VCCI TEST REPORT

REPORT NO.: V990301L25

MODEL NO.: 25243 (refer to item 3.1 for more details)

RECEIVED: Mar. 01, 2010

TESTED: Mar. 09 ~ Mar. 10, 2010

ISSUED: Mar. 17, 2010

APPLICANT: LSI CORP

ADDRESS: 6145-D NORTHBELT PKY, NOR CROSS, GA 30071, USA

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

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

Table of Contents

1 CERTIFICATION

PRODUCT:	PCI-E SAS HBA Card
BRAND:	LSI
MODEL NO.:	25243 (refer to item 3.1 for more details)
APPLICANT:	LSI CORP
TESTED:	Mar. 09 ~ Mar. 10, 2010
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARD:	**V-3/2009.04, TECHNICAL REQUIREMENTS, Class B** **V-4/2009.04, SUPPLEMENTARY TEST CONDITIONS FOR EQUIPMENT UNDER TEST**

The above equipment (model: L3-25243-03A is worst case) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

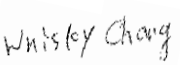
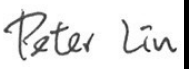
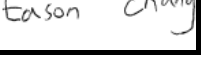
PREPARED BY : Polly Chien **, DATE :** Mar. 17, 2010
Polly Chien / Specialist

TECHNICAL ACCEPTANCE : Ban Hsieh **, DATE :** Mar. 17, 2010
Responsible for EMI
Ban Hsieh / Supervisor

APPROVED BY : David Liu **, DATE :** Mar. 17, 2010
David Liu / Senior Engineer

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications.

EMISSION				
Standard	**Test Type**	**Result**	**Remarks**	**Tested By**
V-3/2009.04, Class B	Conducted emission test	PASS	Worst emission frequency is 3.919 MHz at Line 2 And minimum passing margin is -9.58 dB, Average	Whisky Chang 
	Radiated emission test (30MHz~6GHz)	PASS	Worst emission frequency is 375.00 MHz at Horizontal And minimum passing margin is -3.09 dB, High of antenna is 2.5 m Angle of turntable is 79 deg	Peter Lin  Eason Chen 

Note: Opinions and interpretations expressed with this report are outside of "Scope of Accreditation".

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emission	150kHz ~ 30MHz	2.44dB
Radiated emissions	30MHz ~ 1GHz	3.84dB
	Above 1GHz	2.26dB

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

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	PCI-E SAS HBA Card
MODEL NO.	25243 (refer to item NOTE for more details)
POWER SUPPLY	5Vdc from host equipment
DATA CABLE	NA
ACCESSORY DEVICE	NA

NOTE:

1. The following models are provided to this EUT.

MODEL	PRODUCT NUMBER	DIFFERENCE
25243	-	-
L3-25243-03A	9280-24I4E	Twenty four SAS 2.5" HDDs External storage
L3-25243-04A	9260-I6I	Sixteen SAS 2.5" HDDs External storage
L3-25243-06A	9280-I6I4E	Sixteen SAS 2.5" HDDs only

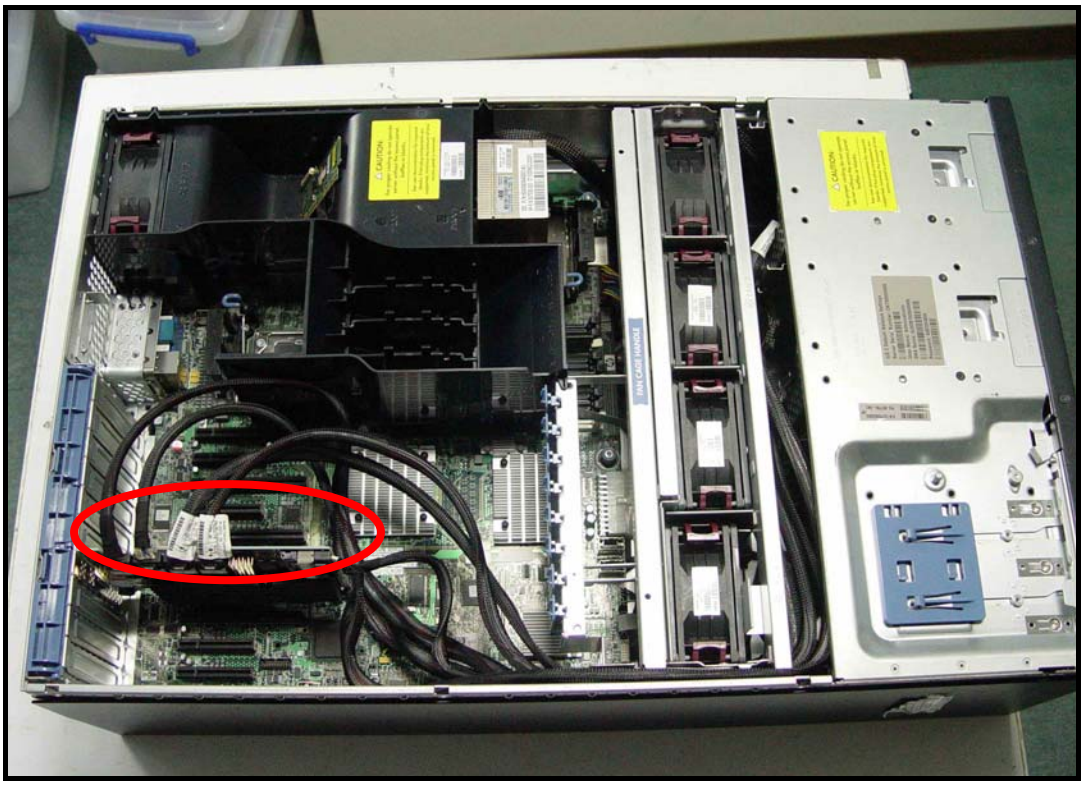
*After pre-testing, model: L3-25243-03A is found to be the worst case for the final test.

2. The EUT is a PCI-E SAS HBA Card and its features are listed as below:

FEATURE DESCRIPTION OF THE EUT
* Operation with SAS and SATA drives. * PCIe 2.0 compliant for x8 lane slots. * Six internal mini SAS4i connectors and one external mini SAS4x connector. * 512MB on-board DDR2-800 cache. * PCIe 2.0 Full Height MD2 form factor complaint. * Connection to remote iBBU (intelligent Battery Backup unit)

3. The highest working frequency is 2.5GHz.
4. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

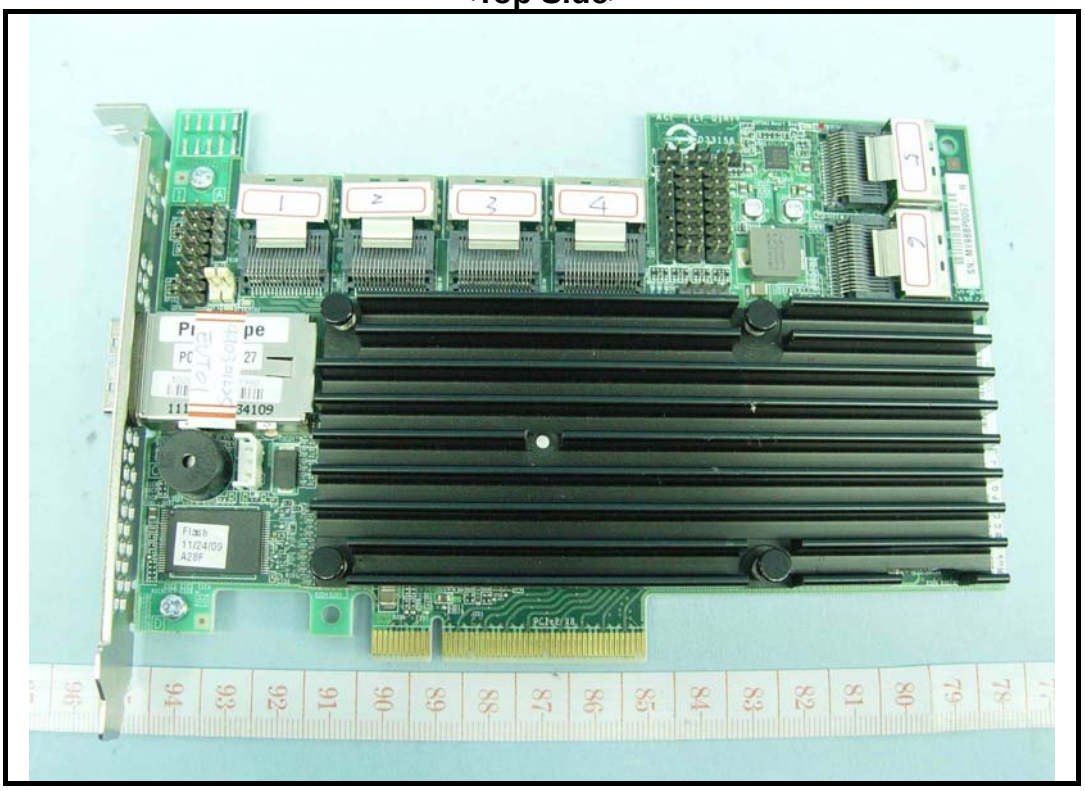
3.1.1 THE PHOTO OF LOCATION OF EUT IN HOST



