Amphenol Aerospace

RUGGED 120 CHANNEL ETHERNET SWITCHBOX

HIGH SPEED SOLUTIONS

PDS - 308

DESCRIPTION

Amphenol's Rugged 120 Channel Ethernet Switch Box provides an unmatched level of flexibility to meet any system requirement. The switch box is a 120 port standalone Ethernet Switch box that is configurable for system connectivity, speeds, port types, and interoperation with various high-speed media converters and connectors for system interfacing.

Each port is capable of 10G Ethernet – some ports can either be configured as 10G-Base-T (also supporting 100-Base-T and 1G-Base-T) or 10G-Base-SR and 1G-Base-SX. The switching throughput is up to 1.2 Tbps when using all 120 ports on the switch box. In addition, the switch is non-blocking and low-latency for high-throughput architectures and applications. In Amphenol's state of the art Spirent communications testing center, the switch box is tested aggressively at line rates to RFC 2889 for switching and RFC 2544 for L2/L3 performance, latency, packet forwarding, and other key items.

The switch is manufactured using Amphenol's MIL Qualified MIL-DTL-38999 Series III 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 housing (4) differential pair contacts. It is a 100 Ohm impedance, 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 AS39029 contact.

Our 48F MT Ferrule Fiber Optic Contacts are industry standard, very high density plastic ferrules available in either 12-fiber, 24-fiber versions, 48 pin, in multi-mode PC, single mode PC, or single mode APC configurations.

FEATURES & BENEFITS

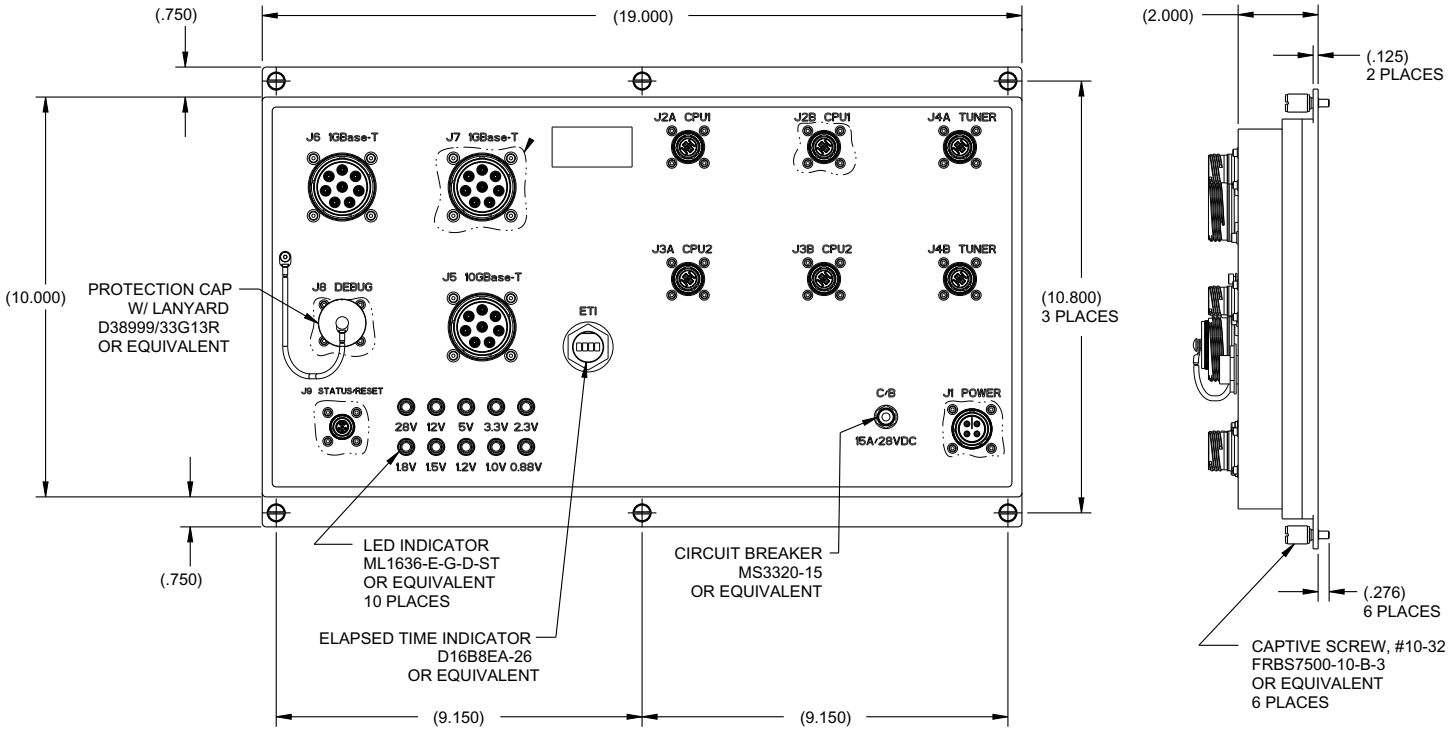
- 96 ports of 10GBASE-SR (Can also be configured for 1GBase-SX)
- 24 ports of 100/1G/10GBase-T - auto negotiation
- Supports Ethernet multicast, IP multicast, IGMP, SNMP, & many other management options
- Host management processor
- Chassis with 38999 series III high performance & density connectors
- 10 LED indicators reporting all internal power supply voltage levels
- MIL-STD-704 28V DC power supply interface
- 50ms power holdup
- Embedded elapsed time indicator
- Circuit breaker for incoming power
- Self-encapsulated mounting screws

