

# RADON

MEDICAL IMAGING



Fujifilm FDR D-EVO III

[radonmedicalimaging.com](http://radonmedicalimaging.com)

We focus on people, innovative products,  
and service excellence

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**FUJIFILM**  
Value from Innovation

NEW

**FDR D-EVO III**

**G35 | G43**

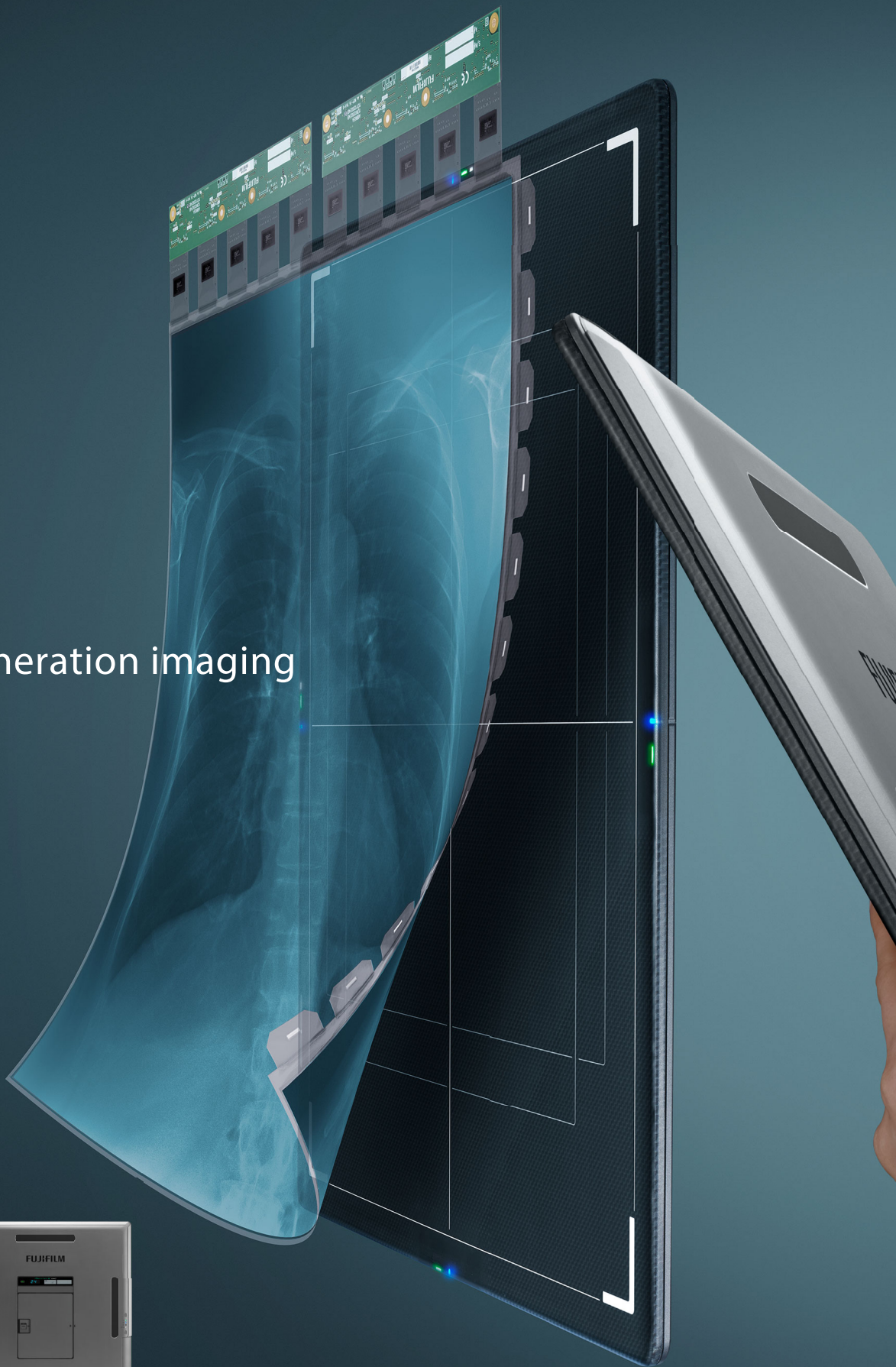
Welcome to the Future of Digital Radiography

\* Appearance shape and color may change.

