



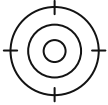
## **FJDTrion S2** LiDAR SCANNER

Scan the toughest without compromise



# Meet FJD Trion S2 Series

FJD Trion S2 Series is built for fast, flexible capture across large and complex environments. From open construction sites to dense forests and hard-to-reach terrain, it delivers complete, georeferenced point clouds with flexible deployment from ground to air.



Up to 1 cm  
Relative Accuracy



Real-time  
Colourisation



Georeferenced  
Point Clouds



3-Hour  
Runtime



Integrated  
Ecosystem



Air-to-Ground  
Coverage

## Performance Options for Every Project

**S2**



320,000  
Points per second



120m  
Range

Balanced performance for  
everyday large-site capture

**S2 PRO**



640,000  
Points per second



120m  
Range

Higher point output for faster  
capture and richer detail

**S2 MAX**



640,000  
Points per second



300m  
Range

Extended range for open and  
expansive environments

## Integrated Modules, Ready in Seconds

Start scanning in seconds and move smoothly between field tasks with a compact, integrated design that brings the camera, IMU, and GNSS together in one system.



# Data Quality You Can Build On

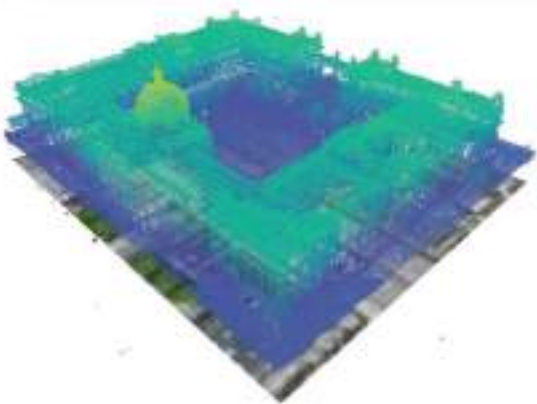
## Reliable Accuracy, Realistic Colour

Capture dependable, colourised point clouds with up to 1 cm relative accuracy, even in complex environments. Dual 12 MP cameras enable real-time colourisation, while advanced VIO and LiDAR SLAM help maintain stable, reliable performance throughout the scan.



## Seamless GIS and Mapping Integration

Work in the right coordinate system from the start with support for over 8,000 coordinate systems. With integrated GNSS, the S2 fits smoothly into local GIS and mapping workflows, helping reduce time-consuming manual conversions and rework.



## HyperDense+ Enhanced Detail

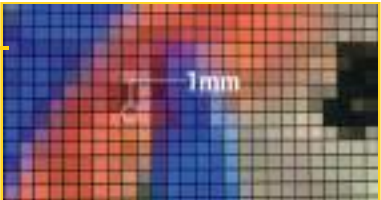
Original Point Cloud



HyperDense+



Enhance detail with HyperDense+ in the FJD Trion Model, generating 5–7× denser point clouds with up to 1 mm spacing for finer surfaces and better colourisation.



# Adapt to More Field Conditions

From high-speed ground surveys to sky-level coverage, the S2 supports both vehicle and drone deployment, enabling fast, full-scene capture in a single scan.



Reach tight, elevated, and hard-to-access areas with accessories such as the extension pole and robot dog mount. The backpack, stabilising vest, and rolling suitcase help reduce fatigue, simplify transport, and keep teams working efficiently across large, complex sites.



# One Scan, Multiple Deliverables

Turn raw scan data into integrated deliverables through the Trion ecosystem. From engineering-ready outputs to immersive visualisations, every scan supports more workflows and more downstream use.



Dense reality data for CAD, BIM, and analysis



Automatically vectorised sections for engineering design.



Photorealistic textures for AR/VR applications.



Real-time immersive visualisation for better scene reconstruction.



Context-rich site records for facility management and real estate

# A Workflow That Finally Fits

Seamlessly integrate with both FJD Trion Scan and Model software, offering a streamlined workflow from data capture to final deliverables.

## Capture Reality Without Gaps

Maintain continuous site capture with the Scan app. Real-time colourised point clouds provide instant coverage checks, while support for scans of up to 1 hour and resume-from-breakpoint functionality help teams continue where they left off.



FJD Trion Scan



FJD Trion Model for Pad

## On-site Process, Real Confidence

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.

## Process with Full Profession

Process complex point clouds into multiple deliverables with comprehensive tools built for engineering, surveying, forestry, and more, delivering lasting value for long-term workflows.



FJD Trion Model

## Cloud Collaboration Made Easy

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



FJD Trion Model Web

# Applications Across Industries

Apply point cloud data across a wide range of applications, from construction and surveying to forestry, mining, property management, incident documentation, and more.



Construction



Surveying



Property Management



Forestry and Vegetation Analysis



Mining



Incident Documentation

## Quick Specs

LiDAR

	S2	S2 PRO	S2 MAX
Range	120m @ 80% reflectivity 80m @ 10% reflectivity	120m @ 80% reflectivity 80m @ 10% reflectivity	300m @ 80% reflectivity 80m @ 10% reflectivity
Channels	16	32	32
Speed	320,000 pts/s	640,000 pts/s	640,000 pts/s
FOV	360° × 270°	360° × 270°	360° × 270°
Safety Level	Class 1 / 905 nm, eye safety	Class 1 / 905 nm, eye safety	Class 1 / 905 nm, eye safety

### System Parameters

Relative Accuracy*	≤ 1 cm
Absolute Accuracy	3 cm
Weight	1.8 kg (excludes battery, external camera and RTK module)
Battery Life	3 h (with 1 set of 2 batteries)
Storage	512 GB (1TB expandable)
Operating Temperature	-10 °C ~ 50 °C
Power Consumption	25 W
Size	107 × 118 × 398 mm (including base and battery)
Data Export	WiFi, USB Type-C, USB Type-A
Point Cloud Format	.las / .ply / .pts / .e57
Power Supply	10.8 V, 3 A
IP Rating	IP54

### Camera

Resolution	2 × 12MP
FOV	200°
Visual SLAM	Support
Image Export	Support
Image Format	.jpg

### GNSS

Satellite Constellation	BDS: B1I / B2I / B3I / B1C / B2a / B2b GPS: L1 C/A / L1C / L2P (Y) / L2C / L5 GLONASS: G1 / G2 / G3 Galileo: E1 / E5a / E5b / E6 QZSS: L1C/A / L1C / L2C / L5
RTK Accuracy	H: 8 mm + 1 ppm RMS V: 15 mm + 1 ppm RMS
PPS	Support

\*Accuracy measured in experimental environment