

Products

Innovative and patented technology from
the pioneers in ground penetrating radar

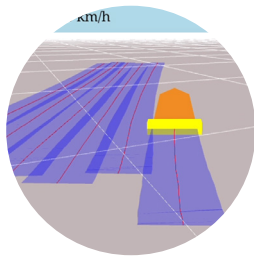


THE SYSTEM

Why settle for less?

Our system offers unparalleled subsurface image quality with the capacity to capture extremely large amounts of data in short time. Our air-coupled and ground-coupled sensors are densely spaced antenna arrays that come in varying widths for your specific application.

Unique step-frequency technology removes the need to deploy multiple systems when target depth or soil conditions change. The entire frequency response from the subsurface is captured at once. Don't choose between high resolution and depth. The Kontur system provides the best possible resolution at all depths - using one single sensor.



STEP 1

Capture

Large 3-dimensional subsurface areas are easily and accurately captured using Examiner Collect and the Navigation Assist.



STEP 2

Analyze

Examiner Specialist is designed to assess and analyse 3-dimensional data in minute detail.



STEP 3

Visualize

Examiner Explore presents analysed GPR data in an easy-to-understand way by automatically extracting and visualizing key information, greatly simplifying reporting and decision making.



STEP 4

Act

Taking informed decisions and actions based on true data is vital to any project. This greatly reduces risk and ensures that budgets and commitments can be met.

SERVICE & SUPPORT

Our products are designed for maximum service life with minimal maintenance requirements. Resulting in a more sustainable product life cycle.

Our Examiner™ software development team releases several updates per year, focusing on both speed and stability as well as new features.

Our engineers can help you integrate your GPR data with other sensor data, in addition to support complex custom applications.

THE BENEFITS OF OUR SERVICE MODULE

- Periodical software updates
- Help to integrate your GPR data with other sensor data
- Support from the Kontur team
- Advise in planning and execution of surveys
- Assistance with data analysis

** Mk6 product series is not available in the USA. Pending FCC approval. Mk4 product series is available globally.*



CONTACT US

Don't hesitate to reach out to us if you have any questions about Kontur or our products!

kontur.tech

KONTUR AS

Fossegrenda 1
7038 Trondheim (Norway)
Phone: +47 72 89 32 00
e-mail: info@kontur.tech



SENSORS

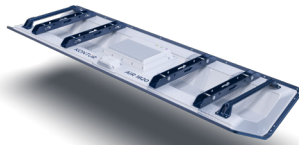
We produce high-density array systems that are light, simple to deploy and that produce an unrivalled view of the subsurface.

Sensors

The tools you need to collect crucial data and investigate the subsurface. All sensors are ultra-wideband antenna operating over a continuous 30 MHz to 4,500 MHz frequency range (ETSI), equipped with RTK-GPS and IMU.

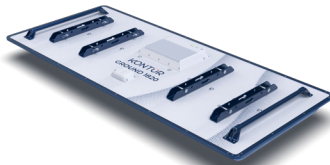
AIR

“Collect data at traffic speeds”



GROUND

“The all-rounder”



DEEP

“For deep explorations”



Typical Application Areas: Roads & Pavements, Railways, Airports, Utility Mapping, Bridge Decks, Archaeology

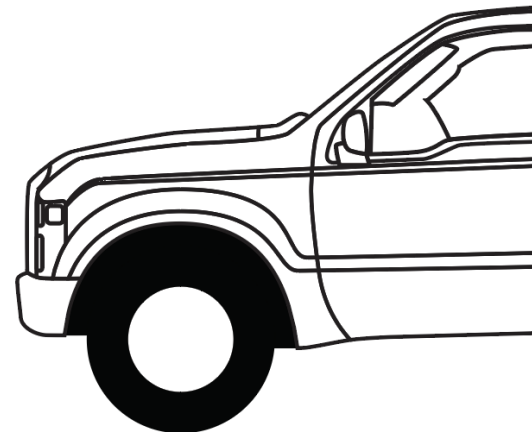
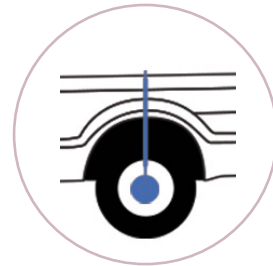
SYSTEM COMPONENTS

