



Detection Systems

Hardware and software solutions to identify, position and document underground utilities for safer excavation

Utility Avoidance

Verification of your 811 call

Construction and private property avoidance using EM locator and transmitter.

Leica Locators

Leica DD100 Series Locators

The Leica DD100 series locators reduce the complexity normally associated with locating of buried utilities. The DD100 series automated pinpointing process improves the detection of utilities, reduces utility damage and increases workforce safety.

DD300 CONNECT Utility Locator Solution

The new Leica DD300 CONNECT utility locator combined with the DX Shield software and the DA300 signal transmitter is the complete detection solution for utility professionals and anyone who is breaking ground. The Leica DD300 CONNECT utility locator uses industry-leading digital signal processing to identify underground assets deeper, faster and more accurately than any other system. The Leica DD300 CONNECT utility locator solution allows basic to expert users in the detection of underground pipes with ease-of-use, speed and accuracy.



DA300 Transmitter



Leica DD120

For construction professionals who need to understand what is beneath their sites.



Leica DD130

For construction professionals who need to accurately locate and trace buried utilities.



Leica DD300

Leica DD300 Locator & DX Shield Software - Work safer, work faster, work simpler.

Add Ground Penetrating Radar

Go a step further. GPR will allow the detection of other materials.

Leica Detection and Mapping

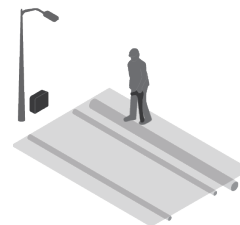
A utility map shows the positioning and identification of buried pipes and cables beneath the ground. Combine mapping process with a topographical survey and the results will provide you with a comprehensive detailed map of utilities.



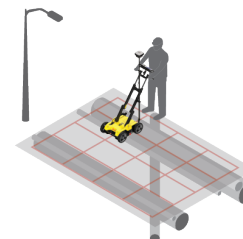
Leica DSX

Quickly and easily avoid, locate and map underground utilities with the Leica DSX ground penetrating radar (GPR) solution. Unlike other GPR solutions, users do not require expertise in interpreting raw radar data. The DSX uses a smart algorithm in DXplore software to accurately field generate 3D utility maps on the tablet within minutes. No more waiting days for post processing! Optional integration of GPS/GNSS for mapping, with easily exported data in PDF and DXF formats. Additional integration with Leica MC1 machine control software aids excavating contractors in avoiding utility strikes using real time avoidance signals aboard excavators outfitted with Leica machine control systems.

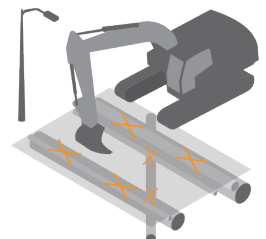
1. Homework



2. Map Utilities with Leica DSX



3. Dig with Confidence



Ground Penetrating Radar and Utility Tracing

Locating the unknown.

Leica Utility Tracing

There is a lot going on underground that you need to know about. Detect and position deep and shallow targets simultaneously, collecting more information, faster, in any environment.



Leica DS4000

Introducing the Leica DS4000: a dual-antenna Ground Penetrating Radar (GPR) system designed for efficient and precise subsurface scanning. Powered by IDS's advanced EsT Technology, it operates across an 80–1500 MHz frequency range using 200 MHz and 900 MHz antennas, offering 30% greater depth penetration for enhanced utility detection. Lightweight, portable, and user-friendly, it integrates seamlessly with software featuring Quick Scan Mode, enabling on-site marking, real-time reporting, and digitalization to save time and reduce costs.



Leica DT100 Precision Locator

The Leica DT100 is our most advanced precision utility tracing system. Intelligent signal processing integrated with unique flexible operating modes saves time and provides increased confidence in your results. Selectable antennae and customized frequencies optimize your instrument for site specific applications.

Capture Utility Points

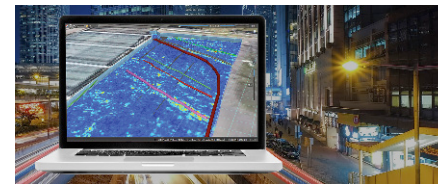
For reference or integrate into a GIS workflow.

