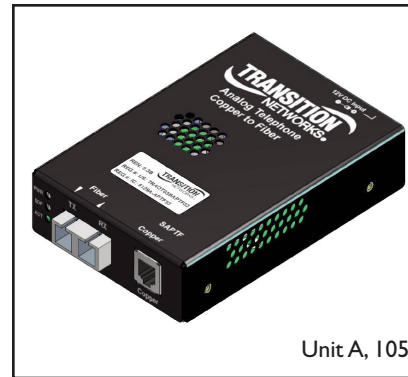
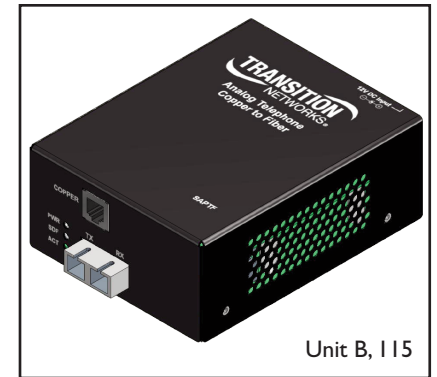


SAPTF33xx-1xx POTS to Fiber Optic Stand-Alone Module User's Guide



Unit A, 105



Unit B, 115

Transition Networks SAPTF33xx-1xx POTS to fiber-optic module connects central-office voice-grade signals to distant POTS (*Plain Old Telephone Service*) terminal equipment using standard telephone signaling. It can extend, over fiber, the distance between two voice path communication devices by up to 80 km (49.7 miles), using either single mode or multimode fiber cable.

The SAPTF33xx-1xx module provides audio transmission, caller ID, ringing at the distant end and automatic ring-down. Two units are required to implement an end-to-end system. An RJ-11C female connector provides the electrical interface between the SAPTF33xx-1xx and the terminal equipment, or telephone line wall jack.

Note: The chassis version is the CAPTF33xx-1xx. For more information, see the CAPTF33xx-1xx user's guide on-line at: www.transition.com click on Products/Product Finder.

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Unit A: SAPTF33xx-105

Unit A (*SAPTF33xx-105*) modules connect to a Central Office (CO) telephone line wall jack or a PBX (*Private Branch Exchange*). The module mimics telephone terminal equipment (*Foreign Exchange Office (FXO)*) and has the ability to detect ringing voltages. The available models are:

Product Number	Port One - Copper Twisted-Pair	Port Two - Duplex Fiber-Optic
SAPTF3311-105	RJ-11C connector 5 km (3.1 miles)*	ST connector, 1300 nm multimode, 2 km (1.2 miles)*
SAPTF3312-105	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm single mode, 20 km (12.4 miles)*
SAPTF3313-105	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm multimode, 2 km (1.2 miles)*
SAPTF3314-105	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm single mode, 20 km (12.4 miles)*
SAPTF3315-105	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm single mode, 40 km (24.9 miles)*
SAPTF3316-105	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm single mode, 60 km (37.8 miles)*
SAPTF3317-105	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1550 nm single mode, 80 km (49.7 miles)*

Unit A: SAPTF33xx-105 — continued

Unit A modules are also available in single mode, single fiber models.

Product Number	Port One – Copper Twisted-Pair	Port Two – Fiber-Optic Single Mode, Single Fiber
SAPTF3329-105	RJ-11C connector 5 km (3.1 miles)*	SC, 1310 nm (TX) / 1550 nm (RX), 20 km (12.4 miles)*
SAPTF3329-106	RJ-11C connector 5 km (3.1 miles)*	SC, 1550 nm (TX) / 1310 nm (RX), 20 km (12.4 miles)*
SAPTF3329-107	RJ-11C connector 5 km (3.1 miles)*	SC, 1310 nm (TX) / 1550 nm (RX), 40 km (24.9 miles)*
SAPTF3329-108	RJ-11C connector 5 km (3.1 miles)*	SC, 1550 nm (TX) / 1310 nm (RX), 40 km (24.9 miles)*

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

The single mode, single fiber models are designed to be installed in pairs.

