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MILITARY HIGH SPEED

10/100/1000 BASE-T

RUGGED ETHERNET SWITCH CATALOG

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4 or 8 Channel 10/100Base-T Mini Portable Ethernet Switch: RES-SCE-AC-8US

Military ethernet switch for harsh environment - Fully MIL-STD compliant

Description

Amphenol's RES-SCE-AC-8US is a MIL-STD rugged, unmanaged-military-grade Ethernet switch, offering 8 Fast Ethernet 10/100 Ports. The portable rugged Ethernet switch is intended for unmanned vehicles or man packable command post.

Developed for SWaP (Size Weight and Power) and mobile portable military applications, the RES-SCE-AC-8US features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling, and interface through sealed SCE circular connectors.

Leveraging best-in-class switching technology, the RES-SCE-AC-8US serves as a robust solution for providing local area network (LAN) connectivity to IP-enabled computing and net-centric devices. Compact in size, the RES-SCE-AC-8US is particularly useful for expanding port density in space-constrained airborne and ground vehicle environments.

Main features

ETHERNET PORTS
- 8 x switched 10/100 (Fast Ethernet) ports

NETWORKING
- Full wire-speed forwarding rate
- Store-and-forward mechanism
- Auto MDI-II, MDI-X
- Auto-negotiation protocol
- Address look-up

CONNECTORS
- Power + LAN connector: SCE2-B-76A06-07SN-001

CHASSIS
- Low profile rugged aluminium extrusion
- Conductively cooled w/ custom internal heat-sinks
- Ingress protection against sand, dust and moisture
- Polyurethane Paint, Per MIL-C-83286 type II, matt texture, color:
  - Nato green FS24079

STANDARDS
- MIL-STD-461E, MIL-STD-810F/G/GM, IP67/68

VOLTAGE OPERATION
- 5VDC (USB) input, shared with LAN Port Number 1

ACTIVITY STATUS
- Indicators for Power and LAN activity (light off by default)
- STATUS pushbutton to turn on the indicators

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MILITARY RUGGED SWITCH
MIL-STD-461E
MIL-STD-810F/G/GM
IP68

Product specifications

Performance	• 128K byte of SRAM for frame buffering • 2.0 Gbps high-performance memory bandwidth • LED indication (speed, link/activity) per port - Optional • Wire-speed reception and transmission • Integrated address look-up engine • Automatic address learning
Standards compliance	• IEEE 802.3 10 Mbps 10BASE-T (Ethernet) • IEEE 802.3u 100BASE-TX 100 Mbps (Fast Ethernet) • IEEE 802.3x flow control
Power	• Voltage input: 5Vdc nominal - Optional USB sourcing • Power consumption: 2W typical • Chassis grounding
Electromagnetic	• MIL-STD-461E electromagnetic compatibility • CE-102, CS-114, CS-115, CS-116, RE-102, RS-103
Environmental: shock/vibration/ humidity	• MIL-STD-810F/G/GM • 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 • IP67/68
Physical	• Dimensions: 82.2mm (L) x 64.1 (W) x 26 (H), Not including connectors Dust Caps • Weight: 140g - Not including dust caps
Installation	• Portable, flat for mounting to any flat surface
Cooling	• No moving parts. Passive cooling
Operating temp	• -35°C to +75°C (-31°F to +167°F) / -35°C Cold start-up
Storage temp	• -45°C to +85°C (-49°F to +185°F)

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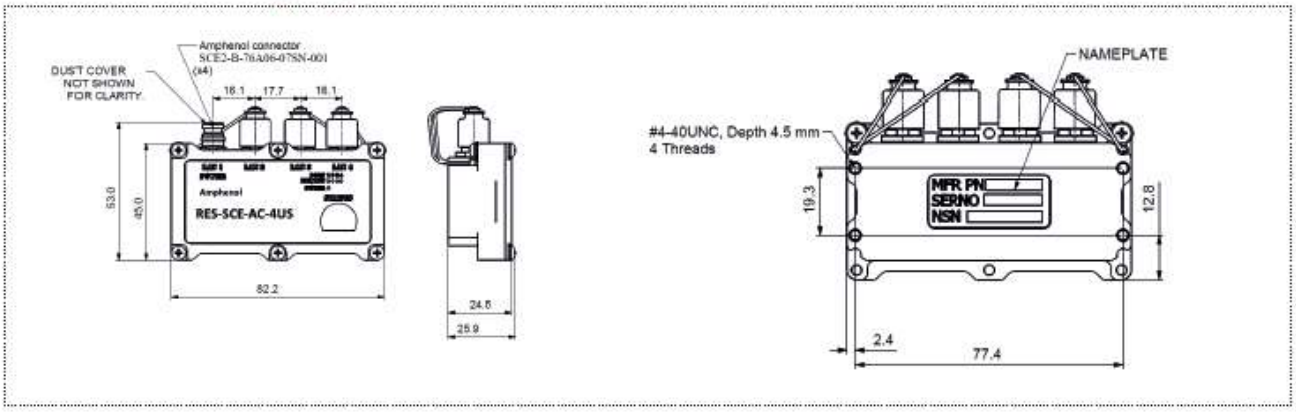
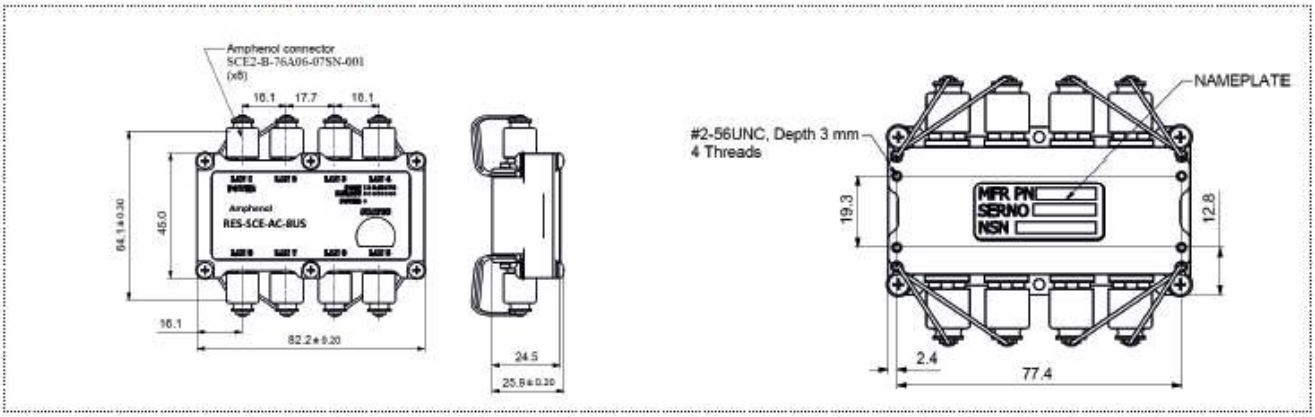
Overall dimension

