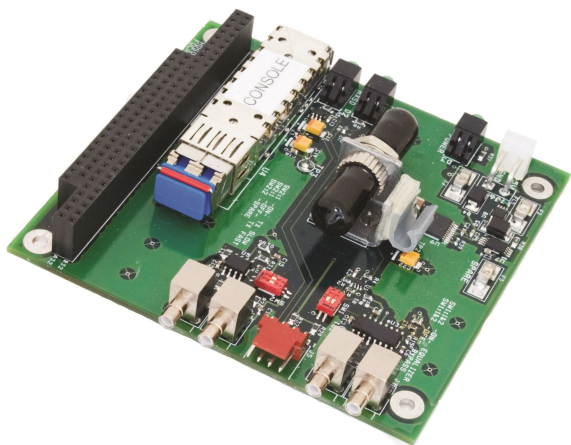


# Emitter Coupled Logic Media Converter

Model 907-ECL (Sonar)

**Focal Technologies Corporation, a Moog Inc. company, has over 30 years of expertise in supplying standard and custom marine products for harsh environments and is a leading manufacturer of high performance and high quality multiplexers. Contact Focal for any assistance in selecting the best solution for your requirements.**



The 907-ECL (Emitter Coupled Logic) media converter provides optical transmission of high speed data formats typically used by sonars over a singlemode or multimode fiber. This card may be switch configured to support single-ended and differential ECL/PECL signals.

For subsea applications, 907-ECL cards are typically connected to a sonar head at the remote end and the sonar processing unit at the console end. Supported sonar devices include the Reson 81XX Series, and the Kongsberg EM2000 and EM3000.

The 907-ECL card is available as a standalone card or as a CWDM stacking version for integration with a 907 multiplexer or other devices.

## Features

- ECL/PECL inputs and outputs are AC-coupled, 75-ohm impedance
- On-board diagnostic LEDs for power and optical link
- External diagnostic LED connector
- Compatible with 907-DIAG-E diagnostic card and Graphical User Interface (GUI) software
- Interchangeable SFP optical transceiver
- Rugged design for harsh environments, including pressure tolerant version

## Benefits

- Provides real-time, low latency, ECL/PECL signal transmission
- Extends sonar telemetry up to 10 km
- Simplifies troubleshooting with advanced diagnostics
- Supports a wide range of optical options, including CWDM wavelengths and multimode configurations

## Applications

- Remotely Operated Vehicles (ROVs)
- Pipe Inspection Robots
- Sonar Systems
- High Speed Data Links

# Specifications

Data	
No. Channels	1
Format	ECL, PECL and pseudo-ECL
Data Rate	30 - 150 Mbaud
Impedance	75 Ohms (standard) 50 Ohms (options available)
Latency	<1 $\mu$ s (not including fiber, ~5 $\mu$ s/km)
Optical	
Optical Fiber	1 singlemode (9/125 $\mu$ m) or multimode (50/125 $\mu$ m)
Baud Rate	30 - 150 Mbaud
Wavelength	1310 nm standard (CWDM optional, 1471 - 1611 nm)
Flux Budget	> 20 dB (24 dB typical)
Options	Bidi (bidirectional) transceivers; higher/lower budget transceivers
Electrical	
Power Voltage	+5.0 VDC $\pm$ 10%, regulated
Power Current	0.5 A typical (0.7 A max)
Power Used	2.5 W typical (3.5 W max)

Mechanical	
Dimensions	PC/104 (form-factor only)
Weight	< 120 g (0.26 lb) including SFP
Options	Custom Enclosure
Connectors	
ECL	SMB
LED Status	1 x 4-pin Molex connector
Optical	LC (SFP) ST/PC (fiber bushing)
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	6000 psi pressure tolerant, extended temperature, stress screened or qualified

All specifications and information are subject to change without notice. Please contact Focal for the latest updates.

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