C-Tick EMC TEST REPORT

For

Laptop Computer

Brand Name:	OLPC
Model NO.:	XO-1.75HS / XO-1.75
Report NO.:	20130112-1
Issued Date:	Jan. 12, 2013
Issued By:	Compliance Laboratory of Tech-Front (Shanghai) Computer Co., Ltd.
Lab Address:	No. 68, Sanzhuang Road, Songjiang Export Processing Zone, Shanghai, P. R. China
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Test Report Certification

Applicant:	Quanta Computer Inc
Manufacturer:	Quanta Computer Inc
Product:	Laptop Computer
Brand Name:	OLPC
Model Number:	XO-1.75HS / XO-1.75
Tested Voltage:	$240V_{ac}$, 50Hz
Tested Date:	Jan. 08-Jan. 09, 2013

Applicable Standards:

Emission			
Standard	Item	Result	Remark
AS/NZS CISPR22:2009	Conducted (Main Port)	Pass	Meet ClassB limit
	Conducted (Telecom Port)	Pass	Meet ClassB limit
	Radiated	Pass	Meet ClassB limit

The above equipment has been tested by Compliance Laboratory of Tech-Front (Shanghai) Computer Co., Ltd. , and found compliance with the requirements set forth in the technical standards mentioned above. The result of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same resluts due to production tolerance and measurement uncertainties.

Approved By

Herculus Hsu/ EMC manager:

Reviewed By

Bill Bo/ Senior engineer

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Section 1: General Information

1.1 Introduction

Product	Laptop Computer		
Trade Name	OLPC		
Model Name	XO-1.75HS / XO-1.75		
Housing Type	Plastic		
AC Power Adapter	Bestec	Model	NA0241WAA
			BT-AG250SDF
	Darfon	Model	BU24-1203
			BB0J-C
			BP24-1203
AC Power Adapter Rating	I/P: 100-240Vac O/P:13.5Vdc,1.85A/12Vdc,2A		
AC Power Cord Type	Non-shielded AC 2pin (0.9m)		
DC Power Cable Type	Non-shielded DC (1.5m) /Non-shielded DC (1.8m)		
CPU	Marvell	Model	ARMADA 610 (800MHz)
			ARMADA 610 (1.0GHz)
Memory Capacity	512MB / 1GB		
EMMC	4GB / 8GB		
7.5” LCD Panel	CHIMEI	Model	LS075AT011
Camera	SUYIN	Model	CM0316-OLPC01
WLAN	QMI	Model	EM113-MV
	Liteon	Model	WN6301MH
Battery	BYD	Model	CL1

I/O Port:

I/O Port Types	Quantity
Audio in port	1
Audio out port	1
USB port	3
SD Card port	1

1.2 Test Procedure

The EUT was tested using special test software called BurnIn test v6.0, which exercises all external I/O ports as well as the internal storage media by writing and reading (if applicable) a continuous stream of “H” characters in font 9. A pattern of continuous stream-scrolling black “H” on a white background was written to display. Played through the internal audio while the EMC testing was being done. The measurements were made while the system was exercised in this manner.

Section 2: Test Facility and Procedure

2.1 Test Facility Used for Emission Testing

Conducted Emissions Facilities: Conducted Emissions were performed at Compliance Laboratory of Tech-Front (Shanghai) Computer Co., Ltd. of No.68 Sanzhuang Road, Songjiang Export Processing Zone, Shanghai, P. R. China

FCC Registration No. 602285
VCCI Registration No. C-2529/ T-1836

Note: C-2529 for main port (AC power), T-1836 for telecomm port

Radiated Emissions Facilities: Radiated Emissions measurements were performed at QSMC Compliance Laboratory of No.68 Sanzhuang Road, Songjiang Export Processing Zone, Shanghai, P. R. China

FCC Registration No. 602285
VCCI Registration No. R-2319 (10m chamber)/ G-191 (10m chamber)/ R-3341 (3m-2 chamber)/ G-209 (3m-2 chamber)/ R-2320(3m-2 chamber)

Note:"R-"to represent bellows 1GHz, "G-"to represent could be used test 1GHz to 6GHz

2.1.1 Measurement Uncertainty

The measurement uncertainty has been determined to be the following:

AC Conducted Emissions = 3.2 dB
Telecom Conducted Emissions = 3.5 dB
Radiated Emissions (30MHz~1000MHz) = 4.1dB
Radiated Emissions (1000MHz~6000MHz) =4.6 dB

The equipment conforms to the requirement of CISPR 16-1, CISPR 16-4-2, ANSI C63.2 and other required standards.

Calibration of all test and measurement, including any accessories that may effect such calibration, is checked frequently to ensure the accuracy. Adjustments are made and correction factors are applied in accordance with the instructions contained in the respective manual.

2.1.2 Lab Accreditations

Coverage	Agency	Scope of Accreditation
USA	FCC	3/10 meter chamber and conducted test chamber to perform FCC Part 15/18 measurements
Japan	VCCI	3/10 meter chamber and conducted test chamber to perform radiated / conducted measurements
ISO/IEC 17025	CNAS	FCC 47CFR Part 15; CISPR22; AS/NZS CISPR 22; V-3/2008.04; GB9254; GB17625.1; EN55022; EN61000-3-2; EN 61000-3-3; CISPR24; EN55024; IEC/EN61000-4-2; IEC/EN61000-4-3; IEC/EN61000-4-4; IEC/EN61000-4-5; IEC/EN61000-4-6; IEC/EN61000-4-8; IEC/EN61000-4-11

2.1.3 Software to Exercise EUT

The EUT was tested using special test software called BurnIn test v6.0, which exercises all external I/O ports as well as the internal storage media by writing and reading (if applicable) a continuous stream of “H” characters in font 9. A pattern of continuous stream-scrolling black “H” on a white background was written to display. Played through the internal audio while the EMC testing was being done. The measurements were made while the system was exercised in this manner.

2.1.4 Special Accessories

There were no special accessories used during these tests.

