



# MILTECH™ 1100 Series

## Compact, Portable Military, Dual Port 10 Gigabit Media Converters with PoE and Security

Driven by rapid advancement and lower costs, Ethernet is becoming the standard for IP-based components in a wide range of military and commercial applications.

Modern platforms contain dozens of network devices that must be interconnected. The MILTECH1100 is an ideal solution for mobile Ethernet-equipped platforms utilizing both copper and fiber connections such as:

- Shipboard fiber deployments
- Airborne systems
- Ground mobile applications
- Long-range video camera connectivity
- Infantry base camp deployments

With the MILTECH1100, transparent, line-speed media conversion is provided along with the flexibility of Power over Ethernet (PoE). The 1100 series extends the distance of LAN networks using fiber connectivity that can stretch up to 80 km. The MILTECH1100 PoE capabilities enable the device to function as PD (powered device) or PSE (power source equipment) up to 100W per port, saving valuable and expensive resources at the field.

The MILTECH1100 offers two 1G/10G copper ports and two 1G/10G fiber ports. It can be remotely managed to optimize communications and prioritize critical information traffic. Advanced network features include auto-negotiation, auto MDI-II, MDI-X, FDX, HDX, flow control, link pass-through that reduce onsite maintenance and troubleshooting time.

Orderable options include the use of the MILTECH1100 as a PoE-powered device (PD) or PoE power source equipment (PSE), and the number and types of Ethernet and fiber connections.

The MILTECH1100 mechanical packaging enhancements include configurable D38999, TFOCA-II, and expanded beam connectors, designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. Leveraging best-in-class switching technology, the MILTECH1100 serves as a robust commercial off-the-shelf (COTS) solution for rugged LAN connectivity.





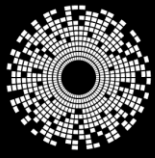
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## SPECIFICATIONS

<p>PHYSICAL PORTS:</p>	<p><u>Non-PoE Version:</u></p> <ul style="list-style-type: none"> <li>Up to 2 x 1G/10G Base-TX and up to 2 x 1G/10G Base FX (MM/SM) Media Converter (WDM - Optional)</li> </ul> <p><u>PoE-PSE Version:</u></p> <ul style="list-style-type: none"> <li>Up to 2 x 1G/10G Base-TX with PoE Source Capability and up to 2 x 1G/10G Base FX (MM/SM) Media Converter (WDM - Optional)</li> </ul> <p><u>PoE-PD Version:</u></p> <ul style="list-style-type: none"> <li>Up to 2 x 1G/10G Base-TX with PoE powered from Port1 and up to 2 x 1G/10G Base FX (MM/SM) Media Converter (WDM - Optional)</li> </ul>
<p>NETWORKING:</p>	<ul style="list-style-type: none"> <li>Full wire-speed forwarding rate</li> <li>Auto MDI-II, MDI-X, FDX, HDX, Flow control</li> <li>Auto-Negotiation and fixed settings via DIP switch</li> <li>Jumbo Frame Support</li> <li>Copper ports shut down when Fiber LOS (optional, pre-configurable)</li> <li>Complete segregation between the Media converter ports (optional, pre-configurable)</li> </ul>
<p>PERFORMANCE:</p>	<ul style="list-style-type: none"> <li>10.7 Gbps wire speed forwarding rate</li> <li>63Gbps maximum forwarding bandwidth</li> <li>16K MAC Address</li> <li>2LED indication (Speed, Link/Activity) per port</li> <li>Wire-Speed Reception and Transmission</li> </ul>
<p>CONNECTORS:</p>	<p><u>Non-PoE Version:</u></p> <ul style="list-style-type: none"> <li>Power Connector: D38999/24WA98PA</li> <li>LAN Connectors: 10-646402-749N</li> <li>Fiber Connectors: See ordering information table</li> </ul> <p><u>PoE-PSE Version:</u></p> <ul style="list-style-type: none"> <li>Power Connector: D38999/24WC04PN</li> <li>LAN Connectors: 10-646402-749N</li> <li>Fiber Connectors: See ordering information table</li> </ul> <p><u>PD-Version:</u></p> <ul style="list-style-type: none"> <li>LAN Connectors: 10-646402-749N</li> <li>Fiber Connectors: See ordering information table</li> </ul>
<p>ETHERNET STANDARDS COMPLIANCE:</p>	<ul style="list-style-type: none"> <li>IEEE 802.3ab, 1000Base-TX</li> <li>IEEE 802.3z, 1000M/10GBase-TX, FX Gigabit</li> <li>IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt-2017, IEEE 802.3bt-2018 – 15W/30W/60/100W PoE</li> </ul>





