UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2011-12-19 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	NWGQ, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
Product:	Accessory, PCI Express RAID Adapter
Model:	25413
Rating:	N/A
Applicant Name and Address:	INVENTEC CORP 349 JEN-HO RD SEC 2 TACHI TAOYUAN HSIEN 335 TAIWAN

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: Allen Huang Reviewed by: Stanley Chang

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

A. Authorization - The Authorization page may include additional Factory Identification Code markings.

B. Generic Inspection Instructions -

i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.

ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.

iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

Electronic components were mounted on PWB and supplied by SELV via the end-use Server's main board.

Model Differences

N/A

Technical Considerations

- Equipment mobility : for building-in
- Connection to the mains : N/A
- Operating condition : continuous
- Access location : N/A
- Over voltage category (OVC) : N/A
- Mains supply tolerance (%) or absolute mains supply values : No direct connection
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class III (supplied by SELV)
- Considered current rating of protective device as part of the building installation (A) : N/A
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : Up to 2000m
- Altitude of test laboratory (m) : Up to 2000m
- Mass of equipment (kg) : 0.24 kg max.
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer’s specification of: 40 °C
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
- Fire enclosure, electrical enclosure and mechanical enclosure shall be provided in the final system.

- Heating test need be evaluated in the final system.

Additional Information

SuperCap module(Tecate Industries Inc., type:17-0005-4483) rating: 6.4F, 13.5V.
According to clause 2.1.1.5,

E= 0.5 * CU² * 10^(-6)

E= 583.2 J > 20 J

Markings and instructions

Clause Title	Marking or Instruction Details
Power rating - Model	Model Number
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Replaceable batteries	"CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions."
Accessory Instructions	Accessory Marking is required. Statement "For use only with compatible UL Listed server that have Installation Instructions detailing user installation of card cage accessories" or similar statement is provided in the operation/user's manual and/or on the equipment.

Special Instructions to UL Representative

N/A

Production-Line Testing Requirements

Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
N/A						

Earthing Continuity Test Exemptions - This test is not required for the following models:

All models.

Electric Strength Test Exemptions - This test is not required for the following models:

All models.

Electric Strength Test Component Exemptions - The following solid-state components may disconnected from the remainder of the circuitry during the performance of this test:

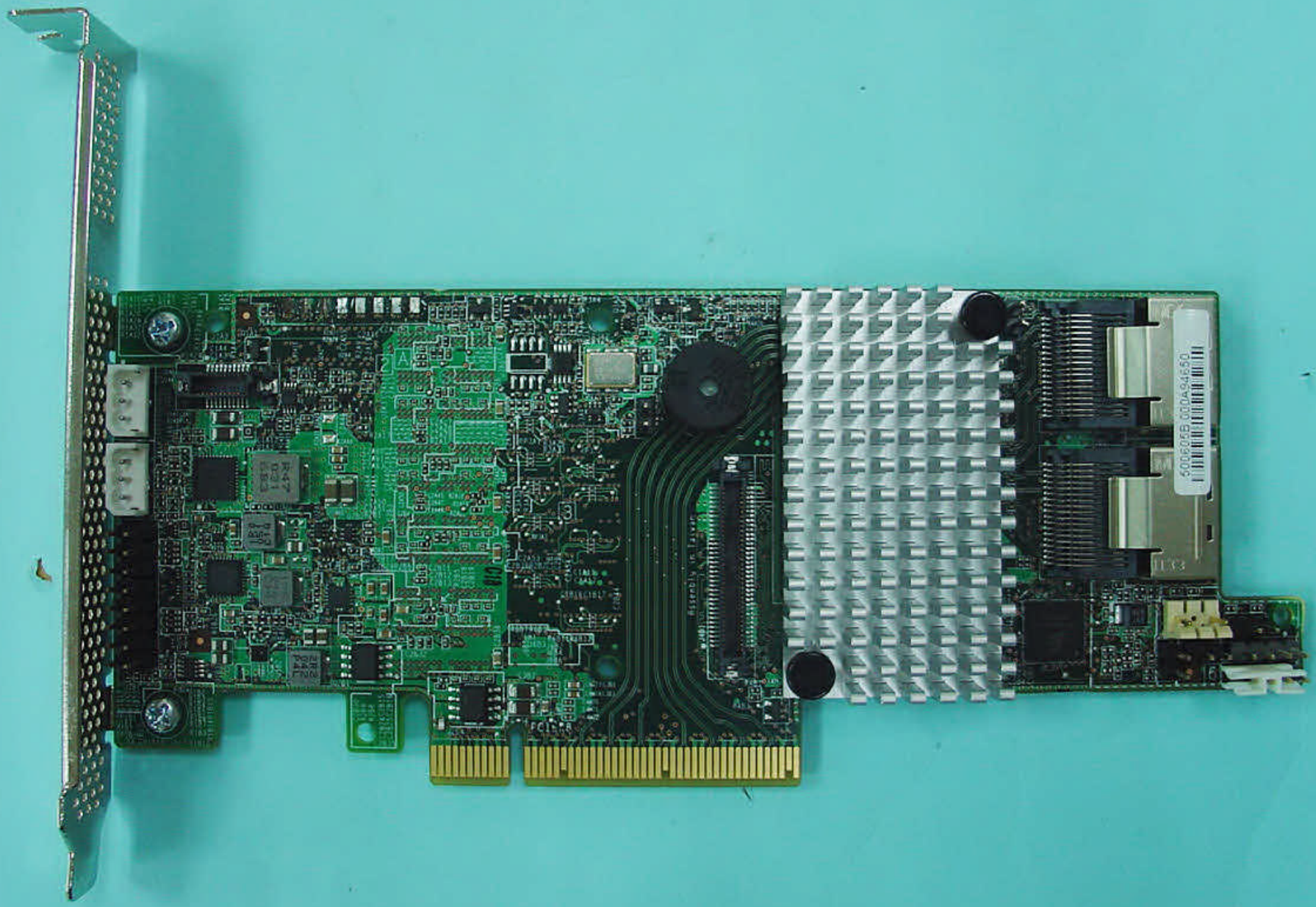
Sample and Test Specifics for Follow-Up Tests at UL

