

► T1/E1 STAND-ALONE MEDIA CONVERTERS

STAND-ALONE  
MEDIA CONVERTERS

- T1/E1 WITH REMOTE  
MANAGEMENT
- RJ-45 OR BNC  
TO FIBER



Features

**Remote management in a stand-alone device.** When used in conjunction with a managed Point System chassis, this stand-alone unit can be managed remotely.

Applications

Extend distances over 2 km on multimode connections or over 80 km on single mode fiber.

Provide Campus Interconnects: With the exception of Ethernet, T1/E1 is one of the most common campus/metropolitan area networking interconnects. A copper to fiber conversion on the premise side of the T1/E1 makes it easier to integrate voice traffic, frame relay or IP type traffic on your fiber network.

Remote converter status

- Fiber Link status
- Copper link status
- Hardware switch settings: LBO, AIS Copper, AIS Fiber, HW/SW
- AIS detected Fiber
- AIS detected Copper
- Model number
- Copper Connector
- Fiber Connector

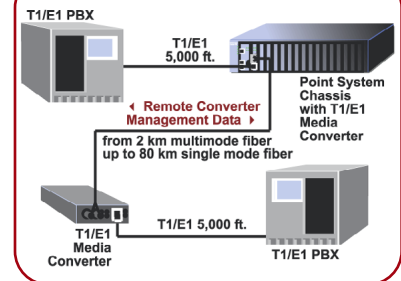
Remote Commands:

- Loop-back Fiber
- Loop-back Copper
- AIS transmitted on fiber on loss of Copper link
- AIS Transmitted on copper on loss of fiber link
- Can be used with fractional T1/E1 circuits

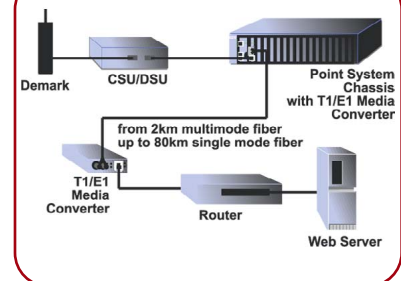
Features

- Remote unit in-band management
- Local or Remote Loop-backs on copper or fiber in software mode
- Loopback switch facilitates local installation
- Converts the copper ports on T1/E1 devices, such as a PBX or T1/E1 Router, to multimode or single mode fiber.
- Extends distances 2,000 meters over multimode fiber or 80,000 meters over single mode fiber.
- Switch selectable RJ-45 connectors for T1 or E1.
- Jitter attenuators optimize Bit Error Rate (BER) performance.
- Loopback switch facilitates installation.
- Network debug procedures make BER testing more convenient.
- Built-in troubleshooting with the addition of a selectable TAOS (Transmit All Ones) switch on the fiber and copper interfaces allows the network engineer to test all T1/E1 equipment on that network segment and ensure the network link.
- Dry relay contacts enable the media converter to be tied into a separate alarm circuit commonly found in a T1/E1 twisted pair environment. Contacts will be activated on loss of power or loss of fiber link.
- An LED provides Alarm Indication Signal (AIS).

► VOICE APPLICATION

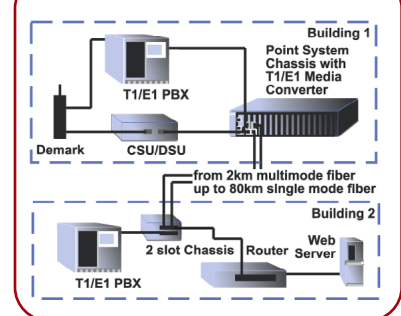


► DATA APPLICATION



Stand-Alone converter can be managed remotely when used with a managed chassis.

► VOICE OR DATA APPLICATION



Extend T1 to other buildings in a campus or MAN from 2 km to 80 km for voice or data applications.

