

Issue Date: 1/13/2011 Ref. Report No. ISL-11HE015FA

Product Name: : Nuvo-1000 Series

Model(s) : Nuvo-1005S-620M; Nuvo-1003S-520M; Nuvo-1003S-4500P

Applicant : Neousys Technology Inc.

Address : 13F.-1, NO.1, BAOSHENG RD., YONGHE CITY, TAIPEI COUNTY 23444,

TAIWAN, R.O.C

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. (refer to Test Report if any modifications were made for compliance).

Standards:



FCC CFR Title 47 Part 15 Subpart B: 2009- Section 15.107 and 15.109 ANSI C63.4-2003

Industry Canada Interference-Causing Equipment Standard ICES-003 Issue 4: 2004 Class A

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 District, New Taipei City 22117, Taiwan Tel: 886-2-2646-2550; Fax: 886-2-2646-4641







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No. 120, Lane 180, San Ho Tsuen, Hsin Ho Rd. Lung-Tan Hsiang, Tao Yuan County 325, Taiwan Tel: 886-3-407-1718; Fax: 886-3407-1738







FCC TEST REPORT

CFR 47 Part 15 Subpart B Class A

Product: Nuvo-1000 Series

Model(s): Nuvo-1005S-620M; Nuvo-1003S-520M;

Nuvo-1003S-4500P

Applicant: Neousys Technology Inc.

Address: 13F.-1, NO.1, BAOSHENG RD., YONGHE

CITY, TAIPEI COUNTY 23444, TAIWAN,

R.O.C

Test Performed by:

International Standards Laboratory

<Hsi-Chih LAB>

*Site Registration No.

BSMI:SL2-IN-E-0037; SL2-R1/R2-E-0037; TAF: 1178;

IC: IC4067A-1; VCCI: R-341,C-354, T-1749; NEMKO: ELA 113A

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Report No.: ISL-11HE015FA

Issue Date: 1/13/2011

This report totally contains 26 pages including this cover page and contents page.

Test results given in this report apply only to the specific sample(s) tested and are traceable to national or international standard through calibration of the equipment and evaluating measurement uncertainty herein.

This report MUST not be used to claim product endorsement by TAF, NVLAP or any agency of the Government.

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1. General

1.1 Certification of Accuracy of Test Data

Standards: FCC CFR Title 47 Part 15 Subpart B: 2009- Section

15.107 and 15.109 ANSI C63.4-2003

Industry Canada Interference-Causing Equipment

Standard ICES-003 Issue 4: 2004

Equipment Tested: Nuvo-1000 Series

Model: Nuvo-1005S-620M; Nuvo-1003S-520M;

Nuvo-1003S-4500P

Applicant: Neousys Technology Inc.

Sample received Date: 1/3/2011

Final test Date: refer to the date of test data

Test Site: International Standards Laboratory

OATS 01; Chamber 14; Conduction 01

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 120 V / 60 Hz

Radiation input power: AC 120 V / 60 Hz

Report Number: ISL-11HE015FA

Test Result: PASS

Report Engineer: Midori Su

)

Test Engineer:

Louis Yu

Approved By:

Jim Chu / Director



1.2 Description of EUT

EUT

Description: Nuvo-1000 Series Condition: Pre-Production

Model: Nuvo-1005S-620M; Nuvo-1003S-520M;

Nuvo-1003S-4500P

Serial Number: N/A

Power Supply Type: STARMEN (Model: TCS060120)

AC Input: 100-240V, 1.6A, 50/60Hz

DC Output: 12V, 5A

CPU: Intel® Core™ i7-620M processor 2.66GHz

Intel® CoreTM i5-520M processor 2.4GHz Intel® Celeron® processor P4500 1.86GHz

DIMM Memory: DSL (Model: 1048-73241) 2GB DDR3-1333MHz

SATA Hard Disk: Seagate (Model: ST9250315AS) 250GB

Power Switch Button: one Compact Flash Socket: one

USB 2.0 Port: six (4-pins)
E-Serial ATA Port: two (7-pins)
VGA Port (Onboard VGA): one (15-pins)

DVI Port (Onboard DVI): one

RJ45 Connector: five (8-pins) (10/100/1000Mbps)

PS/2 Mouse Port: one (6-pins) PS/2 Keyboard Port: one (6-pins)

Line-Out Port: one
Line-In Port: one
DC power Port: two

COM Port: four (9-pins)

Highest frequency of the internal sources of the EUT is 2.66GHz

All types of CPU with related components have been tested, we shown the data using the following configuration in this report.

