

## GPS COMPASS MODULE



The Navtech NTS-HS1 GPS Compass provides TRUE heading from the GPS satellites. By simultaneous and coincident constellation tracking, two receivers with common processing derive the local GPS position, differential GPS corrections and heading with respect to True (geographic) North.

By using high precision differential carrier phase measurements heading accuracies to better than 0.5 degrees can be achieved with antennas separated on a 1-meter base line.

For dynamic applications tilt and turn rate sensing (gyro) aiding is included, configured by user commands. A robust and comprehensive user interface with an isolated dc/dc power converter, RF signal path processing and dual port RS232 drivers provides a versatile heading sensor for a variety of applications that is not affected by magnetic deviation influences or variation offsets.

The user interface also provides filtered and current limited antenna power for the GPS antennas.

### Interface Specification

GPS antennas	Separation 0.4 to 1 meter base line
Connections	Antennas – TNC, Power Mil 3 pin, Data Mil 6 pin
Power	9 to 16 volts dc (0.25 Amps max)
Interface	Port A RS232 configurable baud rate (default 19,200) Port B RS232 configurable baud rate (default 19,200) Each port can output NMEA Messages \$GPGGA, VTG, ZDA, RMC, GSV & \$HEHDT,\$HEROT + Binary data – all configurable to user requirement.

### Connectivity

Port A & B - 7 Pin Mil socket

A:	+dc supply input
B:	Tx - Port A
C:	Rx - Port A
D:	Common (data)
E:	Tx Port B
F:	Rx Port B
G:	Power return (-ve)

Power – 3 pin Mil plug

A.	+dc supply input
B.	Power return (-ve)
C:	Case

### Indicators

Left to right:-

**Red** = Power on;      **Yellow** = Diff GPS;      **Orange** = Heading Acquired;      **Green** = 1 PPS.



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