Dimensional Line drawing for 4 ports models



Overall dimension

Dimensional Line drawing for 8 ports models



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4 or 8 Channel 10/100/1000Base-T Managed Mini Ethernet Switch: RES-SCE-8EMG

Military ethernet switch for harsh environment - Fully MIL-STD compliant

Description

Amphenol's RES-SCE-8EMG is a MIL-STD rugged, managed-military-grade Ethernet switch, offering 8 or 4 Gigabit Ethernet 10/100/1000 Ports. The portable rugged Ethernet switch is intended for unmanned vehicles or man packable command post.

Developed for SWaP (Size Weight and Power) and mobile portable military applications, the RES-SCE-8EMG features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling, and interface through sealed miniature SCE circular connectors.

Leveraging best-in-class switching technology, the RES-SCE-8EMG serves as a robust solution for providing local area network (LAN) connectivity to IP-enabled computing and net-centric devices. Compact in size, the RES-SCE-8EMG is particularly useful for expanding port density in space-constrained airborne and ground vehicle environments.

Main features

ETHERNET PORTS
- Managed 8 or 4 x switched 10/ 100/ 1000 ports

NETWORKING
- Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings
- Security via Radius Authentication 802.1x, Port Security, Port Mirroring
- Multicasting (IGMP Snooping), GARP, GMRP, and GVRP Broadcasting and flooding Control up to 8K Groups
- 802.1q Tagged based VLAN up to 4K VLAN groups
- QoS Multi-Layer Classifier, 802.1p, ToS/DSCP traffic classification. WFQ, Strict Queuing.
- Bridge support for Q-in-Q
- Link Aggregation 802.3AD
- WEB, CLI, Telnet Management
- L3 static routing *
- Rmirror *
- Port Protection: 1+1 port protection, 1:1 port protection, 1:N port protection *
- G.8032 ring protection *
- DHCP option 82 relay *
- L2CP tunnelling *
- Protocol-based VLAN *
- 1588v2 PTP with two-step clock *

CONNECTORS
- Power connector type: SCE2-B-76A06-07SN
- LAN connector type: SCE2-B-76A07-14SN-001
- LED indication per port (speed, link/activity)

CHASSIS
- Low profile rugged aluminium extrusion
- Conductively cooled w/ custom internal heat-sinks
- Ingress protection against sand, dust and moisture
- Polyurethane Paint, Per MIL-C-83286 type II, matt texture, color:
  - Nato green or olive green or Stone RAL 7032

STANDARDS
- MIL-STD-1275D/E, MIL-STD-704A, MIL-STD-461E, MIL-STD-810F GM, IP67/68

PERFORMANCE
- 26.8 Mpps wire speed forwarding rate
- 20 Gbps maximum forwarding bandwidth
- 8K MAC address

VOLTAGE OPERATION
- 16-36VDC

ACTIVITY STATUS
- Indicators for Power and LAN activity (light off by default)
- STATUS pushbutton to turn on the indicators

(*): Available on Enhanced units only

MILITARY RUGGED SWITCH
MIL-STD-1275D/E
MIL-STD-704A
MIL-STD-461E
MIL-STD-810F/GM IP67
RTCA/DO-160F

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Product specifications

Standards compliance	• IEEE 802.1x MAC based Authentication • IEEE 802.1Q Vlan Tagging • IEEE 802.1P QoS • IEEE 802.1S Multiple STP • IEEE 802.1W Rapid STP • IEEE 802.3 AD Link Aggregation
Power	• Exceed MIL-STD-1275B Surge and Spike protection • Voltage Input: 24Vdc Nominal (16-36 VDC) • Power Consumption: 7.2W Max - 5W Typical • Chassis grounding

