

EMC TEST REPORT

REGULATORY MODEL NUMBER: 25152

REPORT NUMBER: TAO09046

ISSUED DATE: April 03, 2009

Applicant: LSI Corp

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

Manufacturer: LSI Corp

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

Has been tested by Inventec Corp. (Taoyuan) EMC Labs and was found to comply with the EMC requirement on the basis of

Technical Standard

VCCI V-3 : ITE Class B RFI CISPR 22 : 2005 RFI

Receipt date of EUT: March 11, 2009

Date of testing: March 11, 2009~ March 25, 2009

Approved By

Jane Lin//EMC Lab Manager

Invente Corp. (Taoyuan) EMC Labs

VCCI Registration No : R-349/R-350, C-362/C-363, T-185/T320

This report should not be reproduced, except in full, without the written approval of Inventec Corporation.

	Table of Contents	Page
1.	PRODUCT INFORMATION	3 3
2.	TEST INFORMATION	4 4 5
3.	CONDUCTION EMISSION M EASUREMENT	
4.	RADIATION EMISSION MEASUREMENT	
5.	UNCERTAINTY OF EMI TEST SITE	16
6.	PRODUCT LABELING	18
7	PHOTOGRAPHS	19

1. PRODUCT INFORMATION

1.1. PRODUCT DESCRIPTION

Trade Name: LSI

Regulatory Model Number: 25152

Part Number: N/A
Serial Number: N/A
Equipment Type: ITE

Equipment Category: PCI-E SAS Raid Card

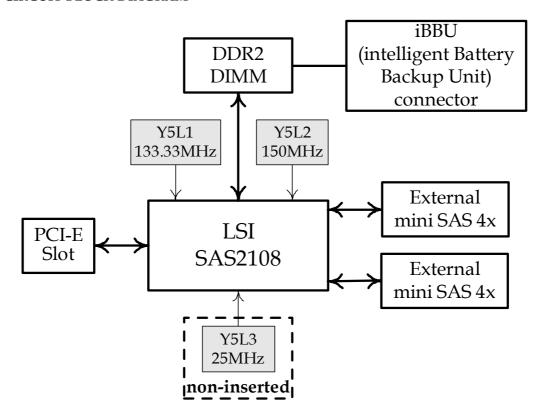
EUT Condition: DVT

1.2. PRODUCT FEATURE

A summary of features as follows:

- ➤ PCI-E 2.0 compliant for x8 lane slots
- > Two external mini SAS 4x connectors
- > 512MB on-board DDR2 800 cache
- > PCI low profile form factor compliant
- ➤ Connection to attached iBBU (intelligent Battery Backup Unit)

1.3. CIRCUIT BLOCK DIAGRAM



Report Number: TAO09046 Page 4 of 22

2. TEST INFORMATION

2.1. SUMMARY OF TEST RESULTS

The worst data was found as following:

Standard	Test Item	Test Result	Remarks
VCCI V-3:	Conduction Emission (Mode 1)	PASS	The worst emission frequency is <u>0.93</u> MHz, <u>230V/50Hz</u> And minimum passing margin is <u>-6.72</u> dB at <u>Line2</u> , <u>Average</u>
ITE Class B CISPR 22: 2005	Radiation Emission (Mode 1)	PASS	The worst emission frequency is <u>42.93</u> MHz at <u>Vertical</u> And minimum passing margin is <u>-3.32</u> dB, <u>Quasi-Peak</u> Height of antenna is <u>1.0</u> m Angle of turntable is <u>0</u> deg.

