iConverter[®]

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

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

The chassis supports multiple power sources, configurable 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 sources 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 PoE optional 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 configurable Ethernet ports
- Four (4) optional contact closure alarm sensors
- Managed via an installed iConverter Media Converter with Integrated Management (such as a 10/100M2)
- Management supports Monitoring, Remote Configuration and Trap Notification
- Features Dying Gasp Trap support
- Commercial (0 to 50°C), wide (-40° to 60°C) and extended (-40° to 75° C) temperature ranges
- Lifetime Warranty and free 24/7 Technical Support

MANAGEMENT

The chassis can be remotely managed when used with an iConverter media converter with integrated management. Management can be accessed through a menu-driven command-line interface (CLI) via Telnet or the Serial Console Port, or can be accessed through a SNMP-based graphical user interface (GUI) such as Omnitron's NetOutlook® management software.

The intuitive *NetOutlook* network management software provides real-time detailed port and module information as well as parameter configuration and event monitoring.

NetOutlook can be used as a stand-alone application under Windows 2000/2003/XP/Vista/Windows7 or integrated with third-party SNMP management software.

Using NetOutlook, 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

1) Power-Over-Ethernet Applications

Figure 1 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 Figure 1(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 Figure 1(B), the chassis is powered by a switch that supports PoE/PSE via the UTP cable.

AC Power Standard Switch Data Power Midspan PoE/PSE Switch Data Power Fiber Optic UTP

Fig. 1 PoE Chassis Powered by a Midspan device and a PoE/PSE Switch

2) Using Contact Closure Sensors

Figure 2 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.

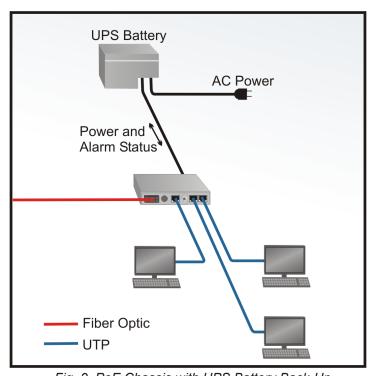


Fig. 2 PoE Chassis with UPS Battery Back-Up

3) Daisy Chain Network Application

Figure 3(A) depicts a Daisy Chain network configuration with an iConverter 2FXM2 fiber-to-fiber converter installed in each chassis. Figure 3(B) depicts a resilient ring configuration that requires a fiber spanning tree switch at the network core, and an additional fiber link (dotted line).

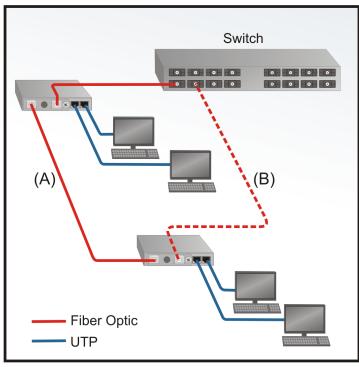


Fig. 3 PoE Chassis with 2FXM2s in a Fiber Resilient Ring Configuration



The *iConverter* Multi-Service Platform consists of Network Interface Devices, T1/E1 multiplexers, CWDM multiplexers and managed media converters that combine to deliver Carrier Ethernet and TDM services over fiber or CWDM wavelengths. This flexible architecture supports a wide variety of configurations for scalable and reliable fiber connectivity in Service Provider and Enterprise networks.

