

# **FCC TEST REPORT**

**REPORT NO.:** RF120302C15E

MODEL NO.: DIR-836L

FCC ID: KA2IR636LA1

**RECEIVED:** Sep. 08, 2012

**TESTED:** Oct. 08 ~ Oct. 10, 2012

**ISSUED:** Oct. 11, 2012

**APPLICANT:** D-Link Corporation

ADDRESS: 17595 Mt. Hermann, Fountain Valley, CA 92708,

U.S.A.

**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
RF120302C15E	Original release	Oct. 11, 2012

Report No.: RF120302C15E 3 of 24 Report Format Version 5.0.0

Reference No.: 120908C03



# 1. CERTIFICATION

PRODUCT: Wireless N750 Dual Band Gigabit Cloud Router

(refer to item 3.1 for more detail)

MODEL NO.: DIR-836L

**BRAND:** D-Link

**APPLICANT:** D-Link Corporation

**TESTED:** Oct. 08 ~ Oct. 10, 2012

TEST SAMPLE: ENGINEERING SAMPLE

STANDARDS: FCC Part 15, Subpart C (Section 15.247)

ANSI C63.10-2009

This report is issued as a supplementary report of RF120302C15A. This report shall be used combined together with its original report.

PREPARED BY :

Pettie Chen / Senior Specialist

DATE: Oct. 11, 2012

. otto offerir contact operium

Ken Liu / Manager

APPROVED BY

DATE :

Oct. 11, 2012

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**NOTE:** The radiated emission below 1GHz and conducted emission tests were performed for the addendum. Refer to original report for the other test data.



# 2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)				
STANDARD SECTION	TEST TYPE	RESULT	REMARK	
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -15.57dB at 0.16967MHz.	
15.247(d) 15.209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -3.5dB at 875.91MHz.	
15.247(d)	Band Edge Measurement	NA	Refer to Note	
15.247(a)(2)	6dB bandwidth	NA	Refer to Note	
15.247(b)	Conducted power	NA	Refer to Note	
15.247(e)	Power Spectral Density	NA	Refer to Note	
15.203	Antenna Requirement	PASS	Antenna connector is UFL not a standard connector.	

**NOTE:** The radiated emission below 1GHz and conducted emission tests were performed for the addendum. Refer to original report for the other test data.

#### 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	
Dedicted emissions	30MHz ~ 200MHz	2.93 dB	
Radiated emissions	200MHz ~1000MHz	2.95 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	Wireless N750 Dual Band Gigabit Cloud Router (refer to NOTE for more detail)		
MODEL NO.	DIR-836L		
POWER SUPPLY	12Vdc (adapter)		
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM		
MODULATION TECHNOLOGY	DSSS, OFDM		
TRANSFER RATE	802.11b:11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps		
OPERATING FREQUENCY	2412 ~ 2462MHz		
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)		
OUTPUT POWER	123.32mW		
ANTENNA TYPE	PCB antenna with 0dBi gain		
ANTENNA CONNECTOR	UFL		
DATA CABLE	NA		
I/O PORTS	Refer to user's manual		
ACCESSORY DEVICES	Adapter		

#### NOTE:

- 1. This report is prepared for FCC class II permissive change. This report is issued as a supplementary report to the original BVADT report no. RF120302C15A. The differences compared with original report are changing and adding the following items. Therefore, we re-tested radiated emission below 1GHz and conducted emission tests and presented in the test report.
  - ♦ Adding an adapter.
  - ♦ Changing 5G module.
  - ♦ Changing product names and model names.
- 2. The following product names are provided to this EUT.

PRODUCT NAME	DESCRIPTION
Wireless N750 Dual Band Gigabit Cloud Router	All product names are electrically identical, different product names are
Cloud Router 2500	for marketing purpose.

3. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

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MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	1TX
802.11n (20MHz)	2TX
802.11n (40MHz)	2TX



4. The EUT consumes power from the following adapter.

ADAPTER 1		
BRAND:	D-Link	
MODEL:	CG2412-B IW	
INPUT:	100-240Vac, 0.6A, 50-60Hz	
OUTPUT:	+12Vdc, 2A	
POWER LINE:	1.5m non-shielded cable without core	

ADAPTER 2		
BRAND:	D-Link	
MODEL:	SAG024F 4 US 24.0W	
INPUT:	100-240Vac, 47-63Hz, 0.8A	
OUTPUT:	12.0Vdc, 2.0A	
POWER LINE:	1.5m non-shielded cable without core	

ADAPTER 3 (New adapter)			
BRAND:	Atech OEM Inc.		
MODEL:	MODEL: ADS0271-W 120200		
INPUT: 100-240Vac, 50-60Hz, 0.6A			
<b>OUTPUT:</b> 12.0V / 2.0A			
POWER LINE: 1.1m non-shielded cable without core			

<sup>\*</sup>Adapter 3 is the chosen for final test.

