



CSA INTERNATIONAL

Certificate of Compliance

Certificate: 1777763 (LR91261)

Master Contract: 181670

Project: 1777763

Date Issued: 2006/03/31

Issued to: Barco Folsom LLC

11101 A Trade Center Dr
Rancho Cordova, CA 95670
USA
Attention: Kent Vogel

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US'



Issued by: Oscar Enojado

Authorized by: Fabio Furlan, Project Manager

PRODUCTS

CLASS 3862 91 - Information Technology Equipment (CSA 60950-1-03/UL 60950-1, - First Edition NRTL Program) Certified to U.S. Standards

CLASS 3862 11 - INFORMATION TECHNOLOGY EQUIPMENT - (CSA 60950-1-03)

- Digital Video Router, Model MP-0808D DVI, cord-connected, input rated 100-240 V, 50-60 Hz, 1.9 A.

APPLICABLE REQUIREMENTS

- CAN/CSA C22.2 No 0-M91 - General Requirements, Canadian Electrical Code, Part II

The 'C' and 'US' indicators adjacent to the CSA Mark signify that the product has been evaluated to the applicable CSA and ANSI/UL Standards, for use in Canada and the U.S., respectively. This 'US' indicator includes products eligible to bear the 'NRTL' indicator. NRTL, i.e. National Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety and Health Administration (OSHA) to laboratories which have been recognized to perform certification to U.S. Standards.



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- CAN/CSA C22.2 No 0.4-M1982 - Bonding and Grounding of electrical Equipment (Protective Grounding)
 - CAN/CSA C22.2 No 60950-1-03 - Safety of Information Technology Equipment
 - ANSI/UL No 60950-1 1st Ed (2003) - Safety of Information Technology Equipment



Supplement to Certificate of Compliance

Certificate: 177763

Master Contract: 181670

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
177763	2006/03/31	Original C/US Certification.



Descriptive and Test Report

MASTER CONTRACT: 181670 (LR 91261)

REPORT: 1777763

PROJECT: 1777763

Edition 1: March 31, 2006; Project 1777763 - Irvine
Issued by Oscar D. Enojado

Contents: Certificate of Compliance - Pages 1 to 2
Supplement to Certificate of Compliance – Pages 1
Description and Tests – Pages 1 to 10
Includes Photographs – Figs. 1 to 3
Includes Illustrations – Ills. 1 to 2
Bi-Nat CSA 60950-1-03/UL 60950-1 Design Manual

PRODUCTS

CLASS 3862 11 - For Canadian Certification

CLASS 3862 91 - For US Certification

INFORMATION TECHNOLOGY EQUIPMENT – Safety Part 1: General Requirements

Digital Video Router, Model MP-0808D DVI, cord-connected, input rated 100-240 V, 50-60 Hz, 1.9 A.

APPLICABLE REQUIREMENTS

- CAN/CSA C22.2 No 0-M91 - General Requirements, Canadian Electrical Code, Part II
- CAN/CSA C22.2 No 0.4-M1982 - Bonding and Grounding of electrical Equipment (Protective Grounding)
- CAN/CSA C22.2 No 60950-1-03 - Safety of Information Technology Equipment
- ANSI/UL No 60950-1 1st Ed (2003) - Safety of Information Technology Equipment

**BI-NAT CSA 60950-1-03/UL 60950-1, 1st Edition DESIGN MANUAL, Revision 1.0 (ISSUED WITH -1583488)
IS AN INTEGRAL PART OF THIS REPORT**

The test report shall not be reproduced, except in full, without the approval of CSA International.

