

GEM-2

**MULTI-FREQUENCY
PROGRAMMABLE
ELECTROMAGNETIC
SENSOR**

For Mapping

**Shallow Geology
Conductivity
Susceptibility &
Environmental
Contamination**



GEM-2 Specifications

Programmable Operation

Bandwidth	300 Hz to 48 KHz
Frequency Domain	Single Frequency Multiple Frequencies Stepping Frequencies
Max Sampling rate	30Hz

Hardware

Removable Ski	Sealed Synthetic Foam
Console (CPU, Display)	11cm x 21cm x 5cm Box
Rechargeable Battery	13.2 VDC
Coil Configuration	Coplanar
Max TX Moment	3 Ampere-mm
Output	Inphase / Quadrature in ppm
Total Weight	4 kg (9 lbs)

Operating Software

- Windows-based, menu-driven operation using a PC
- WinGEM program upload and data download
- Data coordinates assignment and display
- PPM to apparent conductivity conversion
- PPM to apparent susceptibility conversion
- Real-time data output option for GPS navigation
- Layered earth inversion program (optional)

Depth of investigation

It depends on many factors, such as ground conductivity and ambient EM noise. For layered geologic media, it is estimated That the GEM-2 can probe about 30-50 m in resistive areas (>1000 ohm-m) and about 10-30 m in conductive areas (< 100 ohm-m). The figures may decrease in noisy areas. The noise level is generally high in urban areas and low in rural areas

See on the right the “Skin-Depth Nomogram” that shows the Relationship among the ground conductivity, frequency and the depth of exploration. For further information, visit Our Website.