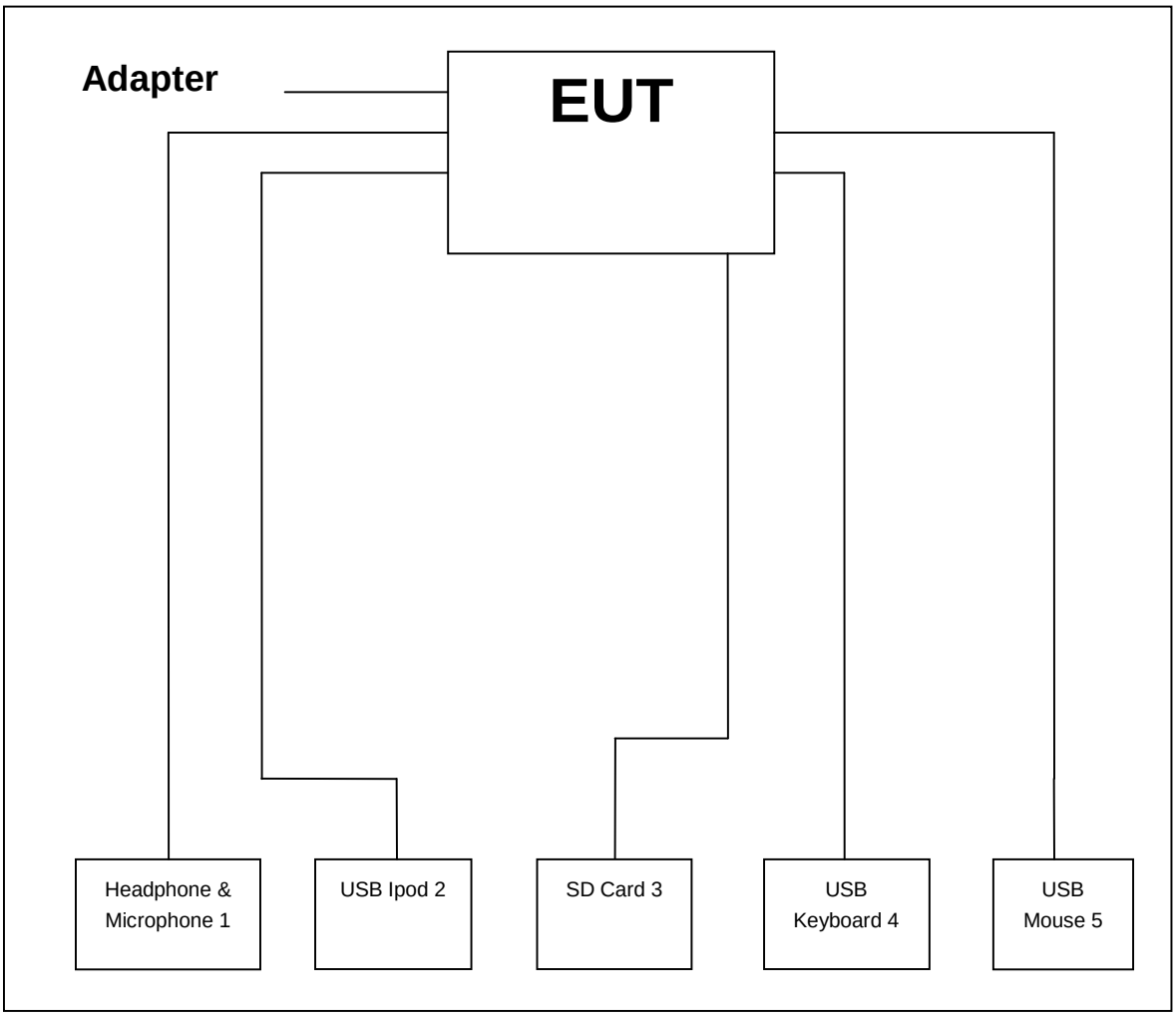
2.1.5 Equipment Modifications and Deviations

There is no EUT modification or test standard deviation.

2.1.6 Test Configuration

The EUT was configured as a worst case system configuration as a result from pre-testing as described below:

Arrangement Block Diagram



Associated Equipments

No.	Interference	Equipment	Brand	Model
1	Audio in & out port	Mic & Headphone	Philips	SHM3300
2	USB port	Ipod	Apple	A1285
3	SD Card port	SD Card	Kingston	4GB
4	USB port	Keyboard	Logitech	Y-BP62a
5	USB port	Mouse	Logitech	M-BP82

Pre-test configuration

Prior to taking the formal emissions data collected in this report many hours of pre-testing have been performed. The selection of the worst case system documented in this report was based upon this pre-testing.

Mode	CPU	LCD Panel	Memory	EMMC	WLAN	Camera	Battery	Adapter
1	Marvell ARMADA 610 (800MHz)	CHIMEI LS075AT011	512MB	4GB	QMI EM113-MV	AZUREWAVE AM-1H018	BYD CL1	Bestec NA0241WAA
2	Marvell ARMADA 610 (800MHz)	CHIMEI LS075AT011	1GB	8GB	Liteon WN6301MH	AZUREWAVE AM-1H018	BYD CL1	Bastec BT-AG250SDF
3	Marvell ARMADA 610 (1.0GHz)	CHIMEI LS075AT011	512MB	4GB	QMI EM113-MV	AZUREWAVE AM-1H018	BYD CL1	Darfon BU24-1203
4	Marvell ARMADA 610 (800MHz)	CHIMEI LS075AT011	1GB	8GB	Liteon WN6301MH	AZUREWAVE AM-1H018	BYD CL1	Darfon BB0J-C
5	Marvell ARMADA 610 (1.0GHz)	CHIMEI LS075AT011	512MB	4GB	QMI EM113-MV	AZUREWAVE AM-1H018	BYD CL1	Bastec BT-AG250SDF
6	Marvell ARMADA 610 (800MHz)	CHIMEI LS075AT011	1GB	8GB	Liteon WN6301MH	AZUREWAVE AM-1H018	BYD CL1	Darfon BU24-1203
7	Marvell ARMADA 610 (800MHz)	CHIMEI LS075AT011	1GB	8GB	QMI EM113-MV	AZUREWAVE AM-1H018	BYD CL1	Darfon BB0J-C
8	Marvell ARMADA 610 (800MHz)	CHIMEI LS075AT011	512MB	4GB	Liteon WN6301MH	AZUREWAVE AM-1H018	BYD CL1	Bastec NA0241WAA
9	Marvell ARMADA 610 (1.0GHz)	CHIMEI LS075AT011	1GB	8GB	QMI EM113-MV	AZUREWAVE AM-1H018	BYD CL1	Bastec NA0241WAA
10	Marvell ARMADA 610 (800MHz)	CHIMEI LS075AT011	512MB	4GB	Liteon WN6301MH	AZUREWAVE AM-1H018	BYD CL1	Darfon BB0J-C
11	Marvell ARMADA 610 (1.0GHz)	CHIMEI LS075AT011	512MB	8GB	Liteon WN6301MH	AZUREWAVE AM-1H018	BYD CL1	Darfon BP24-1203
12	Marvell ARMADA 610 (1.0GHz)	CHIMEI LS075AT011	1GB	4GB	Liteon WN6301MH	AZUREWAVE AM-1H018	BYD CL1	Darfon BP24-1203