DMI

Accurately measures your survey distance

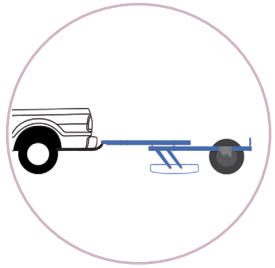
Computer

Monitor data collection and store your survey



Trailer

Mount ground sensors on a towed trailer



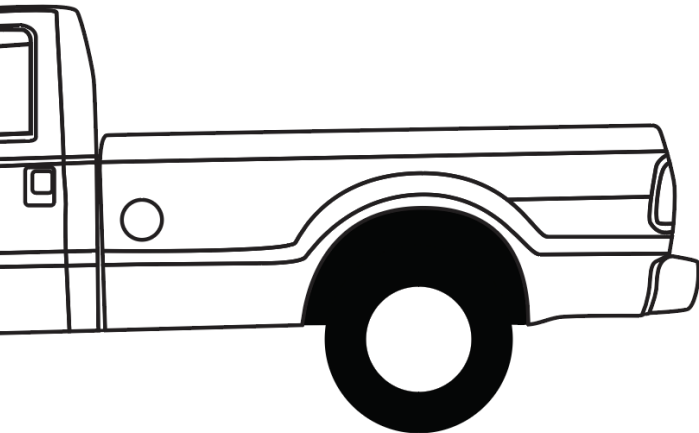
Hitch mount

Designed for high speed AIR sensor deployment



Power supply

Flexible power supply options with PoE



MOUNTING OPTIONS

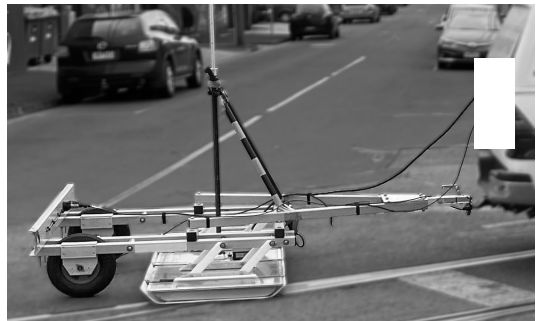
Hitch mount

The perfect mounting solution for AIR sensors. Designed to be simple to deploy and easy to transport.



Trailer

Lightweight trailer designed for towing the GROUND and DEEP sensors.

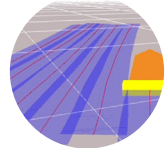


SOFTWARE

Collecting large amounts of data is one thing, converting it to valuable information is another. We have perfected user-friendly interfaces to visualize complex subsurface data easily and create reports effortlessly. Make your work day effortless by sharing subsurface information with your colleagues and customers.

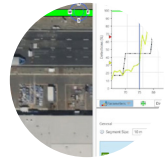
Examiner Collect

Monitor incoming data, positioning quality and survey coverage. User selectable survey parameters mean the collection can be configured to suit the application. Navigation Assist tool provides accurate data capture.



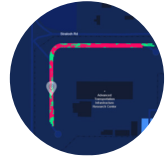
Examiner Specialist

The most advanced software in the industry for postprocessing and interpretation of GPR data, designed for working fast with large and advanced 3D GPR projects.



Examiner Explore

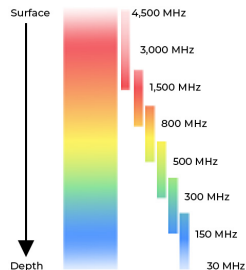
A cloud-based application for non-GPR specialists with automatic identification of key characteristics, contours, and anomalies in both large and small infrastructure assets.



