iConverter® 1-Module Redundant Power Chassis with Power-over-Ethernet (PoE/PD) Option

The iConverter 1-Module Redundant Power Chassis is ideal for mission-critical Customer Premises Ethernet services, and in applications where the monitoring of external events is required.

The chassis supports multiple power sources, 10/100 Ethernet ports and a wide variety of alarm options.

Power source options feature load-sharing combinations of Power-over-Ethernet (PoE), 9-24VDC and 24-60VDC. The PoE option is designed for applications where the converter chassis must be physically located where power is unavailable or is costly to install. Power is provided to one of the chassis' optional 10/100 network ports from a Power Source Equipment (PoE/PSE) such as a switch or a Mid-Span power injecting device.

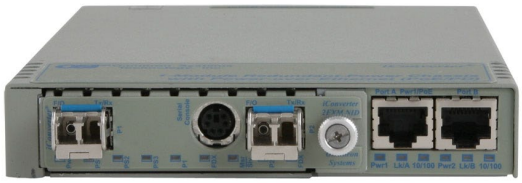
The 9-24VDC power source can be connected via barrel-style or terminal connectors. The barrel-style connector versions are shipped with US or universal AC/DC power adapters.

The two optional 10/100 RJ-45 network ports are available with or without PoE option on one of the ports. Auto-negotiation, 10/100 and Half/Full-Duplex modes can be configured for each port.

Four optional contact-closure alarm sensors are available for monitoring external events. These sensors can be used to monitor a backup battery, the state of an enclosure's door or other environmental device states. An SNMP trap can be selectively generated upon the occurrence of any of these monitored events.

The chassis can be remotely managed when an iConverter module with integrated management (such as the 10/100M2) is installed in the chassis. The management module provides monitoring, remote configuration and trap notification.

The monitoring of external events, redundant power, PoE and 10/100 network ports make the iConverter 1-Module Redundant Power Chassis ideal for mission-critical Service Provider and Enterprise network applications.



Module not included

KEY FEATURES

- 1-Module iConverter Redundant Power Chassis with dual redundant power source options
- Supports the following Power Options:
  - Power-over-Ethernet (IEEE 802.3af PoE/PD)
  - Low Voltage DC Power 9-24VDC (terminal or universal AC/DC adapter available)
  - High Voltage DC Power 24-60VDC
- Two (2) optional 10/100 Ethernet ports
- Four (4) optional contact closure alarm sensors
- Features Dying Gasp Trap support
- Managed via an installed iConverter Media Converter with Integrated Management (such as a 10/100M2)
- Management supports Monitoring, Remote Configuration and Trap Notification
- Commercial (0 to +50° C) and wide (-40 to +60° C) temperature ranges
- TAA, BAA and NDAA compliant, and Made in the USA
- Lifetime Warranty and free 24/7 Technical Support

MANAGEMENT

Management provides remote configuration, monitoring and trap notification. Management of the chassis and module is available when a Network Interface Device (NID) is installed in the chassis.

The NID can be accessed via SNMP, Telnet and serial port. The chassis and module can be managed with Omnitron's intuitive, graphic-oriented NetOutlook® SNMP Management Software or third party SNMP management software. Management via the Telnet and the serial interfaces have an easy-to-use, menu-driven interface.

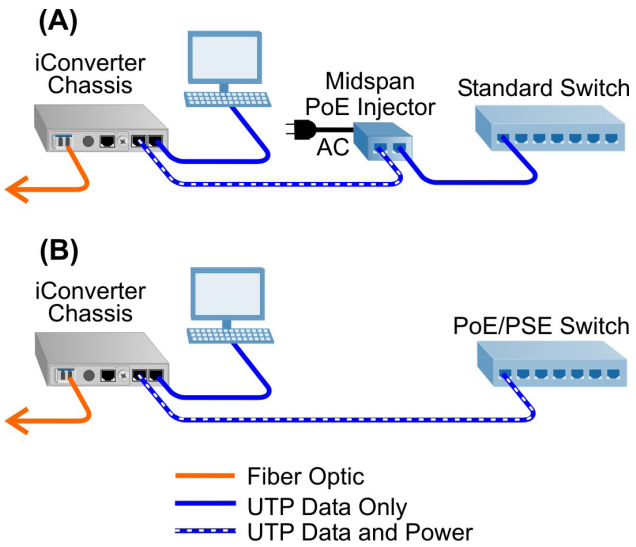
Fixed parameters that can be monitored on the Redundant Power Chassis include the chassis type and model, manufacturing information, along with hardware and software revisions.