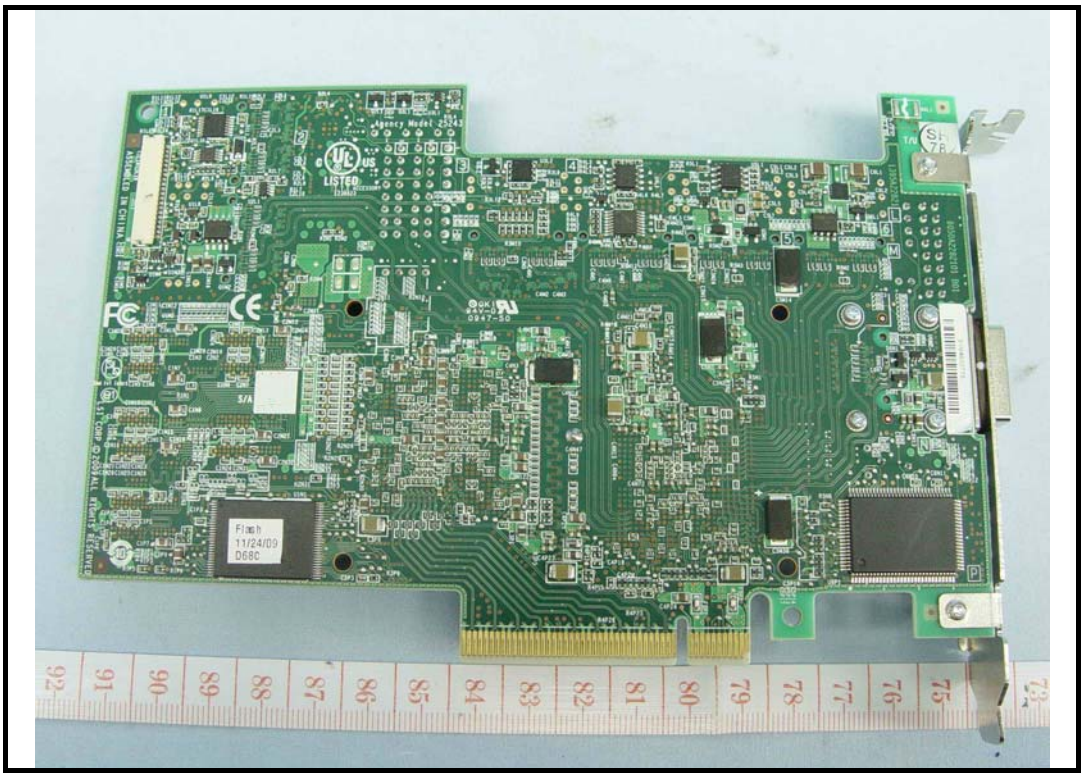
3.1.2 THE PHOTO OF TOP AND BOTTOM SIDE OF EUT