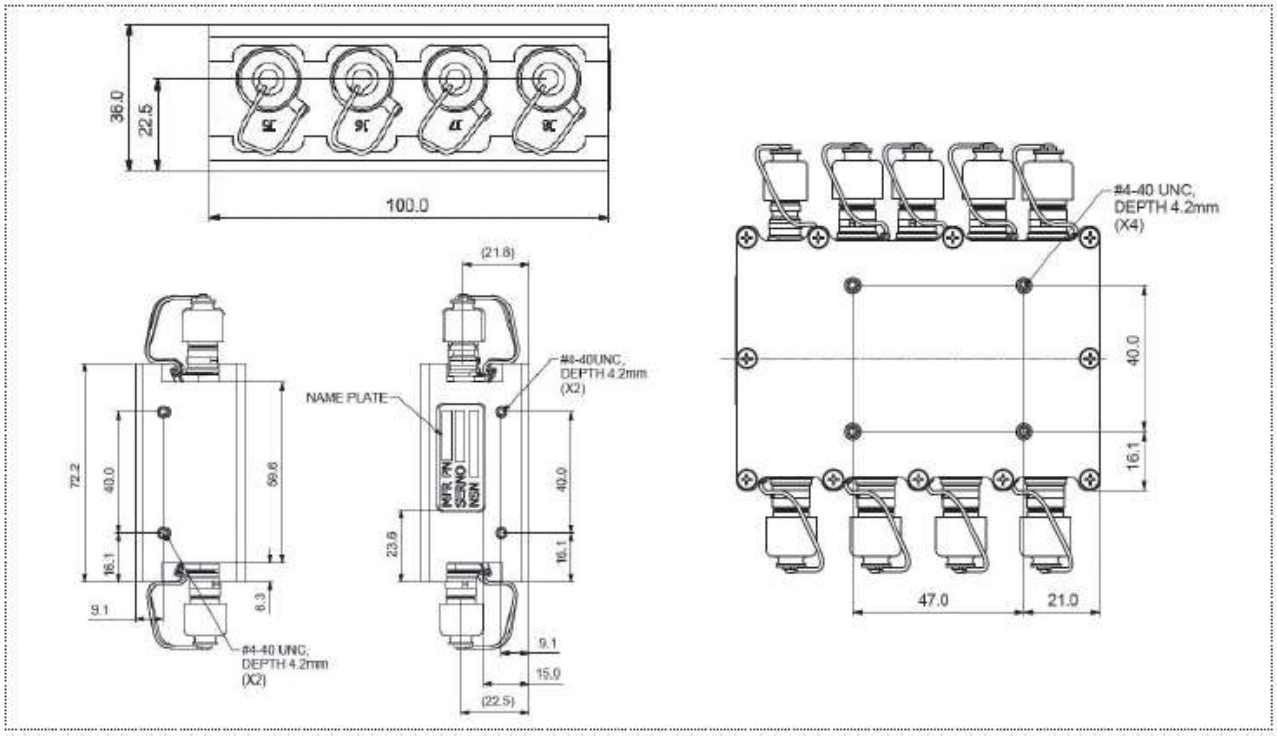
Electromagnetic	• EMI and Power protection
	• MIL-STD-461F Electromagnetic compatibility
	  • CE101, CE102, RE101, RE102, RS101, RS103
	  • CS101, CS106, CS114, CS115, CS116
	• MIL-STD-1275D
	  • Steady-State input voltage, Ripples, Spikes +/- 250 V, Surges, Reverse Polarity
	• MIL-STD-1275E
	  • Initial Engagement Surges, Cranking level

Environmental	• MIL-STD-810F/G/GM
	  • 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
	• IP67/68
	• RTCA/DO-160F
	  • Low temperature 2 hours @ -55°C, operating, chap 4, cat B2
	  • Vibrations, section 8, cat. S, curve M
	  • Shocks, cat. A, 6g, 11ms

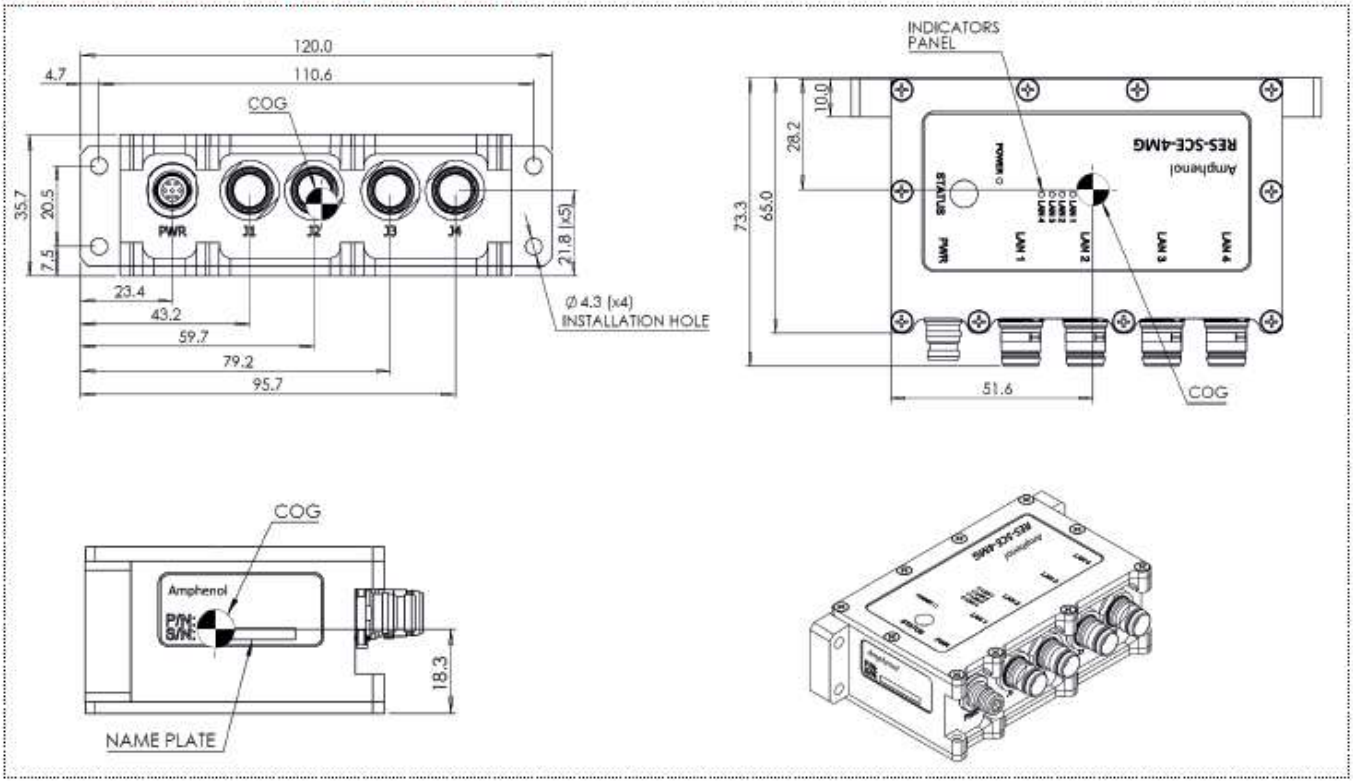
Physical	• Dimensions: 100mm (L) x 89 (W) x 36 (H), including connectors & hardware. • Weight: 390g
Installation	• Set of Four 4-40 threads on bottom for mounting to any flat surface
Cooling	• No moving parts. Passive cooling.
Operating temp	• -55°C to +75°C (-67°F to +167°F)
Storage temp	• -55°C to +85°C (-67°F to +185°F)

Overall dimension

Dimensional Line drawing for 8 ports models



Dimensional Line drawing for 4 ports models



Dimensional line drawing - All measurements are in millimeters

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8 Channel 10/100Base-T Ethernet Switch: RESMLAC-8US-CAPS

Military ethernet switch for harsh environment - Fully MIL-STD compliant

Description

Amphenol's RESMLAC-8US-CAPS is a MIL-STD rugged, unmanaged-military-grade Ethernet switch, offering 8 Fast Ethernet 10/100 Ports.