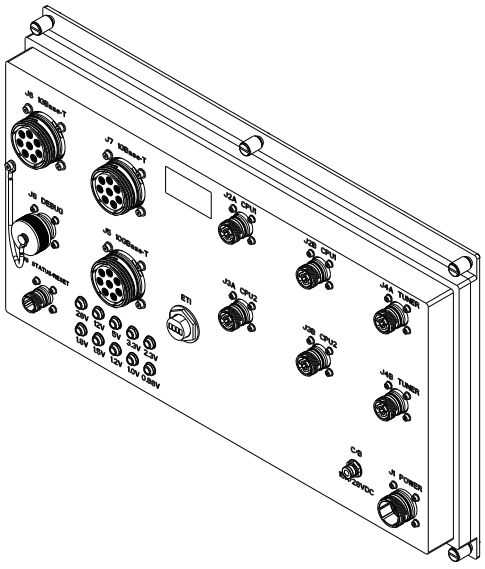
ENVIRONMENTAL

- -55 C to 85 C operating depending on altitude – perfect for military aerospace environments
- Conduction cooled for cold plate interface
- Vita 47 Shock and Vibration
- Plating & paint is configurable
- EMI/EMC per MIL-STD-461 E

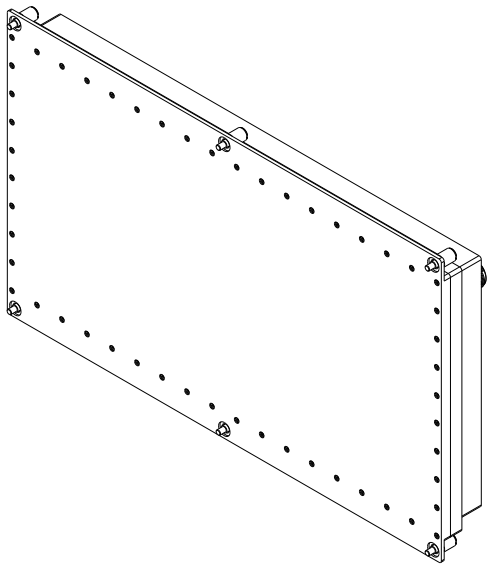
Jared Sibrava • Phone: (607) 563-5372 • Cell: (607) 643-1845 • Email: jsibrava@amphenol-aao.com

