

# 1512 CMOS

## Flat Panel Detector

Making the Invisible Visible



High Resolution with Fast Frame Rates

### OVERVIEW

Varex Imaging's 1512 CMOS Flat Panel X-ray Detector (FPD) is a high speed, low noise X-ray detector with excellent sensitivity. It employs state-of-the-art large-area CMOS (Complementary Metal-Oxide Semiconductor) image sensor technology and is supplied with a range of scintillator and interface options.

Varex Imaging 1512 Flat Panel X-ray Detector has switchable pixel gain that makes it well suited to real-time imaging and CT as well as static imaging with high dynamic range.

### FEATURES AND BENEFITS

- 74.8  $\mu\text{m}$  pixel pitch
- 1944 x 1536 pixel matrix
- High Sensitivity and High Dynamic Range modes
- Operation up to 225 kV
- Suitable for real-time imaging at up to 86 fps
- 1 x 1, 2 x 2 and 4 x 4 pixel binning options
- High DQE
- Various scintillator options available
- Input/output for X-ray generator synchronization
- Camera Link or GigE Vision data connection

### APPLICATIONS<sup>1</sup>

- Medical
- Dental
- Veterinary
- Life sciences

## TECHNICAL SPECIFICATIONS

### SENSOR

Pixel Size (µm)	74.8
Sensitive Area (mm <sup>2</sup> )	145.4 × 114.9
Pixel Matrix (px)	1944 × 1536

### MAX FRAME RATE (FPS)

Pixel Binning	Camera Link	GigE Vision
1×1	26	14
2×2	70	56
4×4	86	86

### IMAGE PERFORMANCE

Dynamic Range (dB)	
High Dynamic Range Mode	typ. 71
High Sensitivity Mode	typ. 68
X-ray Energy Range (kV)	12 - 130

### MECHANICAL

Weight (kg)	2.2
Dimensions l × w × h (mm <sup>3</sup> )	223.5 × 150 × 42

### COMMUNICATIONS

Camera Link	Base 80 Mhz (1 cable)
GigE Vision	1000BASE-T
Digital Output	14-bit
Control Channel	115 kBaud serial link / Camera Link / GigE Vision
Sync Ports	BNC
Sync In Port	3 - 15 V edge or level trigger
Sync Out Port	TTL (0 - 5.0 V)
Software	Support for 32 and 64 bit Windows® OS

### POWER

	Camera Link	GigE Vision
Dissipation	8.5 W	10.5 W

### SCINTILLATOR OPTIONS

High Efficiency microcolumnar CsI

High Resolution microcolumnar CsI

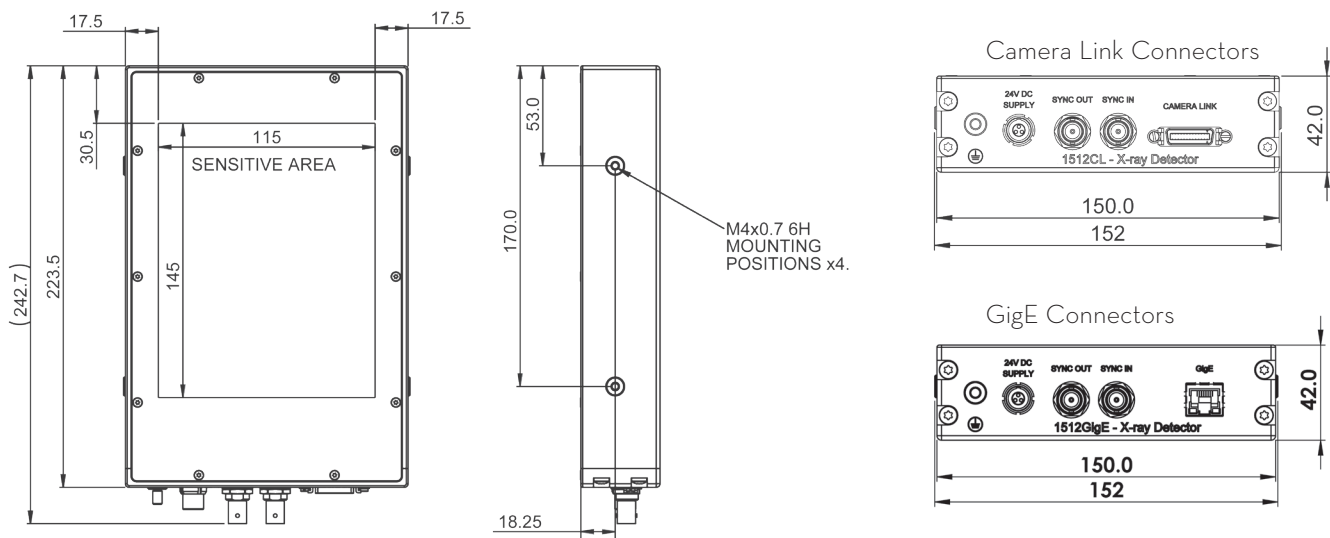
Various Gd<sub>2</sub>O<sub>2</sub>S:Tb (GOS) fluorescent screens

### TEMPERATURE RANGE

Operating Temperature	+10°C to +40°C
Storage Temperature	-10°C to +50°C

### MECHANICAL CHARACTERISTICS

(Dimensions in mm)



<sup>1</sup> Unless otherwise specified, Varex Imaging 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.

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