

# Opera Duo

The advanced integrated solution for Utility Detection surveys



Robustness and data quality meet the digitalization of underground utility

IDS GeoRadar: The leader in multi-frequency and multi-channel  
Ground Penetrating Radar

[www.idsgeoradar.com](http://www.idsgeoradar.com)

# Opera Duo

Robustness and data quality meet the digitalization of underground utility

The complexity of underground utility network is continually increasing. Obtaining precise informations of subsoil conditions is more and more crucial to increase safety by lowering the risk of accidents caused by utilities rupturing during excavation, pipe deterioration and geologic risks.

Opera Duo is the First-Class Ground Penetrating Radars (GPR) **for locating underground pipes and cables of any material** including non-conductive pipes and fiber optics. Just **few clicks** to understand soil conditions and **no calibration, adjust or manual settings to do**.

## NOT JUST SINGLE PRODUCT, BUT CONNECTED INTELLIGENCE

Opera Duo could be supplied with a **camera** whose aim is to reduce acquisition times, combine surface data with underground detection and allow a post-scanning analysis like you were on site!

This GPR is part of a complete and **full integrated Hexagon Detection solutions portfolio**. Combined with a GNSS antenna, a total station or a cable locator, allows you to get accurate data collection from many technologies. All the acquired data can be exported to CAD and GIS, and reports can be produced directly on site and shared real time with your work team. A **new smart approach** for the highest efficiency in the Utility Detection workflow.

**Opera Duo** leverages the power of **IQMaps**, the latest **Ground Penetrating Radar (GPR) data analysis software** that improves productivity and provides a real time processing and visualization. This software provides a step-by-step approach to **guide users in performing quick data analysis** leveraging a customizable processing and analysis tool for utility mapping.



HIGH DATA QUALITY



REAL TIME RESULTS



DUAL FREQUENCY FOR BETTER PENETRATION AND DATA RESOLUTION



FAST ACQUISITION (CAMERA GRID)

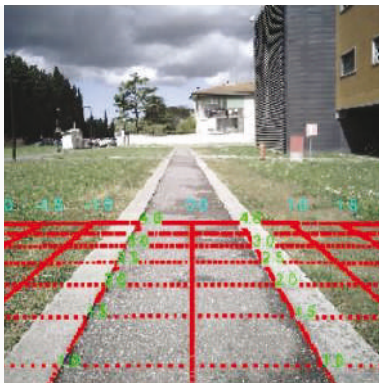


EASIER TARGET INTERPRETATION

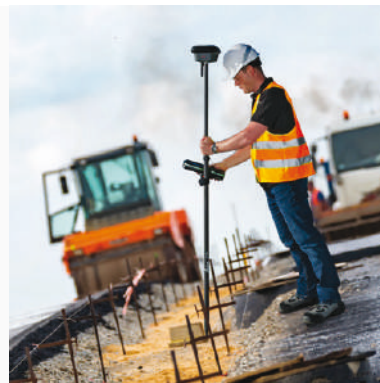


CLOUD DATA SHARING

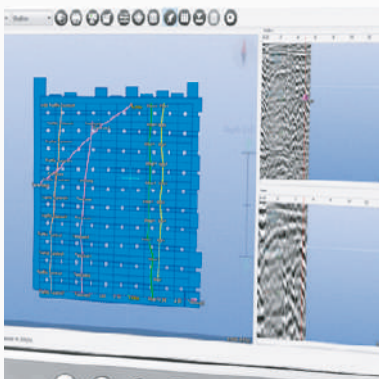
Fusion with visual data and inspection



Accurate Positioning



Automatic Pipe Tracking



Easy GPR - EML data storage and sharing with Cloud Integration.





**SUPERIOR  
MANEUVERABILITY**



**ROBUSTNESS**



**DATA QUALITY**



**Camera module**  
guide you in the scanning to do parallel scans

**Adjustable and foldable handle**  
Gives you the perfect grip and makes easier the transportation

**Pivoting head**  
provides better contact on uneven terrain and reduces signal loss



**Remote controlled spray paint**  
in order to mark your findings

**Equipped with dedicated kit for GPS/TS**



**Dual-frequency antenna and large dynamic range**  
to locate deep and shallow targets simultaneously with the highest data quality

**No exposed cables**  
providing peace of mind assurance of no ruptures in the field

**Roto-moulding parts**  
for heavy use in every type of terrain

**Large handle**  
for enhanced maneuverability



TECHNICAL SPECIFICATIONS	
OVERALL WEIGHT (PC AND BATTERY NOT INCLUDED)	24 kg two wheels (53 lbs) 27 kg four wheels (59 lbs)
RECOMMENDED LAPTOP	Panasonic FZ-G2
MAX. ACQUISITION SPEED	More than 10 kph (6 mph)
POWER CONSUMPTION	13.3 W
POSITIONING	2 integrated encoders and/or GPS - Total station
SCAN RATE PER CHANNEL (@512 SAMPLES/SCAN)	381 scans/sec
SCAN INTERVAL	42 scans/m
POWER SUPPLY	SLA Battery 12 VDC 12 AH
ENVIRONMENTAL	IP65
ANTENNA FOOTPRINT	40 x 50 cm [15.75 x 19.7 in]
NUMBER OF HARDWARE CHANNELS	2
ANTENNA CENTRAL FREQUENCIES	250 MHz and 700 MHz
SAMPLING FREQUENCY	400 kHz
ANTENNA ORIENTATION	Perpendicular, broadside

SOFTWARE SPECIFICATIONS	BASIC	ADVANCED	ADVANCED + CAMERA
SEAMLESS INTEGRATION WITH CABLE LOCATOR	●	●	●
REAL - TIME NAVIGATION ON PREDIFINED GRID OR WITH GPS AND TPS	●	●	●
EXPORT OF UTILITY MAP	●	●	●
AUTOMATIC SURVEY REPORT	●	●	●
REAL-TIME PIPE MARKING, MANAGEMENT AND EDITING TOOL	●	●	●
IMPORT OF CARTOGRAPHIC LAYER (.GEO-TIFF, .KML, .SHP, .DXP)	●	●	●
AUTOMATIC MAPS DOWNLOAD FROM VARIOUS WMS	●	●	●
REMOTE DIAGNOSTICS FUNCTIONALITY	●	●	●
TOMOGRAPHY		●	●
CUSTOM PROCESSING		●	●
AUTOMATIC PIPE TRACKING		●	●
CLOUD DATA SHARING		●	●
CAMERA MODULE			●
SUPERIMPOSED METRIC GRID			●
SYNC PICTURE COLLECTION			●



#### 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](https://hexagon.com) and follow us @HexagonAB.

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