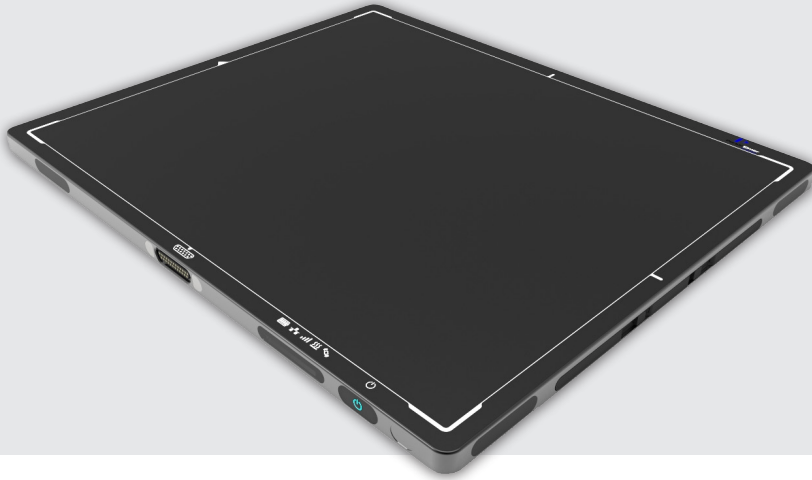# XRpad2 4336 (In Development)

Flat Panel X-ray Detectors

Features and Benefits

- Cassette detector per ISO 4090, fits in bucky
- 35 cm × 43 cm (14" × 17") image
- High resolution 100 µm pixel pitch (5.0 lp/mm)
- Direct deposition CsI, for excellent image quality
- Up to 65,536 grey levels (16-bit ADC)
- Automatic Exposure Detection (AED)
- Wi-Fi interface (Station and Access Point modes)
- Docking connector for GigE, power and sync
- On-board pixel corrections and storage
- Dynamic mode for tomosynthesis
- Fast preview image
- Robust and lightweight design

Applications[1]

- Digital radiography

Digital Radiography and Beyond

Overview

XRpad2 4336 is a lightweight wireless cassette detector with advanced features enabling digital radiography as never seen before.

Featuring best-in-class 100 µm pixel size, direct deposition CsI scintillator and excellent DQE, XRpad2 4336 enables high resolution imaging with reduced X-ray exposure. Design of the second-generation XRpad® is lightweight, robust and ergonomic, permitting easy lifting from table top. Automatic Exposure Detection, on-board corrections, and wireless access point mode make system integration quick and simple.

New features of the XRpad2 4336 include fast preview, internal image storage, and magnetic connector for docking. Continuous imaging at up to eight frames per second facilitates advanced applications such as tomosynthesis, dual energy subtraction, and image stitching.

PerkinElmer Medical Imaging has partnered with OEM customers for more than 25 years to develop products for a wide range of X-ray applications. Let our digital imaging expertise work for you.
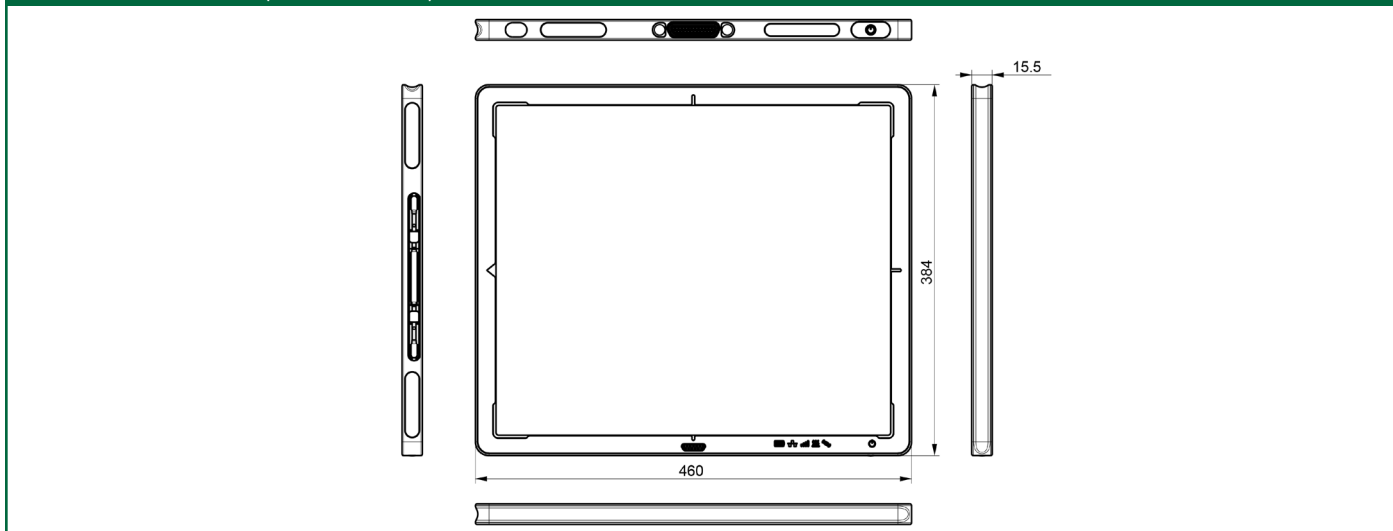
PerkinElmer®

