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**GROUND PENETRATING RADAR**

**ZOND-12e**





# General Purpose Pulse GPR ZOND-12e

## SINGLE CHANNEL OR ADVANCED CONTROL UNITS



**ZOND 12e GPR** is a portable digital Ground Penetrating Radar carried by a single operator. The unit is manufacturing in **SINGLE CHANNEL** or **ADVANCED** performance. It is designed for solving a broad range of geotechnical, geological, environmental, engineering and other tasks for nondestructive environmental monitoring.

### System Advantages

- Selectable time range from 1 ns to 2000 ns with 1 ns step
- 320/160/80/40 scans per second in **ADVANCED** performance
- 56 scans per second in **SINGLE CHANNEL** performance
- 1024/512/256/128 samples per scan in **ADVANCED** performance with 16 bit resolution
- 512 samples per scan in **SINGLE CHANNEL** performance with 16 bit resolution
- Selectable hardware and software filters
- Up to 10 points of digital gain function
- Data transfer through Ethernet or Wi-Fi
- Data acquisition in original shape
- Small power consumption





# 150-75-38 MHZ Antenna System

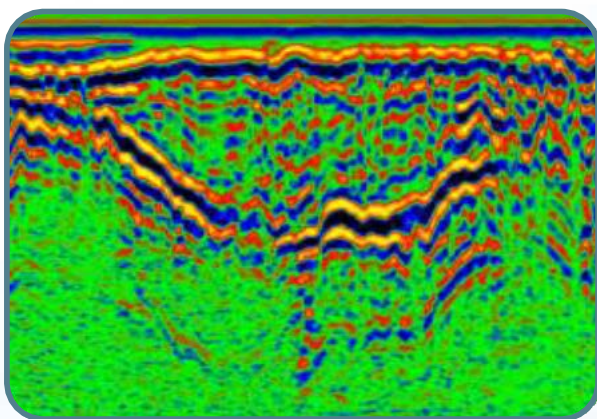
DIPOLE, UNSHIELDED, AIR COUPLED



Low frequency unshielded air coupled **150-75-38 MHZ** antenna system with interchangeable dipole set is designed for deeper penetration depth. Antenna's frequency depends on the length of connected dipoles. Antenna could be used for stepped, continues and CDP data collection modes.

## Antenna System Advantages

- **Central frequency:** 38/75/150 MHz adjustable
- **Weight:** 2 kg to 7 kg (depends on frequency)
- **Power:** 0.35 A @ 12 V DC by cable from control unit
- **Transmitter output:** 200 V
- **Receiver sensitivity:** 50 ΔV



Sounding of sandy hill





# 100 MHZ Antenna System

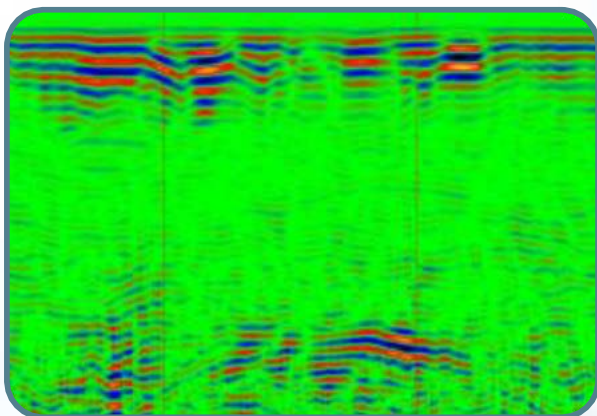
SHIELDED, SURFACE COUPLED



Surface coupled **100 MHZ** antenna system with separated transmitting and receiving antennas is the lowest frequency shielded antenna. Antenna could be used for stepped, continues and CDP data collection modes.

