

“Quick-Talk”™ Phone and Dry Contact Fiber Extender

Model TC1905

- 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:



TC1905 with Various Chassis and Card Cages



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.

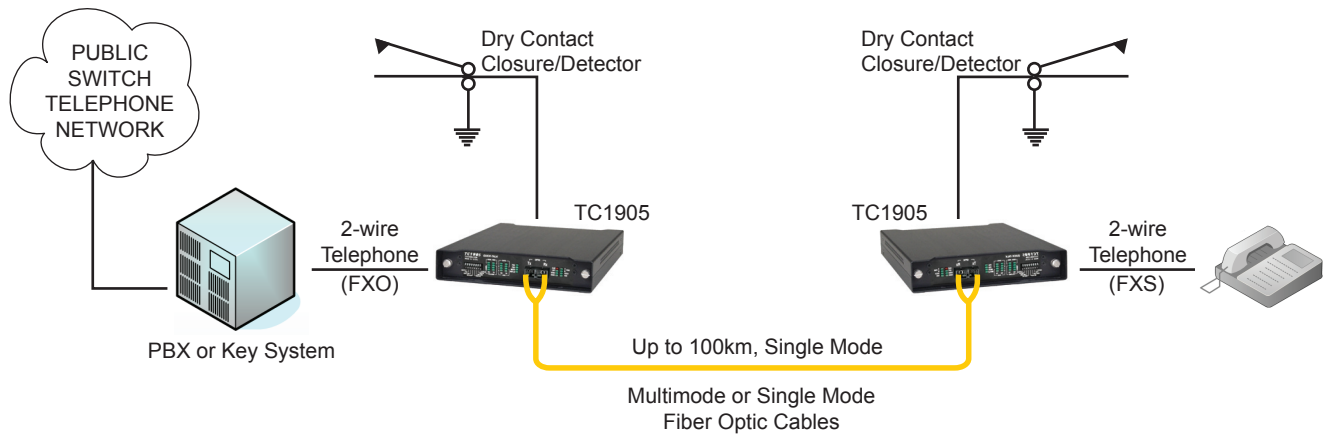
Power is 12VDC (standard). 24VDC, -48VDC, 125VDC and 115/230VAC with an external power cube is optional. Power redundancy is standard. Electrical connectors are RJ-11Female for both the telephone set & Dry contact. The TC1905R rackmount card version fits into 19" wide TCRM191 and TCRM195 rackmount card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



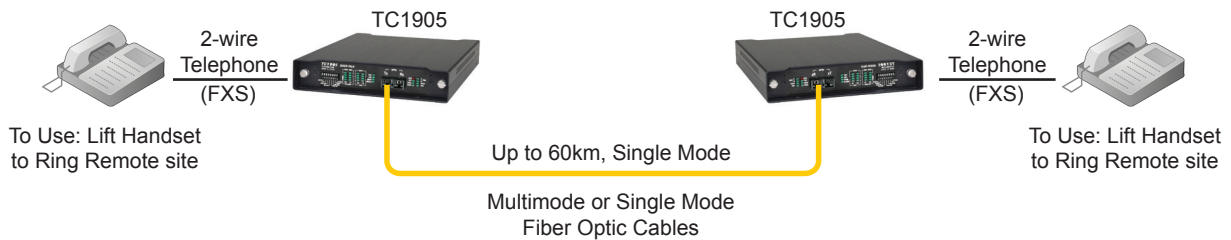
Applications

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 electromagnetic interference (EMI) or maximize security.

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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

Optical

Transmitter.....LED, Laser*

ReceiverPIN Diode

Wavelength

.....1300nm Multimode

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

Fiber Optic Connectors

.....standard: SC, optional: ST or FC

Loss Budget* - 1300/1550nm

Multimode @62.5/125µm15dB

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

Standard12VDC @500mA

Optional...24VDC, -48VDC, 125VDC

or.....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 Connector...RJ11 Female

Dry Contact Interface:

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

High Temp (optn).....-20°C to 70°C

Extreme Temp (optn).....-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



ISO 9001
QMI-SAI Global
#1045959

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Note - Information contained in this data sheet is subject to change without prior notice. 010B