

## FCC Test Report

**Report No.:** RF180208C04-2

**FCC ID:** QYLV110GD

**Test Model:** PIC32MX270

**Received Date:** Feb. 08, 2018

**Test Date:** Mar. 31, 2018

**Issued Date:** Apr. 10, 2018

**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

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

**Test Location:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

**FCC Registration /**

**Designation Number:** 788550 / TW0003



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

## Table of Contents

<b>Release Control Record .....</b>	<b>3</b>
<b>1 Certificate of Conformity .....</b>	<b>4</b>
<b>2 Summary of Test Results.....</b>	<b>5</b>
2.1 Measurement Uncertainty.....	5
2.2 Modification Record .....	5
<b>3 General Information .....</b>	<b>6</b>
3.1 General Description of EUT .....	6
3.2 Description of Support Units .....	7
3.2.1 Configuration of System under Test .....	7
3.3 General Description of Applied Standards.....	7
<b>4 Test Types and Results .....</b>	<b>8</b>
4.1 Radiated Emission and Bandedge Measurement .....	8
4.1.1 Limits of Radiated Emission and Bandedge Measurement .....	8
4.1.2 Test Instruments .....	9
4.1.3 Test Procedures.....	10
4.1.4 Deviation from Test Standard .....	10
4.1.5 Test Set Up .....	11
4.1.6 EUT Operating Conditions.....	11
4.1.7 Test Results .....	12
4.2 Conducted Emission Measurement.....	18
4.2.1 Limits of Conducted Emission Measurement .....	18
4.2.2 Test Instruments .....	18
4.2.3 Test Procedures.....	19
4.2.4 Deviation from Test Standard .....	20
4.2.5 Test Setup.....	20
4.2.6 EUT Operating Conditions.....	20
4.2.7 Test Results .....	21
<b>5 Pictures of Test Arrangements.....</b>	<b>22</b>
<b>Appendix – Information on the Testing Laboratories .....</b>	<b>23</b>

### Release Control Record

Issue No.	Description	Date Issued
RF180208C04-2	Original Release	Apr. 10, 2018

## 1 Certificate of Conformity

**Product:** Digitizer module

**Brand:** Microchip

**Test Model:** PIC32MX270

**Sample Status:** Identical Prototype

**Applicant:** Getac Technology Corporation.

**Test Date:** Mar. 31, 2018

**Standards:** 47 CFR FCC Part 15, Subpart C (Section 15.209)

ANSI C63.10: 2013

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 :** Evonne Lin, **Date:** Apr. 10, 2018

Evonne Liu / Specialist



**Approved by :** Dylan Chiou, **Date:** Apr. 10, 2018

Dylan Chiou / Project Engineer

## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.225, 15.215)			
FCC Clause	Test Item	Result	Remarks
15.207	Conducted emission test	Pass	Meet the requirement of limit. Minimum passing margin is -15.06 dB at 0.15000 MHz.
15.209	Radiated emission test	Pass	Meet the requirement of limit. Minimum passing margin is -8.3 dB at 161.92 MHz.

### 2.1 Measurement Uncertainty

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

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~1000 MHz	2.95 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

<b>Product</b>	Digitizer module
<b>Brand</b>	Microchip
<b>Test Model</b>	PIC32MX270
<b>Status of EUT</b>	Identical Prototype
<b>Power Supply Rating</b>	5Vdc from host device
<b>Operating Frequency</b>	250~290 kHz
<b>Antenna Connector</b>	N/A
<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. Please refer to below for more details.

Product	Brand	Model
Notebook	Getac	V110

2. The End-product contains following accessory devices.

Product	Brand	Model	Description
Adapter	Chicony	A12-065N2A	I/P: 100-240 Vac, 50-60 Hz, 1.7 A O/P: 19 Vdc, 3.42 A 1.7 m shielded cable with 1 core
Battery	Getac Technology Corp.	BP3S1P2100-S	11.1 Vdc, 2100 mAh
LTE Module	Sierra	EM7355	--
WLAN/BT Module	Intel	8265NGW	--
LCD Panel	AUO	B116XAN05.0	11.6 inch
GPS	GlobalSat	MC1010	--
NFC RFID	NXP	PN-7462	--

