

TECHNICAL SPECIFICATIONS

Antenna	2.0 GHz – FULL-POLAR
Data logger	Panasonic CF19 or similar
Radar control unit	DAD Fast Wave 1 channel
Operative channels	3
Survey methods (basic kit)	Pad Survey Guide (PSG)
Remote Control	Handle with remote operation buttons
DAD - PRF (Pulse Repetition Frequency)	Up to 400 KHz
DAD - Max. scan rate	4768 scan/sec (@128 samples)
DAD - Bit per sample	16 bit
DAD - Connection to Data Logger	Ethernet LAN Wireless (WiFi IEEE 802.11b)
Antenna Size (cm)	12.4x12.4x18.5
Antenna Weight (Kg)	2.0
Battery operating time	8.0 hours
Elaboration Software	GRED 3D

OTHER ANTENNAS FOR NON DESTRUCTIVE ANALYSIS:

Aladdin's field of application can be extended using other antennas at different frequencies, for example:



The specialized high depth detecting TR600 antenna (up to 2 meters) for concrete walls or extremely thick historic masonry
Central frequency: 600MHz



The TR900 antenna is designed for applications requiring higher penetration depth (up to 1 meter), for use in void detection, concrete thickness assessment and locating rebars.
Central frequency: 900MHz



The BH150 and BH 300 borehole antennas are used to survey foundation piles or detect cavities at great depth.
Central frequency: 150MHz or 300MHz

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CIVIL
ENGINEERING

ALADDIN

the advanced radar for non-destructive structural analysis



Unique features:
dual – polarized antenna, wireless Wi-Fi link, pad survey guide

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IDS: The leader in multi-frequency
and multi-channel Ground Penetrating Radar

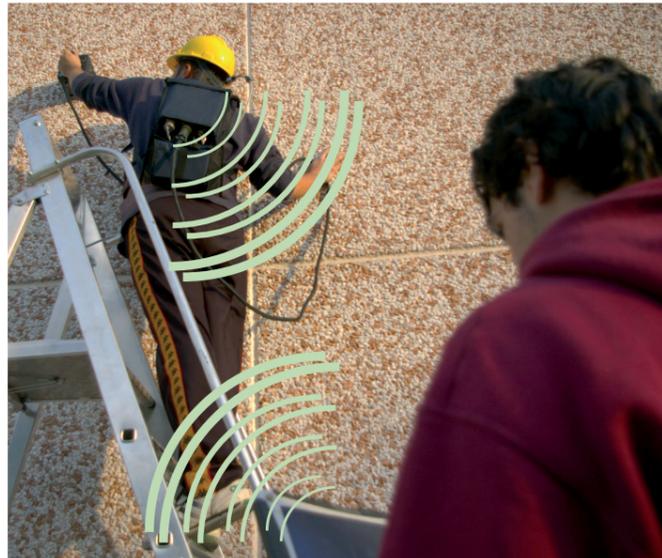
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APPLICATIONS

- 3D imaging of shallow and deep rebars in concrete
- Inspection of concrete for location of voids
- Inspection of concrete thickness, integrity
- 3D imaging of pre-tension and post-tension cables
- Inspection and analysis of old structures, monuments and historical building
- Inspection of walls and floors for the location of pipes, objects, caches, etc..

