

# **FCC 15B TEST REPORT**

REPORT NO.: FD120615E04C

MODEL NO.: FP8134T

**RECEIVED:** Oct. 04, 2012

**TESTED:** Oct. 17, 2012

**ISSUED:** Oct. 18, 2012

**APPLICANT:** TECOM CO., LTD

ADDRESS: NO. 23, R&D ROAD 2, SCIENCE-BASED

INDUSTRIAL PARK HSINCHU, TAIWAN, R.O.C.

**ISSUED BY:** Bureau Veritas Consumer Products Services

(H.K.) Ltd., Taoyuan Branch

LAB ADDRESS: No. 47, 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.

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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FD120615E04C	Original release	Oct. 18, 2012

Report No.: FD120615E04C 3 of 25 Report Format Version 5.0.0 Reference No.: 121003E06



# 1. CERTIFICATION

**PRODUCT:** 3G Femtocell Access Point

MODEL NO.: FP8134T

**BRAND: NEC** 

APPLICANT: TECOM CO., LTD

**TESTED:** Oct. 17, 2012

**TEST SAMPLE:** ENGINEERING SAMPLE

STANDARDS: FCC Part 15, Subpart B, Class B

The above equipment (model: FP8134T) 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: DATE: Oct. 18, 2012

/Andrea Hsia / Specialist

**APPROVED BY** : Oct. 18, 2012

Anderson Chiu / Senior Engineer



# 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

Standard Section	Test Type	Result	Remark
FCC Part 15, Subpart B,	Conducted Emission		Meet the requirement of limit. Minimum passing margin is -9.56dB at 0.56269MHz.
Class B	Radiated Emission		Meet the requirement of limit. Minimum passing margin is 7.2dB at 68.80MHz

# 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	UNCERTAINTY
Conducted emissions	150kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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



# 3. GENERAL INFORMATION

# 3.1 GENERAL DESCRIPTION OF EUT

EUT	3G Femtocell Access Point
MODEL NO.	FP8134T
POWER SUPPLY	5Vdc (adapter)
MODULATION TECHNOLOGY	BPSK, QPSK, 16QAM,64QAM
FREQUENCY RANGE	2110MHz ~2155MHz
MAX. EIRP POWER (W)	0.0432W
RELEASE VERSION	Release 5 / 6
ANTENNA TYPE	PIFA antenna with 2dBi gain
DATA CABLE	1.5m non-Shielded ether cable
I/O PORTS	Refer to users' manual
ACCESSORY DEVICES	Adapter, GPS

#### NOTE:

1. The EUT's accessories list as below

ADAPTER		
BRAND	LEI	
MODEL	MU05-J050100-A1	
INPUT POWER	100-240Vac, 50-60Hz, 0.3A	
OUTPUT POWER	5Vdc, 1.0A	
POWER LINE	1.5m non-shielded cable without core	

GPS	
BRAND	WIESON
MODEL	DAM1575
POWER LINE	5m non-shielded cable without core

- 2. SW version is BV2.13.0.32.
- 3. HW version is G3.5.2.
- 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 TEST MODES

Three channels had been tested.

	CHANNEL	FREQUENCY(MHz)
Low channel (L)	1537	2112.4
Middle channel (M)	1637	2132.4
High channel (H)	1738	2152.6

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#### 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO			DESCRIPTION
	RE≥1G	RE<1G	PLC	DESCRIPTION
-	$\checkmark$	V	V	-

Where

**RE≥1G:** Radiated Emission above 1GHz

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

# **RADIATED EMISSION TEST (ABOVE 1GHz):**

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
1537 to 1738	1637	BPSK

#### **RADIATED EMISSION TEST (BELOW 1GHz):**

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
1537 to 1738	1637	BPSK

# **POWER LINE CONDUCTED EMISSION TEST:**

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY
1537 to 1738	1537, 1637, 1738	BPSK

#### **TEST CONDITION:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	Sun Chen
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Sun Chen
PLC	26deg. C, 65%RH	120Vac, 60Hz	Cedric Wu

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# 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.

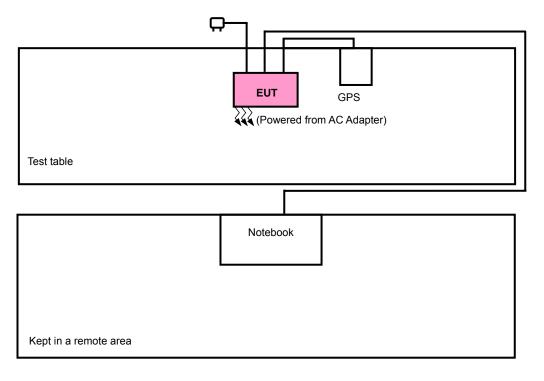
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	D531	CN-0XM006-48643- 81U-2973	QDS-BRCM1020

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m RJ45 cable without core

# NOTE:

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

# 3.3.1 CONFIGURATION OF SYSTEM UNDER TEST





# 3.4 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 B, Class B ANSI C63.4-2009

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

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# 4. TEST TYPES AND RESULTS

# 4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

# 4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.109 as following:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
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 (dBuV/m) = 20 log Emission level (uV/m).
- 3. 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.



