MILTECH™ 303

IP 68 Military Rugged USB 3.2 Gen1 advanced featured Smart HUB

PRODUCT DESCRIPTION

The MILTECH™ 303 USB hub enables the connectivity and communication between multiple USB devices in weight and space-constrained fixed-wing/rotor aircraft, soldier carry and harsh environments. This MIL-STD, rugged USB hub features 5 USB 3.2 ports, a dedicated External Power Port, and a gigabit Ethernet port.

With a wide voltage range of 12-28VDC and up to 2A downstream power per port, the MILTECH 303 supports the four most popular battery charging profiles (DCP, CDP, SDP and custom profiles via SMBus or OTP) to power and charge USB devices including portable handhelds, storage, sensors, human interface devices and GPS.

The optional internal Ethernet interface allows the USB host machine to communicate with upstream devices over a standard wired and wireless Ethernet network, further extending the flexibility of the hub and attached USB devices.

MILTECH™ 303 features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been especially hardened to improve ingress, impact, and shock/vibration protection. Passive cooling allows for the elimination of moving parts. Sealed connectors ensure protection against water and dust.

This flexible communications and power management platform creates another "first" for the military and rugged commercial markets. It extends our commitment to unique, tailor-made low-SWAP rugged communications solutions.

SPECIFICATIONS

COMMUNICATION PORTS	• Port #1 - USB3.2 /USB2 upstream port • Ports #2-6 - USB3.2 /USB2 downstream ports • Port #7 - Ethernet 10/100/1000BT port via USB to LAN Bridge • Port #8 - External Power Input • Per port LEDs indication
CONNECTORS	• ODU AMC-HD Series Upstream port 12 pins connector • ODU AMC-HD Series Downstream ports 12 pins connector
CHASSIS	• Low profile rugged machined aluminum • Conductively cooled • Ingress protection against sand, dust and moisture • Anodize Coating, MIL-A-8625, Type II, Class 2
STANDARDS	• MILSTD-461E, MILSTD-810F/G/GM, IP68

NON ITAR

AS9100D CERTIFIED ISO 9001

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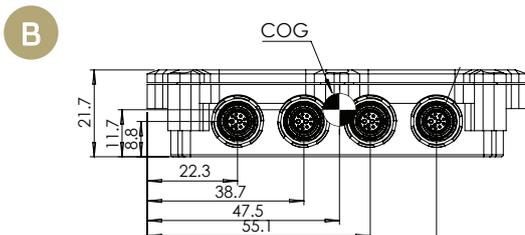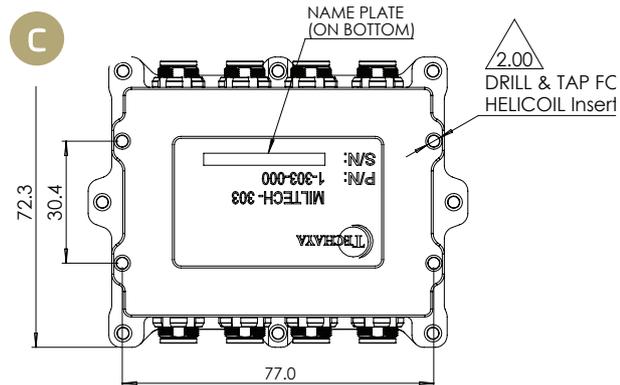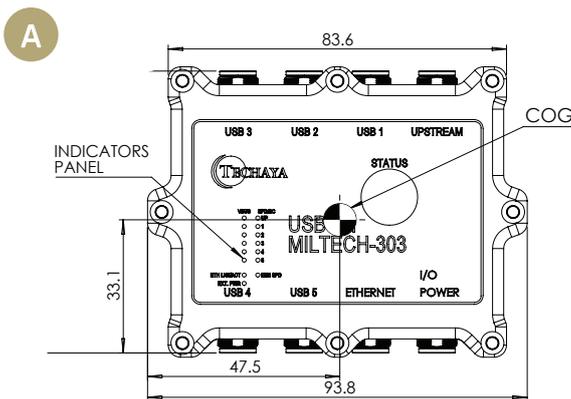## SPECIFICATIONS

BATTERY CHARGE	• High Power Chargers for most popular battery powered devices, via all USB 3.2 downstream ports, up to 2A per port.
	• Supports the following USB-IF BC1.2 charging profiles:
	  – DCP: Dedicated Charging Port (Power brick with no data)
	  – CDP: Charging Downstream Port (1.5A with data)
	  – SDP: Standard Downstream Port (0.5A with data)
	  – Custom profiles loaded via SMBus or OTP
	• All downstream ports supports individual port power control, over-current & Short circuit protection.
	• Over voltage / Reverse Voltage protections for Self-Powered and VBUS-powered supply sources.
	• USB ESD Protection up to 17KV (Air) and 12KV (Contact).

STANDARDS COMPLIANCE	• USB 3.2 (Gen1) Specification - supports 5Gbps SuperSpeed (SS) • 480Mbps High-Speed (HS) • 12Mbps Full-Speed (FS) • 1.5Mbps Low-Speed (LS)
POWER	• 5VDC (USB) INPUT, Upstream USB Port # 1, or 12-28VDC external power source for high power applications • Output 5VDC Aggregated up to 15A
ELECTROMAGNETIC	• MIL-STD-461E Electromagnetic compatibility • CE-102, CS-114, CS-115, CS-116, RE-102, RS-103

ENVIRONMENTAL	• MILSTD-810F/G/GM:
	  • Shock (516.5), Salt/Fog (509.4)
	  • Random vibration (514.5I), Bench Handling (516.6VI)
	  • Air Pressure (500.5I,II), Blowing Rain (506.5I)
	  • High Temp.(501.5I,II), Low Temp.(502.5I), Humidity (507.5II),
	  • Immersion (512.5I), Salt Atmosphere (509.5I), Blowing Dust (510.5I)
	  • Loose Cargo Vibration (514.6II), Wind Analysis
	  • IP68

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PHYSICAL	• Dimensions: 89.8mm(L) x 70.2mm(W) x 21.2mm(H), Not including connector Dust Caps • Weight: 169g - including dust caps
INSTALLATION	• Portable, 4 screws for mounting to any flat surface
COOLING	• No Moving Parts. Passive Cooling
TEMPERATURE	• Operational: -40ºC to +85ºC (-40ºF to +185ºF) - Cold Start-Up • Storage: -45ºC to +85ºC (-49ºF to +185ºF)

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-303-001	MILTECH303, MIL-STD Rugged USB 3.2 Hub