www.vieworks.com

ISO 9001, ISO 13485

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2016/06

Flat Panel Detectors
VIVIX Series

Imaging Expert

Creating Values by Providing Better View

Vieworks, an Imaging Expert in radiographic imaging, introduces VIVIX, a brand-new X-ray flat panel detector series. Vieworks provides total X-ray imaging solutions from imaging hardware device to image processing and viewer software to enhance throughput in the hospitals all over the world with its most advanced technologies in electronic, mechanical, optical, and software engineering.

Vieworks is creating new values by providing a better diagnostic view for the doctors, radiologists, radiographers, and patients with its innovative technologies capturing every single detail. VIVIX Series is designed for a variety of medical applications such as radiography, fluoroscopy, angiography, interventional radiology and dental imaging.

VIVIX-S Series

Flat Panel X-ray Detectors (Static Imaging)

VIVIX-S 1417W

Wireless Portable Flat Panel Detector for Digital Radiography

VIVIX-S 1012N

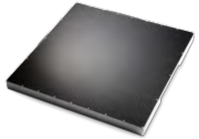
Versatile Portable Flat Panel Detector for Digital Radiography

VIVIX-S 1417S

Portable Flat Panel Detector for Digital Radiography

VIVIX-S 1417N (In Development)

Multi-purpose Portable Flat Panel Detector for Digital Radiography



VIVIX-S 1717S

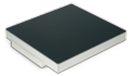
Flat Panel Detector for Digital Radiography

VIVIX-S 1717N

Wide and Slim Portable Flat Panel Detector for Digital Radiography

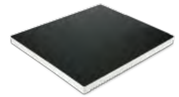
VIVIX-D Series

Flat Panel X-ray Detectors (Dynamic Imaging)



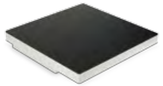
VIVIX-D 0606C

Compact Dynamic Flat Panel Detector for Dental Imaging



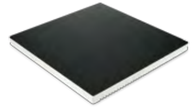
VIVIX-D 1012C

Large-area Dynamic Flat Panel Detector for Dental Imaging



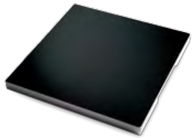
VIVIX-D 0909G

High Frame Rate Dynamic Flat Panel Detector for Fluoroscopy



VIVIX-D 1212G

High Spatial Resolution Dynamic Flat Panel Detector for Radiography and Fluoroscopy



VIVIX-D 1717G

Superior-quality Image Flat Panel Detector for Radiography and Fluoroscopy

VIVIX-S Series

Flat Panel X-ray Detectors (Static Imaging)

VIVIX-S 1012N

VIVIX-S 1012N is Vieworks' new flat panel detector for various digital radiographic applications with active area of 10 x 12 inches. It features Vieworks' unique wireless communication method, Inside AP™ and reliable automatic X-ray exposure detection, Anytime™.

VIVIX-S 1417N (In Development)

VIVIX-S 1417N is Vieworks' new flat panel detector for digital radiographic applications with active area of 14 x 17 inches. It features Vieworks' unique wireless communication method, Inside AP™ and reliable automatic X-ray exposure detection, Anytime™. This portable detector can be used with not only X-ray table or stand, but also mobile X-ray systems.

VIVIX-S 1717N

VIVIX-S 1717N is Vieworks' new flat panel detector for digital radiographic applications with a wide active area of 17 x 17 inches. It features Vieworks' unique wireless communication method, Inside AP™ and reliable automatic X-ray exposure detection, Anytime™.

