Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

UAV   GNSS   RECEIVER
GPM-808G
(GPS/GLONASS/BEIDOU+QMC5883)

Dimensions :52*52*20.5 mm

Cable length: 30CM

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
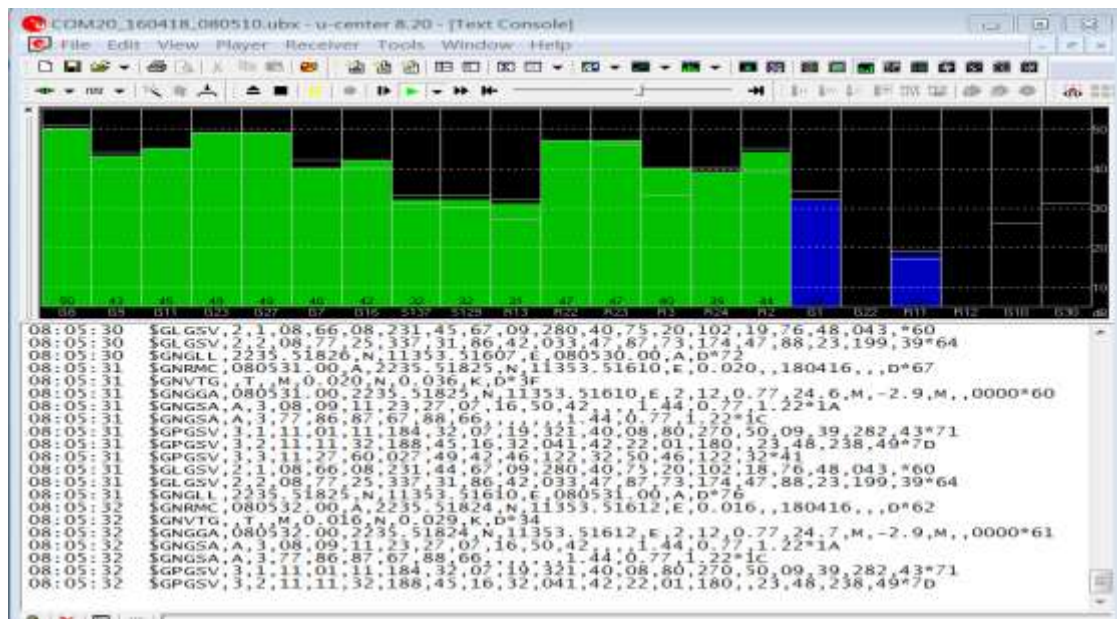
Technical Specifications

ReceiverPerformance Data

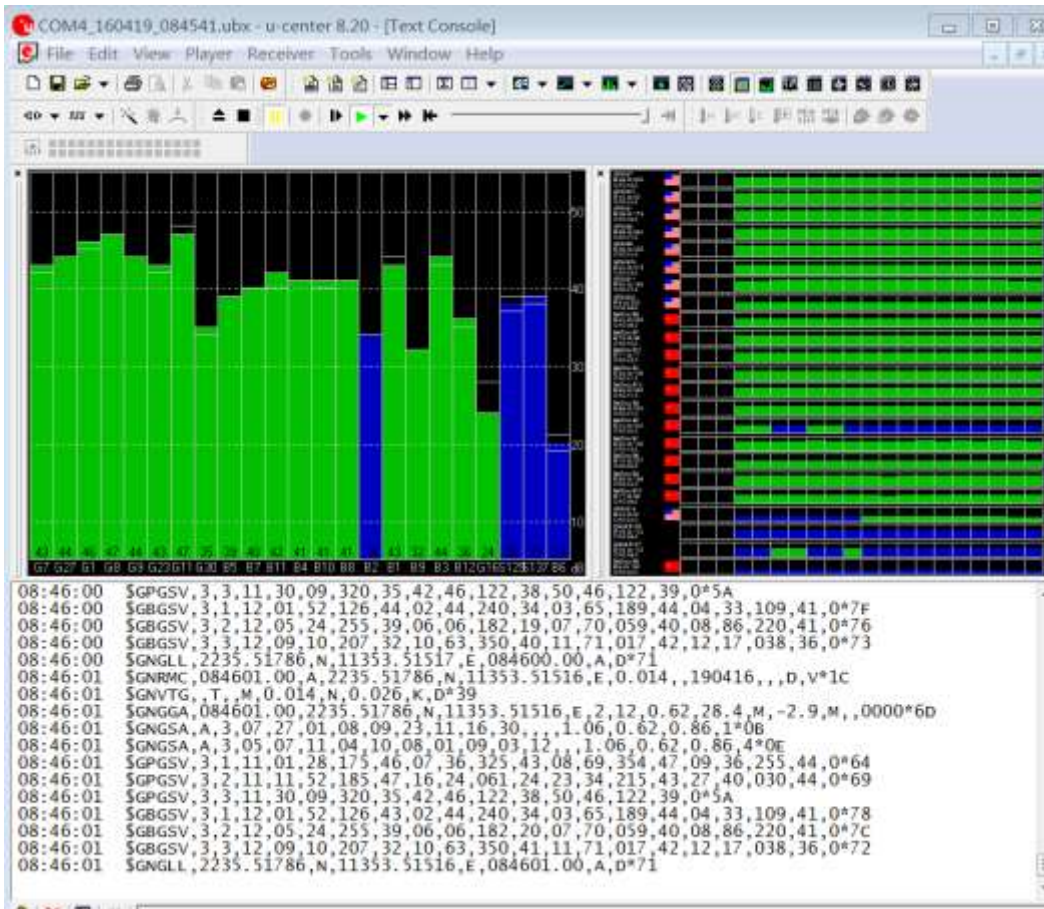|	
Receiver Type	72-channel u-blox 8 engine GPS & QZSS:L1 C/A,1575.42MHz, GLONASS (GPM-808G): L1OF, 1598.0625~1605.375MHz BEIDOU (GPM-808B): B1 1561.098 MHz SBAS: WAAS, EGNOS, MSAS
Horizontal	2.5m (Autonomous)
Position	2.0m (WAAS)
Accuracy	(including SBAS & QZSS; CEP, 50% 24hr static, -130dBm, >6 SVs)
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:

Connector PIN definition:

1.Connector 1: GND, VCC, SDA, SCL - black, red, blue(sda), yellow(scl)

Connector 2: TX, RX (white, green)

SCL SDA VCC GND

RX   TX