SCANOLOGY

Zenith Optical 3D Scanning System

TrackScan Sharp-Z

12 m Wide-Area Coverage
50 MP Detail Resolution



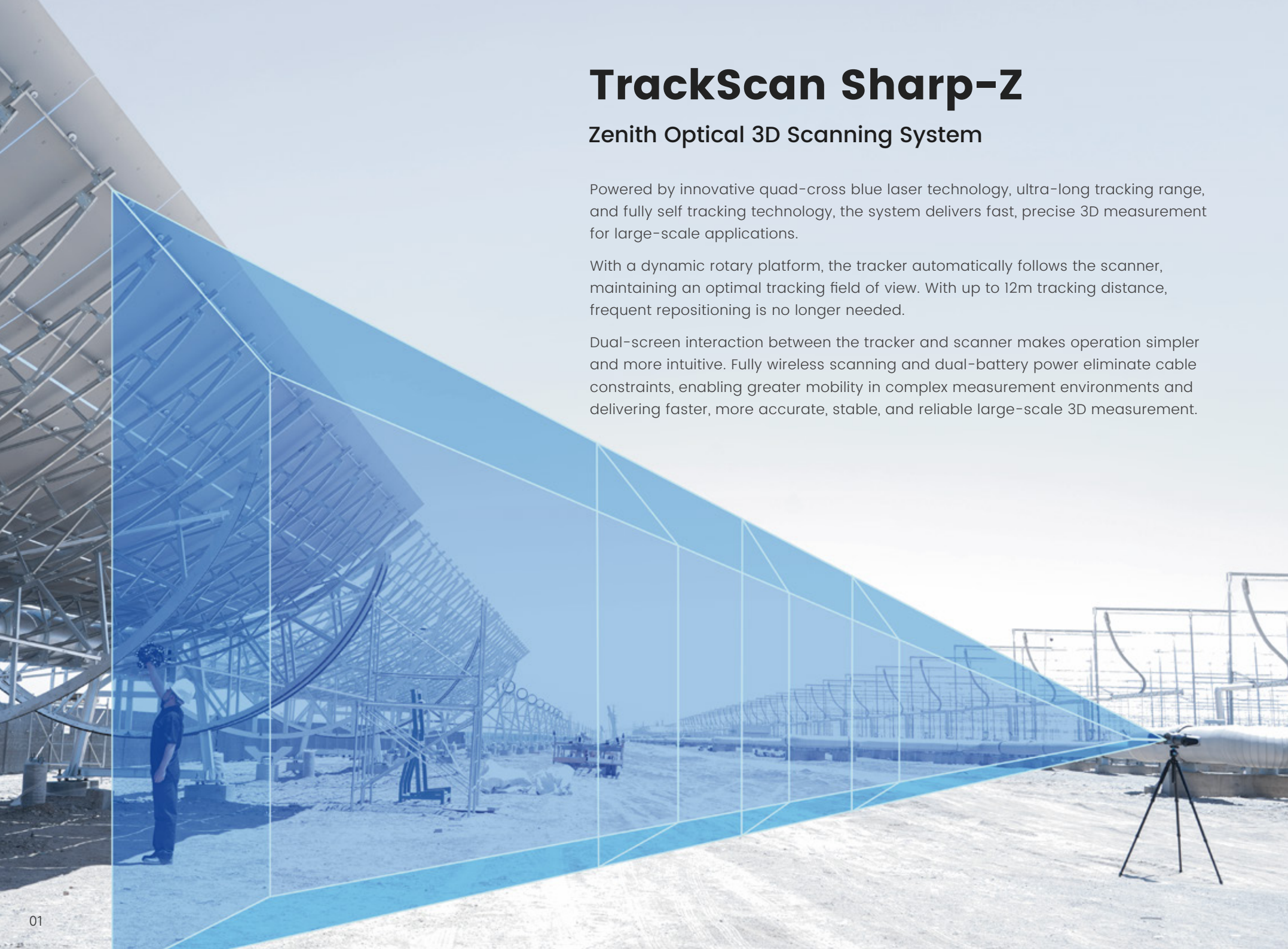
TrackScan Sharp-Z

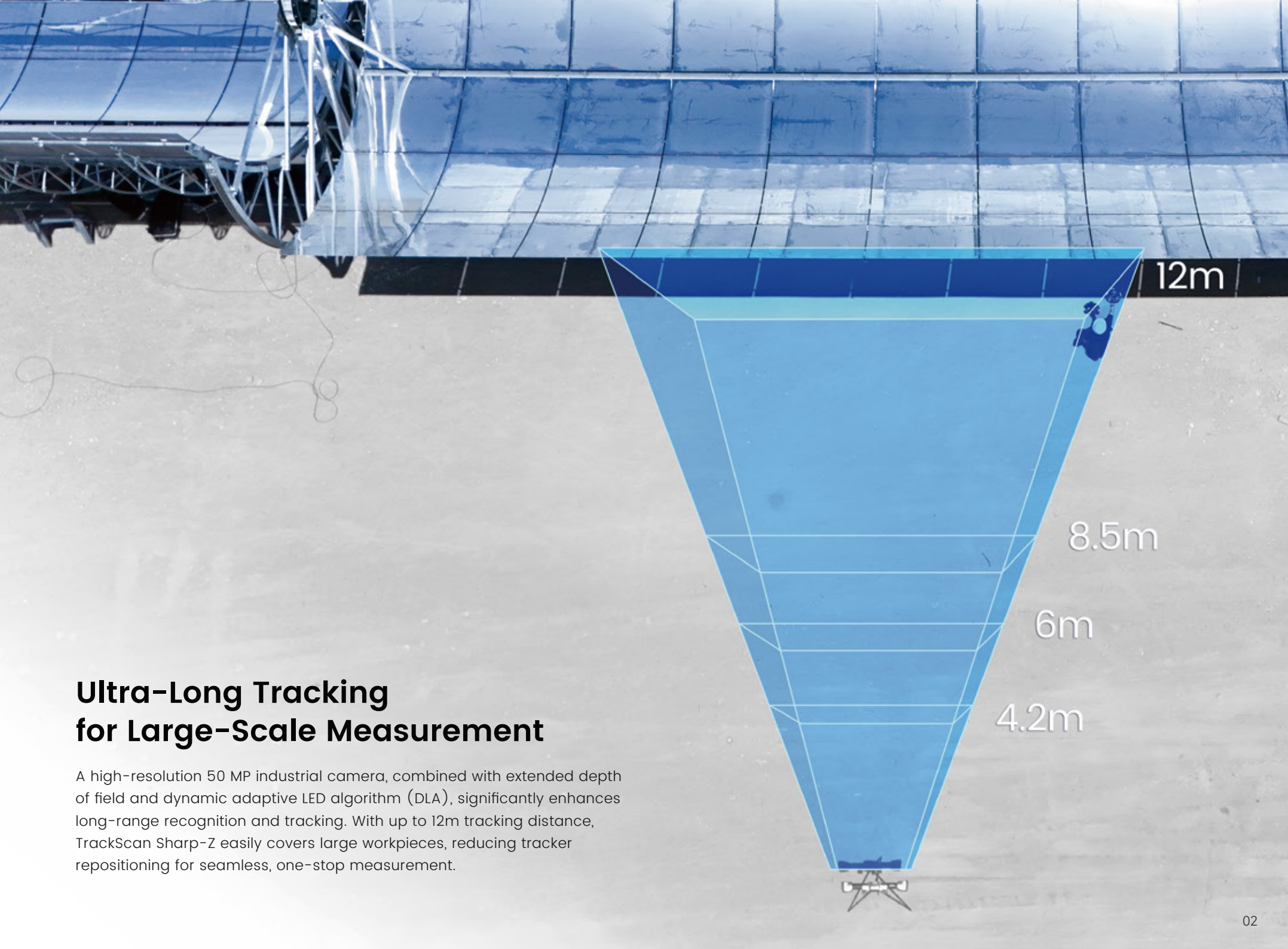
Zenith Optical 3D Scanning System

Powered by innovative quad-cross blue laser technology, ultra-long tracking range, and fully self tracking technology, the system delivers fast, precise 3D measurement for large-scale applications.

