



Mosaic Meridian 2

The **Meridian 2** is a fully integrated 360° panoramic imaging and LiDAR mobile mapping system that packs down into two easy-to-carry cases and deploys with a single operator.

The **Mosaic X** captures immersive 91.2 MP panoramas vivid enough to **inspect assets, read signage, and document environments** in exceptional detail. 32-channel LiDAR delivers up to 1.9M pulses per second and 1–2.5 cm precision point clouds. All in a single pass.

Superior **360° coverage** with fewer platform obstructions. LiDAR mounted directly above the camera eliminates roof blockage, while the steeper **30° scan angle** improves laser incident angle, resulting in enhanced point precision, stronger intensity returns, and higher quality data capture.

Designed for **asset capture, infrastructure inspection, and corridor mapping**, the Meridian 2 brings professional-grade data without the complexity of traditional survey rigs.

KEY FEATURES

- Superior image quality
- Quick-release plate to deploy faster and reduce downtime between jobs.
- Elevated, obstruction-reduced 360° LiDAR coverage
- Removable 1TB micro-SD Express storage for rapid data transfer
- Clean, compact form factor means faster mobilization and lower logistics cost

QUICK SPECS

INTRASWATH PRECISION
1.5 cm RMSDz at 10 m ⁽¹⁾ ⁽²⁾ ⁽³⁾

Example Acquisitions:

Mobile - Urban

- » Pulse Rate = 640 kHz
- » Field of View = 360°
- » Point Density = Up to 900 points/m²
@ 10 m range to target ⁽³⁾
- » Collection Rate = 40 km/h (25 mph)

Mobile - Highway

- » Pulse Rate = 640 kHz
- » Field of View = 360°
- » Point Density = Up to 400 points/m²
@ 10 m range to target ⁽³⁾
- » Collection Rate = 90 km/h (55 mph)

(1) Approximate values based on PLS test conditions

(2) Range of elevation values on flat surfaces with > 20% reflectivity at the laser's wavelength

(3) Estimated for surfaces perpendicular to the beam path.



Mosaic X Camera

Shutter Type	Global
Pixel dimensions	2.74 µm (H) × 2.74 µm (V)
Equirectangular Resolution (2:1)	91.2 MP
Width of rendered equirectangular panorama in pixels	13.5k
Gain Range of Sensors	0-24 dB
Maximum frame rate	10 FPS
IP	IP64
Field of View	360° × 139°

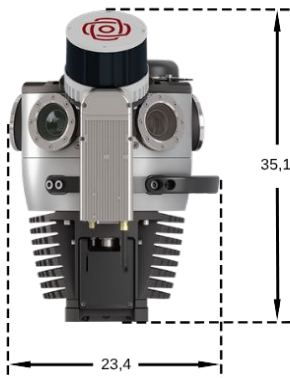
LiDAR Sensor

System Vertical Accuracy	2–3 cm
Ranging Precision	0.5 cm (1σ, typical), 1cm (standard)
Ranging Accuracy	+/- 1cm
Laser Range Capabilities	80m @ 10% refl. (all channels); 0.5 to 300m
FOV (Horizontal)	360°
FOV (Vertical)	40.3°
Scan Angle (Vertical)	-20.8° to 19.5°
Laser Channels	32
Number of Returns	3
Pulse Rate	640k pts/sec (single return); 1280k pts/sec (dual return); 1920k pts/sec (triple return)

INS (Inertial Navigation System)

GPS / GNSS	Survey-grade NovAtel Module
IMU	Survey-grade IMU
Constellations	GPS, GLONASS, BEIDOU, GALILEO
Frequencies	L1, L2, L5(6)
Operation Modes	RTK and PPK
Pitch/Roll Accuracy	0.03° RMS
Heading Accuracy	0.01° RMS
Position Accuracy	1 cm + 1 ppm RMS horizontal