<For Model: L3-25243-03A >

<Top Side>

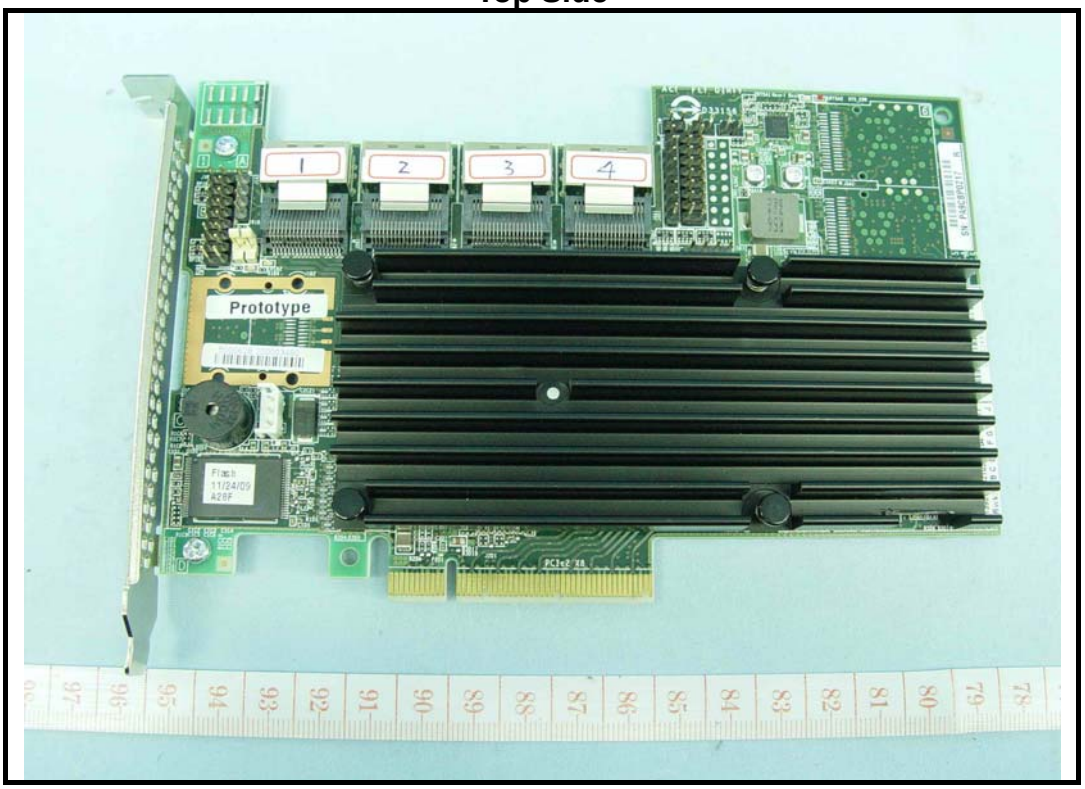


<Bottom Side>

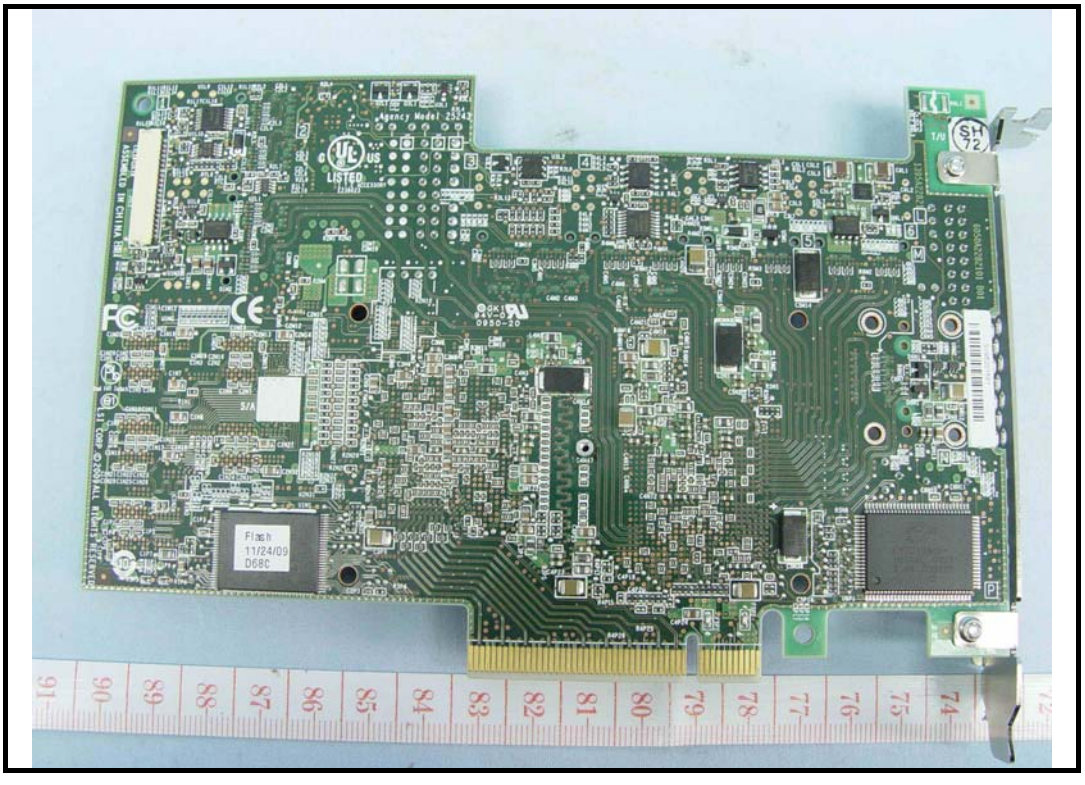


<For Model: L3-25243-04A >

<Top Side>

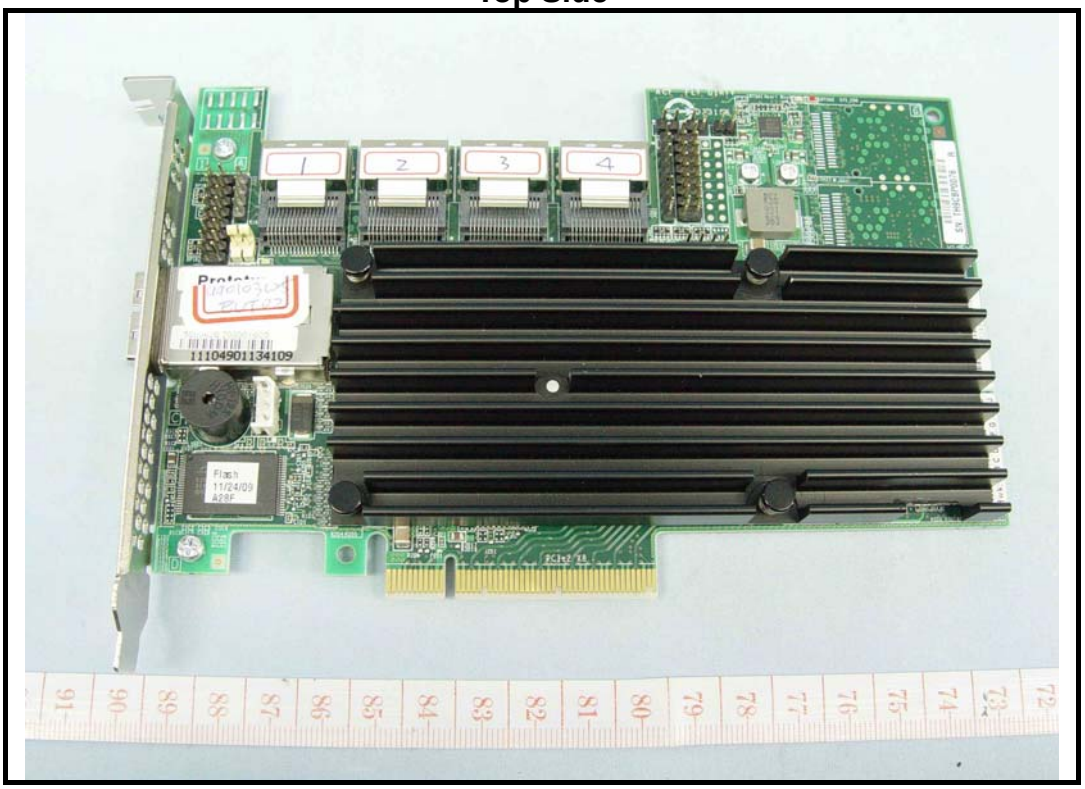


<Bottom Side>

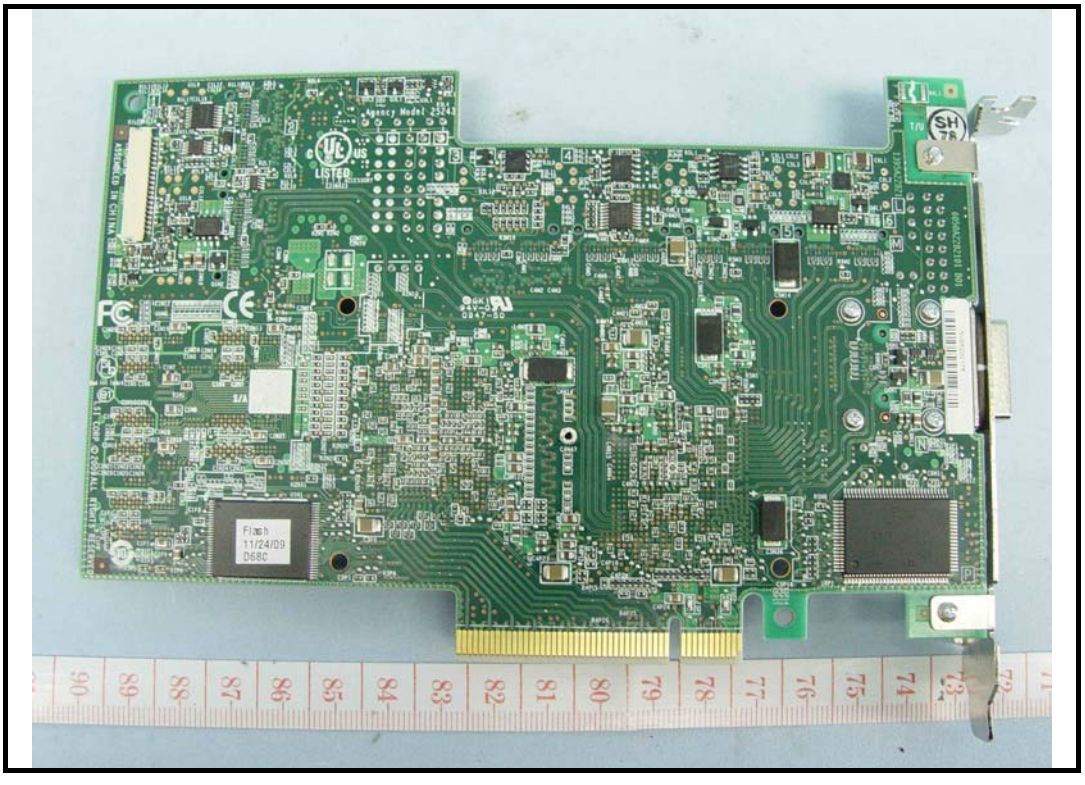


<For Model: L3-25243-06A >

<Top Side>



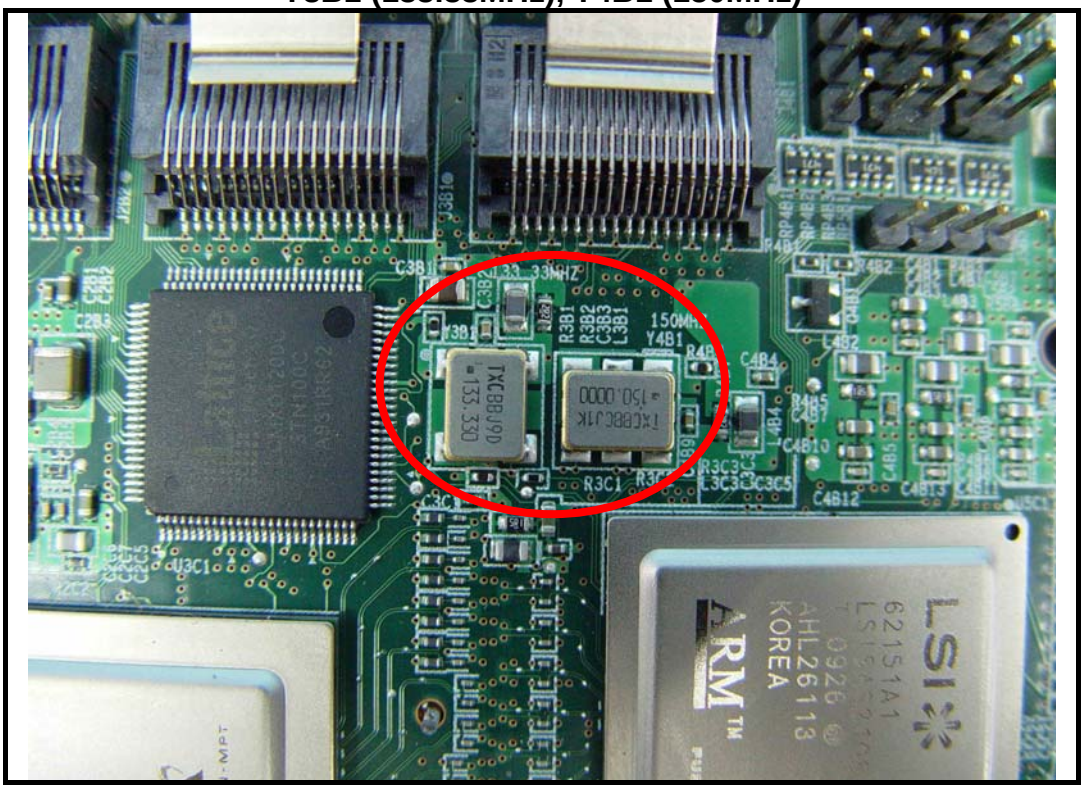
<Bottom Side>



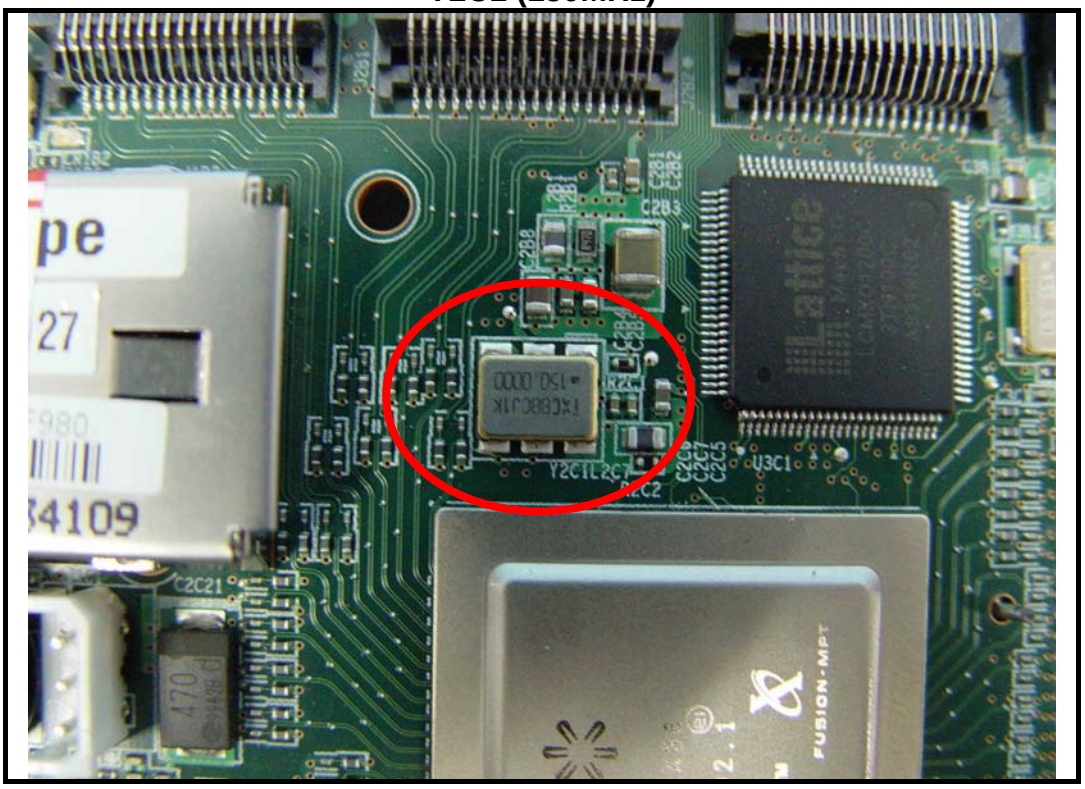
3.1.3 THE PHOTO OF NOISE SOURCES OF EUT

<For Model: L3-25243-03A >

<Y3B1 (133.33MHz), Y4B1 (150MHz)>

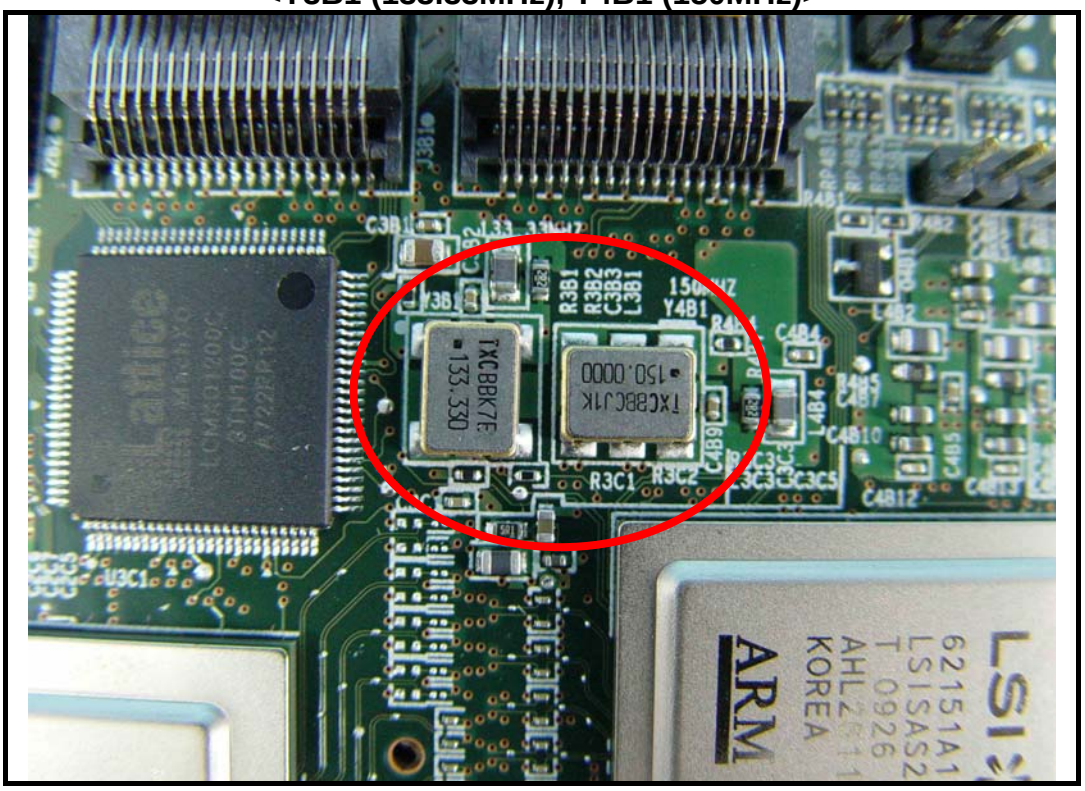


<Y2C1 (150MHz)>

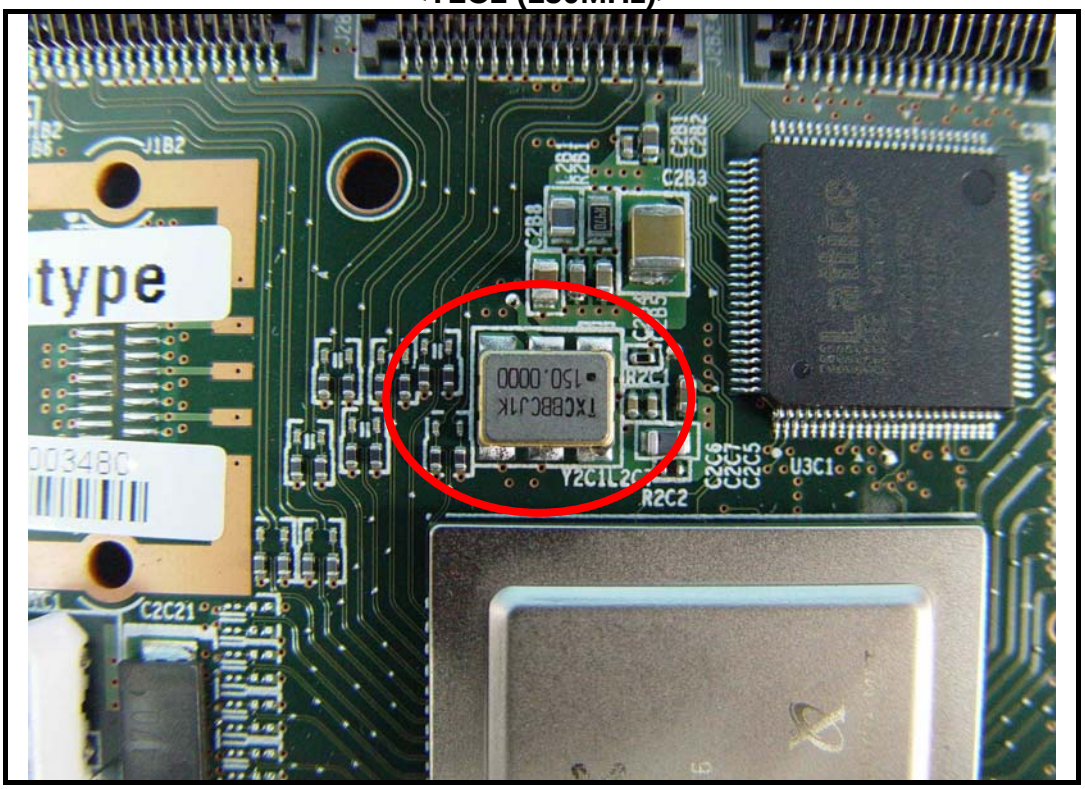


<For Model: L3-25243-04A >

<Y3B1 (133.33MHz), Y4B1 (150MHz)>

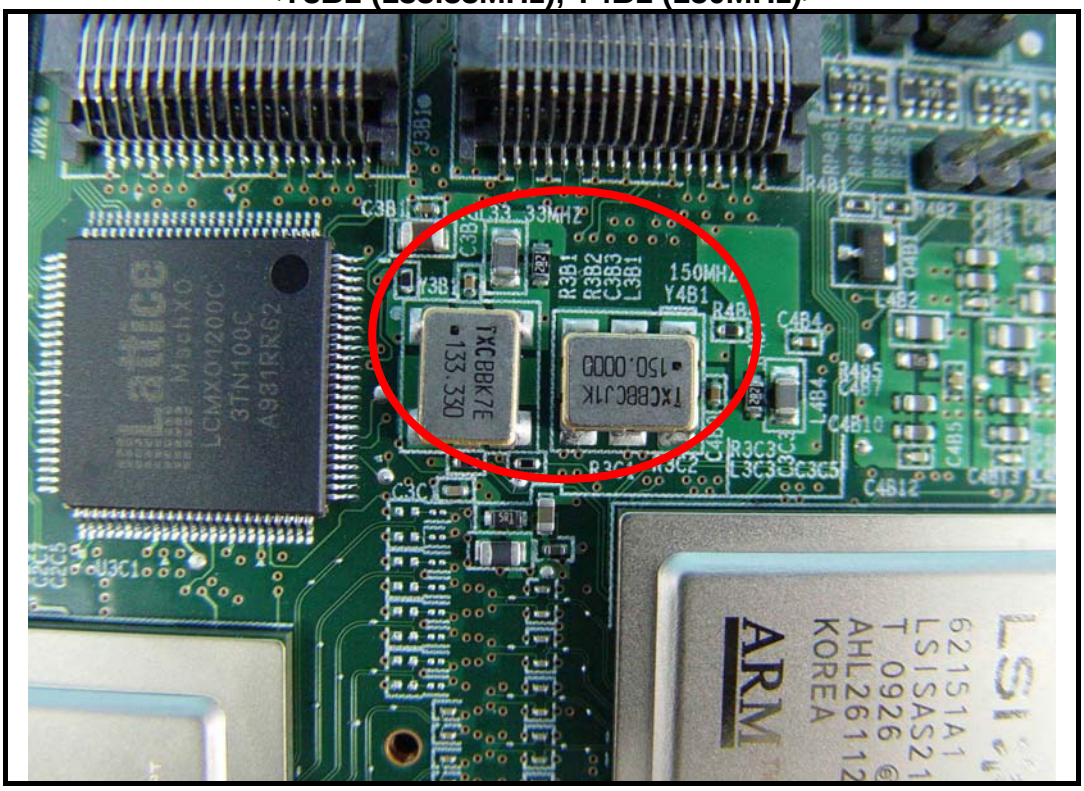


<Y2C1 (150MHz)>

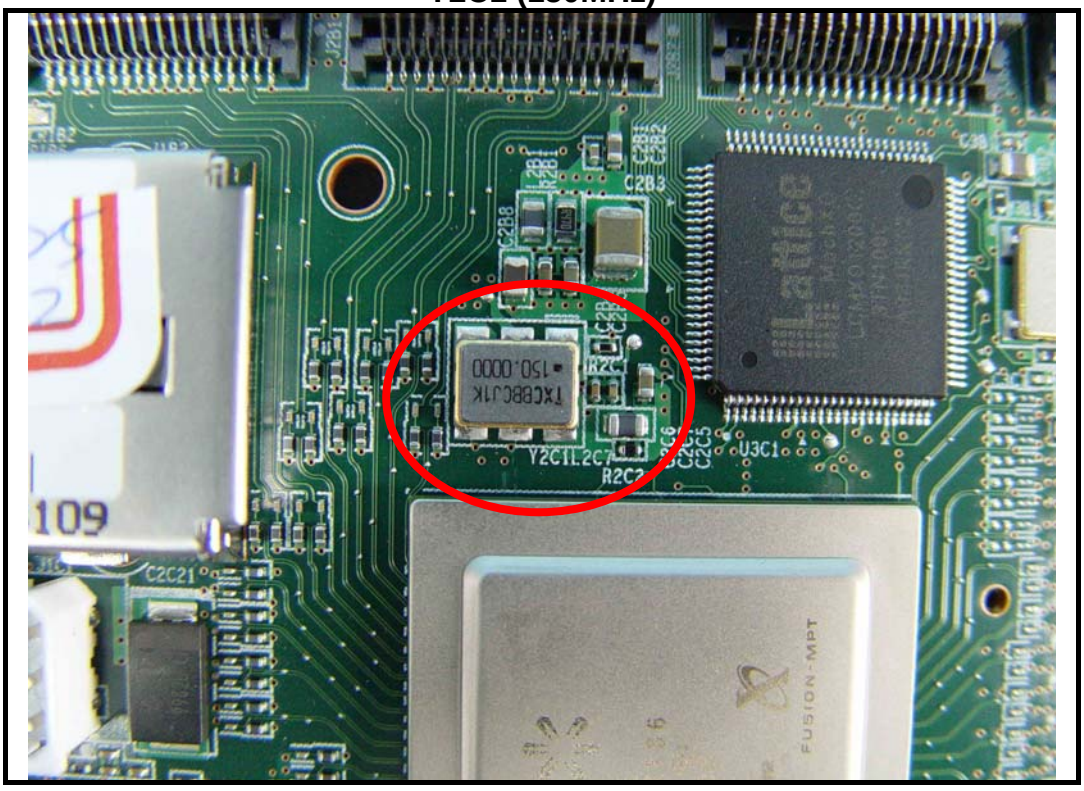


<For Model: L3-25243-06A >

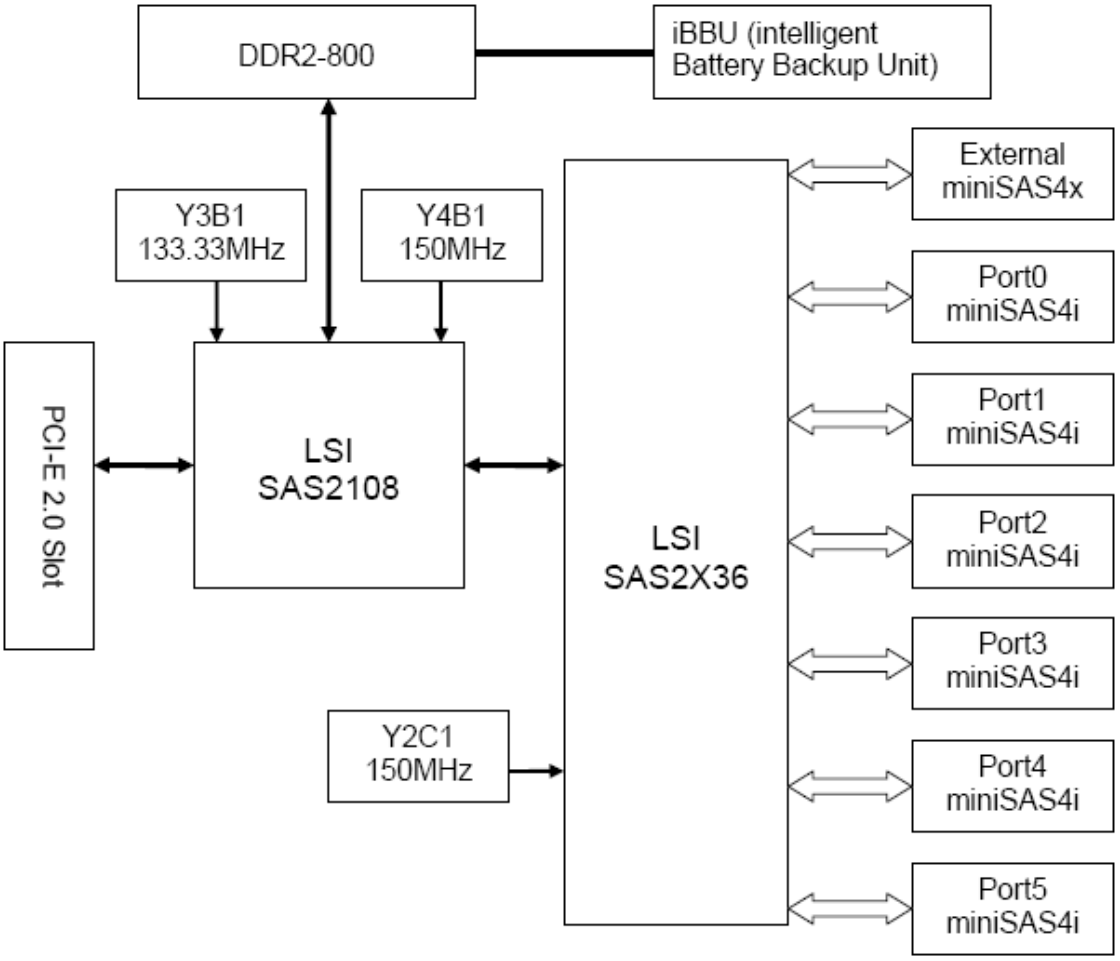
<Y3B1 (133.33MHz), Y4B1 (150MHz)>



<Y2C1 (150MHz)>

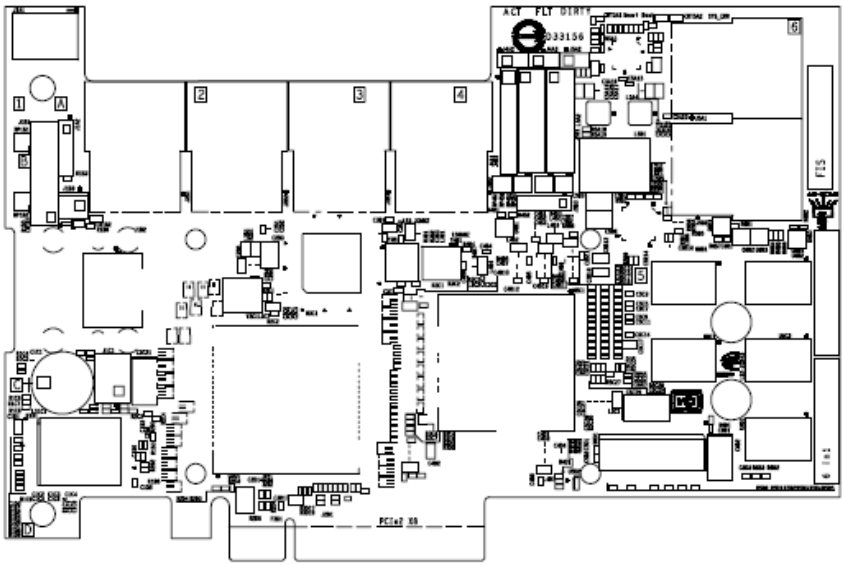


3.1.4 THE CIRCUIT BLOCK DIAGRAM OF EUT



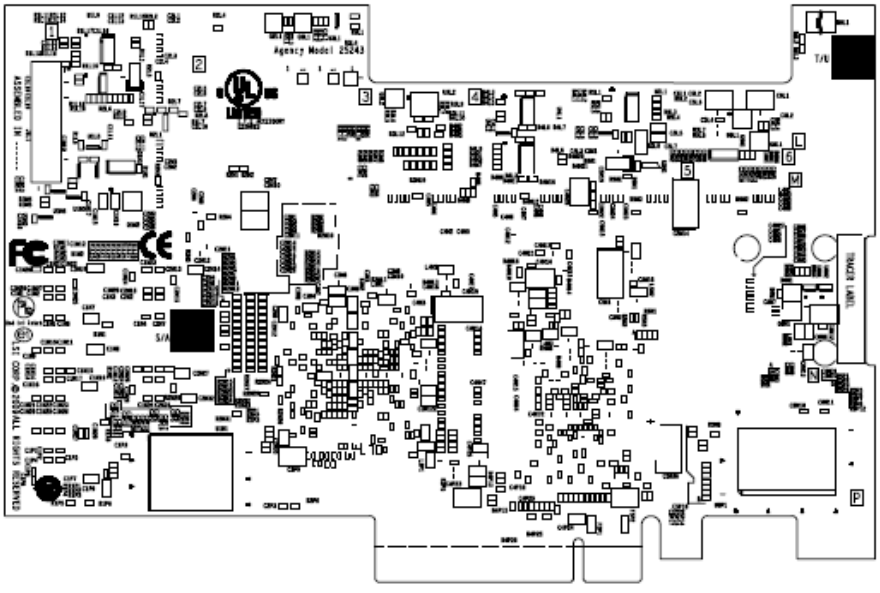
3.1.5 ID LABEL SPECIFICATION

<Top Side>



SS1 6050A2282101 B01