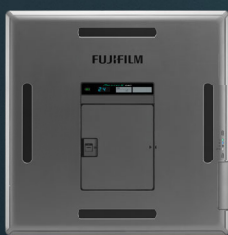
Fujifilm  
Healthcare



# Next generation imaging



G35 [14 x 17" model]



G43 [17 x 17" model]

World's first glass-free  
and lightest DR detector  
with patented ISS.

# 4.0 lbs

\*excludes battery pack

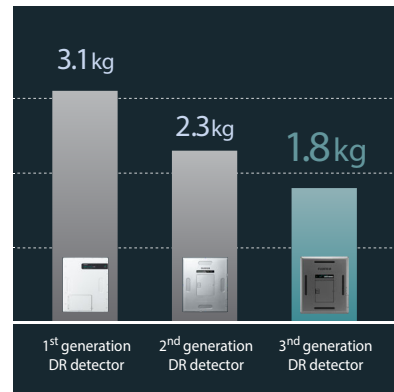


## An Evolution of Form and Function

The ultra-lightweight FDR D-EVO III features Fujifilm's innovative flexible film-based TFT capture circuitry, providing exceptional image quality with gentle X-ray dose.

### Fujifilm's lightest DR detector with flexible film-based TFT circuitry

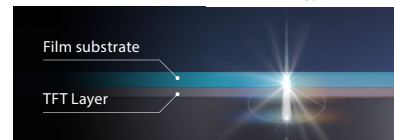
By replacing the glass-based TFT layer with a high-tech thin film layer, FDR D-EVO III is 40% lighter than the original 1st generation FDR D-EVO model and 20% lighter than FDR D-EVO II.



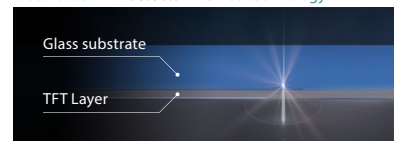
### Higher DQE 33% (1Lp/mm-RQA5 1mR)

Innovative film-based capture layer helps reduce signal blur, providing excellent DQE and dose performance.

Film-based TFT detector with ISS technology



Glass-based TFT detector with ISS technology



### Enhanced durability to endure tough medical environments

By eliminating the most fragile (glass) component, the new flexible film-based TFT detector improves durability and decreases risks of shock damage compared to previous FDR D-EVO models.