Configuration:

Model: Nuvo-1005S-620M

CPU: Intel® $Core^{TM}$ i7-620M processor 2.66GHz Memory: DSL(Model: 1048-73241) 2GB DDR3-1333MHz

Report Number: ISL-11HE015FA

Display Type: D-SUB + DVI

SPS: STARMEN (Model: TCS060120)

Serial ATA Hard: Seagate (Model: ST9250315AS) 250GB

LAN Speed: 1000Mbps



Difference list:

Model Name	CPU	Giga Lan quantities
Nuvo-1005S-620M	i7-620M	5
Nuvo-1003S-520M	i5-520M	3
Nuvo-1003S-4500P	P4500	3

EMI Noise Source

Crystal:25MHz (X5), 25MHz (X6), 25MHz (X1), 25MHz (X9), 25MHz (X8), 25MHz (X7)

EMI Solution:

1. Added one Core on Power Supply Type cable • (Reference EUT photo 7)



1.3 Description of Support Equipment

Unit	Model Serial No.	Brand	Power Cord	FCC ID
Notebook Personal Computer	Latitude D400 S/N: N/A	DELL	Non-shielded, Detachable	FCC DOC
17" LCD Monitor	VA703B	View Sonic	Non-shielded, Detachable	FCC DOC
24" LCD Monitor	2405FPW S/N: N/A	DELL	Shielded, Detachable	FCC DOC
External HDD Enclosure*6	OT-201 S/N: NA	A-TEC	N/A	FCC DOC
E-SATA External Hard Disk*2	NST-200SU-BK	NexStar	Non-shielded, Detachable	FCC DOC
Keyboard	SK-8115, S/N: MY-05N456-38843-2BK-331 5	DELL	N/A	FCC DOC
Mouse	MO71KC S/N: 511092011	DELL	N/A	FCC DOC
Modem*4	DM1414 S/N: 0301000557	Aceex	Nonshielded, Without Grounding Pin	IFAXDM1414
Headphone & Microphone	CD-85	JS	Non-shielded, Detachable	FCC DOC
CF Card	266X S/N: N/A	PATRIOT	N/A	N/A
Rack mountable Switch	DGS-1008D	D-Link	D-Link (Model:AF-1205-B)	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. Read and write to the disk drives.
- B. R/W External HDD Enclosure from USB Port.
- C. R/W the memory card from card reader
- D. Read and write E-SATA Hard from E-SATA port.
- E. Send audio signal to the Microphone and HeadSet through Headphone port.
- F. Receive audio signal from Microphone and HeadSet through Microphone port.
- G. Send H pattern to the serial port device (Modem).
- H. Send H pattern to the video port device (Monitor).
- I. Receive and transmit package of EUT to the Rack mountable Switch HUB through LAN port.

- J. Used Tfgen.exe to Send signal to EUT RJ45 port through PC RJ45 Port.
- K. Repeat the above steps.

	Filename	Issued Date
External Hard Disk	BurnIn Test.exe	11/20/2000
E-SATA	BurnIn Test.exe	11/20/2000
Memory card	BurnIn Test.exe	11/20/2000
Modem	BurnIn Test.exe	11/20/2000
Monitor	BurnIn Test.exe	11/20/2000
EUT Hard Disk	BurnIn Test.exe	11/20/2000
ATA Microphone and HeadSet	Windows Media player.exe	02/18/2006
Rack mountable Switch	ping.exe	05/05/1999
RJ45	Tfgen.exe	05/22/2001



