

iConverter® RS232

Managed Serial RS-232 to Fiber Media Converter

The iConverter RS232 is a managed serial RS-232 to fiber converter that transmits serial protocol over fiber media. The RS232 media converters operate in pairs, extending serial distances over fiber up to 120km.

The RS232 is available with a single-mode dual fiber, multimode dual fiber or single-mode single-fiber transceiver. The serial port interface is available with either a DB-9 female connector or terminal block connector for field wiring.

The RS232 automatically detects the signal data rate of the connected serial device, ranging from 110 bps to 921,600 bps. It also automatically adjusts to changes in the connected device's data rate during operation without reconfiguration or interruption of service.

Connection to DTE or DCE devices are configured by an easily accessible DIP-switch on the front-panel of the module. This feature eliminates the need to use a null-modem cable when connecting two serial devices of the same type.

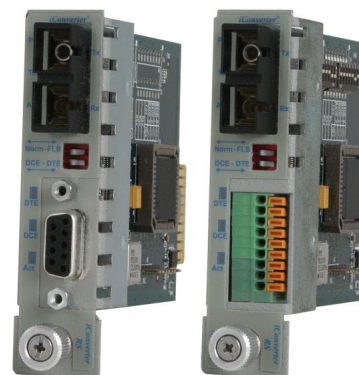
A built-in Fiber Loopback DIP-switch provides easy validation of the entire fiber segment without interrupting fiber operations.

The RS232 plug-in module can be used in managed or unmanaged applications. Management is accomplished by installing an iConverter Management Module (NMM2) or Network Interface Device (NID) in the same chassis. The management module provides access to all the advanced features available on the module.

The management software can override the physical DIP-switch settings such as DTE or DCE selection and Fiber Loopback test. Some of the real-time RS232 parameters that can be monitored include power, link, data activity status, module type and model, hardware and software revisions, serial numbers and a user-defined identifier.

The hot-swappable plug-in module can be mounted in a high-density 19 or 5-Module chassis with redundant AC and DC power supplies. It can also be mounted in a 2-Module or in a 1-Module chassis with AC or DC power input.

