RS232 Copper to Fiber with Remote Management
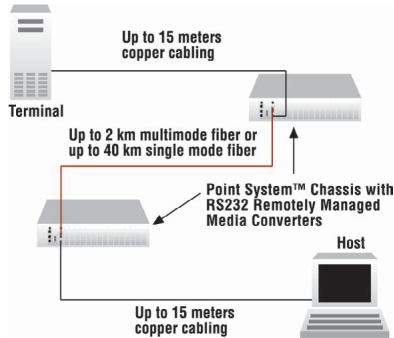
Point System™ Slide-In-Module Media Converters

CRS2F311x-100

Convert DB-9 to Fiber

▶ Extend Network Distance

Up to 15 meters copper cabling

Terminal

Up to 2 km multimode fiber or up to 40 km single mode fiber

Point System™ Chassis with RS232 Remotely Managed Media Converters

Host

Up to 15 meters copper cabling

▶ Extend Network Distance

Link a remote terminal to a host computer: Connect multiple devices, such as security scanners, POS devices, remote terminals and building access/alarming systems to a host computer. Ideal for campus or business environments where remote devices can be networked in a point-to-point configuration where distances are greater than the 15 meter limitation of conventional copper serial cables.

Transition Networks' serial RS232 to Fiber Media Converter allows you to extend the distance between serial connections with the use of fiber optic cable. This full-featured converter transmits the full complement of RS232 flow control/handshaking signals optically and supports full or half-duplex asynchronous data transmission at speeds up to 115Kb/s.

The diagnostic features included on this converter make installation easy and intuitive. A DTE/DCE switch eliminates the frustration over selecting the appropriate cable. A Loopback switch allows for complete diagnostic testing prior to system turn-up or during troubleshooting. Unit and Port LEDs allow for quick status information of the converter.

Ordering Info

| Product Number	Port One	Port Two
CRS2F3111-100	DB-9 [15 m/49 ft.]	1300nm multimode (ST) [2 km/1.2 miles]
CRS2F3113-100	DB-9 [15 m/49 ft.]	1300nm multimode (SC) [2 km/1.2 miles]
CRS2F3114-100	DB-9 [15 m/49 ft.]	1310nm single mode (SC) [20 km/12.4 miles]
CRS2F3115-100	DB-9 [15 m/49 ft.]	1310nm single mode (SC) [40 km/24.9 miles]

Specifications

Standards	EIA/TIA-574, EIA/TIA RS-232E
Data Rate	115 Kb/s
Fiber Optic Connector Specs	
CRS2F3111-100 & CRS2F3113-100	Min TX PWR: -19.0 dBm Max TX PWR: -14.0 dBm RX Sensitivity: -30.0 dBm Max In PWR: -14.0 dBm Link Budget: 11.0 dB
CRS2F3114-100	Min TX PWR: -15.0 dBm Max TX PWR: -8.0 dBm RX Sensitivity: -31.0 dBm Max In PWR: -8.0 dBm Link Budget: 16.0 dB
CRS2F3115-100	Min TX PWR: -8.0 dBm Max TX PWR: -2.0 dBm RX Sensitivity: -34.0 dBm Max In PWR: -7.0 dBm Link Budget: 26.0 dB
Switches	DTE/DCE: Select appropriate position Loop-back: Norm = normal operation; Loop = Fiber and copper loop-back
Status LEDs	P: (Power): Lit for normal operation RX: Steady = Copper Link; Flashing = Rx Data FL: Steady = Fiber Link; Flashing = Loop back mode
Dimensions	Width: 0.86" [22 mm] Depth: 5.0" [127 mm] Height: 3.4" [86 mm]
Power Consumption	5.0 watts
Environment	See chassis specifications
Shipping Weight	1 lb. [0.45 kg]
Compliance	CISPR22/EN55022 Class A + EN55024; EN60950 Class A; FCC Class A; CE Mark
Warranty	Lifetime

Features

▶ Read/write access to remote stand-alone unit

▶ Local or Remote Loopback on copper and fiber *(see next page)*

▶ DTE/DCE switch for easy installation with straight-through cabling

▶ Full/Half-duplex asynchronous transmission at speeds up to 115Kb/s

▶ Supports the following flow control signaling:

1. DCD - Data Carrier Detect
2. RXD - Receive Data
3. TXD - Transmit Data
4. DTR - Data Terminal Ready
5. SG - Signal Ground
6. DSR - Data Set Ready
7. RTS - Request To Send
8. CTS - Clear To Send

▶ Remote Firmware Upgrade

(see next page)

Management Features

▶ Report converter status to chassis management software:

• Local Fiber Link status
• Local/Remote Hardware/Software mode
• Local/Remote Loopback
• Local/Remote DTE/DCE mode
• Local/Remote link status

▶ Write operation includes:

• Local Loopback
• Remote Loopback

▶ Can be used with any Point System™ Chassis

The Conversion Technology Experts

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LOOP
BACK

REMOTE
FIRMWARE
UPGRADE

REMOTE
MGMT

ADVANCED PRODUCT FEATURES

▶ Loopback

Select Transition Networks products are equipped with Loopback. This feature puts a converter in a special mode that enables the device to loop back the signal from the RX port to the TX port on either media for testing and troubleshooting purposes. Test signals from a tester (Firebird, etc.) can then be inserted into the link and looped back as received by a device to test a particular segment of the link (i.e. copper or fiber). Loopback can be either local or remote depending on the location of the converter in the link.

> ▶ Allows network diagnostics from local or remote location

> ▶ Quickly pinpoints problem areas of end to end link by testing a particular segment
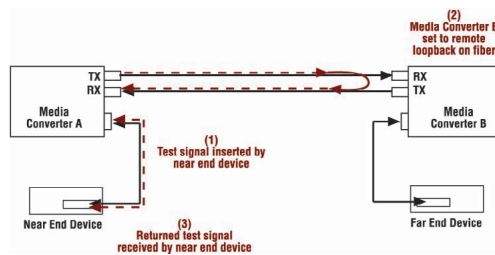
Some converters have separate copper and fiber loopback functions that can be enabled separately, while others will loopback both copper and fiber at the same time when enabled. Please refer to the specific product page for details.

▶ Remote Firmware Upgrade

New product features are continuously being added to Transition Networks's products. These improvements are also available for many products already installed in the field. Management modules and many media converters can be updated remotely via firmware upgrade. The remote upgrade feature eliminates the need to ship the products back to the manufacturer. The firmware upgrades can be performed by a user either locally via a Console port or remotely via TFTP.

The upgrades do not require the reconfiguration of the SNMP management or converter feature settings.

If someone tells you media conversion is a commodity product that anyone can bring to market, they probably haven't looked at the extensive product suite offered by Transition Networks. With the industry's most comprehensive offering of full-featured products, Transition's media converters stand out as "the choice" among industry IT professionals.

Generally, media converters are low-level OSI model devices with no IP or MAC addresses and therefore are transparent to the network. This "transparency" makes them very inexpensive and easy to use, but also can make troubleshooting the network very difficult. In an effort to overcome this difficulty and to make media converters "visible" to network managers, Transition has designed their full-featured products to include the most advanced features on the market today.

▶ Remote Management

All chassis-based converters from Transition Networks® can be managed through SNMP. Now, select stand-alone products can also be managed through SNMP when used in conjunction with a chassis based converter. While chassis based products are generally placed in the telecommunications room, stand-alone converters are generally placed in remote locations away from network administrators. Remote in-band management over fiber allows administrators access to the remote device to check status and enable/disable features or the device itself.

> ▶ Visibility of remote converters for network administrators

> ▶ Allows for centralized management of media converters

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