TRANSITION NETWORKS®

User's Guide
SSDTF10xx-10x
Stand-Alone Devices
- **T1 / E1 with Remote Management**
- **Copper to Fiber**

Transition Networks SSDTF10xx-10x series Devices encode and decode T1 or E1 twisted-pair copper signals over fiber optic cable to extend the distance and transmission reliability of high-speed T1 or E1 data traffic. The device is framing independent *(as ESF vs. D4)* and supports all common line codes *(e.g., AMI, B8ZS, HDB3)*.

The SSDTF10xx-10x is designed to be installed in pairs. For example, install one SSDTF1011-105 as the "local " Device and another SSDTF1011-105 as the "remote " Device.

Part Number	Port One - Copper	Port Two - Duplex Fiber-Optic
SSDTF1011-105	RJ-45 1.5 km *(5,000 feet)**	ST, 850 nm multimode 2 km *(1.2 miles)**
SSDTF1012-105	RJ-45 1.5 km *(5,000 feet)**	ST, 1310 nm single mode 8 km *(4.8 miles)**
SSDTF1013-105	RJ-45 1.5 km *(5,000 feet)**	SC, 850 nm multimode 2 km *(1.2 miles)**
SSDTF1014-105	RJ-45 1.5 km *(5,000 feet)**	SC, 1310 nm single mode 20 km *(12.4 miles)**
SSDTF1015-105	RJ-45 1.5 km *(5,000 feet)**	SC, 1310 nm single mode 40 km *(24.8 miles)**
SSDTF1016-105	RJ-45 1.5 km *(5,000 feet)**	SC, 1310 nm single mode 60 km *(37.3 miles)**
SSDTF1017-105	RJ-45 1.5 km *(5,000 feet)**	SC, 1550 nm single mode 80 km *(49.7 miles)**
SSDTF1018-105	RJ-45 1.5 km *(5,000 feet)**	MT-RJ, 1300 nm multimode 2 km *(1.2 miles)**
SSDTF1022-105	RJ-45 1.5 km *(5,000 feet)**	ST, 1310 nm single mode 15 km *(9.3 miles)**
SSDTF1025-105	RJ-45 1.5 km *(5,000 feet)**	MT-RJ, 1310 nm single mode 20 km *(12.4 miles)**
SSDTF1027-105	RJ-45 1.5 km *(5,000 feet)**	ST, 1300 nm multimode 5 km *(3.1 miles)**

* Typical maximum cable distance. *(Actual distance is dependent upon the physical characteristics of the network.)*

Note: The SSDTF10xx-10x requires a CSU between the device and the Public Telephone Network.

Part Number	Port One - Copper	Port Two - Single Fiber Optic
SSDTF1029-105 **	RJ-45 1.5 km *(5,000 feet)**	SC, 1310 mn (TX)/1550 nm (RX) single mode, 20 km *(12.4 miles)**
SSDTF1029-106 **	RJ-45 1.5 km *(5,000 feet)**	SC, 1550 mn (TX)/1310 nm (RX) single mode, 20 km *(12.4 miles)**
SSDTF1029-107 ***	RJ-45 1.5 km *(5,000 feet)**	SC, 1310 mn (TX)/1550 nm (RX) single mode, 40 km *(24.8 miles)**
SSDTF1029-108 ***	RJ-45 1.5 km *(5,000 feet)**	SC, 1550 mn (TX)/1310 nm (RX) single mode, 40 km *(24.8 miles)**

(TX) = transmit   (RX) = receive

*   Typical maximum cable distance. Actual distance is dependent upon the physical characteristics of the network.

**   SSDTF1029-105 and -106 are intended to be installed in the same network where one is the local device and the other is the remote device.

*** SSDTF1029-107 and -108 are intended to be installed in the same network where one is the local device and the other is the remote device.