Worst Case for Final Testing (Mode 4 Chosen)

Component	Vendor	Part Number
CPU	Marvell	ARMADA 610 (800MHz)
LCD Panel	CHIMEI	LS075AT011
Memory	Hynix	1GB
EMMC	Toshiba	8GB
WLAN	Liteon	WN6301MH
Camera	AZUREWAVE	AM-1H018
Battery	BYD	CL1
Power Adapter	Darfon	BB0J-C

2.1.7 Cable Description and Information

Cable Type	Shielded	Ferrite	Length
USB Keyboard	No	No	1.50m
USB Mouse	No	No	1.80m
USB 2.0 Ipod	Yes	No	1.0m
Audio In	No	No	1.80m
Audio Out	No	No	1.80m

2.2 Measurement Equipment

N/A is an abbreviation for Not Applicable. All equipments are traceable to CNAS calibration standards.

2.2.1 Conducted Emissions

Description	Manufacturer	Model No.	Serial No.	Calibrated Until
Test Receiver	Rohde & Schwarz	ESCI	100167	5/18/2013
LISN	Schwarz beck	NSLK8127	8127433	5/18/2013
LISN	Schwarz beck	NSLK8128	8128229	5/18/2013
TLISN	TeseQ	CDN ST08A	30189	5/18/2013
TLISN	TeseQ	ISN ST800	29453	5/18/2013
TLISN	FCC	FCC-TLISN-T4-02	20581	5/18/2013
TLISN	FCC	FCC-TLISN-T8-02	20445	5/18/2013
Probe	FCC	F-33-4	57	5/18/2013
Probe	FCC	F35	507	5/18/2013

2.2.2 Radiated Emissions

Description	Manufacturer	Model No.	Serial No.	Calibrated Until
Test Receiver	Rohde & Schwarz	ESCI	100166	5/18/2013
Test Receiver	Rohde & Schwarz	ESIB26	100307	5/18/2013
Spectrum Analyzer	Agilent	E7405A	MY42000093	5/18/2013
Bilog Antenna	Schwarz beck	VULB9168	9168-195	7/01/2013
Bilog Antenna	Schwarz beck	VULB9168	9168-198	7/01/2013
Horn Antenna	Schwarz beck	BBHA 9120D	409	5/03/2013
Preamplifier	Agilent	8447D	2944A10848	5/18/2013
Preamplifier	Agilent	8447D	2944A10847	5/18/2013
Preamplifier	Agilent	8449B	3008A02145	5/18/2013
Preamplifier	Agilent	8449B	3008A02146	5/18/2013
Software	ADT	ADT_Radiated_V7	N/A	N/A
Antenna Mast	Inn-co	MA4000	MA4000/101/9770 405/L	N/A
Antenna Mast	Inn-co	MA4000	MA4000/104/9770 405/L	N/A
Turn Table	Inn-co	DT3000-1T-C	DT3000-1T-C/22	N/A
Controller	Inn-co	CO2000	CO2000/218/9770 405/L	N/A

Section3: Electromagnetic Emissions Test

3.1 Emission

3.1.1 Line Conducted Emissions Test

- Measurement Procedures Utilized for Conducted Emissions

The EUT was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per AS/NZS CISPR22.

Associated equipment, if needed, was placed as per AS/NZS CISPR22.

All I/O cables were positioned to simulate typical actual usage as per AS/NZS CISPR22.

The test equipment EUT installed received AC power through a Line Impedance Stabilization Network (LISN), which supplied power source and was grounded to the ground plane.

All associated equipment received power from a second LISN.

For conducted emission test on telecommunication ports, a telecommunication port is connected by its signal cable to an impedance stabilization network (ISN). During the testing, the LAN utilization is in excess of 10 % and sustains that level for a minimum of 250 ms. the traffic rate is monitored by the program of Net Speed.

The EUT test program was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

During the above scans under battery charging mode, the emissions were maximized by cable manipulation.

The EUT configuration and cable configuration of the above highest emission level were recorded for reference of the final test.

- Limits

For AC Power

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

Note:1）The lower limit shall apply at the transition frequencies.

2）The limit decreases in line with the logarithm of the frequency in the range of 0.15MHz 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.

For ISN

For Class A Equipment

FREQUENCY (MHz)	Voltage Limit (dBuV)		Current Limit (dBuA)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 ~ 0.5	97 ~ 87	84 ~ 74	53 ~ 43	40 ~ 30
0.5 ~ 30.0	87	74	43	30

Note:1）The limits decrease linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5MHz.

2）The current and voltage disturbance limits are derived for use with an impedance stabilization network (ISN) which presents a common mode (asymmetric mode) impedance of 150Ω to the telecommunication port under test(conversion factor is $20\log_{10}150$=44dB).