3. This device has 2 configurations as below.

Mode A: Touch Screen

Mode B: Button Push

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

### 3.2 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.

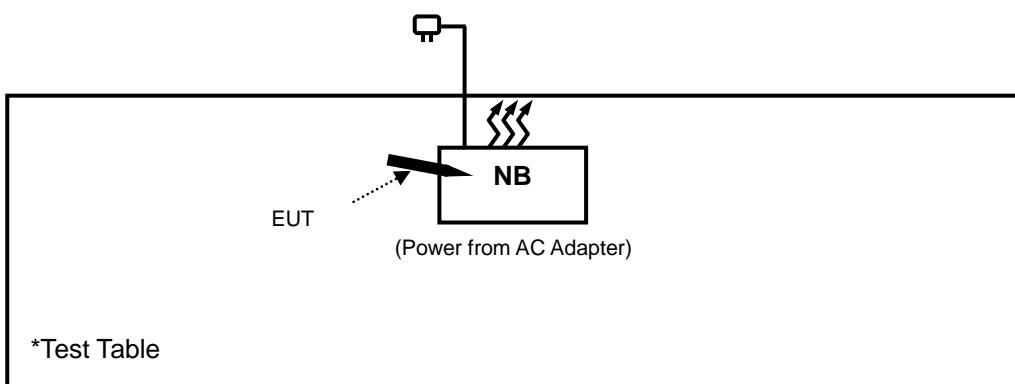
No.	Product	Brand	Model No.	Serial No.	FCC ID
A.	NB	Getac	V110	N/A	N/A

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).

#### 3.2.1 Configuration of System under Test



### 3.3 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 Part 15, Subpart C (15.209)

ANSI C63.10-2013

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

## 4 Test Types and Results

### 4.1 Radiated Emission and Bandedge Measurement

#### 4.1.1 Limits of Radiated Emission and Bandedge Measurement

The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dB<sub>u</sub>V/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

## 4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 02, 2017	May 01, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Dec. 12, 2017	Dec. 11, 2018
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Dec. 11, 2017	Dec. 10, 2018
HORN Antenna SCHWARZBECK	9120D	209	Dec. 13, 2017	Dec. 12, 2018
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Dec. 01, 2017	Nov. 30, 2018
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 17, 2017	Apr. 16, 2018
Loop Antenna	HLA 6121	45745	May 19, 2017	May 18, 2018
Preamplifier EMCI	EMC001340	980201	Nov. 01, 2017	Oct. 31, 2018
Bluetooth Tester	CBT	100946	Jul. 29, 2016	Jul. 28, 2018
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. 20, 2017	Oct. 19, 2018
High Speed Peak Power Meter	ML2495A	0824012	Aug. 18, 2017	Aug. 17, 2018
Power Sensor	MA2411B	0738171	Aug. 18, 2017	Aug. 17, 2018
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 21, 2017	Aug. 20, 2018
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM- SM-8000	Cable-CH3-03 (309224+170907)	Sep.11, 2017	Sep. 10, 2018
RF Coaxial Cable Worken	8D-FB	Cable-Ch10-01	May 23, 2017	May 22, 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

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 1GHz if tested.
4. The IC Site Registration No. is IC7450F-10.

#### 4.1.3 Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Height of receiving antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

**Note:**

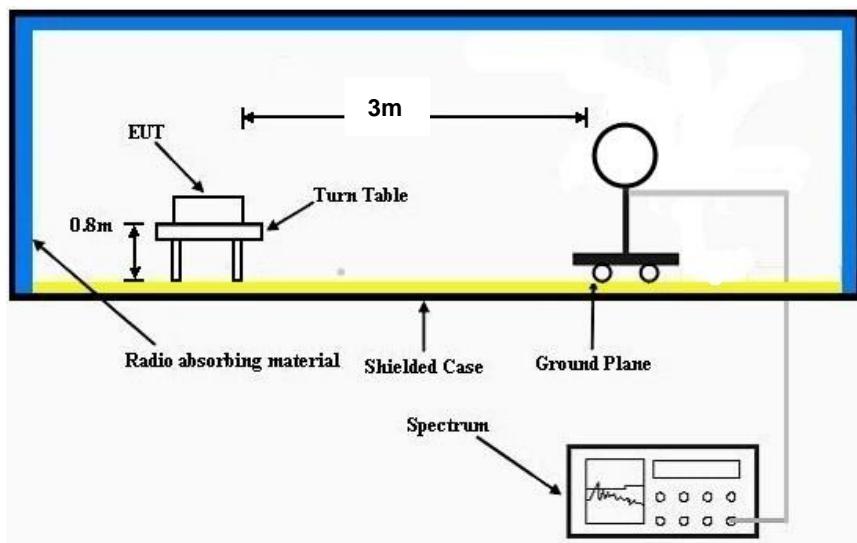
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle  $< 98\%$ ) or 10 Hz (Duty cycle  $> 98\%$ ) for Average detection (AV) at frequency above 1 GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.4 Deviation from Test Standard

