

# **FCC DoC TEST REPORT**

**REPORT NO.:** FD121217E10

**MODEL NO.:** T77H332

**RECEIVED:** Dec. 18, 2012

**TESTED:** Jan. 08 to 09, 2013

**ISSUED:** Jan. 29, 2013

APPLICANT: Hon Hai PRECISION IND.CO.,LTD

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Taiwan, R.O.C.

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd.,

Taoyuan Branch Hsin Chu Laboratory

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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FD121217E10	Original release.	Jan. 29, 2013



## 1 CERTIFICATION

**PRODUCT: WLAN Module** 

**BRAND NAME: FOXCONN** 

**MODEL NO.:** T77H332

**TEST SAMPLE:** ENGINEERING SAMPLE

APPLICANT: Hon Hai PRECISION IND.CO.,LTD

**TESTED:** Jan. 08 to 09, 2013

STANDARDS: FCC Part 15, Subpart B, Class B

ICES-003:2012 Issue 5, Class B

ANSI C63.4-2009

The above equipment (Model: T77H332) 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 EMC characteristics under the conditions specified in this report.

PREPARED BY: Phoenix Hugger, DATE: Jan. 29, 2013

Phoenix Huang, Specialist)

APPROVED BY : , DATE: Jan. 29, 2013

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(Ken Lu, Manager)



#### 2 SUMMARY OF TEST RESULTS

Standard	Test Type	Result	Remarks
FCC Part 15, Subpart B, Class B	Conducted Test	PASS	Meets Class B Limit Minimum passing margin is -12.39 dB at 0.49766 MHz
ICES-003:2012 Issue 5, Class B	Radiated Test	PASS	Meets Class B Limit Minimum passing margin is -6.95 dB at 828.76 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:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Conducted emissions	2.98 dB
Radiated emissions (30MHz-1GHz)	4.00 dB
Radiated emissions (1GHz-6GHz)	3.78 dB
Radiated emissions (6GHz-18GHz)	3.98 dB

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.



# **3 GENERAL INFORMATION**

#### 3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	WLAN Module
MODEL NO.	T77H332
POWER SUPPLY	DC 3.3V ±10% from host equipment
POWER CORD	NA
DATA CABLE	NA
ASSOCIATED	NIA
DEVICES	NA

#### NOTE:

1. The EUT is a 2.4GHz WLAN device.

2. The EUT incorporates a SISO without beam forming function.

MODULATION MODE	TX/Rx FUNCTION
802.11b	1Tx/1Rx
802.11g	1Tx/1Rx
802.11n (HT20)	1Tx/1Rx
802.11n (HT40)	1Tx/1Rx

3. The antennas provided to the EUT, please refer to the following table:

	Antenna No.	Antenna Type	Antenna Gain (dBi)	Frequency range (MHz to MHz)	Connector type	Diversity Function
	1 (Main)	PCB printing	3.3	2412 ~ 2484	NA	Υ
ſ	2 (Aux)	PCB printing	3.1	2412 ~ 2484	NA	Υ

- 4. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 7.
- 5. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.



# 3.2 GENERAL DESCRIPTION OF TEST MODE

- The EUT is designed to consume power from host equipment (100-240V, 50/60Hz). For radiated evaluation (30-1000MHz), 230V/50Hz (for EN 55022) and 120V/60Hz (for FCC Part 15) had been covered during the pre-test. The worst emission data (30-1000MHz) was founded at 120V/60Hz and recorded in the applied test report.
- 2. The EUT is tested under following test mode:

Test Mode	Description
Mode 1	Wireless Ping mode



## 3.3 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.

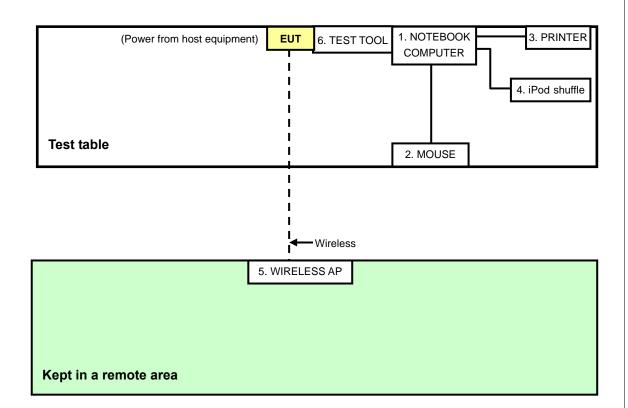
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	E5420	CHHYLQ1	FCC DoC
2	MOUSE	DELL	MOC5UO	l1401LVG	FCC DoC
3	PRINTER	EPSON	LQ-300+II	G88Y074083	FCC DoC
4	iPod shuffle	Apple	MD778TA/A	CC4JMCMXF4T 1	NA
5	Wireless AP	ZyXEL	NBG4115	S090A4200153	FCC DoC
6	TEST TOOL	FOXCONN	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	USB cable, 1.8m
3	USB cable, 1.8m
4	USB cable, 0.1m
5	NA
6	NA

