



SHINING 3D

FREESCAN COMBO

Hybrid Light Source and Multifunctional
Handheld 3D Scanner

DELIGHT THE METROLOGY SCANNING



FREESCAN COMBO

The FreeScan Combo, with a small size of 193x63x53mm and weighed only 620g, has dual light sources: blue laser and infrared VCSEL.

Being a lightweight and portable metrology scanner, it is equipped with four working modes: multiple lines scanning, single line scanning, fine scanning, infrared scanning.

It can be used to achieve metrology-grade precision inspection, reverse design, additive manufacturing, and other applications in many manufacturing sectors, including the automotive industries, aerospace, rail transportation, heavy industries, mold manufacturing, casting and foundry and medical industries.



LIGHT SOURCE

Blue laser + Infrared VCSEL



ACCURACY

Up to 0.02mm



620g

WEIGHT

620g



COMPACT SIZE

193mm × 63mm × 53mm





BLUE LASER + INFRARED LIGHT

An innovative combination of blue laser and infrared light sources meets the needs of diverse industrial 3D scanning scenarios.



4 SCANNING MODES, MULTIPLE SCAN CHOICES

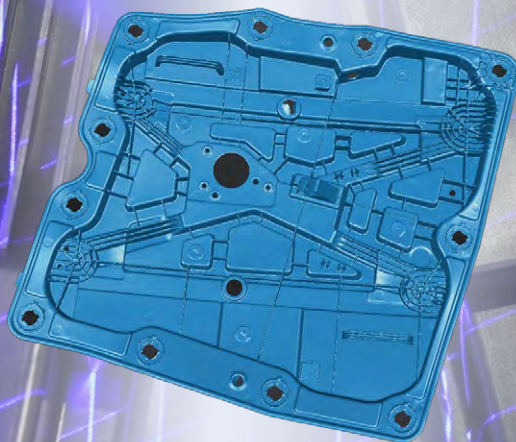
- — 26 laser lines for global scanning;
- — 7 parallel blue laser lines for fine scanning details;
- — 1 single blue laser line to obtain deep hole data;
- — Infrared light source scanning fast and **without markers**.

1,860,000

points/s

26 LASER LINES

Global scanning, smooth and efficient.
No fear of black or reflective surface.





0.02^{UP TO}mm

A WISE CHOICE FOR METROLOGY APPLICATION

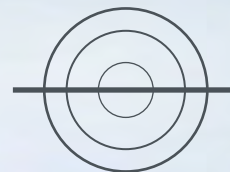
Metrology-grade accuracy, the accuracy under laser scanning mode can achieve up to 0.02mm.



PRECISE AND FINE DETAIL SCANNING

Smaller scanning area with 7 parallel laser lines.

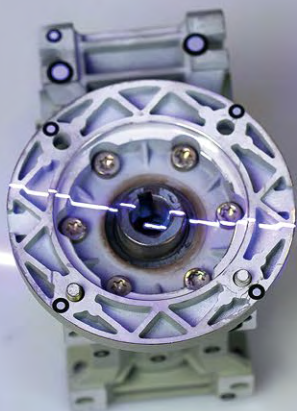




DEEP HOLE SCANNING WITH COMPLETE DATA

Optimized lens angle and single line for better acquisition of deep hole data.

Ensuring complete data for full-size 3D inspection.





INFRARED LIGHT SCANNING

No markers needed for feature-rich workpieces.
Infrared light source can be used directly to scan quickly.

620g

POWERFUL AND ERGONOMIC

Ergonomic design, compact, convenient and easy to use.
Metal case in line with modern industrial aesthetics.



SPECIFICATION

Product Model		FreeScan Combo		
Scan Mode	Laser Scan			Infrared Scan
	Multiple Lines Scan	Single Line Scan	Fine Scan	
Light Source	26 laser lines	Single laser line	7 parallel laser lines	VCSEL Light Source
Working Distance	300 mm	300mm	200 mm	300mm
Scan Accuracy	Up to 0.02mm			/
Volumetric Accuracy ⁽¹⁾	0.02 + 0.033 mm/m			0.05+0.1mm/m
Scan Speed	1,860,000 points/s			2,250,000 points/s
Scan Depth	360 mm			1240mm ⁽²⁾
Max. FOV	520 mm x 510 mm			600mm x 600mm
Point Distance	0.05mm–3mm			0.1mm–3mm
Laser Class	Class II (eye safe)			
Connection Standard	USB 3.0			
Dimension	193 mm x 63 mm x 53 mm			
Weight	620 g			
Power Input	12V, 5.0A			
Working Temperature	-20 ~ 40℃			
Working Humidity	10 ~ 90%			
Certification	CE, FCC, ROHS, WEEE, KC, FDA, UKCA, IP50			
Recommended Computer Configuration	OS: Win10/ 11, 64 bit; Graphics card: NVIDIA GTX/RTX series cards, higher or equal to GeForce RTX 3060; Video memory: ≥6 G; Processor: I7-10700; Memory: ≥32 GB			

Notice: SHINING 3D reserves the right to modify or adjust above specifications and pictures.

(1): Based on VDI/VDE 2634 part 3 standard. Sphere-spacing error is assessed with traceable length artefacts and markers by measuring these at different locations and orientations within the working volume.

(2): Scan depth can be manually adjusted in Infrared scan. Maximum is 1240mm.

Version Number: FreeScan Combo-EN 20230410-V1.2