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# FCC DoC TEST REPORT

**REPORT NO. :** FD990716C01

**MODEL NO. :** MRLBB-1001, MRLBB-1002

**RECEIVED :** July 16, 2010

**TESTED :** Aug. 31 to Oct. 14, 2010

**ISSUED :** Oct. 15, 2010

**APPLICANT :** Wistron NeWeb Corp.

**ADDRESS :** 20 Park Avenue II, Hsinchu Science Park,  
Hsinchu 308, Taiwan, R.O.C.

**ISSUED BY :** Bureau Veritas Consumer Products Services  
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## 1 CERTIFICATION

**PRODUCT :** E-MSM430 Access Point, E-MSM460 Access Point,  
E-MSM466 Access Point  
**BRAND:** HP  
**MODEL NO. :** MRLBB-1001, MRLBB-1002  
**TESTED :** Aug. 31 to Oct. 14, 2010  
**TEST SAMPLE :** ENGINEERING SAMPLE  
**APPLICANT :** Wistron NeWeb Corp.  
**STANDARDS :** 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: MRLBB-1001, MRLBB-1002) have 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 :** Sunny Wen , **DATE:** Oct. 15, 2010  
( Sunny Wen, Specialist )

**TECHNICAL ACCEPTANCE :** Ray Yeh , **DATE:** Oct. 15, 2010  
( Ray Yeh, Deputy Manager )

**APPROVED BY :** May Chen , **DATE:** Oct. 15, 2010  
( May Chen, Deputy Manager )

## 2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Remarks
FCC Part 15 Subpart B, Class B	Conducted Test	<b>NA</b>	Not Applicable
CISPR 22: 1997, Class B  ICES-003: Class B	Radiated Test	<b>PASS</b>	Meets Class B Limit Minimum passing margin is -3.23 dB at 54.78 MHz

### NOTE:

The limit for radiated test was performed according to CISPR 22, which was specified in FCC PART 15 Subpart B 15.109(g). Also the limits of ICES-003: 2004 and CISPR 22 are 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:

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

Measurement	Value
Conducted emissions	2.45 dB
Radiated emissions (30MHz-1GHz)	3.21 dB
Radiated emissions (1GHz-18GHz)	2.19 dB
Radiated emissions (18GHz-40GHz)	2.56 dB



### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	E-MSM430 Access Point, E-MSM460 Access Point, E-MSM466 Access Point
<b>MODEL NO.</b>	MRLBB-1001, MRLBB-1002
<b>POWER SUPPLY</b>	DC 48V from POE
<b>POWER CORD</b>	NA
<b>DATA CABLE SUPPLIED</b>	NA
<b>ASSOCIATED DEVICES</b>	NA

**Note:**

1. The EUT has three product names and two model names as the following table:

Brand	Product Name	Model No.	Difference
HP	E-MSM430 Access Point	MRLBB-1001	With internal PIFA antenna
	E-MSM460 Access Point	MRLBB-1001	Base on E-MSM430 Access Point, and for marketing requirement
	E-MSM466 Access Point	MRLBB-1002	With internal PIFA antenna & external antenna

2. There is one internal PIFA antenna provided to the EUT (Model No.: MRLBB-1001, MRLBB-1002), and four external antennas provided to the EUT (Model No.: MRLBB-1002), please refer to the following table:

No.	Brand	Model No.	Antenna Type	Gain (dBi)		Antenna Connector
				2.4GHz	5GHz	
1	WNC	5184-6684	PIFA	5.41	7.02	U.FL
2	Laird	J9169A	Directional	8	10.7	Reverse SMA
3		J9170A	Directional	10.9	13.5	Reverse SMA
4		J9171A	Omni	3	4	Reverse SMA
5		J9659	Omni	2	2	Reverse SMA

3. The EUT must be supplied with a POE as following table: (test only not sale together)

Brand	Model No.	Spec.
PowerDsine	3001GC	AC Input: 100-250V, 50/60Hz, 0.5A DC Output: 48V, 0.35A

4. The EUT was pre-tested under the following modes:

Pre-test Mode	Description
Mode A	LAN: 10Mbps + wireless
Mode B	LAN: 100Mbps + wireless
<b>Mode C</b>	<b>LAN: 1000Mbps + wireless</b>

From the above modes, the worst radiated emission was found in **Mode C**. Therefore the test data of the mode were recorded in this report.

5. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

### 3.2 GENERAL DESCRIPTION OF TEST MODE

The EUT was tested under the following test modes, and its data were recorded in this report:

Test Mode	Model No.	Description
Mode 1	MRLBB-1001	LAN: 1000Mbps + wireless with antenna 1
Mode 2	MRLBB-1002	LAN: 1000Mbps + wireless with antenna 1
Mode 3	MRLBB-1002	LAN: 1000Mbps + wireless with antenna 2
Mode 4	MRLBB-1002	LAN: 1000Mbps + wireless with antenna 3
Mode 5	MRLBB-1002	LAN: 1000Mbps + wireless with antenna 4
Mode 6	MRLBB-1002	LAN: 1000Mbps + wireless with antenna 5



### 3.3 DESCRIPTION OF SUPPORT UNITS

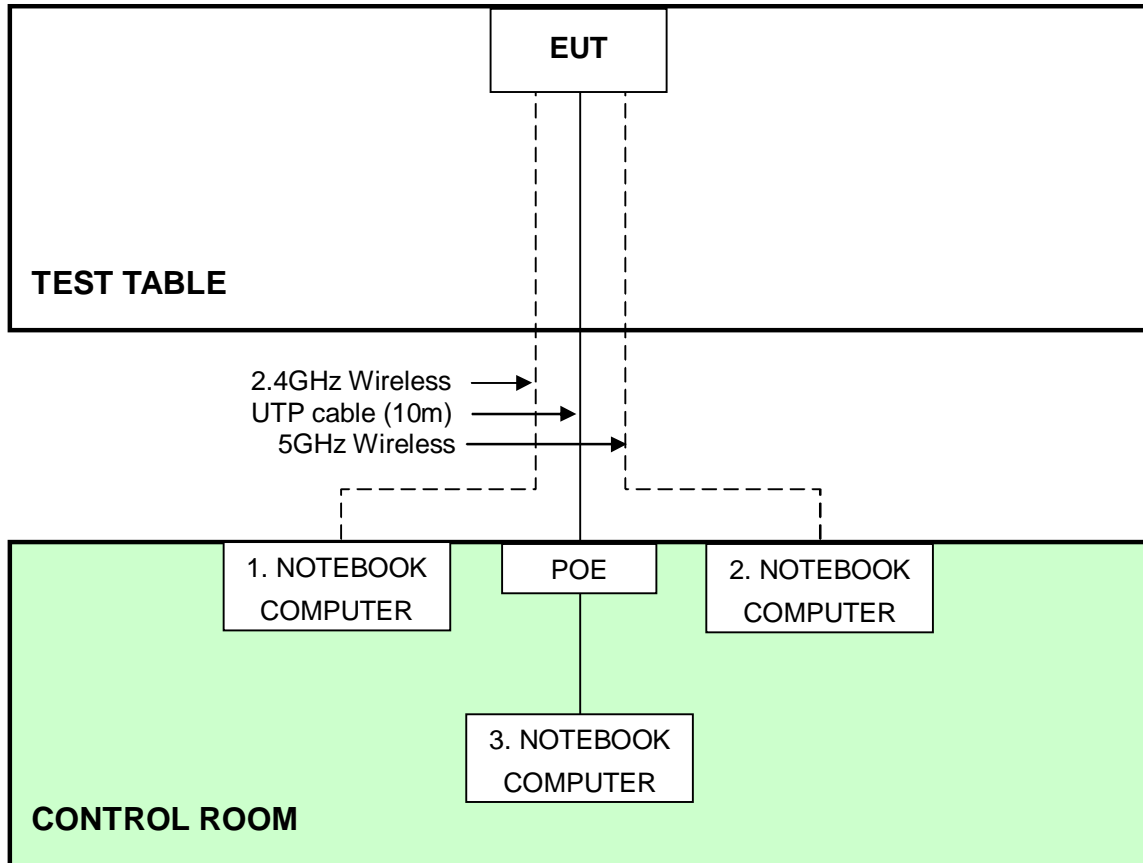
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP32LA	HSLB32S	FCC DoC
2	NOTEBOOK COMPUTER	DELL	PP27L	6YLB32S	FCC DoC
3	NOTEBOOK COMPUTER	DELL	PP27L	7YLB32S	FCC DoC

No.	Signal cable description
1	NA
2	NA
3	3.0 m UTP cable.

Note: 1. All power cords of the above support units are unshielded (1.8m).

### 3.4 CONFIGURATION OF SYSTEM UNDER TEST







## 4 EMISSION TEST

### 4.1 RADIATED EMISSION MEASUREMENT

#### 4.1.1 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)

FOR FREQUENCY BELOW 1000 MHz (47 CFR Part 15 Subpart B)

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

#### LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80.0	60.0	74.0	54.0

**Note:**

- (1) The lower limit shall apply at the transition frequencies.
- (2) Emission level (dBuV/m) = 20 log Emission level (uV/m).
- (3) All emanation 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 Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower



## 4.1.2 TEST INSTRUMENTS

**For below 1GHz test, Tested Date: Aug. 31 to Sep. 07**

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4443A	MY48250349	July 29, 2010	July 28, 2011
	E4443A	MY49420002	Oct. 31, 2009	Oct. 30, 2010
Agilent Pre-Selector	N9039A	MY46520331	Nov. 20, 2009	Nov. 19, 2010
	N9039A	MY46520309	July 29, 2010	July 28, 2011
Agilent Signal Generator	N5181A	MY49060520	Aug. 12, 2010	Aug. 11, 2011
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-01	Nov. 18, 2009	Nov. 17, 2010
	ZFL-1000VH2B	AMP-ZFL-02	Nov. 18, 2009	Nov. 17, 2010
Mini-Circuits Pre_Amplifier (1~18GHz)	ZVA-183-S+	AMP-ZVA-01	Nov. 18, 2009	Nov. 17, 2010
SPACEK LABS (15~40GHz)	SLKKa-48-6	9K16	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-359	Sep. 30, 2009	Sep. 29, 2010
	VULB 9168	9168-358	Sep. 30, 2009	Sep. 29, 2010
SCHWARZBECK Horn Antenna	BBHA 9170	9170-424	Sep. 30, 2009	Sep. 29, 2010
	BBHA 9120	9120D-783	Sep. 30, 2009	Sep. 29, 2010
RF CABLE	NA	RF104-202 RF104-206 RF104-209	Dec. 24, 2009	Dec. 23, 2010
Software	ADT_Radiated_ V8.7.05	NA	NA	NA
CT Antenna Tower & Turn Table	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 test was performed in 10m Chamber No. F.  
 3. The FCC Site Registration No. is 928149.  
 4. The VCCI Site Registration No. is R-3252 & G-136.  
 5. The CANADA Site Registration No. is IC 7450H-1.