**NOTE:** All power cords of the above support units are non shielded (1.8m).



# 3.4 CONFIGURATION OF SYSTEM UNDER TEST





#### **4 EMISSION TEST**

#### 4.1 CONDUCTED EMISSION MEASUREMENT

## 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

**TEST STANDARD: FCC Part 15, Subpart B (Section: 15.107)** 

ICES-003:2012 Issue 5 (section: 6.1)

FREQUENCY	Class A (dBuV)		Class B	(dBuV)
(MHz)	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

**NOTE:** (1) The lower limit shall apply at the transition frequencies.

## **4.1.2 TEST INSTRUMENTS**

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS 30	100287	Feb. 29, 2012	Feb. 28, 2013
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK 8127	8127-523	Sep. 19, 2012	Sep. 20, 2013
Line-Impedance Stabilization Network (for Peripheral) ROHDE & SCHWARZ	ESH3-Z5	848773/004	Oct. 29, 2012	Oct. 28, 2013
RF Cable (JYEBAO)	5DFB	COACAB-002	Aug. 05, 2012	Aug. 04, 2013
50 ohms Terminator	50	3	Oct. 23, 2012	Oct. 22, 2013
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 Shielded Room No. A.
- 3 The VCCI Con A Registration No. is C-817.
- 4. Tested Date: Jan. 08, 2013

<sup>(2)</sup> The limit decreases linearly with the logarithm of the frequency in the range 0.15 to  $0.50~\mathrm{MHz}$ 



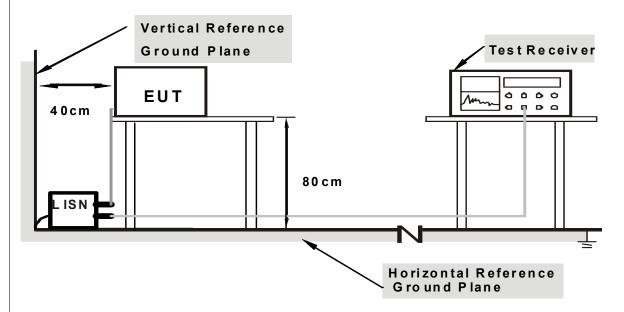
#### 4.1.3 TEST PROCEDURE

- 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.
- b. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- c. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- d. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit 20dB) was not recorded.

#### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

# 4.1.5 TEST SETUP



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

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.



# **4.1.6 EUT OPERATING CONDITIONS**

<ol> <li>Turn on the power of all equipment</li> </ol>	nt.
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2.	Support unit 1 (NB) runs a test program "Ping.exe" to link with support unit 5
	(Wireless AP) by EUT via wireless continuously.

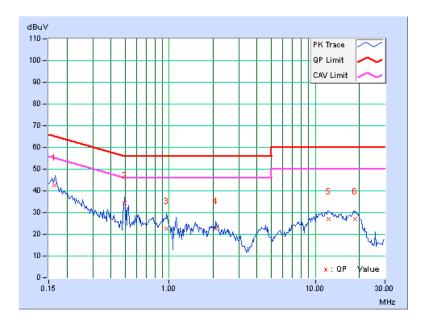


# 4.1.7 TEST RESULTS

TEST MODE	Mode 1	PHASE	Line (L)
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak (QP) / Average (AV), 9kHz
ENVIRONMENTAL CONDITIONS	26deg. C, 72 % RH	TESTED BY	Jyunchun Lin

	Freq. Corr. Reading Va		Corr. Reading Value Emission Level		Limit		Margin			
No		Factor	[dB	(uV)]	[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16412	0.10	42.41	42.22	42.51	42.32	65.25	55.25	-22.74	-12.93
2	0.49766	0.16	34.44	33.49	34.60	33.65	56.04	46.04	-21.44	-12.39
3	0.96250	0.18	22.54	20.60	22.72	20.78	56.00	46.00	-33.28	-25.22
4	2.09375	0.23	22.23	15.47	22.46	15.70	56.00	46.00	-33.54	-30.30
5	12.29688	0.67	26.46	19.38	27.13	20.05	60.00	50.00	-32.87	-29.95
6	18.63672	0.92	26.18	19.31	27.10	20.23	60.00	50.00	-32.90	-29.77

- 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.

