## **Diagnostics Card, Ethernet**

907-DIAG-E

Focal Technologies Corporation, a Moog Inc. company, has over 30 years of expertise in supplying standard and custom marine products for harsh environment applications 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-DIAG-E card provides access to real-time diagnostic information from many of the Moog Focal Model 907 multiplexers, media converters and expansion cards. Typically mounted on top of a console stack, the 907-DIAG-E reads diagnostic values from both console and remote cards polled via the 10/100 Mbps Ethernet port. With programmable and switch configured IP addresses available, multiple diagnostics cards can be connected to the same network. In addition, a 20-pin header may be programmed to drive external LEDs as various status indicators, such as fault conditions, alarms, and optical link parameters.

Diagnostic information is polled from both optical transceivers (SFPs) and cards themselves. Transceiver data includes transmit and receive optical powers, temperature, laser bias current and power voltage. Card specific data includes card identifier, serial number firmware version and port connectivity status.

Diagnostic readings may be accessed by using Focal Graphical User Interface (GUI) software, based on the Microsoft<sup>®</sup> .NET Framework, or by using a customer's own software based on the Focal open communications protocol. A .NET library is also available to simplify the development of user GUI software.

#### Features

- Real-time health monitoring of power, optics, video, and data channels via Ethernet
- Access to software configurable features on 907 MUX cards
- Configurable IP address for networked applications
- Sample diagnostic GUI software available for Windows based PC
- Open diagnostic protocol for customer development
- User defined configuration of on-board diagnostic LEDs and header pins

#### **Benefits**

- Allows early identification of potential problems, e.g. increasing optical loss
- Provides remote access to diagnostics for technical support and configuration settings
- Allows logging of diagnostics data to establish baseline and historical performance
- Provides access to custom LED configurations for customer control panels

### Applications

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



# **Specifications**

Ethernet	
No. Copper Ports	1
Data Rates	10/100 Base-T(X)
RS-232	
No. channels	1 (optional)
	9600 Baud, 8-N-1
Data Rate and Format	(1 start bit, 8 data bits, 1 stop bit, no parity, no flow control)
Electrical	
Power Voltage	+5.0 VDC ±10%, regulated
Power Current	0.3 A typical (0.5 A max.)
Mechanical	
Dimensions	PC/104 (form-factor only)
Weight	< 80 g (0.17 lb)

Connectors	
External LED Header	1 x 20-pin Samtec (TST Series) Mating P/N IDSD-10-S-XX.XX Supports up to 18 external LEDS
Ethernet Connector	1 x RJ-45 (shielded)
Serial (RS-232)	3.5 mm stereo jack (TRS)
Power	PC/104 connector
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

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

© 2017 Moog Inc. DS907DIAGE-v2.0