Note: The chassis version of the device is CSDTF10xx-10x. For more information, see the CSDTF10xx-10x user's guide on-line at: www.transition.com

Optional Accessories *(sold separately)*

| Part Number	Description
SPS-1872-SA	Optional External Power Supply; 18-72VDC Stand-Alone Output: 12.6VDC, 1.0 A
SPS-1872-PS	Optional External Power Supply; 18-72VDC Piggy-back; Output: 12.6VDC, 1.0 A
E-MCR-04	-Slot Device Rack *(includes universal internal power supply)* 17 x 15 x 5 in. *(432 x 381 x 127 mm)*
WMBL	Optional Wall Mount Brackets Length: 4.0 in. (102 mm), Fits Device length: 4.7 in. *(119 mm)*
WMBV	Optional Vertical Mount Bracket; 5.0 in. *(127 mm)*
WMBD	Optional DIN Rail Mount Bracket; 5.0 in. *(127 mm)*
WMBD-F	Optional DIN Rail Mount Bracket (flat); 3.3in. *(84 mm)*

Installation

CAUTION: Wear a grounding device and observe electrostatic discharge precautions when setting the jumper and switches. Failure to observe this caution could result in damage to, and subsequent failure of, the device.

Set the hardware/software jumper

The hardware/software jumper is located on the circuit board inside the device housing.

Hardware: The device mode is determined by the switch settings.
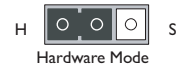
Software: The device mode is determined by the most-recently saved, on-board microprocessor settings.
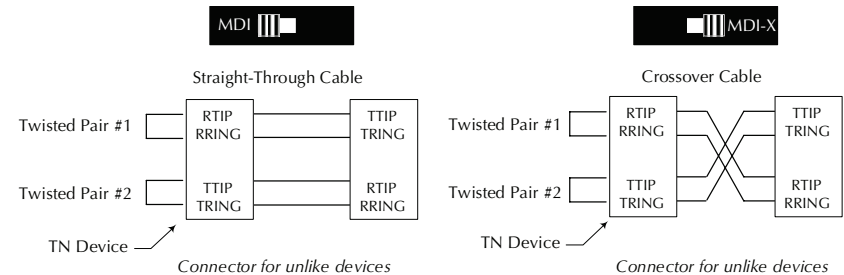
Hardware Mode

Software Mode

To set the two-position jumper:

1.   Using a small screwdriver, remove the four (4) screws that secure the cover and carefully remove the cover from the device.

2.   The jumper is located on the circuit board and is labeled "H" and "S".

3.   Using small needle-nosed pliers or similar device, move the jumper to the desired position. *(Refer to the above drawing.)*

4.   Carefully replace the cover on the device and replace the four (4) screws that secure the cover to the device.

Set the MDI/MDI-X switch *(hardware mode only)*

The MDI/MDI-X switch is located on the side of the device. This switch allows the network administrator to use straight-through cable in installations where crossover configuration cable is required. Use a small flat-blade screwdriver or a similar device to set the recessed switch.

Straight-Through Cable

Crossover Cable

Twisted Pair #1   RTIP RRING   TTIP TRING

Twisted Pair #2   TTIP TRING   RTIP RRING

TN Device

Connector for unlike devices

Twisted Pair #1   RTIP RRING   TTIP TRING

Twisted Pair #2   TTIP TRING   RTIP RRING

TN Device

Connector for unlike devices

Set the switch to MDI if using straight-through copper cable to connect two unlike devices.

Set the switch to MDI-X if using crossover copper cable to connect two like devices.

Installation -- Continued

Set the loop-back switch

Hardware mode:

The loop-back switch is located on the front panel of the device and is used for installation and network debugging procedures.

To set the switch, use a small flat-blade screwdriver or a similar device *(see the drawing to the right).*

CL ▤▤ FL

CL   *(Copper loop-back)*   Enable loop-back on the local copper interface.

--   *(Center Position)*   Normal operation.

FL   *(Fiber loop-back)*   Enable loop-back on the local fiber interface.

Software mode:

If both Devices are under software control, the network administrator can initiate the loop-back test function on the copper interface *(local or remote)* or on the fiber interface *(local or remote)*. These four loop-back test scenarios are described in detail on page 14.

Set the configuration switches

The configuration switches are located on the side of the device and are used to configure the device for various network conditions.

