# 2400PSU-8
# 8 Channel 240xLT Power Supply

# Instruction Manual



**EVERTZ MICROSYSTEMS LTD.**
5288 John Lucas Drive,
Burlington, Ontario, Canada
L7L 5Z9

| | | | | |
|---|---|---|---|---|
| Phone: | +1 905-335-3700 | Internet: | Sales: | sales@evertz.com |
| Sales Fax: | +1 905-335-3573 | | Tech Support: | service@evertz.com |
| Tech Support Phone: | +1 905-335-7570 | | Web Page: | http://www.evertz.com |
| Tech Support Fax: | +1 905-335-7571 | | | |

Revision 1.3, January 2009

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# IMPORTANT SAFETY INSTRUCTIONS

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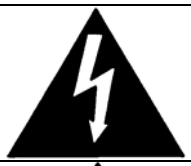
|---|---|
|  | The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of un-insulated “Dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. |
|  | The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product. |

- Read these instructions
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

**WARNING**
TO REDUCE THE RISK OF FIRE OR ELECTRIC – SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE

**WARNING**
DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS ARE PLACED ON THE EQUIPMENT

**WARNING**
TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE

**WARNING**
THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE

# INFORMATION TO USERS IN EUROPE

## NOTE

This equipment with the CE marking complies with both the EMC Directive (2004/108/EC) and the Low Voltage Directive (2006/95/EC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European standards:

- EN60065 Product Safety
- EN55103-1 Electromagnetic Interference Class A (Emission)
- EN55103-2 Electromagnetic Susceptibility (Immunity)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to the European Union EMC directive. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

| | | |
|---|---|---|
| CE | EN600065<br>EN55103-1: 1996<br>EN55103-2: 1996 | Safety<br>Emission<br>Immunity |

| | |
|---|---|
|  | EN504192 2005<br>Waste electrical products should not be disposed of with household waste. Contact your Local Authority for recycling advice |

# INFORMATION TO USERS IN THE U.S.A.

## NOTE

### FCC CLASS A DIGITAL DEVICE OR PERIPHERAL

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## WARNING

Changes or modifications not expressly approved by Evertz Microsystems Ltd. could void the user's authority to operate the equipment. Use of unshielded plugs or cables may cause radiation interference. Properly shielded interface cables with the shield connected to the chassis ground of the device must be used.

| | | |
|---|---|---|
| Evertz Microsystems Ltd<br>FC<br>For Commercial Use | Tested to comply with FCC Standards | This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:<br><br>This device may cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation. |

# REVISION HISTORY

| REVISION | DESCRIPTION | DATE |
|---|---|---|
| 1.0 | First Release | Jan 08 |
| 1.1 | Fixed formatting and typos | May 08 |
| 1.2 | Added Safety and conformance test | Sep 08 |
| 1.3 | Updated Environmental Specs | Jan 09 |

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**Figures**

# 1. OVERVIEW

The 2400PSU-8 is used to supply power to up to eight 240xLT series RF fiber optic transmitters including DC power for upstream LNBs. It contains dual, isolated, redundant DC power supplies and provides eight outputs on F-Type connectors.

**Features:**

- Provides diode-isolated, redundant DC power for up to eight 240xLT series modules and upstream LNBs
- Active fuses for protection of each DC output
- LED indicators display the status of each power supply and DC output
- PSU status signal output for remote monitoring via connected 2407LTA/2408LT transmitter and connected 7708LR or 7708LRA receiver

