

# FARO®

## Focus Laser Scanning Solution

**Capture With  
Confidence  
and Connect  
Your World  
Faster**

Hybrid Reality  
Capture™,  
powered by Flash  
Technology™



# Focus Core

## LASER SCANNER

### Versatile 3D Reality Capture

Focus Core has a 100 m range that's well-suited to industrial **facility management**, **historic preservation**, collecting **as-built documentation**, and more.

#### **Ideal for Low Profile Projects**

Business-savvy 3D reality capture device, with an **excellent price-performance ratio** featuring a wide range of professional applications in construction, public safety and building operations.

#### **Exceptional Capturing Efficiency**

Enjoy scan speeds up to one minute per scan and faster loading/system response. Greater data management efficiency when paired with Stream and uploaded to Sphere XG. With the option to mount a panoramic camera, Focus Core provides the ability to upgrade and scan in Hybrid Reality Capture mode if this capability is desired.\*

#### **Remote Access for Global Collaboration**

100 meter scanning range, smartphone-enabled remote control capabilities, and improved wireless workflow with faster Wi-Fi operation.



Each Focus comes with a two-year warranty to help you get the most out of your laser scanner. A two-year warranty provides you with peace of mind — knowing that any defective parts will be replaced — and reduces the total cost of ownership throughout the device's lifespan.

\* 360° camera not included; optional one-year subscription to Flash Technology



## Performance Specifications

Models	Focus Premium Max	Focus Premium	Focus Core
Unambiguity Interval <sup>1</sup>	614 m		
<b>Range</b>			
White, 90% Reflectivity	0.5 – 400 m	0.5 – 200 m	0.5 – 100 m
Dark-grey, 10% Reflectivity	0.5 – 150 m	0.5 – 150 m	0.5 – 100 m
Black, 2% Reflectivity	0.5 – 50 m	0.5 – 50 m	0.5 – 50 m
<b>Range Noise<sup>2,3</sup></b>			
White, 90% Reflectivity	0.1 mm @ 10 m, 0.2 mm @ 25 m		
Dark-grey, 10% Reflectivity	0.3 mm @ 10 m, 0.4 mm @ 25 m		
Black, 2% Reflectivity	0.7 mm @ 10 m, 1.2 mm @ 25 m		
Max Speed	Up to 2 MPts/sec		
3D Accuracy <sup>4</sup>	2 mm @ 10 m, 3.5 mm @ 25 m		
Ranging Error <sup>5</sup>	±1 mm		
Angular Accuracy <sup>6</sup>	19 arcsec		
LaserHDR	Yes		
Temperature Range <sup>7</sup>	Operating: +5° to +40° C, Extended Operating: -10° to +55° C, Storage: -10° to +60° C		

### Additional Performance Specifications

Color Unit	
Color Resolution	Up to 266 MPx color
Raw Color Resolution	867 MPx Core: 527 MPx
HDR Camera	13 MPx - 2x, 3x, 5x brackets Core: 8 MPx - 2x, 3x, 5x brackets
Parallax	Minimized due to co-axial design
Deflection Unit	
Field of View	300° vertical <sup>8</sup> / 360° horizontal
Step Size	0.009° (40,960 Pts on 360°) vertical / 0.009° (40,960 Pts on 360°) horizontal
Max. Scan Speed	97 Hz (vertical)
Laser (Optical Transmitter)	
Laser Class	Laser Class 1
Wavelength	1553.5 nm
Beam Divergence	0.3 mrad (1/e)
Beam Diameter at Exit	2.12 mm (1/e)
Data Handling and Control	
Data Storage	SATA 3.0 SSD 128 GB and SDXC™ V30 64 GB SD Card; SD3.0, UHS-I / SDXC™ / SDHC™, max. 512 GB
Scanner Control	Via touch screen display and WLAN connection, Control by FARO Stream App (iOS & Android) or mobile devices with HTML5
Interface Connection	
WLAN	IEEE 802.11 ac/a/b/g/n 2x2 MIMO, as access point or client in existing networks (2.4 and 5 GHz)
USB	USB 3 port

### Additional Features

Dual Axis Compensator	Performs a leveling of each scan with an accuracy of 19 arcsec valid within ±2°
Height Sensor	Via an electronic barometer, the height relative to a fixed point can be detected and added to a scan
Compass <sup>9</sup>	The electronic compass gives the scan an orientation
GNSS	Integrated GPS & GLONASS
On-Site Compensation	Creates current quality report and improves compensation automatically
Accessory Bay	The accessory bay connects versatile accessories to the scanner
Inverse Mounting	Yes
Real-time, On-site Registration	Stream App real-time scan streaming, registration, overview map and Sphere cloud upload
Electronic Automation Interface	Available as option, only at point of sale
Digital Hash Function	Scans are cryptographically hashed and signed by the scanner
Rescanning of Distant Targets	Defined areas recaptured in higher resolution at a greater distance
Retake Photos	Select individual photographs with unwanted objects and retake them

