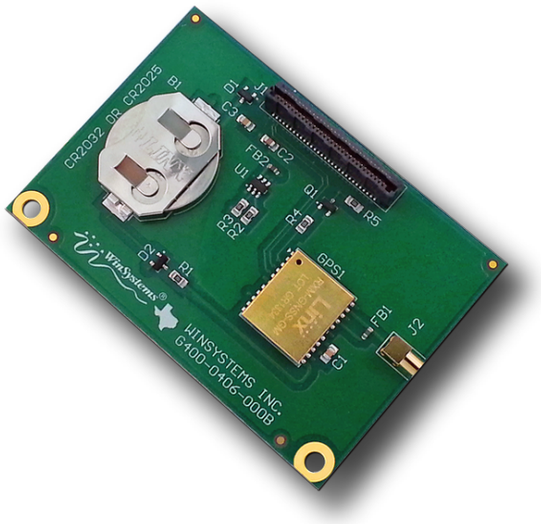
IO60-GNSS

GNSS/GPS Receiver Module with Bus Expansion

Features

- Simultaneous acquisition and tracking of multiple satellite constellations, including: GPS, GALILEO, GLONASS, and QZSS
- Exceptional sensitivity even in dense foliage and urban canyons
- Low power consumption/maximum run-time
- Small (50mm x 72mm) Form Factor
- 15 second cold start
- Fast Time To First Fix
- High-performance RF architecture acquires and tracks signals as low as -161dBm
- Compatible with wide range of external antennas
- Low profile and vibration resistant
- Battery-backed SRAM
- Standard NMEA data output
- 1 Pulse-per-second (PPS) signal available



Technical Specifications

Absolute Maximum Ratings		
Supply Voltage - Vcc	+4.3	VDC
Input Battery Backup Voltage	+4.3	VDC
VOUT Output Current (Antenna)	50	mA
Operating Temperature	-40 to +85	℃
Storage Temperature	-40 to +85	℃
Exceeding any of the limits of this section may lead to permanent damage to the device. Extended operation at max ratings may reduce the life of this device.		

GM Series GNSS Receiver Specifications		
Operating Voltage	3.0 Min / 4.3 Max	VDC
Supply Current		
Peak	150	mA
Acquisition	24	mA
Tracking	16	mA
Standby	0.365	mA
Backup Battery Voltage	2.0 Min / 4.3 Max	VDC
Backup Battery Current	7	µA
Antenna Port		
RF Impedance	50	Ω
VOUT Voltage	2.7 to 2.9	VDC

Ordering Information and Custom Options

Contact us through your preferred method (information below) and reference part number IO60-GNSS. WinSystems Application Engineers are always available to assist with custom options to suit your unique requirements.

Product Description

The WinSystems GNSS/GPS Receiver Module is a self-contained, high performance Global Navigation Satellite System receiver based on the MediaTek 3337 chip set. While consuming less power than competitive products, the 3337 chip set can still simultaneously acquire and track up to 33 satellites in the GNSS constellation.

These include the United States GPS System, Europe's GALILEO, Russia's GLONASS, and Japan's QZSS. Small and lightweight, with minimal power demand, this high performance module is ideal for a variety of applications such as:

- Positioning and Navigation
- Location and Tracking
- Surveying
- Logistics
- Security/Loss Prevention
- Fleet Management

The unit is designed to work with a backup battery to keep the SRAM memory and RTC powered when the RF section and main positioning system are powered down. While significantly reducing power consumption, this feature also allows for fast position fixes when power resumes.

System mechanics are designed around the WinSystems IO60 connector platform. IO60 can support a single mezzanine card or multiple boards on a stack. GNSS receiver data is in NMEA standard message format. The messages are sent to the host over the IO60 UART connection.

Augment your new or existing infrastructure with the next generation of global satellite navigation. Deploy the WinSystems GNSS/GPS Receiver Module and realize the rewards of precision acquisition and tracking combined with a durable design for remote locations.

WinSystems | 715 Stadium Drive, Arlington, Texas 76011 | 817-274-7553 | info@winsystems.com | www.winsystems.com