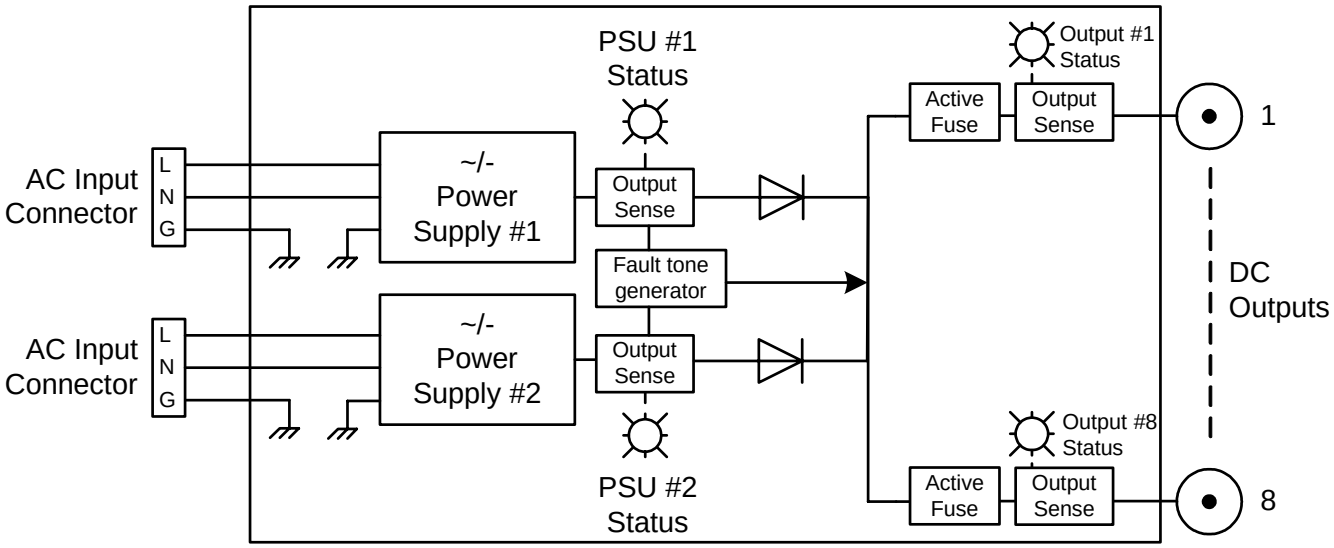


**Figure 1-1: 2400PSU-8 Block Diagram**

# 2. INSTALLATION

The 2400PSU-8 comes in a diecast enclosure with integral mounting flanges. It is recommended that the enclosure be mounted on a flat surface.