If this model is installed as Unit A:	Install this model as Unit B:
SAPTF3329-105	SAPTF3329-116
SAPTF3329-106	SAPTF3329-115
SAPTF3329-107	SAPTF3329-118
SAPTF3329-108	SAPTF3329-117

Unit B: SAPTF33xx-11x

Unit B (*SAPTF33xx-11x*) modules, the reciprocal unit-to-unit A modules connect to telephone terminal equipment and mimic a CO (*telephone line wall jack or PBX (FXS foreign exchange subscriber)*). The available models are:

Product Number	Port One – Copper Twisted-Pair	Port Two – Duplex Fiber-Optic
SAPTF3311-115	RJ-11C connector 5 km (3.1 miles)*	ST connector, 1310 nm multimode, 2 km (1.2 miles)*
SAPTF3312-115	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm single mode, 20 km (12.4 miles)*
SAPTF3313-115	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm multimode, 2 km (1.2 miles)*
SAPTF3314-115	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm single mode, 20 km (12.4 miles)*
SAPTF3315-115	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm single mode, 40 km (24.9 miles)*
SAPTF3316-115	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1310 nm single mode, 60 km (37.8 miles)*
SAPTF3317-115	RJ-11C connector 5 km (3.1 miles)*	SC connector, 1550 nm single mode, 80 km (49.7 miles)*

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

Unit B: SAPTF33xx-11x — continued

Unit B modules are also available in single mode, single fiber models.

Product Number	Port One - Copper Twisted-Pair	Port Two - Fiber-Optic Single Mode, Single Fiber
SAPTF3329-115	RJ-11C connector 5 km (3.1 miles)*	SC, 1310 nm (TX) / 1550 nm (RX), 20 km (12.4 miles)*
SAPTF3329-116	RJ-11C connector 5 km (3.1 miles)*	SC, 1550 nm (TX) / 1310 nm (RX), 20 km (12.4 miles)*
SAPTF3329-117	RJ-11C connector 5 km (3.1 miles)*	SC, 1310 nm (TX) / 1550 nm (RX), 40 km (24.9 miles)*
SAPTF3329-118	RJ-11C connector 5 km (3.1 miles)*	SC, 1550 nm (TX) / 1310 nm (RX), 40 km (24.9 miles)*

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

If this model is installed as Unit B: Install this model as the other Unit B:	
SAPTF3329-115	SAPTF3329-116
SAPTF3329-116	SAPTF3329-115
SAPTF3329-117	SAPTF3329-118
SAPTF3329-118	SAPTF3329-117

POTS Module Configuration

Standard configuration

One Unit A (*SAPTF33xx-105*) module and one Unit B (*SAPTF33xx-115*) module are required for the standard configuration. The Unit A module is connected to the Central Office (CO) or PBX while the Unit B module is connected to a telephone terminal equipment. See Figure 1.

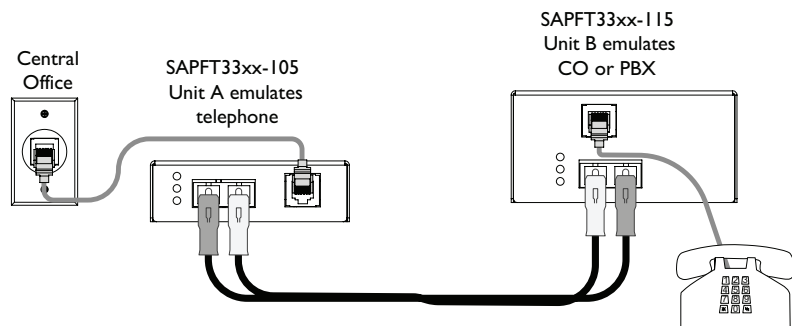


Figure 1: Standard Configuration

Automatic ring-down configuration

Automatic Ring Down (ARD) is a dedicated, point-to-point voice system. When one telephone is taken off-hook, the other telephone rings without the need to dial. Two Unit B (*SAPTF33xx-115*) modules connected via the fiber ports (*a telephone Device at each end*) is the requirement for this configuration. See Figure 2.