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**For above 1GHz, Tested Date: Oct. 14**

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Agilent Spectrum Analyzer	E4443A	MY48250349	July 29, 2010	July 28, 2011
	E4443A	MY49420002	Oct. 31, 2009	Oct. 30, 2010
Agilent Pre-Selector	N9039A	MY46520331	Nov. 20, 2009	Nov. 19, 2010
	N9039A	MY46520309	July 29, 2010	July 28, 2011
Agilent Signal Generator	N5181A	MY49060520	Aug. 12, 2010	Aug. 11, 2011
Mini-Circuits Pre-Amplifier	ZFL-1000VH2B	AMP-ZFL-01	Nov. 18, 2009	Nov. 17, 2010
	ZFL-1000VH2B	AMP-ZFL-02	Nov. 18, 2009	Nov. 17, 2010
Mini-Circuits Pre_Amplifier (1~18GHz)	ZVA-183-S+	AMP-ZVA-01	Nov. 18, 2009	Nov. 17, 2010
SPACEK LABS (15~40GHz)	SLKKa-48-6	9K16	NA	NA
SCHWARZBECK Trilog Broadband Antenna	VULB 9168	9168-359	Oct. 10, 2010	Oct. 09, 2011
	VULB 9168	9168-358	Oct. 10, 2010	Oct. 09, 2011
SCHWARZBECK Horn Antenna	BBHA 9170	9170-424	Oct. 08, 2010	Oct. 07, 2011
	BBHA 9120	9120D-783	Oct. 08, 2010	Oct. 07, 2011
RF CABLE	NA	RF104-202 RF104-206 RF104-209	Dec. 24, 2009	Dec. 23, 2010
Software	ADT_Radiated_V8.7.05	NA	NA	NA
CT Antenna Tower & Turn Table	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 test was performed in 10m Chamber No. F.

3. The FCC Site Registration No. is 928149.

4. The VCCI Site Registration No. is R-3252 & G-136.

5. The CANADA Site Registration No. is IC 7450H-1.



### 4.1.3 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10-meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 10 meters (3 meters – above 1GHz) 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.
- f. 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. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

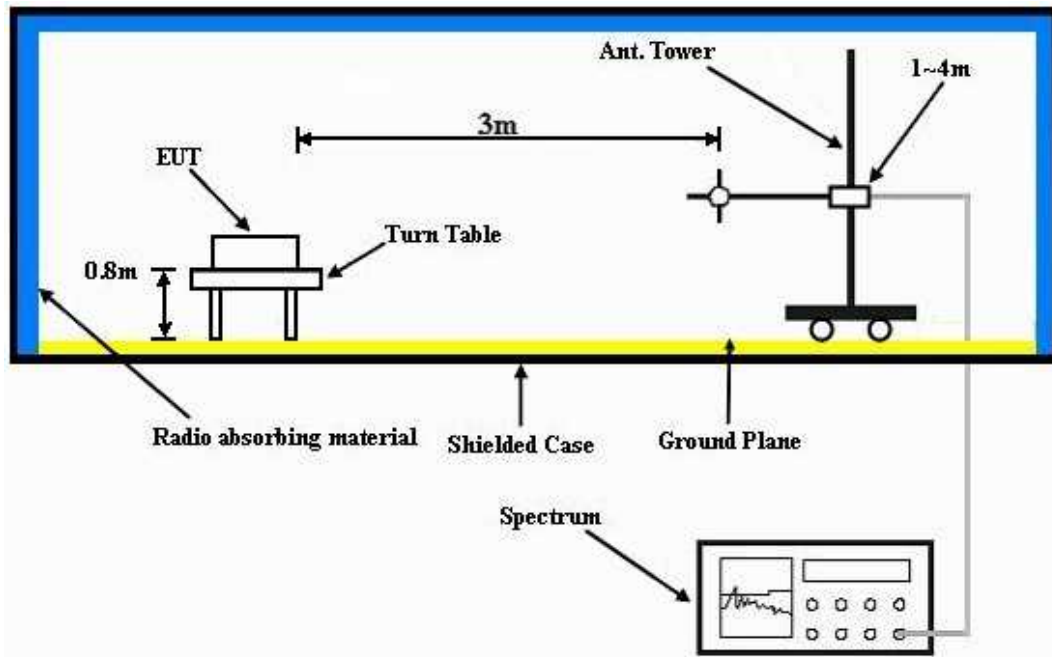
**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz 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 antenna.

### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.5 TEST SETUP



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

#### 4.1.6 EUT OPERATING CONDITIONS

1. Placed the EUT on testing table.
2. Prepared other computer systems (support units 1 ~ 3) to act as communication partners and placed them outside of testing area.
3. The communication partners ran test program “Ping.exe” to enable EUT under transmission/receiving condition continuously via one UTP cable and wireless transmission.



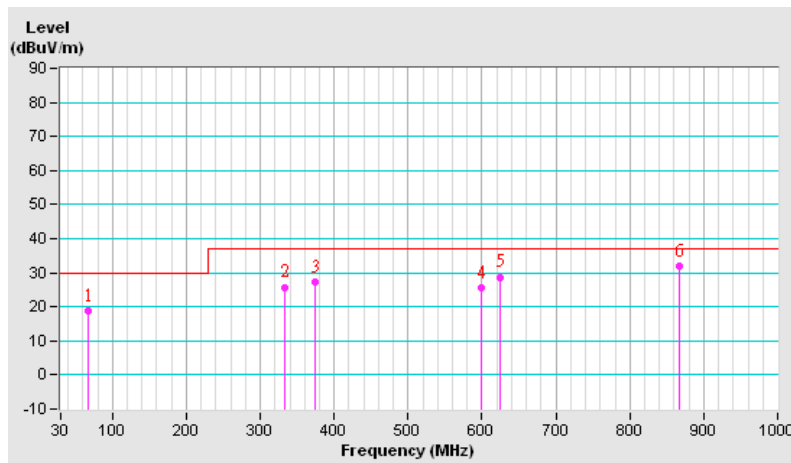
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### 4.1.7 TEST RESULTS (MODE 1)

<b>TEST MODE</b>	Mode 1	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

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	66.71	18.63 QP	30.00	-11.37	4.00 H	308	5.93	12.70
2	333.28	25.79 QP	37.00	-11.21	3.50 H	121	9.57	16.22
3	374.97	27.13 QP	37.00	-9.87	3.00 H	106	9.60	17.53
4	599.97	25.44 QP	37.00	-11.56	2.00 H	38	2.71	22.73
5	624.96	28.77 QP	37.00	-8.23	2.00 H	74	5.82	22.95
6	866.66	31.81 QP	37.00	-5.19	1.00 H	64	5.67	26.14

- 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.





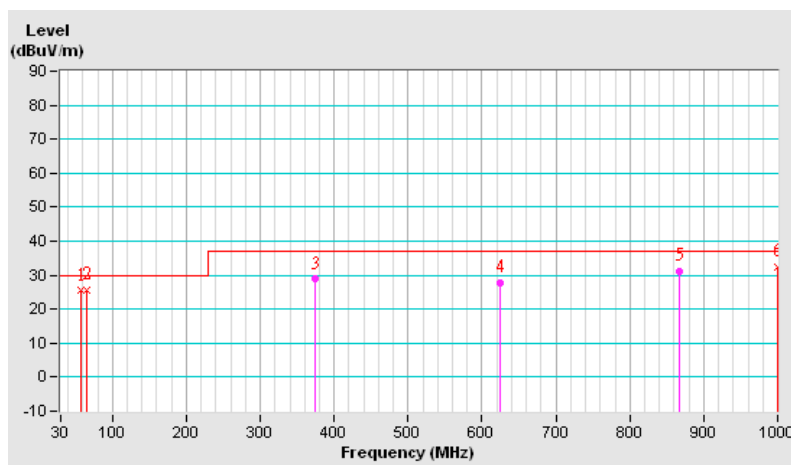
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<b>TEST MODE</b>	Mode 1	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

**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	56.49	25.43 QP	30.00	-4.57	1.51 V	145	11.77	13.66
2	66.02	25.57 QP	30.00	-4.43	1.00 V	8	12.82	12.75
3	374.97	28.78 QP	37.00	-8.22	1.00 V	358	11.00	17.78
4	624.96	27.61 QP	37.00	-9.39	3.00 V	2	4.38	23.23
5	866.66	31.30 QP	37.00	-5.70	2.00 V	335	4.65	26.65
6	1000.00	32.40 QP	37.00	-4.60	1.83 V	243	3.99	28.41

- 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.



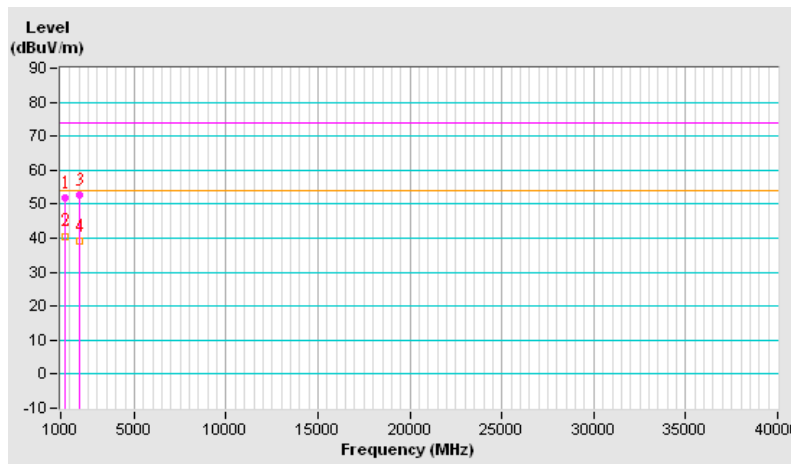


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<b>TEST MODE</b>	Mode 1	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	1250.00	51.69 PK	74.00	-22.31	1.00 H	83	22.40	29.29
2	1250.00	40.58 AV	54.00	-13.42	1.00 H	83	11.29	29.29
3	2000.00	52.53 PK	74.00	-21.47	1.07 H	304	20.63	31.90
4	2000.00	38.99 AV	54.00	-15.01	1.07 H	304	7.09	31.90

- 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.