## Antenna System Advantages

- **Central frequency:** 100 MHZ
- **Dimensions:** 93x65x21 cm each
- **Weight:** 13 kg each
- **Power:** 0.35 A @ 12 V DC by cable from control unit
- **Transmitter output:** 400 V
- **Receiver sensitivity:** 50  $\Delta V$



Detection of a railroad tunnel at 15 m depth, in a limestone rock covered with 2 m of loam





# 300 MHZ Antenna Unit

SHIELDED, SURFACE COUPLED

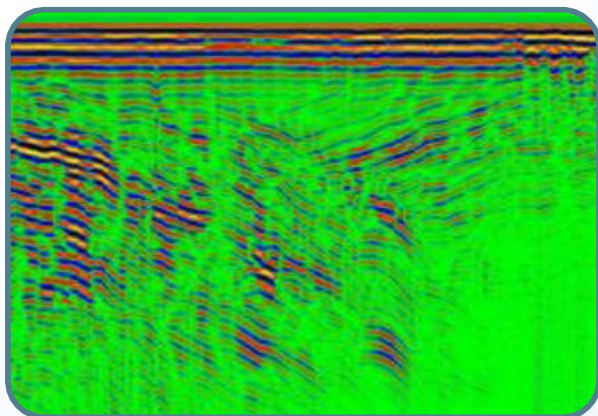


Surface coupled **300 MHZ** antenna unit is general purpose antenna with coupled transmitting and receiving antennas in strong housing designed for middle penetration depth.

Antenna could be used for stepped, continues and CDP (in combination with another antenna) data collection modes.

## Antenna Unit Advantages

- **Central frequency:** 300 MHZ
- **Dimensions:** 102x53x12 cm
- **Weight:** 11 kg
- **Power:** 0.35 A @ 12 V DC by cable from control unit
- **Transmitter output:** 400 V
- **Receiver sensitivity:** 50  $\Delta$ V



Sounding of sandy hill





# 500 MHZ Antenna Unit

SHIELDED, SURFACE COUPLED

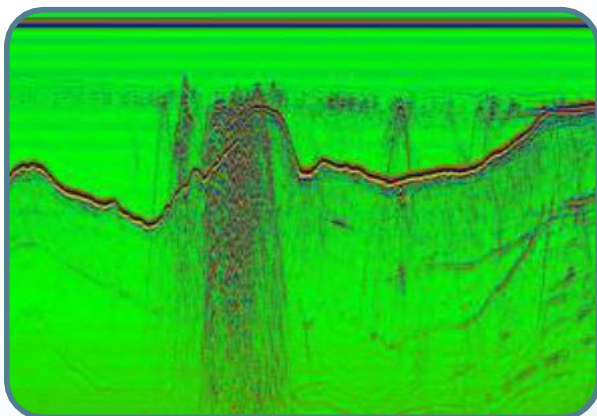


Surface coupled **500 MHZ** antenna unit is general purpose antenna with coupled transmitting and receiving antennas in strong housing designed for shallow penetration depth and utility detection.

Antenna could be used for stepped, continuous and CDP (in combination with another antenna) data collection modes.

## Antenna Unit Advantages

- **Central frequency:** 500 MHZ
- **Dimensions:** 72x33x12 cm
- **Weight:** 6 kg
- **Power:** 0.35 A @ 12 V DC by cable from control unit
- **Transmitter output:** 400 V
- **Receiver sensitivity:** 50  $\Delta$ V



Fresh water lake profiling from the bottom of the plastic boat





# 750 MHZ Antenna System

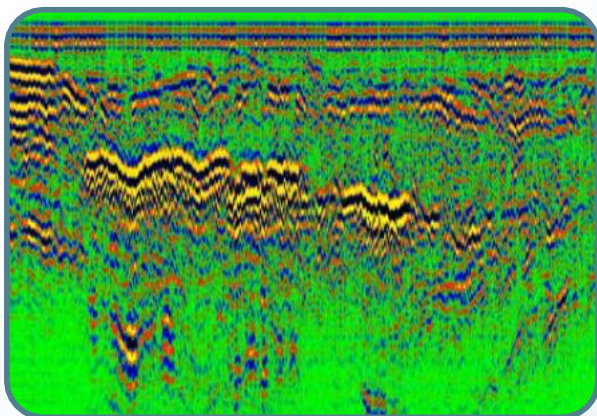
SHIELDED, AIR COUPLED



Air coupled **750 MHZ** antenna system with separated transmitting and receiving antennas designed for railroad embankment inspection. Antenna could be used for stepped, continues and CDP (in combination with another antenna) data collection modes.

