



# FCC CERTIFICATION TEST REPORT

**REPORT NO.:** FC110324C08

**MODEL NO.:** DSL-6300V

**FCC ID:** KA2SL6300VA1

**RECEIVED:** Mar. 24, 2011

**TESTED:** Apr. 11 ~ Apr. 18, 2011

**ISSUED:** Apr. 19, 2011

**APPLICANT:** D-Link Corporation

**ADDRESS:** 17595 Mt. Herrmann, Fountain Valley, CA, United States, 92708

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

**LAB ADDRESS:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan

**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.  
No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien 244, Taiwan, R.O.C.

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## Table of Contents

RELEASE CONTROL RECORD.....	3
1 CERTIFICATION .....	4
2 SUMMARY OF TEST RESULTS .....	5
2.1 MEASUREMENT UNCERTAINTY .....	5
3 GENERAL INFORMATION.....	6
3.1 GENERAL DESCRIPTION OF EUT .....	6
3.2 DESCRIPTION OF TEST MODES .....	7
3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS .....	7
3.4 DESCRIPTION OF SUPPORT UNITS .....	7
3.5 CONFIGURATION OF SYSTEM UNDER TEST.....	8
4 TEST TYPES AND RESULTS .....	9
4.1 CONDUCTED EMISSION MEASUREMENT.....	9
4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT .....	9
4.1.2 TEST INSTRUMENTS .....	9
4.1.3 TEST PROCEDURES.....	10
4.1.4 DEVIATION FROM TEST STANDARD.....	10
4.1.5 TEST SETUP .....	11
4.1.6 EUT OPERATING CONDITIONS .....	11
4.1.7 TEST RESULTS.....	12
4.2 RADIATED EMISSION MEASUREMENT.....	14
4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT .....	14
4.2.2 TEST INSTRUMENTS .....	15
4.2.3 TEST PROCEDURES.....	17
4.2.4 DEVIATION FROM TEST STANDARD.....	18
4.2.5 TEST SETUP .....	19
4.2.6 EUT OPERATING CONDITIONS .....	19
4.2.7 TEST RESULTS.....	20
5 PHOTOGRAPHS OF THE TEST CONFIGURATION .....	24
6 INFORMATION ON THE TESTING LABORATORIES.....	27
7 APPENDIX A – MODIFICATION RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB.....	28



## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Apr. 19, 2011



## 1 CERTIFICATION

**PRODUCT:** VDSL2+ Bridge  
**BRAND:** D-Link Corporation  
**MODEL NO.:** DSL-6300V  
**APPLICANT:** D-Link Corporation  
**TESTED:** Apr. 11 ~ Apr. 18, 2011  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**STANDARD:** **FCC Part 15, Subpart B, Class B**  
**CISPR 22: 1997, Class B**  
**ICES-003: 2004, Class B**  
ANSI C63.4: 2003

The above equipment (Model: DSL-6300V) 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 :** Suntee Liu , **DATE :** Apr. 19, 2011  
Suntee Liu / Specialist

**APPROVED BY :** David Liu , **DATE :** Apr. 19, 2011  
David Liu / Senior Engineer

## 2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications.

EMISSION			
Standard	Test Type	Result	Remarks
FCC Part 15, Subpart B, Class B CISPR 22: 1997, Class B ICES-003: 2004, Class B	Conducted emission test	PASS	Meet the requirement of limit Minimum passing margin is -14.04dB at 0.166MHz
	Radiated emission test (30MHz~18GHz)	PASS	Meet the requirement of limit Minimum passing margin is -1.45dB at 115.94MHz

**Note:** The limit for radiated test for 30-1000 MHz was performed according to CISPR 22: 1997, which was specified in FCC PART 15 Subpart B 15.109(g). Also the limit of CISPR 22: 1997 is same.

### 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 emission	150kHz ~ 30MHz	2.44 dB
Radiated emission	30MHz ~ 1GHz	4.12 dB
	Above 1GHz	2.26 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

<b>PRODUCT</b>	VDSL2+ Bridge
<b>MODEL NO.</b>	DSL-6300V
<b>FCC ID</b>	KA2SL6300VA1
<b>POWER SUPPLY</b>	12Vdc from adapter
<b>DATA CABLE</b>	1.3m non-shielded RJ45 cable with 1 core 1.8m non-shielded RJ11 cable with 1 core
<b>ACCESSORY DEVICE</b>	Adapter

**NOTE:**

1. The EUT uses following adapter.

<b>Brand</b>	OEM
<b>Model</b>	ADS18B-W 150100
<b>Input Power</b>	100-240Vac, 50/60Hz, 0.5A
<b>Output Power</b>	15Vdc, 1.0A
<b>Power Line</b>	DC 1.5m non-shielded cable w/o core

2. The EUT's highest operating frequency is 133MHz.
3. The above EUT information is declared by manufacturer and for more detailed feature description, please refer to the manufacturer's specifications or user's manual.



### 3.2 DESCRIPTION OF TEST MODES

The EUT has been pre-tested under following modes, and test mode 1 was the worst case for final test.

