

# THINK BIG

Then double it.

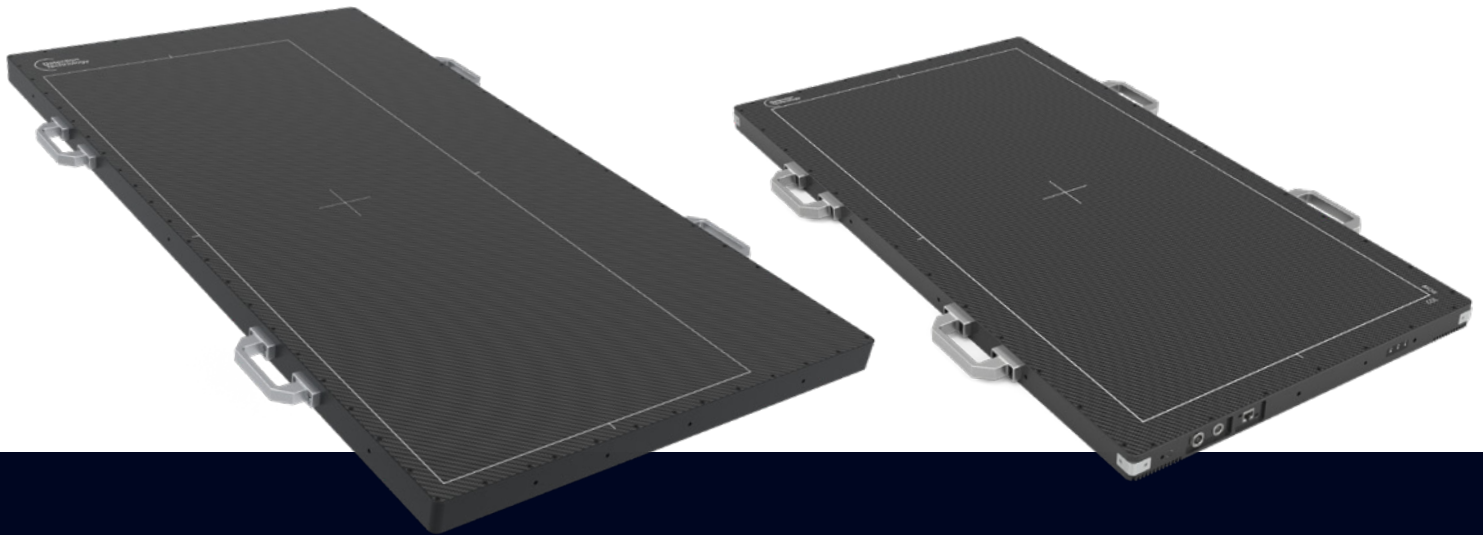
X-PANEL **XL** series

Upsizing industrial imaging



# X-PANEL XL series

The largest dynamic single-glass TFT X-ray flat panel detector family



## Choose the best option for your needs

Compare detector size, speed, and performance against industry standard solutions.

### X-Panel 43108a

#### Size

Active area over 2x larger

Industry standard

#### Speed

Over 3x faster

Industry standard

### X-Panel 4386a

#### Size

Active area over 1.6x larger

Industry standard

#### Speed

Over 5x faster

Industry standard

## Capture more. Scan faster. Upsize imaging.

X-Panel XL series is Detection Technology's family of extra-large X-ray flat panel detectors (FPDs) for high-energy industrial imaging. Combining a large active area, single-glass TFT technology, high-speed 10G Ethernet connectivity, and multiple scintillator options, the series supports advanced industrial Computed Tomography (CT) and Digital Radiography (DR) applications where image quality, throughput, and reliability matter.

Available in two high-performance formats, the series includes the X-Panel 43108a FQI-H and X-Panel 4386a FPI-S. Both detectors deliver large-format imaging, high frame rates, and outstanding high-energy X-ray performance for demanding industrial inspection applications.

