sparkfun

Export Restrictions

This product has some level of export control/restriction, so may be delayed by 2-3 business days when shipping outside the United States. Contact us with questions, or we will contact you after you place your order.

SparkFun Venus GPS with SMA Connector

GPS-11058 ROHS✔ ✿

★ ★ ★ ★ ☆ 3

Description: This is the latest version of our Venus GPS board; the smallest, most powerful, and most versatile GPS receiver we carry. It's based on the Venus638FLPx, the successor to the Venus634LPx. The Venus638FLPx outputs standard NMEA-0183 or SkyTraq Binary sentences at a default rate of 9600bps (adjustable to 115200bps), with update rates up to 20Hz! The Venus638FLPx also allows for limited on-chip logging (check out the firmware below), as well as external logging using a SPI flash memory chip (not included).

This board includes a SMA connector to attach an external antenna, headers for 3.3V serial data, NAV (lock) indication, Pulse-Per-Second output, and external Flash support. We've also provided solder jumpers to easily configure the power consumption, boot memory, and backup supply. This board requires a regulated 3.3V supply to operate; at full power the board uses up to 90mA, at reduced power it requires up to 60mA.

We've made it easy to connect an external battery or super capacitor to the board, to support very fast restarts after power is removed. There are even pads on the bottom of the board for the 0.2F supercap (not included but you can find it in the related items below), which will keep the board hot-startable for up to 7 hours without power!

Not sure which GPS module is right for you? Check out our GPS Buying Guide!

Note: We've broken out the pins for the Venus638FLPx's second serial port (RX1,TX1) and I2C interface (SDA,SCL). However, these ports are not used by the stock firmware. SkyTraq offers an SDK allowing the creation of customized firmware; contact them for details.

Features:

- Up to 20Hz update rate
- -148dBm cold start sensitivity
- -165dBm tracking sensitivity
- 29 second cold start TTFF
- 3.5 second TTFF with AGPS
- 1 second hot start
- 2.5m accuracy
- Multipath detection and suppression
- Jamming detection and mitigation
- SBAS (WAAS / EGNOS) support
- 67mW full power navigation
- Works directly with active or passive antenna
- Internal flash for optional 75K point data logging
- Supports external SPI flash memory data logging
- Complete receiver in 10mm x 10mm x 1.3mm size
- Contains LNA, SAW Filter, TCXO, RTC Xtal, LDO
- Single 2.7-3.3V supply

Dimensions: 1.15 x 0.7 inches