7707ADVT-HD

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

Features & Benefits

- Single card fiber optic transmitter for one composite Analog, SD-SDI or HD-SDI video and four analog or AES audio signals
- Auto-sensing (analog or digital) video and audio inputs
- Supports 525/625 line component 4:2:2 SDI @ 270Mb/s
- Supports HD (SMPTE 292M) video @ 1.485Gb/s
- Supports both NTSC and PAL analog 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®
- 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)

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), SMPTE 292M (HD)
Connector:	1 BNC per IEC 61169-8 Annex A
Equalization:	Automatic to 300m @ 270Mb/s and 100m @1.485Gb/s with Belden 1694A or equivalent cable
Return Loss:	> 15dB up to 1.485Gb/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 @ 270Mb/s < 270ps @ 1.485Gb/s
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:	9mm core/125mm overall
Wavelengths:	
Standard	1310nm, 1550nm (nominal)
CWDM:	See Ordering Information
DWDM:	See Ordering Information
Output Power:	
1310nm FP (Standard):	-7dBm ±1dBm
1550 & CWDM DFB:	1dBm -1dBm
DWDM DFB	+7dBm ±1dBm

Electrical:

Voltage:	+12V DC
Power:	16W (Non DWDM) 19W (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

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

The Complete Solution Provider

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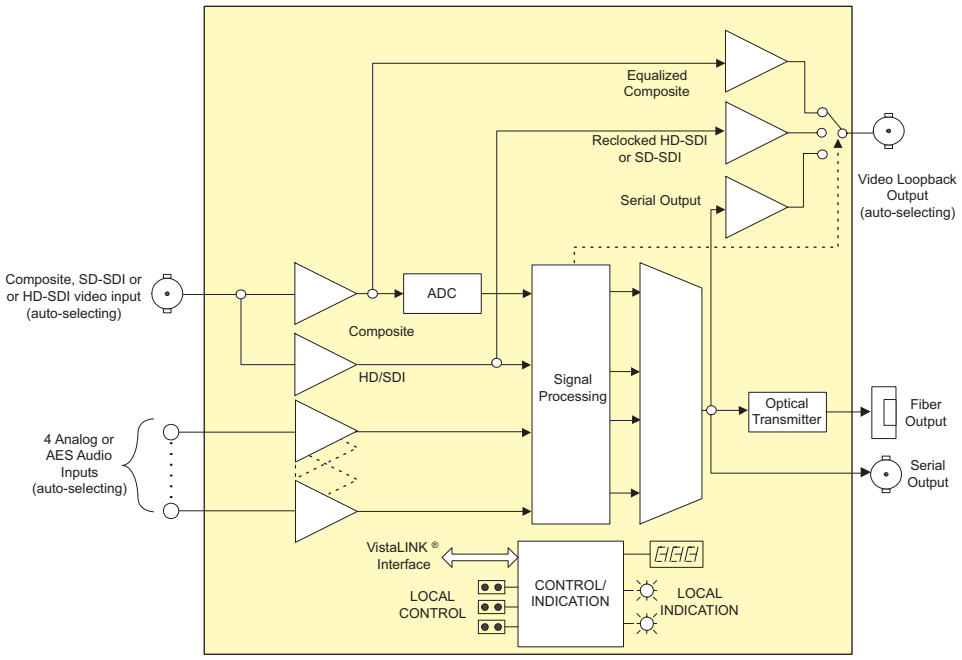

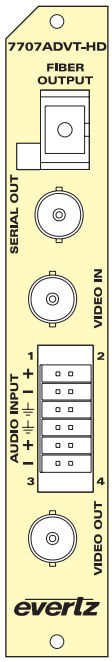

Ordering Information

7707ADVT13-HD:	Analog, or SDI or HD Video with 4/Channel Analog or AES Audio Fiber Transmitter
7707ADVT15-HD:	Analog, or SDI or HD Video with 4/Channel Analog or AES Audio Fiber Transmitter
For CWDM applications please refer to the end of the fiber section for details	
7707ADVTxx-HD	Analog, HD-SDI 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-HD	Analog, HD-SDI 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
7701FR	1RU Multiframe which holds up to 3 single or dual slot modules
7801FR	1RU Multiframe which holds up to 4 single or 2 dual slot modules
S7701FR	Standalone Enclosure