

## GNSS X5 Mobile Pro RTK

*The high precision external GNSS antenna receiver that works with your Android smartphone or tablet. The perfect solution for entry-level and field experienced professional users with RTK+PPK+NTRIP corrections.*



### Description

The X5 Mobile Pro is a high-precision GNSS receiver that operates connected to an Android smartphone or tablet and features an RTK correction system that receives data via LoRa.

### Main Advantages:

- Multi-band RTK (433MHz and 915MHz frequencies available), PPK and NTRIP corrections with fast convergence times and robust performance, offers centimeter-level accuracy with a Fix solution in seconds
- Uses the same GNSS L1/L2/e5 technology found in professional receivers with state-of-the-art components
- Simultaneous reception of all constellations: GPS, GLONASS, GALILEO and BEIDOU
- Includes its own multi-band helical GNSS and LoRa antennas
- Data transfer connection via USB port and Bluetooth
- Compatible with GIS and Photogrammetry Applications that operate with NMEA data
- It has a red point Laser for easy location of the points to be georeferenced on the field
- Rugged plastic enclosure

## X5 Mobile Pro Components:

- GNSS X5 Mobile Pro unit
- HeliX5 multi-band GNSS antenna
- LoRa 433 MHz or 915 MHz antenna (Frequency selected by client)
- Rover pole Adapter with 5/8" thread
- USB Type-C cable for power supply



Image: X5 Mobile components

## Compatible Android apps:

- SW Maps
- FieldGenius
- Survey Master
- Mapit GIS / Mapit NTRIP Client
- YCServer NTRIP Client
- RTK camera (Photogrammetry)
- ...and other Apps and Software that use or accept NMEA data via Bluetooth or Serial USB

## 1. SPECIFICATIONS

Mechanical	<ul style="list-style-type: none"><li>● Dimensions: 85 × 40 × 13 mm (without antenna)</li><li>● Weight: 80g</li><li>● Operation temperature: -40 to 85 °C</li><li>● Enclosed Design</li></ul>
Electrical	<ul style="list-style-type: none"><li>● Input voltage: 4.75 – 5.5 V, ≥ 5.0 V ensures output power</li><li>● Antenna DC bias: 3.3 V</li><li>● Peak current consumption: 5V @ 250 mA</li><li>● Average current consumption: 5V @ 120 mA</li><li>● Current limit on USB cable: 500 mA</li></ul>
Connectivity	<ul style="list-style-type: none"><li>● Bluetooth V4.2 BR/EDR</li><li>● USB Serial</li></ul>
GNSS	<ul style="list-style-type: none"><li>● Concurrent reception of GPS, GLONASS, Galileo and BeiDou</li><li>● Receives both L1C/A and L2C bands</li><li>● Signal tracked GPS/QZSS L1 C/A, L2 GLONASS L1OF, L2 BeiDou B1I, B2I Galileo E1-B/C, E5b</li><li>● Number of channels 184</li><li>● Navigation update rate: 1 Hz GNSS</li><li>● Position accuracy: NTRIP 0.01 m + 1 ppm CEP</li><li>● Convergence time: NTRIP &lt; 10 sec</li><li>● Time to First Fix: 25s (cold), 2s (hot)</li><li>● Max Altitude: 50 km (31 miles)</li><li>● Max Velocity: 500 m/s (1118 mph)</li></ul>
Radio configuration	<ul style="list-style-type: none"><li>● Global license-free ISM 433MHz or 915MHz band</li><li>● Air rate: 19.2 kbps (default)</li><li>● Transmission power: 30 dBm (default)</li><li>● Antenna gain: 5 dBi</li><li>● Max distance: 10 km, in clear open area and line of sight</li></ul>

## 2. PORTS DESCRIPTION

USB-C	<ul style="list-style-type: none"><li>● Powering the device</li></ul>
Antenna Connector	<ul style="list-style-type: none"><li>● SMA connector for 433MHz/915MHz LoRa antenna</li><li>● MCX connector for GNSS antenna</li></ul>

### 3. LEDS DESCRIPTION

RF LED	<ul style="list-style-type: none"><li>● Blinking: Transmitting or receiving data with LoRa (Rx/Tx)</li></ul>
BT LED	<ul style="list-style-type: none"><li>● Blinking: Waiting for Bluetooth connection</li><li>● Solid: Bluetooth connected</li></ul>

### 4. OPERATION MODES

The device includes a switch for the different operation modes:

Configuration	<ul style="list-style-type: none"><li>● To change LoRa parameters with the executable application</li></ul>
Transmission	<ul style="list-style-type: none"><li>● To receive the corrections from the Base Station</li></ul>