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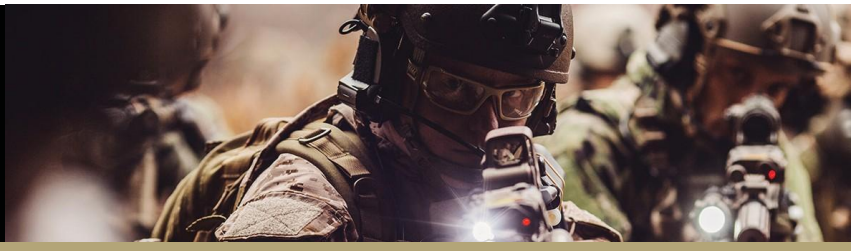

MILTECH™ 2022

Compact Rugged Multiprotocol Converter - USB/Ethernet to RS232/RS422/RS485/IOs

The MILTECH™ 2022 is a MIL-STD rugged, compact military-grade Ethernet to Serial/Discrete IO Terminal Server with support for 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.

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

In order to support a wide range of applications, the unit also supports PD3 over the USB port, enabling the USB device to be charged during operation.

MILTECH 2022 serves as a robust commercial off-the-shelf (COTS) solution for rugged Serial, Discrete IO connectivity over USB or Ethernet Infrastructure, 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.

NSI 800-171 Compliant

AS9100D CERTIFIED ISO 9001

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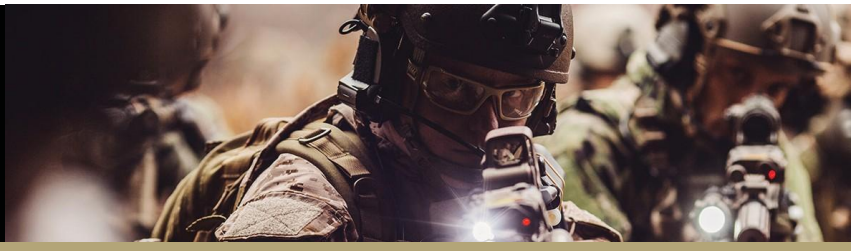
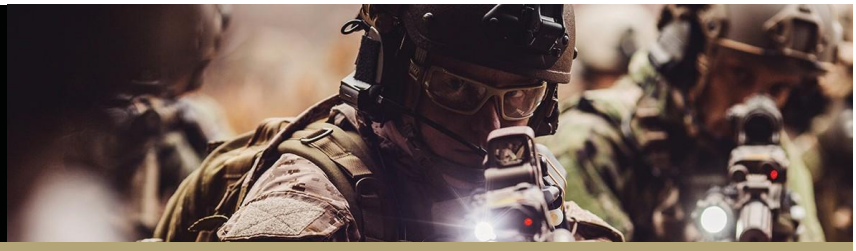


