



FJD Trion™ V4E

Mini RTK Receiver

RTK Made for Everyone

The FJD Trion V4E Mini RTK Receiver breaks the boundaries of traditional GNSS receivers with handheld convenience and portable precision. Weighing only 320g, the V4E / V4E Pro delivers centimeter-level positioning without centering rods and enables LiDAR scanning with flexible setups, making it perfect for individuals, teams, and professionals on the go. Easy to use and budget-friendly, it can instantly unlock the power of high-accuracy mapping and surveying.



Small Size, Big Power

Centimeter-Level Accuracy

Deliver ± 1.5 cm static precision by supporting full GNSS constellations, including GPS, BDS, GLONASS, Galileo, QZSS, and SBAS.

Lightweight Freedom

Fit in your pocket with only 320g and take it easily wherever you go.

All-Day Battery

Operate non-stop for up to 12 hours, with a full charge time of less than 3 hours. It can also run on a portable power bank, making it perfect for outdoor use.

No Pole? No Problem.

Tilt Measurement

The IMU system automatically corrects hand tilts of up to 30° , delivering an accuracy of ± 6 cm at a distance of 3 meters and requiring no leveling or centering rods. (V4E Pro Only)

Laser Rangefinder

The onboard laser unit offers precision targeting with ± 3 mm accuracy in a range of within 10 meters. (V4E Pro Only)

Flexible Configurations

Standalone RTK

Use as a single receiver with app-based control.

Mini Scanner Setup

Combine with a phone, or LiDAR scanner to quickly get ready for point cloud collection.

Plug and Play

Boot up and start working in under 60 seconds.



Application Scenarios



Construction & BIM



Utilities & Public Works



Forestry & Agriculture



GIS & Academia

Specifications

Gnss

Channels	1408 Channels
GPS	L1C/A, L2P, L5
BDS	B1I, B2I, B3I, B1C, B2a, B2b*
GLONASS	G1, G2
Galileo	E1, E5b, E5a, E6*
QZSS	L1, L2, L5
SBAS	L1C/A

Accuracy

Time to first fix	Initialization time: $\leq 5s$
	Warm start: $\leq 5s$
	Cold start: $\leq 30s$
Signal re-acquisition	$\leq 1s$
Initialization reliability	$> 99.9\%$
Positioning rate	1Hz, 2Hz, 5Hz, 10Hz, 15Hz, 20Hz
Standalone	$H \leq 1.5m$, $V \leq 2.5m$
DGPS (RMS)	$H \leq 0.4 m$, $V \leq 0.8 m$
RTK (RMS)	$H \leq 0.8 cm + 1 ppm$, $V \leq 1.5 cm + 1 ppm$
Time accuracy (RMS)	20 ns
RTK (RMS)	$H \leq 0.8 cm + 1 ppm$, $V \leq 1.5 cm + 1 ppm$

Electrical

Input voltage	5V / 2A
Power consumption	$\leq 1.5W$
Ports	USB 2.0, Type-C port
Charging time	$\leq 3h$
Working time	$\geq 12h$

Physical

Size	182mm * 53mm * 53mm
Weight	$\leq 350g$
Working temperature	$-20^{\circ}C - 60^{\circ}C$
Waterproof & dustproof	IP67

Data Format

Positioning data format	NMEA-0183
Correction data format	RTCM2.3, RTCM 3.x, CMR

Communication

Bluetooth	BT4.0, 5m
Wi-Fi	2.4G, 300m *Base Station Communication Protocol

Software Support

Scanning software	FJD Trion Scan
Point-marking software	FJDynamics Survey

*V4E Pro Tilt Measurement: 3D error $\leq 6cm$ @3m range (tilt angle: $\leq 30^{\circ}$)