

# Trimble TX8

THE TRIMBLE® TX8 LASER SCANNER SETS NEW STANDARDS FOR PERFORMANCE AND EASE OF USE IN HIGH-SPEED COLLECTION OF 3D SCAN DATA. DELIVERING STATE-OF-THE-ART SPEED, AND HIGH PRECISION, THE TRIMBLE TX8 DELIVERS THE HIGH QUALITY RESULTS NEEDED FOR COMPREHENSIVE WORKSITE DATA COLLECTION. THE TX8 LETS CONTRACTORS GATHER DATA MORE QUICKLY FROM EACH SETUP WHILE THE LONG RANGE CAPACITY REDUCES THE NUMBER OF SETUPS NEEDED TO GET THE JOB DONE, ALL WHILE PROVIDING HIGH LEVELS OF ACCURACY AND FLEXIBILITY.

Industry leading analysis and extraction software makes it easy to turn point cloud data into actionable models fast. With Trimble RealWorks, ScanExplorer and EdgeWise, contractors can generate and share BIM models or CAD files in a fraction of the time it might take with other image analysis tools.

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. Less susceptible to variation in surface types and atmospheric conditions, you can capture complete datasets from each station.

## HIGH PERFORMANCE FOR DEMANDING BIM APPLICATIONS

The Trimble TX8 is ideal for capturing detailed scans of existing site conditions. Making high-speed measurements without compromising range or precision, the Trimble TX8 delivers high-density 3D point clouds needed to develop accurate

models of the job site. The Trimble TX8 provides a 360 degree x 317 degree field of view and captures data at one million points per second with a typical scan time of only 3 minutes. The Trimble 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 RIGHT FOR THE JOBSITE

A 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.

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 24 lb (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

### Ideal for Construction Projects

The Trimble TX8 is used by contractors for a wide range of jobsite applications:

- Pre-construction as-builts
- Building Information Modeling (BIM)
- Virtual Design Construction (VDC)
- Quality control during construction
- Comparing design intent to as-built conditions

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

## Key Features:

- Fast and accurate as-built data collection
- Increase field productivity with the fastest, high resolution scans on the market today
- Confidence in data accuracy, clarity and richness
- Analyze and extract scanned data fast
- Intuitive and easy to operate

# GENERAL SPECIFICATIONS

## PERFORMANCE

### Overview

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

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

Scanning speed . . . . . 1 million pts/sec

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

Range noise . . . . . <2 mm on most surfaces with Standard scan modes  
<1 mm with High Precision scan mode<sup>2</sup>

### 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 from 2 m to 120 m on 18–90% reflectivity  
in Standard modes <1 mm from 2 m to 80 m  
on 18–90% reflectivity in High Precision mode<sup>2</sup>

Range systematic error . . . . . <2 mm

### Scanning

Field of view . . . . . 360°x317°

Angular accuracy . . . . . 80 µrad

Scan Parameters	Preview	Level 1	Level 2	Level 3	Extended <sup>1</sup>
Max range	120 m	120 m	120 m	120 m	340 m
Scan duration (minutes) <sup>3</sup>	01:00	02:00	03:00	10:00	20:00
Point spacing at 10 m	15.1 mm	—	—	—	—
Point spacing at 30 m	—	22.6 mm	11.3 mm	5.7 mm	—
Point spacing at 300 m	—	—	—	—	75.4 mm
Mirror rotating speed	60 rps	60 rps	60 rps	30 rps	16 rps
Number of points	8.7 Mpts	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

Remote control . . . . . Operate with Windows 7 or higher PC or tablet via USB connection<sup>4</sup>

Color acquisition . . . . . External camera kits available for high resolution and HDR images

## 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)

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)

Power consumption . . . . . 72 W

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

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

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

Protection class . . . . . IP54

1 Optional upgrade increases range to 340 m.  
2 Scan duration time is longer with High Precision scan mode.  
3 Scan duration times for Standard scan modes.  
4 Remote control requires optional Trimble TX8 USB cable PN 23704034.

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Specifications subject to change without notice.



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