Certificate

Issue Date: August 7, 2012
Ref. Report No. ISL-12HE227CT

Product Name	:	Video Server
Model(s)	:	GV-VS14
Brand Name	:	GeoVision
Responsible Party	:	GeoVision Inc
Address	:	9F., No. 246, Sec. 1, Neihu Rd., Neihu District, Taipei City 114, Taiwan

We, **International Standards Laboratory**, hereby certify that:

The device bearing the trade name and model specified above has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in European Council Directive- EMC Directive 2004/108/EC. The device was passed the test performed according to :

Standards:
AS/NZS CISPR 22:2009 (CISPR 22 Ed. 6.0)

I attest to the accuracy of data and all measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

International Standards Laboratory

Jim Chu / Director

☒ **Hsi-Chih LAB**:
No. 65, Gu Dai Keng St. Hsichih,
Taipei Hsien 22117, Taiwan.
Tel: 886-2-2646-2550; Fax: 886-2-2646-4641

Nemko ELA113A

ISL International Standards Laboratory http://www.isl.com.tw

Declaration of Conformity

Name of Manufacturer:	GeoVision Inc
Address of Manufacturer:	9F., No. 246, Sec. 1, Neihu Rd., Neihu District, Taipei City 114, Taiwan
Declares that product:	Video Server
Model:	GV-VS14
Brand Name:	GeoVision
Assembled by:	Same as above
Address:	Same as above

Conforms to the C-Tick Mark requirement as attested by conformity with the following standards:

AS/NZS CISPR 22:2009 (CISPR 22 Ed. 6.0): Limits and methods of measurement of Radio Interference characteristics of Information Technology Equipment.

We, GeoVision Inc*, hereby declare that the equipment bearing the trade name and model number specified above was tested conforming to the applicable Rules under the most accurate measurement standards possible, and that all the necessary steps have been taken and are in force to assure that production units of the same equipment will continue to comply with the requirements.*

GeoVision Inc
Date: August 7, 2012

EMI TEST REPORT

of

C-Tick Class A

Product : **Video Server**

Model(s): **GV-VS14**

Brand Name: **GeoVision**

Applicant: **GeoVision Inc**

Address: **9F., No. 246, Sec. 1, Neihu Rd., Neihu District, Taipei City 114, Taiwan**

Test Performed by:

International Standards Laboratory
<Hsi-Chih LAB>
*Site Registration No.
BSMI:SL2-IN-E-0037; SL2-R1/R2-E-0037; TAF: 1178
FCC: TW1067; IC: IC4067A-1; NEMKO: ELA 113A
VCCI: <Conduction01>C-354, T-1749, <OATS01>R-341, <Chamber01>G-443
*Address:
No. 65, Gu Dai Keng St.
Hsichih District, New Taipei City 22179, Taiwan
*Tel: 886-2-2646-2550; Fax: 886-2-2646-4641

Report No.: **ISL-12HE227CT**
Issue Date : **August 7, 2012**

This report totally contains 28 pages including this cover page and contents page.

Contents of Report

1. General

1.1 Certification of Accuracy of Test Data

Standards:	AS/NZS CISPR 22:2009 (CISPR 22 Ed. 6.0) Class A
Equipment Tested:	Video Server
Model(s):	GV-VS14
Brand Name:	GeoVision
Applicant:	GeoVision Inc
Sample received Date:	July 26, 2012
Final test Date:	refer to the date of test data
Test Site:	International Standards Laboratory Conduction 01; OATS 01; Chamber 14
Test Distance:	10M; 3M (above1GHz)
Temperature:	refer to each site test data
Humidity:	refer to each site test data
Input power:	Conduction input power: AC 230 V / 50 Hz Radiation input power: AC 230 V / 50 Hz
Test Result:	PASS
Report Engineer:	Maggy Han
Test Engineer:	Louis Yu
Approved By:	Eddy Hsiung

1.2 Description of EUT

EUT

Product Name	Video Server
Condition	Pre-Production
Model Number(s)	GV-VS14
Serial Number	N/A
Power Supply	DVE(Model: DSA-42D-12 1 120350) AC input: 100-240V ~ 50/60Hz 1.2A DC output: 12V, 3.5A
Motherboard	Model: GV-VS14 V1.00
USB 2.0 Port	two 4-pins
I/O Terminal Port	one 16-pins
RJ45 Port(PoE)	one 8-pins (10/100/1000M bps)
BNC-In Port	four
Audio Out Port	one
Audio In Port	two
1 TO 2 Audio Data Cable	two, Non-shielded, Detachable
DC-In Port	one
DC-Out Port	one
1 TO 4 DC Power Cable	one, Shielded, Detachable
Maximum Operating Frequency	810MHz

All types of EUT have been tested. We present the worst case test data (Configurations: 1) in the report. The test configurations are listed below:

Configurations

Configurations	Power Supply
1	DVE(Model: DSA-42D-12 1 120350)
2	RJ45 Port(PoE)

EMI Noise Source

Motherboard Crystal	25MHz (X1), 12MHz (Y1), 32.768KHz (Y4), 54MHz (OSC2)

EMI Solution

Added one core on the Power supply cable

1.3 Description of Support Equipment

Unit	Model Serial No.	Brand	Power Cord	FCC ID
USB2.0 External HDD Enclosure*2	RD1000 S/N: NA	DELL	Non-shielded, Detachable	FCC DOC
Decoder	AD-300 S/N: AD30000021115-0400	Britz	Non-shielded, Detachable	FCC DOC
Radio Cassette Player	RQ-L11	Panasonic	Non-shielded, Detachable	FCC DOC
DVD Player	DVD-NS575P	SONY	Non-shielded, Un-detachable	FCC DOC
Notebook Personal Computer	Latitude D400 S/N: N/A	DELL	Non-shielded, Detachable	FCC DOC
1 to 4 BNC Adapter	N/A	N/A	N/A	N/A
Ethernet PoE Switch	FSD-804PS S/N:A310126000161	PLANET	Non-shielded, Detachable	FCC DOC

1.4 Software for Controlling Support Unit

Test programs exercising various part of EUT were used. The programs were executed as follows:

A. Receive and transmit package of EUT to the Ethernet PoE Switch HUB through RJ45 port.
B. Used Tfgen.exe or ping.exe to send signal to EUT RJ45 port through Notebook RJ45 Port.
C. Used iexplore.exe or Remote Viewlog.exe to R/W USB2.0 External HDD Enclosure through EUT USB2.0 Port.
D. Send Video signal from DVD Player to EUT through 1 to 4 BNC Adapter
E. Send audio signal to the Decoder.
F. Receive audio signal from Radio Cassette Player through EUT Audio In port.
G. Receive audio signal from DVD Player through EUT Audio In port.
H. Repeat the above steps.