Test Mode	Test Condition
1	LAN 100Mbps
2	LAN 10Mbps

### 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 B, Class B**

**CISPR 22: 1997, Class B**

**ICES-003: 2004, Class B**

ANSI C63.4: 2003

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

### 3.4 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.

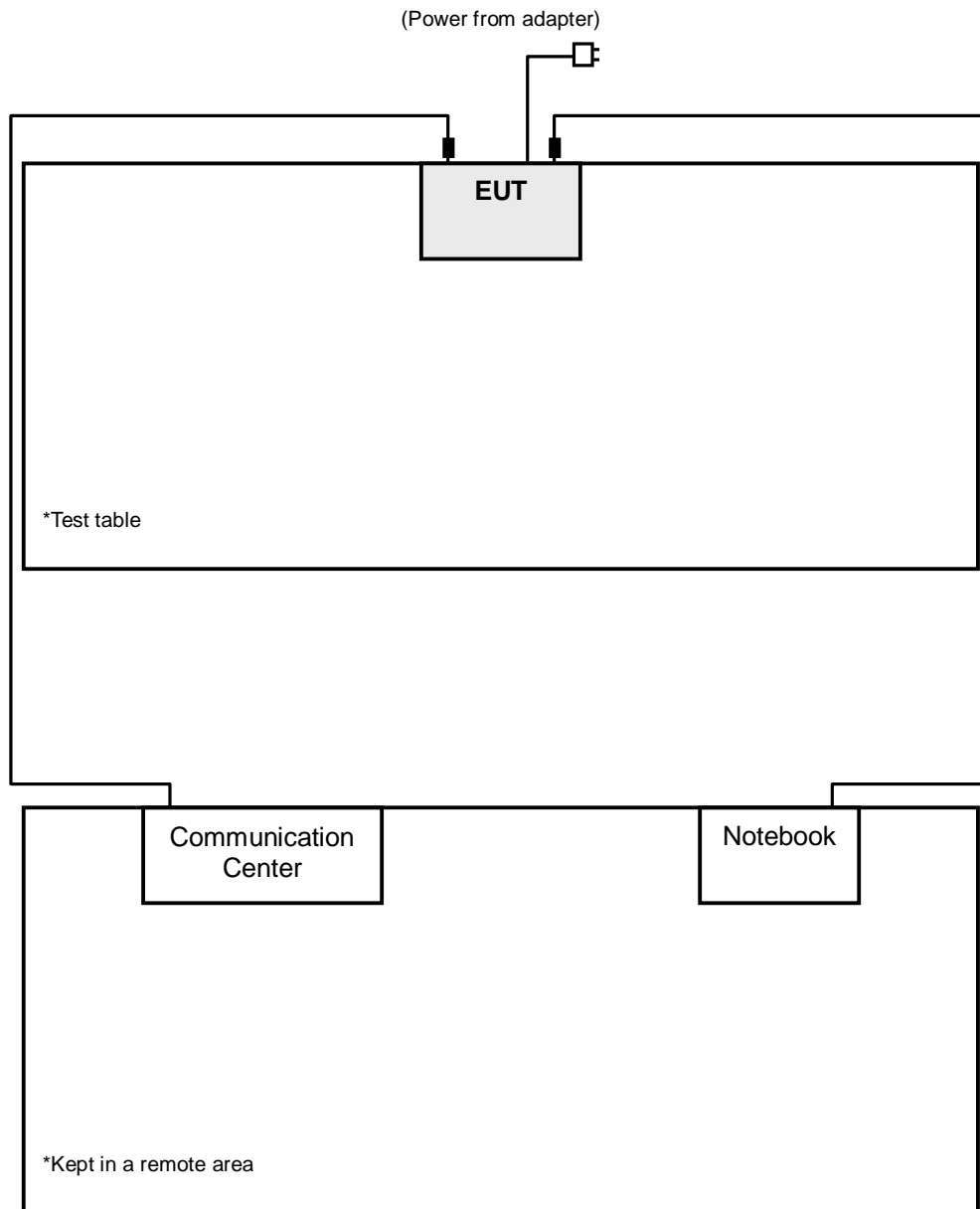
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP04X	1W9ZZ1S	FCC DoC Approved
2	COMMUNICATION CENTER	NA	VDSL2 Ikanos CO5	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m non-shielded RJ45 cable with 1 core
2	10m RJ11 cable with 1 core

**NOTE:**

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

### 3.5 CONFIGURATION OF SYSTEM UNDER TEST





## 4 TEST TYPES AND RESULTS

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

**TEST STANDARD:**

FCC Part 15, Subpart B (section: 15.107)

CISPR 22: 1997 (section 5)

ICES-003: 2004 (Class A: section 5.2)  
(Class B: section 5.3)

Frequency (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15-0.5	79	66	66-56	56-46
0.5-5	73	60	56	46
5-30	73	60	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.

#### 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Nov. 30, 2010	Nov. 29, 2011
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 30, 2010	Dec. 29, 2011
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Jun. 28, 2010	Jun. 27, 2011
V-LISN SCHWARZBECK	NNBL 8226-2	8226-142	Jul. 12, 2010	Jul. 11, 2011
Software ADT	ADT_Cond_ V7.3.7	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.

