



TRACKSCAN-SHARP

Optical 3D Measurement System

Extensive Tracking, Accurate Measuring



SCANTECH (HANGZHOU) CO., LTD.

TRACKSCAN-SHARP

TrackScan-Sharp, consisting of a portable 3D scanner i-Scanner and an optical i-Tracker, is a brand-new generation of Scantech's optical 3D measurement system for measuring large-scale parts. It brings optical measurement to a whole new level by offering a tracking distance of up to 6 meters, a volumetric range of 49 m³, and volumetric accuracy of up to 0.049 mm (10.4 m³).

Engineered with i-Tracker's on-board processor for edge computing, 25-megapixel industrial cameras, and cutting-edge technologies, the TrackScan-Sharp is ideal for measuring large-sized parts or multiple parts at the same time without the hassle of moving trackers frequently.

It supports wired and wireless data transfer to cater to different industrial uses, making scanning even easier. It can also work with an auxiliary light module to inspect holes and slots. TrackScan-Sharp is optimal for efficient and stable measurements to enhance product development, quality control, and more.

i-Scanner
21 blue laser crosses
2.6 million measurements/s

i-Tracker
Edge Computing
Large-volume tracking

i-Probe
Measurement distance
of up to 10 meters





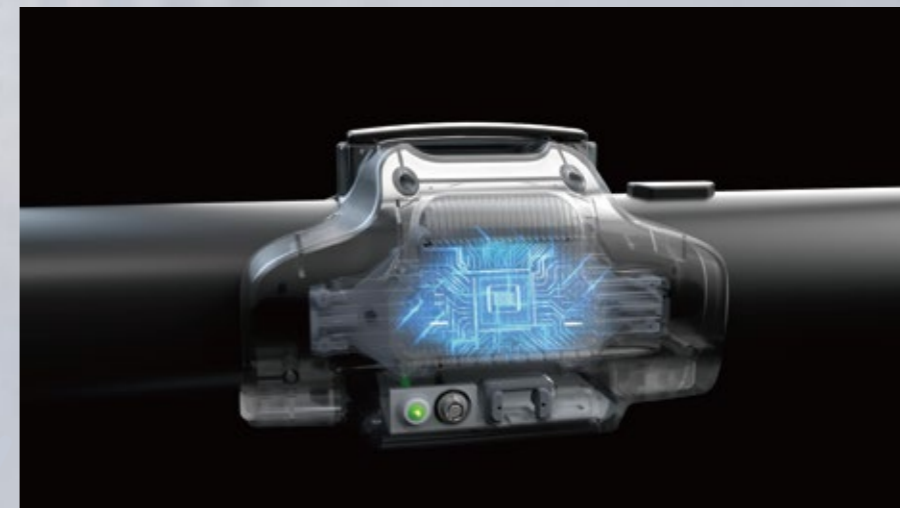
Ultra-high Pixels for Intricate Details

TrackScan-Sharp tracking 3D scanning system is equipped with a brand-new industrial camera. The camera features 25 megapixels, which is 5 times that of its previous generation. Thanks to its dynamic adaptive LED algorithm, long-distance depth of field, and strong anti-interference ability, the system can automatically acquire clear images in a range as long as 6 meters.



