

# GPS-003 GPS Receiver

With a miniature form factor, the GPS-003 module manifests NAGASAKI's latest 12-channel GPS technology.

The GPS-003 GPS receiver is designed for rapid startup time and high performance in foliage and urban canyon environments. GPS-003 applies the latest semiconductor technology so as to provide robust performance.

GPS-003 provides enhanced position & velocity filtering for smooth navigation, and onboard patch antenna & RS-232 driver for simple interfacing.

The optional Evaluation Kit makes it easy to evaluate the performance of GPS-003. The kit consists of GPS-003 housed in translucent case, a Window-based evaluation software, and an operation manual.

## GM Series

**GPS-003:** For notebook and PC

With RS-232 & PS/2 connector

RS-232 (Signal); PS/2 (Power)

**GPS-004:** For PDA or general usage

With Mini DIN connector

**GPS-005:** For PC

With USB connector

**GPS-006:** For general usage without antenna

With SMA connector w/o passive antenna

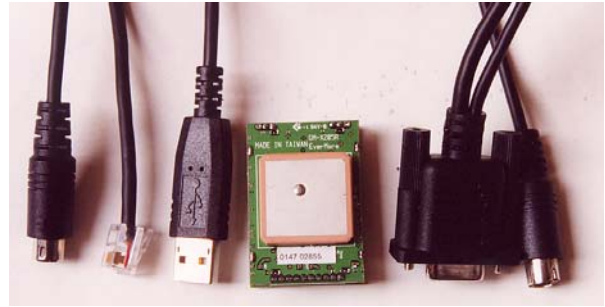
**GPS-007:** For specific serial IO by CMOS level

With RJ-11 connector

**Options:** Magnetic pad

Housing

The Evaluation Kit



## Product Specifications

<b>General :</b>	L1 (1575.42MHz), C/A code, 12-channel, Carrier-Aided with HWTrack©
<b>Sensitivity :</b>	-165 dBW minimum
<b>Update Rate :</b>	1Hz
<b>Accuracy :</b>	Position: 25m CEP S/A off Velocity: 0.1/sec S/A off Time: ± 1µs
<b>Typical Acquisition Time :</b>	Cold start : < 120sec Warm start : < 40 sec Hot start : < 10 sec
<b>Reacquisition :</b>	< 100 millisecond
<b>Active Antenna :</b>	> 20 dB (100ft) > 10 dB (10 ft)
<b>Passive Antenna :</b>	> 2 dBic
<b>Dynamics :</b>	Altitude: -1000m to + 18,000m Velocity: 500m/sec Acceleration: ±4g
<b>Operation Temperature :</b>	-40°C to + 85°C
<b>Storage Temperature :</b>	-55°C to + 100°C
<b>Operating Humidity :</b>	5% to 95%
<b>Primary Power :</b>	3.8V~8V DC, ±10%
<b>Power Consumption :</b>	125mA @ 3.3V 70-90mA with power saving
<b>Serial Port :</b>	Standard RS-232
<b>IOs :</b>	1 PPS & TX out @TTL level
<b>Protocols :</b>	NAGASAKI binary mode@4800/9600 baud, 8N1 NMEA-0183 v2.20@4800/9600 baud, 8N1
<b>Datum :</b>	219 standard datum; WGS-84 (default)
<b>NMEA Messages :</b>	GGA, GSA, GSV, RMC (standard output) GLL and VTG (optional)
<b>Dimension :</b>	45mmx30mmx13mm w/o housing
<b>Weight :</b>	25g w/o housing

## **NAGASAKI IPC Technology**

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The specification is subject to change without further notice.

<http://www.nagasaki.com.tw>

