MILTECH™ 300-HoB

Military Grade USB 3.1 advanced featured Smart HUB On Board (USBHoB)

PRODUCT DESCRIPTION

Techaya's MILTECH™ 300-HoB USB hub enables the connectivity and communication between multiple USB devices and the main computer. This USB hub features 6 USB 3.1 ports each of them also supports battery charging functionality along with regular USB3.1 data path, a dedicated IO port (SPI, I²C, External Power and GPIO compatible), and a single gigabit Ethernet port.

With a wide input voltage range of 12-28VDC and up to 2A downstream power per port for either charging or powering devices. The MILTECH 300-HoB supports the four most popular battery charging profiles (DCP, CDP, SDP and custom profiles) to power and charge USB devices including: portable handhelds, storage, sensors, human interface devices and GPS.

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

MILTECH™ 300 designed to withstand MIL-STD-810 environmental compliance and MIL-STD-461 EMI/RFI compliance when installed in an appropriate chassis.

SPECIFICATIONS

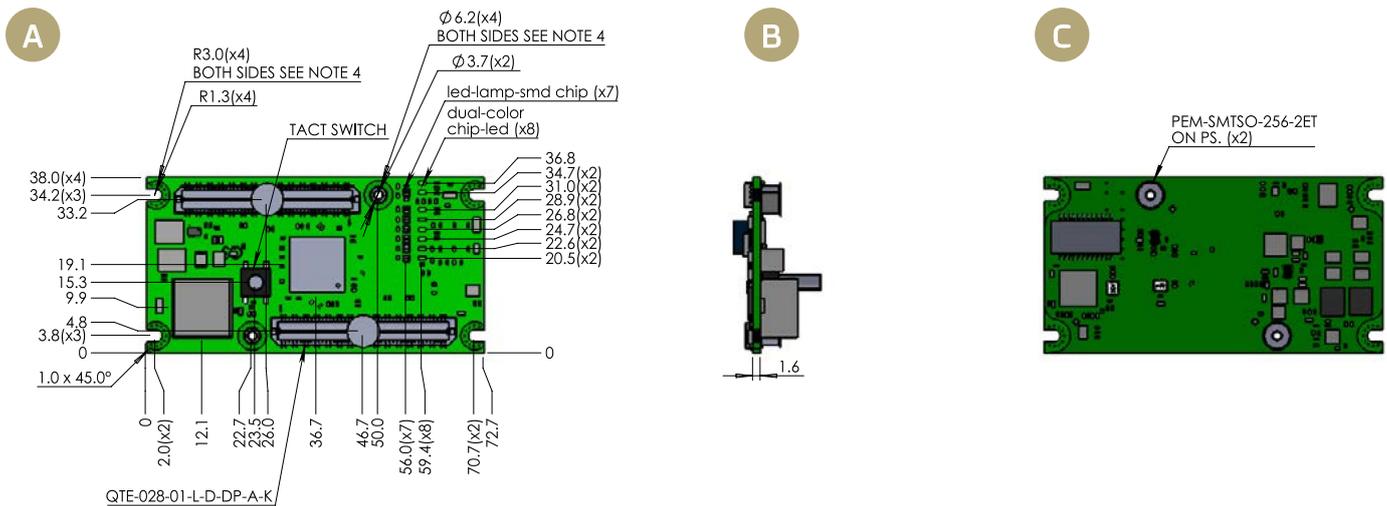|	
COMMUNICATION PORTS	• Port 1 USB3.1/USB2 upstream port • Port 2-6 USB3.1/USB2 downstream ports • Port 7 Ethernet 10/100/1000BT port via USB to LAN Bridge • Port 8 IO port for I2C/SPI/GPIO/External Power Input • Per port LEDs indication
CONNECTORS	• 2 x Samtec QTE-028-01-L-D-DP-A-K
STANDARDS	• MILSTD-461, MILSTD-810, IP68 • When installed in an appropriate chassis

BATTERY CHARGE	• High Power Chargers for most popular battery powered devices, via all USB 3.1 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
	• All downstream ports support 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).

PRODUCT DATASHEET rev. 1.0

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STANDARDS COMPLIANCE	• USB 3.1 (Gen1) Specification - supports 5Gbps SuperSpeed (SS) • 480Mbps High-Speed (HS) • 12Mbps Full-Speed (FS) • 1.5Mbps Low-Speed (LS)
POWER	• 5VDC (USB) INPUT via Upstream USB Port, or 12-28VDC external power via I/O Power Connector, for high power applications. • Output 5VDC Aggregated up to 15A, and up to 2A per port
ELECTROMAGNETIC	• MIL-STD-461 Electromagnetic compatibility when installed in an appropriate chassis
PHYSICAL	• Dimensions: 73mm (L) x 38mm (W) x 11mm (H) • Weight: 24.2gr
INSTALLATION	• Portable, 4 screws for mounting to any flat surface
COOLING	• No Moving Parts. Passive Cooling
TEMPERATURE	• Operational: -40⁰C to +85⁰C (-40⁰F to +185⁰F) - Cold Start-Up • Storage: -45⁰C to +85⁰C (-49⁰F to +185⁰F)

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-300-000	Military Grade USB 3.1 Smart HUB On Board