

7707MT

SDI, 2 AES Audio, Bi-directional RS-232/RS-422, 2 GPI & 2 GPO, Fiber Transmitter



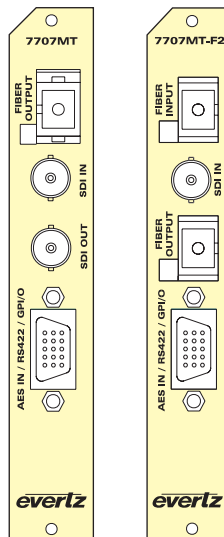
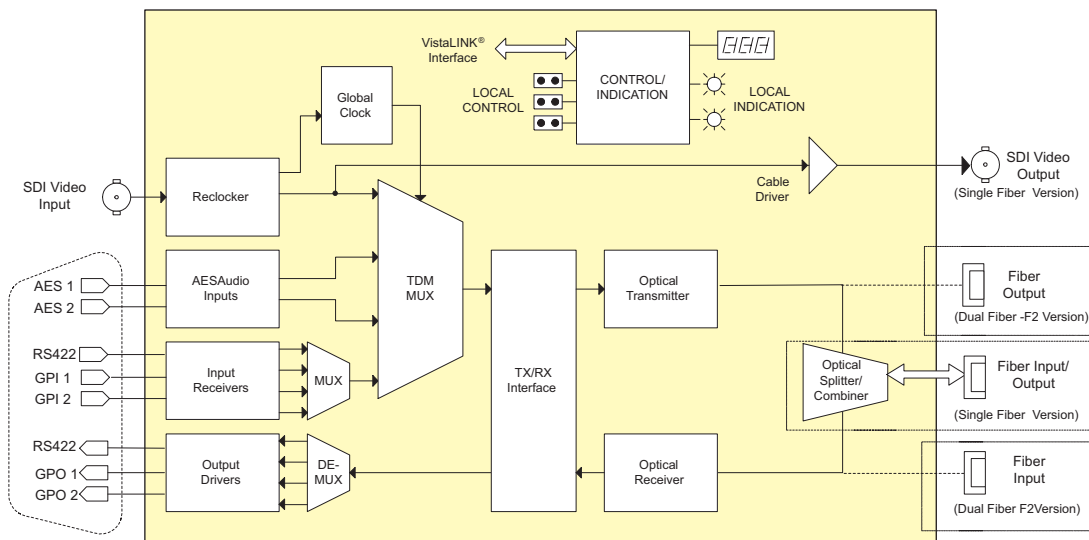
The 7707MT Multi-Signal Fiber Transmitter is a VistaLINK® -capable, fiber transmitter for SDI Video, AES Audio, RS-422 control and GPI/O. This single card module transports one uni-directional SDI Video, two uni-directional AES Audio, one bi-directional RS-422 and two bi-directional GPIs and GPOs. These signals are combined using Time Domain Multiplex (TDM) technology and transmitted over a single fiber. The companion 7707MR Multi-Signal Fiber Receiver demultiplexes the signals and converts them back to their original formats. The 7707MT and companion 7707MR will transparently pass incoming SDI video feeds with embedded AES audio or any other data in the horizontal or vertical ancillary data space. Minimal Audio to Video latency over the transport interface is also achieved.

The fiber output is available in an assortment of optical wavelengths, accommodating 1310/1550nm, CWDM and DWDM transmission schemes.

The 7707MT occupies one card slot and can be housed in either a 1RU frame which will hold up to 3 modules, a 3RU frame which will hold up to 15 modules, 350FR portable frame that holds up to 7 modules or a standalone frame which will hold 1 module.

Features & Benefits

- SDI Video, 2 AES Audio, 1 bi-directional RS-232/RS-422 and 2 GPI/O fiber optic transmitter
- Supports 525 or 625 line 4:2:2 component SDI signals
- Supports SDTi signals
- Supports 32kHz, 44.1kHz, 48kHz AES audio inputs
- Dolby-E® compatible
- Supports bi-directional RS-422 signals at baud rates up to 3Mb/s
- AES audio inputs can be synchronous or asynchronous to each other and/or to input video
- Reclocked SDI output for additional signal distribution
- Signal transport over fiber uninterrupted by loss of input SDI, AES, Serial Data or GPI/O feeds
- Low Audio to Video latency over transport interface
- 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 slot1 of the frame
- Local display of optical signal strength, video, audio, and data presence, video and AES formats, EDH errors, GPI and GPO status
- Automatic coaxial input equalization to 300m at 270Mb/s (Belden 1694A)
- Fully hot-swappable from front of frame with no fiber disconnect/reconnect required
- Bi-directional optical input/output
- Accepts any wavelength in the 1270nm to 1610nm range
- 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
- Supports multi-mode and single mode fiber optic cable (contact factory for multi-mode applications)



► Specifications

Serial Video Input:

Standard: SMPTE 259M-C, SMPTE 305M
 Connector: 1 BNC per IEC 61169-8 Annex A
 Equalization: Automatic to 300m @ 270Mb/s with Belden 1694A or equivalent cable
 Return Loss: > 15dB up to 270Mb/s

Serial Video Output (Not available on dual fiber '-F2' version):

Number of Outputs: 1 Per Card relocked
 Connector: 1 BNC per IEC 61169-8 Annex A
 Signal Level: 800mV nominal
 DC Offset: 0V ±0.5V
 Rise and Fall Time: 900ps nominal
 Overshoot: < 10% of amplitude
 Return Loss: > 15dB at 270Mb/s
 Wide Band Jitter: < 0.2 UI

AES Audio Inputs:

Standard:
 Unbalanced: SMPTE 276M
 Balanced: AES3-1992
 Other: Dolby-E® compatible
 Number of Inputs: 2 (Jumper selectable for balanced or unbalanced input)
 Connector: 4 pins on female high density DB-15
 Signal Level:
 Unbalanced: 1V p-p ±0.1V
 Balanced: 2 to 7V p-p with Level Jumper set to HI, 1 to 2V p-p with level jumper set to LO
 Equalization: 500m @ 48kHz with Belden 1800B or equivalent cable
 Resolution: Up to 24 bits
 Sampling Rate: 32kHz, 44.1kHz, 48kHz
 Intrinsic Jitter: < 20ns
 Impedance:
 Unbalanced: 75Ω
 Balanced: 110Ω
 Serial Data Ports:
 Number of Ports: 1 RS-422 or 2 RS-232 - Jumper Selectable
 Connector: 4 pins (plus ground) on female high density DB-15
 Baud Rate: Up to 3Mb/s (Determined by incoming data)

General Purpose Inputs:

Number of Inputs: 2
 Type: Opto-isolated, active low with internal pull-ups to +5V or +12V (jumper selectable)
 Connector: 2 pins (plus ground) on female high density DB-15
 Signal Drive Level: Open or closure to ground

General Purpose Outputs:

Number of Outputs: 2
 Type: "Dry Contact" relay closure
 Connector: 2 pins per output on female high density DB-15
 Signal Level: Normally Closed or Normally Open (jumper settable)

Optical Input/Output:

Number: 1 (Single fiber version)
 2 (Dual fiber '-F2' version)
 Connector: Female SC/PC, ST/PC or FC/PC
 Return Loss: > 20dB
 Rise and Fall Time: 200ps nominal
 Max. Input Power: 0 dBm
 Input Wavelengths: 1270nm to 1610nm
 Input Optical Sensitivity:
 WDM (-w version) -26dBm
 Standard: -28dBm
 Output Jitter: < 0.2 UI
 Wavelengths:
 Standard: 1310nm, 1550nm
 CWDM: 1270nm - 1610nm
 DWDM: C-Band (ITU-T G.694.1 compliant)
 Output Power:
 1310nm FP: -7dBm ± 1dBm
 1550nm (-W): -1dBm ± 1dBm
 1550nm, CDWM (DFB):
 0dBm ± 1dBm
 DWDM (DFB): +7dBm ± 1dBm

System Performance (7707MT + 7707MR):

Video Input To Output Delay: < 1.5μs
 Audio to Video delay: < 1μs with SoftSwitch™ disabled on 7707MR
 < 2ms with SoftSwitch™ enabled on 7707MR

Electrical:

Voltage: +12V DC
 Power: 12W (Non DWDM), 14W (DWDM)

Physical (number of slots):

350FR: 1
 7700FR-C: 1
 7800FR: 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

7707MT13-F2 SDI, 2 AES, Bi-directional RS-232/RS-422, GPI/O Fiber Transmitter dual fiber, 1310nm FP TX & RX, VistaLINK®
7707MT15-W SDI, 2 AES, Bi-directional RS-232/RS-422, GPI/O Fiber Transmitter single fiber, WDM, 1550nm DFB TX, RX on 1310nm, VistaLINK®

For CWDM, please refer to the end of the fiber section for ordering information

7707MTxx-F2 SDI, 2 AES, Bi-directional RS-232/RS-422, GPI/O Fiber Transmitter dual fiber, CWDM TX, VistaLINK®

For DWDM, please refer to the end of the fiber section for ordering information

7707MTDxxx-F2 SDI, 2 AES, Bi-directional RS-232/RS-422, GPI/O Fiber Transmitter dual fiber, DWDM Laser, VistaLINK®

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

Accessories

7707MX-BHP-15 Bulkhead Breakout Panel for 15 x 7707MT cards (includes fifteen 3ft cables)
7707MX-BHP-15-B Bulkhead Breakout Panel for 15 x 7707MT cards (includes fifteen 3ft cables) for balanced audio only
7707MX-BHP-1 Bulkhead Breakout Panel for 1 x 7707MT card (includes one 3ft cable)

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

