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.

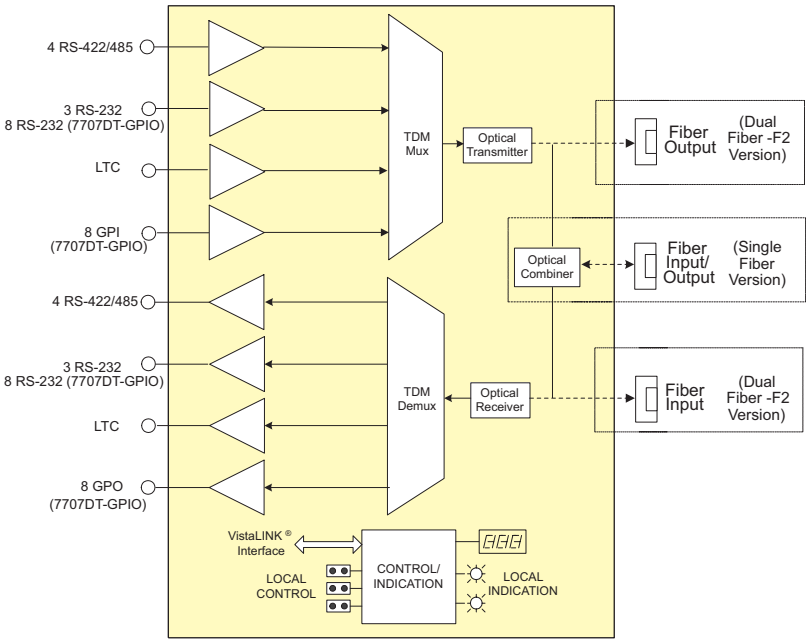
Single and dual fiber (-F2) optical interface configurations allow the user to choose the optimal function/price/performance to suit a particular application.

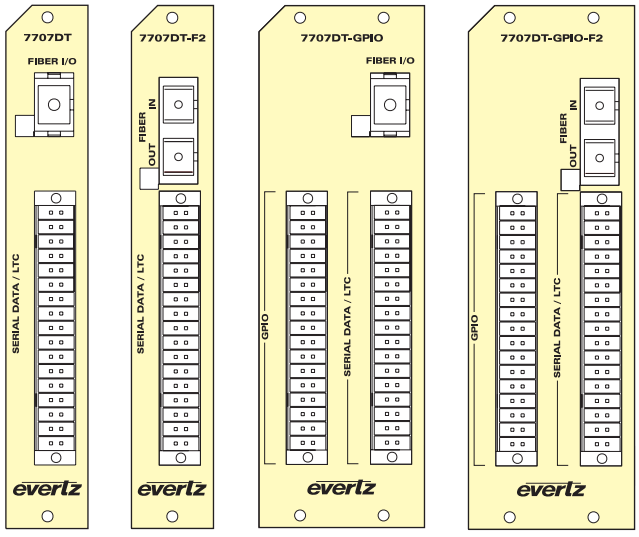
The dual fiber configuration is compatible with CWDM/DWDM systems and is designed to transmit and receive over separate fibers. The optical output of the 7707DT is available in 1310nm, 1550nm, CWDM and DWDM wavelengths.

The 7707DT occupies one card slot and can be housed in a 1RU frame that will hold up to 3 modules, a 3RU frame that will hold up to 15 modules (7 for -GPIO version), a 350FR portable frame that will hold up to 7 modules (3 for -GPIO version) or a standalone enclosure which holds 1 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





The Complete Solution Provider

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)

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

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)

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)

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

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)

Output Power:
1310nm FP: -7dBm ±1dBm
1310nm (-W): -1dBm ±1dBm
1550nm, CDWM (DFB): 0dBm ± 1dBm
DWDM (DFB): +7dBm ± 1dBm

Electrical:
Voltage: 12V DC
Power (max): 6W (Non DWDM), 8W (DWDM)
EMI/RFI: Complies with FCC Part 15, Class A EU EMC Directive

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®
7707DT13M-W-GPIO	Multi RS-232/RS-422 and GPIO Fiber Data Transceiver, single fiber, WDM, 1310nm FP TX, RX on 1550nm, VistaLINK®
7707DT15-W	Multi RS-232/RS-422 Fiber Data Transceiver, single fiber, WDM, 1550nm DFB TX, RX on 1310nm, VistaLINK®
7707DT15-W-GPIO	Multi RS-232/RS-422 and GPIO Fiber Data Transceiver, single fiber, WDM, 1550nm DFB TX, RX on 1310nm, VistaLINK®
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®
For CWDM, please refer to the end of the fiber section for ordering information	
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
For DWDM, please refer to the end of the fiber section for ordering information	
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

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

**Note: FC/PC is only available on single fiber version*

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