MILTECH™ 471

Military Rugged USB-2/3 to Ethernet Smart HUB

The MILTECH 471 Module is a member of ISPDS (Integrated Soldier Power and Data Management Systems) product line. This unit provides connectivity for 5 external USB2/3 devices (e.g. Tablets/Smartphones) and 2 external 10/100/1000BT Ethernet ports. Using its integrated Ethernet Switch and USB/Ethernet bridges the MILTECH471 allows network connectivity to all five external USB2/3 ports while providing simultaneous fast charge functionality based on USB Power Delivery technology.

With a wide input range of 18-48VDC MIL-STD-704, MILTECH 471 supports fast charge for USB devices (x5) over all ports - up to 100W for 4 ports and 60W for the fifth port. The Ethernet interfaces allow the USB host machines to communicate between themselves and upstream devices over a standard wired Ethernet network, further extending the flexibility of the hub and attached USB devices.

MILTECH 471 features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been specially 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.
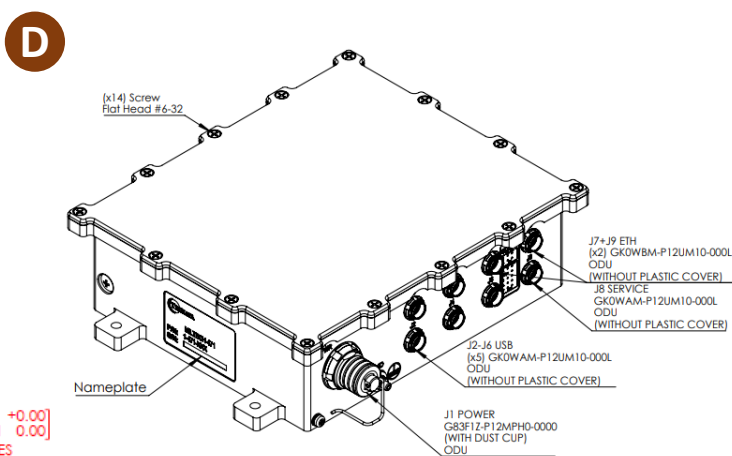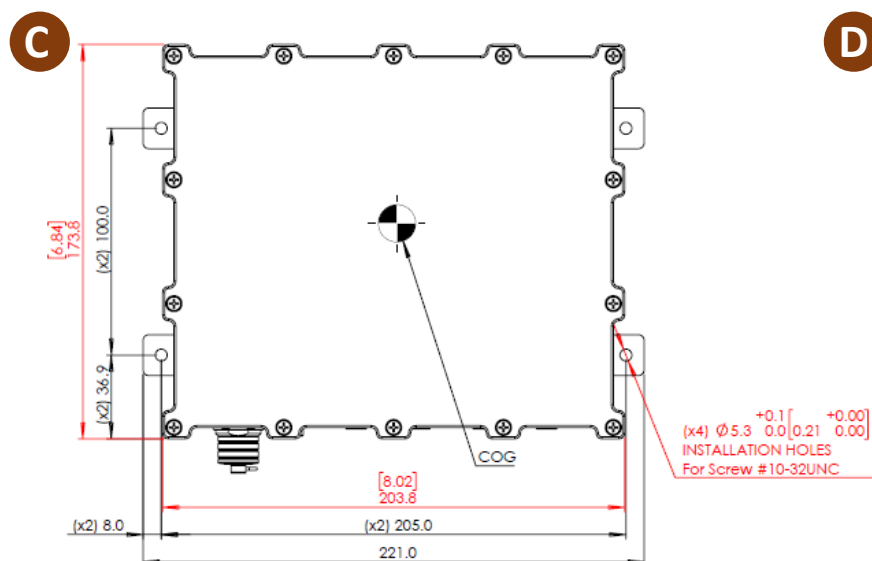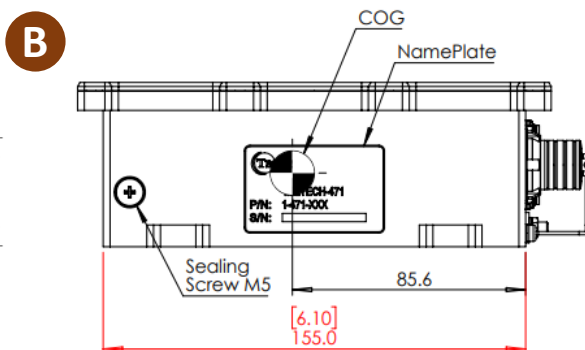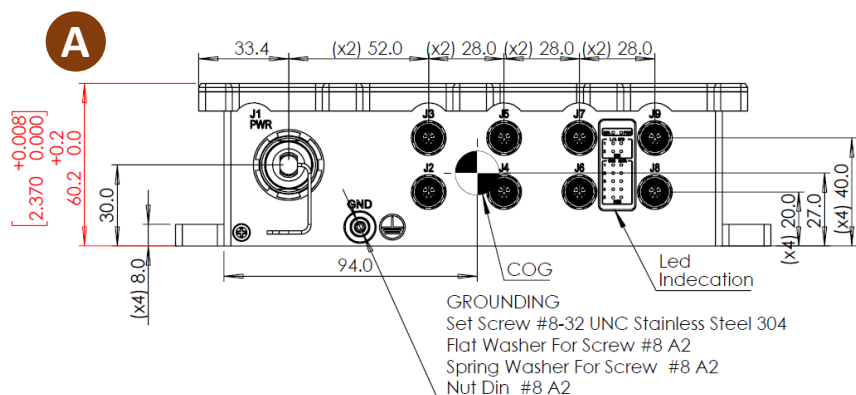
This flexible communications and power management platform creates another "first" for the military and rugged commercial markets. It extends our commitment to unique, tailor-made low-SWAP rugged communications solutions