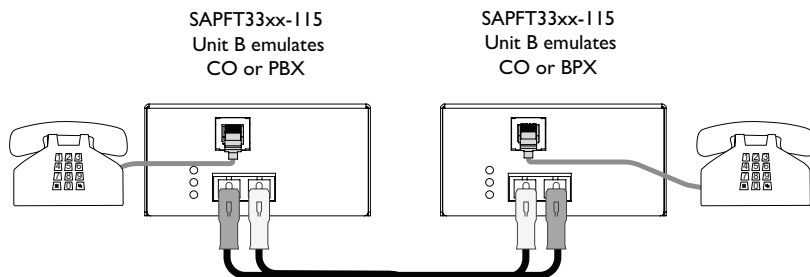


Figure 2: Automatic Ring-Down Configuration

Installation

CAUTION: Wear a grounding device and observe electrostatic discharge precautions when setting the jumpers. Failure to observe this caution could result in damage to or failure of the module.

Set the jumpers

Note: The jumper (*on pins 1 and 2*) of header JP1 on the -115 only is set at the factory, and must be in place for proper operation.

Using small needle-nosed pliers or similar tool to move the jumper to the desired position.

Standard/automatic ring-down

Header JP2 is used to switch between the Standard or Automatic Ring-Down configuration. The header is located on the top circuit board of Unit B (*SAPTF33xx-115*) module. The jumper has been factory set to the standard setting, JP2, pins 1 and 2 as the default.

Figure 3 shows the jumper settings on the 115 circuit board.

- Set jumper JP2 on Unit B module to the Standard setting when using the Standard configuration (*Unit A module connected to a central office line and Unit B directly to a phone*).
- Set jumper JP2 on both Unit B modules to the Automatic Ring-Down setting when using the Automatic Ring-Down configuration (*fiber connection*).



Figure 3: Jumper Setting for Automatic Ring-Down Configuration

Telephone regulation

The loop current header JP2 is labeled “H” for high loop current ETSI TBR21 standard compliant telephone lines, and “L” for low loop current (*20 – 30 mA*) standard compliant telephone lines. Header JP2 is located on the circuit board of Unit A (*SAPTF33xx-105*) module. This feature is required to comply with ETSI telephone-line regulations. The jumper has been factory set to the low loop current setting, JP2, pins 2 and 3 as the default.

Figure 4 shows the jumper settings on the 105 circuit board.

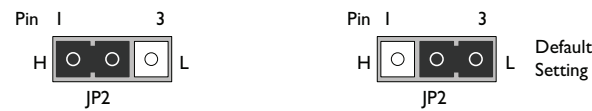


Figure 4: Jumper Setting for Loop Current

Installation — Continued

Grounding the module

The SAPTF33XX-1XX modules come equipped with grounding lugs—**GROUNDING IS REQUIRED**. See Figure 5.

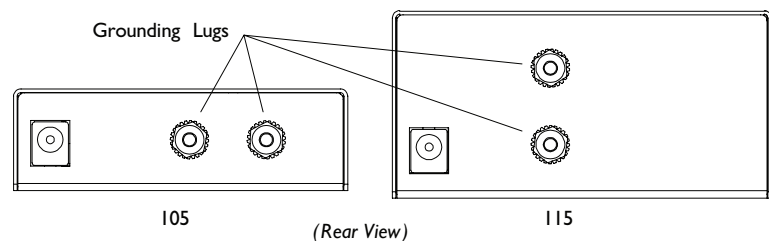


Figure 5: 105 and 115 Grounding Lugs

The installer must consult local and/or national electrical codes and regulations or facility grounding requirements to determine required grounding of the module. They require a grounding conductor wire terminated with a two-hole, compression-type grounding connector. The 2-hole grounding connector and grounding wire (*copper only*) is not included and must be provided by the customer/installer. See Figure 6.

