

# Complete GPR Systems for Concrete Inspection

## StructureScan™ Mini Series

[www.geophysical.com](http://www.geophysical.com)

The StructureScan™ Mini is GSSI's all-in-one GPR system, designed specifically for the concrete inspection industry. The StructureScan Mini is available in two models; the original version, the StructureScan Mini, is 1600 MHz and can reach depths of up to 50 cm (20 inches). The StructureScan Mini HR offers a 2600 MHz antenna for high resolution data.



### Compact Design

The StructureScan Mini makes concrete inspection easy in tight spaces, or above-the-head survey locations

### Integrated Tool

All-in-one concrete inspection tool - antenna, positioning system and control unit combo

### System Flexibility

The StructureScan Mini is offered in two versions, a 2D data collection mode for real-time results and a 3D data collection mode for advanced interpretation

### Durability

Ruggedized plastic casing and wheels for long-lasting performance

### Value

The perfect blend of price and performance, backed by a two-year warranty

- 1 All-in-One handheld GPR system
- 2 Ergonomic handle and controls
- 3 Easy to use operator interface with color screen display screen
- 4 Survey wheel encoder
- 5 Guiding laser for locating and 3D surveying



"The lasers in the StructureScan Mini are great when marking out rebar, especially when we're at a job site with bad lighting."

*Chase Johnson, GPRS San Francisco*

# StructureScan Mini Series

The Mini aids in target detection with advanced software solutions that visualize targets as a small dot when characteristics of rebar or conduit are identified.

The StructureScan Mini Series offers a lightweight alternative to other GPR systems, weighing in at just over three pounds. The small size of the unit makes it easy to transport to the job site and once on site, convenient to scan around obstacles and into tight spaces. The Mini is very easy to use – new users will

become proficient in a few short hours. The Mini aids in target detection by marking the data on screen with a small dot when characteristics of rebar or conduit are identified. The lasers on the side of the unit indicate the exact location of the center of target for accurate marking of targets embedded in the concrete. The Mini aids in target detection with advanced software solutions that visualize targets as a small dot when characteristics of rebar or conduit are identified.



## StructureScan Mini

### Deeper Signal Penetration

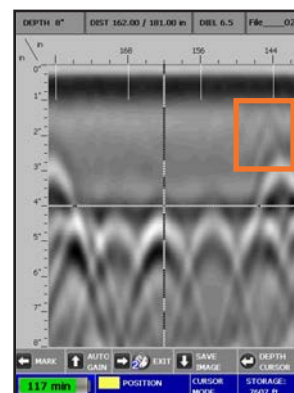
The StructureScan Mini is GSSI's portable integrated GPR system for concrete inspection. This handheld unit is used to locate rebar, conduits, post-tension cables, voids and determine concrete slab thickness.

With a 1600 MHz antenna, and depth penetration of up to 20 inches (50cm), the StructureScan Mini offers the perfect blend of data resolution and depth. Used worldwide, it has quickly become the standard for concrete imaging. Additionally, the StructureScan Mini is available with 2D or 3D capabilities, flexible for your job site needs.

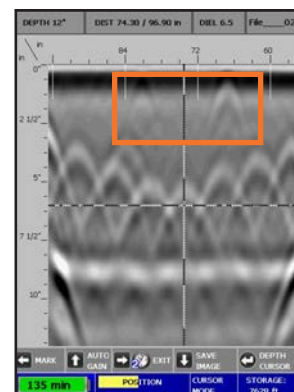
#### System Specifications

Center Frequency	1600 MHz
Depth Range	Up to 20 inches (50 cm)
Unit Weight (with battery)	3.6 pounds (1.63 kg)
Dimensions	6 (w) x 7 (h) x 9 (l) in. (15.24 x 17.78 x 22.86 cm)
Languages	English, Spanish, French
Environmental	IP-65

### 1600 MHz



Data showing a small 5/8" plastic conduit (less visible) over rebar mat.



Small 1/2" conduits (less visible) very close to surface. Note strong horizontal reflection, representing bottom of slab.

# StructureScan Mini HR

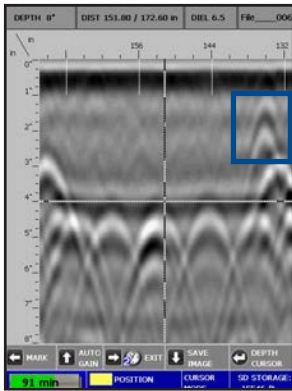
## Outstanding Data Resolution

The StructureScan Mini HR is GSSI's all-in-one high-resolution GPR system for concrete inspection. With a 2600 MHz antenna, this hand-held system locates rebar, conduits and post-tension cables in depths of up to 16 inches (40 cm).

