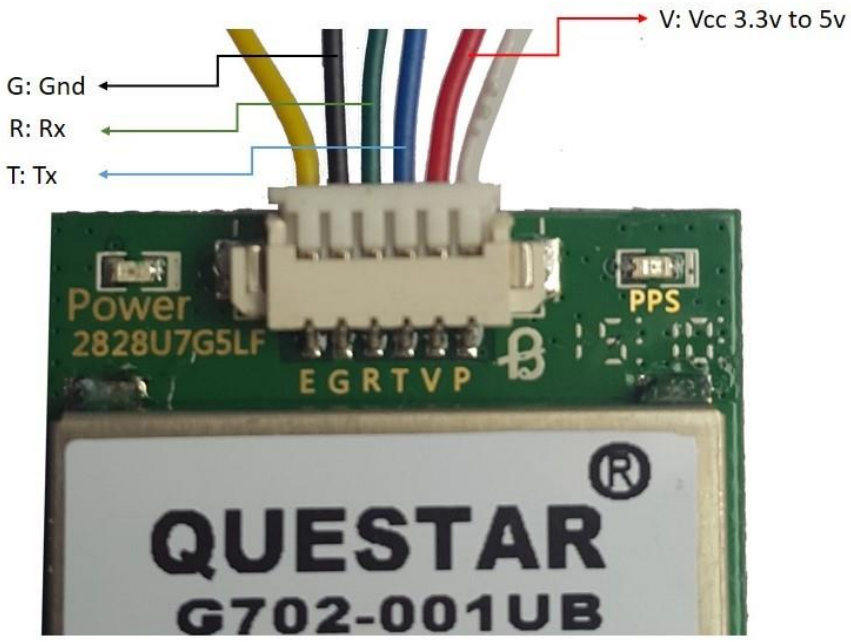
INTRODUCTION

The GPS QUESTAR TTL is a compact all-in-one GPS module solution intended for a broad range of Original Equipment Manufacturer (OEM) products, where fast and easy system integration and minimal development risk is required. The receiver continuously tracks all satellites in view and provides accurate satellite positioning data. The GPS QUESTAR TTL is optimized for applications requiring good performance, low cost, and maximum flexibility; suitable for a wide range of OEM configurations including handhelds, sensors, asset tracking, PDA-centric personal navigation system, and vehicle navigation products. Its 56 parallel channels and 4100 search bins provide fast satellite signal acquisition and short startup time. Acquisition sensitivity of –140dBm and tracking sensitivity of –162dBm offers good navigation performance even in urban canyons having limited sky view. Satellite-based augmentation systems, such as WAAS and EGNOS, are supported to yield improved accuracy. USB-level serial interface is provided on the interface connector. Supply voltage of 3.8V~5.0V is supported.

PIN CONFIGURATION

1. G: Power Ground;
2. R: serial port input, Arduino or USB to serial port TXD;
3. T: serial port output, Arduino or USB to serial port RXD;
4. V: 3.3 to 5v power supply;



FEATURES

- Model : QUESTAR
- Based on u-Blox chip : UBX-G6010-ST
- C / A code 1.023MHz code stream
- Receive bands : L1 [1575.42 MHz]
- Tracking channels : 50
- Support DGPS [WAAS, EGNOS and MSAS]
- Positioning performance
    - 2D plane : 5m [average]
    - 2D plane : 3.5m [average], DGPS auxiliary.
- Drift : <0.02m / s
- Timing accuracy : 1us
- Reference coordinate system: WGS-84
- Maximum Altitude :18,000 m
- Maximum speed : 500 m / s
- Acceleration : <4g
- Electrical properties:
- Tracking Sensitivity :-162dBm
- Acquisition sensitivity :-146dBm
- Cold start time : 32s [average]
- Warm start : 32s [average]
- Hot start time : 1s [average]
- Recapture Time : 0.1s [average]
- Operating temperature :-30 Degree to 80 Degree
- Package size :28 * 28 * 8.4mm;
- Line length 2m

