

MILTECH™ 2022

Military Ethernet/USB to Serial and Discrete IO Unit

The MILTECH™ 2022 is a MIL-STD rugged, compact military-grade Ethernet to Serial/Discrete IO Terminal Server with support in USB to Serial and USB to Ethernet working modes as well. Developed for portable military and harsh environment applications, the MILTECH 2022 features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been specially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling. Interface through sealed MIL-STD circular connectors, with 24VDC power, makes it instantly compatible with network devices and power systems. Compact in size, the MILTECH 2022 is particularly useful for expanding Serial port density and discrete IO, in space-constrained airborne and ground vehicle environments while providing a new security layer for serial interfaces.

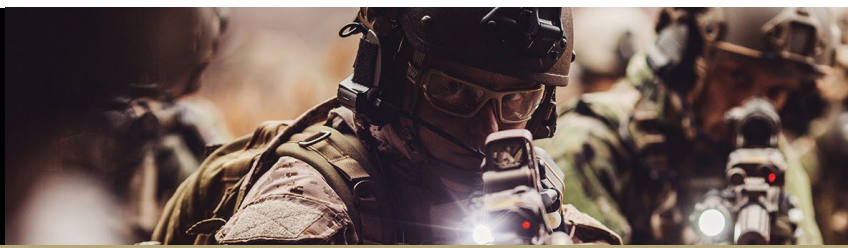
MILTECH 2022 has four main operation modes, Serial Terminal Server mode, Serial/Discrete IO Bridge mode, USB to RS232/RS422/RS485 mode and USB to Ethernet mode. In Serial Terminal Server Mode, the remote equipment manages several serial and IO devices connected directly to MILTECH 2022. Serial/Discrete IO mode allows bridging serial (RS232/RS422/RS485) communications and/or Discrete IOs via two back-to-back MT2022 units.

MILTECH 2022 serves as a robust commercial off-the-shelf (COTS) solution for rugged Serial, Discrete IO connectivity, which can be used in a wide range of military and commercial applications, including:

- UAVs
- Land autonomous vehicles (UGVs)
- Robots
- Mobile equipment fielded in harsh environments

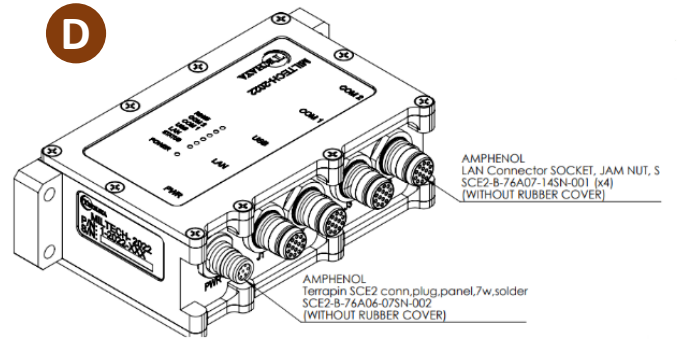
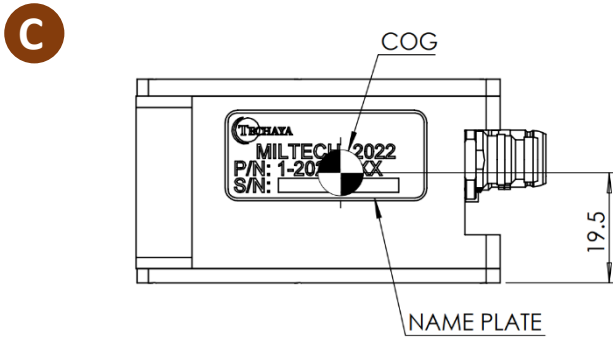
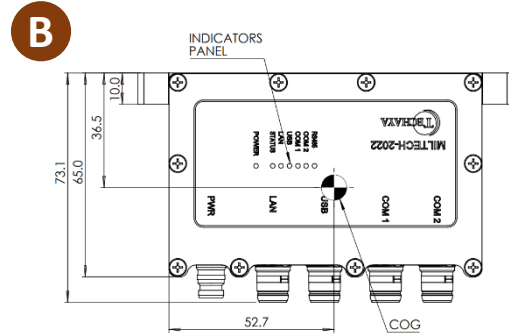
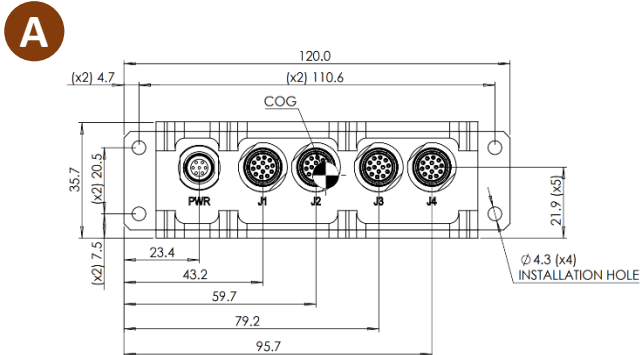
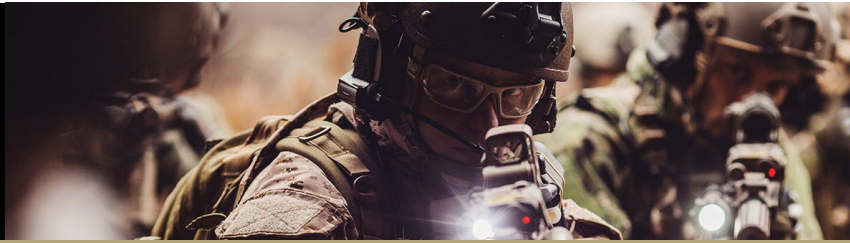
Modern platforms contain dozens of legacy serial devices that must be interconnected to the new computerized network. MILTECH 2022 is an ideal solution for secure mobile Serial-equipped platforms. With the best combination of size, weight, power, and cost (SWaP-C) in the industry, it saves valuable real estate for computers, sensors, targeting systems, and other devices that make mobile platforms highly effective.





