MILTECH™ 410

Integrated Soldier Power and Data Management System (ISPDS)
With USB.3.0 and 1G LAN Capabilities

FEATURES DESCRIPTION

The advancement of technologies in the modern warfare has allowed the design of increasingly versatile tools in order to perform effectively and coherently in the battlefield. The modern infantry soldier, fully equipped with advanced weapon and communication systems, has become a source of battlefield intelligence. Outfitted with a multitude of electronic devices, such as a navigation system, battery packs, headsets, warning sensors, video visor for weapons, night vision glasses and many more.

The weight and amount of these devices, as well as the multiple power requirements, increases the need for miniaturization and energy management in order to engage easily and effectively in the battlefield.

Techaya's MILTECH410 is an integrated soldier power

and data management system (ISPDS) with combining 1G LAN, USB3 and SMBUS communication for infantry soldiers. The MILTECH 410 has the ability to prioritize energy supply to the different devices. In addition, the unit can be hooked up to an external power source and charges the input batteries.

The MILTECH410 outfits soldiers in the digital battlefield with a lightweight, fully integrated infantry combat ISPDS systems. Techaya offers a range of light-weight adaptable systems that are ideally suited for frontline forces in the most complex modern battlefield scenarios. This new and unique concept aggregates and delivers intelligence information along with all required communication in a tiny, light weight package that can be carried in smart combat vest solutions.

SPECIFICATIONS

PORTS	• 1 x Up to 2 battery input • 1 x External power input and battery charge • 1 x LAN 1Gb • 1 x 10.8-12.6Vdc (Vbat) Power supply • 5 x USB 3.0 downstream ports • 1 x USB 3.0 upstream + 12V/1A power supply

SYSTEM OVERVIEW	• USB3 HUB
	• Full Power management per port
	  • Online Current Measurement per port
	  • Instant Power ON/ Off per port
	  • Over Voltage / Short Circuit / Over current protections
	  • Online Power consumption per port
	  • Online Total System Power Consumption
	  • Batteries SoC (State of Charge) and Mission total time and power remaining
	  • Intuitive interface GUI for full control on all power and system parameters
	• Internal Battery Charger
	• Internal High-Performance MCU
	• Low Power Consumption

CONNECTORS	• Port 1: GK1YAR-P16UC00-000L • Port 2: GK0WAM-P09UM00-000L • Ports 3-10: GK0WAM-P12UM00-000L

TECHAYA
RUGGED DESIGN

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PRODUCT DATASHEET rev. 1

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MILTECH™ 410

Integrated Soldier Power and Data Management System (ISPDS)
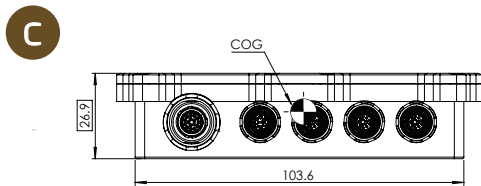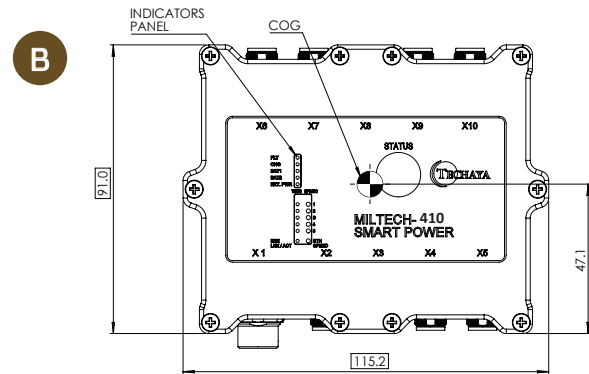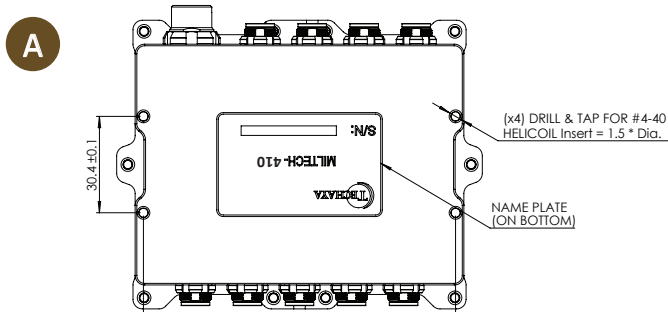With USB.3.0 and 1G LAN Capabilities

SPECIFICATIONS

CHASSIS	• Conductively cooled w/custom internal heat-sinks • Ingress protection against sand, dust and moisture • Anodize Coating, MIL-A-8625, Type II, Class 2
STANDARDS	• MIL-STD-461E, MIL-STD-810F, MIL-STD-1275, IP68
STANDARDS COMPLIANCE	• IEEE 802.3, IEEE 802.3u IEEE 802.3z • IEEE 802.3x Flow Control • USB 2.0 • USB 3.0 • SMBUS V.2.0
POWER	• Power Input: - 2 x Battery: 8-16.8Vdc (compatible with 3 and 4 cells smart batteries, including SMBUS per battery). - External Power: 12-32Vdc for battery charging and full system operation, MIL-STD-1275 protection. • Power Output: - 5 x 5VDC, 2A max per port - 2 x Vbat (8-16.8Vdc), 3A per port • Total System Current Limitation: Vbat, 6A • Total System Current Limitation for 5VDC Rail: 5VDC, 5A • Total System Power Consumption: 5W
ELECTROMAGNETIC	• MIL-STD-461E Electromagnetic compatibility • CE-102, CS-114, CS-115, CS-116, RE-102, RS-103
ENVIRONMENTAL	• MILSTD-810F: Random vibration (514.5I), Bench Handling (516.6VI), High Temp.(501.5I,II), Low Temp.(502.5I), Humidity (507.5II), Air Pressure (500.5I,II), Blowing Rain (506.5I), Immersion (512.5I), Salt Atmosphere (509.5I), Blowing Dust (510.5I), Loose Cargo Vibration (514.6II), Wind Analysis. • IP68
PHYSICAL	• Dimensions: 115.2mm (L) x 91mm(W) x 26.9mm(H), not including connectors • Dimentions: 4.54" (L) x 3.58" (W) x 1.06" (H), not includind connectors • Weight: 310g • LED indication Speed, Link/Activity Power, Charge (Total of 3 LEDs) per port • Dark Mode for all LED indications
INSTALLATION	• Set of 4 mounting holes (4-40 UNC) for mounting to any flat surface.
OPERATING TEMP	• -45 C to +85 C (-49 F to +185 F) — Cold Start-Up
STORAGE TEMP	• -45ºC to +85ºC (-49ºF to +185ºF)

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ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-410-000	Integrated Soldier Power and Data Management System (ISPDS) with USB3.0 and 1G Capabilities
2-CBL410001	LAN Harness for MILTECH410
2-CBL410002	Vbat Power/Data Harness for MILTECH410
2-CBL410003	Power Input Harness for MILTECH410
2-CBL410004	Battery Packs 1 & 2 Harness for MILTECH410
2-CBL410000	USB Upstream Harness for MILTECH410
2-CBL303USBDO	USB Downstream Harness for MILTECH303/MILTECH410

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