

GPS Receivers



GPSR-00 I B: Bluetooth GPS Receiver

GPSR-00 I C: CompactFlash GPS Receiver

GPSR-00 I U: USB GPS Receiver



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CONNECT WITH RELIABILITY



GPSR-001B: Bluetooth GPS Receiver



Features

- Compact design
- Lightweight
- Ultra low power-up to 20 hours of use after being fully charged
- Built-in Antenna
- Foliage Lock
- 16 Channel All in View Parallel Processing
- Windows 98/2000/XP and PocketPC support
- GPSInfo Test Software Included
- Optional Microsoft Streets and Trips Software
- 1 year Warranty

Specifications

General		Accuracy	
GPS Chip	NEMERIX GPS Module	Position	
Frequency	L1, 1575.42MHz	3 meters CEP (50%), without SA (Horizontal) 7 meters (90%)	
C/A Code	1.023MHz chip rate	Velocity	0.1 m/sec. without SA
Channels	16 CH all in view tracking	Time	±100 ns synchronized to GPS time
Antenna (Internal)	Built-in low noise	Datum	
External Antenna Port Active MMCX Antenna		WGS-84 (or as demanded)	
Sensitivity		Dynamic Conditions	
To -147 dBm Tracking, Superior Urban Canyon Performance		Altitude	<18,000m
Acquisition Rate		Velocity	<515m/sec
Cold Start	45 sec, average	Acceleration	<4g
Warm Start	38 sec, average	Jerk Motion	20 m/sec.
Hot Start	10 sec, average	Interface	
Reacquisition	100 ms, average	Communication Protocol	
Accuracy		Communicate with host platform via	
Position	5m CEP (50%), 9m (90%)	Bluetooth (2) serial port profile	
Velocity	0.1m/sec, without SA	Bluetooth communication distance 10 M. TYP.	
Time	±100ns synchronized to GPS time	GPS Protocol	
Power		Default: NMEA-0183 (V3.01) – GGA, GSA, GSV, RMC,	
Built-in rechargeable 850mAh Li-ion battery and 5 V DC input		Update interval 1 second (Default)	
Operation Current	45mA (Typical)	Baud rate 9600 bps (Data bit: 8, stop bit: 1)	
Operation Time	20hrs, after fully being charged, in continuous operation	Device Size	
Charging time	2.5hrs. (Typical)	81 (L) X 44 (W) X 20 (H) mm	
Environmental		3.2 (L) X 1.75 (W) X 0.79 (H) inch	
Operating Temperature	-20°C to +60°C	Accessories	Car charger (12V in, 5V output)
Relative Humidity	5% to 90% non-condensing		AC adaptor (5V output, 500ma)



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GPSR-001C: CompactFlash GPS Receiver



Features

- CFA compliant
- Within SiRF StarII/LP low power: All-in-View high performance 12-parallel channels
- Support standard NMEA 0183 commands: GGA, GSA, GSV, RMC, GLL, and VTG
- SingleSat updates in reduced visibility
- Superior urban canyon performance
- FoliageLock for weak signal tracking
- Built-in active Antenna for high sensitivity to satellite signal
- Optional external antenna
- Built-in SuperCap to reserve system data for rapid satellite acquisition
- LED indicator for GPS location fix or loss of fix
- Windows 98/2000/XP and PocketPC support
- GPSInfo Test Software Included
- Optional Microsoft Streets and Trips Software
- 3 year Warranty

Specifications

Interface:	Compact Flash type I
Protocol:	NMEA0183 GGA, GSA, GSV, RMC, VTG, GLL
Baud Rate:	4800,N,8,1
Max. Update Rate:	1Hz
Datum:	WGS84
Channel:	12 channel all-in-view tracking
Frequency:	L1, 1575.42MHz
Hot Start:	8 sec. average
Warm Start:	38 sec. average
Cold Start:	48 sec. average
Reacquisition Time:	100ms
Position Accuracy:	15m 2D RMS, SA off
Maximum Altitude:	18,000m
Maximum Velocity:	515m/s
Voltage:	DC 3.3V+- 10%
Power consumption:	90mA continuous mode
Antenna Type:	Built in active antenna
External Antenna Interface:	MMCX (Optional)
Dimension:	95 (L) x 47 (W) x 17 (H) mm
LED Indicator:	GPS is fix or not fix
Operating Temperature:	-10°C . to + 70°C
Storage Temperature:	-40°C. to + 85°C.
Operation Humidity:	95%,Non-Condensing



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GPSR-001U: USB GPS Receiver



Features

- Within SiRF StarII/LP low power: All-in-View high performance 12-parallel channels
- Built-in active Antenna for high sensitivity to satellite signal
- Cold start under 45 seconds, average
- Superior urban canyon performance
- FoliageLock for weak signal tracking
- Built-in SuperCap to reserve system data for rapid satellite acquisition
- Supported NMEA 0183 commands: GGA, GSA, GSV, RMC, GLL, and VTG
- LED indicator for GPS fix or not fix
- Non-slip bottom surface
- USB interface connection port
- Windows 98/Me/2000/XP support
- GPSInfo Test Software Included
- Optional Microsoft Streets and Trips Software
- 3 year Warranty

Specifications

Electrical Characteristics (Receiver)

Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	12
Sensitivity	-170 dBW

Accuracy

Position Horizontal	15m 2D RMS (SA off)
Velocity	0.1m/sec 95% (SA off),
Time	1 micro-second synchronized to GPS time
WAAS enabled	5m 2D RMS

Datum

Datum	WGS-84
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Acquisition Rate

Hot start	8 sec., average (with ephemeris and almanac valid)
Warm start	38 sec., average (with almanac but not ephemeris)
Cold start	45 sec., average (neither almanac nor ephemeris)
Reacquisition	0.1 sec. average (interruption recovery time)

Protocol

GPS Protocol	Default: NMEA 0183 (Secondary: SiRF binary)
GPS Output Data	SiRF binary >> position, velocity, altitude, status and control NMEA 0183 MEA0183 V2.2 protocol, and supports commands: GGA, GSA, GSV, RMC, VTG, GLL v2.2 (VTG and GLL are optional)
GPS transfer rate	Software command setting (Default: 4800,n,8,1 for NMEA)

Dynamic Condition

Acceleration Limit	Less than 4g
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/sec. (1,000 knots) max.
Jerk Limit	20 m/sec**3

Temperature

Operating	-30°~ 80°C
Storage	-40°~ 85°C
Humidity	Up to 95% non-condensing

Power

Voltage	5V ±5%
Current Consumption	80mA typical (including antenna)

Physical Characteristics

Dimension	2.32" x 1.85" x 0.82" (59mm x 47mm x 21mm)
USB Cable Length	65"

Low Noise Amp

Amplifier Gain w/out cable	27 dB Typical
Filtering	-25dB (+100 MHz)
Output VSWR	2.0 Max.
Voltage	DC 3 ~ 5.0V
Current	15mA max. @ 5VDC