<Bottom Side>



SS2 6050A2282101 B01

3.2 DESCRIPTION OF TEST MODES

The EUT is designed for power from host with AC power supply of rating 100-240V, 50/60Hz.

For radiated emission evaluation, 240Vac/50Hz (for AS/NZS CISPR 22), 230Vac/50Hz (for EN 55022), 120Vac/60Hz (for FCC Part 15), 110Vac/60Hz (for BSMI) and 100Vac/50Hz (for VCCI) had been covered during the pre-test. The worst radiated emission data was founded at **110Vac/60Hz** and recorded in the applied test report.

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

TEST MODE	MODEL	TEST CONDITION
1	L3-25243-03A	110Vac/60Hz, Full system
2	L3-25243-04A	
3	L3-25243-06A	
4	L3-25243-04A	100Vac/50Hz, Full system
5		120Vac/60Hz, Full system
6		230Vac/50Hz, Full system
7		240Vac/50Hz, Full system

3.3 DESCRIPTION OF SUPPORT UNITS

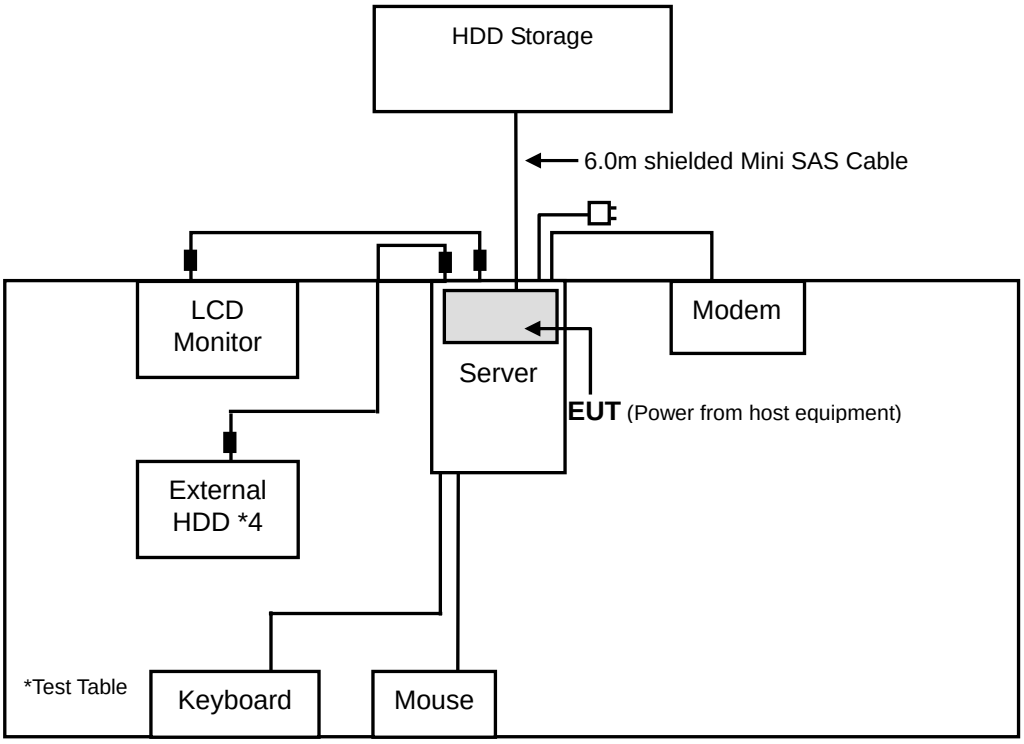
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	LCD MONITOR	DELL	2408WFPb	CN-0FC255-46633-665-07US	FCC DoC Approved
2	MODEM	ACEEX	1414V/3	0401008271	IFAXDM1414
3	EXTERNAL HARD DISK	DELL	RD1000	HK-0XM763-72953-77J-0032	NA
4	EXTERNAL HARD DISK	DELL	RD1000	CN-0F088R-70561-96D-0005-A00	NA
