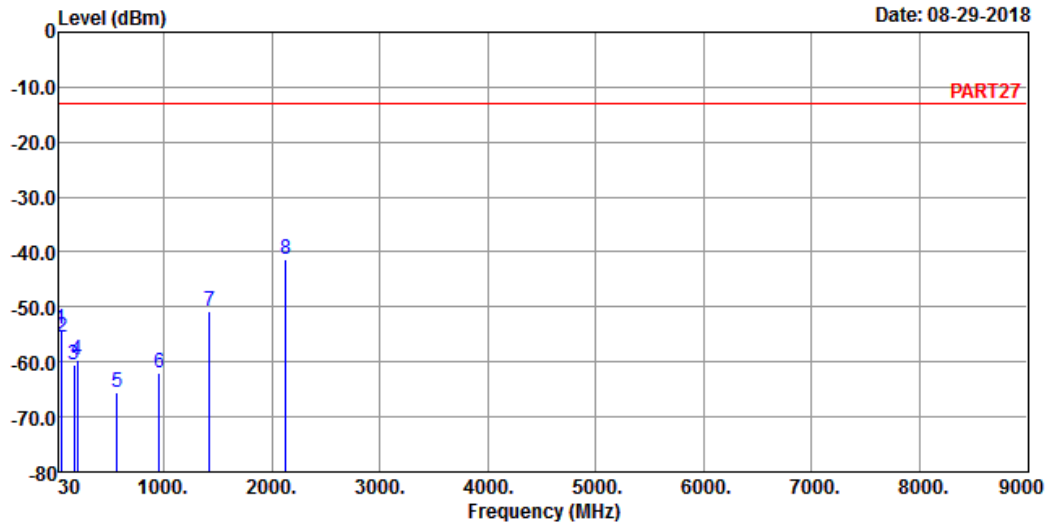
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	169.68	-56.82	-51.29	-13.00	-43.82	-5.53	Peak
2	200.72	-54.10	-46.12	-13.00	-41.10	-7.98	Peak
3	283.17	-56.72	-50.05	-13.00	-43.72	-6.67	Peak
4	580.96	-64.60	-63.04	-13.00	-51.60	-1.56	Peak
5	647.89	-64.02	-63.14	-13.00	-51.02	-0.88	Peak
6	940.83	-63.37	-64.95	-13.00	-50.37	1.58	Peak
7	1420.00	-50.59	-38.45	-13.00	-37.59	-12.14	Peak
8 pp	2130.00	-43.63	-33.86	-13.00	-30.63	-9.77	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 17 QPSK\_10M Link\_M-CH  
 Tested by: Jisyong Wang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	43.58	-53.88	-52.41	-13.00	-40.88	-1.47	Peak
2	53.28	-55.53	-49.72	-13.00	-42.53	-5.81	Peak
3	168.71	-60.40	-54.94	-13.00	-47.40	-5.46	Peak
4	197.81	-59.54	-51.71	-13.00	-46.54	-7.83	Peak
5	565.44	-65.68	-63.48	-13.00	-52.68	-2.20	Peak
6	957.32	-62.10	-64.17	-13.00	-49.10	2.07	Peak
7	1420.00	-50.72	-38.58	-13.00	-37.72	-12.14	Peak
8 pp	2130.00	-41.42	-31.65	-13.00	-28.42	-9.77	Peak



