

Gigabit Ethernet Switch (GES)

12-Port Rugged Layer 2 Ethernet Switch



Key Features

- 12 ports, each capable of 1000Mbps full-duplex, 10Mbps or 100Mbps full or half duplex
- Egress tagging/untagging selectable per port or by 802.1Q VLAN ID
- Port Based VLANs supported in any combination or 802.1 VLAN support for 4096 VIDs
- Port States and BPDU handling for spanning tree
- 802.1X Source MAC address authentication
- Quality of Service (QoS) switch architecture provides non-blocking switching in all traffic environments
- Link Aggregation (802.3ad) allows two or more links to be trunked to increase the total bandwidth and provide a fail safe if one of the links fails
- Packets are directed into four traffic classes based on:
 - Port
 - IEEE 802.1p
 - IPv4's TOS or Diff-Serv
 - IPv6's Traffic Class
 - 802.1Q VID
 - DA MAC address
 - SA MAC Address
- Back-pressure flow control on half-duplex ports
- Pause-frame flow control on full-duplex ports
- Lookup engine supports 1024 MAC address entries with learning and aging
- Auto-MDI/MDIX and polarity correction
- Meets Mil-Std-704A, Notice 3 power specifications
- Retained mounting hardware
- Lightly managed with the capability of custom configurations

The Aeronix Gigabit Ethernet Switch (GES) provides twelve internally connected 1000 Base-T Ethernet ports for use in commercial, industrial, and military applications that require ultra-high data transfer rates in a self contained ruggedized package. Each of the twelve ports can individually auto-detect data rates of 10, 100, or 1000 Base-T, or can be manually managed externally. The embedded Management Processor allows the user to modify the switch configuration settings on-the-fly, and remotely monitor switch status and throughput in real time.



Gigabit Ethernet Switch

Fully Qualified for Flight Use.

The management functions of the Aeronix 12-Port GES can be stored in non-volatile memory for fixed configurations, or loaded at startup for application specific requirements.

The ultra compact rugged design requires no forced air or conductive cooling, allowing operation in a broad range of harsh environments.

Incorporating the Aeronix 12-Port GES into your design allows the use of high speed Ethernet connectivity between any or all of your devices while virtually eliminating data-rate bottlenecks. This allows platforms to share data between sensors and processors at speeds significantly higher than MIL-STD-1553 connections.

Gigabit Ethernet Switch Specifications

Ports	12 - 1000Mbps full duplex, 10Mbps or 100Mbps full or half duplex
Dimensions	8.25" x 5.1" x 1.38"
Operating Temp	-40°C to +71°C
Non-Operating Temp	-57°C to +85°C
Cooling	Requires only ambient air
EMI	MIL-STD-461E for Air Force Aircraft
Weight	2 lb 13 oz (1.2 kg)
Power Requirements	< 22 watts operating
Input Voltage	MIL-STD-704A, Notice 3, Category B, Figure 9, Curve 2 & 3
Altitude	40,000 Ft without degradation
Vibration	MIL-STD-810F, 514.5, 519.4
Shock	MIL-STD-810F, 503.4, Functional and Crash Hazard
Explosive Atmosphere	MIL-STD-810F, 511.4
Humidity	95% - Non-condensing
Connectors	MIL-C-38999 (Signal and Power)
Management	Management processor on board



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