

# TRACKSCAN SHARP

TrackScan Sharp optical 3D scanning system, engineered with 25-megapixel industrial cameras and robust onboard processors for edge computing, is specially designed for measuring large-scale parts over a long distance with high speed. It brings optical measurements to new heights by offering a tracking distance of up to 8.5 meters, a high-precision measurement range of 135 m3, enabling powerful measurement experiences.

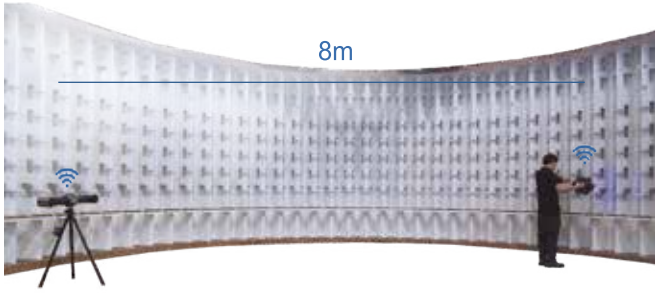
This measurement system is highlighted by its robust performance including 99 laser lines, and a measurement rate of up to 6 million measurements/s, offering highly precise and reliable measurement results.

Moreover, as the third generation of SCANOLOGY's technology featured by intelligent and wireless 3D scanning, TrackScan Sharp is fully battery-powered and supports wireless data transfer, which frees the user from cable constraints and allows for smooth scanning in any environment.



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## Long-distance and Large-volume Tracking

TrackScan Sharp adopts a dynamic adaptive LED algorithm and long-distance depth of field, which supports a max tracking distance as long as 8.5 meters. It allows users to effortlessly tackle a wide variety of challenges including measuring large-scale parts in aerospace, energy, and heavy industry. Its 135-m3 industrial high-precision measurement range and 233-m3 scanning range are achieved thanks to its large tracking volume, robust edge calibration algorithm, and stable structure. It saves the hassle of moving trackers frequently and enables users to measure large components efficiently in just one position.

## Technical Specifications

| Type                                                   |                                           | TrackScan Sharp-S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | TrackScan Sharp-E |
|--------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Scan mode                                              | Ultra-fast scanning                       | 81 blue laser lines (Triple Cross Technology)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |
|                                                        | Hyperfine scanning                        | 17 blue parallel laser lines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |
|                                                        | Deep-hole scanning                        | Extra 1 blue laser line                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |
| Accuracy <sup>(1)</sup>                                |                                           | up to 0.025 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |
| Measurement rate up to                                 |                                           | 6,000,000 measurements/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |
| Scanning area up to                                    |                                           | 800 mm × 700 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |
| Laser class                                            |                                           | Class II (eye-safe)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |
| Resolution up to                                       |                                           | 0.020 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |
| Volumetric accuracy <sup>(2)</sup>                     | 10.4 m <sup>3</sup> (3.5 m)               | 0.048 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.049 mm          |
|                                                        | 35 m <sup>3</sup> (5.2 m)                 | 0.069 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.070 mm          |
|                                                        | 90 m <sup>3</sup> (7.2 m)                 | 0.128 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.130 mm          |
|                                                        | 135 m <sup>3</sup> (8.5 m) <sup>(3)</sup> | 0.159 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                 |
| Volumetric accuracy (with MSCAN photogrammetry system) |                                           | 0.044 mm + 0.012 mm/m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |
| Stand-off distance                                     |                                           | 300 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   |
| Depth of field                                         |                                           | 400 mm, 800 mm (Large depth of field)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |
| Hole position accuracy                                 |                                           | 0.050 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |
| Output format                                          |                                           | .stl, .pj3, .igs, .asc and etc., customized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |
| Operating temperature range                            |                                           | -10~40 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |
| Operating humidity range (non-condensing)              |                                           | 10-90 % RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |
| Interface mode                                         |                                           | USB 3.0, Network Interface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |
| Certification                                          |                                           | CE, Rohs, WEEE, FCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |
| Patents                                                |                                           | CN109000582B, CN110992393B, CN111678459B, CN111694665B, CN112802002B, CN112867136B, CN112964196B, CN113188476B, CN113340234B, CN113432561B, CN113473034B, CN113514008B, CN113766083B, CN114001696B, CN114205483B, CN114554025B, CN114627249B, CN115289974B, CN115325959B, CN115493512B, CN115511688B, CN115661369B, CN115690333B, CN115695763B, CN116136396B, CN116206069B, CN116244730B, CN209263911U, CN210567185U, CN211121096U, CN214149174U, CN218103220U, CN218103238U, CN218411072U, CN218584004U, CN218734448U, CN219829788U, CN219834226U, CN307756797S, EP3392831B1, EP3907702B1, KR102096806B1, US10309770B2, US11060853B2, US11493326B2 |                   |

(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.

(3) The industrial-grade high-precision measurement range of TrackScan Sharp-S is up to 135 m<sup>3</sup>, and its scanning range is up to 233 m<sup>3</sup>.

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

## Manchester Metrology Ltd

Unit 3, The Wellington Centre, Whitelands Road, Ashton-under-Lyne OL6 6UY  
0161 637 8744 | manchester-metrology.co.uk

