

Fiber Telephone/Analog Extender

- Extend Telephone or 2/4-wire Analog FSK 600Ω Link with Fiber
- PBX and Key System Compatible
- Voice Bandwidth from 300Hz to 3.4Khz for Toll Quality Sound
- Built-In Dry Contact Relay for External Alarm and Ringer Connection
- 12VDC Power Supply, Optional 24VDC, -48VDC, 125VDC, or 115/230VAC with Power Adapter
- Built-In Power Redundancy
- Rack mount or Standalone
- Hi Temp or Extreme Temp Options
- Tested & Compatible with:



TC1901S Standalone/Wallmount Unit
(Telephone set sold separately)



2 X TC1901
(Housed in TCRM195 19" Rack mount Card Cage)

The TC1901 "Quick-Talk" Telephone/Analog Fiber Extender can turn a fiber optic network into a voice network simply by plugging a telephone set into an RJ-11 connector. It is compatible with most 2-wire analog PBXs or Key Systems.

Quick-Talk is typically used to extend phone service or 2/4-wire analog FSK 600Ω links to remote sites over a fiber optic circuit. For example, a user can extend a secured phone link (for telephone, fax or dial-up modem) to a remote site via the fiber optic line up to 80 Km away.

Quick-Talk provides 2-wire FXS (foreign exchange subscriber) on the telephone side with ring down capability and FXO (foreign exchange office) on the PBX side. When both sides are set to FXS, a "hot link" can be established, i.e., when one side lifts up the handset, the other side starts ringing.

Available in standalone or rack mount versions, the TC1901 is compatible with all popular types and sizes of fiber optic cable. Diagnostic aids include 19 diagnostic LEDs for indicating power, ring, FXS, FXO, and audio activity.

The optical interface is multi-mode (850/1300nm) or single mode (1300/1550nm) with ST, FC, or SC connectors. Electrical connectors are RJ-11 Female for the telephone set. A local dry contact relay is also provided for external alarm and ringer connection.

Power is 12VDC, optional 24VDC, -48VDC, 125VDC or 115/230VAC with an external power cube. Power redundancy is standard.

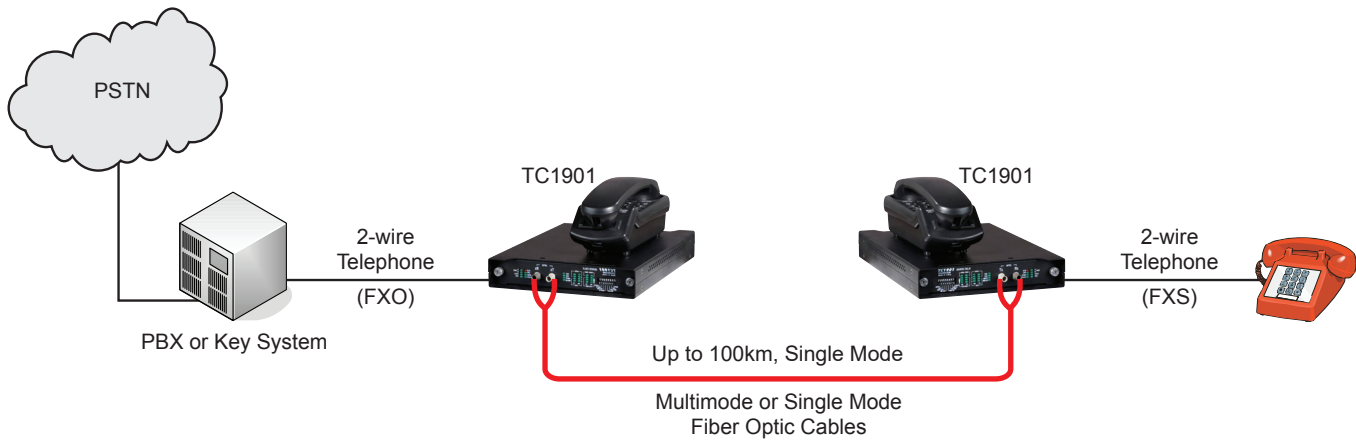


Applications

The TC1901 is often used to extend telephone/analog service in campus networks, power plants, substations, etc., or use an existing service data channel to set up a telephone/analog link. It is also used to set up "hot" telephone and 4-wire analog FSK service via fiber optic networks. Other applications include taking advantage of the inherent benefits of fiber optics to reduce noise/EMI or maximize security/isolation.

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Typical Point-to-Point Application Using TC1901s to Extend Telephone via Fiber Optic Cables



Typical Application Using TC1901s to Establish a "Hot Link" via Fiber Optic Cables

Audio Bandwidth

..... 300Hz to 3.4Khz

Signal Level (2/4-Wire 600Ω)

Input Range..... -1.5 to -40dBm

SNR.....32 to 36dB

Optical

Transmitter LED/ELED

Receiver PIN Diode

Wavelength

..... 850nm/1300nm Multimode

..... 1300/1490/1550nm Single Mode

Fiber Optic Connectors

..... ST, Optional FC**

Loss Budget*

- 850/1300/1490/1550nm

Multimode @62.5/125μm..... 15dB

Single Mode @9/125μm 30dB

Electrical

Phone Connector..... RJ11 Female

Ring Voltage55Vrms at 25Hz

(Depending on the ringing load)

FXO Impedance 600Ω

FXS Impedance 600Ω

Visual Indicators

Tx and Rx volume, Local off-hook,

Remote off-hook, FXO, FXS, Ring,

Optic Rx, Electric Rx, VccA, VccB,

PWR A, PWR B

Alarm/Ring

Dry Contact.....Normal OPEN

Power

Standard 12VDC @500mA

Optional 24VDC, -48VDC, 125VDC or

..... 115/230VAC with power cube

Temperature

Operating-10°C to 50°C

Hi-Temp (optional)-20°C to 70°C

Extreme (optional)-40°C to 80°C

Storage.....-40°C to 90°C

Humidity 95% non-condensing

Physical (Standalone Unit)

Height (3.53 cm) 1.39"

Width (18.14 cm) 7.2"

Depth (24.89 cm) 9.8"

Weight (907 gm) 2.0 lbs

*Contact factory for higher requirements

**FC is not available @850nm Multimode



SAI GLOBAL

ISO 9001

Quality

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Note: Information contained in this data sheet is subject to change without prior notice.