# Key benefits of the X-Panel XL series

## **The largest dynamic single-glass TFT detector**

Enabling one-scan, high-quality imaging of large objects

## **High-speed imaging**

Fast frame rates with multiple binning and ROI options increase throughput

## **Robust and industrial-ready**

Engineered for demanding industrial applications

## **Versatile modalities**

Supports both DR / 2D and CT / 3D systems

## **Designed for kV and MV imaging**

Adaptable for various object sizes and densities

## **Novel form factor**

Enables new types of X-ray inspection systems

## **Regulatory and ASTM compliance**

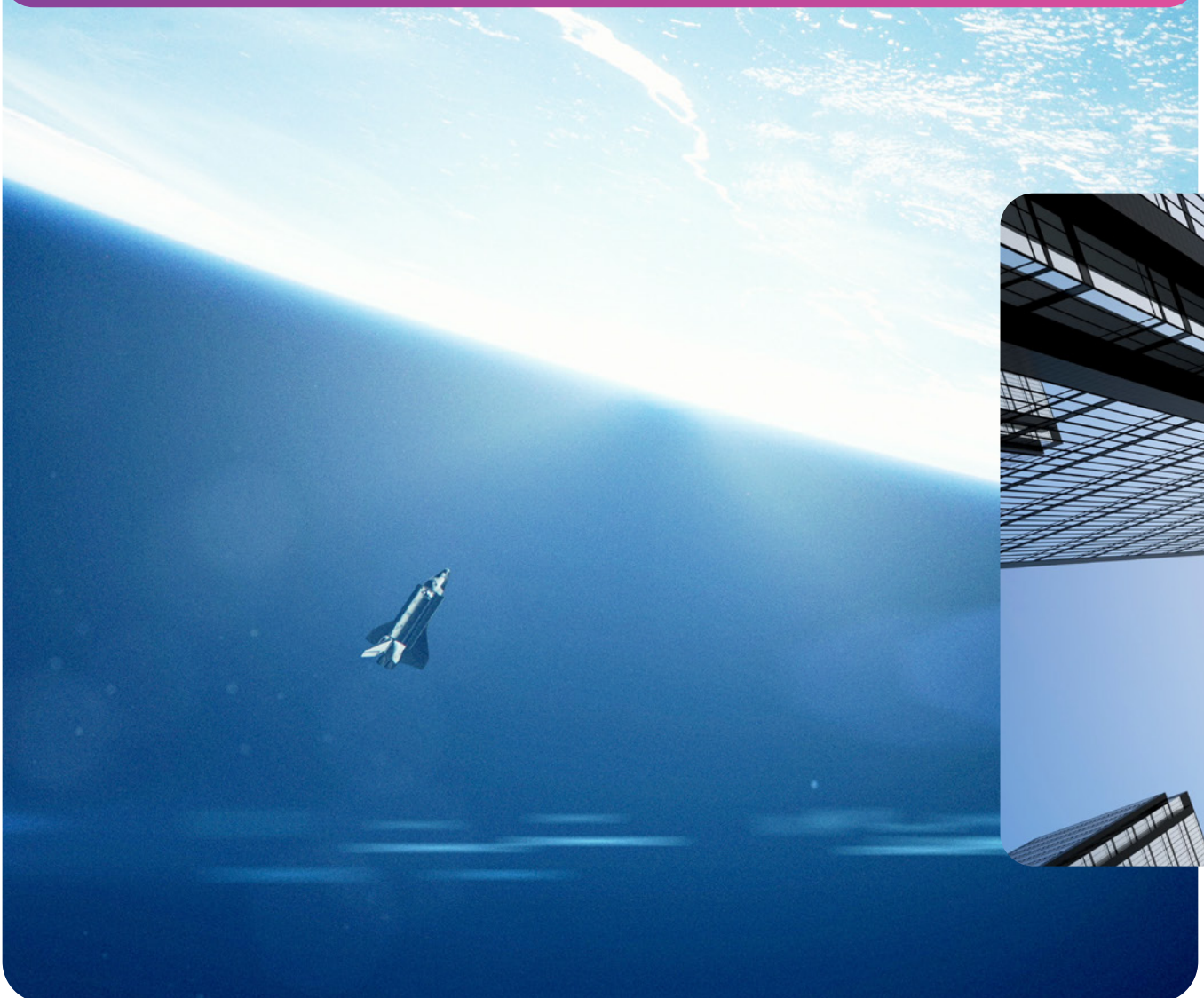
Ensuring safety and seamless system integration

