

RJS-GMC WITH EXPANDED BEAM TECHNOLOGY - Military Ethernet Media Converter

Description

Amphenol's RJS-GMC is a rugged, military-grade Ethernet media converter.

The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling. The interfaces are protected through sealed RJFTV MIL-DTL-38999 circular connectors and CTOS expanded beam fiber optics connectors.

The conductive cadmium plating is suitable for most demanding EMI-RFI environments. Black paint is also offered when RoHS is required (other colors available).

Leveraging industrial grade switching technology, the RJS-GMC series serves as a robust and cost efficient solution to extend your Tactical Gigabit Ethernet network connectivity over fiber optics.

The RJS-GMC is already widely use for training and combat simulation of troops.



Main features

ETHERNET PORTS

- 1, 2 or 4 ports 10/100/1000 BaseTX
- 1, 2 or 4 ports 1000 Base FX/SX/LX
- Versions 2x2 and 4x4 ports: total isolation between the networks

NETWORKING

- Full wire-speed forwarding rate
- Store-and-forward or Pass through mechanism
- Auto MDI-II, MDI-X, FDX, HDX, Flow control
- Auto-negotiation
- Jumbo frame support
- Link loss forwarding mechanism

CONNECTORS

- POWER connector: MIL-DTL-38999 III
- LAN connectors: MIL-DTL-38999 III RJFTV
- Fiber optic connectors: CTOS expanded beam

CHASSIS

- Rugged molded aluminium
- Cadmium or paint protection
- Conductively cooled with internal heat-sinks
- Ingress protection against sand, dust and moisture
- IP65/IP68 rated
- IEEE Ethernet standards
- IEEE 802.3/u: 10 Mbps & 100 Mbps Fast Ethernet
- IEEE 802.3ab: 1000 Mbps Gigabit Ethernet
- IEEE 802.3x: Full-Duplex with Flow Control

ENVIRONMENTAL SPECIFICATIONS

- EMI emissions: FCC Class A, CE, UL, CSA
- Operating Temperature: 0°C to +50°C
- Storage Temperature: -20°C to +60°C

MIL power protection for models DC-704

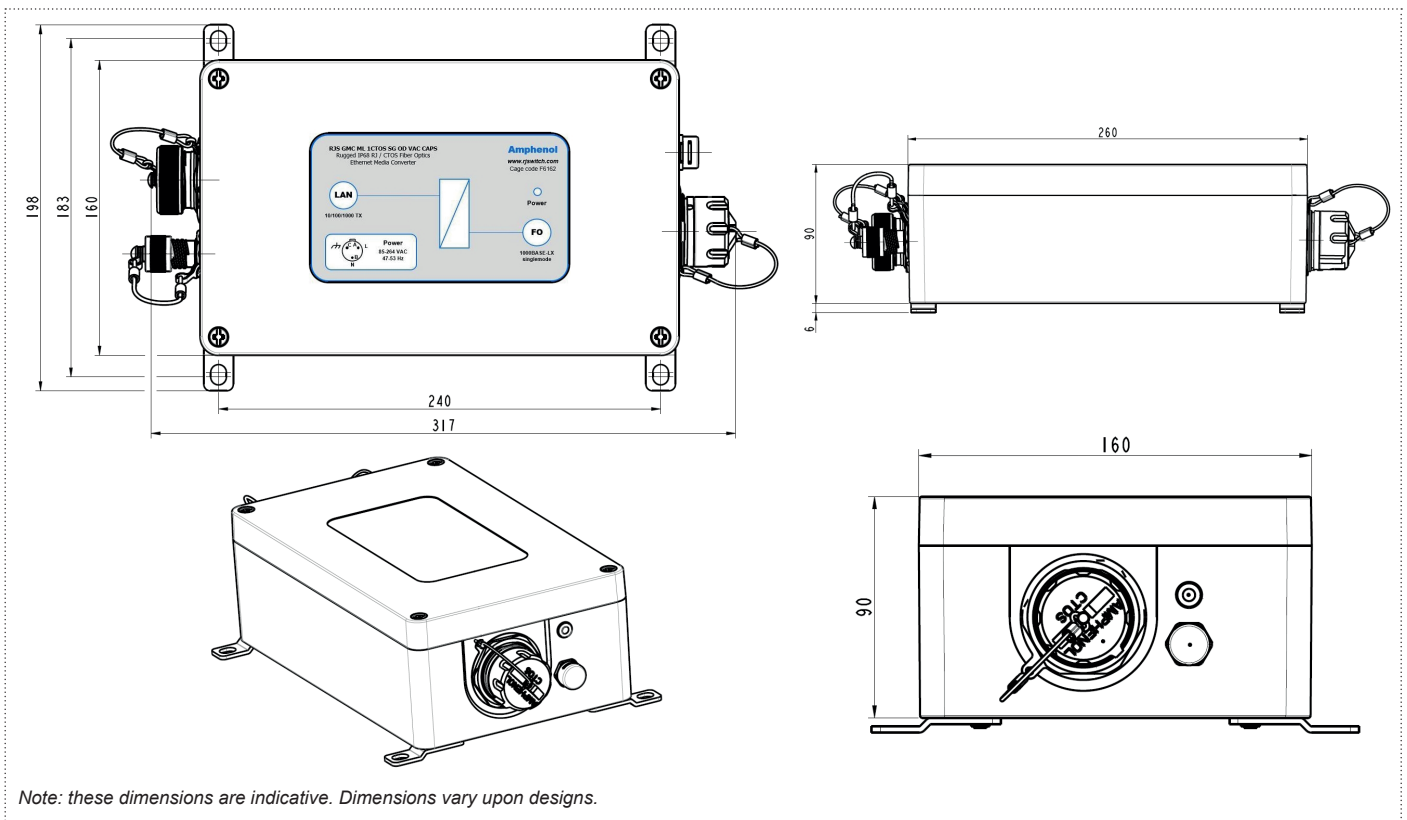
MIL-STD-461E/F	CE102 conducted emission
MIL-STD-461E/F/G	CS101, CS114, CS115 & CS116 conducted susceptibility
MIL-STD-704A	600V input transient, applied for 10 μ s
MIL-STD-1275A/B/C/D	Spikes: +/- 250 V for 50 μ s 15 mJ Surges: 100 V for 50 ms at 0.5 Ω

