

## Fiber Telephone/Analog Extender

- Extend Telephone or 2/4-Wire Analog 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
- Rackmount or Standalone
- Hi Temp or Extreme Temp Options
- Tested & Compatible with:



TC1903S Standalone/Wallmount Unit  
(optional one fiber bi-directional optic shown)

The TC1903 "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 dial-up phone service to remote sites over a fiber optic circuit. For example, a user can extend a secured phone link to a remote site via the fiber optic 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; when one side lifts up the handset, the other side starts ringing.

Available in standalone or rackmount versions, the TC1903 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 multimode (850/1300nm) or single mode (1300/1550nm) with ST or SC connectors. An optional one fiber bi-directional optic is available. A local dry contact relay is also provided for external alarm and ringer connection.

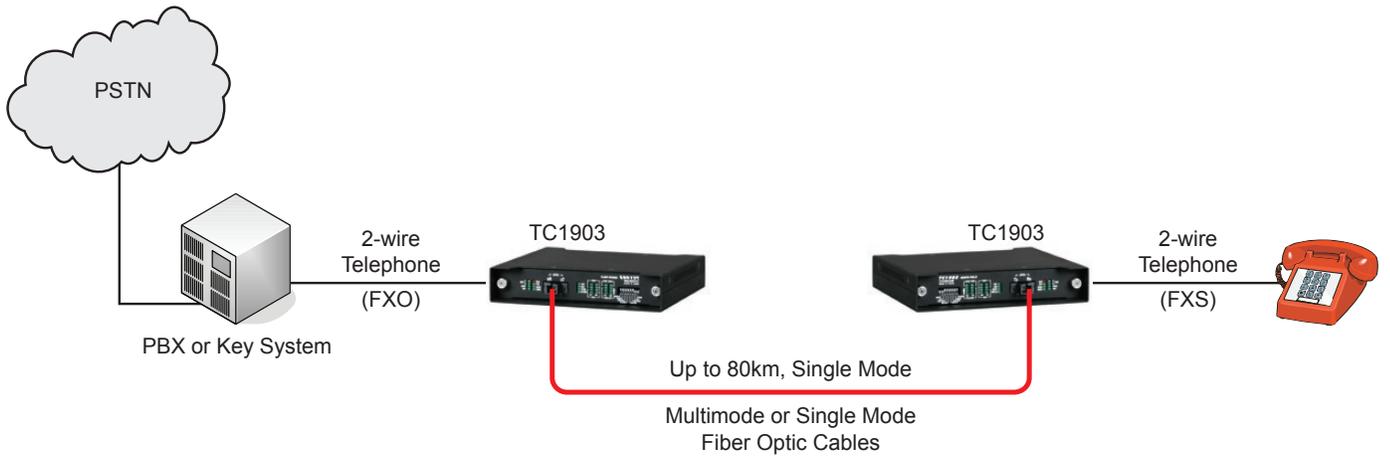
Power is 12VDC, optional 24VDC, -48VDC, 125VDC, or 115/230VAC with an external power cube. Power redundancy is standard. Electrical connectors are RJ-11 Female for the telephone set. A local dry contact relay alarm is also provided.



### Applications

The TC1903 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 link. It is also used to set up "hot" telephone 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 TC1903s to Extend Telephone via Fiber Optic Cables



Typical Application Using TC1903s to Establish a "Hot Link" via Fiber Optic Cables

**Audio Bandwidth**

.....300Hz to 3.4KHz

**Optical**

Transmitter.....LED/ELED

Receiver .....PIN Diode

Wavelength

.....850nm/1300nm Multimode

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

Fiber Optic Connectors

.....ST or SC

Loss Budget\* - 850/1300/1550nm

Multimode @62.5/125µm.....15dB

Single Mode @9/125µm.....20dB

**Electrical**

Phone Connector.....RJ11 Female

Ring Voltage.....55Vrms 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

Storage.....-40°C to 90°C

Humidity.....95% non-condensing

**Physical (Standalone Unit)**

Height.....(3.53 cm) 1.39"

Width.....(18.13 cm) 7.14"

Depth.....(16.59 cm) 6.53"

Weight.....(544 gm) 1.2 lbs

\*Contact factory for higher requirements



ISO 9001  
QMI-SAI Global  
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Note: Information contained in this data sheet is subject to change without prior notice.