

GCB-300

Datasheet



GCB-300 is the compromise between the high resolution of the GCB-400 and the deep penetration of the GCB-200 antennas. It is the best of both worlds with very small sacrifices to it.

This is the perfect choice for companies that don't have the opportunity to make a big initial investment, but still have a wide variety of jobs to do. In many cases this antenna will suffice for all your applications in utility detection surveys as well as archaeological investigations.

As with all other antennas manufactured by Geoscanners this antenna is fully compatible with the rest of the Geoscanners products. Furthermore, GCB-300 is also compatible with GSSI control units. This gives endless possibilities and allows the user to change antennas without having to purchase complete new systems.

GCB-300 is the perfect choice for the customers oriented to different types of utility and environmental surveys with varying requirements. It provides resolution quality comparable to GCB-400 but it will extend the possible depth range of application. As a result of this balance in features, GCB-300 can easily be used to locate utilities in shallow and medium depth ranges. At the same time the penetration range of this antenna allows it to be used for geotechnical and environmental surveys with excellent results.





Area of Application

- Geotechnical and environmental
- Utility, UST and void detection
- Archeological investigations
- Forensics

Mechanical and Environmental Specifications

| | |
|----------------------------------|--|
| Dimensions LxWxD (mm/inches) | 380x295x160 / 14.96x11.61x6.29 |
| Weight (kg/pounds) | 2.6 / 5.73 |
| Fastening points LxW (mm/inches) | 210x160 / 8.26x6.30 |
| Ingress Protection | IP65 |
| Operating Temperature (°C / °F) | from -25 up to +40 / from 14 up to 104 |
| Relative Humidity (%) | 99 (NC) |

Electrical Specifications

| | |
|--|---------------------------|
| Antenna Type | Quarter Wavelength Bowtie |
| Shield Type | Top and Side Shield |
| Distance between the TX and RX (mm/inches) | 140 / 5.51 |
| Feed point impedance (Ohms) | 328 |
| Transmitted Pulse Amplitude (Volts) | 100 |
| Receiver Sensitivity (µVolts) | 14 |
| Dynamic Range (dB) | 137 |
| Antenna Bandwidth (at 10dB) | 99% |
| Antenna Center frequency (MHz at 10dB BW) | 307 |
| Survey Wheel Output Voltage (Volts) | 5.01 |

