UtilityScan™ DF

Locate and Map Underground Utilities with GPR

- Real-time data collection
- Back-up cursor and cross-hair cursor allow the user to accurately locate targets
- Multiple techniques to calculate depth of targets

Integrated System
- Dual-frequency digital antenna offers superior resolution for shallow and deep targets
- Easy-to-use, user selectable text or icon-based interface
- Full GPS integration

Premium Mobility
- Rugged, four-wheel cart design able to withstand the toughest conditions
- Compact cart design is easy to transport and assemble
- Fast data collection, up to 15 km/h (9.4 mph)

Superior Data Quality
- System optimized for increased depth of penetration
- Advanced display modes and signal floor tracking

UtilityScan DF System Specifications

**Controller**
- System: Panasonic Toughbook® H2
- Data Storage Internal Memory: 128 GB SSD
- Display: Enhanced 10.1 XGA sunlight-readable LED, 1024 x 768 Dual Touch Display
- Processor: Intel® Core i5-2557M vPro
- Ports: USB 2.0, Ethernet and Serial
- Batteries: Hot-swappable Li-Ion battery packs (four total)
- Operating Temperature: -28°C to 60°C (-20°F to 140°F)
- Environmental: IP65
- Drop Spec: MIL-STD-810G

**GSSI System Software**
- Scan Rate: 150 scans/sec at 512 samples/scan
- Scan Intervals: 50 or 100 scans/meter (15 or 30 scans/foot)
- Output Data Resolution: 32-bit
- Operating Mode: Survey wheel
- Depth Ranges: Five selectable ranges*
- System Speed: up to 600 kHz, 200 kHz per channel in North America
- Data Collection Speed: up to 15 km/h (9.4 mph)
- Gain: Manual or automatic, 1-8 gain points (-42 to +126 dB)
- Real-time Filters: Stacking, Background Removal
- Advanced Real-time Filter: Signal floor tracking
- Display Mode: Limescan Mode: high frequency data only or low frequency data only displayed
- Split Mode: high and low frequency data displayed in split screen view
- Blend Mode: high and low frequency data combined in single view
- Data Format: RADAN (.dzt)
- Diagnostic: GPS and quality indicator status, battery, hard disk capacity

**Digital Dual Frequency Smart Antenna**
- Number of Hardware Channels: 2 (two)
- Frequencies: 380 and 800 MHz
- Typical Range: 4 m / 12 ft
- Minimum/Maximum Range: 0.5 m - 5 m (20 in - 16 ft)
- Connectors: Digital control, power, survey wheel, marker, serial RS232, accessory connector
- GPS: Data stored internally
- Operating Temperature: -28°C to 55°C (-20°F to 131°F)
- Weight: 5 kg (12 lbs)
- Dimensions: 33.5 x 31 x 15 cm (13.2 x 12.2 x 5.9 in)
- Environmental: IP65

**Cart**
- Model 652
  - 4-wheel compact survey cart
  - Internal, integrated survey wheel encoder
  - Removable, 12-inch wheels
  - Compact, weather resistant design
  - Antenna centerline to front of cart: 38.2 cm (15 in)
- Dimensions: 61.7 x 100 x 102.4 cm (24.3 x 39.4 x 40.3 inches)
- Weight: 21.7 kg (48 lbs)
- Total System Weight: 29 kg (66 lbs)

* Visit www.geophysical.com for more details

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UtilityScan DF™ Designate Targets

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1. Touch-screen control unit
2. Interior, dual-frequency antenna
3. Adjustable, protective capsule
4. Ergonomic handle and flexible mount
5. Rugged, removable wheels
6. Internal, integrated survey wheel encoder

www.geophysical.com
The UtilityScan DF is ideal for locating the position and depth of metallic and non-metallic objects, including service utilities such as gas, communications, sewer lines as well as underground storage tanks and PVC pipes in various soils. The UtilityScan DF is purpose-built and offers an easy-to-use touchscreen interface to view shallow and deep targets simultaneously in a single scan.

The new dual-frequency 300 MHz and 800 MHz antenna is GSSI’s first digital antenna, allowing the operator to locate targets at depths of up to 5 m/16 ft. (in North America). With an operation life of up to eight hours and survey speed up to 15 km/h (9.4 mph), data collection is fast and efficient.

Advanced software features offer the user several options to view the data; each channel individually, both channels separated via split screen, or our patent-pending blend mode. The UtilityScan DF also provides advanced signal processing tools such as stacking, signal floor tracking and background removal.

System Includes
- Dual-frequency antenna (300 and 800 MHz)
- Customized Panasonic ToughBook® H2 control unit
- Rugged terrain survey cart with encoder wheel
- 2.0 meter control cable
- Transit case for control unit
- Four batteries and four-bay battery charger: Control Unit
- Two batteries and two-bay battery charger: Antenna
- User manual

Data illustrates several metallic and non-metallic targets at various depths in split mode. Green shaded area represents estimated signal floor.

The UtilityScan DF has several modes to view the data. Split mode allows the user to view the two channels simultaneously, exclusive from one another in the same view.

Data illustrates several metallic and non-metallic targets at various depths in split mode. Green shaded area represents estimated signal floor.

The UtilityScan DF features a patent-pending method to view the data, called Blend mode. Blend mode combines the high resolution near-surface data with lower depth detail in a single view.

Data illustrates several metallic and non-metallic targets at various depths in blend mode. Green shaded area represents estimated signal floor. Red/blue dotted line identifies the soil velocity calculation tool.
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**UtilityScan DF Data**

**Split Mode**

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