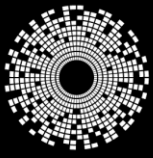
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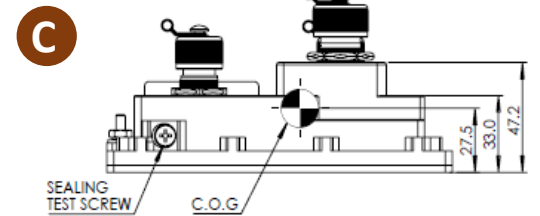
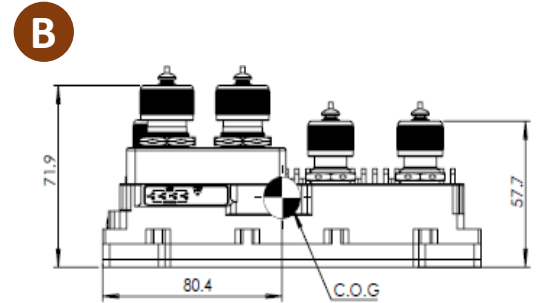
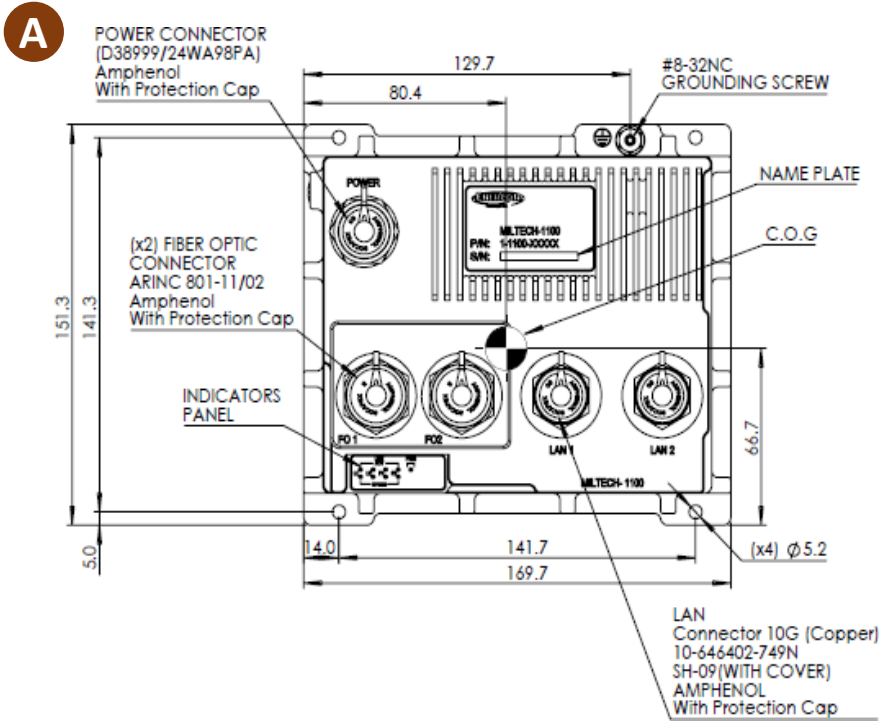
POWER:	<p><u>Non-PoE Version:</u></p> <ul style="list-style-type: none"> <li>• MIL-STD-1275B &amp; MIL-STD-704A Surge and Spike protection</li> <li>• Voltage Input: 24VDC Nominal (18-32V)</li> <li>• Power Consumption: 11W Typical</li> </ul> <p><u>PoE-PSE Version:</u></p> <ul style="list-style-type: none"> <li>• MIL-STD-1275B &amp; MIL-STD-704A Surge and Spike protection</li> <li>• Voltage Input: 24VDC Nominal (16-50V)</li> <li>• Max PoE Power budget 120W</li> <li>• PoE Standards: IEEE 802.3af, IEEE802.3at, IEEE802.3bt, IEEE802.3bt-2018</li> </ul> <p><u>PoE-PD Version:</u></p> <ul style="list-style-type: none"> <li>• Power Consumption: 11W Typical</li> <li>• PoE standard 802.3at, 4 pair</li> </ul>
EMC/Safety/Environmental:	<ul style="list-style-type: none"> <li>• MILSTD-1275</li> <li>• MILSTD-704A</li> <li>• MILSTD-810F/G/GM: MIL-STD-810F   501.4I   501.4II   502.4I   502.4II 507.4   500.4II   514   516I   516VI   514.5   512.4</li> <li>• MILSTD-461E</li> <li>• IP67</li> </ul>
CHASSIS:	<ul style="list-style-type: none"> <li>• Machined rugged aluminum</li> <li>• Conductively cooled w/custom internal heat-sinks</li> <li>• Ingress protection against sand, dust and moisture</li> <li>• Anodize Coating, MIL-A-8625, Type II, Class 2</li> </ul>
PHYSICAL:	<p><u>Non-PoE version:</u></p> <ul style="list-style-type: none"> <li>• Dimensions: 169.7mm(L) x 151.3mm(W) x 71.9mm(H), including connectors</li> <li>• Dimensions: 6.7"(L) x 5.9"(W) x 2.8"(H), including connectors</li> <li>• Weight: 1kg</li> </ul> <p><u>PoE-PSE Version:</u></p> <ul style="list-style-type: none"> <li>• Dimensions: 204.7mm(L) x 183.8mm(W) x 75.3mm(H), including connectors</li> <li>• Dimensions: 8.06"(L) x 7.24"(W) x 2.96"(H), including connectors</li> <li>• Weight: TBD</li> </ul> <p><u>PoE-PD Version:</u></p> <ul style="list-style-type: none"> <li>• Dimensions: 204.7mm(L) x 112.8mm(W) x 75.3mm(H), including connectors</li> <li>• Dimensions: 8.6"(L) x 4.44"(W) x 2.96"(H), including connectors</li> <li>• Weight: TBD</li> </ul>
INSTALLATION:	<ul style="list-style-type: none"> <li>• Four 4x5.2 mounting holes on bottom for mounting to any flat surface</li> </ul>
COOLING:	<ul style="list-style-type: none"> <li>• No Moving Parts. Passive Cooling.</li> </ul>
TEMPERATURE:	<ul style="list-style-type: none"> <li>• Operational: -40°C to +85°C (-40°F to +185°F) Cold Start</li> <li>• Storage: -40°C to +85°C (-40°F to +185°F)</li> </ul>