Features

- High spatial resolution
- Wi-Fi data transfer with dual band (2.4GHz and 5GHz)
- Stable and reliable automatic exposure detection
- Built-in wireless access point with IEEE 802.11n
- Easy and convenient image preview with smart devices
- Viewer software running on Windows™
- Exterior button for switching communication mode
- Shorter booting time and image acquisition time
- Slimmer and lighter
- Lower electric noise and higher DQE and MTF

anytime™ inside AP™ VXVUE

Technical Specifications

	VIVIX-S 1012N	VIVIX-S 1417N	VIVIX-S 1717N
Model Name	FXRD-1012NAW / FXRD-1012NBW	FXRD-1417NAW / FXRD-1417NBW	FXRD-1717NA / FXRD-1717NB, FXRD-1717NAW / FXRD-1717NBW
Application	General Radiography		
Technology	Flat panel detector : a-Si TFT with PIN diode		
Scintillator	CsI:Tl / Gd_2O_2S:Tb		
Pixel Pitch	124㎛	140㎛	140㎛
Spatial Resolution	4lp/㎜	3.5lp/㎜	3.5lp/㎜
Pixels	2,048 x 2,560 pixels	2,560 x 3,072 pixels	3,072 x 3,072 pixels
Image Size	10 x 12 inches (25 x 32cm)	14 x 17 inches (35 x 43cm)	17 x 17 inches (43 x 43cm)
Grayscale	16 bit	16 bit	16 bit
X-ray Voltage Range	40 ~ 150kVp	40 ~ 150kVp	40 ~ 150kVp
X-ray Generator Interface	Line trigger : DR Trigger Mode Auto trigger : AED (Automatic Exposure Detection) Mode		
Wireless Interface	IEEE 802.11n (2.4GHz / 5GHz dual band)		
Image Acquisition Time	1.5 sec (wired) / 3 sec (wireless)		
Dimensions	350 x 287 x 15㎜	460 x 384 x 15㎜	460 x 460 x 15.5㎜
Weight	Approx. 2.2kg	Approx. 3.3kg	Approx. 4.2kg (wired) Approx. 4.5kg (wireless)
Operating Environment	10 ~ 35℃, 30 ~ 85% RH (non-condensing)		
Power	DC 24V, 0.8A (Max.)	DC 24V, 1.0A (Max.)	DC 24V, 1.0A (Max.)
Battery	Lithium Ion 3,100mAh	Lithium Ion 3,100mAh x 2	Lithium Ion 3,100mAh x 2

* Specifications are subject to change without prior notice.

VIVIX-S Series

Flat Panel X-ray Detectors (Static Imaging)

VIVIX-S 1417W

VIVIX-S 1417W is a flat panel detector with 14 x 17 inches coverage area for general radiographic applications, which is a perfect solution for upgrading conventional X-ray systems still currently working on X-ray film and CR basis to full digital systems. Acquired images are transmitted through Wi-Fi.

VIVIX-S 1417S

VIVIX-S 1417S is a flat panel detector with 14 x 17 inches coverage area for general radiographic applications for human and veterinary anatomy. The handle is removable depending on the needs of your applications.

VIVIX-S 1717S

VIVIX-S 1717S is a flat panel detector with a large field coverage area of 17 x 17 inches designed for general radiographic applications for human and veterinary anatomy using its unique image processing system and proprietary flat panel detector.

Features

- High spatial resolution with 140um pixel array
- Wi-Fi data transfer with dual band (2.4GHz and 5GHz)
- Stable and reliable automatic exposure detection
- Built-in wireless access point with IEEE 802.11n
- Easy and convenient image preview with smart devices
- Viewer software running on Windows™

