

X5 RT

MULTIBANDA

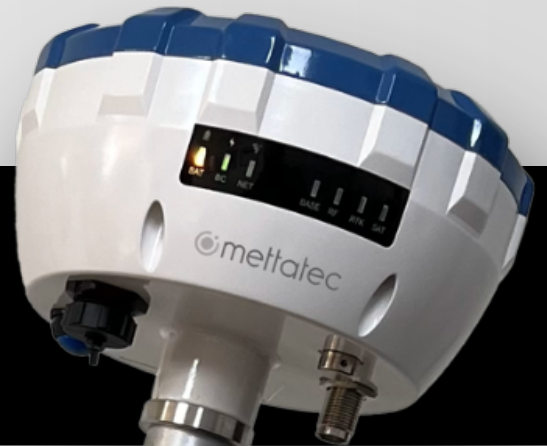
PPK + RTK + NTRIP modes

RTK GNSS receiver
with IMU tilt
compensation

Get fixes from a Mettatec or third-party
CORS Network.

You can also connect another GNSS
receiver as an NTRIP base using the
Mettatec Caster.

SCAN
ME



WHY IS **IMU SENSOR** IMPORTANT IN SURVEYING?

IMU-based tilt compensation on the X5RT allows you to take measurements with up to 25° of tilt.

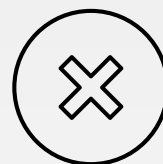
Tilt compensation:

IMUs are important for determining position in inaccessible areas.



Get accurate and reliable measurements in a variety of conditions and environments.

Bug fixes:



IMUs correct positioning errors caused by unwanted movements, improving the accuracy of topographic measurements.

RTK +/- 3mm horizontal / 25° RTK
+/- 6mm vertical / 25°



MULTI-BAND AND MULTI-CONSTELLATION GNSS

All constellations:

- GPS
- GLONASS
- GALILEO
- BEIDOU



Get a GNSS Fix solution in seconds, even in challenging conditions.

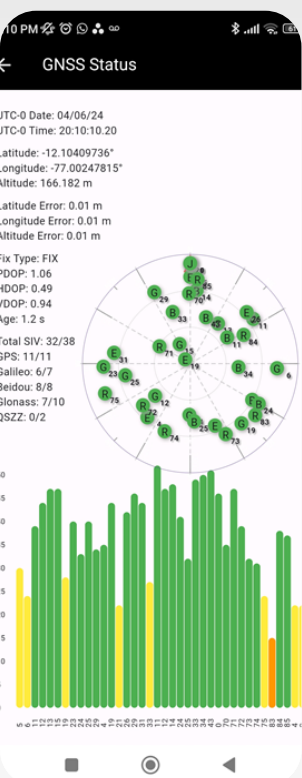
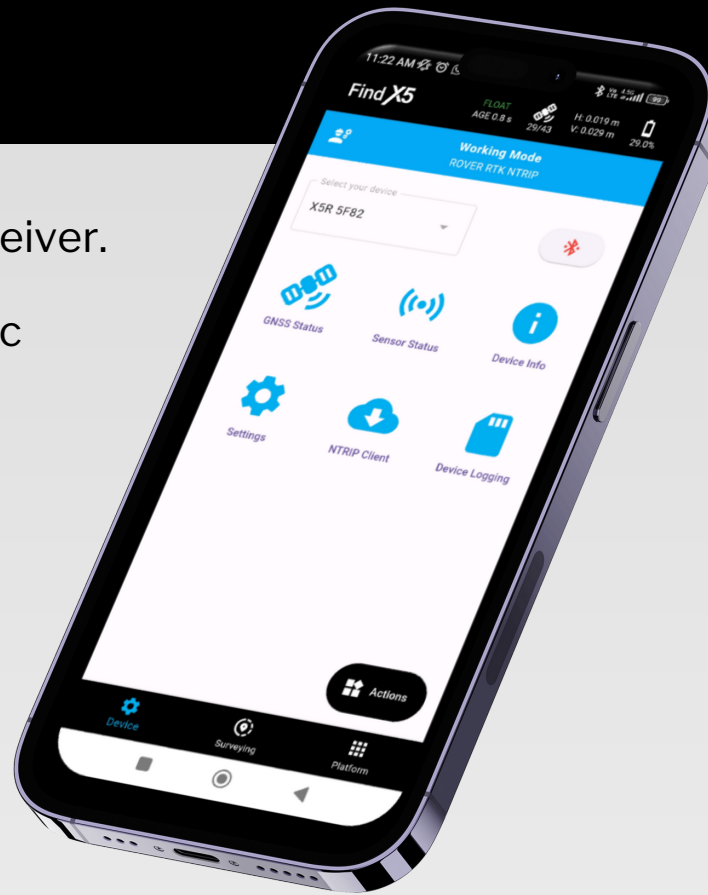
ROBUST AND COMPACT DESIGN