The management can monitor and configure the states of the 10/100 ports, monitor the power sources and generate traps upon different link, power, temperature and contact closure events.

APPLICATION EXAMPLES

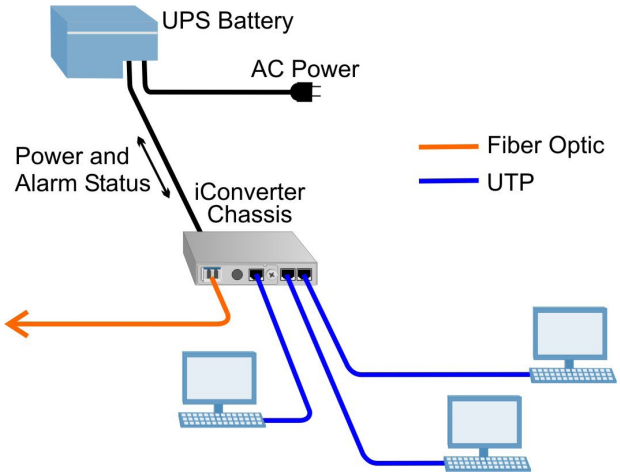
Power-Over-Ethernet Applications

The figure below depicts an application where the chassis contains an iConverter 10/100M2 copper-to-fiber converter, and does not have access to a power source. In the top figure (A), chassis power is provided by a Mid-Span device inserted between the chassis and a standard switch to inject power into the UTP cable. In the bottom figure (B), the chassis is powered by a switch that supports PoE/PSE via the UTP cable.



Using Contact Closure Sensors

The figure below depicts an application where battery backup power is required, and the chassis is connected to an Uninterruptible Power Supply (UPS) battery. The battery provides power to sustain chassis operation in the event of a power outage. The UPS battery also provides alarm status for utility power, low battery reserve and battery error via the contact closures on the chassis.



SPECIFICATIONS

Description	*iConverter* 1-Module Redundant Power Chassis	
Standard Compliances	IEEE 802.3, 802.3af	
Regulatory Compliances	Safety: EMI: ACT:	UL, cUL, CE, UKCA FCC Class A, AS/NZS 3548 VCC1 Class A TAA, BAA, NDAA
Environmental	RoHS, WEEE, REACH	
Management*	IPv4 address, Telnet, SNMPv1/v2c/v3 In-Band via Ethernet port, Out-of-band via serial port	
Frame Size	Up to 1,536 bytes	
Port Types	Copper:	10/100BASE-T (RJ-45)
	Sensors:	4 Contact Closures (8-Pin Terminal)
Cable Types	Copper:	EIA/TIA 568 A/B, Category 5 and higher
	Sensors:	16 to 24 gauge
MTBF (hours)	Chassis: 540,000 US AC Adapter: 250,000 w/ Univ AC Adapter: 100,000	
Warranty	Lifetime warranty with 24/7/365 free Technical Support	

* Management is available when an iConverter module with integrated management (such as the 10/100M2) is installed in the chassis.

AC Power Requirements	AC Adapter:	100 - 240VAC/50 - 60Hz 0.2A @ 120VAC (typical)
DC Power Requirements	DC Input: (Terminal Block)	9 - 24VDC, 1.5A @ 9VDC (typical) 2-Pin Terminal (non-isolated)
	DC Input: (Terminal Block)	24 - 60VDC, 0.3A @ 48VDC 3-Pin Terminal (isolated)
	DC Input: (AC Adapter)	9 - 24VDC, 1.5A @ 9VDC (typical) 2.5mm Barrel Connector
	DC Input: (PoE)	44 - 57VDC, 0.27A @ 48VDC (typical) RJ-45 (Alternative A & B)
Output Power	3A @ 3.3VDC (per power input)	
Dimensions (W x L x H)	5.4" x 6.8" x 1.0" (137.16 mm x 172.72 mm x 25.4 mm)	
Weight	Chassis: 1.5 lbs. (0.68 kg) w/ AC Adapter: 2.0 lbs. (0.91 kg)	
Temperature	Commercial: Wide: Storage:	0 to 50°C -40 to 60°C -40 to 80°C
Humidity	5% to 95% (non-condensing)	
Altitude	-100m to 4,000m (operational)	