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Product specifications

Ethernet features	<ul style="list-style-type: none"> 1, 2 or 4 shielded RJ45 ports 10/100/1000 BaseT(X) RJFTV connectors: jam nut receptacle based on MIL-DTL-38999 III Full / Half Duplex, Automatic or Configurable RJ45 MDI/MDIX Auto-crossover RJ45 TD and RD Auto-polarity
Dimensions	<ul style="list-style-type: none"> Version 1x1: 220 x 122 x 80 mm without connectors and caps Version 2x2: 220 x 122 x 80 mm without connectors and caps Version 4x4: 360 x 160 x 90 mm without connectors and caps
Weight	<ul style="list-style-type: none"> Version 1x1: approx 1.9 kg Version 2x2: approx 2.5 kg Version 4x4: approx 4.5 kg
Installation	<ul style="list-style-type: none"> All versions: set of 4 mounting holes fixed on the bottom Version 4x4: carrying handles fixed on the top
Power supply	<p>Input voltage</p> <ul style="list-style-type: none"> DC: 9-36 VDC DC-704: 9-33 VDC, reverse voltage protection VAC: 85/264 VAC, 47/63 Hz <p>Input power</p> <ul style="list-style-type: none"> Version 1x1: 3W Version 2x2: 6W Version 4x4: 12W <p>Connectors for power</p> <ul style="list-style-type: none"> MIL-DTL-38999 III jam nut receptacle, olive drab cadmium or nickel DC & DC-704 TVx07xx0998PA: 3 cts # 20 (wire AWG 24 to 20) VAC TVx07xx0998P

Overall dimension



Dimensional line drawing - All measurements are in millimeters

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How to order

1.	2.	3.	4.	5.	6.
Series	Protection and color	Number of ports	Type of fiber and datarate	Protection of LAN and Power connectors and caps	Power supply and caps
RJS-GMC	ML	1CTOS	MG	OD	DC-CAPS

1. Series

RJS-GMC	Rugged Ethernet Media Converter
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2. Protection and color

ML	Olive Drab Cadmium Plating on enclosure and receptacles
BKN	RAL 9005 (Jet Black) Paint on enclosure, Nickel plated receptacles, ROHS compliant
ML1019	RAL 1019 (Sand) Paint on enclosure, Olive Drab Cadmium plated receptacles
BKN9010	RAL 9010 (White) Paint on enclosure, Nickel plated receptacles, ROHS compliant

3. Number of ports

1CTOS	1 port LAN to 1 port fiber optics, 1 RJFTV and 1 CTOS connector
2CTOS	2 ports LAN to 2 ports fiber optics, 2 RJFTV and 2 CTOS connectors
4CTOS	4 ports LAN to 4 ports fiber optics, 4 RJFTV and 4 CTOS connectors

4. Type of fiber and datarate

MG	Multimode, 50/125, Gigabit Ethernet
SG	Singlemode, 9/125, Gigabit Ethernet
MF	Multimode, 50/125, Fast Ethernet

5. Protection of LAN and Power connectors and caps

OD	Olive drab cadmium plating
ZN	Black Zinc Nickel ✓
NI	Nickel plating, bright ✓

6. Power supply and caps

DC-CAPS	24VDC powered, attached caps on all receptacles
DC-704-CAPS	24VDC powered, with 704 filtering option, attached caps on all receptacles
VAC-CAPS	85-264 VAC, 47-63 Hz, attached caps on all receptacles

For specific cable harnesses, please consult us.

✓ : RoHS compliant