## **EU origin**

Supporting faster deliveries and responsive customer support

# Applications

- Industrial CT and Digital Radiography (DR) systems
- Automotive inspection of large assemblies and battery systems
- Aerospace inspection of composite structures such as fuselage and wing sections
- Simultaneous inspection of five components (for example turbine blades) using a PolyCT rotation stage
- Defence and ammunition inspection
- Conveyor-based manufacturing inspection systems





- **Technology** Single-glass a-Si-TFT
- **Pixel size** 140  $\mu\text{m}$
- **Pixel matrix** up to 3072 x 7680
- **Panel size** up to 430 mm x 1075 mm
- **Energy range** 40 kV~16 MV
- **Interface** 10G Ethernet
- **Frame rate** Frame rates up to 60 fps

## Technical specifications

Product	X-Panel 4386a FPI-GPG-TG-S	X-Panel 43108a FQI-GHG-TG-H	X-Panel 43108a FQI-GHC-TG-H
<b>Technology</b>			
Sensor	Single-glass a-Si-TFT	Single-glass a-Si-TFT	Single-glass a-Si-TFT
Scintillator	DRZ-Plus or CsI	DRZ-High	DRZ-High with Cu filter
Active area	430 x 860mm	430 x 1075 mm	430 x 1075 mm
Pixel matrix	3072 x 6144	3072 x 7680	3072 x 7680
Pixel pitch	140 µm	140 µm	140 µm
ADC	16 bits	16 bits	16 bits
<b>Interface</b>			
Data interface	10G Ethernet	10G Ethernet	10G Ethernet
Exposure control	Pulse sync in / Pulse sync out	Pulse sync in / Pulse sync out	Pulse sync in / Pulse sync out
Frame rate	15 fps (1x1) / 30 fps (2x2) / 45 fps (3x3) / 60 fps (4x4)	7.5 fps (1x1) / 15 fps (2x2) / 22.5 fps (3x3) / 30 fps (4x4)	7.5 fps (1x1) / 15 fps (2x2) / 22.5 fps (3x3) / 30 fps (4x4)
Operating system	Windows10/11	Windows10/11	Windows10/11
<b>Mechanics</b>			
Dimensions (H x W x D)	940 x 510 x 32 mm	1200 x 650 x 40 mm	1200 x 650 x 40 mm
Weight	58 kg	35 kg	35 kg
Sensor protection	Carbon fiber	Carbon fiber	Carbon fiber
Housing material	Aluminum alloy	Aluminum alloy	Aluminum alloy
<b>Power</b>			
Supply	100~240 VAC	100~240 VAC	100~240 VAC
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Consumption	52 W	42 W	42 W
<b>Environmental</b>			
Temperature range	10~40°C (operating) -20~50°C (storage)	10~40°C (operating) -20~50°C (storage)	10~40°C (operating) -20~50°C (storage)
Humidity	30~75% RH (non-condensing)	30~75% RH (non-condensing)	30~75% RH (non-condensing)
Vibration	IEC 60068-2-64 : 5-500Hz (1 Grms), X,Y,Z axis, each axis 30min (operating)	IEC 60068-2-64 : 5-500Hz (1 Grms), X,Y,Z axis, each axis 30min (operating)	IEC 60068-2-64 : 5-500Hz (1 Grms), X,Y,Z axis, each axis 30min (operating)
Shock	IEC 60068-2-27 : 2G, duration 11ms , 200 shocks in 6 directions (operating)	IEC 60068-2-27 : 2G, duration 11ms , 200 shocks in 6 directions (operating)	IEC 60068-2-27 : 2G, duration 11ms , 200 shocks in 6 directions (operating)
IP rating	IP65	IP65	IP65
<b>Performance</b>			
Resolution	3.4 lp/mm	3.4 lp/mm	3.4 lp/mm
Max Energy	450 kVp	750 kVp	16 MV
Shielding	Internal shielding included for energies up to 450 kV. Depending on the installation environment, external shielding may be required for backside and sidewalls for backscattered radiation.	External shielding required for energies above 160 kV	External shielding required for energies above 160 kV
Dynamic range	≥ 82 dB	≥ 82 dB	≥ 82 dB



# Detection Technology



[www.deetee.com](http://www.deetee.com)

Watch video