For Class B Equipment

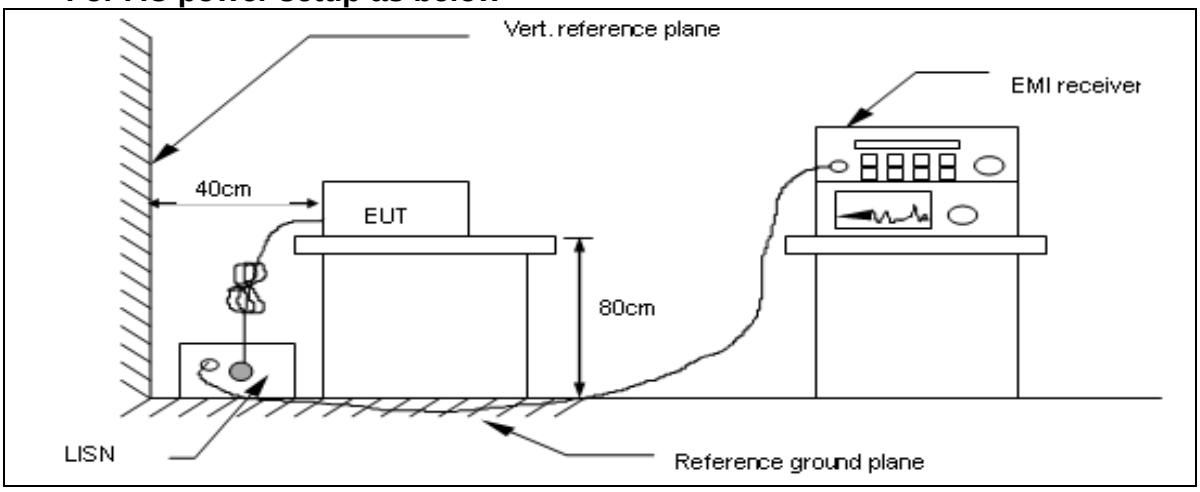
FREQUENCY (MHz)	Voltage Limit (dBuV)		Current Limit (dBuA)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	84 ~ 74	74 ~ 64	40 ~ 30	30 ~ 20
0.5 - 30.0	74	64	30	20

Note: 1）The limits decrease linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5MHz.

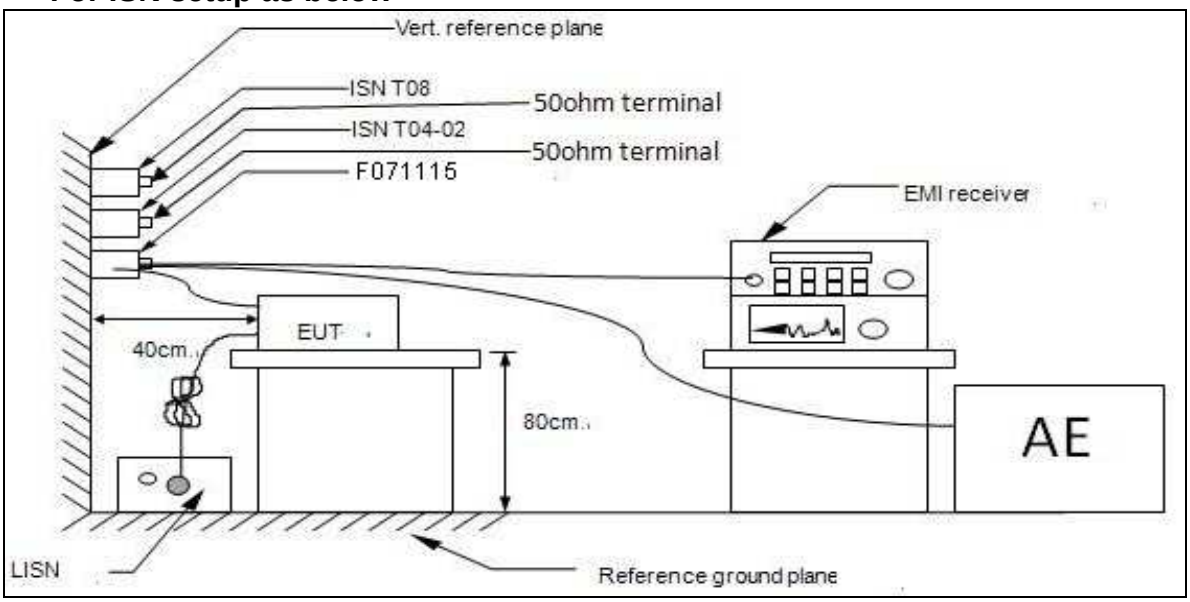
2）The current and voltage disturbance limits are derived for use with an impedance stabilization network(ISN) which presents a common mode (asymmetric mode) impedance of 150Ω to the telecommunication port under test (conversion factor is $20\log_{10}150$=44dB)