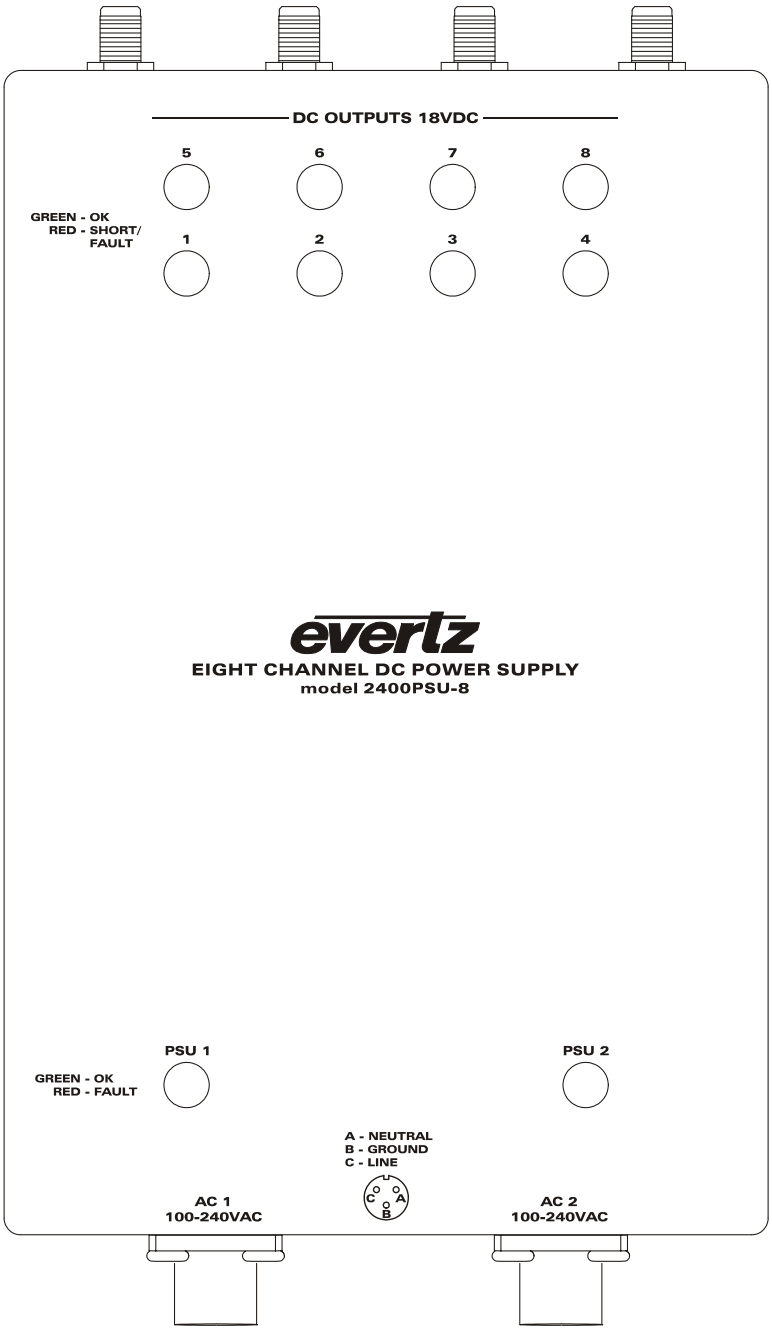


**Figure 2-1: 2400PSU-8 Module**

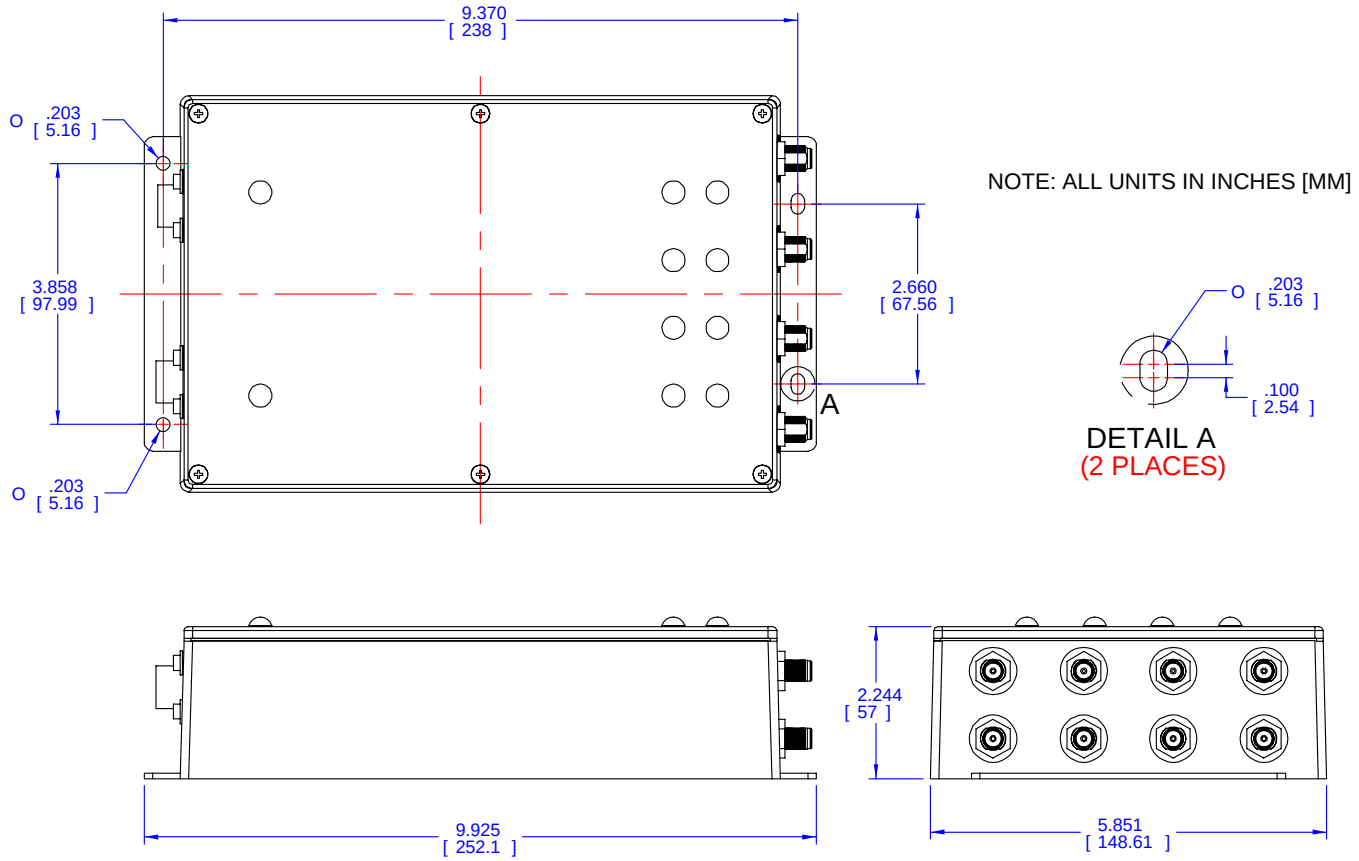


**Figure 2-2: 2400PSU-8 Dimensions and Mounting Centers**

## 2.1. 2400PSU-8 CONNECTIONS

**AC IN 1+2:** 100-240VAC, 50/60 Hz, auto-ranging AC inputs. Each input is separately connected to one of the internal, redundant AC/DC power supplies. The dual connectors permit connection to independent AC sources if available.

Two cable assemblies with mating connectors on one and male IEC320 connectors on the other end is included. The IEC320 connectors permit the use of standard IEC320 line cords with plug type appropriate for the particular area of the world where the 2400PSU-8 is to be used.

Two mating connectors, without cable assemblies attached are also attached. These permit customer connection of appropriate cable for hard-wired or other specific applications. Connections are via solder-cup, using stranded 18 AWG (0.823 $mm^2$) wire. The properly assembled connector will provide a waterproof seal.

**Please observe local electrical code.**

**Maximum cable outside diameter for use with supplied connectors is 0.25" (6.4mm).**

When viewed from the rear of the connector where wiring connections are made (as opposed to the mating end) wire connections should be made as follows:

**A - NEUTRAL**
**B - GROUND**
**C - LINE**

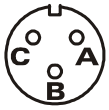


**Figure 2-3: Power Connector Pinout**

**UNIT 1-8:** Output F-Type connector for DC power connections to 240xLT's. Each output features active short-circuit and overload protection.

# 3. 2400PSU-8 SPECIFICATIONS

## 3.1. AC INPUT

| | |
|---|---|
| **Number of Inputs:** | 2 |
| **Connector:** | Male, weatherproof, mating connectors included |