Leica FLX100

Leica FLX100 plus smart antenna captures spatial data in a simple and flexible way allowing positional referencing to the locating work flow.



IQ maps



IQ Maps is an innovative post-processing software for advanced analysis of underground utility mapping. IQ Maps offers a fast interface between the user and GPR data to optimized target management and 3D visualization of radar data.

Entry Level Utility Mapping

Uncovering utilities clearly and effortlessly.

Leica DT100 with FLX100 plus and Zena Mobile One

Surveyors, utility companies, and contractors need accurate, reliable, and up-to-date information more than ever. With advanced technology, detecting underground features becomes simple, efficient, and safer, protecting buried utilities. Our solutions streamline the entire utility detection, avoidance, and mapping workflow, seamlessly connecting the field to the office.

The Only All-in-One Subsurface Detection & Mapping Solution

The Leica DT100 and FLX100 deliver precise utility mapping and damage prevention. Designed for the 811 community, this advanced system ensures accurate underground detection, reducing costly damages and service interruptions. With cutting-edge technology, it safeguards infrastructure, enhances safety, and streamlines operations. Trust Leica to protect essential services.



The FLX100 also seamlessly integrates with the IDS Stream DP, showcasing the flexibility and adaptability of this GPS solution. With the added advantage of state-of-the-art EST technology, it ensures superior accuracy and reliability, making it an indispensable tool for comprehensive utility mapping and damage prevention.

FLX100 plus GNSS and Zeno Mobile One

A utility map shows the location of buried pipes and cables. When combined with a topographical survey, it provides a detailed view of underground utilities. The FLX100 Plus and Zeno Mobile One streamline locating and digital mapping by integrating with the DT100 for simultaneous detection and mapping. Zeno Mobile One syncs data directly with Esri ArcGIS Online and Enterprise for seamless workflows. The versatile FLX100 Plus works with the DT100, as a handheld, on a pole, with GPR, or standalone, offering unlimited tilt capability for efficient data collection in any situation.



HxGN SmartNet | NRTK

With all RTK GPS solutions, connectivity to a reliable RTK network is essential. Leica Geosystems offers a comprehensive suite of solutions, ensuring seamless integration and unmatched performance, utilizing Hexagon SmartNet. Gaining access to one of the most extensive and dependable RTK networks available, providing real-time accuracy and enhancing the efficiency of your utility mapping projects. Trust in a single provider to deliver everything you need for precise and effective damage prevention.

Medium Sized Utility Mapping

Data collection with advanced post processing for utility mapping.

3D Utility Mapping

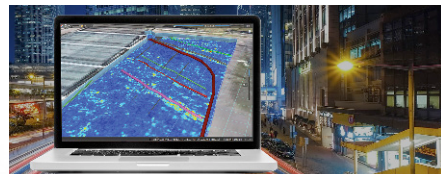
3D utility mapping with the deepest performance



STREAM DP

Stream DP is a revolutionary multichannel GPR (MGPR) array solution that allows for real-time 3D mapping of underground utilities. It features a new technology, Equalized Scrambled Technology (EsT), that takes underground utility detection to the next level by providing unparallelled GPR depth range and maximizing asset detection.

This technology is able to exploit the entire radiating performance of the antenna for full control of the GPR signal, performing the best noise rejection and capturing both the lower and higher frequencies for an extended depth range and an ultra-high resolution.



IQ Maps is an innovative post-processing software for advanced analysis of underground utility mapping. It offers a user-friendly interface for working with GPR data, allowing for optimized target management and 3D visualization of radar data. In addition to detecting underground assets, IQ Maps also provides functionality for 3D mapping of features such as sinkholes, inspection chambers, and environmental surveys, making it a versatile tool for a wide range of applications.

Leica Zeno GG04 plus

High accuracy everywhere



Collecting high accuracy geospatial data on your smartphone or tablet has never been easier.