	Filename	Issued Date
RJ45	Ping.exe	05/05/1999
RJ45	Tfgen.exe	06/23/1999
USB2.0 External HDD Enclosure	iexplore.exe	04/30/2012
USB2.0 External HDD Enclosure	Remote Viewlog.exe	01/16/2012

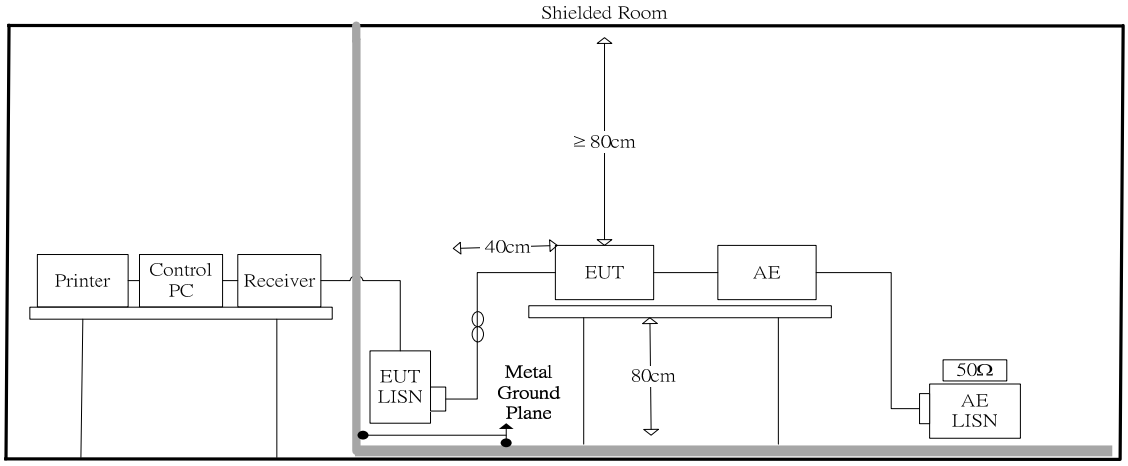
1.5 I/O Cable Condition of EUT and Support Units

Description	Path	Cable Length	Cable Type	Connector Type
AC Power Cord	110V (~240V) to EUT SPS	1.8M	Non-shielded, Detachable	Plastic Head
BNC Data Cable *4	EUT BNC Port to 1 to 4 BNC Adapter	1M	Shielded, Detachable	Metal Head
AV Data Cable	DVD Player AV Port to1 to 4 BNC Adapter	1.5M	Non-shielded, Detachable	Metal Head
Audio Data Cable	EUT Audio Out Port to Decoder	1.5M	Non-shielded, Detachable	Metal Head
Audio Data Cable	EUT Audio In Port to DVD Player Audio Port	1.5M	Non-shielded, Detachable	Metal Head
Audio Data Cable	EUT Audio-In Port to Radio Cassette Player	1.5M	Non-shielded, Detachable	Metal Head
USB2.0 Data Cable*2	USB2.0 External HDD Enclosure USB2.0 Port to EUT USB2.0 Port	2M	Shielded, Detachable (With Core)	Metal Head
RJ45 Data Cable	EUT RJ-45 Port to PoE Switch HUB RJ45 Port	10M	Non-shielded, Detachable	RJ-45, with Plastic Head
RJ45 Data Cable	Notebook RJ45 Port to PoE Switch HUB RJ45 Port	1.5M	Non-shielded, Detachable	RJ-45, with Plastic Head
DC Power Cable	EUT DC-Out Port to dummy	0.24M	Shielded, Detachable	Metal Head

2. Power Main Port Conducted Emissions

2.1 Test Setup and Procedure

2.1.1 Test Setup



2.1.2 Test Procedure

The measurements are performed in a 3.5m x 3.4m x 2.5m shielded room, which referred as Conduction 01 test site, or a 3m x 3m x 2.3m test site, which referred as Conduction 02 test site. The EUT was placed on non-conduction 1.0m x 1.5m table, which is 0.8 meters above an earth-grounded.

Power to the EUT was provided through the LISN which has the Impedance (50ohm/50uH) vs. Frequency Characteristic in accordance with the standard. Power to the LISNs were filtered to eliminate ambient signal interference and these filters were bonded to the ground plane. Peripheral equipment required to provide a functional system (support equipment) for EUT testing was powered from the second LISN through a ganged, metal power outlet box which is bonded to the ground plane at the LISN.

The interconnecting cables were arranged and moved to get the maximum measurement. Both the line of power cord, hot and neutral, were measured.

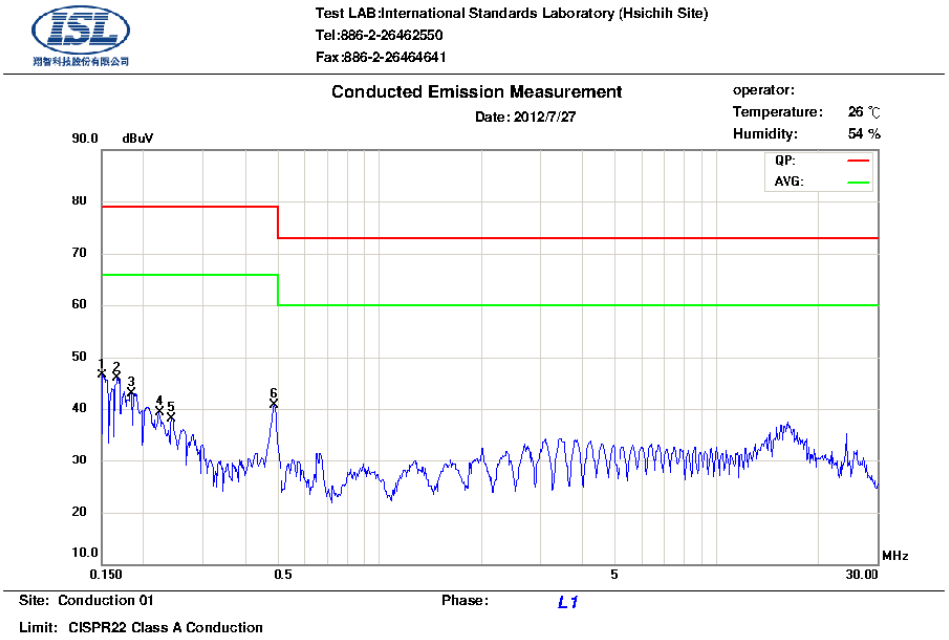
The highest emissions were analyzed in details by operating the spectrum analyzer in fixed tuned mode to determine the nature of the emissions and to provide information which could be useful in reducing their amplitude.

2.1.3 EMI Receiver/Spectrum Analyzer Configuration (for the frequencies tested)

Frequency Range:	150KHz--30MHz
Detector Function:	Quasi-Peak / Average Mode
Resolution Bandwidth:	9KHz

2.2 Conduction Test Data: Configuration 1

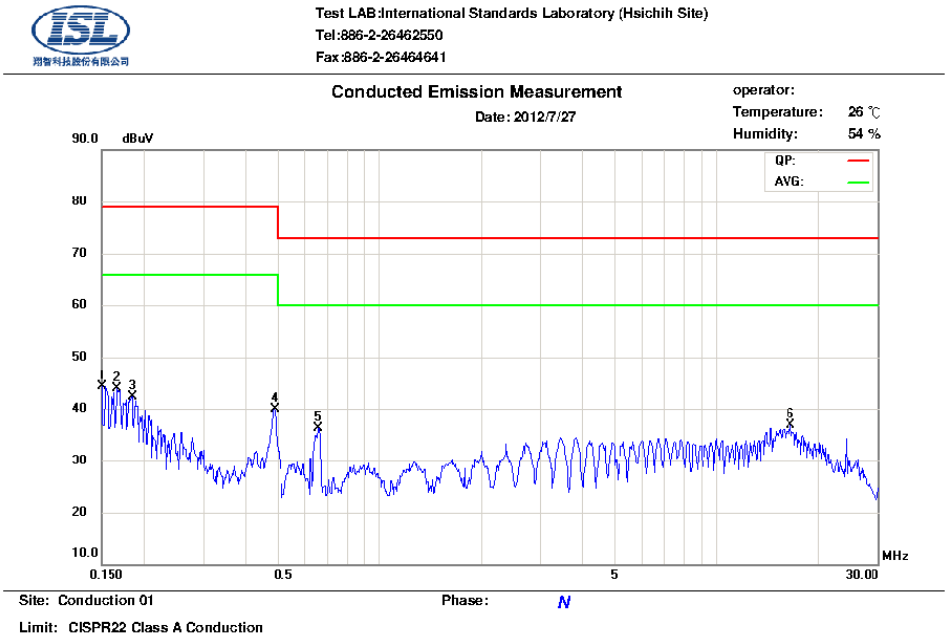
Table 2.2.1 Power Line Conducted Emissions (Hot)



