INVENTEK SYSTEMS
EZ-GPS-G
USB GPS Dongle
Based on the ISM3333
GPS Module

All-In-One multi-GNSS (Global Navigation Satellite System), module supports various location and navigation applications, including autonomous GPS, GLONASS, GALILEO, BEIDOU, SBAS ranging (WAAS, EGNOS, GAGAN, and MSAS), QZSS, DGPS)

Table of Contents

1 General Description

USB GPS Dongle, Plug and Play. Works with most GPS software programs that conform to the NMEA-0183 Standard. Most mapping software packages will work with the EZ-GPS-G. The output is set at 4800 baud, NMEA. The EZ-GPS-G is based on the Inventek ISM3333-C6.1 GPS module.

For detailed specification, please refer to the Inventek Media Tek GPS module, part number ISM3333-C6.1. The GPS has a USB host interface and a female SMA connector for a direct antenna attachment. We suggest the use Inventek active waterproof dome antenna part number, ANTDOM-01-WPM that connects directly to the EZ-GPS-G.

The EZ-GPS-G is based on the MediaTek MT3333 All-In-One multi-GNSS SoC and includes an on-chip CMOS RF, digital baseband, ARM7 CPU and embedded flash. The ISM3333 can achieve the industry's highest level of sensitivity, accuracy, and Time-to-First-Fix (TTFF) with the lowest power consumption in a small-footprint lead-free package.

The ISM3333 acquires and tracks satellites in the shortest time even at indoor signal levels. The ISM3333 supports various location and navigation applications, including autonomous GPS, GLONASS, GALILEO, SBAS ranging.

The Inventek ISM3333 is ideal for a wide range of mobile and personal tracker, drone and industrial applications. The ISM3333 features high sensitivity (-165dBm tracking sensitivity), for enhanced performance in dense urban environments.

The EZ-GPS-G standard firmware is programmed to support GPS and Galileo simultaneously. This module has the ability to supports any two: GPS + GLONASS + Galileo significantly improve on performance and GPS sensitivity.

The ISM333 is suitable for a wide range of target applications, including the most compact:
- Portable Devices
- Asset Tracking / Personal Safety
- Sport Cameras / Equipment
- Navigation devices
- Fleet management
- Asset tracking

The ISM3333's world class performance suits it to navigating urban canyons, as well as wide-open spaces.

DOC-DS-200278B

2 Part Number Detail Description

2.1 Ordering Information

Part Number	Description
EZ-GPS-G	4800 Baud UART with GPS and Glonass enabled. 1PPS output enabled 1 Hz update rate
EZ-GPS-GP	4800 Baud UART with GPS and Glonass enabled. 1PPS output enabled 1 Hz update rate – Includes PLastics

3 General Features

- Based on the MediaTek GPS
- Supports MediaTek SDK.
- Host interface: USB VCOM Por (FTDI 232HQ)
- Inputs +5 V
- -40 to +80 °C temperature range.
- Lead Free Design which is compliant with ROHS requirements.

3.1 Limitations

Inventek Systems products are not authorized for use in safety-critical applications (such as life support) where a failure of the Inventek Systems product would reasonably be expected to cause severe personal injury or death.

4 Complementary Documention

4.1 Inventek Systems

➢ USB Drivers : http://www.ftdichip.com/Drivers/VCP.htm
➢ Firmware - Standard Firmware C6.1
➢ Custom Firmware: Contact Inventek

