FARO FOCUS^{3D} X 130 HIGH-SPEED 3D LASER SCANNER

KEY FEATURES

Versatile and cost effective solution

Compact and portable

Trimble RealWorks included for processing and deliverable creation

Intuitive touch screen interface ideal for new users

WLAN remote control

The FARO Focus^{3D} X 130 laser scanner is a highly versatile 3D scanning solution for a broad variety of scanning applications. The compact and lightweight design, improved range, and simple, intuitive operation allow fast and accurate measurements of complex environments, buildings and infrastructure, architectural and heritage sites, accident and forensic scenes, and more.

HIGH-SPEED SCANNING WITH INTEGRATED COLOR CAMERA

The Focus^{3D} X 130 high-speed 3D laser scanner is able to measure at speeds of up to 976,000 pts / sec and up to a range of 130 m. The system also includes an integrated color camera featuring an automatic 70 megapixels parallax-free color overlay. The end result is detailed photorealistic 3D color images made from millions of measurements. This provides users an excellent solution for documenting existing conditions for BIM, architectural, structural deformations, industrial facilities, heritage, forensics, and accident investigation, where detail and color are required.

MOBILITY

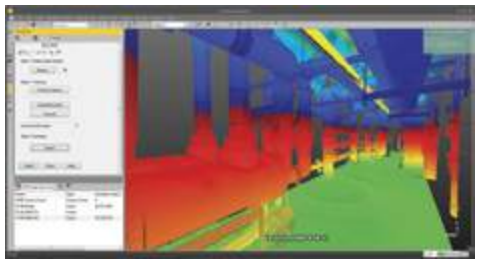
The Focus^{3D} X 130 is the smallest and lightest scanner available. With a size of only 240 x 200 x 100 mm (9.5 x 8 x 4 in) and weight of just 5.2 kg (11.464 lbs), it is easy to move and set up in complex environments. The small and light transportation case provides users with a convenient, safe and cost effective solution for transportation. The scanner also comes with an integrated lithium-ion battery that provides up to five hours of battery life to improve mobility in the field and it can be charged during operation. The option to operate via WLAN to remotely start, stop, view or download scans from a distance is also available to users.

EASE OF USE

Operation of the Focus^{3D} X 130 is made easy with a touch screen interface that is clear and concise. The steps required to set scan parameters, manage projects and scan are intuitive and easy to learn. This greatly reduces the time needed to become productive and allows new users to be confident with the scanner operation. Data from the Focus^{3D} X 130 is stored on an SD card enabling easy and secure transfer to a PC. When combined with the benefits of working with a smaller more portable solution, the Focus^{3D} X 130 is truly one of the easiest scanners to adopt.

DATA MANAGEMENT AND DELIVERABLE CREATION WITH TRIMBLE REALWORKS

Trimble® RealWorks® is powerful office software that transforms laser scanner data into compelling 3D deliverables. Sophisticated data management and visualization capabilities combined with a high level of automation quickly produce accurate results for all types of scanning projects. The industry-leading point cloud registration capabilities include both target-based and targetless options to support a variety of data collection workflows. Trimble RealWorks offers efficient tools to precisely measure complex 3D objects, perform specialized inspections, and create detailed reports. A complete modeling toolset including advanced shape to cloud fitting capability makes a variety of deliverables possible. Whether a project requires comprehensive reporting or the output of 3D models to a specialized CAD or simulation software package, Trimble RealWorks produces these deliverables with speed and accuracy.



Trimble

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PERFORMANCE SPECIFICATIONS

Ranging Unit

Unambiguity interval: . . . . . > 130 m
Range Focus^{3D} X 130: . . . . . 0.6m - 130 m indoor or outdoor with upright incidence to a 90% reflective surface
Measurement speed (pts/sec): . . . . . 122,000 / 244,000 / 488,000 / 976,000
Ranging error[1]: . . . . . ±2mm

Ranging noise[2]	@10m	@10m - noise compressed[3]	@25m	@25m - noise compressed[3]
@ 90% reflectivity	0.3mm	0.15mm	0.3mm	0.15mm
@ 10% reflectivity	0.4mm	0.20mm	0.5mm	0.25mm

Color Unit

Resolution: . . . . . .Up to 70-megapixel color
Dynamic colour feature: . . . . . .Automatic adaption for brightness
Parallax: . . . . . Co-axial design

Deflection Unit

Field of view (vertical/horizontal): . . . . . 300°/360°
Step size (vertical/horizontal): . . . . . 0.009° (40,960 3D-pixel on 360°) /0.009° (40.960 3D-pixel on 360°)
Max. vertical scan speed: . . . . . .5.820 rpm or 97 Hz

Laser (Optical Transmitter)

Laser class: . . . . . Laser Class 1
Wavelength: . . . . . 1550 nm
Beam divergence: . . . . . Typical 0.19 mrad (0.011°, 1/e, halfangle)
Beam diameter at exit: . . . . . .Typical 2.25 mm (1/e)

Data Handling and Control

Data storage: . . . . . SD, SDHC™, SDXC™; 32 GB card included
Scanner control: . . . . . .Touch-screen display and WLAN
New WLAN access: . . . . . .Remote control, and scan visualization are possible on mobile devices with Flash®

Multi-Sensor

Dual axis compensator: . . . . . .Accuracy: 0.015°, Range: ± 5°
Height sensor: . . . . . Via an electronic barometer, the height relative to a fixed point can be detected and added to a scan.
Compass[4]: . . . . . The electronic compass gives the scan geographic orientation. A calibration feature is included.
GPS: . . . . . Integrated GPS receiver

HARDWARE SPECIFICATIONS

Power Supply Voltage: . . . . . 19 V (external supply) 14.4 V (internal battery)
Power Consumption: . . . . . .40 W and 80 W (while battery charges)
Battery Life: . . . . . .4.5 hours
Ambient Temperature: . . . . . 5° - 40° C
Humidity: . . . . . .Non-condensing
Cable Connector: . . . . . Located in scanner mount
Weight: . . . . . 5.2 kg
Size: . . . . . .240 x 200 x 100 mm
Maintenance/Calibration: . . . . . .Annual

1 Ranging error is defined as a systematic measurement error at around 10 m and 25 m, one sigma.
2 Ranging noise is defined as a standard deviation of values about the best-fit plane for measurement speed of 122,000 points/sec.
3 A noise-compression algorithm may be activated, thereby compressing raw data noise by a factor of 2 or 4.
4 Ferromagnetic objects can disturb the earth's magnetic field and lead to inaccurate measurements.

CLASS 1 LASER PRODUCT

Specifications subject to change without notice.

TRIMBLE AUTHORIZED DISTRIBUTION PARTNER

NORTH AMERICA
Trimble Navigation Limited
10368 Westmoor Dr
Westminster CO 80021
USA

EUROPE
Trimble Germany GmbH
Am Prime Parc 11
65479 Raunheim
GERMANY

ASIA-PACIFIC
Trimble Navigation
Singapore Pty Limited
80 Marine Parade Road
#22-06, Parkway Parade
Singapore 449269
SINGAPORE

Trimble