

7707CVTA, 7707CVTA-2

Single / Dual Analog Video with 4-Channel Analog Audio Fiber Transmitter



The 7707CVTA is a VistaLINK® capable, composite analog video and analog audio fiber transmitter for broadcast quality video and audio signals. This single card module accepts one NTSC or PAL analog video input with up to four analog audio inputs, performs analog to digital conversion and transmits them over a single fiber. The companion 7707CVRA Composite Video and Analog Audio Fiber Receiver demultiplexes the signals and converts them back to analog form.

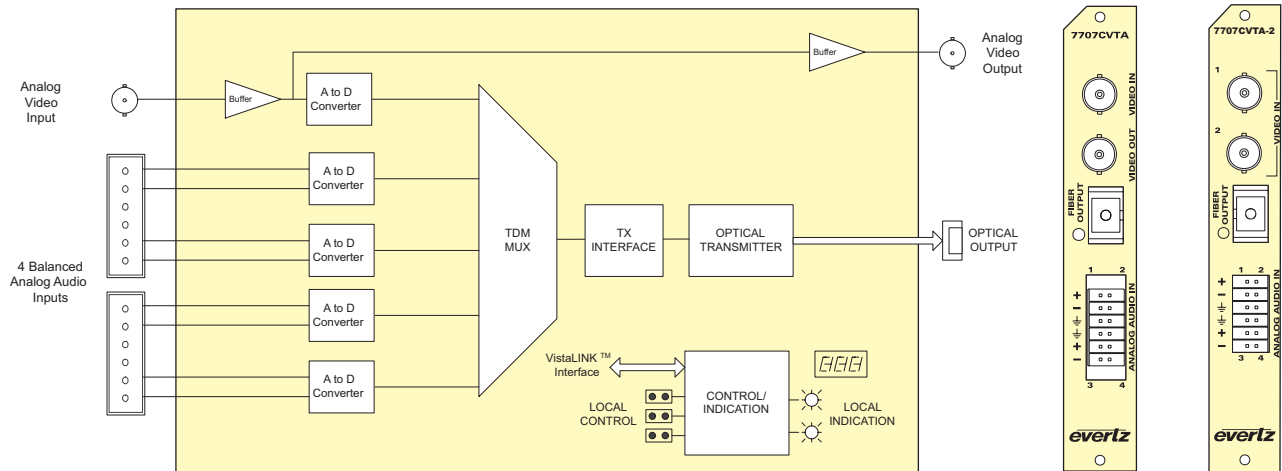
The 7707CVTA-2 Dual Composite Video and Analog Audio fiber transmitter is a dual channel version that digitizes and multiplexes two analog video and up to four analog audio signals and converts them to an optical signal for transmission.

The companion 7707CVRA-2 Dual Composite Video and Analog Audio Fiber Receiver accepts a fiber optic input, demultiplexes the signals, performs D to A conversion and outputs two NTSC or PAL analog video signals and up to four balanced analog audio signals.

The fiber optic output of the 7707CVTA and 7707CVTA-2 is available in an assortment of optical wavelengths, accommodating 1310nm/1550nm, CWDM and DWDM transmission schemes. The 7707CVTA and 7707CVTA-2 occupy one card slot and can be housed in a 1RU frame, which will hold up to three modules, a 3RU frame which will hold up to 15 modules or a standalone enclosure that will hold 1 module.

Features & Benefits

- Single card fiber optic transmitter for one or two analog video and four analog audio signals
- Supports both NTSC and PAL video signals
- Broadcast quality analog video and audio performance
- Meets or exceeds EIA/TIA RS250-C short haul specifications for analog video and audio transport
- Superior digital data transmission
- Video loop-through for additional signal distribution or monitoring (7707CVTA only)
- Signal transport over fiber is uninterrupted by loss of input video or audio feeds
- Low Audio to Video latency
- 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 7700FR-C frame and a 7700FC VistaLINK® Frame Controller module in slot 1 of the frame
- Adjustable gain equalization 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
- 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





7707CVTA, 7707CVTA-2

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Specifications

Analog Video Input:

Standards: NTSC, SMPTE 170M, PAL, ITU-R 624-4
 Number of Inputs: 1 on 7707CVTA, 2 on 7707CVTA-2
 Connector: BNC per IEC 60169-8 Amendment 2
 Signal Quantization: 12 bits
 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%

Analog Video Outputs (7707CVTA only):

Standard: NTSC, SMPTE 170M, PAL, ITU-R 624-4
 Number of Outputs: 1 buffered version of input
 Connector: BNC per IEC 60169-8 Amendment 2
 Output Level: 1V p-p
 Output Impedance: 75Ω
 Return Loss: > 30dB to 5.5MHz

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

Optical Outputs:

Number of Outputs: 1
 Connector: Female SC/PC, SC/PC, ST/PC or FC/PC
 Return Loss: > 14dB
 Wavelengths:
 Standard: 1310nm, 1550nm (nominal)
 CWDM: See Ordering Information
 DWDM: See Ordering Information
 Output Power:
 1310nm FP (Standard): -7dBm ±1dBm
 1310nm FP (M version): 0dBm ±1dBm
 1550 & CWDM DFB: 0dBm ±1dBm
 DWDM: +7dBm ±1dBm

System Performance (7707CVTA + 7707VCRA or 7707CVTA-2 + 7707VCRA-2):

Video Input to Output Delay: < 10µs
 Audio Input to Output Delay: < 1.9ms

Electrical:

Voltage: +12V DC
 Power: 11/12W (Non-DWDM), 13/14W (DWDM)

Physical:

7700 or 7701 frame mounting:
 Number of slots: 1

Compliance:

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

7707CVTA13 Analog Video with 4-channel Analog Audio Fiber Transmitter 1310nm FP Laser, VistaLINK®
7707CVTA13M Analog Video with 4-channel Analog Audio Fiber Transmitter 1310nm FP Laser (0dBm launch), VistaLINK®
7707CVTA13-2 Dual Analog Video with 4-channel Analog Audio Fiber Transmitter, 1310nm FP Laser, VistaLINK®
7707CVTA13M-2 Dual Analog Video with 4-channel Analog Audio Fiber Transmitter, 1310nm FP Laser, (0dBm launch), VistaLINK®
7707CVTA15 Analog Video with 4-channel Analog Audio Fiber Transmitter 1550nm DFB Laser, VistaLINK®
7707CVTA15-2 Dual Analog Video with 4-channel Analog Audio Fiber Transmitter, 1550nm DFB Laser, VistaLINK®

For CWDM, please refer to the end of the fiber section for ordering information
7707CVTAxx Analog Video with 4-channel Analog Audio Fiber Transmitter CWDM DFB Laser, VistaLINK®
7707CVTAxx-2 Dual Analog Video with 4-channel Analog Audio Fiber Transmitter CWDM DFB Laser, VistaLINK®

For DWDM, please refer to the end of the fiber section for ordering information
7707CVTADxxx Analog Video with 4-channel Analog Audio Fiber Transmitter DWDM DFB Laser, VistaLINK®
7707CVTADxxx-2 Dual Analog Video with 4-channel Analog Audio Fiber Transmitter DWDM DFB 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 7700FR-C 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

Enclosures

7700FR-C 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

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