anytime™ inside AP™ VXVUE

Technical Specifications

	VIVIX-S 1417W	VIVIX-S 1417S	VIVIX-S 1717S
Model Name	FXRD-1417WA / FXRD-1417WB	FXRD-1417SA / FXRD-1417SB	FXRD-1717SA / FXRD-1717SB
Application	General Radiography		
Technology	Flat panel detector : a-Si TFT with PIN diode		
Scintillator	CsI:Tl / Gd_2O_2S:Tb		
Pixel Pitch	140㎛	140㎛	140㎛
Spatial Resolution	3.5lp/㎜	3.5lp/㎜	3.5lp/㎜
Pixels	2,560 x 3,072 pixels	2,560 x 3,072 pixels	3,072 x 3,072 pixels
Image Size	14 x 17 inches (35 x 43cm)	14 x 17 inches (35 x 43cm)	17 x 17 inches (43 x 43cm)
Grayscale	14 bit	14 bit	14 bit
X-ray Voltage Range	40 ~ 150kVp	40 ~ 150kVp	40 ~ 150kVp
X-ray Generator Interface	Line trigger : DR Trigger Mode Auto trigger : AED (Automatic Exposure Detection) Mode		
Data Interface	Gigabit Ethernet, IEEE 802.11a/b/g/n (2.4GHz / 5GHz dual band)	Gigabit Ethernet	Gigabit Ethernet
Image Acquisition Time	2 sec (wired) 2 sec (preview, wireless) 4.5 sec (high resolution, wireless)	1.2 sec	1 sec
Dimensions	460 x 384 x 15㎜	460 x 384 x 15㎜	470 x 470 x 35㎜
Weight	Approx. 3.3kg	1417SA: 3.2kg / 1417SB: 3.1kg	Approx. 11kg
Operating Environment	10 ~ 35℃, 30 ~ 85% RH (non-condensing)		
Power	DC 24V, 0.5A	DC 24V, 0.5A	DC 24V, 0.8A
Battery	Lithium Ion Polymer 4,000mAh	-	-

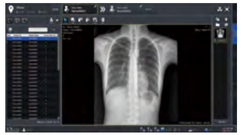
* Specifications are subject to change without prior notice.

Software

VXvue

DR acquisition viewer with simple workflow

- Easy operation and high throughput
- User-friendly touch GUI
- Useful functions : Auto Cropping, Auto Grid Suppression, Auto Stitching
  Auto Labeling, Auto Rotation, Free Rotation, Multi Layout, etc.
- DICOM 3.0 Compatible : MWL, Send, Print, MPPS, etc.
- Equipment interface : generator, U-arm, collimator, DAP, etc.
- Various operation modes : human, veterinary, vehicle, equine, etc.
- Study management : Exposure Index, Statistics, etc.
- Customized functions and various themes


Vehicle Mode

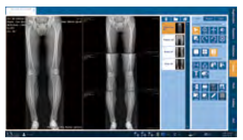
Equine Mode

Free Rotation

Statistics

Zoom In by Touch GUI

Image Order Change

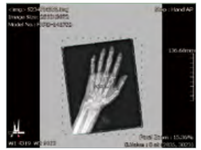

Multi Layout (Auto Stitching)

Multi Layout Setting

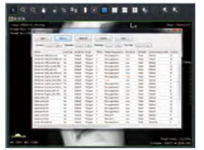
XIPL

Advanced X-ray image processing library

- Fine-tunable parameters
- Image check right after parameter adjustment
- High tolerance for radiation exposure variations
- Useful functions : Auto Cropping, Auto Grid Suppression,
  Auto Defect Correction


Auto Cropping

Fine Tuning


Parameter Management

QXLink 3

Streamlined PACS

- Unlimited archiving with all modalities
- More than 60 advanced measurement tools
  including chiropractic
- Virtual surgery tools for preoperative planning
- Flexible layout and full size pages for DICOM Print

Study List Preview Mode

Human Measurement

Veterinary Measurement

Report with Print Preview

Accessories

System Control Unit

- Interface with workstation through Gigabit Ethernet
- Compact and robust
- Generator interface
- Multiple detector connection
- Wi-Fi data transfer with dual band (2.4GHz and 5GHz, for Wireless)
- Dimensions : 210×300×54.2㎜ (Wired)
  236×300×58㎜ (Wireless)
  210×170×45㎜ (Wireless, SCU mini)

Battery Charger

- 2 batteries chargeable simultaneously
- Compact and portable
- Dimensions : 192 x 101 x 26㎜