### General Specifications

Power Supply	19 V (external supply), 14.4 V (internal battery)
Typical Power Consumption	19 W idle, 32 W scanning, 72 W charging
Typical Battery Operation Time	About 4 hours
Typical Scan Time: From start until the scanner can be moved <sup>10</sup>	Gray scale < 1 min   HDR Colored < 1:15 Colored Flash Scan < 30 seconds <sup>11</sup>
Ingress Protection (IP) Rating Class	54
Humidity	Non-condensing
Weight	4.4 kg (including battery)
Size/Dimensions	230 x 183 x 103 mm
Calibration	Recommended annually
Manufacturer Warranty	2 year



**CLASS 1  
LASER PRODUCT**

CERTIFIED  
ISO 9001



1. @ 0.5MPts/s, depends on scanning speed | 2. Ranging noise is defined as the variation of distance samples from repeated measurements of a single point at 122k Pts/sec | 3. Some surfaces can lead to additional noise | 4. For distances larger 25 m add 0.1 mm/m of uncertainty | 5. Ranging error is defined as a systematic measurement error at around 10 m and 25 m | 6. It is recommended to perform on-site compensation in the event the unit is exposed to exceptional temperature or mechanical stress | 7. Low temperature operation: scanner has to be powered on while internal temperature is at or above 15° C. High temperature operation: additional accessory Thermal Cover required | 8. 2x150°, homogeneous point spacing is not guaranteed | 9. Ferromagnetic objects can disturb the earth magnetic field and lead to inaccurate measurements | 10. Accelerated Profile with PanoCam | 11. Hybrid Reality Capture™, powered by Flash Technology, is a patent-pending option that requires a PanoCam extension to the Focus Premium, firmware version 7.3.0 or later, a FARO Sphere workspace and SCENE 2023 or later.

All accuracy specifications are standard deviations, after warm-up and within operating temperature range; unless otherwise noted. Subject to change without prior notice.





# Designed for Complete Integration

FARO's complementary products — FARO Sphere XG Digital Reality Platform and FARO Stream App (which serves as an on-site data visualizer and bridges the gap between Focus and Sphere XG) — create a powerful union of three distinct technologies, enabling users to capture with confidence and connect their world anytime, anywhere. This reduces time to decision while streamlining workflow tasks, meeting the demands of today's increasingly digital workforce.

## Boost Productivity with Hybrid Reality Capture

Included perpetually for the Focus Premium Max and as a one year trial (with the option to continue subscribing) for Focus Premium and Focus Core is the capability to take Flash Technology scans with the addition of a panoramic camera. With Hybrid Reality Capture powered by Flash Technology at your fingertips, you will benefit from fully colorized 3D scan data in less than 30 seconds per station. For large and complex areas that typically require many scan positions, this provides you with the extra productivity to set your business apart.

## No More "Scanning Blind"

Stream App provides live feedback of the captured scans while performing its pre-registration function. This takes the guesswork out of scanning and means that you don't have to wait until you get back to the office to see where you scanned and find out if you missed a spot.

Additionally, Focus allows for the inclusion of complementary data like field annotations and photographic images in the project after a scan is complete.



## Stream



## SCENE

After processing in SCENE Software, Stream App integrates the captured data seamlessly into Sphere XG, providing a full FARO solution and application compatibility.





### **Digital Reality Platform**

What sets Focus scanners apart is their ability to share on-site data with key stakeholders via the Sphere XG Digital Reality Platform. This digital reality platform gives your off-site colleagues the ability to work on the data or share it with end customers — breaking down organizational silos and improving customer satisfaction.

Additionally, Sphere XG is integrated with three customer service platforms: Knowledge Base, which provides technical product information; FARO Support, which provides 24/7 personalized service; and FARO Academy, which provides on-demand and live training and education programs.

### **Store the Data Your Way**

Use the cloud or keep your data offline — it's up to you. Upload data to Sphere XG and share with key stakeholders for quicker decision-making, or process the data offline, directly in FARO SCENE Software.





# A Complete Solution for Your 3D Scanning Needs

Whether it's for creating as-built documentation, Building Information Modeling (BIM), industrial facility management, infrastructure projects, improved construction quality control, historic preservation, or gathering data for documenting an asset or facility, the Focus — when paired with the Stream App, SCENE Software, and Sphere XG, plus any number of specific tools like the FARO As-Built™ Software Suite, FARO BuildIT Construction Software, the FARO Flatness Check™ App, tripods, backpacks, traceable 3D referencing targets, and more — enables enhanced workflow efficiencies that will drive business success.

