



Sierra TrueNav Pro



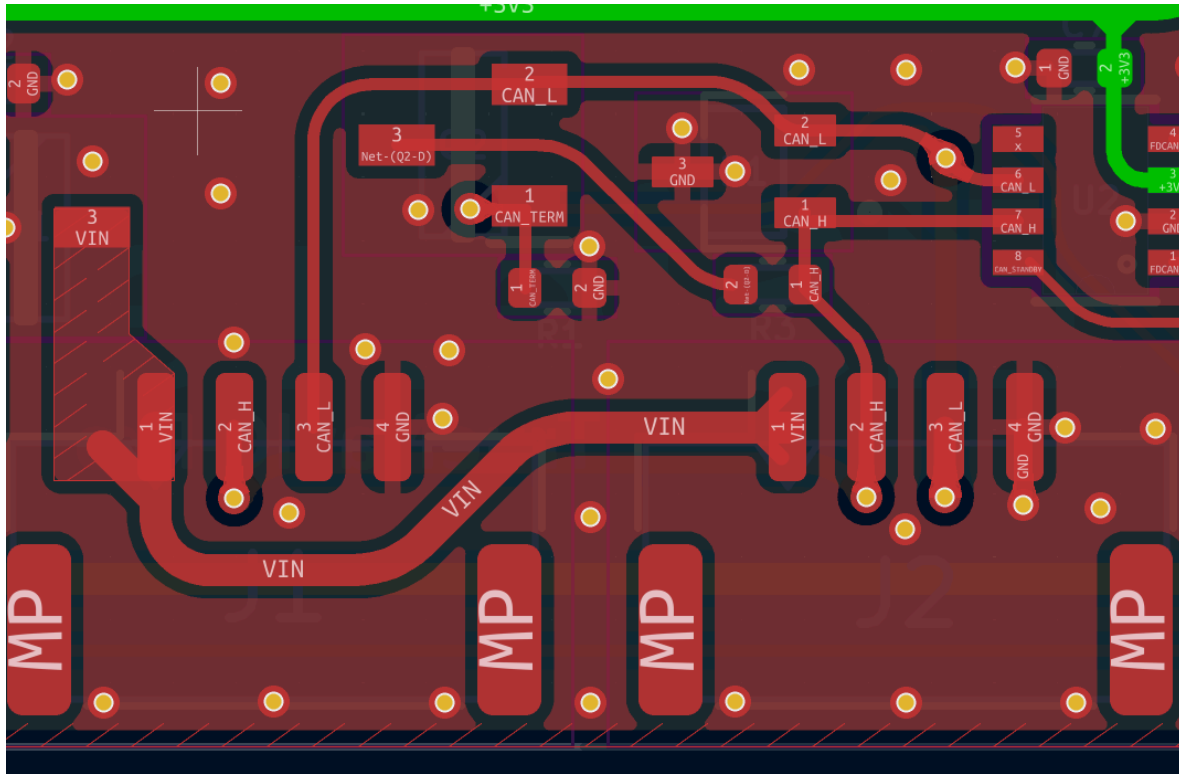
Sierra TrueNav Pro is a Standard Precision L1 band Navigation module with 4 concurrent GNSS constellation reception. Communicates to any host device via CANBus and can daisy-chain seamlessly. Integrated with industrial grade RM3100 magnetometer with no drift, precise magnetic field measurements and high accuracy DPS310 barometer.

TrueNavIC adds L5 band support with NavIC support and replaces RM3100 with HMC5883L magnetometer.

Features include,

- Ultra low power consumption Cortex®-M4 core with floating point unit
- Ublox M9N with RF front-end design
- Industrial PNI Corp RM3100 Magnetometer
- DPS310 Barometer
- UAVCAN/DroneCAN communication protocol
- Horizontal accuracy down to 0.75m
- Optimized ground plane with LNA and SAW filters
- Weight: 19g, Dimension: 50x47mm
- Max. Power consumption: 5V, 100mA max
- Operating temperature: -20°C to +85°C (Barometer vent needs to be taken care for moisture and icing)
- 2x GPIO with individual timers available for UART, PWM, Relay etc.
- EMI shielding on LDO and RF components of GPS

Interface:



1. CAN ports: J2=CAN 1.1 & J1=CAN 1.2

Note: Follows exact pinouts as Pixhawk Cube/ Pixhawk standards

Pin	Signal	Volt
1 (red)	VCC	+5V
2 (blk)	CAN_H	CAN high
3 (blk)	CAN_L	CAN low
4 (blk)	GND	GND

2. CAN termination via GPIO

GPS test results: Satellites count: 30

Average HDOP: 0.52

Average Horizontal accuracy (HAcc): average 0.57m

Average Vertical accuracy (VAcc): average 0.96m

