Trimble Embedded GPS Receiver Connection Reference

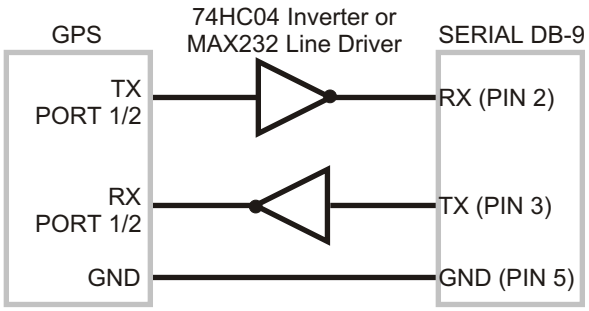
TRIMBLE ACE

GND - 8 7 - RX Port 2
PPS (pulse per second) - 6 5 - RX Port 1
Battery Backup - 4 3 - TX Port 1
VCC - 2 1 - TX Port 2

Power Requirements:
+5V @ 200mA VCC (RF and Processor Power)
+3-5V @ 50uA Battery Backup (Memory Power)
(3V Lithium battery recommended CR2325 or similar)

Communications Input/Output:
Port 1 - TSIP 9600-8-N-1* - LOGIC LEVEL (0-5V)
Port 2 - NMEA 4800-7-E-1* - LOGIC LEVEL (0-5V)
(* indicates default, true setting is user configureable)

Serial Port Connection Example



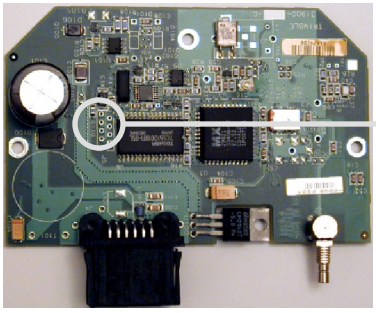
NOTES

1. Time from cold start (no battery backup, no knowledge of current time/approx. position) to first position output is about three minutes. Warm start (have battery backup and current data) takes about 30-60seconds from turn-on. Hot start (after temporary loss of signal, ie. antenna obscured) takes 5-15 seconds.

2. Battery backup is required to keep last position, time, and satellite ephemeris (orbit) data in memory. The loss of battery backup will require the receiver to cold start.

3. After connecting power and a serial port connection to the receiver, use TSIPCHAT (DOS) or TSIPmonitor (Windows) to verify receiver operation. NOTE - both programs rely on the user to specify the baud rate and parity, data bits, etc if the receiver is not set to default settings. If your GPS receiver is sending data (you can see it on an oscilloscope or port analyzer) but TSIPCHAT/mon do not report anything, it is likely that your parity or data bit configuration does not match that of the receiver.

TRIMBLE AUTOMOTIVE SK-8



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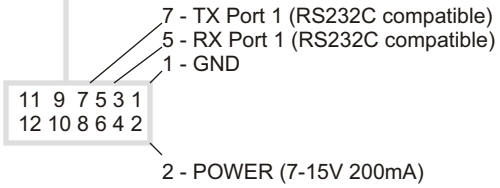
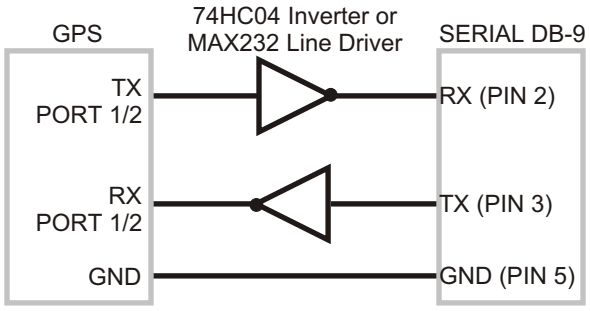


Power Requirements:
+5V VCC *or* +7-15V @ 200mA POWER (RF/Processor Power)
+3-5V @ 50uA Battery Backup (Memory Power)
(3V Lithium battery recommended CR2325 or similar)

Communications Input/Output:
Port 1 - TSIP 9600-8-N-1*
Port 2 - NMEA 4800-7-E-1*
(* indicates default, true setting is user configureable)

Serial Port Connection From 8-Pin Conn



Serial Port Connection From 12-Pin Conn