

907-GBE2

Dual Gigabit Ethernet Media Converter

Description

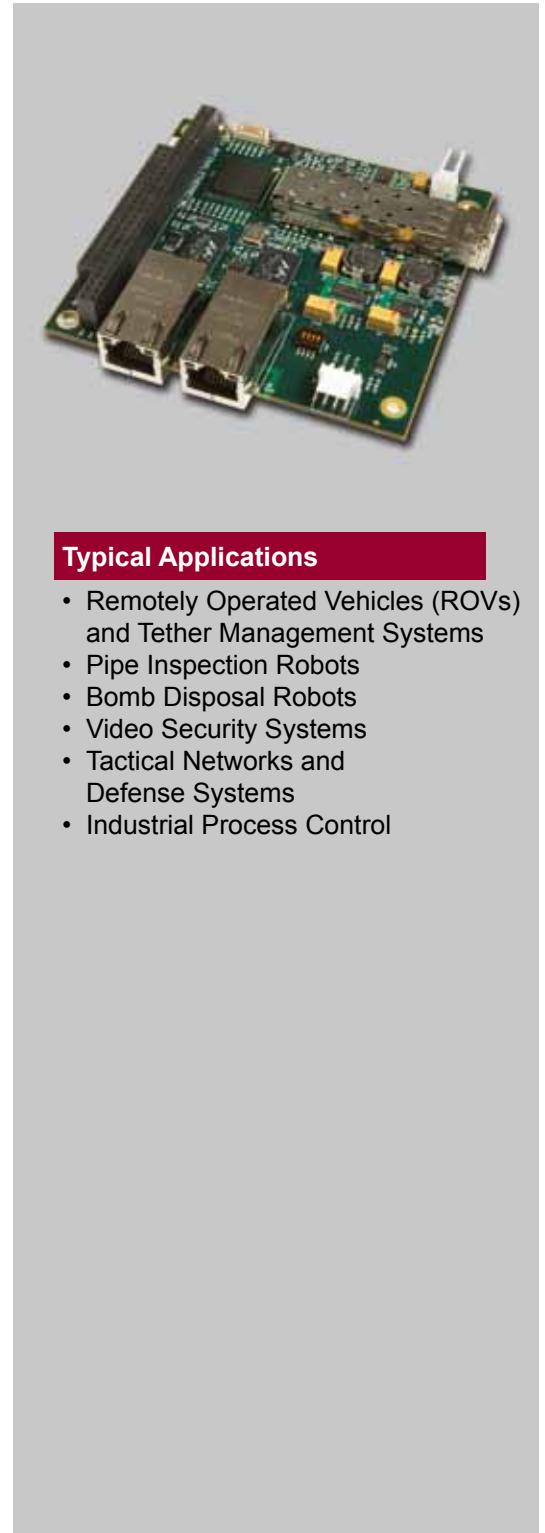
The model 907-GBE2 is a Dual Gigabit Ethernet (GbE) Media Converter. This PC/104 card offers two independent 10/100/1000 Base-T(X) Ethernet ports (RJ-45) while maintaining the use of a single optical transceiver. This is the ideal solution for multi-beam sonar devices running “dual head” configurations, or any application that requires simultaneous yet dedicated point-to-point “switchless” connections over fiber. The 907-GBE2 may be used as a standalone card or optically integrated into a 907 system stack via CWDM modules. Optical power budgets are typically 20 - 26 dB over 10 km of singlemode fiber. Enhanced diagnostics are provided by on-board LEDs and through a dedicated Ethernet link when used with the diagnostics card (907-DIAG-E) and corresponding graphical user interface (GUI) software.

Features

- Two independent (switchless) 10/100/1000 Base-T(X) Ethernet links
- Single optical transceiver running with 2500, 1250 or 625 Mbaud optical link (switch settable)
- Interchangeable SFP transceivers
- Rugged design for harsh environments, including pressure tolerant version
- Compatible with 907-DIAG-E diagnostic card and Graphic User Interface (GUI) software

Benefits

- Reduces cost and size by replacing two GbE media converters with a single card and single optical transceiver
- Switchless design provides low latency and compatibility with non-standard packets often used by sonars and other proprietary data link
- Supports operation over multimode fiber with lower optical rate settings
- Supports a wide range of optical options, including CWDM wavelengths and multimode configurations
- Simplifies troubleshooting with advanced diagnostics