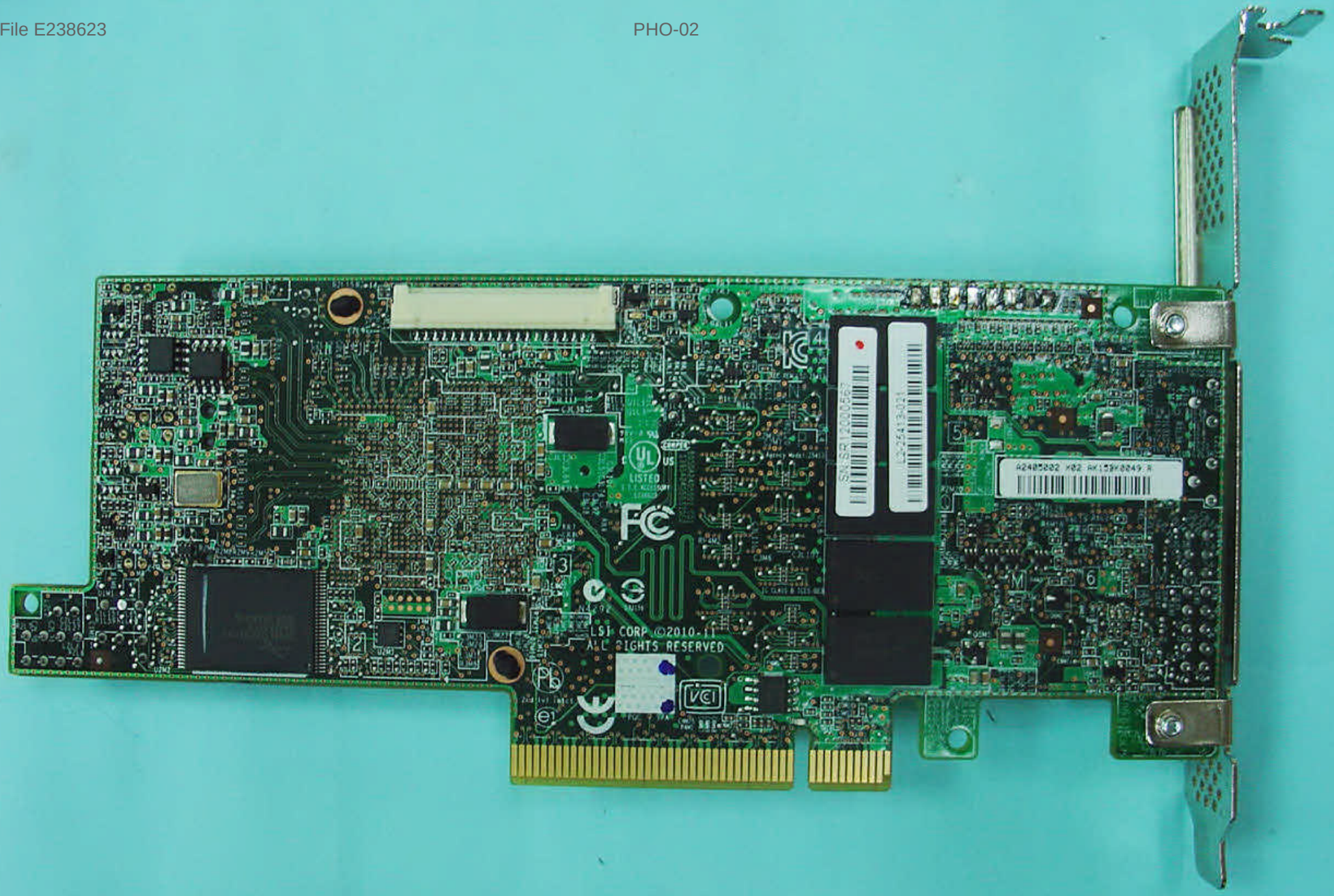
Model	Component	Material	Test	Sample(s)	Test Specifics
N/A					

