MILTECH™ 9020

26 Port L2/L3 Managed Switch, Military-Grade, with CISCO® IOS® 3300, Combining 1/10Gbps copper and Fiber Optic

MILTECH 9020 is a member of the Enercon networking product line, allowing the customers to use military grade, rugged design with the feature set provided by CISCO's ESS-3300 series and IOS-XE management.

Providing 22 x 10/100/1000BT ports and 4x 1/10G Fiber optic ports, this switch is designed to meet the needs of manned/autonomous vehicles, Avionics and UAVs, and mobile equipment in battlefield environments.

To make the product easily compatible with cyber security needs, CISCO ESS-3300 holds CSfC and NIAP certifications.

In addition, advanced network security features ensure the protection of data, video, and voice services, making it a reliable Ethernet backbone connectivity solution many tactical platforms.

MILTECH 9020 offers a comprehensive set of enterprise-grade networking features, including precision timing (IEEE-1588), efficient multicasting, flexible Quality of Service (QoS), monitoring capabilities over SNMP and robust security measures such as MACsec crypto/authentication.

MILTECH 9020 is ideal for deployment in the most challenging military environments. Equipped with MILSTD circular connectors and durable enclosure, the MILTECH9020 is designed to withstand harsh conditions with ease.

MILTECH 9020 design to meet the IP67, MIL-STD-810 / DO-160 thermal, shock, vibration, altitude, humidity; also MIL-STD-461 / DO-160 EMI/EMC

Wide range of DC input (18-48VDC) and MIL-STD-1275/704/ DO-160 power supply allows easy integration in existing and new solutions.

The compact yet durable design, flat mounting surface, makes the MILTECH9020 suitable for almost any application.

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SPECIFICATIONS

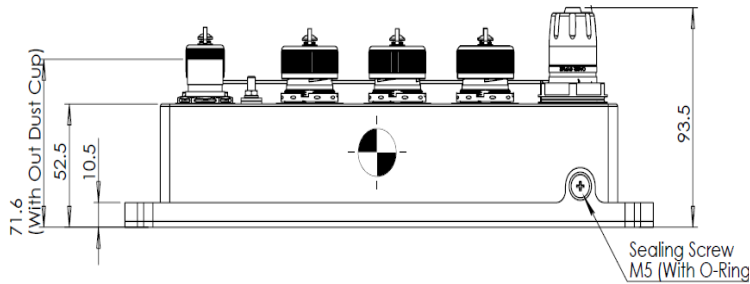|	
ETHERNET PORTS:	• 22 x 10/100/1000BT ports • 2 x 1G/10G Fiber ports • 2 x 1G Fiber ports or 10/100/1000BT - Combo ports
CERTIFICATIONS/APPROVALS:	• CSfC – NSA's Commercial Systems for Classified Programs • NIAP - National Information Assurance Partnership (Report CCEVS-VR-VID11394-2023)
NETWORKING: L2 capabilities	• IEEE 802.1, 802.3 standard, NTP, UDLD, CDP, LLDP, unicast MAC filter, VTPv2, VTPv3, EtherChannel, voice VLAN, PVST+, MSTP, and RSTP
NETWORKING: L3 capabilities	• RIP (Routing Information Protocol) V1 and V2 • OSPF (Open Shortest Path First) V2 and V3 • ISIS (Intermediate-System-to-Intermediate System) for IPv4 and IPv6 • EIGRP (Enhanced Interior Gateway Routing Protocol) for IPv4 and IPv6 • PBR (Policy Based Routing), • VRF-Lite (virtual Routing and Forwarding) - up to 16
NETWORKING: Management	• Web UI • MIB • SmartPort • SNMP • Syslog • DHCP server • SPAN session • Full Flexible Netflow (FnF) • NETCONF • RESTCONF
NETWORKING: Security	• Port security • 802.1x • Dynamic Host Configuration Protocol (DHCP) snooping • Dynamic ARP inspection • IP source guard • Guest VLAN • MAC Authentication bypass • 802.1x multidomain authentication • Storm control - unicast, multicast, broadcast • SCP, SSH, SNMPv3 • TACACS+ • RADIUS server/client • MAC address notification • BPDU guard • MACsec-128/256 (certificate, EAP-TLS, MACsec Key Agreement) • Central Web Authentication (Redirection) • ARP Snooping