Developed for military and harsh environment applications, the RESMLAC-8US-CAPS features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling, and interface through sealed MIL-DTL-38999 circular connectors.

Leveraging best-in-class switching technology, the RESMLAC-8US-CAPS serves as a robust solution for providing local area network (LAN) connectivity to IP-enabled computing and net-centric devices. Compact in size, the RESMLAC-8US-CAPS is particularly useful for expanding port density in space-constrained airborne and ground vehicle environments.

Main features

ETHERNET PORTS
- 8 x switched 10/100 (Fast Ethernet) ports

NETWORKING
- Full wire-speed forwarding rate
- Store-and-forward mechanism
- Auto MDI-II, MDI-X
- Auto-negotiation protocol
- Address look-up

CONNECTORS
- MIL-DTL-38999 (Power & Ethernet signals)
- Power connector type: D38999/24WA98PA
- LAN connector type: D38999/24WA35SN

CHASSIS
- Low profile rugged aluminium extrusion
- Conductively cooled w/ custom internal heat-sinks
- Ingress protection against sand, dust and moisture
- Polyurethane Paint, Per MIL-C-83286 type II, matt texture

STANDARDS
- MIL-STD-1275,
- MIL-STD-704A
- MIL-STD-461E
- MIL-STD-810F GM
- IP67/68

VOLTAGE OPERATION
- 24VDC (18VDC – 32VDC)

MILITARY RUGGED SWITCH
MIL-STD-1275
MIL-STD-704A
MIL-STD-461E
MIL-STD-810F/GM
STANAG 4370
STANAG 2895

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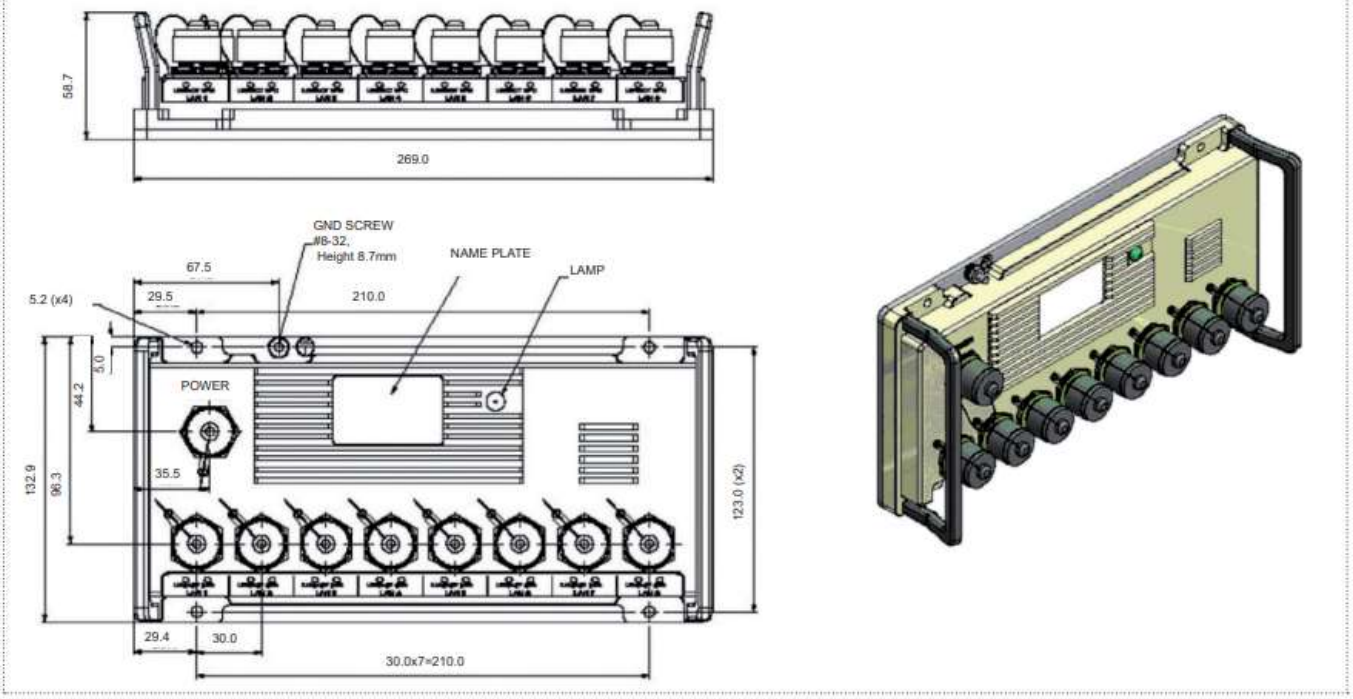
Product specifications

Performance	• 128K byte of SRAM for frame buffering • 2.0 Gbps high-performance memory bandwidth • 2 LED indication (speed, link/activity) per port • Wire-speed reception and transmission • Integrated address look-up engine • Automatic address learning
Standards compliance	• IEEE 802.3 10 Mbps 10BASE-T (Ethernet) • IEEE 802.3u 100BASE-TX 100 Mbps (Fast Ethernet) • IEEE 802.3x flow control
Power	• MIL-STD-1275B & MIL-STD 704A surge and spike protection • Voltage input: 24Vdc nominal (18-32V) • Power consumption: 2.8W typical • Chassis grounding
Electromagnetic	• 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 • IP67/68 • STANAG 4370, vibrations AECTP 400, method 401; cannon fire shocks, 6666 shocks up to 8.6g, half sine shape • STANAG 2895, altitude 10.000m, temperature -21°C / 71°C
Physical	• Dimensions: 269mm(L) x 133(W) x 65(H), including connectors & hardware • Weight: 1.5 kg
Installation	• Set of four 4x4.5 mounting holes on bottom for mounting to any flat surface
Cooling	• No moving parts. Passive cooling
Operating temp	• -35°C to +75°C (-31°F to +167°F) / -35°C Cold start-up
Storage temp	• -45°C to +85°C (-49°F to +185°F)

