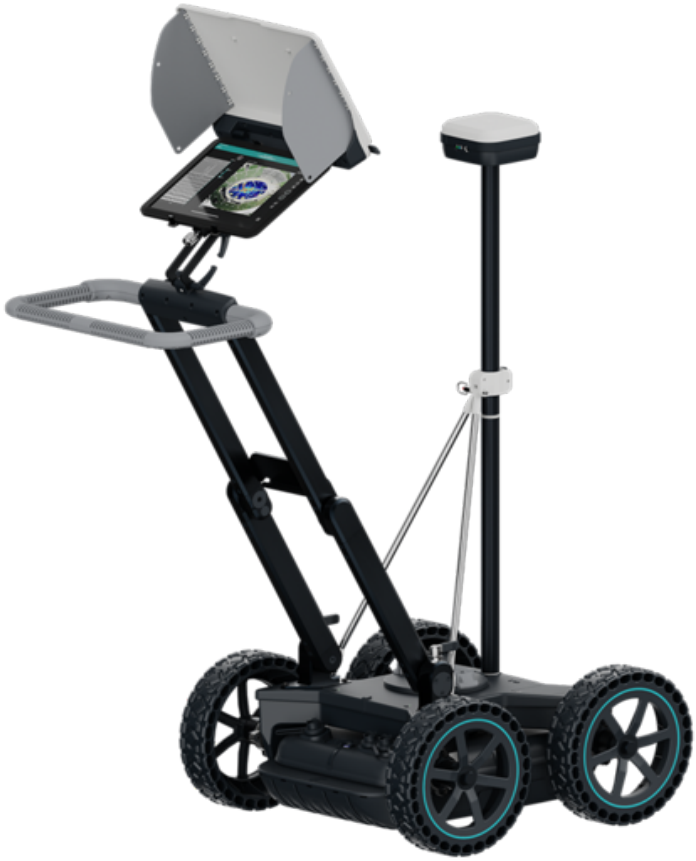
SCREENING EAGLE | proceq



Subsurface Mapping GPR

GS8000

The most efficient real-time workflow and technology to scan and digitize the subsurface

Versatility

No methodology constraints and real time 2D & 3D data visualization of the scanned subsurface, for an optimal interpretation on site, no matter the application.

Accuracy & Resolution

Superior clarity of data at different depths thanks to the unique Swiss Made ultra-wideband radar technology, with high-accuracy geolocation in local coordinates.

User Experience

End-to-end workflows, all the way from the most intuitive data acquisition to instantly shareable deliverables. Access your data from anywhere, anytime.

Software / Workspace App

Measurements modes	Line Scan Grid Scan Free Path
Visualization modes	A-scan Line Scan Line Scan migrated Time Slice View Map View Augmented Reality
On-site annotations	Tags Markers Photos Points of interest Voice notes Markups Linework
Display settings	Slice depth and thickness Auto / linear / time gain Background removal Multi-layer dielectric constant Time window Noise cancellation filter Frequency filter Low pass filter Color palette Object layers
Reporting	Workspace integration Automatic logbook Instant map / drawing generation Instant report generation Share via url
Export format	SEG-Y DXF SHP KML HTML
Coordinate System	EPSG global database Local grid models Geoid models
Languages	English Spanish French German Italian Chinese
Display unit	Any iPad® or iPad Pro® [1] Recommended: iPad Pro WiFi + Cellular Screen resolution: up to 2732 x 2048 pixels Storage capacity: up to 1 TB

Download on the App Store

Processing Unit / Sensor

Radar technology	Stepped-frequency Continuous-Wave GPR
Modulated frequency range	40 – 3440 MHz [2]
Effective bandwidth	3200 MHz [3]
Min. detectable target size	1 cm | 0.4 in [4]
Max. depth penetration	10 m | 33 ft [5]
Scan rate	500 Hz
Spatial interval	Up to 100 scans/m
Acquisition speed	Up to 80 Km/h | 50 mph [6]
GNSS receiver	Multiband GPS + Glonass + Galileo + Beidou SSR augmentation [7] / RTK-compatible Dimensions: 145 x 145 x 70 mm Weight: 0.7 Kg, 4x AA-batteries included
GNSS real-time 3D accuracy	Typ. 1 - 5 cm | 0.5 - 2 in [8]
GNSS initialization time	Typ. 5 - 30 s
Wheel encoders	2
Configurations	Proceq GS8000 Proceq GS8000 Pro [9]
Weight	24 Kg[10]
Dimensions	61 x 57 x 38 cm[11]
Antenna positions	Ground-coupled with dual-axis floating Air-coupled with 25 mm clearance [12]
Ingress protection (IP) / sealing	IP65
Power supply	Removable flight-safe battery pack [13] | Off-the-shelf power bank [14]
Autonomy	3.5 hours | Full working day [15]
Operating temperature	-10° to 50°C | 14° to 122° F
Operating humidity	<95% RH, non-condensing
Connectivity	WiFi, Ethernet, USB-A, USB-B, USB-C, Lemo[16]

1. Running an up-to-date iOS version; recommended models: iPad Pro® WiFi + Cellular 11" or 12.9"
2. For USA & Canada: 200 - 3440 MHz
3. For USA & Canada: 3000 MHz
4. Metallic object buried at 0.3 m / 1 ft, in average soil conditions
5. Depending on soil conditions, typ. 6 m / 20 ft in average soil conditions. For USA & Canada: 12 ft in average soil conditions
6. At 50 mm scan interval. For USA & Canada: Up to 35 km/h / 22 mph
7. Needs an active Internet connection on the iPad; SSR service available in Europe & USA / RTK corrections via NTRIP in RTCM3 format
8. Via NTRIP RTK or SSR corrections; the achieved accuracy is subject to atmospheric conditions, satellite geometry, observation time, etc.
9. GS8000 Pro includes additionally: off-road wheels and underbody, GNSS pole fixation kit, tablet cover for sun and rain, hard transportation case
10. For GS8000 Pro configuration: 27 Kg
11. For GS8000 Pro configuration: 68 x 60 x 42 cm
12. For GS8000 Pro configuration: 40 mm
13. Contains 8x rechargeable C-Type NiMH batteries
14. USB-C PD power bank with max. dimensions: W 85mm x H 28mm (recommended power: 12V/>=1.25A or 15V/>=1A)
15. Recommended battery capacity: >4500 mAh | Recommended power bank capacity: >20000 mAh
16. For terrestrial positioning systems, an intermediate serial adapter to DB9 might be needed to output Pseudo NMEA GGA positions

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