

DigiLink 1220

DIGILINK VIDEO TRANSPORT

Analog and Digital Video Over Fiber Transport System

Compact 1 RU chassis supports

- Analog Video and 4 baseband audio and data
 - NTSC
 - PAL
 - SECAM
 - Satellite (video with embedded audio)
 - RS232 Data plus 4 Relay
- 270 Mb/s Digital Video
 - SDI (SMPTE 259M)
 - SDTI (SMPTE 305M)
 - DVB-ASI
- AC or DC power
- Field replaceable fan

Superior transport quality

- Analog:
 - 12-bit video encoding
 - 18-bit audio encoding
 - Exceeds RS250C short haul specification
- Digital:
 - Jitter Management
 - Error detection and handling (SDI)
 - Native transport of all digital formats

Flexible Optics

- Integrated 1310nm 0dBm laser and -32dBm receiver
- Optional Laser Cartridges
 - 1550nm (0 dBm)
 - 1550nm (+7 dBm)
- DWDM (ITU standard channels 21-60)
- Supports singlemode and multimode fiber

Plug-and-play installation and monitoring

- Configurable to automatically detect and transport analog or digital video
- Front Panel Meters
 - Audio Level
 - Transmit wavelength (Encoder)
 - Receiver Light Level (Decoder)
 - Temperature
- LED status displays
 - Device status
 - Optical status
 - Video status
- Test Signal Generator
 - Link verification
 - Loss of video source
 - User configurable color and text
- SNMP monitoring and configuration
- Dry contact relays
- Front video and audio monitors (rear video monitor on encoder also)

Renowned dependability

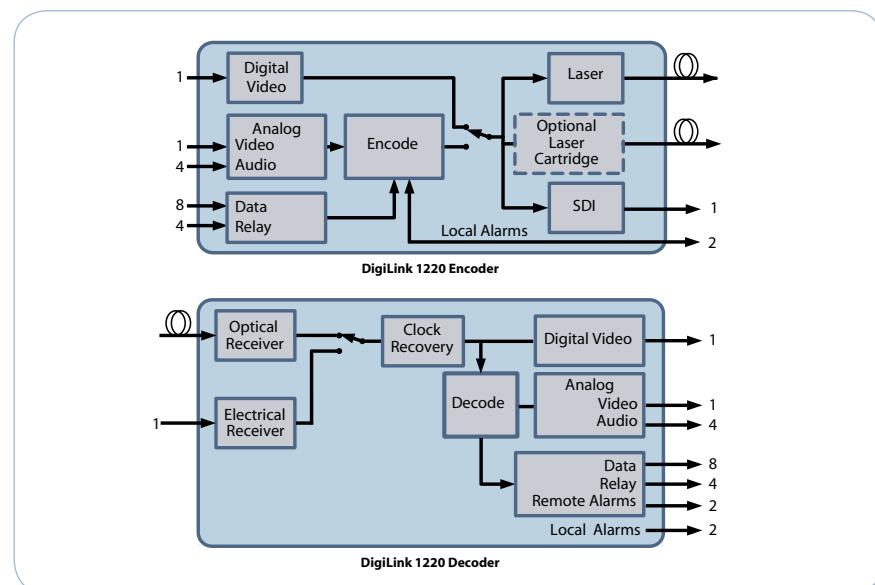
- Demonstrated 20 year mean time between failure (MTBF)
- NEBS Level 3 certification



Artel's DigiLink 1220 is an innovative, cost-effective video over fiber transport system capable of transporting all Digital 270Mb formats including SDI SMPTE259M, SDTI and DVB-ASI as well as Analog NTSC, PAL or SECAM with baseband audio.

DigiLink 1220's rugged chassis, flexible optics, full featured front panel, and plug-and-play installation make it the ideal solution for video service providers and cable operators for contribution and backhaul applications. The 1220 transports analog or digital video with virtually no degradation in video quality or latency covering distances of up to 150km. Distances over 150km are possible using Artel's DL2701DX digital receiver as a repeater. For fiber constrained applications DigiLink products feature ITU standard DWDM optics with up to 40 channels transported over a single fiber.

DigiLinks' reputation for reliability and transmission quality has made it the most requested product for video service providers and their customers for critical applications.