# 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 19, 2012	Apr. 18, 2013
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jan. 30, 2012	Jan. 29, 2013
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Apr. 03, 2012	Apr. 02, 2013
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-563	Sep. 12, 2012	Sep. 11, 2013
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 11, 2012	Jul. 10, 2013
Preamplifier Agilent	8449B	3008A01911	Oct. 29, 2011	Oct. 28, 2012
Preamplifier Agilent	8447D	2944A10638	Oct. 29, 2011	Oct. 28, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295013/4 283403/4	Aug. 28, 2012	Aug. 27, 2013
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 11, 2012	Aug. 10, 2013
Software	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	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 Chamber 9.
  - 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

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- 4. The FCC Site Registration No. is 460141.
- 5. The IC Site Registration No. is IC 7450F-4.



# 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 120kHz for Quasi-peak detection at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

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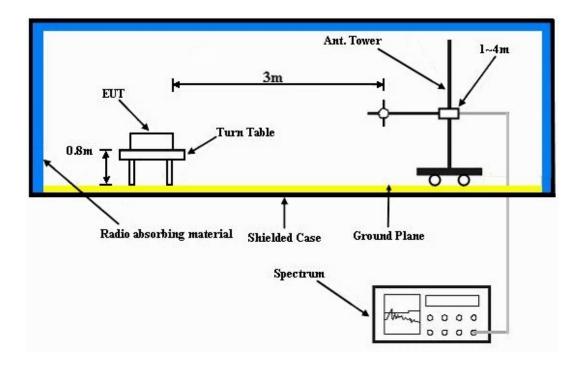
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation.



# 4.1.5 TEST SETUP



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

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# 4.1.6 EUT OPERATING CONDITIONS

a. The communication simulator station system controlled EUT under idle mode and specific channel frequency.



# 4.1.7 TEST RESULTS

# ABOVE 1GHz WORST-CASE DATA: 802.11n (40MHz)

<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
CHANNEL CH 1537		FREQUENCY RANGE	1 ~ 12.5GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Sun Lin	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL 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	4224.80	51.6 PK	74.0	-22.4	1.47 H	198	16.20	35.40	
2	4224.80	45.8 AV	54.0	-8.2	1.47 H	198	10.40	35.40	
		ANTENNA	POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 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	4224.80	49.2 PK	74.0	-24.8	1.28 V	57	13.80	35.40	
2	4224.80	44.2 AV	54.0	-9.8	1.28 V	57	8.80	35.40	

# **REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

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- 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.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	CH 1637	FREQUENCY RANGE	1 ~ 12.5GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Sun Lin	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL 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	4264.80	51.2 PK	74.0	-22.8	1.47 H	192	15.70	35.50	
2	4264.80	46.1 AV	54.0	-7.9	1.47 H	192	10.60	35.50	
		ANTENNA	POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 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	4264.80	48.1 PK	74.0	-25.9	1.38 V	52	12.60	35.50	

# **REMARKS:**

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).

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- 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.



EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL CH 1738		FREQUENCY RANGE	1 ~ 12.5GHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Sun Lin	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL 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	4305.20	50.9 PK	74.0	-23.1	1.45 H	182	15.20	35.70
2	4305.20	46.2 AV	54.0	-7.8	1.45 H	182	10.50	35.70
		ANTENNA	POLARITY	/ & TEST DI	STANCE: V	ERTICAL A	T 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	4305.20	48.6 PK	74.0	-25.4	1.32 V	47	12.90	35.70
2	4305.20	43.7 AV	54.0	-10.3	1.32 V	47	8.00	35.70

# **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).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.



#### **BELOW 1GHz WORST-CASE DATA:**

<b>EUT TEST CONDITION</b>		MEASUREMENT DETAIL		
CHANNEL	ANNEL CH1637 FREQUENCY RANG		Below 1000MHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Sun Lin	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL 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	68.80	32.8 QP	40.0	-7.2	1.25 H	345	20.30	12.50
2	101.78	27.5 QP	43.5	-16.0	2.00 H	203	18.00	9.50
3	125.06	27.3 QP	43.5	-16.2	1.50 H	322	15.10	12.20
4	152.22	27.9 QP	43.5	-15.6	1.50 H	340	14.10	13.80
5	249.22	38.4 QP	46.0	-7.6	1.00 H	253	25.50	12.90
6	499.48	28.0 QP	46.0	-18.0	1.50 H	40	7.90	20.10
	ANTENNA POLARITY & TEST DISTANCE: VERTICAL 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	49.40	28.6 QP	40.0	-11.4	1.25 V	140	15.20	13.40
2	68.80	31.5 QP	40.0	-8.5	2.00 V	281	19.00	12.50
3	107.60	27.7 QP	43.5	-15.8	1.00 V	120	17.50	10.20
4	249.22	35.7 QP	46.0	-10.3	1.50 V	282	22.80	12.90
5	499.48	25.0 QP	46.0	-21.0	2.00 V	337	4.90	20.10
6	751.68	28.1 QP	46.0	-17.9	1.25 V	13	4.00	24.10

#### **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).
- 3. The other emission levels were very low against the limit.
- 4. Margin value = Emission level Limit value.



