

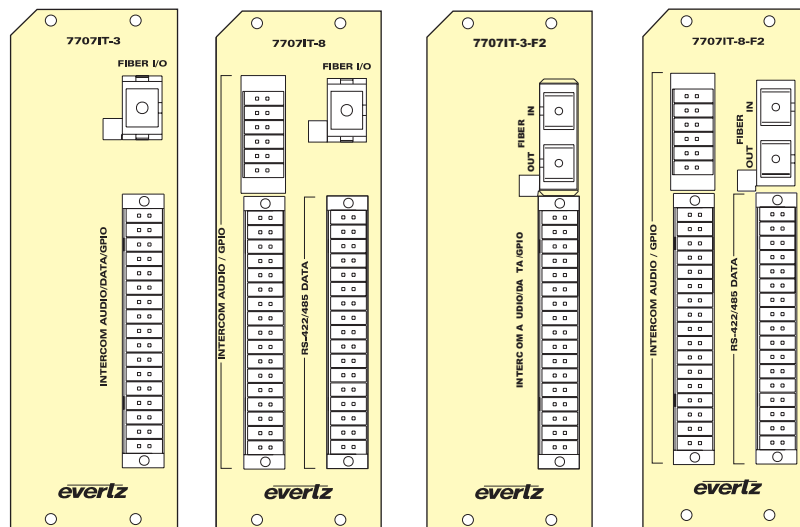
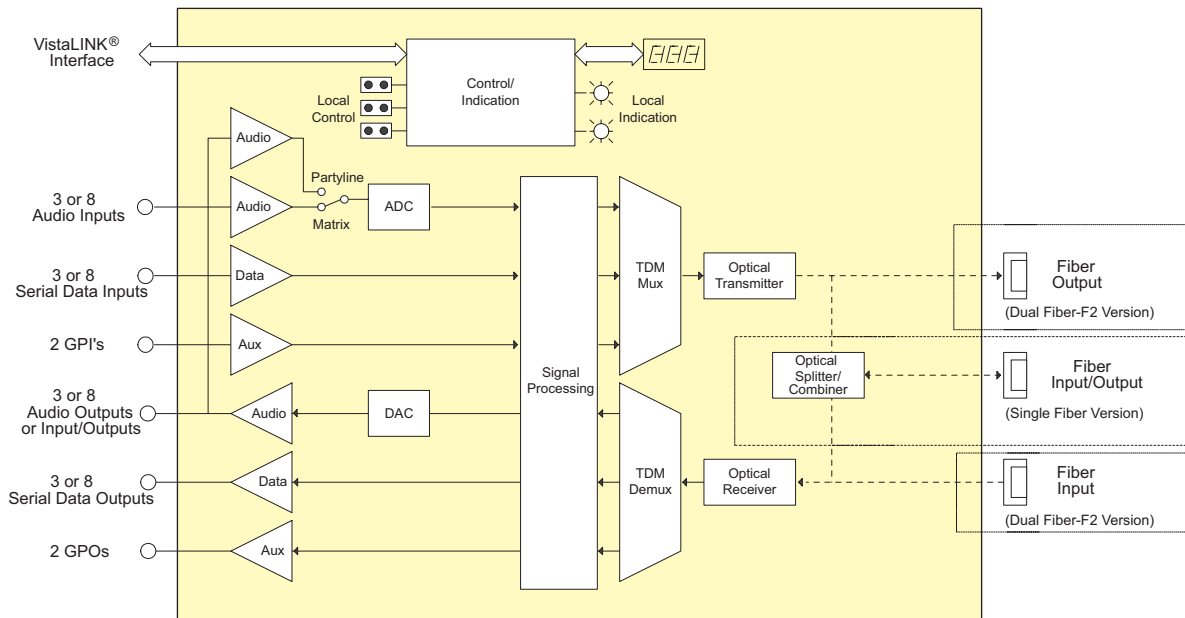
# 7707IT-3, 7707IT-8

