iConverter

iConverter® **Tx/2Fx and Tx/2Tx**
Redundant Fast Ethernet Fiber & UTP Managed Ethernet Media Converters

The *iConverter* Redundant Fast Ethernet managed media converters are members of the modular *iConverter* product family, and include:

- Tx/2Tx - 100BASE-TX UTP to dual 100BASE-TX UTP
- Tx/2Fx - 100BASE-TX UTP to dual 100BASE-FX dual fiber
- Tx/2Fx SF - 100BASE-TX UTP to dual 100BASE-FX single-fiber

The *iConverter* Redundant Fast Ethernet modules are designed for use in networks that require fiber or copper link redundancy. With a link fault detection time of 100 microseconds, the Redundant *iConverter* modules provide the rapid response time required for mission-critical applications.

All ports support Half or Full-Duplex operation, and the UTP ports can auto-negotiate or be manually set to a required duplex mode. The fiber ports are always set to manual mode. All ports in an application must be set to the same duplex mode.

All ports support Link Propagation (Link Loss Carry Forward), Link Segmentation, Remote Fault Detection and Symmetrical Fault Detection modes to facilitate quick fault detection, isolation and reporting.

iConverter Redundant Fast Ethernet modules are hot-swappable and can be mounted in a 19-Module (2U high) or 5-Module (1U high) rack-mountable chassis (19-inch or 23-inch) with any combination of redundant AC, 24VDC or 48VDC power supplies. They can also be mounted in a 2-Module AC or 18 to 60VDC powered chassis, or in a 1-Module AC/DC powered chassis.

The *iConverter* family of managed fiber access media converters are used in Service Provider access networks and Enterprise LANs. *iConverter* media converters provide fiber connectivity with copper to fiber, multimode fiber to single-mode fiber, or dual fiber to single-fiber conversions.
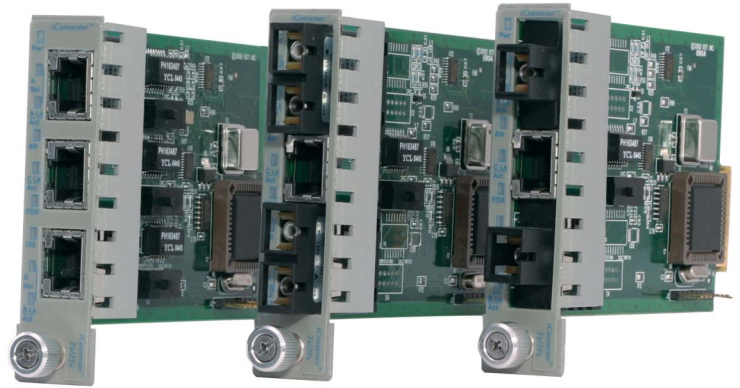
- The *iConverter* Redundant Fast Ethernet modules provide hot backup, 100 microseconds link redundancy for critical applications

- Tx/2Fx model provides 100BASE-TX UTP to two 100BASE-FX fiber links

- Tx/2Tx models provide 100BASE-TX UTP to two 100BASE-TX UTP copper links

- Fiber modules support multimode, single-mode, and single-fiber with ST, SC, LC and MT-RJ connectors

- Auto-negotiation or forced Half/Full-Duplex and crossover switches on all UTP ports

- User-selectable link fault detection modes facilitate quick fault detection, isolation and reporting

- Management is available with the addition of a management module to the chassis

- SNMP management via *NetOutlook*™ provides real-time port and module information, remote parameter configuration and trap notification