Overall dimension



Dimensional line drawing - All measurements are in millimeters

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8 Channel 10/100/1000Base-T Un/Managed Ethernet Switch: RJSMLAC-8UG-CAPS

Military ethernet switch for harsh environment - Fully MIL-STD compliant

Description

Amphenol's RESMLAC-8UG-CAPS is a MIL-STD rugged, unmanaged-military-grade Ethernet switch, offering 8 triple speed Ethernet (10/100 /1000) ports. Ethernet connectors are RJFTV, using RJField patented system that allows easy and quick assembly of any standard RJ45 cordset without any tool.

Developed for military and harsh environment applications, the RJSMLAC features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling.

Leveraging best-in-class switching technology, the RJSMLAC serves as a robust solution for providing local area network (LAN) connectivity to IP-enabled computing and net-centric devices. Compact in size, the RJSMLAC is particularly useful for expanding port density in space-constrained airborne and ground vehicle environments.

Main features

ETHERNET PORTS
- 8 x switched 10/100/1000 (Gigabit Ethernet) ports on RJFTV connectors

NETWORKING
- Full wire-speed forwarding rate
- Store-and-forward mechanism
- Auto MDI-II, MDI-X
- Auto-negotiation protocol
- Address look-up

CONNECTORS
- Power connector type: MIL-DTL-38999/24WA98PA
- LAN connector type: RJFTV (coupling mechanism from MIL-DTL-38999)
- LED indication per port (speed, link/activity)

CHASSIS
- Low profile rugged aluminium extrusion
- Conductively cooled w/ custom internal heat-sinks
- Ingress protection against sand, dust and moisture
- Polyurethane paint per MIL-C-83286 type II, matt texture, color:
  - Green FS24084

STANDARDS
- MIL-STD-1275,
- MIL-STD-704A,
- MIL-STD-461E,
- MIL-STD-810F GM,
- IP67/68

VOLTAGE OPERATION
- 24VDC (18VDC – 32VDC)
-VAC models: 90-265VAC/47-65Hz

MILITARY RUGGED SWITCH
MIL-STD-1275
MIL-STD-704A
MIL-STD-461E
MIL-STD-810F/GM
IP67

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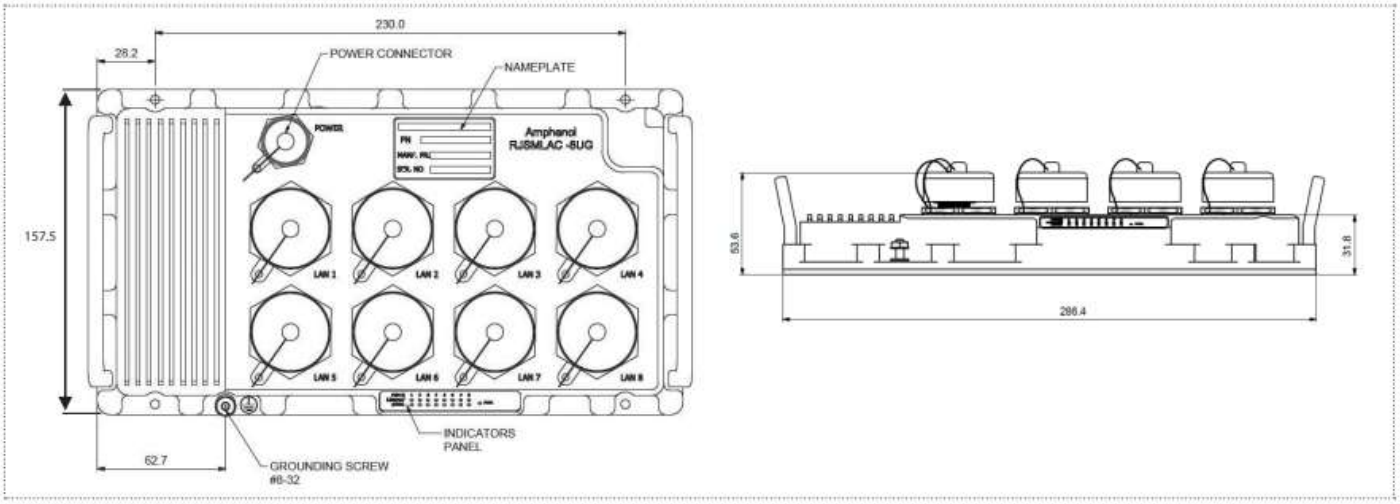
Product specifications

Performance	• 128K byte of SRAM for frame buffering • 2.0 Gbps high-performance memory bandwidth • 2 LED indication (speed, link/activity) per port • Wire-speed reception and transmission • Integrated address look-up engine • Automatic address learning
Standards compliance	• IEEE 802.3 10BASE-T (Ethernet) • IEEE 802.3u 100BASE-T (Fast Ethernet) • IEEE 802.3ab 1000BASE-T (Gigabit Ethernet) • IEEE 802.3x flow control
Power	• MIL-STD-1275B & MIL-STD 704A surge and spike protection • Voltage input: 24Vdc nominal (18-32V) • Power consumption: 7W typical • Chassis grounding
Electromagnetic	• 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 • IP67/68
Physical	• Dimensions: 269mm(L) x 133(W) x 65(H), including connectors & hardware • Weight: 1.8kg
Installation	• Set of four 4x4.5 mounting holes on bottom for mounting to any flat surface
Cooling	• No moving parts. Passive cooling
Operating temp	• -35°C to +75°C (-31°F to +167°F) / -35°C Cold start-up
Storage temp	• -45°C to +85°C (-49°F to +185°F)

Overall dimension



Dimensional line drawing - All measurements are in millimeters

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12 Channel 10/100/1000Base-T Managed Ethernet Switch: RESMLAC-12EMG-F35

Military ethernet switch for harsh environment - Fully MIL-STD compliant

Description

Amphenol's RESMLAC-12EMG-F35 is a MIL-STD rugged, Enhanced Managed-military-grade Gigabit Ethernet switch, offering 12 Gigabit Ethernet Ports.

