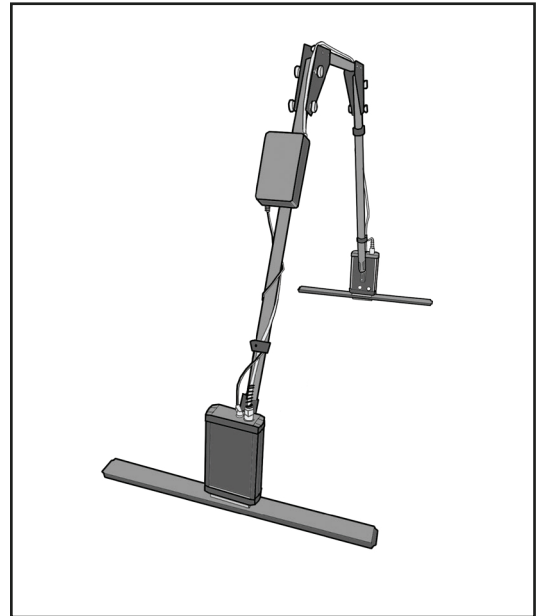


Dipolo

Ground Penetrating Radar

Technical Specifications Sheet

Latest update: August 2018



What Dipolo is

The Dipolo is an Ultra-Wideband (UWB) pulsed dipole Ground Probing Radar (GPR) for non-destructive imaging of subsurface structures. It comprises of a transmitter and receiver boards and antennae and a controller board.

What Dipolo is used for

The Dipolo has a wide variety of usages including but not limited to non-destructive archaeological surveys, underground water detection, road inspection, rock composition determination, cavities localization, ice thickness determination, geophysical research of underground layers, etc. It is designed to withstand the harsh conditions of outdoor surveys.

Technical Specifications

	100 MHz	300 MHz	500 MHz
Frequency Bandwidth	10 MHz - 500 MHz	10 MHz - 500 MHz	30 MHz - 800 MHz
Central Frequency	100 MHz	300 MHz	500 MHz
Vertical Resolution	0.5 m	0.3 m	0.2 m
Horizontal Resolution	0.5 m	0.3 m	0.2 m
Weight	2.5 kg	2.5 kg	2.5 kg
Size	75/110/78 cm	75/110/35 cm	75/110/25 cm
Pulse Length	10 ns	2.5 ns	2 ns
Pulse Rise Time	2 ns	2 ns	1.5 ns

Operating Time Windows	75ns / 150ns
Dynamic Range	120 dB min
Pulse Repetition Frequency	75 kHz
Pulse Voltage	600 V
Peak Tx Power	800 W
Power Consumption	270 mAh
Batteries	10/20 x 2.4 Ah NiMH 1.2 V
Autonomy with One Charge	7h / 14h
Charge Time	5h / 10h
ADC Range	8 bits
Data Acquisition Rate	18.2 traces/second
Samples per Trace	585
GPR Interface	UART over USB
Operating Temperature Range	- 5° C to 40° C
Water Resistance	IP 52