

907V

Fiber optic multiplexer

Description

The model 907V Video Multiplexer provides digital transmission over a singlemode optical fiber for 6 high quality video channels (NTSC / PAL, RGB, Y / C, YPrPb formats) in a single PC / 104 form-factor card. The 907V may be configured to operate on a single uplink wavelength in video-only mode or with an uplink and downlink wavelength to support model 907 expansion cards with bi-directional data channels.

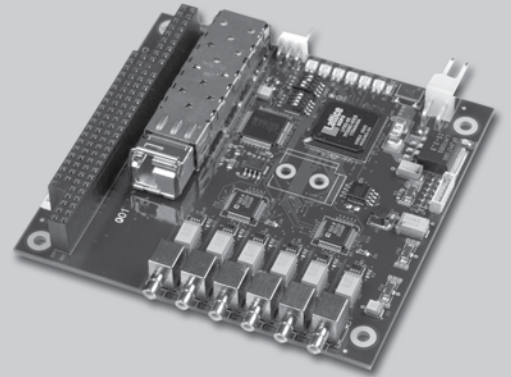
Expansion cards may be stacked on the motherboard to add up to 48 data channels in a variety of formats, including RS-232, RS-485 / 422, TTL, Ethernet, CANBus, analog sonar, hydrophone, audio, and Trittech ARCNET. Depending on transceiver options, optical power budgets are typically 20-26 dB with 10 km or more of singlemode fiber. Diagnostics are available as on-board LEDs for video and optical link status and as an optional serial link.

Features

- Highest density of high quality video channels available in PC / 104 size
- Video-only mode operates on a single wavelength
- Advanced diagnostics available in serial and Ethernet format
- Compatible with existing 907 expansion cards and media converters
- Replaceable SFP transceiver

Benefits

- Reduces cost and number of cards required for video intensive applications
- Reduces number of wavelengths required in CWDM systems when using video-only mode
- Allows continuous monitoring of optical link and health parameters by a local PC or over a network
- Supports reuse of existing 907 cards and reduced sparing in mixed 907 and 907V systems
- Supports a wide range of optical options including CWDM for combining up to 8 separate 907 systems on a single fiber



Typical Applications

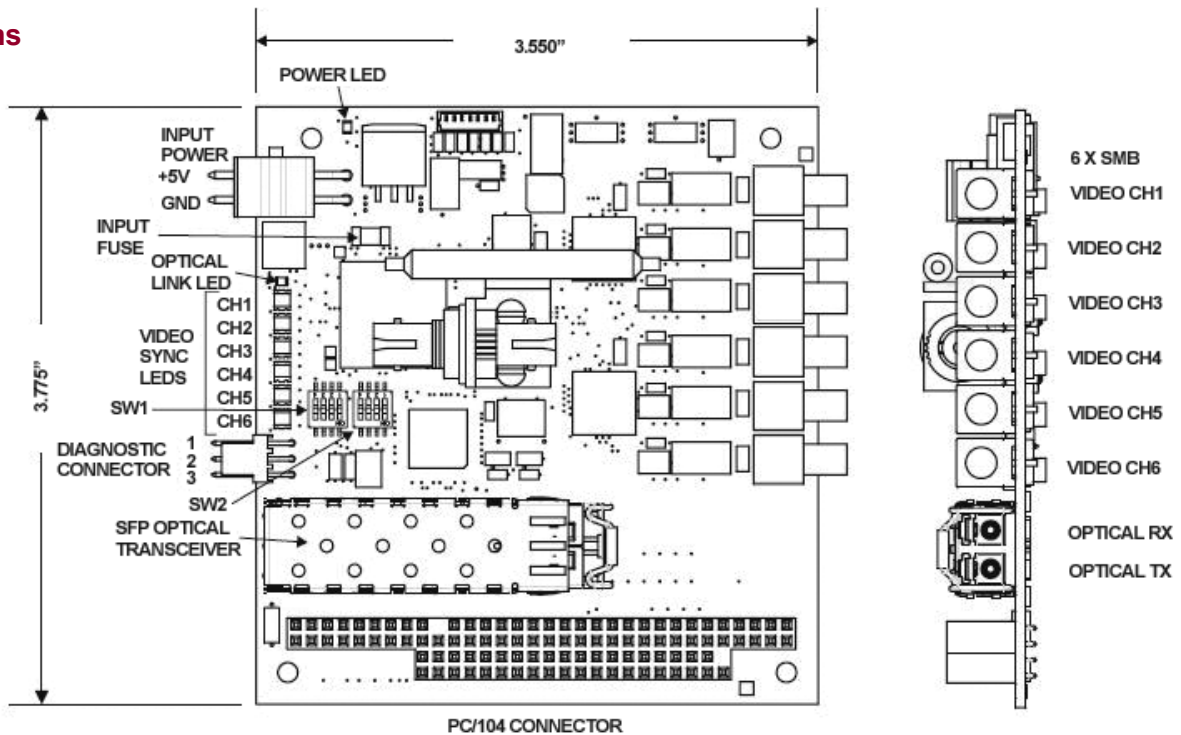
- Remotely Operated Vehicles (ROVs)
- Pipe Inspection Robots
- Bomb Disposal Robots
- Video Security Systems
- Tether Management Systems
- Tactical Networks

Fiber Optic Multiplexers

Video	
No. Channels	6
Format	NTSC / PAL composite signals, RGB, Y / C (S-video), YPrPb
Digitization	10 bit (6 channels, video only) 10 bit (4 video channels with data) 8 bit (6 video channels with data)
Bandwidth	6.0 MHz
SNR	>60 dB typical
Impedance	75 Ohms
Data	
Options	Expansion cards for isolated serial data (RS-232 / 485 / 422), TTL, Ethernet (10 Mbps), Tritech ARCNET, MS-900 / 971 sonar, hydrophone, audio, CANBus. Media Converters for USB, Ethernet (10 / 100 / 1000 Mbps) HD-SDI, IEEE-1394, ECL.
Optical	
Optical Fiber	1 singlemode
Data Rate	1200 Mbaud uplink and (optional) downlink
Wavelengths	1310, 1550 nm standard, CWDM optional
Flux Budget	20 dB min. standard
Options	WDM for bidirectional data; CWDM options for combining multiple 907 systems on one singlemode fiber; bidirectional transceivers; extended temperature; pressure tolerant; diagnostics software available.

Electrical	
Power Supply	+5 VDC regulated input required
Power Used	3.5 W typical, each end
Options	Isolated power card (DC-DC)
Mechanical	
Dimensions	PC/104 (form factor only)
Weight	120g (0.25lb) loaded with SFP
Enclosures	Standard and custom versions available
Options	Eurocard adapter for installation in a standard 3U Eurocard rack with front panel access to video connectors
Connectors	
Optical	ST/PC (standard), LC (CWDM options)
Video	SMB
Power	2 pin Molex, 0.156" pin spacing
Environmental	
Temperature	-10 to +60 degrees C (operating) -20 to +85 degrees C (storage)
Humidity	85% relative, non-condensing
Vibration	MIL-STD-167-1 (ships), 3-axis
Shock	MIL-STD-810E

907V Dimensions



Dimensions in inches.

Manufactured in an ISO 9000-2000 registered facility.

Photo credit to Steve Kaiser 2007.