1.5 I/O Cable Condition of EUT and Support Units

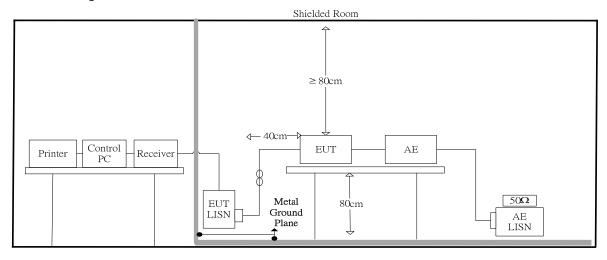
Description	Path	Cable Length	Cable Type	Connector Type
AC Power Cord	110V (~240V) to EUT SPS	1.8M	Non-shielded, Detachable	Plastic Head
USB Data Cable*6	External HDD Enclosure USB Port to PC USB Port	0.98M	Non-shielded, Detachable (With Core)	Metal Head
E-SATA Data Cable*2	External Hard disk E-SATA Port to EUT E-SATA Port	1.0M	Shielded, Detachable	Metal Head
LAN Data Cable	Notebook LAN Port to Switch HUB LAN Port.	2.0m	Non-shielded, Detachable	RJ-45, with Plastic Head
LAN Data Cable*5	EUT LAN Port to Switch HUB LAN Port	10M	Non-shielded, Detachable	RJ-45, with Plastic Head
LCD Monitor Data Cable	LCD Monitor DVI Port to EUT DVI Port	1.88M	Non-Shielded, Detachable	Metal Head
LCD Monitor Data Cable	LCD Monitor D-Sub Port to EUT D-Sub Port	1.88M	Non-Shielded, Detachable	Metal Head
Modem Data Cable	Modem to EUT COM 1 port	1.5M	Shielded, Detachable	Metal Head
Keyboard Data Cable	Keyboard to EUT USB Port	2.0M	Shielded, Un-detachable	Metal Head
Mouse Data Cable	Mouse to EUT USB port	1.8M	Shielded, Un-detachable	Metal Head
Microphone& Audio Data Cable*2	Microphone to EUT Microphone Port	1.9M	Non-shielded, Un-detachable	Plastic Head



2. Powerline 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 (500hm/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.

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

Frequency Range: 150KHz~30MHz

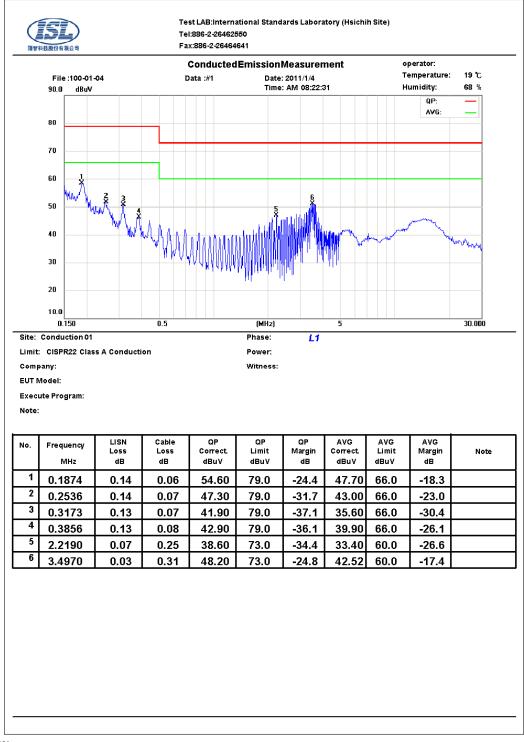
Detector Function: Quasi-Peak / Average Mode

Resolution Bandwidth: 9KHz



2.2 Conduction Test Data: Configuration 1

Table 2.2.1 Power Line Conducted Emissions (Hot)



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. The CISPR 22 limits would be applied to all FCC Part 15 devices.



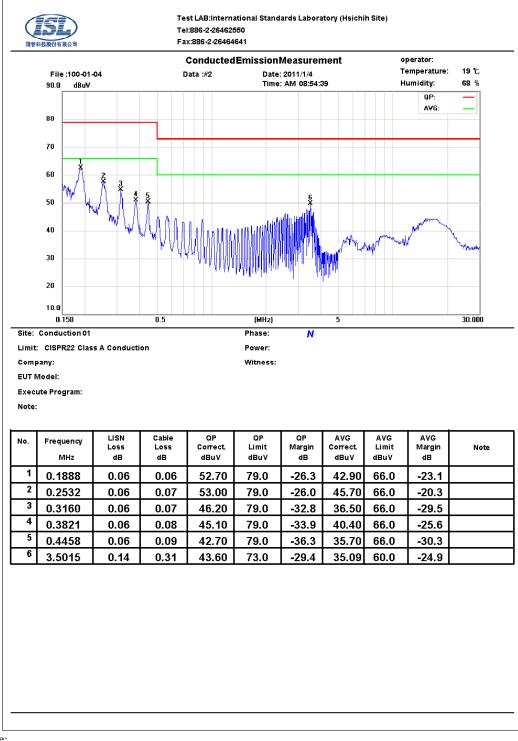


Table 2.2.2 Power Line Conducted Emissions (Neutral)

