SPECIFICATIONS

GNSS Performance [1]	
Channels	1608 channels
GPS	L1C/A, L2C, L2P(Y), L5
GLONASS	L1, L2, L3
Galileo	E1,E5a,E5b,E6*
BeiDou	B1I, B2I, B3I, B1C, B2a, B2b
QZSS	L1, L2, L5, L6*
SBAS	L1, L2
PPP	B2b-PPP

GNSS Accuracies [2]	
Real time kinematic (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: 2.5 m RMS
Vision survey	Typical 2~4 cm ,range 2~10 m
Positioning rate [3]	1 Hz, 5 Hz and 10 Hz
Time to first fix [4]	Cold start: < 45 s Hot start: < 10 s Signal re-acquisition: < 1 s

IMU Sensor	
IMU Type	4D AUTO-IMU
IMU update rate	200Hz
IMU tilt angle	0-60°
Additional horizontal pole-tilt	Typically less than 2.5 cm within 30°

Hardware	
Size (L x W x H)	Φ 134 mm x 80 mm (Φ 5.28 in × 3.15 in)
Weight	750 g (1.65 lb)
Front panel	1 LED + 1 Button
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% non-condensation
Ingress protection	IP67 waterproof and dustproof, protected from temporary immersion to depth of 1 m
Shock resistance grade	IK08
Drop	Survive a 2-meter pole drop
Tilt sensor	Calibration-free IMU for pole-tilt compensation. Immune to magnetic disturbance

Camera	
Sensor pixels	2 MP & 5MP
Field of view	75°
Video frame rate	25 fps
Image group capture	Typical 2 Hz capturing rate, up to 25 Hz Max. capturing time: 60 s, size of an image group appr. 60 MB

Communication	
Wi-Fi	802.11 b/g/n/ac, access point mode
Bluetooth®	v 4.2
Others	NFC
Ports	1 x USB Type-C port (external power, data download, firmware update) ;1 x UHF antenna port (TNC female)
UHF radio [5]	Standard Internal Tx/Rx: 410 - 470 MHz Transmit Power: 0.5 W, 1W Protocol: EFIX, Transparent, TT450, Satel [6] Link rate: 9,600 bps to 19,200 bps Range: Typical 3 km, up to 8 km with optimal conditions conditions
Data formats	RTCM2.x, RTCM3.x, CMR input / output, Full Star RINEX2.11, 3.02 NMEA 0183 output HCN, HRC and RINEX static formats NTRIP Client, NTRIP Caster
Data storage	8 GB high-speed memory

Electrical	
Power consumption	Typical 2.2 W (depending on user settings)
Li -ion battery capacity	Rechargeable and built-in Lithium Battery 4900mAh, 7.2 V
Operating time on internal battery [7]	RTK Rover, UHF/ 4G mode w/o camera: up to 16.5 h RTK Rover, Vision Stakeout/Vision Survey: up to 9.5 h UHF RTK Base: up to 10 h Static: up to 22 h
External power input	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. 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) The use of UHF datalink may be subject to local regulations. Users must ensure that the device is not operated without the permission of the local authorities on frequencies or power output other than those specifically reserved and intended for use without required permit.
(6) Compliant and Satel protocol to be provided through future firmware upgrade.
(7) Battery life is subject to operating temperature.

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EFIX

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C8
VISION IMU RTK

EFIX
Measure What You See

ADVANCED PALM-SIZE VISION IMU-RTK

> EFFORTLESS AR VISION NAVIGATION + VISION STAKEOUT

> VISION SURVEY: ACCURATELY MEASURE COMPLEX SCENES IN REAL-TIME

> EFFICIENT 3D MODELING FROM FIELD TO OFFICE

> FULLY INTEGRATED GNSS AND 4D AUTO-IMU

> FULL CONSTELLATION SUPPORT AND ADVANCED RTK ENGINE: RTK SIGNAL BOOSTED BY 60%!

