

pulseEKKO® 1000



pulseEKKO[®] 1000

The latest advancements in digital ground penetrating radar technology



Use long cables for easy access to confined areas

User-friendly and cost-effective -- this member of the pulseEKKO[®] family continues on the path of excellence in Sensors & Software's digital ground penetrating radar (GPR) technology.

With optimal performance in high resolution applications, pulseEKKO[®] 1000 is perfect for all your GPR needs. High fidelity, fully digital timing control and digital data acquisition throughout make the pulseEKKO[®] 1000 unmatched for geotechnical and non-destructive testing (NDT) demands in GPR.

Features



Use the backpack and cart for single operator surveys

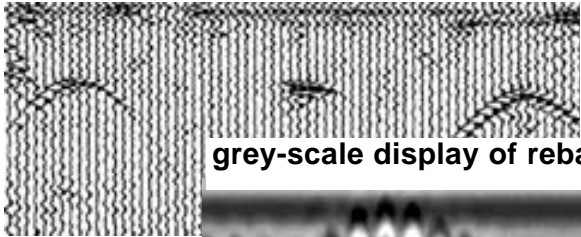
- bistatic antennas
- CMP acquisition
- computer control
- digital acquisition at antenna
 - ergonomic antenna carts
 - interchangeable antennas
 - lightweight, modular, compact
 - odometer control
 - remote triggering
 - signal stacking



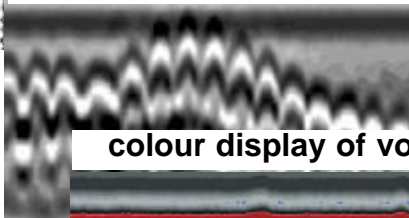
Use the odometer wheel and cart for road surveys

The software configuration is designed so that even a novice can easily access and use the system in the field. The system is compatible with MS-DOS* and Windows* and is open-ended to allow for use with the rapid technology advancements of today.

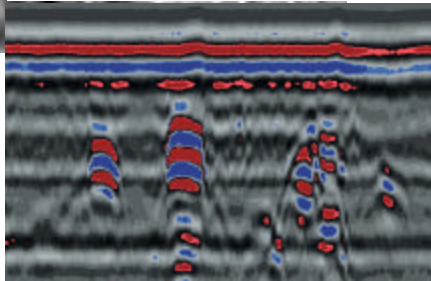
wiggle-trace display of buried pipes



grey-scale display of rebar



colour display of voids



Processing

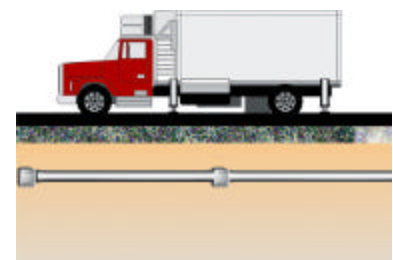
- AGC, SEC & USER gains
- FFT filtering & trace attributes
- modeling & migration
 - seismic processing software
 - temporal & spatial filtering
 - topographic compensation
 - wiggle trace & color display

Applications



Find rebar & conduit location before you drill

- archaeology
- concrete inspection
- forensics



Locate pipes under pavement

- geology
- NDT
- pipe & cable location
- tomography imaging
- tunnel wall & pipe liner inspection
- unexploded ordnance (UXO) detection



Find voids in tunnels

pulseEKKO® 1000 Technical Specifications

Antennas (Shielded)

110 MHz	92 x 46 x 16 cm	9.0 kg
225 MHz	40 x 23 x 7 cm	1.0 kg
450 MHz	23 x 16 x 6 cm	0.7 kg
900 MHz	23 x 16 x 6 cm	0.7 kg
1200 MHz	18 x 12 x 12 cm	0.5 kg

Console

control & data output	RS232 serial port (optional parallel)
power requirement	2.1 amp@12V dc
size	25 x 16 x 16 cm
weight	2.8 kg

Control & Display

computer	XT to Pentium to P6 and beyond
digital storage	hard drive & any PC medium
hard copy output	PC compatible printers

GPR Parameters

maximum system performance	162dB
programmable sampling interval	10 ps-20000 ps in 2 ps steps
equivalent time sampling rate to	100 GHz
programmable stacking	1-2048 stacks
programmable time window	1 ns-32767 ns

Receiver Electronics

output	16 bit digital
lsb	1.5 mV
size	23 x 16 x 5 cm
weight	1.5 kg

Transmitter Electronics

output	200V
size	23 x 16 x 5 cm
weight	1.7 kg

* trademark of Microsoft

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pulseEKKO is a registered trademark of Sensors & Software Inc.

s u b s u r f a c e i m a g i n g s o l u t i o n s

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