NavStrike™-M
GPS Receiver

Accuracy and control


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.

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.

baesystems.com/gps
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.