BAE SYSTEMS

NavStrike™-M GPS Receiver

Precision strikes

Accuracy and control

Derived from the field-proven NavStrike™ SAASM receiver, BAE Systems' YMCA, or Y-Code/M-Code and Coarse Acquisition, NavStrike-M offers high-performance GPS for tightly coupled GPS/INS (Global Positioning System/Inertial Navigation System) integrations. NavStrike-M delivers mission success in a small, cost-effective package with high accuracy and reliability.

NavStrike-M provides 24-channel all-in-view navigation, high jamming immunity, fast Direct acquisitions using either P(Y) or M-Code, and rapid cold starts with no initialization data required. Experience NavStrike-M's accurate GPS navigation, either as a stand-alone system or integrated with an existing INS or Doppler reference system.

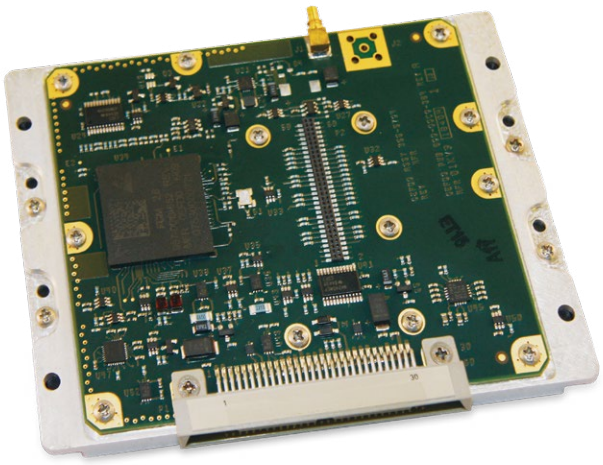
This embedded receiver module offers full Precise Positioning Service (PPS) accuracy. Simultaneous L1/L2 operation provides real-time ionospheric corrections for further accuracy enhancements.

U.S. Army photo

The primary communication interface is a high-speed RS-422 serial port. Modular design and field-programmable software eases maintenance, provides a growth path and reduces life-cycle costs. A backwards-compatible design with legacy NavStrike receivers eases integration.

Key features and benefits

- Dual or single-frequency (L1/L2) tracking
- Enhanced Direct-Y/M code acquisition/Cold start
- 24-channel all-in-view tracking/Navigation
- No need for active antenna electronics
- Field-reprogrammable software
- Designed for high-g vibration and shock
- High-speed serial interface
- Field clock recalibration for extended storage
- SA/AS capable*
- Store and Process (SnP) fast acquisition
- Simultaneous ionospheric corrections
- Carrier phase measurements
- Precise time transfers (timing pulse not needed)
- Antenna masking selection
- High anti-jamming immunity



High accuracy in a compact package

System characteristics

- **Receiver** L1 frequency, C/A and P(Y) or M-Code*
  L2 frequency, P(Y) or M-Code*
- **Dynamics** 10 g acceleration
- **TTFF ≤ 11 sec - time uncert:** ≤100 µs
  ≤ 22 sec - time error: ≤10 ms
- **78 s nominal cold start without initialization data**
- **Time accuracy** <±35 nanoseconds RMS
- **RMS Position accuracy** <3 m CEP*
  <2 m typical
- **Velocity accuracy** <0.07 m/sec RMS typical
- **Crypto key input Serial port, STE, DS101**
- **Fault coverage** >95%

Physical characteristics

Power	<4.0 W
Weight	0.5 lbs. maximum
Size/volume	3.5 in. W x 3.0 in. H x 0.75 in. D maximum
Temperature range	-54 C to +85 C (continuous)
Shock	386 g operating

Interfaces

- **Serial data: RS-422, up to 921.6 Kbaud**
- **1 PPS/TimeMark**
- **Single L1/L2 RF antenna port**

* Export of Precise Positioning Service (PPS) units is authorized for GPS Memorandum of Understanding countries only. PPS security modules must be obtained through Foreign Military Sales (FMS) procurement.

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