

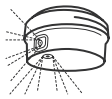


FJD Trion™ V10i

RTK SYSTEM WITH VISUAL POSITIONING

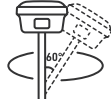
PRECISION REDEFINED: VISION BEYOND COORDINATES

Say goodbye to the challenges of surveying and elevate your next project with the new V10i. Powered by the industry-leading Septentrio Mosaic-X5 module, the V10i effortlessly navigates interference and ensures robust, stable signals with its advanced AIM+ technology. Retaining its trusted AR Stakeout feature, the V10i now revolutionizes efficiency with Visual Measurement, powered by high-resolution dual cameras. Elevate conquer hard-to-reach areas, and unlock unmatched productivity—all with the V10i!



Visual Measure & AR Stakeout

Dual cameras: 2 MP Forward, 5 MP Downward



IMU-based Tilt Compensation

Support Visual Measure Tilt 60° Calibration-free



RTK Accuracy

H: 8 mm+1 ppm RMS
V: 15 mm + 1 ppm RMS



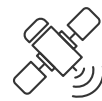
Rugged Reliability

2 m Drop-proof



Communication Diversity

SIM Card and UHF radio, Supports NFC, WiFi & Bluetooth



Global Constellations Supported

1408 channels: GPS, GLONASS, GALLIEO, BeiDou, QZSS, SBAS

CAPTURE MORE, WORRY LESS



Clear Vision, Precise Measurements

The V10i revolutionizes your surveying workflow with two cutting-edge features: AR Stakeout and Visual Measurement. With Visual Measurement, the V10i leverages IMU Survey technology plus latitude and longitude data of your photo and video, to generate models with an impressive 3-5 cm accuracy—using only the receiver. With AR Stakeout function, it delivers a fast, smooth, and intuitive surveying experience, powered by a 4-core processor and multi-engine algorithms.

Tilt Surveying for High Efficiency

Supporting the tilt survey of 60 degrees, the V10i automatically compensates the tilted position to deliver accurate results, eliminating the need to hold the survey pole upright while measuring. This allows you to focus on more mission-critical tasks.



Link communication diversification

V10i supports Wi-Fi, Bluetooth, and NFC connection. It is a convenient connection at one touch by NFC. V10i also supports UHF radio and SIM card communication to meet different needs.

Intelligent interaction with ultimate experience

The OLED screen displays the real-time working status of V10i. The highlight screen ensures we can read under the strong sunlight. We can set V10i as a base station and static mode by physical buttons when we don't have controllers. At the same time, the V10i has a noise-canceling microphone, which can accurately and quickly identify sound. The hi-fi speakers can broadcast the working status of the V10i.

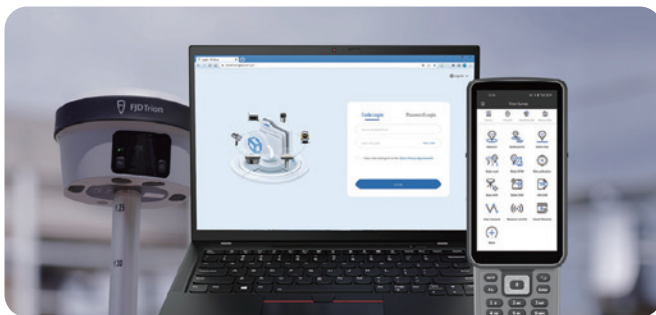


Multiple controllers for selection

The V10i offers ultimate flexibility with your choice of a compact 5.5-inch keyboard controller, an 8-inch tablet, or a 10-inch tablet—all designed to match your workflow and preferences. Powered by high-performance processors, these controllers feature fast speed, seamless operation, and ultra-responsive touchscreens for maximum efficiency. Plus, their ambient-aware screens automatically adjust brightness, making them easy to see even in direct sunlight.

Enhance field-to-office productivity with FJDynamics Business Center (FBC)

Seamlessly connect field and office teams. Transmit field data and project updates in real-time, expediting work on both ends. No more waiting, just productivity. Share system parameters and set up data, including coordinate systems, geoid models, and datum grid files.

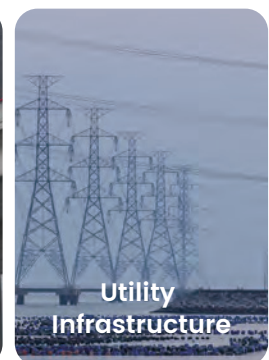
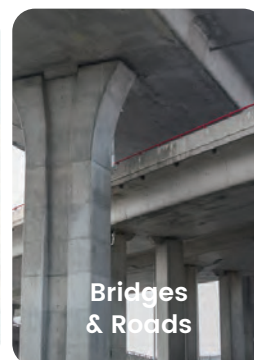
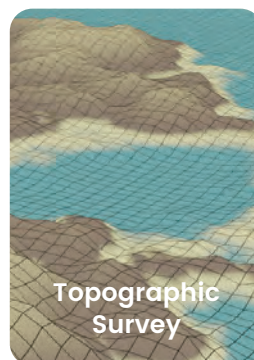
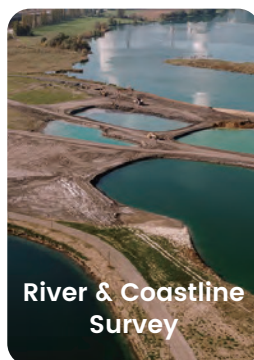


Built tough, engineered to perform

The alloy body of the V10i is lightweight and resistant to magnetic interference. The upgraded build enables consistently strong satellite availability even with obstructed sky or less than ideal weather conditions. You can trust the V10i to keep on working even if it's rained on or dropped.