DRAWING





FRONT ISOMETRIC VIEW



REAR ISOMETRIC VIEW

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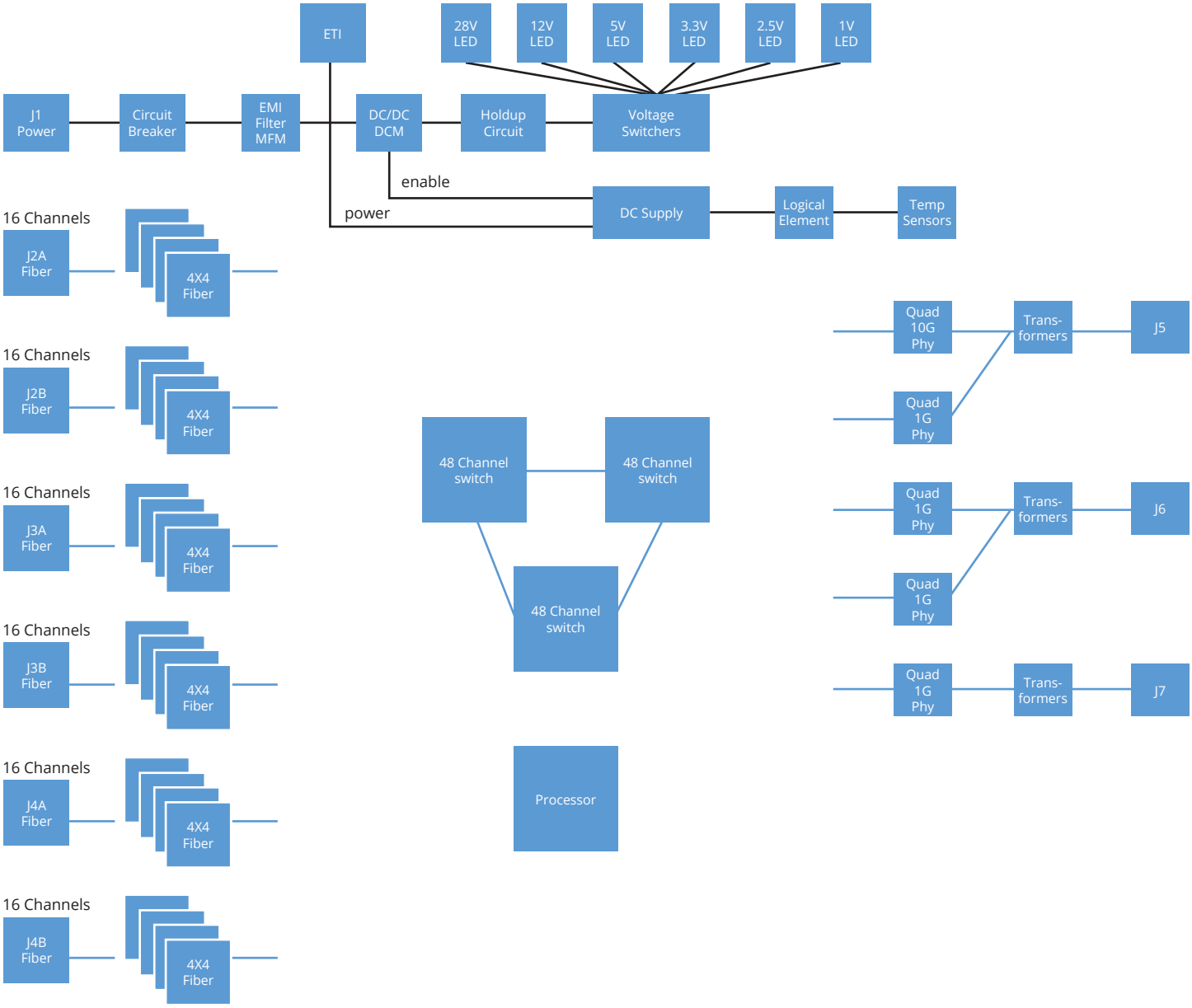
BLOCK DIAGRAM



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COMPANY PROFILE

ABOUT AMPHENOL AEROSPACE :

Amphenol Aerospace, a Division of Amphenol Corporation, is one of the largest manufacturers of interconnect products in the world for the Military, Commercial Aerospace and Industrial markets. Amphenol designs, manufactures and markets circular and rectangular, electronic, fiber optic, EMI/EMP filter, and a variety of special applications connectors and interconnect systems.

Our state-of-the-art facility is nestled at the foothills of the Catskill Mountains in Sidney, NY. The Amphenol complex houses many technologies including CNC machining, die-casting, molding, impact and extruding, plating, screw machining and process controls. Our fully equipped material evaluation lab and engineering organization utilize the latest in computer aided design software and analysis tools, allowing us to design, test, and qualify advanced interconnect systems. Amphenol's interconnect products are supplied to thousands of OEMs worldwide and are supported by our worldwide sales and engineering force, including the largest global network of electronic distributors.

The High Speed Solutions group is one of the fastest growing and most technologically advanced groups within Amphenol Aerospace. Every day, the High Speed Solutions team is developing custom connector and cable solutions for High Speed Copper, Fiber Optic, and Integrated applications. As a basic business philosophy, the team is dedicated to concentrating on those advanced and challenging market segments that demand an extraordinary level of supplier support and reaction. Our approach to implement this strategy is based on the following key principles:

CARE

Customer-Centric:
Our #1 priority is our customers who deserve quality product on time.

Accountable:
Clear owners, clear actions, clear results.

Reliable:
What we build matters and quality is imperative.

Enthusiastic:
Challenges create rewarding opportunities. Enthusiasm is contagious and we will spread it.

Quality Assurance:
Amphenol Aerospace has been awarded both AS9100 - Revision C and ISO9001:2008 Quality Assurance Certifications.

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