



# 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.

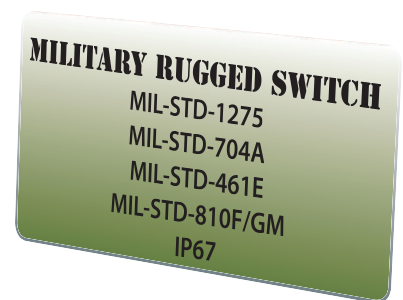
### Military applications

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



### Key features

- **Ethernet ports**
  - 10/100/1000 Base TX to 100/1000 Base FX-(MM/SM) Media converter (WDM - Optional)
  - Up to 2 x 10/100/1000Base-TX and up to 2 x 100/1000 Base FX
- **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**
  - MIL-D-38999 (Power & Ethernet signals)
  - Power connector type: D38999/24WA98PA
  - LAN connector type: RJFTV
  - Fiber connector type: CTOS 77 PC or TAC BEAM EB 4H 8000
  - Protective cap over each connector
- **Chassis**
  - Low profile rugged aluminium extrusion
  - Conductively cooled w/custom internal heat-sinks
  - Ingress protection against sand, dust and moisture
  - Anodize coating, MIL-A-8625, Type II, Class 2
- **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

### Power

- MIL-STD-1275B & MIL-STD-704A Surge and Spike protection
- Voltage input: 24Vdc nominal (18-36V)
- 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 : 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: 169mm (L) x 149 (W) x 65(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

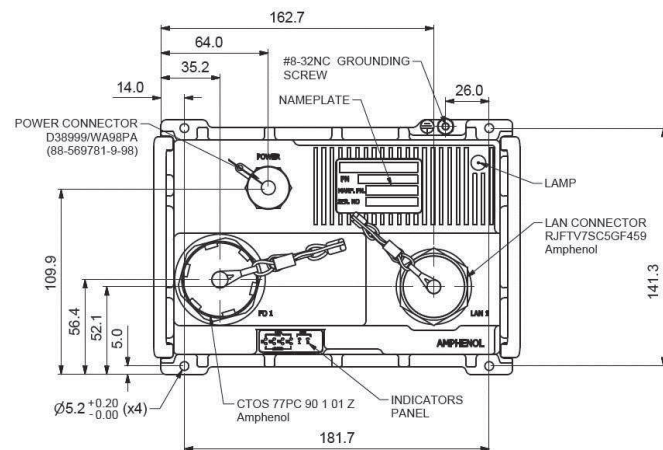
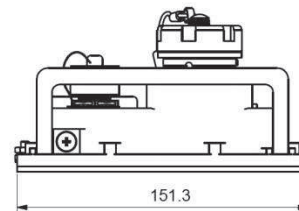
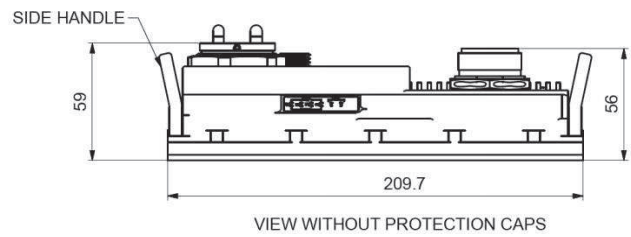
- -35°C to +75°C (-31°F to +167°F) / -35°C Cold start-up

### Storage temp

- -45°C to +85°C (-49°F to +185°F)

## Dimensional line drawing

All measurements are in millimeters



Part number	Description
RES-GMC-1M-RJF-CTOS	• MIL-STD Rugged Ethernet Media Converter with CTOS fiber connector • 1 x 10/100/1000TX to 1000SX, MM
RES-GMC-1S-RJF-CTOS	• MIL-STD Rugged Ethernet Media Converter with CTOS fiber connector • 1 x 10/100/1000TX to 1000LX, SM, 10 KM
RES-GMC-1M-RJF-TACBEAM	• MIL-STD Rugged Ethernet Media Converter with TAC BEAM fiber connector • 2 x 10/100/1000TX to 2 x 1000SX, MM
RES-GMC-1S-RJF-TACBEAM	• MIL-STD Rugged Ethernet Media Converter with TAC BEAM fiber connector • 2 x 10/100/1000TX to 2 x 1000LX, SM, 10 KM

► For accessories, please consult us.