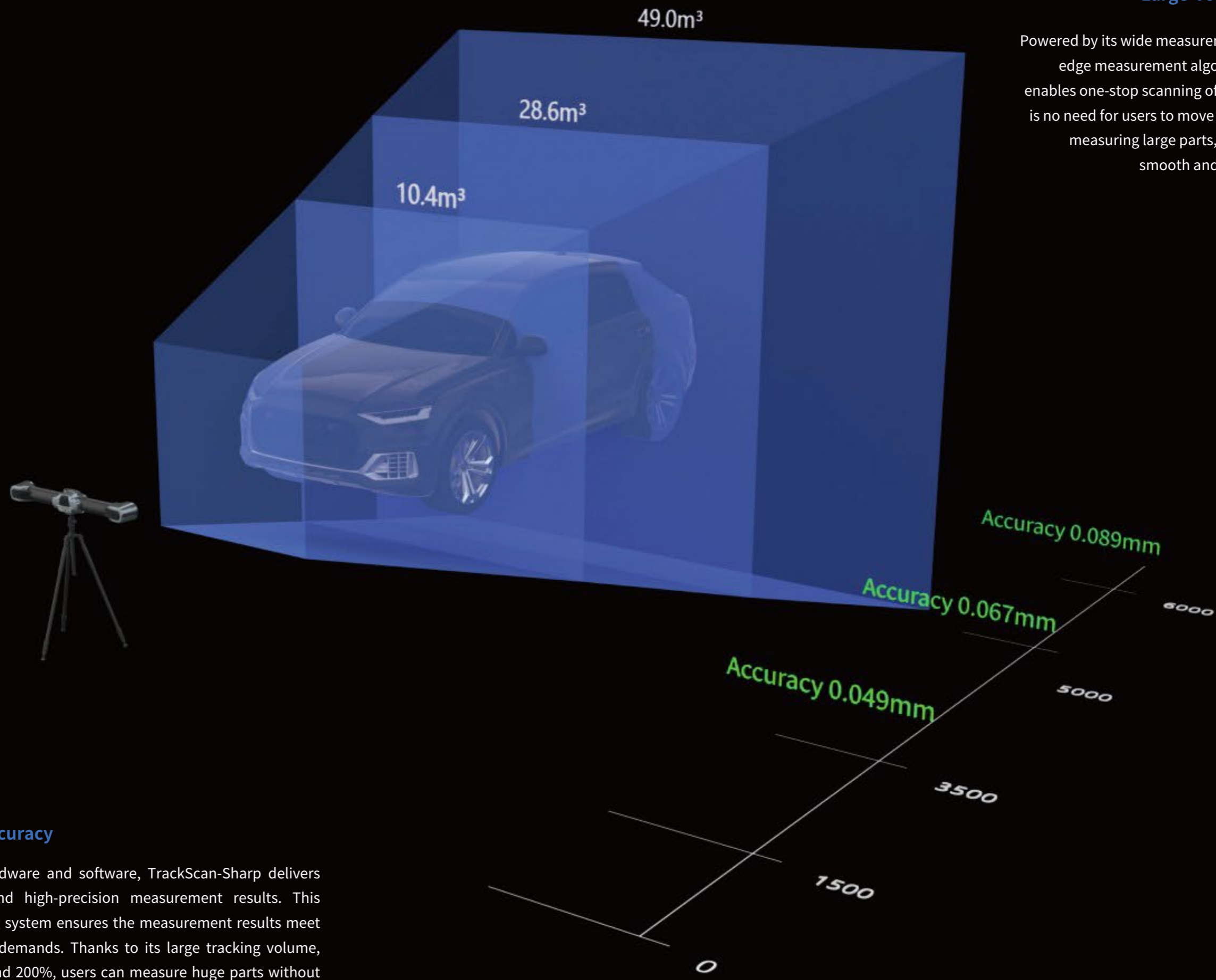
Edge Computing & Impressive Performance

The newly designed i-Tracker has an onboard processor for efficient image processing and data computation, which can deliver coordinates in real time. This innovative edge computing saves the computer's computing power, so that it's more capable of processing the scanned data. It optimizes the data and makes it more reliable and stable, impressing users with outstanding performance.



Large-volume Measurement

Powered by its wide measurement volume and robust edge measurement algorithm, TrackScan-Sharp enables one-stop scanning of large-scale parts. There is no need for users to move tracker frequently when measuring large parts, which ensures efficient, smooth and precise measurements.



Remarkable Accuracy

With powerful hardware and software, TrackScan-Sharp delivers metrology-level and high-precision measurement results. This optical 3D tracking system ensures the measurement results meet high metrological demands. Thanks to its large tracking volume, increased by around 200%, users can measure huge parts without compromising precision.



Fast 3D Scanning

Due to its optical tracking technology, TrackScan-Sharp can precisely measure parts without having to stick reference targets. Its large tracking volume allows users to measure multiple parts at the same time, thus significantly improving operations efficiency.

