
	Test Report issued under the responsibility of: Underwriters Laboratories Inc.	 Underwriters Laboratories
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TEST REPORT IEC 60950-1 Information technology equipment - Safety - Part 1: General requirements	
Report Reference No	E33252-A158-CB-1
Date of issue	2010-01-21
Total number of pages	8
CB Testing Laboratory	Underwriters Laboratories Inc.
Address	12 Laboratory Drive, Research Triangle Park , NC, 27709, USA
Applicant's name	INTERNATIONAL BUSINESS MACHINES CORP
Address	DEPT 6B7A /B306 3039 CORNWALLIS RD PO BOX 12195 RESEARCH TRIANGLE PK NC 27709 UNITED STATES
Test specification:	
Standard	IEC 60950-1:2005 (Second Edition)
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No.	IEC60950_1A
Test Report Form originator	SGS Fimko Ltd
Master TRF	2009-09
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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	

Issue Date: 2010-01-21
Amendment 3 2011-03-08

Page 2 of 8

Report Reference # E33252-A158-CB-1

Test item description	Server
Trade Mark	
Manufacturer	INTERNATIONAL BUSINESS MACHINES CORP DEPT 6B7A/B306 3039 CORNWALLIS RD PO BOX 12195 RESEARCH TRIANGLE PK NC 27709
Model/Type reference	3958-DD4, 7600R G2, 7145-XXX, 7146-XXX, 7143-XXX, 7191-XXX where XXX can be any alphanumeric character or blank.
Rating	100-127/200-208/220-240 V~, 20(10X2)/10/9 A, 50/60 Hz

Testing procedure and testing location:	
<input checked="" type="checkbox"/> CB Testing Laboratory	
Testing location / address..... :	Underwriters Laboratories Inc. 12 Laboratory Drive, Research Triangle Park , NC, 27709, USA
<input type="checkbox"/> Associated CB Test Laboratory	
Testing location / address..... :	
Tested by (name + signature) :	Daryl Merritt
	
Approved by (+ signature) :	Steven D. Thompson
	
<input type="checkbox"/> Testing Procedure: TMP	
Tested by (name + signature) :	
Approved by (+ signature) :	
Testing location / address..... :	
<input type="checkbox"/> Testing Procedure: WMT	
Tested by (name + signature) :	
Witnessed by (+ signature)..... :	
Approved by (+ signature) :	
Testing location / address..... :	
<input type="checkbox"/> Testing Procedure: SMT	
Tested by (name + signature) :	
Approved by (+ signature) :	
Supervised by (+ signature) :	
Testing location / address..... :	
<input type="checkbox"/> Testing Procedure: RMT	
Tested by (name + signature) :	
Approved by (+ signature) :	
Supervised by (+ signature) :	
Testing location / address..... :	

List of Attachments
National Differences (0 pages)
Enclosures (0 pages)
Summary of Testing:
No tests were conducted
Summary of Compliance with National Differences:
List of countries addressed: AT, AU, BE, CA, CH, CZ, DE, DK, ES, EU, FI, FR, GB, GR, HU, IE, IT, JP, KR, NL, NO, PL, PT, SE, SI, SK, US

Copy of Marking Plate

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

7145, 7146



Test item particulars :	
Equipment mobility	stationary
Connection to the mains	pluggable A
Operating condition	continuous
Access location	operator accessible
Over voltage category (OVC)	OVC II
Mains supply tolerance (%) or absolute mains supply values	+10%, -10%
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class I (earthed)
Considered current rating (A)	20A North America / 16A International
Pollution degree (PD)	PD 2
IP protection class	IP X0
Altitude of operation (m)	below 2135m
Altitude of test laboratory (m)	below 2000m
Mass of equipment (kg)	49.9
Possible test case verdicts:	
- test case does not apply to the test object	N / A
- test object does meet the requirement	P(Pass)
- test object does not meet the requirement	F(Fail)
Testing:	
Date(s) of receipt of test item	N/A
Date(s) of Performance of tests	N/A
General remarks:	
<p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> <p>"(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a point is used as the decimal separator.</p>	
Manufacturer's Declaration per SubClause 6.25 of IEC 60950-1:	
The application for obtaining a CB Test Certificate includes more than one factory and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	Yes
When differences exist, they shall be identified in the General Product Information section.	
Name and address of Factory(ies):	IBM TECHNOLOGY PRODUCT (SHENZHEN) CO LTD