## Antenna System Advantages

- **Central frequency:** 750 MHZ
- **Dimensions:** 35x20x15 cm each
- **Weight:** 2 kg each
- **Power:** 0.25 A @ 12 V DC by cable from control unit
- **Transmitter output:** 200 V
- **Receiver sensitivity:** 50  $\Delta$ V



Railways embankment profiling





# 900 MHZ Antenna Unit

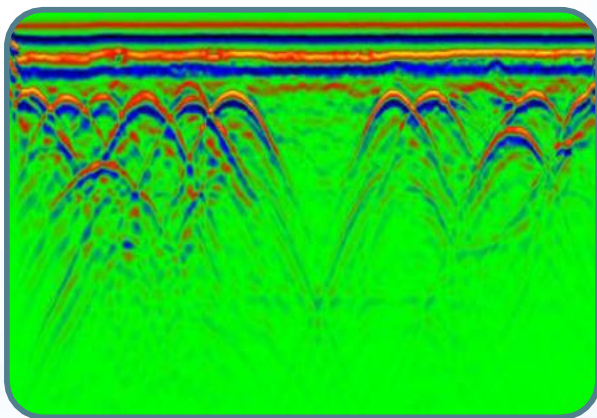
## SHIELDED, SURFACE COUPLED



Surface coupled **900 MHZ** antenna unit is general purpose antenna with coupled transmitting and receiving antennas in strong housing designed for shallow penetration depth and utility detection. Antenna could be used for stepped, continues and CDP (in combination with another antenna) data collection modes.

## Antenna Unit Advantages

- **Central frequency:** 900 MHZ
- **Dimensions:** 52x24x12 cm
- **Weight:** 4 kg
- **Power:** 0.35 A @ 12 V DC by cable from control unit
- **Transmitter output:** 400 V
- **Receiver sensitivity:** 50  $\Delta$ V



Pipes and cables detection





# 1.5 GHZ Antenna Unit

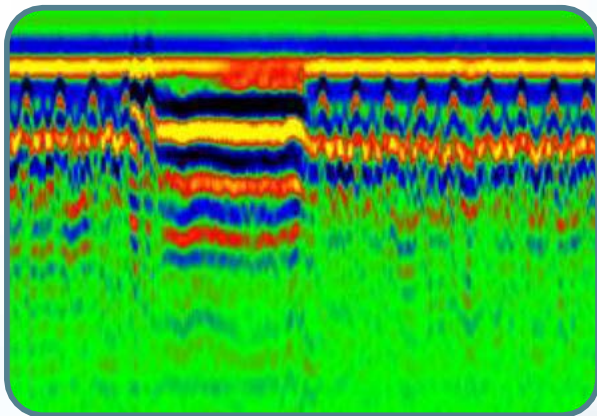
## SHIELDED, SURFACE COUPLED



Shielded surface coupled **1.5 GHz** antenna unit is general purpose antenna with coupled transmitting and receiving antennas in strong housing designed for shallow penetration depth up to 1.5 m, concrete and asphalt profiling. Antenna could be used for stepped, continues and CDP (in combination with another antenna) data collection modes.

## Antenna Unit Advantages

- **Central frequency:** 1.5 GHZ
- **Dimensions:** 30x12x11 cm
- **Weight:** 1.5 kg
- **Power:** 0.25 A @ 12 V DC by cable from control unit
- **Transmitter output:** 200 V
- **Receiver sensitivity:** 50  $\Delta$ V



