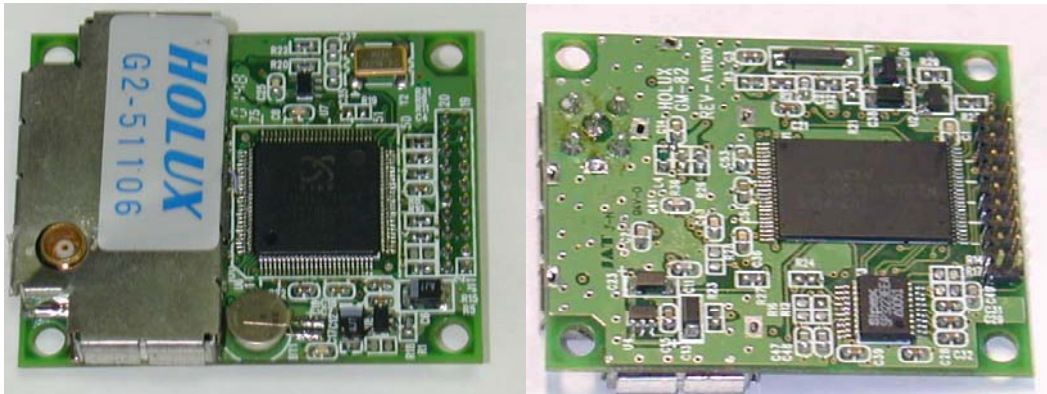


GM-82 GPS Receiver



■ Features

- SiRF Star II chipset with embedded ARM7TDMI CPU available for customized applications in firmware ◦
- 12 parallel satellite-tracking channels for fast acquisition and reacquisition ◦
- High speed signal acquisition using 1920 time/frequency search channels ◦
- Built-in WAAS/EGNOS Demodulator ◦
- Support U.S. Coast Guard DGPS beacon signal ◦
- Low power consumption with Advanced Trickle-Power and Push-To-Fix mode ◦ ◦
- Optional Rechargeable battery for memory and RTC backup and for fast Time to First Fix(TTFF) ◦
- Support NMEA0183 v2.2 data protocol and SiRF binary code ◦
- Enhanced algorithms -SnapLock and SnapStart provide superior navigation performance in urban, canyon and foliage environments ◦
- For Car Navigation , Marine Navigation ,Fleet Management ,AVL and Location-Based Services , Auto Pilot ,Personal Navigation or touring devices, Tracking devices/systems and Mapping devices application ◦

■ Specifications

Snap Start	< 3 sec (at < 25 minutes off period).
Hot Start	≅8 sec(typ).
Warm Start	≅38 sec(typ).
Cold Start	≅45 sec(typ).

Satellite Reacquisition Time Accuracy	100 ms
Channels	12
Position Accuracy	25m CEP without SA
Receiver	L1, C/A code
Protocol	NMEA V2.2, 4800, 8, N, 1 or SiRF Binary
Maximum Altitude	< 60,000 feet
Maximum Velocity	< 700 knots
Max. Update Rate	1 Hz
RF Connector	MCX or SMA
Dimension	40mm(L)x50mm(w)x7.6mm(H)
Weight	18g
Firmware Upgrade	Flash EPROM field programming software available
Time Mark	Output 1 pulse/sec, aligned with GPS time +/-0.1 usec
Operating Temperature	-40 °C to +80 °C
Storage Temperature	-45 °C to +100 °C
Operating Humidity	5% to 95%, No Condensing

