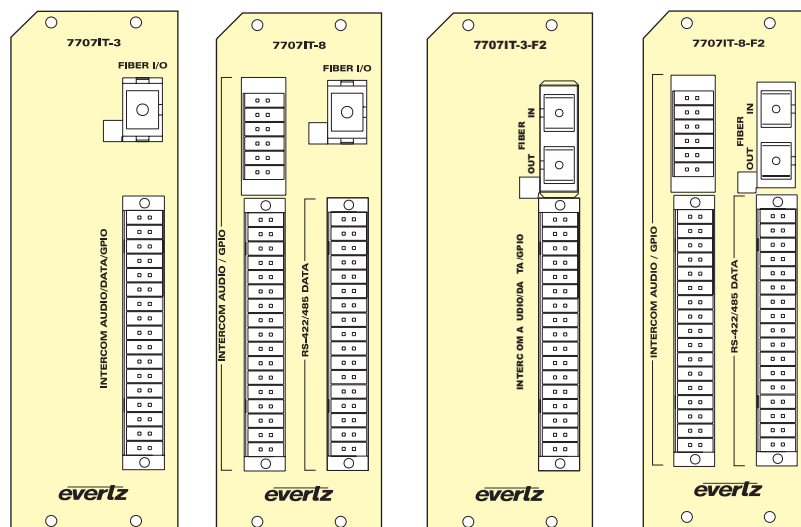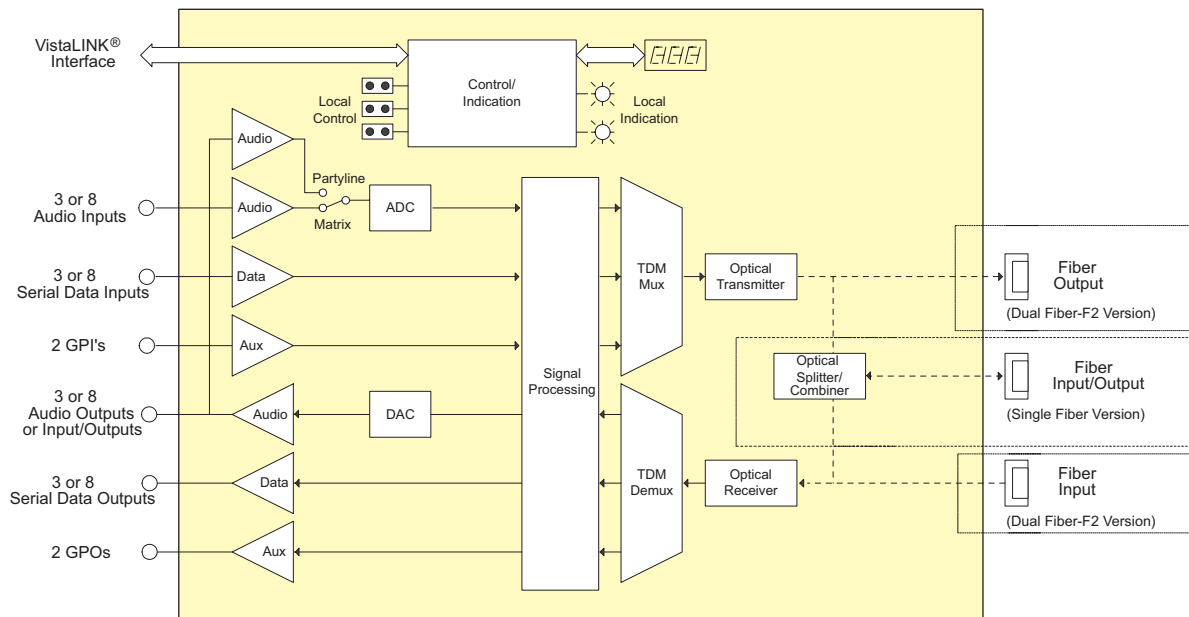# 7707IT-3 & 7707IT-8
Multi-Channel Intercom Fiber Transceivers

▶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)
CWDM:	1270nm to 1610nm (ITU-T G.694.2 compliant)
DWDM:	C-Band (ITU-T G.694.1 compliant)

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

Ordering Options Rear Plate and Fiber Connector must be specified at time of order
Eg. Model +3RU +SC

Rear Plate Suffix
+3RU	3RU Rear Plate for use with 350FR, 7700FR-C or 7800FR Multiframe
+1RU	1RU Rear Plate for use with 7701FR Multiframe
+SA	Standalone enclosure rear plate

Connector Suffix
+SC	SC/PC
+ST	ST/PC
+FC	FC/PC

Enclosures
350FR	3RU Portable Multiframe which holds up to 7 single slot modules
7700FR-C	3RU Multiframe which holds up to 15 single slot modules
7800FR	3RU Multiframe which holds up to 15 single slot modules
7701FR	1RU Multiframe which holds up to 3 single or dual slot modules
S7701FR	Standalone Enclosure