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

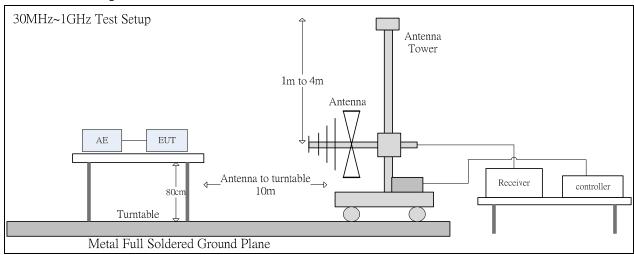
The frequency spectrum graph is for final peak graph, and the attached table is for QP/AVG test result. If peak data can pass, it will be shown in "QP/AVG Correct" column, if not, QP/AVG data will instead. The CISPR 22 limits would be applied to all FCC Part 15 devices.

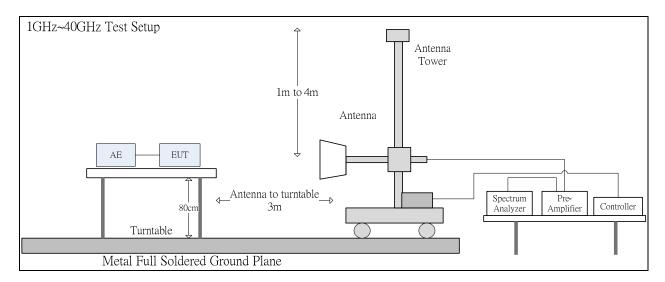


3. Radiated Emissions

3.1 Test Setup and Procedure

3.1.1 Test Setup





3.1.2 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 6 times the highest frequency or 40 GHz, whichever is less.

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3.1.3 Spectrum Analyzer Configuration (for the frequencies tested)

Frequency Range: 30MHz--1000MHz Detector Function: Quasi-Peak Mode

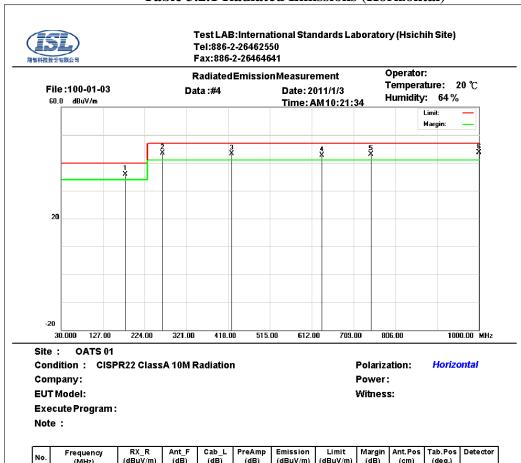
Resolution Bandwidth: 120KHz

Frequency Range: Above 1000MHz
Detector Function: Peak/Average Mode

Resolution Bandwidth: 1MHz



3.2 Radiation Test Data: Configuration 1 Table 3.2.1 Radiated Emissions (Horizontal)



(MHz)	(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
179.3800	21.72	11.42	2.82	0	35.96	40.00	-4.04	162	347	QP
265.7100	27.14	12.73	3.58	0	43.45	47.00	-3.55	293	93	QP
425.7600	22.05	16.32	4.85	0	43.22	47.00	-3.78	377	115	QP
635.2800	16.93	19.38	6.31	0	42.62	47.00	-4.38	258	330	QP
749.7400	15.47	20.6	7.11	0	43.18	47.00	-3.82	104	272	QP
1000.0000	11.36	23.3	9.13	0	43.79	47.00	-3.21	349	230	QP
	265.7100 425.7600 635.2800 749.7400	265.7100 27.14 425.7600 22.05 635.2800 16.93 749.7400 15.47	265.7100 27.14 12.73 425.7600 22.05 16.32 635.2800 16.93 19.38 749.7400 15.47 20.6	265.7100 27.14 12.73 3.58 425.7600 22.05 16.32 4.85 635.2800 16.93 19.38 6.31 749.7400 15.47 20.6 7.11	265.7100 27.14 12.73 3.58 0 425.7600 22.05 16.32 4.85 0 635.2800 16.93 19.38 6.31 0 749.7400 15.47 20.6 7.11 0	265.7100 27.14 12.73 3.58 0 43.45 425.7600 22.05 16.32 4.85 0 43.22 635.2800 16.93 19.38 6.31 0 42.62 749.7400 15.47 20.6 7.11 0 43.18	265.7100 27.14 12.73 3.58 0 43.45 47.00 425.7600 22.05 16.32 4.85 0 43.22 47.00 635.2800 16.93 19.38 6.31 0 42.62 47.00 749.7400 15.47 20.6 7.11 0 43.18 47.00	265.7100 27.14 12.73 3.58 0 43.45 47.00 -3.55 425.7600 22.05 16.32 4.85 0 43.22 47.00 -3.78 635.2800 16.93 19.38 6.31 0 42.62 47.00 4.38 749.7400 15.47 20.6 7.11 0 43.18 47.00 -3.82	265.7100 27.14 12.73 3.58 0 43.45 47.00 -3.55 293 425.7600 22.05 16.32 4.85 0 43.22 47.00 -3.78 377 635.2800 16.93 19.38 6.31 0 42.62 47.00 -4.38 258 749.7400 15.47 20.6 7.11 0 43.18 47.00 -3.82 104	265.7100 27.14 12.73 3.58 0 43.45 47.00 -3.55 293 93 425.7600 22.05 16.32 4.85 0 43.22 47.00 -3.78 377 115 635.2800 16.93 19.38 6.31 0 42.62 47.00 -4.38 258 330 749.7400 15.47 20.6 7.11 0 43.18 47.00 -3.82 104 272

