

FUJIFILM

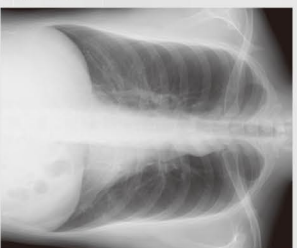
FDR D-EVO

NEW

Indirect conversion FPD system for general X-ray exposure



DR EVOLUTION has come.

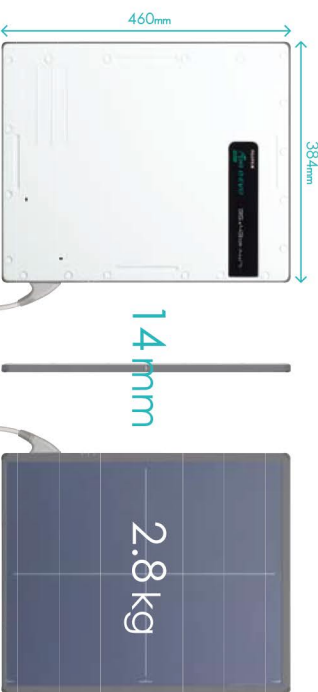


High-quality image for FPD.

By Fujifilm's new proprietary technology "ISS method"^{*1}, both MTF and DOE are improved. The FDR D-EVO has realized high-quality image utilizing its new technology "ISS method" combined with proven image processing technology.^{*}

* Abbreviation : Irradiation Side Sampling

Compatible cassette size DR, realizing 2.8kg^{*1} lightness.



The FDR D-EVO has achieved 384 x 460mm size and 14mm thick which is equivalent to a CR cassette. The other main characteristics of the FDR D-EVO are 2.8kg^{*1} weight, minimum 3seconds preview time and minimum 9seconds cycle time. Since the size is equivalent to a CR cassette, it is possible to load the FDR D-EVO into an existing upright/table X-ray system and can be handled in the same fashion as a CR cassette.

^{*1} Weight without cable

FUJIFILM's new proprietary technology "ISS method"^{*2} FPD

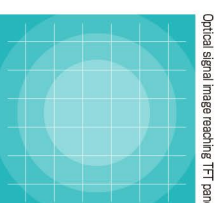
Conventional method

Back side focus method

X-ray



TFT panel reads the luminescence light from the back side after the light is attenuated and scattered. Thus, both MTF and DOE are sacrificed.



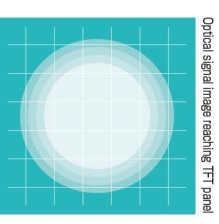
FUJIFILM's new method

Front side focus method

X-ray



By reading from the front side, collecting the luminescence light before its attenuation and emission is optimized to realized result in improvement of MTF and DOE.



The "ISS method" provides high sharpness image even with low dose

The main characteristic of FUJIFILM's new proprietary technology "ISS method"^{*1} is realized by placing the TFT sensor on the front side of the scintillation layer where the TFT sensor of an existing panel is located on the back side. By using this new method, scattering/reduction of X-ray signal is significantly improved/resulting in improved MTF. Also, optimization of the scintillation layer of the panel is achieved by FUJIFILM's own precision coating technology cultivated by manufacturing imaging Plate(P) for many years(resulted in improvement of DOE).

^{*2} Abbreviation : Irradiation Side Sampling

Introducing DR system is available with existing X-ray equipment.

Speedy and efficient workflow, extensive free-position exposure is achieved.

1 panel solution

Since the 14mm thick, 384x460mm size the FDR-D-EVO is equivalent to a CR cassette, it can be loaded into an existing upright/table exposure system. Also, the FDR-D-EVO weighs 2.8kg* which is nearly as light as a CR cassette (including IP, 2.1kg), thus achieves friendly usability for customers. * Weight without cable



Stand and table are for reference

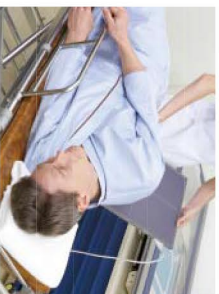
Supporting various positions by table-top exposure



Knee joint axial



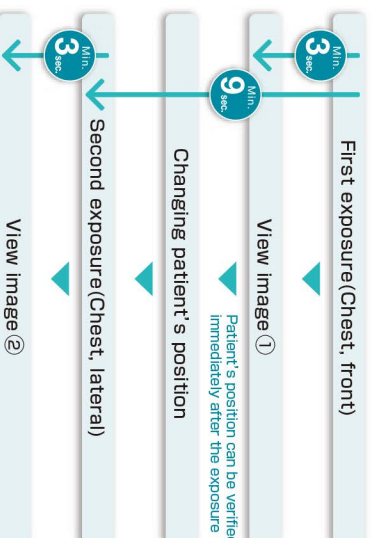
Wheelchair exposure



Stretcher exposure

Unparalleled speed improving workflow

Scenario : 2 consecutive exposures operated by one person



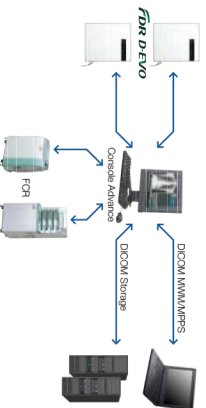
Workload of exchanging and inserting the cassette is unnecessary. Thus, operation workload and time can be reduced greatly.

