

# TRIMBLE TX8 LASER SCANNER

## KEY FEATURES

**Increase field productivity with less scans** and number of stations

Confidence in **data accuracy, clarity and richness**

**True performance** in real world environments

**Intuitive and easy** to operate

Data integrates with other Trimble survey instruments



The Trimble® TX8 laser scanner sets new standards for performance and ease of use in high-speed collection of 3D data. Using a state-of-the-art blend of speed, long range and precision, the Trimble TX8 delivers high quality results in industrial measurement, engineering, construction, forensics and other applications that require high levels of accuracy and flexibility.

## A REVOLUTION IN 3D SCANNING

The Trimble TX8 combines speed and range to reduce the time and effort for 3D scanning. The TX8 lets you gather data more quickly from each setup while the scanner's long range reduces the number of setups needed to do the job. As a result, you'll finish your projects faster and with the confidence that your data is complete and accurate.

Using Trimble's patented Lightning™ technology, the Trimble TX8 can measure one million points per second while capturing precise data over its full measurement range. Because Trimble Lightning technology is less susceptible to variation in surface types and atmospheric conditions, you can capture complete datasets from each station.

The Trimble TX8 streamlines work in the office as well. The scanner's clean, low-noise data results in less time for processing. Data from the Trimble TX8 loads directly into Trimble RealWorks® and Trimble Scan Explorer software. The Trimble TX8 paired with Trimble RealWorks also provides efficient dataflow into popular CAD programs.

## HIGH PERFORMANCE FOR DEMANDING APPLICATIONS

The Trimble TX8 is ideal for capturing detailed data on existing conditions. Making high-speed measurements without compromising range or precision, the Trimble TX8 delivers high-density 3D point clouds needed by design and analysis professionals.

The Trimble TX8 provides a 360 degree x317 degree field of view and captures data at one million points per second with a typical scan time of only 3 minutes. The TX8 maintains its high precision over its entire range of 120 m and is available with an optional upgrade extending the range to an impressive 340 m.

## RUGGED, FLEXIBLE AND EASY TO USE

A color touchscreen display and one-button scanning make data capture easy and efficient. The intuitive onboard software lets you quickly manage scan resolution and define scan areas. Because you capture only the data you need, you'll save time in the field and office.

Benefit from the flexibility to operate in demanding environments and situations. With its eye-safe Class 1 non-visible laser, the Trimble TX8 is safe to use even in busy public places. The Trimble TX8 features a rugged design, IP54 environmental rating, protected mirror and ability to capture data in bright sunlight.

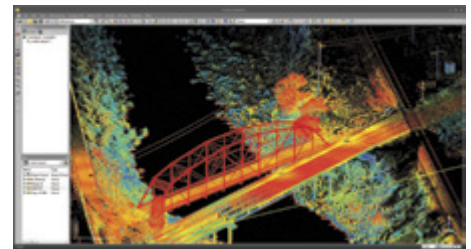
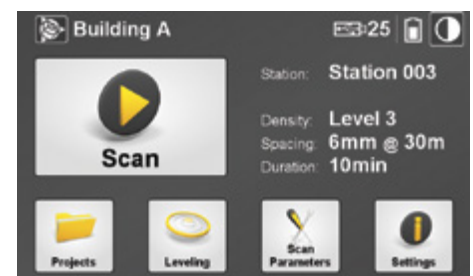
Designed for mobility, the Trimble TX8 weighs just 11 kg and is powered by lightweight, long-life lithium ion batteries. The wheeled transportation case conforms to requirements of most airlines for checked luggage which allows you to easily transport the Trimble TX8 between job locations.

## THE TOTAL SOLUTION

The Trimble TX8 is designed for a broad array of uses and environments. Typical applications include:

- Plant and industrial measurement
- Civil engineering
- Surveying
- Mining and quarries
- Building and commercial construction
- Architecture and design
- Preservation and restoration
- Deformation monitoring
- Quality control
- Accident investigation

With the TX8's ability to capture precise high-density 3D data combined with Trimble RealWorks software advanced modeling, analysis, and data management tools, the Trimble TX8 laser scanner is the complete scanning solution for Geospatial professionals.



# TRIMBLE TX8 LASER SCANNER

## PERFORMANCE

### Overview

Scanning principle ..... Vertically rotating mirror on horizontally rotating base

Range principle ..... Ultra-high speed time-of-flight powered by Trimble Lightning™ technology

Measurement rate ..... 1 MHz

Maximum range ..... 120 m on most surfaces  
340 m with optional upgrade

Range noise ..... <2 mm on most surfaces

### Range measurement

Laser class ..... 1, eye safe in accordance with IEC EN60825-1

Laser wavelength ..... 1.5 μm, invisible

Laser beam diameter ..... 6–10–34 mm @ 10–30–100m

Minimum range ..... 0.6 m

Max. standard range ..... 120 m on 18–90% reflectivity  
100 m on very low reflectivity (5%)

Extended range<sup>1</sup> ..... 340 m

Range noise ..... <2 mm on 2m to 100 m on 18–90% reflectivity

Range systematic error ..... <2 mm

### Scanning

Field of view ..... 360°x317°

Angular accuracy ..... 80 μrad

Scan Parameters	Level 1	Level 2	Level 3	Extended <sup>1</sup>
Max range	120 m	120 m	120 m	340 m
Scan duration (minutes)	02:00	03:00	10:00	14:00
Point spacing at 30 m	22.6 mm	11.3 mm	5.7 mm	75.4 mm
Mirror rotating speed	60 rps	60 rps	30 rps	16 rps
Effective scanning speed	0,5 Mpts	1 Mpts	1 Mpts	0,4 Mpts
Number of points	34 Mpts	138 Mpts	555 Mpts	312 Mpts

## OTHERS

Luminance resolution ..... 8 bits

Leveling ..... External bubble, onboard electronic bubble

Dual axis compensation ..... Selectable on/off

Resolution ..... 0.3"

Range ..... ±10"

Accuracy ..... 0.5"

Data storage ..... USB 3.0 Flash Drive

<sup>1</sup> Optional upgrade increases range to 340 m.

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## PHYSICAL

Dimensions ..... 335 mm W x 386 mm H x 242 mm D  
(13.2 in W x 15.2 in H x 9.5 in D)

Weight ..... 10.6 kg (23.3 lb) with tribrach and no battery;  
11.0 kg (24.3 lb) with tribrach and battery

Power supply ..... 76 mm W x 43 mm H x 130 mm D  
(3.0 in W x 1.7 in H x 5.1 in D);  
Weight: 0.66 kg (1.46 lb)

Power consumption ..... 72 W

Instrument case ..... 500 mm W x 366 mm H x 625 mm D  
(19.7 in W x 14.4 in H x 24.6 in D)

## ENVIRONMENTAL

Operating temperature range (non-condensing atmosphere) ..... -0 °C to +40 °C (32 °F to 104 °F)

Storage Temperature ..... -20 °C to +50 °C (-4 °F to 122 °F)\*

Operating Humidity Range ..... Non Condensing

Scan time per battery ..... >2 hours

Lighting conditions ..... All indoor & outdoor conditions over entire range (no lighting limitations)

Protection Class ..... IP54

Battery Dimensions ..... 89.2 mm W x 20.1mm H x 149.1 mm D  
(5 13/16 in W x 3 1/2 in H x 3/4 in D);

Battery Weight ..... 0.46 kg (1 lb)

Scanner weight ..... 11.0 kg (24.3 lb)  
with Tribrach, Battery, and USB



Specifications subject to change without notice.



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