

FARO®

Orbis™ Premium

MOBILE LASER SCANNER

A New
Standard in
Speed and
Accuracy

Engineered for Every Environment and Faster, More Versatile Fieldwork.

See Every Detail: Unmatched Clarity with Orbis Premium's High-Resolution 8K Imaging

FARO® Orbis Premium delivers vibrant, high-resolution 8K panoramic images and enhanced colored point clouds, providing detailed visual data for engineers, surveyors, urban planners, and public safety professionals. The integration of Flash Technology™ boosts point density in critical areas, accelerating capture times and providing a comprehensive 3D view of sites.

An IP54 rating protects the Orbis Premium from dust and water splashes, ensuring robust performance in rugged environments.



For professionals in surveying, mapping, construction, mining, civil engineering, and public safety, the Orbis Premium offers unmatched productivity, speed, and detail, empowering high-quality results on every project.

Specifications



System Overview

FARO Orbis	Mobile scanner powered by GeoSLAM technology offering mobile and stationary Flash scanning in one device
FARO Stream™	Mobile app for field operation of FARO Orbis and FARO Focus Laser Scanner
FARO Connect	Desktop processing software for FARO Orbis and legacy GeoSLAM mobile scanners
FARO SCENE	Desktop registration software for all 3D reality capture data
FARO Sphere® XG	Cloud-based platform for all reality capture data including FARO Orbis

Performance

General	
Range	120m
Points Per Second	640,000
Field of View	360° x 290°
No. of LIDAR channels	32
Camera	Full 360° image of 72M pixels captured every second
Mobile Scanning	
Precision ¹	5mm
Trajectory & Mapping	Robust SLAM powered by GeoSLAM technology
Settings	Automatic Standard and Preset Processing Environments
Stationary Flash Scanning	
Precision ¹	2mm
Duration	15 sec. including color
Resolution	19M points (13mm @ 10m)
Registration	Real Time and Fully Automatic with GeoSLAM technology
General	
Environment	Indoor and Outdoor
Laser Class ²	Class 1, Eye Safe
Weight	Scanner: 2.10kg, Datalogger: 0.95kg, Battery: 0.55kg
Transport Case Dimensions	500mm x 625mm x 250mm
Operating Temperature	0° to +40°C
Manufacturer Warranty	1 Year

Operation

Stand-alone Operation	One button to start/stop data capture; One button to capture Flash scans
Smartphone Operation	FARO Stream app (for iOS and Android): scanner control, real-time data visualization, and direct sync to cloud processing with FARO Sphere XG
Control Points Capture	Stop-and-Go, checkerboard, reflective, and spherical targets for alignment and /or georeferencing
Advanced Registration	When desired, register multiple mobile, Flash and/or FARO Focus scans
Configuration	<ul style="list-style-type: none"> Handheld with Datalogger on Shoulder Strap Monopod with Scanner and Datalogger mounted together Accessories available: Car Mount, Backpack, Cradle
Scanner Orientation	Can be used in any orientation: upright, upside down, sideways
Battery Duration	Typical 3 hours
Internal Storage	512 GB, up to 50 hours of continuous data capture
Data Transfer	WiFi, RJ45 or directly with USB stick

Data/Processing

Data	Point clouds with Intensity and Color, 360° Images, Trajectory
Desktop Processing	FARO Connect for Mobile and Flash Scans, FARO Scene for Advanced Registration
Cloud Processing	Fully automated with FARO Sphere XG
Output	Mobile scan: E57, LAS, LAZ, PLY, TXT - Flash scan: E57

¹ Given as one sigma | ² In accordance with IEC EN60825-1 | Specifications are subject to change without prior notice



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

Revised: 05/14/2025