DOC-DS-200278B

5 Specification

5.1 Module Architecture
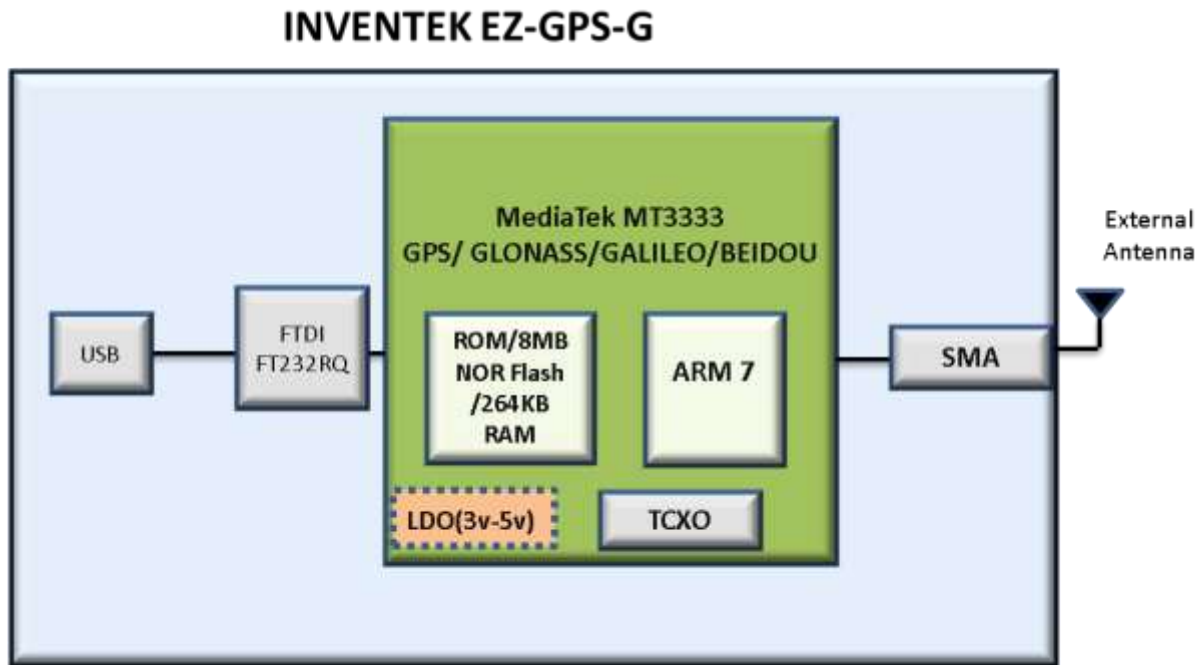
INVENTEK EZ-GPS-G

Figure 1 Inventek's EZ-GPS General Block Diagram

Note: 2. Standard Hardware and firmware is configured at 4800 Baud UART

5.2 External Antenna Connections

EZ-GPS-G module has an SMA Female connector on board for the antenna.

5.3 Environmental Specifications

Item	Description
Operating temperature range	-40 deg. C to +80 deg. C
Storage temperature range	-40 deg. C to +80 deg. C
Humidity	95% max non-condensing

5.4 EZ-GPS-G Host Interface

FTDI232 Virtual COM port (VCP) drivers cause the USB device to appear as an additional COM port available to the PC. Application software can access the USB device in the same way as it would access a standard COM port.

6   Product Compliance Considerations

RoHS: Restriction of Hazardous Substances (RoHS) directive has come into force since 1st July 2006 all electronic products sold in the EU must be free of hazardous materials, such as lead. Inventek is fully committed to being one of the first to introduce lead-free products while maintaining backwards compatibility and focusing on a continuously high level of product and manufacturing quality.

7   Packaging Information:

The module can be ordered with or without plastics.
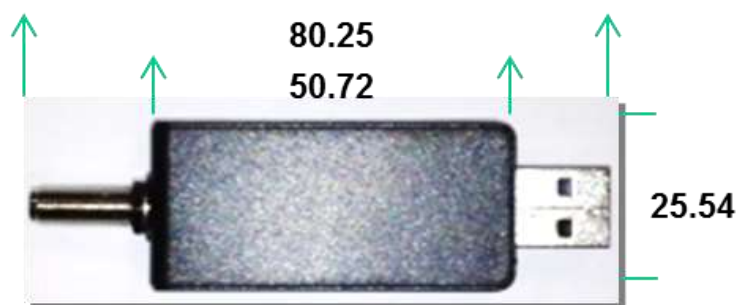
Scale: +/- 1.0 mm

8 Revision Control

Document EZ-GPS-G	GPS module
External Release	DOC-DS-200278B

Date	Author	Revision	Comment
5/18/2018	MFT	1.0	Preliminary

9 Contact Information

Inventek Systems
2 Republic Road
Billerica Ma, 01862
Tel: 978-667-1962
Sales@inventeksys.com

www.inventeksys.com