Developed for harsh environment applications, the RESMLAC-12EMG-F35 features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability.

The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling, and interface through sealed MIL-DTL-38999 Series III circular connectors.

Leveraging best-in-class switching technology, the RESMLAC-12EMG-F35 serves as a robust solution for providing local area network (LAN) connectivity to IP-enabled computing and net-centric devices. Compact in size, the RESMLAC-12MG-F35 is particularly useful for expanding port density to tactical IP routers in space-constrained airborne and ground vehicle environments.

The RESMLAC-12EMG-F35 is specifically designed for Data Acquisition & Transmission, Battlefield Communication C4ISR, Rugged Networks, Mobile Communications, Combat vehicles and Avionic & Shipboard Systems.

Main features

ETHERNET PORTS
- Enhanced Managed 12 x switched 10/100/1000 ports

NETWORKING
- Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings
- Security via Radius Authentication 802.1x, Port Security, Port Mirroring
- Multicasting (IGMP Snooping), GARP, GMRP, and GVRP Broadcasting and flooding Control up to 8K Groups
- 802.1q Tagged based VLAN up to 4K VLAN groups
- QoS Multi-Layer Classifier, 802.1p, ToS/DSCP traffic classification. WFQ, Strict Queuing.
- Bridge support for Q-in-Q.
- ink Aggregation 802.3AD
- WEB, CLI, Telnet
- 3 static routing
- Rmirror
- Port Protection: 1+1 port protection, 1:1 port protection, 1:N port protection
- G.8032 ring protection
- DHCP option 82 relay
- L2CP tunneling
- Protocol-based VLAN
- 1588v2 PTP with two-step clock

CONNECTORS
- Power Connector Type: TV07 RW 11-35 P
- LAN Connector Type: TV07 RW CI 19-35 P
  - 12x ports spread among 2x connectors J2 & J3
- Serial Interface: Shared among J3 connector
- LED Indication Per Port (Speed, Link/Activity)

STANDARDS
- MIL-STD-1275, MIL-STD-704A, MIL-STD-461E
- MIL-STD-810F GM
- IP67

VOLTAGE OPERATION
- 24VDC (16VDC - 36VDC)

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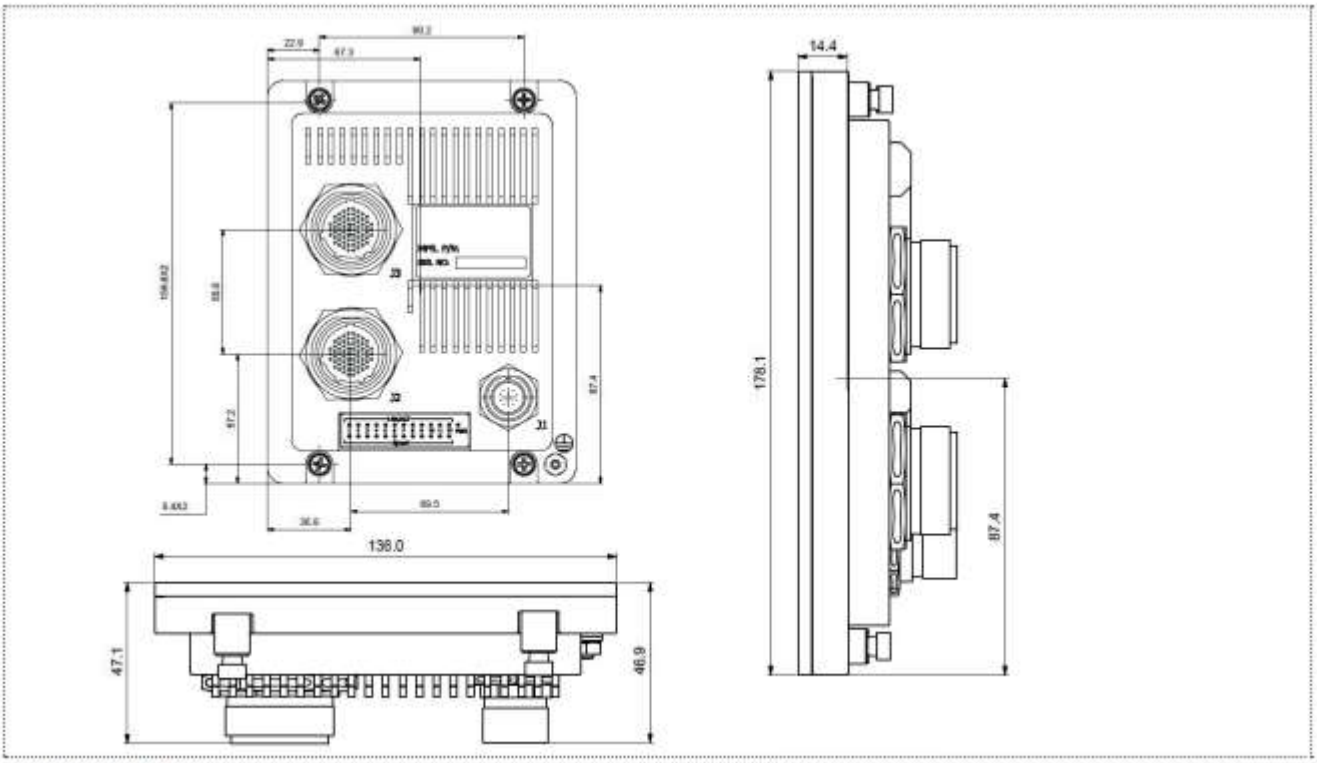
Product specifications