With a dynamic rotary platform, the tracker automatically follows the scanner, maintaining an optimal tracking field of view. With up to 12m tracking distance, frequent repositioning is no longer needed.

Dual-screen interaction between the tracker and scanner makes operation simpler and more intuitive. Fully wireless scanning and dual-battery power eliminate cable constraints, enabling greater mobility in complex measurement environments and delivering faster, more accurate, stable, and reliable large-scale 3D measurement.





Ultra-Long Tracking for Large-Scale Measurement

A high-resolution 50 MP industrial camera, combined with extended depth of field and dynamic adaptive LED algorithm (DLA), significantly enhances long-range recognition and tracking. With up to 12m tracking distance, TrackScan Sharp-Z easily covers large workpieces, reducing tracker repositioning for seamless, one-stop measurement.

Fully Self Tracking
Less Repositioning

The tracker's dynamic rotary platform automatically follows the scanner, maintaining an optimal tracking field of view. With a 360° measurement range of up to 12m radius, it minimizes repositioning while maintaining measurement accuracy and efficiency.

600m³

Measurement Volume (Single-Station, Fixed View)

360°

Tracker Rotation



Dual Screens, Intuitive Interaction

Built-in displays on both the scanner and tracker provide real-time visibility of device status, the calibration interface, and probe measurements, making operation more intuitive and efficient.







High-Speed Scanning Efficiency Meets Detail

Innovative quad-cross blue laser technology, 162 laser lines, up to 200 FPS, and up to 10 million measurements per second deliver fast scanning without compromising detail—ideal for extra-large workpiece inspection and automated inspection of large components.



Four Scanning Modes
One System for Diverse Measurement Needs

Four dedicated scanning modes—Ultra-Fast Scanning, Hyperfine Scanning, Deep-Hole Scanning, and Extended-Depth Scanning—handle everything from standard workpieces and precision surfaces to recessed areas and extra-large components.



Hyperfine Scanning

21 blue parallel laser lines

Ultra-Fast Scanning / Extended-Depth Scanning

4 × 35 blue laser lines (Quad-Cross Technology)

Deep-Hole Scanning

1 extra blue laser line





Customizable Buttons One-Touch Access

3 programmable buttons provide one-touch access to frequently used functions, reducing repetitive operations and menu switching for smoother, more efficient on-site measurement.

Continuous Operation No Downtime

Both the tracker and scanner feature dual battery compartments with hot-swappable batteries, enabling uninterrupted operation for all-day continuous measurement.

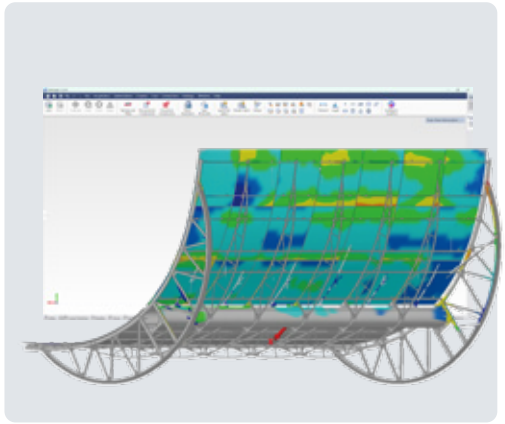
Fully Wireless Unrestricted Scanning

Edge computing on both the scanner and tracker, combined with high-speed wireless data transmission, eliminates cable constraints for greater freedom and flexibility on site. Go fully wireless for efficient, high-precision scanning across large-scale applications.



Industrial-Grade Accuracy Reliable Stability

ISO 10360-13 compliant, with four-metric accuracy control covering Accuracy, Volumetric Accuracy, Sphericity, and Flatness, plus a rigid carbon-fiber icosahedral frame for lasting structural stability and consistent accuracy.