<sup>5.</sup> 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

11 channels are provided for 802.11b, 802.11g and 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

7 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2422MHz	5	2442MHz
2	2427MHz	6	2447MHz
3	2432MHz	7	2452MHz
4	2437MHz		

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# 3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE		ABLE TO	DESCRIPTION
	RE<1G	PLC	DESCRIPTION
-	<b>V</b>	V	EUT with Adapter 2

Where

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

#### NOTE:

- 1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane.**
- 2. After pre-testing, adapter 2 is the worst case for final test.

#### **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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
	802.11b	1 to 11	1	DSSS	DBPSK	1.0

#### **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.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11b	1 to 11	1	DSSS	DBPSK	1.0

# **TEST CONDITION:**

APPLICABLE TO	BLE TO ENVIRONMENTAL CONDITIONS INPUT POWER		TESTED BY
RE<1G	23deg. C, 68%RH	120Vac, 60Hz	Cedric Wu
PLC	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin

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Reference No.: 120908C03



#### 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	E5410	1HC2XM1	FCC DoC Approved
2	NOTEBOOK	DELL	E5420	33MJMQ1	FCC DoC Approved
3	USB DONGLE	TRANSCEND	V85	569992-8206	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m RJ45 UTP cable
2	10m RJ45 UTP cable
3	NA

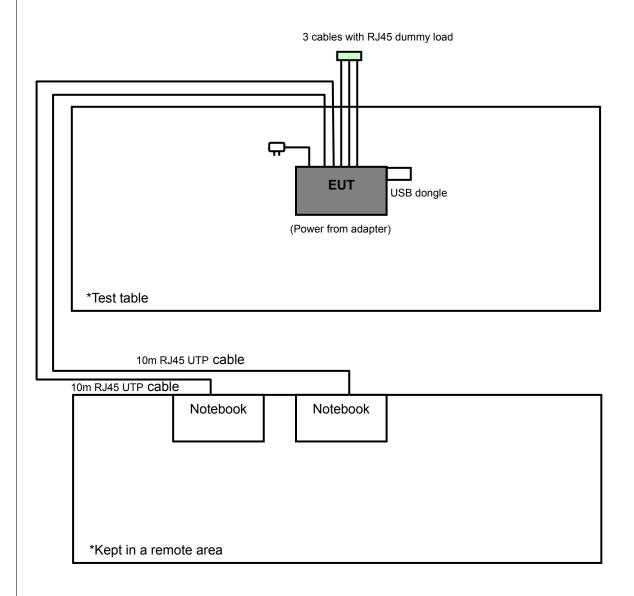
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#### NOTE:

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



# 3.3.1 CONFIGURATION OF SYSTEM UNDER TEST



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#### 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 C (15.247) 558074 D01 DTS Meas Guidance v01 ANSI C63.10-2009

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

**NOTE:** The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

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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

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30dB below the highest level of the desired power:

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 (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.

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#### 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESI7	838496/016	Jan. 03, 2012	Jan. 02, 2013
Spectrum Analyzer ROHDE & SCHWARZ	FSP 40	100039	Feb. 03, 2012	Feb. 02, 2013
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Apr. 06, 2012	Apr. 05, 2013
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-408	Jan. 05, 2012	Jan. 04, 2013
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 11, 2012	Jul. 10, 2013
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
Preamplifier Agilent	8449B	3008A01961	Oct. 29, 2011	Oct. 28, 2012
Preamplifier Agilent	8447D	2944A10738	Oct. 29, 2011	Oct. 28, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309220/4	Nov. 03, 2011	Nov. 02, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250724/4	Nov. 03, 2011	Nov. 02, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295012/4	Nov. 03, 2011	Nov. 02, 2012
Software ADT	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA	NA
Turn Table ADT	TT100.	TT93021704	NA	NA
Turn Table Controller ADT	SC100.	SC93021704	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 calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
  - 3. The test was performed in HwaYa Chamber 4.
  - 4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
  - 5. The FCC Site Registration No. is 460141.
  - 6. The IC Site Registration No. is IC7450F-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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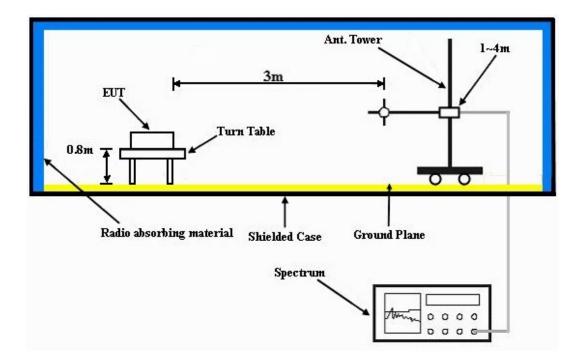
4. All modes of operation were investigated and the worst-case emissions are reported.

# 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).

#### 4.1.6 EUT OPERATING CONDITIONS

- a. Placed the EUT on the testing table.
- b. Prepared notebooks to act as communication partner and placed it outside of testing area.
- c. The communication partner connected with EUT via a RJ45 cable and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- d. The communication partner sent data to EUT by command "PING".
- e. The necessary accessories enable the system in full functions.