The switches are labeled 1 through 8 on the device housing top. There are two sets *(a "left, SW 2" and a "right, SW 1")* each with four switches labeled 1 through 4 *(see the drawing below).*
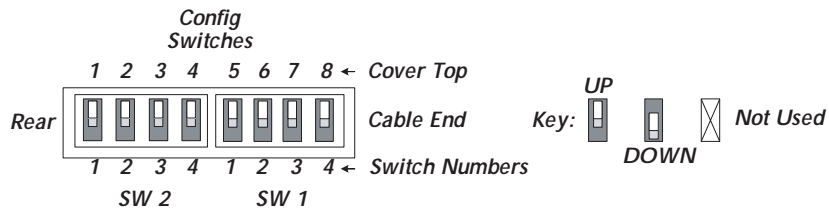
Use a small, flat-blade screwdriver or a similar device to set the recessed switches.
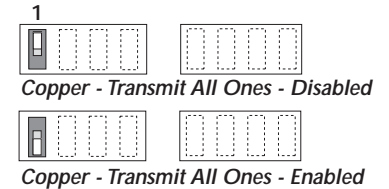
Transmit all ones *(switches 1 & 2, left set, SW 2)*

The Transmit All Ones function allows the insertion of an "all ones" pattern on the copper and/or fiber interface when the signal detect is lost, creating an alarm condition at the device connected to the interface.

Installation -- Continued

Switch 1, Copper -- transmit all ones

UP - Disables the transmit all ones function on the copper interface.

DOWN - Transmits an "all ones" pattern on the copper interface when the signal detect on the fiber interface is lost.

Copper - Transmit All Ones - Disabled

Copper - Transmit All Ones - Enabled

Switch 2, Fiber -- transmit all ones

UP - Disables the transmit all ones function on the fiber interface.

DOWN - Transmits an "all ones" pattern on the *fiber* interface when the signal detect on the *copper* interface is lost.
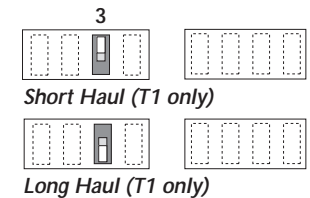
Fiber - Transmit All Ones - Disabled

Fiber - Transmit All Ones - Enabled
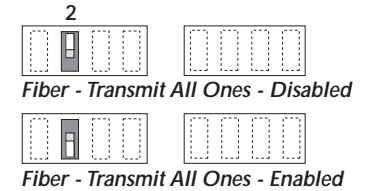
Select T1 configuration *(switches 3 & 4, left set, SW2)*

Use switches 3 and 4 to configure the device for T1 configuration.

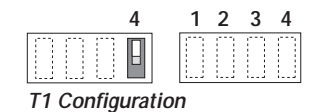Switch 3, long haul/short haul *(T1 only)*

UP - Short haul.

DOWN - Long haul.

Short Haul (T1 only)

Long Haul (T1 only)

Switch 4, T1 / E1

UP - T1 configuration.

Set switches 1, 2, 3, and 4 on the right set for the required network cable settings *(see pages 6 and 7).*

T1 Configuration
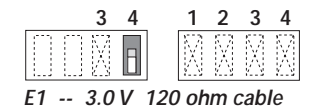
Select E1 configuration *(switch 4, left set, SW 2)*

Use switch 4 to configure the device for E1 configuration.

Switch 4, T1 / E1

DOWN- E1 configuration.

The default network cable setting is 3.0 V, 120 ohm.

Switch 3 on the left set and switches 1, 2, 3, and 4 on the right set are disabled.
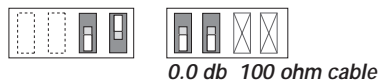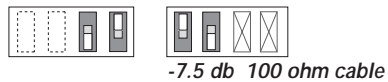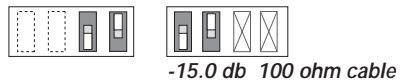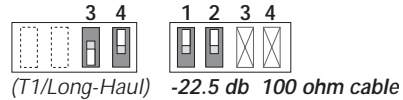
E1 -- 3.0 V 120 ohm cable

Installation -- Continued

Settings for T1 configuration *(right switch set, SW 1)*

T1/long-haul signal

Use switches 3 and 4 on the left switch set to select T1/long-haul signal *(see the drawing below).*