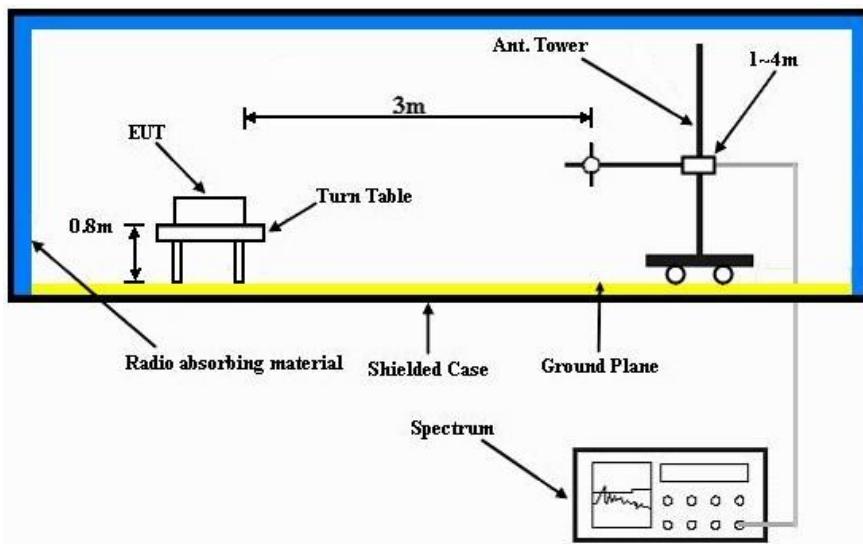
No deviation.

#### 4.1.5 Test Set Up

##### Frequency range 9 k~30 MHz:



##### Frequency range 30~1000 MHz:



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

#### 4.1.6 EUT Operating Conditions

Set the EUT under transmission condition continuously at specific channel frequency.

## 4.1.7 Test Results

## Mode A

EUT Test Condition			Measurement Detail								
Input Power		120 Vac, 60 Hz			Frequency Range			0.009 ~ 30 MHz			
Environmental Conditions		25 deg. C, 65 % RH			Detector Function			Average			
Tested By		Jisyong Wang									