5	EXTERNAL HARD DISK	DELL	RD1000	HK-0XM763-72953-77Q-001C	NA
6	EXTERNAL HARD DISK	DELL	RD1000	CN-0F088R-70561-96D-002F-A00	NA
7	KEYBOARD	DELL	SK-8110	MY-05N456-71619-3C1-1801	FCC DoC Approved
8	MOUSE	DELL	M071KC	504008965	FCC DoC Approved
9	SERVER	HP	HSTNS-2123	NA	NA
10	HDD Storage	LSI	0834	NA	NA

SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS				
NO.	Length / core	Shielded / non-shielded	Manufacturer	Model Number or Part Number
1	1.8 m VGA cable, with two cores	Braid shielded	NA	NA
2	1.2 m cable, DB25 & DB9 connector, w/o core.	Braid shielded	NA	NA
3	2.0 m USB cable, with two cores.	Shielded	NA	NA
4	2.0 m USB cable, with two cores.	Shielded	NA	NA
5	2.0 m USB cable, with two cores.	Shielded	NA	NA
6	2.0 m USB cable, with two cores.	Shielded	NA	NA
7	2.0 m PS/2 cable, w/o core.	Foil shielded	NA	NA
8	2.0 m PS/2 cable, w/o core.	Foil shielded	NA	NA
9	NA	NA	NA	NA
10	6.0 m mini SAS cable, w/o core.	Shielded	MOLEX	74547-0306

NOTE: 1. All power cords of the above support units are non-shielded (1.8 m).
2. Items 9~10 and mini SAS cable are provided by the client.