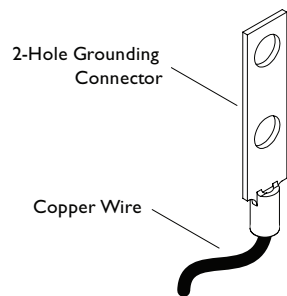


Figure 6: Grounding Connector and Copper Wire

Grounding wire size

The wire size of the Protective Earthing (*ground*) conductor should be greater than or equal to the wire size of the power source conductors. The power-source conductor wire size is installation dependent and sized to accommodate acceptable IR losses between the power source and the device terminal block. The device terminal block accommodates #6 wire lugs. A #6 wire lug typically terminates #16 - #20 wire, with #18 being the most common.

Installation — Continued

Grounding the module — continued

The electrical conducting path from the module must:

- Flow via the grounding lugs to the common bonding network (CBN) as required.
- Be of sufficiently low impedance to conduct fault currents likely to be imposed on the module.
- Enable proper operation of any over-current protection devices.

The conductor must be fastened to the grounding lugs with the enclosed anti-rotation star washers and lug-nut fasteners. The applied torque required for proper connection with the lug-nut fasteners is specified by the connector's manufacturer.

To properly ground the SAPTF33xx-1xx module:

1. Obtain one (1) grounding conductor (#12 AWG copper wire or larger is suggested; however, the installer must consult local and/or national electrical codes and regulations or facility grounding requirements to determine required conductor size.) and a 2-hole compression-type grounding connector.
2. Remove the two Kepnuts.
3. Attach the grounding conductor to the module by placing the two-hole connector onto the grounding lugs and fasten with the attached Kepnuts at the proper torque (*per the manufacturer's specification*).
4. Attach the opposite end of the grounding conductor to the common bonding network (CBN) as required.

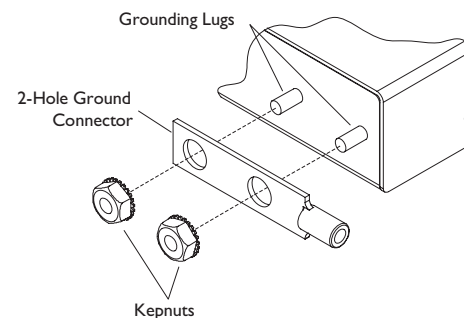


Figure 7: Model 105 Grounding Feature

Installation — Continued

Installing cables: standard configuration

Note: Unit B must be set for Standard Configuration.

Install fiber cable

1. Locate a fiber cable with male, two-stranded TX to RX connectors installed at both ends.
2. Connect the fiber cables to Unit A (*SAPTF33xx-105*) module 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 Unit B (*SAPTF33xx-115*) module as described:
 - Connect the male TX cable connector to the female RX port.
 - Connect the male RX cable connector to the female TX port.

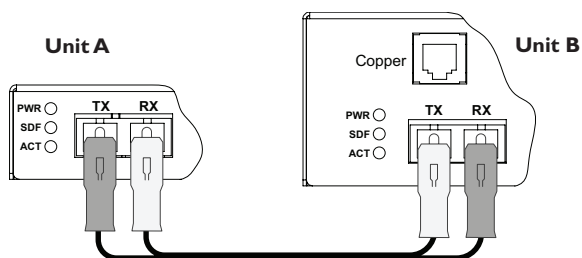


Figure 8: Connecting Fiber Cable from Unit A to Unit B

Installation — Continued

Installing cables: standard configuration — continued

Install copper cable

1. Locate a copper cable with male, RJ-11C connectors installed at both ends.
2. Connect the copper cable to Unit A (*SAPTF33xx-105*) module as described:
 - Connect the RJ-11C connector at one end of the cable to the RJ-11C port on the Unit A module.
 - Connect the RJ-11C connector at the other end of the cable to the RJ-11C telephone line wall jack or FXS.

