RES-SMARTUSB

Miniature Portable Communication Grid for the Digital Soldier

Amphenol

FEATURES

PORTS
- 6 x switched 10/100 (Fast Ethernet) ports
- Up to 7 x USB 2.0 ports
- 1 x Serial, RS-232 to USB
- 1 x Smart Batteries SoC (SMBUS V.2.0), I²C to USB
- 1 x External power source input

SYSTEM OVERVIEW
- Providing SoC for batteries via SMBUS over USB interface
- Providing Serial RS-232 over USB interface
- Providing 6 x Ethernet switch over USB
- Option to connect dedicated USB to Ethernet switch
- Supports 0.5A per USB port power supply
- Main USB port is connected to:
  - 6 x Switched 10/100 ports
  - Up to 7 x USB 2.0 Ports
  - 1 x RS-232
  - 1 x SMBUS V.2.0 / I²C
  - Support up to 0.5A per USB port

CONNECTORS
- 6 x SCE2-B-76-A-07-14-SN, 14 PIN connector

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/G/GM, IP68

VOLTAGE OPERATION
- 5VDC (USB) INPUT, on Port Number 1

PRODUCT DESCRIPTION

Amphenol's RES-SMARTUSB is a communication grid solution combined with LAN, USB and serial communication for supplying full communication to foot and dismounted soldiers. The RES-SMARTUSB was specifically designed to outfit soldiers for the digital battlefield by creating lightweight, fully integrated infantry combat systems.

Amphenol offers a range of light-weight adaptable systems that are ideally suited for frontline forces in the most complex operational scenarios. The design was inspired by activities in the modern battlefield. This new and unique concept forms the basis for delivering and collaborating intelligence information along with all required communication at a tiny size and low weight that can be carried in smart combat vest solutions by soldiers.

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

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PRODUCT SPECIFICATIONS

ETHERNET SWITCH PERFORMANCE

- 128K Byte of SRAM for Frame Buffering
- 2.0Gbps High-Performance Memory Bandwidth
- Auto MDI-X and Auto-Negotiation on all ports
- Wire-Speed Reception and Transmission

STANDARDS COMPLIANCE

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

POWER

- Voltage Input: 5Vdc @0.5A (USB input)
- Power Consumption: 2.5W Typical

ELECTROMAGNETIC COMPATIBILITY

- MIL-STD-461E Electromagnetic compatibility
- CE-102, CS-114, CS-115, CS-116, RE-102, RS-103

ENVIRONMENTAL

- MIL-STD-810F, 501.4I, 501.4II, 502.4I, 502.4II, 507.4, 500.4II, 514, 516I, 516Vi, 514.5, 512.4.
- 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: 97mm (L) x 78(W) x 25(H), including connectors.
- Weight: 150g
- LED indication (Speed, Link/Activity) per port, Power
- Dark Mode for all LED indications

INSTALLATION

- Portable, flat for mounting to any flat surface.
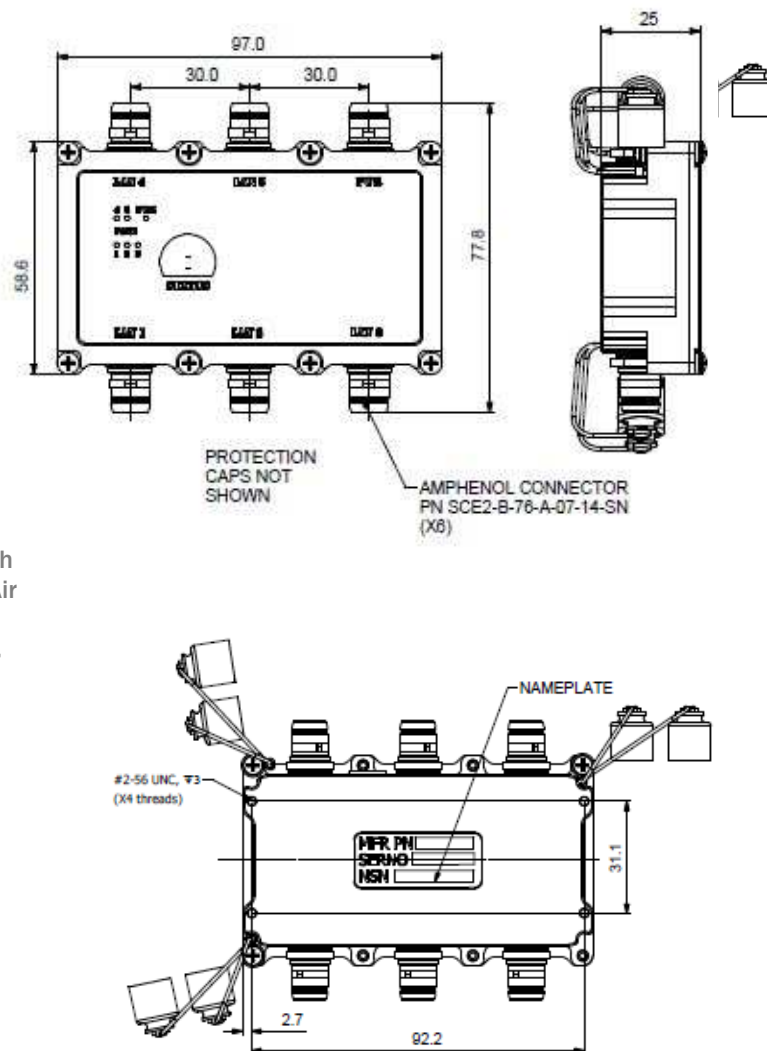- Set of 4 mounting holes (2-56 UNC)

COOLING

- No Moving Parts. Passive Cooling

TEMPERATURE

- Operating: -35ºC to +75ºC (-31ºF to +167ºF) – Cold Start-Up
- Storage: -45ºC to +85ºC (-49ºF to +185ºF)

*All measurements are in millimeters

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
RES-SMARTUSB	Military portable Rugged Ethernet Switch combined with communication grid
RES-USBHUB7	Military portable USB Hub with 7 ports

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