* 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

The CISPR 22 limits would be applied to all FCC Part 15 devices.

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



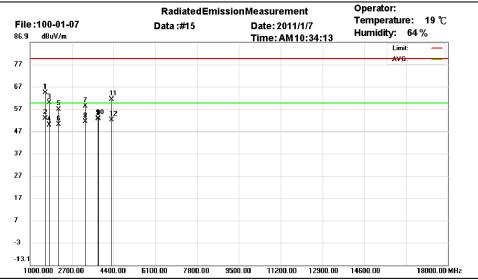


Address:No.120,Lane 180,San Ho Tsuen,Hsin Ho Road ,Lung-Tan Hsiang,Tao Yuan Conty,Taiwan R.O.C. Tel:03-4071718

Polarization:

Horizontal

Report Number: ISL-11HE015FA



Site: Chamber14

Condition: FCC Class A Radiation(Peak)

Company: Power: EUT Model: Distance:

Execute Program:

Note:

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	1600.000	79.70	28.98	1.94	46.3	64.32	79.50	-15.18	223	241	peak
2	1600.000	68.27	28.98	1.94	46.3	52.89	59.50	-6.61	223	241	AVG
3	1775.000	73.82	30.17	2.01	46.3	59.70	79.50	-19.80	119	134	peak
4	1775.000	63.94	30.17	2.01	46.3	49.82	59.50	-9.68	119	134	AVG
5	2160.000	69.01	31.96	2.2	46.4	56.77	79.50	-22.73	303	242	peak
6	2160.000	62.37	31.96	2.2	46.4	50.13	59.50	-9.37	303	242	AVG
7	3250.000	69.33	33.1	2.7	46.75	58.38	79.50	-21.12	194	181	peak
8	3250.000	62.19	33.1	2.7	46.75	51.24	59.50	-8.26	194	181	AVG
9	3760.000	62.86	33.47	2.96	46.85	52.44	79.50	-27.06	127	266	peak
10	3760.000	63.25	33.47	2.96	46.85	52.83	59.50	-6.67	127	266	AVG
11	4310.000	71.08	34.15	3.22	47.09	61.36	79.50	-18.14	339	120	peak
12	4310.000	61.76	34.15	3.22	47.09	52.04	59.50	-7.46	339	120	AVG

* 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

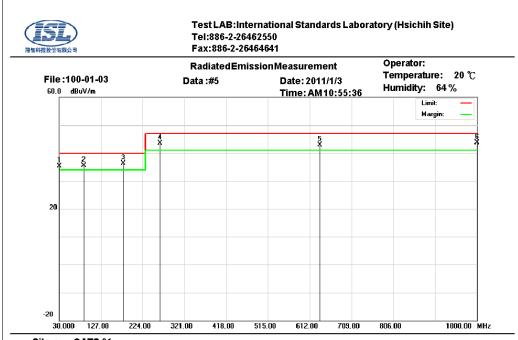
The CISPR 22 limits would be applied to all FCC Part 15 devices.