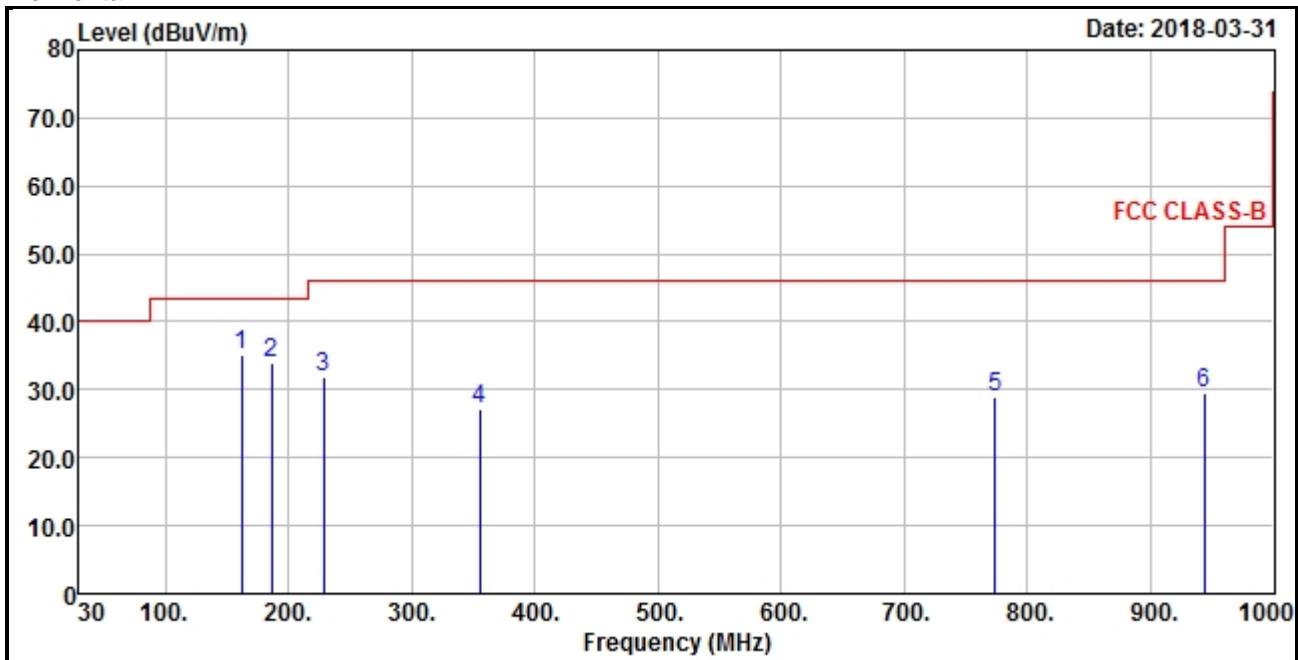
Antenna Polarity & Test Distance: Open at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
0.267	64.54	56.48	98.24	-33.7	48.84	0.02	40.8	100	360	Average
Antenna Polarity & Test Distance: Close at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
0.267	61.16	53.1	98.24	-37.08	48.84	0.02	40.8	100	0	Average
Antenna Polarity & Test Distance: Ground at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
0.267	59.36	51.3	98.24	-38.88	48.84	0.02	40.8	100	360	Average

## Remarks:

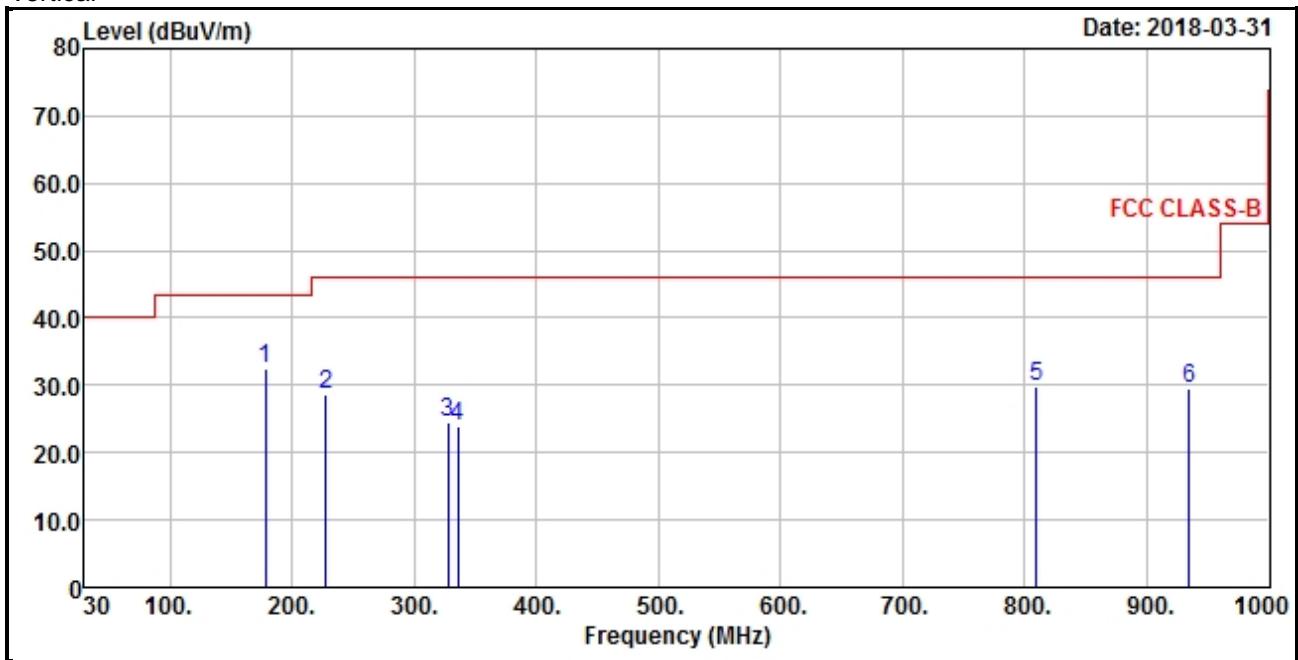
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. Above limits have been translated by the formula