Battery Pack

- Capacity : 3,100mAh
- Dimensions : 160 x 61.8 x 5.7㎜

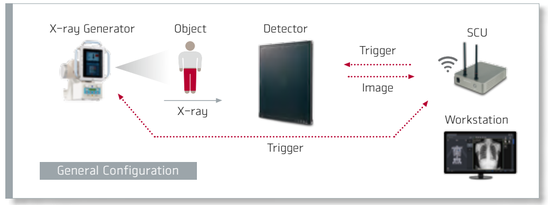
Tether Cable

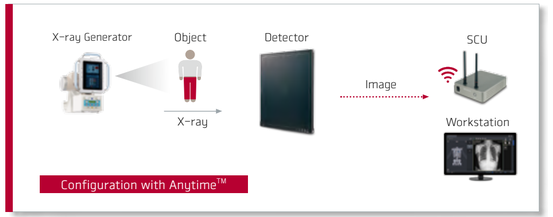
- Flexible, rigid and stretchable
- Gigabit Ethernet communication
- Length : 7m

Technologies

Automatic Exposure Detection

Stable and reliable AED function enables users to operate the detector without any wire connection or electronic interface with X-ray generator

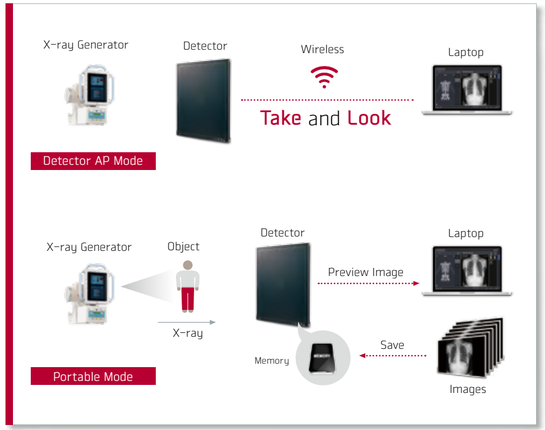




anytime™

Wireless Access Point

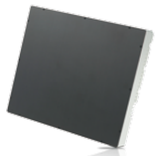
- Wireless access point inside the detector makes it truly portable
- Users can operate the detector through laptop or workstation
- The detector can save the achieved images up to 200



inside AP™

VIVIX-D Series

Flat Panel X-ray Detectors (Dynamic Imaging)

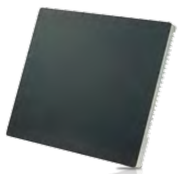


VIVIX-D 0606C

VIVIX-D 0606C is designed for dental CBCT application and mini C-arm with active area of 6 x 6 inches. With compact and robust design, it provides high resolution images with high frame rate.

VIVIX-D 1012C

VIVIX-D 1012C is designed for dental CBCT and cephalometry with active area of 10 x 12 inches. It provides various image acquisition modes for dental imaging.



VIVIX-D 0909G

VIVIX-D 0909G is designed for C-arm with active area of 9 x 9 inches. It provides high quality image with high sensitivity and high frame rate.

VIVIX-D 1212G

VIVIX-D 1212G is designed for C-arm and R/F systems. with active area of 12 x 12 inches. It provides high quality and high spatial resolution images.

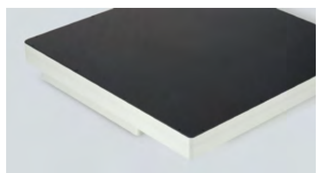
VIVIX-D 1717G (in development)

VIVIX-D 1717G is designed for R/F system with active area of 17 x 17 inches. It provides high quality and high spatial resolution images.

Vieworks's dynamic flat panel detectors are designed for the integration into X-ray systems. X-ray system integrator obtains the necessary certification for medical use.