Unit A

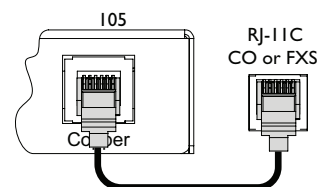


Figure 9: Connect Copper Cable from 105 Module to Wall Jack or FXS

3. Connect the copper cables to Unit B (*SAPTF33xx-115*) module as described:
 - Connect the RJ-11C connector at one end of the cable to the RJ-11C port on the Unit B module.
 - Connect the RJ-11C connector at the other end of the cable to the RJ-11C port on the telephone terminal equipment or FXO.

Unit B

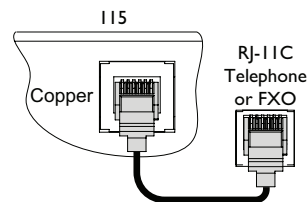


Figure 10: Connect Copper Cable from 115 Module to Telephone or FXO

Installation — Continued

Installing cables: automatic ring-down configuration

Note: Both Unit B modules **MUST** be configured for Automatic Ring-Down.

Install fiber cable

1. Locate or build fiber cable with male, two-stranded TX to RX connectors installed at both ends.
2. Connect the fiber cables to the first Unit B (*SAPTF33xx-115*) module 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 second Unit B (*SAPTF33xx-115*) module as described:
 - Connect the male TX cable connector to the female RX port.
 - Connect the male RX cable connector to the female TX port.

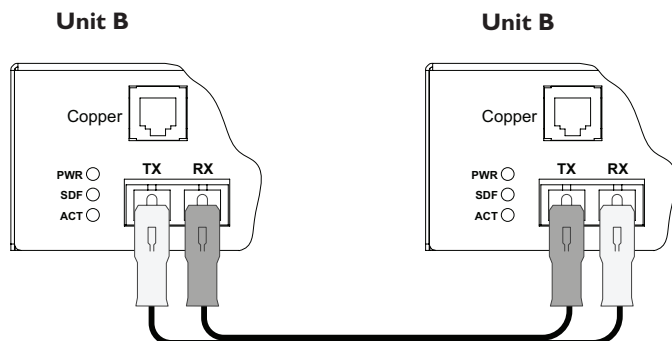


Figure 11: Connect Fiber Cable for Automatic Ring-Down Configuration

Installation — Continued

Installing cables: automatic ring-down configuration — continued

Install copper cable

1. Locate or build copper cables with male, RJ-11C connectors installed at both ends.
2. Connect the copper cables to both Unit B (*SAPTF33xx-115*) modules as described:
 - Connect the RJ-11C cable connector to the RJ-11C port on Unit B module.
 - Connect the other end of the cable to the RJ-11C port on the telephone terminal equipment (FXO).
3. Connect the copper cables to the second Unit B (*SAPTF33xx-115*) module as described in step 2.

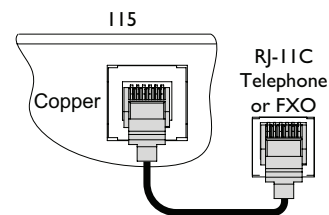


Figure 12: Connect Copper Cable from Module to Telephone or FLO

Operation

Power the module

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

AC

1. Install the barrel connector of the AC power cord to the external power connector on back of the SAPTF33xx-1xx module. See Figure 11.
2. Connect the AC power cord to the correct voltage AC rack or wall outlet.
3. Verify that the module is powered by observing the illuminated LED power indicator light.

DC

Consult the user's guide for the Transition Networks SPS2460-xx DC external power supply for powering the module.

