FUJIFILM

FCR
PROFECT CS

FUJI COMPUTED RADIOGRAPHY

An all-purpose, high-throughput FCR Reader
capable of precise 50 micron resolution imaging
and fast mammography exams

Image Intelligence™

FCR

Setting new standards in digital mammography

Fujifilm responds to high-throughput and other market needs of digital mammography with the introduction of PROFECT CS, a next-generation FCR reader offering image quality optimized to satisfy the most demanding applications. Features include processing capacity sufficient to cover two mammography-screening rooms, and enough processing power for standard examinations. Its 4-cassette stacker and the CR Console's easy operability realize increasing workflow efficiency and enhanced diagnostic breadth.

High Productivity
— 80 images per hour

PROFECT CS can process up to 80 IP (HR-BD 18 x 24cm) per hour, sufficient to cover two mammography rooms without stress, as well as up to 103 standard IP per hour, ensuring the versatility for departmental use of CR imaging.

Output
— Image quality

Image quality is consistently high with wide latitude and sharp definition, whether digital mammogram or plain x-ray, and whether on print or on display. Optimized images are the result of up to 20-pixel/mm scanning pitch and combining image-processing algorithms.

Image Display and Processing
— CR Console

With digital mammograms as well as plain x-ray images consistently optimized for quality, and utilizing the same user interface as our well-regarded CR Console, operational convenience is given top priority.

Image Acquisition
— Dual-sided reading

Fujifilm's proprietary dual-sided IP reading technology enables precise extraction of image data from both sides of the imaging plate, ensuring final images with higher Detective Quantum Efficiency (DQE).
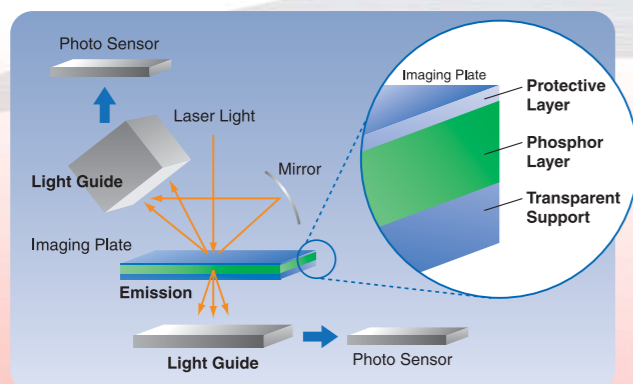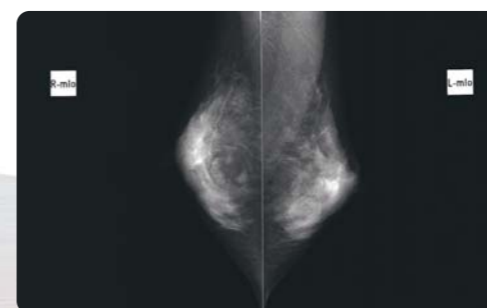
Photo Sensor
Laser Light
Light Guide
Imaging Plate
Mirror
Emission
Light Guide
Photo Sensor

Imaging Plate
Protective Layer
Phosphor Layer
Transparent Support

PROFECT CS

■ Image Processing

"Image Intelligence™" – a set of sophisticated digital image-processing software technologies available through the CR Console – processes image data and optimizes final output.

Image Intelligence™

MFP — Multi-frequency Processing

An optional software applicable for all types of FCR imaging, MFP is an improved version of Fujifilm's renowned Dynamic Range Control (DRC), and uses frequency enhancement to provide more diagnostic data from a single exposure image. MFP improves visibility of both dense and peripheral tissues by simultaneously applying edge enhancement processing to small and large structures within an image.*

PEM — Pattern Enhancement Processing for Mammography

An optional software specifically developed for mammographic imaging, PEM enhancement processing significantly facilitates identification of tumours while improving the conspicuity of micro-calcifications.*

* Image processing requires the use of FCR CR Console Plus

■ Digital Mammography System

Create a Digital Mammography System by linking PROFECT CS via CR Console to Mammography Workstation MV-SR 657, to greatly increase your potential for early detection of breast cancer.

CR Console

FCR PROFECT CS

Mammography Workstation MV-SR 657

DRYPIX 7000

FUJIFILM FCR PROFECT CS Specifications

Standard Components:
- FCR PROFECT CS Image Reader (Model: CR-IR 363)
- AC power cord

Other System Components (sold separately):
- CR Console Plus
- Image Recorder : FL-IMD, FM-DP L, DRYPIX 1000/3000/7000
- ID Card Writer
- FCR Data Management System

Supplies:
Imaging Plate:
- ST-VI (Standard): 8" x 10", 10" x 12", 14" x 14", 14" x 17", 18 x 24cm, 24 x 30cm
- HR-V (High Resolution): 18 x 24cm, 24 x 30cm
- HR-BD (Dual Side Mammography): 18 x 24cm, 24 x 30cm
IP Cassette:
- Type C with barcode window: 8" x 10", 10" x 12", 14" x 14", 14" x 17", 18 x 24cm, 24 x 30cm
- Type CM with barcode window: 18 x 24cm, 24 x 30cm
- Type DM with barcode on cassette: 18 x 24cm, 24 x 30cm