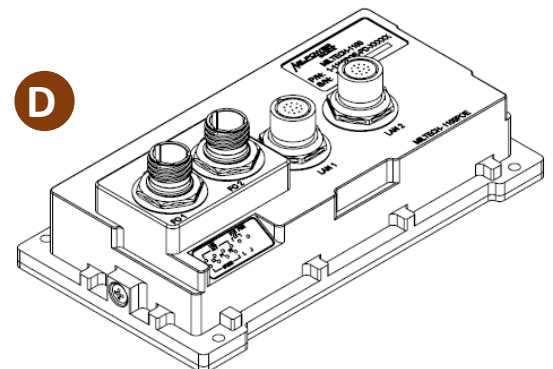
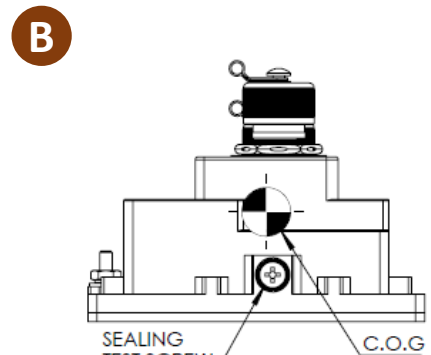
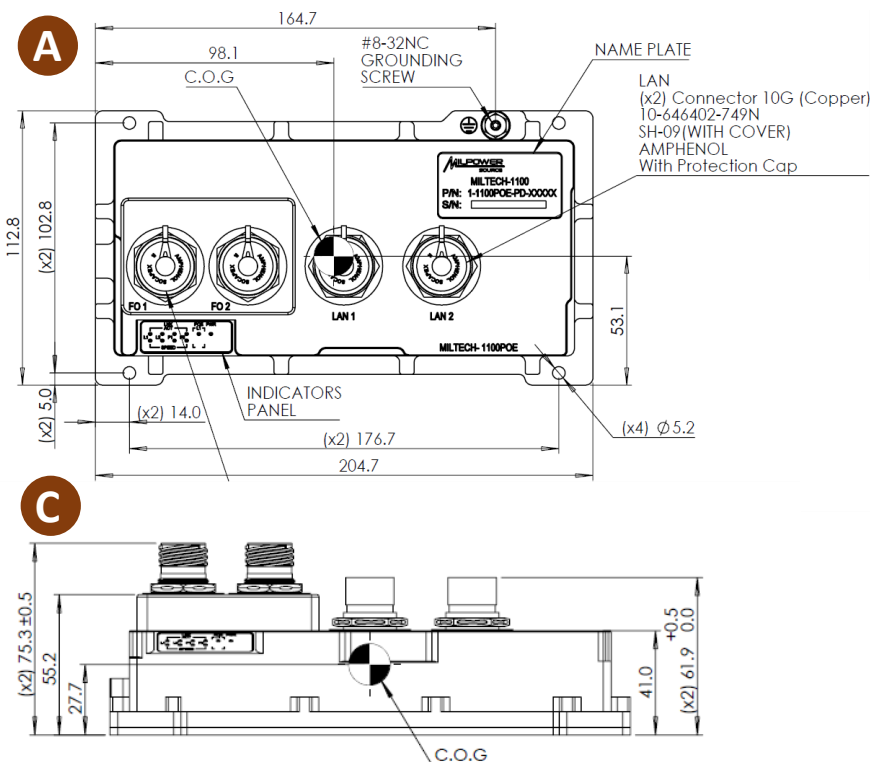