2.2. TEST MODES & EUT COMPONEMTS DESCRIPTION

EUT (25152) in HOST (HSTNS-2116)

201 (20102) M 11001 (11011(0 2110)						
Test Mode	Mode 1					
EUT, PCI-E SAS Raid Card	LSI, P/N: L3-25152-30A, ID: 25152					
HOST, Server System	HP, ID: HSTNS-2116					
- System Board	HP, P/N: 1395T2100202					
- CPU (Single)	Intel Xeon processor 2.5GHz/1333MHz					
- DIMM 512MB *2	SAMSUNG, P/N: MT395T6553EZ4-CE65					
- SATA2 HDD 500GB *1	Seagate, P/N: ST3500320NS					
- Power Supply (660W)	DELTA, M/N: HSTNS-PD05					

2.2.1. EUT OPERATING CONDITIONS

The EUT should exercise software the same as below during test.

- ➤ Run the program "H" pattern on host server. This program is used to exercise the EUT writing and reading data to all of disk drivers.
- ➤ Run the smasher.exe on host server. This program is used to exercise the EUT with providing data access as will as writing/reading data to all of disk drivers.

Report Number: TAO09046 Page 5 of 22

2.3. TEST SETUP

2.3.1. CABLING CONFIGURATION

Qty	From	То	Model/Part Number	Description	Connector
1	HOST (HSTNS-2116)	DM-1414	N/A	1.3m, shielded (Braid)	Shielded
4	HOST (HSTNS-2116)	F12-UF	E177865-F	1.8m, shielded (Braid)	Shielded
1	HOST (HSTNS-2116)	HSTND-2101-G	E193793	1.8m, shielded (Braid)	Shielded
1	HOST (HSTNS-2116)	AC source	E90165	1.8m, unshielded	Unshielded
2	HOST (HSTNS-2116)	DGS-1024D (HUB)	1074E	4.575m, unshielded, twisted pair	Unshielded
2	EUT (25152) in HOST	0834 (HDD Storage)	74547-0306	6.0m, shielded (Braid)	Shielded

2.3.2. TEST METHODOLOGY

- A. Both conducted and radiated tests were performed according to the following methods and procedures:
- ➤ ANSI C63.4: 2003 Methods of Measurement of Radio-Noise Emissions for Low Voltage Electrical and Electronic Equipment in the range of 9kHz to 40GHz.
- CISPR 22: 2005 Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment.
- VCCI V-3: ITE Class B Agreement of Voluntary Control Council for Interference by Information Technology Equipment.
- B. Description of departing from standard test method & any other specific: NONE

2.3.3. MODIFICATIONS IMPLEMENTED FOR COMPLIANCE

No modifications were made to the equipment under test by Test Laboratory.

2.3.4. TECHNICAL BASIS FOR COMPLIANCE

It was examined to the following sections of the standards VCCI V-3, CISPR 22 underlying the basic requirements of the EMC directive 2004/108/EC.

Report Number: TAO09046 Page 6 of 22

2.3.5. RELATED SUBMITTAL(S) NOTES

- A. The results relate only to the items tested.
- B. The report must not be used by the client to claim product certification, approval or endorsement by NVLAP or any agency of the federal government.
- C. There are no related submittals to this file.

2.3.6. TEST CONDITION

2.3.6.1 Test of Radiation Emission

Radiated emissions from 30MHz to 1000MHz were measured with a resolution bandwidth of 120kHz, 1GHz to 6GHz were measured with a resolution bandwidth of 1MHz according to the methods defines in Standard CISPR 22, Clause 10. The EUT was placed on a nonmetallic stand, 0.8 meter above the ground plane, as shown in section 4.5.

The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions.

2.3.6.2 Test of Conducted Emission

Conducted emissions were measured from 0.15MHz to 30MHz with a resolution bandwidth of 9kHz and return leads of the EUT according to the methods defines in Standard CISPR 22, Clause 9. The EUT was placed on a nonmetallic stand in a shielded room, 0.8 meter above the ground plane, as shown in section 3.5. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum conducted emissions.

2.4. TEST FACILITY

The Inventec Corp. (Taoyuan) EMC labs' open area test site located at: 14, 5 Lin, Hsin-feng Li, Tachi, Taoyuan, Taiwan, Republic of China. The Lab has a turntable with a diameter at maximum 2 meters and can measure ITE products at the 3 and 10 meters of antenna distance.