Use switches 1 and 2 on the right switch set to select the proper network cable settings. The drawing below lists the four options.
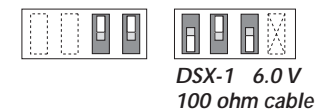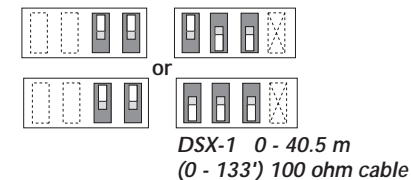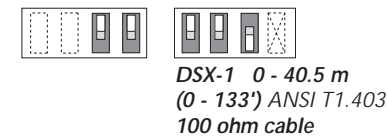
3 4   1 2 3 4

(T1/Long-Haul) -22.5 db 100 ohm cable
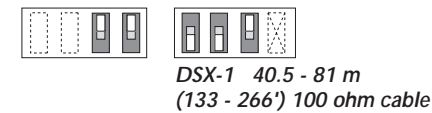
-15.0 db 100 ohm cable

-7.5 db 100 ohm cable

(Switches 3 and 4 on the right switch set are not used for configuring T1/long- haul signals.)

0.0 db 100 ohm cable

Installation -- Continued

T1/short-haul signal

Use switches 3 and 4 on the left switch set to select T1/short-haul signal *(see the drawing below).*

Use switches 1, 2, and 3 on the right switch set to select the proper network cable settings. The drawing below lists the seven options.

3 4   1 2 3 4

(T1/Short Haul) DSX-1   162.5 - 200 m (533 - 655') 100 ohm cable

DSX-1   121.6 - 162.5 m (399 - 533') 100 ohm cable

DSX-1   81 - 121.6 m (266 - 399') 100 ohm cable

DSX-1   40.5 - 81 m (133 - 266') 100 ohm cable

DSX-1   0 - 40.5 m (0 - 133') ANSI T1.403 100 ohm cable

or

DSX-1   0 - 40.5 m (0 - 133') 100 ohm cable

DSX-1   6.0 V 100 ohm cable
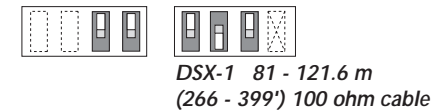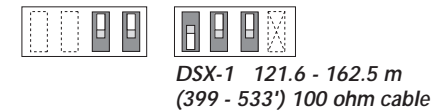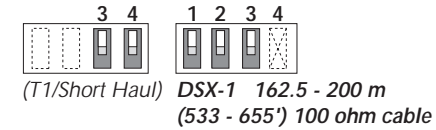
*(Switch 4 on the right switch set is not used for configuring T1/short- haul signals.)*
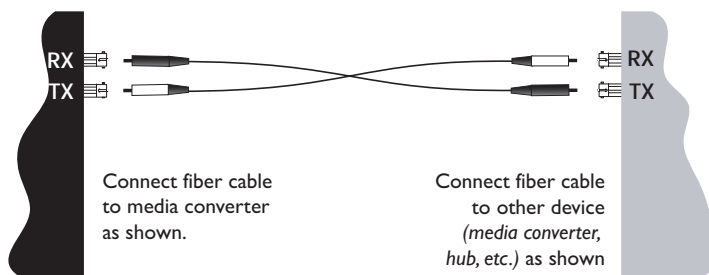
Installation -- Continued

Install the copper cable

1. Locate or build twisted-pair copper cables that are compliant with the specifications on page 11 with RJ-45 connectors at both ends.

2. Ensure that the MDI/MDI-X switch is set according to the network conditions *(see page 3)*.

3. Connect the RJ-45 connector at one end of cable to the RJ-45 port on the device.

4. Connect the RJ-45 connector at the other end of the cable to the RJ-45 port on the other device *(switch, workstation, etc.)*.

RJ-45 port
on the media
converter

RJ-45 port
on the other device
(switch, work station, etc.)
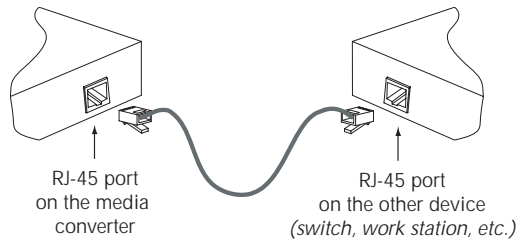
Install the fiber cable

1. Locate or build fiber cables with male, two-stranded TX to RX connectors installed at both ends.

2. Connect the fiber cables to the local SSDTF10xx-10xDevice as described:
   • Connect the male TX cable connector to the female TX port.
   • Connect the male RX cable connector to the female RX port.

