

7707ADVT

Analog or SDI Video with 4-Channel Analog or AES Audio Fiber Transmitter

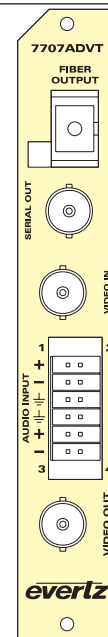
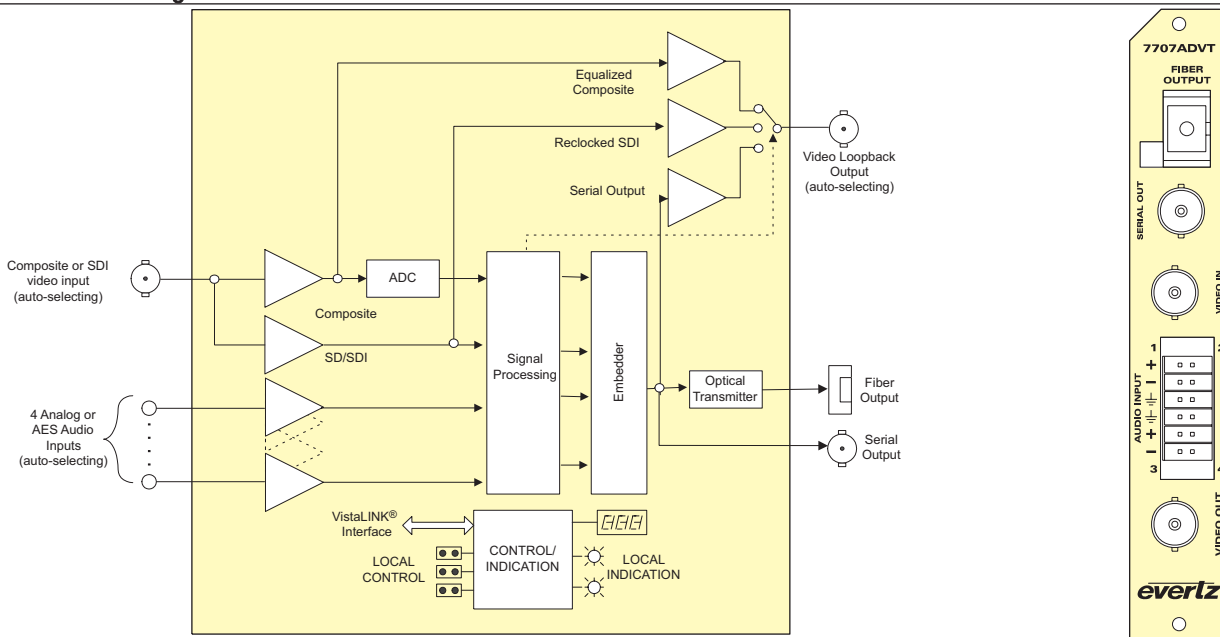