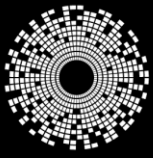
# MILTECH™ 1100 Series

## MILTECH™ 1100 Non-PoE Version



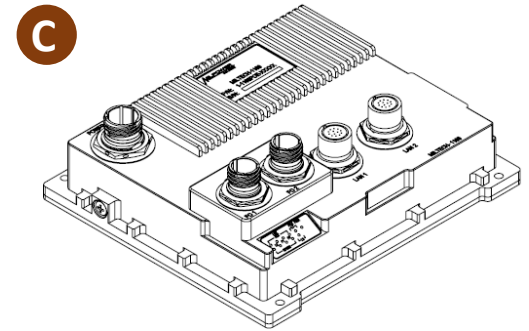
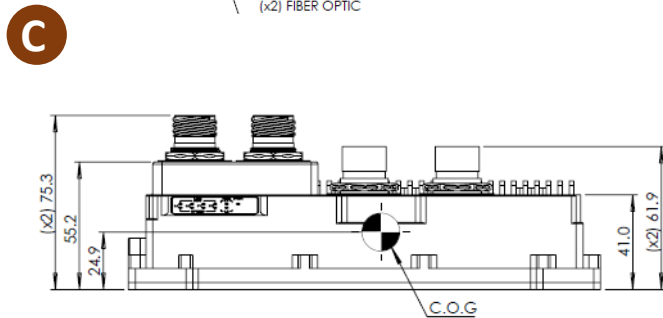
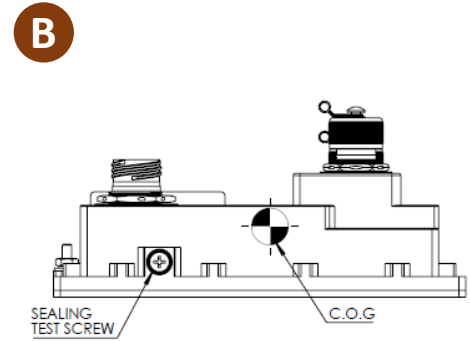
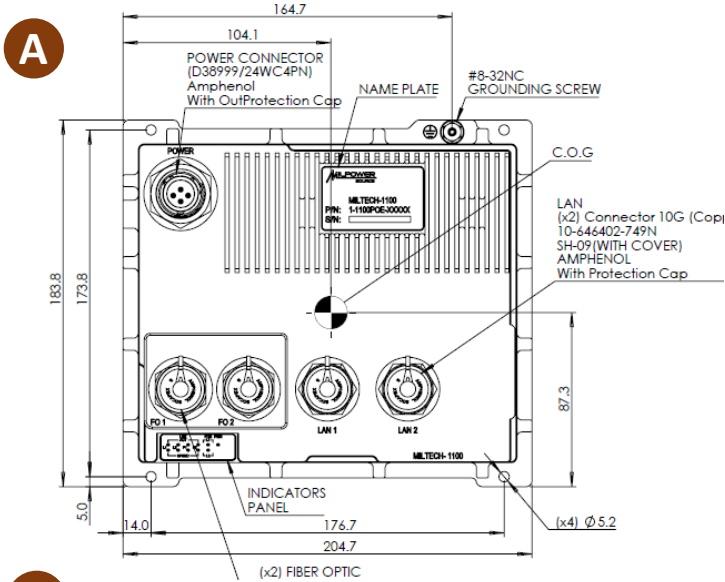
## MILTECH™ 1100 PoE-PD Version





