Zeli Systems
SLOTLESS GPS ADAPTER – SAASM (SGA-SAASM)

Convenient Packaging Solution for SAASM-based GPS Modules

Features:
- The SGA enclosure uses an internal GPS module that incorporates Selective Availability Anti-Spoofing Module (SAASM) technology for military applications.
- Accepts the Rockwell-Collins Ground Based GPS Application Module (GB-GRAM) or the Trimble FORCE22 GPS.
- The SGA enclosure is designed to slide into a mating enclosure similar to how a removable hard-drive slides into a desktop computer chassis.
- Mechanically secured using two captive thumb-screw fasteners located on the front-panel.
- Standard and watertight versions available.
- The SGA enclosure uses three front-panel connectors and one rear-panel connector.
- The rear-panel connector provides power to the unit and an interface to the communication channels of the internal GPS module. Ancillary signals from the GPS module are also available on the rear-panel connector.
- Front-panel connectors for DS-102/DS-101 key-fill, antenna input, and serial communication functions.
- Front-panel serial connector allows communication with any of the internal GPS communication channels and provides access to a discrete zeroize signal.
- Dust covers provided for each of the front-panel connectors.
- A mating backshell/connector assembly can be provided to engage with the front-panel serial connector to provide rapid zeroization.
- Custom version available (contact Zeli Systems).
- The SGA can be provided with or without the internal SAASM-based GPS module.

SGA-SAASM Function:
The popular Zeli Systems commercial SGA product has been redesigned to accommodate daughter-card GPS modules that incorporate Selective Availability Anti-Spoofing Module (SAASM) technology for military applications. When provided with an enclosure, the redesigned version of the SGA is designated the SGA-SAASM and will accept the Rockwell-Collins Ground Based GPS Application Module (GB-GRAM) or Trimble FORCE22. Two types of enclosures are used by Zeli Systems to house the SGA/GPS assembly; a standard enclosure designate (ENC) and a water-tight enclosure designated (WT). Both enclosure versions are intended to slide into a larger chassis similar to how a removable hard-drive slides into a desktop computer chassis. The enclosure is then secured using two captive thumb-screw fasteners located on the front-panel of the unit.

Power:
Power (+5 VDC) is applied to the SGA-SAASM via the rear-panel Centronics style connector. Contact Zeli Systems if other power input specifications are required.

Communicating with the Internal SAASM-Based GPS:
In addition to powering the unit, the rear panel connector provides an interface to the communication channels of the internal GPS module. Ancillary signals from the GPS module are also available on the rear-panel connector. The front-panel serial connector also allows communication with any of the internal GPS communication channels.

Zeroize:
Access to a discrete zeroize signal is available on the front-panel serial connector.

Key Loading:
DS-101 or DS-102 key loading signals are accessed via the front-panel circular Key Load connector.

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SGA-SAASM SPECIFICATIONS

Mechanical, Environmental, Power

Housing Dimensions:	6.5" x 4.3" x 1.2"
Front Faceplate Dimensions:	5.7" x 1.6"
Operating Temperature:	-40 °C to 85°C
Storage Temperature:	-55 °C to 85°C
Power:	+5 VDC @ 1.8 W typical
Weight:	15.5 oz.
Fabrication:	1.68mm ± 0.2mm, FR4
Active Antenna Input Voltage:	3.3 VDC

Front-Panel Connectors and Dust Covers

Key Connector:	Standard Circular Key Load with Dust Cover
Serial Connector:	DB15 Female with Cover
Antenna Input Connector:	SMA Bulkhead Jack with Cover

Rear-Panel Connector

Rear Connector:	AMP 554103-1
Ordering Information:	Zeli Systems Part Number 94510XX
Custom Configurations:	Contact Zeli Systems