3.4 CONFIGURATION OF SYSTEM UNDER TEST



4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

Frequency (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15-0.5	79	66	66-56	56-46
0.5-5	73	60	56	46
5-30	73	60	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Dec. 16, 2009	Dec. 15, 2010
RF signal cable Woken	5D-FB	Cable-HYC01-01	Nov. 12, 2009	Nov. 11, 2010
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Jun. 18, 2009	Jun. 17, 2010
LISN SCHWARZBECK	NNBL 8226-2	8226-142	Jun. 03, 2009	Jun. 02, 2010
Software ADT	ADT_Cond_ V7.3.7	NA	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 1.
3. The VCCI Site Registration No. is C-2040.

4.1.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

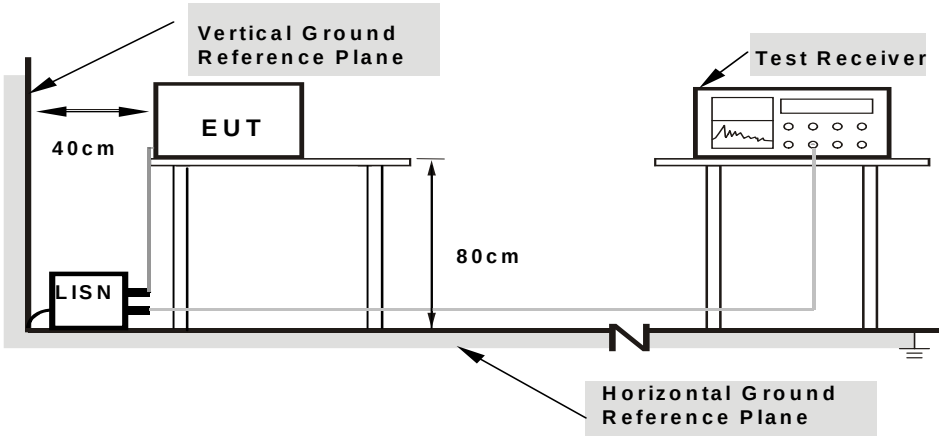
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150kHz to 30MHz was searched. Emission levels under Limit - 20dB was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation.

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

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

4.1.6 EUT OPERATING CONDITIONS

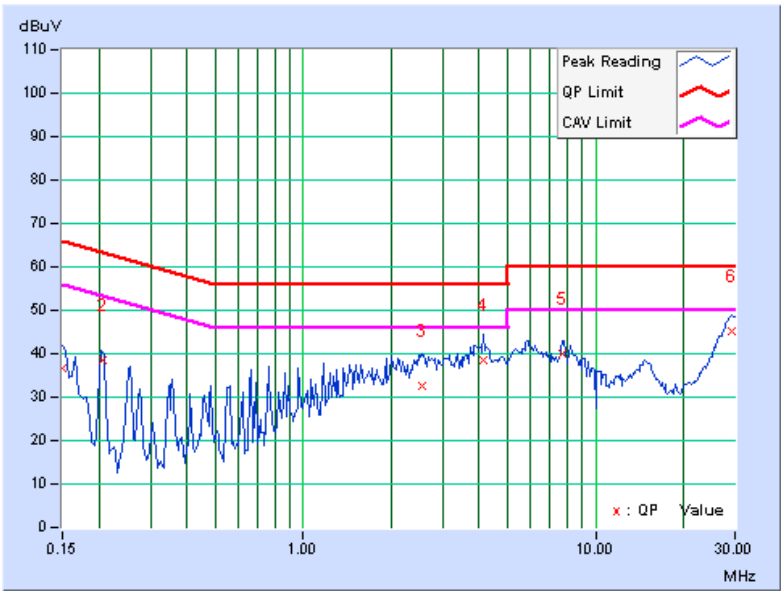
a. The EUT was installed into server.
b. The server ran a test program (smasher.exe) to enable all functions.
c. This program is used to exercise the EUT with providing data access as well as writing and reading data to all of disk drives.
d. Run the program “H” pattern on server. This program is used to exercise the EUT writing and reading data to all of disk drives.
e. The server sent “H” patterns to LCD monitor, and it displayed them.
f. The server sent “H” patterns to modem.
g. Steps d~f were repeated.

4.1.7 TEST RESULTS

INPUT POWER (SYSTEM)	100 Vac, 50 Hz	**TEST DATE**	Mar. 09, 2010
6dB BANDWIDTH	9 kHz	**PHASE**	Line 1
ENVIRONMENTAL CONDITIONS	23 deg. C, 69% RH, 1012 hPa	**TESTED BY**	Whisky Chang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.150	0.10	36.67	33.83	36.77	33.93	66.00	56.00	-29.23	-22.07
2	0.207	0.10	38.37	35.16	38.47	35.26	63.32	53.32	-24.84	-18.05
3	2.547	0.27	32.37	26.45	32.64	26.72	56.00	46.00	-23.36	-19.28
4	4.129	0.34	38.16	32.52	38.50	32.86	56.00	46.00	-17.50	-13.14
5	7.703	0.48	39.57	34.19	40.05	34.67	60.00	50.00	-19.95	-15.33
6	29.163	1.32	43.76	37.00	45.08	38.32	60.00	50.00	-14.92	-11.68

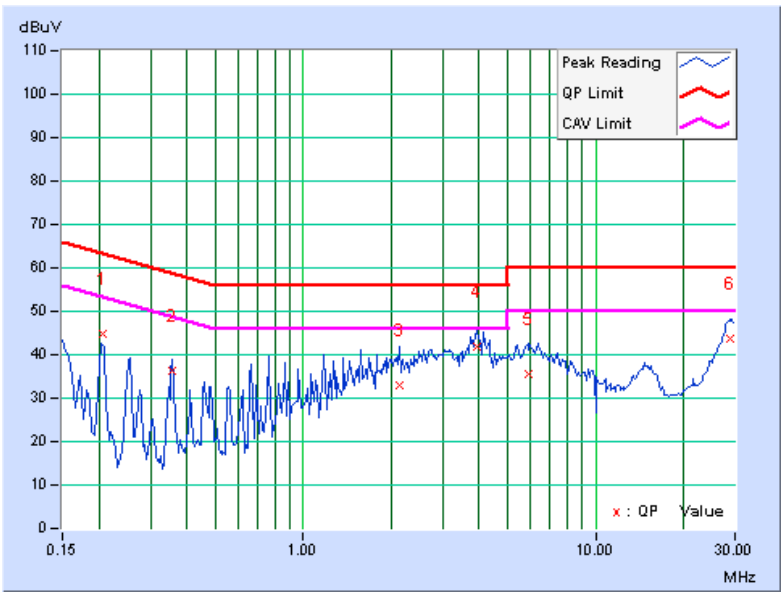
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



INPUT POWER (SYSTEM)	100 Vac, 50 Hz	**TEST DATE**	Mar. 09, 2010
6dB BANDWIDTH	9 kHz	**PHASE**	Line 2
ENVIRONMENTAL CONDITIONS	23 deg. C, 69% RH, 1012 hPa	**TESTED BY**	Whisky Chang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.206	0.12	44.58	38.87	44.70	38.99	63.37	53.37	-18.67	-14.38
2	0.357	0.14	36.31	35.80	36.45	35.94	58.80	48.80	-22.35	-12.86
3	2.133	0.26	32.78	27.17	33.04	27.43	56.00	46.00	-22.96	-18.57
4	**3.919**	**0.33**	**41.54**	**36.09**	**41.87**	**36.42**	**56.00**	**46.00**	**-14.13**	**-9.58**
5	5.875	0.37	35.01	29.28	35.38	29.65	60.00	50.00	-24.62	-20.35
6	28.880	0.96	42.86	35.55	43.82	36.51	60.00	50.00	-16.18	-13.49

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



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

Frequency (MHz)	Class A (at 3m)		Class B (at 3m)	
	Peak (dBuV/m)	Average (dBuV/m)	Peak (dBuV/m)	Average (dBuV/m)
1000-3000	76	56	70	50
3000-6000	80	60	74	54

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

FREQUENCY RANGE OF RADIATED MEASUREMENT

Highest frequency generated or used within the EUT or on which the EUT operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 108	1000
108-500	2000
500-1000	5000
Above 1000	Up to 5 times of the highest frequency or 6 GHz, whichever is less

4.2.2 TEST INSTRUMENTS

For frequency below 1 GHz

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100186	Dec. 11, 2009	Dec. 10, 2010
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	Sep. 18, 2009	Sep. 17, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100076	May 26, 2009	May 25, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-148	Apr. 28, 2009	Apr. 27, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-149	Apr. 28, 2009	Apr. 27, 2010
Preamplifier Agilent	8447D	2944A10636	Dec. 10, 2009	Dec. 09, 2010
Preamplifier Agilent	8447D	2944A10637	Dec. 10, 2009	Dec. 09, 2010
RF signal cable Woken	8D-FB	Cable-Hych1-01	Oct. 24, 2009	Oct. 23, 2010
RF signal cable Woken	8D-FB	Cable-Hych1-02	Oct. 24, 2009	Oct. 23, 2010
Software ADT	ADT_Radiated_ V 7.7.03.6	NA	NA	NA
Antenna Tower(V)	MFA-440	9707	NA	NA
Antenna Tower(H)	MFA-440	970705	NA	NA
Turn Table	DS430	50303	NA	NA
Controller	MF7802	074	NA	NA
Controller	MF7802	08093	NA	NA
RF signal cable EAST COST Microwave	HP 160S-29	NA	Feb. 12, 2010	Feb. 11, 2011

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Chamber 1.