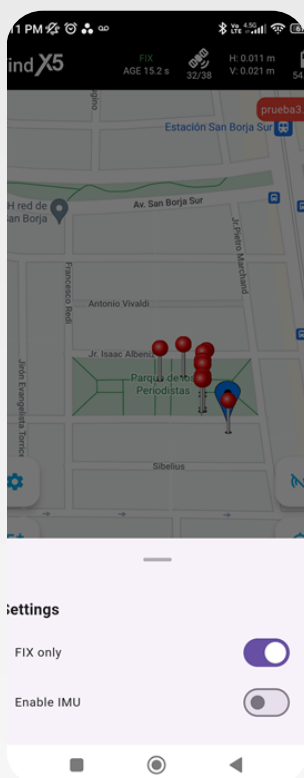
- High Precision IMU
- Radio Internal LoRA
- Accurate GNSS Fix Solution in Seg.
- Local NTRIP Mode for RTK Drones
- 15-hour battery life, charging via USB-C
- Comes with FindX5 V8 App

FindX5 App

- View the status of your GNSS Receiver.
- Initialize the Base in a Cartographic Projection of your choice.
- Survey and download RTK points effectively.
- Visualize your data on the Map.
- Fixed mode quality management.



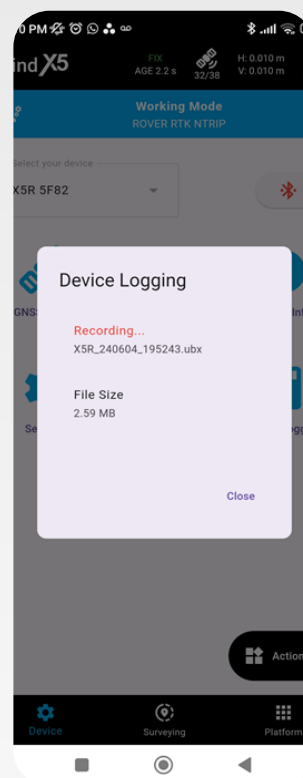
GNSS
Status



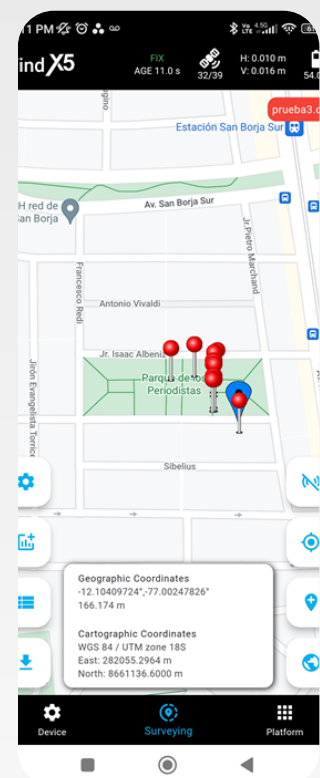
Quality
control



Basic
Initiation



RAW
Data



Map display

EASY SETUP

Included components

- Receptor GNSS X5 RT
- LoRa antenna 433 MHz or 915 MHz (depending on the frequency purchased)
- Measuring plate calibrated at 12 cm
- USB cable for power and data download
- 5V power adapter to charge the X5 RT



https://youtu.be/vr0rCqYqbTU?si=9QcOuya6Bg_alj9J



Connectivity

It can connect to GNSS via Bluetooth and WiFi.



Layers

Supports online and offline layers with DXF, SHP, DWG and XML files.



