

Gekko-60

Datasheet



The Gekko-60 is recognized worldwide as one of the best GPR-antennas when maximum penetration is required. It is a UWB VHF GPR portable lightweight antenna with very high penetration. This antenna, with its good penetration and signal to noise ratio, is an example of the fact that deep penetration and good resolution can be achieved at once. It is therefore ideal for applications that require deep penetration and high resolution, while still having an easily maneuverable GPR system. Examples of such applications are water level mapping, dam structural integrity surveys and more.

The precise design of the outer shell of Gekko-60 provides a stable construction that doesn't tip and withstands the challenges that will be presented by the outer environment.

Gekko-60 is fully compatible with the rest of the Geoscanners equipment. It is easily mounted on the GST-806 cart, designed specifically to be used on cars or other vehicles, or with the SVC-820 cart (standard 4 wheel cart).

Just as with the rest of the Geoscanners antennas, Gekko-60 is designed with the end user in mind. It can be used in both monostatic mode or in bistatic mode. Depending on which mode is desirable by the user, the antenna comes equipped with top of the line Geoscanners plug-in electronics; TR-501 for monostatic mode or a combination of RX-501 and VHT-501 for bistatic mode. By including the transceivers in the antenna, we made sure that the end user receives a highly integrated device with all the matching already made to give the best possible results.





Area of Application

- Deep geological surveys
- Glacier surveys and monitoring
- Water level mapping
- Alluvial deposits and layer mapping
- Dam structural integrity surveys, embankment control

Mechanical and Environmental Specifications

Dimensions LxWxD (mm/inches)	2045x155x215 / 80.51x6.1x8.46
Weight (kg/pounds)	5 / 11.02
Fastening points LxW (mm/inches)	260x60 / 10.23x2.36
Ingress Protection*	IP54
Operating Temperature (°C / °F)**	from -25 to +40 /from 13 to +104
Relative Humidity (%)	96 (NC)

*TR501 attached

** Antenna only, for the electronics refer to the appropriate datasheet.

Electrical Specifications

Antenna Type	Resistively loaded butterfly folded dipole
Shield Type	Unshielded
Feed point impedance (Ohms)	387***
Transmitted Pulse Amplitude (Volts)	120 / 600****
Antenna Bandwidth (at 10dB)	85.2%*
Antenna Center Frequency (Mhz at 10dB BW)	64.75
Survey Wheel Output Voltage (Volts)	5.01

*** This data is preliminary based on limited amount of units

**** By using VHT501

Recommended Specifications

Pulse repetition Frequency, PRF (kHz)	≤50
Scan Rate, Scans/Second	≤50
Range (ns), (depends on soil penetration)	150 - control unit maximum
Low Pass Filter Cut-Off Frequency (MHz)	25
High Pass Filter Cut-Off Frequency (MHz)	130
Gain	Adjust to 75% Swing

Accessories*

- GST-806 Car survey trailer
- SVC-820 Standard 4 wheel cart
- K-100B Adapter for SVC820
- ASH-822 Hand carrier for one Gekko antenna

*Accessories are not included

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