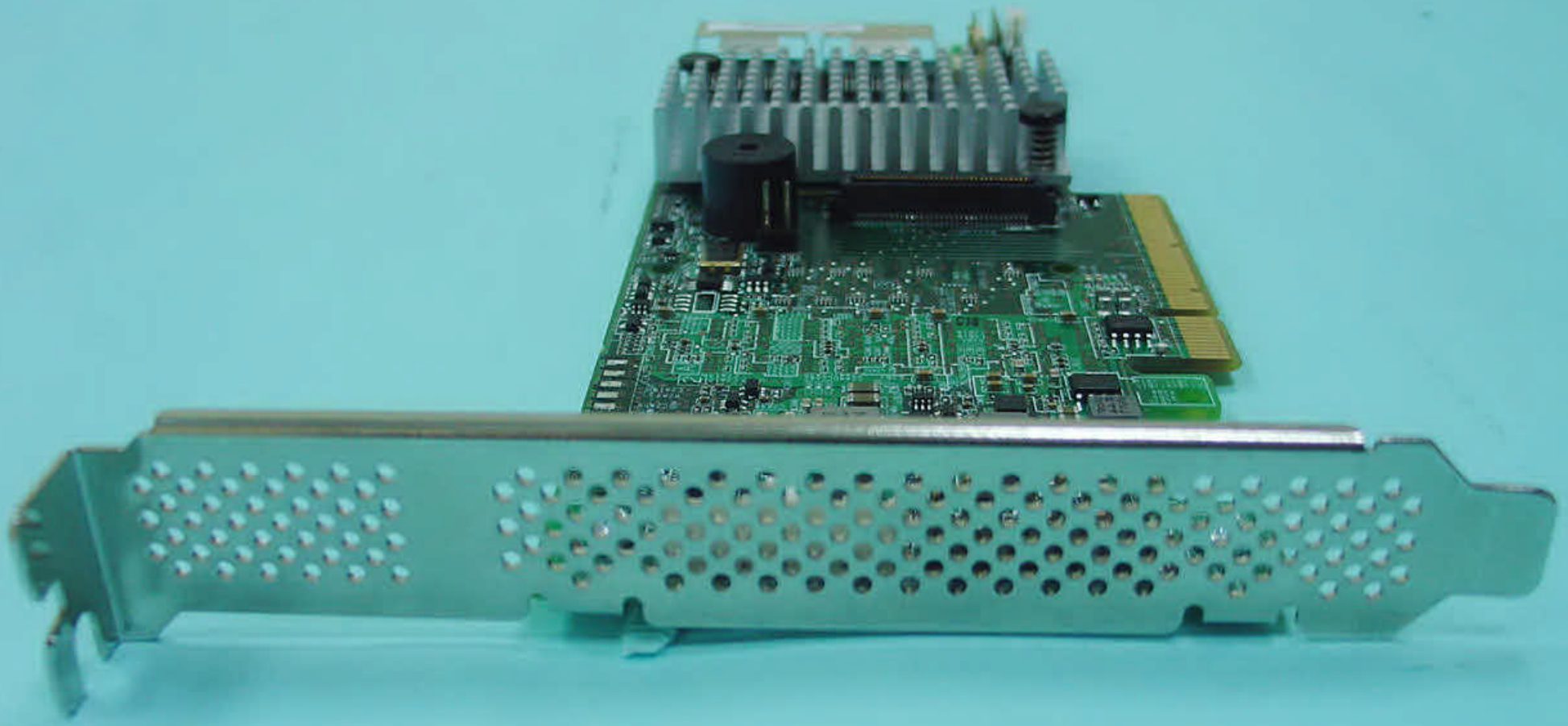
1.5.1	**TABLE: list of critical components**					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
01. PWB	Various	Various	Rated V-1 minimum, 105 degree C minimum	ZPMV2	UL	
02. Heat Sink (On U5B1)	--	--	Aluminum, Overall dimension 55 by 30 by 11 mm.	--	--	3-01
03. Internal Plastic Part/Materials	Various	Various	Rated V-2 minimum	QMFZ2	UL	
04. Connectors and Receptacles (secondary ELV/SELV circuits)	Various	Various	Metal/plastics, Copper alloy pins housed in bodies of plastic rated V-2 min.	DUXR2 or RTRT2 or ECBT2 or QMFZ2	UL	
05. Wiring (Secondary ELV/SELV) (Optional)	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; 60 V min., 60 degree C min.	AVLV2	Various	
06. Battery Pack (Optional)	Palladium Energy Co Ltd /LSI	BAT1S1P-A	3.7Vdc, 1.59Ah, 5.9Wh	NWGQ2 BBSF2	UL	
07. SuperCap Module (Optional)	Tecate Industries Inc	17-0005-4483	13.5Vdc, 6.4F	BBBG2	UL	
08. Label (Marking on PWB)	--	--	Printed by ink	--	--	
09. Insulating Tubing/Sleeving (Optional)	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; 105 degree C, 300 V.	UZFT2, YDPU2, YDTU2	UL	
10. Glue/Epoxy (for Super Cap Module)	Various	Various	V-2 min. covered on conductive parts of J2B1 pin1, J2B2 pin1, Q1B1 pin 5, 6, 7 and 8, Q3B3 pin2 and pin4, D3B1 pin 2, U3B3 pin1 and pin2.	QMFZ2	UL	4-03