Chassis	• Low profile rugged aluminum extrusion • Conductively cooled w/custom internal heat-sinks • Ingress protection against sand, dust and moisture • Conductive internal finish per MIL-DTL-5541F • Polyurethane paint, per MIL-C-83286 type II green, matt texture
Performance	• 26.8 Mbps wire speed forwarding rate • 52 Gbps maximum forwarding bandwidth • 8K MAC Address
Standards compliance	• IEEE 802.1X MAC based Authentication • IEEE 802.1Q Vlan Tagging • IEEE 802.1P QoS • IEEE 802.1S Multiple STP • IEEE 802.1W Rapid STP • IEEE 802.3AD Link Aggregation
Power	• Exceed MIL-STD-1275B Surge and Spike protection • Voltage Input: 24Vdc Nominal (16-36 VDC) • Power Consomption: 7W Max • Chassis grounding
Electromagnetic	• MIL-STD-461E Electromagnetic compatibility • CE-102, CS-114, CS-115, CS-116, RE-102, RS-103
Shock / Vibration / Humidity	• MIL-STD-810F/G/GM: • 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. • IP67
Physical	• Dimensions: 178mm (L) x 136(W) x 47(H), including connectors • Weight: 1150 g
Installation	• Set of Four #10-32UNF captive screws for mounting.
Temperature	• Operational temp.: -45ºC to +85ºC (-49ºF to +185ºF) – -45°C Cold Start-Up • Storage temp.: -45ºC to +85ºC (-49ºF to +185ºF)

Overall dimension



Dimensional line drawing - All measurements are in millimeters

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28 Channel (24x 10/100/1000Base-T + 4x 100/1000Base-FX/SX/LX) Ethernet Switch: RESMLAC-28MG

Military ethernet switch for harsh environment - Fully MIL-STD compliant

Description

The RESMLAC-28MG is a MIL-STD Fully managed Military-grade network switch offering 24 triple speed (10/100/1000) ports + 4 optional x 10G fiber ports.

The RESMLAC-28MG is compatible with all the newest military industry network protocols for redundant link topology, security, multi-cast and management requirements.

Developed specifically for military and harsh mobile applications, the RESMLAC-28MG features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling, and interface through sealed MIL-DTL-38999 circular connectors and SCE.

Leveraging best-in-class switching technology, the RESMLAC-28MG serves as a robust COTS solution for providing local area network (LAN) connectivity to IP-enabled computing and net-centric devices. Compact in size, the RESMLAC-28MG is particularly useful for expanding port density to tactical IP routers in space-constrained airborne and ground vehicle environments.

Main features

ETHERNET PORTS
- Managed 24x to 28x switched ports
- 24x 10/100/1000 ports + Optional 4x10Gbps Fiber optic ports
- The 4 optional ports provide 100/1000Base-FX/SX/LX

NETWORKING
- Wire-speed hardware-based 28 ports gigabit ethernet switch
- Multicasting (IGMP Snooping), GARP, GMRP, MLD and GVRP
- Multicast groups up to 8K for both IPv4 and IPv6
- Broadcasting and flooding control up to 8K groups
- 802.1q tagged based VLAN up to 4K VLAN groups
- Link Aggregation 802.3ad, up to 16 members in group
- Link Aggregation mechanism based on L2/ L3/ L4 parameters
- Jumbo Frame support up to 10K
- WEB, CLI, Telnet Management

QUALITY OF SERVICE
- QoS Multi-Layer Classifier: 802.1p, EtherType, VLAN-ID, IPv4/ 6 DSCP/ToS, and UDP/TCP ports & ranges traffic classification
- Per port WFQ and Strict Queuing scheduling
- DSCP remarking for both IPv4 and IPv6 frames
- Ingress policer and ingress shaper per port with 500Kbps granularity
- Egress shaper per port with 500Kbps granularity
- Full-duplex flow control (IEEE802.3X) and half-duplex backpressure, symmetric and asymmetric.

VOLTAGE OPERATION
- DC versions: 24VDC (18VDC - 32VDC)
- VAC versions: 90-265 VAC / 47-65Hz

MILITARY RUGGED SWITCH
MIL-STD-1275B
MIL-STD-704A
MIL-STD-461F
MIL-STD-810F/GM
IP67
RTCA-D0160
MIL-STD-167-1A

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Main features

SECURITY

- Security via Radius authentication 802.1x, Port/ MAC access control
- Port security
- Per port ingress and egress port mirroring
- Mirroring per VLAN and per content awareness match
- Private VLAN support per VLAN (Isolated and Promiscuous ports)
- Content Aware Policers:
  - 128 Content Aware Policers
  - 16 Content Aware rate policers with rates from 1fps to 32 million fps
  - 8 UDP/TCP port range policers
  - Advanced ACL through hardware based match patterns
  - Content Aware Policers for generic MAC, ARP, IPv4, IPv6 protocols
  - No restriction on any mix of entries to Content Aware Policers
  - Contente Aware Policers actions are permit/ deny, police, count, snoop and mirror
    Special support for IP fragments, UDP/TCP port ranges and ARP
  - Extensive CPU DoS prevention
  - Surveillance functions by Content Aware Policers counters
  - Multiple ACLs per port for optimal usage of Content Aware Policers
- Storm controllers for flooded broadcast, multicast and unicast

REDUNDANCY AND RING PROTECTION

- Spanning tree (802.1d), RSTP (802.1w) and multiple Spanning tree (802.1S) for fast recovery rings
- RPR for up to 30 units per ring with recovery time <50ms hardware based
- RPR for up to 30 units per ring with recovery time <50ms hardware
- 20-Gbps bandwidth for ring topology
- QoS consistency across stack / ring
- Mirroring across stack / ring
- Link aggregation groups spanning multiple switches in stack/ring