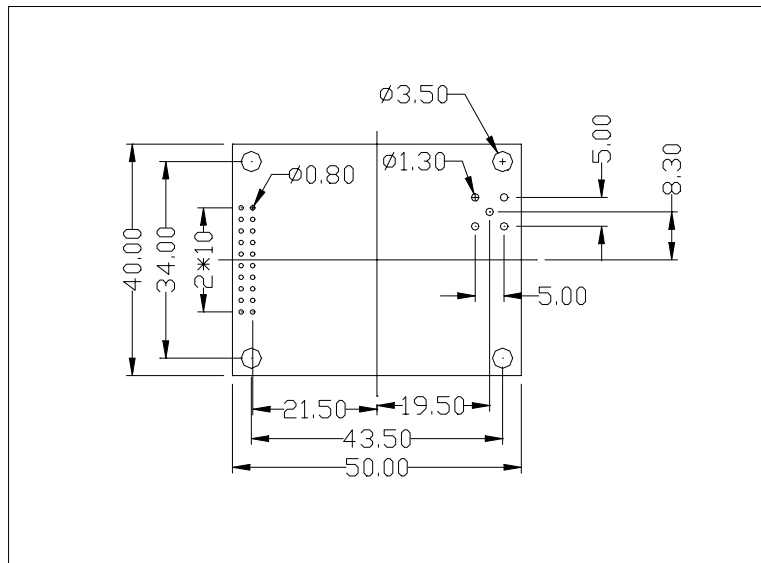
■ Electrical specifications :

- 5.0 +/-10%V DC input (0.8W @5.0V DC w/passive antenna) °
- 3.3 +/-10%V DC input(0.75W @3.3V DC w/passive antenna) °

■ Electrical Output specification :

- Interface
 - 1、 RS-232 °
 - 2、 CMOS TTL Level °
 - 3、 5 GPIO

- NMEA output protocol:
 Baud rate: 4800 bps
 Data bit: 8
 Parity: N
 Stop bit: 1
 Output format: GGA, GSA, GSV, MC.(VTG , GLL, RMS option)
- **Output terminal and definition**
 20 Pin header (2.0mm Pitch).



J1 connector pin definition:

Pin	Pin Name	Function description	Pin	Pin Name	Function description
1	NC	No function	11	TXA	Serial Data output A
2	VCC_5V	+5V DC power input	12	RXA	Serial Data input A
3	VBAT	Backup Battery (2.5–3.3V)	13	GND	Ground
4	NC	No function	14	TXB	Serial Data output B
5	PBRESEN	Reset input, Active low	15	RXB	Serial Data input B
6	GPIO1	General purpose I/O pin	16	GND	Ground
7	GPIO2	General purpose I/O pin	17	GPIO5	General purpose I/O pin
8	GPIO3	General purpose I/O pin	18	GND	Ground
9	GPIO4	General purpose I/O pin	19	TIMEMARK	1PPS Time mark output
10	GND	Ground	20	NC	No function

■ Products List

Model No.	Output Level	Back-up battery Type		Input Power	Power Saving	Connector Type	
	TTL or RS-232	Lithium	No	Volt.		MCX	SMA
GM-82-A0X-5	RS-232	Y	-	5	Y	Y	-
GM-82-A0X-3	RS-232	Y	-	3	Y	Y	-
GM-82-A0A-5	RS-232	Y	-	5	Y	-	Y
GM-82-A0A-3	RS-232	Y	-	3	Y	-	Y
GM-82-A1X-5	RS-232	-	Y	5	-	Y	-
GM-82-A1X-3	RS-232	-	Y	3	-	Y	-
GM-82-A1A-5	RS-232	-	Y	5	-	-	Y
GM-82-A1A-3	RS-232	-	Y	3	-	-	Y
GM-82-T0X-5	TTL	Y		5	Y	Y	-
GM-82-T0X-3	TTL	Y		3	Y	Y	-
GM-82-T0A-5	TTL	Y		5	Y	-	Y
GM-82-T0A-3	TTL	Y		3	Y	-	Y
GM-82-T1X-5	TTL	-	Y	5	-	Y	-
GM-82-T1X-3	TTL	-	Y	3	-	Y	-
GM-82-T1A-5	TTL	-	Y	5	-	-	Y
GM-82-T1A-3	TTL	-	Y	3	-	-	Y