►Features & Benefits

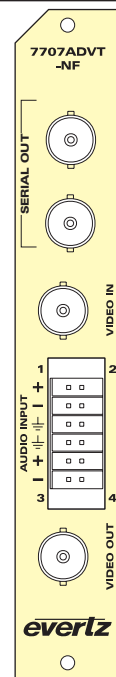
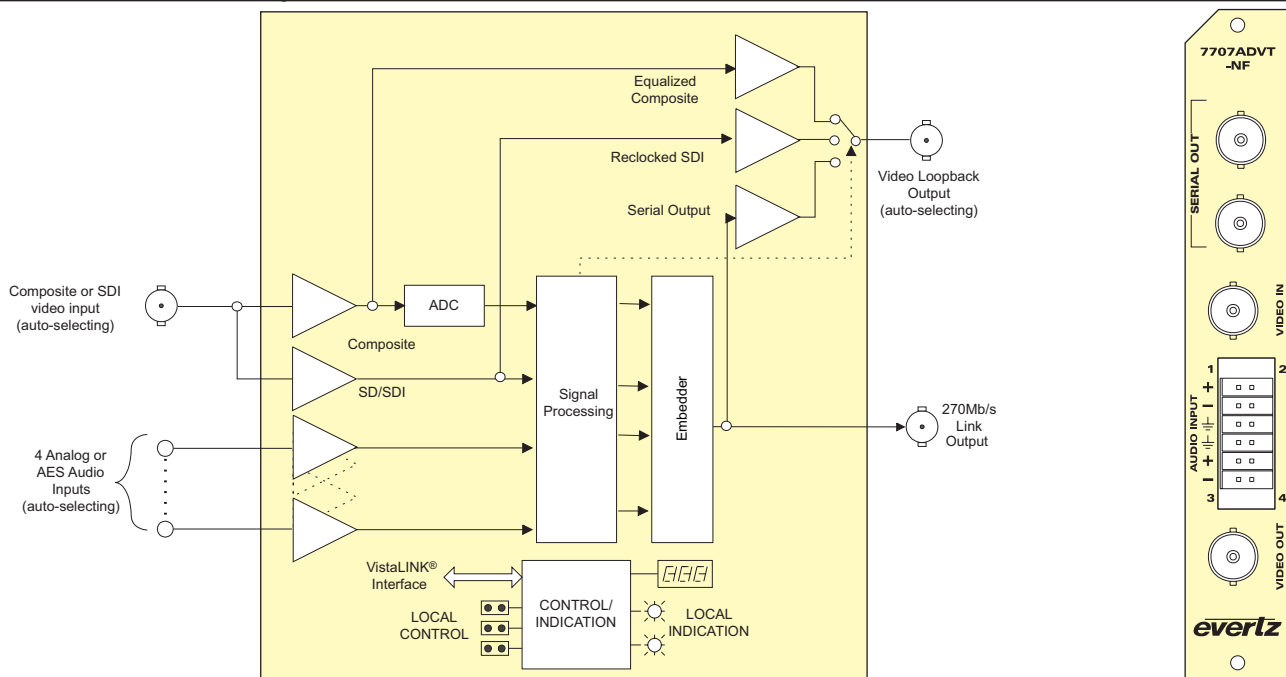
- Single card fiber optic transmitter for one composite Analog or SDI video and four analog or AES audio signals
- Auto-sensing (analog or digital) video and audio inputs
- Supports both NTSC and PAL analog or 4:2:2 component digital video
- Supports Analog to Digital and Digital to Analog audio conversion
- Broadcast quality analog video and audio performance
- Meets or exceeds EIA/TIA RS250-C short haul specifications for analog video and audio transport
- Supports 32kHz, 44.1kHz, 48kHz AES audio inputs
- Dolby-E® compatible
- Comprehensive signal and card status monitoring via four digit card edge display or remotely through SNMP and VistaLINK®
- Audio de-embedding capability for digital video and Analog or AES Audio
- -NF version converts copper 270Mb/s link input back to video & audio
- Converts input video & audio to a 270Mb/s copper output to interface with any SD-SDI or other 270Mb/s service

- 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
- Adjustable gain equalization for analog video for up to 250m of Belden 1694A coaxial cable
- Fully Hot-swappable from front of frame with no fiber disconnect/reconnect required
- Supports single-mode and multi-mode fiber optic cable (contact factory for multi-mode applications)
- Optical output wavelengths at 1310nm, 1550nm and up to sixteen CWDM wavelengths (ITU G 694.2 compliant)
- DWDM wavelengths also available (ITU G.694.1 compliant)
- Outputs available with fiber optics and BNC or BNCs only (-NF version)
- Passes embedded and/or external audio for digital video

►7707ADVT Block Diagram



►7707ADVT-NF Block Diagram



**► Specifications****Analog Video Input:**

Standards: SMPTE 170M (NTSC), ITU-R 624-2 (PAL)
 Number of Inputs: 1
 Connector: 1 BNC per IEC 61169-8 Annex A
 Signal Quantization: 12 bit
 System Bandwidth: > 5.5MHz
 Input Level: 2V p-p (Maximum)
 Gain Equalization: Up to 250m of Belden 1694A or equivalent (adjustable)
 Input impedance: 75Ω
 Return Loss: > 30dB to 5.5MHz
 Signal/Noise Ratio: > 70dB
 Differential Gain: < 1.0%
 Differential Phase: < 0.7°
 Passband Ripple:
 NTSC: < ±0.1dB to 4.1MHz
 < ±0.2dB to 5.5MHz
 PAL: < ±0.1dB to 4.8MHz
 < ±0.2dB to 5.8MHz
 Chroma/Luma Gain: 98% to 103%
 Chroma/Luma Delay:
 NTSC: < 5ns
 PAL: < 12ns
 Line Time Distortion: 1.2%

