

**EFIX**  
Stronger signal , easy to fix.



**F7+**  
**PALM-SIZE GNSS+IMU RECEIVER**



Stronger signal , easy to fix.



# PALM-SIZE IMU-RTK WITH HIGH ACCURACY

Reduced weight, but performance is never compromised.

## PALM-SIZE, FITS ALL IN YOUR HAND

- Good fit in the hand.
- Only 0.77 kg.
- Designed for productivity.

## FULLY INTEGRATED GNSS+IMU FOR GREATER EFFICIENCY

- Remain good accuracy even when F7+ is not held plumb.
- Reach to where it is difficult or dangerous to do centering or just when you want to be spared from it.
- Improve the efficiency by 30%.

## RUGGED AND RESISTANT.

- Magnesium alloy housing makes the F7+ lighter and stronger.
- IP67 dust and waterproof.
- Resistant to 2 m drop.

## SMART BATTERY MANAGEMENT, UP TO 24H RTK OPERATION

- Optimized power consumption allows to work 24 hours in RTK rover mode or 25 hours in static mode.
- F7+ supports charging from a mobile power bank, allowing it to be recharged anytime and anywhere.

## FULL CONSTELLATION SUPPORT AND ADVANCED RTK ENGINE: FAST, ACCURATE, AND RELIABLE.

- GPS, GLONASS, Galileo, BeiDou and QZSS, 1608 signal channels to track them all.
- Millimeter to centimeter accuracy thanks to advanced RTK algorithm.
- Adaptive anti-interference and multipath mitigation capabilities make precision reliable and stable.



## FL3

### LONG-DISTANCE AND RUGGED DATALINK

- Long-distance transmission of RTK corrections.
- Easily adjustable transmission power rate to suit different environments and conditions.
- Optimized user interface for easy configuration and control of the data link.
- Rugged industrial design suitable for various challenging working environments.

## FC2

### DESIGNED FOR RELIABILITY AND PRODUCTIVITY IN FIELD WORKS

- High visibility screen.
- Fast and powerful processor.
- Robust industrial design.
- Integrated versatile features.
- Extended productivity.



## eField

### PRODUCTIVITY IS THE PRIORITY

- Comprehensive and intuitive for surveying and engineering.
- Strong graphic engine enables rich GIS and mapping features.
- Intuitive user interface makes the professional software easy to learn and easy to use.

# TECHNICAL SPECIFICATIONS

GNSS Performances <sup>(1)</sup>	
Channels	1608 channels
GPS	L1C/A, L2C, L2P(Y), L5
GLONASS	L1, L2
Galileo	E1, E5a, E5b, E6*
BeiDou	B1I, B2I, B3I, B1C, B2a, B2b
QZSS	L1, L2, L5, L6*
PPP	B2b-PPP
SBAS	L1, L2

GNSS Accuracies <sup>(2)</sup>	
Real time kinematics (RTK)	Horizontal: 8 mm + 1 ppm RMS Vertical: 15 mm + 1 ppm RMS Initialization time: < 10 s Initialization reliability: > 99.9%
Post-processing kinematics (PPK)	Horizontal: 3 mm + 1 ppm RMS Vertical: 5 mm + 1 ppm RMS
Post - processing static	Horizontal: 2.5 mm + 0.5 ppm RMS Vertical: 5 mm + 0.5 ppm RMS
Code differential	Horizontal: 0.4 m RMS Vertical: 0.8 m RMS
Autonomous	Horizontal: 1.5 m RMS Vertical: 3.0 m RMS
Positioning rate <sup>(3)</sup>	1 Hz, 5 Hz and 10 Hz
Time to first fix <sup>(4)</sup>	Cold start: < 45 s Hot start: < 10 s Signal re-acquisition: < 1 s
RTK tilt - compensation	Additional horizontal pole-tilt uncertainty typically less than 10 mm + 0.7mm/° tilt

Hardware	
Size (L x W x H)	119 mm x 119 mm x 85 mm (4.7 in x 4.7 in x 3.3 in)
Weight	0.77 kg (1.60 lb)
Environment	Operating: -40 °C to +65 °C (-40 °F to +149 °F) Storage: -40 °C to +85 °C (-40 °F to +185 °C)
Humidity	100% condensation
Ingress protection	IP67 dust and waterproof, protected from temporary immersion to depth 1 m
Shock	Survive a 2-meter pole drop
Tilt sensor	Calibration-free IMU for pole-tilt compensation. Immune to magnetic disturbance
Front panel	4 status LED 2 Buttons

Communication and Data Recording	
Wi-Fi	802.11 b/g/n, access point mode
Bluetooth®	v 4.1
Ports	1 x USB Type-C port (data download, charging, firmware update) 1 x UHF antenna port (TNC female)
UHF radio	Standard Internal Rx/Tx: 410 - 470 MHz Transmit Power: 0.5 W and 1 W Protocol: EFIX, Transparent, TT450 Satel <sup>(5)</sup>  Range: Typical 3 km, up to 8km with optimal conditions Link rate: 9,600 bps
Data formats	CMR input and output RTCM 2.x, RTCM 3.x input and output NMEA 0183 output HCN, HRC and RINEX static formats NTRIP Client (on PDA network)
Data storage	8 GB high-speed memory

Electrical	
Power consumption	2.2 W (depending on user settings)
Li-ion battery capacity	Built-in non-removable battery 6,800 mAh
Operating time on internal battery <sup>(6)</sup>	RTK Rover: up to 24h UHF RTK Base: up to 10.5 h Static: up to 25 h
External power	5 V / 2 A

Certifications	
CE; MIL-STD-810H	

\*All specifications are subject to change without notice.

(1) Compliant, but subject to availability of BDS ICD, Galileo and QZSS commercial service definition. Galileo E6 and QZSS L6 will be provided through future firmware upgrade.

(2) Accuracy and reliability are determined under open sky, free of multipaths, optimal GNSS geometry and atmospheric condition. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices.

(3) Compliant and 10 Hz to be provided through future firmware upgrade.

(4) Typical observed values.

(5) Compliant and Satel protocol to be provided through future firmware upgrade.

(6) Battery life is subject to operating temperature.

## EFIX Geomatics Co., Ltd.

11<sup>th</sup> Floor, Building 1, No.158 Shuanglian Road, Qingpu District, Shanghai, 201702 China.  
+86 150 2100 7664  
sales@efix-geo.com  
www.efix-geo.com

*Easy to Fix*