- Test Setup

For AC power setup as below



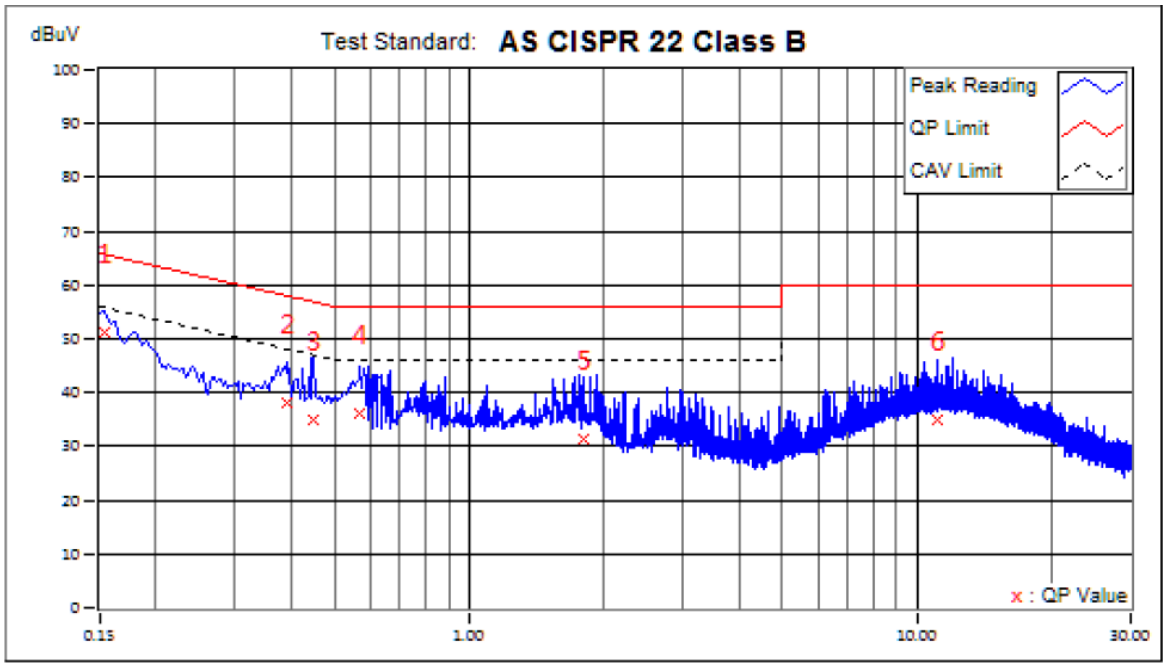
For ISN setup as below



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

- Conducted Emissions Test Data

Engineer : Xingming zhao	Location : Conduction Room
Limit : AS/NZS CISPR22 Class B	Probe : Line 1
EUT : Laptop Computer	Date : 2013-01-09
Power : AC 240V/50Hz	Detector : Quasi peak and Average
Temperature. : 22℃ Relative Humidity.: 54% Atmospheric Pressure.: 101kpa	



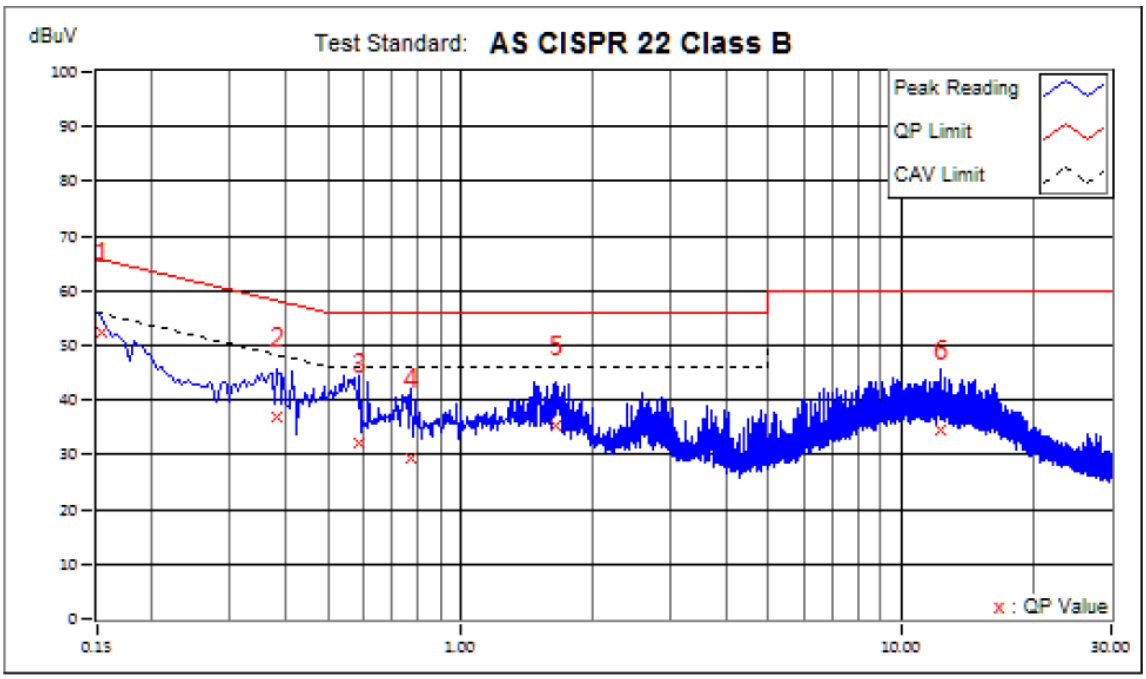
	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB	
No.	MHz	dB	QP	CAV	QP	CAV	QP	CAV	QP	CAV
+1	0.15410	12.24	40.04	18.71	52.28	30.95	65.78	55.78	-13.50	-24.83
2	0.39408	10.63	26.74	7.58	37.37	18.21	57.98	47.98	-20.61	-29.77
3	0.45008	10.64	23.67	7.79	34.31	18.43	56.87	46.87	-22.56	-28.44
4	0.57007	10.57	24.83	7.96	35.40	18.53	56.00	46.00	-20.60	-27.47
5	1.79398	10.56	20.01	9.86	30.57	20.42	56.00	46.00	-25.43	-25.58
6	11.14533	11.22	23.61	17.20	34.83	28.42	60.00	50.00	-25.17	-21.58

Note: 1) Conducted Emissions data was taken at 240Vac, 50Hz. This data was found to be equivalent or lower than the data listed above.

2) Emission (dBuV) = Reading (dBuV) + Correction factor (dB)

Margins (dB) = Emission (dBuV) – Limit (dBuV)

Engineer : Xingming zhao	Location : Conduction Room
Limit : AS/NZS CISPR22 Class B	Probe : Line 2
EUT : Laptop Computer	Date : 2013-01-09
Power : AC 240V/50Hz	Detector : Quasi peak and Average
Temperature. : 22℃ Relative Humidity.: 54% Atmospheric Pressure.: 101kpa	



	Frequency	Corr. Factor	Reading dBuV		Emission dBuV		Limit dBuV		Margins dB	
No.	MHz	dB	QP	CAV	QP	CAV	QP	CAV	QP	CAV
+1	0.15410	11.98	41.24	22.50	53.22	34.48	65.78	55.78	-12.56	-21.30
2	0.38208	10.51	25.75	7.94	36.26	18.45	58.24	48.24	-21.98	-29.79
3	0.59007	10.49	20.89	4.54	31.38	15.03	56.00	46.00	-24.62	-30.97
4	0.77006	10.72	18.27	5.49	28.99	16.21	56.00	46.00	-27.01	-29.79
5	1.63800	10.63	23.99	10.13	34.62	20.76	56.00	46.00	-21.38	-25.24
6	12.26125	11.18	23.35	16.64	34.53	27.82	60.00	50.00	-25.47	-22.18

Note: 1) Conducted Emissions data was taken at 240Vac, 50Hz. This data was found to be equivalent or lower than the data listed above.