3. Connect the fiber cables to the remote SSDTF10xx-10xDevice as described:
   • Connect the male TX cable connector to the female RX port.
   • Connect the male RX cable connector to the female TX port.

RX
TX

RX
TX

Connect fiber cable
to media converter
as shown.

Connect fiber cable
to other device
*(media converter,
hub, etc.)* as shown

Installation -- Continued

Power the device

Note: The external power supply provided with this product is UL listed by the power supply's manufacturer.

1. Install the power adapter cord to the back of the device.

2. Connect the power adapter plug to AC power.

3. Verify that the device is powered by observing the illuminated LED power indicator light.

For DC power, consult the user's guide for the Transition Networks SPS1872-xx DC external power supply for powering the device.

Operation

After installation, the device should function without operator intervention. Use the status LEDs to monitor the device operation in the network.

SDC *(Signal Detect/Copper)* ON = the twisted-pair copper link is up.

SDF *(Signal Detect/Fiber)* ON = the fiber link is up.

PWR *(Power)* ON = the device is connected to external power.

PWR
SDF
SDC
FL
CL
TX Fiber RX
UTP/STP
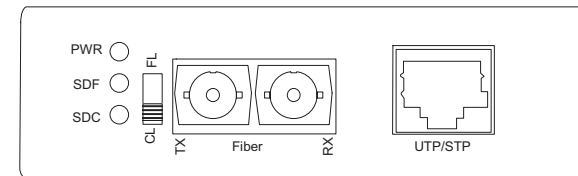
Dry-contact relay

The RJ-45 copper port has a dry-contact relay that opens if the power, signal detect/copper, or signal detect/fiber are lost. The operational rating on pins 3 and 6 are 0-30 VDC, 100 mA *(maximum)*.

Relay
3
6
RJ-45 Connector
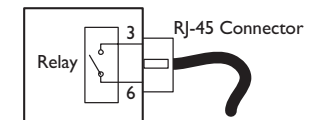
Remote management function

A remote, stand-alone device *(revision SSDTF10xx-105 or higher)* can be managed when connected to a local CSDTF10xx-105 Device. Please note that in a managed network, both the local and remote Devices must be set to "software" mode *(see page 3)*. For more information, see the SNMP section in the CSDTF10xx-10x manual online at: www.transition.com

Cable Specifications

Fiber cable

Single mode fiber *(recommended)*:	9 µm
Multimode fiber *(recommended)*:	62.5/125 µm
Multimode fiber *(optional)*:	100/140, 85/140, 50/125 µm

SSDTF1011-105   850 nm multimode
Fiber Optic Transmitter Power: min: -19.0 dBm   max: -14.0 dBm
Fiber Optic Receiver Sensitivity: min: -32.5 dBm   max: -14.0 dBm
Link Budget: 13.5 dB

SSDTF1012-105   1310 nm single mode
Fiber-optic Transmitter Power: min: -27.0 dBm   max: -10.0 dBm
Fiber-optic Receiver Sensitivity: min: -34.0 dBm   max: -14.0 dBm
Link Budget: 7.0 dB

SSDTF1013-105   850 nm multimode
Fiber Optic Transmitter Power: min: -19.0 dBm   max: -14.0 dBm
Fiber Optic Receiver Sensitivity: min: -32.5 dBm   max: -14.0 dBm
Link Budget: 13.5 dB

SSDTF1014-105   1310 nm single mode
Fiber-optic Transmitter Power: min: -19.0 dBm   max: -14.0 dBm
Fiber-optic Receiver Sensitivity: min: -34.0 dBm   max: -3.0 dBm
Link Budget: 15.0 dB

SSDTF1015-105   1310 nm single mode
Fiber Optic Transmitter Power: min: -8.0 dBm   max: -2.0 dBm
Fiber Optic Receiver Sensitivity: min: -38.0 dBm   max: -8.0 dBm
Link Budget: 30.0 dB

