Antenna for the CX10 & CX11 Concrete Radar System

There are two antennas available for the CX system, a 1.2GHz for greater depth penetration and 1.6GHz for best resolution. Each is available with the optional integrated Electro-Magnetic 50/60Hz cable locator.

Fig1. 1.2GHz Antenna

Features:
Greater Depth Penetration
Detects metal and non-metallic objects
Detects voids, rebar and cables
Detachable cart
Measure the thickness of concrete covering
Simple 2 button control start/stop/new
Measure wall thickness
Detect shallow utilities

Fig2. 1.6GHz Antenna

Features:
Greater Resolution
Detects metal and non-metallic objects
Detects voids, rebar and cables
Detachable cart
Measure the thickness of concrete covering
Simple 2 button control start/stop/new
Measure wall thickness

Options to both antennas:
1.5m extension handle
10m extension cable
Split box for tomography applications
Integrated Electro-Magnetic 50/60Hz cable locator

Specifications:

Let's make it visible

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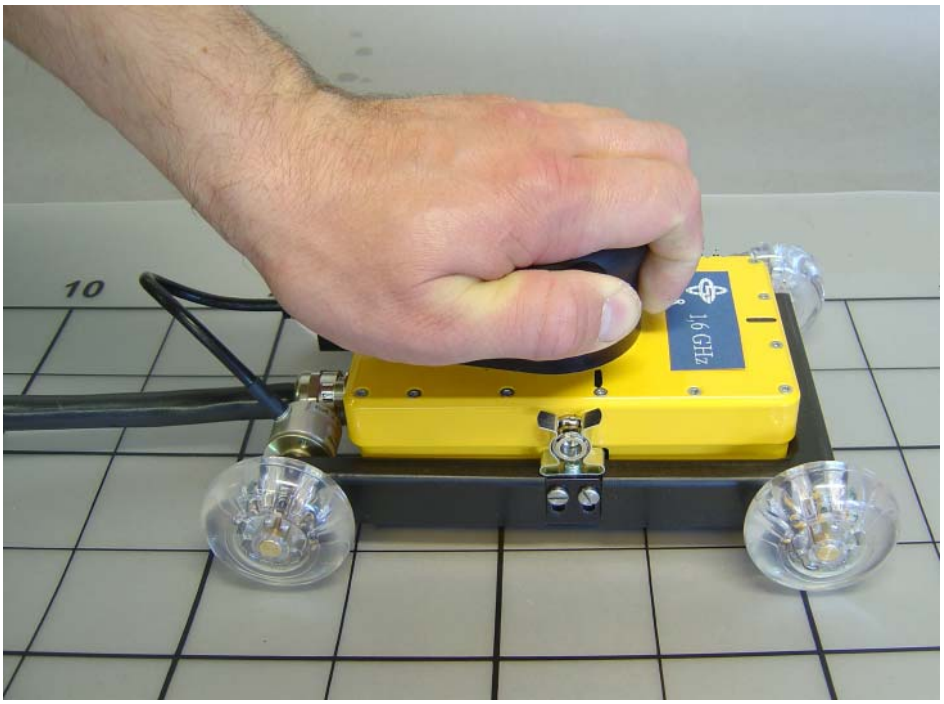
1.6 GHz ANTENNA FOR CONCRETE, FORENSIC AND OTHER HIGH-RESOLUTION APPLICATIONS



1.6 GHz antenna

The new 1.6 GHz high frequency, high-resolution antenna provides a state-of-the-art tool with user-friendly, high performance technology. The antenna is compatible with the RAMAC/GPR control unit CUII, RAMAC XV11 Monitor and the popular GroundVision data collection software.

When used together with the RAMAC/GPR XV11 Monitor, the operator has access to the fully integrated data collection, 2.5D analysis tool (See figures 1, 2 and 3) and Migration Wizard. This provides a very cost-effective data acquisition and analysis tool.

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The 1.6 GHz antenna offers a number of advantages

- High frequency provides high resolution
- Fully integrated with the Monitor software
- Compatible with GroundVision
- Very easy grid survey setup
- Handle survey areas of up to 7.8 m_2
- Detachable wheel cart and extension handle
- Ruggedized for extreme environments and terrains
- Control switches mounted on the antenna and on the extension handle
- Low power consumption results in extended operation time
- Data export into Easy3D™ software

Technical Specifications

Nominal center frequency	1.6 GHz
Bandwidth	> 100%
Time window	> 50 ns
Reprate	100 kHz
Weight	0.6 kg
Cable length	3 m
Data collection	XV11 (Preferred) or GroundVision
Remote controls	2 (New profile, start/stop)
Options	Wheel cart, 1.5 m extension handle
Dimension:	160x90x110 mm
Operating temperature	-20 ^{o}C to +50 ^{o}C
Environmental	Shock and water Proof

Besides the project-based data collection, the system of course supports traditional line-data gathering as well.
The 2.5D analysis tool provides the user with a birdseye view of the mapped area and a side-view for depth positioning of the time slice (see figure 2).
For post-processing and further data analysis, a railto-rail export function into the 3D software Easy3D has been implemented (see figure 4).

Figure 3. Data acquisition using grid carpet. The entire data collection process may be steered completely by remote controls located on the extension handle.

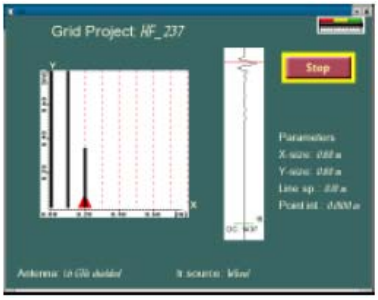

Figure 1. The XVII monitor interface clearly indicates how to gather data.

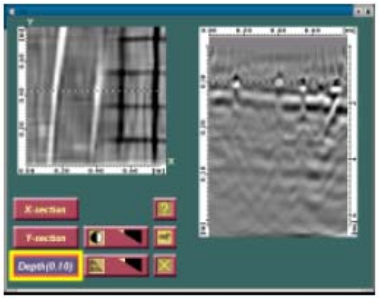

Figure 2. Section of a reinforced concrete slab viewed with the inbuilt 2.5D utility.

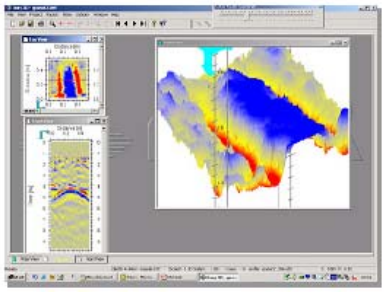

Figure 4: Example of 1.6 GHz data presented in Easy 3D ™

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