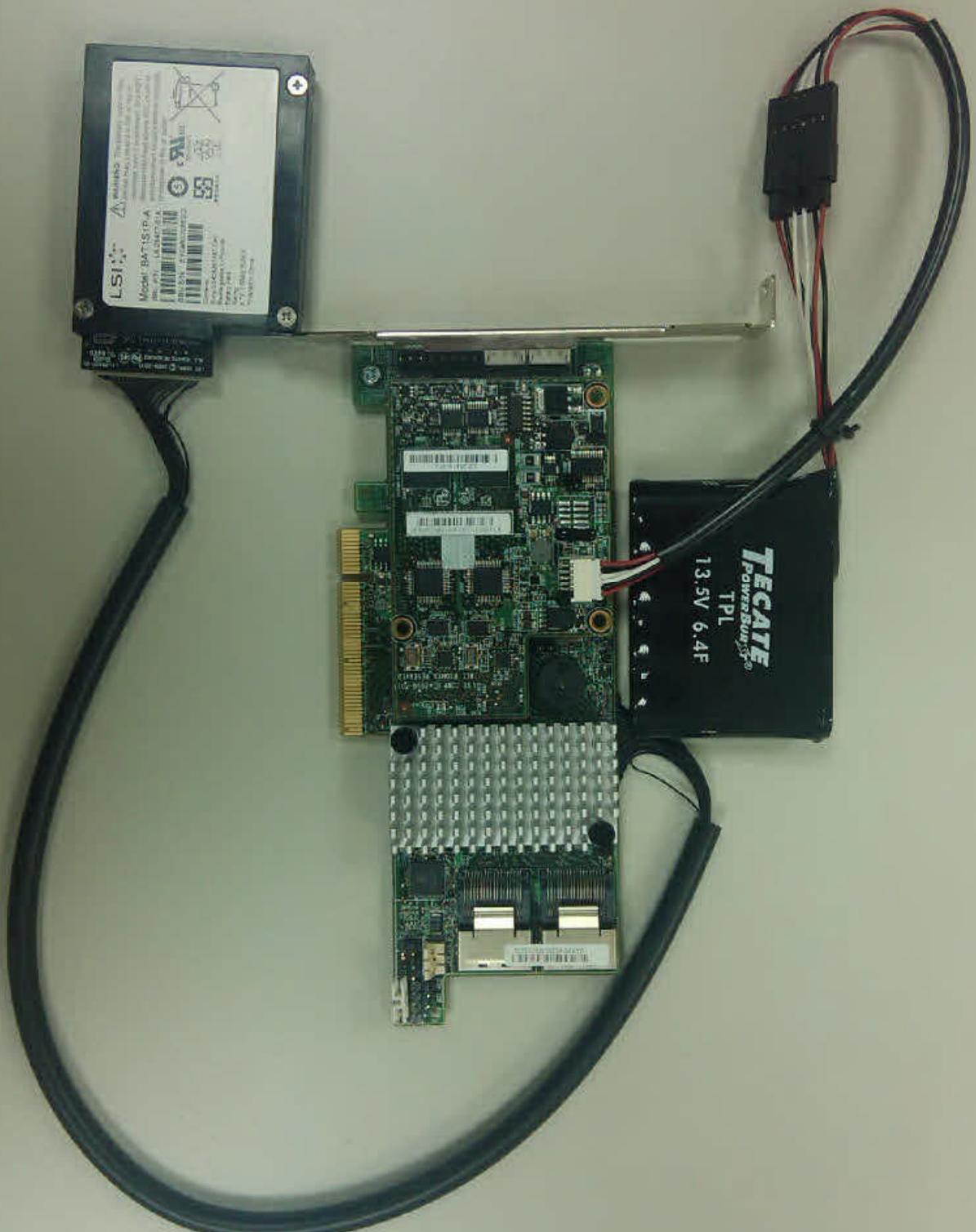
Enclosures

Type	Supplement Id	Description
Photographs	3-01	Overall View - 1
Photographs	3-02	Overall View - 2
Photographs	3-03	Overall View - 3
Photographs	3-15	Overall View with Battery Pack and SuperCap module
Photographs	3-16	Overall View with Battery Pack
Diagrams	4-02	Dimension of openings
Diagrams	4-03	Location of Glue/Epoxy
Schematics + PWB		
Manuals		
Miscellaneous		




LSI CORP. ©2010-11
ALL RIGHTS RESERVED




LSI
TECATE
POWERBURST
TPL
13.5V 6.4F


LSI
Model: BAT1S1P-A
BBU P/N: L4-25407-01A
BBU S/N SY04800286SO
Contains
Sony US4542614BT Cell
Rechargeable Li-Polymer
Battery Pack
Rating
3.7V, 1.59Ah, 5.9Wh
Finished In China
WARNING: The battery used in this device may present a risk of fire or chemical burn if mistreated. DO NOT disassemble,heat above 60C,crush or puncture,short circuit external contacts, or dispose in fire or water.
Li-ion
MH29577
LSI CORP. © 2009-2010
ALL RIGHTS RESERVED
L1-28102-01
RoHS
94V0

Model number	Description
25413	Standard Bracket: (as Figure 1) Low Profile Bracket: (as Figure 2)

Figure 1:

Overall dimension: 120mm X 18.4 mm;

Each opening: max. 1.6mm in diameter.

