

AlphaScan^{NEW}

AI Metrology-Grade Handheld 3D Scanner

Perfected Excellence · Reinvented Upgrade



AlphaScan Handheld 3D Scanner

Now comprehensively upgraded: precision-engineered exterior, robust structure, and enhanced performance.

While retaining its signature lightweight design, high-speed operation, and metrology-grade accuracy, the new generation elevates fine-detail scanning capabilities and global control precision. Its modular architecture significantly expands versatility, delivering tailored solutions for flexible cross-scenario applications.



5,400,000 measurements per second

34 Blue Laser Beams

High-Speed Data Acquisition



Repeatability

0.02mm

High Measurement Consistency (Selection of photogrammetric scale bars)



0.015mm+0.035mm/m

0.015mm+0.025mm/m

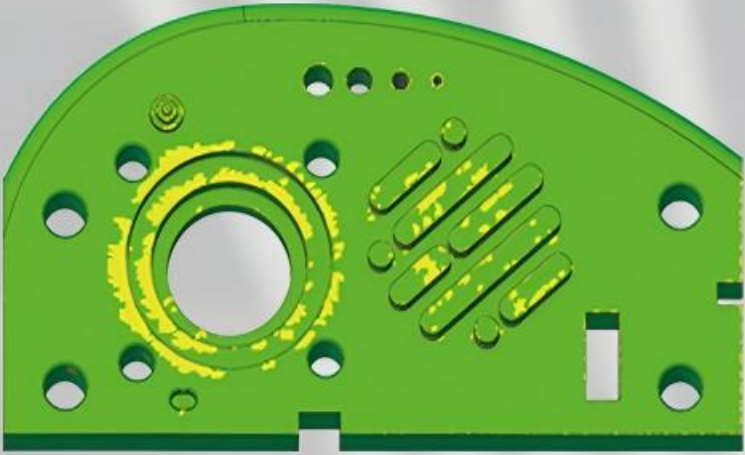
3D INSPECTION PROCESS



①

Data integration optimization

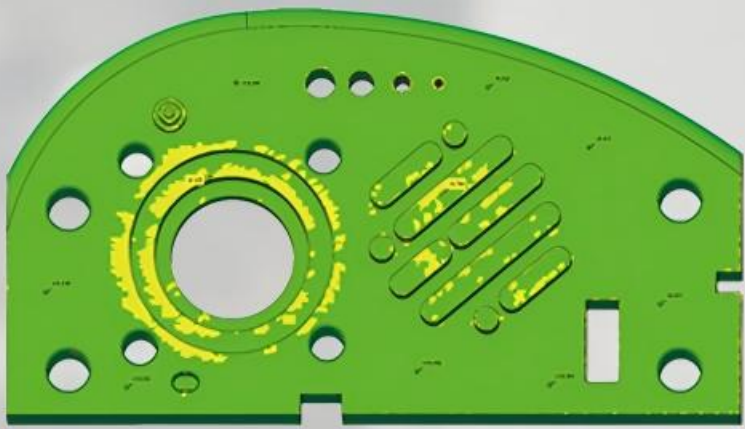
After scanning is complete, the point cloud data or 3D model is imported into specialized inspection software, preparing for subsequent processing.



②

Intelligent comparison and analysis

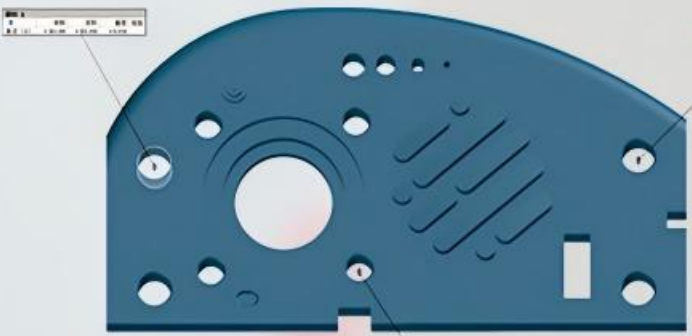
The imported scan data is aligned with the reference standard part coordinates. After alignment, a color deviation map is generated to assist in error analysis.



③

Multidimensional quality verification

Based on the completed alignment, detailed dimension measurement and tolerance analysis are performed to determine whether the product meets design specifications.



④

Smart reporting system

Generate inspection reports with one click. Through visualized analysis data, it helps quickly identify issues and improve quality control efficiency.



