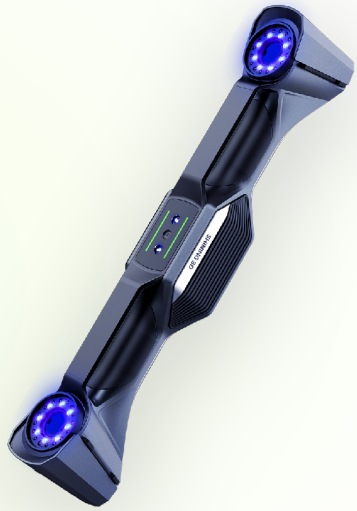
WIRELESS LASER HANDHELD 3D SCANNER

FreeScan UE Nova

Wireless Metrology 3D Scanner for Greater Reach

A wide-range wireless laser handheld scanner with the largest field of view on the market. It covers 2.6 × 2.2 m in one frame, so large objects go fast, and it runs without cables on the shop floor or out in the field.

2.6 × 2.2 m	0.072 mm	4.6 M
MAX FIELD OF VIEW	ACCURACY	POINTS / SEC



Large-Scale Scanning Coverage · Ultra-Fast Scan Speed · Integrated Video Photogrammetry · Flexible FOV · Wireless & Hot-Swappable



A full-size rail car in the depot. The UE Nova covers large panels like this nose section from a few steps back.

Large-Scale Scanning Coverage

An extra-large 2.6 × 2.2 m field of view and a maximum scanning distance of 2.6 m make it ideal for large-scale projects such as vehicles, hulls and heavy equipment.



Laser lines sweeping an industrial fan housing. At 50 lines, one pass captures a large curved surface.

Ultra-Fast Scan Speed

50 laser lines scan fast, so data capture takes less time on every job.

50	4.6 M
laser lines high-speed scan	points per second



Scanning a ship propeller and its nozzle in dry dock. With no cable to manage, the operator can work around the blades.

Integrated Wireless Modules

Built-in wireless modules send data in real time with high frame rates and a stable link. On-board computing processes it fast, so results come quickly on site.



Changing the battery pack in the field. The pack is hot-swappable, so the scan keeps going.

Swappable Batteries

Detachable, hot-swappable batteries keep scanning continuous through long projects and at remote sites.



Working close to a hull section under the propeller. Near mode trades coverage for detail when space is tight.

Flexible FOV

Three selectable working ranges adapt the field of view to the job on site.

Near mode, 300 to 800 mm. Detail work in tight spaces.

Standard mode, 600 to 1500 mm. General scanning with a balance of speed and detail.

Far mode, 1200 to 2600 mm. Very large objects, covered fast.



Setting the calibration rod on a hull. The scanner's video checks the rod's references live, so no coded targets are needed.

Video Photogrammetry (VPG)

SHINING 3D's patented video photogrammetry works without coded markers. Paired with a calibration rod for real-time reference checks, it delivers 0.072 mm + 0.012 mm/m volumetric accuracy.



A large ring casting in the foundry, with a color deviation map on the scanned section showing where it departs from nominal.

Advanced Software

Intelligent resolution. Mesh resolution follows the curvature of the part, so features come out clearer.

Inspection module. Built-in full-size inspection, certified by PTB.

Certified Accuracy: ISO/IEC 17025 Laboratory

The accuracy figures in this brochure are verified, not estimated. The SHINING 3D Accuracy Laboratory is accredited to ISO/IEC 17025 by CNAS, and the UE Nova is acceptance tested there to VDI/VDE 2634 Part 3 and ISO 10360. That is the record your quality manager, and your customer's auditor, will ask for.



Large-volume hall: reference scale bars set the traceable length standard for volumetric accuracy tests.



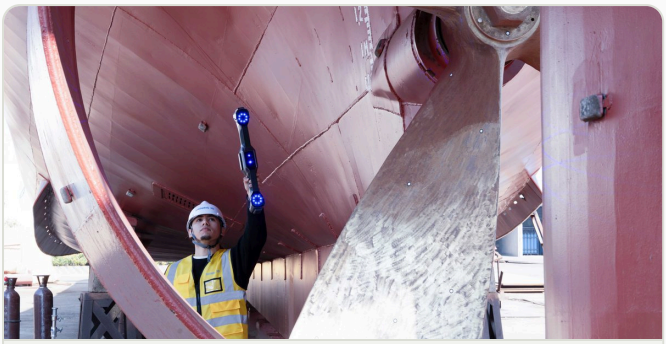
Long-range rail: depth-of-field and working-distance performance verified along a calibrated track.



Calibration benches: instruments are verified to VDI/VDE 2634 and ISO 10360 before a certificate is issued.

Proven Across Industries

Where the UE Nova is already at work: parts too big to move, scanned where they sit.



Shipbuilding: a stern propeller and nozzle scanned in dry dock, standing under the hull.



Heavy equipment: the whole bed of a mining dump truck captured for reverse engineering.



Refurbishment: worn outer walls on a truck body scanned outdoors, with no targets applied.



Automotive: a body-in-white on its fixture, covered by three operators in one session.

Specifications

Specification	FreeScan UE Nova
Accuracy	0.072 mm (0.00283 in)
Volumetric accuracy with VPG	0.072 mm + 0.012 mm/m (0.00283 in + 0.00014 in/ft)
Flexible FOV	Up to 2600 × 2200 mm (102.36 × 86.61 in)
Resolution	0.5 – 10 mm (0.01969 – 0.39370 in)
Scan speed	4,600,000 points/s
VPG	Included (no coded markers required)
FOV indicator of VPG	Included
High-speed scan	Included (50 laser lines)
Detailed scan	Included (supports near mode)
Working distance	1200 mm (47.24 in)
Depth of field	2300 mm (300 – 2600 mm) 90.55 in (11.81 – 102.36 in)
Connection	Wireless & wired mode (fiber optic)
Net weight	1.6 kg (3.5 lb)
Dimensions	580 × 119 × 87 mm (22.84 × 4.69 × 3.43 in)
Certifications	CE, FCC, RoHS, WEEE, KC, FDA, UKCA, IP50, TELEC, TiSAX
Acceptance test	VDI/VDE 2634 Part 3 & ISO 10360 certified (ISO/IEC 17025 accredited lab)

VDI/VDE 2634 PART 3 · ISO 10360 · ISO/IEC 17025 ACCREDITED LAB · IP50

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