APPLICATION SCENARIOS



SPECIFICATIONS

GNSS

| | |
|----------|------------------------------|
| Channels | 1408 channels |
| GPS | L1A, L1C, L2C, L2P, L5 |
| GLONASS | L1, L2, L3 |
| Beidou | B1I, B2I, B3I, B1C, B2a, B2b |
| Galileo | E1, E5a, E5b, E6 |
| QZSS | L1, L2C, L5, L6* |
| IRNSS | L5* |
| SBAS | L1 C/A |
| HAS-PPP | E6 |

*Support by a firmware upgrade.

Communications and Data Storage

| | |
|---------------------|---|
| SIM card type | Nano-SIM card |
| Network modem | Integrated 4G modem: TDD-LTE, FDD-LTE, WCDMA, EDGE, GPRS, GSM |
| Wi-Fi | 2.4&5 GHz, 802.11a/b/g/n/actouch pairing |
| Wireless connection | NFC for device |
| Bluetooth® | BT4.2&BLE |
| Ports | 7-pin LEMO port UHF antenna port USB Type-C port |
| Built-in UHF radio | Rx/tX: (410-470)MHz / (902-928)MHz Transmit Power: 2W Protocol: TRIMTALK, TRIMMARK III, TT450S, TRANSEOT, Satel 3AS 4FSK, Lora Link rate: 9,600 bps to 19,200 bps Range: typical 6-12 km, up to 16km with optimal conditions ⁶ |
| Data formats | Input&Output: NMEA-1083, RTCM3.X Input: RTCM2.X, CMR |
| Data storage | 32 GB internal memory |

Camera

| | |
|---------------------|---|
| Sensor resolution | Forward: 2 MP, downward: 5 MP |
| Field of view | 83° |
| Image group capture | Method: video photogrammetry Max. capture time: 30s with an image group size of appr. 30MB |
| Illumination | Starlight-grade camera with global shutter Large Format Sensor (3µm*3µm) Maintain full color at illumination levels |

¹ Open sky conditions ⁴ No information available (no almanac, no approx position)
² RMS levels ⁵ Ephemeris and approx. position known
³ Baseline < 40 km ⁶ Ideal environment

Positioning

| | |
|-------------------------------------|---|
| RTK performance ^{1,2,3} | H: 8 mm + 1 ppm RMS V: 15 mm + 1 ppm RMS Initialization time: < 5s Initialization reliability: > 99.9% |
| Post-processing static | H: 2.5 mm + 0.5 ppm RMS V: 5 mm + 0.5 ppm RMS |
| High-precision static | H: 2.5 mm + 0.1 ppm RMS V: 3.5 mm + 0.4 ppm RMS |
| PPK accuracy | H: 3 mm + 1 ppm RMS V: 5 mm + 1 ppm RMS |
| PPP accuracy | RMS Horizontal: ±20 cm, RMS Vertical: ±40 cm |
| Code differential | H: 0.4 m RMS V: 0.8 m RMS |
| Autonomous | H: 1.5 m RMS V: 2.5 m RMS |
| SBAS | 60 cm |
| Positioning Rate | 1 Hz, 2 Hz, 5 Hz, 10 Hz and 20 Hz |
| Visual survey accuracy | Typically 3 cm, range 2-15 m |
| Tilt angle | 0-60° |
| RTK accuracy with tilt-compensation | RMS: 8 mm + 0.6 mm/° tilt Cold start ⁴ : < 20s Warm start ⁵ : < 5s Signal re-acquisition: < 1s |
| Time to First Fix | |

Hardware

| | |
|------------------------------------|--|
| Temperature | Operating: -35 C - 65 C Storage: -40 C - 70 C |
| Humidity | 95% non-condensation |
| Ingress protection | IP68, dustproof, protected from continuous immersion to depth of 1 m |
| Drop | Designed to survive a 2-meter pole-drop |
| Li-ion battery capacity | Built-in battery 7000 mAh, 7.4 V 30W PD Fast Charge |
| Operating time on internal battery | Rover 15 h, Base 10 h Static: > 25 h |
| External power input | 9-28 V DC |
| Dimensions (D×H) | Φ130×83 mm |
| Weight | Approximately 970 g |
| True color OLED Screen | 1.41 inches (320*360, 274ppi) |
| Power consumption | UHF/4G RTK Rover w/o camera: Typical 3W Visual stakeout/Visual Survey: Typical 4.5W |
| Waterproof and breathable membran | prevent water vapor from entering under harsh environments |
| Front panel | 1.41" OLED True Color Display (274ppi, 350nit) 4 LED, 2 physical buttons |
| Tilt Sensor | Immune to magnetic disturbances E-bubble leveling |

Note: The battery life is subject to the operation environment, working temperature, and working mode. It has a standard lifespan in normal operating conditions.

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