No.	Frequency MHz	LISN Loss dB	Cable Loss dB	QP Correct. dBuV	QP Limit dBuV	QP Margin dB	AVG Correct. dBuV	AVG Limit dBuV	AVG Margin dB	Note
1	0.1507	0.29	0.01	43.75	79.00	-35.25	29.89	66.00	-36.11	
2	0.1678	0.29	0.01	42.57	79.00	-36.43	29.40	66.00	-36.60	
3	0.1832	0.28	0.01	33.78	79.00	-45.22	26.52	66.00	-39.48	
4	0.2217	0.28	0.01	34.74	79.00	-44.26	22.72	66.00	-43.28	
5	0.2420	0.28	0.02	34.33	79.00	-44.67	23.65	66.00	-42.35	
6	0.4853	0.29	0.04	39.43	79.00	-39.57	37.61	66.00	-28.39	

Note:
Margin = Corrected Amplitude - Limit
Corrected Amplitude = Receiver Reading + LISN Loss + Cable Loss
A margin of -8dB means that the emission is 8dB below the limit
The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.
If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead.

Table 2.2.2 Power Line Conducted Emissions (Neutral)



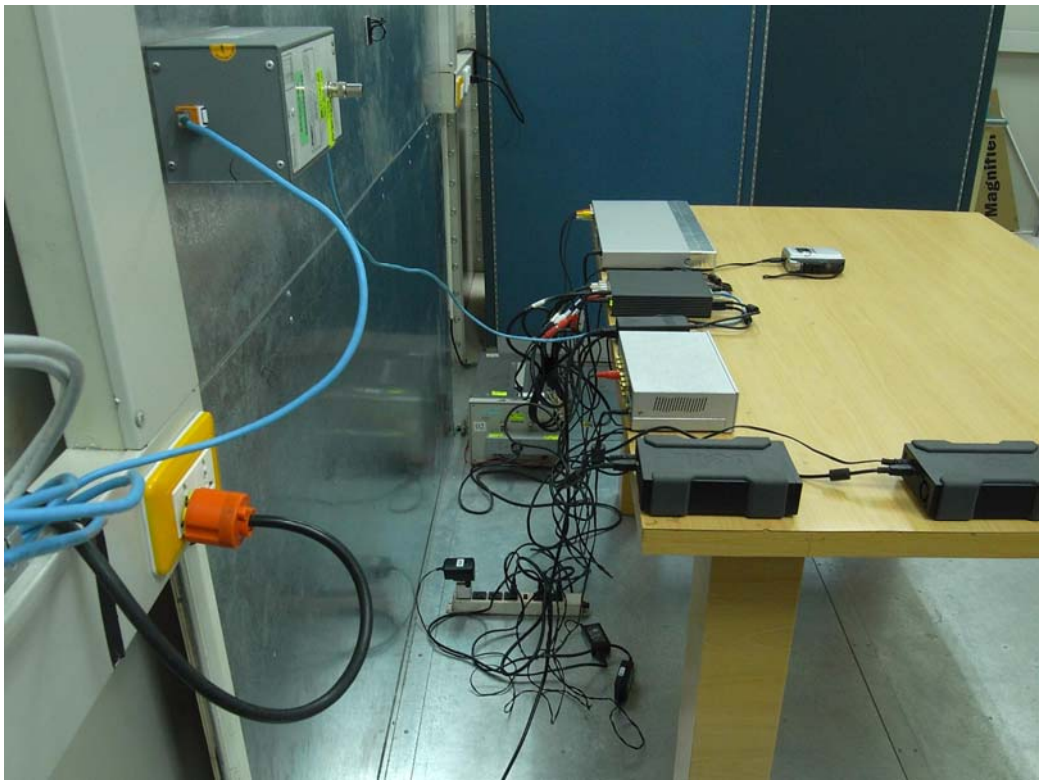
No.	Frequency MHz	LISN Loss dB	Cable Loss dB	QP Correct. dBuV	QP Limit dBuV	QP Margin dB	AVG Correct. dBuV	AVG Limit dBuV	AVG Margin dB	Note
1	0.1500	0.13	0.01	42.78	79.00	-36.22	31.49	66.00	-34.51	
2	0.1675	0.13	0.01	40.30	79.00	-38.70	29.82	66.00	-36.18	
3	0.1843	0.13	0.01	37.38	79.00	-41.62	29.40	66.00	-36.60	
4	0.4853	0.14	0.04	38.74	79.00	-40.26	37.14	66.00	-28.86	
5	0.6620	0.14	0.05	30.38	73.00	-42.62	13.30	60.00	-46.70	
6	16.4250	0.80	0.25	29.85	73.00	-43.15	24.17	60.00	-35.83	

Note:
Margin = Corrected Amplitude - Limit
Corrected Amplitude = Receiver Reading + LISN Loss + Cable Loss
A margin of -8dB means that the emission is 8dB below the limit
The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.
If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead.

2.3 Test Setup Photo

Front View

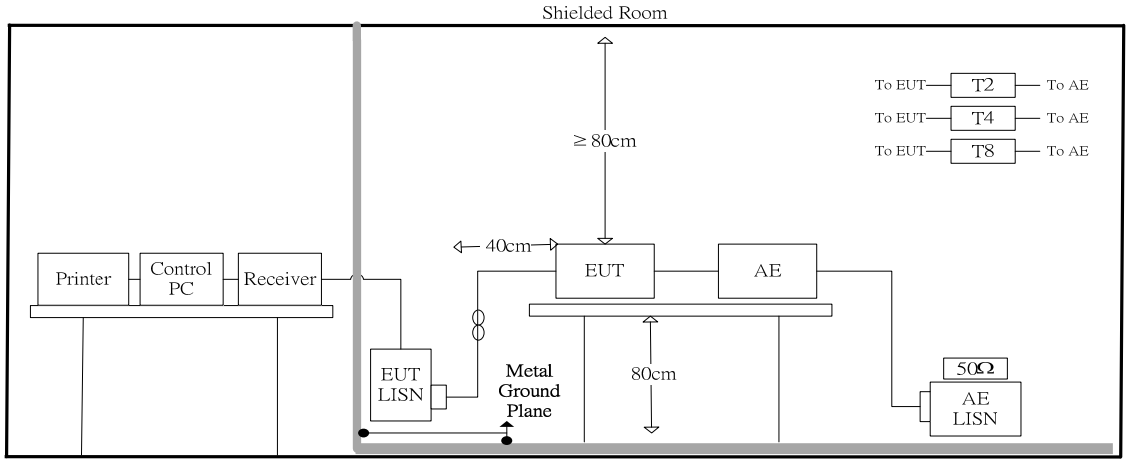
Back View



3. Telecommunication Port Conducted Emissions

3.1 Test Setup and Procedure

3.1.1 Test Setup



3.1.2 Test Procedure

The measurements are performed in a 3.5m x 3.4m x 2.5m shielded room, which referred as Conduction 01 test site, or a 3m x 3m x 2.3m test site, which referred as Conduction 02 test site. The EUT was placed on non-conduction 1.0m x 1.5m table, which is 0.8 meters above an earth-grounded.

The EUT, any support equipment, and any interconnecting cables were arranged and moved to get the maximum measurement.

