

# 7707VAT-HD, 7707VAT-U-HD

## HD-SDI with 4 AES Audio Fiber Transmitter



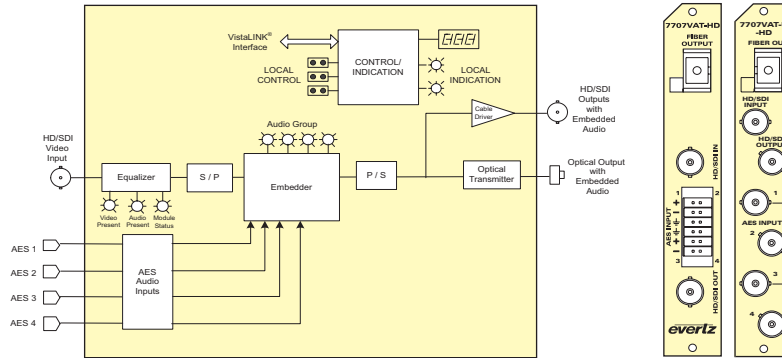
The 7707VAT-HD is a VistaLINK® -capable fiber optic transmitter for HDTV or SDTV video and AES audio signals. This single card module accepts one HD-SDI or SD-SDI video plus four AES audio and transmits them on a single fiber. The companion 7707VAR-HD receiver converts the HD-SDI and AES back to separate video and audio.

The fiber output is available in an assortment of optical wavelengths accommodating 1310/1550nm, CWDM and DWDM transmission schemes. The 7707VAT-HD 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, a 350FR that will hold up to 7 modules, or a standalone enclosure holding 1 module.

The 7707VAT-U-HD has unbalanced audio connections and is identical to the 7707VAT-HD in all other aspects.

### ►Features & Benefits

- Supports HDTV video formats @ 1.485Gb/s
- Supports 525/625 line component 4:2:2 SDI @ 270Mb/s
- Supports 32kHz, 44.1kHz, 48kHz AES audio inputs
- Dolby-E® compatible
- AES audio inputs can be synchronous or asynchronous to each other and/or to input video
- Relocked video output for additional signal distribution or monitoring
- Signal transport over fiber uninterrupted by loss of video or AES audio input feeds
- Comprehensive signal and card status monitoring via four digit card edge display or remotely through SNMP and VistaLINK®
- Local display of input coaxial cable length equalization
- VistaLINK® capability is available when modules are used with the 3RU 7800FR or 350FR portable frame and a 7700FC VistaLINK® Frame Controller module in slot 1 of the frame
- Automatic coaxial input equalization up to 130m at 1.485Gb/s and 300m at 270Mb/s (Belden 1694A)
- Fully Hot-swappable from front of frame
- Supports single-mode and multi-mode fiber optic cable (contact factory for multi-mode applications)
- 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



### ►Specifications

#### Serial Video Input:

Standard: SMPTE 292M, SMPTE 259M-C, SMPTE 305M (SDTi), DVB-ASI (without separate audio)  
 Connector: 1 BNC per IEC 61169-8 Annex A  
 Equalization: Automatic to 75m @ 1.485Gb/s and 300m @ 270Mb/s with Belden 1694A (or equivalent)  
 Return Loss: > 15dB up to 1.485Gb/s

Sampling Rate: 32kHz, 44.1kHz, 48kHz  
 Resolution: Up to 24 bits  
 Minimum Input: 200mV p-p  
 Maximum Input: Balanced 7V p-p, Unbalanced 1.2V p-p  
 Equalization:  
 Balanced: <600m @ 48kHz, with Belden 1800B, and 2V p-p source signal  
 Unbalanced: <1200m @ 48kHz, with Belden 8281, and 1V p-p source signal  
 Impedance: Balanced 110Ω, Unbalanced 75Ω  
 Return Loss: > 15dB, from 1MHz to 6MHz  
 Alignment Jitter: < 10ns p-p, with conditions of minimum to maximum cable length

#### Electrical:

Voltage: +12V DC  
 Power: 11W (Non-DWDM), 13W (DWDM)

#### Compliance:

Laser Safety: Class 1 laser product, Complies with 24 CFR 1040.10 and 1040.11, IEC 60825-1  
 Complies with FCC Part 15, Class A  
 EMI/RFI: EU EMC directive

#### Serial Video Output:

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: < 270ps for HDI, < 900ps for SD  
 Overshoot: < 10% of amplitude  
 Return Loss: > 15dB up to 1.485Gb/s  
 Wide Band Jitter: < 0.2 UI

#### Optical Output:

Number: 1  
 Connector: Female SC/PC, ST/PC or FC/PC  
 Return Loss: > 14dB  
 Wavelengths: See Ordering Information  
 Output Power:  
 1310nm FP: -7dBm ±1dBm  
 1550nm & CWDM DFB: 0dBm ±1dBm  
 DWDM DFB: 7dBm ±1dBm  
 Fiber Size: 9µm core/125mm overall

#### AES Audio Inputs:

Number of Signals: 4 Inputs  
 Standards: AES3-2003 (Balanced AES)  
 SMPTE 276M (Unbalanced AES)  
 Connector:  
 7707VAT-HD: 12-pin removable terminal strip  
 7707VAT-U-HD: 1 BNC per IEC 61169-8 Annex A

#### Receiver Compatibility Chart:

MODEL #	SD-SDI	HD-SDI
2405/7705/7707OE	x	
2405/7705/7707OE-HD	x	x
7705/7707OE-3	x	
7705/7707OE-3-HD	x	x
7707ADVR	x	
7707ADVR-HD	x	x
7707VAR-HD	x	x
7707VAR-U-HD	x	x

### ►Ordering Information

<b>7707VAT13-HD</b>	HD-SDI with 4 AES Audio Fiber Transmitter, 1310nm FP laser, VistaLINK®
<b>7707VAT15-HD</b>	HD-SDI with 4 AES Audio Fiber Transmitter, 1550nm DFB, laser, VistaLINK®
<b>7707VAT13-U-HD</b>	HD-SDI with 4 Unbalanced AES Audio Fiber Transmitter, 1310nm FP laser, VistaLINK®
<b>7707VAT15-U-HD</b>	HD-SDI with 4 Unbalanced AES Audio Fiber Transmitter, 1550nm DFB laser, VistaLINK®

For CWDM applications please refer to the end of the fiber section for details  
**7707VATxx-HD** HD-SDI with 4 AES Audio Fiber Transmitter, CWDM Laser  
**7707VATxx-U-HD** HD-SDI with 4 Unbalanced AES Audio Fiber Transmitter, CWDM Laser

For DWDM application please refer to end of fiber section for details  
**7707VATDxxx-HD** HD-SDI with 4 AES Audio Fiber Transmitter, DWDM Laser  
**7707VATDxxx-U-HD** HD-SDI with 4 Unbalanced AES Audio Fiber Transmitter, DWDM Laser

**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  
**+SCF** SC/PC connector with flap cover  
**+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  
**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