REMOTE FIRMWARE UPGRADE

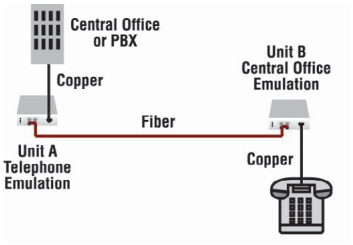
POTS 2-wire Copper to Fiber

Point System™ Slide-In-Module Media Converters

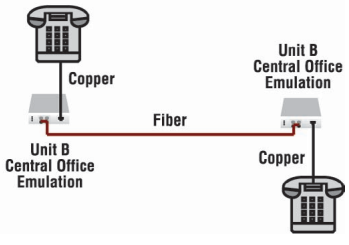
CAPTF33xx-1xx

Convert Copper to Fiber

Loop Extender / Isolator



Automatic Ring Down



Connect central-office voice grade signals to distant Plain Old Telephone equipment (POTS) utilizing standard telephone signaling. Two units are required to implement an end to end system. Unit A connects to a telephone line or PBX and has the ability to detect ringing voltages and to act as a telephone (LINE SIDE FXS). Unit B is the reciprocal unit and has the ability to act as a Central Office and connects to a telephone device (CUSTOMER SIDE FXO).

Features

- Audio transmission
- Caller ID
- Automatic Ring Down
- Dual or single fiber options
- SNMP Management
- Ringing at the distant end
- Electrical interface is provided through an RJ-11 female connector
- Remote Firmware Upgrade *see next page*

Ordering Info

Line Side FXS (Connects to PBX)

Product Number	Port One	Port Two
CAPTF3311-100	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1300nm multimode (ST) [2 km/1.2 miles]
CAPTF3313-100	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1300nm multimode (SC) [2 km/1.2 miles]
CAPTF3314-100	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1310nm single mode (SC) [20 km/12.4 miles]
CAPTF3315-100	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1310nm single mode (SC) [40 km/24.9 miles]
Single Fiber Products *Note: Recommended use in pairs (see next page)*		
CAPTF3329-100	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1310nm TX / 1550nm RX single fiber single mode (SC) [20 km / 12.4 miles]
CAPTF3329-101	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1550nm TX / 1310nm RX single fiber single mode (SC) [20 km / 12.4 miles]
CAPTF3329-102	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1310nm TX / 1550nm RX single fiber single mode (SC) [40 km / 24.9 miles]
CAPTF3329-103	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1550nm TX / 1310nm RX single fiber single mode (SC) [40 km / 24.9 miles]

Customer Side FXO (Connects to Remote Phone Device)

Product Number	Port One	Port Two
CAPTF3311-110	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1300nm multimode (ST) [2 km/1.2 miles]
CAPTF3313-110	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1300nm multimode (SC) [2 km/1.2 miles]
CAPTF3314-110	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1310nm single mode (SC) [20 km/12.4 miles]
CAPTF3315-110	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1310nm single mode (SC) [40 km/24.9 miles]
Single Fiber Products *Note: Recommended use in pairs (see next page)*		
CAPTF3329-110	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1310nm TX / 1550nm RX single fiber single mode (SC) [20 km / 12.4 miles]
CAPTF3329-111	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1550nm TX / 1310nm RX single fiber single mode (SC) [20 km / 12.4 miles]
CAPTF3329-112	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1310nm TX / 1550nm RX single fiber single mode (SC) [40 km / 24.9 miles]
CAPTF3329-113	Twisted Pair (RJ-11) [5 km / 3.1 miles]	1550nm TX / 1310nm RX single fiber single mode (SC) [40 km / 24.9 miles]

Note: CAPTF cards cannot be used with the 1-Slot Point System Chassis™

Specifications

Standards	FCC Part 68, TBR21
Analog Port (Telephone Emulation or FXS)	Connector: RJ-11 Impedance: 600 ohms REN: 0.48 Loop Current: 20 to 100 ma. Insertion Loss: 0.0 +/-1.0 dB at 1000 Hz when both ports are terminated at 600 ohms
Analog Port (Central Office Emulation or FXO)	Impedance: 600 ohms Battery Source: 48 VDC +/- 5V Ringing Supply: 90Vp-p Ring Frequency: 15 – 30 Hz. (Reproduces frequency detected by side A) Ring Cadence: Reproduces cadence detected by side A Insertion Loss: 1.0 +/- 1.0 dB @ 1000 Hz when both ports are terminated at 600 ohms
Voice Frequency	300Hz – 3KHz
Fiber Optic Connector Specs	
CAPTF3311-1x0 & CAPTF3313-1x0	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
CAPTF3314-1x0	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
CAPTF3315-1x0	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
Single Fiber Products	
CAPTF3329-1x0 & CAPTF3329-1x1	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
CAPTF3329-1x2 & CAPTF3329-1x3	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 / Option Jumpers	Automatic Ring Down / Normal
Status LEDs	LED colors are Green Fiber Link: On indicates fiber link up; In Use: On indicates unit in use; Flashing indicates ringing; Power: On indicates power is on
Dimensions	Width: 2.9" [74 mm] Depth: 4.8" [122 mm] Height: 1.4" [36 mm]
Power Consumption	7 watts
Environment	See chassis specifications
Shipping Weight	1 lb. [0.45 kg]
Emissions Compliance	FCC Class A; VCCI Class A; EN 55022 (CISPR 22) Class A; ICES 003
Safety Compliance	CISPR A; CE Mark
Warranty	Lifetime

TRANSITION networks®

The Conversion Technology Experts

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REMOTE FIRMWARE UPGRADE

ADVANCED PRODUCT FEATURES

Remote Firmware Upgrade

New product features are continuously being added to Transition Networks's products. These improvements are also available for many products already installed in the field. Management modules and many media converters can be updated remotely via firmware upgrade. The remote upgrade feature eliminates the need to ship the products back to the manufacturer. The firmware upgrades can be performed by a user either locally via a Console port or remotely via TFTP.

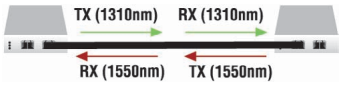
The upgrades do not require the reconfiguration of the SNMP management or converter feature settings.

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.

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.

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