Concrete rebars and rebars mesh detection





# 2.0 GHZ Antenna Unit

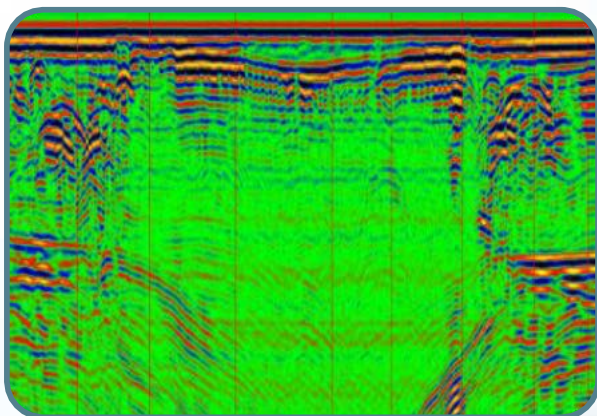
UNSHIELDED, SURFACE COUPLED



Unshielded surface coupled **2.0 GHZ** antenna unit is general purpose antenna with coupled transmitting and receiving antennas in strong housing designed for shallow penetration depth, concrete and asphalt profiling. Antenna could be used for stepped, continues and CDP (in combination with another antenna) data collection modes.

## Antenna Unit Advantages

- **Central frequency:** 2.0 GHZ
- **Dimensions:** 27x14x13 cm
- **Weight:** 1.2 kg
- **Power:** 0.25 A @ 12 V DC by cable from control unit
- **Transmitter output:** 200 V
- **Receiver sensitivity:** 50 ΔV



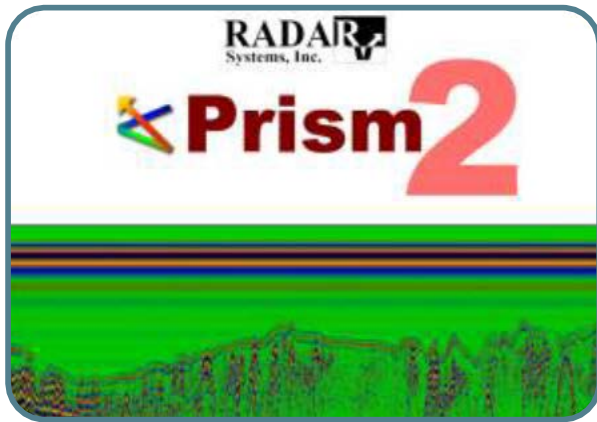
Underground concrete slabs detection





# Prism2.61

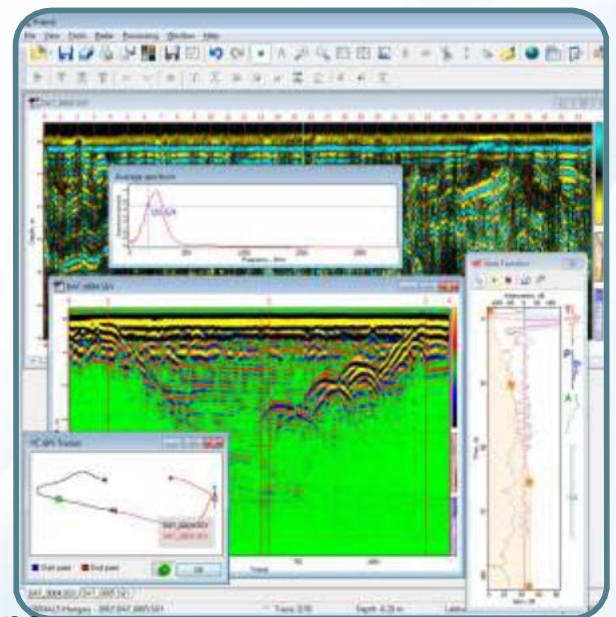
## GPR SOFTWARE



Prism 2.61 software is designed for georadar parameter control, sounding data reception with simultaneous computer display and record to the hard drive, as well as for file processing and printout. Supports English, German, Greek, Korean, Russian or Chinese languages.

### Software Advantages

- User-friendly interface
- Colored or grayscale data representation
- Continuos or stepped mode
- Data storing in orignal shape with digital gain and filter real-time applying.
- Different positioning methods (Wheel, GPS, ...)
- GPS coordinates editing, import and export
- Spectra calculations
- Stepped Undo/Redo and Zomm In/Zoom Out
- Frequency bandpass filtering
- Efficient amplitude correction
- Velocities and depth evaluation via diffracting options
- Migration & Envelope
- Topography recalculations
- SEG-Y data format with data Import/Export possibilities





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We speak: Greek, English, Czech, Russian, Polish, Bulgarian. Do not hesitate to contact us!