EUT Test Condition		Measurement Detail	
<b>Input Power</b>	120 Vac, 60 Hz	<b>Frequency Range</b>	30 MHz ~ 1000 MHz
<b>Environmental Conditions</b>	25 deg. C, 65 % RH	<b>Detector Function</b>	Peak
<b>Tested By</b>		Jisyong Wang	

## Horizontal



## Vertical



## Antenna Polarity &amp; Test Distance: Horizontal at 3 m

Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
161.92	35.2	53.48	43.5	-8.3	12.54	1.03	31.85	125	222	Peak
186.17	33.93	54.19	43.5	-9.57	10.33	1.15	31.74	111	195	Peak
228.85	31.76	51.66	46	-14.24	10.58	1.37	31.85	101	236	Peak
354.95	27.19	42.93	46	-18.81	14.26	1.9	31.9	111	184	Peak
773.99	28.87	34.77	46	-17.13	21.86	3.59	31.35	222	265	Peak
943.74	29.52	33.47	46	-16.48	23.75	4.19	31.89	185	296	Peak

## Antenna Polarity &amp; Test Distance: Vertical at 3 m

Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
178.41	32.34	52.13	43.5	-11.16	10.92	1.11	31.82	111	174	Peak
227.88	28.7	48.62	46	-17.3	10.54	1.37	31.83	196	256	Peak
327.79	24.54	40.98	46	-21.46	13.61	1.78	31.83	111	132	Peak
335.55	23.87	40.07	46	-22.13	13.8	1.82	31.82	185	164	Peak
809.88	29.96	35.35	46	-16.04	22.35	3.71	31.45	205	265	Peak
935.01	29.66	33.74	46	-16.34	23.71	4.17	31.96	222	298	Peak

## Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value.

**Mode B**

EUT Test Condition			Measurement Detail							
<b>Input Power</b>		120 Vac, 60 Hz				<b>Frequency Range</b>	0.009 ~ 30 MHz			
<b>Environmental Conditions</b>		25 deg. C, 65 % RH				<b>Detector Function</b>	Average			
<b>Tested By</b>		Jisyong Wang								

