

# 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.

