

907-R/C

Video/Data Multiplexer

Description

The 907 video/data multiplexer provides digital transmission over 1 or 2 singlemode or multimode optical fibers for 3 high quality analog video channels and 6 bidirectional data channels (4 x RS-232 and 2 x RS485/422/TTL) in a single, compact PC/104 form-factor card.

Expansion cards may be stacked to convert (i.e. replace) data channels on the motherboard to other data formats, such as Ethernet, analog sonar, hydrophone and Tritech ARCNET, or to replace each motherboard channel with up to 8 lower data-rate serial channels. Optical power budgets are typical 20 - 24 dB with 2 km of multimode fiber or 10 km of singlemode fiber. LEDs provide on-board diagnostics for data, video and optical link status.

Features

- High quality digitized video
- Standalone, single card multiplexer
- Supports up to six 907 expansion cards
- Standard PC/104 form factor
- Rugged design for harsh environments, including pressure tolerant version
- On-board diagnostic LEDs for power, optical link, and video sync
- Wide range of supported video and data formats
- Singlemode and multimode fiber options
- CWDM expansion for high speed data links, such as HD-SDI, ECL and Gigabit Ethernet

Benefits

- Highest channel density allows extremely compact solution for space limited application
- Easily reconfigured with a wide range of expansion cards including the same AIB plug-in modules used on the Model 903
- Extended temperature options allows use in the harshest environments
- Successful operation assured by factory acceptance test at temperature extremes and 20 years of experience providing technical support for fiber-optic systems



Typical Applications

- Subsea Remotely Operated Vehicles (ROVs) and tether management systems
- Pipe inspection robots
- Bomb disposal robots
- Armoured vehicles

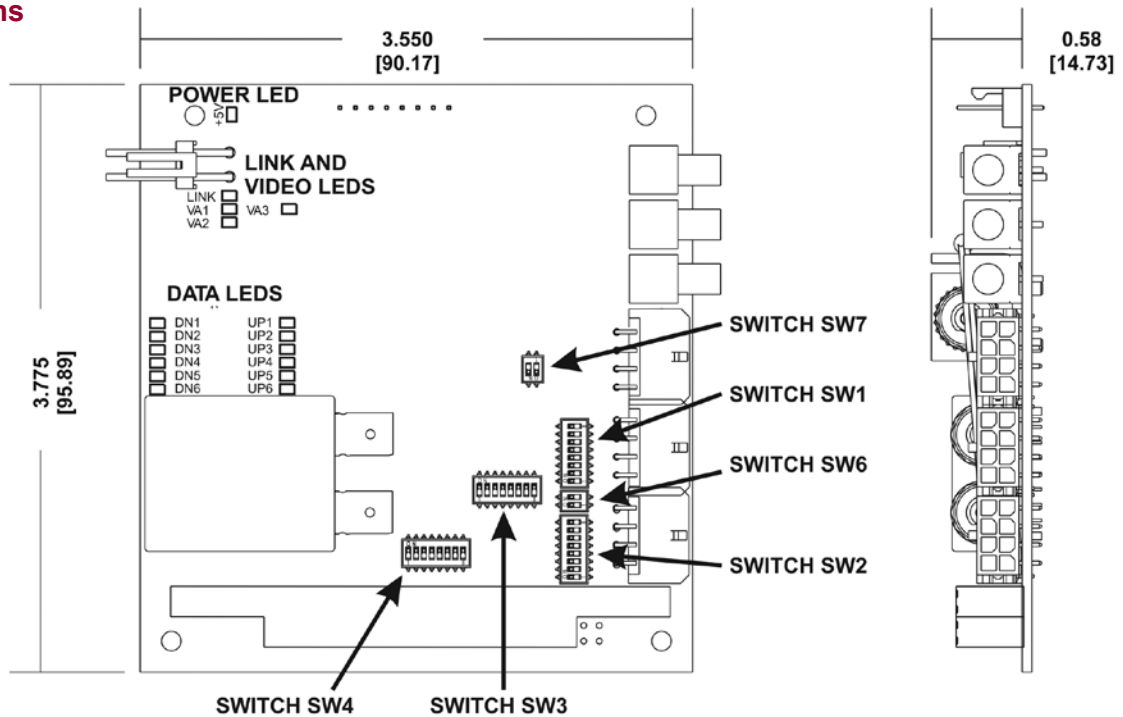
Model 907 Datasheet

Model 907

Video	
No. Channels	3
Format	NTSC/PAL, RGB, Y/C (S-Video), YPrPb
Digitization	8-bit (3 video channels) 10-bit (2 video channels)
Bandwidth	6.0 MHz
SNR	> 56 dB (62 dB typical)
Impedance	75 Ohms
Options	1 x non-video analog channel (1 Vpp) 1 x 12-bit, 12 Mhz analog channel (replaced all video channels)
Data	
RS-232	4 channels (120 kbps NRZ max.)
RS-485/422	2 channels RS-485 (2.5 Mbps NRZ max.) Supports AC-coupled RS-485, TTL
Options	907 expansion cards
Optical	
Optical Fiber	1 or 2 singlemode (9/125 μm) multimode (50/125 μm)
Baud Rate	600 Mbaud
Wavelength	1310/1550 nm standard (CWDM optional, 1471 - 1611 nm)
Flux Budget	> 20 dB (24 dB typical)
Options	Bidi (bidirectional) transceivers

Electrical	
Power Supply	+5.0 VDC ± 10%, regulated
Power Used	5 W typical (10 W max.)
Grounding	Shared common for power, data, video
Options	Isolated power/data card
Mechanical	
Dimensions	PC/104 (form-factor only)
Weight	< 120 g (0.26 lb)
Options	Custom enclosures, Eurocard adapter
Connectors	
Optical	Single ST/PC
Video	SMB
Data (Serial)	3 x 8-pin Molex (Micro-Fit Series)
Power	2-pin Molex, 0.156 inch pin spacing
Environmental	
Temperature	-10°C to +60°C (operational) -40°C to +85°C (storage)
Humidity	85% RH, non-condensing
Vibration	5 g, 25 - 1000 Hz, 3 axes
Shock	30 g, 11 ms half sine, 3 axes
Options	3000 psi pressure tolerant, extended temperature, stress screened or qualified

907 Dimensions



Dimensions in inches [millimeters] 907 shown with singlemode WDM option

Note: These are standard commercial products that are available with many options or configurations not explicitly shown.