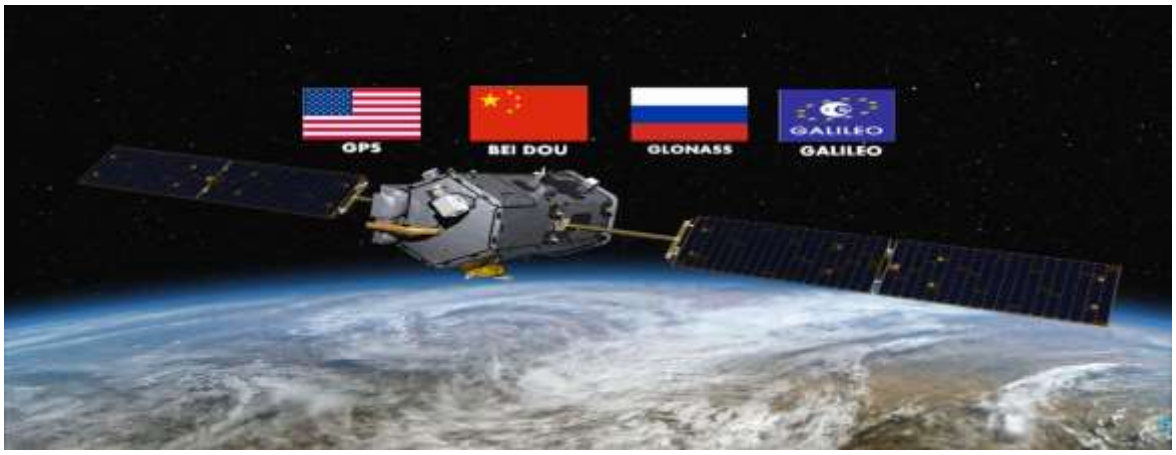


UAV GNSS RECEIVER

GPM-808G

(GPS/GLONASS/BEIDOU+QMC5883)

Dimensions :52*52*20.5 mm

Cable length: 30CM

sales@adh-tech.com.tw www.adh-tech.com.tw

Applications

- UAV positioning

• Features

- Multi-satellite positioning systems support

□GPS/QZSS/GLONASS (GPM-808G)

□GPS/QZSS/Beidou (GPM-808B)

- Based on u-blox8 low power single chip
- Sensitivity

□Acquisition: -148dBm

□Tracking: -167dBm

- Low power: 40mA at continuous tracking
- SBAS (WAAS, EGNOS, MSAS) support
- Higher update rate option (default 1Hz)
- RTCM 2.3 support
- A-GPS support, OMA SUPL/3GPP TS25.171 (GSM/UMTS) compliant
- Easy to use: built-in patch antenna & 6-pin wire to

board connector w/ pitch of 1.0mm

- Backup battery support for faster position fix
- Fully EMI shielded
- Industrial operating temperature range: -40 ~ 85

Default shipment: TTL protocol, 9600,1HZ, standard NMEA-0183 protocol output.
1.Optional 1 baud rate, 4800/9600/19200/38400/57600/115200.
2 .output protocol optional, NMEA-0183 or UBX.
3 .output frequency optional, 1HZ--10HZ output.
Power Supply:DC Voltage3.3V~5.5V,Typical:3.3V or 5.0V
Consumption:Capture 50mA
Receiving Format:GPS,GLONASS,BeiDou,QZSS and SBAS
Receiving Channel:72 Searching Channel
Receiving Sensitivity:Trace -167dBm
Capture-148dBm
Positioning Time:Cold Start:avg36s
Warm Start:avg25s
Hot Start:avg1s
Level Positioning Precison:2.5m At Open Wind
Output Frequency:1Hz-10Hz,Default 1Hz
Speed Precison:0.1 m/s (Without Aid)
Acceleration Precison:0.1 m/s (Without Aid)
Dynamic Characteristics:Max Height:18000m
Max Speed:5153m/s
Max Acceleration:4G
Support Rate:4800bps to 115200bps,Default9600dps

