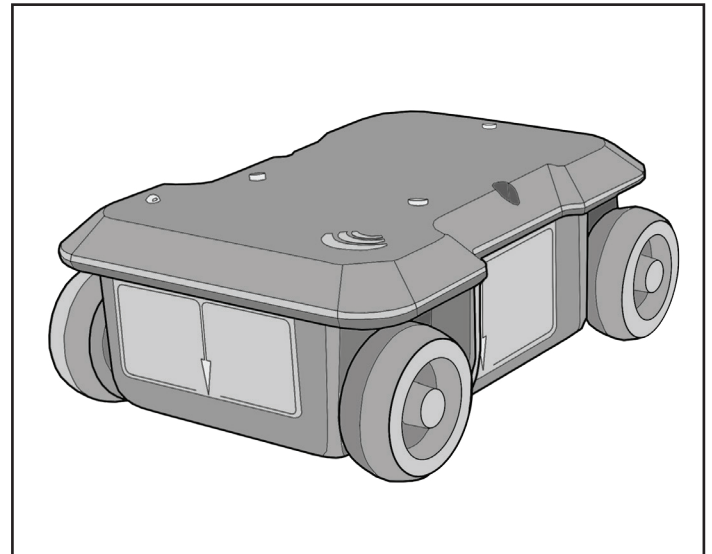


Concretto

Wall Penetrating Radar

Technical Specifications Sheet

Latest update: August 2018



What Concretto is

The Concretto is an Ultra-Wideband (UWB) shielded pulsed Wall Probing Radar (WPR) 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 Concretto is used for

The Concretto has a wide variety of usages including but not limited to underground utility detection, non-destructive concrete structure analysis, rebar detection, road inspection, cracks and faults localization in concrete and asphalt structures, wire and pipe mapping in buildings, etc. It is designed to withstand the harsh conditions of construction sites.

Technical Specifications

Frequency Bandwidth	200 MHz - 4000 MHz
Central Frequency	2000 MHz
Operating Time Windows	7.5ns / 14ns
Dynamic Range	120 dB min
Horizontal Resolution	0.001 m
Vertical Resolution	0.001 m
Pulse Repetition	1 MHz
Pulse Length	600 ps
Pulse Energy	30 V
Pulse Rise Time	200 ps
Peak Tx Power	3 W
Power Consumption	110 mAh

Batteries	10 x 900 mAh NiMH 1.2 V
Autonomy w/ One Charge	8 h
Charge Time	1.5 h
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	14.5/20/8 cm
Weight	1 kg