

SGM5608 GPS RECEIVER

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PERFORMANCE

Position Accuracy		
Stand alone		10 m CEP
Differential ¹		1 m CEP
Time To First Fix		
Autonomous ²		90 s
Cold ³		45 s
Warm ⁴		2 s
Reacquisition ⁵		200 ms

MECHANICAL

Dimensions	
	80 mm x 40 mm x 9.4 mm
	3.15" x 1.57" x 0.37"
Weight	
	25 g, 0.06 lb

POWER

Input Voltage	4.0 to 5.5 VDC
Current Draw	145 mA (typical)
Antenna Supply Voltage	5.0 VDC, 50 mA (max.)

ENVIRONMENT

Temperature	
Operating	-40°C to +85°C
Storage	-60°C to +100°C
Humidity	
	95% max. (non-condensing)
Dynamics, Velocity⁶	
	514 m/s

COMMUNICATIONS

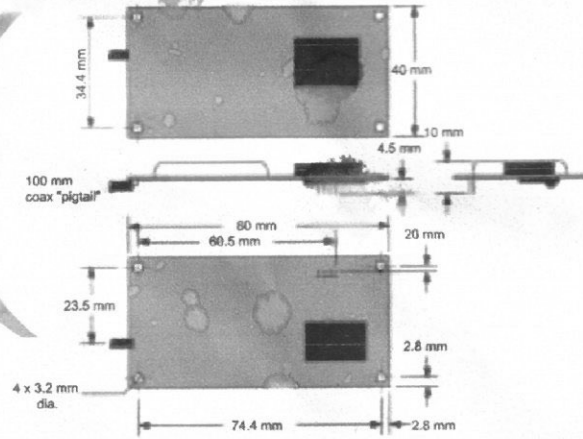
Message Output	
Update Rate	1 Hz
NMEA Messages	GGA, GSA, GSV, RMC, VTG
NMEA Output Rate	4800 baud
Level	TTL level 3.3 V (5 V optional)

CONNECTORS

Data/Power	(H2) 5 x 2 down-facing header 1.27 mm spacing (row and column)
Antenna	3" coaxial cable with SMA bulkhead jack (other connectors available)

- Assumes a benign multipath environment and differential corrections once per second.
- The receiver has no estimate of time/date/position, and no recent almanac.
- The receiver has estimates of time/date/position and almanac.
- The receiver has estimates of time/date/position and valid almanac and ephemeris data.
- The receiver's calibrated clock is not stopped, thus it knows precise time (to the µs level).
- US DoD export licensing restricts operational velocity and height to 1,000 knots and 60,000 feet respectively.

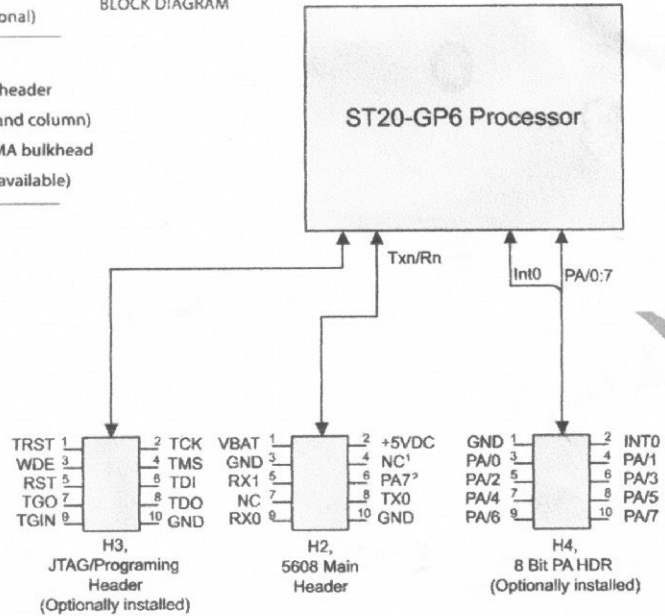
MECHANICAL DRAWING



CONNECTOR PIN ASSIGNMENTS (H2)

Pin	Name	Function
1	VBAT	Backup battery (>1.4 VDC)
2	5V IN	Power in, 5 VDC ± 5%
3	GND	Digital ground
4	Tx1	Optionally installed
5	Rx1	RTCM input (TTL) 3.3 V level
6	PA7	1 PPS
7	NC	No connection
8	RTx0	TTL level NMEA output
9	RRx0	TTL level NMEA input
10	GND	Digital ground

BLOCK DIAGRAM



- TX1 can be optionally installed.
- 1 PPM is available.

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Part 460-5608-000

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 Here & Now