Power to the EUT was provided through the LISN which has the Impedance (50 Ohm/50uH) vs. Frequency Characteristic in accordance with the standard. Power to the LISN was filtered to eliminate ambient signal interference and this filter was bonded to ground. Peripheral equipment to provide a functional system (support equipment) for EUT testing was powered through a ganged, metal power outlet box bonded to the ground. AC input power for the auxiliary power outlets was obtained from the same filtered source that provides input power to the LISN.

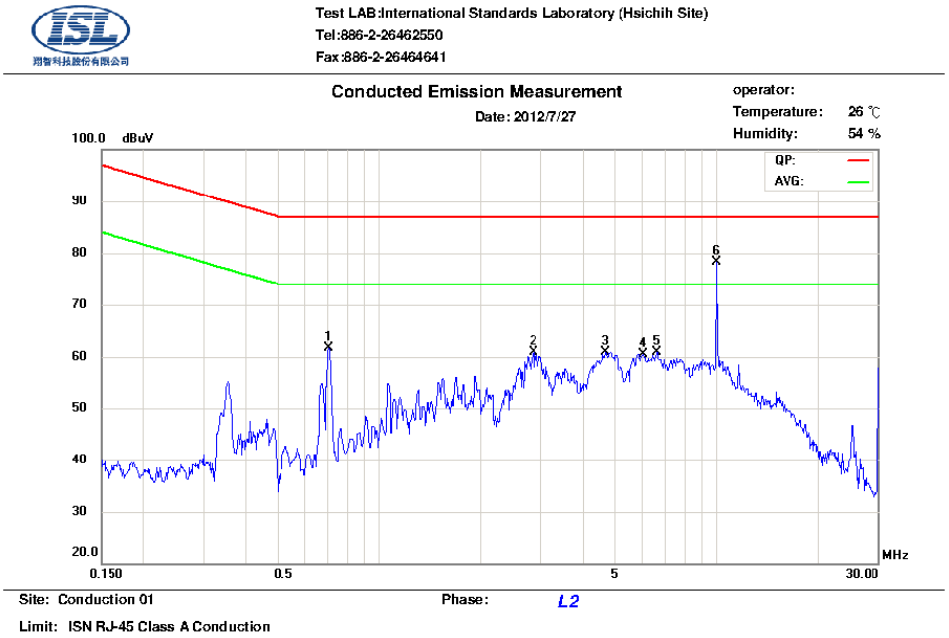
The highest emissions were analyzed in details by operating the spectrum analyzer in fixed tuned mode to determine the nature of the emissions and to provide information could be useful in reducing their amplitude.

3.1.3 EMI Receiver/Spectrum Analyzer Configuration (for the frequencies tested)

Frequency Range:	150KHz--30MHz
Detector Function:	Quasi-Peak / Average Mode
Resolution Bandwidth:	9KHz

3.2 Test Data: LAN--10M

Table 3.2.1 Telecommunication Port Conducted Emission

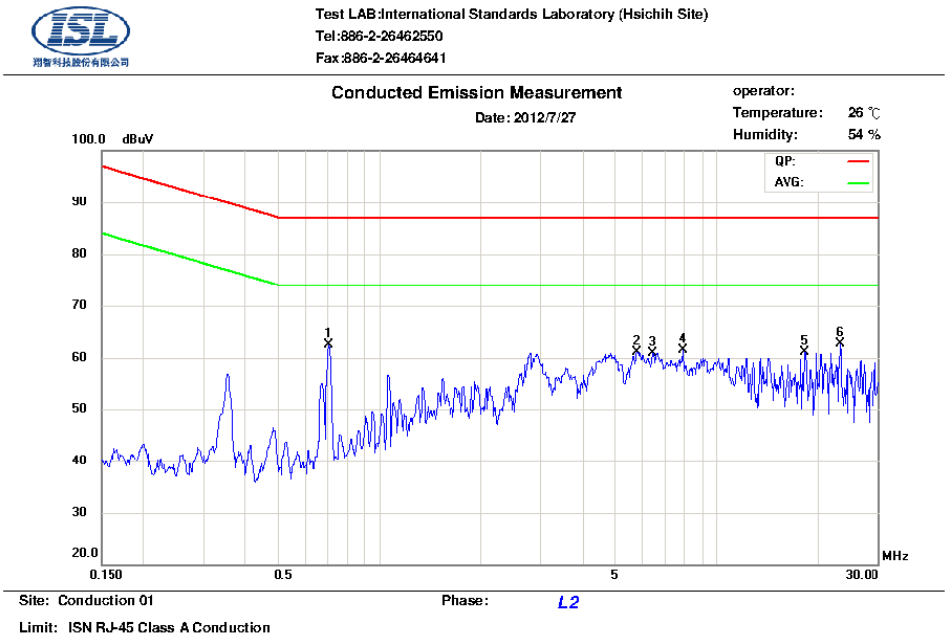


No.	Frequency MHz	LISN Loss dB	Cable Loss dB	QP Correct. dBuV	QP Limit dBuV	QP Margin dB	AVG Correct. dBuV	AVG Limit dBuV	AVG Margin dB	Note
1	0.7070	9.99	0.05	58.07	87.00	-28.93	54.33	74.00	-19.67	
2	2.8445	9.98	0.13	57.50	87.00	-29.50	45.70	74.00	-28.30	
3	4.6310	9.97	0.17	57.80	87.00	-29.20	47.69	74.00	-26.31	
4	6.0500	9.97	0.18	54.54	87.00	-32.46	46.06	74.00	-27.94	
5	6.6500	9.97	0.19	55.99	87.00	-31.01	47.20	74.00	-26.80	
6	10.0000	9.98	0.22	76.76	87.00	-10.24	60.97	74.00	-13.03	

Note :
Margin = Corrected Amplitude - Limit
Corrected Amplitude = Receiver Reading + LISN Loss + Cable Loss
A margin of -8dB means that the emission is 8dB below the limit
The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.
If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead.

