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 fail-safe 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

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The Complete Solution Provider
Specifications:

**RS-422/RS-485 Serial Data:**
- Number of Signals: 4 Inputs/Outputs
- Connector: Multi-pin Removable Terminal Block
- Input Termination: 110Ω or Open (selectable)
- Input Failsafe Bias: 200mV (3.3mA into 60Ω or None (selectable))
- Bit Rate (max): 460kb/s
- RS-485: 1.2kb/s, 2.4kb/s, 4.8kb/s, 9.6kb/s, 7.6kb/s, 19.2kb/s, 38.4kb/s, 57.6kb/s, 115.2kb/s, 230.4kb/s, or 460kb/s (selectable)

**RS-232 Serial Data:**
- Number of Signals: 3 Inputs/Outputs
- Connector: Multi-pin Removable Terminal Block
- Signal Type: RS-232
- Standard Version: 3 Input/Outputs
- Bit Rate (max): 57.6kb/s (selectable)

**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)
- Maximum Input Power: 1550nm, CDWM (DFB): -26dBm

**General Purpose Inputs:**
- Number of Signals: 8 Inputs
- Connector: Multi-pin Removable Terminal Block
- Type: Opto-isolated, Active low
- Safe Voltage Range: +20V to +10V
- Operating Voltage: 60Ω ±10Ω or Open (selectable)
- Input Failsafe Bias: 200mV (3.3mA into 60Ω or None (selectable))
- Input Levels: 0.2 to 4V p-p (balanced or unbalanced)
- Output Types: Dry contact relay closure, normally open
- Input Voltage: 17V p-p nominal (balanced)
- Rise/Fall Times: 40µs ±10µs
- Output Level: 1V p-p nominal (balanced)

**General Purpose Outputs:**
- Number of Signals: 8 Outputs
- Connector: Multi-pin Removable Terminal Block
- Type: Opto-isolated, Active high
- Operating Voltage: 1550nm, CDWM (DFB): -7dBm ±10dBm
- Input Voltage: 17V p-p nominal (balanced)
- Rise/Fall Times: 40µs ±10µs
- Output Level: 1V p-p nominal (balanced)
- Input Voltage: 17V p-p nominal (balanced)
- Output Level: 17V p-p nominal (balanced)
- Output Types: Dry contact relay closure, normally open
- Input Voltage: 17V p-p nominal (balanced)
- Output Level: 17V p-p nominal (balanced)
- Output Types: Dry contact relay closure, normally open

**General Purpose Outputs (RS-232/RS-422 Fiber Data Transceiver):**
- Number of Signals: 8 Outputs
- Connector: Multi-pin Removable Terminal Block
- Type: Opto-isolated, Active high
- Operating Voltage: 1550nm, CDWM (DFB): -7dBm ±10dBm
- Input Voltage: 17V p-p nominal (balanced)
- Rise/Fall Times: 40µs ±10µs
- Output Level: 17V p-p nominal (balanced)
- Input Voltage: 17V p-p nominal (balanced)
- Output Level: 17V p-p nominal (balanced)
- Output Types: Dry contact relay closure, normally open
- Input Voltage: 17V p-p nominal (balanced)
- Output Level: 17V p-p nominal (balanced)
- Output Types: Dry contact relay closure, normally open

Ordering Information:

**7707DT, 7707DT-GPIO**
- Multi RS-232 / RS-422 / RS-485 / GPIO Fiber Data Transceiver
- Rear Plate and Fiber Connector must be specified at time of order
- General Purpose Inputs (7707DT-GPIO ONLY):
  - Number of Signals: 8 Inputs
  - Connector: Multi-pin Removable Terminal Block
  - Type: Opto-isolated, Active low
  - Input Voltage: -7dBm ±10dBm
  - Output Power: +7dBm ±10dBm
  - Input Failsafe Bias: 200mV (3.3mA into 60Ω or None (selectable))
  - Input Levels: 0.2 to 4V p-p (balanced or unbalanced)
  - Output Levels: 1V p-p nominal (balanced)
  - Rise/Fall Times: 40µs ±10µs
  - Output Levels: 1V p-p nominal (balanced)
  - Input Levels: 17V p-p nominal (balanced)
  - Output Levels: 17V p-p nominal (balanced)
  - Output Types: Dry contact relay closure, normally open

**7707DT-GPIO:**
- Multi RS-232/RS-422 Fiber Data Transceiver, single fiber, WDM, 1310nm FP, TX, RX on 1550nm, VistaLINK® (must be paired with 7707DT-F2)
- Rear Plate Suffix: 3RU Rear Plate for use with 350FR, 7700FR-C or 7800FR
- +1RU Standalone Rear Plate for use with 7701FR Multiframe
- +SA Rear Plate and Fiber Connector must be specified at time of order

**7707DT:**
- Multi RS-232/RS-422 Fiber Data Transceiver, dual fiber, 1310nm FP TX & RX, VistaLINK®
- Rear Plate Suffix: 1RU Rear Plate for use with 7701FR Multiframe
- +SA Rear Plate and Fiber Connector must be specified at time of order

**Ordering Options:**
- +SC SC/PC
- +ST ST/PC
- +FC FC/PC
- +AP+SC SC/PC (Angle Polished)
- +AP+FC FC/PC (Angle Polished)

**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 3RU Multiframe which holds up to 3 single or dual slot modules
- S771FR Standalone Enclosure