SPECIFICATIONS

Description 1-Module Redundant-Power Chassis (PoE) Ports 2 x RJ-45 (optional) Protocols 10BASE-T, 100BASE-TX with 1536 max. frame size Cable Types UTP: EIA/TIA 568A/568B Connector Types UTP: RJ-45 (optional) Contact Closure Sensors: Field-wireable 16-24 AWG
Protocols 10BASE-T, 100BASE-TX with 1536 max. frame size Cable Types UTP: EIA/TIA 568A/568B Connector Types UTP: RJ-45 (optional) Contact Closure Sensors: Field-wireable 16-24 AWG
frame size Cable Types UTP: EIA/TIA 568A/568B Connector Types UTP: RJ-45 (optional) Contact Closure Sensors: Field-wireable 16- 24 AWG
Connector Types UTP: RJ-45 (optional) Contact Closure Sensors: Field-wireable 16- 24 AWG
Contact Closure Sensors: Field-wireable 16- 24 AWG
Dever Deguirements
Power Requirements
Low Voltage DC Power 9 to 24VDC 1.5A @ 9.0VDC
Low Voltage DC Power Connector 2.5mm Barrel Connector or Field-wireable 1 20AWG Terminal Connector
High Voltage DC Power +24 to +60VDC or -24 to -60VDC isolated 0.3A @ 48VDC
High Voltage DC Power Connector Field-wireable 16-20AWG Terminal Connector
PoE Power +44 to +57VDC or -44 to -57VDC 0.27A @ 48VDC
PoE Connector RJ-45 IEEE 802.3af-2003 Alternative A & B, Pre-standard Cisco PoE
AC Power Adapter (US) 100-120VAC /60Hz 0.2A @ 120VAC
AC Power Adapter (Universal) 100-240VAC / 50-60 Hz 0.2A @ 120VAC
Dimensions W: 5.4" x L: 6.8" x H: 1.0"
Weight
without power adapter 1.5 lbs.
with power adapter 2.0 lbs.
Compliance UL, CE, FCC, AS/NZS 3548, & VCCI Class
Temperature
Operational - Commercial 0 to +50° C
Operational - Wide Range -40 to +60° C
Storage -40 to +80° C
Humidity (non-condensing) 5 to 95%
Altitude -100m to 4000m
7 IIII IO TOOOIII
MTBF (hrs)
MTBF (hrs)



ORDERING INFORMATION

			Primary Power				Backup Power		40/20
Model	Contact Closure	Two UTP RJ-45 Ports	Low Voltage DC-Barrel (9-24V)	Low Voltage DC-Terminal (9-24V)	High Voltage DC-Terminal (24-60V)	RJ-45 PoE	Low Voltage DC-Barrel (9-24V)	Low Voltage DC-Terminal (9-24V)	AC/DC Power Supply
8245-111			х				х		Two US
8245-112			х				х		Two Univ.
8246-111		х	х				х		Two US
8246-112		х	х				х		Two Univ.
8246-511		х				Х	х		One US.
8246-512		х				х	х		One Univ.
8247-111	х		х				х		Two US
8247-112	х		х				х		Two Univ.
8247-121	х		х					х	One US
8247-122	х		х					х	One Univ.
8247-220	х			х				х	-
8247-311	х				х		х		One US.
8247-312	х				х		х		One Univ.
8247-320	х				х			х	-
8248-111	х	х	х				х		Two US
8248-112	х	х	х				х		Two Univ.
8248-121	х	х	х					х	One US.
8248-122	х	х	х					х	One Univ.
8248-220	х	х		х				х	-
8248-311	х	х			х		х		Two US.
8248-312	х	х			х		х		Two Univ.
8248-320	х	х			х			х	-
8248-511	х	х				х	х		One US.
8248-512	х	х				х	х		One Univ.
8248-520	х	х				х		х	-

For Wide Temperature chassis (-40 to 60°C), add a "W" to the end of the part number. For example 8248-520W. Consult factory for extended temperature (-40 to +75 $^{\circ}$ C) models.

Dying Gasp functionality requires installation of a management module that supports Dying Gasp.

© 2010 Omnitron Systems Technology, Inc. All rights reserved. iConverter and NetOutlook are Registered Trademarks of Omnitron Systems Technology, Inc. Trademarks are owned by their respective companies. Specifications are subject to change without notice. 091-18245-001C