GG04 provides the highest accuracy possible resolution for utility mapping. This rugged, flexible easy-to-use smart antenna which can utilize RTK technology or PPP (Precise Point Positioning). This makes high accuracy data collection possible even in the most of demanding locations.



Large Scale Mapping

APS and Stream UP - the fastest, highest accuracy solution to locate underground assets.

Combine Accuracy and Speed

Stream UP

The Stream UP is a revolutionary multichannel GPR (MGPR) array solution for large scale rapid mapping of underground utilities, leveraging its dual frequency antennas to detect both shallow and deep targets simultaneously.

The stream UP is an air launched GPR system that is able to operate in urban environments without slowing down traffic. Once the system is mounted it can be moved between projects at normal highway speeds.



APS The all-in-one precise positioning solution

Accurate Positioning System (APS) is the premium positioning module combining GNSS+INS technology by NovAtel with advanced trajectories algorithms to obtain the most accurate radar information in poor or no satellite coverage scenarios ranging from urban canyons to tree-lined roads up to tunnels and underpasses.



Urban Canyon



Tree-Lined Road



Tunnel



Underpass

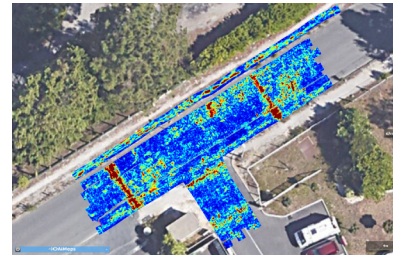


AiMaps

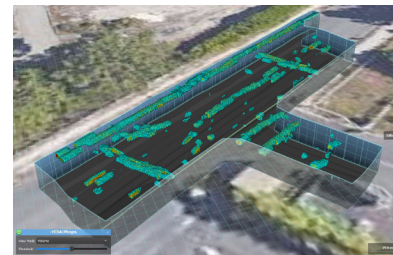
An intelligent view of underground utilities

AiMaps is the new cutting edge tool for IQ Maps. This tool is pioneering the introduction of artificial intelligence in underground utility detection, and raising the productivity to the next level with a straightforward cloud-based solution

AiMaps exploits **Hexagon's HxDR** platform for Reality Capture driving down time and workload in radar data processing and interpretation by performing these tasks in cloud with state-of-the-art deep learning technology and providing an enhanced tomography on the utility network.



Conventional tomography view



AiMaps tomography view

AiMaps MAIN FEATURES

- AiMaps is a deep learning solution for cloud-processing of radar data
- Exploiting Hexagon's HxDR platform for enhanced tomography on utility network
 - Clean uncluttered data providing a clear picture of underground utilities
 - Maximized underground utility detection capability
 - Full integration with IQMaps

AiMaps BENEFITS

- AiMaps boosts productivity with an outstanding performance for real benefits:
- Company costs saved up to 70% for underground utility extraction process
 - Reduced workload for operators in data processing with an overall faster workflow
 - Overcoming of complex radar data interpretation and making GPR technology more approachable.

Portable Scanning

Reveal true data, make decisions now.

IDS C-Thru Concrete Scanner

C-thru all-in-one Ground Penetrating Radar (GPR)

C-thru is an all-in-one Ground Penetrating Radar (GPR) for accurate scanning and real time analysis of concrete structures. Construction and service companies as well as civil and structural engineers can now improve the way they locate rebars, voids, post-tension cables, cavities, conduits, and any other objects buried in the structure before cutting or drilling into the concrete.



C-thru is an easy-to-use and robust solution to see through concrete structures and reveal true data that leads to optimal decision-making. The solution is suited for all construction sites and operations including building renovation, overpasses, monuments, bridges and tunnels surveys, as well as for detailed analysis of the original engineering project and comparison with the as-built structure.

The C-Thru's optional remote desktop allows easier and faster data interpretation thanks to real-time data processing and representation of results in Augmented Reality for more efficient decision-making.

Features and Benefits:

Clearer and faster surveys

Detection of both first and second levels of rebars thanks to the system's double polarisation.