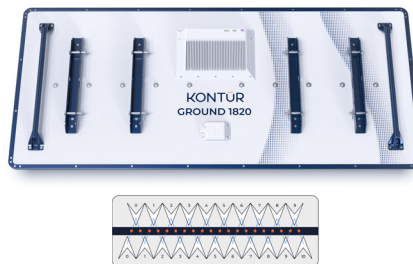
TECHNOLOGY

Step-frequency continuous waveform is a radar waveform consisting of a series of sine waves with linearly increasing frequency. The radar measures the phase and amplitude on each frequency and uses an inverse Fourier transform of this data to build a time-domain radar image.

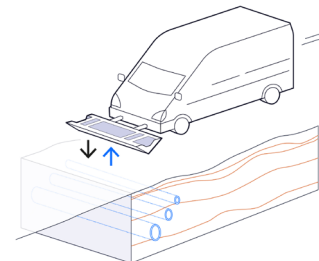
Step-frequency radar technology enables optimal resolution throughout the depth.



Multi Antenna Array produces a 3D data cube of the subsurface.

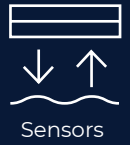


Width & Depth Collection with multi-offset recording capabilities.



AIR

A true air-launched ground penetrating radar (GPR) sensor array, designed for accurate and cost-effective 3D subsurface assessments.



AIR is an innovative true air-launched antenna array used worldwide for high-speed pavement assessment, airport and railroad inspection and landmine/improvised explosive device (IED) detection.

AIR creates added value by enabling collection of wide swaths of true 3-dimensional GPR data at any speed without risk of damage to the equipment and with minimal need for traffic management and lane closures. The result is unmistakable: quick, precise, and highly cost-effective surveys and a safer work environment for site personnel.

AIR provides unsurpassed resolution at shallow depths as well as deep ground penetration due to an ultra-wideband antenna operation over a continuous 30 MHz to 4,500 MHz frequency range *. This, in combination with the unique sensor array design with up to 40 channels, allows the user to collect data in a true 3-dimensional data cube with crystal clear resolution at all depths.

The system is easy to deploy and begin collecting subsurface information straight out of the box. **AIR** is equipped with RTK GPS and IMU for precise positioning. It includes embedded data collection software for area coverage and customizing survey options.