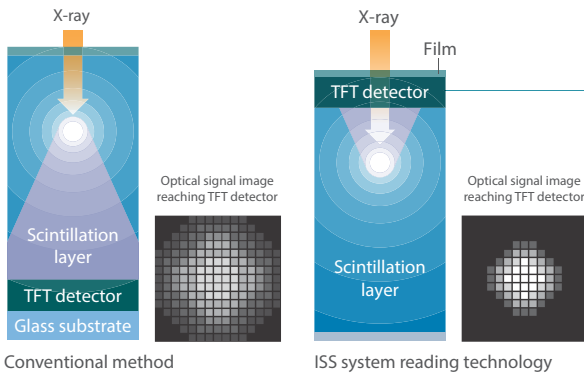




# Fujifilm's exclusive technologies for achieving high resolution and low dose

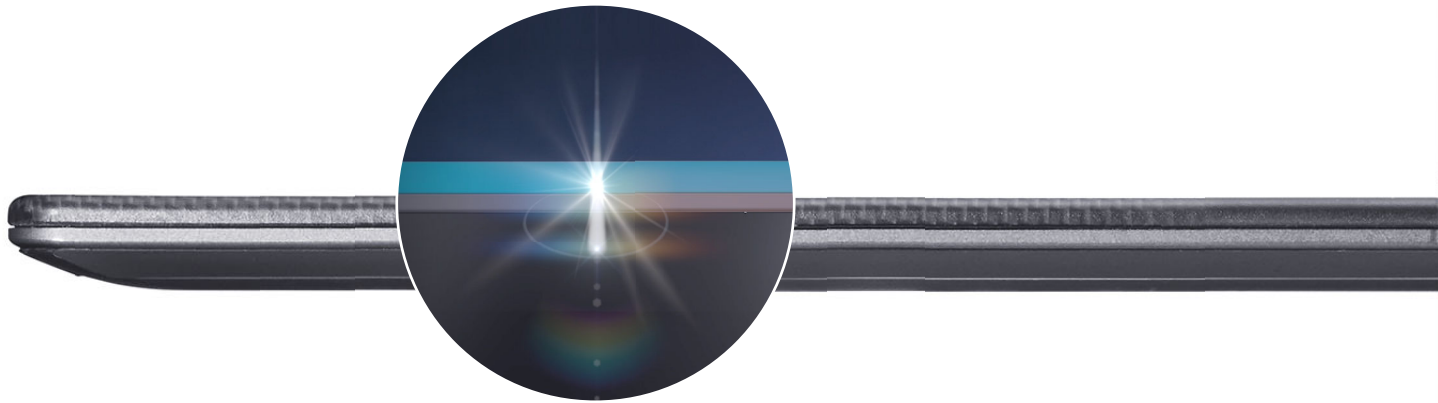
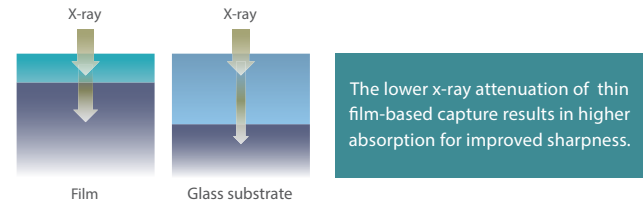
## Patented ISS capture technology promotes high sensitivity

Equipped with Fujifilm's patented Irradiated Side Sampling (ISS) technology which bonds its capture electronics (TFTs) to the x-ray irradiation side, in contrast to traditional detectors. This design suppresses scattering and attenuation of x-ray signals, to produce sharper images at lower doses compared to traditional designs.



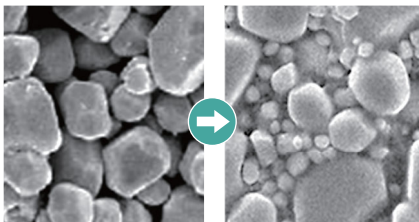
### NEW ISS with film-based TFT capture uniquely enhances DQE and dose performance

By combining Fujifilm's patented ISS and the glass-free, film-based TFT capture scintillator, X-ray transmittance is improved, achieving 33% DQE compared to 31% (1Lp / mm-RQA5 1mR) of prior FDR D-EVO II detectors. This contributes to high quality images and low dose. This unique technology combination, only possible with Fujifilm's ISS, allows FDR D-EVO III to fully maximize the benefits of this innovative film-based design.



### Unique formulation of large and small phosphor particles at optimal ratios, enhances x-ray absorption

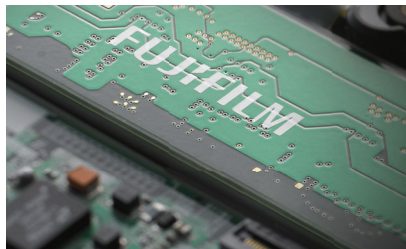
Increased x-ray absorption is achieved through our uniquely formulated scintillator layer, which employs photographic film technology to optimize the blending ratio of phosphor particles to minimize blur and enhance sharpness.



Blending optimally-sized phosphor particles in gaps

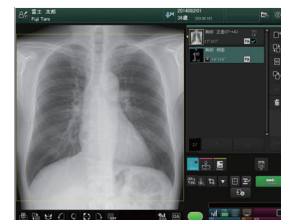
### Fujifilm's noise reduction circuitry improves detector sensitivity in high absorption and low dose images

Uniquely engineered noise reduction circuitry reduces noise in the image to improve signal strength. This results in 33% DQE even at 0.1 mR. The granularity and visibility of dense, low penetration or ultra low dose regions are improved.



### Achieve exceptional images with Fujifilm's latest digital image processing technologies

FDR D-EVO III utilizes the latest Fujifilm digital image processing technologies including Dynamic Visualization, optimizing image display based on monitor characteristics and FNC noise suppression processing that improves image quality, automatically extracting and separating noise components in the image.



# High-level protection

## Advanced fluid and dust protection



Structured to prevent the infiltration of liquids, FDR D-EVO III conforms to IPX6 standards and can withstand jets from any direction\*. There is no need to worry about fluid penetration from cleaning or body fluids. FDR D-EVO III also complies with IP5X for dust-proof protection, preventing infiltration of small particles\*.

\* Wear and tear, variables in handling, and other conditions, can deteriorate the effectiveness over time.

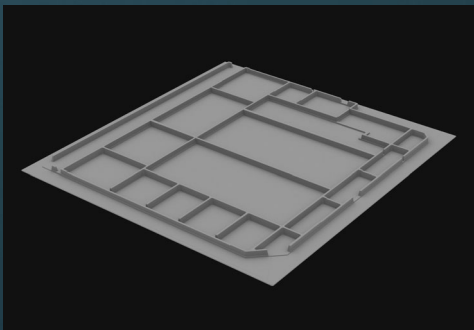
## Easy-to-clean streamlined surfaces

FDR D-EVO III introduces an even sleeker, more tapered, sealed design compared to the previous FDR D-EVO II. Its flat and smooth surfaces allow easier and more efficient cleaning.

\* Appearance shape and color may change.

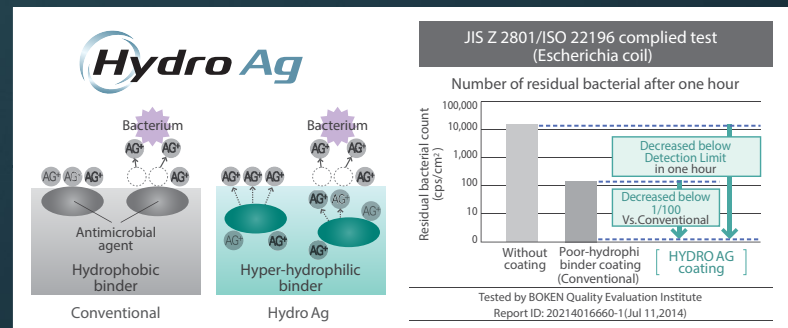
## Magnesium-alloy casing provides lightweight with high durability

Inner Mg-Li alloy frame supports provide robust protection for internal components, while maintaining a lightweight design. With this technology, FDR D-EVO III can withstand up to 683 lbs. distributed load and 352 lbs. point load capacities.



## Hydro Ag™ antibacterial coating

FDR D-EVO III detectors, entire outer surfaces are coated with Fujifilm's proprietary Hydro Ag antibacterial coating, which has an antibacterial effect 100 times greater than conventional Ag coatings and 10,000 times more effective than surfaces with no coating. This longer-lasting, higher intensity antibacterial coating prevents bacterial growth. A hyper-hydrophilic binder, together with the easy-to wipe flat design of the detector, enhances cleaning and disinfecting protocols.



\* Wear and tear, variables in handling, and other conditions, can deteriorate the effectiveness over time.





## Versatile functionality



Peripheral devices for effortless handling

Battery, chargers, connecting cables and docking stand for FDR D-EVO II can also be used with FDR D-EVO III for simplified transition and usability.

## Improved handling

### Simple battery replacement workflow

The battery can easily be replaced with one hand and the detector can be back up and ready in ~90 seconds. This eliminates concerns about battery life or on-demand battery swaps even in the midst of critical care.



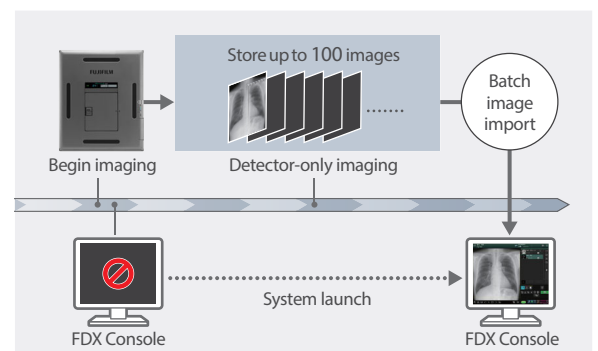
### Suitable for outdoor use with an expanded spectrum

Supports 2.4 GHz and 5 GHz (W52/53/56/58)\* spectrum. Suitable for outdoor use during disaster response.

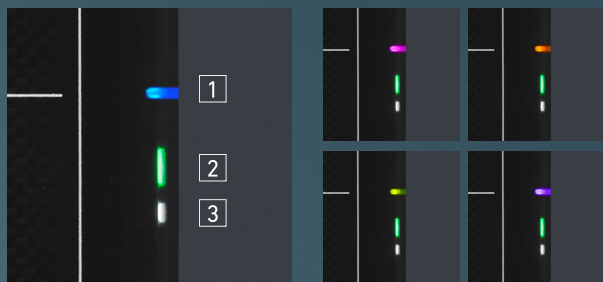
\*It depends on the regulation of each country which wireless band is allowed to be used.

## Memory Mode

Dedicated memory mode enables added emergency uses. Built-in memory stores up to 100 images. Images are retained even if detector power is interrupted. Digital readout on detector face tracks images stored and increments as they are acquired.



LED lights on the front the detector provide visual assistance



- 1 Exam centering and device identification  
Equipped with side-center LEDs on four sides of the detector, for easier positioning of the device during imaging. There are five LED colors (blue, pink, orange, lime-yellow and purple) to distinguish different devices for different colors when using multiple devices. During sleep mode, the side-center LED light flickers gently to visually indicate the battery status.
- 2 Device status displayed in green  
When the device is ready for x-ray exposure, the LED lights up in green.
- 3 Front side and detector orientation indicator, white LED  
Front and top orientation of the device is easily identifiable with this white LED indicator light.

Easy insertion under patient with smooth tapered edges

Tapered and rounded edges on front and rear of the outer sides of the panel allow easier positioning under the patient. The easy-to-grasp shape simplifies retrieving the detector even when placed on a flat surface.



Easy-to-see LED status display

The back of the detector is equipped with an LED bar graph that displays remaining battery status. This allows easy visibility of remaining battery power.



Works together with the console to display the detector status

The docking stand works together with the console to display the detector's "Ready" status and ID color using the LEDs. This makes it easy to confirm the correct detector and ready status from the control room prior to exposure.



## Flexibility - On-Demand Use

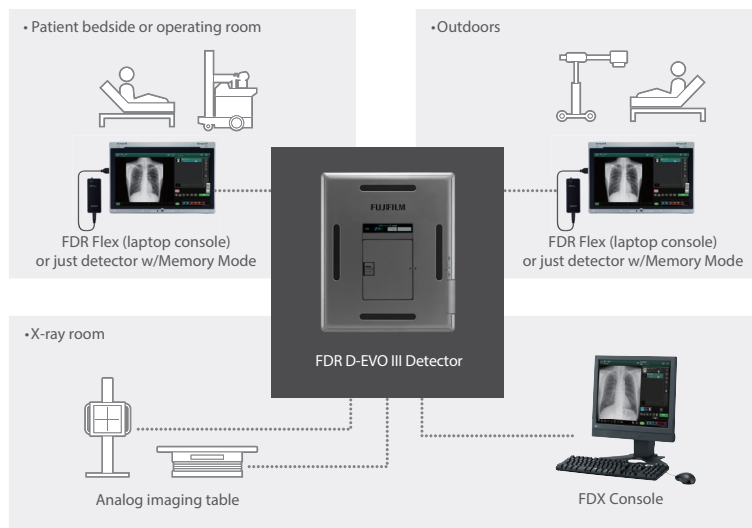
FDR D-EVO III's unique combination of form and function brings significant value to traditional room retrofit and mobile uses. The additional capabilities of Memory Mode and Smart Switch bring added value for emergency, on-demand backup and failsafe uses with any portable, room or even for remote off-site and disaster response uses.

## "SmartSwitch" Technology

Fujifilm's "SmartSwitch" technology enables automatic X-ray detection allowing FDR D-EVO III to acquire images without a connection to the x-ray generator. The detector automatically senses exposure to trigger image capture, allowing the versatility of memory mode use and use with other x-ray rooms or mobiles on demand.



## System Configuration





# Advanced image processing

Intelligent feature recognition and 3D structure analysis technology

## Virtual Grid

High quality images without a physical grid

Advanced processing simulates scatter clean up without a physical grid, correcting for the effects of scatter radiation while retaining contrast and sharpness. Eliminating the grid improves patient comfort, simplifies positioning and allows as much as 50% lower dose compared to grid exams. Grid cutoff and retakes associated with misalignment of X-ray tube and grid are also prevented. (Option)



Virtual Grid



No Grid

Virtual Grid

Real Grid

Multiple body parts supported and including barriatics



Abdomen

Cervical Spine

Thoracic Spine

Lumber Spine

## Dynamic Visualization II

Intelligent feature recognition technology optimizes image quality

Advanced algorithms optimize contrast and density based on anatomic definition, hardware and thickness characteristics, resulting in outstanding detail and greater window and leveling capability in PACS. (Option)



Dynamic Visualization II



Conventional Processing



Dynamic Visualization II



Conventional Processing

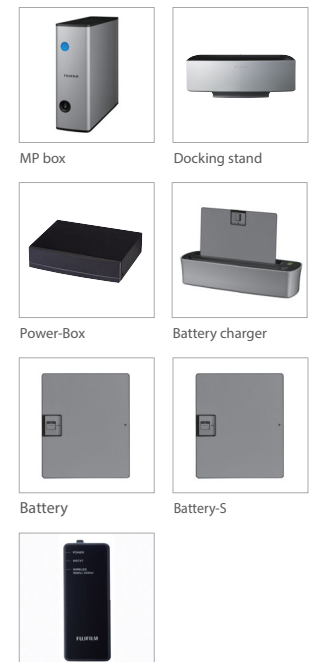


Dynamic Visualization II

## Specification

	FDR D-EVO III G35 (14 x 17")	FDR D-EVO III G43 (17 x 17")
Name	Flat Panel Detector (DR-ID 1801SE) for FDR D-EVO III System (DR-ID 1800)	Flat Panel Detector (DR-ID 1802SE) for FDR D-EVO III System (DR-ID 1800)
Type	Detector with patented ISS (Irradiation Side Sampling) and flexible film-based TFT detector technology	Detector with patented ISS (Irradiation Side Sampling) and flexible film-based TFT detector technology
Scintillator	GOS (Gadolinium oxysulfide)	GOS (Gadolinium oxysulfide)
Detector external size	18 x 15 x 0.6" approx. (460" x 384" x 15mm)	18 x 18 x 0.6" approx. (460 x 460 x 15mm)
Weight	4 lbs. (1.8 kg) excludes battery	4.6 lbs. (2.1 kg) excludes battery
Pixel pitch	150µm, 16 bits per pixel	150µm, 16 bits per pixel
Pixels	2836 x 2336 pixels	2836 x 2832 pixels
Wireless standard	IEEE 802.11n 2.4 & 5.2 GHz bands, W52/W53/W56/W58	EEE 802.11n 2.4 & 5.2 GHz bands, W52/W53/W56/W58
Image preview	Less than 2 sec	Less than 2 sec
Cycle time	Less than 9 sec (wired) Less than 10 sec (SmartSwitch)	Less than 10 sec (wired) Less than 11 sec (SmartSwitch)
Battery recharging time	Approx. 3 hours (with battery charger) Approx. 4 hours (with Docking Stand)	Approx. 3 hours (with battery charger) Approx. 4 hours (with Docking Stand)
Battery (2 options available) both fit either detector	Standard battery Battery weight approx. 0.48 lbs. (220 g) Performance Standby: approx. 3 hours Sleep mode: approx. 7 hours Deep sleep: approx. 20 hours	Lightweight battery (option) Battery weight approx. 180 g Performance Standby: approx. 2.5 hours Sleep mode: approx. 5.5 hours Extra sleep mode: approx. 16 hours

## Optional parts



Fujifilm AP detector to workstation wireless access point

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