iConverter RS422/485
Managed Serial RS-422 and RS-485 to Fiber Media Converter

The Omnitron *iConverter* RS422/485 is a managed serial RS-422 and RS-485 to fiber converter that transmits serial protocol over fiber media. Fiber transmission extends serial signals up to 120km, and is immune from electrical and magnetic interference.

The RS422/485 is available with a single-mode, multimode or single-fiber transceiver. The serial port interface is available with either a DB-9 female connector or terminal block connector for field wiring.

The RS422/485 automatically detects the signal baud rate of connected Full-Duplex serial device, ranging from 110 to 921,600 baud. It also automatically adjusts to changes in the connected device's Full-Duplex baud rate during operation without reconfiguration or interruption of service.

Half-Duplex RS-485 and Full-Duplex RS-485 (sometimes referred to as Multipoint RS-422) operations are supported via a configurable baud rate DIP-switch to match the master/slave communication timing.

Connection to DTE or DCE devices is configured by an easily accessible DIP-switch on the front-panel. This feature eliminates the need to use a specific serial cable for each type of device.

A built-in remote Fiber Loopback DIP-switch provides easy validation of the entire fiber segment without interrupting fiber operations.

Integrated configurable terminators support RS-422 and RS-485 operations, allowing the unit to be deployed at any node in the serial line.

iConverter RS422/485 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.

KEY FEATURES

- Managed Serial RS-422 and RS-485 to fiber media converter with automatic Full-Duplex baud rate detection

- Supports baud rates ranging from 110 to 921,600 baud

- Supports multimode, single-mode and single-fiber with ST, SC and LC connector options

- Supports distances up to 5km on multimode and 120km on single-mode

- Supports DB-9 and Terminal Block connector options for serial interface

- Features built-in configurable terminators

- Features configurable baud rate for Half-Duplex RS-485 and Full-Duplex RS-485 operation

- Supports RTS and CTS controls

- Supports Point-to-Point Half and Full-Duplex, Multi-Point Full-Duplex, and either Head, Tail or Mid-Position

- Features remote Fiber Loopback DIP-switch for easy testing of fiber link, even during serial transmission

- 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

SPECIFICATIONS

Model Type	RS422/485
Protocols	Serial RS-422, Serial RS-485
Copper Connectors	DB-9 Female or Terminal Block
Fiber Connectors	ST, SC, LC
Controls	DTE/DCE, Fiber Loop-Back
LED Displays	Power, Test, Fiber Lnk/Act, DTE, DCE, Serial Act
Dimensions	W: 0.85" x D: 4.5" x H: 2.8"
Weight	8 oz.
Compliance	UL, CE, FCC Class A
Power Requirement	0.5 @ 3.3VDC (typical)
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)	850,000

MANAGEMENT

Management is accomplished by using a Network Management Module (NMM2) 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 RS422/485 parameters that can be monitored include fiber link status, module type and model, hardware and software revisions, serial numbers and a user-defined identifier.

The user can override the RS422/485 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 RS422/485 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

Type	Distance	Connector Type			Tx [nm]	Rx [nm]	Min. Tx Power [dBm]	Max. Tx Power [dBm]	Min. Rx Power [dBm]	Max. Rx Power [dBm]	Min. Attenuation (dB)	Link Budget [dB]
		ST	**SC**	**LC**								
MM/DF	5km	**8780-0**	**8782-0**	**8786-0**	1310	1310	-24	-14	-31	-14	-	7
SM/DF	30km	**8781-1**	**8783-1**	**8787-1**	1310	1310	-15	-8	-31	-8	-	16
SM/DF	60km	**8781-2**	**8783-2**	**8787-2**	1310	1310	-5	0	-31	-3	3	26
SM/DF	120km	-	**8783-3**	**8787-3**	1550	1550	-5	0	-31	-3	3	26
SM/SF	20km	-	**8790-1***	-	1310	1550	-15	-5	-30	-3	-	15
SM/SF	20km	-	**8791-1***	-	1550	1310	-15	-5	-30	-3	-	15
SM/SF	40km	-	**8790-2***	-	1310	1550	-8	0	-30	-3	3	22
SM/SF	40km	-	**8791-2***	-	1550	1310	-8	0	-30	-3	3	22

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.

When ordering module with terminal block serial port, append 'T" before the dash '-' in the part number. Examples: 8780T-0, 8783T-3, 8790T-1

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