

# LOCOSYS



GNSS

ALL IN ONE SOLUTION



Saving Cost

Saving Space

Saving Effort



GSM / GPRS



Bluetooth

The World's Smallest GNSS, GSM/GPRS, Bluetooth Module

# GGB-1916-C

**LOCOSYS**  
[www.locosystech.com](http://www.locosystech.com)

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# GGB-1916-C

The World's Smallest GNSS, GSM/GPRS, Bluetooth Module



19 x 16 x 1.9 mm

> GGB-1916-C module is a versatile module that integrates GNSS, GSM/GPRS, classic Bluetooth and Bluetooth low energy in a miniature QFN (Quad Flat No leads) form factor. Its built-in highly integrated power management units make not only switch individual features of the power by software commands but also perform brilliant low power consumption. All parts of RF functions are included, such as the transceiver and power amplifier of GSM, band pass filter of Bluetooth as well as SAW filter and LNA of GNSS. No abstruse RF knowledge is required. Just connect antennas to it. Besides, all functions of GNSS, A-GNSS, GSM and Bluetooth are software controlled via single UART port. These ease the use, shorten the development time and make the fast time to market.

## > Product Features

GNSS Feature Specifications are subject to change without notice.

GPS, GALILEO, QZSS	L1 1575.42MHz, C/A code	
GLONASS	L1 1598.0625MHz ~ 1605.375MHz, C/A code	Switchable between GLONASS and BEIDOU.
BEIDOU	B1 1561.098MHz, C code.	
SBAS	WAAS, EGNOS, MSAS, SDGM, GAGAN	
A-GNSS	<ul style="list-style-type: none"> <li>EPO (Extended Prediction Orbit) data service</li> <li>EASY: Embedded Assist System which accelerates TTFF by predicting satellite navigation messages from received ephemeris.</li> </ul>	
Channels	Support 99 channels (33 tracking, 99 acquisition)	
Update rate	1 Hz default, up to 10 Hz	
Sensitivity	<ul style="list-style-type: none"> <li>Tracking: up to -165 dBm</li> <li>Acquisition: up to -148 dBm</li> </ul>	
Antenna	Passive or active antenna support	



## GNSS/GPRS Feature

Frequency bands	Quad-band GSM 850/E-GSM 900/DSC 1800/PCS 1900	
Output power	<ul style="list-style-type: none"> <li>Class 4 (2 W) for GSM 850 and E-GSM 900</li> <li>Class 1 (1 W) for DCS 1800 and PCS 1900</li> </ul>	<p>GSM / GPRS</p>
GSM Sensitivity	<ul style="list-style-type: none"> <li>≤ -107 dBm (typ.) @ 850 MHz</li> <li>≤ -108 dBm (typ.) @ 1800 MHz</li> <li>≤ -107 dBm (typ.) @ 900 MHz</li> <li>≤ -107 dBm (typ.) @ 1900 MHz</li> </ul>	
GPRS connectivity	GPRS multi-slot class 12	
Audio	Analog interface. Integrated maximum 0.8W high power class AB speaker amplifier.	
SIM interface	Support SIM card: 1.8V, 3.0V	
SMS	Text and PDU mode	



## Bluetooth Feature

Output power	Maximum 4dBm ± 3dBm
version	Bluetooth specification 4.0
Profile	SPP, HSP, HFP, BLE GATT

## About **LOCOSYS**

Founded in 2006, LOCOSYS is a R&D focused company with a very strong technical team as its backbone constantly propelling it forward as a leader in the GPS/GNSS market. All team members are highly experienced and have been engaged in the field of electronics, navigational communications and GPS related applications for many years. Our design capabilities and technical expertise in developing superior GPS products/modules keep us at the forefront of the GPS/GNSS market. LOCOSYS also provides GPS/GNSS related end-products and all are manufactured by ISO/TS 16949 certificated production line in Taiwan. Our numerous years of experience in the GPS market, outstanding product design capabilities, high-quality products, skillful technical service and worldwide network are our biggest assets.

