

# MILTECH™ 1000 SERIES

## Compact, Portable Military 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 MILTECH1000 is an ideal solution for mobile Ethernet-equipped platforms utilizing both copper and fiber connections such as:

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

With the MILTECH1000, transparent, line-speed media conversion is provided along with the flexibility of power over Ethernet (PoE). The 1000 series extends the distance of LAN networks using fiber connectivity that can stretch up 120 km. The MILTECH1000 PoE capabilities enable the device to function as PD (powered device) or PSE (power source equipment), saving valuable and expensive resources at the field. MILTECH1000 can be defined as a unidirectional security gateway allowing data to travel only in one direction, used in guaranteeing information security and enables Red/ Black network segregation.

The 1000 offers 2 triple-speed (10/100/1000Mbps) copper ports and two fiber port at 100Mbps or 1Gbps. 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, fiber fault alert and loopback that reduce onsite maintenance and troubleshooting time.

Orderable options include the use of the 100 as a powered device (PD) or power source equipment (PSE), and the number and types of Ethernet and fiber connections. The 1000 also includes a unidirectional security gateway, allowing data to travel only in one direction - providing Red/Black network segregation.

The MILTECH1000 mechanical packaging enhancements include configurable D38999, TFOCA-II, and expanded beam connectors, is designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. Leveraging best-in-class switching technology, the MILTECH1000 serves as a robust commercial off-the-shelf (COTS) solution for rugged LAN connectivity.





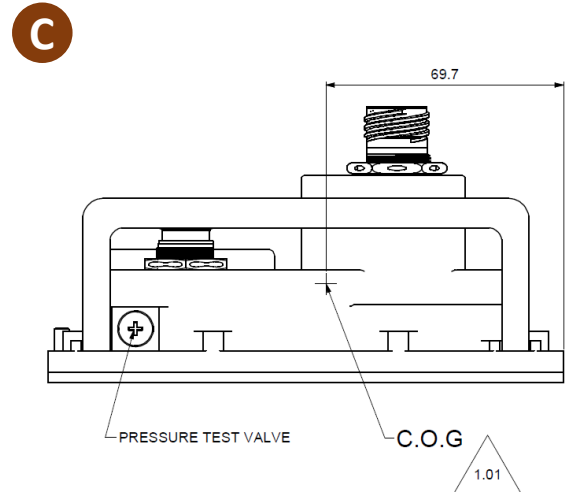
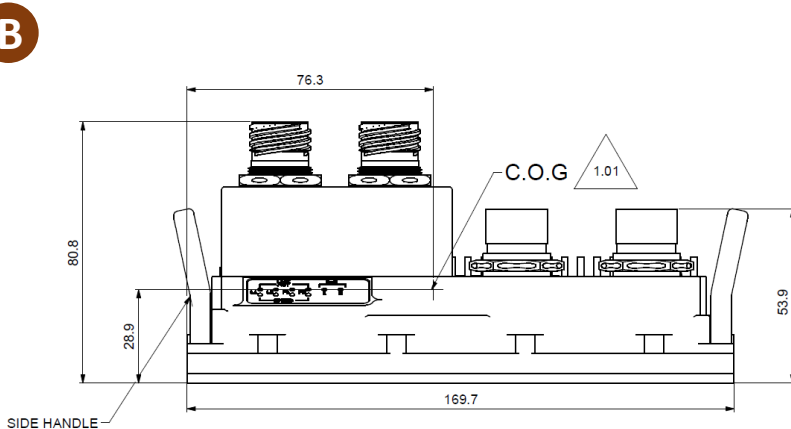
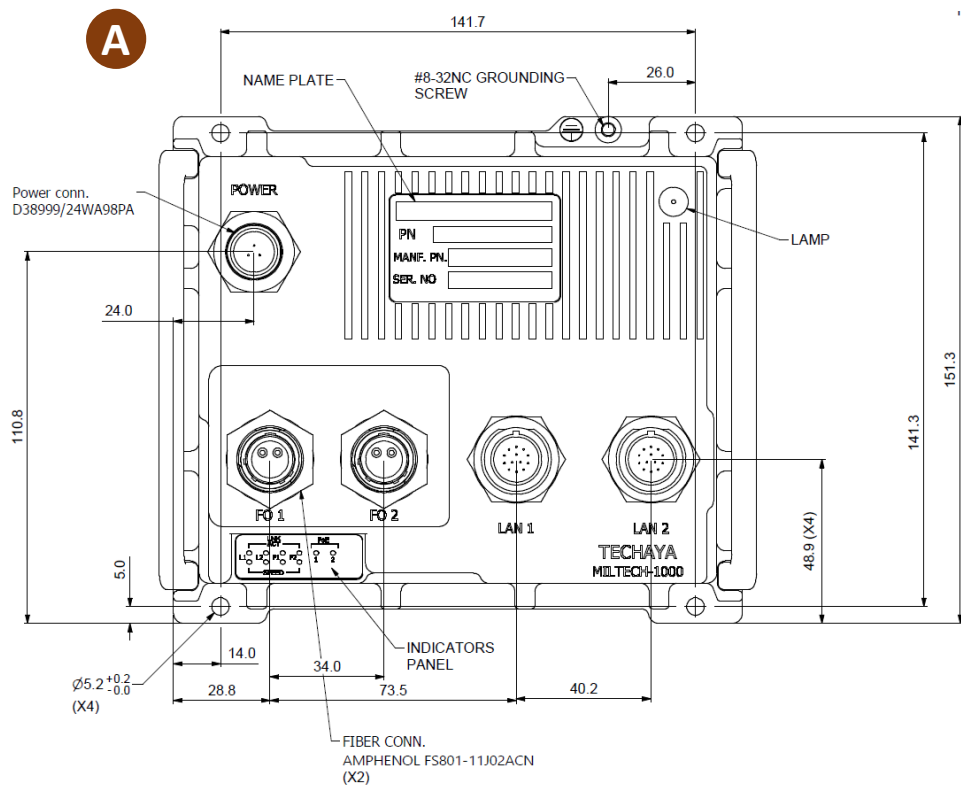
## SPECIFICATIONS