A site description and calibration report to ANSI C63.4 is available upon request. It is authorized for testing ITE devices by NVLAP, NEMKO, TAF (BSMI) and VCCI.

EMC Laboratory Accreditation:

BSMI EMI Testing Lab: SL2-IN-E-0009

NVLAP Lab Code: 200140-0

Nemko ELA No. 127

VCCI Registration No. R-349, C-362, T185 (TAO Test Site)

R-350, C-363, T320 (TA2 Test Site)

TAF Accreditation No. 1119

Report Number: TAO09046 Page 7 of 22

3. CONDUCTION EMISSION M EASUREMENT

3.1. TEST LIMIT, CISPR 22 Class B

Frequency	Limit [dB(μV)]				
(MHz)	Quasi-Peak	Average			
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*			
0.50 ~ 5	56	46			
5 ~ 30	60	50			

Note: 1. * Decreases with the logarithm of the frequency.

- 2. The lower limit shall apply at the transition frequency.
- 3. The limit decreases linearly with the logarithm of the frequency in the range $0.15 \mathrm{MHz}$ to $0.50 \mathrm{MHz}$.

3.2. TEST INSTRUMENTS

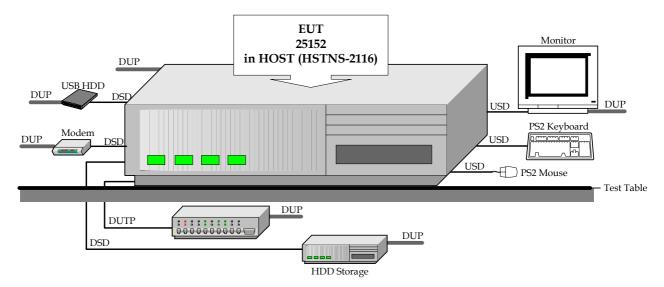
Name	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Receiver	Rohde & Schwarz	ESIB 40	100108	18-Jun-2008	09-Jun-2009
LISN (for EUT)	EMCO	3825/2	9405-2196	10-Mar-2009	04-Mar-2010
LISN (for Peripheral)	EMCO	3825/2	1416	10-Mar-2009	04-Mar-2010
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	0357.8810.54	18-Nov-2008	16-Nov-2009
Terminator x 3 (50 ohms)		N/A	N/A	10-Mar-2009	04-Mar-2010
RF Cable		N/A	N/A	05-Mar-2009	04-Mar-2010
EMI Test Program		EMI 3 (Ver. D)	N/A	N/A	N/A

3.3. SUPPORT TEST PERIPHERALS

Name	Manufacturer	Model/Part Number	Serial Number	ID or DoC
HOST	HP	HSTNS-2116	CN784600G5	DoC
Monitor	COMPAQ	MV900	904GA19EC186	DoC
PS2 Mouse	Logitech	M-S34	LC84650159	DZL211029
PS2 Keyboard	COMPAQ	KB-9965	B0A090NGAM10VC	DoC
Modem	ACEEX	DM-1414	0202003559	IFAXDM1414
USB HDD	TeraSys	F12-UF	A0100215-2A10036	DoC
USB HDD	TeraSys	F12-UF	A0100215-2CJ0008	DoC
USB HDD	TeraSys	F12-UF	A0100215-2CJ0009	DoC
USB HDD	TeraSys	F12-UF	A0100215-2CJ0001	DoC
HUB	D-link	DGS-1024D	DRC5368000357	DoC
HDD Storage	LSI	0834	0826FG000098	DoC
HDD Storage	LSI	0834	0805FG0029	DoC

Report Number: TAO09046 Page 8 of 22

3.4. BLOCK DIAGRAM OF CONDUCTION BETWEEN EUT AND TEST PERIPHERAL



Legend:

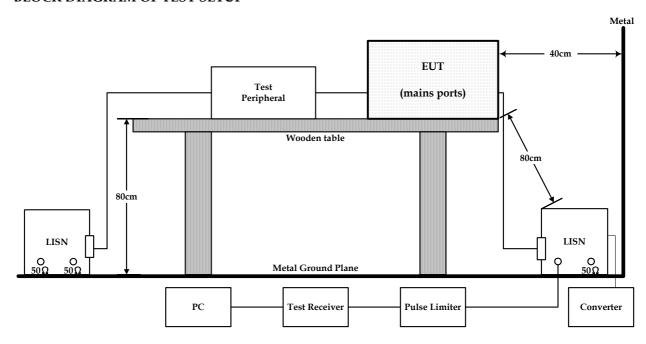
USD = Undetachable Shielded Data cable

DSD = Detachable Shielded Data cable

DUP = Detachable Unshielded Power cord

DUTP = Detachable Unshielded Twisted Pair cable

3.5. BLOCK DIAGRAM OF TEST SETUP



Report Number: TAO09046 Page 9 of 22

3.6. TEST DATA

Data of Test	: O3903163	Tested By	: GF Sheu
EUT	: 25152	Test Mode	: Mode 1
Frequency Range	: 0.15MHz ~ 30MHz	Main	: 100V/50Hz
Temperature (°C)	: 24	Humidity (%)	: 60

Freq.	Reading	Correction	Conducted	Ave.	Ave.	QP	QP	Phase	PK/
(MHz)	Level	Factor	Emission	Limit	Delta	Limit	Delta		QP/
	dΒμV	dB	dΒμV	$dB(\mu V)$	dB	dB(μV)	dB		AV
0.203	29.81	9.93	39.74	53.48	-13.74	63.48	N/A	L1	AV
0.207	46.14	9.93	56.07	53.32	2.75	63.32	N/A	L1	PK
0.207	33.07	9.93	43	53.32	-10.32	63.32	N/A	L1	AV
0.277	36.17	9.94	46.11	50.9	-4.79	60.9	N/A	L1	PK
0.342	35.61	9.96	45.57	49.15	-3.58	59.15	N/A	L1	PK
0.412	19.77	9.97	29.74	47.6	-17.86	57.6	N/A	L2	AV
0.549	32.78	9.94	42.72	46	-3.28	56	N/A	L1	PK
0.618	32.24	9.93	42.17	46	-3.83	56	N/A	L2	PK
0.927	30.99	9.88	40.87	46	-5.13	56	N/A	L2	PK
6.948	34.17	10.24	44.41	50	-5.59	60	N/A	L1	PK
16.372	26.44	10.36	36.8	50	-13.2	60	N/A	L1	AV
17.2	35.48	10.35	45.83	50	-4.17	60	N/A	L1	PK

Remark:

- 1. Peak, Ave. and QP signifies the measurement detector used for performing measurements.
- 2. Negative number in the margin column indicates the amount (in dB) that the recorded emission is below the limit.
- 3. L1 indicates the live of phase line, L2 denotes the neutral line.

Report Number: TAO09046 Page 10 of 22

Data of Test	: O3903165	Tested By	: GF Sheu
EUT	: 25152	Test Mode	: Mode 1
Frequency Range	: 0.15MHz ~ 30MHz	Main	: 230V/50Hz
Temperature (°C)	: 24	Humidity (%)	: 60