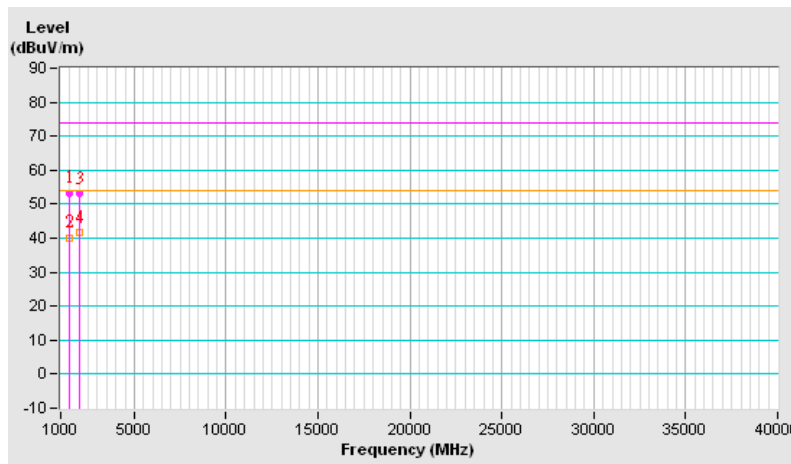


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<b>TEST MODE</b>	Mode 1	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
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	1500.00	53.28 PK	74.00	-20.72	1.00 V	257	23.22	30.06
2	1500.00	39.91 AV	54.00	-14.09	1.00 V	257	9.85	30.06
3	2000.00	52.97 PK	74.00	-21.03	1.13 V	205	21.07	31.90
4	2000.00	41.56 AV	54.00	-12.44	1.13 V	205	9.66	31.90

- 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.





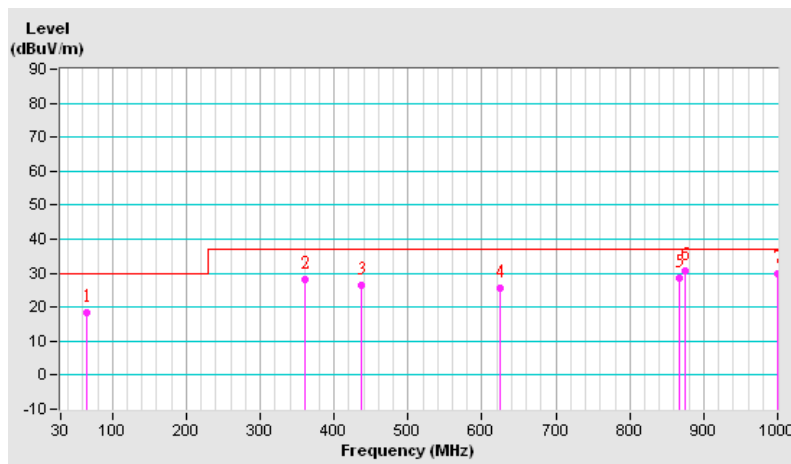
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### 4.1.8 TEST RESULTS (MODE 2)

<b>TEST MODE</b>	Mode 2	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

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	65.88	18.55 QP	30.00	-11.45	4.00 H	95	5.75	12.80
2	361.11	28.05 QP	37.00	-8.95	3.50 H	133	10.94	17.11
3	437.02	26.39 QP	37.00	-10.61	2.00 H	129	7.34	19.05
4	624.96	25.69 QP	37.00	-11.31	1.50 H	294	2.74	22.95
5	866.66	28.59 QP	37.00	-8.41	1.00 H	339	2.45	26.14
6	875.06	30.58 QP	37.00	-6.42	1.00 H	339	4.33	26.25
7	1000.00	29.93 QP	37.00	-7.07	1.00 H	82	1.94	27.99

- 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.





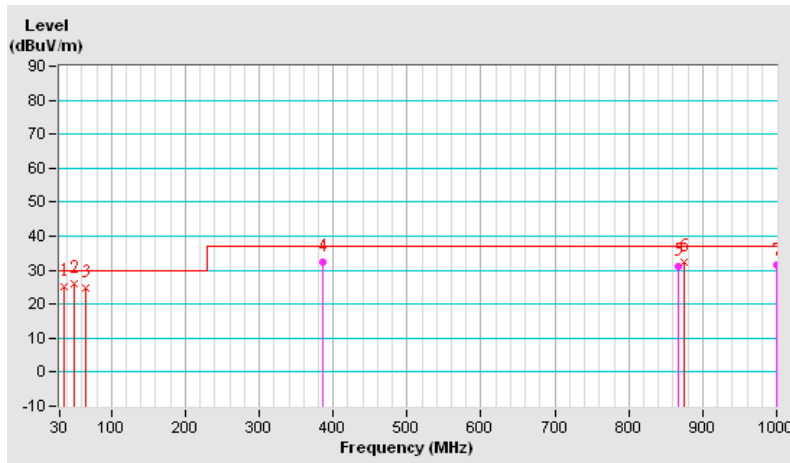
A D T

<b>TEST MODE</b>	Mode 2	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

**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	35.91	25.29 QP	30.00	-4.71	4.00 V	348	11.75	13.54
2	49.83	25.97 QP	30.00	-4.03	1.00 V	207	11.67	14.30
3	64.63	24.74 QP	30.00	-5.26	2.34 V	57	11.86	12.88
4	385.50	32.45 QP	37.00	-4.55	1.50 V	348	14.34	18.11
5	866.66	31.04 QP	37.00	-5.96	2.00 V	157	4.39	26.65
6	875.02	32.53 QP	37.00	-4.47	1.90 V	147	5.76	26.77
7	1000.00	31.39 QP	37.00	-5.61	1.50 V	104	2.98	28.41

- 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.



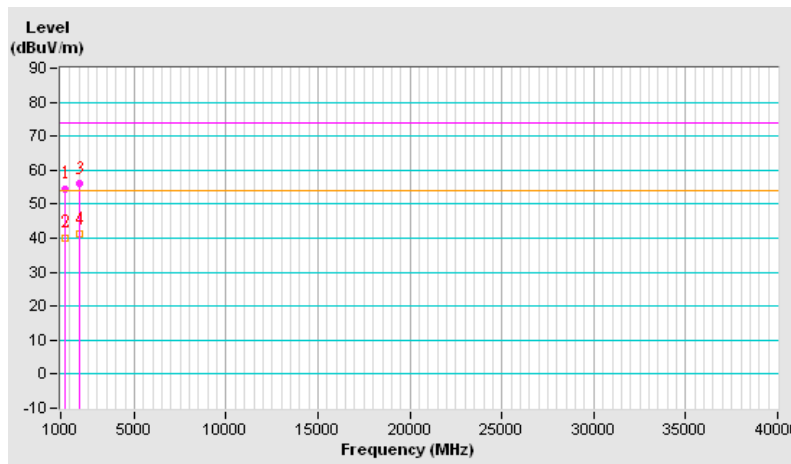


A D T

<b>TEST MODE</b>	Mode 2	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	1250.00	54.52 PK	74.00	-19.48	1.00 H	84	25.23	29.29
2	1250.00	39.96 AV	54.00	-14.04	1.00 H	84	10.67	29.29
3	2000.00	55.92 PK	74.00	-18.08	1.11 H	273	24.02	31.90
4	2000.00	41.11 AV	54.00	-12.89	1.11 H	273	9.21	31.90

- 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.





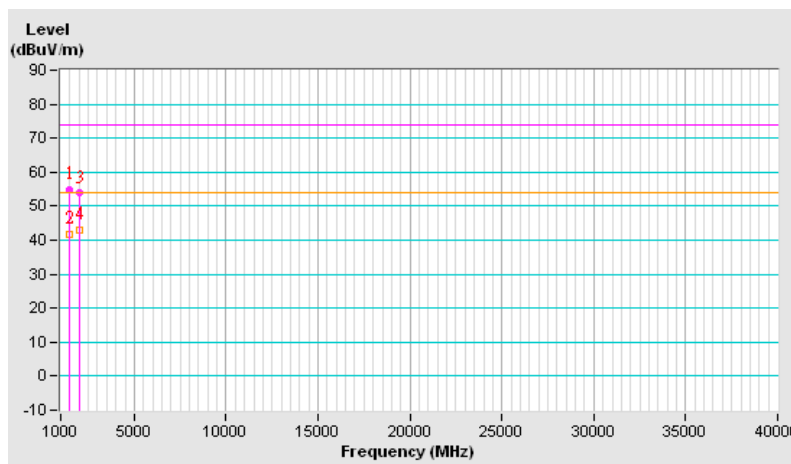
A D T

<b>TEST MODE</b>	Mode 2	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

**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	1500.00	54.99 PK	74.00	-19.01	1.00 V	256	24.93	30.06
2	1500.00	41.81 AV	54.00	-12.19	1.00 V	256	11.75	30.06
3	2000.00	53.83 PK	74.00	-20.17	1.05 V	189	21.93	31.90
4	2000.00	42.85 AV	54.00	-11.15	1.05 V	189	10.95	31.90

- 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.





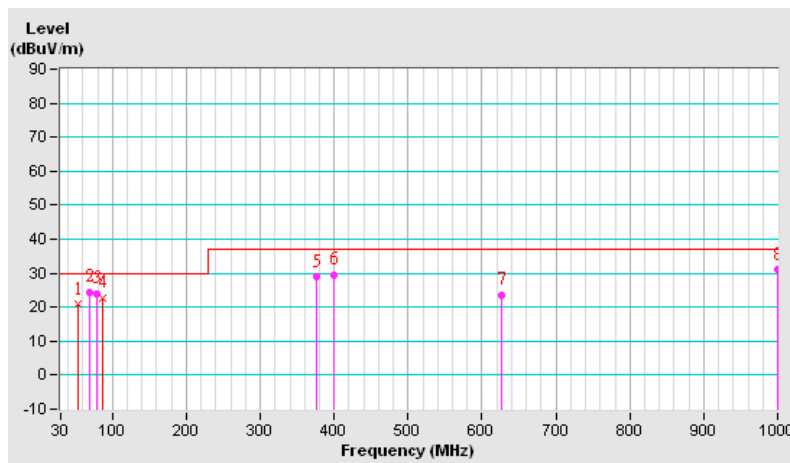
## 4.2 TEST RESULTS (MODE 3)

<b>TEST MODE</b>	Mode 3	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

### 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	54.02	20.74 QP	30.00	-9.26	4.00 H	14	6.82	13.92
2	68.37	24.43 QP	30.00	-5.57	2.50 H	297	11.94	12.49
3	79.03	23.91 QP	30.00	-6.09	4.00 H	101	13.62	10.29
4	87.46	22.55 QP	30.00	-7.45	4.00 H	34	13.28	9.27
5	375.32	28.78 QP	37.00	-8.22	3.00 H	140	11.24	17.54
6	399.95	29.49 QP	37.00	-7.51	2.00 H	135	11.20	18.29
7	625.55	23.59 QP	37.00	-13.41	1.50 H	34	0.64	22.95
8	1000.00	30.93 QP	37.00	-6.07	1.00 H	85	2.94	27.99

- 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.