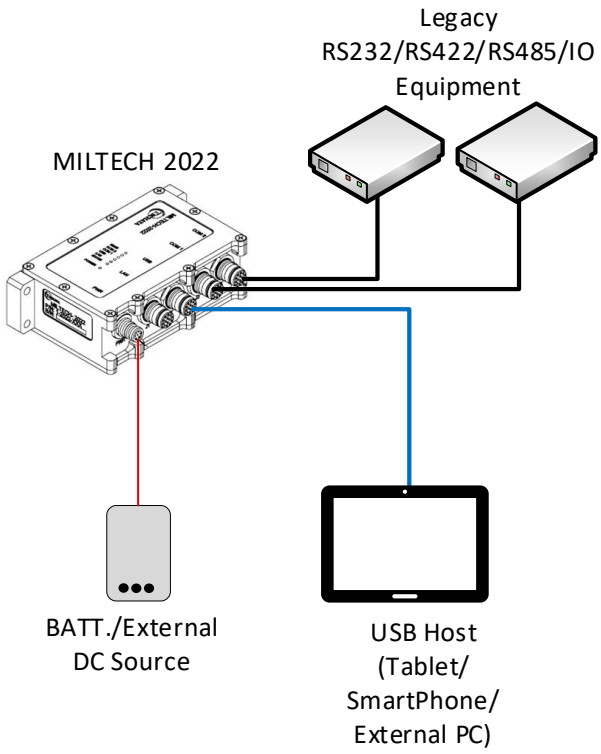
SPECIFICATIONS

PHYSICAL PORTS:	• 1 x 10/100/1000Base-T Ethernet Port • 1 x USB2.0 application port including Power Delivery 3.0 Charge support • 2 x RS232/RS422/RS485 Full Duplex (including RTS, CTS) • 1 x RS485 Half Duplex • 2 x Open / Ground GPO and 2 x Open / Ground GPI • 1 x USB for management
OS SUPPORT:	• USB to Ethernet – Windows, Linux and Android • USB to RS232/RS422/RS485 – Windows, Linux • Ethernet to RS232/RS422/RS485/Discrete IO – Windows (Linux in Roadmap)
CONNECTORS:	• Power: SCE2-B-76A06-07SN-002 • J1 ETH: SCE2-B-76A07-14SN-001 • J2 USB: SCE2-B-76A07-14SB-001 • J3-4 Serial: SCE2-B-76A07-14SA-001
CHASSIS:	• Low profile rugged machined aluminum • Conductively cooled • Ingress protection against sand, dust and moisture • Anodize Coating, MIL-A-8625, Type II, Class 2
LED INDICATION:	• Power • Status (Built in Self Test) • Per port LED indications: RS232/422/485 - TX, RX, ETH, USB
POWER:	• Power Input: 24VDC Nominal (12-48V), LED Indication • Power Consumption: 5W Max (15W with 10W Power Delivery Charging) • Chassis grounding
EMC/ENVIRONMENTAL:	Designed to meet: • MIL-STD-461E • MIL-STD-810F/G/GM • MIL-STD-1275 • MIL-STD-704 • IP68
PHYSICAL:	• Dimensions: 245.4mm(L) x 159.3mm(W) x 75.2mm(H), not including connectors • Dimensions: 9.66”(L) x 6.27”(W) x 2.96¬”(H), not including connectors • Weight: 346g
COOLING:	• No Moving Parts. Passive Cooling
TEMPERATURE:	• Operational: -40ºC to +85ºC (-40ºF to +185ºF) Cold Start • Storage: -45ºC to +85ºC (-49ºF to +185ºF)

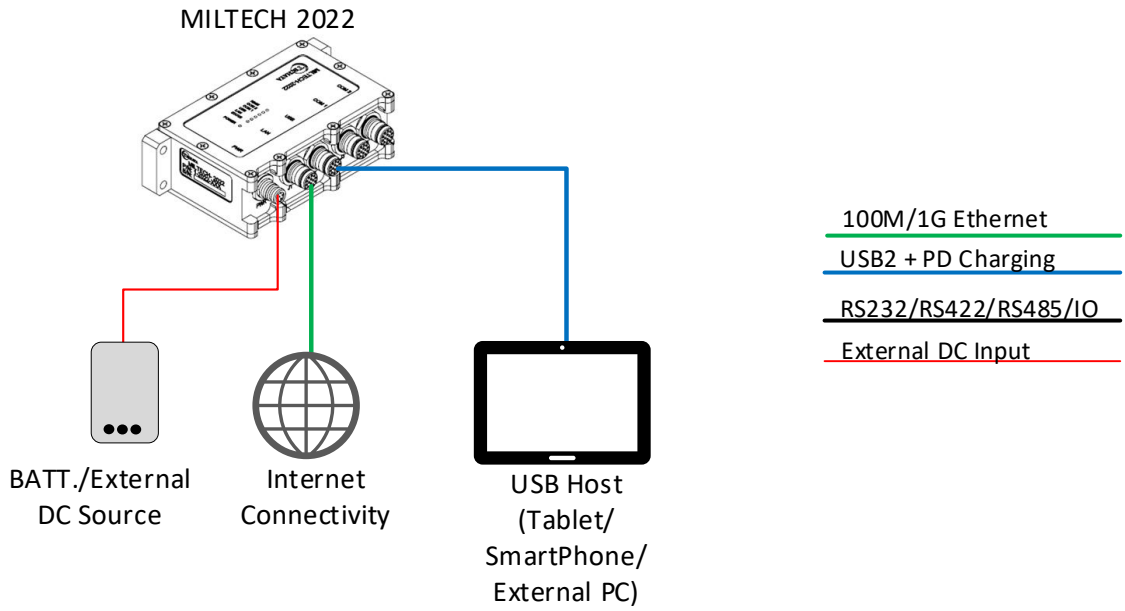


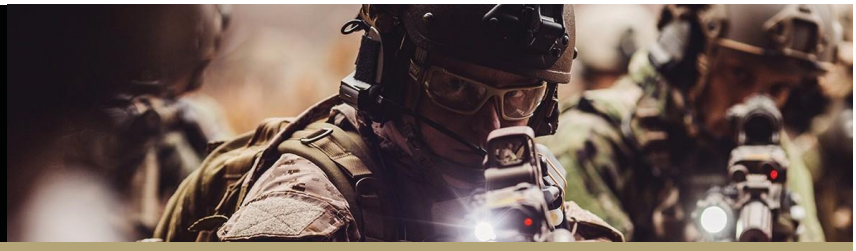
Applications Diagrams

USB to RS232/RS422/RS485 + Power Delivery Charging:

