



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



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



REAL TIME RESULTS



DUAL FREQUENCY FOR BETTER PENETRATION AND DATA RESOLUTION



FAST ACQUISITION (CAMERA GRID)*



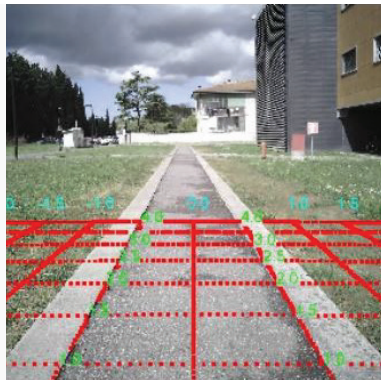
EASIER TARGET INTERPRETATION



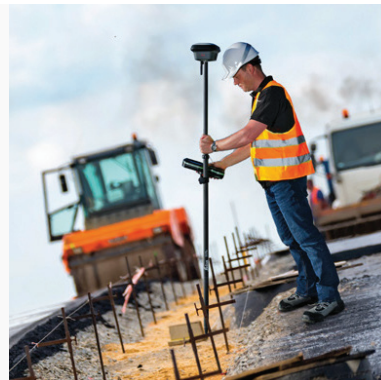
SEAMLESS SYSTEMS INTEGRATION

*** Patent Pending**

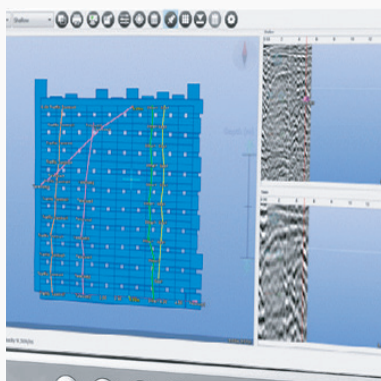
Fusion with visual data and inspection



Accurate Positioning



Automatic Pipe Tracking



Fusion of GPR and EML data





**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



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



**Large handle
for enhanced
maneuverability**

**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



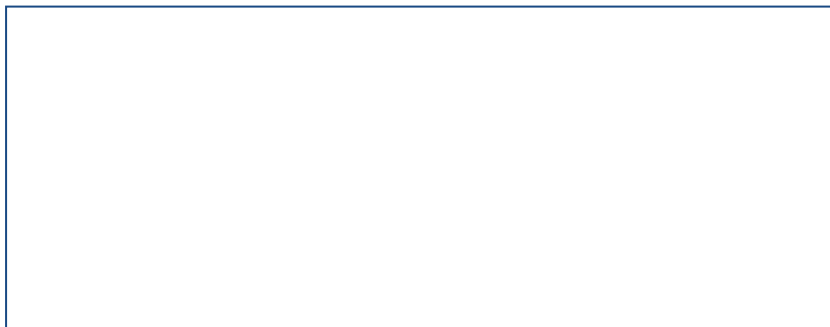
TECHNICAL SPECIFICATIONS		SOFTWARE SPECIFICATIONS	BASIC	ADVANCED	ADVANCED + CAMERA
OVERALL WEIGHT (PC AND BATTERY NOT INCLUDED)	24 kg two wheels (53 lbs) 27 kg four wheels (59 lbs)	SEAMLESS INTEGRATION WITH CABLE LOCATOR	●	●	●
RECOMMENDED LAPTOP	Panasonic FZ-G1	REAL - TIME NAVIGATION ON PREDIFINED GRID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



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: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at hexagon.com and follow us @HexagonAB.



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