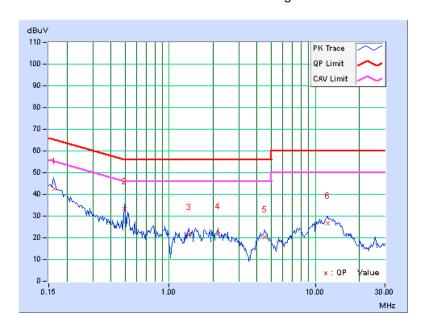




TEST MODE	Mode 1	PHASE	Neutral (N)
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak (QP) / Average (AV), 9kHz
ENVIRONMENTAL CONDITIONS	26deg. C, 72 % RH	TESTED BY	Jyunchun Lin

	Freq.	Corr.	Reading Value I		Emissio	n Level	Limit		Margin	
No		Factor	[dB	(uV)]	[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16472	0.15	42.33	42.06	42.48	42.21	65.22	55.22	-22.75	-13.02
2	0.49766	0.19	33.08	32.66	33.27	32.85	56.04	46.04	-22.76	-13.18
3	1.37500	0.24	21.18	17.18	21.42	17.42	56.00	46.00	-34.58	-28.58
4	2.15625	0.28	21.55	15.71	21.83	15.99	56.00	46.00	-34.17	-30.01
5	4.53906	0.37	20.12	14.05	20.49	14.42	56.00	46.00	-35.51	-31.58
6	12.17969	0.60	26.20	17.94	26.80	18.54	60.00	50.00	-33.20	-31.46

- 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.





#### 4.2 RADIATED EMISSION MEASUREMENT

#### 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (section: 15.109) ICES-003:2012 Issue 5 (section: 6.2)

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

Radiated Emissions Limits at 10 meters (dBμV/m)								
Frequencies (MHz)	FCC 15B/ ICES-003, Class A	CISPR 22, Class A	CISPR 22, Class B					
30-88	39	29.5						
88-216	43.5	33.1	40	30				
216-230	46.4	35.6						
230-960	40.4	33.6	47	37				
960-1000	49.5	43.5	47	31				
1000-3000	Avg: 49.5	Avg: 43.5	Not defined	Not defined				
Above 3000	Peak: 69.5	Peak: 63.5	Not defined	Not defined				

	Radiated Emissions Limits at 3 meters (dBμV/m)								
Frequencies (MHz)	FCC 15B / ICES-003, Class A	FCC 15B / ICES-003, Class B	CISPR 22, Class A	CISPR 22, Class B					
30-88	49.5 40								
88-216	54	43.5	50.5	40.5 47.5					
216-230	56.9	46							
230-960	90.9	40	E7						
960-1000	60	54	57.5	47.5					
1000-3000	Avg: 60	Avg: 54	Avg: 56 Peak: 76	Avg: 50 Peak: 70					
Above 3000	Peak: 80	Peak: 74	Avg: 60 Peak: 80	Avg: 54 Peak: 74					

**NOTE:** 1. The lower limit shall apply at the transition frequencies.

- 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 3. As shown in 15.35(b), for frequencies above 1000MHz, 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 20dB under any condition of modulation.
- 4. QP detector shall be applied if not specified.



# FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)		
Below 1.705	30		
1.705-108	1000		
108-500	2000		
500-1000	5000		
Above 1000	5th harmonic of the highest frequency or 40GHz, whichever is lower		