Safe drill in the surveyed structure

Rebar/void automatic insight capabilities that improve safety before cutting or drilling into the concrete.

Fully visible, multi-touch display

Data displayed on the screen are never obscured by the handle or the user's hand.

Simplified data interpretation

Optimal decision-making supported by visualization of acquired data in 3D models.

Increased data accuracy

Eliminate manual, error-prone paper grids with an automatic positioning and navigation system.

Advanced data visualization

Augmented reality for 3D data visualization and sharing across operators – in real time or intervals after acquisition.

Automated data acquisition and analysis

Automatic detection of the first layer of rebars and result exportation.

Flexibility everywhere

Lightweight, compact, drop resistant and transportable system for every user operations and construction sites.

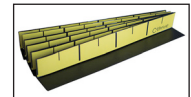
Accessories



C-Thru Remote Desktop and AR Kit



C-Thru Remote Handle



C-Thru Track Pad



Full Kit carry Case

Portable Hand Held Scanning

DUAL POLARISATION

Detection of both first and deeper levels.



C-thru XS

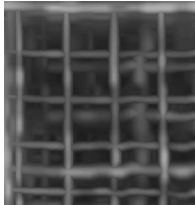
The compact hand-sized GPR with dual polarization to never miss a detail in one scan



C-thru XS is the compact dual polarized GPR system for concrete inspection: the smallest and lightest antenna on the market capable of detecting shallow and deep targets in one scan. C-thru XS, adding to the C-thru product family, allows the most accurate scanning performance and real-time analysis of concrete structures with a hand-sized device able to perform in-depth inspections.



Standard view



C-thru XS Dual Antenna

DUAL ANTENNA POLARIZATION: DETECT SHALLOW AND DEEPER TARGETS IN A SINGLE MOVE.

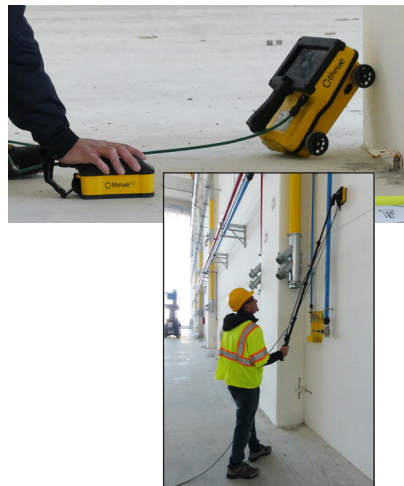
Concrete inspection is fast and simple with the most accurate scanning performance to easily locate and identify rebars, ducts, cables and other objects.

Multiple configurations:

STANDALONE: Easily scan across any concrete inspection scenario with C-thru XS and promptly visualize the collected data results on your tablet

INTEGRATED USE WITH C-THRU: C-thru XS' combined use with C-thru allows to cover any jobsite challenge and quickly visualize data on C-thru's multi-touch display.

Real-time investigation of concrete structures is fast and simple with C-thru XS. Its compact size and light weight allow to easily investigate hard to reach areas and around obstructions.

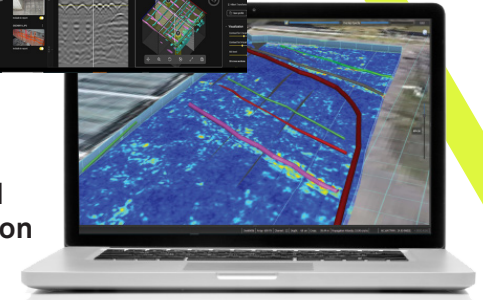
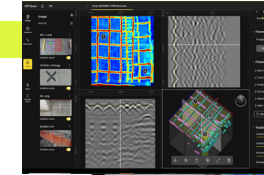


Organize and share your GPR data results for a comprehensive analysis of concrete inspections