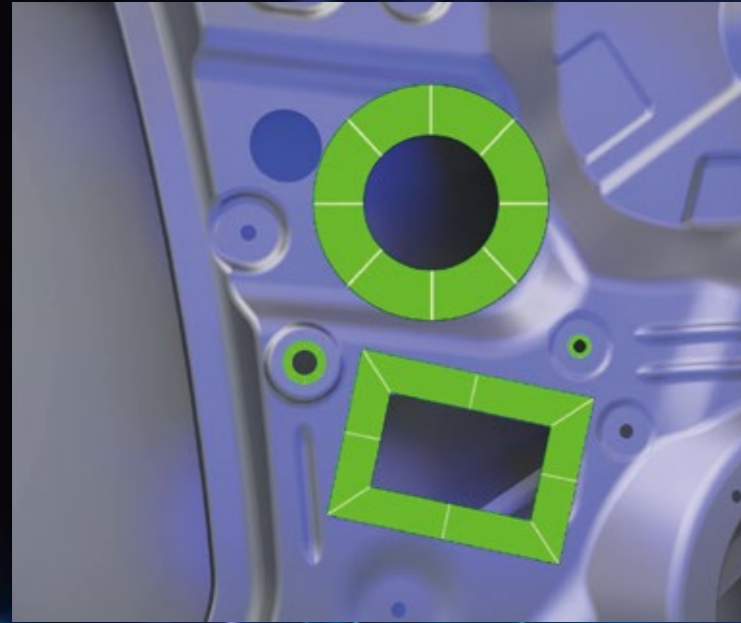


A New Era of Data Transmission

The 3D scanning system can transfer data both with and without wires. With wired mode, the system can send data over a long distance in line with industrial measurement standards. Optional wireless mode supports applications, in different working conditions, which is convenient due to its plug-and-play operations. It can be set up quickly and operated flexibly to cater to various environmental conditions, ensuring efficient measurements.



Vast Applications



It boasts a shadow-less-light edge detection with high-precision gray value measurement. Users can inspect closed features precisely, especially threaded holes. Good measurements are ensured by delivering accurate and repeatable measurement results such as positions and diameters.



TrackScan-Sharp can be paired with handheld probe i-Probe. It is 500 mm long and comes with different styluses. It can easily and accurately get the 3D data of inaccessible areas such as reference holes and hidden points even when some of its targets are blocked.



Its highly-adaptive data acquisition algorithm ensures that the equipment can easily obtain the 3D data of objects with different surfaces and materials such as reflective, dark, and colorful surfaces.

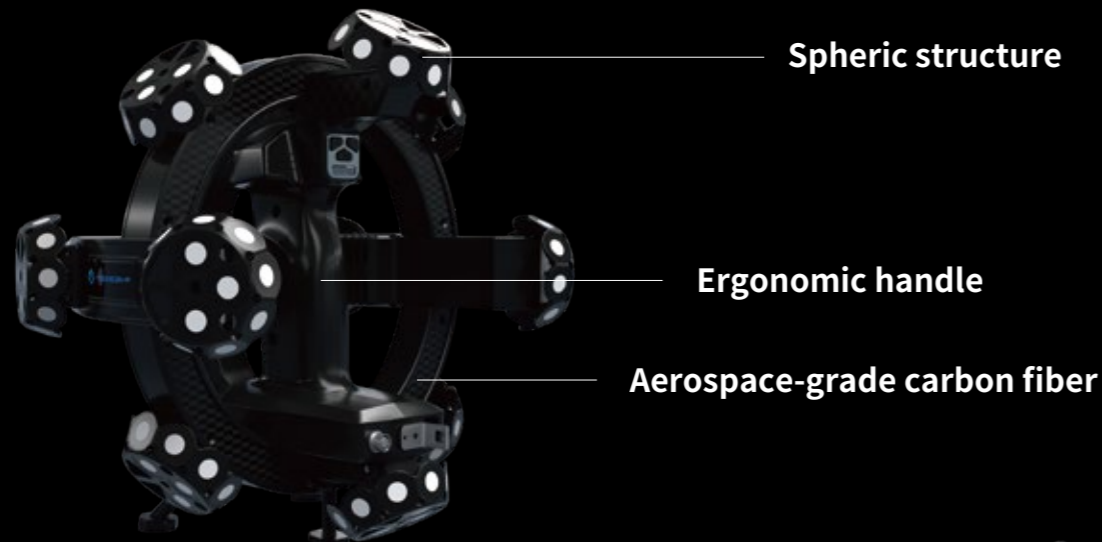


Its i-Tracker can be combined with tool simulators and path planning software to form M-Track, an intelligent robotic path planning and guiding system. The system comprises perception, planning, and execution modules, which cater to different applications such as grinding, coating, welding, and more.

Innovative Design

Made of aerospace-grade carbon fiber in a sphere shape, the i-Scanner is for heavy use. Its ergonomic handle can ensure the long-session use of the 3D scanner without causing much fatigue, which ensures free measurement.