## Multi-Channel Intercom Fiber Transceivers



### Features & Benefits

- Extends up to 3 or 8 independent channels of intercom communication over a single fiber optic link
- Configurable interface to:
  - RTS-Telex Matrix: 4-Wire Audio, RS-485 Data, GPIO
  - ClearCom Matrix: 4-Wire Audio, RS-422 Data, GPIO
  - RTS-Telex Party-Line: 2-Wire Audio, GPIO
  - ClearCom Party-line: 2-Wire Audio, GPIO
- Note: Does not perform conversion between 2-Wire and 4-Wire systems*
- Independent channels can simultaneously accommodate different intercom types
- User-friendly selection of intercom interfaces via programmed profiles
- All configurations and adjustments are controllable through the card-edge user interface or remotely via SNMP and VistaLINK® -capable capability
- Selectable termination, and failsafe bias settings for RS-422/485 data inputs
- Provides 2 general-purpose inputs (GPIs), and 2 general purpose outputs (GPOs)
- Comprehensive signal and card status monitoring via four digit card edge display or remotely through SNMP and VistaLINK®
- VistaLINK® capability is available when modules are used with the 3RU 7800FR or 350FR frame and a 7700FC VistaLINK® Frame Controller module in slot 1 of the frame
- Optical output wavelengths of 1310nm, 1550nm, and up to sixteen CWDM wavelengths (ITU-T G.694.2 compliant)
- DWDM wavelengths (ITU-T G.694.1 compliant) also available
- Compatible with single-mode and multi-mode fiber optic cable (dual fiber version)
- Fully hot-swappable from front of frame
- Occupies two card slots and is housed in a 1RU frame which will hold up to 3 modules, a 3RU frame which will hold up to 7 modules, 3RU portable frame that holds up to 3 modules or a standalone frame which will hold 1 module





### ► Specifications

#### Analog Audio:

Balanced/Matrix Type Audio  
 Number of Signals:  
   7707IT-3: 3 inputs, 3 outputs  
   7707IT-8: 8 inputs, 8 outputs  
 Type: Analog Audio, Balanced  
 Industry Standards: ClearCom, RTS-Telex  
 Connector: Multi-pin removable terminal block  
 Input Impedance: > 10kΩ  
 Output Impedance: 66Ω  
 Signal Resolution: 24-bit  
 Sampling Rate: 52.7kHz  
 Frequency Response:  
   20Hz to 20kHz  
 Gain Flatness: ±2dB  
 Input Level (max): +20dBu  
 Output Level (max):  
   Into 10kW +20dBu  
   Into 600W +19dBu  
 Signal/Noise Ratio: > 90dB  
 THD: < 0.01%  
 Crosstalk: < -80dB  
 Controllable Gain: -10dB to +10dB

#### Unbalanced/Party-Line Type Audio:

Number of Signals:  
   7707IT-3: 3  
   7707IT-8: 8  
 Type: Analog Audio, Full-duplex, Unbalanced  
 Industry Standards: ClearCom, RTS-Telex  
 Connector: Multi-pin removable terminal block  
 Signal Coupling: AC coupled (accommodates 30V 'wet' inputs)  
 Bridging Impedance: > 10kΩ  
 Signal Resolution: 24-bit  
 Sampling Rate: 52.7kHz  
 Sidetone Null: > 25dB  
 Sidetone Null Range:  
   100Ω to 300Ω load  
 Frequency Response:  
   120Hz to 20kHz  
 Gain Flatness: ±2dB  
 Input Level(max): +5dBu  
 Output Level(max): +5dBu (into 200W load)  
 Signal/Noise Ratio: > 75dB  
 THD: < 0.1%  
 Crosstalk: < -60dB  
 Controllable Gain: -5dB to +5dB (into 200W load)  
 Receive Signaling: 4V DC min (ClearCom), 20kHz  
   ±500Hz (RTS)  
 Send Signaling: 11V DC min (ClearCom), 20kHz  
   ±100Hz (RTS)

#### Serial Data:

RS-422 /RS-485 Type Data  
 Number of Signals:  
   7707IT-3: 3  
   7707IT-8: 8  
 Connector: Multi-pin removable terminal block  
 Signal Type: RS-485 or RS-422 (selectable)  
 Input Termination: 120Ω or Open (selectable)  
 Input Failsafe Bias: 200mV (3.3mA into 60Ω) or none (selectable)  
 Bit Rate:  
   RS485: Compatible with all Telex RS485 rates  
   RS-422: 460kb/s

#### Optical Input/Output:

Number: 1 (Standard and -W Single Fiber Version)  
           2 (-F2 Dual Fiber Version)  
 Connector at Frame: SC/PC, ST/PC, FC/PC female housing  
 Input Wavelength: 1270nm to 1610nm  
 Max. Input Power: 0dBm  
 Output Wavelengths:  
   Standard: 1310nm, 1550nm (nominal)  
             1270nm to 1610nm (ITU-T G.694.2 compliant)  
   CWDM: C-Band (ITU-T G.694.1 compliant)  
   DWDM:  
     Output Power:  
       1310nm FP: -7dBm ±1dBm  
       1310nm (-W): -1dBm ±1dBm  
       1550nm, CDWM (DFB):  
         0dBm ± 1dBm  
         DWDM (DFB): +7dBm ± 1dBm  
     Optical Sensitivity:  
       WDM (-w version) -26dBm  
       Standard: -28dBm