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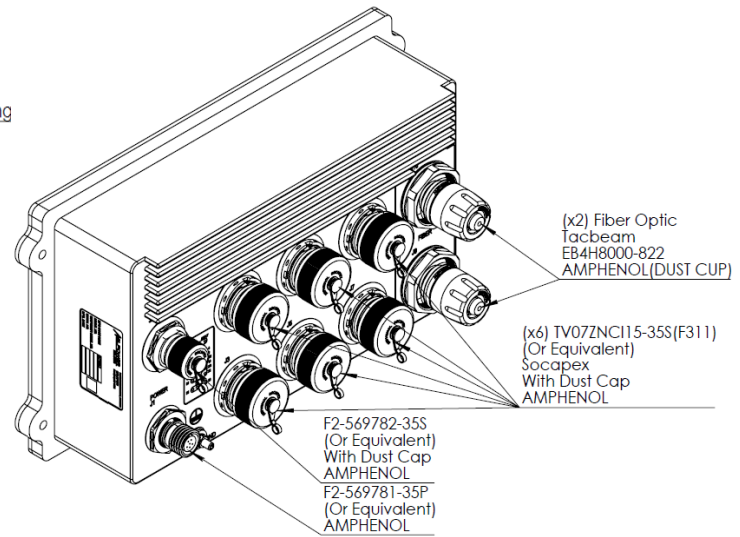
SPECIFICATIONS

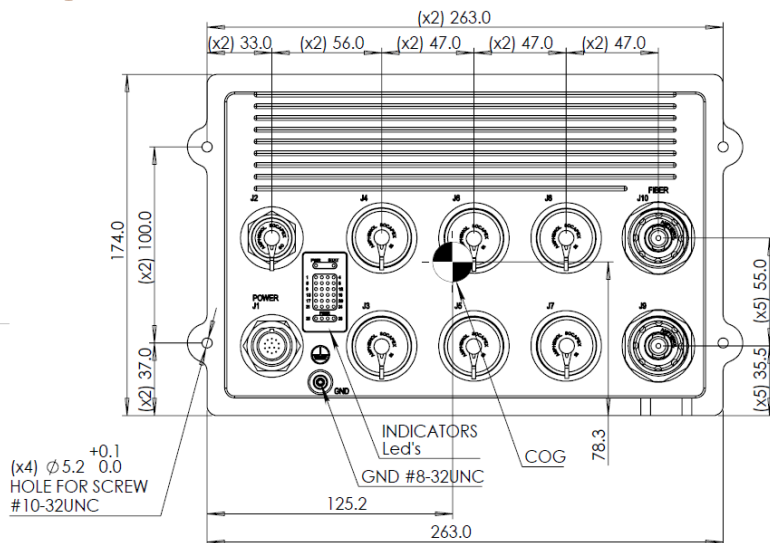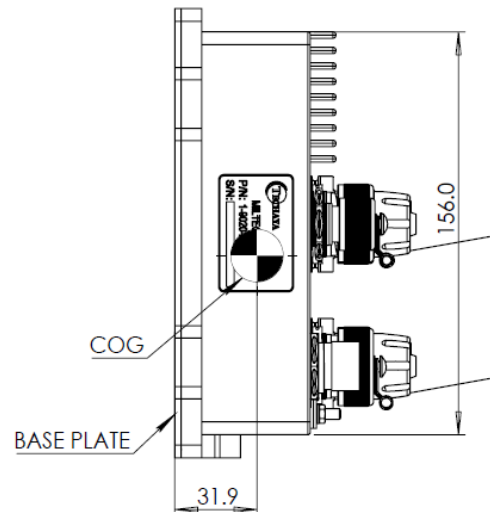|	
NETWORKING: Additional capabilities	• Ingress policing • Rate limit • Egress queuing/shaping • Auto QoS • IPv6 host support • HTTP over IPv6SNMP over IPv6 • PIM Sparse Mode (PIM-SM), PIM dense mode (PIM-DM) & PIM Sparse dense mode • Bidirectional Forwarding Detection (BFD) echo mode • HSRP (IPv4 and IPv6) • VRRP (IPv4 and IPv6)
CHASSIS:	• Low profile rugged machined aluminum • Conductively cooled • Ingress protection against sand, dust and moisture • Material: AL6061-T651 per AMS QQ-250/11 • Anodize Coating, MIL-A-8625, Type II, Class 2, Black color
STANDARDS:	• Designed to meet DO-160, MIL-STD-461, MIL-STD-810, MIL-STD-1275, MIL-STD-704, IP67
LED INDICATION	• Power • Status (Built-In Self-Test) • Per port indications: Link/Activity • Dark mode enable/disable by firmware
POWER:	• Power Input: 28VDC Nominal (18-48V) • Power Consumption: <40W Max • Chassis grounding
ELECTROMAGNETIC:	• MIL-STD-461 Electromagnetic compatibility • Electromagnetic: CE-101, CE-102, CS-101, CS-114, CS-115, CS-116, RE-102, RS-103

