

7707VAT-HD, 7707VAT-U-HD

HD-SDI with 4 Balanced or Unbalanced 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.

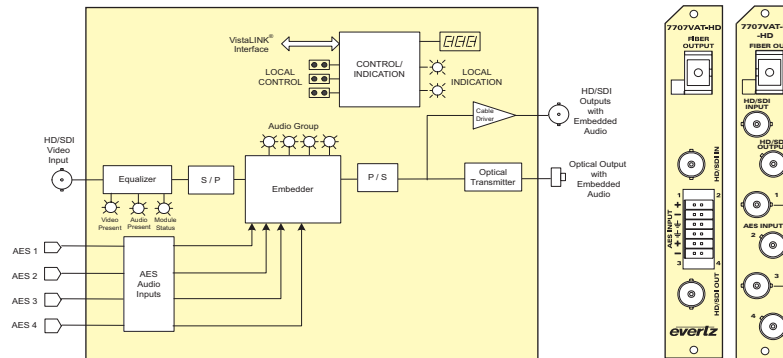
The 7707VAT-U-HD has unbalanced audio connections and is identical to the 7707VAT-HD in all other aspects.

►Features & Benefits

- Supports HDTV video formats @ 1.485Gb/s
- Supports 525/625 line component 4:2:2 SDI @ 270Mb/s
- Supports 32, 44.1, 48kHz AES audio inputs
- Dolby-E™ compatible
- AES audio inputs can be synchronous or asynchronous to each other and/or to input video
- Reclocked 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

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.

- 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
- 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 100m @ 1.485Gb/s and 300m @ 270Mb/s with Belden 1694A (or equivalent)
Return Loss: > 15dB up to 1.485Gb/s

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 <1200m @ 48kHz, with Belden 8281, and 1V p-p source signal
Unbalanced: Balanced 110Ω, Unbalanced 75Ω
Impedance: > 15dB, from 1MHz to 6MHz
Return Loss: < 10ns p-p, with conditions of minimum to maximum cable length
Alignment Jitter:

Audio to Video delay:

< 1.2ms @32kHz/< 1ms @48kHz
+3.3ms with SRC enabled
+4ms with audio pop minimization enabled

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
EMI/RFI: Complies with FCC Part 15, Class A EU EMC directive

Serial Video Output:

Number of Outputs: 1 Per Card reclocked
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

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

System Performance (7707VAT-HD + 7707VAR-HD):

Video Input To Output Delay: < 35ms

►Ordering Information

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

7707VATDxx-HD	HD-SDI with 4 AES Audio Fiber Transmitter, DWDM Laser
7707VATDxx-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
7701FR 1RU Multiframe which holds up to 3 single or dual slot modules
S7701FR Standalone Enclosure