IDS GeoRadar

RIS One & RIS Plus

The versatile ground penetrating radar solution for subsurface profiling



A configurable system combining an unsurpassed multi-channel radar controller with a large range of compact and lightweight single and dual frequency antennas

PART OF HEXAGON

IDS GeoRadar: The Leader in Multi-frequency and Multi-channel Ground Penetrating Radar

www.idsgeoradar.com

RIS One & RIS Plus

The RIS One & RIS Plus system represents a versatile approach to the professional requirements of subsurface profiling. The system meets a wide range of needs with a large variety of antennas which can be set up in either a single or multi-channel configuration with a number of single or dual frequency antennas in a chain connection. Applications that RIS One & RIS Plus can be used for, include:

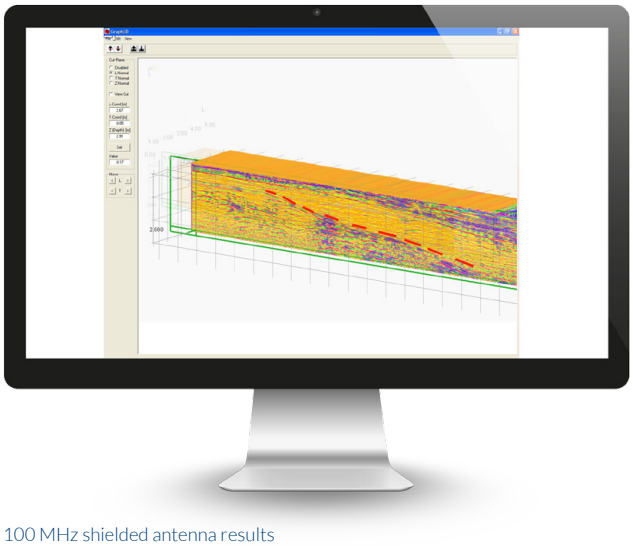
- Underground tunnel inspection and condition assessment
- Bedrock and lithological profiling
- Fracture characterization
- Ground water profiling
- Foundation and pile measurements
- Borehole investigations
- Snow and ice thickness measurements.
- River bed profiling



Borehole antenna survey

RIS ONE & RIS PLUS BENEFITS

- Compact and lightweight antennas
- Excellent data quality
- Highest flexibility in multi-channel chain connection
- High stacking thereby improving penetration depth
- Wireless link to keep track of the survey path and the location of buried objects



100 MHz shielded antenna results

RIS ONE & RIS PLUS FEATURES

- **The largest range of antennas in the ground penetrating radar arena:** IDS GeoRadar have a comprehensive set of antennas from 25 MHz to 3 GHz, including multi-frequency, borehole and horn antennas ensuring that the right equipment is available for the right application.
- **More than 8 hours of autonomous use:** IDS GeoRadar's radar control unit has the lowest power consumption in the ground penetrating radar market.
- **Flexible:** The multi-channel DAD control unit can drive any IDS GeoRadar antenna and up to 8 antennas in a chain connection simultaneously enabling the use of custom configurations.



Survey with a low frequency antenna at a mine

RIS One & RIS Plus

RIS ONE & RIS PLUS CONFIGURATION

RIS One & RIS Plus is a configurable system driven by a single or multi-channel DAD FastWave control unit providing a high stacking factor which enables an increased acquisition speed and improved penetration depth. A large range of antennas is available from 25 MHz to 3 GHz including multi-frequency and borehole antennas. Up to 8 antennas or 4 dual frequency antennas can be powered by a single control unit and a cluster of 4 control units can be used to power up to 32 antennas. A variety of survey kits is available, from backpacks to trolleys, for operations in all kinds of environmental conditions.

SINGLE FREQUENCY ANTENNAS


TR80*


TR100*


TR600 FW*


TR200*


TR400*


TR600*


TR600 V*


TR900*


TRHF


TRSHF*


TR BIP 2GHz


TR25*


TR40*

ARRAY ANTENNAS


DML200


DML600


DUAL F 200-600


DUAL F 400-900

HORN ANTENNAS


HR1000*


HR2000

ARRAY ANTENNAS


BH300*


BH150*

SYSTEM SPECIFICATIONS	
RECOMMENDED LAPTOP	Panasonic CF-19 Tough-Book
MAX. ACQUISITION SPEED	Depends on the number of antennas and scan rate
POWER CONSUMPTION	Depends on the configuration, from 10 W to 40 W
POSITIONING	Survey wheel and/or GPS or total station
NUMBER OF CONTROL UNIT	From 1 to 4
COLLECTION SPEED	Depends on the number of antennas
SCAN INTERVAL	Depends on the number of antennas
POWER SUPPLY	SLA Battery 12 VDC 12 AH

ANTENNA SPECIFICATIONS	
ENVIRONMENTAL	IP65
ANTENNA FOOTPRINT	Depends on the antenna
NUMBER OF HARDWARE CHANNELS	8 or 32 with a cluster of 4 DAD MCH
ANTENNA CENTER FREQUENCIES	From 25 MHz to 3 GHz
CERTIFICATION	Depends on the antenna

SOFTWARE SPECIFICATIONS	
GRED HD basic GRED HD 3D	• Tomographic map view (C-Scan) including radar scan fusion • 3D data visualization • Advanced targeting using radarscan and tomographic view • Radarscan viewer, filter and advanced filtering macros, multiple radar scan viewer • Layer picking for automatic analysis of sub-layers • GPS and map track viewer including X, Y and Z axis and digital map importation • Video handling (option)

* This antenna is not FCC or IC approved for use in the USA or Canada

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