For the Better

XRpad2 4336 (In Development)

Sensor

Panel	Amorphous silicon active TFT-diode array
Scintillator	Direct deposition CsI:Tl
Pixel Matrix	3524 × 4288
Pixel Pitch	100 µm

Electronics

Amplifiers	Low noise ASICs with user selectable gains
ADC	16-bit
Image Transfer Time	Wired: 500 ms; Wireless: 3000 ms
On-board Memory	1 GB DDR3, 8 GB SDHC card

Mechanical

Size	ISO 4090 for 35 cm × 43 cm (14" × 17") cassette size
Active Area	350 mm × 426 mm
External Dimensions	384 mm (w) × 460 mm (l) × 15.5 mm (h)
Weight	3.1 kg (6.8 lbs)
Housing	Aluminum frame with carbon-fiber entrance window

Communications

Status Display	OLED display with Wi-Fi, LAN, battery, and sensor indicators
Wireless Data I/F	802.11n Wi-Fi standard at 5 GHz
Wired Data I/F	GigE, trigger and power via docking connector
X-ray I/F	Integrated X-ray trigger control Automatic Exposure Detection

Imaging Performance

Typical DQE	75% (0 cy/mm), 60% (1 cy/mm), 40% (3 cy/mm) for RQA5
Typical MTF	70% (1 cy/mm), 40% (2 cy/mm), 15% (4 cy/mm) for RQA5
Limiting Resolution	5 cy/mm

Advanced Features

Dynamic Mode	8 fps at 200 µm resolution
On-board Corrections	Offset, gain and defective pixel
On-board Storage	Image storage with tagging
Fast Preview	4 × 4 binned quick preview image

Environmental

Temperature	10 °C to 35 °C operating
Humidity	10% to 85% operating
Ingress Protection	IPX4 rated (protection against splashing water)

Accessories

Battery	Rechargeable battery, 11.1 V
Battery Charger	External two bay charger 100 - 240 V AC 50/60 Hz
Interface and Power Unit	Optional IPU-2 external power supply 100 – 240 V AC, GigE and X-ray I/F

Regulatory

Standards	EN 60601-1:2006/AC:2010, EN 60601-1-2:2007, FCC part 2 subpart J, FCC part 15 subpart B/C/E, ETSI EN 301 893 V.1.7.1 (2012), ETSI EN 301 489-1 V1.9.2 (2011), ETSI EN 301 489-17 V2.2.1 (2012), EN ISO 10993-5:2009, EN ISO 10993-10:2010

[1] Unless otherwise specified, PerkinElmer Flat Panel X-ray Detectors are components intended to be integrated into products by X-ray system manufacturers. System manufacturers are responsible for qualifying and validating their products for their intended uses and meeting all applicable regulatory requirements.

Contents in this document are subject to change without notice.

Mechanical Characteristics (Dimensions in mm)

15.5

384

460

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