3.3 Test Data: LAN--100M

Table 3.3.1 Telecommunication Port Conducted Emission

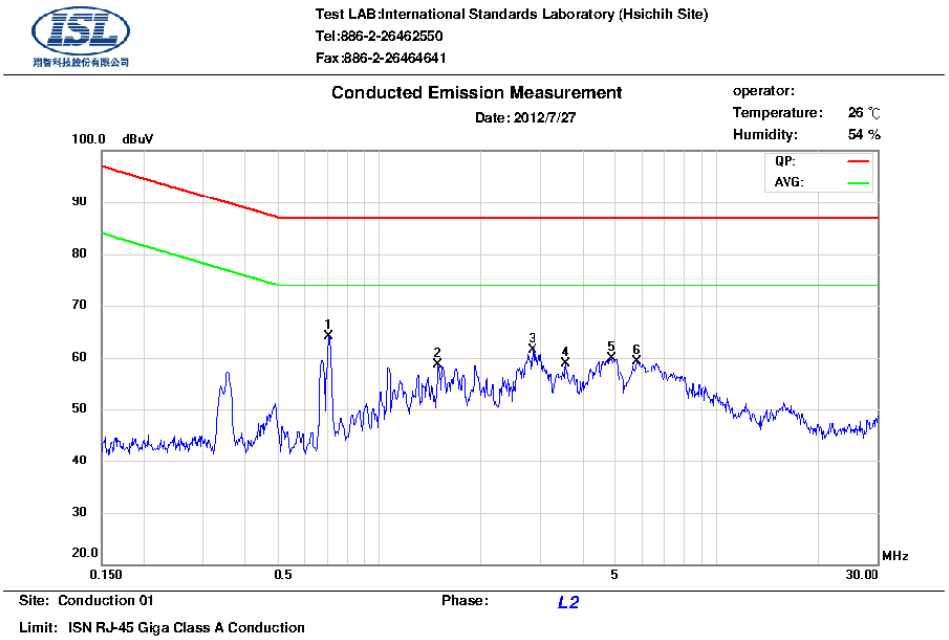


No.	Frequency MHz	LISN Loss dB	Cable Loss dB	QP Correct. dBuV	QP Limit dBuV	QP Margin dB	AVG Correct. dBuV	AVG Limit dBuV	AVG Margin dB	Note
1	0.7070	9.99	0.05	58.55	87.00	-28.45	54.36	74.00	-19.64	
2	5.8250	9.97	0.18	56.16	87.00	-30.84	47.15	74.00	-26.85	
3	6.4750	9.97	0.18	54.81	87.00	-32.19	46.05	74.00	-27.95	
4	7.9000	9.98	0.20	54.07	87.00	-32.93	44.96	74.00	-29.04	
5	18.2500	9.98	0.27	47.07	87.00	-39.93	44.62	74.00	-29.38	
6	23.1250	9.99	0.30	59.51	87.00	-27.49	56.38	74.00	-17.62	

Note :
Margin = Corrected Amplitude - Limit
Corrected Amplitude = Receiver Reading + LISN Loss + Cable Loss
A margin of -8dB means that the emission is 8dB below the limit
The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.
If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead.

3.4 Test Data: LAN--GIGA (Voltage)

Table 3.4.1 Telecommunication Port Conducted Emission



No.	Frequency MHz	LISN Loss dB	Cable Loss dB	QP Correct. dBuV	QP Limit dBuV	QP Margin dB	AVG Correct. dBuV	AVG Limit dBuV	AVG Margin dB	Note
1	0.7070	10.03	0.05	58.51	87.00	-28.49	53.63	74.00	-20.37	
2	1.4855	10.02	0.09	53.20	87.00	-33.80	43.98	74.00	-30.02	
3	2.8400	10.04	0.13	56.84	87.00	-30.16	46.14	74.00	-27.86	
4	3.5555	10.05	0.15	53.58	87.00	-33.42	43.86	74.00	-30.14	
5	4.8695	10.07	0.17	55.95	87.00	-31.05	46.83	74.00	-27.17	
6	5.8250	10.09	0.18	54.32	87.00	-32.68	46.10	74.00	-27.90	

Note :
Margin = Corrected Amplitude - Limit
Corrected Amplitude = Receiver Reading + LISN Loss + Cable Loss
A margin of -8dB means that the emission is 8dB below the limit
The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result.
If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead.

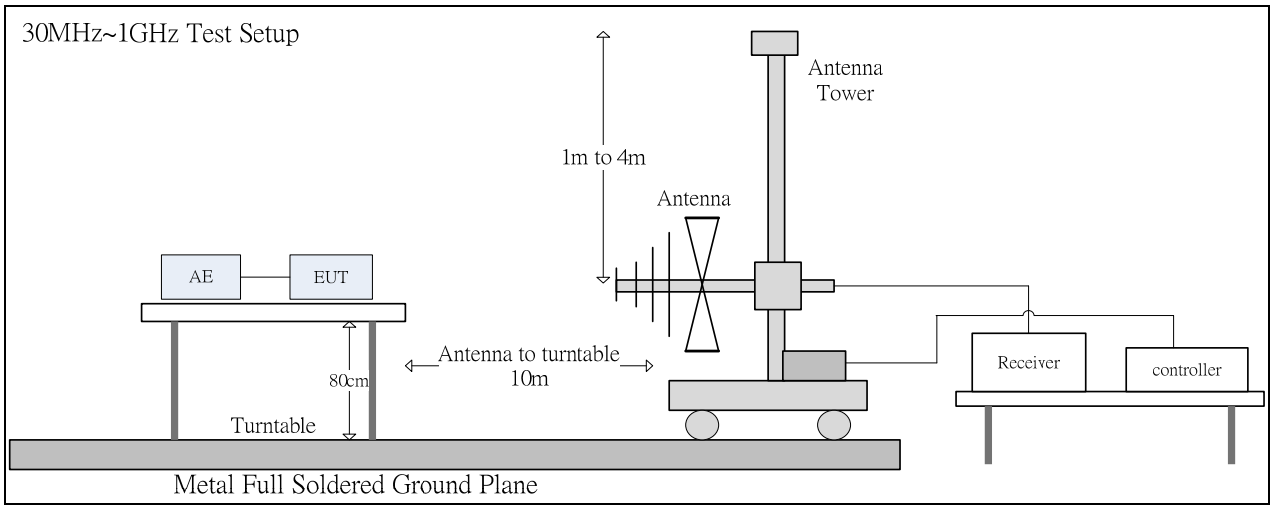
3.5 Test Setup Photo

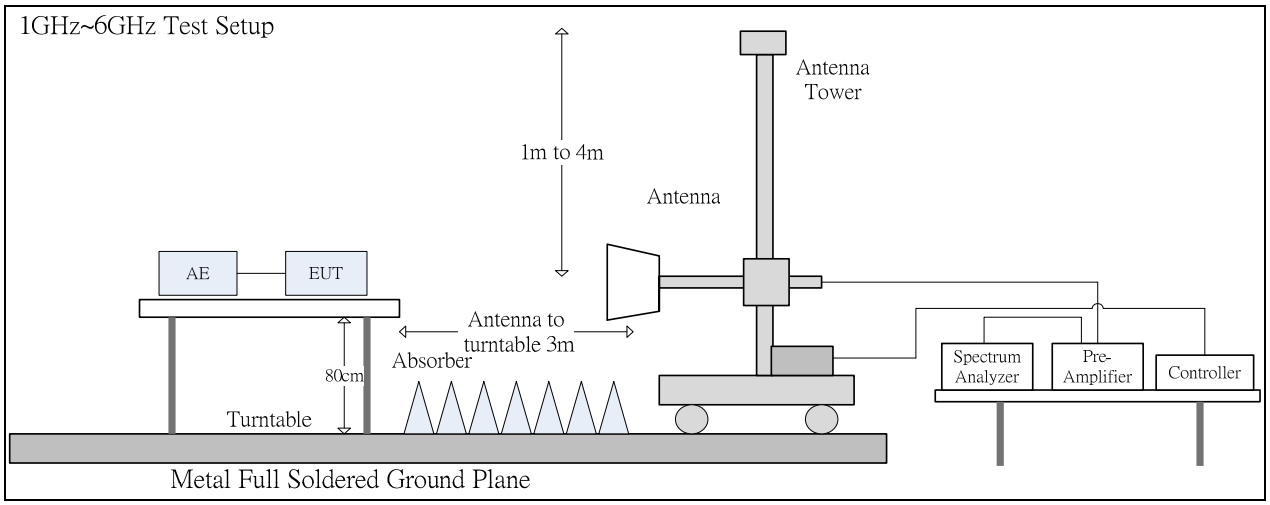
Refer to the Setup Photos for Power Main Port Conducted Emissions

4. Radiated Disturbance Emissions

4.1 Test Setup and Procedure

4.1.1 Test Setup





4.1.2 Test Procedure

The radiated emissions test will then be repeated on the open site or chamber to measure the amplitudes accurately and without the multiple reflections existing in the shielded room. The EUT and support equipment are set up on the turntable of one of 10 meter open field sites or 10 meter chamber. Desktop EUT are set up on a wooden stand 0.8 meter above the ground or floor-standing arrangement shall be placed on the horizontal ground reference plane. The test volume for a height of up to 30 cm may be obstructed by absorber placed on the ground plane.