# 4.2 CONDUCTED EMISSION MEASUREMENT

# 4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBµV)				
	Quasi-peak	Average			
0.15 ~ 0.5	66 to 56	56 to 46			
0.5 ~ 5	56	46			
5 ~ 30	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 0.50MHz.
- 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	ESCS30	100289	Nov. 19, 2011	Nov. 18, 2012	
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 29, 2011	Dec. 28, 2012	
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 30, 2011	Dec. 29, 2012	
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 06, 2012	Jul. 05, 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 HwaYa Shielded Room 2.
- 3. The VCCI Site Registration No. is C-2047.



#### 4.2.3 TEST PROCEDURES

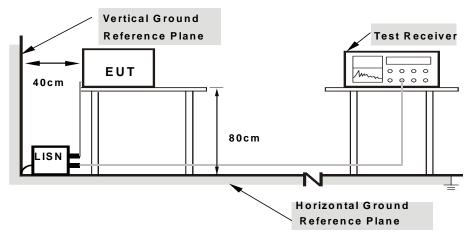
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

**NOTE:** All modes of operation were investigated and the worst-case emissions are reported.

#### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

# 4.2.5 TEST SETUP



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

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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.



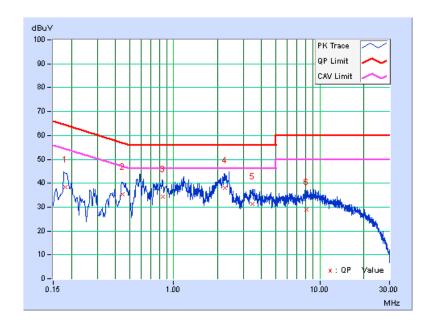
# 4.2.7 TEST RESULTS

# **CONDUCTED WORST-CASE DATA:**

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18128	0.21	38.29	24.23	38.50	24.44	64.43	54.43	-25.92	-29.98
2	0.44507	0.25	35.25	25.02	35.50	25.27	56.97	46.97	-21.47	-21.70
3	0.83986	0.29	34.14	24.26	34.43	24.55	56.00	46.00	-21.57	-21.45
4	2.23229	0.35	37.60	27.35	37.95	27.70	56.00	46.00	-18.05	-18.30
5	3.43890	0.41	30.96	20.89	31.37	21.30	56.00	46.00	-24.63	-24.70
6	8.05993	0.49	28.46	19.96	28.95	20.45	60.00	50.00	-31.05	-29.55

#### **REMARKS:**

- Q.P. and AV. are abbreviations of quasi-peak and average individually.
   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.



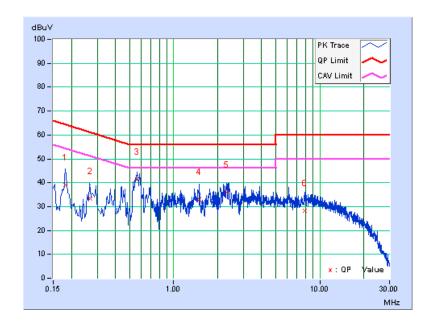


PHASE	Line 2	6dB BANDWIDTH	9kHz
IIIAOL	LINO Z	OUD BAILDWIDTH	OIII IZ

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18075	0.20	38.76	27.59	38.96	27.79	64.45	54.45	-25.49	-26.66
2	0.26765	0.21	33.03	23.68	33.24	23.89	61.19	51.19	-27.95	-27.30
3	0.56269	0.23	41.14	36.21	41.37	36.44	56.00	46.00	-14.63	-9.56
4	1.48774	0.29	32.67	23.98	32.96	24.27	56.00	46.00	-23.04	-21.73
5	2.29794	0.33	35.62	25.87	35.95	26.20	56.00	46.00	-20.05	-19.80
6	7.86052	0.55	27.74	20.58	28.29	21.13	60.00	50.00	-31.71	-28.87

# **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 loss5. Emission Level = Correction Factor + Reading Value.





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5. PHOTOGRAPHS OF THE TEST CONFIGURATION	
Please refer to the attached file (Test Setup Photo).	



# 6. 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:

Linko EMC/RF Lab:Hsin Chu EMC/RF Lab:Tel: 886-2-26052180Tel: 886-3-5935343Fax: 886-2-26051924Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:

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Email: <a href="mailto:service.adt@tw.bureauveritas.com">service.adt@tw.bureauveritas.com</a>

Web Site: www.adt.com.tw

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

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

No any modifications are made to the EUT by the lab during the test.

---END---