Typical Applications

- Remotely Operated Vehicles (ROVs) and Tether Management Systems
- Pipe Inspection Robots
- Bomb Disposal Robots
- Video Security Systems
- Tactical Networks and Defense Systems
- Industrial Process Control

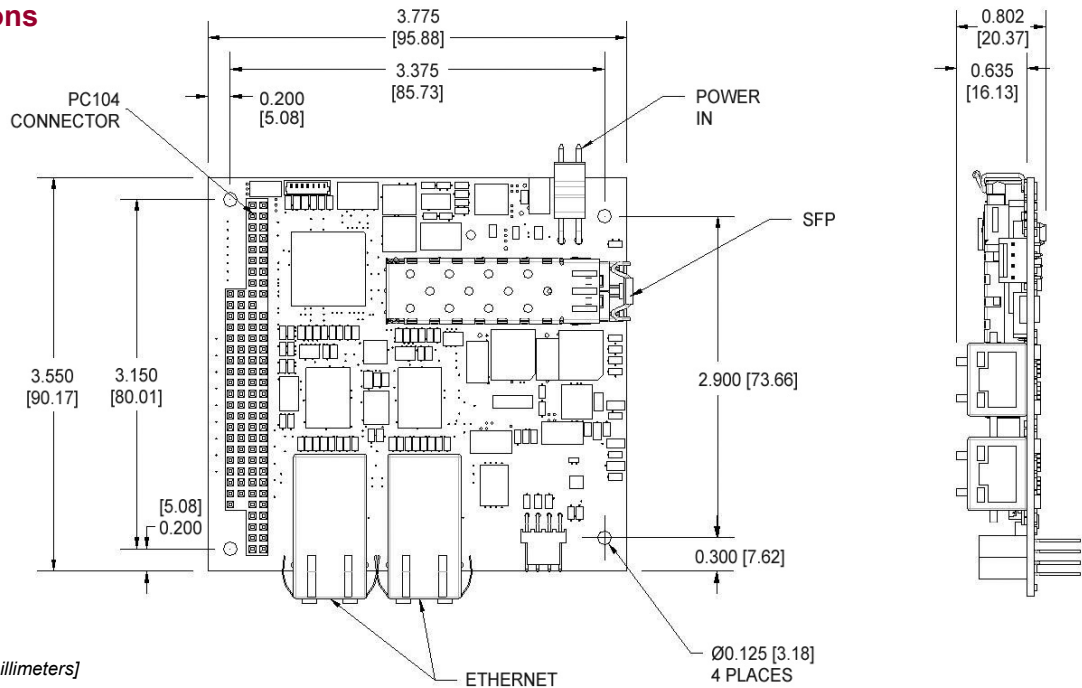
Model 907 Datasheet

Model 907

Data	
No. Copper Ports	2 (non-switched, independent)
Data Rates	10/100/1000 Base-T
Total Throughput	~ 500/1000/2000 Mbps, via switch setting (0.01% used for embedded diagnostics)
Latency	< 25 us (not including fiber, ~5 μs/km)
Options	Standalone version; support for jumbo frames. Contact Moog for details.
Optical	
Optical Fiber	1 or 2 singlemode (9/125 μm)
Baud Rate	625, 1250 or 2500 Mbaud
Format	AME-EP (Moog proprietary)
Wavelength	1310/1550 nm standard (CWDM optional, 1471 - 1611 nm)
Flux Budget	> 20 dB (24 dB typical)
Options	Bidi (bidirectional) transceivers; multimode fiber
Electrical	
Power Supply	+5 VDC +/-10%, regulated
Current Draw	1 A typical (1.5 A max.)
Power Used	5 W typical (7.5 W max.)
Voltage Protection	Overvoltage, reverse polarity, 3 A time delay fuse

Diagnostics	
LEDs	Power (electrical), optical link, optical fault, optical speed, PHY Rx/Tx activity, port rate
Ethernet to PC	Diagnostics from remote and console through 907-DIAG-E card at console
Mechanical	
Dimensions	PC/104 (form-factor only)
Weight	< 125 g (0.27 lb), including SFP
Options	Custom enclosures
Connectors	
Optical	Dual LC (SFP)
Data (Ethernet)	2 x RJ-45
Power	2-pin Molex, 0.156 inch pin spacing
Stacking	PC/104 (for stacking 907 cards only)
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	6000 psi pressure tolerant; extended temperature; stress screened or qualified

907 GBE2 Dimensions



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