Freq.	Reading	Correction	Conducted	Ave.	Ave.	QP	QP	Phase	PK/
(MHz)	Level	Factor	Emission	Limit	Delta	Limit	Delta		QP/
	dΒμV	dB	dΒμV	dB(μV)	dB	dB(μV)	dB		AV
0.207	33.69	9.93	43.62	53.32	-9.7	63.32	N/A	L1	AV
0.275	23.49	9.94	33.43	50.96	-17.53	60.96	N/A	L1	AV
0.343	21.2	9.97	31.17	49.13	-17.96	59.13	N/A	L2	AV
0.413	24.35	9.97	34.32	47.58	-13.26	57.58	N/A	L2	AV
0.483	22.11	9.95	32.06	46.28	-14.22	56.28	N/A	L2	AV
0.553	18.11	9.94	28.05	46	-17.95	56	N/A	L2	AV
0.692	14.31	9.92	24.23	46	-21.77	56	N/A	L2	AV
0.761	12.68	9.9	22.58	46	-23.42	56	N/A	L2	AV
0.93	37.84	9.88	47.72	46	1.72	56	N/A	L2	PK
0.93	29.4	9.88	39.28	46	-6.72	56	N/A	L2	AV
1.548	32.51	9.99	42.5	46	-3.5	56	N/A	L1	PK
16.384	36.17	10.36	46.53	50	-3.47	60	N/A	L1	PK

Remark:

- 1. Peak, Ave. and QP signifies the measurement detector used for performing measurements.
- 2. Negative number in the margin column indicates the amount (in dB) that the recorded emission is below the limit.
- 3. L1 indicates the live of phase line, L2 denotes the neutral line.

Report Number: TAO09046 Page 11 of 22

3.7. CALCULATION

- 1. Freq. (MHz), means Conducted Emission frequency.
- 2. Reading Level ($dB\mu V$), means the reading of Analyzer or Test Receiver.
- 3. Correction Factor (dB), means the value of LISN Loss add Cable Loss.
- 4. Conducted Emission (dB μ V), means the values of Reading Level add CF added. CE=RL+CF
- 5. Ave. Limit ($dB\mu V$), means Limit stated in Standard.
- 6. Ave. Delta (dB), Reading in reference to Limit. AD=CE AL

Report Number: TAO09046 Page 12 of 22

4. RADIATION EMISSION MEASUREMENT

4.1. TEST LIMIT, CISPR 22 Class B

Frequency range (MHz)	Distance (Meter)	Quasi-peak limits dB(μ V/m)
30 ~ 230	10	30
230 ~ 1000	10	37

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

4.2. TEST INSTRUMENTS

Name	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Receiver	Rohde & Schwarz	ESIB 40	100108	18-Jun-2008	09-Jun-2009
Bilog Antenna	Schaffner	CBL6112B	2675	20-May-2008	12-May-2009
Horn Antenna	EMCO	3115	9311-4178	08-Jul-2008	30-Jun-2009
Amplifier (under 1G)	Hewlett Packard	8447D	2443A04003	08-Jul-2008	30-Jun-2009
Amplifier (above 1G)	Agilent	8449B	3008A01833	01-Sep-2008	04-Sep-2009
OATS	Inventec (Taoyuan)	TAO Site	N/A	24-Apr-2007	23-Apr-2009
RF Cable x 2	SUCOFLEX	104	N/A	08-Jul-2008	30-Jun-2009
RF Cable		N/A	N/A	05-Mar-2009	04-Mar-2010
EMI Test Program		EMI 3 (Ver. D)	N/A	N/A	N/A