2) Emission (dBuV) = Reading (dBuV) + Correction factor (dB)

Margins (dB) = Emission (dBuV) – Limit (dBuV)

3.1.2 Radiated Emissions Test

- Measurement Procedures Utilized for Radiated Emissions

The equipment was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane.

Associated equipment, if needed, was placed as per AS/NZS CISPR22.

All I/O cables were positioned to simulate typical usage as per AS/NZS CISPR22.

The EUT received AC power source, from the outlet socket under the turntable. All associated equipment received power from another socket under the turntable.

Mains cables, telephone lines or other connections to auxiliary equipment located outside the test are shall drape to the floor. No extension cords shall be used to mains receptacle.

The antenna was placed at 10 meter away from the EUT as stated in AS/NZS CISPR22. The antenna connected to the Receiver via a cable and at times a pre-amplifier would be used.

The receiver scanned from 30MHz to 1000MHz. The EUT test program was started. Emissions were scanned under battery charging mode and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both vertical and horizontal polarization, to maximize the emission reading level.

The test mode(s) described in Item 2.1.6 were scanned during the preliminary test:

After the preliminary scan, we found the test mode described in Item 2.1.6 producing the highest emission level.

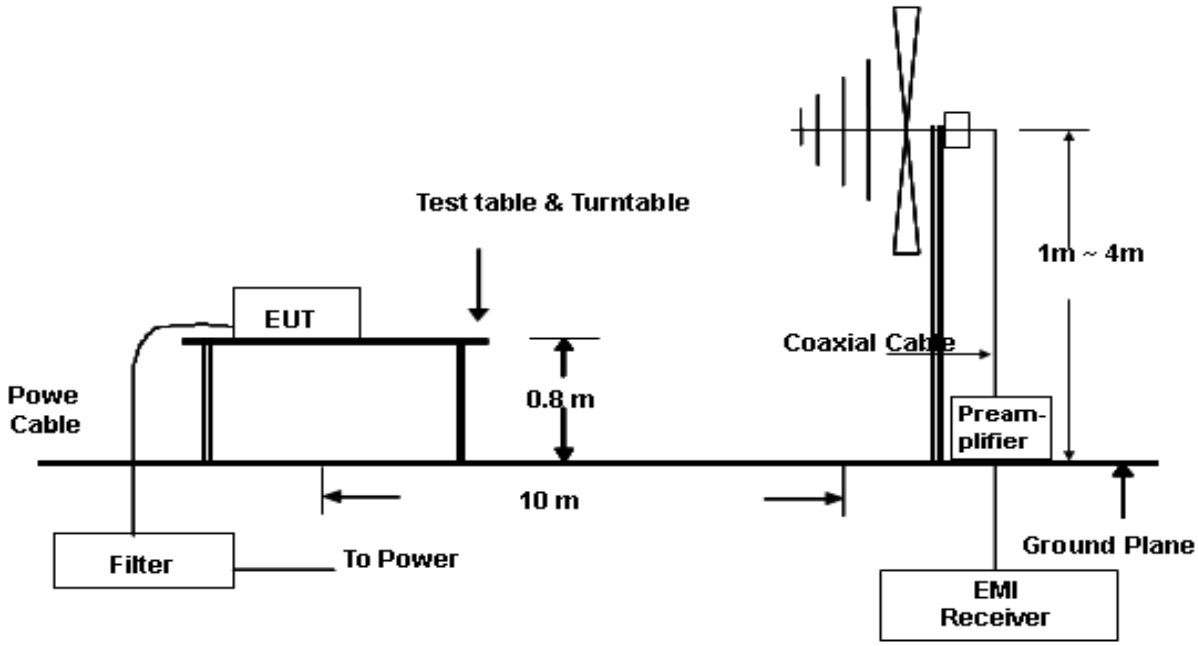
The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.

-Limits

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

NOTE: 1) The lower limit shall apply at the transition frequencies.
2) Emission level (dBuV/m) = 20 $\log_{10}$ Emission level (uV/m).

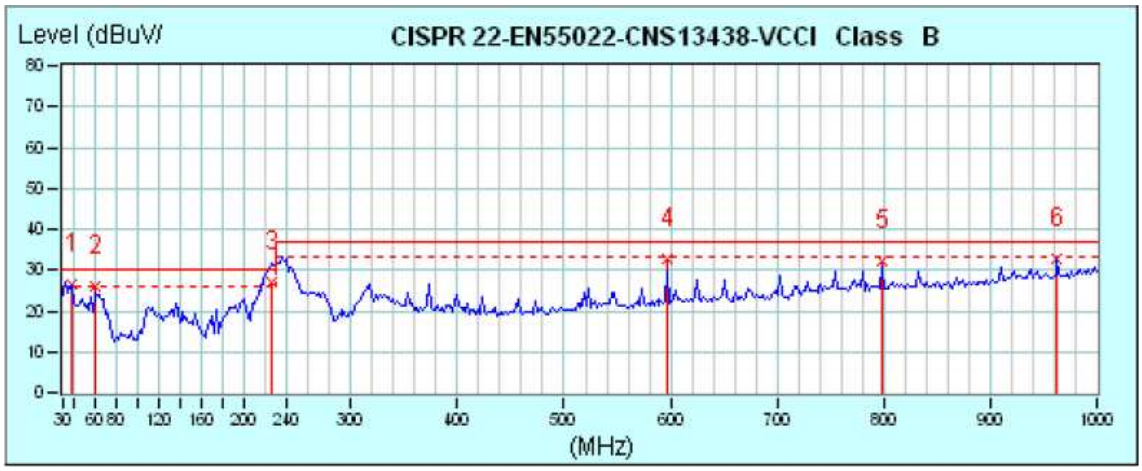
-Test Setup



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

- Radiated Emissions Test Data

Engineer : Xingming zhao	Location : 10m Radiation Chamber
Limit : AS/NZS CISPR22 Class B	Polarity : Vertical
EUT : Laptop Computer	Date : 2013-01-08
Power : AC 240V/50Hz	Detector : Quasi peak
Temperature. : 17℃ Relative Humidity.: 50% Atmospheric Pressure.: 101kpa	



