# Device Server RS-232/422/485 to 100BASE-FX



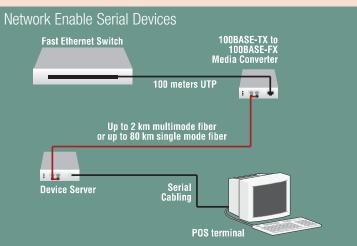


Transition Networks's Device Servers provide a serial-to-Ethernet conversion to enable customers to integrate any legacy serial-based device into their Ethernet networks.

Network-enable serial based devices quickly and cost-effectively with these serial-to-Ethernet device servers. The device server can connect to RS-232, RS-422 or RS-485 serial ports and provides a 10/100BASE-TX or 100BASE-FX Ethernet fiber optic connection for links up to 80 km.

## **Features**

- ▶ AutoCross™ (RJ-45 model only) (see next page)
- ► Auto-Negotiation (RJ-45 model only) (see next page)
- ▶ Remote Management
- ▶ Supports asynchronous serial data rates up to 115kb/s
- ▶ Supports RS-232, 4-wire RS-422 or 2/4-wire RS485 operation
- ▶ Control up to 4,096 virtual COM ports from one PC
- ▶ DIN rail mounting brackets included



# Ordering Info

### SDSFE3110-120

DB-9 [15 m/49 ft.]\* to RJ-45 [100 m/328 ft.]

### SDSFE3111-120

DB-9 [15 m/49 ft.]\*

to 1300nm multimode (ST) [2 km / 1.2 mi.] Link Budget: 12.0 dB

#### SDSFE3113-120

DB-9 [15 m/49 ft.]\*

to 1300nm multimode (SC)

[2 km / 1.2 mi.] Link Budget: 12.0 dB

#### SDSFE3114-120

DB-9 [15 m/49 ft.]\*

to 1310nm single mode (SC)

[20 km/12.4 mi.] Link Budget: 15.0 dB

#### SDSFE3115-120

DB-9 [15 m/49 ft.]\*

to 1310nm single mode (SC)

[40 km/24.9 mi.] Link Budget: 19.0 dB

### SDSFE3117-120

DB-9 [15 m/49 ft.]\*

to 1550nm single mode (SC) [80 km/49.7 mi.] Link Budget: 34.0 dB

\*Max. distance on the serial port is dependent on protocol: 15 m/49 ft. (RS-232); 1.2 km/0.7 mi. (RS-422/485)

Standards	EIA/TIA RS-232/422/485, EIA/TIA-574, IEEE Std. 802.3 <sup>TM</sup>
Data Rate	<b>Serial:</b> 115 kb/s <b>RJ-45:</b> 10/100Mb/s <b>Fiber:</b> 100Mb/s

Fiber Optic Connector Specs

<u>sku</u>	Min TX PWR (dBm)	Max TX PWR (dBm)	RX Sens (dBm)	Max In PWR (dBm)	Link Budget (dB)
SDSFE3111-120	-19.0	-14.0	-31.0	-14.0	12.0
SDSFE3113-120	-19.0	-14.0	-31.0	-14.0	12.0
SDSFE3114-120	-15.0	-3.0	-30.0	-3.0	15.0
SDSFE3115-120	-15.0	-8.0	-34.0	-7.0	19.0
SDSFE3117-120	-3.0	+3.0	-37.0	0.0	34.0
Drivers		ows 95, 9 osoft NT/2			, XP, NT 4 I Server

Switches **Switch 1:** ON = console serial port (RS-232); OFF = data serial port

Switch 2: RS-232 mode on/off Switch 3: RS-422/485 (4-wire) mode on/off

Switch 4: RS-485 (2-wire) mode on/off Switch 7: Termination resistor on/off

Status LEDs	PWR (Power): ON = power connected 100 (RJ-45): ON = Link at 100Mb/s LNK/ACT (RJ-45): ON = UTP link; FLASHING = activity LNK/ACT (Fiber): ON = fiber link; FLASHING = activity POST: ON = Power On Self Test successful ACT (serial): ON = Serial link FLASHING = activity
Dimensions	Width: 3.5" [90 mm] Depth: 4.3" [109 mm] Height: 1.3" [32 mm]
Input Power	External AC/DC; 9 to 32 VDC, 0.8A
Environment	0 to +50°C std. Operating temp. 5 – 90% humidity non-condensing; 0 – 10,000 feet altitude
Shipping Weight	2 lb. [0.90 kg]
Compliance	CISPR22/EN55022 Class A + EN55024; EN60950 Class A; FCC Class A; CE Mark
Warranty	Lifetime



# **Advanced Product Features**





# Auto-Negotiation (802.3u)

Auto-Negotiation allows devices to perform automatic configuration to achieve the best possible mode of operation over a link. Devices with this feature will broadcast their speed (10Mbps, 100Mbps, etc.) and duplex (half/full) capabilities to other devices and negotiate the best mode of operation between the two

- ▶ No user intervention required to determine best mode of operation
- Optimal link established automatically
- Quick and easy installation

While the inclusion of this feature is beneficial, the ability to disable it is equally beneficial. In the event of a non-negotiating end device trying to connect to a negotiating device, the mode of operation will drop to the least common denominator between the two devices (i.e. 100Mbps, half-duplex). Disabling this feature gives the user the ability to force the connection to the best mode of operation when trying to link with a non-negotiating device. Most Transition converters with Auto-Negotiation will allow you to disable this feature.

## ▶ AutoCross™

Automatically detects and configures the twisted pair port on the converter to the correct MDI or MDI-X configuration.

- ▶ Eliminates an entire category of troubleshooting
- ▶ No need to identify cable type—straight-through or crossover
- ▶ No user intervention required to determine correct button / switch settings

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.

If someone tells you media conversion



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