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MARKINGS

The following markings appear on a CSA Certified and UL Recognized adhesive type nameplate:

- (a) The CSA Monogram with "C US" or "NRTL/C" indicators and the optional indicators "CSA 60950-1" and "ANSI/UL 60950-1";
- (b) The submitter's name and/or CSA File / Contract Number "LR 91261" or "181670";
- (c) Model designation;
- (d) Complete electrical rating in volts, hertz and amperes;
- (e) A date code or serial numbers traceable to month and year of manufacture and manufacturing facility;

The following additional markings appear marked in a permanent manner:

- (a) The IEC 417 Symbols 5007 and 5008 ("I" and "O") or equiv. are marked in a permanent manner on or adjacent to the power switch.
- (b) The IEC 417 Symbol 5019  is marked in a permanent manner adjacent to the ground stud.

ALTERATIONS

- (a) Markings, as described above, appear on each unit.
- (b) Grounding is as described in List of Critical Components.

FACTORY TEST - Refer to Design Manual for voltage levels.

- (a) Production-line Dielectric Voltage-Withstand Test: Clause 5.2.2
 - [i] For Grounded Units (Class I or Class 2) rated above 130V and up to 250V;
- (b) Production-Line Earthing-Continuity Test: Ref. Cl 7.2 of ANSI/UL 1950(1993)

DESCRIPTION

General:

- (a) Type of Equipment: Stand-alone - Desk-top or Rack-mount.
- (b) Class of Equipment: Class I
- (c) Connection to Supply: Pluggable A
- (d) Type of Power System: TN-S
- (e) Mobility: Moveable
- (f) Weight of Equipment: 10 kg

- (g) Pollution Degree: 2
- (h) Maximum Rated Ambient Temperature: 40 °C
- (i) Installation: N/A
- (j) Accessibility: This unit contains no operator access areas and the operator's manual does not instruct the operator to gain access within the enclosure, or imply that access is required
- (k) Interchangeable Components: "INT" (Interchangeable) denotes that an alternative component with the same minimum required approval and ratings may be interchanged. If no approval is required, then the component must be constructed as described in the illustration referred to.
- (l) Minimum required approval coding is:

CSA = CSA International; CSA NRTL/C or CSA C/US= CSA (Canadian and US Requirements);

UL = UL Listed/Recognized; cUL = UL (Canadian and US Requirements);

VDE; SEMKO; TUV; SEV; Demko; Nemko.

- 1. Enclosure: Folded metal frame construction with metal panels secured by screws and lock washers; shaped as shown, overall dim 43 cm by 8.9 cm by 38 cm by 1.7 mm thick
- 2. Ventilation Openings: No bare live parts involving shock or energy hazards are located directly behind or below these openings. The openings described below provide no operator access to mechanical, energy or shock hazards.
 - (a) Front Openings: Two areas approx measuring 4.6 cm by 1.8 cm, provided with 3.8 mm by 18 mm horizontal slot openings. An area approx measuring 1.0 cm by 38 cm, provided with 3.8 mm by 25 mm horizontal slot openings. No fire hazardous components are located within a 5 ° projection of these openings. Not located below fire hazardous components.
 - (b) Rear Openings: An area approx measuring 1.0 cm by 30 cm, provided with 4.0 mm by 25 mm horizontal slot openings. An area approx measuring 0.4 cm by 2.8 cm, provided with 4.0 mm by 25 mm horizontal slot openings. An area approx measuring 0.4 cm by 3.1 cm, provided with 4.0 mm by 25 mm horizontal slot openings. No fire hazardous components are located within a 5 ° projection of these openings. Not located below fire hazardous components.

