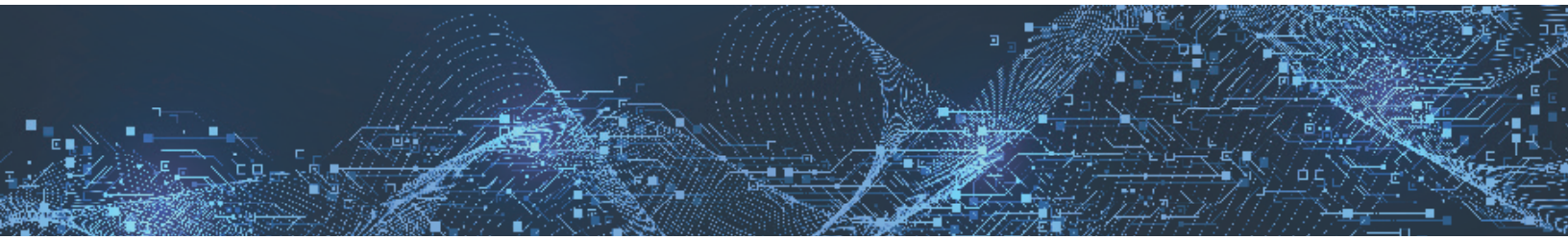
FAIRCHILD IMAGING
A HAMAMATSU Company



F3D

Next Generation X-Ray Detector
High Resolution | High Speed
Detachable USB-C 3.0 Cable

Fairchild Imaging X-Ray Sensors (FI-XRS) created the high performance benchmark in x-ray imaging. Building upon decades of field proven designs, we are the most trusted resource for small format x-ray sensors.

F3D is designed for today's medical and inspection x-ray imaging applicaitons. F3D uses a 19.5µm pixel, high dynamic range, and patented low-noise technology to provide crisp, clear images at a fraction of the x-ray dose. At 10 frames per second, a series of images can quickly be acquired for tomosynthesis. It also may be used in the classic 1 frame per second mode.

Boasting an impressive 2.4 MP resolution with over 99% pixel linearity, this sensor provides even data throughout the image, which enhances the capabilities of Artificial Intelligence (AI) algorithms.

Fairchild Imaging's proven dual-gain amplifier architecture results in 16 bits per pixel to encompass the full dynamic range. Low gain and high gain signal paths provide analog to digital conversions at multiple gain factors on a pixel by pixel basis. This process optimizes both dynamic range and low noise, enabling excellent images at the lowest patient doses.

With native Windows and Mac drivers, F3D is optimized for desktop and cloud environments. The proprietary and patented waterproof housing uses an extremely strong material that is radiolucent, protecting sensors from damage, while not impacting the amount of x-ray dose required to obtain a great image.

F3D sensors are proudly designed and manufactured in America.

Key features and benefits

- 2.4 MP resolution
- >20lp/mm in real images
- >90dB dynamic range
- Dual gain operation for low x-ray dose acquistion
- 1 - 10 frames per second
- Extremely high signal to noise ratio
- Onboard image storage

Applications

- Human medical imaging
- VeterInary imaging
- Biopsy inspection
- Mechanical Inspection
- Non-destructive testing

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Ideal for capturing images in versatile environments

Sensor

Detector	CMOS
Total resolut ion	2.4 MP
Active area dimension	36 mm x 25 mm
Active area pixels	1306 X 1842 pixels
Scintillator	Tunable FOP with CsI
Chip readout time	39ms
Image delivery speed	0.1s
ADC resolution	16 bits
Data protocol	USB 2.0
Image processing	DDR3 onboard image storage

Housing

Capsule Dimensions (mm)	8 H x 31W x 42 L
Cable	Replaceable
Waterproof	IPX8

Pixel

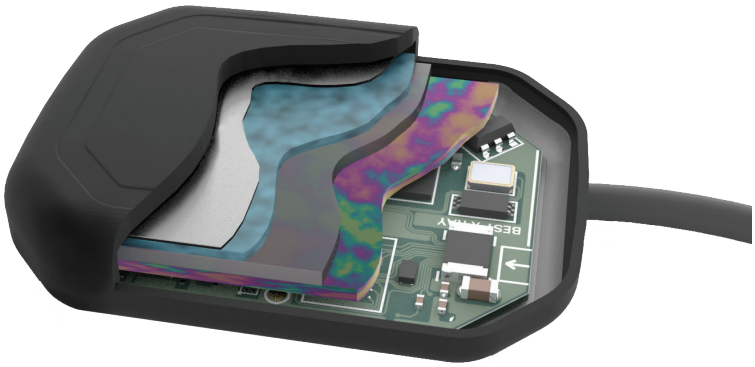
Pixel size	19.5 µm x 19.5 µm
Shutter types	Rolling, global reset
Programmable gains	LG: 1x | HG: 10x
Frame rates	1 fps - 10 fps
Pixel linearity	>99%

Interface

USB cable	USB 2.0 w/ Type-A plug
Operating systems	Windows, macOS
Data type	16 bit

Operating

Power peak	350 mA
Power idle	110 mA
Operating temp	-5°C to 40°C



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