



# MILTECH™ 306

## An IP68, Military Grade, 8-Port USB2.0 Hub

The MILTECH306 is a small size, IP68 rugged construction, USB hub, offering 1+7 USB 2.0 ports. The portable rugged USB hub is an ideal solution for command post, man packable applications based on USB systems and devices. All ports are plug-n-play, providing network connectivity for most portable USB devices, including:

- Helmet-mounted heads-up displays
- Rugged computers
- Navigation devices
- Communications systems
- IP-based sensors
- Battlefield communication C5ISR

With the best combination of size, weight, power and cost (SWaP-C) in the industry, the MILTECH306 reduces load on the soldier, providing more space for equipment that increases effectiveness and survivability.

The MILTECH306 supports two power modes: Bus Powered (VBUS) or Self-Powered (External DC). Both power inputs are provided through dedicated contacts on connector J1. External power input supports 8-28VDC.

VBUS is 5VDC via host device.

MILTECH306 also provides the option for auxiliary 5VDC, 2 Amp (dedicated contacts) on downstream ports #2, #3, #6, and #7 when powered by an external source (total of 8A).

The unit's mechanical packaging enhancements, including ruggedized SCE2 circular connectors, are designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. Leveraging best-in-class technology, the MILTECH306 serves as a robust commercial off-the-shelf (COTS) solution for rugged USB connectivity.



