RIS Hi-Pave

The fastest and most flexible solution for road assessment surveys

Providing a complete assessment of road conditions at unsurpassed speed with a dedicated array of multi-frequency antennas

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

www.idsgeoradar.com

RIS Hi-Pave

The fastest and most flexible for road assessment surveys

RIS Hi-Pave is a ground penetrating radar solution designed for high speed road and/or runway assessment surveys. The system is able to operate with several antennas at the same time providing a complete assessment of conditions, including:

- Pavement thickness measurement.
- Surface, base and sub-base road course assessment.
- Detection of cavities, voids and delamination.
- Detection of subsurface water saturated areas.
- Airport runway condition assessment.

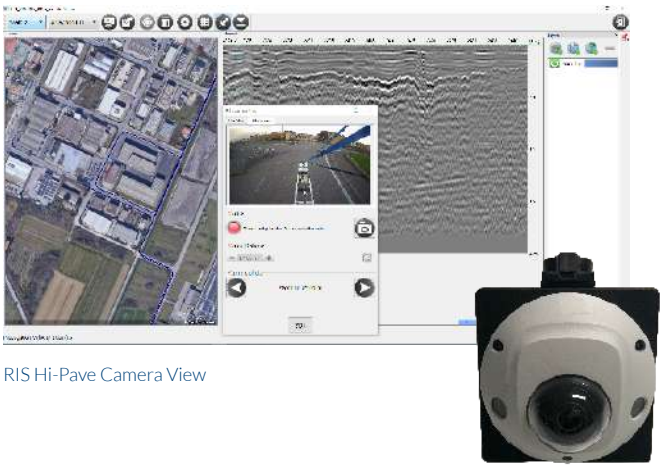
Dual horn antenna configuration

RIS HI-PAVE BENEFITS

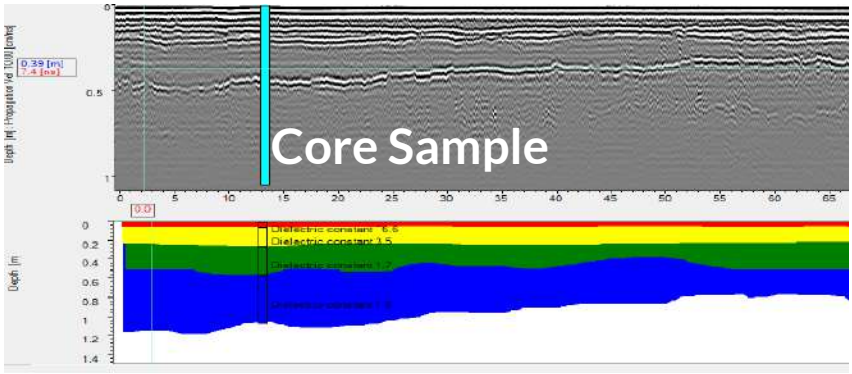
- **Pavement status evaluation** for new road construction (comparing completed pavement, grade and sub grade against design specifications).
- **Periodical status monitoring** of road and runaway conditions for preventive maintenance.
- **High-speed** GPR solution and semi-automatic layer detection software tools, minimizing survey and processing time.
- **Flexible solution** that can integrate up to 8 GPR antennas.

RIS HI-PAVE FEATURES

- **Horn Antennas:** Hi-Pave is equipped with air launched horn antennas that can be used without contact with the surface.
- **Speed:** Hi-Pave is the fastest ground penetrating radar for road evaluation. It can reach up to 260 km/h with a single antenna configuration and 10 cm data sampling or 130 km/h with a dual antenna configuration and 10 cm data sampling.
- **Semi-automatic procedure for layer recognition:** The post processing software uses a semi-automatic procedure to collect information of road subsurface layers.
- **Modular:** Hi-Pave can operate with up to 8 antennas in a chain connection using the same control unit.
- **Optional Camera Kit:** to carry out clearer and faster surveys with videos to be used during processing phase.



