

156-CHANNEL RUGGED ETHERNET SWITCHBOX

PDS - 340



DESCRIPTION

Amphenol's Rugged 156-Channel Ethernet Switch Box is conduction cooled and configurable for system connectivity, speeds, port types, and interoperability with various high-speed media converters and connectors for system interfacing.

This switch box features 12 copper ports and 144 fiber optic ports, each capable of 1GBase-SX, 10GBase-SR, 40GBase-SR4, 25GBase-SR, and 100GBase-SR4. In Amphenol's state of the art communications testing center, the switch boxes are aggressively tested at line rates to RFC 2889 for switching and RFC 2544 for L2/L3 performance, latency, packet forwarding, and other key metrics.

The switch is manufactured using derivatives of Amphenol's MIL-DTL-38999 Series connectors. These connectors contain standard AS39029 qualified Size 22D contacts, Octonet contacts, and 48F MT Ferrule Fiber Optic contact assemblies.

Amphenol's Octonet Contacts are a proven design used in a variety of Military Programs. The Octonet is a Size 8 contact which houses (4) differential pair contacts. It is a 100 Ohm impedance contact, capable of a data rate of 4 Gbps maximum per contact pair. The contact system has been tested and passed all the Qualification Requirements of an AS39029 contact. The MT ferrules are used for fiber optic Ethernet ports and the AS39029 style contacts are used for power inputs and management functions.



12-CHANNEL 10G COPPER RUGGED ETHERNET SWITCH

FEATURES & BENEFITS

- 144 fiber optic non-blocking switched Ethernet ports capable of 1GBase-SX, 10GBase-SR, 40GBase-SR4, 25GBase-SR, and 100GBase-SR4 protocols.
- 12 channels of copper capable of 10GBase-T
- 28V MIL-STD-704A input module; VICOR MFM and DC/DC mil-spec power supply with hold-up capacitor and in-rush current limiting circuit.
- Built-in test functionality for power up, initiated, and continuous operation.
- Host management processor:
 - Multicast
 - Link Aggregation Control Protocol (LACP)
 - Protocol-Independent Multicast (PIM)
 - Internet Group Management Protocol (IGMP)
 - Simple Network Management Protocol (SNMP)
 - Capable of supporting thousands of virtual local area networks (VLAN) each with its own dynamic host configuration protocol (DHCP) server for various devices within the VLAN
 - Configurable cross VLAN multicast routing
 - Storm-prevention
 - IPV4 and IPV6 support
 - Spanning tree protocol
 - Temperature and current monitoring and thermal shutdown in the event of over temperature
 - SSH, NTP, PTP, TFTP, secure FTP support
 - Custom configuration files
 - Web server interaction
 - Other
- Link status on demand, port counter status, configurable port speed/routing, ARP list, drop report, ping, MTU configuration, LUA configuration
- Power connector, debug connector, maintenance connector – all D38999's
- Mil-Spec black painted chassis with cold plate external conduction cooling

ENVIRONMENTAL

- -55 C to 85 C operating depending on altitude – perfect for military aerospace environments
- Conduction cooled for cold plate interface
- Shock, vibration, bench handling, EMI/EMC per 461E, 704F power, salt/fog/dust, fluids/rain, explosive atmosphere, humidity
- Plating & paint is configurable but currently Mil-Spec black paint with back cover chromated for grounding