SSDTF1016-105   1310 nm single mode
Fiber-optic Transmitter Power: min: -5.0 dBm   max: 0.0 dBm
Fiber-optic Receiver Sensitivity: min: -38.0 dBm   max: -8.0 dBm
Link Budget: 33.0 dB

SSDTF1017-105   1550 nm single mode
Fiber-optic Transmitter Power: min: -5.0 dBm   max: 0.0 dBm
Fiber-optic Receiver Sensitivity: min: -34.0 dBm   max: -7.0 dBm
Link Budget: 29.0 dB

SSDTF1018-105   1300 nm multimode
Fiber-optic Transmitter Power: min: -19.0 dBm   max: -14.0 dBm
Fiber-optic Receiver Sensitivity: min: -33.5 dBm   max: -14.0 dBm
Link Budget: 14.5 dB

SSDTF1022-105   1310 nm single mode
Fiber Optic Transmitter Power: min: -15.0 dBm   max: -5.0 dBm
Fiber Optic Receiver Sensitivity: min: -25.0 dBm   max: -14.0 dBm
Link Budget: 10.0 dB

SSDTF1025-105   1310 nm single mode
Fiber-optic Transmitter Power: min: -11.0 dBm   max: -3.0 dBm
Fiber-optic Receiver Sensitivity: min: -20.0 dBm   max: -3.0 dBm
Link Budget: 9.0 dB

Cable Specifications -- Continued

Fiber cable

SSDTF1027-105   1300 nm multimode
Fiber Optic Transmitter Power: min: -19.0 dBm   max: -10.0 dBm
Fiber Optic Receiver Sensitivity: min: -32.5 dBm   max: -14.0 dBm
Link Budget: 13.5 dB

SSDTF1029-105   1310 nm (TX)/1550 nm (RX) simplex
Fiber-optic Transmitter Power: min: -13.0 dBm   max: -6.0 dBm
Fiber-optic Receiver Sensitivity: min: -32.0 dBm   max: -3.0 dBm
Link Budget: 19.0 dB

SSDTF1029-106   1550 nm (TX)/1310 nm (RX) simplex
Fiber-optic Transmitter Power: min: -13.0 dBm   max: -6.0 dBm
Fiber-optic Receiver Sensitivity: min: -32.0 dBm   max: -3.0 dBm
Link Budget: 19.0 dB

SSDTF1029-107   1310 nm (TX)/1550 nm (RX) simplex
SSDTF1029-108   1550 nm (TX)/1310 nm (RX) simplex
Fiber-optic Transmitter Power: min: -8.0 dBm   max: -3.0 dBm
Fiber-optic Receiver Sensitivity: min: -33.0 dBm   max: -3.0 dBm
Link Budget: 25.0 dB

The fiber optic transmitters on this device meet Class I Laser safety requirements per IEC-825/CDRH standards and comply with 21 CFR1040.10 and 21CFR1040.11.

Copper cable

Connector:	RJ-45 / RJ-48C
Elec. network connection:	Single 4-wire *(Tip/Ring - Tip1/Ring1)*
Mechanical arrangement:	8-position miniature modular jack
Usage:	1.544 Mb/s or 2.0478 Mb/s access lines
Interface codes:	04DU9 *(any applicable)*
Cable type:	
Long Haul T1:	0db, -7.5dp, -15db, -22db
E1 *(120 ohm)*:	E1 3.0V, 120
J1 *(110 ohm)*:	0-655', 110
DSX-1 *(100 ohm)*:	0-133', 133-266', 266-399', 399-533', 533-655'
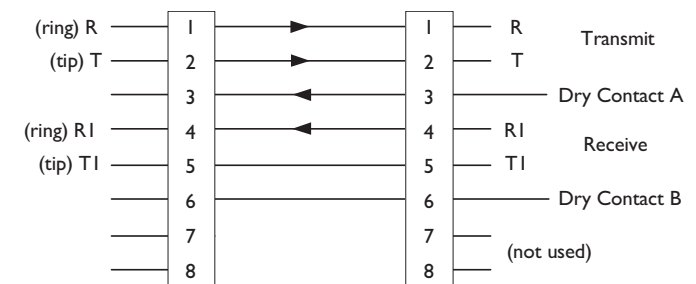
Technical Specifications

