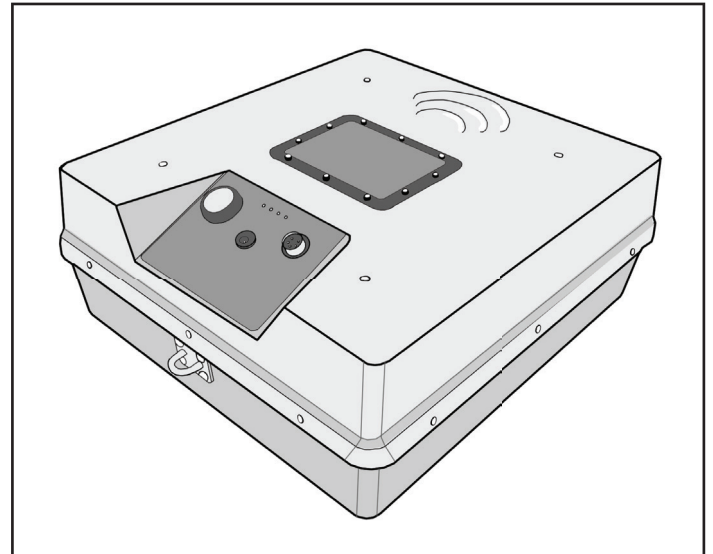


Scudo

Ground Penetrating Radar

Technical Specifications Sheet

Latest update: August 2018



What Scudo is

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

What Scudo is used for

The Scudo has a wide variety of usages including but not limited to underground utility detection, 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 and construction sites.

Technical Specifications

Frequency Bandwidth	30 MHz - 900 MHz
Central Frequency	500 MHz
Operating Time Windows	50ns / 100ns
Dynamic Range	120 dB min
Horizontal Resolution	0.1 m
Vertical Resolution	0.05m
Pulse Repetition	75 kHz
Pulse Length	3 ns
Pulse Energy	600 V
Pulse Rise Time	1 ns
Peak Tx Power	800 W
Power Consumption	270 mAh

Batteries	10/20 x 2.4 Ah NiMH 1.2 V
Autonomy w/ 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 Temp Range	-5° C to 40° C
Water Resistance	IP 52
Size	38/35/15 cm
Weight	3 kg