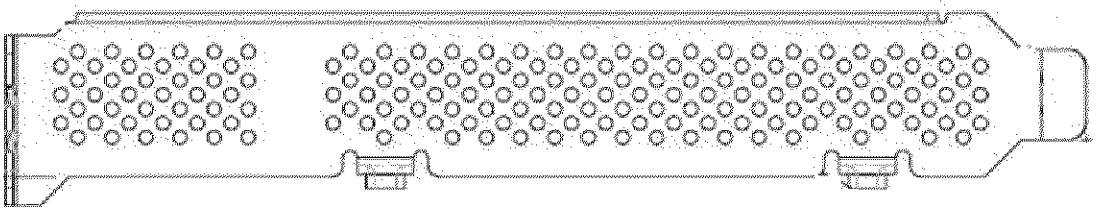
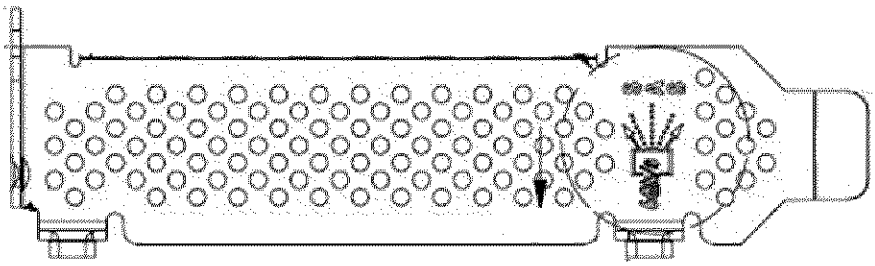
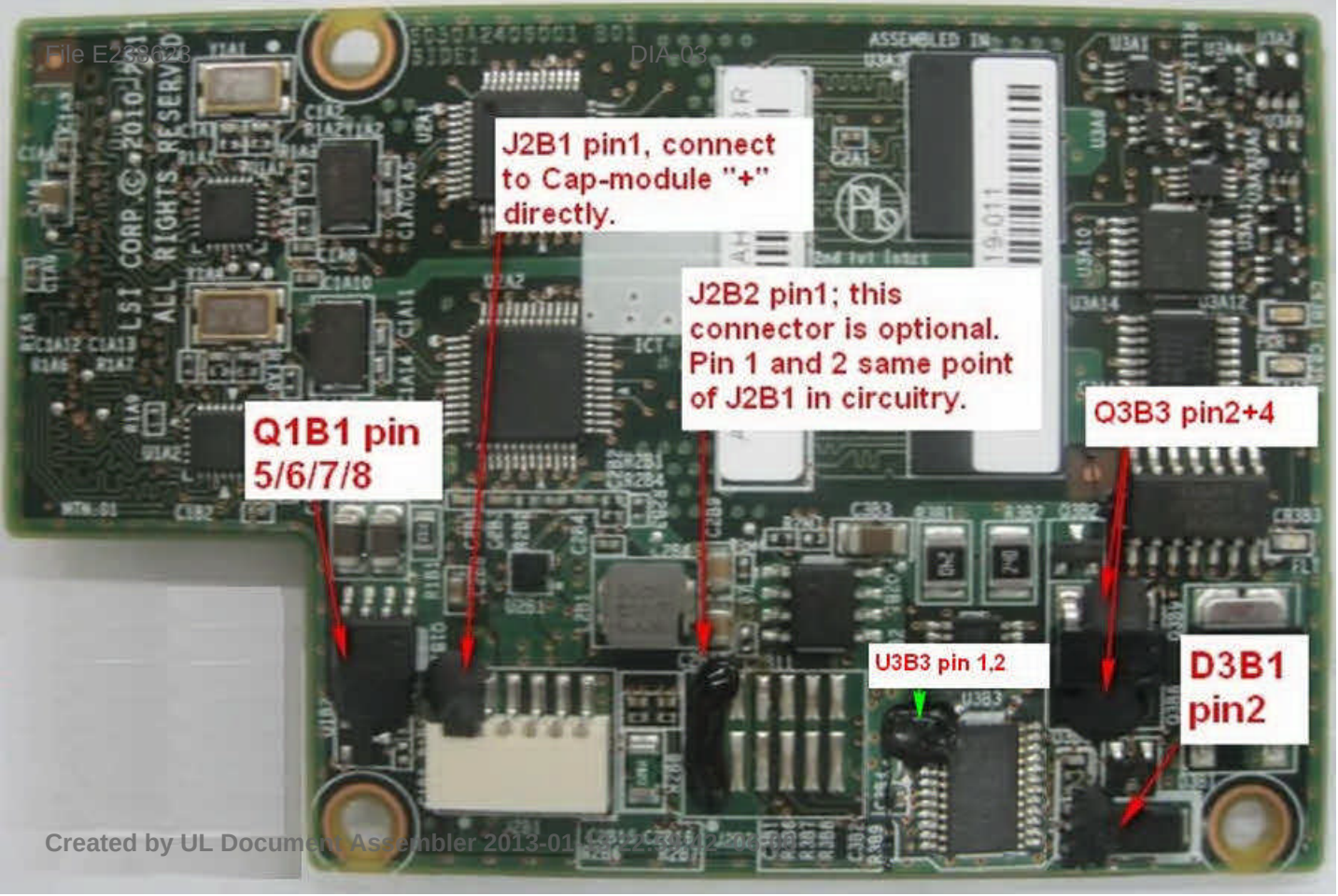


Figure 2:

Overall dimension: 79.2 mm X 18.4 mm;

Each opening: max. 1.6mm in diameter.




