

GPS-102E

Embedded GPS with DR Board



Features

- SiRF star III 20-channel chipset
- Dead reckoning embedded
- Gyroscope enabled
- Low power consumption
- 71 x 40.8 x 18.6 mm (L x W x H)
- Operating temperature -40 ~ + 85° C

Introduction

GPS-102E is a GPS receiver module with integrated dead reckoning function. The GPS-102E includes dead reckoning sensors to track its course even when the GPS signal is blocked, for example in urban areas or tunnels. If GPS coverage is lost, the GPS-102E keeps on navigating.

Specifications

Receiver Type	GPS L1 frequency, C/A code GALILEO Open Service L1 frequency
Time-To-First-Fix	Cold start 35 s Warm start 35 s Hot Start 1 s
Position Accuracy	Within 10m for 90%
Velocity Accuracy	0.1 m/s
Heading Accuracy	0.5 degrees
Voltage Type	DC +5V $\pm$ 1%
Operational Limits	514 meter/second maximum
Interface	20 pin header, 2.0 mm pitch (J2), male seat
Weight	$\leq$ 17 g

Software Specifications

- Detect GPS Signal Strength
- Detect Satellites
- Parse NMEA Protocols

Packing List

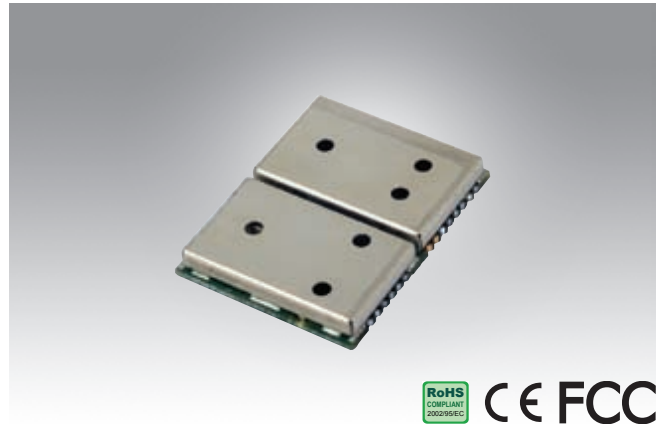
Description	Quantity
GPS-102E Embedded GPS module	x 1

Ordering Information

Part Number	Specifications
GPS-102E	GPS module + DR + SMA connector

GPS-106E

Embedded GPS/GALILEO Module



Features

- 50-channel positioning engine
- Best-in-class acquisition and tracking sensitivity
- Receives GPS and GALILEO signals
- A-GPS: Supports u-blox AssistNow online and offline, OMA SUPL compliant
- UART serial port, USB, DDC (I²C compatible)
- Precision timing option
- Operating temperature -40 ~ 85° C

Introduction

GPS-106E is designed by u-blox, and sets a new standard for GPS and GALILEO receiver modules. Featuring the high performance 50-channel u-blox 5 technology, these modules provide excellent performance and flexibility at an economical price.

Specifications

Receiver Type	GPS L1 frequency, C/A code GALILEO Open Service L1 frequency
Time-To-First-Fix	Cold start 29 s Warm start 29 s Hot Start < 1 s
Sensitivity	Tracking & Navigation -160 dBm Reacquisition -160dBm Cold Start -144 dBm
Horizontal Position Accuracy	Autonomous < 2.5m SBAS < 2.0m
Velocity Accuracy	0.1 m/s
Heading Accuracy	0.5 degrees
Dynamics	< 4 g
Operational Limits	Velocity 515 m/s (1000 knots)
Weight	2.1 g
Software Specifications	Detect GPS signal strength Detect satellites Parse NMEA protocols

Packing List

Description	Quantity
GPS-106E Embedded GPS Module	x 1

Ordering Information

Part Number	Specifications
GPS-106E	Embedded GPS Module