

## GPS Receiver Module SGPS12

- GPS L1 Frequency C/A Code Receiver
- Built-in Trimble Silvana Antenna Companion Module with CONDOR GPS Receiver
- NMEA output and Input
- SBAS (WAAS, EGNOS, MSAS) capable
- aGPS Capable
- Update Rate up to 5 Hz
- Automotive grade voltage regulator, 9-32V input with reverse polarity protection
- PPS Signal Out with LED Indicator
- RS232 or USB serial interface with LED Indicators
- Internal Antenna – auto switches to external antenna if connected
- Antenna Fault indicator



### Silvana Antenna Companion Module

- Single board housing Condor C1919 GPS receiver
- Optimized RF circuitry
- Optimally matched and tuned onboard antenna
- NMEA Messages GGA, VTG, GSA, GSV, ZDA and RMC
- External Reset input

### Condor GPS Module Performance Characteristics

GPS performance statistics are clear view, stationary, autonomous (no aiding), 50% figures. Sensitivity based on signals measured at the antenna.

▪ Update Rate	1 Hz (default), up to 5 Hz
▪ Accuracy <ul style="list-style-type: none"> <li>○ Position</li> <li>○ Altitude</li> <li>○ PPS</li> </ul>	2 m <3 m ±25 ns
▪ Acquisition <ul style="list-style-type: none"> <li>○ Re-Acquisition</li> <li>○ Hot Start</li> <li>○ Warm Start</li> <li>○ Cold Start</li> </ul>	<2 s <2 s 35 s 38 s
▪ Sensitivity <ul style="list-style-type: none"> <li>○ Tracking</li> <li>○ Acquisition</li> </ul>	-160 dBm -146 dBm
▪ Dynamics <ul style="list-style-type: none"> <li>○ Acceleration</li> <li>○ Velocity</li> </ul>	2 g 515 m/s (COCOM Limit)

<p><b>Power Requirements</b></p> <ul style="list-style-type: none"> <li>• Input Voltage</li> <li>• Power Consumption</li> <li>• Standby Consumption</li> </ul> <p><b>Environmental Specifications</b></p> <ul style="list-style-type: none"> <li>• Temperature</li> <li>• Storage Temperature</li> <li>• Humidity</li> <li>• Vibration</li> </ul> <p><b>Dimensions</b></p>	<p>+ 9 to 32 Volts dc via DB9 Connector &lt;100 mA @ 3.3 Vdc &lt;50 uA typical @ 20°C</p> <p>Operating from -40 to +85 deg C -55 to +105 deg C Operating from 5% to 95% R.H. non-condensing @ 60 deg C 0.008 g2/Hz 5 Hz to 20 Hz 0.05 g2/Hz 20 Hz to 100 Hz</p> <p>118 mm x 68 mm x 24 mm</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### DB9 Connector

PIN	Description	PIN	Description
1	V in (9 to 32 Vdc)	2	RX Data In
3	TX Data Out	4	RESET In
5	Ground	6	PPS Out (RS 232 Level)
7	Looped to PIN 8 (RTS to CTS)	8	Looped to PIN 7 (RTS to CTS)
9	PPS Square Wave Output		

### USB Connector

- Mini USB Type AB