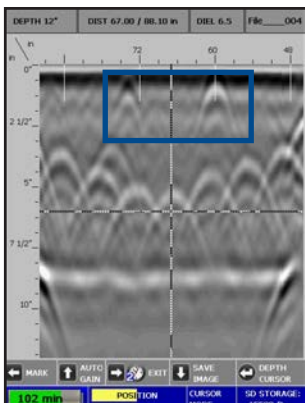
The StructureScan Mini HR is available in two models; 2D, for real-time target location and 3D, for an x-ray like image. Ideal for complex areas, the StructureScan Mini HR can delineate small targets with superior vertical and horizontal resolution.



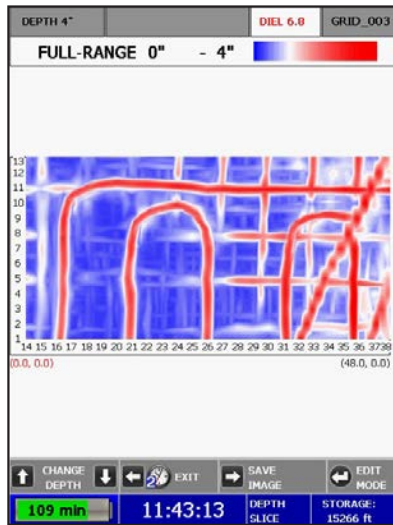
### 2600 MHz



Data showing a small 5/8" plastic conduit over rebar mat.



Small 1/2" conduits very close to surface. Note sharp hyperbola tails.



Collected with StructureScan Mini HR, data represents 3D image of radiant heating tubing in concrete slab.

## 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**

## System Specifications

Center Frequency	2600 MHz
Depth Range	Up to 16 inches (40 cm)
Unit Weight (with battery)	3.6 pounds (1.63 kg)
Dimensions	6 (w) x 7 (h) x 9 (l) in. (15.24 x 17.78 x 22.86 cm)
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# Software Solutions

## RADAN for StructureScan Mini™

RADAN for StructureScan Mini™ is a post-processing software package for the StructureScan Mini Series. It is designed to process, view, and document 2D and 3D data collected with the StructureScan Mini and StructureScan Mini HR. The software features bold and intuitive menu screens and clear data views for easy interpretation and enhanced post-processing capabilities.

### Data Processing and Annotation

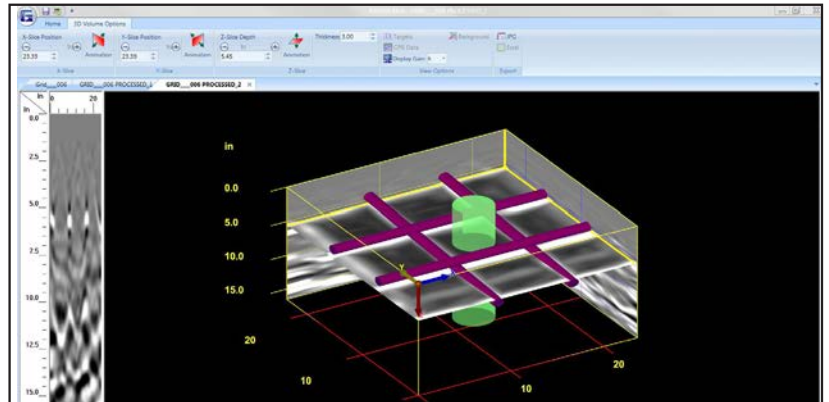
- Processing of 3D data sets collected with the StructureScan Mini and Mini HR
- 3D target input – customize size and color of targets
- Virtual 3D borehole
- Multiple color table and transform options
- Windows® 7 based user-interface

### Visualization

- Background Removal filtering
- Data Migration (focusing)
- Gain (Contrast) Control
- Use Ground Truth for accurate depth calculations

### Report Building

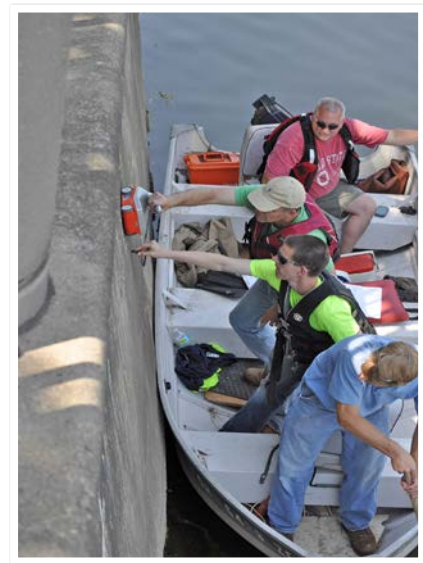
- Report Writer – custom report output using Microsoft® Excel
- Copy data images to third party software for documentation purposes
- Add targets as colored circles and export target information in an Excel format
- Save data images as a .jpg file
- Print to all Windows® supported printers



Data illustrates a volumetric view of a rebar mat with user-defined virtual borehole location.

### Systems Include

StructureScan™ Mini or StructureScan™ Mini HR
Dual battery charger
Two batteries
Hand strap
Transit case
Quick Start Guide
Training Video
Data collection grids (3D system)
2-year warranty



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