APPLICATION FIELDS



Automotive Industry



Rail Transportation



Aerospace



Energy Manufacturing



Mold Manufacturing



Machinery Manufacturing

THCHNICAL SPECIFICATIONS

Model Number		AlphaScan	
Scanning Mode	High-Speed Scanning	26 crossed blue laser lines	
	Precision Scanning	7 blue laser lines	
	Deep Hole Scanning	1 single blue laser line	
Highest Precision		0.020 millimeters	
Maximum Scanning Speed		5,400,000 measurements per second	
Maximum Scanning Field		650mm×550mm	
Laser Class		Class II (Eye Safe)	
Maximum Resolution		0.01 millimeters	
Volume Accuracy		0.015mm+0.035mm/m 0.015mm+0.025mm/m (Selection of photogrammetric scale bars)	
Reference Distance		300mm (200mm fine mode)	
Depth of Field		550 millimeters	
Output Format		ASC, IGS, TXT, UMK, STL, PLY, OBJ, etc.	
Operating Temperature		-10° C to 40° C	
Interface Type		USB 3.0	
Minimum computer requirements		OS: Windows 10 or later (64-bit required) GPU: NVIDIA GTX/RTX series (e.g., RTX 4060 or higher) VRAM: 8 GB or more CPU: Intel Core i7-13700H or better RAM: 32 GB or higher	



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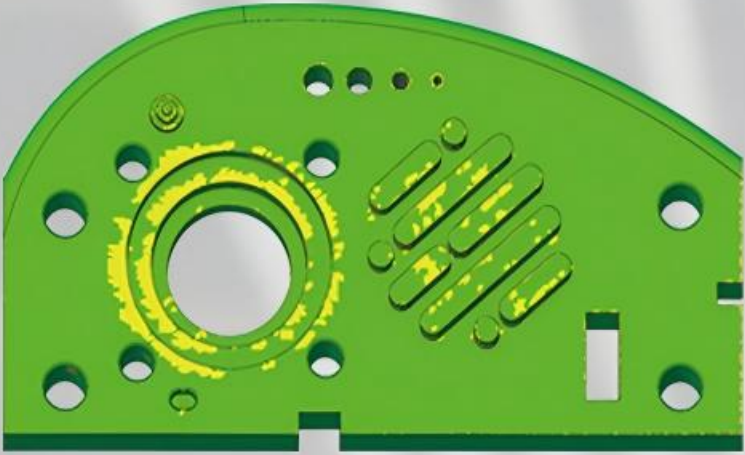
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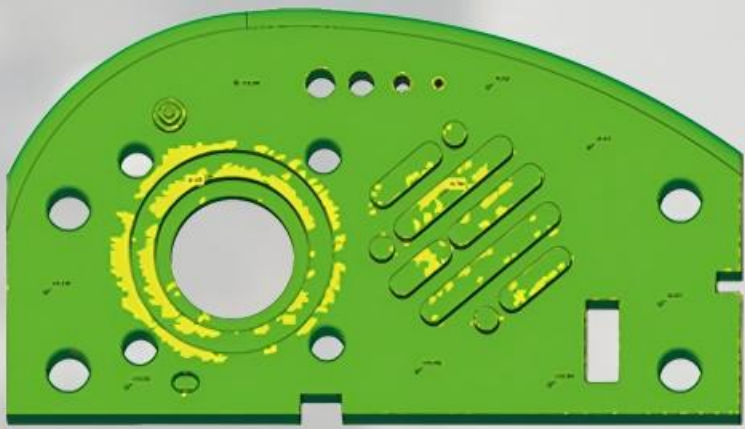
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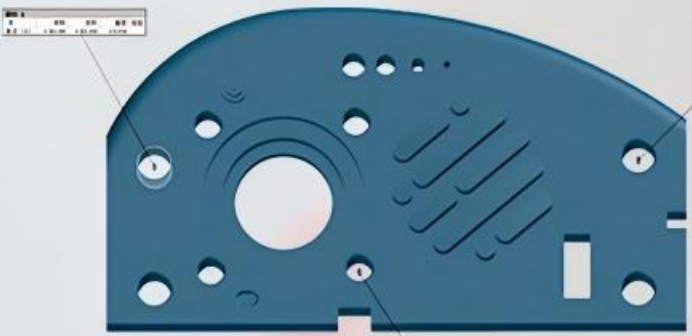
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Mold Manufacturing



Machinery Manufacturing

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Model Number		AlphaScan Elite	
Scanning Mode	High-Speed Scanning	50 crossed blue laser lines	
	Precision Scanning	7 blue laser lines	
	Deep Hole Scanning	1 single blue laser line	
Highest Precision		0.020 millimeters	
Maximum Scanning Speed		7,100,000 measurements per second	
Maximum Scanning Field		650mm×550mm	
Laser Class		Class II (Eye Safe)	
Maximum Resolution		0.01 millimeters	
Volume Accuracy		0.015mm+0.035mm/m 0.015mm+0.025mm/m (Selection of photogrammetric scale bars)	
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