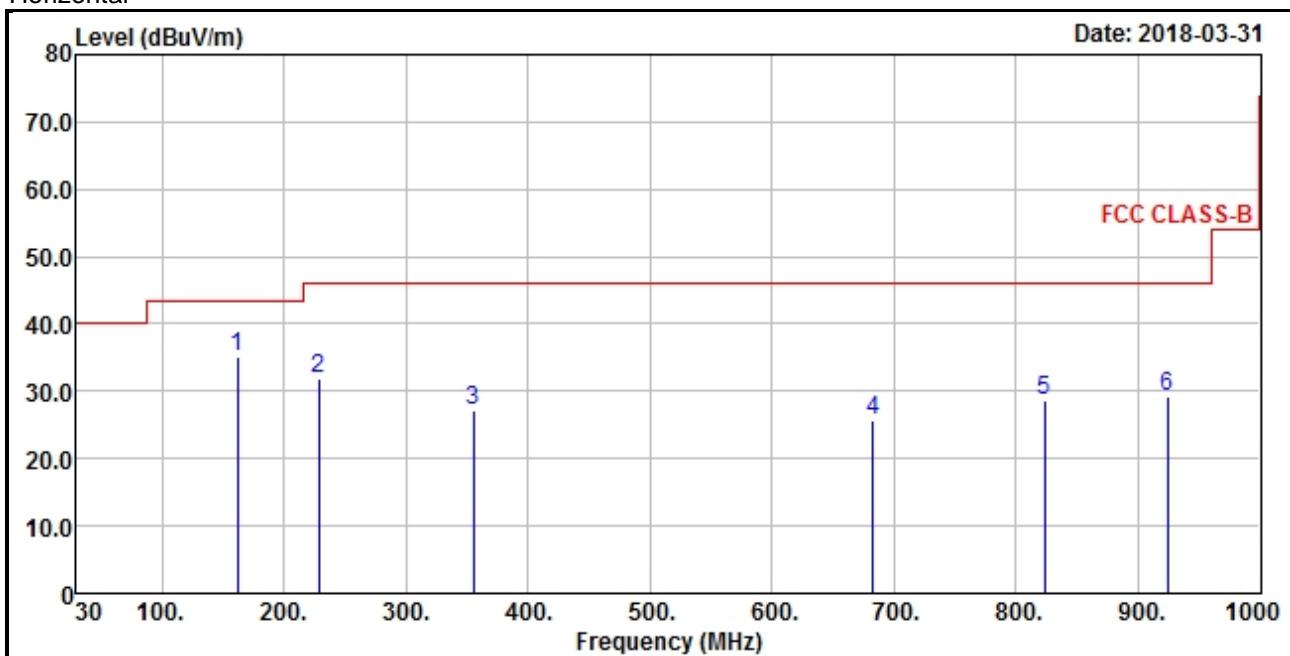
Antenna Polarity & Test Distance: Open at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
0.267	62.01	53.16	99.07	-37.06	49.65	0.02	40.82	100	360	Average
Antenna Polarity & Test Distance: Close at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
0.267	62.23	53.38	99.07	-36.84	49.65	0.02	40.82	100	0	Average
Antenna Polarity & Test Distance: Ground at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
0.267	60.25	51.4	99.07	-38.82	49.65	0.02	40.82	100	360	Average

**Remarks:**

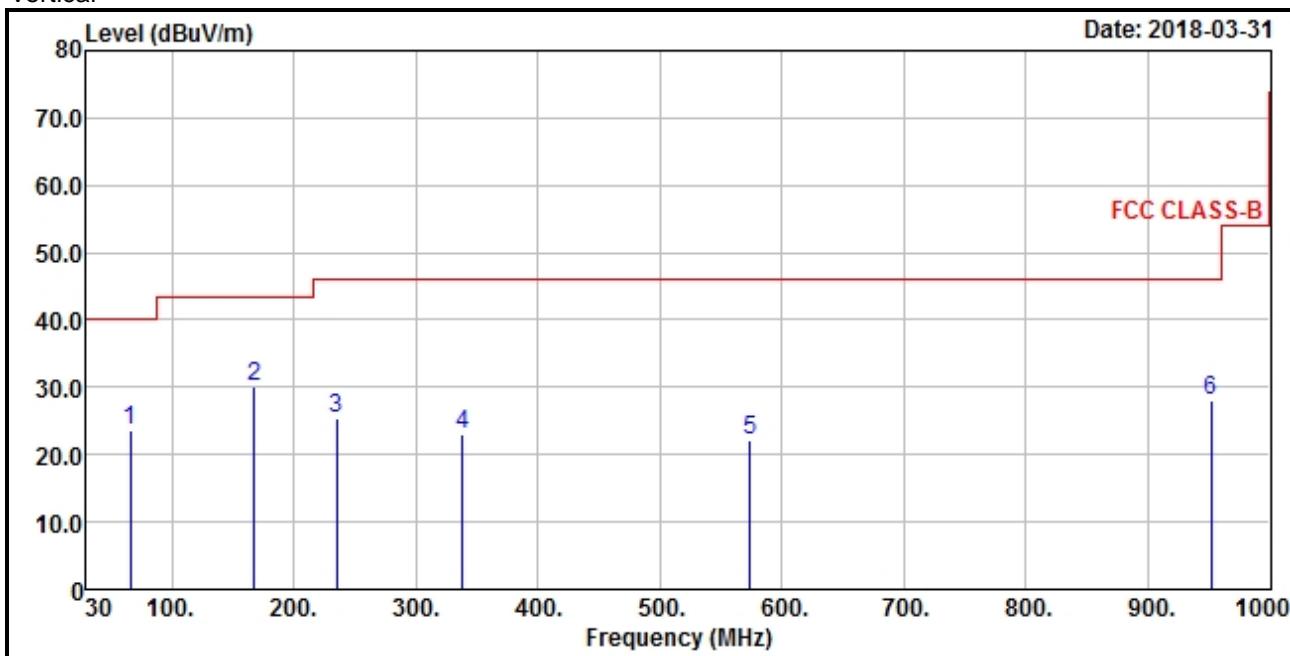
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. Above limits have been translated by the formula

