

# FJD Trion<sup>™</sup> V10i

GNSS SYSTEM WITH VISUAL POSITIONING

# PRECISION REDEFINED: VISION BEYOND COORDINATES

Grab the V10i and get measuring. Integrating GNSS, IMU and 2 cameras, the V10i gives you real-time visual guidance on stakeouts and a next-level productivity boost in operations in hard-to-access locations.



### Visual Positioning & AR Stakeout

Dual cameras: Global Shutter, 2 MP Forward, 5 MP Downward



### IMU-based Tilt Compensation

Max Tilt 60° Calibration-free



### RTK Accuracy

L ASAB

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



### Rugged Reliability

IP68, 2 m Drop-proof



#### Consistent Connectivity

Built-in 4G LTE and UHF, Supports NFC, WiFi & Bluetooth



# Global Constellations Supported

1408 channels; GPS, GLONASS, Galileo, Beidou, QZSS, SBAS, IRNSS

# **CAPTURE MORE, WORRY LESS**

### Clear vision, precise measurements



### Safer missions with more control



tions on screen without losing situational awareness. Measure coordinates at survey-grade accuracy with

calibration, and no more watching the level bubble.

robust IMU-based tilt compensation that requires no

The onboard processing software, along with a 2 MP front camera and a 5 MP downward camera equipped with global shutters, seamlessly generate coordinates and measurements directly on the field controller. View and save coordinate information with just a few taps.

### Stay connected wherever your job takes you



- WiFi
- 4G LTE modem
- Bluetooth
- Nano SIM card
- Built-in UHF radio that transmits receives within a 5-8 km range typically.

# Field to Office - Enhance Productivity with Trion Survey Cloud



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 availbility 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**











## **ACCESSORIES**

### **FJD Trion Field Controller E600**

With Trion Survey app

- 720\*1440, 5.5-inch large screen
- 7700mAh, Fast Charge
- CPU: 8 cores 2.0GHz
- Memory 3+32 GB
- 13 MP camera with auto-focus
- 1.5-meter drop-proof & IP67
- BT5.0 (BLE), NFC, WiFi, 2G, 3G & 4G





# **SPECIFICATIONS**



### **GNSS Performance**

Channels	1408 channels
GPS	L1A, L1C, L2C, L2P, L5
GLONASS	L1, L2
Galileo	E1, E5a, E5b, E6*
BeiDou	B1I, B2I, B3I, B1C, B2a, B2b*
QZSS	L1, L2C, L5, L6*
IRNSS	L5*
SBAS	L1*

### **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	NFC for device touch pairing
Bluetooth®	2.4&5 GHz, 802.11a/b/g/n/ac
Ports	BT4.2&BLE
	7-pin LEMO port
	UHF antenna port
Built-in UHF radio	Rx/Tx: (410-470)MHz / (902-928)MHz
	Transmit Power: IW
	Protocol: TRIMTALK, TRIMMARK III, TT450S,
	TRANSEOT, Satel 3AS 4FSK
	Link rate: 9,600 bps to 19,200 bps
	Range: 5-8 km typically
Data formats	Input&Output: NMEA-1083、RTCM3.X
	Input: RTCM2.X, CMR
Data storage	16 GB internal memory
Speech recognition acc	curacy 98%

### **Positioning Performance**

Real time kinematic (RTK)	H: 8 mm + 1 ppm RMS
•••	V: 15 mm + 1 ppm RMS
•••	Initialization time: < 5 s
	Initialization reliability: >99.9%
Post-processing static	H: 2.5 mm + 0.5 ppm RMS
	V: 5 mm + 0.5 ppm RMS
Code differential	H: 0.4 m RMS   V: 0.8 m RMS
Autonomous	H: 1.5 m RMS   V: 2.5 m RMS
	Typically 3 cm, range 2-15 m
Positioning rate	1 Hz, 5 Hz and 10 Hz
Time to first fix	Cold start: < 20s,
	Hot start: < 5s
	Signal re-acquisition: < 1 s
Tilt angle	0-60°
RTK accuracy withtilt-compensat	ion 30°/2.5 cm

# Hardware

Temperature		Operating: -30 C~60 C
	/ 1 ( ) 1	Storage: -40 C ~70 C
Humidity	191	95% non-condensation
Ingress protection	IP68, dust	proof, protected from continuous
		immersion to depth of 1 m
Drop	Designe	d to survive a 2-meter pole-drop
Li-ion battery capacity		Built-in battery
		7000 mAh, 7.4 V
		30 W 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)		φ 130 × 83 mm
Weight		Approximately 1 kg
True color OLED Screen		1.41 inches
Sensor resolution	Forward: 2 MP, downward: 5 MP, both with global shutter	
Field of view		70°

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