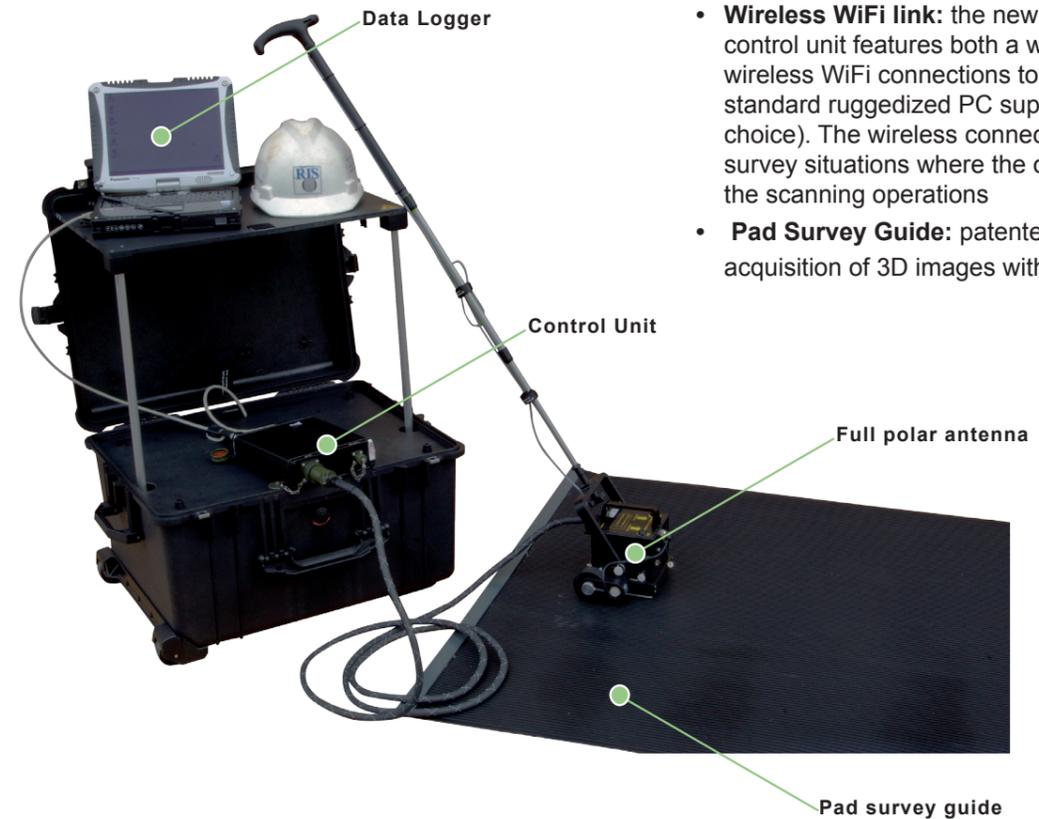
BENEFITS

- Faster survey (scan in just one direction halving acquisition time)
- Better penetration
- 3D imaging at high resolution
- Extremely flexible user operations



Wireless link between control unit and data logger permits easy operations in difficult situations

Aladdin the Full-Polar Antenna

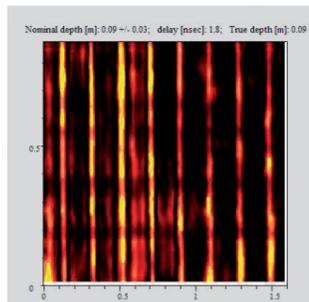


HARDWARE

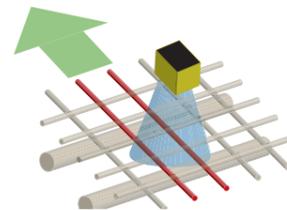
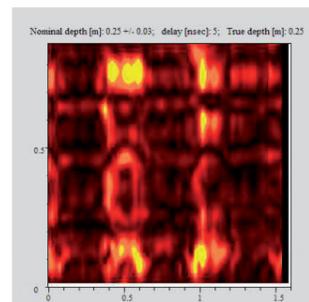
- **High bandwidth:** wide bandwidth antenna centered at 2 GHz allowing high resolution
- **Dual polarized:** the only antenna with double polarization available in the market. Scanning only needs to be done in one direction. The double polarization also enables deeper surveying, imaging both shallow and deep structures
- **Wireless WiFi link:** the new DAD FastWave radar control unit features both a wired Ethernet LAN and wireless WiFi connections to the Data Logger (a standard ruggedized PC supplied by IDS or of the user's choice). The wireless connection is invaluable in difficult survey situations where the operator must stand far from the scanning operations
- **Pad Survey Guide:** patented survey kit that permits the acquisition of 3D images with the highest resolution

Standard configuration

Depth: 0.10m



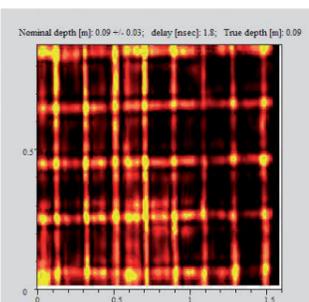
Depth: 0.40m



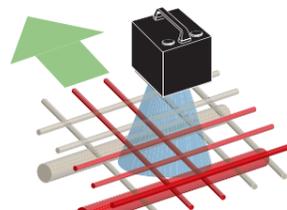
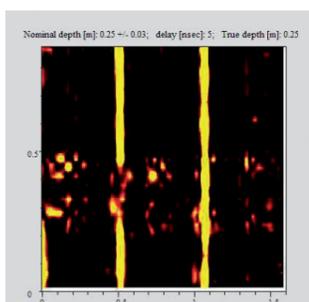
The standard antenna can read the shallow targets (rebars), but is not able to reveal the structures below

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Depth: 0.10m



Depth: 0.40m



Instead, the FULL-POLAR antenna can identify both targets (shallow and deep) in just one scan

SOFTWARE

GRED 3D: advanced processing software designed to be the optimal interface for 2D and 3D imaging.

Key features:

- Advanced filtering
- Flexible data handling and visualization
- Spatial data representation and processing
- 3D cube representation
- Enhanced interpretation tools
- Standard printing and image export