SPECIFICATIONS

| | |
|------------------|---|
| PHYSICAL PORTS: | <ul style="list-style-type: none"> • 2 x RS422 Full Duplex, RS485 Full Duplex or RS232 (including RTS, CTS) • 1 x RS485 Half Duplex • 1 x 10/100/1000BT Ethernet Port • 2 x Open / Ground GPO and 2 x Open / Ground GPI • 1x USB2.0 application port + 10W Power Delivery 3.0 Charge • 1 x USB for management |
| CHASSIS: | <ul style="list-style-type: none"> • Low profile rugged machined aluminum • Conductively cooled • Ingress protection against sand, dust and moisture • Anodize Coating, MIL-A-8625, Type II, Class 2 |
| STANDARDS: | <ul style="list-style-type: none"> • MIL-STD-461E, MIL-STD-810F/G/GM, MIL-STD-1275, MIL-STD-704, IP67 |
| LED INDICATION | <ul style="list-style-type: none"> • Per port LED indications: RS232/422/485 - TX, RX, ETH, USB • Status (Built-In Self-Test) |
| POWER: | <ul style="list-style-type: none"> • Power Input: 24VDC Nominal (12-48V), LED Indication • Power Consumption: 5W Max (15W with 10W Power Delivery Charging) • Chassis grounding • MILSTD-1275, MILSTD-704 |
| ELECTROMAGNETIC: | <ul style="list-style-type: none"> • Exceed MIL-STD-461E Electromagnetic compatibility • Electromagnetic: CE-102, CS-114, CS-115, CS-116, RE-102, RS-103 |
| ENVIRONMENTAL: | <ul style="list-style-type: none"> • MILSTD-810F/G/GM: <ul style="list-style-type: none"> • Random vibration (514.5I), Bench Handling (516.6VI) • Air Pressure (500.5I, II), Blowing Rain (506.5I), Immersion (512.5I) • High Temp. (501.5I, II), Low Temp. (502.5I), Humidity (507.5II), • Salt Atmosphere (509.5I), Blowing Dust (510.5I), Loose Cargo Vibration (514.6II) • Wind Analysis • IP67 |
| PHYSICAL: | <ul style="list-style-type: none"> • Dimensions: 120mm(L) x 73.1mm(W) x 35.7mm(H), not including connectors • Dimensions: 9.66"(L) x 6.27" (W) x 2.96"(H), not including connectors • Weight: TBD |
| COOLING: | <ul style="list-style-type: none"> • No Moving Parts. Passive Cooling. |
| TEMPERATURE: | <ul style="list-style-type: none"> • Operational: -40°C to +85°C (-40°F to +185°F) Cold Start • Storage: -45°C to +85°C (-49°F to +185°F) |
| CONNECTORS: | <ul style="list-style-type: none"> • J0 Power: SCE2-B-76A06-07SN-002 • J1 ETH: SCE2-B-76A07-14SN-001 • J2 USB: SCE2-B-76A07-14SB-001 • J3-J4 COM: SCE2-B-76A07-14SA-001 |



ORDERING INFORMATION

| PART NUMBER | DESCRIPTION |
|--------------|-------------------------------|
| 1-2022-000 | 1 Ethernet/USB to 3 COM Ports |
| 29-040044-00 | LAN Cable for M2022 1M |
| 29-040260-00 | Power Cable for M2022 1M |