Time Required for IP Feed/Load:
IP auto feed/load mechanism cycle time

IP Type	Required Time
24 x 30cm (HR-BD)	Approx. 85 sec.
18 x 24cm (HR-BD)	Approx. 75 sec.
14" x 17" (35 x 43cm)	Approx. 60 sec.
14" x 14" (35 x 35cm)	Approx. 54 sec.
10" x 12"	Approx. 50 sec.
8" x 10"	Approx. 40 sec.
24 x 30cm (ST-VI)	Approx. 51 sec.
18 x 24cm (ST-VI)	Approx. 42 sec.
24 x 30cm (HR-V)	Approx. 65 sec.
18 x 24cm (HR-V)	Approx. 55 sec.

Processing Capacity
(in high-pixel density two-image output format):

IP Type	When connected to DRYPIX 7000/CR Console Plus
24 x 30cm (HR-BD)	Approx. 60 IPs/hr.
18 x 24cm (HR-BD)	Approx. 80 IPs/hr.
14" x 17" (35 x 43cm)	Approx. 103 IPs/hr.
14" x 14" (35 x 35cm)	Approx. 120 IPs/hr.
10" x 12"	Approx. 128 IPs/hr.
8" x 10"	Approx. 165 IPs/hr.
24 x 30cm (ST-VI)	Approx. 128 IPs/hr.
18 x 24cm (ST-VI)	Approx. 165 IPs/hr.
24 x 30cm (HR-V)	Approx. 90 IPs/hr.
18 x 24cm (HR-V)	Approx. 110 IPs/hr.

Time to Print on DRYPIX 7000 through network via CR Console:
Approx. 130 sec.

Time to Print on DRYPIX 7000 (18 x 24 HR-BD) :
157 sec.

Time To Display on CR Console:
- 14" x 17" : 39 sec.
- 18 x 24cm HR-BD: 50 sec.

Image Reading (Image output is via CR Console)

Reading Size	Standard Pixel-density		Hi Pixel-density	
	Spatial Resolution (Pixels/mm)	Number of Pixels	Spatial Resolution (Pixels/mm)	Number of Pixels
24 x 30cm (HR-BD)	10	2364 x 2964	20	4728 x 5928
18 x 24cm (HR-BD)	10	1770 x 2370	20	3540 x 4740
14" x 17" (35 x 43cm)	5	1760 x 2140	10	3520 x 4280
14" x 14" (35 x 35cm)	5	1760 x 1760	10	3520 x 3520
10" x 12"	6.7	1670 x 2010	10	2505 x 3015
8" x 10"	10	2000 x 2510	10	2000 x 2510
24 x 30cm (ST-VI & HR-V)	6.7	1576 x 1976	10	2364 x 2964
18 x 24cm (ST-VI & HR-V)	10	1770 x 2370	10	1770 x 2370

Number Of Stackers: 4

Reading Gray Scale: 12 bits

Network: 10 Base T/100 Base T

Dimensions (W x D x H): 655 x 740 x 1480mm (26" x 29" x 58")

Weight: 285kg (628lbs.)

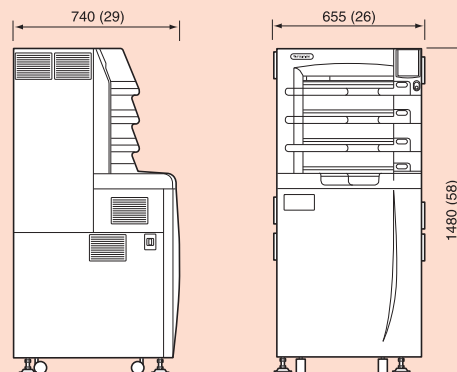**Power Supply Conditions:**
Single phase 50-60Hz
120-240V ±10%
7A (max)

Environmental Conditions:
- Operating Conditions:
  Temperature: 15-30°C
  Humidity: 40-80%RH (No dew condensation)
- Non-operating Conditions:
  Temperature: 0-45°C
  Humidity: 10-90%RH (No dew condensation)

Dimensions
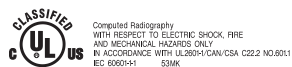Unit: mm (in.)

740 (29) 655 (26) 1480 (58)

IP Cassette with Imaging Plate

DM Cassettes for dual side mammography is shown on the photo.
Other types and sizes are also available.

Image Intelligence™ "Image Intelligence™" is a set of sophisticated digital image-processing software technologies that are incorporated in the FCR PROFECT CS.

Specifications and PC requirements are subject to change without notice.
All brand names or trademarks are the property of their respective owners.
FCR PROFECT CS and MV-SR 657 are not available for sale in the US market.

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http://www.fujifilm.com/products/medical