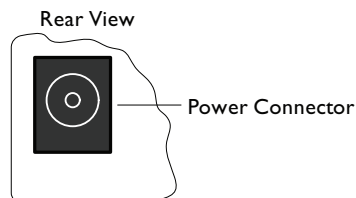


Figure 13: Power Connector

Operation — Continued

Status LEDs

Use the status LEDs to monitor the SAPTF33xx-1xx module operation in the network. See Figure 12.

PWR (power)

On = The module is connected to external power.

SDF (signal detect fiber link)

On = The fiber link is active.

ACT (activity)

On = The telephone device is in use (*off-hook*).

Flashing = The telephone device is ringing or pulse-dialing.

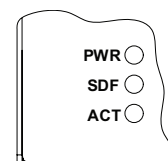


Figure 14: LEDs

Operation — Continued

Loop-start operation

Loop-start service (*commonly known as “Plain Old Telephone Service” (POTS)*) is the primary analog signaling method used between telephone switches such as the Central Office (CO) and a telephone device. Loop-Start provides a way to indicate on-hook and off-hook conditions, which facilitates outgoing and incoming calls in a voice network.

When a customer wants to make an outgoing call, the customer takes a telephone device off-hook. This action completes the loop, which signals the CO that a customer desires to use the telephone line. To signal the customer of an incoming call, the CO applies a ring voltage to alert the customer.

The three states of the Loop-Start signaling protocol are described below:

Idle state (*on-hook*)

1. The CO applies a battery voltage to the ring lead and monitors the tip-ring current for closure of the tip-ring.
2. The telephone device draws less than 10 μ A of from the line.

Telephone in-use (*off-hook*)

1. The customer takes the telephone device off-hook, drawing a minimum of 20 mA of current.
2. The CO senses the tip-ring current and issues a dial tone on the line.
3. Communication can now begin.

Central office (CO) rings the telephone

1. The CO places an AC pulse-ringer voltage on top of the -48VDC ring lead signal.
2. The telephone device uses the AC pulse-ringer voltage to operate the ringer, which alerts the customer of an incoming telephone call.
3. The customer takes the phone off-hook, which closes the tip-ring connection and allows the tip-ring current to flow.
4. The CO senses in DC current level and connects the call to the telephone line.
5. Communication can now begin.

Cable Specifications

Copper cable—category 1

ISO/IEC 11801; TIA/EIA 568-B Standards

Cable types: Shielded (STP) or unshielded (UTP) twisted-pair is acceptable.

Maximum Cable Length: 5 km (3.1 mi)

Fiber cable

Bit error rate:	$\leq 10^{-9}$	
Single mode fiber (<i>recommended</i>):	9 μ m	
Multimode fiber (<i>recommended</i>):	62.5/125 μ m	
Multimode fiber (<i>optional</i>):	100/140, 85/140, 50/125 μ m	
SAPTF3311-105, SAPTF3311-115	1300 nm multimode	
Fiber Optic Transmitter Power:	min: -19.0 dBm	max: -12.0 dBm
Fiber Optic Receiver Sensitivity:	min: -31.0 dBm	max: -8.0 dBm
Link Budget:	12.0 dB	
SAPTF3312-105, SAPTF3312-115	1310 nm single mode	
Fiber Optic Transmitter Power:	min: -15.0 dBm	max: -8.0 dBm
Fiber Optic Receiver Sensitivity:	min: -32.0 dBm	max: -5.0 dBm
Link Budget:	17.0 dB	
SAPTF3313-105, SAPTF3313-115	1300 nm multimode	
Fiber Optic Transmitter Power:	min: -19.0 dBm	max: -12.0 dBm
Fiber Optic Receiver Sensitivity:	min: -31.0 dBm	max: -8.0 dBm
Link Budget:	12.0 dB	
SAPTF3314-105, SAPTF3314-115	1310 nm single mode	
Fiber Optic Transmitter Power:	min: -18.0 dBm	max: -7.0 dBm
Fiber Optic Receiver Sensitivity:	min: -32.0 dBm	max: -3.0 dBm
Link Budget:	14.0 dB	
SAPTF3315-105, SAPTF3315-115	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:	13.0 dB	
SAPTF3316-105, SAPTF3316-115	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: -7.0 dBm
Link Budget:	33.0 dB	
SAPTF3317-105, SAPTF3317-115	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: -3.0 dBm
Link Budget:	29.0 dB	