For the initial measurements, the receiving antenna is varied from 1-4 meter height and is changed in the vertical plane from vertical to horizontal polarization at each frequency. The highest emissions between 30 MHz to 1000 MHz were analyzed in details by operating the spectrum analyzer and/or EMI receiver in quasi-peak mode to determine the precise amplitude of the emissions. The highest emissions between 1 GHz to 6 GHz were analyzed in details by operating the spectrum analyzer in peak and average mode to determine the precise amplitude of the emissions.

At the highest amplitudes observed, the EUT is rotated in the horizontal plane while changing the antenna polarization in the vertical plane to maximize the reading. The interconnecting cables were arranged and moved to get the maximum measurement. Once the maximum reading is obtained, the antenna elevation and polarization will be varied between specified limits to maximize the readings.

The highest internal source of an EUT is defined as the highest frequency generated or used within the EUT or on which the EUT operates or tunes. If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, the measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 6 GHz, whichever is less.

4.1.3 Spectrum Analyzer Configuration (for the frequencies tested)

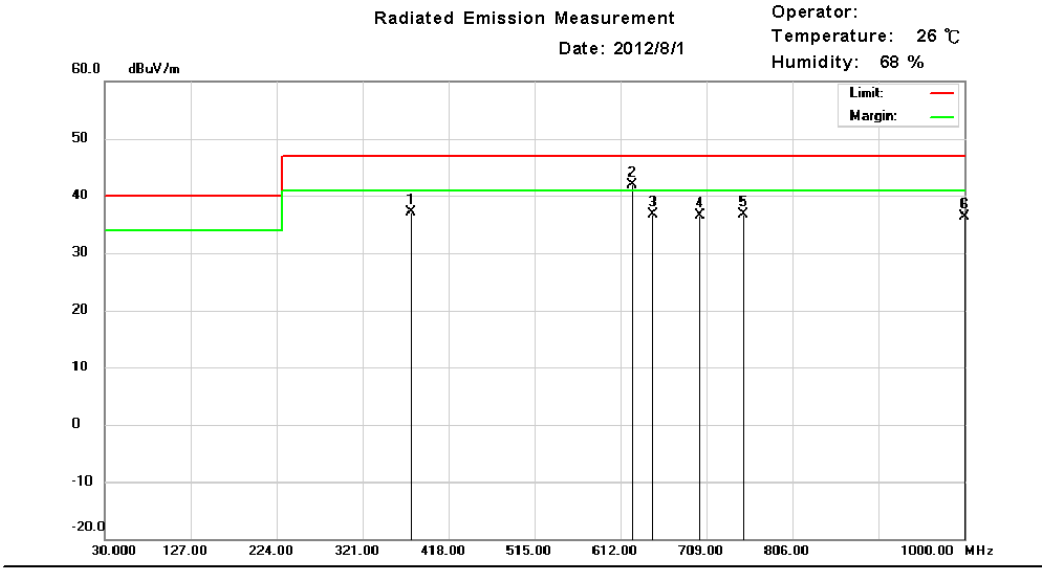
Frequency Range:	30MHz--1000MHz
Detector Function:	Quasi-Peak Mode
Resolution Bandwidth:	120KHz

Frequency Range:	Above 1 GHz to 6 GHz
Detector Function:	Peak/Average Mode
Resolution Bandwidth:	1MHz

4.2 Radiation Test Data: Configuration 1

Table 4.2.1 Radiated Emissions (Horizontal)

Test LAB:International Standards Laboratory (Hsichih Site)
Tel:886-2-26462550
Fax:886-2-26464641



Site : OATS 01
Condition : CISPR22 ClassA 10M Radiation Polarization: *Horizontal*

Mk.	Frequency (MHz)	RX_R (dBuV/m)	Ant_F (dB)	Cab_L (dB)	PreAmp (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1	374.4900	20.26	14.94	1.98	0.00	37.18	47.00	-9.82	100	96	QP
2	624.8800	20.20	19.15	2.6	0.00	41.95	47.00	-5.05	128	144	QP
3	648.1300	14.35	19.66	2.66	0.00	36.67	47.00	-10.33	113	267	QP
4	701.3100	13.47	20.21	2.77	0.00	36.45	47.00	-10.55	310	321	QP
5	749.9300	13.28	20.6	2.88	0.00	36.76	47.00	-10.24	264	228	QP
6	1000.0000	9.62	23.3	3.36	0.00	36.28	47.00	-10.72	146	111	QP

* Note:
Margin = Corrected Amplitude – Limit
Corrected Amplitude = Radiated Amplitude + Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
BILOG Antenna Distance: 10 meters

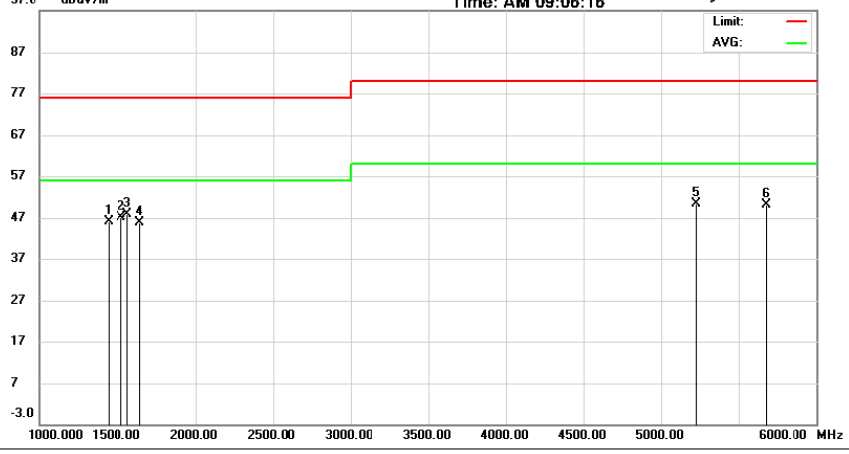
Below 1GHz test, if the peak measured value meets the QP limit, it is unnecessary to perform the QP measurement. measurement.

Test LAB:International Standards Laboratory (Hsichih Site)
Tel:886-2-26462550
Fax:886-2-26464641

Radiated Emission Measurement

File :101-08-01 Data :#5 Date: 2012/8/1 Time: AM 09:06:16

Operator:
Temperature: 25 ℃
Humidity: 55 %



Site : Chamber 01
Condition : CISPR22 ClassA 3M Radiation
Company :
EUT Model:
Execute Program :
Note :

Polarization: *Horizontal*
Power :
Witness:

Mk.	Frequency (MHz)	RX_R (dBuV/m)	Ant_F (dB)	Cab_L (dB)	PreAmp (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1	1440.705	66.27	28.3	3.54	52.04	46.07	76.00	-29.93	102	287	peak
2	1512.821	67.29	28.37	3.64	52.05	47.25	76.00	-28.75	123	37	peak
3	1560.897	67.54	28.64	3.69	52.06	47.81	76.00	-28.19	140	328	peak
4	1633.013	65.06	29.04	3.78	52.07	45.81	76.00	-30.19	100	149	peak
5	5222.756	61.76	34.28	7.05	52.66	50.43	80.00	-29.57	100	117	peak
6	5679.487	60.76	34.69	7.35	52.68	50.12	80.00	-29.88	113	357	peak