For use with Transition Networks Model SSDTF10xx-10x or equivalent

Standards:	Emissions: CISPR A; Telecordia TR-NWT-001089 *(designed to meet; NOT tested)*; FCC Part 68; T1/E1 Physical layer: ITU-T, ANSI, AT&T, and ETSI; European Technical Standard: TBR 12; British Technical Publication: PD 7024 : 1994 *(NTR 4)*
Dimensions:	3.25" x 4.7" x 1" *(83 mm x 119 mm x 25 mm)*
Weight:	10 oz. *(283 g)* approximately
Power consumption:	3.7 Watts
Power supply:	12VDC, 0.8A *(North America, Europe, UK)* 12VDC, 1.25A *(NZ, Australia, S Africa, JP, Latin Am)* *(The external power supply provided with this product is UL listed by the power supply's manufacturer.)*
MTBF:	47,000 hours *(MIL217F2 V5.0) (MIL-HDBK-217F)* 116,000 hours *(Bellcore7 V5.0)*
Environment:	0°C to 50°C *(32°F to 122° F)*
Storage Temp:	-15°C to 65°C *(5°F to 149°F)*
Humidity:	10 to 90%, non condensing
Altitude:	0 to 10,000 feet
Warranty:	Lifetime

The information in this user's guide is subject to change. For the most up-to-date information on the SSDTF10xx-10x Device, view the user's guide on-line at: www.transition.com.

Product is certified by the manufacturer to comply with DHHS Rule 21/CFR, Subchapter J applicable at the date of manufacture.

CAUTION: Visible and invisible laser radiation when open. Do not stare into the beam or view directly with optical instruments.

CAUTION: Use of controls, adjustments or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

Troubleshooting

If the device fails, isolate and correct the failure by determining the answers to the following questions and then taking the indicated action:

1. Is the PWR *(Power)* LED illuminated?
    NO
    •   Is the power adapter the proper type of voltage and cycle frequency for the AC outlet? (See "Technical Specifications" on page 12.)
    •   Is the power adapter properly installed in the device and in the outlet?
    •   Does the grounded AC outlet provide power?
    •   Contact Tech Support: 1-800-260-1312, Int'l: 00-1-952-941-7600.
    YES
    •   Proceed to step 2.

2. Is the SDC *(Signal Detect/Copper)* LED illuminated?
    NO
    •   Check the twisted-pair copper cable for the proper connection.
    •   Check the MDI/MDI-X switch for the correct twisted-pair copper cable configuration *(see page 3)*.
    •   Contact Tech Support: 1-800-260-1312, Int'l: 00-1-952-941-7600.
    YES
    •   Proceed to step 3.

3. Is the SDF *(Signal Detect/Fiber)* LED illuminated?
    NO
    •   Check the fiber cables for proper connection.
    •   Verify that the TX and RX cables on the local device are connected to the RX and TX ports, respectively, on the remote device.
    •   Contact Tech Support: 1-800-260-1312, Int'l: 00-1-952-941-7600.
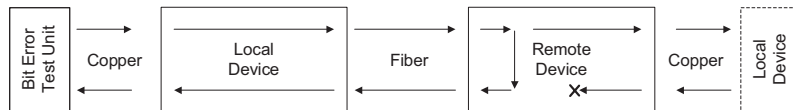   YES
    •   Proceed to step 4.
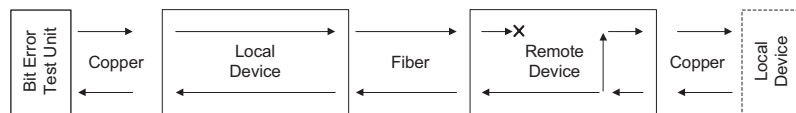
4.   Is data transfer failing?

YES

- Verify the local copper connection by starting a local copper loop-back *(hardware mode: set the loop-back switch on the local device to "CL", software mode: enter the local copper loop-back command)* and then use a bit error test unit to run a bit error test.
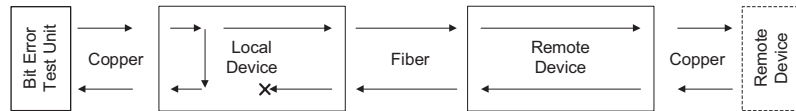

- Verify the local fiber connection by starting a remote fiber loop-back *(hardware mode: set the loop-back switch on the remote device to "FL", software mode: enter the remote fiber loop-back command)* and then use a bit error test unit to run a bit error test.