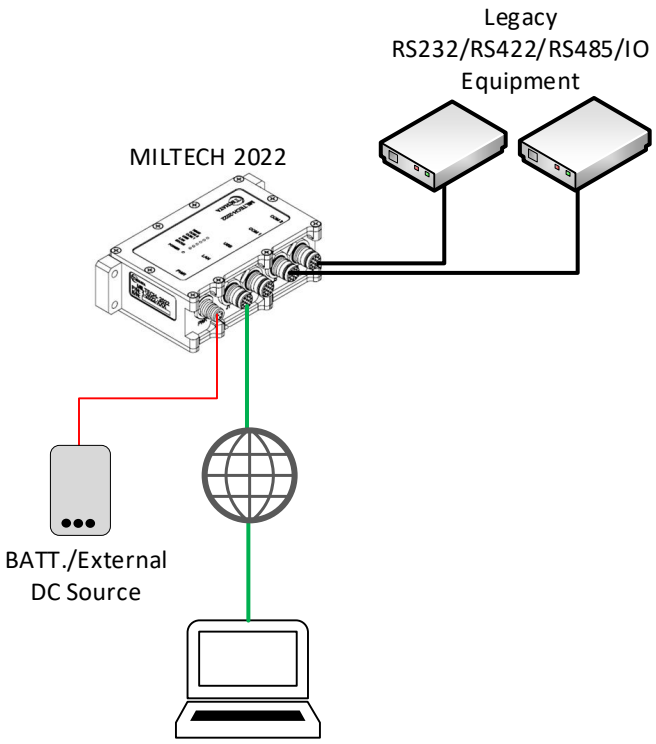


USB to Ethernet + Power Delivery Charging:

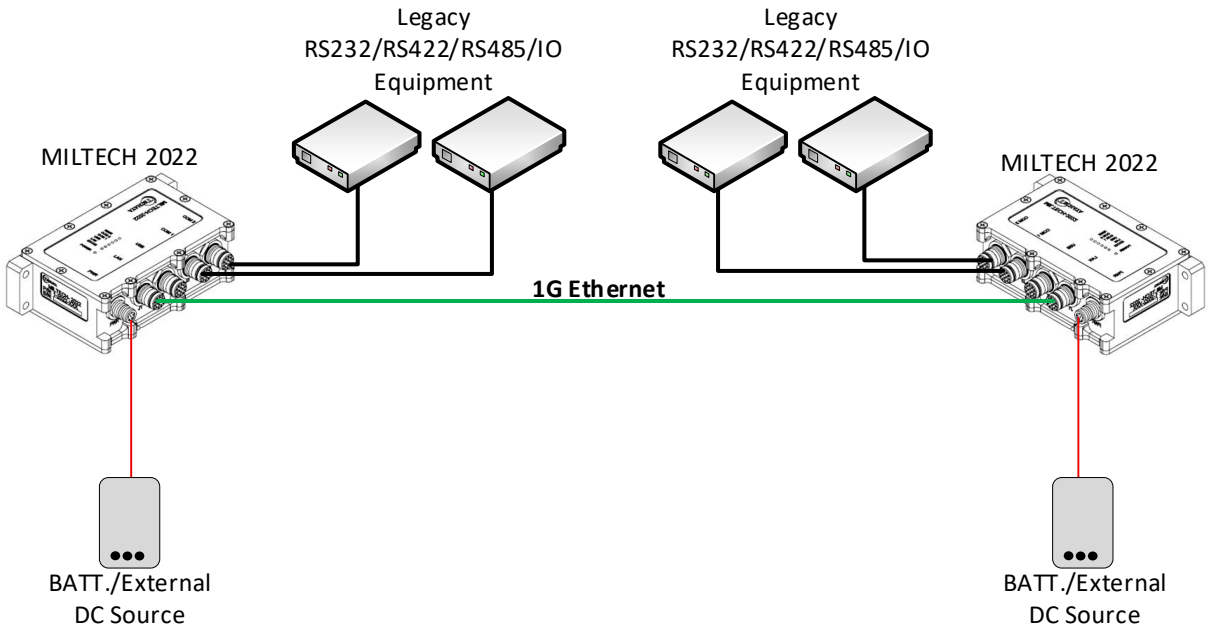




Ethernet to RS232/RS422/RS485/Discrete IOs (Terminal Server):



