

## X-Ray FLAT PANEL IMAGER FDX3543RP

Active Area: 350 (H) × 426 (V) mm (13.5" × 16.5")

#### **FEATURING:**

- Excellent Sensitivity & Resolution
- Excellent Image Quality
- Excellent Reliability

#### - Excellent Sensitivity & Resolution -

- Advanced and proven fine structured CsI:Tl and direct vapor deposition technology deliver higher sensitivity and better resolution.
- Reflection coating on CsI:TI screen enables excellent Detective Quantum Efficiency (DQE) and low noise.
- A high Modulation Transfer Function (MTF) FPI is the result of these outstanding technologies diagnostic images, while delivering the benefits of lower radiation dose to the patient. The FDX3543RP achieves a new level of functionality and reliability in developing functional FPI's for system manufacturers.

### - Excellent Image Quality -

- Achieves a raw image with a low-noise through the use of unique circuit technology.
- Images have a shorter lag time with an improved refresh function, suitable for radiographic double exposure.

### - Excellent Reliability -

- Excellent durability by using CsI:Tl screen direct vapor deposition method.
- The structure is highly reliable and protected from degradation due to the use of a unique moisture-proof sealing method for the CsI:TI screen

#### **INTENDED USE:**

FDX3543RP is an X-ray flat panel imager for radiographic use. This device can be used with an x-ray generator. It provides digital signal by detecting X-rays which pass through patient body and strike its surface. It does not provide clinical image, nor function of controlling X-ray generator. For medical diagnosis, it additionally requires image processing with application software to visualize digital image. It is not intended to use for mammography, and angiography applications.

FPI is offered to the production maker of the X-ray diagnosis equipment as parts.

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<sup>★</sup>The information contained herein may be changed without prior notice. It is therefore, advisable to contact to CETD before processing with the design of equipment incorporating this product.

## **COMPONENTS AND CHARACTERISTICS**

Flat Panel Sensor Unit:	
Sensor Protection Plate	Carbon Fiber Plate
Cooling	
Input	
Overall Dimensions	
Weight	
Interface Box:	
Input	AC100-240V
	50/60Hz
	100V : 32VA
	240V : 40VA
Output	DC15V, 2.6A
Overall Dimensions	198.0 × 111.0 × 83.0mm (W(H) × D(V) × (H))
Weight	
Environmental:	
Under delivery and stock	
Temperature	
Humidity	
	(Non-Condensing)
Pressure	50 ~ 106kPa
Under operating	
Temperature	
Humidity	
_	(Non-Condensing)
Pressure	70 ~ 106kPa
Classification:	
The type of protection against electric shock	Class I
The type of applied part	
The degree of protection against ingress of water	• • • • • • • • • • • • • • • • • • • •
The degree of protection against ingress of water	
Accessories:	
Cables:	
AC Cable	1.8m × 1
GND Cable	3m × 1
CD:	
CD (Defect map)	1 × 1
Option Accessories:	
-	
Sensor Unit Cable	4 O or 14m
Sensor Unit - Interface Box	4, 9 or 14m

## **MAIN CHARACTERISTICS**

Image F	ormat	•
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X-ray Conversion Layer	. Cesium Iodide (CsI) with Amorphous Silicon (a-Si) Photodiode
Active Area	
Pixel Matrix	
Pixel Pitch	143µm
Cycle Time	Shot to Shot 6sec

(Cycle time is the time to complete image transfer from the X-ray Exposure. Cycle time does not include image processing time. The image processing time is determined by the specifications of the image processing unit.)

