

## NavAssure® 100 SAASM P(Y) Code GPS Receiver

### Capabilities and Features



The *NavAssure® 100* receiver is one of the world's smallest, lightest and lowest power SAASM receiver\*. Designed from the ground-up to service the most SWAP constrained applications, *NavAssure®* allows deployment of SAASM technology in platforms never thought possible. From embedded radios to artillery applications, to micro-UAVs and Blue Force Tracking applications, Mayflower's micro SAASM receiver is redefining the military GPS receiver landscape. *NavAssure® 100* is packaged in a 42 mm outside diameter form factor.

#### High level Features

- Interface to passive antenna - up to 4 antenna elements
- 12 tracking channels - all in view design
- Selectable L1 or L2 (C/A and P(Y))
- Next Generation Security Architecture
- Gun hardened to 20,000 G's\*\*
- High dynamics applications: spinning projectiles and mortars

#### SWAP Metrics

- Size: 42 mm diameter, 16.5 mm height
- Weight: 40 grams
- Power: < 1.3 W (continuous tracking mode)

#### Performance Metrics

- < 8 second direct-Y acquisition (at 300 Hz spinning)
- Position Error: < 3m (1 sigma SEP)
- Velocity Accuracy: < 0.1 m/s (1 sigma)
- PVT output: up to 10 Hz

#### NavAssure® 100 Technical Specifications Summary

- Interface: 25-pin Host Connector
- Host Interface: 2 serial ports, 3.3V LVTTTL
- Protocol: ICD-GPS-153  
(Outputs: PVT, PR/DR, Channel/Satellite/SAASM Status)
- Key Fill Port: DS-101
- PPS: 1/10 PPS Out, 10 PPS in
- Operating Voltage: 3.3 V +/- 10%
- Temperature
  - Operating: -40°C to +85°C
  - Storage: -55°C to +125°C
- Built-In Test (BIT): 95% coverage
- Antenna Input: Passive (SSMC Straight connectors)
- Codes/Frequencies: L1/L2 selectable, C/A and P(Y)

*NavAssure®* is a registered trademark of Mayflower Communications Company, Inc.

\* The *NavAssure® 100* has been granted Security Approval by the GPS Directorate.

\*\* Suitable for SWAP constrained precision guidance projectiles and munitions