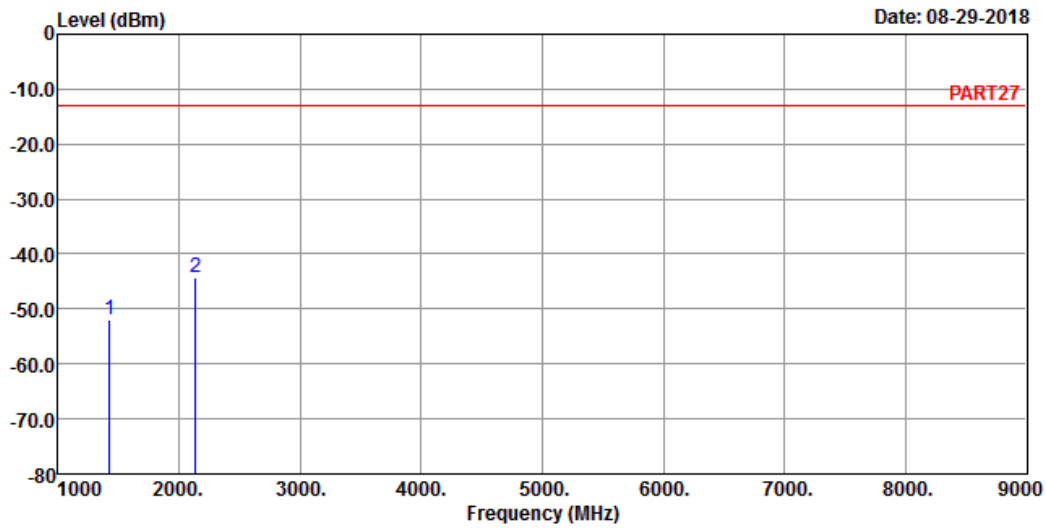
# High Channel



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 3



Site : 966 Chamber 5  
 Condition: PART27 HORIZONTAL  
 Remak : LTE Band 17 QPSK\_10M Link\_H-CH  
 Tested by: Jisyong Wang

		Read	Limit	Over			
	Freq	Level	Level	Line	Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1422.00	-51.87	-39.68	-13.00	-38.87	-12.19	Peak
2	pp 2133.00	-44.34	-34.67	-13.00	-31.34	-9.67	Peak

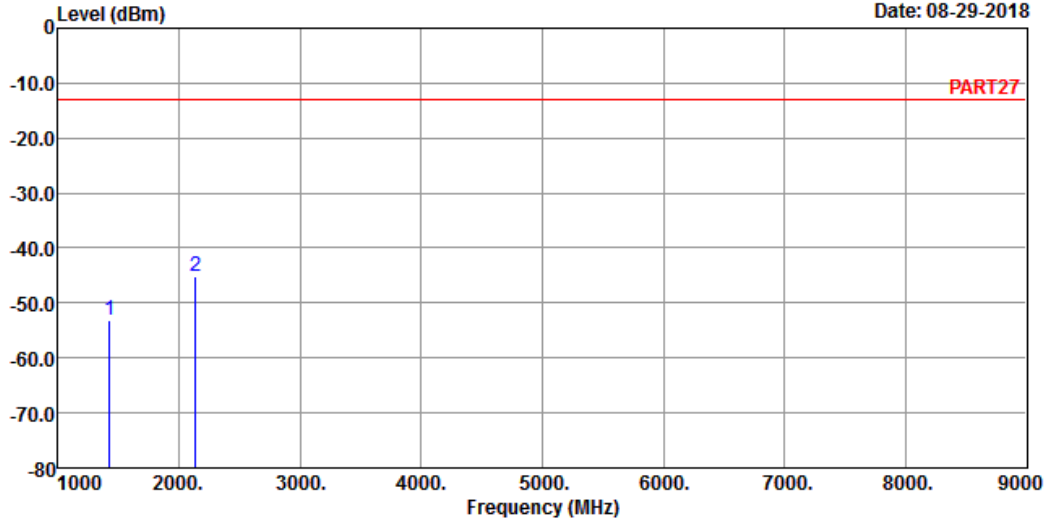


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 4

Date: 08-29-2018



Site : 966 Chamber 5  
 Condition: PART27 VERTICAL  
 Remak : LTE Band 17 QPSK\_10M Link\_H-CH  
 Tested by: Jisyong Wang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	1422.00	-53.00	-40.81	-13.00	-40.00	-12.19	Peak
2	pp 2133.00	-45.06	-35.39	-13.00	-32.06	-9.67	Peak

## 5 Pictures of Test Arrangements

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

## Appendix – Information on the Testing Laboratories

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

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

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**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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