|                           |  |
|---------------------------|--|
| ETHERNET PORTS:           | <ul style="list-style-type: none"> <li>Up to 2 x 10/100/1000Base-TX and up to 2 x 100/1000 Base FX (MM/SM) Media Converter (WDM - Optional)</li> </ul>   |
| NETWORKING:               | <ul style="list-style-type: none"> <li>Full wire-speed forwarding rate</li> <li>Option for Up to 2 ports PoE – IEEE802.3af, IEEE802.3at</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>Option for one way fiber security</li> </ul> |
| CONNECTORS:               | <ul style="list-style-type: none"> <li>MIL-D-38999 (Power &amp; Ethernet signals)</li> <li>Power Connector Type: D38999/24WA98PA</li> <li>LAN Connector Type: D38999/24WB35SN</li> <li>Fiber Connector Types: See ordering information table</li> <li>LED Indication Per Port (Speed, Link/Activity)</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>  |
| STANDARDS:                | <ul style="list-style-type: none"> <li>MIL-STD-1275   MIL-STD-704A   MIL-STD-461E</li> <li>MIL-STD-810F GM   IP67</li> </ul>   |
| PERFORMANCE:              | <ul style="list-style-type: none"> <li>26.8 Mpps wire speed forwarding rate</li> <li>20Gbps maximum forwarding bandwidth</li> <li>4K MAC Address</li> <li>2LED indication (Speed, Link/Activity) per port</li> <li>Wire-Speed Reception and Transmission</li> </ul>  |
| STANDARDS COMPLIANCE:     | <ul style="list-style-type: none"> <li>IEEE 802.3, 10 Mbps 10BASE-T (Ethernet)</li> <li>IEEE 802.3u, 100BASE-TX 100 Mbps (Fast Ethernet)</li> <li>IEEE 802.3ab, 1000Base-TX</li> <li>IEEE 802.3z, 1000Base-FX Gigabit</li> <li>IEEE 802.3af, IEEE802.3at</li> </ul>  |
| POWER:                    | <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) or 85-265VAC</li> <li>Power Consumption: 2.8W Typical</li> <li>Chassis grounding</li> <li>AC version with MILSTD 1399 is also available</li> </ul>                                       |
| ELECTROMAGNETIC:          | <ul style="list-style-type: none"> <li>MIL-STD-461E Electromagnetic compatibility</li> </ul>   |
| SHOCK/VIBRATION/HUMIDITY: | <ul style="list-style-type: none"> <li>MIL-STD-810F   501.4I   501.4II   502.4I   502.4II   507.4   500.4II   514   516I   516Vi   514.5   512.4  </li> <li>IP67</li> </ul>  |
| PHYSICAL:                 | <ul style="list-style-type: none"> <li>Dimensions: 170mm(L) x 151mm(W) x 61mm(H), including connectors</li> <li>Dimensions: 6.7”(L) x 5.9”(W) x 2.4”(H), including connectors</li> <li>Weight: 1.5kg</li> </ul>  |