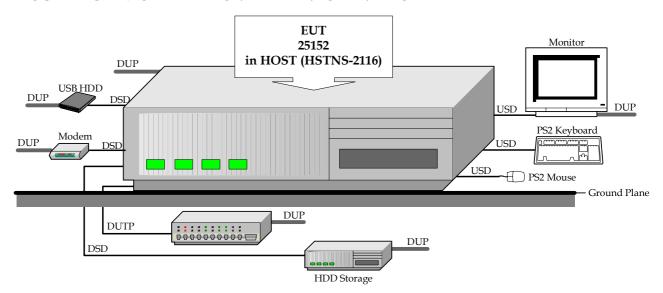
4.3. SUPPORT TEST PERIPHERALS

Name	Manufacturer	Model/Part Number	Serial Number	ID or DoC
HOST	HP	HSTNS-2116	CN784600G5	DoC
Monitor	HP	HSTND-2101-G	CNG82107DC	BEJLH2065H
PS2 Mouse	Logitech	M-S34	LC84650159	DZL211029
PS2 Keyboard	COMPAQ	KB-9965	B0A090NGAM10VC	DoC
Modem	ACEEX	DM-1414	0202003559	IFAXDM1414
USB HDD	TeraSys	F12-UF	A0100215-2A10036	DoC
USB HDD	TeraSys	F12-UF	A0100215-2CJ0008	DoC
USB HDD	TeraSys	F12-UF	A0100215-2CJ0009	DoC
USB HDD	TeraSys	F12-UF	A0100215-2CJ0001	DoC
HUB	D-link	DGS-1024D	DRC5368000357	DoC
HDD Storage	LSI	0834	0826FG000098	DoC
HDD Storage	LSI	0834	0805FG0029	DoC

^{2.} Additional provisions may be required for cases where interference occurs.

Report Number: TAO09046 Page 13 of 22

4.4. BLOCK DIAGRAM OF RADIATION BETWEEN EUT AND TEST PERIPHERAL



Legend:

USD = Undetachable Shielded Data cable

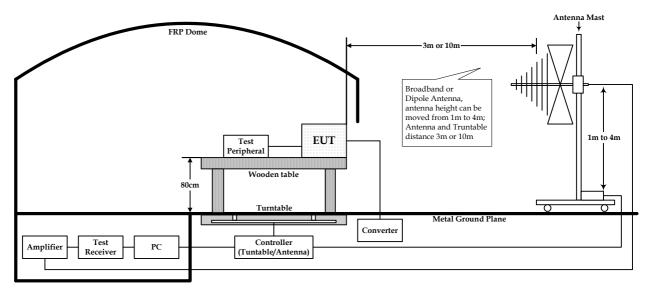
DSD = Detachable Shielded Data cable

DUP = Detachable Unshielded Power cord

DUTP = Detachable Unshielded Twisted Pair cable

DUOF = Detachable Unshielded Optical Fiber cable

4.5. BLOCK DIAGRAM OF TEST SETUP



Report Number: TAO09046 Page 14 of 22

4.6. TEST DATA

Data of Test	: O2903161	Tested By	: GF Sheu
EUT	: 25152	Test Mode	: Mode 1
Frequency Range	: 30MHz ~ 1000MHz	Main	: 110V/60Hz
Temperature (°C)	: 26	Humidity (%)	: 45

Freq.	Reading	Total	Field	Limit	Delta	Ant.	Antenna	Table	PK/
(MHz)	dΒμV	Factor	Strength			Pol.	Height	Ang.	QP
		(dB/m)	dBμV/m	$dB(\mu V/m)$	dB		(cm)	(deg)	
42.93	41.42	-14.74	26.68	30	-3.32	V	100	0	QP
66.2	37.46	-20.19	17.27	30	-12.73	V	100	360	QP
124.99	40.05	-13.84	26.21	30	-3.79	V	131	75	QP
233.3	46.98	-14.31	32.67	37	-4.33	Н	400	157	QP
240	46.24	-13.55	32.69	37	-4.31	V	102	360	QP
366.13	40.57	-8.8	31.77	37	-5.23	V	100	0	QP
480.02	38.9	-5.84	33.06	37	-3.94	Н	184	294	QP
499.73	38.02	-5.63	32.39	37	-4.61	Н	154	0	QP
551.24	30.62	-4.14	26.48	37	-10.52	Н	100	87	QP
600.04	28.73	-3	25.73	37	-11.27	Н	119	296	QP
834.12	28.49	0.27	28.76	37	-8.24	Н	329	312	QP
999.99	28.18	1.94	30.12	37	-6.88	Н	100	275	QP

Remark

- 1. Negative number in the margin column indicates the amount (in dB) that the recorded emission is below the limit.
- 2. V means in Vertical Antenna Polarization, H means in Horizontal, and PK means in Peak, QP means in Quasi-Peak.
- 3. Radiated emissions for this type of product do not change with the AC power operating voltage. The above data represents the worse case for 110V/60Hz as well as 100V/50Hz operation.

