

RES-GMC with Expanded Beam technology 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
- Store-and-forward or Pass through mechanism
- Auto MDI-II, MDI-X, FDX, HDX, Flow control
- Auto-negotiation and fixed settings via DIP switch
- Jumbo frame support
- Link loss forwarding mechanism

■ Connectors

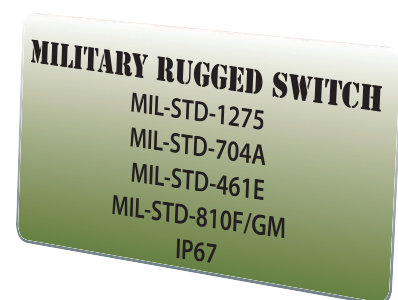
- LAN connector type:
 - Models 1x1 ports: RJFTV
 - Models 2x2 ports: D38999/24WB35SN
- Fiber connector type: CTOS 77PC or TACBeam EB4H8000. 2 fibers are used for 1x1 ports versions. 4 fibers are used for 2x2 ports versions.

■ 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
- 2 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 802.3x Flow control

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: 210mm (L) x 151mm (W) x 59mm (H), including connectors & hardware
- Weight: 1.260 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

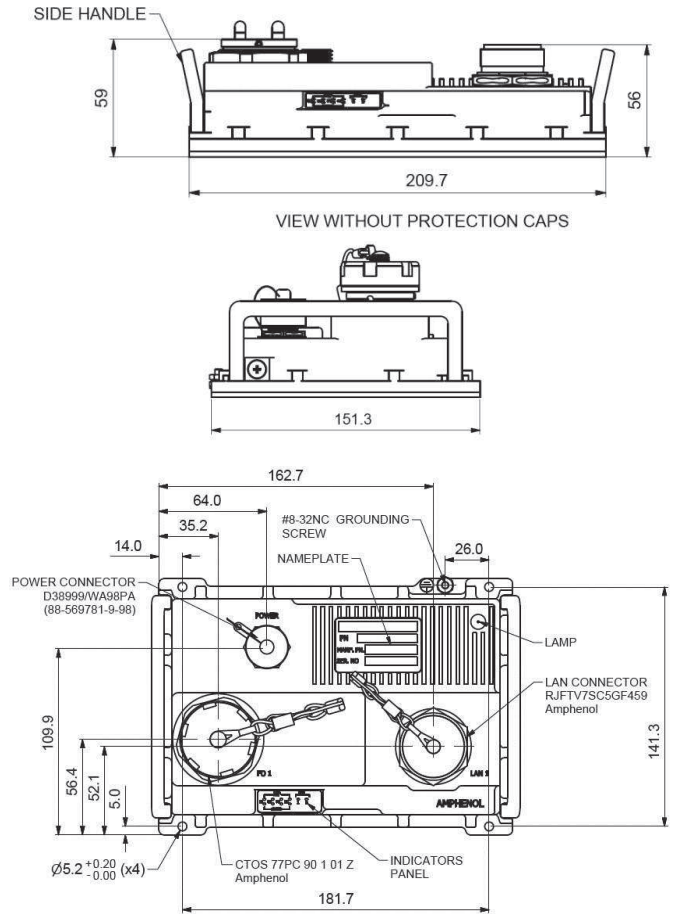
- -35°C to +75°C (-31°F to +167°F) / -35°C Cold start-up

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	1CTOS	OD	DC
Ports and type of optical fiber							
1M							
1S							
2M							
2S							
Datarate							
G							
100							
Copper LAN connectors							
RJF							
TV							
2TV							
Optical fiber connectors							
1CTOS							
1TACB							
Protection of connectors							
OD							
NI							
Voltage input							
DC							
VAC							
PoE							

► For specific cable harnesses, please consult us.