**SPECIFICATIONS**

Standards	ITU-T, ANSI, AT&T, ETSI
Connectors	E1: (2) 75Ω coax; 1 duplex fiber optic T1/E1: 1 UTP 100/120Ω RJ-45 (5,000 ft.); 1 duplex fiber optic
Fiber Optic Connector Specs	
SSDTFx011-1x5 & SSDTFx013-1x5	Min TX PWR: -14.0 dBm Max TX PWR: -12.0 dBm RX Sensitivity: -25.0 dBm Max In PWR: -12.0 dBm Link Budget: 11.0 dB
SSDTFx012-1x5	Min TX PWR: -21.0 dBm Max TX PWR: -14.0 dBm RX Sensitivity: -25.0 dBm Max In PWR: -14.0 dBm Link Budget: 4.0 dB
SSDTFx014-1x5	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
SSDTFx015-1x5	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
SSDTFx016-1x5 & SSDTFx017-1x5	Min TX PWR: -5.0 dBm Max TX PWR: 0.0 dBm RX Sensitivity: -34.0 dBm Max In PWR: -7.0 dBm Link Budget: 29.0 dB
SSDTFx018-1x5	Min TX PWR: -19.0 dBm Max TX PWR: -14.0 dBm RX Sensitivity: -33.5 dBm Max In PWR: -14.0 dBm Link Budget: 14.5 dB
SSDTFx022-1x5	Min TX PWR: -15.0 dBm Max TX PWR: -12.0 dBm RX Sensitivity: -32.5 dBm Max In PWR: -14.0 dBm Link Budget: 10.0 dB
SSDTFx025-1x5	Min TX PWR: -20.0 dBm Max TX PWR: -14.0 dBm RX Sensitivity: -31.0 dBm Max In PWR: -8.0 dBm Link Budget: 11.0 dB
SSDTFx029-1x5 & SSDTFx029-1x6	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
SSDTFx029-1x7	Min TX PWR: -5.0 dBm Max TX PWR: +1.0 dBm RX Sensitivity: -34.0 dBm Max In PWR: -3.0 dBm Link Budget: 29.0 dB
SSDTFx029-1x8	Min TX PWR: -10.0 dBm Max TX PWR: 0.0 dBm RX Sensitivity: -34.0 dBm Max In PWR: -3.0 dBm Link Budget: 24.0 dB
3-position Jumper	Hardware: Converter mode is determined by 4-position switch settings Software: Converter mode is determined by most recently saved on-board microprocessor settings.
Switches	SW1: 1, 2, 3: Line Build out for short haul/DB in Long Haul (see table) Short Haul mode: SW1: Position 4 not used SW2 - 1: Transmit all ones into copper on loss of fiber link (Up = Disabled) SW2 - 2: Transmit all ones (AIS) into fiber on loss of copper link (Up = Disabled) SW2 - 3: Long Haul/Short Haul (Up = Short Haul) SW2 - 4: T1/E1 selection (Up = T1)
Status LEDs	PWR (Power): Steady green LED indicates connection to external AC power SDC (Signal Detect/Copper): On indicates twisted pair link is up SDF (Signal Detect/Fiber): On indicates fiber link is up
Dimensions	Width: 1.0" (25 mm); Depth: 4.8" (122 mm); Height: 3.25" (82 mm)
Power	External AC/DC required; 9V DC; .5A; unregulated; standard; SPS-48V: optional external 48VDC power supply; Output 12 VDC; .8A; 14 watts max.
Environment	0 - 50°C; 5% - 95% humidity (non-condensing); 0 - 10,000 feet
Shipping Weight	2 lbs. (.9 kg)
Compliance	UL Listed; C-UL Listed (Canada); CISPR/EN5022, Class A; FCC Class A; CE Mark
Warranty	Lifetime