Fiber cable — continued

SAPTF3329-105, SAPTF3329-115 SAPTF3329-106, SAPTF3329-116	1310 nm single mode
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

SAPTF3329-107, SAPTF3329-117 SAPTF3329-108, SAPTF3329-118	1310 nm single mode
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 module meets Class I Laser safety requirements per IEC-825/CDRH standards and complies with 21 CFR1040.10 and 21CFR1040.11.

FXS/FXO Specification**Unit A (telephone emulation)**

Connector:	RJ-11C
Impedance:	600 Ω
ACTA-IC:	ACTA - 0.3B, I.C.- 0.2B
Loop Current:	20 to 60 mA
Insertion Loss:	0.0 \pm 1.0 dB at 1000 Hz (When both ports are terminated at 600 Ω)
Facility Interface Code:	02LS2
Service Code:	9.0Y
Network Interface Code:	LS
Equipment Category #:	25

Unit B (central office emulation)

Connector:	RJ-11C
Impedance:	600 Ω
Battery Source:	48 VDC +/- 5V
Ring Supply:	90 Vp-p
Ring Frequency:	25 Hz
Ring Cadence:	Reproduces the cadence detected by Unit A.
Max REN:	Up to 3B
Insertion Loss:	0.0 \pm 1.0 dB at 1000 Hz (When both ports are terminated at 600 Ω)

Technical Specification

These specifications are for the model SAPTF33xx-1xx module or equivalent.

Dimensions	-105: 3.25" x 4.7" x 1.0" (82 mm x 119 mm x 25 mm) -115: 3.70" x 4.7" x 1.8" (942 mm x 119 mm x 45 mm)
Shipping Weight	1 lb. (0.45 kg) approximately
Power Consumption	-115: 7.0 watts; -105: 4.0 watts
Power Source	12VDC@ 1.0 amp minimum (See note)
Power Supply	12VDC, 2 Amp, 100–240 VAC. The external AC power supply provided with this product is UL listed by the power supply's manufacturer.
MTBF	41,660 hours (MIL217F) 114,580 hours (Bellcore)
Environment	Tmra*: 0° to 50°C (32° to 122° F) Storage Temp: -25° to 85°C (-13° to 185° F) Humidity: 5 to 95%, non-condensing
Warranty	Lifetime

The information in this user's guide is subject to change. For the most up-to-date information on the SAPTF33xx-1xx module, see the user's guide on-line at: www.transition.com and then click on Product/Product Finder.

CAUTION: Visible and Invisible Laser Radiation when open. Do Not stare into 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.

Note: Typically, power adapters are rated to operate at 0° to 40°C (32° to 104°F) and below 2000 meters. Power adapters must be derated outside these conditions.

Troubleshooting

1. Is the PWR (*power*) LED illuminated?

NO

- Is the power adapter the proper type for the module: voltage and frequency?
- Is the power adapter properly installed in the module and in the AC wall outlet correctly?
- Is the external power source active?
- Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

YES

- Proceed to step 2.

2. Is the SDF (*signal detect fiber Link*) LED illuminated?

NO

- Check the fiber cables for proper connection.
- Verify that the TX and RX cables on the first module are connected to the RX and TX ports, respectively, on the second module.
- Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

YES

- Proceed to step 3.

3. Is the ACT (*active*) LED illuminated?

NO

- Ensure that the local unit is off-hook.
- Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

YES

- Contact Technical Support: US/Canada: 1-800-260-1312, International: 00-1-952-941-7600.

Consumer Information

ACTA compliance

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the Administrative Council for Terminal Attachments (ACTA). On the side of the face plate is a label that contains, among other information, a product identifier in the following format: "US: alphanumeric characters." If requested, this number must be provided to the telephone company.