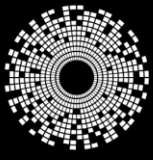
# MILTECH™ 1100 Series

## MILTECH™ 1100 PSE-PoE Version



### ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-1100-XXXXX	1G/10G Gigabit Media Converter, No PoE, see ordering options in the next section
1-1100PSE-XXXXX	1G/10G Gigabit Media Converter, PoE PSE, see ordering options in the next section
1-1100PD-XXXXX	1G/10G Gigabit Media Converter, PoE PD, see ordering options in the next section
2-CA628485H60	LAN Harness Octonet to RJ45 10G 2M
2-CBL610PW3M	Power Harness for MILTECH 610/1000/1100



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## ORDERING INFORMATION Options for MILTECH1100/1100PSE/1100PD

1-1100XXX- **A** - **B** - **C** - **D** - **E**

**XXX Product Variation**

Blank – Standard, No PoE
PSE – PoE PSE
PD – PoE PD

A	Port Combinations
1	1 Fiber port and 1 Copper port D38999 connector
2	2 Fiber ports and 2 Copper ports D38999 connector
3	1 Fiber port and 2 Copper ports D38999 connector
4	2 Fiber ports and 1 Copper port D38999 connector
5	2 Fiber ports, no copper ports

E	Special configurations
0	4 ports Switch mode All ports are interconnected
1	Dual media converter mode, complete segregation between Ports

B	Fiber port #1 type / speed
0	None
1	Multimode fiber 1Gbps
2	Multimode fiber 10Gbps
3	Singlemode fiber 1Gbps distance 30 Km
4	Singlemode fiber 10Gbps distance 30 Km
5	WDM TX 1310nm/RX1550nm 1Gbps distance 20Km
6	WDM TX 1310nm/RX1550nm 10Gbps distance 20Km
7	WDM TX 1550nm/RX1310nm 1Gbps distance 20Km
8	WDM TX 1550nm/RX1310nm 10Gbps distance 20Km

C	Fiber port #2 type / speed
0	None
1	Multimode fiber 1Gbps
2	Multimode fiber 10Gbps
3	Singlemode fiber 1Gbps distance 30 Km
4	Singlemode fiber 10Gbps distance 30 Km
5	WDM TX 1310nm/RX1550nm 1Gbps distance 20Km
6	WDM TX 1310nm/RX1550nm 10Gbps distance 20Km
7	WDM TX 1550nm/RX1310nm 1Gbps distance 20Km
8	WDM TX 1550nm/RX1310nm 10Gbps distance 20Km

D	Fiber connector types
1	D38999
2	TFOCA
3	CTOS
4	ARINC801
5	TACBeam
6	LC CIRCULAR CONNECTOR

Note: For other options (e.g., AC power supply, RJ45 copper connectors, Nickel connectors), please contact factory