- Modules are hot-swappable in 19-Module, 5-Module, 2-Module or 1-Module chassis

- Lifetime Warranty and free 24/7 Technical Support

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SPECIFICATIONS

Model Type	Tx/2Fx	Tx/2Tx
Protocols	100BASE-FX, 100BASE-TX	100BASE-TX
Primary Connectors	RJ-45	RJ-45
Redundant Connectors	SC, ST, LC, MT-RJ, Single-Fiber SC	RJ-45
Controls	UTP X-over, LS/LP, RFD, SFD, UTP Auto/Man, FDX/HDX	UTP X-over, LS/LP, RFD, SFD, UTP Auto/Man, FDX/HDX
LED Displays	Power, FO link, UTP link, Select, Auto, FDX/HDX	Power, UTP link, UTP link, Select, Auto, FDX/HDX
Dimensions	W:0.85" x D:4.5" x H:2.8"	
Weight	8 oz.	
Compliance	UL, CE, FCC Class A	
Power Requirement (typical)	0.7A @ 3.3VDC	1.1A @ 3.3VDC
Temperature	Standard: 0 to 50º C Wide: -40 to 60º C Storage: -40 to 80º C	
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4000m	
MTBF (hrs)	520, 000	

MANAGEMENT

Management is accomplished by using a Network Management Module (NMM) or a media converter with integrated management (such as an *iConverter* 10/100M2) that provides monitoring, remote configuration and trap notification. The management module can be accessed via SNMP, Telnet and via a serial port. The SNMP-based management is accomplished via Omnitron's intuitive, graphic-oriented *NetOutlook* management software or third party SNMP management software. Management via the Telnet and the serial interfaces have an easy-to-use, menu-driven interface.

Some of the real-time parameters that can be monitored include port state (active, standby), link and data receive status. Other parameters include module type and model, hardware and software revisions, serial numbers, and an user-defined identifier.

The user can override the redundant module's physical DIP-switch settings by using SNMP or Telnet to remotely configure DIP-switch-selectable parameters such as Link Propagate, Link Segment or Remote Fault Detection.

In addition to all standard *iConverter* SNMP traps such as module insertion and removal, the redundant modules can generate traps on port state changes including link-up and link-down. Trap monitoring of specific events can be selectively enabled or disabled by the network administrator.

ORDERING INFORMATION

Model Type	Fiber / Media Type	Distance	Redundant Connector Types					Tx Wavelength (nm)	Rx Wavelength (nm)	Min. Tx Power (dBm)	Max. Tx Power (dBm)	Min. Rx Sensitivity (dBm)	Max. Rx Sensitivity (dBm)	Link Budget (dBm)
			ST	SC	MT-RJ	LC	RJ-45							
Tx/2Fx Dual Fiber	MM	5km	8420-0	8422-0	8424-0	-	-	1310	1310	-24	-14	-31	-14	7
	SM	30km	8421-1	8423-1	8425-1	8427-1	-	1310	1310	-15	-8	-31	-8	16
	SM	60km	8421-2	8423-2	-	8427-2	-	1310	1310	-5	0	-31	-3*	26
	SM	120km	-	8423-3	-	8427-3	-	1550	1550	-5	0	-31	-3*	26
Tx/2Fx Single-Fiber	SM	20km	-	8430-1	-	-	-	1310	1550	-15	-5	-30	-3	15
	SM	40km	-	8430-2	-	-	-	1310	1550	-8	0	-30	-3*	22
	SM	60km		8430-3				1310	1550	-5	0	-31	-3	26
	SM	20km	-	8431-1	-	-	-	1550	1310	-15	-5	-30	-3	15
	SM	40km	-	8431-2	-	-	-	1550	1310	-8	0	-30	-3*	22
	SM	60km	-	8431-3	-	-	-	1550	1310	-5	0	-31	-3	26
Tx/2Tx	UTP	100m	-	-	-	-	8400-0	N/A	N/A	N/A	N/A	N/A	N/A	N/A

For wide temperature (-40 to 60º C), add a "W" to the end of the model number. Consult factory for extended temperature (-40 to +75º C) models.
When using single-fiber (SF) media converter models, the Tx wavelength on one end has to match the Rx wavelength on the other.
*A minimum of 3dB of attenuation is required for these models.

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