Serial Video Input:

Standard: SMPTE 259M-C (525 or 625 line component), SMPTE 305M (SDTi), DVB-ASI (without separate audio)
 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

Analog Video Output:

Standard: Same as Analog Video Input
 Number of Outputs: 1
 Connector: 1 BNC per IEC 61169-8 Annex A
 Output Level: 1V p-p
 Output Impedance: 75Ω
 Return Loss: > 30dB to 5.5MHz

Serial Video Output:

Number of Outputs: 2 (1 loopback, 1 serial)
 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

Analog Audio Inputs:

Number of Inputs: 4
 Type: Balanced analog audio
 Connector: 12-pin removable terminal block
 Input impedance: High Impedance (> 20kΩ)
 Freq. Response: ±0.1dB, 20Hz to 20kHz
 THD 20Hz-20kHz: < 0.005%
 Channel Phase Diff.: ±1°
 SNR (weighted): > 85dB
 Max. Audio Input Level: +24dBu
 Signal Quantization: 24 Bits

AES Audio Inputs:

Number of Inputs: 4 (auto-sensing for balanced or unbalanced input)
 Standard:
 Unbalanced AES: SMPTE 276M
 Balanced AES: AES3-1992
 Other: Dolby-E® compatible
 Connector: 12-pin removable terminal block
 Input Return Loss: > 15dB (1MHz to 6MHz)
 Signal Level:
 Unbalanced: 1.2V p-p ±0.1V
 Balanced: 1 to 7V p-p
 Equalization:
 Unbalanced: 1500m of Belden 1694A cable
 Balanced: 450m of Belden 1800D cable
 Resolution: Up to 24 bits
 Sampling Rate: 32kHz, 44.1kHz, 48kHz
 Impedance:
 Unbalanced: 75Ω
 Balanced: 110Ω

Optical Outputs:

Number of Outputs: 1
 Connector: Female SC/PC, ST/PC or FC/PC
 Return Loss: > 14dB
 Rise and Fall Time: 200ps nominal
 Fiber Size: 9μm core/125μm overall
 Wavelengths:
 Standard: 1310nm, 1550nm (nominal)
 CWDM: See Ordering Information
 DWDM: See Ordering Information
 Output Power:
 1310nm FP (Standard): -7dBm ±1dBm
 1550 & CWDM DFB: 0dBm ±1dBm
 DWDM DFB: +7dBm ±1dBm

Electrical:

Voltage: +12V DC
 Power: 15W (Non DWDM), 18W (DWDM)

Physical (number of slots):

350FR: 1
 7700FR-C: 1
 7701FR: 1
 7800FR: 1

Compliance:

Electrical Safety: CSA Listed to UL 60065-03, IEC 60065
 Complies with CE Low voltage Directive
 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

Receiver Compatibility Chart:

MODEL #	SD-SDI	HD-SDI
2405/7705/7707OE	x	
2405/7705/7707OE-HD	x	
7705/7707OE-3	x	
7705/7707OE-3-HD	x	
7707ADV R	x	
7707ADV R-HD	x	
7707VAR-HD	x	

► Ordering Information

7707ADVT13 Analog or SDI Video & 4 Analog or 4 AES audio Fiber Transmitter, 1310nm laser, VistaLINK®
7707ADVT15 Analog or SDI Video & 4 Analog or 4 AES audio Fiber Transmitter, 1550nm DFB Laser, VistaLINK®
7707ADVT-NF Electrical output only

For CWDM applications please refer to the end of the fiber section for details

7707ADVTxx Analog or SDI Video & 4 Analog or 4 AES audio fiber transmitter, CWDM Laser, VistaLINK®

For DWDM applications please refer to the end of the fiber section for details

7707ADVTDxxx Analog or SDI Video & 4 Analog or 4 AES audio fiber transmitter, 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 7800FR Multiframe

Connector Suffix
+SC SC/PC
+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