File E233628
DIA-03
J2B1 pin1, connect to Cap-module "+" directly.
J2B2 pin1; this connector is optional. Pin 1 and 2 same point of J2B1 in circuitry.
Q1B1 pin 5/6/7/8
Q3B3 pin2+4
U3B3 pin 1,2
D3B1 pin2
Created by UL Document Assembler 2013-01

Test Record No. 1

- The manufacturer submitted representative production sample of Accessory, PCI Express RAID Adapter, Model 25413.

- Unless otherwise indicated, all tests were conducted by Inventec Corp. located at Tachi, Taoyuan, Taiwan, under the WTDP.

The following tests were conducted:

Test	Testing Location/Comments

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following tests were waived:

Test	Rationale for Waiving

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Attachment	2-01	CRD
Datasheet	2-02	datasheet

Test Record No. 2

- The manufacturer submitted representative production sample of Accessory, PCI Express RAID Adapter, Model 25413 employing add Glue/Epoxy and add Energy Hazard Measurements.

- Unless otherwise indicated, all tests were conducted by Invente Corp located at Tachi, Taoyuan, Taiwan, under the CTDP.

- Only limited tests were performed on Model 25413 employing add Glue/Epoxy and add Energy Hazard Measurements due to testing previously performed on the subject unit.

The following tests were conducted:

Test	Testing Location/Comments

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Attachment	2-03	CRD
Datasheet	2-04	datasheet

Test Record No. 3

- No tests were deemed necessary due to employing the following:
(1) Upgrade standard to UL 60950-1, 2nd Edition, 2011-12-19 and CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12.

Project: 11CA31072 File: E238623

Compliance Review Conducted by:	Albert Kuo	Albert Kuo	2011-08-24
	Printed Name	Signature	Date

CONSTRUCTION COMPLIANCE REVIEW RECORD

SAMPLE IDENTIFICATION:

Sample Card #	Date Received	Sample #	Manufacturer, Product Identification and Ratings
See attachment for detail			

[ ] Indications of compliance apply to all samples identified with specific indications of compliance included for construction differences of the different samples.

MEASUREMENT INSTRUMENT INFORMATION: (Ex. Micrometer, Calipers, Comparator)

Inst. ID #	Instrument Type	Function/Range	Last Cal. Date	Next Cal. Date
See attachment for detail				

The following additional information is required when using client's or rented equipment, or when a UL ID Number for an instrument number is not used The Inst. ID # below corresponds to the Inst ID # above.

Inst. ID #	Make / Model / Serial Number / Asset No.
N/A	

[ ] UL Measurement instrument information is recorded on Meter Use in UL's Laboratory Project Management (LPM) database

CONSTRUCTION COMPLIANCE REVIEW:

The sample was reviewed for compliance with the construction requirements in the standard(s) indicated below and a complete record including measurements to support compliance with those requirements is detailed in Report Reference Number E238623-A107

Standard(s):

☒ CSA C22 2 No 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements)

☒ UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements)

☐ UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements); CSA C22.2 No 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements); IEC 60950-1:2005 Second Edition

File E238623 Project 11CA31072 File Date -- Page

TEST SAMPLE IDENTIFICATION

The table below is to provide correlation of sample numbers to specific product related information. Refer to this table when a test identifies a test sample by "Sample No " only.

Sample Number	Sample Card Number	Date Received	Manufacturer, Product Identification and Ratings
1	2011-11	2011-06-17	INVENTEC CORP
--	--	--	Accessory, PCI Express RAID Adapter Model: 25413
2	2011-10	2011-06-17	INVENTEC CORP
--	--	--	Server model: DD670
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Sampling Procedure (if used) :			

File E238623 Project 11CA31072 File Date -- Page

TEST INSTRUMENTS REFERENCE LIST

Instr Code	Instrument I.D.	Instrument Type	Range Used Or ***	Make and Model **	Calibration Date	
					Last	Due
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~~"Chamber setting(s) [was] [were] monitored to ensure that the setting(s) [was] [were] stable throughout the test time frame. Any deviations from the setting(s) are noted below.~~

Date	Test	Instrument Code	Time period of deviation	Setting(s)
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** Information to be recorded when tests are conducted at a non-UL facility.

*** Refer to specific data sheet for individual scale used.

[ ] Test equipment information is recorded on UL's Laboratory Project Management (LPM)/Laboratory Equipment Management (LEM) database. (This statement may be selected only if datasheets are completed at a UL facility)