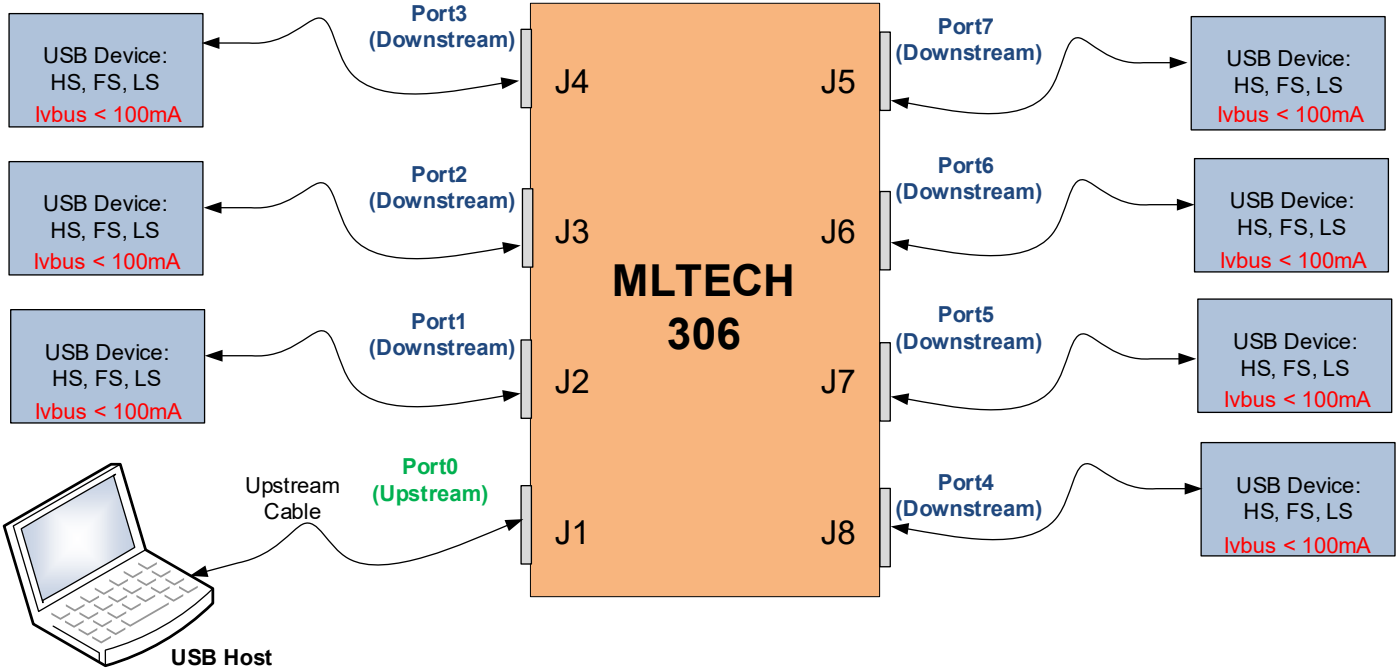


## SPECIFICATIONS

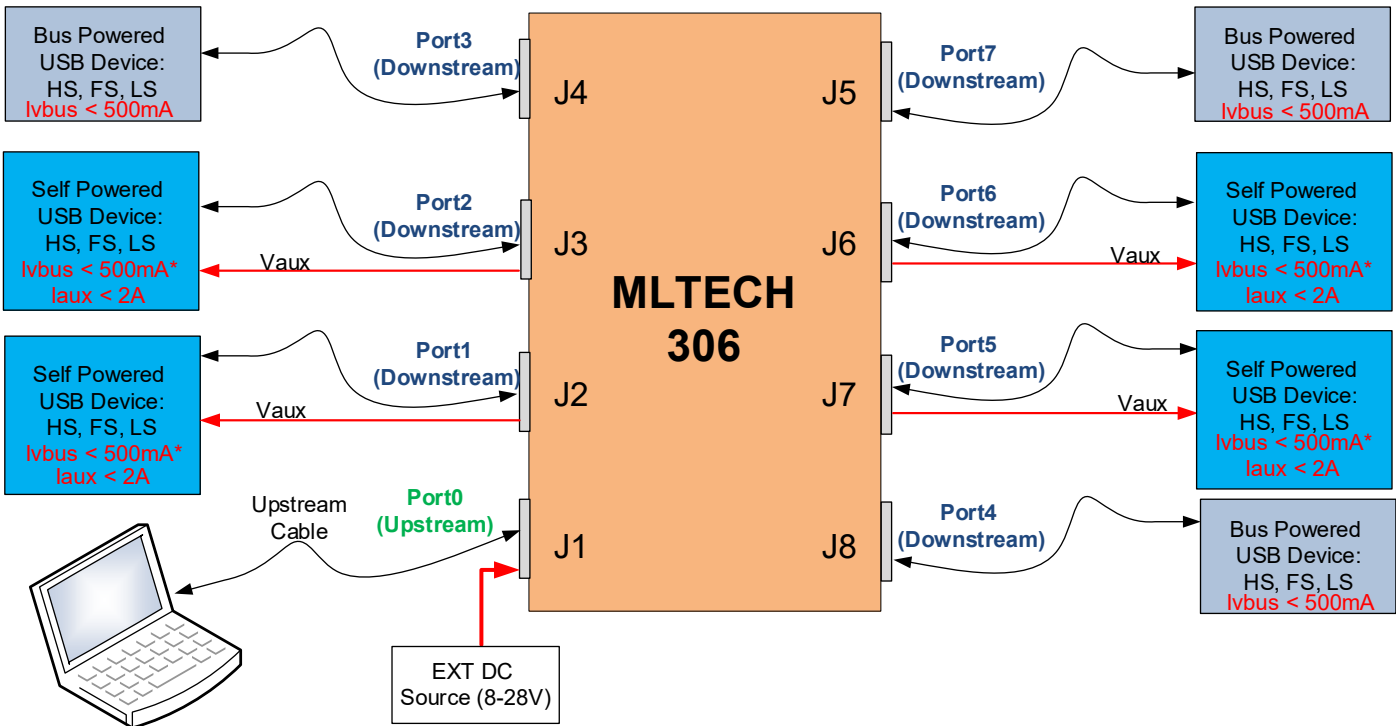
HUB PORTS:	<ul style="list-style-type: none"> <li>8 port USB 1.1/2.0 Hub with one Upstream port and 7 Downstream ports</li> <li>Bus powered (via upstream VBUS) or self powered (via external 8-28VDC input) modes</li> </ul>
CONNECTORS:	<ul style="list-style-type: none"> <li>Connectors Type: SCE2-B-76A06-07SN-001</li> </ul>
PERFORMANCE:	<ul style="list-style-type: none"> <li>1 upstream USB 2.0</li> <li>7 downstream USB 2.0 (including 2 High Power ports, 5V/2A)</li> <li>Up to five cascaded hubs</li> <li>Maximum cable length between each hub: 5m</li> <li>Up to 127 devices</li> <li>Per port LED indication</li> </ul>
STANDARDS COMPLIANCE:	<ul style="list-style-type: none"> <li>USB specification version 2.0 (data rates of up to 480 Mbps)</li> <li>USB specification version 1.1 (data rates of up to 12 Mbps)</li> <li>OHCI, UHIC, VEHCI</li> </ul>
POWER:	<ul style="list-style-type: none"> <li>VBUS powered mode input voltage: 5VDC Nominal – USB Bus-Powered mode</li> <li>External power mode input Voltage: 8-28VDC – Self-Powered mode</li> <li>Power Consumption: 2W Typical (data transfer only)</li> <li>Dual-mode power - once external DC is detected, the unit operates in external power mode</li> <li>Downstream ports (J2-J8) power in bus powered mode: 5V/100mA per port with USB host total limit of 5V/0.5A (as per USB 1.1/2 standard)</li> <li>Downstream ports (J2-J8) power in self powered mode: 5V/500mA per port</li> <li>Auxiliary output power (J2,J3,J6,J7) only in self-powered mode: 5V/2A per port. Note: the max unit total current in self powered mode is &lt;10A.</li> <li>Chassis grounding</li> </ul>
EMC/ENVIRONMENTAL:	<ul style="list-style-type: none"> <li>MIL-STD-461E</li> <li>MIL-STD-810F/G/GM</li> <li>IP68</li> </ul>
CHASSIS:	<ul style="list-style-type: none"> <li>Low profile rugged machined aluminum</li> <li>Conductively cooled</li> <li>Ingress protection against sand, dust and moisture</li> <li>Anodize Coating, MIL-A-8625, Type II, Class 2</li> </ul>
PHYSICAL:	<ul style="list-style-type: none"> <li>Dimensions: 82.2mm (L) x 64.1(W) x 26(H), Not including connector Dust Caps</li> <li>Weight: 140g - including dust caps</li> </ul>
INSTALLATION:	<ul style="list-style-type: none"> <li>Portable, 4 screws for mounting to any flat surface.</li> </ul>
COOLING:	<ul style="list-style-type: none"> <li>No Moving Parts. Passive Cooling</li> </ul>



