

FLB-500

Datasheet



FLB-500 is an air launched ground penetrating antenna developed by Geoscanners AB to cover the need for non-contact survey applications. It has a narrow footprint on the air to ground interface to increase the amount of signal energy penetrating into the ground. FLB-500 has been optimized to offer a good front to back ratio allowing operation in urban environment as well.

The intended fields of applications for FLB-500 are shallow surveys that demand better resolution where there is no possibility to achieve contact with the rough terrain.

Due to its specific features, FLB-500 comes in two different hardware solutions. The basic hardware version includes the antenna and the standard connectors so the antenna can be connected to any radar control units from the Akula 9000 series. In this way you can use this airborne solution with the standard equipment and acquisition software, for the fastest possible results.

Optionally, FLB-500 can be provided with an integrated radar control unit. This gives more freedom when it comes to mounting and moving the antenna over the survey site. The latter requires additional software.



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REV: EN050813-06

Area of Application

- Ice thickness
- Snow measurement
- Shallow utility
- Forensics
- UXO



Mechanical and Environmental Specifications

Dimensions LxWxD (mm/inches)	250x250x125 / 9.84x9.84x4.92
Weight (kg/pounds)	1.2 / 2.65
Weight compact radar (kg/pounds)	1.7/ 3.75
Fastening points LxW (mm/inches)	158x158 / 6.22x6.22
Ingress Protection	IP66
Operating Temperature (°C / °F)	from -25 up to +40 / from 14 up to 104
Relative Humidity (%)	99 (NC)

Electrical Specifications

Antenna Type	Feed Loaded Bowtie
Shield Type	Top and Side Shield
Distance between the TX and RX (mm/inches)	98/3.86
Feed point impedance (Ohms)	328
Antenna Center frequency (MHz at 10dB BW)	550*
Survey Wheel Output Voltage (Volts)	5.01

*Based on preliminary measurements

Recommended Specifications

Pulse repetition Frequency, PRF (kHz)	≥100
Scan Rate, Traces/Second	100
Range (ns), (depends on soil penetration)	15-50
Low Pass Filter Cut-Off Frequency (MHz)	1000
High Pass Filter Cut-Off Frequency (MHz)	250
Gain	Adjust to 75% Swing

Accessories**

- K-500 adapter for the SVC-820 survey cart

**Accessories are not included

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