## SPECIFICATIONS

|                 |   |
|-----------------|---|
| INSTALLATION:   | <ul style="list-style-type: none"> <li>Four 4x5.2 mounting holes on bottom for mounting to any flat surface</li> <li>Carrying handles - Optional</li> </ul> |
| COOLING:        | <ul style="list-style-type: none"> <li>No Moving Parts. Passive Cooling</li> </ul>  |
| OPERATING TEMP: | <ul style="list-style-type: none"> <li>-45°C to +85°C (-49°F to +185°F). Cold Start-Up</li> </ul>   |
| STORAGE TEMP:   | <ul style="list-style-type: none"> <li>-45°C to +85°C (-49°F to +185°F)</li> </ul>  |





## ORDERING INFORMATION Options for MILTECH 1000/1000AC\*

1-1000- **A** - **B** - **C** - **D** - **E**

| A | Fiber and copper ports combination                |
|---|---|
| 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 | 1 fiber port and 1 copper RJFTV45                 |
| 6 | 2 fiber ports and 1 copper port RJFTV             |
| 7 | 2 fiber ports, no copper ports                    |

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

| C | Fiber port #1 type / speed                     |
|---|--|
| 0 | None   |
| 1 | Multimode fiber 100Mbps                        |
| 2 | Multimode fiber 1000Mbps                       |
| 3 | Singlemode fiber 100Mbps distance 30 Km        |
| 4 | Singlemode fiber 1000Mbps distance 30 Km       |
| 5 | WDMA TX 1310nm/RX1550nm 100Mbps distance 20Km  |
| 6 | WDMA TX 1310nm/RX1550nm 1000Mbps distance 20Km |
| 7 | WDMB TX 1550nm/RX1310nm 100Mbps distance 20Km  |
| 8 | WDMB TX 1550nm/RX1310nm 1000Mbps distance 20Km |

| D | Fiber port #2 type / speed                     |
|---|--|
| 0 | None   |
| 1 | Multimode fiber 100Mbps                        |
| 2 | Multimode fiber 1000Mbps                       |
| 3 | Singlemode fiber 100Mbps distance 30 Km        |
| 4 | Singlemode fiber 1000Mbps distance 30 Km       |
| 5 | WDMA TX 1310nm/RX1550nm 100Mbps distance 20Km  |
| 6 | WDMA TX 1310nm/RX1550nm 1000Mbps distance 20Km |
| 7 | WDMB TX 1550nm/RX1310nm 100Mbps distance 20Km  |
| 8 | WDMB TX 1550nm/RX1310nm 1000Mbps distance 20Km |

| E | Special configurations   |
|---|--|
| 0 | 4 ports switch mode<br>All ports are inter connected                     |
| 1 | Dual media converter mode,<br>complete segregation between Ports         |
| 2 | PSE  |
| 3 | PD   |
| 4 | PSE and Dual Media Converter mode,<br>complete segregation between Ports |
| 5 | Nickel connectors  |
| 6 | PD + port segregation  |

\*Ordering Information for AC power supply version use 1000AC-A-B-C-D-E  
\*AC version with MILSTD 1399 is also available

## ORDERING INFORMATION

| PART NUMBER  | DESCRIPTION                       |
|--------------|-----------------------------------|
| 2-CBL908LAN  | LAN Harness for MILTECH908/1000   |
| 2-CBL610PW3M | Power Harness for MILTECH610/1000 |