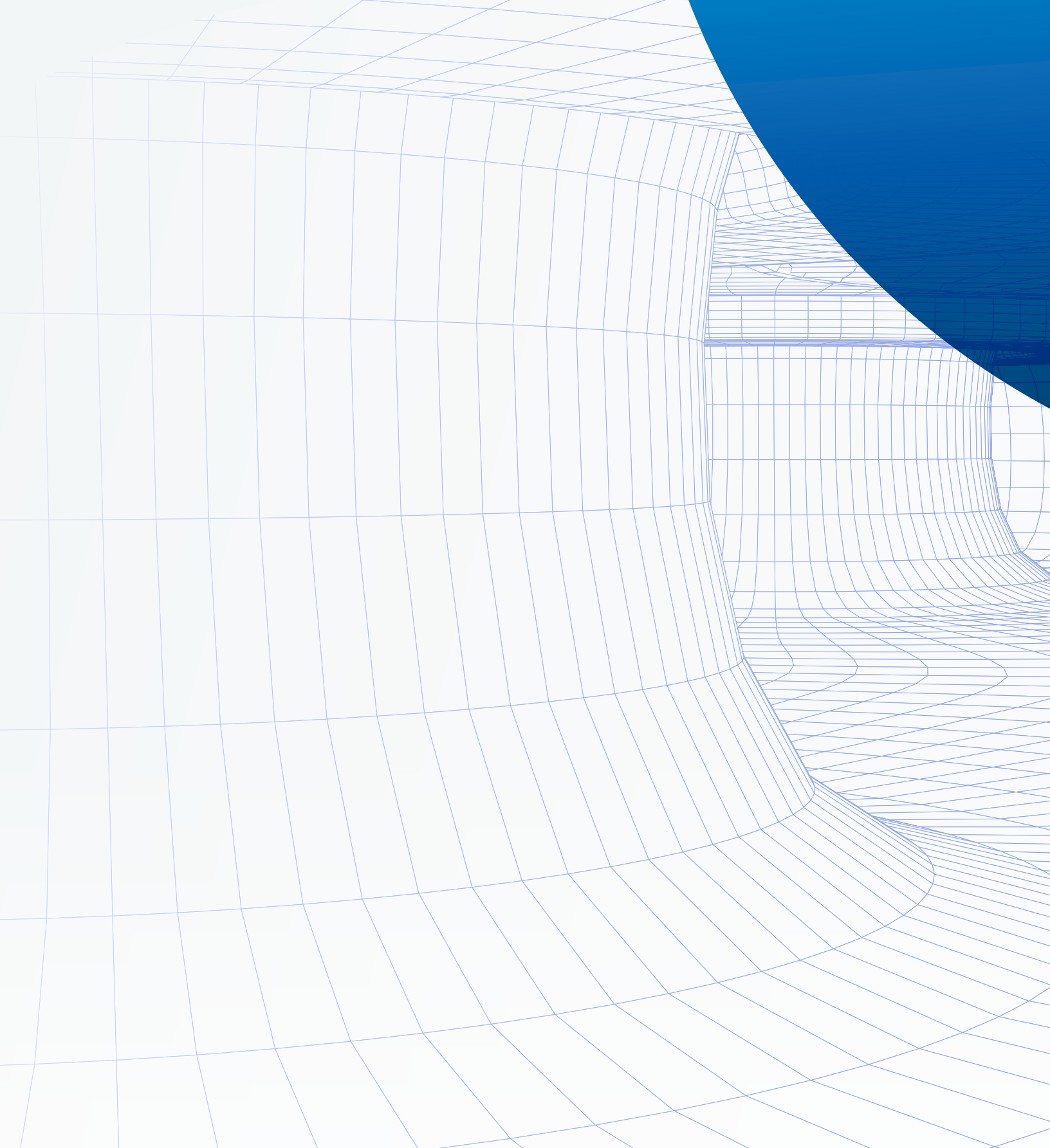
## Choose the Package to Fit Your Needs

The Focus Premium Laser Scanning solution comes in three models to suit your needs: the **Focus Premium Max** with a 400 m range, the **Focus Premium** with a 200 m range, and the **Focus Core** with a 100 m range. The panoramic camera mount — included with Premium Max and optional for Premium and Core — enables scanning in Hybrid Reality Capture mode for increased efficiency, with Premium and Core including a one-year subscription and Premium Max offering a perpetual license for Hybrid Reality Capture.

When you choose a Focus, you're choosing a 3D laser scanning solution that boosts productivity, saves time, and reduces rework.

Contact your local sales representative or visit **FARO.com** to learn more.





Local operations around the world. Go to [FARO.com](https://www.faro.com) to learn more.

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