

SHINING 3D
METROLOGY

V·GER
METROLOGY

FreeScan Combo+ Wireless

Wireless Hybrid Light Source Metrology Handheld 3D Scanner

Go Wireless. Inspect Boundless.



FreeScan Combo+ Wireless

Inheriting the compact DNA and hybrid light source of FreeScan Combo Series, FreeScan Combo+ Wireless marks a complete transition to a wireless solution.

Powered by the next-generation Wi-Fi 7 protocol, it delivers fast and stable wireless data transmission, ensuring seamless performance across complex factory floors and challenging outdoor environments.

Upgraded with 93 laser lines for higher scanning efficiency, while built-in Video Photogrammetry (VPG) technology maximizes global accuracy for diverse component sizes.

Designed for flexibility, FreeScan Combo+ Wireless empowers professionals to perform inspection, quality control, and reverse engineering tasks with greater freedom and efficiency across automotive, heavy industry, transportation, energy, and other demanding sectors.





Wi-Fi 7

Designed for Mobility



Wireless Transmission

Cut the cord entirely. Driven by the next-gen Wi-Fi 7 protocol and advanced anti-interference technology, FreeScan Combo+ Wireless delivers seamless, reliable data transmission across complex factory floors and challenging outdoor environments.



Work Weightless

Reach deep into confined spaces and complex structures with ease. The lightweight, compact design keeps scanning effortless and agile from start to finish.



Minimized Downtime

Built to outpace the heaviest shifts. The high-capacity battery supports up to 2 hours of continuous scanning. Paired with the rapid-charging dock, just swap and keep running.

Net weight

550_g





Certified and Traceable Accuracy

With the volumetric accuracy up to $0.02 \text{ mm} + 0.015 \text{ mm/m}$ using photogrammetry, FreeScan Combo+ Wireless delivers consistent and reliable measurement results across a wide range of inspection and quality control applications.

Every system is calibrated by SHINING 3D Accuracy Laboratory, accredited by CNAS in accordance with ISO 17025, ensures rigorous calibration of optical metrology. In the Accuracy Lab, the calibration procedures strictly follow ISO 10360 standards, ensuring that its technical capabilities can provide reliable quality assurance for enterprise, industry, and customer product research, testing, and manufacturing.





Secured Accuracy at Scale

Built-in Video Photogrammetry

Equipped with SHINING 3D's patented Video Photogrammetry (VPG) technology, FreeScan Combo+ Wireless continuously optimizes the spatial position of reference markers throughout the scanning process. By minimizing cumulative errors over long distances, VPG helps maintain consistent accuracy across large-scale components, making it ideal for applications requiring reliable global measurements.



More Laser Lines. Higher Performance. Faster Speed.



93 Laser Lines

Captures more surface data in every pass, reducing scan paths and accelerating data acquisition.



180 Frames Per Second

Ensures smooth, stable tracking even during fast scanning movements.



Enhanced Efficiency

Complex surfaces, deep holes, narrow slots, and large-scale components can be scanned efficiently, with meshes generated in real time for a faster path from capture to analysis.