Table 1.5.1 — List of Critical Components

Object/Part No.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity ¹⁾
Power Supply Cord Set (Canada & US) - Optional - Cord - Attachment Plug (moulded on) - Connector Body	---	--- No. 18/3 AWG, SVT NEMA Type 5- 15P or 6-15P Female Type C13	max. 4.5 m long, 250 V ac, 10 A (120 V ac or 240 V ac applications respectively) 250 V ac, 10 A.	CSA 21 UL 817 IEC/EN 60320	CSA, UL
Alternative Cord Set - Optional	Equipment used outside of Canada and the US may be provided with a non-certified cord, provided the cord is acceptable to the authorities in the country of usage. Such cords have not been investigated by CSA and are not part of the Certification.				
Appliance Inlet/EMI Filter/Power Switch combination.	Corcom	P/N 3CFE1	Rated 120/250 V, 50-60 Hz, 3 A. Provided with terminals, properly wired to maintain polarity. Secured through a suitably sized opening in the rear by screws.	CSA 8 UL 1283, UL 498	UL
- Grounding	One min No 18 AWG green or green/yellow insulated grounding conductor is mechanically secured and soldered to the ground terminal at one end. The other end terminates singly in a crimp type closed loop connector secured to the chassis by a min No 6 (M3.5), plated or nonferrous threaded stud, nut and lockwasher (to ensure surface coating penetration); a separate nut and lockwasher secure crimp type closed loop connectors of bonding conductors; screw engages min of twice the pitch of the screw thread.				
Power Supply	Mean Well	P/N LPS-75-5	Rated input 100- 240 V, 50-60 Hz, 1.9 A; output 5 V dc, 15 A. Classification Level 3.	CSA 60950-1-03 UL60950-1 1 st Ed	cURus
DC Fan (SELV) (2 provided)	Sunonwealth	P/N KDE1208PTB1- 6	Rated 12 V dc, 0.22 A, 42.5 cfm	CSA 113 UL 507	cURus
Alternative:	Comair Rotron	P/N CR0812LB- A70GL	Rated 12 V dc, 0.12 A, 26.0 cfm	CSA 113 UL 507	CSA, UR
Alternative:	Delta Electronics	P/N AF0812L	Rated 12 V dc, 0.09 A, 27.9 cfm	CSA 113 UL 507	CSA, UR

Table 1.5.1 — List of Critical Components

Object/Part No.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity ¹⁾
PWB	Various	- - -	V-1 minimum	UL94	UL
Vacuum Fluorescent Display (VFD) Module (SELV)	Noritake	GU128X32-800	Rated 5 V dc, 450 mA, 8.3 cm by 2.1 cm display area.	- - -	- - -

¹⁾ An asterisk indicates a mark which assures the agreed level of surveillance.

TEST SUMMARY

Edition: 1 (Project 177763)

Device Tested: Model MP-0808D DVI

Tests were conducted at CKC Laboratories, located at 110 North Olinda Pl., Brea, CA 92823, under the CSA witness-testing program. The detailed test results are located in the Engineering File at the CSA International Irvine Office.

Verdict Notation	Verdict Meaning
<i>N/A</i>	<i>Not Applicable</i>
<i>P</i>	<i>Pass</i>
<i>F</i>	<i>Fail</i>
<i>W</i>	<i>Applicable but waived.</i>
<i>E</i>	<i>To be evaluated in end-system</i>

<u>LIST OF TESTS</u>		
Tests Conducted (marked with a "C")	Clause	Description
C	1.6.2	Power Interface (Input) Test
N/A	1.7.13	Marking Durability
N/A	2.1.1.5	Energy Hazard Measurement (20 joules and 240VA)
C	2.1.1.7	Shock Hazard Measurement
N/A	2.2	SELV (Single Fault Simulation)
N/A	2.3.1	TNV Limit Measurements
N/A	2.3.4	Connection of TNV Circuits to Other Circuits
N/A	2.3.5	TNV Voltages Generated Externally
N/A	2.4	Limited Current Circuit Measurement
N/A	2.5	Limited Power Sources
C	2.6.3.4	Protective Earthing Resistance Measurement
N/A	2.8	Safety Interlock System
N/A	2.9	Insulation (Hygroscopic Material)
C	2.10	Creepage/Clearance/Distances Through Insulation
N/A	3.1.1	Maximum Limit of Secondary Protection (Tables 2B and 2C)
N/A	3.1.4	Conductor Insulation (Electric Strength Test)
N/A	3.1.9	Electrical/Mechanical Connection Test
N/A	3.2.3	Permanent Connection (Installation Test/Measurement)
N/A	3.2.6	Power Supply Cord Strain Relief/Cord Anchorage
N/A	3.2.8	Power Supply Cord Guard Test
N/A	3.3.8	Field-Wiring Test