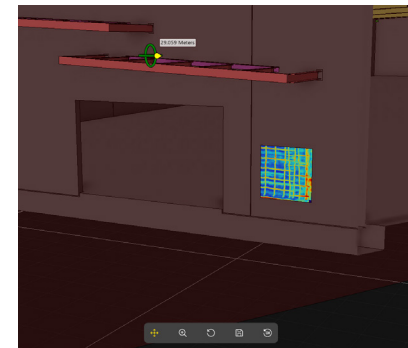


NDT Reveal

The professional CAD-based GPR software for Construction and Building inspections

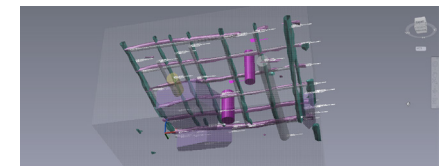
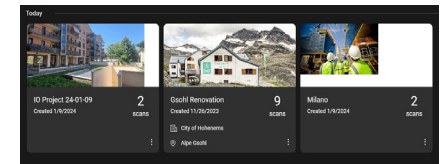


NDT Reveal is the professional desktop GPR software for post-processing and analysis of data collected by C-thru and C-thru XS concrete inspection devices. NDT Reveal allows you to successfully organize and share your GPR data whilst streamlining your workflow in data processing and analysis. Enjoy accurate and comprehensive overviews on GPR data with easy integration of on-field inspection activities into the big picture of Building and Construction projects.



NDT REVEAL MAIN FEATURES

- Locate GPR jobsite surveys on the CAD drawing
- Display 2D and 3D GPR data and insert features (e.g. rebars, post tension cable voids and drill areas)
- Produce digital exports: DXF and DWG format
- Job site reports with 2D and 3D GPR data of detected items, photos, sketches and CSV tables.



NDT REVEAL BENEFITS

- Accurate overview on your Building and Construction projects
- Integrated visualization of data, photos, sketches
- Easy-to-create and complete jobsite reports

All-in-one and One-for all Ground Penetrating Radar



Chaser XR

Extending the power of EsT technology to geophysical surveying

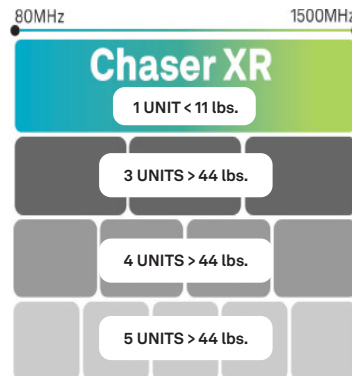


Chaser XR is the new powerful GPR solution setting a new standard in subsurface investigation. Expanding the power of EsT technology to geophysical surveying, Chaser XR is the all-in-one and one-for-all GPR antenna featuring the most extended inspection range on the market (80 MHz - 1500 MHz).

EsT | Equalized scrambled Technology: a next level performance in subsurface profiling.

Thanks to EsT, Chaser XR is able to offer unparalleled GPR performance maximizing subsurface profiling to a deeper range compared to any other solution available on the market.

This technology is able to exploit the entire radiating performance of the antenna for full control of the GPR signal, performing the best noise rejection and capturing both the lower and higher frequencies for an extended depth range and an ultra-high resolution.



One solution for multiple scenarios: Chaser XR's extended inspection range covers different geophysical surveying applications ranging from environmental assessment to tunnel inspection.



Chaser XR is available in a Lite Pack, Drag Kit and Positioning Kit



ONE-FOR-ALL: OPERATES ACROSS DIFFERENT SURVEYING SCENARIOS

Chaser XR is a unique GPR solution covering the usual performance of multiple systems with a single device. A sole antenna fit for different geophysical surveying scenarios: from environmental assessment to archaeological, manmade structures, ice, tunnel and snow investigations.



ALL-IN-ONE: DESIGNED FOR MAXIMUM FLEXIBILITY

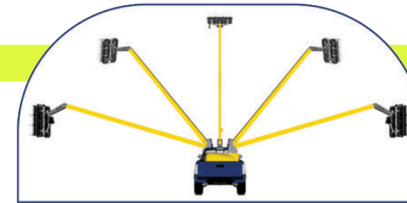
Chaser XR is a compact light-weight GPR solution designed for maximum portability and ease of use boasting the small size of 16 x 16 x 8 inches and the lightest weight, only 10.6 lbs. (without batteries). This double frequency antenna offers the most extended inspection range ever seen before (80MHz - 1500 MHz).



