



Complete GPR System for Concrete Inspection and Analysis

StructureScan™ Optical

www.geophysical.com

StructureScan Optical™ has revolutionized 3D data collection by simplifying an often complicated survey process while providing the most versatile GPR solutions in the industry.

The StructureScan Optical is the only concrete inspection tool on the market with optical barcodes and patented Smart Pad technology for simple error-free scanning.

Typical Uses

- **Concrete inspection** – locate metallic and non-metallic targets in walls, floors and ceilings
- **Structure inspection** – bridges, monuments, walls, towers, tunnels, balconies, garages, decks
- **Condition assessment** – map relative concrete condition for rehab planning
- **Measure slab thickness**
- **Void location**

Locate Targets

- Obtain accurate GPR data results on concrete structures
- Locate rebar, tension cables, conduits (PVC and metal) in real-time
- Ability to cross-polarize antenna for additional data in locating PVC and conduit

Acquire Data

- Data is displayed in simple planview on a high-resolution, color screen
- Quick 3D data collection

Deliver Results

- Simplify data collection using Smart Pads with optical bar codes
- Varied data collection pad sizes offer maximum flexibility

Value

- Affordable, turnkey solution
- Two-year warranty



“The StructureScan Optical helps with complex work sites, for example, the ability to cross-polarize the antenna allows us to find conduits under wire mesh. It’s a great benefit.”

Emily Hammer, Hard Rock Technologies



StructureScan Solutions

What Makes StructureScan Optical the Best?

Application Specific Concrete Antennas

- Get the best results based on your jobsite needs. The StructureScan Optical is offered in two versions, a 1600 MHz and 2600 MHz antenna—making it the most versatile system in the industry.

Smart Pad Technology

- Data collection pads with barcodes that work in conjunction with an optical barcode reader to reduce human error and provide accurate and reliable data
- Multiple data collection pad sized for maximum flexibility on job sites -1'x1', 2'x2', 2'x4'



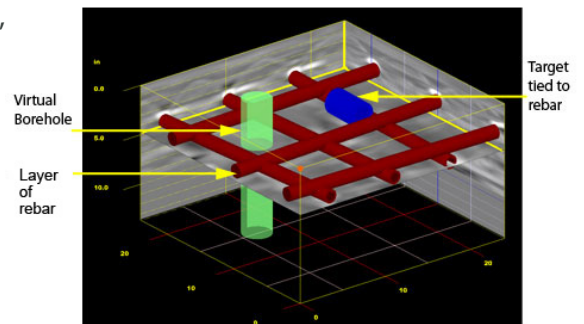
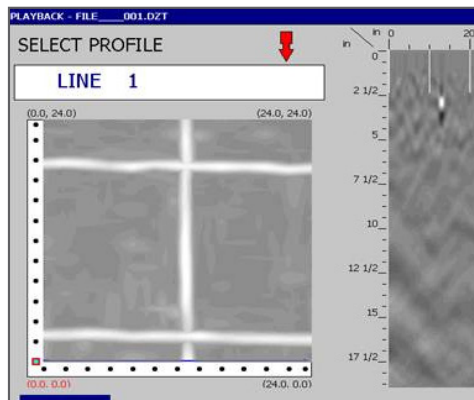
Detailed Training Program

- Multiple training locations offer added convenience— choose a facility that works best for you, GSSI Headquarters, GSSI West or let us come to you with our on-site training
- Real-world scenarios combine learning the basics of GPR concrete scanning with timesaving techniques



Locate Rebar

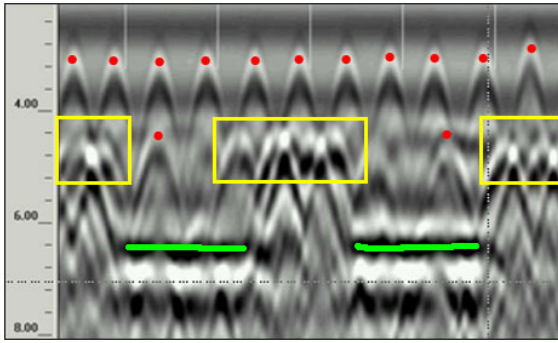
Concrete and construction professionals use StructureScan Optical to safely locate structures within poured concrete prior to drilling, cutting or coring. Take advantage of locating targets in real time, with only single-sided access required.



3D data set (above) showing rebar mat 6 inches on center with a target (labeled in blue) attached to a piece of rebar. 3D data from field (left) - result showing rebar mat.

Establish Location and Depth of Post Tension Cables

Determine post tension (P.T.) cable draping characteristics through accurate 2D depth imaging with the StructureScan Optical. Avoid costly repairs and potentially dangerous events by locating post tension cables prior to cutting or coring work.

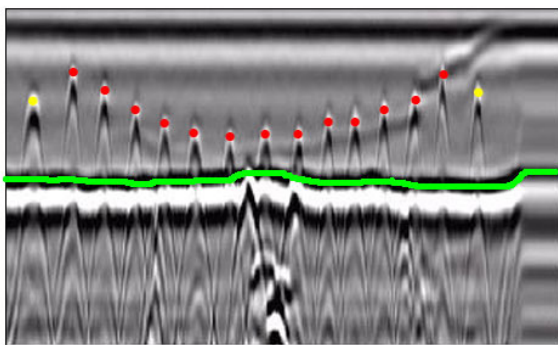


- Rebar
- Post tension cable cluster
- Bottom of slab

Data shows a reinforced concrete deck with rebar, post tension clusters and a well-defined bottom of slab.

Determine the Thickness of a Concrete Slab

Contractors and engineers alike use StructureScan Optical to determine the thickness of suspended or on-grade concrete slabs.



- Rebar
- Post tension cable
- Bottom of slab

Data set shows a well-defined bottom of suspended concrete slab.

Simple to Use

Get 3D Results in Minutes

1



Set Optical Smart Pad on concrete surface

2



Collect data with the Optical antenna

3



View and interpret data results

StructureScan Optical Options



StructureScan 1600 MHz

With a depth range up to 18 inches (0.5 m), the 1600 MHz system offers a great balance between data resolution and depth penetration in concrete.

General Purpose



StructureScan 2600 MHz

With a depth range up to 12 inches (0.4 m), the 2600 MHz system offers the highest frequency GPR antenna in the industry. The higher resolution provides clear, easy-to-interpret data images and makes complicated job sites less obscure.

High Resolution

Control Unit Specifications

Image Capacity	Internal: 500 2'x2' data images
External Memory	Based on Compact Flash size
Internal Memory	2 GB
Data Collection Pad Size	1'x1', 2'x2', 2'x4'
Display	8.4 inch, full-color, 800x600 resolution, 64K colors, clearly visible in sunlight
Post-processing	On-screen
Battery	Internal (3 hours), 10.8 VDC
Ports	RS232, Compact Flash memory, USB master & slave
Environmental	Water-resistant

System Includes

SIR® 3000 control unit
1600 MHz or 2600 MHz antenna
Optical hand cart with handle
5 meter control cable
2 batteries
Battery charger
Custom transit case
AC power supply
Smart Pads (sample pack)
Smart Pad tape



[See Our Website For More Information](#)

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