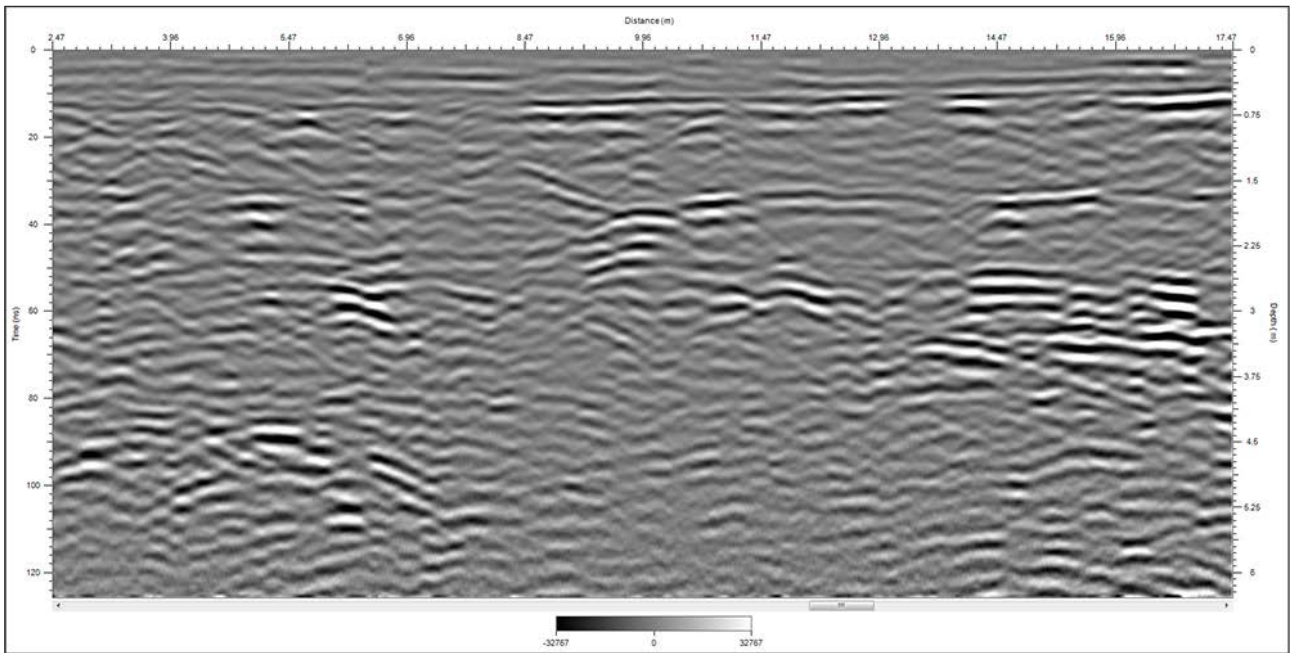
Recommended Specifications

| | |
|---|---------------------|
| Pulse repetition Frequency, PRF (kHz) | ≥50 |
| Scan Rate, Traces/Second | 100 |
| Range (ns), (depends on soil penetration) | 32 - 128 |
| Low Pass Filter Cut-Off Frequency (MHz) | 600 |
| High Pass Filter Cut-Off Frequency (MHz) | 150 |
| Gain | Adjust to 75% Swing |

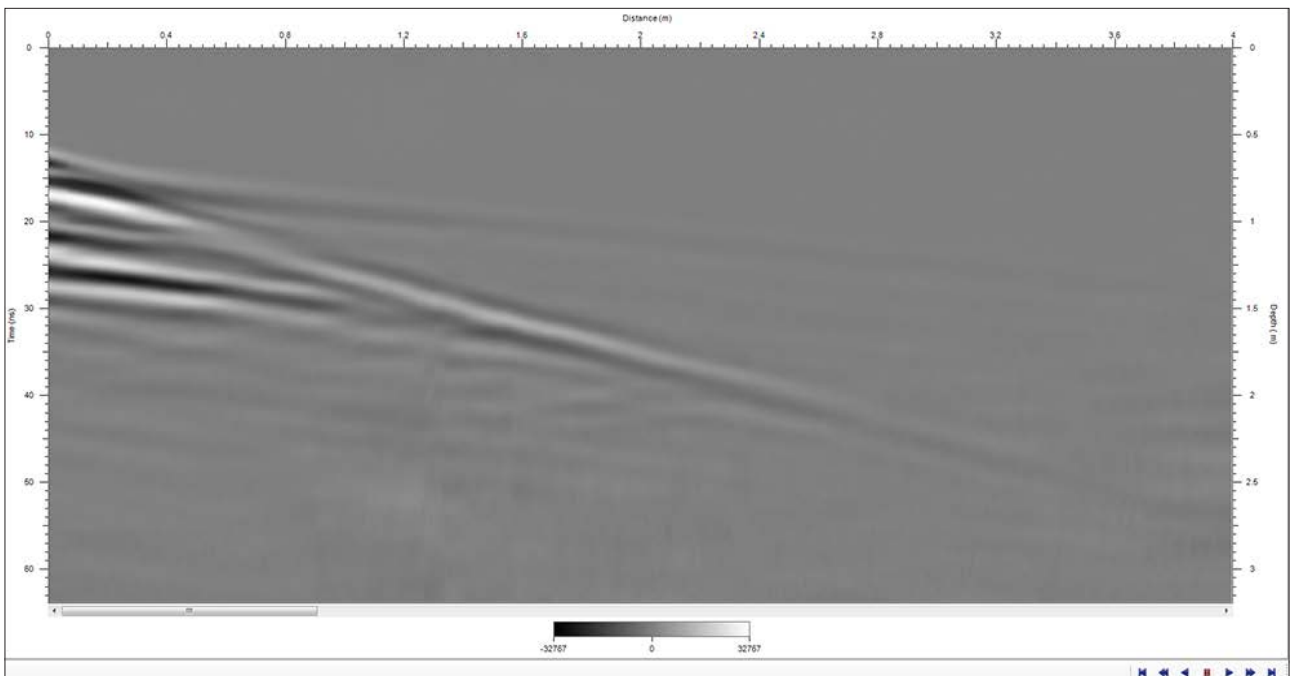
Accessories*

- Tray S3 antenna tray with belts
- SVC-820 4-wheel survey cart
- GSH-490 rough terrain survey trailer

*Accessories are not included



1. Utilities and saturated ground pockets in the GCB-300 data, processed data



2. Common midpoint collecting with two GCB-300 antennas, raw data

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