* ETSI

Key features

Air-launched sensor for high speed data collection

Patented step-frequency technology using 30 - 4,500 MHz

Capture wide 3-dimensional swath of the subsurface in one pass

Minimal components for quick set-up in the field

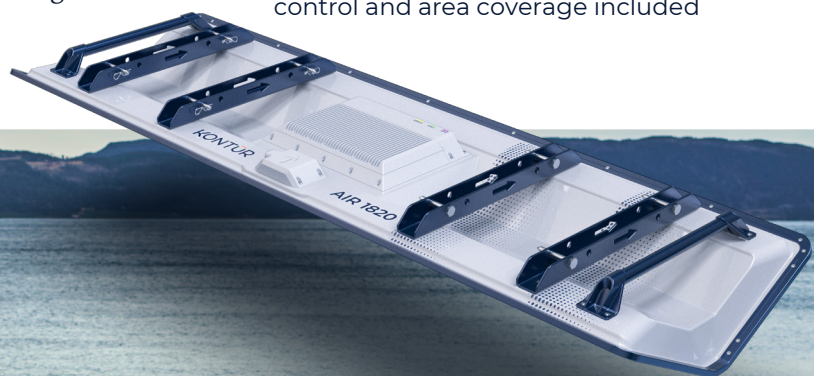
Integrated RTK GPS

Supplied with external GPS antenna

Integrated IMU

User controllable survey collection settings

Examiner Collect software for survey control and area coverage included



Technical specifications

	AIR 1212	AIR 1820	AIR 2124	AIR 2428	AIR 3036
Number of channels	12	20	24	28	36
Effective scan width	0.9 m 2,85 ft	1.5 m 4,92 ft	1.8 m 5,90 ft	2.1 m 6,88 ft	2.7 m 8,86 ft
Size (L x W x H m)	1.21 x 0.56 x 0.23	1.81 x 0.56 x 0.23	2.11 x 0.56 x 0.23	2.41 x 0.56 x 0.23	3.01 x 0.56 x 0.23
Weight	22 kg	33 kg	38 kg	44 kg	56 kg
Transport container size (L x W x H m)	1.4 x 0.7 x 0.3	2.0 x 0.7 x 0.3	2.3 x 0.7 x 0.3	2.6 x 0.7 x 0.3	3.4 x 0.7 x 0.3
Transport container weight	46 kg	60 kg	68 kg	76 kg	95 kg

Applicable to all AIR sensors

Frequency range ETSI: 30 - 4,500 MHz
FCC: Pending

Channel spacing: 75 mm / 3 in
(Cross line)

Note: Other sizes are available on a custom order basis. Contact the Kontur team for additional details at sales@kontur.tech

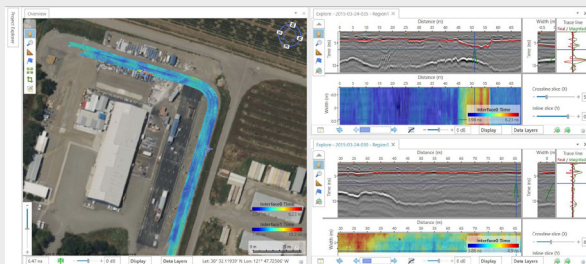


Figure 1
Efficiently map subsurface layers to measure thickness and produce color maps with reporting functionality.

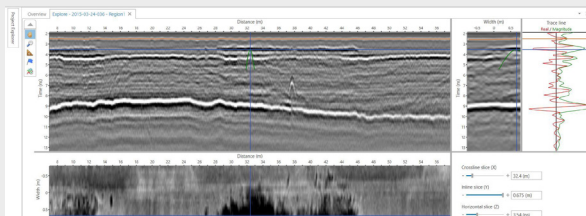


Figure 2
3-dimensional views of the subsurface in high resolution for easy plotting of layers and locations of distress.

Application areas

ROADS & PAVEMENT

High-speed true 3D data collection and inhouse developed analysis algorithms and tools provides invaluable insights into the quality of pavement networks.

AIRPORTS

Ideally suited for aviation environments, AIR provides a repeatable large-scale evaluation method, covering multiple applications.

RAILWAYS

Integration of AIR into railway surveys provides additional subsurface insights, for example ballast thickness, contamination and more, all collected at high speed.

UNEXPLODED ORDNANCE (UXO)

Due to the true air-launched design of AIR antenna arrays and the capability to detect both shallow and deep buried objects, AIR is widely used in UXO surveys, helping to create a safer environment.

Accessories

- Hitch mount for vehicles
- Two-wheel, light-weight trailer
- DMI/Odometer with wheel adapter

Related Kontür products

- **GROUND**
- **DEEP**
- **Examiner™ Collect**
- **Examiner™ Specialist**
- **Examiner™ Explore**

KONTÜR AS

Fossegrenda 1
7038 Trondheim
Norway

Karenslyst Allé 4
0278 Oslo
Norway

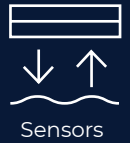
Tel: +47 72 89 32 00
Mail: sales@kontur.tech
Website: kontur.tech

* Not available in the US, pending FCC approval.

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GROUND

The versatile all-rounder, handling both near-surface and deep subsurface mapping.



GROUND is a ground-coupled GPR sensor that contains everything needed to map the subsurface.

Using patented step-frequency ultra-wideband technology, this sensor features a unique combination of high-resolution near-surface imaging and deep penetration capabilities.