File No. E238623
Model No. 25413
Project No. 11CA31072

01-ATT-01
Tested by Judy Tsou
Witnessed by Mark Kuo
Date: 2011/8/24

PREPARED BY: Judy Tsou
REVISED DATE: 2011-08-22

PRODUCT SAFETY LAB EQUIPMENT LIST

ITEM	DESCRIPTION	MANUFACTURER /MODEL/SN	SPECIFICATION: POWER RATING	CALIBRATION STATUS			
				LAST CAL.DATE	DUE DATE	CONTROL NO.	CAL INT
1	WT210 POWER METER	YOKOGAWA/MODEL760401 /91K209547	300V, 19A , 50/60HZ	2011-03-17	2012-02-17	EW-266-005	1Y
2	DC POWER SUPPLY	CHROMA 62024P-80-60/ 62024PA00533	0~60A, 0-80V	2011-05-16	2012-04-17	EE-540-001	1Y
3	DATA ACQUISITION/ UNIT	YOKOGAWA MX100	0~400 ℃	2011-03-22	2012-02-15	EW-078-002	1Y
4	FORCE GAUGE	CHATILLON /DPP-25KG	25KG	2011-04-08	2012-02-26	ME-713-001	1Y
5	LEAKAGE CURRENT TESTER	YOKOGAWA/ MODEL3226 /68NJ0400	150 and 300VAC,10mA,50 or 60Hz	2011-03-07	2012-01-30	EW-263-001	1Y
6	Ruler	MAGIC/3M/10FT	3M/10FT	2010-08-31	2011-08-25	ME-222-008	1Y
7	FREQUENCY CONVERTER	EXTECH/6530 /1400231	30KVA,0-300VAC, 50/60Hz	2011-04-26	2012-03-18	EE-521-001	1Y
8	MULTIMETER	FLUKE87 DMM	10A,0-400mA,1000VAC 400mADC,40MΩ	2011-06-14	2012-05-05	EW-176-008	1Y
9	DATA ACQUISITION/ UNIT	YOKOGAWA MX100	0~400 ℃	2011-08-22	2012-06-30	EW-078-001	1Y
10	WT210 POWER METER	YOKOGAWA/MODEL760401 /27c824005 H	300V, 19A , 50/60HZ	2010-09-21	2011-09-21	EW-266-002	1Y
11	FREQUENCY CONVERTER	EXTECH/CFC-150	5KVA,300V,50A, 47-60Hz	2010-11-18	2011-11-18	EE-208-002	1Y
12	DC POWER SUPPLY	CHROMA 62012P-80-60/ 62012PD01014	0~60A, 0-80V	2011-05-16	2012-04-16	EE-492-048	1Y
13	LEAKAGE CURRENT TESTER	Simpson/ MODEL228	100, 200 and 300VAC, 100mA, 50 or 60Hz	2011-03-23	2012-01-27	EW-398-001	1Y
14	WT110 POWER METER	YOKOGAWA/MODEL253401 /2534HA127 B	300V, 19A , 50/60HZ	2011-03-17	2012-02-12	EW-266-001	1Y
15	FREQUENCY CONVERTER	EXTECH/CFW-150 /E991774	5KVA,0-300VAC, 50/60Hz	2011-04-26	2012-03-18	EE-406-001	1Y
16	ELECTRICAL SAFETY COMPLIANCE ANALYZER	EXTECH/MOODEL 7742 /E 1350810	5Kvac @ 40mA, 40A 100mΩ, 1000Vac, 1000Vdc	2011-08-09	2012-06-24	EW-434-001	1Y
17	TIMER	CASIO/HS-5	STOPWATCH 0.01 second~4 hr	2010-09-01	2011-08-25	EW-236-008	1Y
18	CALIPER 200MM	MITUTOYO/Calipers	Digital 500-211 0.01~200 mm 20CM	2010-08-31	2011-08-25	ME-252-026	1Y
19	SCALE	JS/JHL-150Y	0~50kg	2011-03-17	2012-02-12	MW-108-001	1Y
20	DC ELECTRONIC LOAD	KIKUSUI/PLZ 150W/281127800	4~60V, 0~15A, 150W	2011-05-06	2012-04-07	EW-221-001	1Y

Project: 11CA52626 File: E238623

Compliance Review Conducted by:	Albert Kuo	Albert Kuo	2011-10-19
	Printed Name	Signature	Date

CONSTRUCTION COMPLIANCE REVIEW RECORD

SAMPLE IDENTIFICATION:

Sample Card #	Date Received	Sample #	Manufacturer, Product Identification and Ratings
See attachment for detail			

[ ] Indications of compliance apply to all samples identified with specific indications of compliance included for construction differences of the different samples

MEASUREMENT INSTRUMENT INFORMATION: (Ex. Micrometer, Calipers, Comparator)

Inst. ID #	Instrument Type	Function/Range	Last Cal. Date	Next Cal. Date
See attachment for detail				

The following additional information is required when using client's or rented equipment, or when a UL ID Number for an instrument number is not used. The Inst ID # below corresponds to the Inst ID # above

Inst. ID #	Make / Model / Serial Number / Asset No.
N/A	

[ ] UL Measurement instrument information is recorded on Meter Use in UL's Laboratory Project Management (LPM) database

CONSTRUCTION COMPLIANCE REVIEW:

The sample was reviewed for compliance with the construction requirements in the standard(s) indicated below and a complete record including measurements to support compliance with those requirements is detailed in Report Reference Number E238623-A107

Standard(s):

☒ CSA C22.2 No 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements)

☒ UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements)

☐ UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements); CSA C22.2 No 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements); IEC 60950-1:2005 Second Edition

TEST SAMPLE IDENTIFICATION

The table below is to provide correlation of sample numbers to specific product related information Refer to this table when a test identifies a test sample by "Sample No." only.

