

HERON® MS TWIN Color

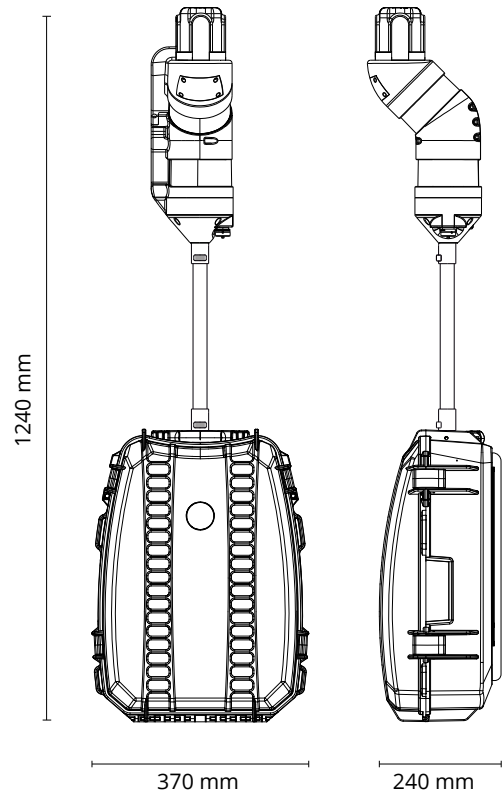
Technical Sheet

MAIN FEATURES

Suitable environment	indoor/outdoor
Handheld	possible ⁽¹⁾
Wearable	yes
Mountable on various mobile platforms (car, trolley, bike, quad, boat, robot)	yes
SLAM post-processing software included (HERON Desktop)	yes
Point cloud advanced processing software included (Reconstructor)	yes
Free software for x-ray maps visualization and measuring included (GoBlueprint)	yes
Output data	.e57, .las, .ply, export to ReCap
Points per second	600.000
Local accuracy	~ 3 cm
Max survey resolution	~ 2 cm
Global accuracy	~ 5 cm in short close rings ⁽²⁾
Control points acquisition	yes
Global accuracy with control points	~ 3 cm
Loop closure	not mandatory
Usable in every light conditions	yes
Initialization and calibration procedures	not required
Single operator	yes
Sensors working time (in continuous acquisition)	1 h (more with extra "plug&go" batteries)
Real-time visualization of RGB 8K images	yes
Change detection & Automatic self-localization	yes (optional add-on)
Operating temperature	-10° ; +45°
Storage temperature	-40° ; +60°
Rugged transport case	yes

CAPTURE HEAD (DETACHABLE)

Weight and Dimension	2600 g 410 x 140 mm
COMPONENTS:	
• LASER SENSORS	No. 2 Safety class 1
Laser wave length	903 nm
Laser max range	100 m
FOV	360° x 360°
• IMU	yes
• MG1 - RGB PANO CAMERA	No. 1 4 lenses
24 hz continuous acquisition	4k (4096 x 2048 pixels)
Single shot acquisition	8k (8192 x 4096 pixels)
FOV	360° x 360°
Automatic color and light balance	yes
Automatic exposure control	yes



SYSTEM CONTROLLER

Weight and Dimension	1085 g 160 x 209 x 59 mm
Intel® 11 th Gen Core™ Processor	max speed up to 4.1 GHz
• PENDRIVE for data storage	USB 3.1
Memory	256 GB
Max read	up to 300 MB/sec
Max write	up to 100 MB/sec
• INTERNAL BATTERY	Li-ion battery
Capacity	12V / 3A / 36Wh / 7000mAh
Working time	1 h (more with extra "plug&go" batteries)

PDA CONTROL UNIT

Portable Digital Assistant

Weight and Dimension	560 g 167 x 81.4 x 15.5 mm
Processor	Helio G95 Octa Core 2.1 GHz 12 nm
Protection index	IP68 / IP69K / MIL-STD-810H
Display	6.22" LCD HD
Waterdrop screen	yes
Battery type	6350 mAh large battery
Battery charging	24 W fast charging
Battery working time	15 ÷ 24 h (depending on the display intensity)

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RUGGED BACKPACK

Dimension	540 x 400 x 220 mm
Weight	4850 g
Wired support	Controller and Capture Head connection
Storage use	yes
Transport use	yes

SOFTWARE EQUIPMENT

Reconstructor	included
Reconstructor HERON add-on	included
3D navigation of point clouds and images	yes
Automatic scans registration	yes
Direct data import	.laz, .e57, .fls, .zfs, .rxp, .3dd, .x3s, .x3m, .clr, .cl3, .dp, .ixf, .nctri, .txt, .las, .ptx, .pts, .ptg, .asc, .ply, .csv, DEM Ascii
Point cloud filtering, managing and classifying	yes
Import .ifc BIM format	yes
Import terrestrial laser scanner data	yes
Import point clouds from UAV	yes
Import mobile mapping data	yes
CAD/Mesh models	.ifc, .obj, .dxf, .stl, .txt, .wrl, .vrml, .ply, .mvx, .dae
Export to ReCap Pro	yes
Cross sections and profiles (.dxf)	yes
Orthophotos & x-ray orthophotos (direct export to AutoCAD)	yes
Volumes and areas computation	yes
Mesh creation and manipulation	yes
Verification tool	yes

OPTIONAL TOOLKITS

Telescopic pole with cable (from 560 to 1800 mm 1000 g)
Car mount with cable
Ring LED Light (4000 lumen 36 W 700 g)
Extra standard battery (plug&go 1 h 445 g)
High capacity battery (plug&go 2 h 860 g)
Centering Tip (12 g)

HERON Desktop	included
Drift effect reducing (global optimization)	yes
3D local maps patented algorithm	yes
Large coordinates for geolocalization	yes
Split/merge trajectories and point clouds	yes
Automatic post-processing mode	yes
Noise cleaning (attenuation)	yes
Moving objects removing	yes

GoBlueprint	free software
Volume calculation based on x-ray maps	yes
Measures on x-ray maps directly (lines, angles, areas)	yes
For any Windows-based PC and tablet (to bring your maps on-site too)	yes
Deliverables easy to manage and share	yes

HERON Constraints tool	included
HERON Tracking add-on	optional
Reconstructor MINING add-on	optional
Reconstructor COLOR add-on	optional
Reconstructor 3D Viewer	free tool
ClearEdge3D EdgeWise	optional
ClearEdge3D Verity & Rithm	optional
3DUserNet VISION (discount rates available)	optional
Cintoo Cloud	optional

(1) When needed, it is possible to use the capture head with telescopic poles, to easily map hidden areas such as holes, ravines, manholes, etc.

(2) The global accuracy depends on the effectiveness of the SLAM registration algorithm, which can be influenced by the geometry of the surveyed environment. Long trajectories in absence of loop closures and cross paths, such as narrow tunnels or narrow stairs, can downgrade the global accuracy to 20-50 cm. The patented and unique algorithms present in HERON Desktop and the use of control points or control scans as constraints can dramatically improve the quality of the sensor accuracy up to 2cm. The Gexcel support team is always available to provide you with more detailed information on this topic.

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