### **4.1.3 TEST PROCEDURES**

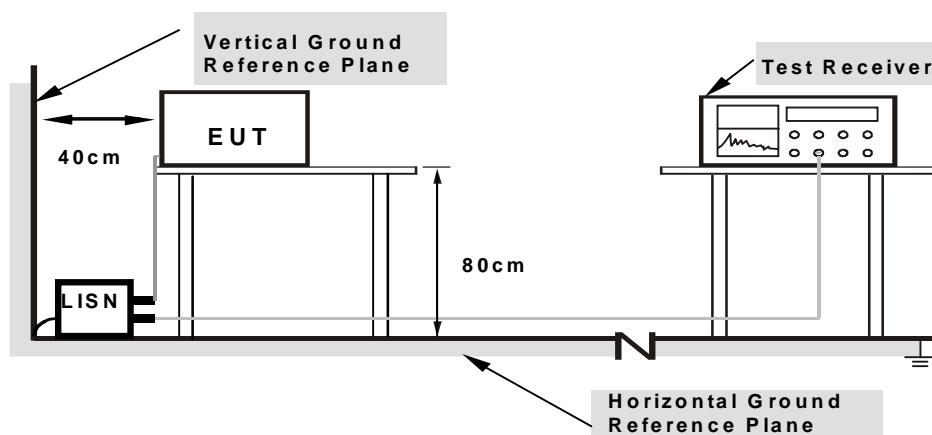
The basic test procedure was in accordance with ANSI C63.4: 2003 (section 7) and CISPR 22 (section 9).

- 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 150 kHz to 30 MHz 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.
  2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

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

### 4.1.6 EUT OPERATING CONDITIONS

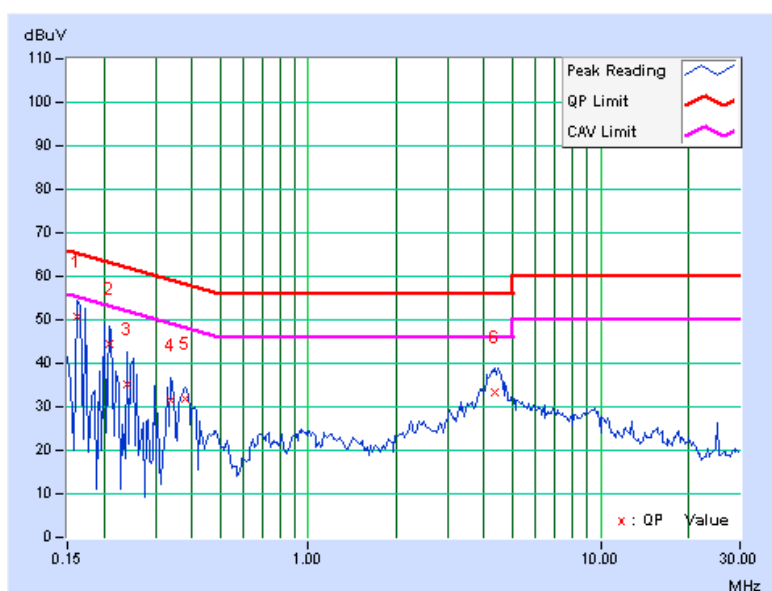
- a. The EUT linked with notebook & communication center, which acted as communication partners.

### 4.1.7 TEST RESULTS

<b>INPUT POWER</b>	120 Vac, 60 Hz	<b>6dB BANDWIDTH</b>	9 kHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 60% RH, 985 hPa	<b>PHASE</b>	Line 1
<b>TESTED BY</b>	Felix Chen		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.14	50.62	-	50.76	-	65.38	55.38	-14.61	-
2	0.209	0.14	44.41	-	44.55	-	63.26	53.26	-18.71	-
3	0.240	0.14	35.09	-	35.23	-	62.10	52.10	-26.87	-
4	0.338	0.15	31.19	-	31.34	-	59.26	49.26	-27.93	-
5	0.380	0.15	31.67	-	31.82	-	58.27	48.27	-26.45	-
6	4.359	0.39	32.85	-	33.24	-	56.00	46.00	-22.76	-

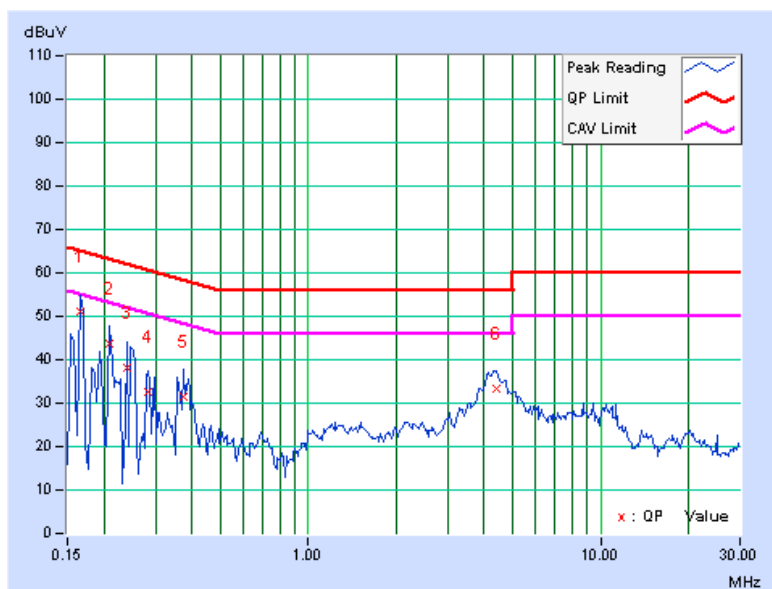
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.