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

^{*:}Maximum data x:Over limit !:over margin



Table 3.2.2 Radiated Emissions (Vertical)



Site: OATS 01

Condition: CISPR22 ClassA 10M Radiation Polarization: Vertical

Company: Power: EUT Model: Witness:

Execute Program:

Note:

No.	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	30.0000	13.19	21	1.13	0	35.32	40.00	-4.68	135	232	QP
2	87.2300	25.85	7.67	1.92	0	35.44	40.00	-4.56	260	127	QP
3	179.3800	22.07	11.42	2.82	0	36.31	40.00	-3.69	198	203	QP
4	264.7400	27.31	12.62	3.57	0	43.50	47.00	-3.50	329	192	QP
5	636.2500	17.14	19.4	6.31	0	42.85	47.00	-4.15	214	68	QP
6	1000.0000	11.33	23.3	9.13	0	43.76	47.00	-3.24	102	297	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

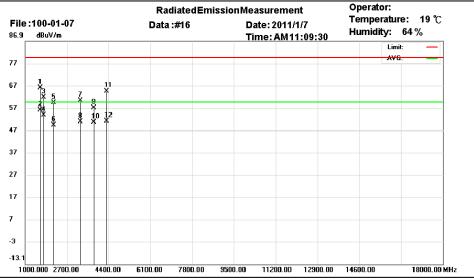
The CISPR 22 limits would be applied to all FCC Part 15 devices.

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





Address:No.120,Lane 180,San Ho Tsuen,Hsin Ho Road ,Lung-Tan Hsiang,Tao Yuan Conty,Taiwan R.O.C. Tel:03-4071718



Site: Chamber14

Condition: FCC Class A Radiation(Peak) Polarization: Vertical

Company: Power: EUT Model: Distance:

Execute Program:

Note:

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	1605.000	81.27	29.01	1.94	46.3	65.92	79.50	-13.58	230	226	peak
2	1605.000	71.34	29.01	1.94	46.3	55.99	59.50	-3.51	230	226	AVG
3	1760.000	76.09	30.07	2	46.3	61.86	79.50	-17.64	134	280	peak
4	1760.000	68.13	30.07	2	46.3	53.90	59.50	-5.60	134	280	AVG
5	2150.000	71.51	31.94	2.19	46.39	59.25	79.50	-20.25	370	123	peak
6	2150.000	61.48	31.94	2.19	46.39	49.22	59.50	-10.28	370	123	AVG
7	3249.000	71.26	33.1	2.7	46.75	60.31	79.50	-19.19	109	264	peak
8	3249.000	61.82	33.1	2.7	46.75	50.87	59.50	-8.63	109	264	AVG
9	3786.000	67.41	33.51	2.97	46.86	57.03	79.50	-22.47	186	58	peak
10	3786.000	60.79	33.51	2.97	46.86	50.41	59.50	-9.09	186	58	AVG
11	4310.000	74.17	34.15	3.22	47.09	64.45	79.50	-15.05	272	226	peak
12	4310.000	60.65	34.15	3.22	47.09	50.93	59.50	-8.57	272	226	AVG

* 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

The CISPR 22 limits would be applied to all FCC Part 15 devices.

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

^{*:}Maximum data x:Over limit !:over margin



4. Appendix

4.1 Appendix A: Warning Labels

Label Requirements

A Class A digital device subject to certification by the FCC shall carry a warning label which includes the following statement:

* * * W A R N I N G * * *

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The sample label shown shall be permanently affixed at a conspicuous location on the device and be readily visible to the user at the time of purchase.





4.2 Appendix B: Warning Statement

Statement Requirements

The operators' manual for a Class A digital device shall contain the following statements or their equivalent:

* * * * W A R N I N G * * *

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and uses in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equivalent.

* * * * * * * *

Report Number: ISL-11HE015FA

If the EUT was tested with special shielded cables the operators manual for such product shall also contain the following statements or their equivalent:

Shielded interface cables and/or AC power cord, if any, must be used in order to comply with the emission limits.



