

## GECO Avionics Ethernet Routing Device

- ◆ Rugged design for high shock, and extreme temperature environments
- ◆ 8 or 12 10/100/1000BaseTX Ethernet ports
- ◆ Ethernet ports via MIL-DTL 38999 Series III connectors
- ◆ Configurable via RS-232, Ethernet, or MIL-STD-1553B
- ◆ Standard input power to MIL-STD-704F (28VDC or 115VAC 400 Hz)
- ◆ Designed to MIL-STD-810F for rotary and fixed wing aircraft, and mobile ground vehicle environments
- ◆ EMI (RE, CE, CS) filtering designed to MIL-STD-461F
- ◆ RFC 2460 (IPv6)
- ◆ RFC 2131 (DHCP), per port
- ◆ RFC 3022 (NAT), per port



The GECO Avionics Ethernet Routing Device (GAERD) is a rugged, stand-alone (LRU) designed for extreme temperature, high shock and vibration environments in airborne and ground mobile military applications. A commercially equivalent version is available for benign environments.

The GAERD is configurable to act as a standard Ethernet switch or as a router responsible for address translation between different networks and Ethernet interfaces. Configuration, status and activity is provided via the embedded micro-controller over RS-232, Ethernet or the optional MIL-STD-1553B interface. A default configuration may be stored locally in serial EEPROM.

When configured as a router, the main purpose of the GAERD is to provide Network Address Translation between different networks. Each port can be defined as static or dynamically configurable. The static interfaces are configurable via the RS232 serial maintenance port, or from the serial EEPROM.

Standard features include IP Filtering, Firewall, Multicast, Proxy ARP, NAT, Netmask, VLAN, IPv6, and DHCP.

Customization, including mechanicals and I/O connector selection, available upon request. Please contact GECO for details.



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## Hardware Specification

### Mechanical

- ◆ 203.2mm (8in) deep x 139.7mm (5.5in) wide x 279.4mm (11in) high; volume (484in<sup>3</sup>)
- ◆ 10.0 pounds
- ◆ Ethernet: Three MIL-DTL-38999 Series III 25-8 Q 8#8 (Quadrx)
- ◆ Power / I/O: One MIL-DTL-38999 Series III 17-73 HD #23
- ◆ Maintenance: One MIL-DTL-38999 Series III 11-35 #22

### Power Supply

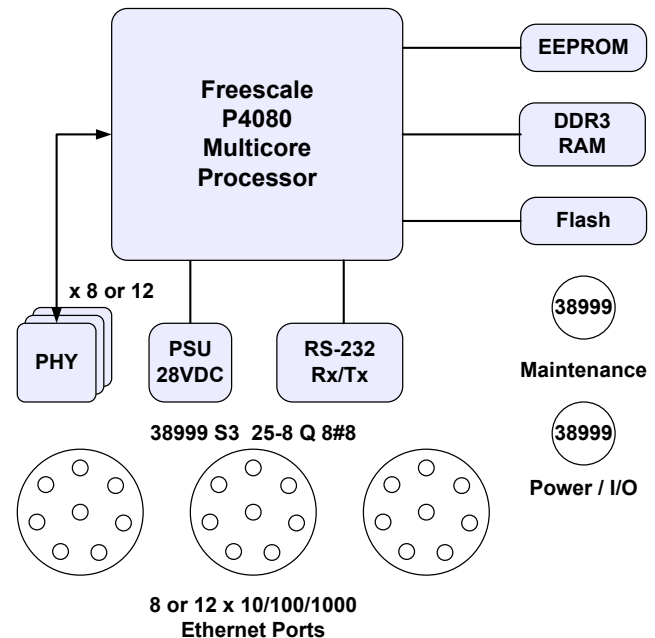
- ◆ Meets MIL-STD-704F
- ◆ Input voltage 28VDC (115VAC, 400Hz optional)
- ◆ Forced Air cooled
- ◆ Efficiency greater than 80 percent
- ◆ Over-voltage, over-current and in-rush protection

### Environment

- ◆ Environmentals to MIL-STD-810F
- ◆ Salt Fog and Spray
- ◆ Fungus, Sand and Dust
- ◆ Explosive Atmosphere
- ◆ Humidity: 95% condensing
- ◆ Altitude: -1000 ft to +20,000 ft
- ◆ Temperature: -40°C to +71°C
- ◆ Shock: 20G@11ms
- ◆ Acceleration: 6.0G all axis

## Ordering Information

- GAERD-100** Air-cooled, Ethernet router  
8 10/100/1000BaseTX, RS-232 status and control port, 28VDC
- GAERD-101** Air-cooled, Ethernet router  
12 10/100/1000BaseTX, RS-232 status and control port, 28VDC



## Software Support

- ◆ Configurable IP Multicast
- ◆ Proxy IGMP messages
- ◆ Proxy ARP
- ◆ DHCP
- ◆ VLAN
- ◆ Firewall/Routing Policy

Support Services provides you with comprehensive support throughout your product lifecycle. Different levels of support are available including: integration services, consulting, and extended warranty.

For more information on how GECO can work with you to meet your product or system needs, or offer design services to complement your own staff, please contact us.

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