# 4.1.7 TEST RESULTS

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

#### 802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL		
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz	
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak	
ENVIRONMENTAL CONDITIONS	23deg. C, 68%RH	TESTED BY	Cedric Wu	

		ANTENNA I	POLARITY	& TEST DIS	TANCE: HO	RIZONTAL	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	249.17	35.0 QP	46.0	-11.0	1.00 H	249	23.40	11.60
2	375.29	37.4 QP	46.0	-8.6	1.00 H	215	22.40	15.00
3	466.49	37.9 QP	46.0	-8.1	1.74 H	189	21.00	16.90
4	625.60	39.8 QP	46.0	-6.2	1.24 H	210	20.20	19.60
5	749.79	36.8 QP	46.0	-9.2	1.00 H	112	15.80	21.00
6	875.91	42.5 QP	46.0	-3.5	1.00 H	216	19.60	22.90
		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	57.07	34.9 QP	40.0	-5.1	1.00 V	243	21.90	13.00
2	375.29	35.1 QP	46.0	-10.9	1.25 V	175	20.10	15.00
3	466.49	38.7 QP	46.0	-7.3	1.00 V	178	21.80	16.90
4	625.60	38.4 QP	46.0	-7.6	1.50 V	179	18.80	19.60
5	749.79	34.5 QP	46.0	-11.5	1.25 V	122	13.50	21.00
6	875.91	36.4 QP	46.0	-9.6	1.25 V	140	13.50	22.90

#### **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	100291	Nov. 23, 2011	Nov. 22, 2012
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 29, 2011	Dec. 28, 2012
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 02, 2012	Jul. 01, 2013
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 07, 2012	Feb. 06, 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 1.
- 3. The VCCI Site Registration No. is C-2040.



#### 4.2.3 TEST PROCEDURES

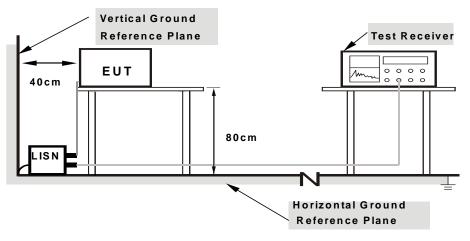
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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.

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# 4.2.7 TEST RESULTS

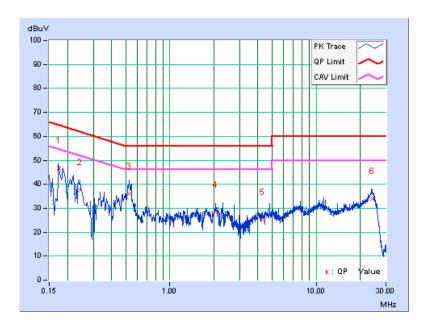
#### **CONDUCTED WORST-CASE DATA: 802.11b**

PHASE	Line 1	6dB BANDWIDTH	9kHz
-------	--------	---------------	------

No F	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17374	0.12	46.76	31.06	46.88	31.18	64.78	54.78	-17.90	-23.60
2	0.24215	0.13	37.57	24.10	37.70	24.23	62.02	52.02	-24.32	-27.79
3	0.52544	0.14	35.95	27.55	36.09	27.69	56.00	46.00	-19.91	-18.31
4	2.06590	0.22	27.93	21.33	28.15	21.55	56.00	46.00	-27.85	-24.45
5	4.27505	0.35	24.88	19.39	25.23	19.74	56.00	46.00	-30.77	-26.26
6	24.02055	1.36	32.64	27.50	34.00	28.86	60.00	50.00	-26.00	-21.14

#### **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.

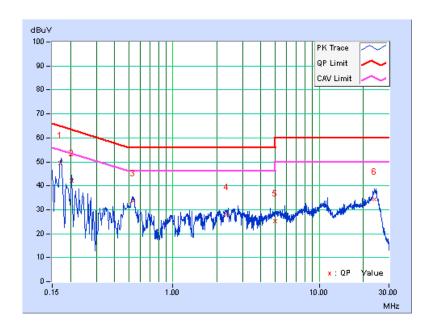




No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16967	0.13	49.28	36.69	49.41	36.82	64.98	54.98	-15.57	-18.16
2	0.20243	0.14	41.88	25.15	42.02	25.29	63.51	53.51	-21.49	-28.22
3	0.53522	0.16	33.45	26.08	33.61	26.24	56.00	46.00	-22.39	-19.76
4	2.32228	0.25	27.79	21.59	28.04	21.84	56.00	46.00	-27.96	-24.16
5	4.98618	0.39	24.79	19.20	25.18	19.59	56.00	46.00	-30.82	-26.41
6	23.73121	1.10	33.38	28.10	34.48	29.20	60.00	50.00	-25.52	-20.80

#### **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.





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

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# 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:

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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

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