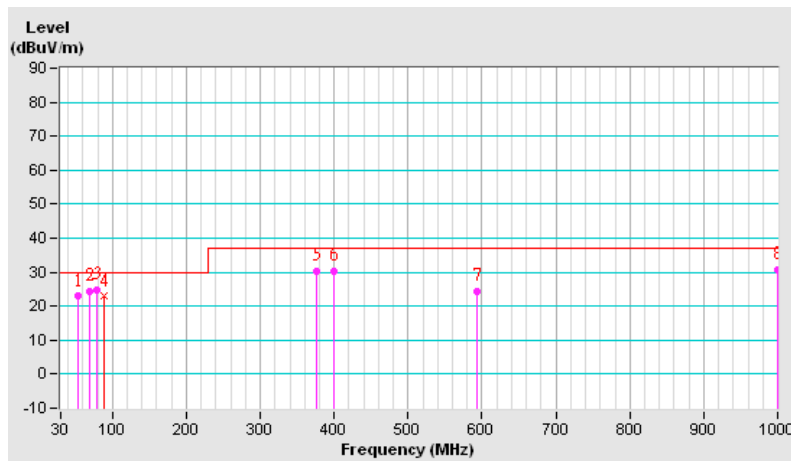
A D T

<b>TEST MODE</b>	Mode 3	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

**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	54.40	22.87 QP	30.00	-7.13	4.00 V	231	9.00	13.87
2	68.25	24.51 QP	30.00	-5.49	3.00 V	270	11.97	12.54
3	79.15	24.73 QP	30.00	-5.27	4.00 V	78	14.39	10.34
4	87.77	22.88 QP	30.00	-7.12	4.00 V	348	13.79	9.09
5	375.32	30.33 QP	37.00	-6.67	3.00 V	137	12.54	17.79
6	399.95	30.13 QP	37.00	-6.87	2.00 V	90	11.57	18.56
7	594.05	24.49 QP	37.00	-12.51	4.00 V	207	1.63	22.86
8	1000.00	30.73 QP	37.00	-6.27	2.50 V	34	2.32	28.41

- 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.



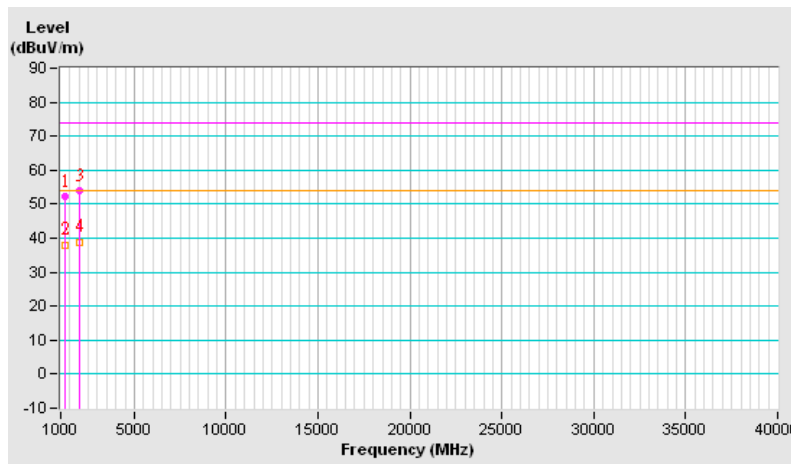


A D T

<b>TEST MODE</b>	Mode 3	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	1250.00	52.13 PK	74.00	-21.87	1.00 H	239	23.31	28.82
2	1250.00	37.85 AV	54.00	-16.15	1.00 H	239	9.03	28.82
3	2000.00	53.82 PK	74.00	-20.18	1.09 H	102	21.31	32.51
4	2000.00	38.75 AV	54.00	-15.25	1.09 H	102	6.24	32.51

- 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.





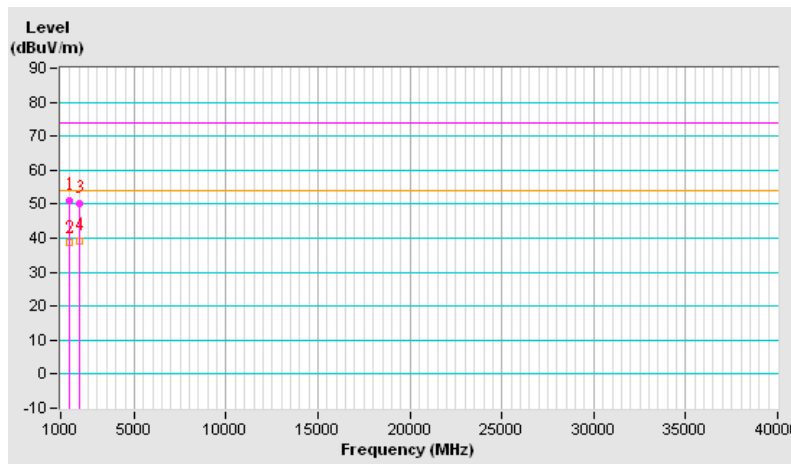


A D T

<b>TEST MODE</b>	Mode 3	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
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	1500.00	51.12 PK	74.00	-22.88	1.00 V	309	21.06	30.06
2	1500.00	38.56 AV	54.00	-15.44	1.00 V	309	8.50	30.06
3	2000.00	50.06 PK	74.00	-23.94	1.12 V	145	18.16	31.90
4	2000.00	39.23 AV	54.00	-14.77	1.12 V	145	7.33	31.90

- 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.





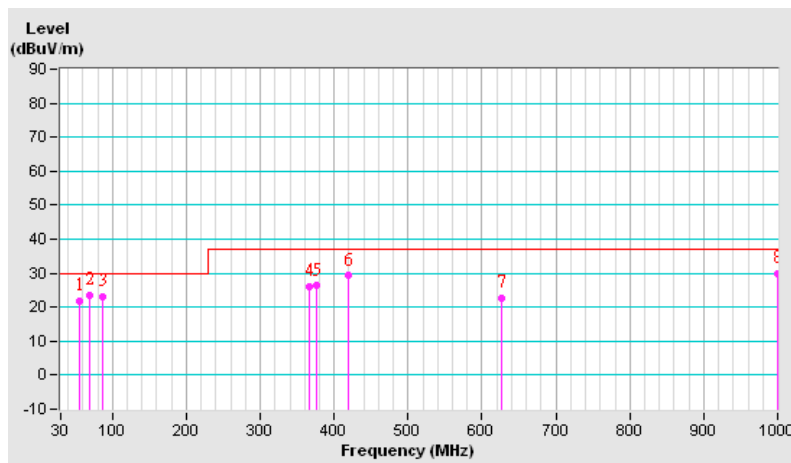
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### 4.2.1 TEST RESULTS (MODE 4)

<b>TEST MODE</b>	Mode 4	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

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	56.29	21.82 QP	30.00	-8.18	4.00 H	311	8.04	13.78
2	68.25	23.42 QP	30.00	-6.58	3.00 H	134	10.92	12.50
3	86.49	23.01 QP	30.00	-6.99	4.00 H	161	13.64	9.37
4	367.27	25.96 QP	37.00	-11.04	2.50 H	119	8.66	17.30
5	375.32	26.30 QP	37.00	-10.70	2.50 H	191	8.76	17.54
6	420.08	29.21 QP	37.00	-7.79	2.50 H	167	10.51	18.70
7	625.55	22.60 QP	37.00	-14.40	1.50 H	34	-0.35	22.95
8	1000.00	30.02 QP	37.00	-6.98	1.00 H	293	2.03	27.99

- 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.





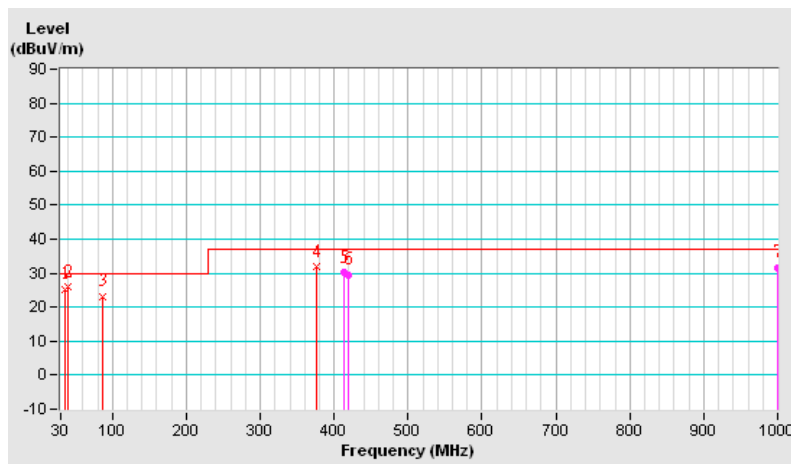
A D T

<b>TEST MODE</b>	Mode 4	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

**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	35.31	25.10 QP	30.00	-4.90	1.00 V	348	11.59	13.51
2	39.36	25.83 QP	30.00	-4.17	1.00 V	8	12.08	13.75
3	85.80	22.97 QP	30.00	-7.03	1.00 V	348	13.61	9.36
4	375.32	31.79 QP	37.00	-5.21	1.00 V	8	14.00	17.79
5	414.16	30.05 QP	37.00	-6.95	1.00 V	317	11.18	18.87
6	418.43	29.43 QP	37.00	-7.57	1.00 V	318	10.47	18.96
7	1000.00	31.54 QP	37.00	-5.46	3.50 V	155	3.13	28.41

- 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.



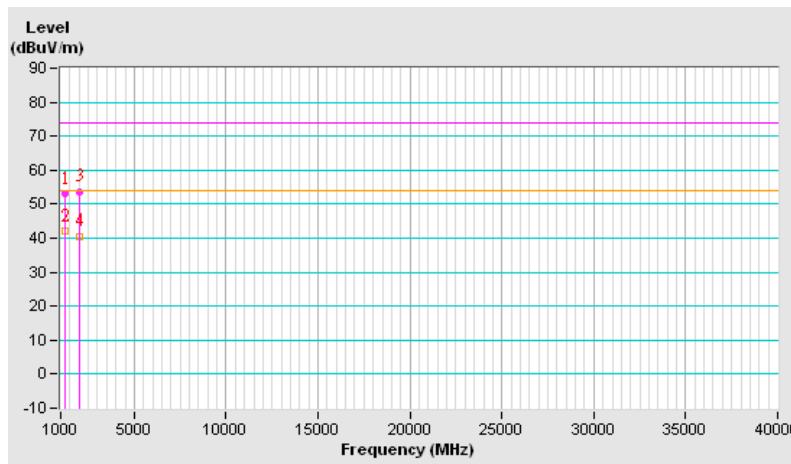


A D T

<b>TEST MODE</b>	Mode 4	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	1250.00	52.97 PK	74.00	-21.03	1.00 H	189	23.68	29.29
2	1250.00	41.91 AV	54.00	-12.09	1.00 H	189	12.62	29.29
3	2000.00	53.52 PK	74.00	-20.48	1.06 H	231	21.62	31.90
4	2000.00	40.54 AV	54.00	-13.46	1.06 H	231	8.64	31.90

- 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.