*:Maximum data x:Over limit !:over margin

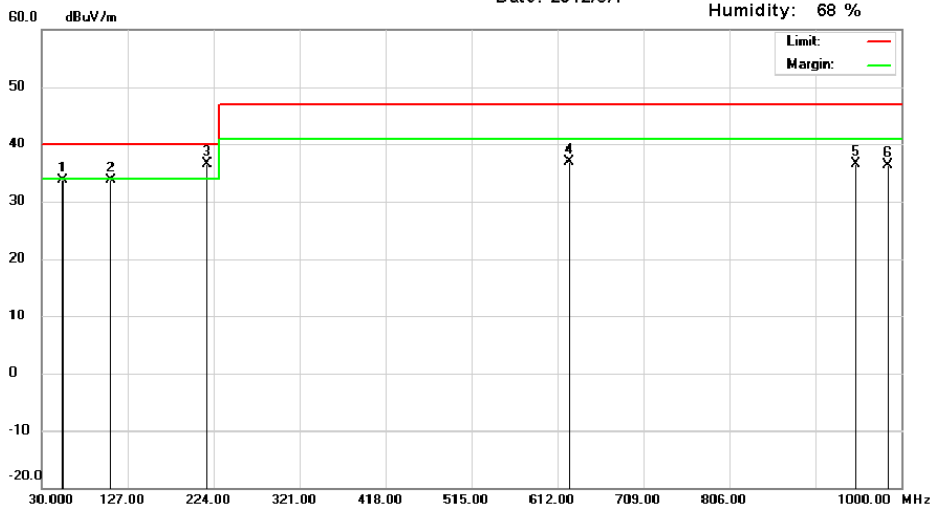
* Note:
Margin = Corrected Amplitude – Limit
Corrected Amplitude = Radiated Amplitude + Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
Horn Antenna Distance: 3 meters

Above 1GHz test, if the peak measured value meets the average limit, it is unnecessary to perform the average measurement.

Table 4.2.2 Radiated Emissions (Vertical)

Test LAB:International Standards Laboratory (Hsichih Site)
Tel:886-2-26462550
Fax:886-2-26464641

Radiated Emission Measurement
Date: 2012/8/1
Operator:
Temperature: 26 ℃
Humidity: 68 %



Site : OATS 01
Condition : CISPR22 ClassA 10M Radiation
Polarization: *Vertical*

Mk.	Frequency (MHz)	RX_R (dBuV/m)	Ant_F (dB)	Cab_L (dB)	PreAmp (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1	53.4100	25.12	7.83	0.75	0.00	33.70	40.00	-6.30	100	199	QP
2	107.9400	20.06	12.59	1.03	0.00	33.68	40.00	-6.32	106	327	QP
3	215.5800	24.34	10.61	1.47	0.00	36.42	40.00	-3.58	307	144	QP
4	624.7600	15.20	19.14	2.6	0.00	36.94	47.00	-10.06	175	211	QP
5	947.8900	10.47	22.78	3.24	0.00	36.49	47.00	-10.51	222	213	QP
6	984.2600	9.93	23.14	3.32	0.00	36.39	47.00	-10.61	134	38	QP

* Note:
Margin = Corrected Amplitude – Limit
Corrected Amplitude = Radiated Amplitude + Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
BILOG Antenna Distance: 10 meters

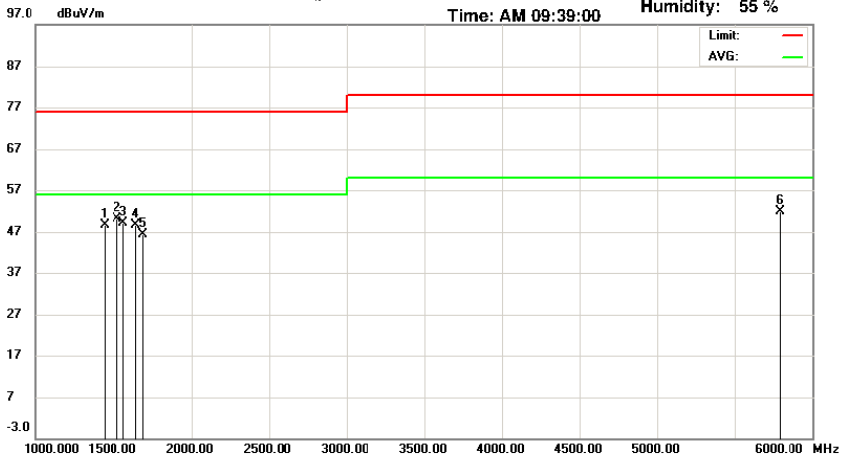
Below 1GHz test, if the peak measured value meets the QP limit, it is unnecessary to perform the QP measurement. measurement.

Test LAB:International Standards Laboratory (Hsichih Site)
Tel:886-2-26462550
Fax:886-2-26464641

Radiated Emission Measurement

Operator:
Temperature: 25 ℃
Humidity: 55 %

File :101-08-01 Data :#6 Date: 2012/8/1 Time: AM 09:39:00



Site : Chamber 01
Condition : CISPR22 ClassA 3M Radiation
Company :
EUT Model:
Execute Program :
Note :

Polarization: *Vertical*
Power :
Witness:

Mk.	Frequency (MHz)	RX_R (dBuV/m)	Ant_F (dB)	Cab_L (dB)	PreAmp (dB)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.Pos (cm)	Tab.Pos (deg.)	Detector
1	1440.705	68.71	28.3	3.54	52.04	48.51	76.00	-27.49	178	135	peak
2	1512.821	70.11	28.37	3.64	52.05	50.07	76.00	-25.93	156	21	peak
3	1560.897	68.92	28.64	3.69	52.06	49.19	76.00	-26.81	160	117	peak
4	1633.013	67.84	29.04	3.78	52.07	48.59	76.00	-27.41	130	312	peak
5	1681.090	65.22	29.31	3.84	52.08	46.29	76.00	-29.71	121	355	peak
6	5783.654	62.19	34.85	7.42	52.69	51.77	80.00	-28.23	109	289	peak

*:Maximum data x:Over limit !:over margin

* Note:
Margin = Corrected Amplitude – Limit
Corrected Amplitude = Radiated Amplitude + Antenna Correction Factor + Cable Loss – Pre-Amplifier Gain
A margin of -8dB means that the emission is 8dB below the limit
Horn Antenna Distance: 3 meters

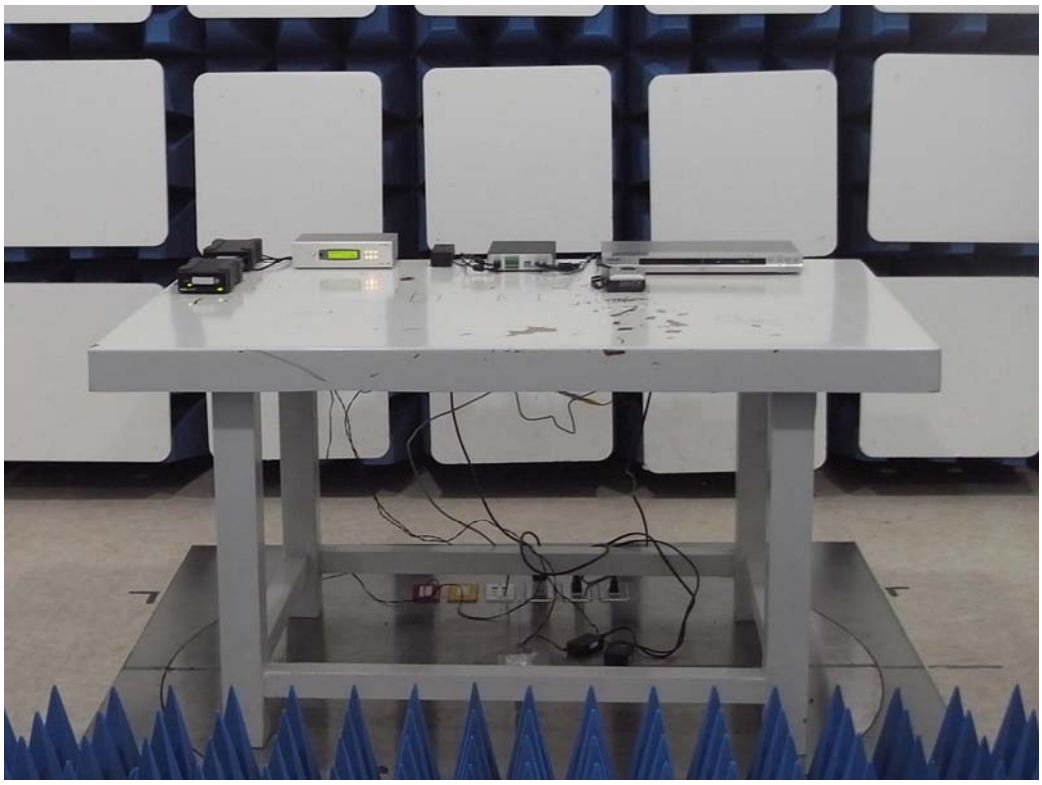
Above 1GHz test, if the peak measured value meets the average limit, it is unnecessary to perform the average measurement.

