ADH Technology Co. Ltd.

SMART GPS Antenna Module

GP-2635

Mechanical Data 35*26*8.8mm

35*26*6.8mm

GNSS Smart Antenna Module

Overview

GP-2635 is an easy to use, ultra-high performance, low power GPS smart antenna module with patch antenna for AVL/handheld applications. The built-in u-blox7chip and our experienced design provide fast acquisitions and excellent tracking performance.

GP-2635 supports GPS/GLONASS option. In addition, italso supports RS232/TTL/USB options;the built-in battery could also be omitted if external backup power is preferred.

Applications

- Automatic vehicle location
- Driving recorder
- Fleet management
- Navigation
- GPS clock and digital camera
- Tracking

Features

Based on u-blox7 low power single chip

High performance: -161dBm+tracking sensitivity

- Low power: 37mA at continuous tracking(9 SVs)
- SBAS (WAAS, EGNOS, MSAS) support
- GPS/QZSS(default) / GLONASS support
- A-GPS support, OMA SUPL/3GPP TS25.171 (GSM/UMTS) compliant
- Backup battery support for faster position fix
  Linux/Android support
- Fully EMI shielded
- Industrial operating temperature range: -40℃ ~ 85℃

Technical Specifications

ReceiverPerformance Data

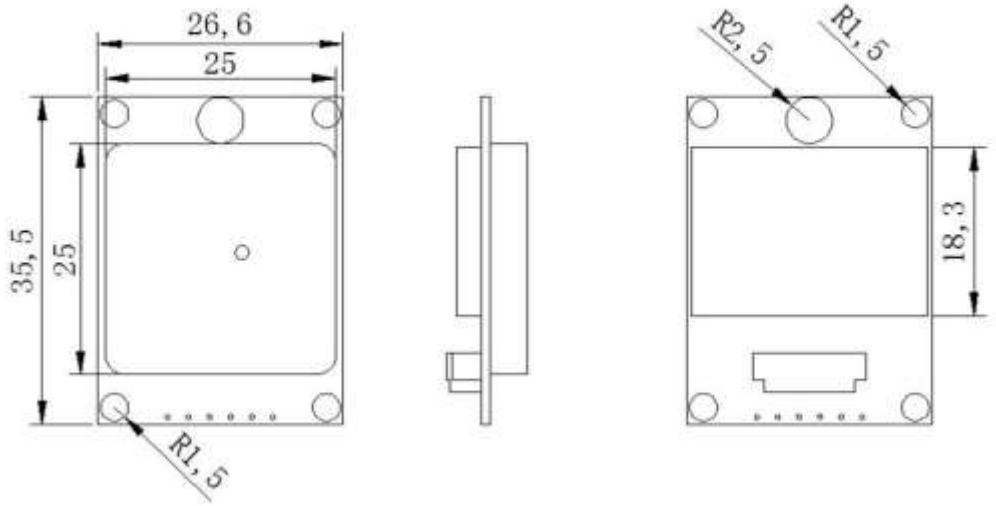
Receiver Type	56-channel GPS & QZSS:L1 C/A,1575.42MHz, GLONASS L1OF,1598.0625~1605.375MHz SBAS: WAAS, EGNOS, MSAS
Horizontal	2.5m (Autonomous)(GPS),4M(GLONASS)
Position	SBAS: 2.0m (GPS)
Accuracy	CEP, 50% 24hr static, -130dBm,
Velocity	0.1 m/s (speed)
Accuracy	<0.5(heading) (50%@30m/s)
Time Pulse	30ns (GPS) , 50ns (GLONASS)
Signal Accuracy	99%: 60ns (GPS), 100ns (GLONASS)
Time Pulse Frequency	0.25 Hz ~ 10 MHz
Time To First Fix **Hot start** **Warmstart** **Cold start**	Autonomous (All at -130dBm) (50% -130dBm) 1sec(GPS), 1sec (GLONASS) 28sec(GPS), 25sec (GLONASS) 30sec(GPS), 32 sec (GLONASS)
Sensitivity (Autonomous)	Acquisition:-147(GPS), -139 (GLONASS) Tracking:-161(GPS), -158 (GLONASS)
Update Rate	Default: 1Hz,
Max. Altitude	50,000 m
Max. Velocity	<500m/sec
Protocol Support	NMEA 0183 v2.3 and V4.x UART: 9600 bps N,8,1; GGA, GLL, GSA, GSV, RMC, VTG, TXT
SBAS Support	WAAS, EGNOS, MSAS
Dynamics	<40g

: according to GNSS IC spec

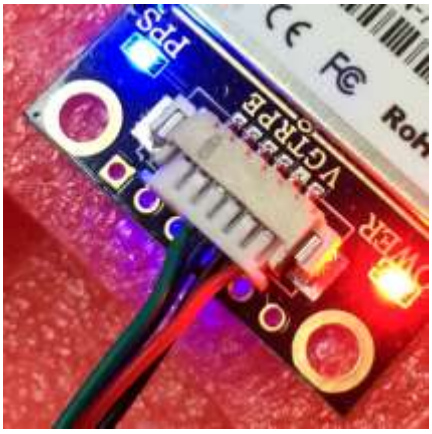
ElectricalData

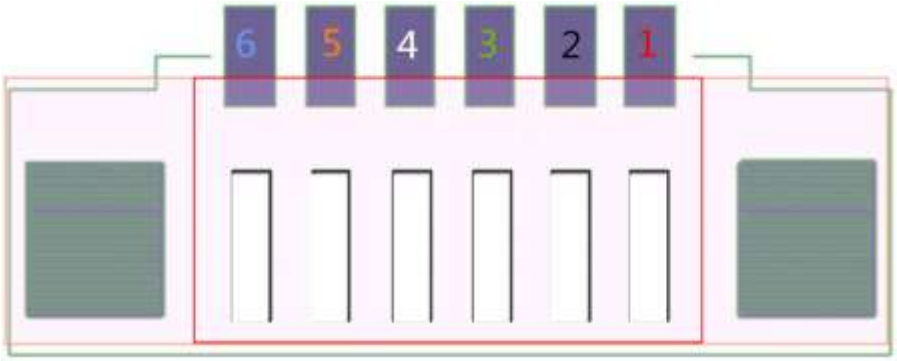
Power Supply	3.3 ~ 5.0 V
Power Consumption	37mA/average tracking (TTL)
Backup power	1.8 ~ 3.6 V
TTL I/O	VIH: 2.31~3.8V, VIL: 0~0.66V VOH:>=2.9V, VOL:4V
USB I/O	VIH: 2.0~3.3V, VIL: 0~0.8V VOH: >2.8V, VOL< 0.3V
Protocols	NMEA, u-blox Binary
Environmental Data	
Operating temperature	-40℃ ~ 85℃ except battery: -20℃~60℃
Storage temperature	-40℃ ~ 85℃except battery: -40℃~60℃
Vibration	5Hz to 500Hz, 5g
Shock	Half sine 30g/11ms

Dimensions:mm



6PIN definition:





PIN definition description	
1.VCC	VCC power supply voltage is 3.3V-5.4V
2.GND	Ground
3.TX	UART/TTL communication protocol (optional RS232_TXD)
4.RX	UART/TTL communication protocol (optional RS232_RXD
5.PPS	Time standard pulse output
6.EN	Power supply enable, high frequency / floating module operation, low frequency module off