Meridian 2: Dimensions & Components



LiDAR

INS

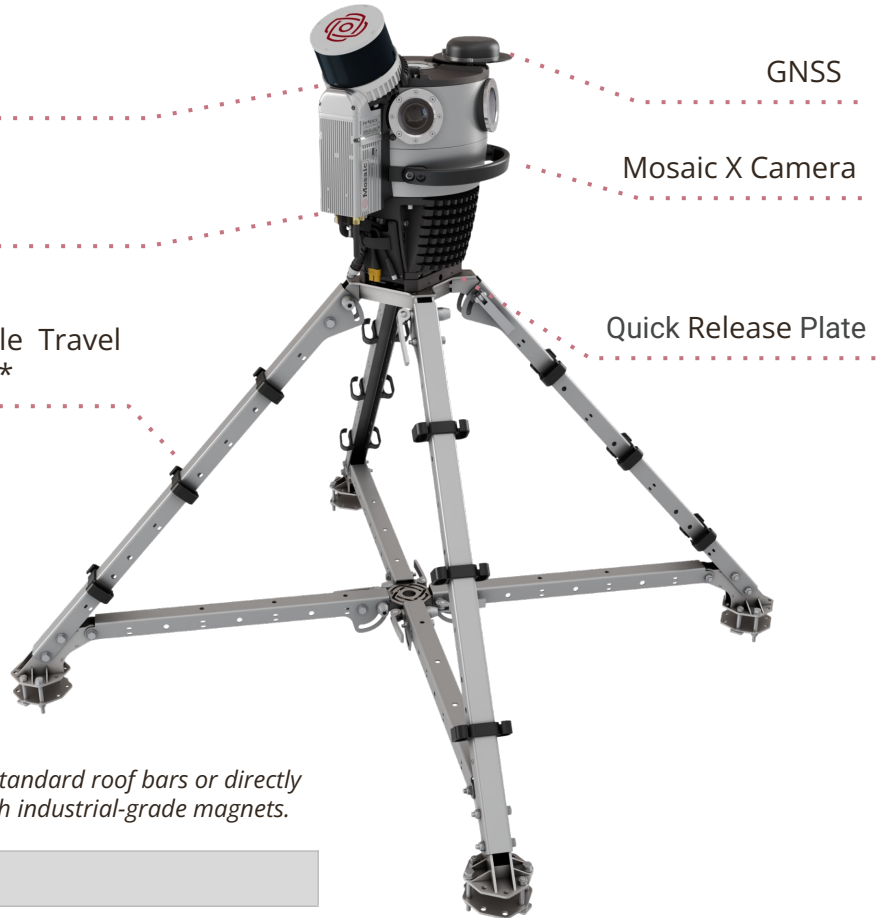
Foldable Travel Mount*

GNSS

Mosaic X Camera

Quick Release Plate

*Fitted to standard roof bars or directly on roof with industrial-grade magnets.



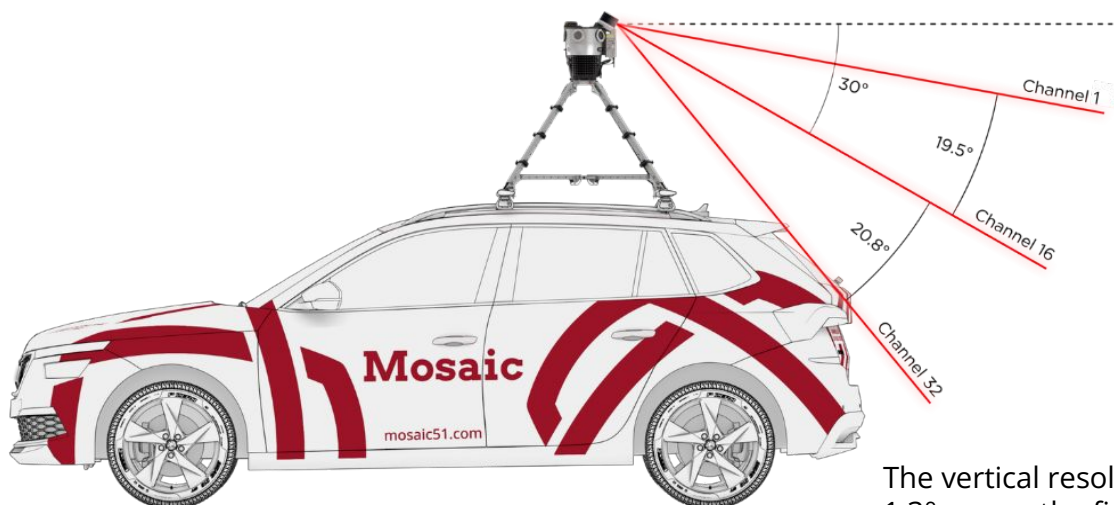
Platform

Overall Dimensions	Without mount: 29.1 x 23.4 x 35.1 cm With mount: 99.8 x 99.8 x 100.2 cm
Operating Voltage	12 - 17 VDC
Operating Temperature	0° - 45° C / 32° - 113° F
Power Consumption	~50 W typical
Weight	9.5 kgs / 20.9 lbs

The only 360° panoramic LiDAR system in its class that packs into two bags.

Ready to fly, drive, or deploy anywhere.

Laser Channel Vertical Distribution



The vertical resolution is 1.3° across the field of view.