

FREESCAN

COMBO Series



Hybrid Light Source and Multifunctional Handheld 3D Scanner

COMPACT AND POWERFUL METROLOGY

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.

The FreeScan Combo+ Multi-Line Scanning Mode is capable of up to 50 lines and scan speed up to 3,584,000 points/sec. With its superb scanning speed and efficiency, the FreeScan Combo+ can easily handle a wide range of 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
193x63x53mm



620g



620g POWERFUL AND ERGONOMIC

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

UP TO 0.02 mm A WISE CHOICE FOR METROLOGY APPLICATION

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



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

Multi-lines modes 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.



PRECISE AND FINE DETAIL SCANNING

Smaller scanning area with 7 parallel laser lines.



INFRARED LIGHT SCANNING

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



Up to 3,600,000 points/s FreeScan Combo+ 50 LASER LINES FreeScan Combo 26 LASER LINES

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



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.

SPECIFICATION

Product Model		FreeScan Combo Series	
Scan Mode	Laser Scan		Infrared Scan
Light Source	FreeScan Combo+	FreeScan Combo	VCSEL Light Source
	50 laser lines	26 laser lines	
	7 parallel laser lines / Fine scan Single laser line		
Scan Speed	3,600,000 points/s 1,860,000 points/s		2,250,000 points/s
Working Distance	300 mm / 300 mm / 200 mm		300 mm
Scan Accuracy	Up to 0.02 mm		Up to 0.05 mm
Volumetric Accuracy ⁽¹⁾	0.02 + 0.033 mm/m		0.05 + 0.1 mm/m
Scan Depth	360 mm		1240 mm ⁽²⁾
Max. FOV	520 x 510 mm		600 x 600 mm
Point Distance	0.05 ~ 10 mm		0.1 ~ 3 mm
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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