The sensor collects 3-dimensional data using a frequency band from 30MHz to 4,500MHz, providing dense, accurate, high-quality subsurface imagery at all depths.

GROUND is used for multiple applications and is available in a selection of widths to suit every project, from utility mapping to bridge deck assessment, this sensor is versatile and fast.

The system is easy to deploy and begin collecting subsurface information straight out of the box. **GROUND** is equipped with RTK GPS and IMU for precise positioning. It includes embedded data collection software for area coverage and customizing survey options.

Key features

Versatile all-rounder, handling both near-surface and deep subsurface mapping

Patented step-frequency technology using 30 - 4,500 MHz

Capture wide 3-dimensional swath of the subsurface in one pass

Minimal components for quick set-up in the field

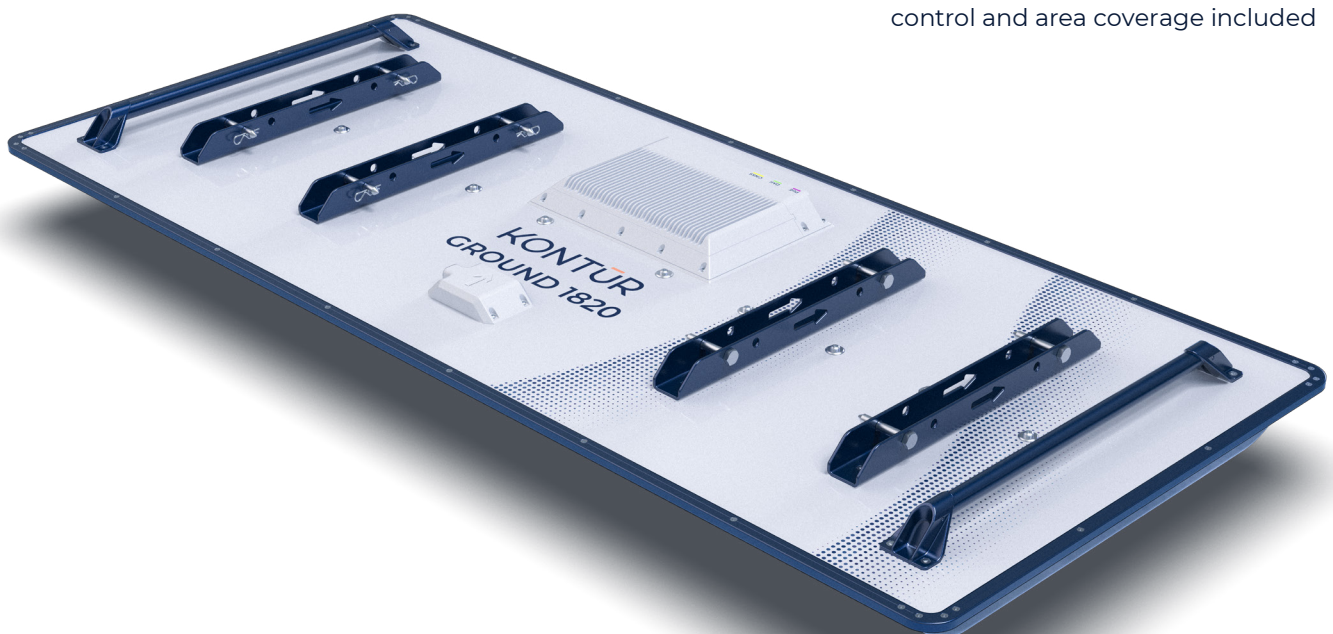
Integrated RTK GPS

Supplied with external GPS antenna

Integrated IMU

User controllable survey collection settings

Examiner Collect software for survey control and area coverage included



Technical specifications

	GROUND 0908	GROUND 1212	GROUND 1820	GROUND 2124	GROUND 2428
Number of channels	8	12	20	24	28
Effective scan width	0.6 m/ 2 ft	0.9 m/ 3 ft	1.5 m/ 5 ft	1,8 m/ 6 ft	2.1 m/ 7 ft
Size (L x W x H m)	0.9 x 0.8 x 0.2	1.2 x 0.8 x 0.2	1.8 x 0.8 x 0.2	2.1 x 0.8 x 0.2	2.4 x 0.8 x 0.2
Weight	20 kg	26 kg	38 kg	46 kg	51 kg
Transport container size (L x W x H m)	1.0 x 0.9 x 0.2	1.3 x 0.9 x 0.2	1.9 x 0.9 x 0.2	2.2 x 0.9 x 0.2	2.5 x 0.9 x 0.2
Transport container weight	39 kg	47 kg	77 kg	82 kg	92 kg

Applicable to all antennas

Frequency range ETSI: 30 - 4,500 MHz
FCC: Pending

Channel spacing: 75 mm / 3 in (Cross line)