| **Voltage:** | Auto ranging, 100 ⇔ 240 VAC, 50/60 Hz<br>Certified to 120VAC 60Hz only in North America |
| **Power:** | 150W max per input |

## 3.2. DC OUTPUT

| | |
|---|---|
| **Number of Outputs:** | 8 |
| **Connector:** | F-Type |
| **Voltage:** | 18 ±1 VDC per output |
| **Current:** | |
| **Per Output:** | 900mA max, current limited |
| **All Outputs, Combined Total:** | (to maintain upper temperature rating) |
| **-20 to +50°C** | 8 Amps max |
| **70°C** | 4 Amps max |

## 3.3. PHYSICAL

| | |
|---|---|
| **Dimensions (with flanges):** | 9.93"L x 5.85"W x 2.24"H<br>(252mm L x 149mm W x 57mm H) |

## 3.4. ENVIRONMENTAL

| | |
|---|---|
| **Temperature:** | -20 to +70°C |

# 4. STATUS INDICATORS

The 2400PSU-8 module has ten LED status indicators on the front of the box to show operational status of the module at a glance.

## 4.1. PSU1 AND PSU2 INDICATORS

The PSU1 and PSU2 LEDs indicate the status of the internal power supplies:

**GREEN:** Internal power supply associated with the LED is operating normally.

**RED:** Internal power supply associated with the LED has failed or is not receiving AC input.

**OFF:** If both PSU1 and PSU2 LEDs are OFF, this indicates that there is no power input to the unit at either AC connector, or both internal power supplies have failed.

## 4.2. UNIT 1-8 INDICATORS

The UNIT 1-8 LEDs indicate the status of each DC output:

**GREEN:** Output associated with the LED is operating normally.

**RED:** Load connected to output associated with the LED is excessive or short circuited.

**OFF:** If all UNIT 1-8 LEDs are off, this indicates that there is no power supplied to the unit on either AC connector, or both internal power supplies have failed.