

ROUGH TERRAIN ANTENNA (RTA) Series



RTA Concept

Terraplus Inc is proud to present the Rough Terrain Antenna (RTA) series. This series of unique antennas is available in 25 MHz, 50 MHz, or 100 MHz variants.

The RTA concept changes the face of low-frequency Ground Penetrating Radar (GPR) surveying. The unique in-line, all in one, antenna design provides improved performance for deeper penetration. The flexible “snake” like design allows the antenna to be maneuvered easily and efficiently through the densest or most uneven of terrain without affecting ground contact, providing optimum results in the most difficult of environments. The most important benefit being that the operator doesn’t have to clear an access path or route prior to the profile or survey.

Typical system set-up comprises a CUII control unit mounted in a backpack, XV Monitor, RTA (25, 50 or 100), rechargeable batteries and a triggering mechanism (survey wheel, hip chain, or time). As with all RAMAC/GPR systems, the RTA concept can be configured for simultaneous real-time GPS coordinate acquisition during the GPR survey.

The RTA series is recommended for deep/geological investigations. Although, other applications include: glaciology, archeological/anthropological investigations, mapping of groundwater and depth to bedrock mapping.

TECHNICAL SPECIFICATIONS

The RTA concept offers a number of advantages over standard unshielded low-frequency systems

- Cost-effective.
- More time efficient with fewer hang-ups.
- Minimal site preparation since the RTA articulated/flexible design curves and bends around and over obstacles such as fallen trees, rocks and ditches.
- One-person design for easy handling.
- Capable of mounting to a vehicle.
- Ruggedized for extreme environments and terrains.
- Optimum ground coupling due to the articulated/flexible design results in deeper profiling.
- Low power consumption results in extended operation time.
- Easy to operate XV Monitor interface



Centre Frequency	25 MHz	50 MHz	100 MHz
Total weight incl. batteries	7.8 kg (17.0 lbs)	7 kg (15.5 lbs)	6 kg (13.2 lbs)
Total length	13.06 m (42 ft)	9.25 m (30 ft)	6.56 m (21 ft)
Distance Tx-Rx	6 m (19.69 ft)	4 m (13.12 ft)	2 m (6.56 ft)
Power supply	12 V Li-ion rechargeable batteries		
Operating time	> 6 hours		
Operating temperature	-20°C to + 50°C		
Control Unit	RAMAC CUII		
Data acquisition	RAMAC XV Monitor or notebook PC		
Environmental	IP67 Standard		

Complies with the European ETSI EN 302 066-1 standard.

The complete RTA range is fully compatible with the CUII control unit, XV Monitor and Ground Vision data acquisition software.