High Speed Serial: V.35 / X.21 / RS449 / RS530 / RS232

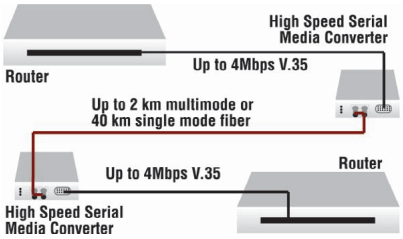
Remote In-Band Management

Stand-Alone Media Converters

SPSVT26xx-10x

Convert Copper to Fiber

Extend Distance Between Routers



Extend Network Distance

Extend the point of presence of a copper V.35 / X.21 / RS449 / RS530 / RS232 connection at data rates up to 10 Mbps.

Features

- In-band remote management when used in conjunction with Point System™ card
- Operational speeds up to 10Mbps
- Copper & Fiber Loopback
- Synchronous or asynchronous capability
- Selectable DCE speeds
- LED indications for Lock, Loop-back & Data
- Ability to use a combination of any copper interface (RS449 to V.35, RS530 to X.21, DTE-DTE, DTE-DCE, DCE-DCE, etc.) All interfaces converted at the physical level.

Ordering Info

Product Number	Port One	Port Two
SPSVT2611-100	26-pin	1300nm multimode (ST) **[2 km/1.2 miles]**
SPSVT2613-100	26-pin	1300nm multimode (SC) **[2 km/1.2 miles]**
SPSVT2614-100	26-pin	1310nm single mode (SC) **[20 km/12.4 miles]**
Single Fiber Products *Note: Recommended use in pairs (see next page)*		
SPSVT2629-100	26-pin	1310nm TX / 1550nm RX single fiber single mode (SC) **[20 km/12.4 miles]**
SPSVT2629-101	26-pin	1550nm TX / 1310nm RX single fiber single mode (SC) **[20 km/12.4 miles]**
SPSVT2629-102	26-pin	1310nm TX / 1550nm RX single fiber single mode (SC) **[40 km/24.9 miles]**
SPSVT2629-103	26-pin	1550nm TX / 1310nm RX single fiber single mode (SC) **[40 km/24.9 miles]**

Optional Accessories *(sold separately)*

Product Number	Description
SPS-1872-PS	Wide Input (18-72VDC) Piggy Back Power Supply
SPS-1872-SA	Wide Input (18-72VDC) Stand-Alone Power Supply
E-MCR-04	12-slot Media Converter Rack
WMBD	DIN Rail Mount Bracket 5.0" [127 mm]
WMBD-F	DIN Rail Mount Bracket (flat) 3.3" [84 mm]
WMBL	Wall Mount Bracket 4.0" [102 mm]
WMBV	Vertical Wall Mount Bracket 5.0" [127 mm]

Cable Assemblies
[cable length: 3 meters / 10 feet]

Product Number	Port One	Port Two
21DCE-3	DB-15 (FT) (26-pin)	(DCE) [3 m/10 ft.]
21DTE-3	DB-15 (MT) (26-pin)	(DTE) [3 m/10 ft.]
232DCE-3	DB-25 (FT) (26-pin)	(DCE) [3 m/10 ft.]
232DTE-3	DB-25 (MT) (26-pin)	(DTE) [3 m/10 ft.]
35DCE-3	V.35 (FT) (26-pin)	(DCE) [3 m/10 ft.]
35DTE-3	V.35 (MT) (26-pin)	(DTE) [3 m/10 ft.]
449DCE-3	DB-37 (FT) (26-pin)	(DCE) [3 m/10 ft.]
449DTE-3	DB-37 (MT) (26-pin)	(DTE) [3 m/10 ft.]
530DCE-3	DB-25 (FT) (26-pin)	(DCE) [3 m/10 ft.]
530DTE-3	DB-25 (MT) (26-pin)	(DTE) [3 m/10 ft.]

Copper Distances

Standard	Range*
RS232/V.24	15 meters
RS449/V.36	1.2 km
V.35	600 meters
X.21	1.2 km
RS530	1.2 km

*For reference only. Contact Transition Networks for detailed range information.

