



# FJD Trion™ V1t Pro

RTK SYSTEM WITH LONG RANGE

# HIGHER POWER, LONGER RANGE

The FJD Trion VIt Pro redefines rugged performance in tough environments with flexible 2W/5W power options. It dominates large, demanding worksites with a long probing range of up to 15km. By integrating LoRa, TRIMTALK, and TRIMMARK, the VIt Pro delivers stable, interference-resistant performance in the field, empowering you to achieve peak productivity wherever your project takes you.



High-precision built-in IMU for accurate and reliable measurement. Precision: 2.5cm. Angle: 30°. (Max: 60°)



Fixed in seconds



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



Supports LoRa, TRIMTALK, TRIMMARK III, TT450S, etc., strong anti-interference.



Adjustable radio power output, max. 5W internal radio.



Low-power chipset and large-capacity battery for long battery life: Base 10hrs and Rover 15hrs typically



## ACCESSORIES

For greater versatility, the VIt Pro pairs seamlessly with a suite of accessories, including the E600 controller for precise control, a high-power external radio for extended communication, and a cylindrical battery for longer run times. All are easy to mount and built to perform under pressure, giving your workflow with higher field-ready efficiency.

### FJD TRION FIELD CONTROLLER E600

- 5.5-inch screen
- 7700 mAh, 24h battery life
- CPU 2.2GHz
- Memory 4+64 GB
- USB-Type C, OTG Support
- 1.8-meter drop test survivor



## FJ-HPR 400A High-Power Radio

The FJ-HPR 400A is a high-power external radio transceiver built for the surveying and mapping industry. It offers up to 28W of transmission power and supports easy setup from an app. With an IP67 rating, it works smoothly for extended use and features ultra-low power consumption over long distances, making it a perfect choice for large-scale outdoor projects.

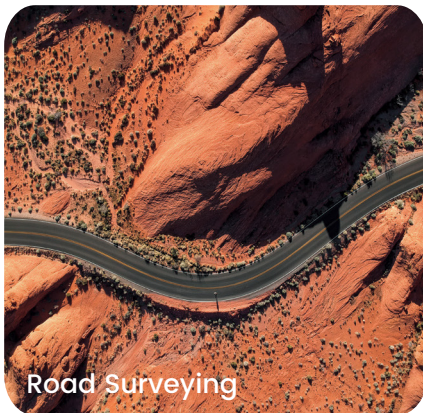


## Cylindrical Battery

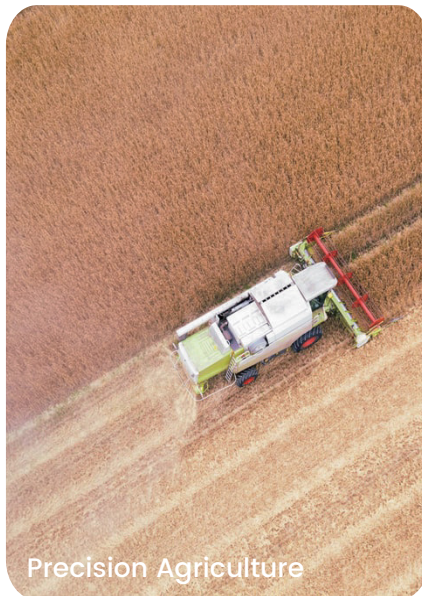
The cylindrical battery pairs seamlessly with tripods, enhancing your workflow with a simple setup. With the same size as the straight mounting pole does, it also features a 5800 mAh battery and 12V DC voltage, it acts as a powerful working hours booster for the VIt Pro in outdoor projects, which can be used to extend the working hours of the VIt Pro for outdoor projects.



## APPLICATION SCENARIOS



Road Surveying



Precision Agriculture



Construction



Resource Exploration



Digital Machinery



Engineering Monitoring

# QUICK SPECS

## GNSS Signal

GPS	L1, L1C/A, L2C, L2P, L5
BDS	B1I, B2I, B3I, B1I, B3I, B1C, B2a, B2b
GLONASS	G1, G2, G3*
Galileo	E1, E5a, E5b, E6C*, AltBOC*
QZSS	L1, L2C, L5, L1C*, L1-SALF
SBAS	L1C/A, L5*
IRNSS	L5*
HAS-PPP	E6

## Receiver

Size & Weight	162*86 mm;1070g
IP rating & Memory	IP67; 32GB

## Battery

Battery capacity	6500 mAh
Battery life	Base 10 h, Rover 15 h typically

## Ambient Environment

Operating temperature	-30 °C ~ + 60 °C
Storage temperature	-40 °C ~ + 70 °C
Humidity	100%, condensing

## Positioning Performance

High-precision static	H: 2.5mm + 0.1 ppm RMS V: 3.5 mm + 0.04 ppm RMS
Post-processing static	H: 2.5mm + 0.5 ppm RMS V: 5 mm + 0 5 ppm RMS
Time to first fix	< 20 s (cold start) < 10 s (warm start) < 1 s
Signal reacquisition	≤ 10 cm
Pseudo-range accuracy	≤ 1 mm
Carrier phase accuracy	< 5 s (baseline length < 10 km)
RTK initialization time	> 99.9%
Initialization reliability	1408
Channels	Horizontal: ±1.5 m, vertical: ±2.5 m
Single positioning (RMS)	Horizontal: ±(2.5 mm+0.5 ppm), RMS Vertical: ±(5 mm+0.5 ppm), RMS Horizontal: ±(8 mm+1 ppm), RMS Vertical: ±(15 mm+1 ppm), RMS Horizontal: ±20cm, RMS Vertical: ±40cm, RMS
Static accuracy	20 ns
RTK accuracy	Raw observation data: 1, 2, 5, 10, 20 Hz
PPP accuracy	Real-time positioning data: 1, 2, 5, 10, 20 Hz
Timing accuracy	30°/2.5cm (H) ,Max angle 60°
Update rate	Input &output: RTCM3.X, NMEA-0183
Tilt Survey accuracy	Input: CMR, RTCM2.X
Data format	

## Wi-Fi

Protocol	IEEE 802.11b/g/n protocol standard
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## Internal Radio

Power consumption	1W/2W/5W(2W/5W Optional)
Modulation type	GMSK or 4FSK
Frequency	(410-470) MHz / (902-928) MHz
Protocol	LoRa, TRIMTALK, TRIMMARK III, T450S, TRANSEOT, Satel 3AS 4FSK

## Power Supply

Voltage	USB PD fast charging 30 W Aviation plug support (9-32) V DC
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## Bluetooth

Protocol	BR / EDR
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## Indicator

Type	Power, data, satellite and Bluetooth
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## I/O Ports

Type-C	Support 12 V DC Fast charge
UHF Antenna port	Support UHF antenna connection
7pin-Lemo	Support 9 - 32 V DC power input External Radio Port

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