### Application Information – Bus Powered Mode:



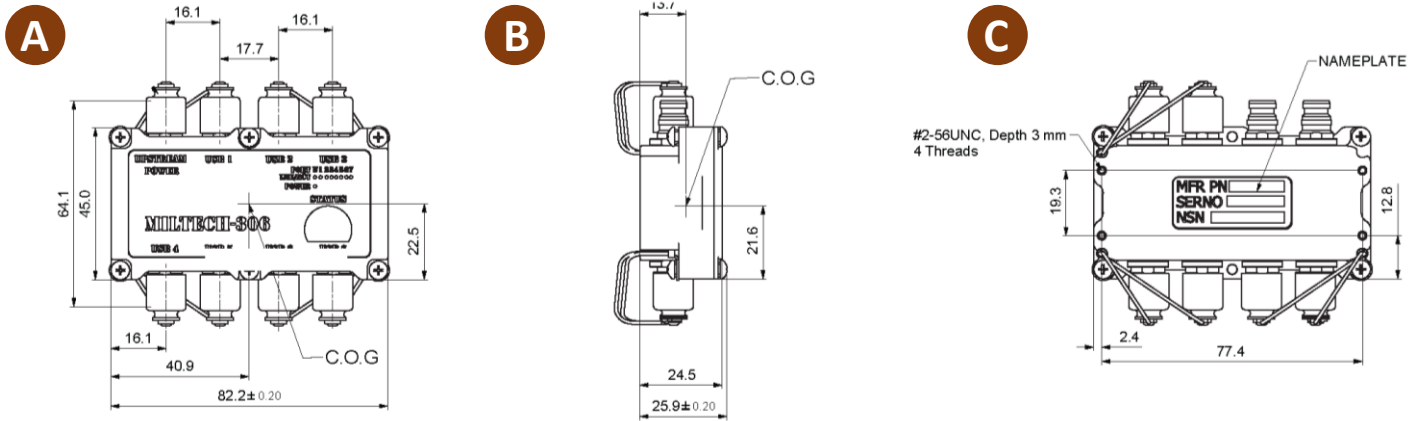
### Application Information – Self Powered Mode:



Once external DC is connected to J1, the unit will be operated in Self-Powered mode  
\*Ivbus for self powered USB device that is powered by vaux will be < 100mA



## Mechanical:



## ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-306-002	8 Ports USB HUB
2-CBL306USBDO	Downstream harness 1 x SCE connector to 1 USB connector 3 meter length
2-CBL306USBPODO	Downstream harness with high power output 1x SCE connector to 1x USB connector and 2 wires for power out
2-CBL306USBPIUP	USB upstream + power input Harness for MILTECH306, SCE connector to USB female