<b>INPUT POWER</b>	120 Vac, 60 Hz	<b>6dB BANDWIDTH</b>	9 kHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 60% RH, 985 hPa	<b>PHASE</b>	Line 2
<b>TESTED BY</b>	Felix Chen		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.166	0.13	51.01	-	51.14	-	65.18	55.18	-14.04	-
2	0.209	0.13	43.71	-	43.84	-	63.26	53.26	-19.42	-
3	0.240	0.13	38.14	-	38.27	-	62.10	52.10	-23.83	-
4	0.283	0.13	32.39	-	32.52	-	60.73	50.73	-28.21	-
5	0.373	0.14	31.32	-	31.46	-	58.44	48.44	-26.98	-
6	4.379	0.35	32.84	-	33.19	-	56.00	46.00	-22.81	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. 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)

CISPR 22: 1997 (section 6)

ICES-003: 2004 (Class A: section 5.4)  
(Class B: section 5.5)

Frequency (MHz)	Class A (at 10m)	Class B (at 10m)
	Quasi-peak (dBuV/m)	Quasi-peak (dBuV/m)
30-230	40	30
230-1000	47	37

**NOTE:** The limit for radiated test was performed according to CISPR 22:1997, which was specified in FCC PART 15B 15.109(g). Also the limits of CISPR 22:1997 is same.

Frequency (MHz)	Class A (at 3m)		Class B (at 3m)	
	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)
Above 1000	80	60	74	54

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
  2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
  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.

### 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 40 GHz, whichever is lower

## 4.2.2 TEST INSTRUMENTS

### Frequency range 30MHz~1GHz

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S Receiver	ESCI	100612	Jul. 21, 2010	Jul. 20, 2011
CHASE BILOG Antenna	CBL6112B	2640	Apr. 27, 2010	Apr. 26, 2011
ADT Turn Table	TT100	0204	NA	NA
ADT Tower	AT100	0204	NA	NA
Software	ADT_Radiated_V7.6.15.9.2	NA	NA	NA
ADT RF Switches BOX	EM-H-01-1	1005	Jul. 07, 2010	Jul. 06, 2011
WOKEN RF cable	8D	CABLE-ST1-01	Jul. 07, 2010	Jul. 06, 2011

- 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 Open Site No. 1.  
 3. The VCCI Site Registration No. R-236.  
 4. The FCC Site Registration No. 90423.

## Frequency range above 1GHz

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 15, 2010	Dec. 14, 2011
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	100115	Aug. 02, 2010	Aug. 01, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Apr. 29, 2010	Apr. 28, 2011
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-404	Dec. 28, 2010	Dec. 27, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170242	Jan. 04, 2011	Jan. 03, 2012
Preamplifier Agilent	8447D	2944A10629	Nov. 02, 2010	Nov. 01, 2011
Preamplifier Agilent	8449B	3008A01959	Nov. 03, 2010	Nov. 02, 2011
RF signal cable HUBER+SUHNER	SUCOFLEX 104	23636/6	Aug. 21, 2010	Aug. 20, 2011
RF signal cable HUBER+SUHNER	SUCOFLEX 104	283402/4	Aug. 21, 2010	Aug. 20, 2011
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA	NA
Turn Table ADT.	TT100.	TT93021702	NA	NA
Controller ADT.	SC100.	SC93021702	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 2.
  3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
  4. The FCC Site Registration No. is 686814.
  5. The IC Site Registration No. is IC 7450F-2.
  6. The VCCI Site Registration No. is G-18.



### 4.2.3 TEST PROCEDURES

The basic test procedure was in accordance with ANSI C63.4: 2003 (section 8) and CISPR 22 (section 10).

#### Frequency range 30MHz~1GHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. 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 height of antenna is varied from 1 meter to 4 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:** The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-Peak (QP) detection at frequency below 1 GHz.

### Frequency range above 1GHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic 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 1 meter to 4 meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to 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 test-receiver 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:

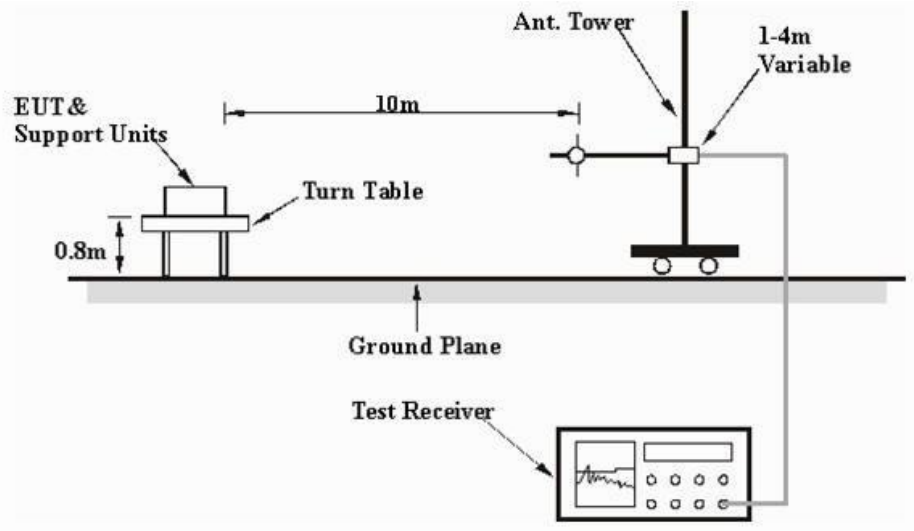
1. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3 MHz for Peak (PK) detection at frequency above 1 GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz for Average (AV) detection at frequency above 1 GHz.
2. For measurement of frequency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

### 4.2.4 DEVIATION FROM TEST STANDARD

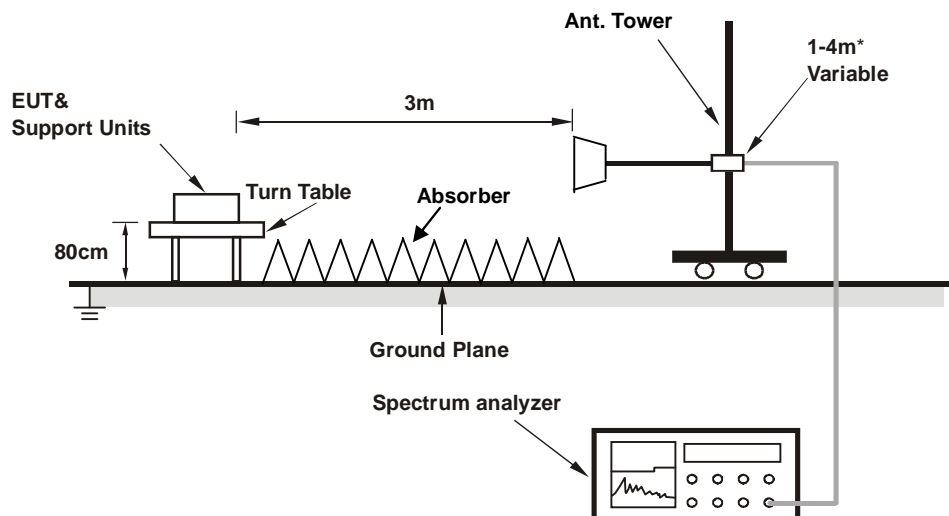
No deviation.

## 4.2.5 TEST SETUP

### Frequency range 30MHz~1GHz



### Frequency range above 1GHz



\* : depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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

## 4.2.6 EUT OPERATING CONDITIONS

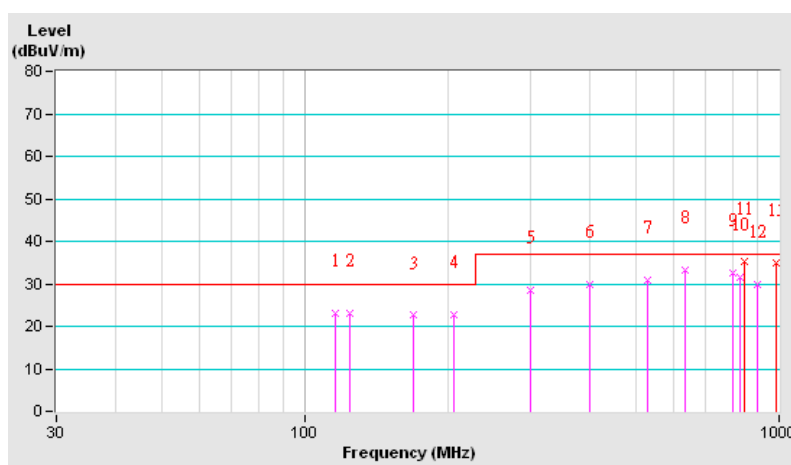
Same as 4.1.6.

### 4.2.7 TEST RESULTS

<b>INPUT POWER</b>	120 Vac, 60 Hz	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak , 120 kHz	<b>ENVIRONMENTAL CONDITIONS</b>	21 deg. C, 77% RH, 985 hPa
<b>TESTED BY</b>	Time Mie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 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	116.15	23.14 QP	30.00	-6.86	4.00 H	78	8.67	14.47
2	124.93	23.18 QP	30.00	-6.82	4.00 H	76	8.17	15.01
3	169.15	22.58 QP	30.00	-7.42	4.00 H	19	10.18	12.40
4	206.74	22.69 QP	30.00	-7.31	4.00 H	19	9.54	13.15
5	300.20	28.57 QP	37.00	-8.43	4.00 H	0	11.81	16.76
6	399.98	29.75 QP	37.00	-7.25	2.03 H	12	9.30	20.45
7	529.91	30.83 QP	37.00	-6.17	1.66 H	19	7.55	23.28
8	635.90	33.21 QP	37.00	-3.79	1.58 H	0	8.54	24.67
9	799.98	32.69 QP	37.00	-4.31	1.49 H	120	5.69	27.00
10	824.98	31.68 QP	37.00	-5.32	1.23 H	333	4.47	27.21
11	847.86	35.25 QP	37.00	-1.75	1.21 H	28	7.85	27.40
12	899.98	29.98 QP	37.00	-7.02	1.23 H	153	2.07	27.91
13	989.17	35.03 QP	37.00	-1.97	1.00 H	40	6.09	28.94