Note: Specifications are subject to change. Other GROUND sensor widths are available on a custom order basis. Contact the Kontur team for additional information at sales@kontur.tech

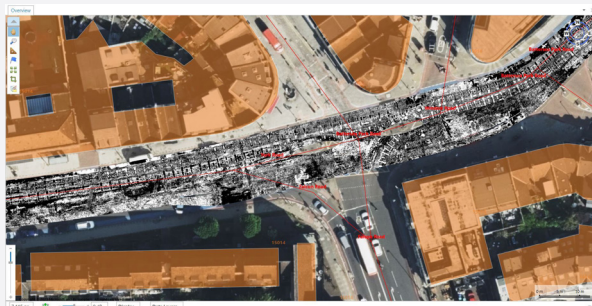


Figure 1 GROUND data from a large scale urban utility mapping project. data sample taken from Examiner Specialist

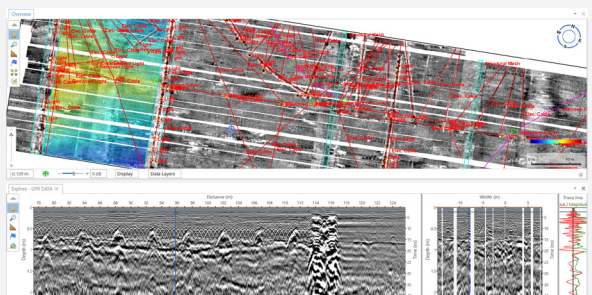


Figure 2 Airport mapping project with GROUND antenna

Application areas

AIRPORTS

Ideally suited for aviation environments, GROUND provides a multi-application, large-scale evaluation method.

UTILITY MAPPING

Locate structures and utilities at deeper depths without sacrificing resolution. Quickly track pipes, utilities and other structures.

BRIDGE DECKS

Comprehensive, accurately positioned coverage in high resolution for detailed bridge deck evaluations including layers and rebar conditions.

ARCHAEOLOGY

Increased depths, multichannel antenna array support and high resolution reduce data collection time while providing the best possible imagery.

RAILWAYS

Programmable to utilise unique scan patterns enabling a “look under rails” capability.

Accessories

- **Skid plate**
- **Two-wheel, light-weight trailer**
- **DMI/Odometer with wheel adapter**

Related Kontür products

- **AIR**
- **DEEP**
- **Examiner™ Collect**
- **Examiner™ Specialist**
- **Examiner™ Explore**

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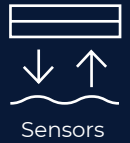
Fossegrenda 1
7038 Trondheim
Norway

Karenslyst Allé 4
0278 Oslo
Norway

Tel: +47 72 89 32 00
Mail: sales@kontur.tech
Website: kontur.tech

DEEP

A powerful GPR sensor designed to provide superior depth capabilities in challenging environments.



DEEP is a ground-coupled GPR sensor. A sensor that contains everything needed to map deeper subsurface features.