Road design

It has a complete feature of professional road layout and design

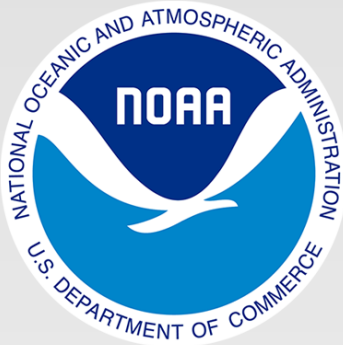


Voice alerts

Important operations are accompanied by voice alerts

DOWNLOAD THE ANTEX CALIBRATION FILE

The ANTEX file is issued by the NGS and contains the calibration data of the X5 RT Multi-band GNSS Receiver.



NOAA National Geodetic
Survey



[ANTEX-METX5_NONE.zip >](#)



[Web Antenna Calibrations del NGS >](#)



Compatible with Third Party Bases (Trimble,
Emlid, Geomax, South)

*In Rover mode with our X5 Standard Radio.

MORE ADVANTAGES



Automatically
save data to UBX
files



32 GB
internal
memory



15 hours in Data
Logging mode and 10
hours in NTRIP mode



IP67 Protection:
Dust and water
tight

LOCAL NTRIP MODE FOR RTK DRONES

The X5 RT receiver's NTRIP LOCAL service allows positioning correction data to be sent to DJI Enterprise, Wingtra, eBee, and Autel RTK drones without the need for an Internet connection.



X5 RT

GNSS ready to work in the most difficult conditions around the world.

Technical specifications

Positioning

Channels	184
Initialization time	5 seconds
Time for first fix	25 s (cold), 2 s (hot) Up to 10 Hz or
Recording frequency	0.1 seconds GPS (L1C/A - L2C)
Constellations	GLONASS (L1OF - L2OF) Galileo (E1 B/C - E5b) Beidou (B1I - B2I) QZSS (L1C/A - L2C) SBAS (L1C/A)

Static Accuracy:	H= 3.5 mm + 1 ppm V= 6 mm + 1 ppm H=
PPK Accuracy:	6 mm + 1 ppm V= 10 mm + 1 ppm H= 7
RTK Accuracy:	mm + 1 ppm V= 12 mm + 1 ppm

Inclined measurements

RTK Accuracy:	H=7 mm+1ppm+2.5mm/15° V=12 mm+1ppm+6mm/15°
	H=7 mm+1ppm+3mm/25° V=12 mm+1ppm+6mm/25°

Connectivity

LoRa Radio	Available frequencies: 433 or 915 MHz (choice) Power: 1W Antenna gain: 5 dBi Distance: 10 km line of sight Typical distance: 2km with moderate to low interference. 2.4 Ghz 802.11n/g/n Bluetooth™ 4.2
Wi-Fi	
Bluetooth	BR/EDR USB-C, antenna TNC
Ports	

For autonomous and RTK accuracy, full availability of GNSS constellations (including GPS, GLONASS, Galileo and Beidou) is considered, in a clear, interference-free environment, free from multiple reflections, with a standard satellite arrangement and under normal atmospheric conditions. These performances are based on compliance with standard recommended practices for the use of GNSS.

The recommended standard conditions for the use of GNSS are considered. IMU-GNSS with high-performance geomagnetic sensor and deviation from the studied vertical of ± 3.5 cm under conditions of moderate to low magnetic disturbance. Limited by significant magnetic disturbances.

The battery consumption generated by the device may vary depending on various factors, such as ambient temperature, processor workload, among other relevant aspects.

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Data

Protocols File	NTRIP, RTCM3 UBX NMEA,
format Position	RAW data (for RINEX) 32 GB
output Internal	memory
storage	

Physical

Dimensions	138 x 138 x 85 mm
Weight	650 grams -20 to
Operating	65°C
temperature	
Closed design	
IP67 protection	Able to protect against powerful water jets.

The water is projected in powerful jets (12.5 mm nozzle) against the enclosure from any direction and will have no harmful effects.

Test duration: at least 3 minutes; Water volume: 100 liters per minute; Pressure: 100 kPa at a distance of 3 m.

Energy

Input voltage Internal antenna DC bias	4.75 - 5.5V
Maximum current consumption	3.3V
Average current consumption Current	2500mA
limit on USB OTG	500mA
	2000mA

LiPo 6Ah with 1.5A fast charge
More than 15 hours of
autonomous work