GREAT WALL TECHNOLOGY BUILDING
SCIENCE & INDUSTRY PARK
NANSHAN DISTRICT
SHENZHEN GUANGDONG CHINA

PCE PARAGON SOLUTIONS (MEXICO) S A DE
C V
CAMINO AL CASTILLO 2100-M
CORREDOR INDUSTRIAL EL SALTO
45680 EL SALTO
JAL MEXICO

INTERNATIONAL BUSINESS MACHINES CORP
3605 HWY 52 N
ROCHESTER MN 55901
UNITED STATES

IBM INTERNATIONAL HOLDING
IBM TECHNOLOGY CAMPUS, SERVER BLDG
DAMASTOWN INDUSTRIAL PARK
MULHUDDART
DUBLIN
15 IRELAND

PCE PARAGON SOLUTIONS KFT
ASZALVOLGYI UTCA 5
8000 SZEKESFEHERVAR HUNGARY

IBM DE MEXICO COMERCIALIZACION Y
SERVICIOS S DE R L DE C V
CARRETERA A EL CASTILLO NO 2200
45680 EL SALTO
JAL MEXICO

IBM SYSTEMS TECHNOLOGY CO
LTD
30 TAOHUA RD
FUTIAN FREE TRADE ZONE
SHENZHEN GUANGDONG CHINA

FLEXTRONICS INTERNATIONAL TECNOLOGIA
LTDA
ROD SEN JOSE ERMIRIO DE MORAES KM 11
VILA APARECIDINHA
18087-090
SOROCABA- SP BRAZIL

INTERNATIONAL BUSINESS MACHINES CORP
DEPT 6B7A/B306
3039 CORNWALLIS RD
PO BOX 12195
RESEARCH TRIANGLE PK NC 27709

GENERAL PRODUCT INFORMATION:

Report Summary

The original report was modified on 2011-03-08 to include the following changes/additions:
Add Models 7143-XXX and 7191-XXX.

Product Description

Unit is a 4U server. The unit consists Up to 2 power supplies with one integral cooling fan per power supply, up to 4 processors, up to 8 memory cards containing up to 8 memory DIMMs per card for a total of up to 64 DIMMs, up to 8 hard disk drives, up to 2 QPI Wrap Cards, 1 RAID Card, up to 7 PCI cards, 1 optical drive, 2 front cooling fans and 1 internal cooling fan module containing 2 fans.

Model Differences

Models 7600R G2, 7145-XXX, 7146-XXX where XXX can be any alphanumeric character or blank are identical except for marketing purposes.

Model 3958-DD4 is identical to Model 7145-XXX except for the addition of a QLogic Model PX2810403-XX or Emulex Model LP Series PCI Fibre Card containing a JDS Uniphase type PLRXPL laser transceiver.

Models 7143-XXX and 7191-XXX are identical to 7145-XXX except for marketing purposes.

Additional Information

The marking plate provided represents all models.

Issue #1, Amendment #2: The original report was amended in order to add a new Model 3958-DD4 employing an optional QLogic Model PX2810403-XX or Emulex Model LP Series PCI Fibre Card containing an optional JDS Uniphase type PLRXPL laser transceiver. Also as a part of this amendment, a new IBM Mexico factory location was added. No testing was deemed necessary for the addition of the new models and factory location. It was determined that the product continues to comply with the standard.

Issue #1, Amendment #3: The original report was amended in order to add new Models 7143-XXX and 7191-XXX. No testing was deemed necessary for the addition of the new models. It was determined that the product continues to comply with the standard.

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 35°C
- This unit contains heatsinks that each contain approximately a maximum of 1 cc of water per 100 mm of total length of heat pipe, with a maximum of 5 cc of water per heat pipe. Engineering rationale was utilized to waive any testing for the reliability of the heatsink to not rupture during normal or abnormal use. --
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 35°C. See the Supplementary Information to Table 4.5 for further details. --

- The means of connection to the mains supply is: Pluggable A --
- The product is intended for use on the following power systems: TN --
- The equipment disconnect device is considered to be: Appliance inlets --
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): Output Connectors. --
- The power supply in this equipment was: Not investigated. A test report for the power supply may be required when submitting this CB Report to a National Certification Body (NCB) to obtain a national mark. --
- The product was investigated to the following additional standards: EN60950-1: 2006 and Amendment 11:2009 (which includes all European national differences, including those specified in this test report). --