Features

- High spatial resolution and high frame rate
- Real time on-board image correction
- Real time on-board image processing
- Stable data transfer through GigE solution
- SDK for Windows™ applications
- Short boot time of about 1 minute



Technical Specifications

	VIVIX-D 0606C	VIVIX-D 1012C	VIVIX-D 0909G	VIVIX-D 1212G	VIVIX-D 1717G
Model Name	FXDD-0606CA	FXDD-1012CA / FXDD-1012CB	FXDD-0909GA	FXDD-1212GA	FXDD-1717GA
Application	CBCT, Mini C-arm	CBCT, Cephalometry	C-arm	C-arm, R/F	R/F
Technology	Flat panel detector : a-Si TFT with PIN diode				
Scintillator	CsI: Tl	CsI: Tl / Gd_2O_2S:Tb	CsI: Tl	CsI: Tl	CsI: Tl
Pixel Pitch	119㎛	124㎛	179㎛	145㎛	140㎛
Spatial Resolution	4.2lp/㎜	4.0lp/㎜	2.8lp/㎜	3.4lp/㎜	3.5lp/㎜
Pixels	1,280 x 1,280 pixels	2,048 x 2,560 pixels	1,280 x 1,280 Pixels	2,048 x 2,048 pixels	3,072 x 3,072 pixels
Image Size	6 x 6 inches (15 x 15cm)	10 x 12 inches (25 x 30cm)	9 x 9 inches (20 x 20cm)	12 x 12 inches (30 x 30cm)	17 x 17 inches (43 x 43cm)
Grayscale	16 bit	16 bit	16 bit	16 bit	16 bit
X-ray Voltage Range	40 ~ 150kVp	40 ~ 150kVp	40 ~ 150kVp	40 ~ 150kVp	40 ~ 150kVp
X-ray Generator Interface	Internal Trigger, External Trigger				
Data Interface	1 port Gigabit Ethernet (1000BASE-T)	1 port Gigabit Ethernet (1000BASE-T)	1 port Gigabit Ethernet (1000BASE-T)	1 port Gigabit Ethernet (1000BASE-T)	1or2 port Gigabit Ethernet (1000BASE-T)
Data Transmission Rate	Max. 1Gbps	Max. 1Gbps	Max. 1Gbps	Max. 1Gbps	Max. 2Gbps
Frame Rate	28fps @ 1x1, 56fps @ 2x2, 240fps @ Panoramic Scan	9fps @ 1x1, 18fps @ 2x2	29fps @ 1x1, 58fps @ 2x2	14fps @ 1x1, 30fps @ 2x2	10fps @ 1x1, 30fps @ 3x3
Dimensions	196 × 181 × 50㎜	347 x 287 x 45㎜	262 x 262 x 50㎜	328 x 338 x 50㎜	471 × 471× 35㎜
Weight	Approx. 1.85kg	Approx. 3.9kg	Approx. 2.75kg	Approx. 3.6kg	Approx. 11kg
Operating Environment	15 ~ 35℃, 30 ~ 85% RH (non-condensing)				
Power	DC 12V, 1.5A	DC 24V, 0.5A	DC 24V, 0.7A	DC 24V, 1.3A	DC 24V, 1.6A

* Specifications are subject to change without prior notice.

Accessories

Generator Interface Unit

- Easy integration with Generator I/F
- Status LED for status check
- Dimensions: 197.9 x 116.5 x 31.2 mm

Applications

Dental CBCT	VIVIX-D 0606C	VIVIX-D 1012C		
Cephalometry		VIVIX-D 1012C		
Mini C-arm	VIVIX-D 0606C			
C-arm		VIVIX-D 0909G	VIVIX-D 1212G	
Radiography / Fluoroscopy			VIVIX-D 1212G	VIVIX-D 1717G

Technologies

On-board Image Processing

- DSA (Digital Subtraction Angiography)
  Enhancing the contrast of blood vessels to make interventional radiologic surgery more convenient and to reduce the dose of contrast agent
- Recursive Filter
  Real-time removal of random noise by averaging multiple previous images
- HSNR (High Standard Noise Reduction)
  Real-time removal of noise without lagging
- SLDC (Single Layer Dynamic Compression) Filter
  Achieving high contrast at both high and low dose area in one image

On-board Image Correction

- DSNU (Dark Signal Non-Uniformity) correction
- PRNU (Pixel Response Non-Uniformity) correction
- Defect correction