Type		TrackScan Sharp-Z
Scan mode	Ultra-fast scanning	140 blue laser lines (Quad-Cross Technology)
	Hyperfine scanning	21 blue parallel laser lines
	Deep-hole scanning	Extra 1 blue laser line
Accuracy [1] (5.2m)		up to 0.025mm
Scanning frame rate up to		200 FPS
Measurement rate up to		10,000,000 measurements/s
Scanning area up to		800 mm × 700 mm
Laser class		ClassII (eye-safe)
Resolution up to		0.020 mm
Volumetric [1] accuracy	13m³ (3.5m)	0.039mm
	46m³ (5.2m)	0.062mm
	80m³ (6.2m)	0.089mm
	120m³ (7.2m)	0.118mm
	200m³ (8.5m)	0.149mm
	600m³ (12m)	0.198mm
Volumetric accuracy (with MSCAN photogrammetry system)		0.039mm+0.012mm/m
Form error (Sphere) [1]		0.030mm
Form error (Flat) [1]		0.040mm
Stand-off distance		300 mm
Depth of field		400mm, 800mm (Large depth of field)
Output format		.stl, .obj, .ply, .asc, .igs, .txt, .mk2 and etc.
Interface mode		USB3.0, Network Interface
Operating temperature range		-10–40°C
Operating humidity range (non-condensing)		10 ~ 90% RH
Wireless operating mode		i-Scanner, i-Tracker, i-Scanner + i-Tracker, i-Tracker + i-Probe, Wireless multi-tracker tracking, Edge Inspection
Certification		CE,Rohs, WEEE, FCC
Patents		CN219834226U, CN219829788U, CN117036493B, CN222015590U, CN222027649U, CN222938454U, CN118857100B, CN223470614U, CN223194755U, CN223364169U, CN223564970U, CN223470623U, CN119845179B, CN223740420U, CN309683365S, CN224163159U, CN224265023U, CN121956025B
Hole position accuracy		0.05mm

(1) Performance is evaluated in accordance with JJF 1951, VDI/VDE 2634 Part 3, and ISO 10360-13 at Scanology's ISO/IEC 17025-accredited calibration laboratory.

*Our company reserves the right to interpret and modify the parameters and images in this manual within the scope of law.

To Be A World-leading Brand of 3D Digitization

SCANOLOGY is a leading metrology brand delivering high-precision 3D measurement solutions for modern manufacturing and engineering. With more than 10 years of expertise in 3D metrology, the company has pioneered six industry-leading technological innovations and delivered advanced 3D metrology solutions to over 10,000 enterprises across more than 70 countries.

In 2025, the company went public, becoming the first publicly listed company in China's 3D scanning industry.

With its calibration laboratory accredited by CNAS, the company has also earned numerous industry recognitions, including the German Red Dot Design Award, and holds an extensive portfolio of intellectual property.

Today, the company's products are widely used across aerospace, automotive manufacturing, heavy equipment, additive manufacturing, and art and cultural heritage preservation, supporting major national projects such as the China Space Station, China's C919 passenger aircraft, and the China–Egypt joint archaeological program.

NO.1

China's No.1 *
Market Share

1st

China's 1st Publicly Listed
3D Scanning Company

400+
Intellectual Property Rights

70+
Countries & Regions Served

3
Global Subsidiaries

3
International Calibration Centers

7
Worldwide Offices



* Industrial-Grade Handheld Laser 3D Scanners (2021)
Handheld and Tracking General-Purpose 3D Visual Digitalization Products (2022)

According to a certification issued by the China Instrument and Control Society, industrial-grade handheld laser 3D scanners from SCANTECH (HANGZHOU) CO., LTD. ranked No.1 in China by market share in 2021. According to Frost & Sullivan's 2022 report, SCANTECH (HANGZHOU) CO., LTD. ranked No.1 in China's market for handheld and tracking general-purpose 3D visual digitalization products, with a 16.3% market share.

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