SHINING 3D
METROLOGY

FreeScan Trak Nova

Wireless Multi-Functional Dynamic Tracking & Scanning System

Small in Form, Big on Performance

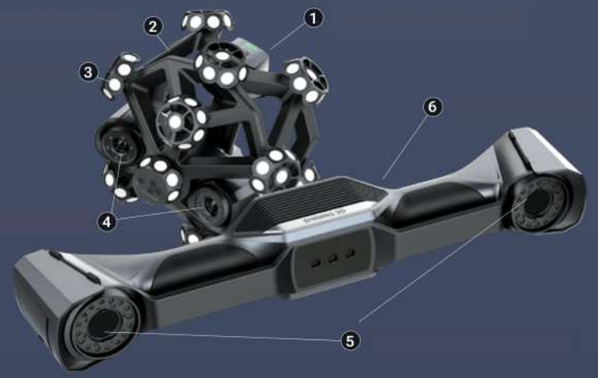
Contact Us

All-In-One Scanning System: Master Every Measurement

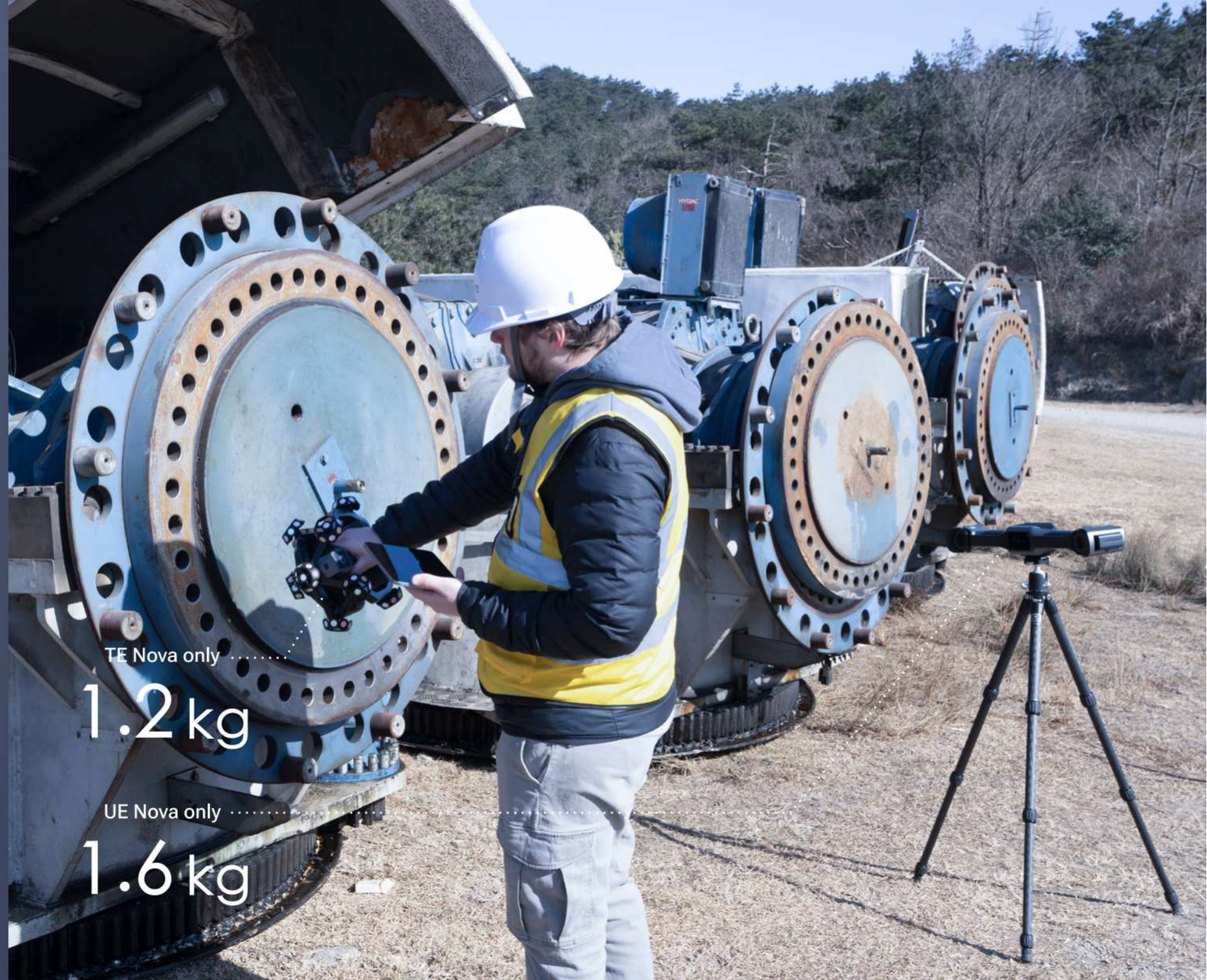
FreeScan Trak Nova integrates a portable tracking scanner, the largest-FOV handheld laser scanner, and video photogrammetry (VPG) module into one advanced wireless tracking system.

From construction machinery to rail transit, civil aviation to energy, FreeScan Trak Nova is built to meet the diverse needs of industries requiring accurate and efficient large-scale measurements with extreme portability, productivity and versatility.

Shaping the future of 3D measurement—now in your hands.