Using patented step-frequency ultra-wideband technology, this sensor features a unique combination of high-resolution near-surface imaging and deep penetration capabilities.

The sensor collects 3-dimensional data using a frequency band from 30MHz to 1,500 MHz, providing dense, accurate, high-quality subsurface imagery at all depths.

DEEP is used for multiple applications. It is ideal for deep utility mapping projects, sinkhole and void detection, archaeology, and deep subsurface structure.

The system is easy to deploy and begin collecting subsurface information straight out of the box. **DEEP** is equipped with RTK GPS and IMU for precise positioning. It includes embedded data collection software for area coverage and customizing survey options.

Key features

A powerful sensor designed to provide superior depth capabilities

Patented step-frequency technology using 30 - 1,500 MHz

Capture wide 3-dimensional swath of the subsurface in one pass

Minimal components for quick set-up in the field

Integrated RTK GPS

Supplied with external GPS antenna

Integrated IMU

User controllable survey collection settings

Examiner Collect software for survey control and area coverage included



Technical specifications

	DEEP 1808
Number of channels	8
Effective scan width	1.32 m 4.3 ft
Size (L x W x H m)	1.84 x 1.3 x 0.15
Weight	68 kg
Transport container size (L x W x H m)	2.0 x 1.4 x 0.3
Transport container weight	75 kg

Applicable to DEEP

Frequency range ETSI: 30 - 1,500 MHz
FCC: Pending

Channel spacing: 16,5 cm / 6 in (Cross line)

Note: Specifications are subject to change. Other DEEP sensor widths are available on a custom order basis. Contact the Kontur team for additional information at sales@kontur.tech

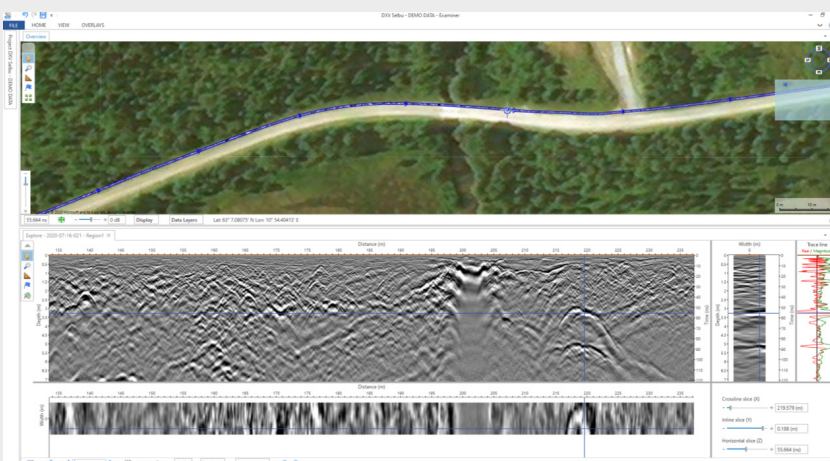


Figure 1 DEEP data sample taken from Examiner Specialist

Application areas

UTILITY MAPPING

Wider antenna arrays ideally suited for large-scale utility mapping and field work. Designed to reach even deeper to detect utilities that would otherwise be hard to find.

ROAD & PAVEMENTS

Deploy DEEP to detect deeper road construction and identify failures such as voids.

PIPELINES

Efficient mapping of deeper and large pipeline infrastructure.

ARCHAEOLOGY

Increased depth, multichannel antenna array support and high resolution reduce data collection time while providing the best possible imagery.

GEOLOGY

Locate and map geological and environmental features such as cavities and sink-holes under ground.

Accessories

- Skid plate
- Trailer
- DMI/Odometer with wheel adapter

Related Kontur products

- AIR
- GROUND
- Examiner Collect
- Examiner™ Specialist
- Examiner Explore

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Fossegrenda 1
7038 Trondheim
Norway

Karenslyst Allé 4
0278 Oslo
Norway

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