Total time: **Min. 12 sec.**



Console Advance

Using one Console Advance, both D-EVO and FCR are controllable with same usability.



- FDR-D-EVO and FCR are simultaneously connectable, thus achieves effective use of space in the exposure room.
- Optimized workflow is realized by unifying the operabilities and eradicating the duplicate operations.
- By unifying the image processing method, CR format equivalent image can be generated by the FDR-D-EVO. Thus, image taken by the FDR-D-EVO can be managed commonly with FCR image.

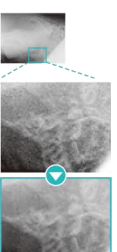
Image Intelligence

Image Intelligence™ is the result of FUJIFILM's many years of achievements in field of medical imaging. It realizes high-quality image for diagnosis.



MFP Multi-frequency Processing

Enhances FCR images. All diagnostic scopes will be enhanced except for noise.
* Optional software



FNC Flexible Noise Control

Provides a non-grainy image by mainly isolating and suppressing the noise for the signal.



GPR Grid Pattern Removal

Removes the stationary grid patterns thus preventing More from being generated resulting in easier diagnosis.



Standard components and model name: Digital Radiography with flat panel detector DR-ID 600

Product name: FDR D-EVO (MODEL: DR-ID 600)

<Components>

Flat panel sensor: DR-ID 600SE

Power supply unit: DR-ID 600MP

Control cabinet: DR-ID 600MC

Image processing unit: DR-ID 300CL

Processing capacity:

(1) Start-up speed

<At normal operation>

6 min. or less: when connecting only one flat panel sensor

8 min. or less: when connecting two flat panel sensors

<At emergency mode>

3 min. or less: when connecting only one flat panel sensor

3.5 min. or less: when connecting two flat panel sensors

(2) Image display speed

Preview display speed: minimum 3 sec.

(After exposure: Depends on measurement environment at the lab)

Processed image display speed: 8 sec. or less (after exposure)

(3) Exposure interval

ex) •Front chest (120kV 4mAs ~ approx. 20mR) — minimum 9 sec.

•Front cervical (approx. 56mR) — minimum 9 sec.

(4) Film output time: Approx. 80 sec. (Reference value)

* with DRYPIX7000 console advance

Exposure size:

2304 × 2880 pixels

Image reading:

•Reading grayscale level: 16 bit/pixel

•Pixel size: 150µm

X-ray detector: Indirect-conversion system flat panel X-ray detector DR-ID 600SE

• Maximum film size: 2304 × 2880 pixels

• Scintillator: GOS (Gd₂O₂S)

Power supply conditions: FDR D-EVO

Rating: Single phase 50/60Hz

AC100V-AC240V (+/-10%)

1.0KVA or less

* Refer to "Console Advance Product Specifications" for the power supply condition of Console Advance.

Power consumption:

Operating: 80W (with only one of the flat panel sensors operating)

Standby: 60W

Applying current: 15 W (at only power supply unit is ON)

* When two flat panel sensors are connecting.

Environmental conditions:

• Operation conditions

Temperature: 15°C to 30°C

Humidity: 15% to 80% RH (Non condensing)

Atmospheric pressure: 700hpa to 1,060hpa Temperature and Humidity conditions on operating Operatingconditions

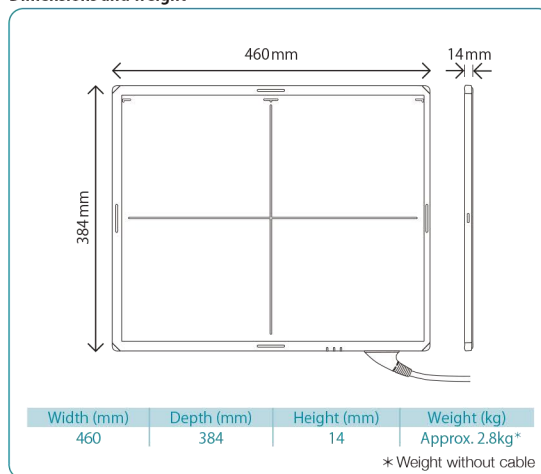
• Not operating condition

Temperature: 5°C to 35°C

Humidity: 10 to 80%RH (Non condensing)

Atmospheric pressure: 700 to 1,060hpa

Dimensions and weight



Optional parts

Remote switch



Standard components



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