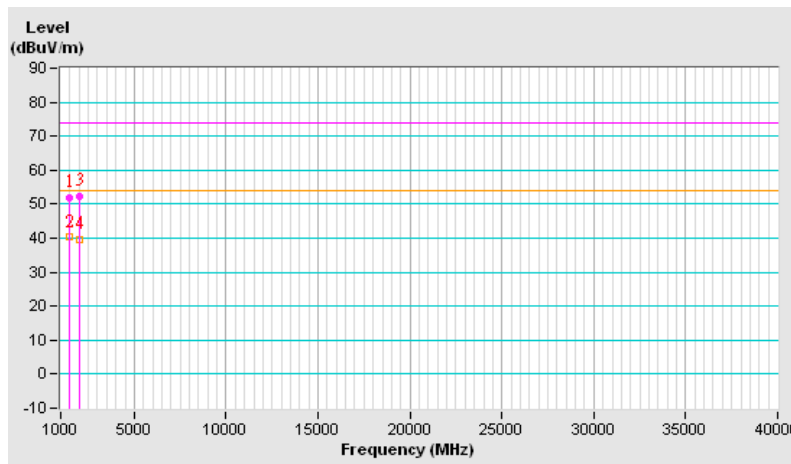


A D T

<b>TEST MODE</b>	Mode 4	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
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	1500.00	51.95 PK	74.00	-22.05	1.00 V	319	22.29	29.66
2	1500.00	40.28 AV	54.00	-13.72	1.00 V	319	10.62	29.66
3	2000.00	52.34 PK	74.00	-21.66	1.21 V	221	19.83	32.51
4	2000.00	39.66 AV	54.00	-14.34	1.21 V	221	7.15	32.51

- 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.





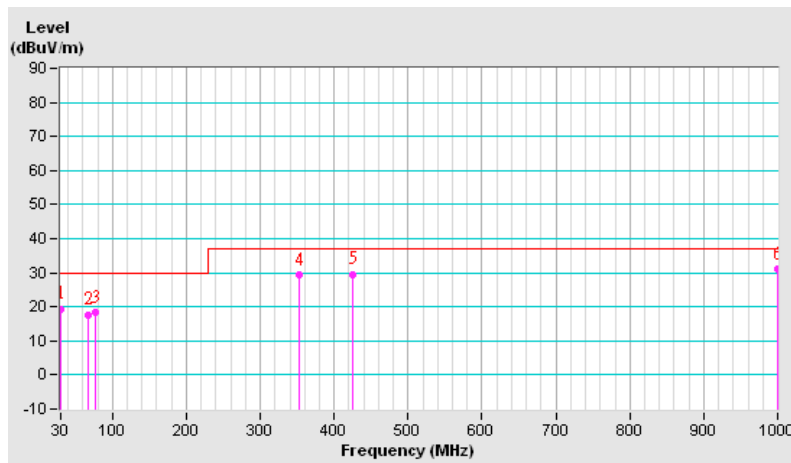
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### 4.2.2 TEST RESULTS (MODE 5)

<b>TEST MODE</b>	Mode 5	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

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	30.00	19.29 QP	30.00	-10.71	3.50 H	160	6.37	12.92
2	66.95	17.61 QP	30.00	-12.39	3.50 H	330	4.94	12.67
3	76.54	18.25 QP	30.00	-11.75	3.50 H	91	7.41	10.84
4	352.23	29.25 QP	37.00	-7.75	3.00 H	331	12.41	16.84
5	424.94	29.56 QP	37.00	-7.44	2.00 H	112	10.76	18.80
6	1000.00	30.93 QP	37.00	-6.07	1.00 H	117	2.94	27.99

- 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.





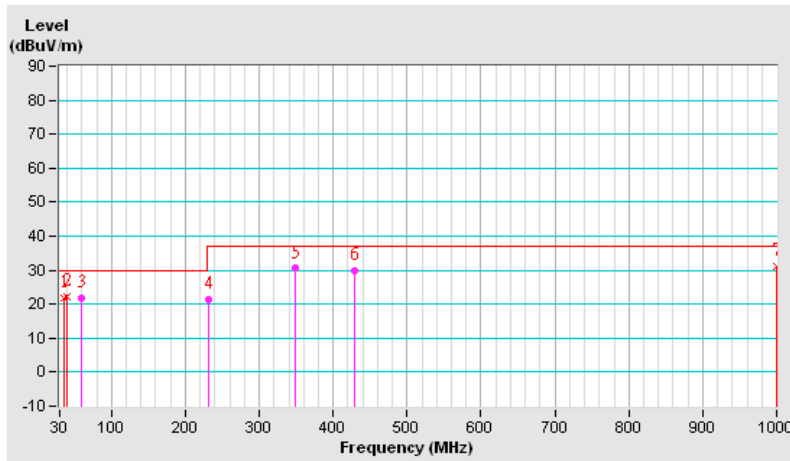
A D T

<b>TEST MODE</b>	Mode 5	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

**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	36.12	21.81 QP	30.00	-8.19	2.80 V	79	8.25	13.56
2	40.70	22.25 QP	30.00	-7.75	2.65 V	8	8.41	13.84
3	58.78	21.81 QP	30.00	-8.19	1.00 V	46	8.37	13.44
4	231.20	21.41 QP	37.00	-15.59	1.00 V	234	8.46	12.95
5	349.74	30.47 QP	37.00	-6.53	2.00 V	192	13.48	16.99
6	428.14	29.99 QP	37.00	-7.01	4.00 V	224	10.82	19.17
7	999.99	31.31 QP	37.00	-5.69	1.64 V	348	2.90	28.41

- 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.



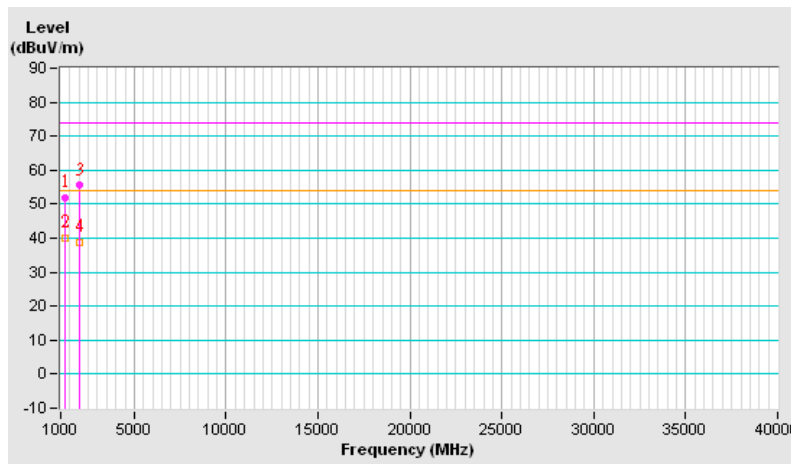


A D T

<b>TEST MODE</b>	Mode 5	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
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	1250.00	51.98 PK	74.00	-22.02	1.00 H	275	22.69	29.29
2	1250.00	39.91 AV	54.00	-14.09	1.00 H	275	10.62	29.29
3	2000.00	55.53 PK	74.00	-18.47	1.07 H	81	23.63	31.90
4	2000.00	38.66 AV	54.00	-15.34	1.07 H	81	6.76	31.90

- 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.





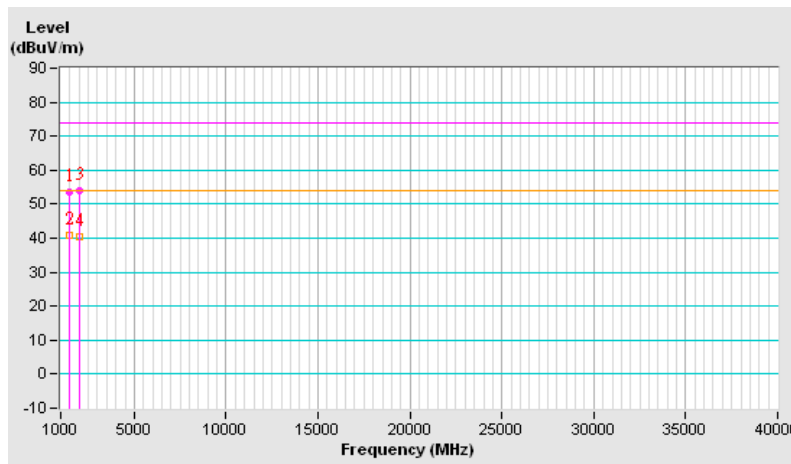


A D T

<b>TEST MODE</b>	Mode 5	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
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	1500.00	53.59 PK	74.00	-20.41	1.00 V	247	23.53	30.06
2	1500.00	41.02 AV	54.00	-12.98	1.00 V	247	10.96	30.06
3	2000.00	54.04 PK	74.00	-19.96	1.13 V	62	22.14	31.90
4	2000.00	40.59 AV	54.00	-13.41	1.13 V	62	8.69	31.90

- 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.



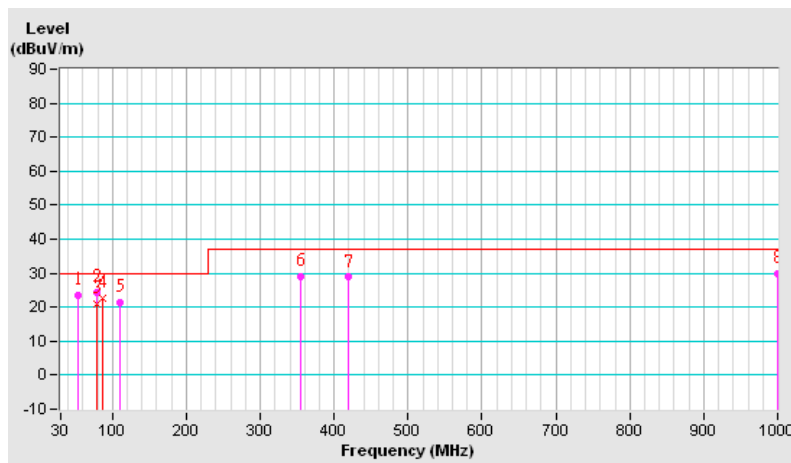


### 4.2.3 TEST RESULTS (MODE 6)

<b>TEST MODE</b>	Mode 6	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

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	54.28	23.51 QP	30.00	-6.49	4.00 H	299	9.61	13.90
2	78.20	24.22 QP	30.00	-5.78	3.50 H	288	13.74	10.48
3	78.20	20.90 QP	30.00	-9.10	3.50 H	14	10.42	10.48
4	86.77	22.53 QP	30.00	-7.47	3.50 H	62	13.19	9.34
5	110.17	21.40 QP	30.00	-8.60	1.00 H	165	10.44	10.96
6	355.07	29.14 QP	37.00	-7.86	3.00 H	352	12.21	16.93
7	419.49	28.83 QP	37.00	-8.17	2.50 H	174	10.14	18.69
8	1000.00	30.00 QP	37.00	-7.00	1.00 H	294	2.01	27.99

- 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.