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



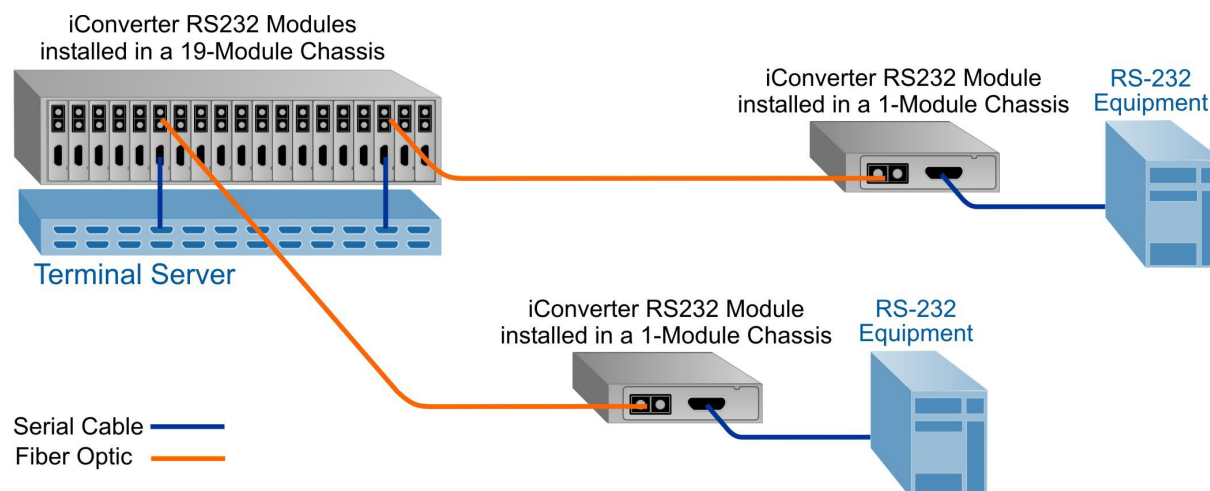
KEY FEATURES

- Serial RS-232 to fiber media converter with automatic data rate detection
- Supports bit rates ranging from 110 bps to 921,600 bps
- Multimode, single-mode dual fiber with ST, SC and LC connectors, and single-mode single-fiber with SC connectors
- Supports distances up to 5km on multimode and 120km on single-mode
- DB-9 and Terminal Block connector options for serial RS-232 interface
- DIP-switch configuration of DTE or DCE device for easy connection to serial devices
- Supports RTS, CTS, DCD, DTR and DSR controls
- Remote fiber loopback switch for easy testing of fiber link, even during serial transmission
- Modules are hot-swappable in 19-Module, 5-Module, 2-Module or 1-Module chassis
- Management is available with the addition of a management module to the chassis
- SNMP management via NetOutlook® provides module status information, remote parameter configuration and trap notification
- Commercial (0 to 50°C) and wide (-40 to 60°C) temperature ranges
- Made in the USA
- Lifetime Warranty and free 24/7 Technical Support

APPLICATION

In this application example, iConverter RS232 modules are deployed in a star topology network. In the upper left, RS232 modules are installed in an iConverter 19-Module Chassis to provide high-density distribution of fiber links from a third-party terminal server with DB9 copper ports.

At each end of the fiber links, an RS232 module installed in an iConverter 1-Module Chassis provides the media conversion for connectivity to RS-232 equipment. The RS-232 equipment can be industrial or manufacturing equipment, casino games, or utility SCADA equipment.



SPECIFICATIONS

Description	iConverter RS232 Managed Serial RS-232 to Fiber Media Converter	
Data Rates	Asynchronous:	110 bps to 921,600 bps
Standard Compliances	EIA-232	
Regulatory Compliances	UL, CE, FCC Class A, UKCA	
Environmental	RoHS, WEEE, REACH	
Port Types	Serial:	DB9 Female or Terminal Block
	Fiber:	Dual fiber ST, SC, LC Single-fiber SC
Cable Types	Serial:	24 gauge (typical)
	Fiber:	Multimode: 50/125µm, 62.5/125µm Single-mode: 9/125µm

DC Power Requirements	DC Input: (Backplane)	3.3VDC, 0.5A @ 3.3VDC
Dimensions W x D x H	0.85" x 4.5" x 2.8" (21.6 mm x 114.3 mm x 71.1 mm)	
Weight	8 oz. (226.8 grams)	
Temperature	Commercial:	0 to 50°C
	Wide:	-40 to 60°C
	Storage:	-40 to 80°C
Humidity	5 to 95% (non-condensing)	
Altitude	-100m to 4,000m	
MTBF (hrs)	850,000	
Warranty	Lifetime warranty with 24/7/365 free Technical Support	

ORDERING INFORMATION

Fiber Type	Distance Copper/Fiber	Connector Type			Tx / Rx Lambda (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	50ft / 5km	8760c-0t	8762c-0t	8766c-0t	1310 / 1310	-24	-14	-31	-14	-	7
SM/DF	50ft / 30km	8761c-1t	8763c-1t	8767c-1t	1310 / 1310	-15	-8	-31	-8	-	16
SM/DF	50ft / 60km	8761c-2t	8763c-2t	8767c-2t	1310 / 1310	-5	0	-31	-3	3	26
SM/DF	50ft / 120km	-	8763c-3t	8767c-3t	1550 / 1550	-5	0	-31	-3	3	26
SM/SF ¹	50ft / 20km	-	8770c-1t	-	1310 / 1550	-15	-5	-30	-3	-	15
SM/SF ¹	50ft / 20km	-	8771c-1t	-	1550 / 1310	-15	-5	-30	-3	-	15
SM/SF ¹	50ft / 40km	-	8770c-2t	-	1310 / 1550	-8	0	-30	-3	3	22
SM/SF ¹	50ft / 40km	-	8771c-2t	-	1550 / 1310	-8	0	-30	-3	3	22

¹ When using single-fiber (SF) media converter models, the Tx wavelength on one end has to match the Rx wavelength on the other.

MM = Multimode, SM = Single-mode, DF = Dual Fiber, SF = Single-fiber

Base Model Number: 87xxc-xt

Select the model from ordering table above.

Add RS connector type (c) and operating temperature range (t) to the model type selected.

RS Connector Type (c):

<leave blank> = DB-9 Connector

T = Terminal Block

Operating Temperature Options (t):

<leave blank> = Commercial temperature (0 to 50°C)

W = Wide temperature (-40 to 60°C)

Contact Omnitron for other configurations and extended temperature (-40 to 75°C) models.

For chassis options, see [iConverter Chassis Overview web page](#).