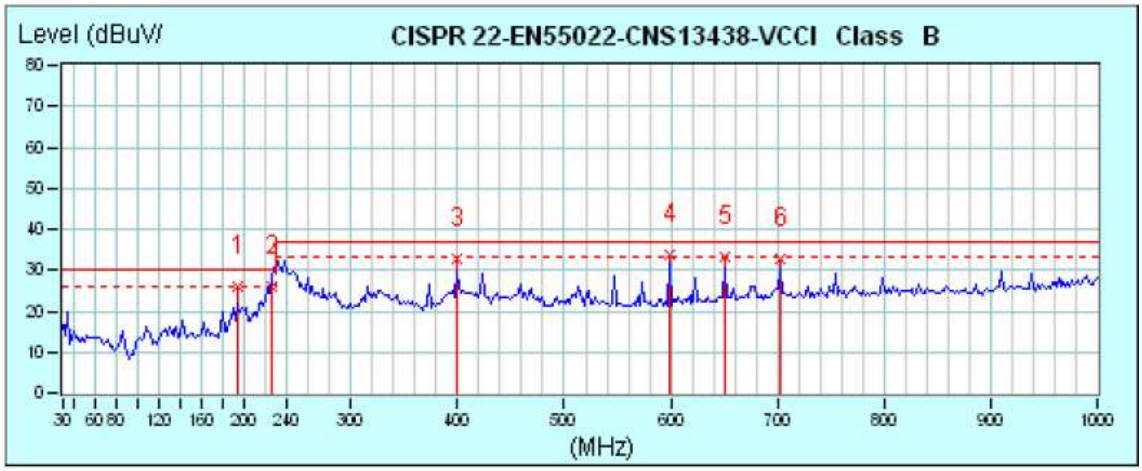
No.		Frequency	Factor	Reading	Emission	Limit	Margin	Tower	Table
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	cm	deg
	1	37.73 (QP)	13.61	12.97	26.58	30.00	-3.42	150	164
	2	59.11 (QP)	14.60	11.19	25.79	30.00	-4.21	157	267
*	3	226.30 (QP)	11.99	14.82	26.81	30.00	-3.19	400	18
	4	597.62 (QP)	23.40	9.37	32.77	37.00	-4.23	109	3
	5	797.86 (QP)	26.56	5.82	32.38	37.00	-4.62	287	203
	6	963.11 (QP)	28.74	3.87	32.61	37.00	-4.39	103	19

Note: 1).Radiated Emissions data was taken at 240Vac, 50Hz. This data was found to be equivalent or lower than the data listed above.

2).Emission (dBuV) = Reading (dBuV) + Correction factor (dB)

Margins (dB) = Emission (dBuV) – Limit (dBuV)

Engineer : Xingming zhao	Location : 10m Radiation Chamber
Limit : AS/NZS CISPR22 Class B	Polarity : Horizontal
EUT : Laptop Computer	Date : 2013-01-08
Power : AC 240V/50Hz	Detector : Quasi peak
Temperature. : 17℃ Relative Humidity.: 50% Atmospheric Pressure.: 101kpa	



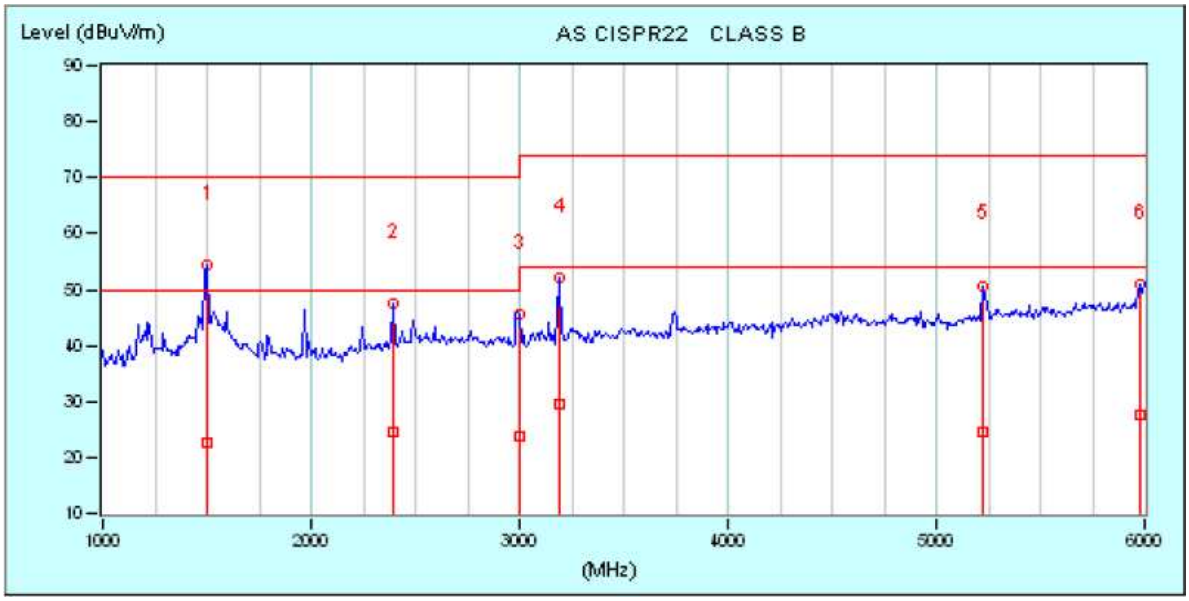
	No.	Frequency	Factor	Reading	Emission	Limit	Margin	Tower	Table
		MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	cm	deg
	1	192.93 (QP)	12.02	13.87	25.89	30.00	-4.11	154	290
	2	225.91 (QP)	11.61	14.48	26.09	30.00	-3.91	100	345
	3	398.59 (QP)	18.03	14.63	32.66	37.00	-4.34	115	203
*	4	598.43 (QP)	22.83	11.05	33.88	37.00	-3.12	168	316
	5	650.81 (QP)	23.86	9.26	33.12	37.00	-3.88	264	167
	6	703.20 (QP)	24.32	8.26	32.58	37.00	-4.42	143	301

Note: 1).Radiated Emissions data was taken at 240Vac, 50Hz. This data was found to be equivalent or lower than the data listed above.

