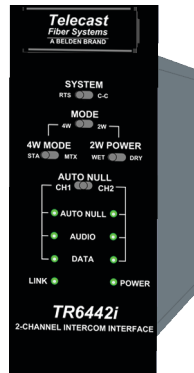


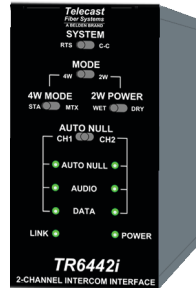
Model TR6442i Fiber Optic Intercom Link



TR6442i
Viper II Rack Mount
or Throwdown



MTR6442i
Viper II Throwdown



MTR6442i-MML
Mini-Mussel Shell Enclosure

Extend two channels of Partyline or Digital Matrix intercom over a single strand of fiber.

Telecast's CommLink™ is a fiber-optic transceiver system that uses one strand of fiber to carry two channels of "production intercom," insuring robust voice and data connectivity over distances far beyond the capacity of copper cables. It is compatible with the industry's most popular intercom systems:

• Partyline:

- Clear-Com®
- RTS® TW

• Digital Matrix

- Clear-Com® MatrixPlus/Eclipse
- RTS® Adam/Cronus/Zeus

• Generic 4-Wire and Data

- Two Channels of bi-di audio
- Two paths of bi-di data
- RS422 or RS485

The system can link one partyline system to another partyline system, a matrix frame to two keypanels, or act as a two-wire to four wire hybrid adaptor via fiber or as a standalone local unit.

TWO-WIRE PARTYLINE MODE

Simply plug two channels of Clear-Com® PL (two XLRs) or RTS® TW (one XLR) into each CommLink module and connect them with a fiber cable. The system will "translate" between two systems so that you can have Clear-Com® at one end and RTS® at the other. It even translates the call lights.

Advanced DSP Auto-Nulling

Once the system is connected, a simple toggle of the AUTO NULL switch provides for a high quality digital system null of the two-wire system, no matter what the load, without the need for manual adjustments.

Patent Pending

Power up to 10 beltpacks:

Each CommLink™ module can be powered from the Partyline intercom circuit without an external power supply, like a beltpack. Alternately, with a 12VDC power source, the CommLink unit can act as a Partyline power supply, providing enough 30VDC current to support approximately ten beltpacks.

FOUR-WIRE MATRIX MODE

The system seamlessly links a MatrixPlus/Eclipse (Clear-Com®) or Adam (RTS®) family matrix frame and two of the system's keypanels over a fiber strand. All of the keypanels' functionality is supported, including displays, controls, and communications to the matrix frame. It is just like they are connected via copper cable

PARTYLINE-to-MATRIX "HYBRID" MODE

Use the CommLink system to connect a matrix frame in the control room or truck with two partyline channels in the venue, without the need for a separate hybrid adaptor.

STANDALONE HYBRID ADAPTOR

A single CommLink™ unit can act as a standalone digital system interface/system-to-system adaptor, utilizing its state-of-the-art digital auto-nulling system. Connect two-wire intercom systems to legacy fiber systems, two-way radios, satellite links, TV cameras, and other communications devices with 4-wire circuits.

MORE RELIABLE, LONGER RANGE

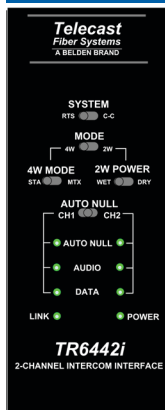
Eliminating the copper cable for the bulk of your intercom connection improves reliability, lowers the cable cost, and increases the distance you can connect your intercom users by several times.

