



## Subsurface Mapping GPR **GS8000**

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

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### **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.



# Proceq GPR Subsurface App

## Tech Specs



## Instrument

### Tech Specs

<b>Measurements modes</b>	Line Scan Grid Scan Free Path
<b>Visualization modes</b>	A-scan Line Scan Line Scan migrated Time Slice View Map View Augmented Reality
<b>On-site annotations</b>	Tags Markers Photos Points of interest Voice notes Markups Linework
<b>Display settings</b>	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
<b>Reporting</b>	Workspace integration Automatic logbook Instant map / drawing generation Instant report generation Share via url
<b>Export format</b>	SEG-Y DXF SHP KML HTML
<b>Coordinate System</b>	EPSG global database Local grid models Geoid models
<b>Languages</b>	English Spanish French German Italian Chinese
<b>Display unit</b>	Any iPad® or iPad Pro® <sup>1</sup> Recommended: iPad Pro WiFi + Cellular Screen resolution: up to 2732 x 2048 pixels Storage capacity: up to 1 TB

iPad is a trademark of Apple Inc.; iOS is a registered trademark of Cisco in the US and is used by Apple under license



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

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: 68 x 60 x 42 cm

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

## Our Accessories

Image	PartNumber	Description
	39350510	Accommodates 6x NiMH rechargeable C-batteries. One unit included in all hardware variants.
	39350520	Accommodates any compatible PD power bank unit. One unit included in all hardware variants.
	39350803	For better back & forth rolling on uneven terrains. Included in GS8000 Pro hardware variant.
	39350660	Stabilizes your GNSS pole in uneven terrains. Included in GS8000 Pro hardware variant.
	39350225	Shifts the position of your wheels 20mm in any direction. Included in GS8000 Pro hardware variant.
	39350710	Included in GS8000 Pro hardware variant.
	39350404	Accommodates any iPad Pro and sun & rain cover. Included in all hardware variants.
	39350480	Protects the iPad from sun & rain. Included in GS8000 Pro hardware variant.
	39350060	Accommodates an umbrella to protect the user from sun & rain.
	39350486	Makes the tablet holder compatible with diverse accessories and cases. Included in all hardware variants.

Standards & Guidelines	Description
AS 5488-2013 ( Australia)	
NF_S70-003 ( France)	
UNI/PdR 26.01:2017 ( Italy)	
ASCE 38-02 ( United States)	
CSA S250 ( Canada)	
HSG47 ( United Kingdom)	
PAS128 ( United Kingdom)	
ASTM D6432-11	
NCHRP Synesis 255	
SHRP H-672	
SHRP S-300	
SHRP S-325	

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