Report Number: TAO09046 Page 15 of 22

4.7. CALCULATION

The field strength is calculated by adding the Total Factor to the receiver or analyzer reading to determine the resultant field strength.

The Total Factor is determined by adding the antenna factor and the loss of the cables connection the antenna to the receiver.

Front-end amplifier gain – if any – is accounted for in the receiver reading.

The basic equation with a sample calculation is as follows:

 $FS (dB\mu V/m) = RA (dB\mu V) + TF (dB/m)$

The sum of Total Factor is measured mean Antenna Factor, Cable Loss Factor and Amplifier Gain

TF = AF + CL - AG

FS = Field Strength

AF = Antenna Factor

CL = Cable Loss Factor

RA = Receiver Amplitude

AG = Amplifier Gain

The difference between Field Strength and Test Limit, Delta (dB) = FS - Limit [dB(μ V/m)]

Assume a receiver reading of 22dBµV is obtained.

The Antenna factor of 7.4dB and a cable loss factor of 1.1dB are added to yield 8.5dB Total Factor.

The Calculated Field Strength is the sum of $22 + 8.5 = 30.5 dB\mu V/m$.

All values are listed as dB, either referenced to $1\mu V$ or $1\mu V/m$.

Report Number: TAO09046 Page 16 of 22

5. UNCERTAINTY OF EMI TEST SITE

Conducted Disturbances (mains ports) from 150kHz to 30MHz

Source of Uncertainty	Value (dB)	Probability distribution	ui(y)
Receiver reading	0.1	normal k=1	0.100
Attenuation: AMN-Receiver	0.5	normal k=2	0.250
AMN voltage division factor	1.2	normal k=2	0.600
Receiver corrections:			
Sine wave voltage	1.0	normal k=2	0.500
Pulse amplitude response	1.5	Rectangular	0.866
Pulse repetition rate response	1.5	Rectangular	0.866
Noise floor proximity	0.0	Rectangular	0.000
Mismatch(-): AMN-Receiver	-0.036	U-shaped	-0.026
Receiver VRC	0.091	-	
AMN VRC	0.046	-	
AMN impedance	-2.7	Triangular	-1.102
Measurement System Repeatability	0.009	normal k=1	0.009
(previous assessment of $S(q_k)$ from 15 repeats)			
Combined Standard Uncertainty		normal k=1	1.843
Expanded Uncertainty (Total Uncertainty @95% min. Confidence level)		normal k=2	3.69

Conducted Disturbances (telecommunication ports) from 150kHz to 30MHz

Source of Uncertainty	Value (dB)	Probability distribution	u _i (y)
Receiver reading	0.1	normal k=1	0.100
Attenuation: ISN-Receiver	0.5	normal k=2	0.250
ISN voltage division factor	0.35	normal k=2	0.175
ISN longitudinal conversion loss	0.75	normal k=2	0.375
Receiver corrections:			
Sine wave voltage	1.0	normal k=2	0.500
Pulse amplitude response	1.5	Rectangular	0.866
Pulse repetition rate response	1.5	Rectangular	0.866
Noise floor proximity	0.0	Rectangular	0.000
Mismatch(-): ISN-Receiver	-0.407	U-shaped	-0.288
Receiver VRC	0.091	-	
ISN VRC	0.504	-	
ISN impedance	-2.7	Triangular	-1.102
Measurement System Repeatability	0.033	normal k=1	0.033
(previous assessment of $S(q_{k})$ from 15 repeats)			
Combined Standard Uncertainty		normal k=1	1.815
Expanded Uncertainty (Total Uncertainty @95% min. Confidence level)		normal k=2	3.63