Features

- *Transports two intercom channels via one strand of single mode fiber up to 30 KM*
- *Infrastructure Fiber*
- *Tactical Fiber cable*
- *Compatible with most Partyline and Digital Matrix intercom systems*
- *Two-Wire Partyline:*
 - *Clear-Com®*
 - *RTS® TW*
- *Matrix:*
 - *Clear-Com® MatrixPlus/Eclipse*
 - *RTS® Adam/Cronus/Zeus*
- *Advanced Automatic Digital Nulling*
- *Internal power supply can provide power for up to 10 Clear-Com® or RTS® beltpacks.*
- *Advanced hybrid interfaces two two-wire intercom lines to two four-wire lines*
- *Uses a single common ST connector*
- *Immune to RF interference and ground loops.*
- *Front panel status monitoring*
- *Available in three mechanical configurations:*
 - *Rack-mountable in Viper II Frame*
 - *Viper II Throwdown*
 - *Mini Mussel enclosure for harsh environment*
- *Acts as a stand-alone (non-fiber) dual-channel digital hybrid interface*
- *Made in U.S.A.*

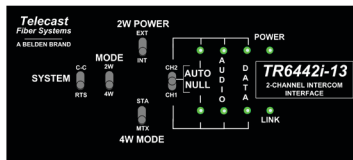
Applications

- *Remote Outside Broadcasting (sports and entertainment)*
- *Electronic News Gathering (E.N.G.)*
- *Satellite News Gathering (S.N.G.)*
- *Theme Parks and Theatres*
- *Corporate Video Production*
- *Industrial Testing Environments*



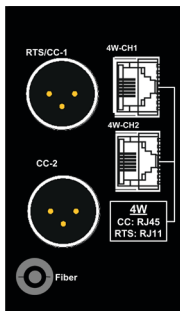
Viper II

FRONT PANEL: Four toggle switches provide for easy configuration of the unit into the desired mode. A fifth switch allows separate autonulling of each two-wire intercom channel. LEDs provide easy status monitoring at a glance.

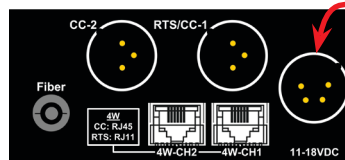


Mini-Mussel

REAR: XLR connectors are used for two-wire RTS or Clear-Com intercom channels. Two modular RJ connectors accept RJ45 plugs for connecting to Clear-Com MatrixPlus frames/keypanels or RJ11 plugs for RTS Adam frames/keypanels.



Viper II



Mini-Mussel

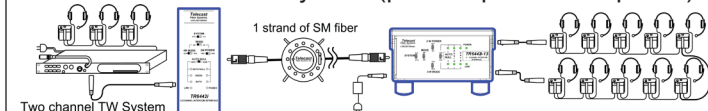
Connect 12VDC via a connector mounted on the side (locking 2.5mm circular on Viper II) or rear (XLR4 on Mini-Mussel) to power the unit and up to ten belt packs. Or get power from the TW intercom line.



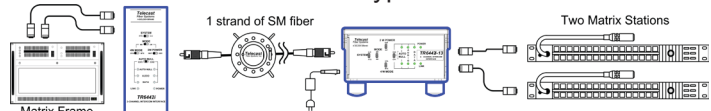
Viper II

Application Examples

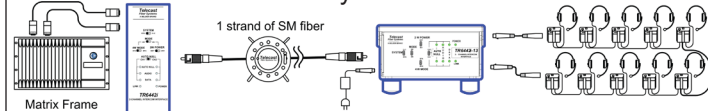
Two-Wire to Two-Wire System (power up to 10 Belt packs)