The i-Tracker has an intuitive light band that shows operating status in real time. Its hollow grille design helps cameras remain at a stable temperature throughout the scanning process.



Multi-functional buttons

Various styluses

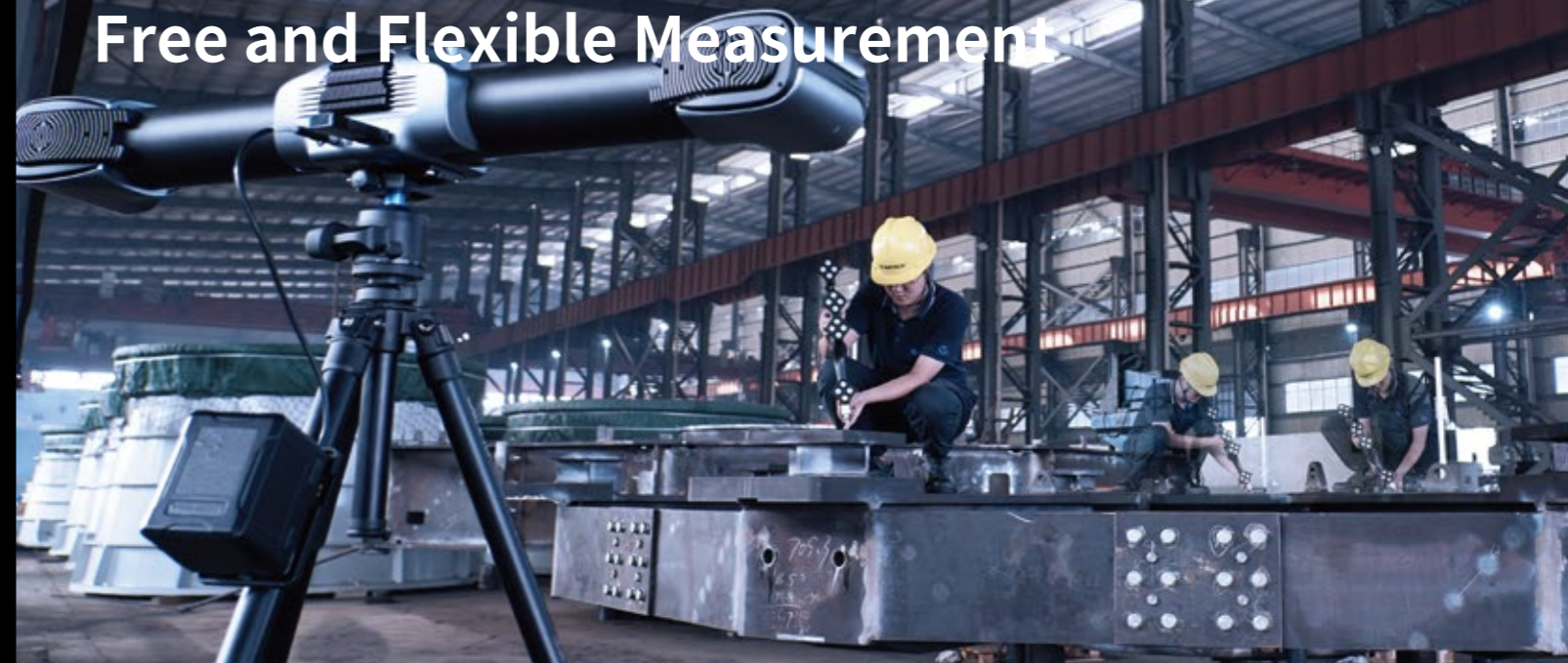


Intuitive light band

Hollow grille design for heat dissipation

I-PROBE

Optical Probing, Free and Flexible Measurement



Tracking T-Probe comes with the i-Tracker to obtain dimensions of features, such as reference holes and hidden points. It can be widely used in the measurement of fixtures, stamping parts, and marking for actual machining allowance.

Extensive Measurement

- Measure parts in a distance of up to 6 meters.
- The tracking distance can be extended to 10 meters.
- Measure large-sized parts with high accuracy and excellent performance.

Excellent for Deep Hidden Points

- Measure hidden points or hard-to-reach areas with high accuracy.
- Especially suitable for measuring automotive parts, aviation components, and irregular parts.

Flexible and Portable

- TrackProbe is a handheld probing system.
- Provide both wired and wireless data transfer.
- Automatically unify the coordinate systems of scan data and probing data with 3D software TViewer.