MAXIMUM RETURN ON INVESTMENT: PRODUCTIVITY AND COST SAVINGS

With Chaser XR, geophysical surveys' productivity is enhanced as this single device allows to successfully perform across different environments with no additional costs. Leveraging the different product configurations available (Lite Pack, Drag Kit or Positioning Kit), the system can be easily managed by one operator.

Highest quality and best productivity merged for contactless tunnel inspection



IDS Stream T

Measurement of tunnel lining thickness, mapping of reinforcing, detection of cavities and location of wet areas

Stream T is the revolutionary contactless GPR for tunnel inspection. The contactless feature and modular structure allows this innovative GPR array to easily overcome obstacles often encountered in tunnel survey environments. In addition, it boosts productivity and safety on the work site by using a vehicle to collect data at up to 37 mph, without the need to stop traffic. The high-density array of the Stream T provides a high-quality tomography to easily identify tunnel features and critical areas, enabling proactive maintenance of this crucial infrastructure.



THE BEST-IN-CLASS ARRAY SOLUTION

Stream T is the only turnkey solution on the market for tunnel inspection. It offers a unique multi-channel, multi-frequency and double-polarized lightweight GPR system able to map, both Deep and Shallow tunnel features in only one scan with the highest penetration and resolution at the same time.

MULTIPLE CONFIGURATIONS

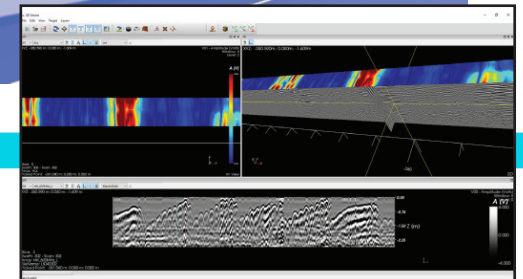
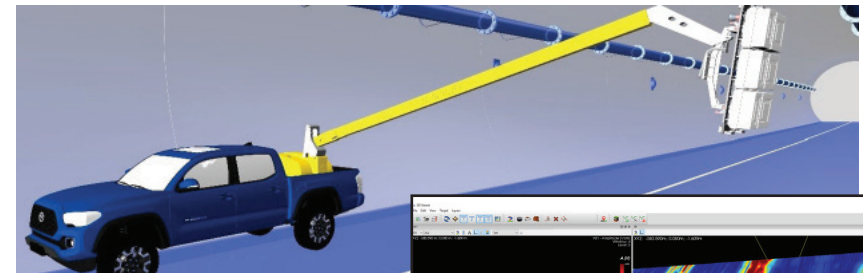
The Full configuration includes both frequencies for Deep and Shallow monitoring at the same time, while the Mini configuration is optimized for Deep or Shallow survey with a smaller size system. All configurations include a dedicated mechanical frame which can be easily mounted on an extendable telescopic arm to enable rapid and safe surveying of the internal tunnel wall.

CONTACTLESS DATA COLLECTION

Works up to 8 in. from the tunnel surface increasing the acquisition speed (up to 37 mph); productivity increases by 5 times compared to a traditional system. The contactless solution also allows the system to be easily installed on a remote-controlled mechanical arm, increasing operator safety and avoiding operator fatigue.

3D DATA PROCESSING

GRES HD 3D CAD allows the user to simply detect and map anomalies in a 3D view. The tomography developed by the array provides very clear and easily identifiable anomalies, greatly assisting interpretation and analysis with all results automatically exported to 3D CAD.



PC Data Logger with Acquisition Software

Dealer contact information:

Surveyors, utility companies and contractors, now more than ever, need accurate, highly reliable, and up-to-date information – available for immediate use.

Let us help you today.



A TRADITION IN PRECISION

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Part No. 8255461

9/2025 DM

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