EUT Test Condition		Measurement Detail	
<b>Input Power</b>	120 Vac, 60 Hz	<b>Frequency Range</b>	30 MHz ~ 1000 MHz
<b>Environmental Conditions</b>	25 deg. C, 65 % RH	<b>Detector Function</b>	Peak
<b>Tested By</b>		Jisyong Wang	

## Horizontal



## Vertical



## Antenna Polarity &amp; Test Distance: Horizontal at 3 m

Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
161.92	35.2	53.48	43.5	-8.3	12.54	1.03	31.85	111	222	Peak
228.85	31.76	51.66	46	-14.24	10.58	1.37	31.85	162	231	Peak
354.95	27.19	42.93	46	-18.81	14.26	1.9	31.9	185	213	Peak
682.81	25.75	33.75	46	-20.25	20.61	3.23	31.84	102	123	Peak
823.46	28.56	33.91	46	-17.44	22.53	3.76	31.64	111	152	Peak
924.34	29.34	33.54	46	-16.66	23.65	4.15	32	165	235	Peak

## Antenna Polarity &amp; Test Distance: Vertical at 3 m

Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
65.89	23.6	43.38	40	-16.4	11.24	0.62	31.64	102	232	Peak
167.74	30.09	48.83	43.5	-13.41	11.96	1.06	31.76	111	165	Peak
234.67	25.35	44.93	46	-20.65	10.83	1.41	31.82	185	256	Peak
338.46	23.1	39.22	46	-22.9	13.87	1.83	31.82	145	232	Peak
574.17	22.27	32.56	46	-23.73	19.01	2.8	32.1	111	132	Peak
951.5	27.95	31.75	46	-18.05	23.8	4.24	31.84	165	232	Peak

## Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

Margin value = Emission level – Limit value.

## 4.2 Conducted Emission Measurement

### 4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

### 4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date Of Calibration	Due Date Of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 23, 2017	Nov. 22, 2018
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Sep. 05, 2017	Sep. 04, 2018
LISN/AMN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 06, 2018	Mar. 05, 2019
LISN/AMN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 15, 2017	Aug. 14, 2018
Software ADT	BV ADT_Cond_V7.3.7.3	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 1.
3. The VCCI Site Registration No. is C-2040.

#### 4.2.3 Test Procedures

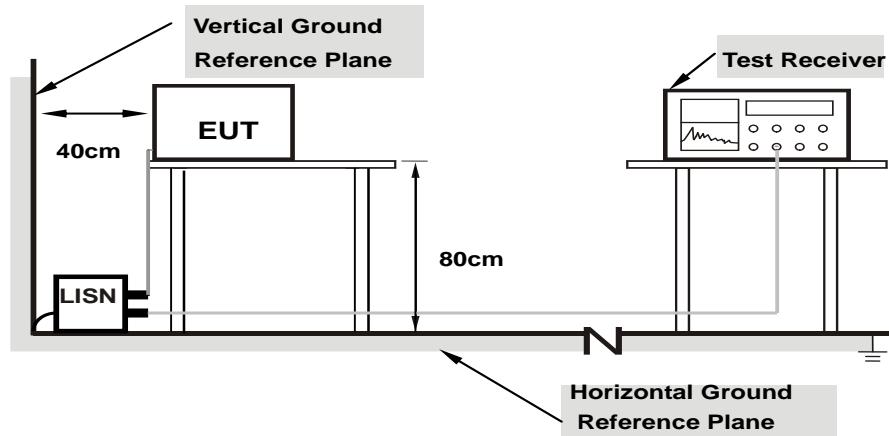
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

**NOTE:** The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz - 30 MHz.

#### 4.2.4 Deviation from Test Standard

No deviation.