ADVANTAGES:

- Data Rate: 9600 bps (default) [Optional: 1200,2400,4800,19200,38400,57600,115200,230400,460800,921600]
- Output statement: NMEA 0183 V3.0 (GGA, GSA, GSV, RMC, VTG, GLL) protocol data can be arbitrarily set match.
- Data refresh rate: 1Hz-5Hz refresh rate.
- PPS indicator: Do not position before the light is on or off; positioning flashes.
- AGPS: Support independent auxiliary positioning system.
- Enable control: support external IO trigger the switching state of the control module.
- Satellite quality control: a rich set of satellite quality control and prevent elegant software settings.
- Scenarios: from the walking mode – Car mode – static mode – portable mode – airborne mode and 2D & 3D locate the user can freely set.

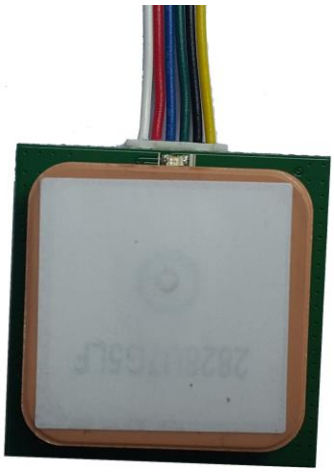
TECHNICAL SPECIFICATIONS:

- Industry-standard 25 * 25 * 4MM high sensitivity GPS antenna
- UART / TTL 3.3V
- KDS 0.5ppm high-precision TCXO
- Built-in RTC crystal and picofarads capacitance faster hot start
- Built-in EEPROM, free rich configuration parameters
- 1Hz-5 Hz positioning update rate
- Support AssistNow Online and AssistNow Offline A-GPS services
- GPS, GALILEO, SBAS (WAAS, EGNOS, MSAS, GAGAN) hybrid engine
- Power Supply: 3.3V to 5v

APPLICATION

- Fleet Management/Asset Tracking
- LBS (location base service) and AVL system
- Security system
- Hand-held device for personal positioning and travel navigation

DEVICE IMAGE



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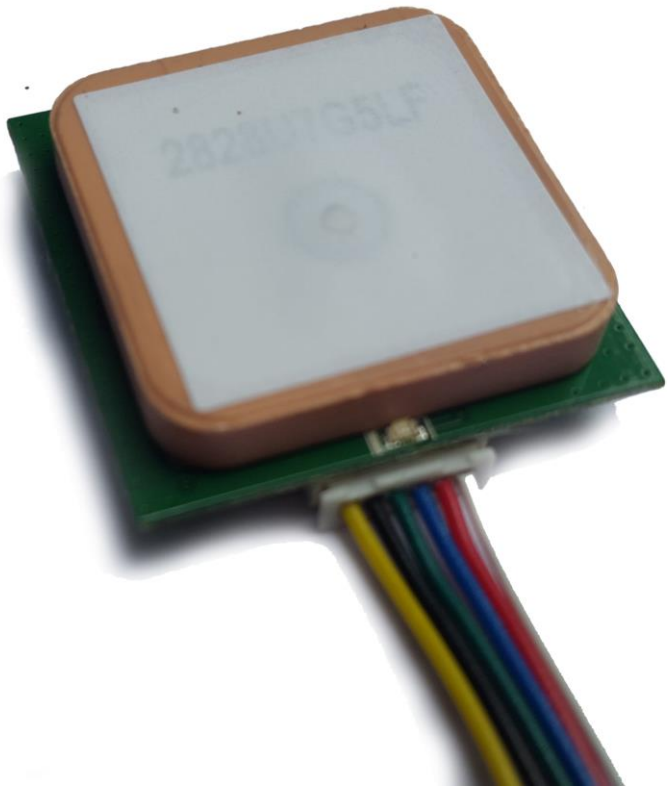


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