

# FieldBee L1 receiver Datasheet



**FieldBee** is integrated GNSS RTK L1 receiver and antenna in a single rugged housing. With accuracy from 50 cm to 4 cm. Compatible with NMEA-0183, RTCM 3.x and SkyTraq protocols

## Benefits :

- Multi Constellation type: GPS+Glonass+SBAS;
- Fast RTK Convergence Time;
- Wireless interfaces LoRa/WiFi/Bluetooth;
- Interface RS232;
- Regular Upgrades.

## GNSS :

- Centimeter-level accuracy RTK receiver;
- Multi Constellation types;
- L1 C/A code, 167 channels GNSS engine;
- GPS L1 + GLONASS + QZSS + SBAS;
- Carrier Phase RTK processing;
- Update Rate
  - RTK 2.5 cm accuracy (Hz) 1 - 10 Hz
  - DGPS <1m accuracy (Hz) 1 - 20 Hz
- Min. velocity: 0.1 m/sec;
- TPV output: NMEA-0183 V3.01
  - GPGGA, GPGLL, GPGSA, GLGSA, GPGSV, GLGSV, GPVTG, GPRMC
- Datum WGS-84;
- Correction input: RTCM 3.0, 3.1, SkyTraq raw data binary.

## Precision :

- 2.5m CEP autonomous mode;
- Submeter accuracy - DGPS mode;
- Decimeter accuracy - Float RTK mode;
- Centimeter accuracy - RTK mode;
- 1 second to First 3D Fix - hot start under open sky (average);
- 60 sec..15 min to first RTK Fix\*;
- 28 seconds - warm|cold start under open sky (average);

- 90 seconds to 1st ambiguity fixed solution at 7Km baseline;
- Reacquisition 1s.

## Mechanical :



- 150mm X 75mm 200g;
- Operating temperature -20.. +85 C;
- RoHS compliant;
- IP 67.

## Power :

- 12v-40v, 230mW low power consumption;
- 16 h autonomous work;
- Replaceable battery.

## Interfaces :

- Wireless interfaces
  - LoRa 868/915 Mhz 2.5km open air;
  - WiFi 2.4Ghz;
  - Bluetooth 2.1 SPP;
- Interface RS232 (115200).

## Applications :

- Tractor guidance;
- Autosteer;
- Soil sampling;
- Scouting;
- Mapping.