Working Temperature:-40-+8

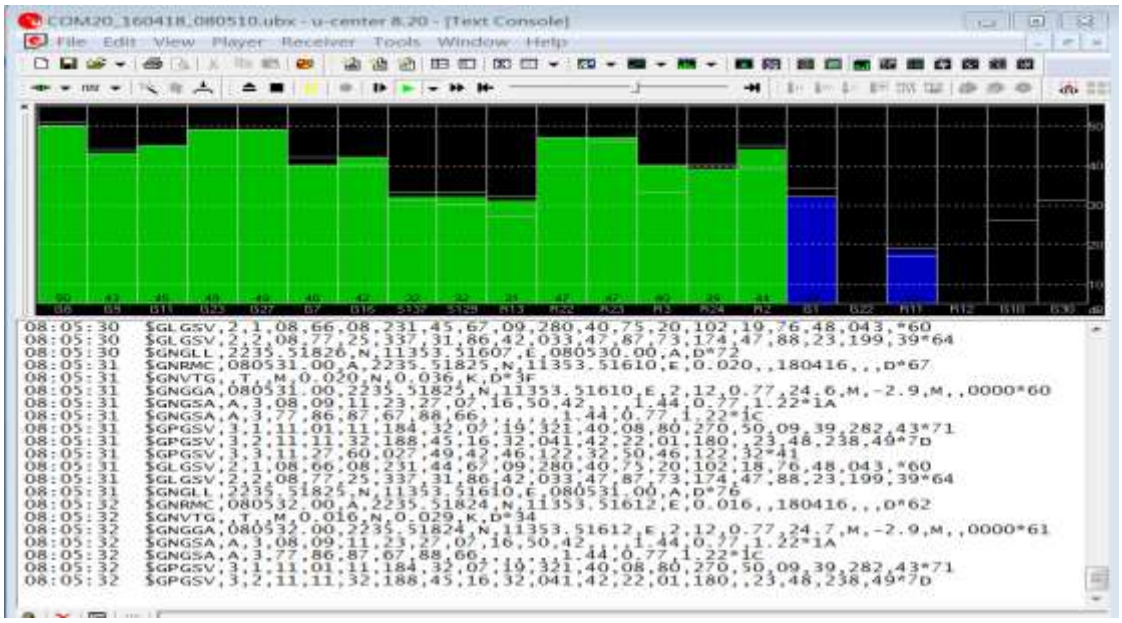
Technical Specifications

ReceiverPerformance Data

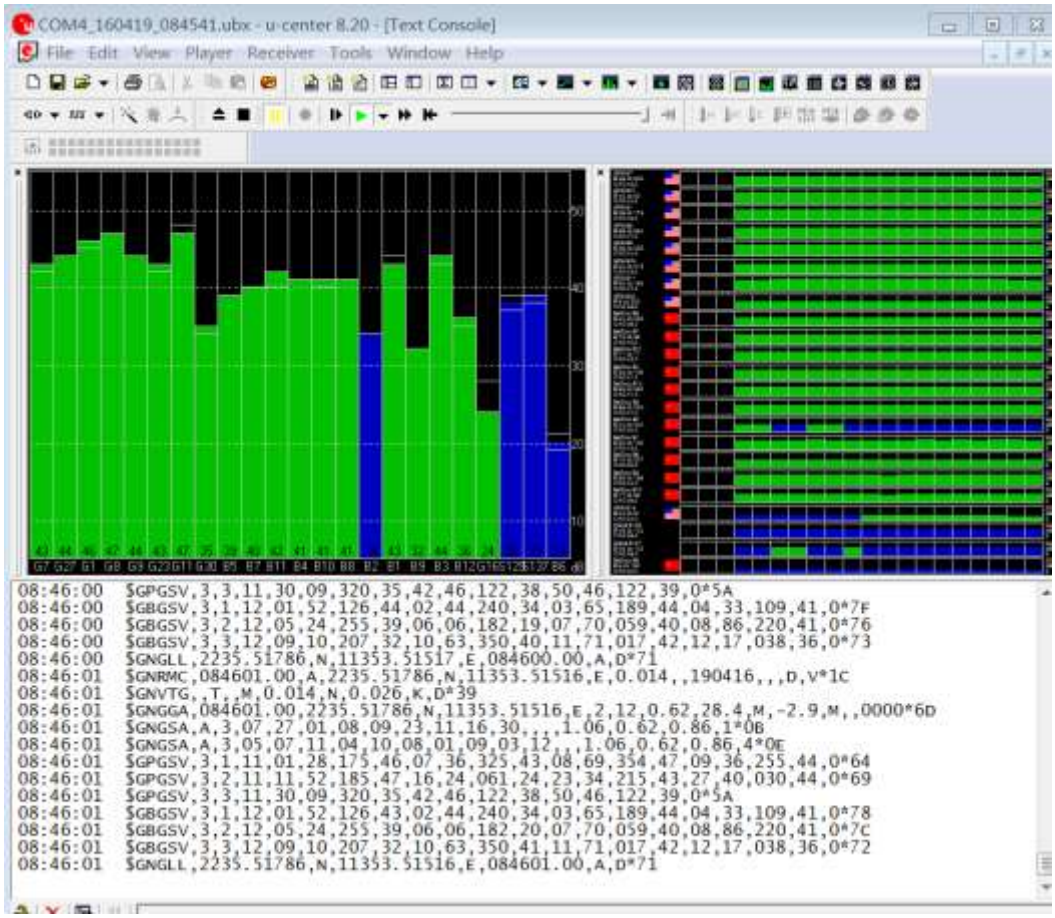
Receiver Type	72-channel u-blox 8 engine GPS & QZSS:L1 C/A,1575.42MHz, GLONASS (GPM-808G): L1OF, 1598.0625~1605.375MHz BEIDOU (GPM-808B): B1 1561.098 MHz SBAS: WAAS, EGNOS, MSAS
Horizontal	2.5m (Autonomous)
Position	2.0m (WAAS)
Accuracy	(including SBAS & QZSS; CEP, 50% 24hr static, -130dBm, >6 SVs)
Velocity	0.05 m/s (speed)
Accuracy	<0.3(heading) (50%@30m/s)
Time Pulse	30ns (RMS)
Signal Accuracy	<60ns (99%)
Time Pulse **Frequency**	0.25 Hz ~ 10 MHz
Time To First Fix **Hot start** **Cold start**	Autonomous 1.5 sec 26 sec (50% -130dBm)
Sensitivity **(Autonomous)**	-148dBm (acquisition) -167dBm (tracking)
Navigation. **Update Rate**	Max. 10Hz, GPS & GLONASS or GPS & Beidou Max. 18Hz, GPS only Default 1Hz
Max. Altitude	50,000 m
Max. Velocity	<1,852 km/hr
Protocol Support	NMEA 0183 v2.3 and V4.x UART: 9600bps N,8,1; GGA, GLL, GSA, GSV, RMC, VTG, TXT
SBAS Support	WAAS, EGNOS, MSAS
RTCM 2.3	Messages 1, 2, 3, 9
Dynamics	<4g

Shock	Half sine 30g/11ms

Test data(GPS+GLONASS):



Test data(GPS+BEI DOU):



QMC5883 Test Data:

PIN definition: