

GE  
Measurement & Control

*Portable, Wireless and Robust.*



## Inspection Technologies Wireless Digital Detectors

Enabling the inspection of field installations to be more flexible and efficient.



GE imagination at work



# DXR250C-W: Engineered for Industrial Radiography

The DXR 250C-W portable detector combines GE's unrivalled wealth of experience and expertise in medical and industrial radiography. This new digital detector is specifically designed to meet the demanding requirements of industrial radiographic inspections.

- Reduced exposure time for increased personal safety.
- Reduced barricade time on units to inspect for optimized process safety.
- Reduced setup time for maximized productivity.

The system set-up, image acquisition and data processing is simplified with powerful Wi-Fi communication modes



Choice of semi- or fully ruggedized notebooks for harsh environment operations. Pre-installed Rhythm software for enhanced analysis capabilities with instant image review

Ruggedized detector with high pixel pitch with optimized image quality, wide area coverage and dose efficiency



## Compact & Portable

The 8"x8" detector weighs just 3,5 kg (7lb) and has a thickness of only 25 mm (0.98"). Ideal for places which offer difficult access and where utmost portability is needed.



## Wireless

The detector uses wireless and battery-operating technology. Simplifying handling and operation. And leading to overall productivity gain for its users.

- Robust wireless operation (802.11 g, up to 80 m communication range, WEP2 security) with online wireless strength, detector temperature and remaining detector battery power monitoring
- Access Point mode with portable access point for extended range
- Ad-hoc communication for fast image transfer
- Optional power saving mode to increase battery usage

Ruggedized hard-cover for mechanical protection, easy transportation and installation in industrial set-ups



Hot-swappable Li-Ion battery with inbuilt remaining power indicator



Battery charger for fast-charging and battery recalibration

Detector with 8 x 8" GOS scintillator, 200 µm optimized imager design for excellent dynamic range and improved performance with both X-rays and Gamma-rays

## The Power of Rhythm

The new **Rhythm RT DR Acquire** provides additional functionality for portable wireless detectors and allows operators to acquire images in a non-proprietary and reliable DICOM format.

A new wireless—dashboard for ease of operations and troubleshooting includes tools to determine detector connectivity and to monitor relevant conditions such as wireless signal strength or battery status. New acquisition modes such as synchronized operation for pulsed X-ray sources and increased exposure time per frame to up to 150 sec, enables the detector to expand in new applications.



Together with **Rhythm Review** the entire portfolio of image enhancement-, administration-, reporting- and archive-modules can be accessed on one DICOM compliant platform (Enterprise Archive, Flash!Filters, Wall Thickness-Measurement, Report Generators, etc. ) and adapted to the individual customer workflow and application needs.

**Rhythm RT Lite:** A special entry-level version of Rhythm that supports simple, intuitive out-of-the-box image acquisition and processing.

Both portable wireless detectors can be used with the full DICOM compatible Rhythm RT Lite and open up a path to digital inspection in a very economical way.

## Robust

With its industrial packaging and ruggedized design, the DXR250C-W handles the toughest environments.

- Ruggedized design with aluminum housing and shock absorbing panel support (shock, water and dust protected housing) with additional rugged perimeter bumper
- Carbon fiber front window
- Shielded electronics for improved radiation protection
- Optional hard-shell with additional tie-off points and shock bumpers for additional mechanical protection
- Extended operating temperature range
- Industrial power supply with On/Off switch and detachable tether

## Key Segments and Applications

- Mechanical integrity for small, medium and large sized parts
- Wall thickness, corrosion, erosion
- Weld quality
- Pipe and tube quality
- Heat exchangers
- Small and large bore piping
- Pipe supports touch point corrosion
- Rope access in all types of petro-chemical and other industrial environments

## Flexible Operating Modes

- Both detectors can be operated from hot-swappable on-board battery or from the optional power supply
- Wireless configurations with ad-hoc or access point hosted communication

# DXR250U-W: Optimized for a wide range of radiographic inspections

The DXR250U-W builds up on the established application space of GE's portable 16x16" detector series DXR250V. The new detector utilizes the same wireless and battery technology of the DXR250C-W. This extends the use to a versatile digital inspection system especially for medium to larger objects.

Optimized battery, wireless technology and packaged for the toughest environments, the DXR250U-W will deliver additional productivity for radiography inspections in the field. DXR250U-W is fully compatible to most DXR250C-W accessories and Rhythm installations.



200  $\mu\text{m}$ , GOS, 16x16" digital imager with optimized scintillator for better dose efficiency and shorter exposure times

Ruggedized design with shock absorbing panel support and carbon fiber front window

Industrial packaging, ruggedized accessories (hard-cover, power supply)



802.11 g wireless operation in ad-hoc and access point mode

On-board battery with extended life time

Extended operating temperature range

## *Universal & Portable*

Even with a larger imager size of 16"x16" the detector weighs only 5 kg (11 lbs) and has a thickness of only 26 mm (1.02"). The detector can be used for a wide range of radiographic applications covering medium to large sized objects. Extended by its wireless capabilities and the portable design, the detector is qualified as universal inspection device for a broad range of industrial inspections in the field.





## Accessories

		
Ruggedized hard-cover	Semi-ruggedized mobile Rhythm workstation HP 8770W	Ruggedized mobile Rhythm workstation Panasonic Toughbook CF-53
		
Carrying case	Power supply	Battery charger
		
Battery	Portable wireless router / access point	Soft-case*

\* only for DXR250C-W

## Technical Specifications\*

Detector	DXR250C-W	DXR250U-W
Flat Panel Type	Amorphous silicon	
Scintillator Material	Gadolinium oxysulfide (GOS)	
Active Area (approx.)	200 mm x 200 mm	405 mm x 405 mm
Image Format	Full: 1024 x 1024 / Binned: 512 x 512 / center Region of Interest: 512 x 512	Full: 2048 x 2048
Pixel Pitch	200 µm	
A/D Conversion	14 bits	
Min. Exposure Time	130 ms	
Max. Exposure Time	150 sec	
Interface	Gigabit Ethernet (separate line) WIFI 802.11g (adhoc / Access Point)	100 Mbit Ethernet combined with battery plug WIFI 802.11g (adhoc / Access Point)
Dynamic Range	10,000 : 1	
Dimensions	408 mm x 257 mm x 25 mm (16.06" x 10.12" x 0.98") (30 mm in the battery bay area)	600 mm x 460 mm x 26 mm (23.62" x 18.11" x 1.02") (28 mm in the battery bay area)
Weight	3.5 kg (7 lb) (including battery, without hard-shell)	5 kg (11 lb) (including battery, without hard-shell)
Operating Temperature	-20°C to 50°C (reduced dynamic range at higher temperatures in this range)	
Storage Temperature	-40°C to 70°C (-40°F to 158°F)	
Operating Humidity	RH, 10-90% non-condensing	

### Power Supply

Voltage	Input: 100-240 V, 50-60 Hz Output: 12 V DC
Dimensions	105 x 60 x 240 mm (4.13" x 2.36" x 9.45")
Weight	0.7 kg (25.7 ounces)
Tether	Detachable, length 3 m (10 ft)

### Battery Charger

Type	Two bay, level-3, stand alone battery charger compliant with Smart Battery System (SBSBus)
Power Supply	Input 30 V DC, including wide-range power supply
Features	Sequential charging Battery calibration in left bay LED status indicator
Dimensions / Weight	175 x 124 x 58 mm (6.89" x 4.89" x 2.30") 440 g (15.5 ounces)

### Battery

Type	Lithium Ion
Rating	11.1 V, 1.85 Ah, 21 Wh
Features	Charging status indicator

### Portable Wireless Router / Access Point

Type	150 Mbps portable battery / USB powered wireless router
Wireless Features	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n 2.4 - 2.4835 GHz Supports 64/128 bit WEP, WPA-PSK/WPA2-PSK, Wireless MAC Filtering, Enable/Disable, SSID Broadcast
Power Supply	Internal 2000 mAh rechargeable battery, 5 V DC / 1.0 A external power adapter, Micro USB
Dimensions / Weight	100 x 62 x 16 mm (3.9" x 2.4" x 0.6") 94 g (3.3 ounces)

\* Subject to change without further notice



[www.ge-mcs.com](http://www.ge-mcs.com)

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