# Trimble X7

### 3D LASER SCANNING SYSTEM

**High-speed 3D laser scanning system** allowing for scan and BIM data to be referenced, registered & refined in the field.

#### **Trimble X7**

- ► Increase productivity with fast, high quality scanning combined with Trimble Field Link construction software
- ▶ New Trimble X-Drive deflection system enables automatic calibration to ensure accuracy on every scan with no downtime for calibration service
- ► High sensitivity time-of-flight EDM to effectively capture dark and reflective surfaces
- Fast image capture for full panoramas and scan colorization with Trimble® VISION™ technology
- ► Integrated laser pointer to support in-field deliverables and workflows

#### **Trimble Field Link Scan Module**

- Construction specific software to easily operate the Trimble X7 and reference scan projects with BIM Data
- ▶ Unique Trimble Registration Assist for automatic registration, refinement and referencing to leave the site with confidence
- ▶ Process, view and validate scan data and imagery before you leave the site
- Visualize scan data, layout points and BIM data from variety of CAD solutions





## TRIMBLE X7 3D LASER SCANNING SYSTEM







Trimble X7 Specifications	
Scanning EDM Laser Class	Laser class 1, eye safe in accordance with IEC EN60825-1
Scanning Speed	Up to 500kHz
Scan Duration <sup>4</sup>	Fastest 1 min 34 sec without images, 2 min 34 sec with images,
Range Principle	High speed, digital time-of-flight distance measurement
Range <sup>1</sup>	0.6 m - 80 m
Range Accuracy <sup>2</sup>	2 mm
Range Noise <sup>2</sup>	<3 mm @ 60 m on 80% albedo³
Imaging	
Imaging Sensors	3 coaxial, calibrated 10MP cameras
Raw Image Capture	Fast 1 minute - 15 images - 158MP Quality 2 minutes - 30 images - 316MP
Automtic Level Compensation	
Range	± 5°
Accuracy	< 3" = 0.3 mm @ 20 m
Environmental	
Operating Temperature	-20 °C to 50 °C (-4 °F to 122 °F)
Ingress Protection Rating	IP <sup>55</sup> (dust protected and water jet)
Weight & Size	5.8 kg (12.78 lbs), 178 mm (W) x 353 mm (H) x 170 mm (D)
Controller	Trimble T10 Tablet with Trimble Field Link over WiFi or Cable
Integrated Calibration System <sup>5</sup>	Full auto-calibration of range and angular systems in 25 seconds with no user interaction or targets

Trimble Field Link Features	
Trimble Registration Assist	X7's IMU that tracks scanner orientation when moving from one station to the next. Automatic registration, alignment and refinement ensure the scan data is right before leaving the field.
Scan & Model <sup>6</sup>	Scan data can now be viewed with BIM model data for infield analysis.
Infield Georeference	Reference scan data to the project coordinate system.
Integrated Laser Pointer	Allows for collection of single point measurements as well as field layout workflows.
Export Formats	RCP, E57, LAS, PTX, RWP, TDX, TZF

- On matte surface with normal angle of incidence
- Specification given as 1 sigma Albedo given @ 1550nm
- Including automatic leveling & calibration
- Laser Class 2, visible, 620-650 nm, for auto calibration
- See Field Link datasheet for info on BIM model and point data types Specifications subject to change without notice.



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