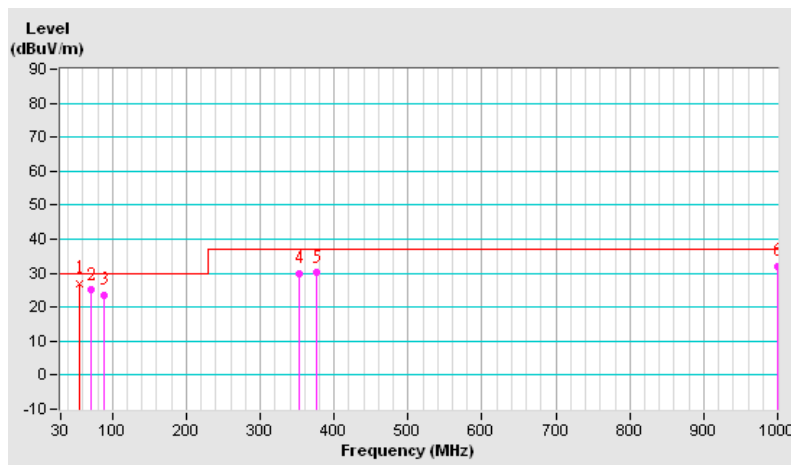


A D T

<b>TEST MODE</b>	Mode 6	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 72 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 10 M</b>								
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	54.78	26.77 QP	30.00	-3.23	2.00 V	299	12.94	13.83
2	70.74	24.99 QP	30.00	-5.01	1.00 V	329	12.78	12.21
3	88.74	23.54 QP	30.00	-6.46	1.50 V	117	14.58	8.96
4	353.06	29.72 QP	37.00	-7.28	1.00 V	357	12.62	17.10
5	375.32	30.09 QP	37.00	-6.91	1.00 V	348	12.30	17.79
6	1000.00	31.87 QP	37.00	-5.13	1.50 V	136	3.46	28.41

- 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.



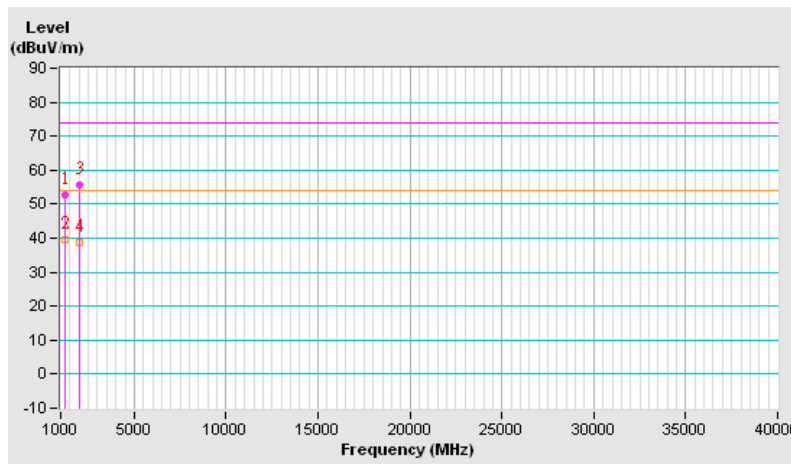


A D T

<b>TEST MODE</b>	Mode 6	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

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	1250.00	52.89 PK	74.00	-21.11	1.00 H	274	23.60	29.29
2	1250.00	39.66 AV	54.00	-14.34	1.00 H	274	10.37	29.29
3	2000.00	55.83 PK	74.00	-18.17	1.17 H	82	23.93	31.90
4	2000.00	38.66 AV	54.00	-15.34	1.17 H	82	6.76	31.90

- 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.



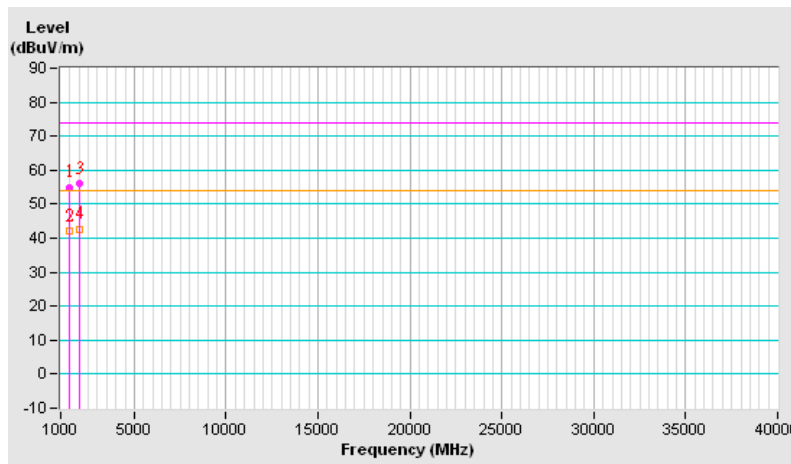


A D T

<b>TEST MODE</b>	Mode 6	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>FREQUENCY RANGE</b>	1000-29500 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Peak (PK) / Average (AV), 1MHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 69 % RH, 1012 hPa	<b>TESTED BY</b>	Max Tseng

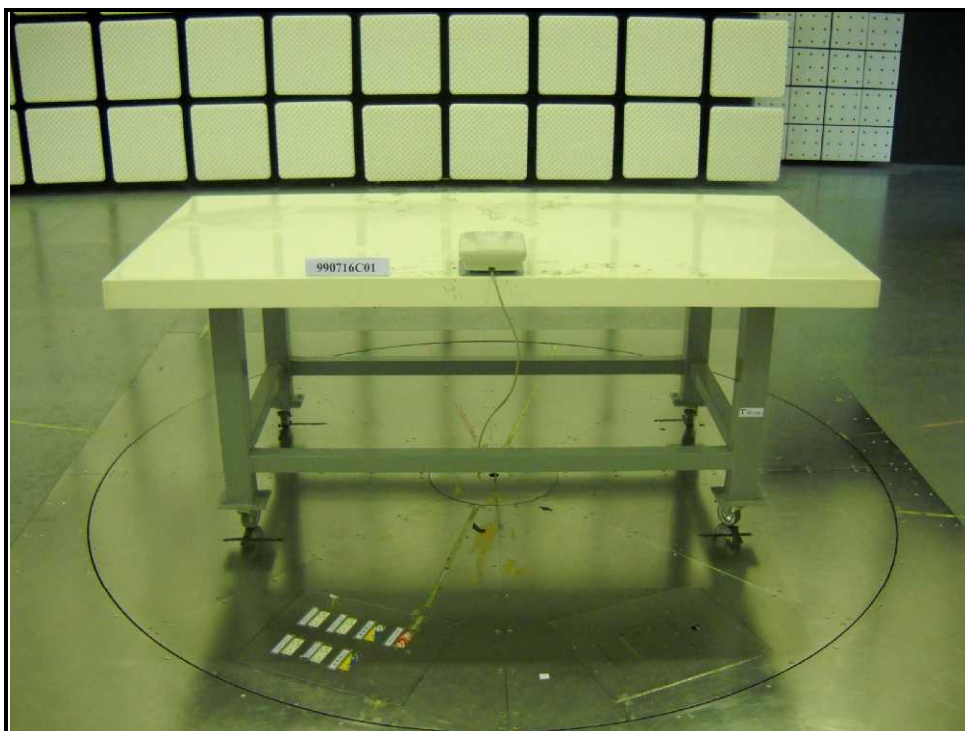
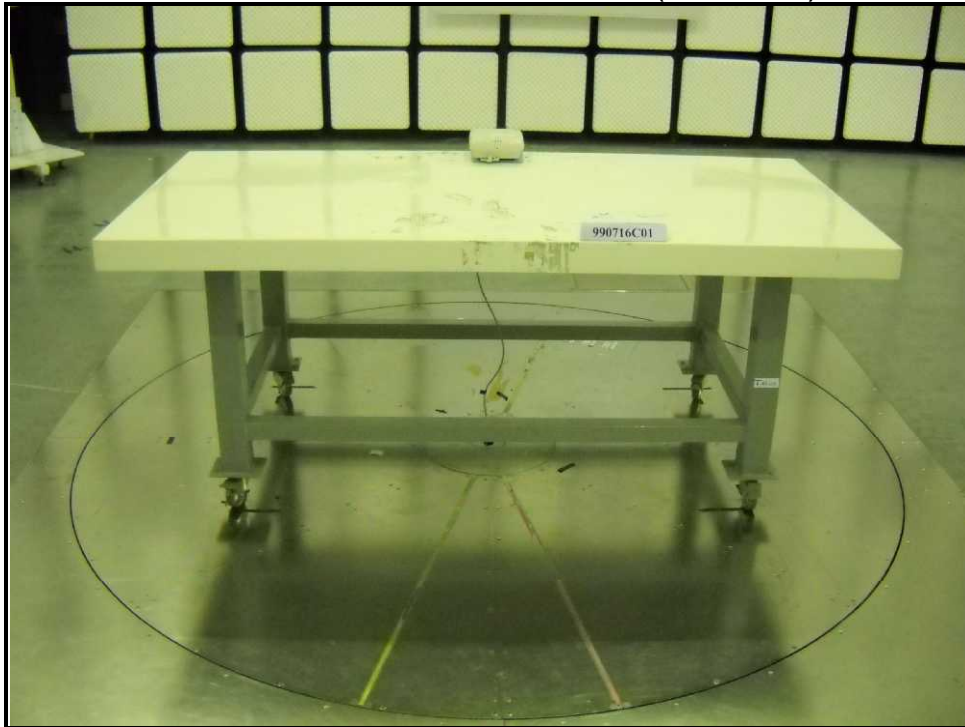
<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1500.00	55.04 PK	74.00	-18.96	1.00 V	283	24.98	30.06
2	1500.00	41.95 AV	54.00	-12.05	1.00 V	283	11.89	30.06
3	2000.00	55.96 PK	74.00	-18.04	1.08 V	201	24.06	31.90
4	2000.00	42.52 AV	54.00	-11.48	1.08 V	201	10.62	31.90

- 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.

