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BALTOSCOPE **FPDigit 16-139HE**

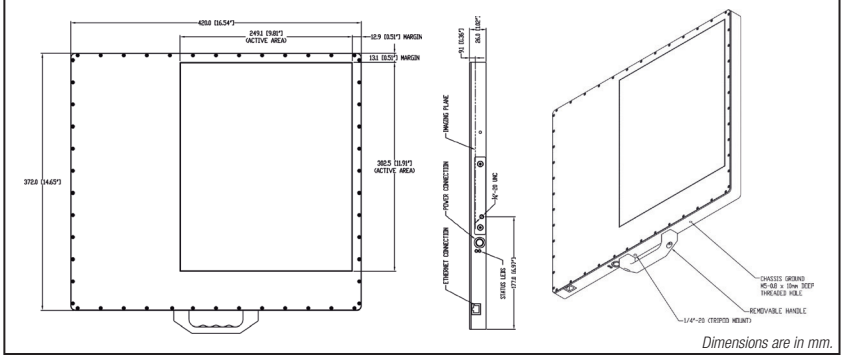
Receptor type:	**Amorphous silicon**
Conversion screen:	**DRZ plus**
Pixel area:	**249 x 302 mm**
Pixel pitch:	**139 µm²**
Energy range:	**20 kV - 16 MV**
Scan Method:	**Progressive**
AD/conversion:	**16 bits**
Frame rate:	**9 fps (1x1) / 30 fps (2x2)**
Standard shielding:	**225 kV**
Power supply:	**100 - 240 VAC**
Data Output:	**Gigabit Ethernet**
Weight:	**6,5 kg**

The FPDigit 16-139HE is high dynamic range x-ray detector. With a 16 Bit conversion and 139 µm² pixel pitch, this flat panel will offer a frame rates up to 30 frames per second (2 x 2). The acqusition of image will be made by Gigabit Ethernet communication. The FPDigit has internal shielding up to 225kV; Electronics being outside of the detector active area, an additional external shielding of the electronics can be added for use above 225kV

Improved reliability in inspections, costs reductions and environment cares are today the major factors driving the selection of Radiographic techniques. Due to the progression of silicon technologies and the level of current electronics, signals processing and transfer are becoming efficient and affordably priced to be used in NDT Industries.

Flat panels are a combination of electronic and Silicon technologies which gives a direct conversion media for displaying Radiographic Images instead of using films. This helps in reducing exposure time but also gives an extended range of thicknesses with the same use of energy.

MECHANICAL DRAWING



Dimensions are in mm.

Flexibilty

Compared to classical Film radiography, the FPDigit provides: the choice in beam or view incidence to give the selected view of an indication in the product, enlargement capabilities and inspection cost reductions. This is giving a fast decision (compared to film) thanks to direct observation in the screen of the monitor of the FPDigit control unit.

The resolution

The resolution of a flat panel is a function of several factors. The pitch size will give the spatial resolution of the detector and must be selected taking into account Applications, X ray sources and Budgets. The smaller the pixel is, the higher resolution can be. But the same result can sometimes be obtained using Magnification if Geometry of exposure and X ray sources are correctly selected. The pitch size directly interferes on the Modulation Transfer Frequency (MTF) or the Spatial Frequency Response. The MTF defines the sharpness of a whole system for displaying fine details. This is then the final result in terms of definition for the said detector. MTF are expressed in pairs of lines. The driving electronic attached to the panel is another very important factor as it will collect and send the signal to the computer with more or less efficiency depending on the construction and quality. For instance, Shielding (intrinsically) of this section to the appropriate level of energy will guarantee that no noise or even worse, no damages, will happen to the module.

« Real » Real time

Fast conversion system where no latency is expected due to the working mode. Acquisition rates are as fast as a human eye can see and there are basically no integration time. However, if required, the user may freely select the integration parameters and get slower frame rates but increased X ray sensitivity.

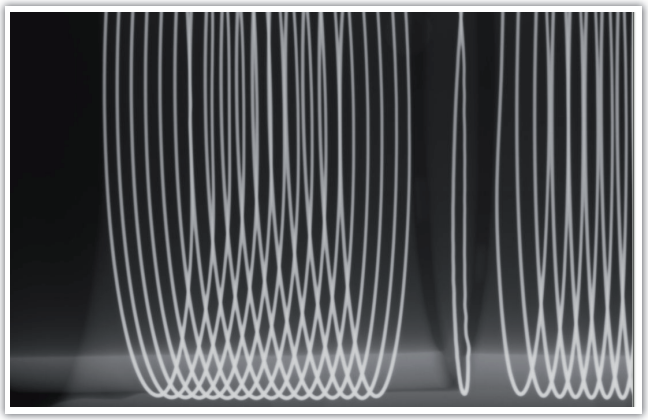
Image enhancement

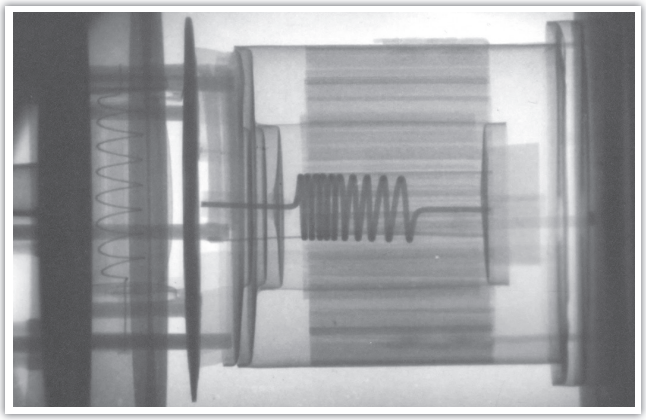
If you display a given size indication on a defined area and you increase the size of the displaying area, you will get an increased definition or precision when measuring the indication. That will help him emphasizing tiny details that are barely visible otherwise. This greatly helps interpretation works too and provides an excellent tool for Real time process monitoring.

Specifications	*Units*	BALTOSCOPE **FPDigit 16-139HE**
Dimensions:	*cm*	**37,2 x 42 x 2,6**
Weight:	*kg*	**6,5**
Housing:		**Aluminium**
Receptor Type:		**Amorphous silicon**
Conversion screen:		**DRZplus (CsI available as an option)**
Pixel matrix:	*pitch*	**1792 x 2176 @ 139 µm² pixel pitch**
Scan Method		**Progressive**
A/D Conversion:	*bits*	**16**
Frame Rate:	*fps*	**9 (1 x 1) / 30 (2 x 2)**
Energy range:		**20 kV - 16 MV**
Fill Factor:		**64,3 %**
Shielding		**225 kV as a standard (Extra shielding for electronics as an option)**
System Interface:		**Gigabit Ethernet**
Operating temperature:	°C	**-10 to +40 (max.)**
Storing temperature:	°C	**-15 to +50 (max.)**
Humidity:	*%*	**10 - 95% (non condensing)**
Supply:		**100 - 240 VAC, 47 - 63 Hz**
Power dissipation:	*watt*	**16,5 Nominal power consumption**

OPTIONAL EQUIPMENT

- IPS012
- CsI scintillator
- Additional shielding for electronics





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Distributed by:

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