#### 4.2.5 Test Setup



**Note: 1. Support units were connected to second LISN.**

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

#### 4.2.6 EUT Operating Conditions

Same as 4.1.6.

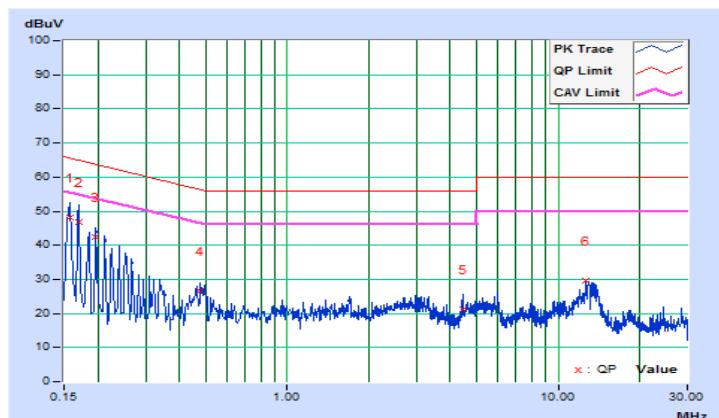
## 4.2.7 Test Results

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Getaz Yang	Test Date	2018/3/31

No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15760	10.10	37.97	20.63	48.07	30.73	65.59	55.59	-17.52	-24.86
2	0.16955	10.10	36.54	18.71	46.64	28.81	64.98	54.98	-18.34	-26.17
3	0.19692	10.10	32.28	15.28	42.38	25.38	63.74	53.74	-21.36	-28.36
4	0.47844	10.12	16.61	5.54	26.73	15.66	56.37	46.37	-29.64	-30.71
5	4.44709	10.31	10.88	0.18	21.19	10.49	56.00	46.00	-34.81	-35.51
6	12.65027	10.78	18.74	2.41	29.52	13.19	60.00	50.00	-30.48	-36.81

## Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

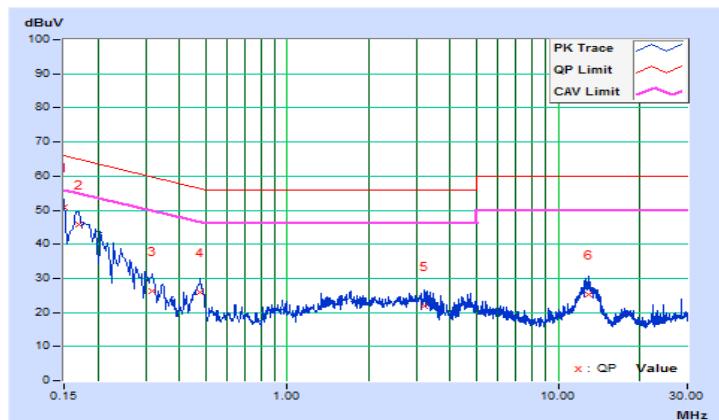


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Getaz Yang	Test Date	2018/3/31

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	<b>0.15000</b>	<b>10.10</b>	<b>40.84</b>	<b>22.29</b>	<b>50.94</b>	<b>32.39</b>	<b>66.00</b>	<b>56.00</b>	<b>-15.06</b>	<b>-23.61</b>
2	0.16967	10.10	35.71	17.96	45.81	28.06	64.98	54.98	-19.17	-26.92
3	0.31813	10.11	16.31	5.12	26.42	15.23	59.76	49.76	-33.34	-34.53
4	0.47844	10.12	15.91	4.79	26.03	14.91	56.37	46.37	-30.34	-31.46
5	3.21153	10.23	11.81	0.86	22.04	11.09	56.00	46.00	-33.96	-34.91
6	12.98262	10.65	14.65	1.48	25.30	12.13	60.00	50.00	-34.70	-37.87

#### Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



## 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:

**Linko EMC/RF Lab**

Tel: 886-2-26052180  
Fax: 886-2-26051924

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

Tel: 886-3-6668565  
Fax: 886-3-6668323

**Hwa Ya EMC/RF/Safety Lab**

Tel: 886-3-3183232  
Fax: 886-3-3270892

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

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

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

--- END ---