3. The FCC Site Registration No. is 477732.

4. The IC Site Registration No. is IC 7450F-1.

5. The VCCI Site Registration No. is R-1893.

For frequency above 1 GHz

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	May 25, 2009	May 24, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100076	May 26, 2009	May 25, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Apr. 28, 2009	Apr. 27, 2010
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-405	Feb. 03, 2010	Feb. 02, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170148	Jul. 06, 2009	Jul. 05, 2010
Preamplifier Agilent	8447D	2944A10629	Nov. 04, 2009	Nov. 03, 2010
Preamplifier Agilent	8449B	3008A01959	Dec. 10, 2009	Dec. 09, 2010
RF signal cable HUBER+SUHNER	SUCOFLEX 104	23636/6	Aug. 28, 2009	Aug. 27, 2010
RF signal cable HUBER+SUHNER	SUCOFLEX 104	283402/4	Aug. 28, 2009	Aug. 27, 2010
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA	NA
Turn Table ADT.	TT100.	TT93021702	NA	NA
Controller ADT.	SC100.	SC93021702	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Chamber 2.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The FCC Site Registration No. is 686814.

5. The IC Site Registration No. is IC 7450F-2.

6. The VCCI Site Registration No. is G-18.

4.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. **<Frequency Range below 1GHz>**

b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. **<Frequency Range above 1GHz>**

c. The height of antenna 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.

NOTE:

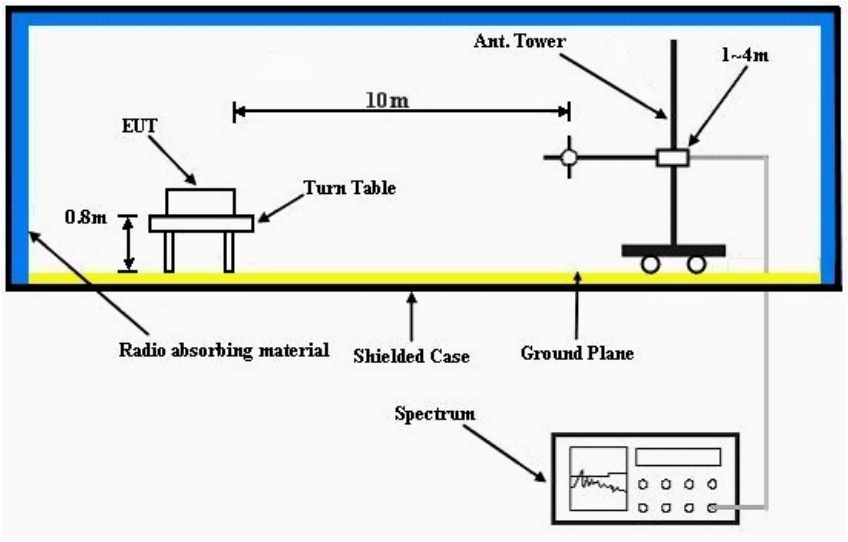
1. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3 MHz for Peak (PK) detection at frequency above 1 GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz for Average (AV) detection at frequency above 1 GHz.
3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.

4.2.4 DEVIATION FROM TEST STANDARD

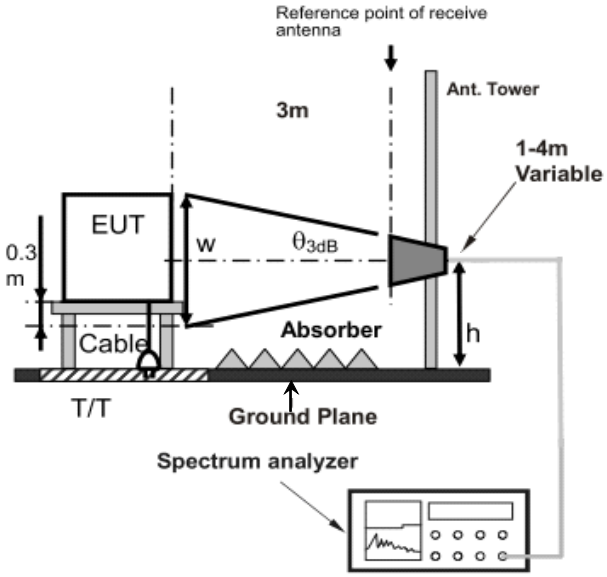
No deviation.

4.2.5 TEST SETUP

For frequency below 1 GHz



For frequency above 1 GHz



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

4.2.6 EUT OPERATING CONDITIONS

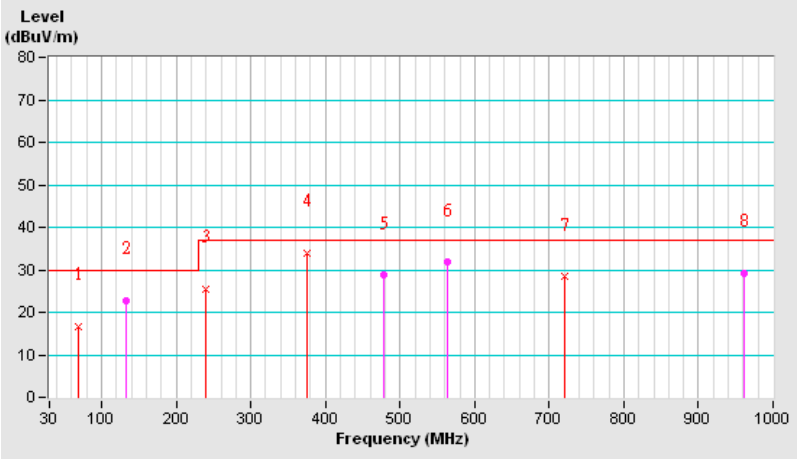
Same as item 4.1.6.

4.2.7 TEST RESULTS

FREQUENCY RANGE	30-1000 MHz	TEST DATE	Mar. 10, 2010
ENVIRONMENTAL CONDITIONS	21 deg. C, 68% RH, 1019 hPa	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120 kHz
TESTED BY	Peter Lin		

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	68.80	16.59 QP	30.00	-13.41	2.00 H	192	4.88	11.71
2	133.03	22.84 QP	30.00	-7.16	3.00 H	51	10.02	12.82
3	239.99	25.52 QP	37.00	-11.48	2.00 H	158	12.95	12.57
4	**375.00**	**33.91 QP**	**37.00**	**-3.09**	**2.50 H**	**79**	**17.12**	**16.78**
5	479.04	28.71 QP	37.00	-8.29	3.50 H	97	9.59	19.12
6	562.63	31.73 QP	37.00	-5.27	2.00 H	15	10.57	21.16
7	719.97	28.34 QP	37.00	-8.66	4.00 H	85	4.60	23.74
8	961.12	29.17 QP	37.00	-7.83	2.50 H	214	2.43	26.74

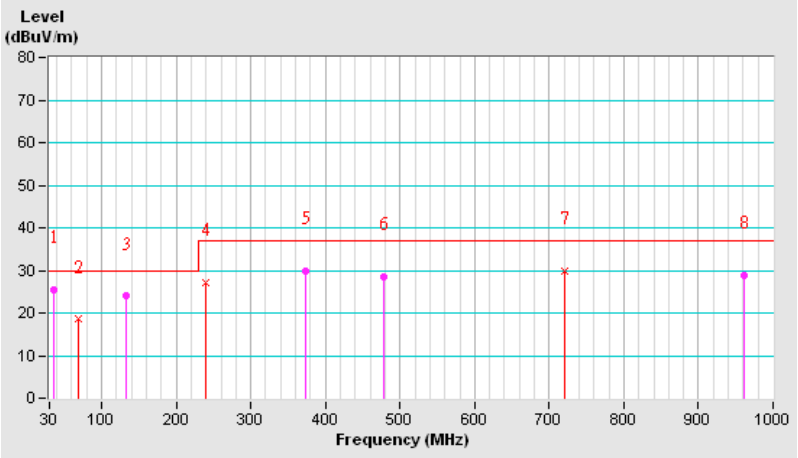
REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



FREQUENCY RANGE	30-1000 MHz	**TEST DATE**	Mar. 10, 2010
ENVIRONMENTAL CONDITIONS	21 deg. C, 68% RH, 1019 hPa	**DETECTOR FUNCTION & BANDWIDTH**	Quasi-Peak, 120 kHz
TESTED BY	Peter Lin		

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	35.83	25.34 QP	30.00	-4.66	1.50 V	273	11.57	13.77
2	67.87	18.51 QP	30.00	-11.49	2.50 V	100	6.26	12.25
3	133.03	23.97 QP	30.00	-6.03	1.00 V	285	10.74	13.23
4	240.00	27.07 QP	37.00	-9.93	1.00 V	312	13.92	13.15
5	374.07	29.96 QP	37.00	-7.04	1.00 V	346	12.62	17.34
6	479.04	28.47 QP	37.00	-8.53	1.00 V	186	8.65	19.82
7	720.00	29.93 QP	37.00	-7.07	4.00 V	306	5.50	24.43
8	961.12	28.93 QP	37.00	-8.07	1.00 V	168	1.04	27.89