4.3 Test Setup Photo

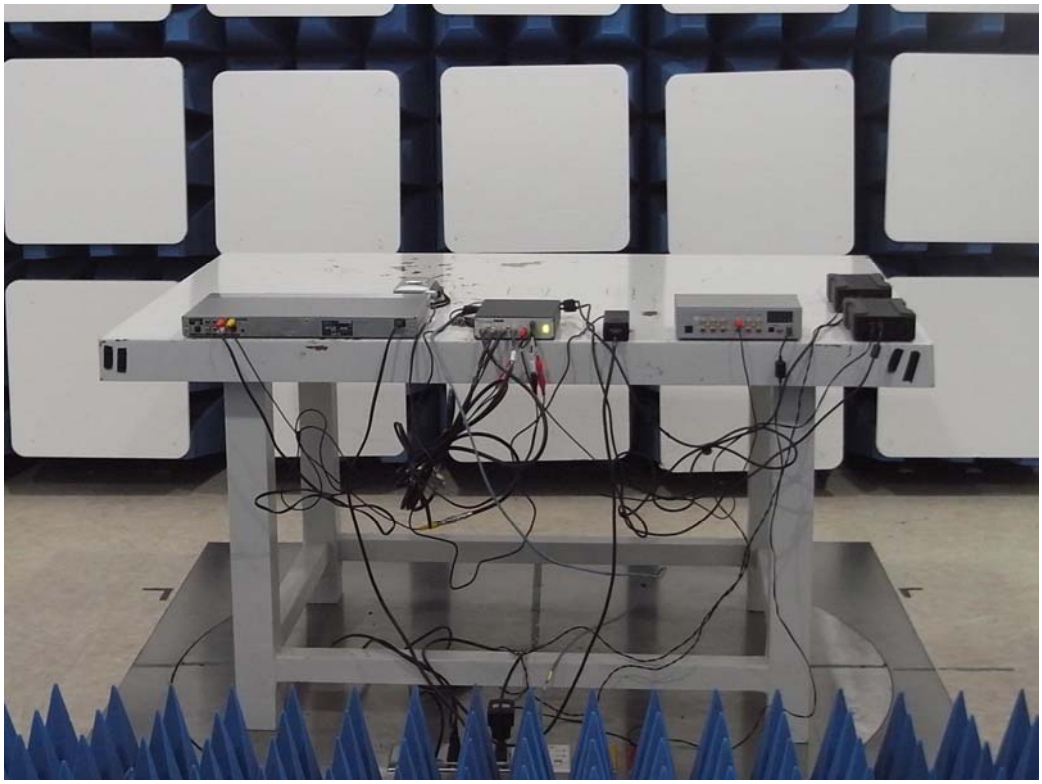
Front View (30MHz~1GHz)

Back View (30MHz~1GHz)

Front View (above 1GHz)



Back View (above 1GHz)



5. Appendix

5.1 Appendix A: Test Equipment

5.1.1 Test Equipment List

Location CON01	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Conduction	Coaxial Cable 1F-C1	EMEC	5D Cable	1F-C1	10/25/2011	10/25/2012
Conduction	LISN 02	EMCO	3825/2	1407	07/28/2012	07/28/2013
Conduction	LISN 03	R&S	ESH3-Z5 831.5518.52	828874/010	07/28/2012	07/28/2013
Conduction	ISN T2 03	FCC	FCC-TLISN-T2-02	20618	07/28/2012	07/28/2013
Conduction	ISN T4 05	FCC	FCC-TLISN-T4-02	20619	07/28/2012	07/28/2013
Conduction	ISN T8 03	FCC	FCC-TLINS-T8-02	20620	07/28/2012	07/28/2013
Conduction	EMI Receiver 15	ROHDE & SCHWARZ	ESCI	101166	04/24/2012	04/24/2013

Location OATS01	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Radiation	BILOG Antenna 10	Sumol Sciences	JB1	A013004-1	07/18/2012	07/18/2013
Radiation	Coaxial Cable 3F-10M	EMCI	CFD400-NL	ISL-R001	03/16/2012	03/16/2013
Radiation	EMI Receiver 13	ROHDE & SCHWARZ	ESCI	101015	02/22/2012	02/22/2013

Location Chmb14	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Rad. Above 1GHz	Spectrum Analyzer 21 (1G~26.5GHz)	Agilent	N9010A	MY49060537	07/18/2012	07/17/2013
Rad. Above 1GHz	Spectrum Analyzer 22	R&S	FSU43	100143	04/26/2012	04/26/2013
Rad. Above 1GHz	Horn Antenna 06 (1G~18G)	ETS	3117	00066665	09/21/2011	09/20/2012
Rad. Above 1GHz	Horn Antenna 04 (18G~26G)	Com-Power	AH-826	081-001	05/04/2011	05/04/2013
Rad. Above 1GHz	Horn Antenna 05 (26G~40G)	Com-Power	AH-640	100A	01/11/2011	01/10/2013
Rad. Above 1GHz	SUCOFLEX 1GHz~18GHz cable	HUBER SUHNER	Sucoflex 106	67618/6 and 67619/6	02/10/2012	02/10/2013
Rad. Above 1GHz	Preamplifier 13	MITEQ	JS44-00101800-25-10P-44	1329256	07/19/2012	07/18/2013
Rad. Above 1GHz	SUCOFLEX 1GHz~40GHz cable	HUBER SUHNER	Sucoflex 102	27963/2&37421/2	09/21/2011	09/20/2012

5.1.2 Software for Controlling Spectrum/Receiver and Calculating Test Data

Radiation/Conduction	Filename	Version	Issued Date
Hsichih Conduction	EZ EMC	1.1.4.2	2/10/2007
Hsichih Radiation	EZ EMC	1.1.4.2	1/24/2007

5.2 Appendix B: Uncertainty of Measurement

The measurement uncertainty refers to CISPR 16-4-2:2003. The coverage factor k = 2 yields approximately a 95 % level of confidence.

<Conduction 01> ± 3.262dB

<OATS 01 (10M)>
Horizontal
30MHz~200MHz: ±4.216 dB
200MHz~1GHz: ±4.438 dB
Vertical
30MHz~200MHz: ±4.342 dB
200MHz~1GHz: ±4.426 dB

<Chamber 14 (3M)>
1GHz~18GHz: ± 3.606dB
18GHz~26GHz: ± 3.618dB