

7707DT, 7707DT-GPIO

Multi RS-232 / RS-422 / RS-485 / GPIO Fiber Data Transceiver



The 7707DT series Fiber Data Transceivers provide an economical method of transmitting multiple bi-directional RS-232, RS-422, RS-485 data signals as well as Linear Time Code (LTC) over a single fiber optic link. The 7707DT-GPIO version provides additional RS-232 and General Purpose Input/Outputs (GPIO). A pair of 7707DT Data Transceivers permits bi-directional data transmission over distances up to 100km, with minimum possible latency.

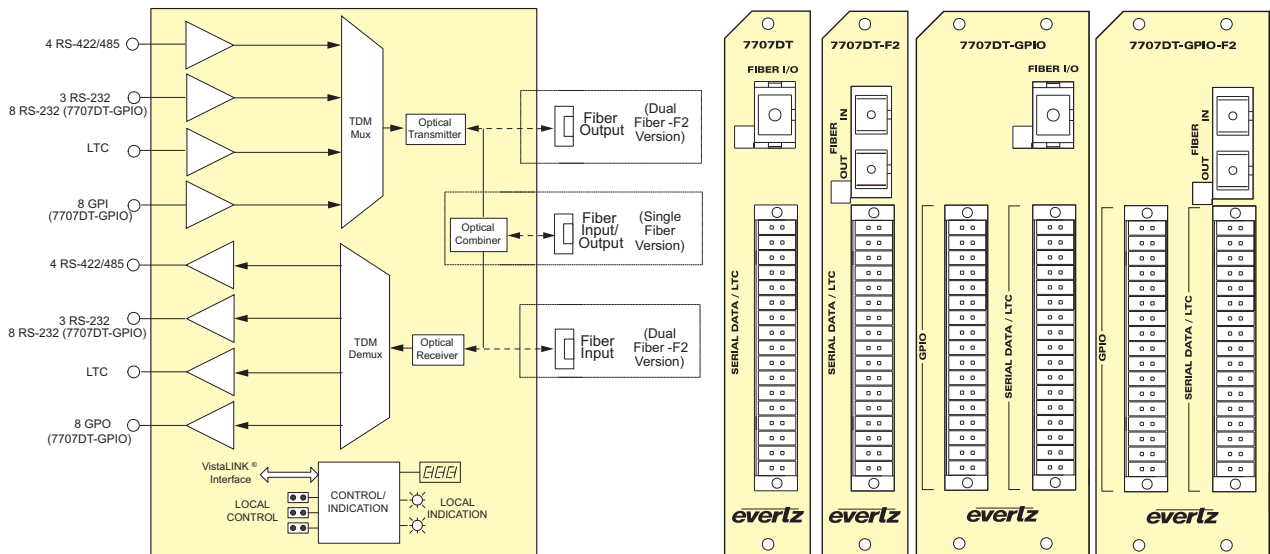
Single and dual fiber (-F2) optical interface configurations allow the user to choose the optimal function/price/performance to suit a particular application. The dual fiber configuration is compatible with CWDM/DWDM systems and is

designed to transmit and receive over separate fibers. The optical output of the 7707DT is available in 1310nm, 1550nm, CWDM and DWDM wavelengths.

The 7707DT occupies one card slot and can be housed in a 1RU frame that will hold up to three modules, a 3RU frame that will hold up to 15 modules (seven for -GPIO version), a 350FR portable frame that will hold up to seven modules (three for -GPIO version) or a standalone enclosure, which holds one module. The 7707DT-GPIO occupies two card slots and can be housed in the same enclosures.

Features & Benefits

- 7707DT transports four RS-422 or RS-485, three RS-232, and one LTC
- 7707DT-GPIO version provides five additional RS-232 and eight General Purpose Input/Outputs (GPIO)
- Selectable termination and failsafe bias settings for RS-422/485 data inputs
- Selectable network timeouts for RS-485 accommodates twelve data rates
- All configuration settings are controllable through the card-edge user interface, or VistaLINK®
- Optical output wavelengths of 1310nm, 1550nm, and up to sixteen CWDM wavelengths (ITU-T G.694.2 compliant)
- DWDM wavelengths also available (ITU-T G.694.1 compliant)
- Supports single-mode and multi-mode fiber optic cable (contact factory for multi-mode applications)
- SC/PC, ST/PC, or FC/PC* fiber connector options
- Fully hot-swappable from front of frame
- 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