ENVIRONMENTAL:	• MILSTD-810:
	  • 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)
	  • Wind Analysis
	  • IP67

PHYSICAL:	• Dimensions: 263mm(L) x 162mm(W) x 68mm(H), excluding connectors • Dimensions: 10.35''(L) x 6.38" (W) x 2.68''(H), excluding connectors • Weight: 2.2 KG (4.85 lbs)
COOLING:	• No Moving Parts. Passive Cooling.
TEMPERATURE:	• Operational: -40ºC to +71ºC (-40ºF to +160ºF) • Storage: -55ºC to +80ºC (-67ºF to +176ºF)
CONNECTORS:	• J1 Power: D38999/24ZA35PN • J2 Mgmt: D38999/24ZB35SN • J3-8 ETH: D38999/24ZC35SN • J9-J10 Fiber Optic: TACBEAM EB4H8000-822

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A

71.6 (With Out Dust Cup)
52.5
10.5
93.5

Sealing Screw
M5 (With O-Ring

B

(x2) Fiber Optic
Tacbeam
EB4H8000-822
AMPHENOL(DUST CUP)

(x6) TV07ZNCI15-35S(F311)
(Or Equivalent)
Socapex
With Dust Cap
AMPHENOL

F2-569782-35S
(Or Equivalent)
With Dust Cap
AMPHENOL

F2-569781-35P
(Or Equivalent)
AMPHENOL

C

(x2) 263.0
(x2) 33.0   (x2) 56.0   (x2) 47.0   (x2) 47.0   (x2) 47.0

174.0
(x2) 100.0
(x2) 37.0

J2   J4   J6   J8   FIBER J10
POWER J1   J3   J5   J7   J9

(x5) 55.0
(x5) 35.5

78.3

INDICATORS
Led's
COG
GND #8-32UNC

(x4) ⌀5.2 +0.1/0.0
HOLE FOR SCREW
#10-32UNC

125.2
263.0

D

156.0

COG

BASE PLATE

31.9

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ORDERING INFORMATION Options for MILTECH 9020

1-9020- A - B - C - D

A	PORT 1 / 1G
0	None
1	MM, 500 Meter
2	SM, 30 Km

B	PORT 2 / 1G
0	None
1	MM, 500 Meter
2	SM, 30 Km

C	PORT 3 / 10G
0	None
1	MM, 250 Meter
2	SM, 10 Km

D	PORT 4 / 10G
0	None
1	MM, 250 Meter
2	SN, 10Km

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-9020-0000	26 Port L2/L3 Switch, based on Cisco ESS3300 with Network Advantage license.
2-CBL9020BZPWR	MT9020 J1 - Black Zinc Power Cable
2-CBL9020BZSRVC	MT9020 J2 - Black Zinc Service - MNG Cable
2-CBL9020BZLAN	MT9020 J3-J8 - Black Zinc LAN Cable