"Quick-Talk"™
Fiber Telephone Extender

Model
TC1901

- 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 or 115/230VAC with Power Adapter

- Built-In Power Redundancy

- Rackmount or Standalone

- Hi Temp or Extreme Temp Options

- Tested & Compatible with:

Code Blue   RAMTEL   TALK A PHONE
Creating Communications Solutions®

TC1901S Standalone/Wallmount Unit (Telephone set sold separately)

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

TC COMMUNICATIONS
FIBER OPTIC CONNECTIVITY

The TC1901 "Quick-Talk" Telephone 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 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 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 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 multimode (850/1300nm) or single mode (1300/1550nm) with ST or SC connectors. A local dry contact relay is also provided for external alarm and ringer connection.
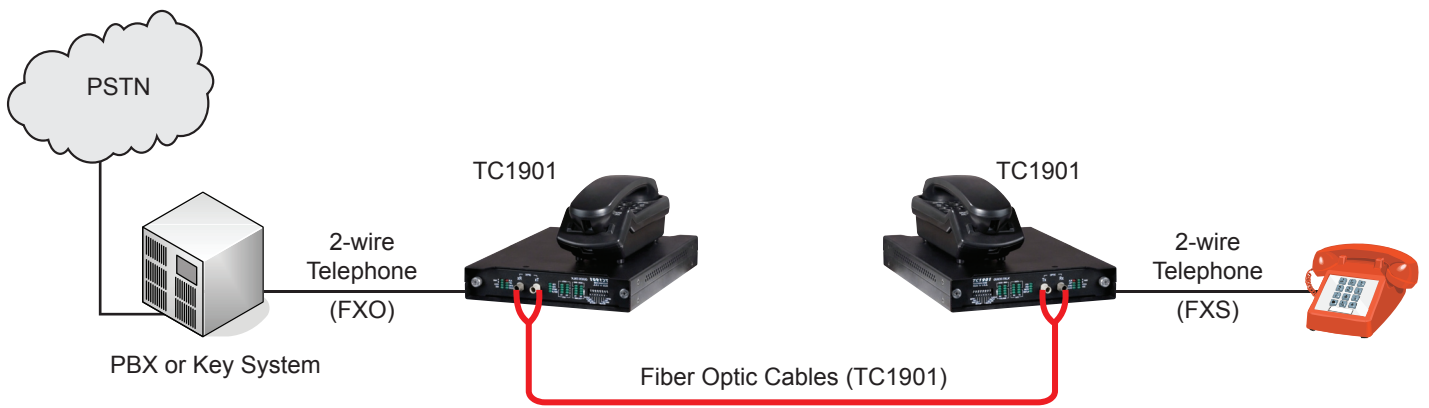
Power is 12VDC, optional 24VDC, -48VDC, 125VDC or 115/230VAC with an external power cube. Power redundancy is standard. Electrical connectors are RJ-11 Female for the telephone set. A local dry contact relay alarm is also provided.
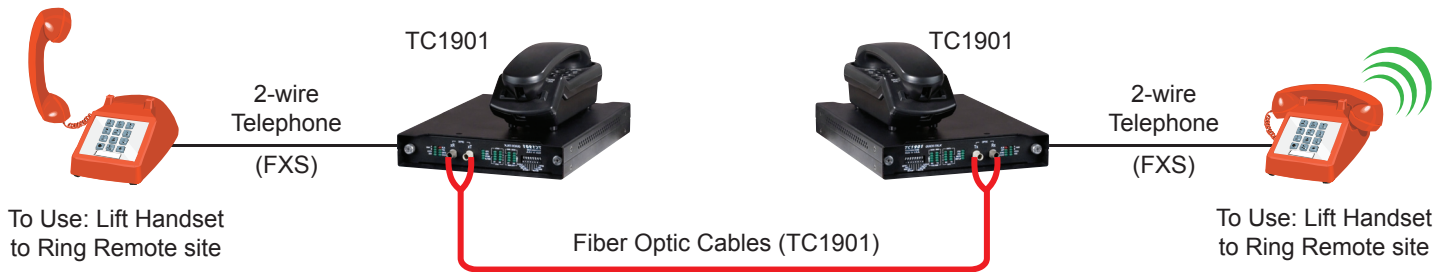
Applications

The TC1901 is often used to extend telephone 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.

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

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

Audio Bandwidth
.............................300 Hz to 3.4 Khz

Signal Level (2/4-Wire 600Ω)
Input Range.................-1.5 to -40dBm
SNR....................................32 to 36dB

Optical (optional)
Transmitter..........................LED/ELED
Receiver ....PIN Diode
Wavelength
................850nm/1300nm Multimode
...........1300nm/1550nm Single Mode
Fiber Optic Connectors
..............................ST, Optional FC**
Loss Budget* - 850/1300/1550nm
Multimode @62.5/125µm 15dB
Single Mode @9/125µm............20dB

Electrical
Phone Connector ....RJ11 Female
Ring Voltage ....70Vrms at 20Hz
(Depending on the ringing load)
FXO Input Impedance ....600 Ω
FXS Output Impedance..............600 Ω

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
Dry Contact.................Normal OPEN

Power
Standard ....12VDC @400mA
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) 1.4"
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

TC COMMUNICATIONS®
FIBER OPTIC CONNECTIVITY

Certified System ™
ISO 9001
QMI-SAI Global
#1045959

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