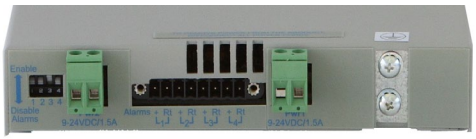
Rear Views
Power Configurations

Primary: 3-Pin (48VDC)
Backup: Barrel (AC/DC)

Primary: Barrel (AC/DC)
Backup: 2-Pin (24VDC)

Primary: Barrel (AC/DC)
Back-up: Barrel (AC/DC)

Primary: 2-Pin (24VDC)
Backup: 2-Pin (24VDC)



Primary: 3-Pin (48VDC)
Backup: 2-Pin (24VDC)

Primary: Power over Ethernet (Port A)
Backup: Barrel (AC/DC) or 2-Pin (24VDC)

ORDERING INFORMATION

Step 1: Choose a Base Part Number (xxxx-xxpt)

Model Number	Description		
	Primary Power	Back-up Power	Features
8245-11pt	Barrel (AC/DC Adapter)	Barrel (AC/DC Adapter)	None
8246-11pt	Barrel (AC/DC Adapter)	Barrel (AC/DC Adapter)	with Two RJ-45 Ethernet Ports
8246-51pt	PoE from Port A	Barrel (AC/DC Adapter)	with Two RJ-45 Ethernet Ports
8247-11pt	Barrel (AC/DC Adapter)	Barrel (AC/DC Adapter)	with Alarm Contacts
8247-12pt	Barrel (AC/DC Adapter)	2-Pin (24VDC)	with Alarm Contacts
8247-220t	2-Pin (24VDC)	2-Pin (24VDC)	with Alarm Contacts
8247-31pt	3-Pin (48VDC)	Barrel (AC/DC Adapter)	with Alarm Contacts
8247-320t	3-Pin (48VDC)	2-Pin (24VDC)	with Alarm Contacts
8248-11pt	Barrel (AC/DC Adapter)	Barrel (AC/DC Adapter)	with Two RJ-45 Ethernet Ports and Alarm Contacts
8248-12pt	Barrel (AC/DC Adapter)	2-Pin (24VDC)	with Two RJ-45 Ethernet Ports and Alarm Contacts
8248-220t	2-Pin (24VDC)	2-Pin (24VDC)	with Two RJ-45 Ethernet Ports and Alarm Contacts
8248-31pt	3-Pin (48VDC)	Barrel (AC/DC Adapter)	with Two RJ-45 Ethernet Ports and Alarm Contacts
8248-320t	3-Pin (48VDC)	2-Pin (24VDC)	with Two RJ-45 Ethernet Ports and Alarm Contacts
8248-51pt	PoE from Port A	Barrel (AC/DC Adapter)	with Two RJ-45 Ethernet Ports and Alarm Contacts
8248-520t	PoE from Port A	2-Pin (24VDC)	with Two RJ-45 Ethernet Ports and Alarm Contacts

Use the Power Calculator to determine the power supplies required for your module configuration.
The 1-Module Redundant Chassis can support modules that require up to 3A @ 3.3VDC. Please refer to the individual module data sheet to verify compatibility.
Contact Omnitron for other configurations, extended temperature (-40 to 75°C).

Step 2: Choose the Power Option for Models Configured with AC/DC Adapters (xxxx-xxpt)

1 = Barrel Connector and AC/DC Power Adapter, 100 - 240VAC, 50 - 60Hz, with US power cord
2 = Barrel Connector and Universal AC/DC Power Adapter, 100-240 VAC, 50 - 60Hz, No Power Cord
8 = Barrel Connector and JET/PSE AC/DC Power Adapter, 100 - 240VAC, 50 - 60Hz, with power cord

Step 3: Choose an Operating Temperature Range (xxxx-xxpt)

<leave blank> = Commercial temperature (0 to 50°C)
W = Wide temperature (-40 to 60°C)

ACCESSORIES

Model Number	Description
8249-0	Wall-Mount Hardware Kit
9130-0	NEBS Grounding Kit