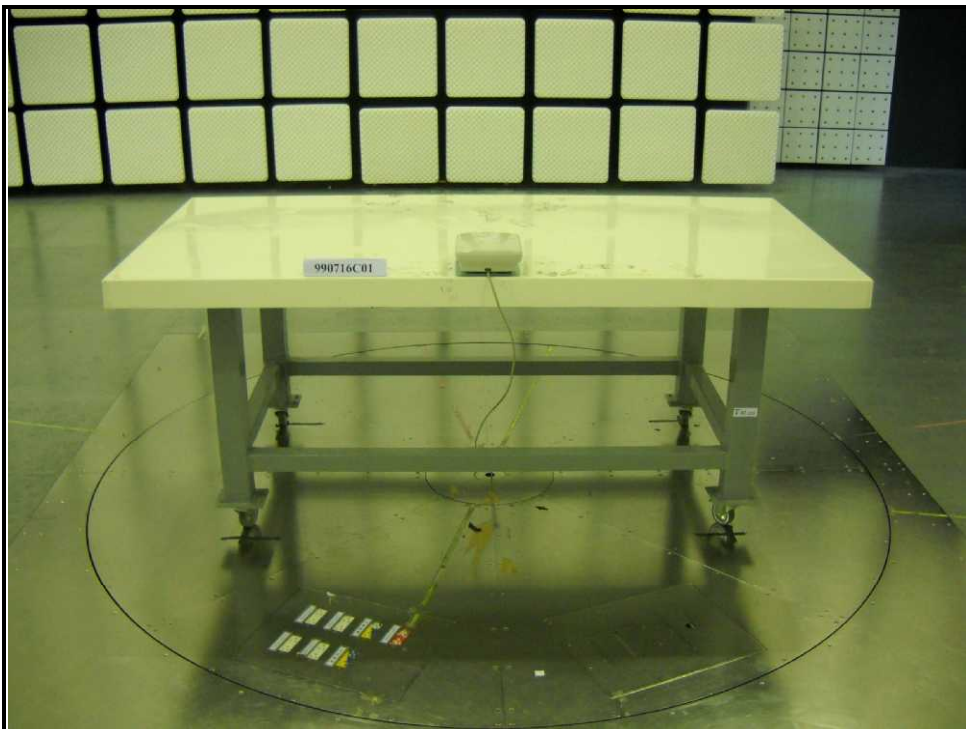
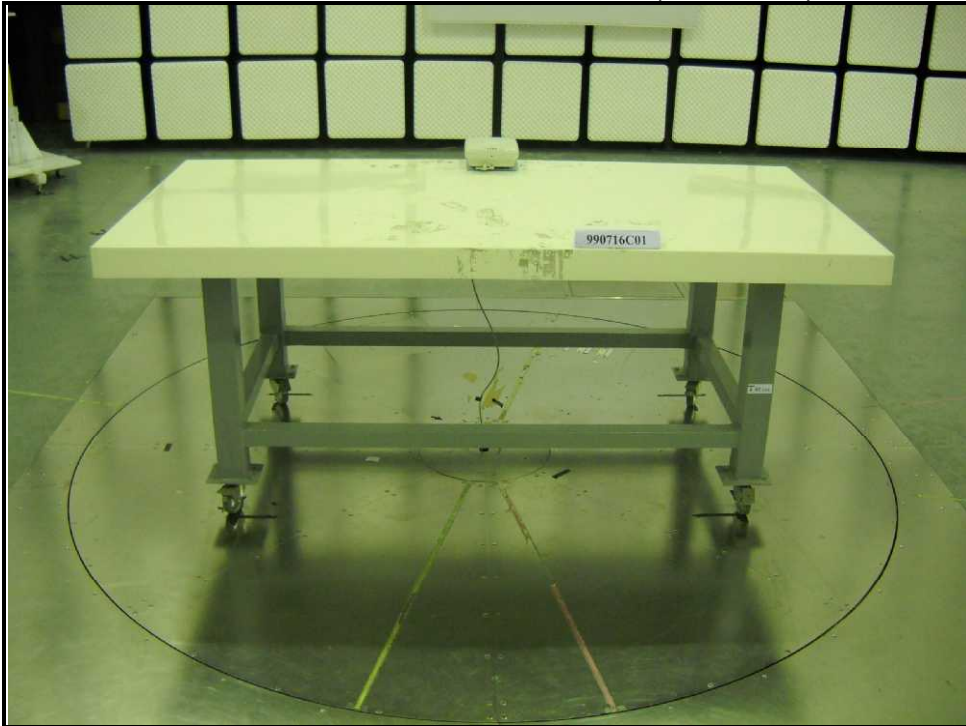


## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

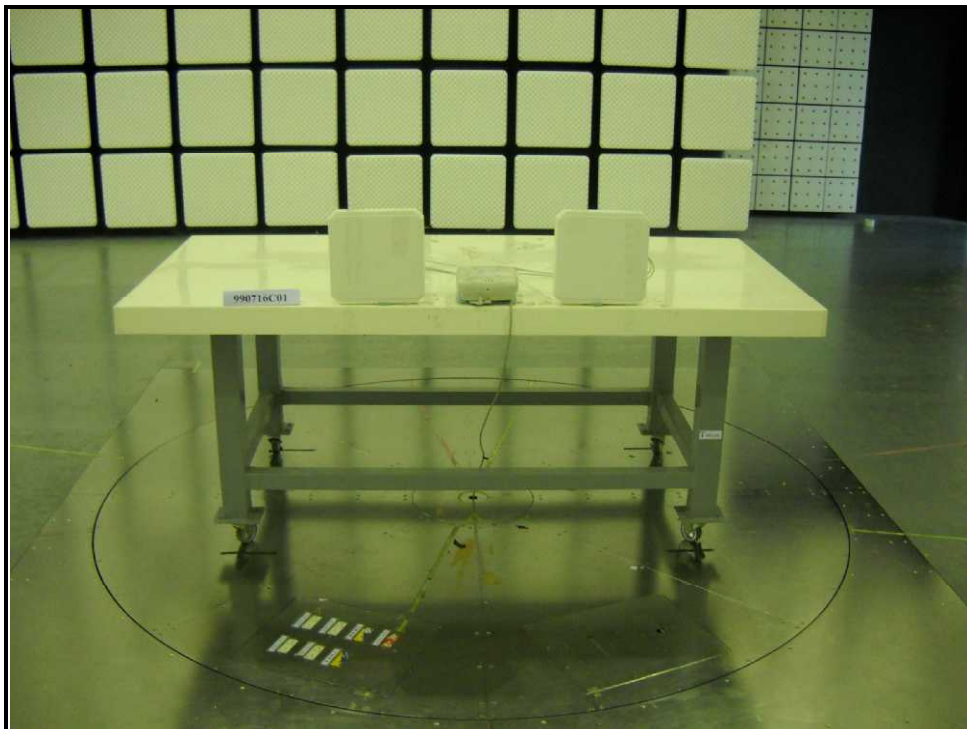
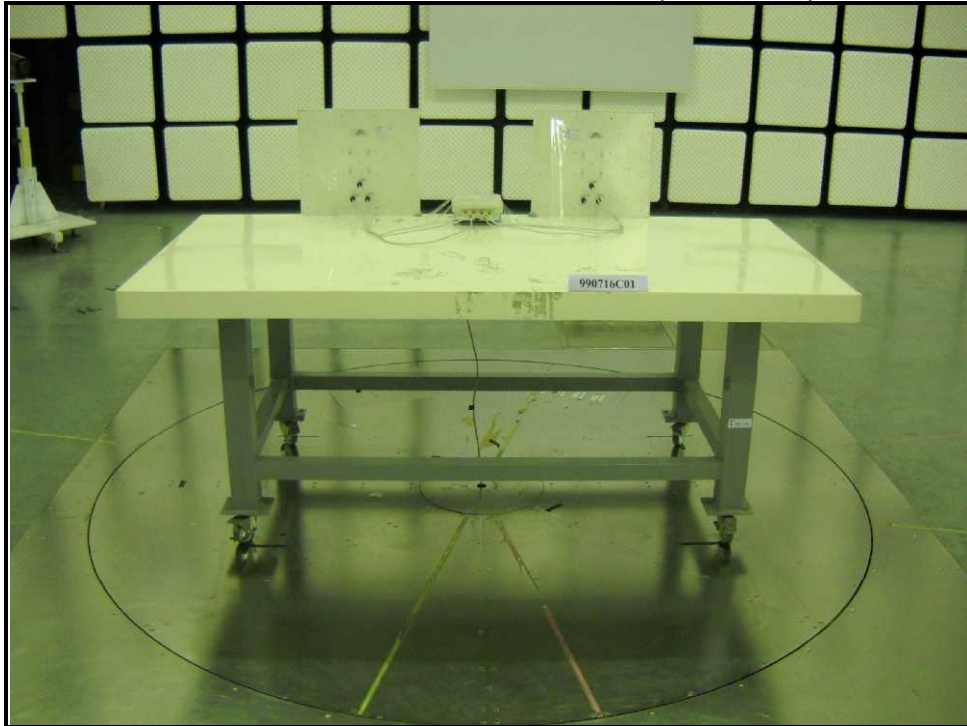
### RADIATED EMISSION TEST (MODE 1)



### RADIATED EMISSION TEST (MODE 2)

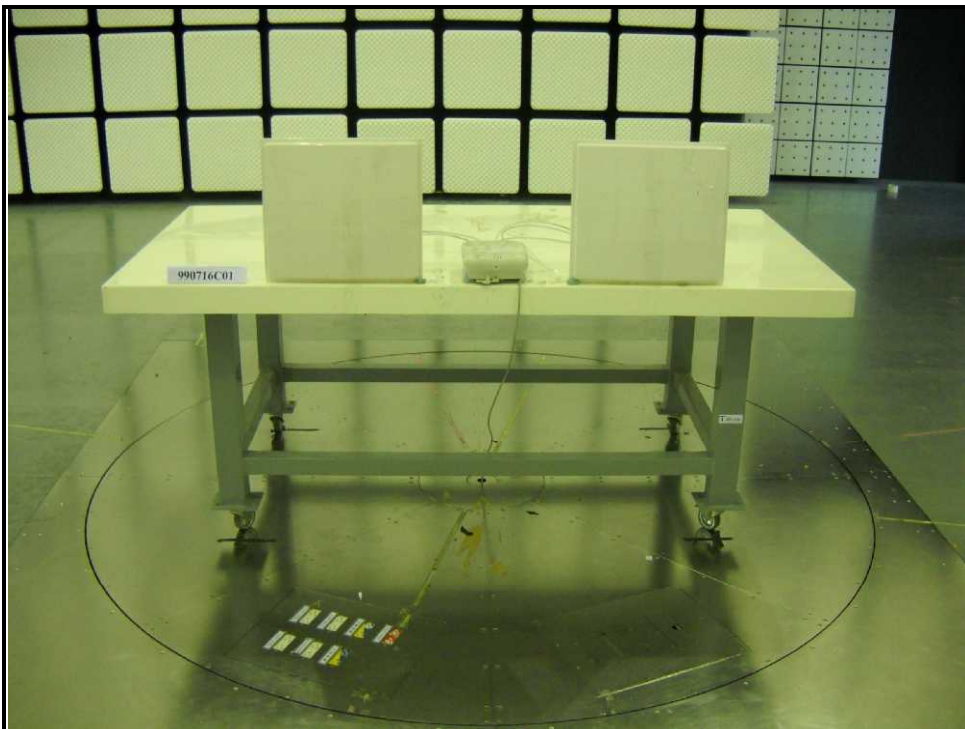
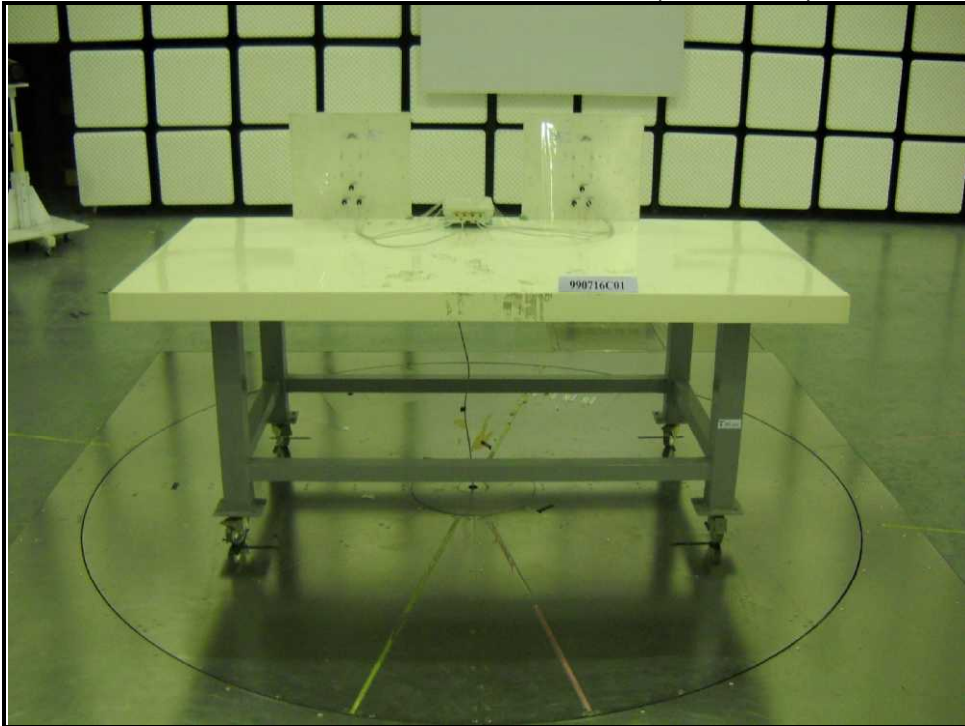


