



By surveyors, for surveyors.



# **F7**

**POCKET GNSS+IMU RECEIVER**



By surveyors, for surveyors.



# PALM-SIZED IMU-RTK WITH HIGH ACCURACY

Reduced weight, but performance is never compromised.

## PALM-SIZED, 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 2m drop.

## SMART BATTERY MANAGEMENT, UP TO 12H RTK OPERATION.

- Optimized power consumption allows to work 12 hours in RTK mode or 15 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, 824 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.

## FC1

### 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 Performance <sup>(1)</sup>	
Channels	824 channels
GPS	L1, L2, L5
GLONASS	L1, L2
Galileo	E1, E5a, E5b
BeiDou	B1, B2, B3
SBAS	L1
QZSS	L1, L2, L5

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	1 Hz, 5Hz and 10 Hz
Time to first fix <sup>(3)</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°F)
Humidity	100% condensation
Ingress protection	IP67 waterproof and dustproof, protected from temporary immersion to depth 1m
Shock	Survive a 2-meter pole drop
Tilt sensor	Calibration-free IMU for pole-tilt compensation. Immune to magnetic disturban
Front panel	4 LED

Communication and Data Recording	
Wi-Fi	802.11 b/g/n, access point mode
Bluetooth®	V4.1
Ports	1 x USB Type-C port (data download, charging firmware update) 1 x UHF antenna port (TNC female)
UHFradio	Standard Internal Rx: 430-470 MHz Protocol: CHC, Transparent, TT450 Link rate: 9600 bps / 19200 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	4 W (depending on user settings)
Li-ion battery capacity	Built-in non-removable battery 6800 mAh
Operating time on internal battery <sup>(4)</sup>	RTK Rover: 12 h Static: up to 15 h
External power	5 V / 2 A

\*All specifications are subject to change without notice.

(1) Compliant, but subject to availability of BDS ICD and Galileo commercial service definition. BDS B3 and Galileo E6 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) Typical observed values.

(4) Battery life is subject to operating temperature.

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