**ORDERING INFO**

Product Number	Port One	Port Two
SSDTF1011-105	RJ-45	850nm MM (ST) ▶ 2 KM
SSDTF1012-105	RJ-45	1300nm SM (ST) ▶ 8 KM
SSDTF1013-105	RJ-45	850nm MM (SC) ▶ 2 KM
SSDTF1014-105	RJ-45	1300nm SM (SC) ▶ 20 KM
SSDTF1015-105	RJ-45	1300nm SM (SC) ▶ 40 KM
SSDTF1016-105	RJ-45	1300nm SM (SC) ▶ 60 KM
SSDTF1017-105	RJ-45	1550nm SM (SC) ▶ 80 KM
SSDTF1018-105	RJ-45	1300nm MM (MT-RJ) ▶ 2 KM
SSDTF1022-105	RJ-45	1300nm SM (ST) ▶ 15 KM
SSDTF1025-105	RJ-45	1300nm SM (MT-RJ) ▶ 20 KM
SSDTF3011-115	(2) BNC	850nm MM (ST) ▶ 2 KM
SSDTF3012-115	(2) BNC	1300nm SM (ST) ▶ 8 KM
SSDTF3013-115	(2) BNC	850nm MM (SC) ▶ 2 KM
SSDTF3014-115	(2) BNC	1300nm SM (SC) ▶ 20 KM
SSDTF3015-115	(2) BNC	1300nm SM (SC) ▶ 40 KM
SSDTF3016-115	(2) BNC	1300nm SM (SC) ▶ 60 KM
SSDTF3017-115	(2) BNC	1550nm SM (SC) ▶ 80 KM
SSDTF3018-115	(2) BNC	1300nm MM (MT-RJ) ▶ 2 KM
SSDTF3022-115	(2) BNC	1300nm SM (ST) ▶ 15 KM
SSDTF3025-115	(2) BNC	1300nm SM (MT-RJ) ▶ 15 KM
SPS-48V	Optional external 48VDC power supply (sold separately)	

**ORDERING INFO (Single Fiber)**

Product Number	Port One	Port Two
SSDTF1029-105	RJ-45	SM simplex fiber 1310nm TX / 1550nm RX (SC) ▶ 20 KM
SSDTF1029-106	RJ-45	SM simplex fiber 1550nm TX / 1310nm RX (SC) ▶ 20 KM
SSDTF1029-107	RJ-45	SM simplex fiber 1310nm TX / 1550nm RX (SC) ▶ 40 KM
SSDTF1029-108	RJ-45	SM simplex fiber 1550nm TX / 1310nm RX (SC) ▶ 40 KM
SSDTF3029-105	BNC	SM simplex fiber 1310nm TX / 1550nm RX (SC) ▶ 20 KM
SSDTF3029-106	BNC	SM simplex fiber 1550nm TX / 1310nm RX (SC) ▶ 20 KM
SSDTF3029-107	BNC	SM simplex fiber 1310nm TX / 1550nm RX (SC) ▶ 40 KM
SSDTF3029-108	BNC	SM simplex fiber 1550nm TX / 1310nm RX (SC) ▶ 40 KM
SSDTF3029-115	(2) BNC	SM simplex fiber 1310nm TX / 1550nm RX (SC) ▶ 20 KM
SSDTF3029-116	(2) BNC	SM simplex fiber 1550nm TX / 1310nm RX (SC) ▶ 20 KM
SSDTF3029-117	(2) BNC	SM simplex fiber 1310nm TX / 1550nm RX (SC) ▶ 40 KM
SSDTF3029-118	(2) BNC	SM simplex fiber 1550nm TX / 1310nm RX (SC) ▶ 40 KM

**Table 1: Switch Settings**

Switch 1			
Long Haul (SW1-Pos 3 not used)			
SW1-Pos 1		SW1-Pos 2	
Down	Down	0 db output pulse	
Up	Down	-7.5db output pulse	
Down	Up	-15db output pulse	
Up	Up	-22.5db output pulse	
Switch 1:			
Short Haul (SW1-Pos 4 not used)			
SW1 - 1		SW1 - 2 SW1 - 3	
Up	Up	Down	DSX-1, 0-133 ft.
Down	Down	Up	DSX-1, 133 - 266 ft.
Up	Down	Up	DSX-1, 266 - 399 ft.
Down	Up	Up	DSX-1, 399 - 533 ft.
Up	Up	Up	DSX-1, 533 - 655 ft.
Up	Up	Down	ANSI, T1.403
Down	Up	Down	DSX-1, 6.0 V

Switch 2	
Pos 1: Transmit all ones into copper on loss of fiber link (Up = Disabled)	
Pos 2: Transmit all ones (AIS) into fiber on loss of copper link (Up = Disabled)	
Pos 3: Long Haul/Short Haul (Up = Short Haul)	
Pos 4: T1/E1 Selection (Up = T1)	

**Loopback Switch** (front panel): Up = Loopback enabled; Down = Loopback disabled

**MDI/MDI-X Switch** (side panel) Slide switch to desired position