Report Number: TAO09046 Page 17 of 22

Radiated Measurement (Bi-Log Antenna) frequency range 30MHz to 1000MHz

Source of Uncertainty	Value (dB)	Probability distribution	u _i (y)
Receiver reading	0.1	normal k=1	0.100
Attenuation: Antenna-Receiver	0.5	normal k=2	0.250
Bi-Log antenna factor	1.5	normal k=2	0.750
Receiver corrections:			
Sine wave voltage	1.0	normal k=2	0.500
Pulse amplitude response	1.5	Rectangular	0.866
Pulse repetition rate response	1.5	Rectangular	0.866
Noise floor proximity	0.5	normal k=2	0.250
Mismatch(-): Antenna-Receiver	-0.267	U-shaped	-0.189
Receiver VRC	0.091	-	
Antenna VRC	0.333	-	
Bi-Log antenna corrections:			
AF frequency interpolation	0.3	Rectangular	0.173
AF height deviations	0.3	Rectangular	0.173
Directivity difference at 10m	1.0	Rectangular	0.577
Phase center location at 10m	0.3	Rectangular	0.173
Cross-polarization	0.9	Rectangular	0.520
Balance	0.0	Rectangular	0.000
Site corrections:			
Site imperfections	4.0	Triangular	1.633
Separation distance at 10m	0.1	Rectangular	0.058
Table height at 10m	0.1	normal k=2	0.050
Measurement System Repeatability	0.009	normal k=1	0.009
(previous assessment of $S(q_k)$ from 15 repeats)			
Combined Standard Uncertainty 10m		normal k=1	2.418
Expanded Uncertainty 10m (Total Uncertainty @95% min. Confidence level)		normal k=2	4.84

Measurement uncertainty result and comparison with the test method standards: U_{lab} is less than or equal to U_{cispr} as defined in CISPR 16-4-2 table 1.

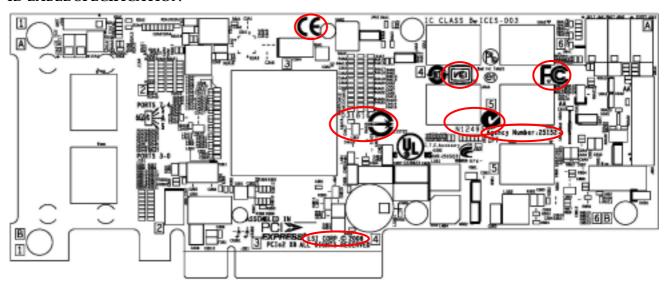
Therefore compliance is deemed to occur as no measured disturbance exceeds the disturbance limit and the uncertainty of Inventec lab (U_{lab}) is less than the allowed industry standard value (U_{CISPR}).

Review of our Uncertainty U_{lab} indicates it is well below that allowed in the CISPR standards (CISPR 22 and CISPR 16-4-2) demonstrating our laboratory good control.

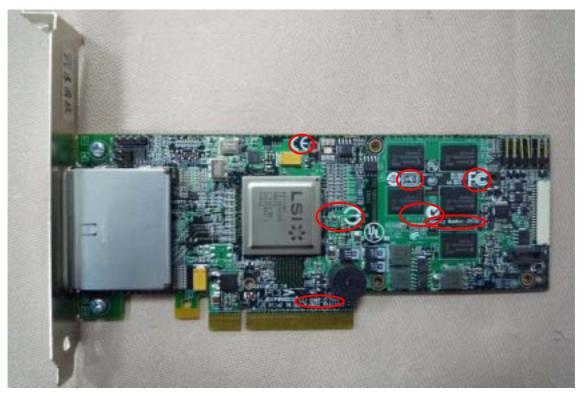
Report Number: TAO09046 Page 18 of 22

6. PRODUCT LABELING

6.1. ID LABEL SPECIFICATION



6.2. LOCATION OF THE LABEL ON EUT



Report Number: TAO09046 Page 19 of 22

7. PHOTOGRAPHS

Front View of Radiated Test



Rear View of Radiated Test



Report Number: TAO09046 Page 20 of 22

Front View of Conducted Test



Side View of Conducted Test







Component Side of EUT



Report Number: TAO09046 Page 22 of 22

Bottom Side of EUT

