



SHINING 3D

# FREESCAN COMBO

Hybrid Light Source and Multifunctional  
Handheld 3D Scanner

COMPACT AND POWERFUL METROLOGY



# FREESCAN COMBO

The powerful FreeScan Combo packs dual light sources in an ultra-compact shell, measuring just 193x63x53mm. It's equipped with both blue laser and infrared VCSEL technology and weighs in at only 620g.

This lightweight, handheld 3D scanner offers four modes: multiple-line scanning, single-line scanning, fine scanning, and infrared scanning.

With its versatile scan modes and technologies, the FreeScan Combo can adapt to numerous use cases. It achieves metrology-grade precision for inspection, reverse engineering, product design, additive manufacturing, and other demanding applications in a wide range of sectors.



## VERSATILE

Laser + VCSEL



## ACCURATE

Up to 0.02mm



## LIGHTWEIGHT

Only 620g



## COMPACT

193 × 63 × 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.**

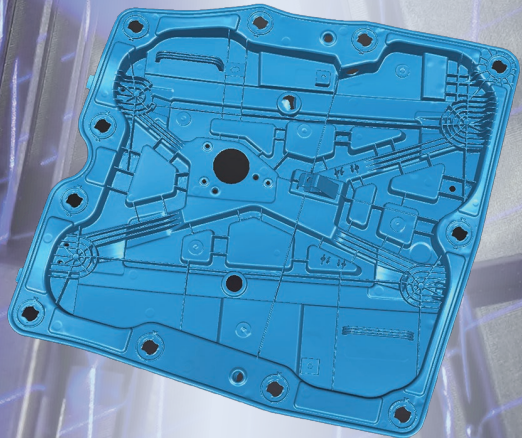


# 1,860,000

points/s

## 26 LASER LINES

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





0.02<sup>UP TO</sup>mm

## A WISE CHOICE FOR METROLOGY APPLICATION

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

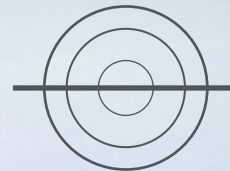


## PRECISE AND FINE DETAIL SCANNING

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.





# SPECIFICATIONS

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 <sup>(1)</sup>	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 <sup>(2)</sup>
Max. FOV	520 mm x 510 mm			600 mm x 600 mm
Point Distance	0.05mm–10mm			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°C			
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.

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