### TECHNICAL SPECIFICATIONS

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

### 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

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

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

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**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

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**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

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

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

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

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**Aladdin the Full-Polar Antenna**

- Data Logger
- Control Unit
- Full polar antenna
- Pad survey guide