

# High Sensitivity So-Mini2 GPS Pro



GPS

- Full navigation accuracy provided by Standard Positioning Service (SPS).
- Support high sensitivity for very weak signal acquisition and tracking.
- Integrated powerful CPU, base band and RF front-end hardware in a SOC (System On Chip) design reduces the space and power consumption in state of the art.
- Advanced IC technology gets the total receiver cost saving.
- Allow the receiver to track the satellites using up to 16-channel correlators.
- Fast TTFF for cold start, warm start and hot start.
- High performance firmware drives an excellent positioning speed.
- Serial communication channel with 4800 baud rate
- No any initialization setup is required while start to use.
- Support backup power to sustain internal clock.
- Nemerix GPS Module, 16 channels all in view tracking
- Very low power consumption (typical: 45mA)

**Accuracy:** Position: 5m w/o S/A  
Velocity: 0.1 m/sec w/o S/A  
Time:  $\pm 1 \mu$  sec

**Acquisition:** Cold start: 50 sec (Average)  
Warm start: 38 sec (Average)  
Hot start: 10 sec (min.)

**Sensitivity:** Acquisition: -157 dBm  
Tracking: -165 dBm

**Dynamics:** Altitude: max. 18,000m  
Velocity: max. 515m/sec  
Acceleration. max.  $\pm 4g$

**Navigation update rate:** Once per second

**Dimension:** 40(W) x 40(L) x 14(H) mm  
Built-in Patch Antenna

**Serial I/O:** Series TTL and RS-232 I/O 4. 8K  
NMEA 0183: GGA, GSV, GSA, RMC, (optional) VTG, GLL

**Coordinate Datum:** WGS 84

**Power supply:** +5.0VDC and up to 9.0V DC

**Power consumption:** Typical 45mA

**Sleep mode power saving:** Yes (automatically)

**RTC support:** Yes

**Backup Battery:** Backup power (Lithium rechargeable battery)  
for RTC and SRAM

**System Performance:** Tracks up to 16 satellites

**I/O connector:** 6-pin

**Operating Temp.:** -40° ~ +85°C

**Storage Temp.:** -55° ~ +100°C

**Humidity:** 5%~95%