- Verify the remote copper connection by starting a remote copper loop-back *(hardware mode: set the loop-back switch on the remote device to "CL", software mode: enter the remote copper loop-back command)* and then use a bit error test unit to run a bit error test.

- Verify the remote fiber connection by starting a local copper loop-back *(hardware mode: set the loop-back switch on the local device to "FL", software mode: enter the local fiber loop-back command)* and then use a bit error test unit to run a bit error test.
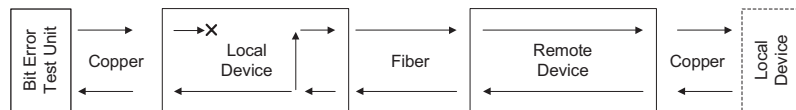
- Contact Tech Support: 1-800-260-1312, Int'l: 00-1-952-941-7600.

NO

- Contact Tech Support: 1-800-260-1312, Int'l: 00-1-952-941-7600.

Contact Us

Technical support

Technical support is available 24 hours a day:
U.S.A. and Canada: 1-800-260-1312
International: 00-1-952-941-7600

Transition now

Chat live via the Web with Transition Networks Technical Support. Log onto www.transition.com and click the Transition Now link.

Web-based seminars

Transition Networks provides seminars via live web-based training. Log onto www.transition.com and click the Learning Center link.

E-Mail

Ask a question anytime by sending an e-mail to our technical support staff. techsupport@transition.com

Address

Transition Networks
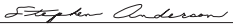10900 Red Circle Drive
Minnetonka, MN 55343, U.S.A.
Telephone: 952-941-7600
Toll free: 800-526-9267
Fax: 952-941-2322

TRANSITION NETWORKS®   **Declaration of Conformity**

Name of Mfg: Transition Networks
                         10900 Red Circle Drive, Minnetonka MN 55343 U.S.A.

Model: SSDTF10xx-10x SeriesDevice

Part Number: SSDTF1011-105, SSDTF1012-105, SSDTF1013-105, SSDTF1014-105, SSDTF1015-105, SSDTF1016-105, SSDTF1017-105, SSDTF1018-105, SSDTF1022-105, SSDTF1025-105, SSDTF1027-105, SSDTF1029-105, SSDTF1029-106, SSDTF1029-107, SSDTF1029-108

Regulation: EMC Directive 89/336/EEC

Purpose: To declare that the SSDTF10xx-10x to which this declaration refers is in conformity with the following standards.

CISPR 22:1993; EN 55022:1994+A1:1995+A2:1997 Class A; EN 55024:1998; FCC Part 15 Subpart B; EN 61000-3-2:1995+A14:2000; 61000-3-3:1995; CFR 21 subpart J

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Stephen Anderson, Vice-President of Engineering   September 2008
                                                           Date

Compliance Information

CISPR22/EN55022 Class A + EN55024
CE Mark

FCC regulations

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at the user's own expense.

Canadian regulations

This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.
Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

European regulations
Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Achtung !

Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten. In diesem Fäll ist der Benutzer für Gegenmaßnahmen verantwortlich.

Attention !

Ceci est un produit de Classe A. Dans un environment domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilsateur de prende les measures spécifiques appropriées.

In accordance with European Union Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003, Transition Networks will accept post usage returns of this product for proper disposal. The contact information for this activity can be found in the 'Contact Us' portion of this document.

CAUTION: RJ connectors are NOT INTENDED FOR CONNECTION TO THE PUBLIC TELEPHONE NETWORK. Failure to observe this caution could result in damage to the public telephone network.

Der Anschluss dieses Gerätes an ein öffentlickes Telekommunikationsnetz in den EG-Mitgliedstaaten verstösst gegen die jeweligen einzelstaatlichen Gesetze zur Anwendung der Richtlinie 91/263/EWG zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Telekommunikationsendeinrichtungen einschliesslich der gegenseitigen Anerkennung ihrer Konformität.

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