DigiLink 1220 Specifications

Power

AC Specifications

Input Voltage	90 to 254 VAC at 50 or 60 Hz
Current	1.0 Amp (max.)
Power Consumption	55 Watts (max.)
BTU/hr	<190

DC Specifications

Voltage	-38.4 to -57.6 VDC
Current	1.5 Amps (max.)
Power Consumption	58 Watts (max.)
BTU/hr	<200

Environmental

Ambient Operating Temperature	0 to 40°C, 32 to 104°F
Relative Humidity	10 to 95% (non-condensing)
Ambient Storage Temperature	-40 to 80°C, -40 to 176°F

Physical

Chassis Dimensions (H, W, D)	1.75" x 19.0" x 10.50" 4.44 cm x 48.26 cm x 26.67
Chassis Weight	6.0 lbs, 2.72 kg
Rack Mount Requirement	One 19" Rack Unit

Analog Baseband Video

Exceeds RS250C Short Haul Specifications

SNR	71 dB (weighted)
I/O Connector	BNC, 75 ohm
Quantization	12 bits
Bandwidth	8.5MHz

Baseband Audio

Exceeds RS250C Short Haul Specifications

Freq. Response	±0.3 dB (20-20kHz)
Distortion	<0.1% (400 Hz +18 dBm) <0.3% (20 Hz and 20 kHz)
IMD	<0.3% (60 Hz and 7 kHz, 4:1)
SNR	>85 dBA typical (+18 dBm)
Input Impedance	600 ohm or Hi-Z
Maximum Input	+22 dBm (600 ohm)

SDI Video

Nominal Bit Rate	270.000 Mbps
Tracking Range	±100 ppm (min.)
Output Jitter	<740 picoseconds
I/O Connectors	BNC, 75 ohm
I/O Levels	Conforms to SMPTE 259M
Cable Equalization	820 ft., 250 meters

Data

RS232C Simplex Data Channels	8
Data Rate	0 to 19.2 kbps
I/O Levels	RS232C
Bit Error Rate	10 ⁻⁹ or better
Connector	DB25 with individual grounds

Optical

Optical Connector	FC/PC
Connector Loss	0.25 dB (max)

Encoder	
Optical Power Output	0 dBm (min)
Optical Wavelength	1310 ± 30 nm
Spectral Width	<4 nm FWHM
Fiber Type	SMF

Optional Laser Cartridges

Optical Connector	FC/PC
Connector Loss	0.25 dB (max)
Fiber Type	SMF

WL-13

Optical Power Output	0 dBm (min)
Optical Wavelength	1310 ± 30 nm
Spectral Width	<4 nm FWHM

WL-15

Optical Power Output	0 dBm (min)
Optical Wavelength	1550 ± 35 nm
Spectral Width	<0.8 nm FWHM

WL-7-15

Optical Power Output	+7 dBm (min)
Optical Wavelength	1550 ± 35 nm
Spectral Width	<0.8 nm FWHM

WL-21 through WL-60

Optical Power Output	0 dBm (min)
Optical Wavelength	ITU Grid ± 0.1 nm
Spectral Width	<0.8 nm FWHM

WL7-21 through WL7-60

Optical Power Output	+7.0 dBm (min)
Optical Wavelength	ITU Grid ± 0.1 nm
Spectral Width	<0.8 nm FWHM

Decoder

Receiver Sensitivity	-32 dBm (BER = 10 ⁻¹³)
Maximum Input	-1 dBm (operating)
Input Wavelength	1200 to 1600 nm
Input Aperture	50 microns (MMF and SMF compatible)

Regulatory Conformance

Compliance: NEBS Level 3, CE (EN50082-1, EN89/336/EEC)
 Safety: UL, CSA, EN60950, LVD 73/23/ECC, IEC Class 1 Laser Device
 EMI: FCC (Part 15, Class A), ICE3-003, EN50022, CISPR22 (Class A)

Ordering Information

Part Number	Description
390-000681-00	DL1220 Encoder, AC Input
390-000681-48	DL1220 Encoder, -48VDC Input
390-000683-00	DL1220 Decoder, AC Input
390-000683-48	DL1220 Decoder, -48VDC Input