#### General Purpose Outputs (GPO):

Number of Signals: 2 Outputs  
 Connector: Multi-pin removable terminal block  
 Output Type: Dry contact relay closure, normally open  
 Output Current (min): 100mA

#### General Purpose Inputs (GPI):

Number of Signals: 2 Inputs  
 Connector: Multi-pin removable terminal block  
 Type: Opto-isolated, Active low  
 GPI Input Voltage:  
   Safe Voltage Range:  
     -20V to +10V  
   On Condition (max): < +2.5V(active low)  
   Off Condition (min): > +3.5V  
 GPI Input Current (min): 1mA  
 GPI Input Current (max): 10mA (internally limited)

#### Electrical:

Voltage(type): 12V DC (nominal frame voltage)  
 Power(max): 7707IT-3 (Non DWDM) = 7W  
               7707IT-3 (DWDM) = 9W  
               7707IT-8 (Non DWDM) = 18W  
               7707IT-8 (DWDM) = 20W

#### Physical (number of slots):

350FR: 2  
 7700FR-C: 2  
 7800FR: 2

#### Compliance:

Laser Safety: Class 1 laser product  
               Complies with 24 CFR 1040.10 and 1040.11  
               IEC 60825-1  
 EMI/RFI: Complies with FCC Part 15, Class A  
            EU EMC directive

### ► Ordering Information

|  |  |
|--|--|
| <b>7707IT13M-3-W</b>   | 3 Channel Intercom Fiber Transceiver, single fiber, WDM, 1310nm FP TX, RX on 1550nm  |
| <b>7707IT15-3-W</b>  | 3 Channel Intercom Fiber Transceiver, single fiber, WDM, 1550nm DFB TX, RX on 1310nm |
| <b>7707IT13-3-F2</b>   | 3 Channel Intercom Fiber Transceiver, dual fiber, 1310nm FP TX & RX                  |
| <b>7707IT13M-8-W</b>   | 8 Channel Intercom Fiber Transceiver, single fiber, WDM, 1310nm FP TX, RX on 1550nm  |
| <b>7707IT15-8-W</b>  | 8 Channel Intercom Fiber Transceiver, single fiber, WDM, 1550nm DFB TX, RX on 1310nm |
| <b>7707IT13-8-F2</b>   | 8 Channel Intercom Fiber Transceiver, dual fiber, 1310nm FP TX & RX                  |
| <i>For CWDM, please refer to the end of the fiber section for ordering information</i> |  |
| <b>7707ITDxxx-3-F2</b>   | 3 Channel Intercom Fiber Transceiver, dual fiber, CWDM TX, VistaLINK®                |
| <b>7707ITDxxx-8-F2</b>   | 8 Channel Intercom Fiber Transceiver, dual fiber, CWDM TX, VistaLINK®                |
| <i>For DWDM, please refer to the end of the fiber section for ordering information</i> |  |
| <b>7707ITDxxx-3-F2</b>   | 3 Channel Intercom Fiber Transceiver, dual fiber, DWDM TX, VistaLINK®                |
| <b>7707ITDxxx-8-F2</b>   | 8 Channel Intercom Fiber Transceiver, dual fiber, DWDM TX, VistaLINK®                |

|                          |   |
|--------------------------|---|
| <b>Ordering Options</b>  | Rear Plate and Fiber Connector must be specified at time of order<br>Eg. Model +3RU +SC |
| <b>Rear Plate Suffix</b> |   |
| <b>+3RU</b>              | 3RU Rear Plate for use with 350FR, 7700FR-C or 7800FR Multiframe                        |
| <b>+1RU</b>              | 1RU Rear Plate for use with 7701FR Multiframe   |
| <b>+SA</b>               | Standalone enclosure rear plate   |
| <b>Connector Suffix</b>  |   |
| <b>+SC</b>               | SC/PC   |
| <b>+ST</b>               | ST/PC   |
| <b>+FC</b>               | FC/PC   |
| <b>Enclosures</b>        |   |
| <b>350FR</b>             | 3RU Portable Multiframe which holds up to 7 single slot modules                         |
| <b>7700FR-C</b>          | 3RU Multiframe which holds up to 15 single slot modules                                 |
| <b>7800FR</b>            | 3RU Multiframe which holds up to 15 single slot modules                                 |
| <b>7801FR</b>            | 1RU Multiframe which holds up to 4 single or 2 dual slot modules                        |
| <b>7701FR</b>            | 1RU Multiframe which holds up to 3 single or dual slot modules                          |
| <b>S7701FR</b>           | Standalone Enclosure  |