Specifications

RS-422/RS-485 Serial Data: Number of Signals: 4 Inputs/Outputs Connector: Multi-pin Removable Terminal Block Signal Type: RS-485 or RS-422 (selectable) Input Termination: 110Ω or Open (selectable) Input Failsafe Bias: 200mV (3.3mA into 60Ω) or None (selectable) Bit Rate (max): RS-422: 460kb/s RS-485: 1.2kb/s, 2.4kb/s, 4.8kb/s, 9.6kb/s, 19.2kb/s, 38.4kb/s, 57.6kb/s, 76.8kb/s, 115kb/s, 153kb/s, 230kb/s, or 460kb/s (selectable)		General Purpose Inputs (7707DT-GPIO ONLY): Number of Signals: 8 Inputs Connector: Multi-pin Removable Terminal Block Type: Opto-isolated, Active low Input Voltage: Safe Voltage Range: -20V to +10V Off Condition (min): +3.5V On Condition (max): +2.5V (active low) Input Current (min): 1mA Input Current (max): 10mA (internally limited)		Output Power: 1310nm FP: -7dBm ±1dBm 1310nm (-W): -1dBm ±1dBm 1550nm, CDWM (DFB): 0dBm ± 1dBm DWDM (DFB): +7dBm ± 1dBm	
RS-232 Serial Data: Number of Signals: Standard Version: 3 Input/Outputs GPIO Version: 8 Inputs/Outputs Connector: Multi-pin Removable Terminal Block Signal Type: RS-232 Bit Rate (max): 115kb/s		General Purpose Outputs (7707DT-GPIO ONLY): Number of Signals: 8 Outputs Connector: Multi-pin Removable Terminal Block Output Type: Dry contact relay closure, normally open Output Current (min): 100mA		Electrical: Voltage: 12V DC Power (max): Non-DWDM: 6W DWDM: 8W EMI/RFI: Complies with FCC Part 15, Class A EU EMC Directive	
LTC Data: Number of Signals: 1 Input/Output Connector: Multi-pin Removable Terminal Block Signal Type: SMPTE 12-1 Linear Time Code Input Level: 0.2 to 4V p-p (balanced or unbalanced) Rise/Fall Times: 40μs ±10μs Output Level: 1V p-p nominal (balanced)		Optical Input/Output: Connector: Single fiber version: 1 Bi-directional optical connector: SC/PC, ST/PC or FC/PC* female housing Dual fiber (F2) version: 2 optical connector: SC/PC or ST/PC female housing Maximum Input Power: Single fiber versions: 0dBm Dual fiber (F2) versions: 0dBm Input Optical Sensitivity: WDM (-w version): -26dBm Standard: -28dBm Wavelengths: Standard: 1310nm, 1550nm CWDM: 1270nm - 1610nm DWDM: C-Band (ITU-T G.694.1 compliant)		Physical (number of slots): 350FR, 7700FR-C, 7800FR: 7707DT: 1 7707DT-GPIO: 2 7701FR: 7707DT: 1 7707DT-GPIO: 1	
				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

7707DT13M-W	Multi RS-232/RS-422 Fiber Data Transceiver, single fiber, WDM, 1310nm FP, TX, RX on 1550nm, VistaLINK® (must be paired with 7707DT15-W)
7707DT13M-W-GPIO	Multi RS-232/RS-422 and GPIO Fiber Data Transceiver, single fiber, WDM, 1310nm FP TX, RX on 1550nm, VistaLINK® (must be paired with 7707DT15-W-GPIO)
7707DT15-W	Multi RS-232/RS-422 Fiber Data Transceiver, single fiber, WDM, 1550nm DFB TX, RX on 1310nm, VistaLINK® (must be paired with 7707DT13M-W)
7707DT15-W-GPIO	Multi RS-232/RS-422 and GPIO Fiber Data Transceiver, single fiber, WDM, 1550nm DFB TX, RX on 1310nm, VistaLINK® (must be paired with 7707DT13M-W-GPIO)
7707DT13-F2	Multi RS-232/RS-422 Fiber Data Transceiver, dual fiber, 1310nm FP TX & RX, VistaLINK®
7707DT13-F2-GPIO	Multi RS-232/RS-422 and GPIO Fiber Data Transceiver, dual fiber, 1310nm, FP TX & RX, VistaLINK®
<i>For CWDM, please refer to the end of the fiber section for ordering information</i>	
7707DT-xx-F2	Multi RS-232/RS-422 Fiber Data Transceiver, dual fiber, CWDM TX
7707DT-xx-F2-GPIO	Multi RS-232/RS-422 and GPIO Fiber Data Transceiver, dual fiber, CWDM TX
<i>For DWDM, please refer to the end of the fiber section for ordering information</i>	
7707DTDxxx-F2	Multi RS-232/RS-422 Fiber Data Transceiver, dual fiber, DWDM TX
7707DTDxxx-F2-GPIO	Multi RS-232/RS-422 and GPIO Fiber Data Transceiver, dual fiber, DWDM TX

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*
+AP+SC	SC/APC (Angle Polished)
+AP+FC	FC/APC (Angle Polished)
<i>*Note: FC/PC is only available on single fiber version</i>	
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
7801FR	1RU Multiframe which holds up to 4 single or 2 dual slot modules
7701FR	1RU Multiframe which holds up to 3 single or dual slot modules
S7701FR	Standalone Enclosure

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