MILTECH™ 404

Integrated Soldier Power and Data Management System (ISPDS) with Integrated SOM

FEATURES DESCRIPTION

The modern digital soldier is a fully equipped, advanced weapon and communication systems - outfitted with a multitude of electronic devices. These devices, such as a navigation systems, battery packs, headsets, warning sensors, video visor for weapons, night vision glasses and many more items, are necessary for "modern" warfare. All of these devices have to communicate by means of top quality, reliable connection and the MILTECH404 does it all.

Techaya's MILTECH404 is an integrated soldier power and data management system (ISPDS) combining USB, serial, and SMBUS communication along with full smart power management for infantry soldiers. It has an internal powerful SOM running Linux OS for full power management and open platform for any tactical customer application.

The MILTECH404 outfits soldiers in the digital battlefield with a lightweight, fully integrated infantry combat ISPDS system. 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 10/100 (Fast Ethernet) port • 3 x USB 2.0 ports • 1 x Serial, RS-232 • 1 x External power source input (including SMBUS V.2.0),internal charger • All ports provide both Vbat and 5Vdc according to net-warrior pin out

SYSTEM OVERVIEW	• 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 SOM (System on Module) Open Architecture running Linux:
	  • Low Power Consumption
	  • 2 / 4 Cores ARM® Cortex™-A53 up to 1.5GHz
	  • Additional RT 266MHz ARM Cortex-M4 core
	  • Up to 4GB LPDDR4 RAM
	  • Up to 64GB eMMC boot and storage
	  • Internal BlueTooth-5 and WIFI (optional) with dedicated antenna
	  • Easy installation of any customer Tactical application
	  • Connectors and Pin Assignment per Net-Warrior Standard

CONNECTORS	• BAT: 8070-1153-07ZNU6-6EA • PAN1 - PAN3: 8070-1153-07ZNU6-6FC • ETH: 8070-1153-07ZNU6-6FC • AUX: 8070-1153-07ZNU6-6FC

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PRODUCT DATASHEET rev. 2

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MILTECH™ 404

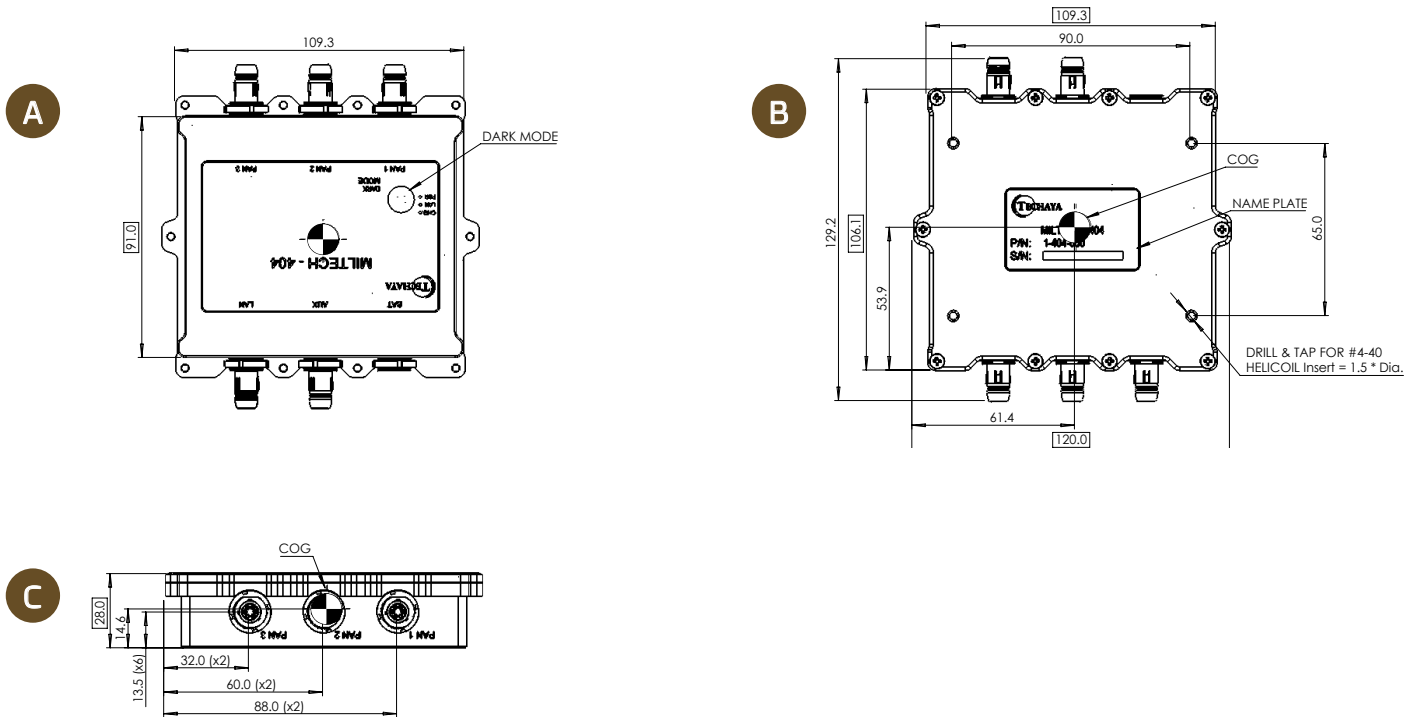Integrated Soldier Power and Data Management System (ISPDS) with Integrated SOM

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, 10BASE-T, 100BaseTX • IEEE 802.3x Flow Control • USB 2.0 • USB 3.0 • SMBUS V.2.0 • RS-232, Asynchronous

POWER	• Power Input:
	  - 2 x Battery: 8-18Vdc (compatible with 3 and 4 cells smart batteries, including SMBUS per battery).
	  - External Power: 18-28Vdc for battery charging and full system operation,
	• Power Output:
	  - 5 x 5VDC, per port
	  - Vbat (8-18Vdc), 3A per port
	• Total System Current Limitation: Vbat, 5A can be adjustable up to 8A.
	• Total System Current Limitation for 5VDC Rail: 5VDC, 5A
	• Total System Power Consumption: 15W

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:117mm (L) x 123.2mm(W) x 25mm(H), including connectors • Dimentions: 4.61" (L) x 4.85" (W) x 0.98" (H), including connectors • Weight: 300g • 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	• -45°C to +85°C (-49°F to +185°F)

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ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-404-000	Integrated Soldier Power and Data Management System (ISPDS) with Integrated SOM
2-CBL404AUX	AUX Harness for MILTECH 404
2-CBL404BAT	Battery Harness for MILTECH 404
2-CBL404LAN	LAN Harness for MILTECH 404
2-CBL404PAN	PAN 1-3 Harness for MILTECH 404

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