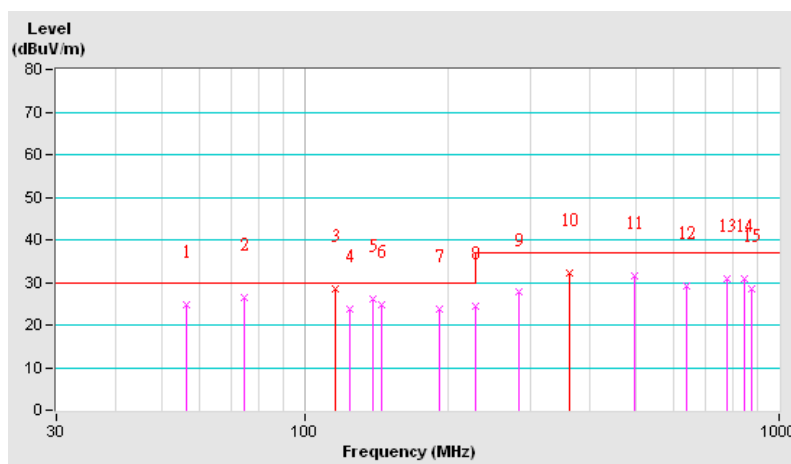
- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



<b>INPUT POWER</b>	120 Vac, 60 Hz	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak , 120 kHz	<b>ENVIRONMENTAL CONDITIONS</b>	21 deg. C, 77% RH, 985 hPa
<b>TESTED BY</b>	Time Mie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 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	56.54	24.90 QP	30.00	-5.10	1.56 V	19	16.09	8.81
2	74.81	26.56 QP	30.00	-3.44	1.46 V	328	17.76	8.80
<b>3</b>	<b>115.94</b>	<b>28.55 QP</b>	<b>30.00</b>	<b>-1.45</b>	<b>1.00 V</b>	<b>345</b>	<b>14.11</b>	<b>14.44</b>
4	125.00	23.82 QP	30.00	-6.18	1.00 V	121	8.81	15.01
5	139.30	26.13 QP	30.00	-3.87	1.00 V	282	11.09	15.04
6	145.30	24.85 QP	30.00	-5.15	1.00 V	278	10.97	13.88
7	191.80	23.81 QP	30.00	-6.19	1.00 V	177	11.17	12.64
8	229.14	24.33 QP	30.00	-5.67	1.00 V	61	9.88	14.45
9	282.62	27.65 QP	37.00	-9.35	1.00 V	0	11.32	16.33
10	361.95	32.20 QP	37.00	-4.80	1.00 V	26	13.19	19.01
11	494.59	31.52 QP	37.00	-5.48	3.06 V	110	8.93	22.59
12	636.40	29.12 QP	37.00	-7.88	2.51 V	20	4.45	24.67
13	777.21	30.81 QP	37.00	-6.19	2.09 V	20	4.29	26.52
14	847.86	30.83 QP	37.00	-6.17	2.11 V	0	3.43	27.40
15	875.00	28.55 QP	37.00	-8.45	2.29 V	20	0.88	27.67

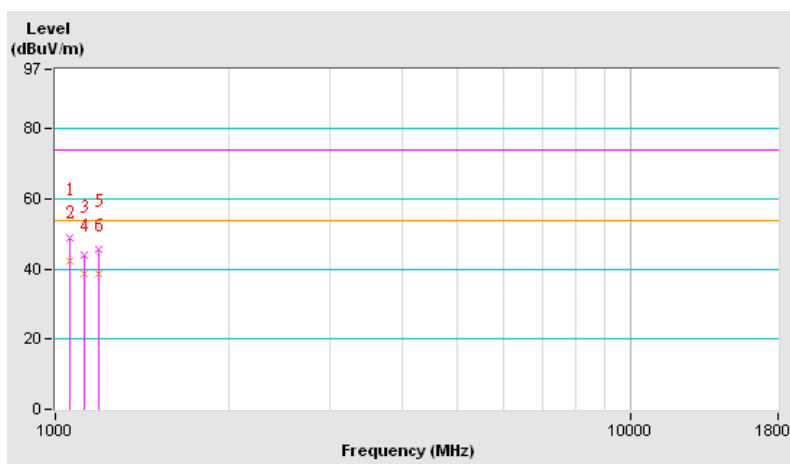
- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



<b>INPUT POWER</b>	120 Vac, 60 Hz	<b>FREQUENCY RANGE</b>	1-18 GHz
<b>ENVIRONMENTAL CONDITIONS</b>	22 deg. C, 66% RH, 985 hPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak/Average, 1 MHz
<b>TESTED BY</b>	Whisky Chang		

