

## GS 501 family

GNSS Standalone



### Family Description

GS501 is the family of standalone Multi-GNSS (GPS /GLONASS/Galileo/BeiDou) navigation modules powered by SiRFstarV™ 5e. These modules are realized in different form factors and have high sensitivity, low power consumption and fast TTFF. GS501 modules are perfectly suited for simple integration in all the stationary, portable and vehicle space-sensitive telematics systems.

### Key Features

- SiRFstar V core;
- 52 track verification channels;
- All-in-view tracking and positioning;
- SBAS support;
- CGEE (Client Generated Extended Ephemeris);
- Power saving modes;
- Removes in-band jammers up to 80 dB-Hz, tracks up to 8 CW jammers;
- All popular industry standard form-factors and footprints;
- Dead Reckoning\*\*
- No external components needed.

### Performance data

- Frequency Bands: GPS (L1), GLONASS (L1, FDMA), Galileo (E1), BeiDou (B1), SBAS;
- Accuracy (CEP): 2.5 m (Autonomous), 1.5 m (SBAS);
- Update rate: 5 Hz (max);
- TTFF (@-130 dBm, 95%): 35 s (Cold), 1 s (Hot);
- Sensitivity: -146 dBm (Acquisition), -165 dBm (Tracking).

### Electrical data

- Power supply: 3.0 – 3.6 V;
- Current: 28 mA (Acquisition), 26 mA (Tracking);

### Interfaces

- UART;
- NMEA, binary.

### Environmental

- Operating temperature: - 40° to + 85° C;
- Storage temperature: - 40° to + 85° C;
- Dimensions:
  - GS 501E: 13x15.2x2.2 mm;
  - GS 501N: 16x12.2x2.4 mm;
  - GS 501L: 17x22.4x2.4 mm.

\* after the system's launching

\*\* by customer's request

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