

NavAssure® SAASM Dongle

Dual frequency SAASM P(Y) Code GPS Receiver Dongle for Rifleman Radio



Capabilities and Features

The NavAssure® Dongle provides SAASM GPS receiver based secure position location information to the Rifleman Radio as an external attachment through radio's Side Radio Interface Connector (SRIC). The NavAssure® Dongle design is based on Mayflower's small size, weight and power (SWaP) NavAssure® microSAASM GPS receiver technology to service the most SWaP constrained applications. The NavAssure® dongle allows deployment of SAASM technology in the Rifleman radio without modifications to the radio.

NavAssure® Dongle Technical Specifications Summary

High level Features

- Antenna input: L1/L2 antenna
- 12 tracking channels - all in view design
- Supports Simultaneous L1 and L2 (C/A and P(Y))
- Next Generation Security Architecture

SWAP Metrics

- Size: 3.756" x 1.815" x 0.825"
- Weight: 150 grams
- Power: < 1.3W (continuous tracking mode)
- Power Supply: 5V +/-10%

Performance Metrics

- 8 second direct-Y acquisition (Hot-Start)
- Position Accuracy: < 3m (1 sigma SEP)
- Velocity Accuracy: < 0.1 m/s (1 sigma)
- PVT output: up to 10 Hz

- **Radio Interface:** Rifleman Radio's SRIC interface with following interfaces with the radio
- COM1 (RS-232), 1PPS Out and Power
- **Host Interfaces:**
 - COM2 (RS-232)
 - Key Fill Port: DS-101
 - PPS: 1 PPS In/1 PPS Out
 - Protocol: ICD-GPS-153 (Outputs: PVT, PR/DR, Channel/Satellite/SAASM Status)
- Radio's USB Pass-Through
- Temperature
 - Operating: -40°C to +85°C
 - Storage: -55°C to +125°C
- Built-In Test (BIT): 95% coverage
- Antenna Input: SMA
- Codes/Frequencies: L1 and L2 Simultaneous, C/A and P(Y)

NavAssure® is a registered trademark of Mayflower Communications Company, Inc.
The NavAssure® Dongle has been granted Security Approval by the GPS Directorate.