Precise Metrology-grade Results

- Measure the shapes and GD&T of different parts with high accuracy.
- The volume accuracy is 0.089 mm for 49.0 m³, 0.067 mm for 28.6 m³, and 0.049 mm for 10.4 m³.

Non-stop Measurement and Easy Movement

- i-Probe can measure continuously without the need for i-Tracker to reposition it.
- Only a few markers are needed for i-Tracker to move and continue tracking the i-Probe.

Diverse Uses

- Can be operated in various settings regardless of ambient conditions.
- Calculate and correct position deviations to achieve high-precision measurements.
- Deal with complex surfaces, high-precision parts, or large-scale parts without any problem.

Technical Parameter

Type		TrackScan-Sharp 49
Scan mode	Ultra-fast scanning	21 blue laser crosses
	Hyperfine scanning	7 blue parallel laser lines
	Deep-hole scanning	1 blue laser line
Accuracy ⁽¹⁾		Up to 0.025 mm (0.0009 in)
Measurement rate up to		2,600,000 measurements/s
Scanning area up to		500 mm × 600 mm (19.7 in × 23.6 in)
Laser class		Class II (eye-safe)
Resolution up to		0.020 mm (0.0008 in)
Volumetric accuracy ⁽²⁾	10.4 m ³ (Tracking distance 3.5 m)	0.049 mm (0.0019 in)
	28.6 m ³ (Tracking distance 5.0 m)	0.067 mm (0.0026 in)
	49.0 m ³ (Tracking distance 6.0 m)	0.089 mm (0.0035 in)
Tracking Distance per i-Tracker		6000 mm (236.2 in)
Volumetric accuracy (with MSCAN photogrammetry system)		0.044 mm + 0.012 mm/m (>6m) (0.0017 in + 0.00014 in/ft)
Hole position accuracy		0.050 mm (0.0020 in)
Camera pixels of i-Tracker		25 MP
Stand-off distance		300 mm (11.8 in)
Depth of field		400 mm (15.7 in)
Part size range (recommended)		0.1 m-12 m (3.9 in-472.4 in)
Operating temperature range		0 °C-45 °C (32°F-113°F)
Operating humidity range (non-condensing)		10-90% RH
Interface mode		USB 3.0, Network Interface
Certification		CE, RoHS, WEEE
Patents		CN106500627B, CN106500628B, CN206132003U, CN204854633U, CN204944431U, CN204902788U, CN204963812U, CN204902785U, CN106403845B, US10309770B2, CN204854633U, CN105068384B, CN105049664B, CN106403845B, CN214375417U, CN214379242U, CN214379241U, CN214149174U, CN109000582B, CN112802002B, CN210567185U, CN211121096U, CN114001671B, CN114001696B, CN114554025B, CN114205483B, US10309770B2, US11060853B2, KR102096806B1, EP3392831B1, CN218411072U, CN115325959B, CN218103238U, CN218103220U, CN114627249B, US11493326B2, CN115695763B, CN307756797S, CN218584004U

(1) ISO 17025 accredited: Based on VDI/VDE 2634 Part 3 standard and JJF 1951 specification, probing error (size) (PS) performance is evaluated.
(2) ISO 17025 accredited: Based on VDI/VDE 2634 Part 3 standard and JJF 1951 specification, sphere spacing error (SD) performance is evaluated.



Technical Parameter

Type		i-Probe 500
Volumetric accuracy ⁽¹⁾	10.4 m ³ (Tracking distance 3.5 m)	0.049 mm (0.0019 in)
	28.6 m ³ (Tracking distance 5.0 m)	0.067 mm (0.0026 in)
	49.0 m ³ (Tracking distance 6.0 m)	0.089 mm (0.0035 in)
Measurement distance (per tracker)		Max 10 m (393.7 in)
Part size range (recommended)		0.1 m - 12 m (3.9 in × 472.4 in)
Camera pixel of i-Tracker		25 MP
Dimensions of i-Probe 500		510 × 145 × 89 mm (20.1 × 5.7 × 3.5 in)
Weight of i-Probe 500		700 g (1.54 lb)
Operating temperature range		0-45°C (32°F-113°F)
Operating humidity range (non-condensing)		10 ~ 90% RH
Connection		Wired and wireless
Number of targets		16
Patents		ZL201520680513.1, ZL202210065778.5, ZL202221475584.4, ZL202221766958.8, ZL202320545878.8

(1) Comply with ISO 10360-2 standard.

