

RES-GMC with butt joint fiber connector Military Ethernet media converter

For harsh environment - Fully MIL-STD compliant

Amphenol's RES-GMC is a MIL-STD rugged, unmanaged-military-grade security gateway, offering up to 2 Gigabit security gateways per device for unidirectional and data diodes solution for total isolation between two network with different security classification. The unit supports PoE on 2 ports (IEEE802.3af and IEEE802.3at).

Developed for military and harsh environment applications, the RES-GMC 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-D-38999 circular connectors.

Leveraging best-in-class switching technology, the RES-GMC series serves as a robust solution to extend your Tactical Gigabit Ethernet network connectivity of up to 120Km over fiber. Compact in size, the RES-GMC is particularly useful for remote and space-constrained locations either on ground vehicle environments or airborne.

Military applications

- Data acquisition & transmission
- Battlefield communication C4ISR
- Rugged Networks
- Combat vehicles
- Avionic & shipboard systems

Key features

■ Ethernet ports

- 1 or 2 ports 10/100/1000 or 10/100 Base TX
- 1 or 2 ports 1000 or 100 Base FX/SX/LX or WDM single fiber
- Version 2x2 ports: total isolation between the 2 networks

■ Networking

- Full wire-speed forwarding rate
- Option for Up to 2 ports PoE - IEEE802.3af, IEEE802.3at
- Auto MDI-II, MDI-X, FDX, HDX, Flow control
- Auto-negotiation and fixed settings via DIP switch
- Jumbo frame support
- Option for one way fiber security

■ Connectors

- LAN connector type:
 - Models 1x1 ports: RJFTV
 - Models 2x2 ports: D38999/24WB35SN
- Fiber connector type: TVOP arrangement 11-02. 2 fibers are used for 1x1 ports versions. 4 fibers are used for 2x2 ports versions.

■ Chassis

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

■ Standards

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



Product specifications

Performance

- 26.8 Mpps wire speed forwarding rate
- 20 Gbps maximum forwarding bandwidth
- 4K MAC address
- 2 LED indication (Speed, Link/Activity) per port
- Wire-speed reception and transmission

Standards compliance

- IEEE 802.3, 10 Mbps 10BASE-T (Ethernet)
- IEEE 802.3u, 100 BASE-TX 100 Mbps (Fast Ethernet)
- IEEE 802.3ab, 1000Base-TX
- IEEE 802.3z, 1000Base-FX Gigabit
- IEEE 802.3af, IEEE802.3at

Voltage input

- VDC versions: 24VDC nominal (18-32VDC)
- VAC versions: 90-265 VAC / 47-65 Hz
- PoE versions: 48VDC

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, 501.4I, 501.4II, 502.4I, 502.4II, 507.4, 500.4II, 514, 516I, 516VI, 514.5, 512.4
- IP67/68

Physical

- Dimensions: 170mm(L) x 150(W) x 65(H), including connectors & hardware
- Weight: 1 kg

Installation

- Set of Four 4x4.5 mounting holes on bottom for mounting to any flat surface.
- Carrying handles - Optional

Cooling

- No moving parts. Passive cooling.

Operating temp

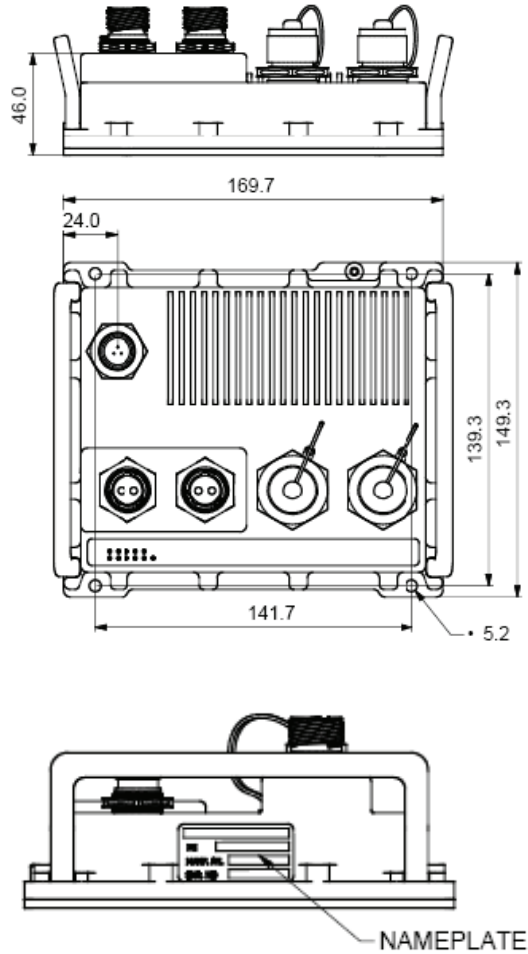
- -35°C to +75°C (-31°F to +167°F) / -35°C Cold start-up

Storage temp

- -45°C to +85°C (-49°F to +185°F)

Dimensional line drawing

All measurements are in millimeters



Part number code

	RESGMC	1M	G	RJF	1TVOP	OD	DC
Ports and type of optical fiber							
1M		1 copper port and 1 optical fiber port, Multimode					
1S		1 copper port and 1 optical fiber port, Singlemode					
2M		2 copper port and 2 optical fiber port, Multimode					
2S		2 copper port and 2 optical fiber port, Singlemode					
Datarate							
G		10/100/1000TX to 1000 Mbps on fiber side					
100		10/100TX to 100 Mbps on fiber side					
Copper LAN connectors							
RJF		RJ45 connector, RJ45 with MIL-DTL-38999 III Thread coupling mechanism (for 1x1 ports versions)					
TV		MIL-DTL-38999 III connector, arrangement 11-355 (for 1x1 ports versions)					
2TV		MIL-DTL-38999 III connector, arrangement 11-355 (for 2x2 ports versions)					
Optical fiber connectors							
1TVOP		1x TVOP connector with butt joint, arrangement 11-02 (for 1x1 ports versions)					
2TVOP		2x TVOP connectors with butt joint, arrangement 11-02 (for 2x2 ports versions)					
Protection of connectors							
OD		All connectors and caps are plated with Olive drab Cadmium					
NI		All connectors and caps are plated with Nickel (RoHs compliant MC)					
Voltage input							
DC		Unit powered with 18-36VDC					
VAC		Unit powered with 90-265 VAC / 47-65 Hz					
PoE		Unit powered with Power over Ethernet					

► For specific cable harnesses, please consult us.