

Grove-GPS (Air530)

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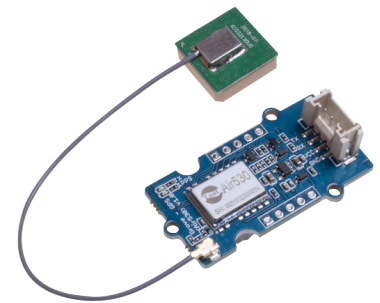
Product Overview

08/18/2022

For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

The Grove-GPS (Air530) from Seeed Studio is a high-performance, highly integrated multi-mode satellite positioning, and navigation module. The Grove-GPS (Air530) module comes with GPS (Air530) board and grove cable. This module supports GPS/Beidou/Glonass/Galileo/QZSS/SBAS which makes it suitable for GNSS positioning applications. The Grove-GPS (Air530) module is capable of receiving more than 6 satellites at the same time. This works quickly and accurately under the condition of a bad signal. The module features low power consumption at 31 μ A, compatible hard/soft interface for other modules, and positioning error within 10 meters.



The Grove-GPS (Air530) module adopts the integrated design of RF baseband, that integrates DC/DC, LDO, LNA, RF front-end, baseband processing, and 32-bit RISC-based chip. This module includes the Air530 TX indicator (blue LED), 1PPS indicator (green LED), Air530 module, grove interface, Air530 headers, and 3V button battery. The GPS (Air530) module operates at 3.3V/5V supply voltage and -35°C to 85°C temperature range. Typical applications include GPS trackers, GPS navigation, distance measurement, car navigation, and drone.

Features

- Positioning error within 10 meters
- Adopt the integrated design of RF baseband, that integrates:
 - DC/DC
 - Low Dropout (LDO)
 - Low-Noise Amplifier (LNA)
 - RF front-end
 - Baseband processing
 - 32-bit RISC-based chip
 - RAM
 - FLASH storage
 - Real-Time Clock (RTC)
 - Power management functions

Features

- Multi-mode satellite positioning and navigation module
- Supports more than 6 satellites at the same time
- Position still quickly and accurately under the condition of a bad signal
- Low power consumption at 31 μ A
- Compatible hard/soft interface for other modules

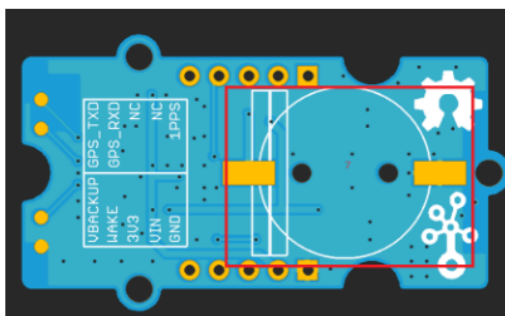
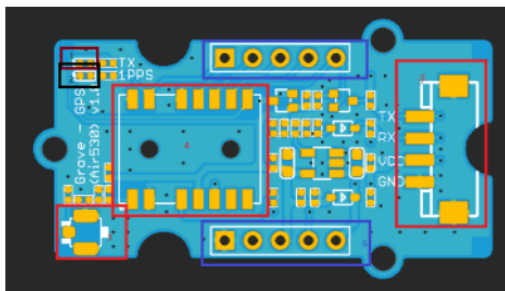
Specifications

- 3.3V/5V supply voltage
- Up to 60mA working current
- UART interface
- 4s time of warm start
- 30s time of cold boot
- 40mm x 20mm x 13mm dimensions
- -35°C to 85°C operating temperature range
- -55°C to 100°C storage temperature range

Applications

- GPS tracker
- GPS navigation
- Distance measurement
- Car navigation
- Drone

Pinout



1. AIR530 TX Indicator (BLUE LED);
2. 1PPS Indicator (GREEN LED);
3. U.FL Antenna Interface;
4. AIR530 Module;
5. Grove Interface;
6. AIR530 Headers;
7. 3V Button Battery (CR1220).

Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/seeed-studio/seeedstudio-grove-gps-air530-module/>