NIST 800-171 Compliant

AS9100D CERTIFIED ISO 9001

MILPOWER SOURCE

Ask us about our complete line of power and networking products.
7 Field Lane • Belmont, NH 03220 • 1.603.267.8865
sales@milpower.com • www.milpower.com

SPECIFICATIONS

PHYSICAL PORTS:	• 5 x USB 2/3 ports • 2 x 10/100/1000base-T ports • 1 x USB service port
PERFORMANCE:	• 2 x 1000Base-T ports • 5 x USB2/3 with up to 100W output power per port • Per port LED indications • Management, monitoring and controlling the power to each port • Internal BIT and BIT status LED
STANDARD COMPLIANCE:	• USB specification version 3.1 (data rates of up to 1Gpbs) • USB specification version 2.01 (data rates of up to 480 Mbps) • USB specification version 1.1 (data rates of up to 12 Mbps) • OHCI, UHIC, VEHCI
BATTERY CHARGE:	• High Power Chargers for most popular applications and devices, via all USB3.1 ports, up to 100W per port • PD DRP mode – Simultaneous charging and data transmission • Ports support individual power control, over-current and short-circuit protection • Power input protections: Over voltage / Reverse Polarity • USB ESD Protection up to 17KV (Air) and 12KV (Contact)

POWER:	• Power Input: 24VDC ,18-48V DC input range. LED Indication
	• Power Consumption: 489W max
	  • 9W (idle mode, no external devices connected)
	  • 167W (In 30W charge on all five USB ports)
	  • 489W (In 100W PD charge on 4 USB ports + 60W charge on fifth port)
	• Chassis grounding
	• MILSTD-1275, MILSTD-704

CONNECTORS:	• J1 (Power): ODU G83F1Z-P12MPH0-0000 • J2-J6 (USB2/3): ODU GK0WAM-P12UM00-000L • J7, J9 (Ethernet): ODU GK0WBM-P12UM00-000L • J8 (Service): ODU GK0WAM-P12UM00-000L
CHASSIS:	• Low profile rugged machined aluminum • Conductively cooled • Ingress protection against sand, dust, and moisture • ANODIC COATING (HARD ANODIZE) PER MIL-A-8625F Type III Class 2, Color: BLACK
ELECTROMAGNETIC:	• Exceed MIL-STD-461E Electromagnetic compatibility • ELECTROMAGNETIC: CE-102, CS-114, CS-115, CS-116, RE-102, RS-103

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

TEMPERATURE:	• Operational: -40ºC to +71ºC (-40ºF to +160ºF) • Storage: -55ºC to +80ºC (-67ºF to +176ºF)
PHYSICAL:	• Dimensions: 173.8mm (L) x 203.8(W) x 60.2(H), including connectors • Weight: 2.2Kg
INSTALLATION:	• Portable, 4 screws for mounting to any flat surface.
COOLING:	• No Moving Parts. Passive Cooling.

A

33.4 (x2) 52.0 (x2) 28.0 (x2) 28.0 (x2) 28.0

J1 PWR J3 J5 J7 J9

[2.370] +0.008/0.000 60.2 +0.2/0.0

30.0

J2 J4 J6 J8

GND

(x4) 20.0 27.0 40.0

(x4) 8.0

94.0

(x4)

COG

Led Indecation

GROUNDING
Set Screw #8-32 UNC Stainless Steel 304
Flat Washer For Screw #8 A2
Spring Washer For Screw #8 A2
Nut Din #8 A2

B

COG

NamePlate

MILTECH-471
P/N: 1-471-XXX
S/N:

Sealing Screw M5

85.6

[6.10] 155.0

C

[6.84] 173.8

(x2) 100.0

(x2) 36.2

COG

(x4) Ø5.3 +0.1/0.0 [+0.00/0.00] 0.21
INSTALLATION HOLES
For Screw #10-32UNC

[8.02] 203.8

(x2) 8.0 (x2) 205.0

221.0

D

(x14) Screw Flat Head #6-32

J7+J9 ETH
(x2) GK0WBM-P12UM10-000L
ODU
(WITHOUT PLASTIC COVER)

J8 SERVICE
GK0WAM-P12UM10-000L
ODU
(WITHOUT PLASTIC COVER)

J2-J6 USB
(x5) GK0WAM-P12UM10-000L
ODU
(WITHOUT PLASTIC COVER)

J1 POWER
G83F1Z-P12MPH0-0000
(WITH DUST CUP)
ODU

Nameplate

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-471-000	USB3 To ETH Smart Power and Communication Grid
2-CBL471PWR	J1 - MT471 - Power Cable
2-CBL471USB3	J2-J6 - MT471 - USB3 Cable
2-CBL471LAN	J7 & J9 - MT471 - LAN Cable
2-CBL471MNG	J8 - MT471 - USB2 MNG Cable
2-CBL471KIT	MILTECH 471 Cable Set

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