Scan speed up to

9,106,000

points/s



Multi Scan Modes for Different Usage



High-speed
scan mode with

93 laser lines



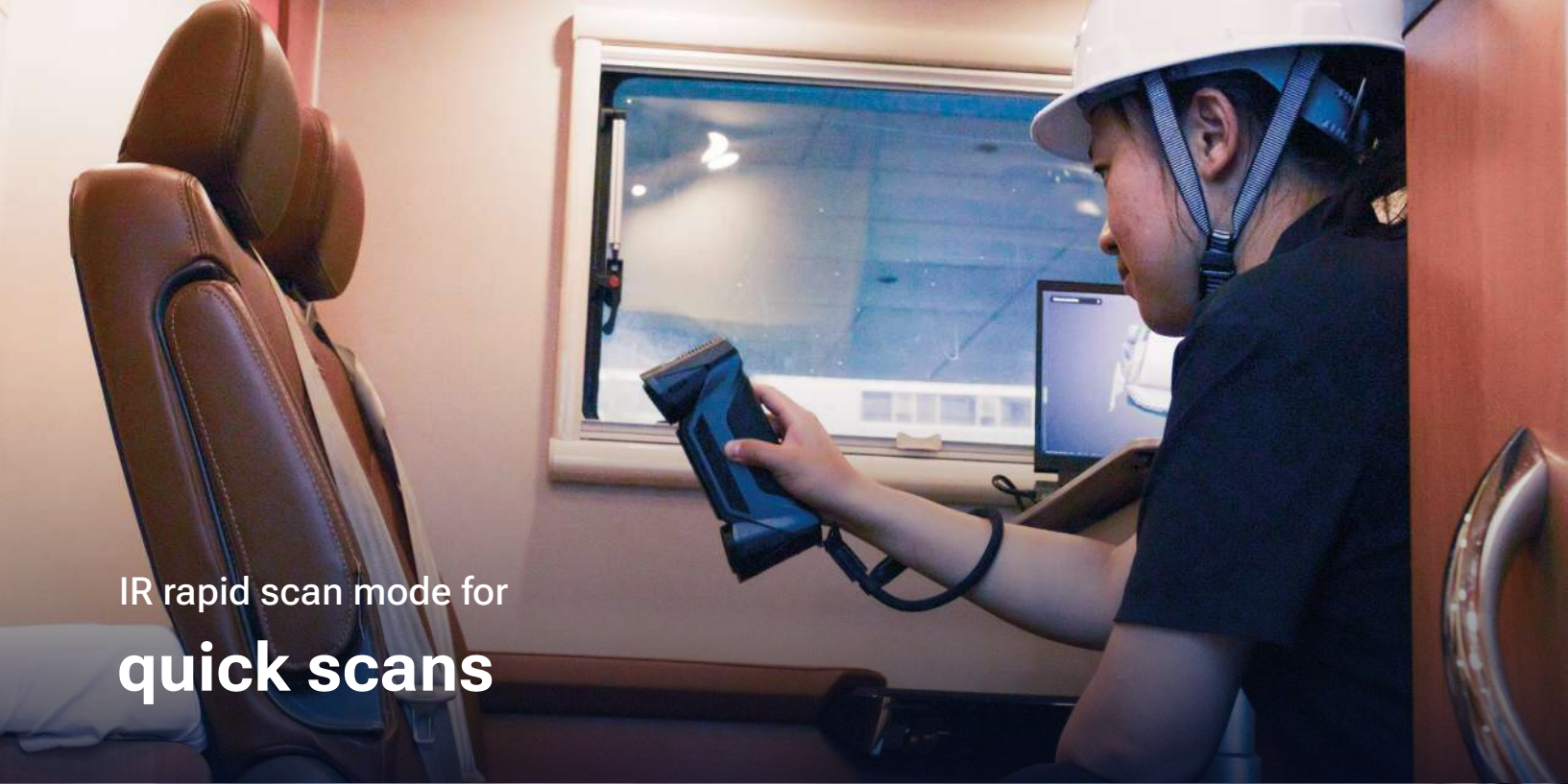
Detailed
scan mode with

25 parallel
laser lines



Deep pockets
scan mode with

1 laser line



IR rapid scan mode for
quick scans



VPG scan mode for
large components

Quality Starts at Capture



Real-time Display of Mesh Data

Our streamlined software displays mesh data in real time as you scan your workpiece, enhancing visual quality and saving time on meshing later on.



Intelligent Resolution

Automatically adjusts mesh resolution based on the object's curvature, ensuring clearer and more detailed features.



Data Quality Visualization

Users can determine if the scanning distance is appropriate by observing the rendering color of the laser lines projected onto the object in the 3D view of the software or by the LED indicator on the scanner.

There is also a real time mesh quality indicator to determine the quality of the collected data. So an operator knows which areas of the scan are sufficient or not.



AI Feature Recognition

Intelligent boundary detection provides fast, precise measurement of round holes, rectangular holes, and slots, ensuring high-quality and high-accuracy data capture.



One Click, Next Step

Integrated SHINING3D Inspect Software

Seamlessly connect data capture, inspection, and analysis within a unified workflow. With intuitive operation, streamlined interaction, and direct integration with SHINING3D Inspect, users can move from scanning to inspection results faster than ever.

SHINING3D Inspect provides a comprehensive set of inspection tools for dimensional analysis, GD&T evaluation, color map comparison, and reporting. Certified by PTB, it supports a wide range of quality control and inspection applications across manufacturing industries.





SPECIFICATIONS

Product	FreeScan Combo+ Wireless	FreeScan Combo Wireless
Accuracy	0.02 mm (0.0008 in)	
Volumetric accuracy	0.02 mm + 0.03 mm/m (0.0008 in + 0.0012 in/ft)	
Volumetric accuracy with VPG	0.02 mm + 0.015 mm/m (0.0008 in + 0.00018 in/ft)	
Scan speed	Up to 9,106,000 points/s	Up to 7,344,000 points/s
Max. FOV	Laser: 580 x 650 mm; IR: 830 x 700 mm (Laser: 22.8 x 25.6 in; IR: 32.7 x 27.6 in)	
High-speed scan	Included (93 laser lines) VCSEL	Included (50 laser lines) VCSEL
Detailed scan	Included (25 parallel laser lines)	Included (25 parallel laser lines)
Deep pockets scan	Included (1 laser line)	Included (1 laser line)
Working distance	300 mm (11.81 in)	
Connection standard	Wi-Fi 7/USB 3.0	
Dimension	189 × 81 × 53 mm (7.44 × 3.18 × 2.08 in)	
Net weight	550 g (1.212 lb)	
Working temperature	-10 ~ 40 °C (14 ~ 104 °F)	
Working humidity	10 ~ 90 %	
Certifications	CE, FCC, ROHS, WEEE, KC, FDA, UKCA, IP50,TELEC, TiSAX	
Acceptance test	ISO 10360 Certified (Tested in the ISO/IEC 17025 Accredited Accuracy Lab)	

Recommended computer configuration

OS: Windows 10 Pro (64-bit) / Windows 11 Pro (64-bit);
 Processor: Intel® Core™ Ultra 9 Processor 275HX or above
 Graphics Card: NVIDIA GeForce RTX 5080 Laptop GPU
 or above Video Memory: 12G or above;
 RAM: 64G or above,
 DDR5 dual-channel; Interface USB 3.0

OS: Windows 10 Pro (64-bit) /
 Windows 11 Pro (64-bit);
 Processor: Intel® Core™ Ultra 9 Processor 275HX
 or above; Graphics Card: NVIDIA GeForce RTX 4070
 Laptop GPU or above
 Video Memory: 12G or above;
 RAM: 64G or above, DDR5 dual-channel;
 Interface USB 3.0"

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