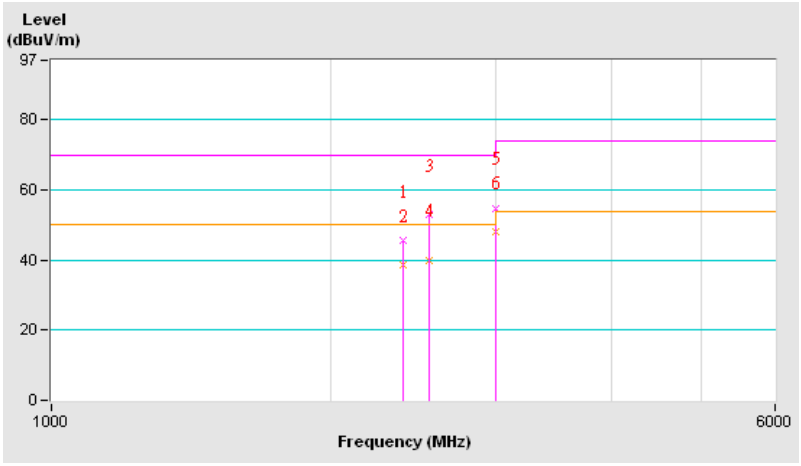
REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



INPUT POWER (SYSTEM)	100 Vac, 50 Hz	**TEST DATE**	Mar. 09, 2010
FREQUENCY RANGE	1-6 GHz	**DETECTOR FUNCTION & BANDWIDTH**	Peak/Average, 1 MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 75% RH, 1018 hPa	**TESTED BY**	Eason Chen

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	2385.72	45.45 PK	70.00	-24.55	1.38 H	201	13.13	32.32
2	2385.72	38.64 AV	50.00	-11.36	1.38 H	201	6.32	32.32
3	2551.37	52.82 PK	70.00	-17.18	1.20 H	186	19.90	32.92
4	2551.37	40.02 AV	50.00	-9.98	1.20 H	186	7.10	32.92
5	3000.16	54.86 PK	74.00	-19.14	1.00 H	193	20.52	34.34
6	3000.16	48.16 AV	54.00	-5.84	1.00 H	193	13.82	34.34

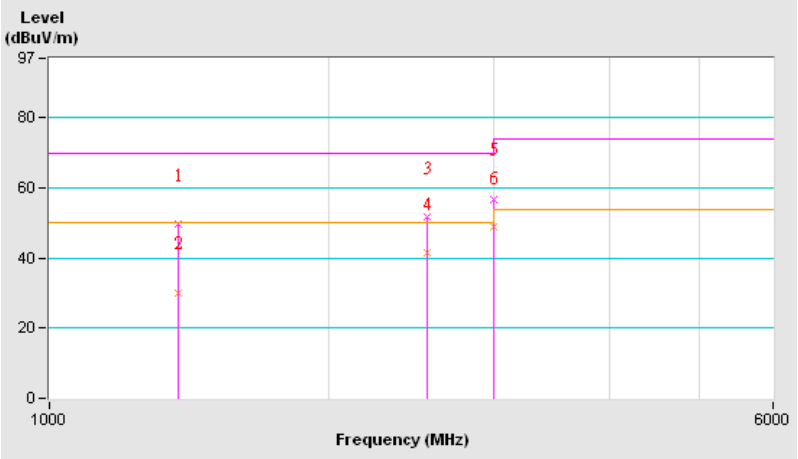
REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



INPUT POWER (SYSTEM)	100 Vac, 50 Hz	**TEST DATE**	Mar. 09, 2010
FREQUENCY RANGE	1-6 GHz	**DETECTOR FUNCTION & BANDWIDTH**	Peak/Average, 1 MHz
ENVIRONMENTAL CONDITIONS	20 deg. C, 75% RH, 1018 hPa	**TESTED BY**	Eason Chen

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	1375.86	49.67 PK	70.00	-20.33	1.50 V	238	20.68	28.99
2	1375.86	30.21 AV	50.00	-19.79	1.50 V	238	1.22	28.99
3	2550.69	51.81 PK	70.00	-18.19	1.00 V	191	18.89	32.92
4	2550.69	41.52 AV	50.00	-8.48	1.00 V	191	8.60	32.92
5	3000.28	56.92 PK	74.00	-17.08	1.10 V	179	22.58	34.34
6	3000.28	48.73 AV	54.00	-5.27	1.10 V	179	14.39	34.34

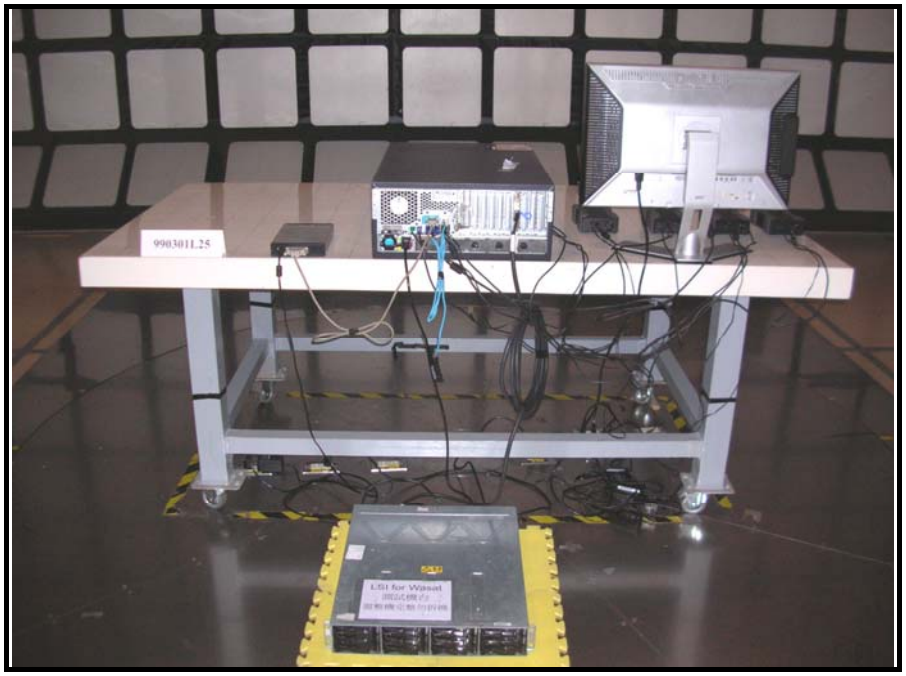
REMARKS: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



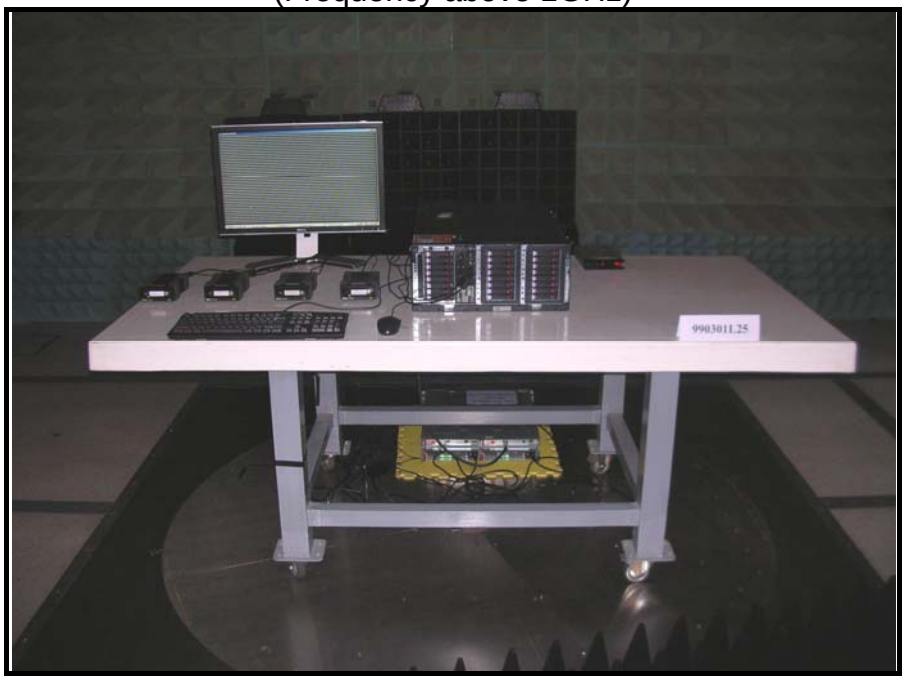
5 PHOTOGRAPHS OF THE TEST CONFIGURATION

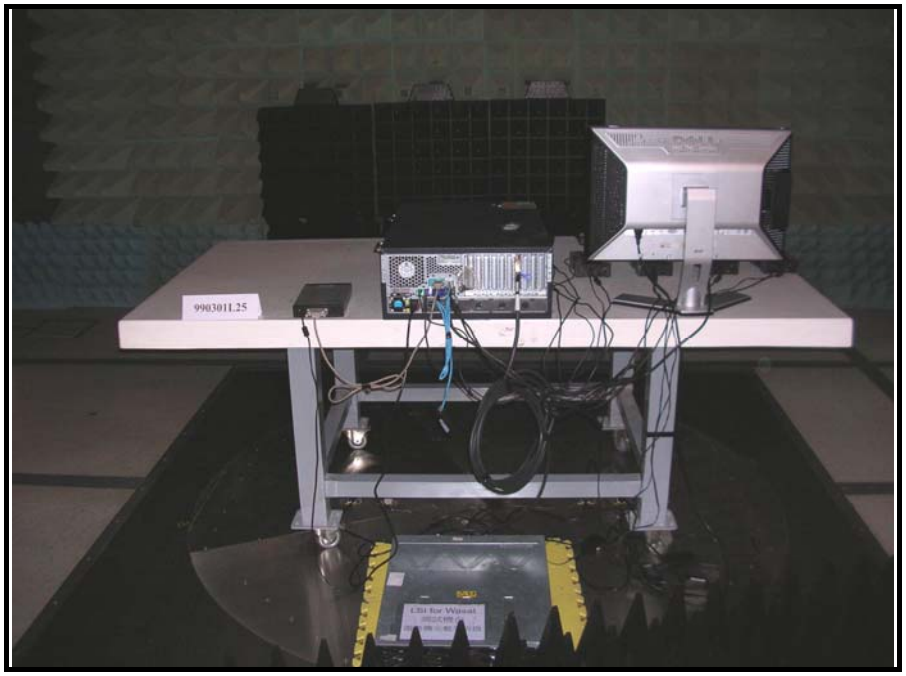
Conducted Emission Test

Radiated Emission Test
(Frequency below 1GHz)



Radiated Emission Test
(Frequency above 1GHz)





6 INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF Lab
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab
Tel: 886-3-3183232
Fax: 886-3-3185050

Email: service@adt.com.tw
Web Site: www.adt.com.tw

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

--- END ---