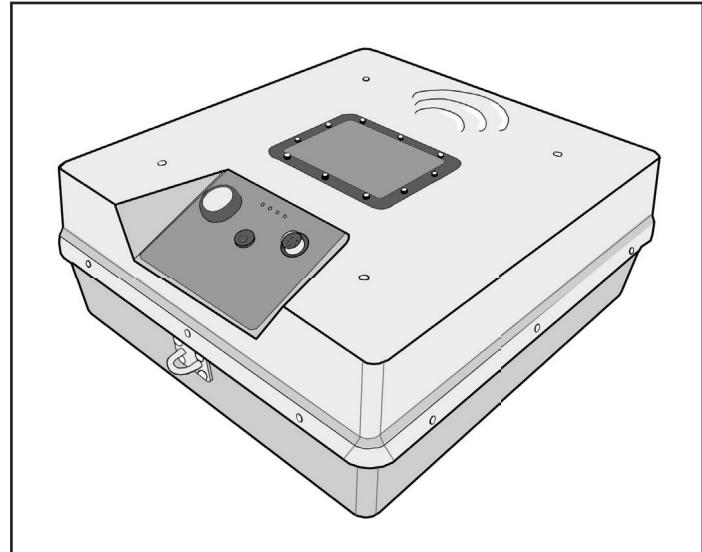


Scudo

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	Batteries	10/20 x 2.4 Ah NiMH 1.2 V
Central Frequency	500 MHz	Autonomy w/ One Charge	7h / 14h
Operating Time Windows	50ns / 100ns	Charge Time	5h / 10h
Dynamic Range	120 dB min	ADC Range	8 bits
Horizontal Resolution	0.1 m	Data Acquisition Rate	18.2 traces/second
Vertical Resolution	0.05m	Samples per Trace	585
Pulse Repetition	75 kHz	GPR Interface	UART over USB
Pulse Length	3 ns	Operating Temp Range	-5° C to 40° C
Pulse Energy	600 V	Water Resistance	IP 52
Pulse Rise Time	1 ns	Size	38/35/15 cm
Peak Tx Power	800 W	Weight	3 kg
Power Consumption	270 mAh		