4.3 Appendix C: Test Equipment

4.3.1 Test Equipment List

Location	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
CON01						
Conduction	Coaxial Cable 1F-C1	EMEC	5D Cable	1F-C1	10/25/2010	10/25/2011
Conduction	LISN 02	EMCO	3825/2	1407	07/22/2010	07/22/2011
Conduction	LISN 03	R&S	ESH3-Z5	828874/010	07/22/2010	07/22/2011
			831.5518.52			
Conduction	ISN T2 03	FCC	FCC-TLISN-T	20618	08/23/2010	08/23/2011
			2-02			
Conduction	ISN T4 05	FCC	FCC-TLISN-T	20619	08/23/2010	08/23/2011
			4-02			
Conduction	ISN T8 03	FCC	FCC-TLINS-T	20620	08/23/2010	08/23/2011
			8-02			
Conduction	EMI Receiver 08	Schwarzbeck	FCKL 1528	1528-202	09/15/2010	09/15/2011
		Mess-Elektroni				
		k				
Conduction	Spectrum Analyzer 10	Advantest	R3132	111000879	12/17/2010	12/17/2011

Location OATS01	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Radiation	BILOG Antenna 10	Sumol	JB1	A013004-1	07/22/2010	07/22/2011
radiation	BILOG FINCHING TO	Sciences			0772272010	0772272011
Radiation	Coaxial Cable 3F-10M	MIYAZAKI	8D-8F	10M-1	10/25/2010	10/25/2011
Radiation	Coaxial Cable 3F-3M	BELDEN	RG-8/U	3F-3M	10/25/2010	10/25/2011
Radiation	Spectrum Analyzer 12	Advantest	R3132	130200208	03/08/2010	03/08/2011
Radiation	EMI Receiver 13	ROHDE &	ESCI	101015	01/14/2010	01/14/2011
		SCHWARZ				

Location		Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
Chmb14							
Rad.	Above	Horn Antenna 06	ETS	3117	00066665	09/28/2010	09/28/2011
1GHz							
(Chamber	14)						
Rad.	Above	Horn Antenna 04	Com-Power	AH-826	081-001	03/09/2009	03/09/2011
1GHz							
(Chamber	14)						
Rad.	Above	Horn Antenna 05	Com-Power	AH-640	100A	12/24/2010	12/24/2012
1GHz							
(Chamber	14)						
Rad.	Above	SUCOFLEX	HUBER+SU	Sucoflex 104	286305/4	09/30/2010	09/30/2011
1GHz		1GHz~26.5GHz cable	HNER AG.				
(Chamber	14)						
Rad.	Above	Preamplifier 15	Agilent	8449B	3008A2471	01/06/2011	01/06/2012
1GHz							
(Chamber	14)						
Rad.	Above	Preamplifier 13	MITEQ	JS44-0010180	1329256	06/10/2010	06/10/2011
1GHz				0-25-10P-44			
(Chamber	14)						
Rad.	Above	Preamplifier 09	MITEQ	AFS44-00102	858687	03/12/2009	03/12/2011
1GHz				650-40-10P-44			
(Chamber	14)						



Location Chmb14	Equipment Name	Brand	Model	S/N	Last Cal. Date	Next Cal. Date
	Spectrum Analyzer 19	R&S	FSP40	100116	10/18/2010	10/18/2011
(Chamber14)						
Rad. Above 1GHz (Chamber14)	Spectrum Analyzer 20	Agilent Technologies	E4443A	MY48250315	05/11/2010	05/11/2011
Rad. Above 1GHz (Chamber14)	RF.Pre-selector 01	Agilent Technologies	N9039A	MY46520296	05/11/2010	05/11/2011



4.3.2 Software for Controlling Spectrum/Receiver and Calculating Test Data

Issued Date	
07	
07	
07	
07	
(



4.4 Appendix D: 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> ±2.946dB

<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 ±3.722 dB



4.5 Appendix E: Photographs of EUT Configuration Test Set Up

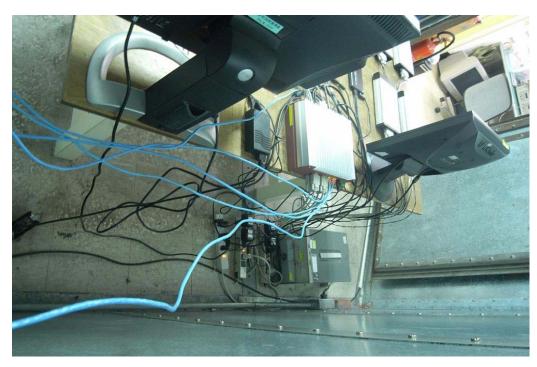
The Front View of Highest Conducted Set-up For EUT





The Back View of Highest Conducted Set-up For EUT







The Front View of Highest Radiated Set-up For EUT



The Back View of Highest Radiated Set-up For EUT