LIST OF TESTS		
Tests Conducted (marked with a "C")	Clause	Description
N/A	4.1.1	Physical Stability Test
W	4.2	Mechanical Strength and Stress Relief
N/A	4.2.10	Mounting Means Test (For wall or Ceiling Mounted equipment)
N/A	4.3.2	Handle Test (For Handles Supporting >9.0kg Only)
N/A	4.3.2	Pull Test (Handle, Knob, Grip, Lever, etc.)
N/A	4.3.6	Direct Plug-In Moment Test
N/A	4.3.8	Lithium / Rechargeable Battery (Reverse/Charging Current)
N/A	4.3.10	Spillage Test (For Non-Flammable Liquid)
N/A	4.3.13	Ionizing Radiation
C	4.5.1	Heating Test
N/A	4.5.2	Resistance to Abnormal Heat (Ball Pressure Test)
N/A	4.6.5	Adhesive Aging and Securement Test
C	5.1	Earth Leakage Current Measurement
N/A	5.1.8.1	Limitation of Touch Currents to a Telecommunication Network
N/A	5.1.8.1.1	Limitation of Touch Currents due to Ringing Signals
N/A	5.1.8.2	Summation of Touch Currents from Telecommunication Networks
C	5.2	Electric Strength Test
C	5.3	Abnormal - Component Failure (System)
N/A	*5.3	Abnormal - Component Failure (Power Supply)
N/A	5.3.2	Abnormal - Motor (See Annex B)
N/A	*5.3.3	Abnormal - Transformer (See Annex C)
N/A	*5.3.4	Electric Strength Test (for Deficient Operational Spacings on CB's)
C	5.3.6	Overload Test (Operator Accessible Connectors)
N/A	*5.3.6	Overload/Short Circuit Test (Power Supply Outputs)
N/A	6.1.2	Separation of the TNV Network from Earth
N/A	6.2.2.1	TNV Circuit (Impulse Test)
N/A	6.2.2.2	TNV Circuit (Electric Strength)
N/A	6.3	Telecommunication Wiring System Protection from Overheating
N/A	6.4	Protection Against Overvoltages from Power Line Crosses (Annex NAC)
N/A	6.5	Acoustic Pressure Tests
N/A	A	Flame Tests
N/A	B	Motor Tests
N/A	C	Transformer Tests

Requirements/Tests Waived:

The following CSA and U.S. requirements/tests were waived.

Requirements/Tests Waived	Clause No	Reasons
Mechanical Strength and Stress Relief	4.2	Passed by inspection Metal enclosure.

