



## Opera Duo

The one and only **advanced integrated** solution  
for Utility Detection surveys



Robustness and Data Quality meet the Digitalization of the Utility Detection  
Process (Underground Assets)



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

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



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The one and only **advanced integrated** solution  
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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!

Opera Duo 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.

 **HIGH DATA QUALITY**

 **FAST ACQUISITION  
(CAMERA GRID)\***

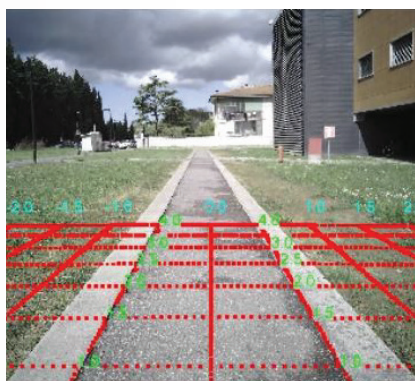
 **REAL TIME RESULTS**

 **EASIER TARGET  
INTERPRETATION**

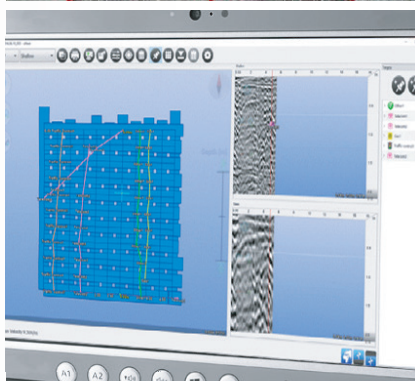
  **DUAL FREQUENCY FOR  
BETTER PENETRATION  
AND DATA RESOLUTION**

 **SEAMLESS SYSTEMS  
INTEGRATION**

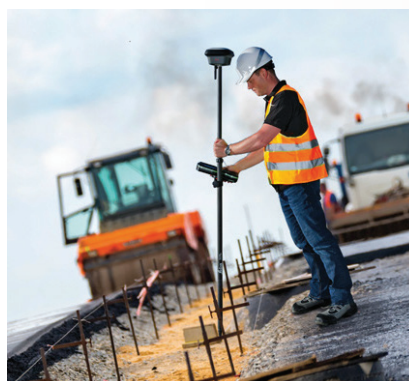
**Fusion with  
visual data and  
inspection**



**Automatic  
Pipe  
Tracking**



**Accurate  
Positioning**



**Fusion of  
GPR and EML  
data**



**\*Patent Pending**





**SUPERIOR MANEUVERABILITY**



**ROBUSTNESS**



**DATA QUALITY**



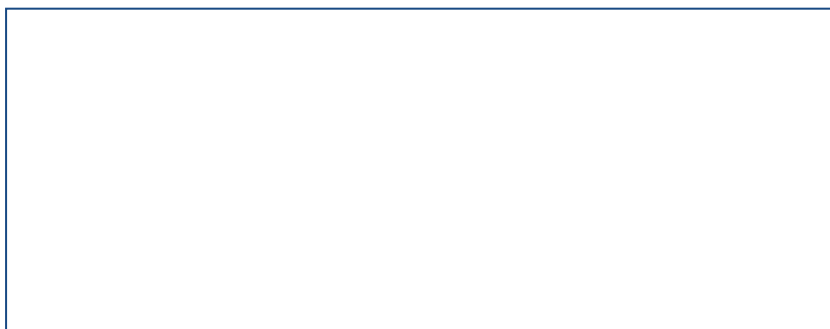
SYSTEM SPECIFICATIONS		SOFTWARE SPECIFICATIONS	BASIC	ADVANCED	ADVANCED + CAMERA
OVERALL WEIGHT (PC AND BATTERY NOT INCLUDED)	24 kg two wheels (53 lbs) 27 kg four wheels (59 lbs)	SEAMLESS INTEGRATION WITH CABLE LOCATOR	★	★	★
RECOMMENDED LAPTOP	Panasonic FZ-G1	REAL- TIME NAVIGATION ON PREDEFINED GRID OR WITH GPS AND TPS	★	★	★
MAX. ACQUISITION SPEED	More than 10 kph (6 mph)	EXPORT OF UTILITY MAP	★	★	★
POWER CONSUMPTION	13.3 W	REMOTE CONTROLLED SPRAY PAINT	★	★	★
POSITIONING	2 integrated encoders and/or GPS - Total station	AUTOMATIC SURVEY REPORT	★	★	★
SCAN RATE PER CHANNEL (@512 SAMPLES/SCAN)	381 scans/sec	REAL- TIME PIPE MARKING, MANAGEMENT AND EDITING TOOL	★	★	★
SCAN INTERVAL	42 scans/m	IMPORT OF CARTOGRAPHIC LAYER (.GEO TIFF, .KML, .SHP, .DXP)	★	★	★
POWER SUPPLY	SLA Battery 12 VDC 12 AH	AUTOMATIC MAPS DOWNLOAD FROM VARIOUS WMS		★	★
ENVIRONMENTAL	IP65	TOMOGRAPHY		★	★
ANTENNA FOOTPRINT	40 x 50 cm [15.75 x 19.7 in]	POST PROCESSING		★	★
NUMBER OF HARDWARE CHANNELS	2	AUTOMATIC PIPE TRACKING		★	★
ANTENNA CENTRAL FREQUENCIES	250 MHz and 700 MHz	CAMERA MODULE			★
ANTENNA ORIENTATION	Perpendicular, broadside	SYNC PICTURE COLLECTION			★
SAMPLING FREQUENCY	400 kHz	SUPERIMPOSED METRIC GRID			★



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 is a global leader in digital solutions that create Autonomous Connected Ecosystems (ACE). Hexagon (Nasdaq Stockholm: HEXAB) has approximately 20,000 employees in 50 countries and net sales of approximately 3.5 bn EUR. Learn more at [hexagon.com](https://www.hexagon.com) and follow us [@HexagonAB](https://twitter.com/HexagonAB).



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