

GR-213 GPS Receiver



Features:

- Builds on SiRFstarIII chipset with embedded ARM7TDMI CPU available for customized applications in firmware.
- 20 parallel satellite-tracking channels for fast acquisition and reacquisition.
- 200,000 effective correlators for fast TTFF (Time-To-First-Fix), and Extremely fast TTFF's at low signal level.
- Built-in hardware Tracking Loop Processor WAAS/EGNOS Demodulator support.
- Built-in repeatable and rechargeable Lithium-ion battery for Time- to- First-Fix (TTFF).
- Support NMEA 0183 v2.2 data protocol.
- Enhanced algorithms provide superior navigation performance in urban, canyon and foliage environments.
- For Car Navigation, Marine Navigation ,Fleet Management ,AVL and Location-Based

Specifications

- Tracks up to 20 satellites.
- Receiver: L1, C/A code
- Max update rate: 1 HZ.
- Acquisition time

Reacquisition 0.1sec.averaged

Hot start 1 sec., averaged

Warm start 38 sec., averaged

Cold start 42 sec., averaged

(*) • Position accuracy :

(*) • Non DGPS (Differential GPS)

Position 5-25 m CEP without SA

Velocity 0.1 m/sec, without SA

Time 1 μ sec sync GPS Time

(*) • EGNOS/WAAS :

Position

< 2.2 m, horizontal 95% of time

< 5 m, vertical 95% of time

(*) • Dynamic Conditions:

Altitude 18,000 meters

(60,000 feet) max

Velocity 736 meters / second

(1000 knots) max

Acceleration 4 G, max

Jerk 20meters/second,max

• Antenna Type: Built in Patch Antenna

(*) • Minimum signal tracked: -159dBm

(*) :Cit.SiRF's original chipset spec.

• Dimension: 64.5 × 42 × 17.8 mm

• Weight : < 84g

• Waterproof: IPX7

• LED function:

Power On/Off and Navigation

Update Indication

• Operating temperature:

-10°C to +60°C

• Storage temperature:

-20°C to +70°C

• Operating humidity:

5% to 95% No condensing.

• Power consumption

< 80mA at 3.5V - 5.5V input

• Protocol and interface:

• NMEA output protocol: V.2.2

Standard:

Baud rate: 4800 bps

Data bit: 8

Parity: N

Stop bit: 1

Format: GGA (1), GSA (5),

GSV (5) , RMC (1) , VTG (1)

Optional:

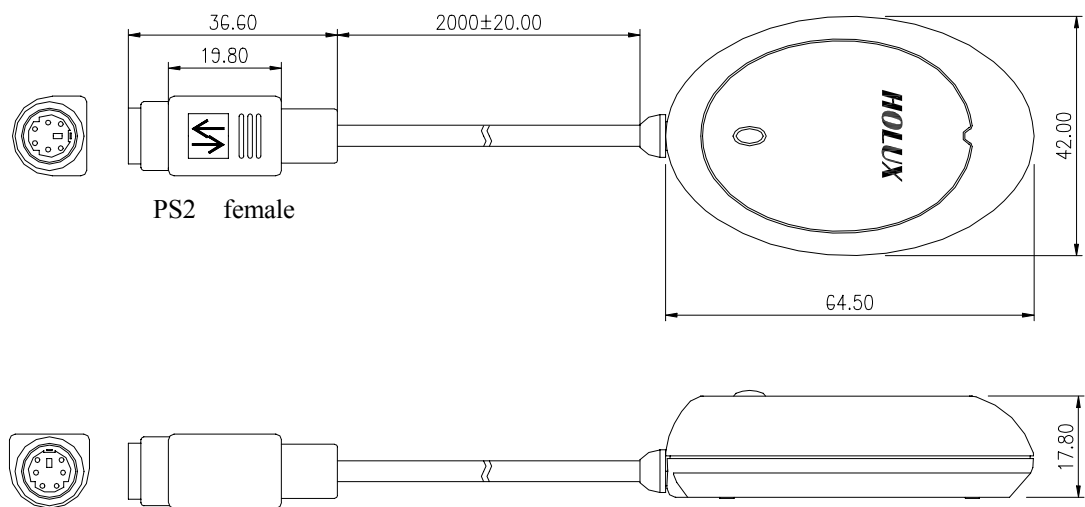
Baud rate: 9600,19200,38400

Format: GLL, ZDA, SiRF binary

• Interface:

RS-232 + CMOS 3V Level

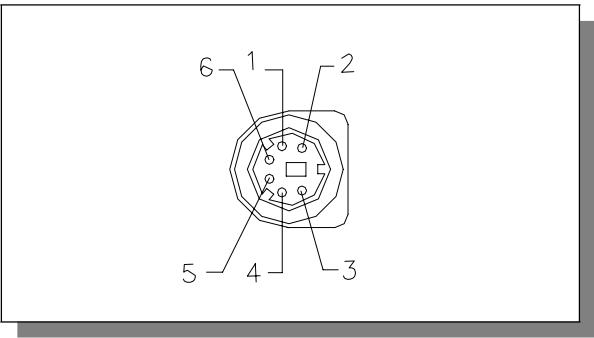
Physical Dimension :



Output terminal and definition

Output terminal: PS2 female °

Pin definition:



(PS2 female)

Pin	Signal and description
1	TX_RS232 (RS232 level)
2	+5 VDC
3	TX_TTL (CMOS 3V level)
4	Ground
5	RX_TTL (CMOS 3V level)
6	RX_RS232 (RS232 level)

Order information

GR-213-XX-Y

 | | |
(1) (2) (3)

- (1) Model name:
- (2) XX : Appearance Type
- (3) Y: Output Type
 - 1: RS232 + TTL

Accessories type

Type	Name	Function description
1	CA-RS232-S	Convertible cable, Comport, 5VDC input.
2	CA-USB-S	USB connector
3	CA-6V30V-S	High power connector, 6-30VDC input
4	A-20005	12V-26V Cigarette Adapter /Charger

Specifications are preliminary and subjected to change without notice