



FJDTrion V4e LiDAR

The easy way into 3D scanning

Your Go-To Choice for Serious Results

The world demands workflows lighter than ever, but still expects the results to be great, as always. V4e LiDAR is built to meet both. More than a scanning device, it is a complete solution designed to turn site reality into usable results with confidence and speed.

Built for Teams at Every Stage

New to 3D scanning and ready to bring clarity into your projects?

V4e LiDAR is a straightforward entry into professional reality capture.

Already experienced in the field?

V4e LiDAR delivers reliable performance, reduces overhead, and scales output without adding complexity.



One Kit, Two Solutions



Meet V4e Combo: Pin It to the Map

Powered by GNSS positioning, V4e Combo brings outdoor 3D scans into real-world coordinates. Produce georeferenced point clouds that align seamlessly with plans, layouts, and downstream workflows.

Meet V4e LiDAR: Indoor Scanning Made Simple

Designed for mobility, V4e LiDAR delivers accurate indoor scans with a lightweight design and efficient setup. Move quickly through spaces, reduce rechecks, and get every job done correctly on the first pass.



Precise Scan on Every Pass

Capture 154,600 points per second, every time. Each walkthrough delivers dense, accurate data, so the first scan is the one you keep.



Portable But Mighty

Say goodbye to sore hands. With a main unit at about 890 g and 5+ hours of runtime, V4e LiDAR won't slow you down or wear you out.



Plug and Play, Ready in 60s

Designed to get you moving fast. With just a few compact parts, even first-time users can start scanning in about a minute.



Reality, Digitized as You Walk

Watch the point cloud come together as you move through the space. Live preview turns the real world into a detailed digital twin in real time.

Scan Anywhere

From tight interiors to open sites, V4e LiDAR helps you say YES to more projects with certainty.



A Workflow That Finally Fits

Work the way your team works best. Process data onsite, locally, or in the cloud, with a flexible workflow that adapts to your needs.

One Scan, Multiple Deliverables

Capture once and deliver more. Generate point clouds, BIM-ready files, meshes, and more, all within FJD Trion Model.

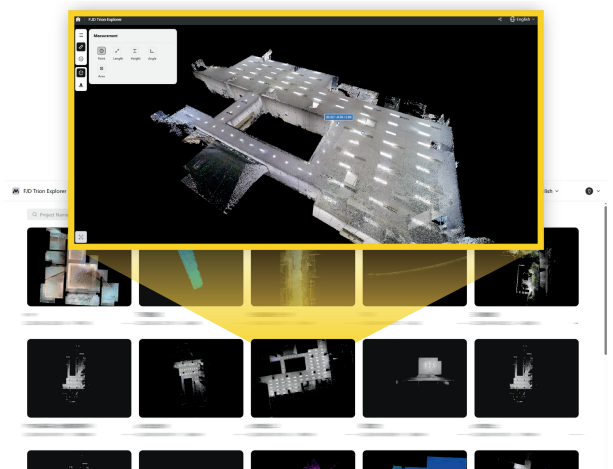


Onsite Processing, Made Real

Process and review data directly on your pad while still on site. FJD Trion brings real-time feedback into the field, helping teams confirm results before leaving the job.

Light as a Cloud

Sync scans to FJD Trion Model Web for fast sharing, review, and collaboration. Teams stay aligned without being limited by device performance or local storage.



SPECIFICATIONS

LiDAR

Laser Wavelength	905 nm ±5nm
Eye Safety Rating	Class 1 (IEC 60825-1:2014)
Detection Range	0.05–50 m (90% reflectivity) 0.1–25 m (10% reflectivity)
Minimum Detection Distance	0.05 m
Field of View (FOV)	Horizontal: 360° Vertical: -10° to 60°
Post-Processed Point Cloud Accuracy*	1 cm (Relative) 3 cm (Absolute)
Sampling Rate	>200 kHz
Point Cloud Output	154,600 points/s @ 70° vertical FOV

*Lab-tested accuracy; actual results may vary

Mobile Compatibility

iOS	Compatible with iPhone 15 and later
Android	Compatible with Samsung Galaxy S20 and later

V4e & V4e Pro

GNSS

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

*Supported firmware versions coming soon

Data Types

Differential Data Formats	RTCM 2.3, RTCM 3.x, CMR
Output Data Format	NMEA-018

Electrical & Interface Specifications

Charging Specifications	5 V / 3 A
Lithium Battery	3.6 V / 6,700 mAh
Power Consumption	<5 W (at 25 °C)
Charging Time	≤3 hours
Operating Time	≥5 hours
Data Port	USB 3.0
Charging Port	USB 2.0 (Charging / Data)
Firmware Upgrade	OTA (Over-the-Air)

Physical Characteristics

Dimensions (L × W × H)	137 × 155 × 250 mm
Weight	Approx. 890 g
Mounting Interface	5/8-inch internal threaded mount
Operating Temperature	-20 °C to 60 °C
Charging Temperature	0 °C to 45 °C


Precision and Reliability

Signal Reacquisition Time	≤1 s
Time to First Fix (TTFF)	Cold start: ≤30 s, Hot start: ≤5 s
RTK Initialization Time	<5 s
Initialization Data Reliability	>99.9%
Data Update Rate	Measurement & positioning: 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz
Single Point Positioning Accuracy (RMS)	H: ≤1.5 m, V: ≤2.5 m
DGPS (RMS)	H: ≤0.4 m, V: ≤0.8 m
RTK (RMS)	H: ≤0.8 cm + 1 ppm, V: ≤1.5 cm+1 ppm
Time Accuracy (RMS)	20 ns
Speed Accuracy (RMS)	0.03 m/s
Laser Tilt Measurement Accuracy (V4e Pro)	≤3 cm error at 3 m distance (θ ≤ 30°)
Tilt Measurement Accuracy (V4e Pro)	3D error ≤2.5 cm (θ ≤ 30°); 3D error ≤3.5 cm (θ ≤ 60°)



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