2).Emission (dBuV) = Reading (dBuV) + Correction factor (dB)

Margins (dB) = Emission (dBuV) – Limit (dBuV)

Engineer : Xingming zhao	Location : 3m-2 Radiation Chamber
Limit : AS/NZS CISPR22 Class B	Polarity : Vertical
EUT : Laptop Computer	Date : 2013-01-08
Power : AC 240V/50Hz	Detector : Peak & Average
Temperature. : 20℃ Relative Humidity.: 51% Atmospheric Pressure.: 101kpa	



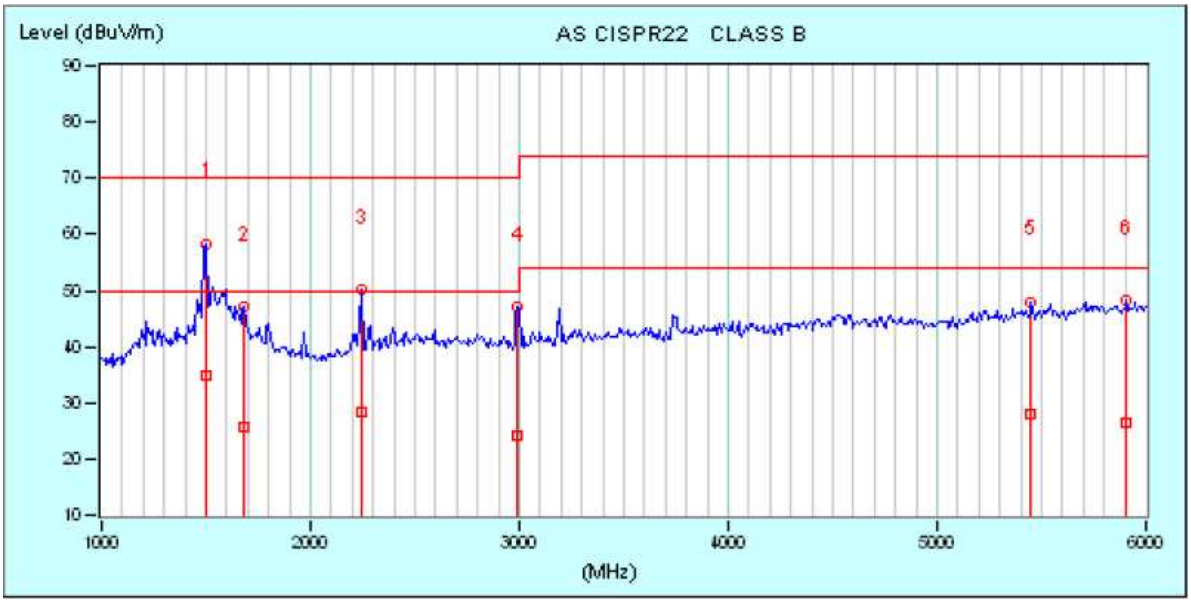
No.		Freq.	C.F.	Reading		Emission		Limit		Margin		Ant./Table	
		MHz	dB/m	PK	AV	PK	AV	PK	AV	PK	AV	cm	deg
*	1	1500.00	27.70	26.86	-4.95	54.56	22.75	70.00	50.00	-15.44	-27.25	102	325
	2	2391.67	30.06	17.37	-5.62	47.43	24.44	70.00	50.00	-22.57	-25.56	151	158
	3	3000.00	30.90	14.76	-7.22	45.66	23.68	70.00	50.00	-24.34	-26.32	132	147
	4	3191.67	31.43	20.77	-1.90	52.20	29.53	74.00	54.00	-21.80	-24.47	174	125
	5	5225.00	35.32	15.44	-10.96	50.76	24.36	74.00	54.00	-23.24	-29.64	123	305
	6	5983.33	37.17	13.64	-9.69	50.81	27.48	74.00	54.00	-23.19	-26.52	173	134

Note: 1).Radiated Emissions data was taken at 240Vac, 50Hz. This data was found to be equivalent or lower than the data listed above.

2).Emission (dBuV) = Reading (dBuV) + Correction factor (dB)

Margins (dB) = Emission (dBuV) – Limit (dBuV)

Engineer : Xingming zhao	Location : 3m-2 Radiation Chamber
Limit : AS/NZS CISPR22 Class B	Polarity : Horizontal
EUT : Laptop Computer	Date : 2013-01-08
Power : AC 240V/50Hz	Detector : Peak & Average
Temperature. : 20℃ Relative Humidity.: 51% Atmospheric Pressure.: 101kpa	



No.		Freq.	C.F.	Reading		Emission		Limit		Margin		Ant./Table	
		MHz	dB/m	PK	AV	PK	AV	PK	AV	PK	AV	cm	deg
*	1	1500.00	27.70	30.70	7.05	58.40	34.75	70.00	50.00	-11.60	-15.25	103	122
	2	1683.33	27.90	19.24	-2.22	47.14	25.68	70.00	50.00	-22.86	-24.32	115	305
	3	2241.67	29.10	21.05	-0.57	50.15	28.53	70.00	50.00	-19.85	-21.47	143	258
	4	2991.67	30.90	16.05	-6.57	46.95	24.33	70.00	50.00	-23.05	-25.67	136	257
	5	5450.00	36.37	11.71	-8.53	48.08	27.84	74.00	54.00	-25.92	-26.16	118	254
	6	5908.33	37.08	11.05	-10.62	48.13	26.46	74.00	54.00	-25.87	-27.54	183	141

Note: 1).Radiated Emissions data was taken at 240Vac, 50Hz. This data was found to be equivalent or lower than the data listed above.

2).Emission (dBuV) = Reading (dBuV) + Correction factor (dB)

Margins (dB) = Emission (dBuV) – Limit (dBuV)

Section 4: Test Arrangement Photos

4.1 Conducted Emissions (AC Power)

4.2 Radiated Emissions