Specifications

Standards	ITU-T; ISO-2593
Fiber Optic Connector Specs	
SPSVT2611-100 & SPSVT2613-100	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
SPSVT2614-100	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
Single Fiber Products	
SPSVT2629-100 & SPSVT2629-101	Min TX PWR: -13.0 dBm Max TX PWR: -6.0 dBm RX Sensitivity: -32.0 dBm Max In PWR: -3.0 dBm Link Budget: 19.0 dB
SPSVT2629-102 & SPSVT2629-103	Min TX PWR: -8.0 dBm Max TX PWR: -3.0 dBm RX Sensitivity: -33.0 dBm Max In PWR: -3.0 dBm Link Budget: 25.0 dB
Switches	Side panel, external DCE speed switch, sixteen position: • 0 – TT = Receive CLK • 1 – 56 Kbps • 2 – 64 Kbps • 3 – 112 Kbps • 4 – 128 Kbps • 5 – 256 Kbps • 6 – 384 Kbps • 7 – 512 Kbps • 8 – 768 Kbps • 9 – 1.024 Mbps • A – 1.544 Mbps • B – 2.048 Mbps • C – 3.072 Mbps • D – 4.096 Mbps • E – 6.144 Mbps • F – Asynchronous Mode Speeds can also be set on DCE converters locally or remotely via software. Front Panel, Loop-back Selector Switch: Right Position: Loop Fiber Back & Loop Copper Back Left Position: Normal Operation
Internal Jumpers	JP1: 2-position TX clock invert: S Position = No invert. (Pins 1-2 normal operation) JP2: 2-position RX clock invert: S Position = No invert. (Pins 1-2 normal operation)
Status LEDs	The Copper LED uses a green LED Smart Serial Link: Green - Link is up; Green Flashing - In loop-back mode; Fiber: Green - Link is up; Green Flashing - In loop-back mode; Power: Green - ON power applied to board
Dimensions	Width: 3.25" [82 mm] Depth: 4.8" [120 mm] Height: 1.0" [25 mm]
Power	External AC/DC required; 12 VDC; 1A; regulated wall mount adapter via 2mm connector
Environment	0 – 50°C, 5% – 90% humidity (non-condensing), 0 – 10,000 feet
Shipping Weight	2 lbs. [0.9 kg]
Safety Compliance	Wall Mount Power Supply: UL approved and CSA certified
Regulatory Compliance	CISPR/EN55022, EN55024, EN60950 Class A; FCC Class A; CE Mark
Warranty	Lifetime

TRANSITION networks®

The Conversion Technology Experts

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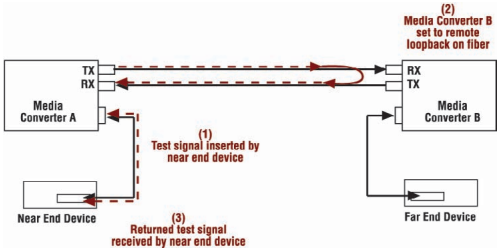
ADVANCED PRODUCT FEATURES & CERTIFICATION

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.

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.

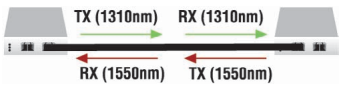
- Visibility of remote converters for network administrators
- Allows for centralized management of media converters

Single Fiber

Single fiber technology offers a 50% savings in fiber utilization. It is an attractive solution to maximize the usage of a limited number of fiber runs.

In a traditional optical link, a fiber pair consists of two uni-directional strands. The single fiber technology multiplexes two optical wavelengths of 1310nm and 1550nm into a single strand fiber. In a single fiber media converter each wavelength is responsible for either the transmit or receive function. Consequently, the bi-directional transmission is achieved by using a single strand. The converters in a single fiber scenario "match" each other's wavelengths. Converter A transmits at the wavelength of 1310nm and receives at 1550nm while the other converter transmits at 1550nm and receives at 1310nm. Therefore, converters are usually used in pairs.

Single Fiber



Single fiber technology is available on all Transition Networks Media Converters in maximum distance ranges from 20 to 80km.

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