Wireless Lightweight Accurate Markerless Efficient



Dynamic Tracking Scan: Compact and Agile

The real-time tracking technology allows for the capture of fine details.

With its wireless and compact design, the system excels in scanning confined spaces, ensuring efficient and precise measurements.

Wide-Range Laser Scan: Vast and Fast

FreeScan Trak Nova Wireless Dynamic Tracking & Scanning System transforms traditional tracking scanners by offering exceptional versatility. The tracker, FreeScan UE Nova, also serves as a handheld laser scanner with the largest field of view (FOV) on the market, delivering unparalleled efficiency and flexibility.

- Large-scale scanning coverage
- Ultra fast scan speed
- Free from constraints of cords
- Certified and guaranteed accuracy

Large-scale scanning coverage

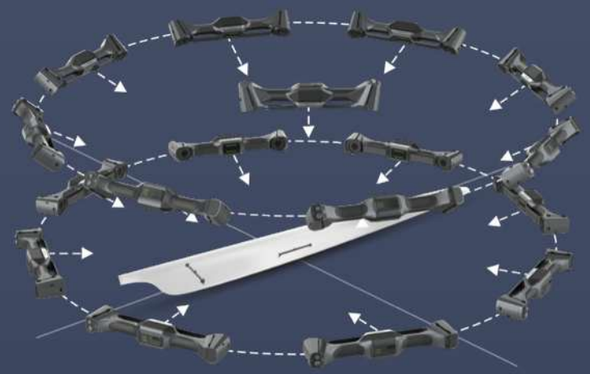
Boasting an extra large FOV of 2.6 × 2.2 m and a maximum scanning distance of 2.6 m, FreeScan UE Nova offers expansive coverage, making it ideal for large-scale projects.

Video Photogrammetry (VPG)

FreeScan Trak Nova system features SHINING 3D's patented video-based photogrammetry, which eliminates the need for coded markers.

By integrating photogrammetry technology with a calibration rod, it enables real-time marker verification through video capture.

This ensures consistent volumetric accuracy and streamlines the setup process for efficient large-object scanning.



Learn More

Free to Scan, Built to Perform

- Integrated wireless modules
- Built-in computing modules
- Swappable batteries

Easy to Carry, Light to Move

- Compact and complete
- Built for stability, designed for flexibility
- Remote button control

Advanced Software for Seamless 3D Measurement

Multi-scan modes data fusion

The system seamlessly combines wide-range laser scanning for overall structure capture with dynamic tracking for detailed local features, integrating broad coverage and fine details into a unified dataset.

Inspection module

Integrated inspection module, certified by PTB, for reliable, high-quality full-size inspection.

Intelligent resolution

Automatically adjusts mesh resolution based on the object's curvature, ensuring clearer and more detailed features.

AI feature recognition

Intelligent boundary detection provides fast, precise measurement of round holes, rectangular holes, and slots, ensuring high-quality and high-accuracy data capture.

FreeProbe 2 (Optional)

FreeProbe 2 paired with the FreeScan Trak Nova, offering a portable, high-precision probing solution for detailed point-based measurements.

With dynamic tracking and wireless probing, it delivers easy, free movement without the need for fixed setups, providing metrology-grade accuracy across various environments and part sizes.

- Wireless & Portable
- Various Probe Tips
- Quick Start with Fast Pairing
- Ergonomic Design
- Seamless Inspection Software Integration

Multi-Function Buttons

Easy Grip

Lightweight
460 g

Multiple Tip Options

Quality Control

Product Design

Reverse Engineering

Maintenance Repair & Overhaul

Digital Archiving

Archaeology & Heritage Preservation

SPECIFICATIONS

	FreeScan Trak Nova	FreeScan UE Nova	FreeProbe 2
Accuracy	0.02 mm	0.072 mm	0.025 mm
Volumetric accuracy	0.062 mm (12 m³)	/	0.062 mm (12m³)
Volumetric accuracy with VPG	0.046 + 0.012 mm/m (extension volume)	0.072 + 0.012 mm/m	0.046 + 0.012 mm/m (extension volume)
Resolution	0.01 ~ 10 mm	0.5 ~ 10 mm	/
Scan speed	6,140,000 points/s	4,600,000 points/s	/
Flexible FOV	Up to 2600 x 2200 mm		/
VPG	Included (no coded markers required)		/
FOV indicator of VPG	Included		/
High-speed scan	Included (50 laser lines)	Included	/
Detailed scan	Included (7 parallel laser lines)	Included (support near mode)	/
Deep pockets scan	Included (1 laser line)	/	/
Depth of field	TE Nova: 380 mm (170 ~ 550 mm) UE Nova: 2700 mm (800 ~ 3500 mm)	2300 mm (300 ~ 2600 mm)	/
Connection	Wireless & Wired mode (fiber optic)		
Net weight	TE Nova:1.2 kg / UE Nova: 1.6 kg		460 g
Dimensions	/		50 x 110 x 363 mm
Certifications	CE, FCC, ROHS, WEEE, KC, FDA, UKCA, IP50, TELEC, TiSAX		/
Acceptance test	VDI/VDE 2634 Part 3, ISO 10360 (certificated in ISO 17025 certificated accuracy lab)		ISO 10360 (certificated in ISO 17025 certificated accuracy lab)

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