CONNECTORS

- 2 x Power connector type: MIL-DTL-38999/24WC4P (1 optional)
- 24 x LAN connector type: SCE2-B-76A07-14SN-001
- Optional fiber optic connectors:
  - TVOP (MIL-DTL- 38999)
  - CTOS (STANAG 4290)
  - TACBEAM (M83526/20&21)
- 1 x Serial interface, shared with LAN port #1
- LED indication per Port (Speed, Link/Activity) per Unit (Power A, Power B)

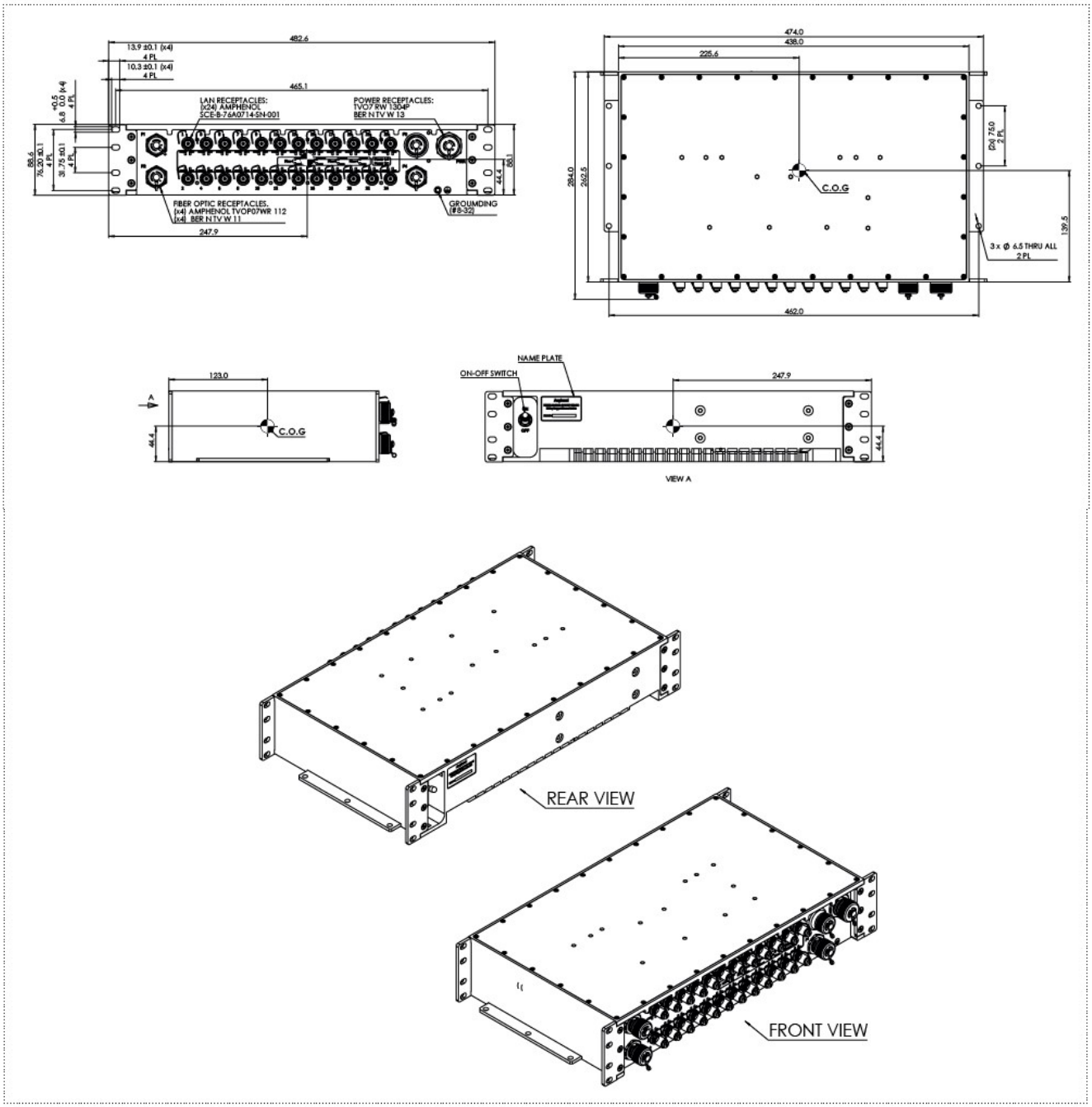
Product specifications

Chassis	• Low profile rugged aluminium extrusion • Conductively cooled w/custom internal heat-sinks • Ingress protection against sand, dust and moisture • Polyurethane Paint, Per MIL-C-83286 type II, color : Nato green, FS24079, semi-gloss
Standards	• MIL-STD-1275B, MIL-STD-704A, MIL-STD-461F, MIL-STD-810F GM, IP67
Performance	• 96.8 Mbps wire speed forwarding rate • 56 Gbps maximum forwarding bandwidth • 8K MAC address
Power	• Exceed MIL-STD-1275B and MIL-STD-704A Surge and Spike protection • Voltage input: - DC versions: 24VDC nominal (18-32VDC) - VAC versions: 90-265 VAC / 47-65 Hz • Power consumption: 20W typical • Chassis grounding
Electromagnetic	• MIL-STD-461F : CS-114, CS-115, CS-116, RE-101, RE-102, RS-101, RS-103 • RTCA-DO160 sec 25 : +/- 15KV 150pF 330Ohm
Shock / Vibration / Humidity / Altitude	• MIL-STD-810F G, 507.5, 500.4 I & II, 501.5 I & II, 502.5 I & II, 516.6 I, 514.6 cat 4 & 10, 509.5 • MIL-STD-167-1A, type I, shipboard vibration
Physical	• Dimensions: 440mm (L) x 200mm (W) x 88(H), including connectors & hardware, 2U, 19" rack • Weight: 5.6 kg

Product specifications

Installation	• 19” standard mounting ears • Other options available (rear mount or ears for mounting to any flat surface)
Cooling	• No moving parts. Passive cooling.
Operating temp	• -40°C to +70°C (-40°F to +158°F)
Storage temp	• -46°C to +71°C (-51°F to +160°F)

Overall dimension



Dimensional line drawing - All measurements are in millimeters