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	1059.50	48.78 PK	74.00	-25.22	1.00 H	360	20.84	27.93
2	1059.50	42.47 AV	54.00	-11.53	1.00 H	360	14.53	27.93
3	1120.89	44.10 PK	74.00	-29.90	1.00 H	24	16.00	28.10
4	1120.89	38.43 AV	54.00	-15.57	1.00 H	24	10.33	28.10
5	1192.50	45.59 PK	74.00	-28.41	1.00 H	354	17.26	28.33
6	1192.50	38.59 AV	54.00	-15.41	1.00 H	354	10.26	28.33

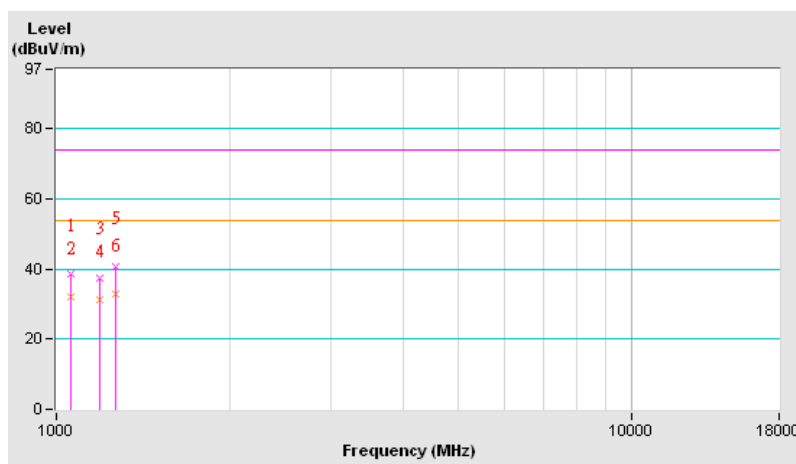
- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



<b>INPUT POWER</b>	120 Vac, 60 Hz	<b>FREQUENCY RANGE</b>	1-18 GHz
<b>ENVIRONMENTAL CONDITIONS</b>	22 deg. C, 66% RH, 985 hPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak/Average, 1 MHz
<b>TESTED BY</b>	Whisky Chang		

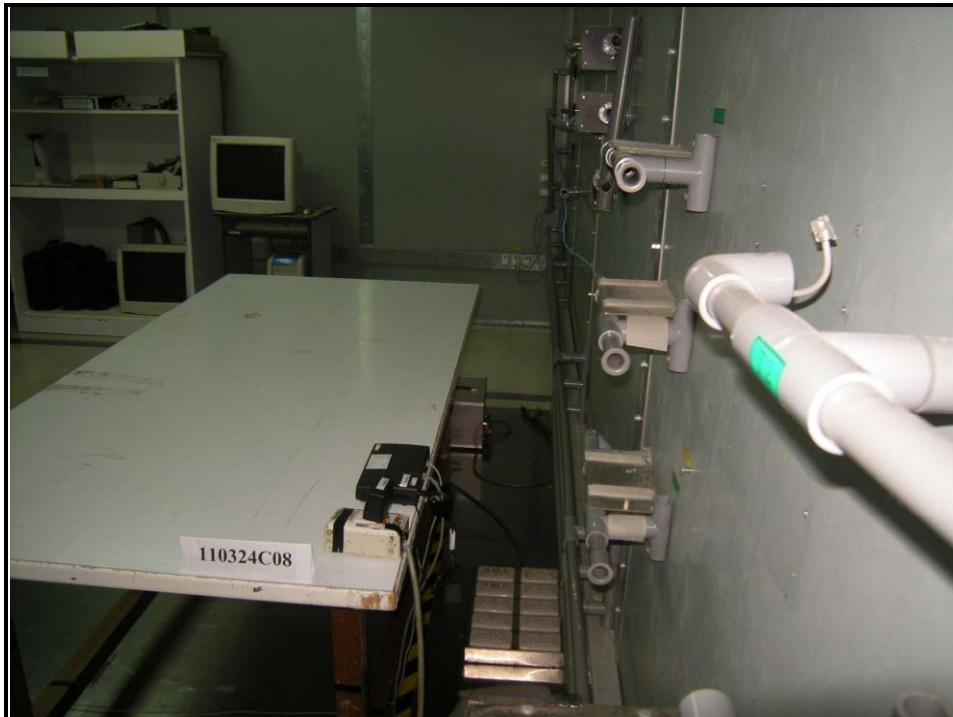
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1060.62	38.73 PK	74.00	-35.27	1.00 V	346	10.79	27.94
2	1060.62	31.93 AV	54.00	-22.07	1.00 V	346	3.99	27.94
3	1192.65	37.61 PK	74.00	-36.39	1.00 V	359	9.28	28.33
4	1192.65	31.11 AV	54.00	-22.89	1.00 V	359	2.78	28.33
5	1264.98	40.51 PK	74.00	-33.49	1.00 V	12	11.98	28.53
6	1264.98	32.76 AV	54.00	-21.24	1.00 V	12	4.23	28.53

- 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.



## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

### Conducted Emission Test

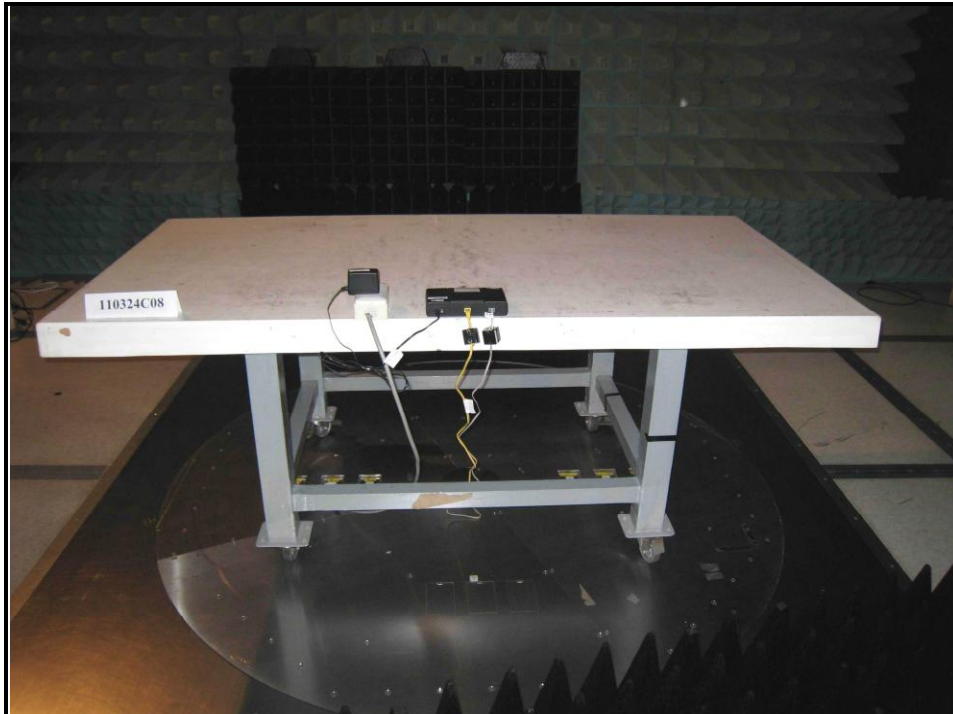
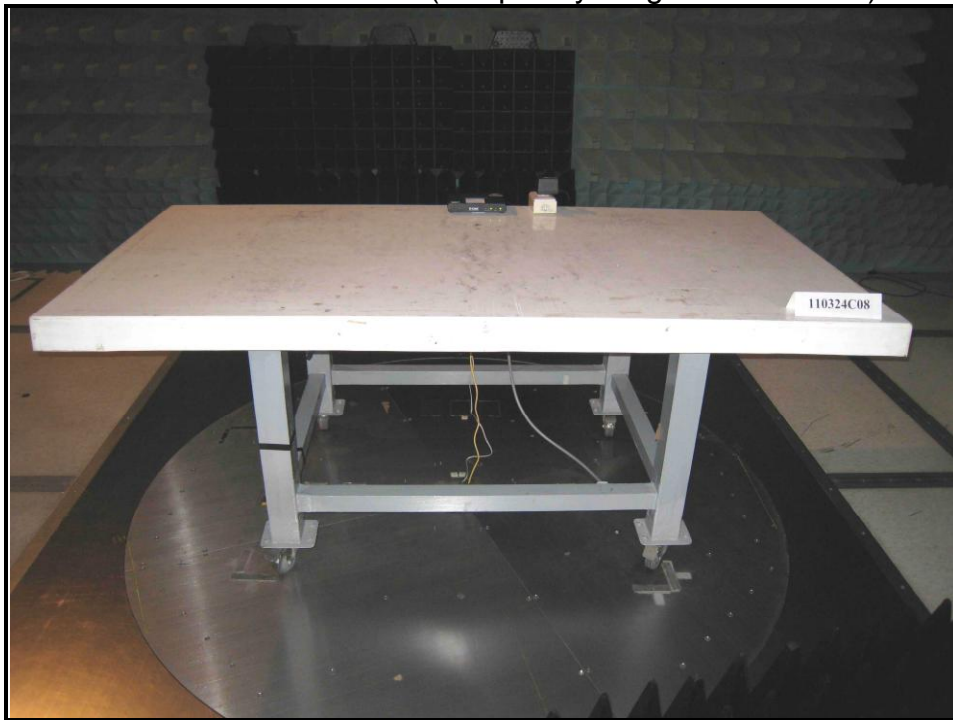




### Radiated Emission Test (Frequency range 30MHz~1GHz)



### Radiated Emission Test (Frequency range above 1GHz)





## 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.

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: [www.adt.com.tw/index.5.phtml](http://www.adt.com.tw/index.5.phtml). 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 Lab**

Tel: 886-3-5935343

Fax: 886-3-5935342

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

Tel: 886-3-3183232

Fax: 886-3-3185050

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

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

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



A D T

## **7 APPENDIX A – MODIFICATION 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 ---**