### RADIATED EMISSION TEST (MODE 3)

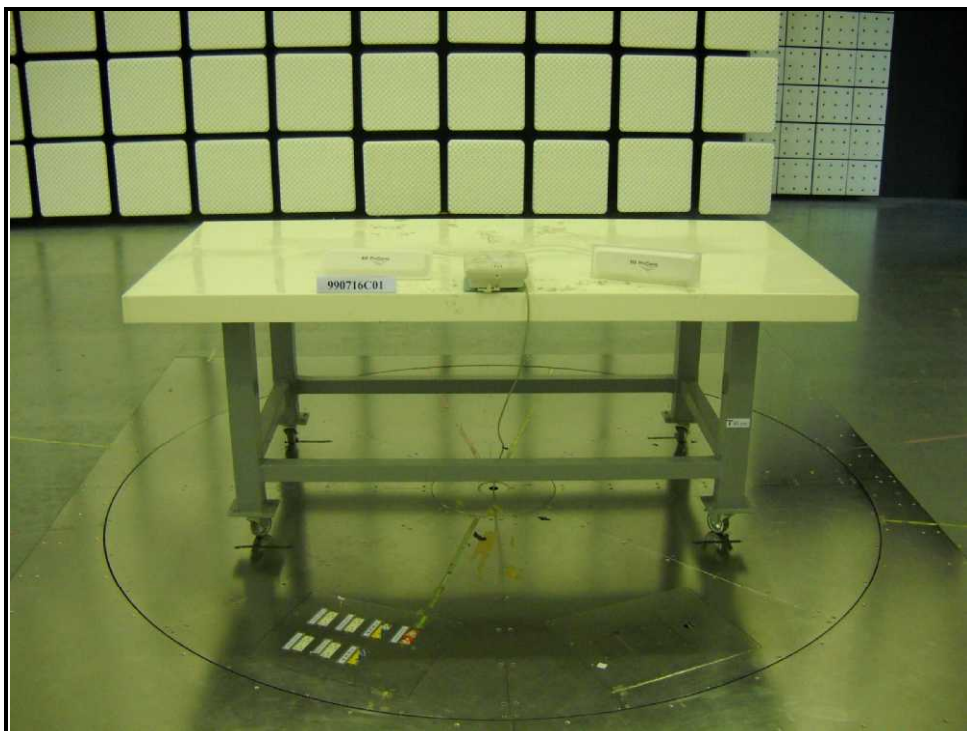
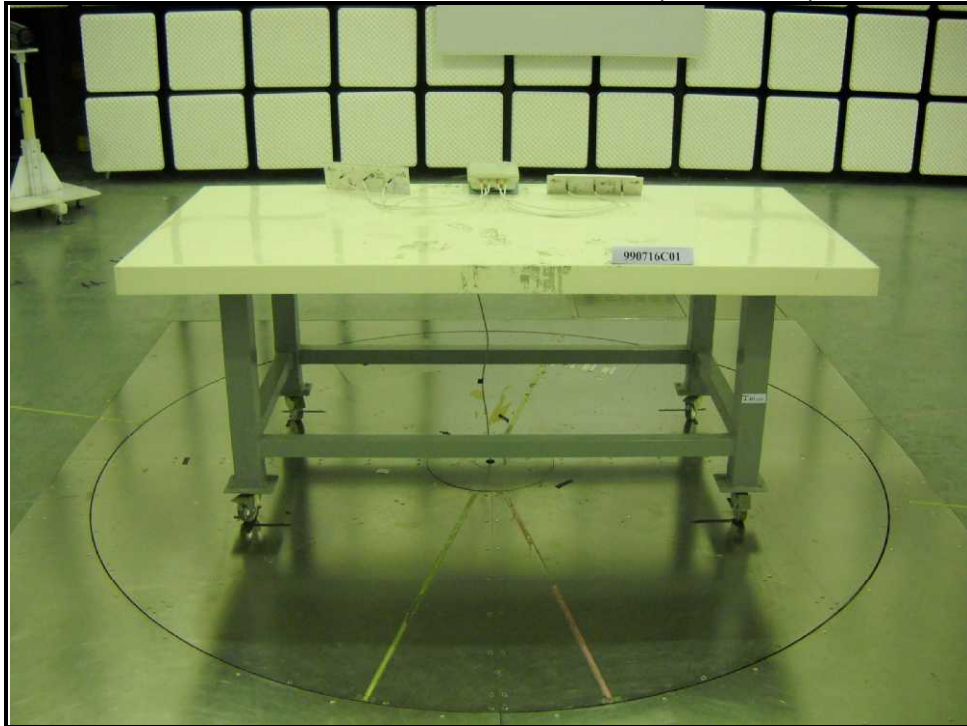




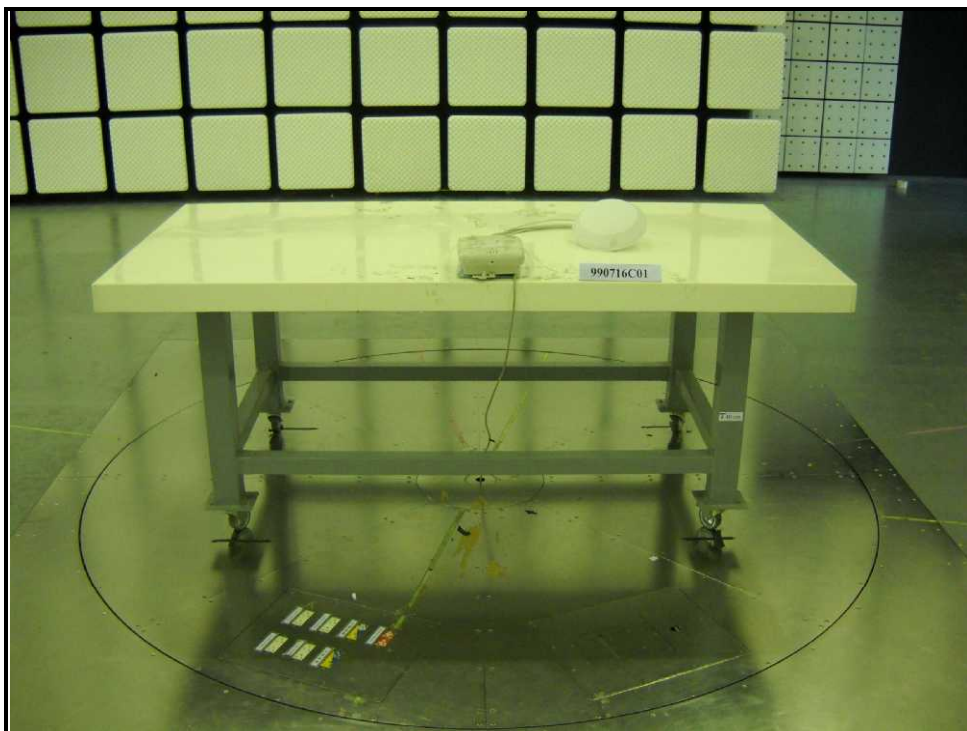
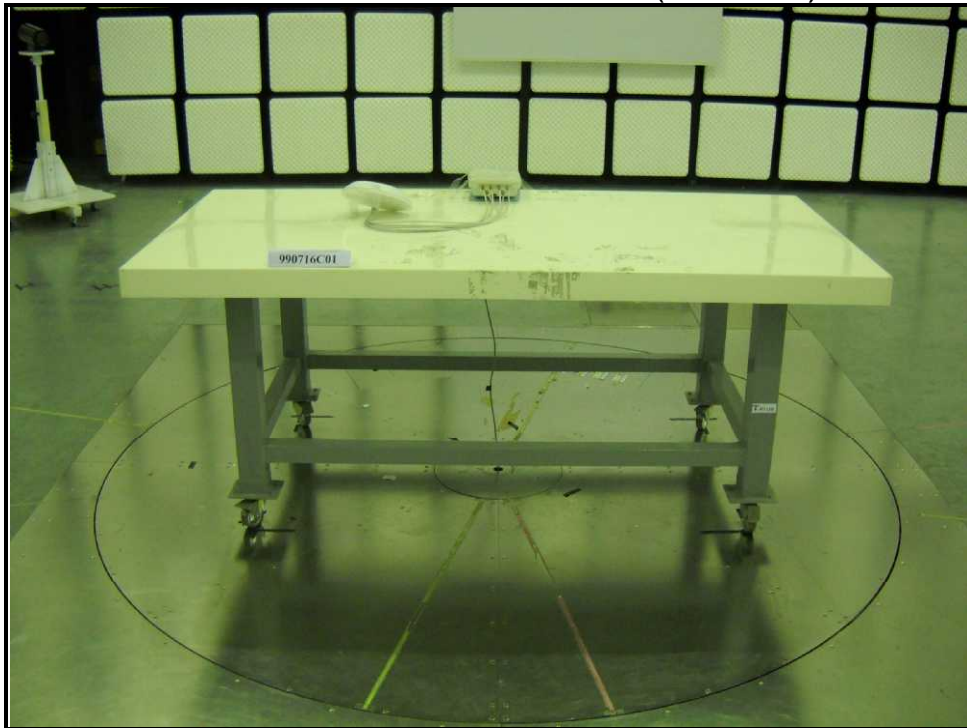
### RADIATED EMISSION TEST (MODE 4)



### RADIATED EMISSION TEST (MODE 5)



### RADIATED EMISSION TEST (MODE 6)





## 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:

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Fax: 886-2-26052943

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**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.



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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 ---**