Sample Number	Sample Card Number	Date Received	Manufacturer, Product Identification and Ratings
1	2011-21	2011-10-09	INVENTEC CORP
--	--	--	Accessory, PCI Express RAID Adapter Model: 25413
2	2011-10	2011-06-17	INVENTEC CORP
--	--	--	Server model: DD670
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Sampling Procedure (if used) :		N/A	

File E238623 Project 11CA52626 Print date -- Page 3

TEST INSTRUMENTS REFERENCE LIST

Instr Code	Instrument I.D.	Instrument Type	Range Used Or ***	Make and Model **	Calibration Date	
					Last	Due
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~~"Chamber setting(s) [was] [were] monitored to ensure that the setting(s) [was] [were] stable throughout the test time frame. Any deviations from the setting(s) are noted below.~~

Date	Test	Instrument Code	Time period of deviation	Setting(s)
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** Information to be recorded when tests are conducted at a non-UL facility

*** Refer to specific data sheet for individual scale used.

[ ] Test equipment information is recorded on UL's Laboratory Project Management (LPM)/Laboratory Equipment Management (LEM) database (This statement may be selected only if datasheets are completed at a UL facility)

File No. E238623
Model No. 25413
Project No. 11CA52626

03-ATT-03
Tested by Judy Tsou

Date: 2011/10/19

PREPARED BY: Judy Tsou
REVISED DATE: 2011-09-27

PRODUCT SAFETY LAB EQUIPMENT LIST

	ITEM	DESCRIPTION	MANUFACTURER /MODEL/SN	SPECIFICATION: POWER RATING	CALIBRATION STATUS			
					LAST CAL.DATE	DUE DATE	CONTROL NO.	CAL INT
	1	WT210 POWER METER	YOKOGAWA/MODEL760401 /91K209547	300V, 19A , 50/60HZ	2011-03-17	2012-02-17	EW-266-005	1Y
	2	DC POWER SUPPLY	CHROMA 62024P-80-60/ 62024PA00533	0-60A, 0-80V	2011-05-16	2012-04-17	EE-540-001	1Y
	3	DATA ACQUISITION/ UNIT	YOKOGAWA MX100	0~400℃	2011-03-22	2012-02-15	EW-078-002	1Y
	4	FORCE GAUGE	CHATILLON /DPP-25KG	25KG	2011-04-08	2012-02-26	ME-713-001	1Y
	5	LEAKAGE CURRENT TESTER	YOKOGAWA/ MODEL3226 /68NJ0400	150 and 300VAC,10mA,50 or 60Hz	2011-03-07	2012-01-30	EW-263-001	1Y
	6	Ruler	MAGIC/3M/10FT	3M/10FT	2011-09-05	2012-07-08	ME-222-008	1Y
	7	FREQUENCY CONVERTER	EXTECH/6530 /1400231	30KVA,0-300VAC, 50/60Hz	2011-04-26	2012-03-18	EE-521-001	1Y
√	8	MULTIMETER	FLUKE87 DMM	10A,0-400mA,1000VAC 400mADC,40MΩ	2011-06-14	2012-05-05	EW-176-008	1Y
	9	DATA ACQUISITION/ UNIT	YOKOGAWA MX100	0~400℃	2011-08-22	2012-06-30	EW-078-001	1Y
	10	WT210 POWER METER	YOKOGAWA/MODEL760401 /27c824005 H	300V, 19A , 50/60HZ	2011-09-27	2012-09-26	EW-266-002	1Y
	11	FREQUENCY CONVERTER	EXTECH/CFC-150	5KVA,,300V,50A,47-60Hz	2010-11-18	2011-11-18	EE-208-002	1Y
	12	DC POWER SUPPLY	CHROMA 62012P-80-60/ 62012PD01014	0-60A, 0-80V	2011-05-16	2012-04-16	EE-492-048	1Y
	13	LEAKAGE CURRENT TESTER	Simpson/ MODEL228	100, 200 and 300VAC, 100mA, 50 or 60Hz	2011-03-23	2012-01-27	EW-398-001	1Y
	14	WT110 POWER METER	YOKOGAWA/MODEL253401 /2534HA127 B	300V, 19A , 50/60HZ	2011-03-17	2012-02-12	EW-266-001	1Y
	15	FREQUENCY CONVERTER	EXTECH/CFW-150 /E991774	5KVA,0-300VAC, 50/60Hz	2011-04-26	2012-03-18	EE-406-001	1Y
	16	ELECTRICAL SAFETY COMPLIANCE ANALYZER	EXTECH/MOODEL 7742 /E 1350810	5Kvac @ 40mA, 40A 100mΩ, 1000Vac, 1000Vdc	2011-08-09	2012-06-24	EW-434-001	1Y
√	17	TIMER	CASIO/HS-5	STOPWATCH 0.01 second~4 hr	2011-09-05	2012-07-09	EW-236-008	1Y
	18	CALIPER 200MM	MITUTOYO/Calipers	Digital 500-211 0 01~200 mm 20CM	2011-09-05	2012-07-09	ME-252-026	1Y
	19	SCALE	JS/JHL-150Y	0~50kg	2011-03-17	2012-02-12	MW-108-001	1Y
√	20	DC ELECTRONIC LOAD	KIKUSUI/PLZ 150W/281127800	4~60V, 0~15A, 150W	2011-05-06	2012-04-07	EW-221-001	1Y