

Phone and Dry Contact Fiber Extender

- Extend Telephone & Dry Contact Links over Fiber
- PBX and Key System Compatible, FXO/FXS Selectable
- Bi-Directional Dry Contact
- Multi-Mode or Single-Mode (1300/1500nm)
- One Fiber Bi-Directional Option
- Built-In Power Redundancy
- Rackmount or Standalone
- Tested & Compatible with:



TC1905S Standalone/Wallmount Unit

The TC1905 Phone Extender multiplexes one voice channel and one dry contact channel to a remote location over fiber optic cable. The voice channel is compatible with most analog telephones, PBXs or Key Systems. The dry contact channel is bi-directional and either side can be designated as DCD (dry contact detector) or DCC (dry contact closure).

It 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 the handset on one end is lifted up, the other side rings.

TC1905 is typically used to phone service and a dry contact detector to remote sites up to distances of 100 km. For situations with minimal fiber availability or to maximize fiber usage, a one-fiber, bi-directional version is optional.

Available in standalone or rackmount, the TC1905 supports multimode (1300nm) or single mode (1300/1550nm) fiber with SC connector (ST, FC optional). Diagnostic aids include multiple diagnostic LEDs for indicating power, ring, FXS, FXO, Dry contact detector (DCD), Dry contact closure (DCC) etc.

Power is 12VDC (standard). 24VDC, -48VDC, 125VDC and 115/230VAC with an external power cube is optional. Power redundancy is standard. Electrical connectors are RJ-11 Female for both the telephone set & Dry contact. The TC1905R rackmount card version fits into 19" wide TCRM191 and TCRM195 rackmount card cages.

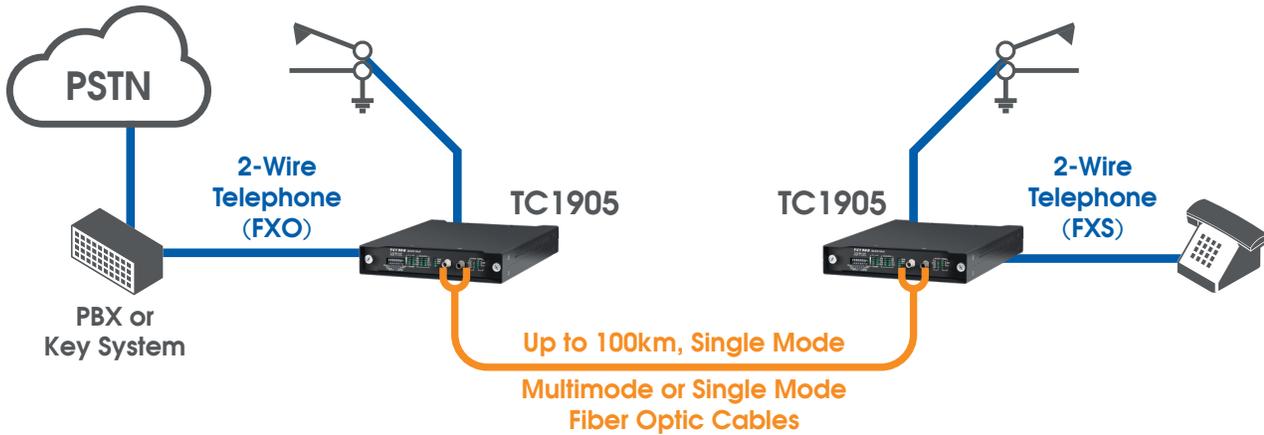


Applications

TC1905 is often used to extend emergency phone service to remote sites in campus networks that also require a dry contact connection. For example, it could be used to provide voice communications for a push-button phone and also pass through a dry contact signal to close a remote relay or activate a camera. Other applications include using the inherent benefits of fiber optics to improve voice quality, eliminates electro-magnetic interference (EMI) or maximize security.

TC Communications, Inc.
17881 Cartwright Rd. Irvine, CA 92614 U.S.A.
Tel: (949) 852-1972, Fax: (949) 852-1948

Web Site: tcomm.com



Typical Point-to-Point Application Using TC1905s to Extend Telephone and Dry Contact via Fiber Optic Cables



Typical Application Using TC1905s to Establish a "Hot Link" via One Fiber

Audio Bandwidth

..... 300Hz to 3.4Khz
 up to 128 Kbps

Optical

Transmitter LED, Laser*
 Receiver..... PIN Diode
 Wavelength 1300nm Multimode
 1300nm/1550nm Single Mode
 Fiber Optic Connectors
 Standard SC,
 Optional..... ST or FC
 Loss Budget* - 1300/1550nm
 Multimode @62.5/125µm..... 15dB
 Single Mode @9/125µm 20dB

Visual Indicators

.....Tx/Rx Volume, Off-hook,
 FXO, FXS, Ring, Optic Rx,
 VccA & VccB, PWR A & B and etc.

Alarm

Dry Contact.....Normal OPEN

Power

Standard 12VDC @500mA
 Optional.....24VDC, -48VDC, 125VDC
 115/230VAC with power cube

Electrical

Phone Connector.....RJ11 Female
 Ring Voltage..... 80Vrms at 20Hz
 (Depending on the ringing load)
 FXO Input Impedance 600 Ω
 FXS Output Impedance 600 Ω
 Dry Contact Interface
 Dry Contact Connector ..RJ11 Female
 Load Voltage (peak AC)..... 60V
 Load Voltage (DC) 60V
 Continuous Load Current 0.55A
 Peak Load Current..... 1.2A
 Max On Resistance 2.5Ω
 Output Capacitance 150pF

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



SAI GLOBAL
 ISO 9001
 Quality

TC Communications, Inc.
 17881 Cartwright Road
 Irvine, CA 92614 U.S.A.
 Factory Tel: (949) 852-1972
 Fax: (949) 852-1948

Sales Office
 U.S.A. Domestic International:
 (949) 852-1973

Web Site: tccomm.com

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