Vision Navigation

Vision Stakeout

Vision Survey

3D Modeling

4D AUTO-IMU

Full-star technology

High Accuracy

Ready On Start-up

Remote Assistance

Cloud Service

VISION SURVEY: ACCURATELY MEASURE COMPLEX SCENES IN REAL-TIME

Dynamic panoramic shooting with automated image matching for fast and accurate vision surveying.

Easily measure complex scenes with integrated GNSS, IMU and vision fusion algorithm.

Acquire highly accurate 3D coordinates from real-time video, including signal-obscured, hard-to-reach, and hazardous points.
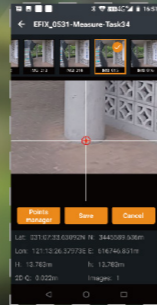
Seamlessly collect and use data once, without interruption or rework, ensuring excellent data usability.

EFIX
Measure What You See

EFFORTLESS AR VISION NAVIGATION + VISION STAKEOUT

Convenient AR Vision Navigation
Long-distance guidance with large arrows and accurate real-time distance indication

Real-Time AR Vision Stakeout
Integration of GNSS, IMU, and advanced vision fusion technology with dual cameras.

Real-Time Stakeout Point Display
Represent with red dots in the eField software to achieve precise stakeouts by poking the pole, doubling efficiency.

EFIX Virtual Pole Tip Technology
Maintain visibility of virtual pole tip for a clear and unobstructed display.
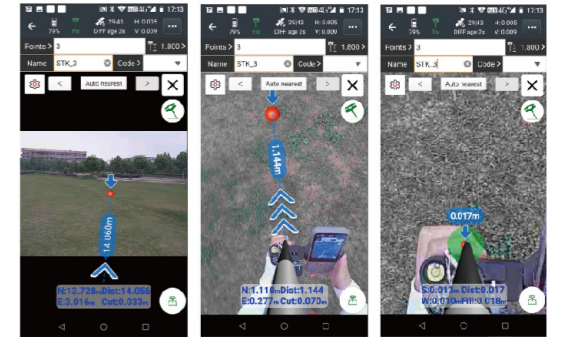
EFFICIENT 3D MODELING FOR FIELD AND OFFICE WORK

**Collaborative modeling with drones:**

Utilize real-time RTK measurements and dynamic shooting to enhance modeling capabilities, replacing traditional photo-based methods.

Manual precision modeling support:

Seamlessly capture and model individual buildings using vision RTK panoramic dynamic shooting, eliminating the need for equipment changes.

Streamlined single building modeling:

Export engineering data to industry-standard software, such as ContextCapture, to create highly accurate 3D models for real-world projects.
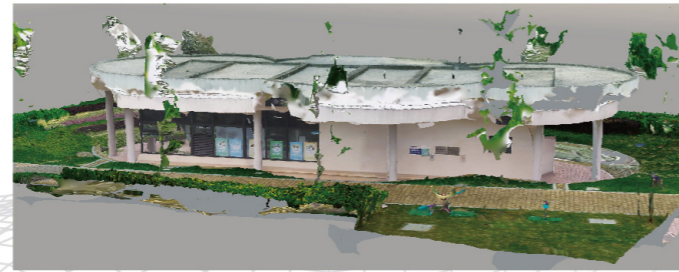
FULLY INTEGRATED GNSS AND 4D AUTO-IMU

Automatic on-the-move IMU initialization eliminates threshold requirements.

0~60° pole tilt capability allows reaching areas where centering is difficult or dangerous, or simply sparing users from the task.

Maintain accuracy within 3cm even when the range pole is not held perfectly upright.

Enhances measurement and stakeout efficiency by 30%.

FULL CONSTELLATION SUPPORT AND ADVANCED RTK ENGINE: RTK SIGNAL BOOSTED BY 60%!

- GPS, GLONASS, Galileo, BeiDou and QZSS, 1608 signal channels for tracking them all.

- High efficiency SoC provides 60% increase in computing speed.

- Advanced Full-Star technology and RTK algorithm ensure millimeter to centimeter accuracy.

- Adaptive anti-interference and multipath mitigation capabilities ensure reliable and stable precision.

EFIX

Measure What You See