## **4.2.2 TEST INSTRUMENTS**

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer	E4443A	MY48250349	July 24, 2012	July 23, 2013
Agilent	E4443A	MY49420002	Aug. 10, 2012	Aug. 09, 2013
Pre-Selector	N9039A	MY46520331	Aug. 10, 2012	Aug. 09, 2013
Agilent	N9039A	MY46520309	July 24, 2012	July 23, 2013
Signal Generator Agilent	N5181A	MY49060520	Aug. 10, 2012	Aug. 09, 2013
Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-01	Nov. 14, 2012	Nov. 13, 2013
Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-02	Nov. 14, 2012	Nov. 13, 2013
Pre-Amplifier Mini-Circuits	ZVA-183-S+	AMP-ZVA-01	Nov. 14, 2012	Nov. 13, 2013
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 14, 2012	Nov. 13, 2013
Trilog Broadband Antenna	VULB 9168	9168-359	Apr. 09, 2012	Apr. 08, 2013
SCHWARZBECK	VULB 9168	9168-358	Apr. 06, 2012	Apr. 05, 2013
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 28, 2012	Aug. 27, 2013
Horn Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 12, 2012	Oct. 11, 2013
Test Receiver LIG	ER-265	L09068005	Mar. 14, 2012	Mar. 13, 2013
Pre-Amplifier Agilent	8449B	3008A01975	Mar. 03, 2012	Mar. 02, 2013
Horn Antenna SCHWARZBECK	BBHA 9120	9120D-783	Sep. 20, 2012	Sep. 19, 2013
RF Cable	NA	RF104-110 RF104-206 RF104-209	Dec. 20, 2012	Dec.19, 2013
RF Cable	8DFB	CHFCAB-001 CHFCAB-002 CHFCAB-003	Nov. 14, 2012	Nov. 13, 2013
Software	ADT_Radiated_ V8.7.06	NA	NA	NA
Antenna Tower & Turn Table CT	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in 10m Chamber No. F.
- 4. The FCC Site Registration No. is 928149.
- 5 The VCCI Site Registration No. is R-3252 & G-136.
- 6 The CANADA Site Registration No. is IC 7450H-1.
- 7 Tested Date: Jan. 08 to 09, 2013



#### 4.2.3 TEST PROCEDURE

#### Below 1 GHz:

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited test facility. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz. **NOTE**:
  - 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for quasi-peak detection (QP) at frequency 30MHz to 1GHz.

#### Above 1 GHz:

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at an accredited chamber room. 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. The height of antenna can be varied from one meter to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, detect 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 and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The spectrum analyzer system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

#### NOTE:

- 1. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.
- 3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the interference-receiving antenna.

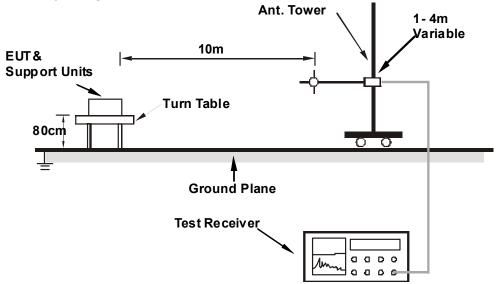
#### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation

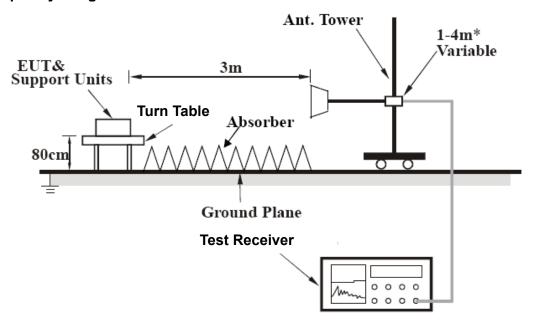


#### 4.2.5 TEST SETUP

<Frequency Range below 1GHz>



#### <Frequency Range above 1GHz>



\*: depends on the EUT height and the antenna 3dB beamwidth both.

For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

## **4.2.6 EUT OPERATING CONDITIONS**

Same as 4.1.6

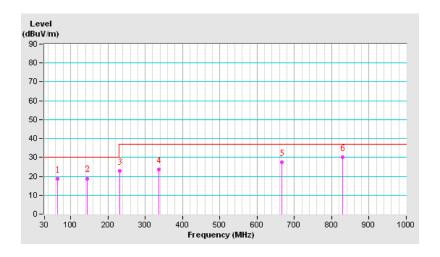


# **4.2.7 TEST RESULTS**

TEST MODE	Mode 1	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 63 % RH	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120kHz
TESTED BY	Gavin Peng		

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M									
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction		
No.	•	Level	(dBuV/m)	_	Height	Angle	Value	Factor		
(MHz)	(IVITZ)	(dBuV/m)	(ubuv/III)	(dB)	(m)	(Degree)	(dBuV)	(dB/m)		
1	65.76	18.65 QP	30.00	-11.35	4.00 H	153	5.11	13.54		
2	143.92	18.84 QP	30.00	-11.16	4.00 H	183	3.63	15.21		
3	232.38	22.79 QP	37.00	-14.21	3.00 H	174	9.24	13.55		
4	336.00	23.70 QP	37.00	-13.30	3.00 H	227	6.38	17.32		
5	666.40	27.37 QP	37.00	-9.63	1.00 H	259	2.24	25.13		
6	828.76	30.05 QP	37.00	-6.95	1.00 H	354	1.68	28.37		

- 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.

