

# GPS Message Router (GMR)



The **GPS Message Router (GMR)** is part of the airborne connectivity system that provides the interface between the Air Warrior Electronic Digital Manager (EDM), the aircraft-mounted GPS antenna and the Blue Force Tracking (BFT) transceiver and Pallet.

The GMR also acts as a hub between the EDM and various other situational awareness devices by using standard Ethernet and serial protocols.

The GMR allows a user to interconnect multiple devices in a cockpit or land vehicle with minimal effort. GPS information can be received from multiple external sources, including: GPS information/data provided from an external source (i.e. PLGR, DAGR, etc.) or GPS information/data provided from an embedded commercial or GFE military GPS receiver card. The GMR provides up to 7 x Ethernet, 3 x Serial, 1 x Coaxial (External Antenna), 1 x Fill Port (MIL-DTL-55116), and 1 x USB connections for units that support those protocols.

## GPS Message Router Configuration



The GMR is a compact replacement for the previous generation MicroRouter solution. The GMR reduces the number of boxes needed to route information between situational awareness units by combining the GPS receiver, Ethernet, Serial and USB hubs into one box.

The GMR routes information using an Intel Atom 1.6Ghz processor and 2GB RAM. It has a Compact Flash storage drive and can also function as a standalone server.

The rugged GMR is made from durable aluminum alloy and is designed to meet MIL-STD-461E, MIL-STD-810F, and MIL-STD-704 requirements.



# SPECIFICATIONS



Encrypted key information can be uploaded to the GMR through a fill connector on the GPS doghouse.

## PROCESSOR UNIT

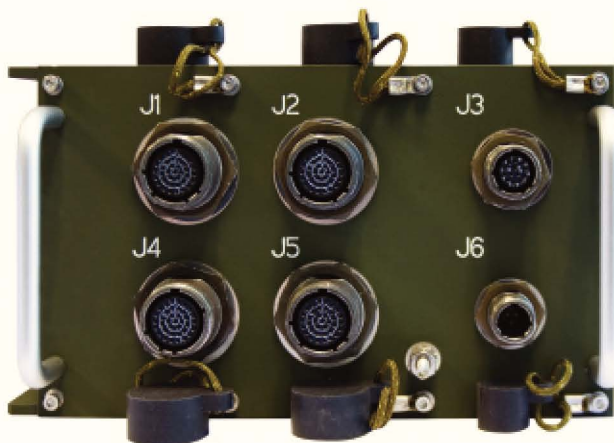
<b>CPU</b>	Intel Atom 1.6 Ghz Processor
<b>Memory</b>	2GB DDR
<b>Storage</b>	2GB Compact Flash (expandable to 8GB) with ability to zeroize
<b>Interfaces</b>	7 x Ethernet (10/100Base-T) 3 x RS232/422 1 x USB 2.0 (3 x Internal) 1 x Fill Port (MIL-OTL-55118) 1 x Coaxial (External Antenna)
<b>OS Support</b>	Windows XP, 7 and Linux
<b>Power</b>	14W (MIL-STD-704 compliant)
<b>GPS (optional)</b>	Commercial GPS Module or Internal GB-GRAM SAASM GPS Module (optional)

## PHYSICAL CHARACTERISTICS

<b>Size</b>	8.7" x 5" x 5.4"
<b>Weight</b>	Less than 7 lbs
<b>Material / Color</b>	Aluminum Alloy / Olive Drab

## ENVIRONMENTAL CONDITIONS

<b>Operating Temp</b>	-54°C to +71°C
<b>Storage Temp</b>	-60°C to +85°C
<b>Vibration</b>	MIL-STD-810F
<b>Altitude</b>	20,000 ft (operating) 50,000 ft (storage)
<b>Humidity</b>	95% non-condensing
<b>Power</b>	MIL-STD-704
<b>Explosive Atmosphere</b>	Yes
<b>Salt-Fog</b>	48 hrs
<b>EMI/EMC</b>	MIL-STD-461E



Ethernet, Serial, and USB connections can be shared across multiple units or subsystems.



The GMR incorporates three previously separate modules (GPS, Ethernet hub and micro router) into one rugged package.

