TECH SHEET

MAIN FEATURES

Suitable environment	indoor/outdoor
Handheld	yes
Wearable	**yes** (optional tool)
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	640,000
Local accuracy	±4 mm
Max survey resolution	1 cm
Global accuracy	±2 cm in short close rings [1]
Control points acquisition	yes
Global accuracy with control points	±1 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)	~ 2h 30min (more with extra batteries)
Operating temperature	-40° ; +45°
Storage temperature	-40° ; +60°
Rugged transport case	yes

CAPTURE HEAD (DETACHABLE)

Weight | Dimensions	1030 g | 218 x 140 x 120 mm
COMPONENTS:	
• **LASER SENSOR**	32 chs | Class 1 Eye Safe
Wavelength	905 nm
Range	0.05 - 120 m
FOV	360° x 360° [2]
• **IMU**	yes

HANDHELD POLE

Weight (with cable)	965 g
Length	from 400 to 1300 mm

616 mm (up to 1.516 mm)

140 mm
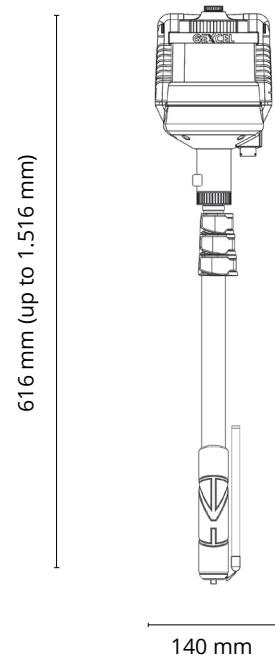
SYSTEM CONTROLLER

Weight | Dimensions	1085 g | 160 x 209 x 59 mm
Processor	Intel® 11th Gen Core™ (4.1 GHz)
• **PENDRIVE** for data storage	USB 3.1 Gen 1
Memory size	256 GB
Max read speed	up to 300 MB/sec
Max write speed	up to 100 MB/sec
• **INTERNAL BATTERY**	Li-ion battery
Capacity	6700 mAh | 80.4 Wh
Output	12 V
Working time	~ 2h 30min (more with extra "plug&go" batteries)

PDA CONTROL UNIT   *Personal Digital Assistant*

Weight | Dimensions	560 g | 167 x 81.4 x 15.5 mm
Processor	Helio G95 Octa Core 2.1 GHz
Display	6.22" LCD HD + waterdrop screen
Battery	Li-ion | 6350 mAh
Battery charging	24 W Type-C fast charge
Battery working time	15 ÷ 24 h (depending on the display intensity)

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TECH SHEET

OPTIONAL TOOLKITS

Extra batteries	standard	"plug&go"	~ 1h 30min	445 g
Telescopic poles	from 560 to 1800 mm	1000 g
	from 1000 to 6000 mm	1880 g
Tilt adapter for Capture Head	Ø32 x 175 mm	200 g

Centering tip	150 mm	12 g
Rugged backpack	540 x 400 x 220 mm	4850 g	cabled
Car mount	case: 547 x 427 x 251 mm	9000 g
Ring LED Light	Ø126 x 184 mm	700 g 4000 lm	36 W

SOFTWARE EQUIPMENT

Reconstructor	included
Reconstructor HERON add-on	included
3D navigation of point clouds and images	yes
Automatic scans registration	yes
Import	TLS data, .ifc BIM, point clouds from UAV, mobile mapping data
Direct import formats	.laz, .e57, .fls, .zfs, .rxp, .x3s, .x3m, .clr, .cl3, .dp, .ixf, .nctri, .txt, .las, .ptx, .pts, .ptg, .asc, .ply, .csv, DEM Ascii
Point cloud filtering, managing and classifying	yes
CAD/Mesh models	.3ds, .ifc, .obj, .dxf, .stl, .txt, .wrl, .vrml, .ply, .mvx, .dae
Mesh creation and manipulation	yes
Volumes and areas computation	yes
Cross sections and profiles (.dxf)	yes
Verification tool	yes
Orthophotos/x-Ray orthophotos (direct export to AutoCAD)	yes
Direct export of 3D point clouds and 2D maps	.las, .e57 with images, ReCap, AutoCAD
Cloud sharing	AtisCloud, Benaco, Cintoo Cloud, FARO Webshare, Geo-Plus, Topcon Collage Web

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
Constraints tool (control points/control scans)	yes

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

Reconstructor 3D Viewer	free software
3D model navigation	yes

HERON Tracking add-on	optional
Reconstructor MINING add-on	optional
Reconstructor COLOR add-on	optional
**ClearEdge3D EdgeWise	Verity	Rithm**	optional
Cintoo Cloud	optional

(1) 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 2-3 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 global accuracy up to 1 cm. The Gexcel support team is always ready to provide you with more detailed information on this topic.

(2) Final FOV guaranteed by walking with the system.

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