Plug and jack

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

Ringer equivalence number (REN)

The Ringer Equivalence Number (REN) (*listed on the label on the side of the face plate*) is used to determine the number of devices that may be connected to a telephone line. Excessive ringer loading on a telephone line may result in the devices not ringing properly in response to an incoming call. In most, but not in all areas, the sum of the RENs should not exceed five. To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

Harm to the telephone network

If the CAPTF33xx-1xx causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

Changes to the telephone company's network

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the SAPTF33xx-1xx. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

Problems with the equipment

If trouble is experienced with the SAPTF33xx-1xx, for repair or warranty information, please contact Transition Networks at 800-260-1312 or at www.transition.com then click Tech Support/Warranty. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Repairs to the equipment

Aside from the jumper settings, the SAPTF33xx-1xx is not intended to be serviced by the user. If the equipment requires repair, contact Transition Networks at 800-260-1312 or at www.transition.com then click Tech Support/Warranty.

Party lines

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission, or corporation commission for information.

Alarm dialing equipment

If your facility has specially wired alarm equipment connected to the telephone line, ensure the installation of the CAPTF33xx-1xx does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

Customer Information — Continued

Industry Canada requirement

The Ringer Equivalence Number (REN) is an indication of the maximum number of devices allowed to be connected to a telephone interface. The termination on an interface can consist of any combination of devices subject only to the requirement that the sum of the RENs of all devices does not exceed five. This product meets the applicable Industry Canada technical specifications.

L'indice d'équivalence de la sonnerie (IES) sert à indiquer le nombre maximal de terminaux qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5. Le présent matériel est conforme aux spécifications techniques applicables d'Industrie Canada.

Contact Us

Technical support

Technical support is available 24 hours a day.

US 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 then click Tech Support/Transition Now link.

Web-based seminars

Transition Networks provides seminars via live web-based training.

Log onto www.transition.com and then 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

Industry Canada Representative

Richardson Technical Services, Inc.

Suite 304, 131 Wurtemberg Street

Ottawa, Ontario, Canada

telephone: 613 562-3827

fax: 613 562-9377



Declaration of Conformity

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

Model Numbers: SAPTF3311-105, SAPTF3312-105, SAPTF3313-105, SAPTF3314-105, SAPTF3315-105, SAPTF3316-105, SAPTF3317-105, SAPTF3329-105, SAPTF3329-106, SAPTF3329-107, SAPTF3329-108, SAPTF3311-115, SAPTF3312-115, SAPTF3313-115, SAPTF3314-115, SAPTF3315-115, SAPTF3316-115, SAPTF3317-115, SAPTF3329-115, SAPTF3329-116, SAPTF3329-117, SAPTF3329-118

Purpose: To declare that the SAPTF33xx-Ixx POTS to Fiber-Optic Modules to which this declaration refers are in compliance with the following directive(s) and standard(s):

EMC Directive 2004/108/EC; EN 55022:2006+A1:2007 Class A; EN55024:1998+A1:2001+A2:2003; EN6100-2-3; EN6100-3-3; CFR Title 47 Part 15 Subpart B Class A. Low Voltage Directive: 2006/95/EC; EN 60950-1:2006; CFR Title 21 Section 1040.10 Class I.

CFR Title 47 Part 68, ACTA, TIA-968-A-5; ETSI ES 203 021-3, V2.1.2 (2006-01), TBR21; IC CS-03 Issue 9 Part 1; R&TTE Directive 1999/5/EC Class I.2

I, the undersigned, hereby declare that the model numbers listed in this declaration of conformity conform to the Directive(s) and Standard(s) herein.


Stephen Anderson, Vice-President of Engineering

March 2010
Date

Compliance Information

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.

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 Fall ist der Benutzer für Gegenmaßnahmen verantwortlich.

Attention !

Ceci est un produit de Classe A. Dans un environnement domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilisateur de prendre les mesures 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.

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