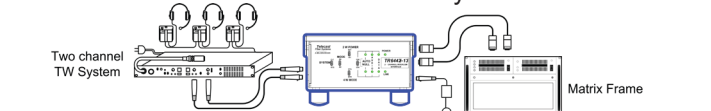
Matrix Frame to Two Matrix Keypanels



Matrix Frame to Two-Wire System



Stand Alone Four-Wire to Two-Wire Hybrid Interface



Ordering Information

MTR6442i-MML-13	Intercom transceiver & 4W/2W hybrid (w/autonull), RTS & C-C, MiniMussel, 1 SM fiber: int WDM @ 1310nm, ST conn. Reqs (M)TR64421-15.		Note: The CommLink utilizes Wave Division Multiplexing (WDM) for bidirectional signal transmission on a single fiber strand. Hence, all fiber links must consist of a 1310nm unit (suffix "-13") at one end and a 1550nm unit (suffix "-15") at the other.
MTR6442i-MML-15	Intercom transceiver & 4W/2W hybrid (w/autonull), RTS & C-C, MiniMussel, 1 SM fiber: int WDM @ 1550nm, ST conn. Reqs (M)TR64421-13.		
TR6442i-13	Intercom transceiver & 4W/2W hybrid (w/autonull), RTS & C-C, V2 rack-mount, 1 SM fiber: int WDM @ 1310nm, ST conn. Reqs (M)TR64421-15.		
TR6442i-15	Intercom transceiver & 4W/2W hybrid (w/autonull), RTS & C-C, V2 rack-mount, 1 SM fiber: int WDM @ 1550nm, ST conn. Reqs (M)TR64421-13.		
MTR6442i-13	Intercom transceiver & 4W/2W hybrid (w/autonull), RTS & C-C, throwdown, 1 SM fiber: int WDM @ 1310nm, ST conn. Reqs (M)TR64421-15.		
MTR6442i-15	Intercom transceiver & 4W/2W hybrid (w/autonull), RTS & C-C, throwdown, 1 SM fiber: int WDM @ 1550nm, ST conn. Reqs (M)TR64421-13.		
ADAP-AC-04	AC Power Adapter for MML units; 120/240 VAC in; 4-pin XLR; 4A; 15 VDC	not shown	
ADAP-AC-04LC	AC Power Adapter for Viper2 units; 120/240 VAC in; 2.5mm circ; 4A; 15 VDC	not shown	
TDK-TR6442i & RMK-TR6442i	Throwdown and rack-mount convert kits for swapping V2 plates/panels	not shown	

Specifications

Intercom

Number or intercom channels.....2

2-Wire (TW/PL)

Interface:Clear-Com PL: XLR3M x 2
RTS TW: XLR3M x 1
 Max Level..2VP-P, @ 1KHz (equiv. to +18dBu in 4W)
 Dyn. Range>85dB, ref. 2VP-P @ 1KHz
 Freq. Response...+1/-3dB, 70Hz to 22kHz, ref. 2VP-P
 THD+N<.1% @ 2VP-P
 I/O Impedance (100Hz to 20KHz).....220Ω ±10%
 Termination engaged (internal power).....220Ω ±10%
 Termination dis-engaged (external power).....≥10KΩ
 Nulling:Automatic DSP
properly terminated (internal or external)

4-Wire (4W) Ports

Interface:Clear-Com MatrixPlus/Eclipse: RJ45 x 2
RTS Adam/Cronus/Zeus: RJ11 x 2

Maximum Level (I/O, Unity Gain).....+18dBu
 Dynamic Range.....>85dB, ref. +18dBu
 Frequency Response...+1/-3dB, 35Hz-22kHz, ref. 0dBu
 THD+N.....<.05% @ +17dBu @ 1KHz
 Input Impedance10kΩ balanced
 Output Impedance.....30Ω balanced
 Data:Clear-Com: RS422, RTS: RS485
 Crosstalk:>85dB

Electro-Optical

Operating Wavelength, standard.....
1310/1550 nm (Wave Division Multiplexed)
 Nominal Optical Loss Budget Values
 TX Laser output power.....-7 dBm
 RX Sensitivity, HD/SDI.....-22 dBm
 Link/Distance Limit*15dB optical loss (≥ 30Km*)
 Fiber Compatibility.....Single Mode
 Optical ConnectorST

Mechanical/Environmental

Dimensions (HxWxL)
 Rack Mount5" x 2" x 10"
 Throw Down4" x 2" x 10"
 Mini-Mussel (without feet).....2" x 4" x 10"
 Weight
 Rack Mount/Throwdown.....1.375 lb
 MiniMussel2.8 lb
 Power Consumption
 2W with Local Power3 watts@10-18VDC
 Powered from 2W System6 watts@10-18VDC
 4W System3 watts@10-18VDC
 Temperature Range.....-25° to +55°C
 Humidity Range.....0 to 95% RH, Non-condensing

Compliance

Laser SafetyClass 1 Laser 21 CFR 1040.10
 EMI/RFI.....IEC/EN 60825-1
 RoHS

*Maximum cable length varies due to optical cable quality, dirt/dust/contamination on connectors, and the number of in-line connectors.



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