RS232/RS422/RS485/Discrete IO Over Ethernet (Bridge Mode):



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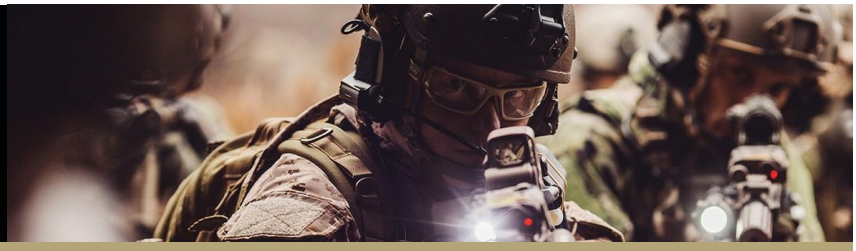

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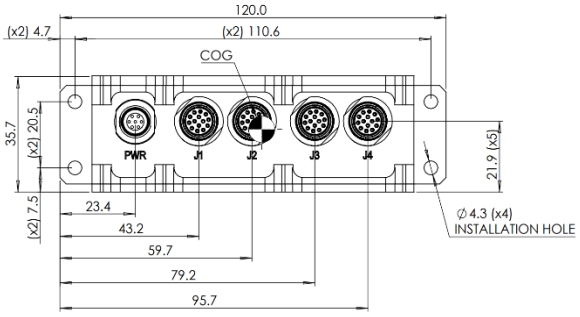

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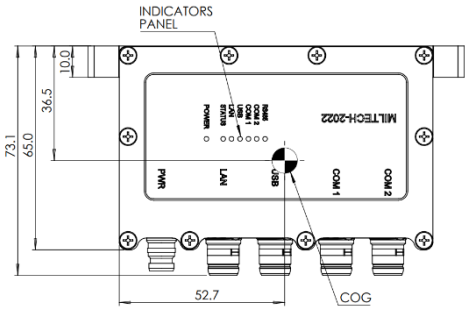

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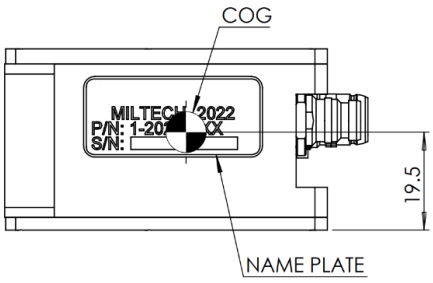

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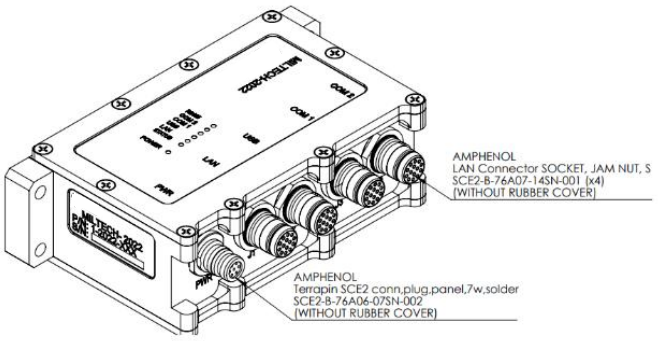

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-2022-000	USB/ETH to Dual Port Serial COM/Discrete IO Transceiver
1-2022-001	ETH to 2xRS232/RS422, 1xRS485, 2xGPI, 2xGPO, Bridge Mode
2-CBL2022PWR	Test HARNESS POWER for MT2022
2-CBL2022LAN	Test HARNESS J1 LAN for MT2022
2-CBL2022USBMNG	Test HARNESS J2 USB/MNG for MT2022
2-CBL2022COM1	Test HARNESS J3 RS232/RS422/RS485 for MT2022
2-CBL2022COM2	Test HARNESS J4 RS232/RS422/RS485 for MT2022
2-CBL2022PLUG232	Test HARNESS J3/J4 - RS232 PLUG for MT2022

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