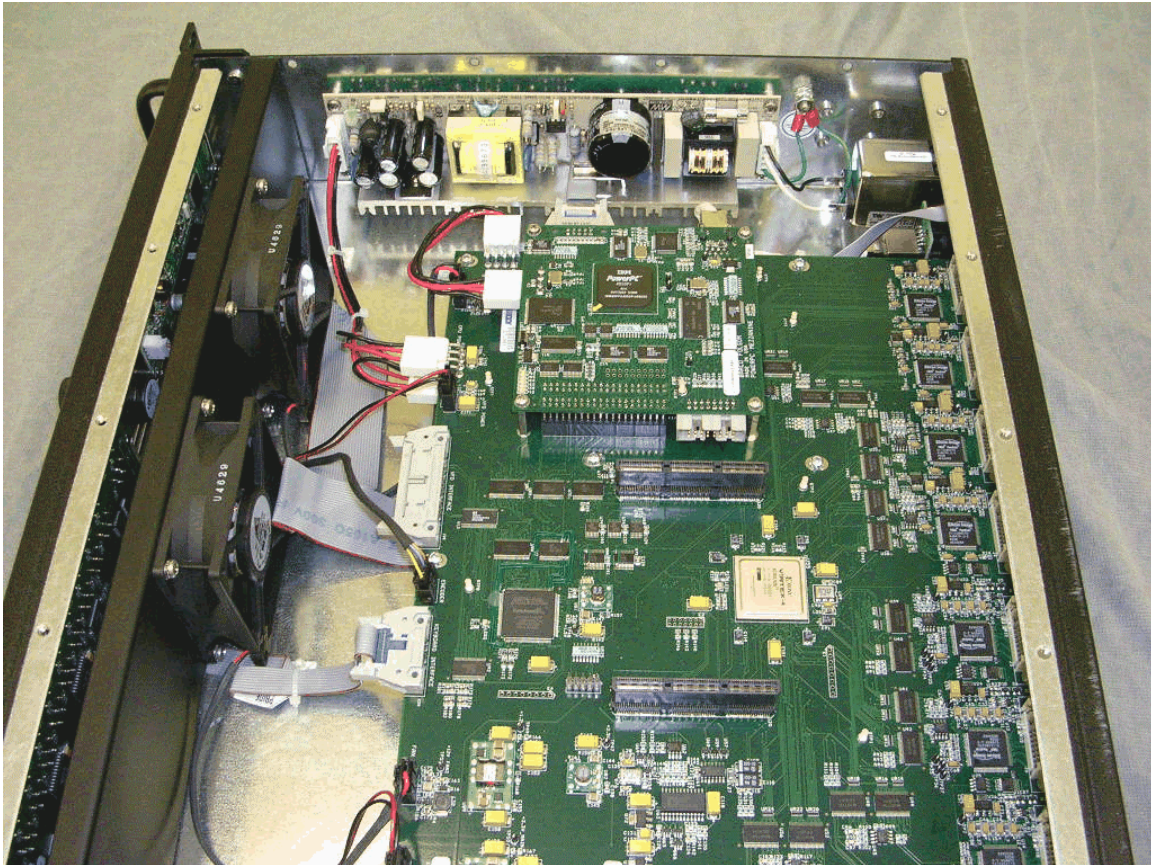


Figure 3

ILLUSTRATIONS

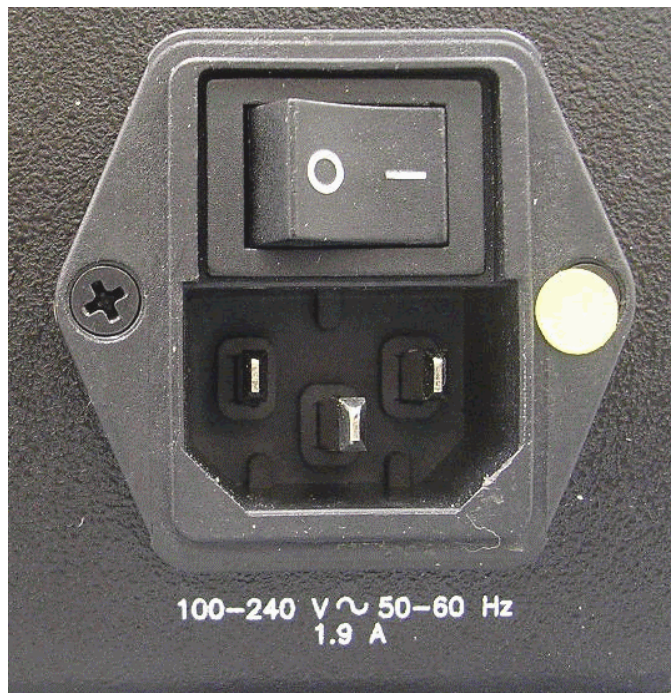


ILLUSTRATION 1



ILLUSTRATION 2