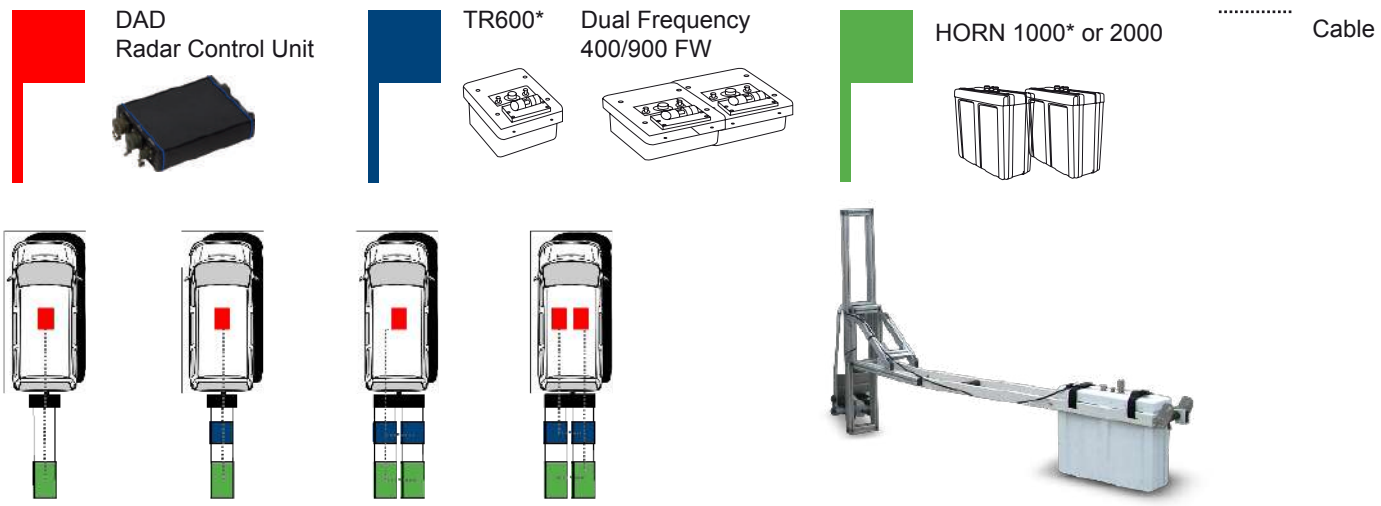
RIS Hi-Pave Camera View



GRED HD 3D: post-processing software for subsurface layer extraction

RIS HI-PAVE CONFIGURATION

RIS Hi-Pave is a modular system which can be tailored to meet different requirements. The basic RIS Hi-Pave configuration consists of a single 1GHz or 2GHz horn antenna and a DAD FastWave radar control unit. A 400/900 MHz antenna can be added to this to provide a complete road or runway evaluation, including grade and subgrade evaluations as well as the pavement. The number of antennas can be doubled to provide a wider survey path and hence require fewer scans to be performed and the system can also be used with a second control unit to provide a denser sampling rate to allow more accurate scans or scans to be performed at a higher speed.



SYSTEM SPECIFICATIONS	
RECOMMENDED LAPTOP	Panasonic FZ55 (or equivalent)
MAX. ACQUISTION SPEED (@ STD. SCAN INTERVAL)	260 km/h (150 mph) @ 1 antenna
POWER CONSUMPTION	13.3 W @ 1 antenna
POSITIONING	Survey wheel and/or GPS
NUMBER OF CONTROL UNIT	Depending on the configuration
SCAN RATE PER CHANNEL: (@512 SAMPLES/SCAN)	724 scans/sec @ 1 antenna
SCAN INTERVAL	10 scans/m
POWER SUPPLY	SLA Battery 12 VDC 12 AH
DEPENDING ON THE CONFIGURATION	
ANTENNA ENVIRONMENTAL	IP65
ANTENNA FOOTPRINT	51 x 22 cm
NUMBER OF HARDWARE CHANNELS	from 1 to 8
ANTENNA CENTER FREQUENCIES	HORN ANTENNA: 1 GHz or 2 GHz DUAL FREQUENCY: 400/900 MHz
ANTENNA POLARIZATION	Horizontal (HH)
ANTENNA TYPE	Air launched
CERTIFICATION	EC, FCC, IC

SOFTWARE SPECIFICATIONS	
ONEVISION ACQUISITION SOFTWARE	• Automatic calibration for an easy and quick start-up • Real-time visualization of radar tomography (time slices) • Connection with NMEA positioning device • Export to IDS GeoRadar GeoMap, dxf, shp and kml formats • Multilanguage support • Metric and Imperial units
GRED HD PROCESSING SOFTWARE	• 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

IDS GeoRadar

IDS GeoRadar, part of Hexagon, provides products and solutions, based on radar technology, for mining, civil engineering and monitoring applications. The company is a leading provider of Ground Penetrating Radar (GPR) and Interferometric Radar solutions worldwide.

IDS GeoRadar is committed to delivering best-in-class performance solutions and to the pursuit of product excellence, through the creation of application-specific, innovative and cost-efficient systems for a wide range of applications including mining, utility detection and mapping, civil engineering, geology, archaeology and public safety.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 23,000 employees in 50 countries and net sales of approximately 4.3bn EUR.

Learn more at hexagon.com and follow us @HexagonAB.

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