## Performance:

Limiting Resolution	3.7Lp/mm typ.
MTF (2.0Lp/mm, 70kVp, 1×1)	36% typ.
DQE (DQE (0), Quantum - Limited)	> 70%
A/D Conversion	16bit

## Ratings:

Energy Range	0kVp
Maximum Entrance Dose (low Gain) (Linear Output Range)	4mR

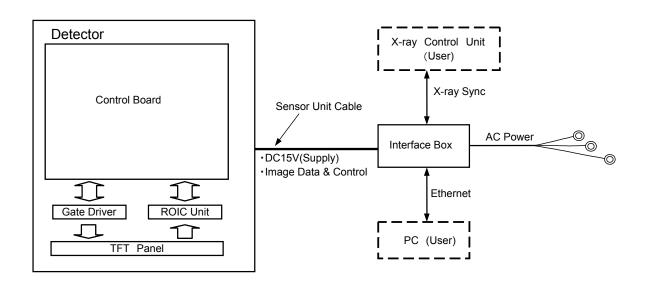
### Interface:

Sensor Unit	
Unit Interface	Connect to Interface Box
Interface Box	
Unit Interface	Connect to Sensor Unit
Data Output	16bit Digital Output Ethernet (1000BASE-T)
Command Control	Ethernet (1000BASE-T)
X-ray Synchronization Control	External
Power Input	AC100-240V, 50/60Hz

## **Image Acquisition Exposure period:**

X-ray period (ms) ...... Standard: 500 (Variable between 500 to 4000)

## PRODUCT COMPONENTS AND INTERFACE



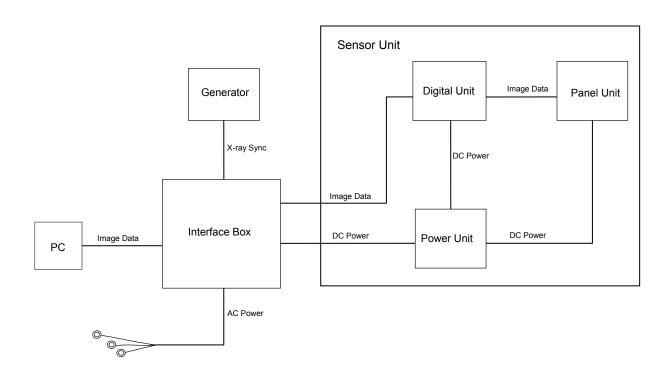
### Note:

Do not disconnect Ethernet connection while DC15V is operating and supplying to Sensor Unit.

## LED Display Mode:

Name	Status
POWER	Turn on when power on
ETHERNET	Turn on when Connect Ethernet

## **IMAGE ACQUISITION COMMUNICATION BLOCK DIAGRAM**

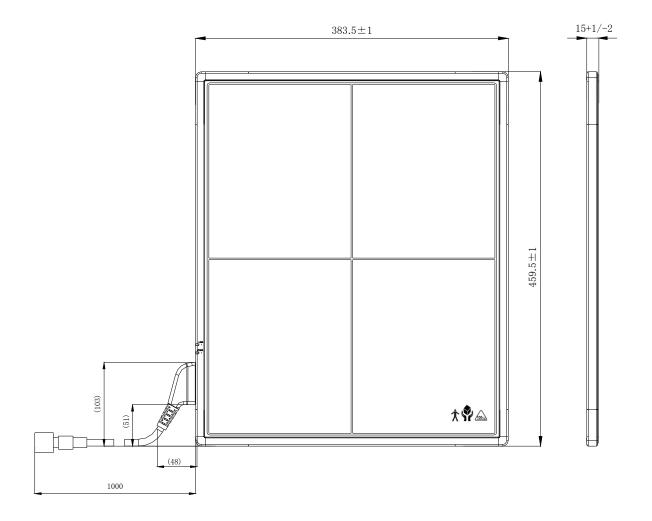


Communication Availability:

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Signal Name	Туре	Ethernet Command Control (PC)	D-Sub Signal Control (X-ray Controller)
EXP_REQ	INPUT	OK	OK
EXP_OK	OUTPUT	N.A	OK

# DIMENSIONAL OUTLINE (Flat Panel Sensor Unit)

Unit: mm



# DIMENSIONAL OUTLINE (Interface Box)

Unit: mm