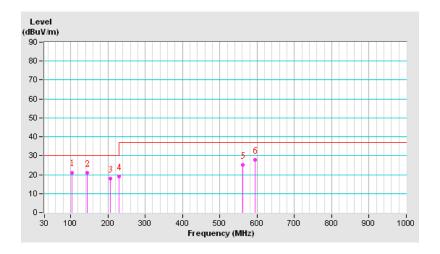




TEST MODE	Mode 1	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 65 % RH	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120kHz
TESTED BY	Gavin Peng		

	ANTEN	INA POLAR	ITY & TI	EST DIS	TANCE:	VERTIC	AL AT 10	M
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.		Level	(dBuV/m)	_	Height	Angle	Value	Factor
	(MHz)	(dBuV/m)	(ubuv/III)	(dB)	(m)	(Degree)	(dBuV)	(dB/m)
1	104.13	21.15 QP	30.00	-8.85	2.00 V	109	10.41	10.74
2	144.04	21.09 QP	30.00	-8.91	1.00 V	262	5.92	15.17
3	206.57	17.93 QP	30.00	-12.07	1.00 V	338	5.55	12.38
4	229.90	19.00 QP	30.00	-11.00	1.00 V	151	5.34	13.66
5	561.01	25.03 QP	37.00	-11.97	1.00 V	274	1.79	23.24
6	594.05	27.92 QP	37.00	-9.08	3.00 V	109	3.82	24.10

- 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.

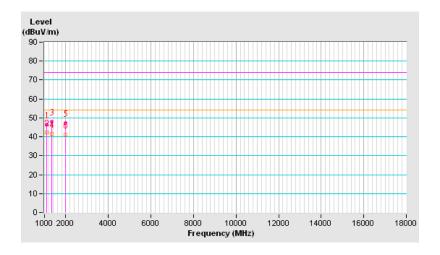




TEST MODE	Mode 1	FREQUENCY RANGE	1000-12500 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 63 % RH	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) / Average (AV), 1MHz
TESTED BY	Gavin Peng		

	ANTEN	NA POLARI	TY & TE	ST DIST	ANCE: I	HORIZO	NTAL AT	3 M
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1095.42	46.59 PK	74.00	-27.41	1.00 H	111	17.61	28.98
2	1095.42	42.21 AV	54.00	-11.79	1.00 H	111	13.23	28.98
3	1329.96	47.96 PK	74.00	-26.04	1.00 H	210	18.04	29.92
4	1329.96	41.62 AV	54.00	-12.38	1.00 H	210	11.70	29.92
5	2000.00	47.26 PK	74.00	-26.74	1.00 H	96	15.13	32.13
6	2000.00	41.16 AV	54.00	-12.84	1.00 H	96	9.03	32.13

- 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.

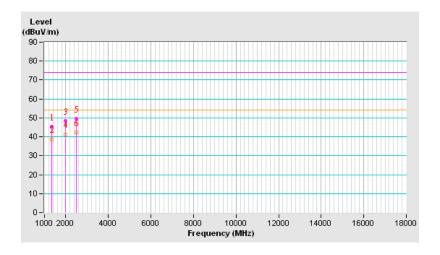




TEST MODE	Mode 1	FREQUENCY RANGE	1000-12500 MHz
ENVIRONMENTAL CONDITIONS	23 deg. C, 63 % RH	DETECTOR FUNCTION & BANDWIDTH	Peak (PK) / Average (AV), 1MHz
TESTED BY	Gavin Peng		

	ANTE	NNA POLAF	RITY & T	EST DIS	TANCE	: VERTIC	CAL AT 3	M
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1331.20	45.29 PK	74.00	-28.71	1.00 V	214	15.37	29.92
2	1331.20	38.69 AV	54.00	-15.31	1.00 V	214	8.77	29.92
3	2001.26	48.55 PK	74.00	-25.45	1.00 V	105	16.41	32.14
4	2001.26	41.35 AV	54.00	-12.65	1.00 V	105	9.21	32.14
5	2495.25	49.62 PK	74.00	-24.38	1.00 V	214	15.24	34.38
6	2495.25	42.26 AV	54.00	-11.74	1.00 V	214	7.88	34.38

- 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
- 2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.





#### 5 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 accredited and approved according to ISO/IEC 17025.

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

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



# 6 APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

ENGINEERING CHANGES TO THE EUT BY THE LAB
No modifications were made to the EUT by the lab during the test.
END