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.

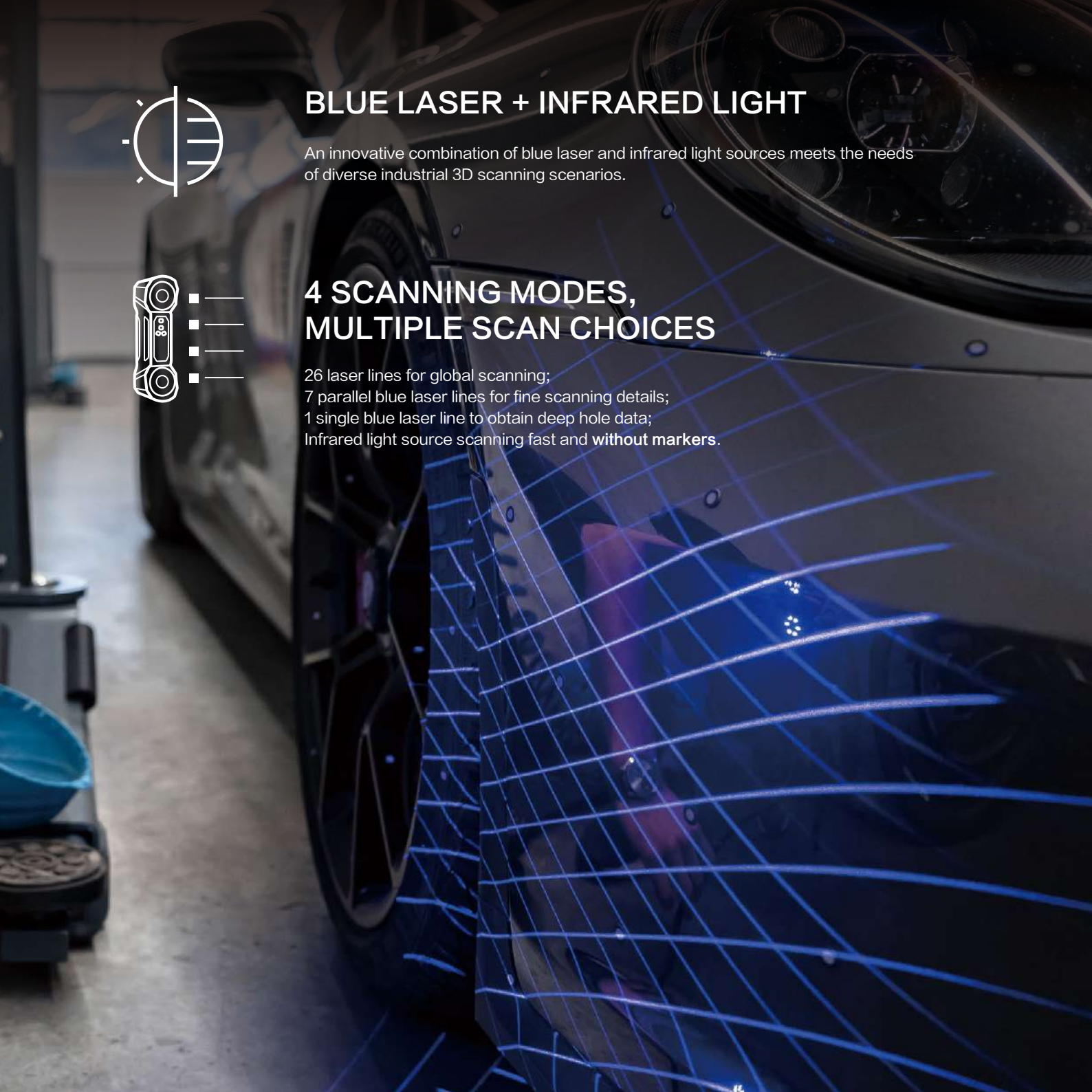
VERSATILE
Laser + VCSEL

ACCURATE
Up to 0.02mm

620g

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.

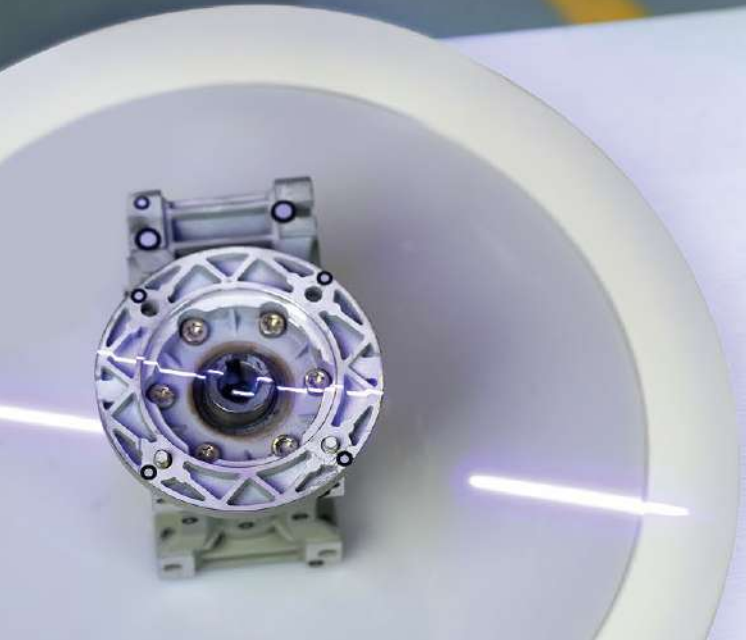
0.02mm UP TO

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 (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			600 mm x 600 mm
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 20230516–V1.3