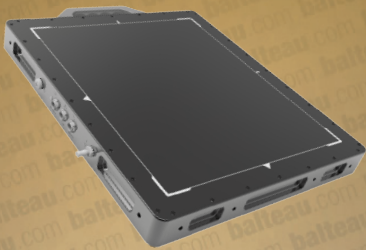


BALTOSCOPE FPDigit 16-100

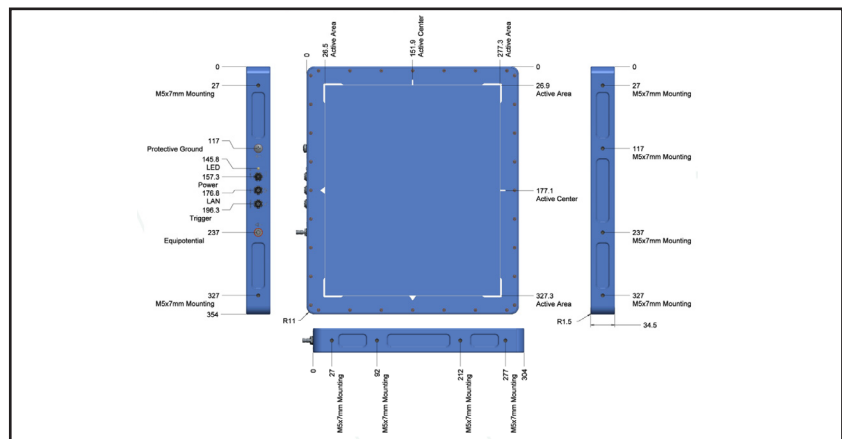


Receptor type:	Amorphous Silicon TFT
Conversion screen:	CsI or Gadox
Pixel area:	300 x 250 mm
Pixel pitch:	100 µm
Pixel matrix:	3008 x 2512 pixels
Energy Range:	225/450 kV*
AD/conversion:	16 bits
Frame rate:	5,5 Fps (1x1)
Power supply:	100-240 VAC 50/60Hz
System interface:	Gigabit Ethernet
Weight:	10/16kg
*with external shielding	

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. Flat panels are basically a two dimension array of detectors which sensitivity is 10 to 100 times greater than conventional films. This helps in reducing exposure time but also gives an extended range of thicknesses with the same use of energy.

MECHANICAL DRAWING



Flexibility

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.

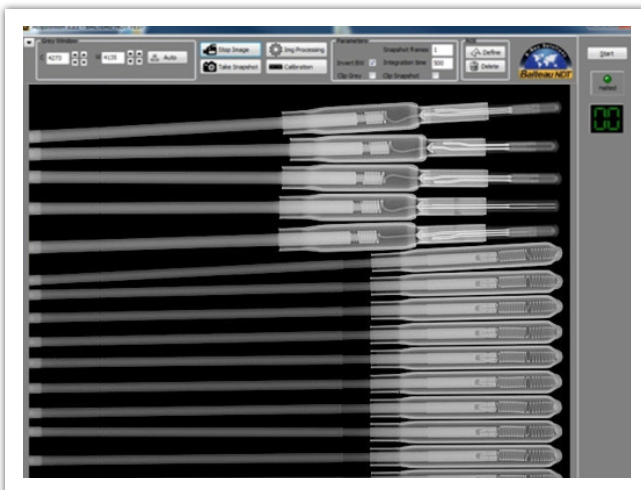
«Real» Real time

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

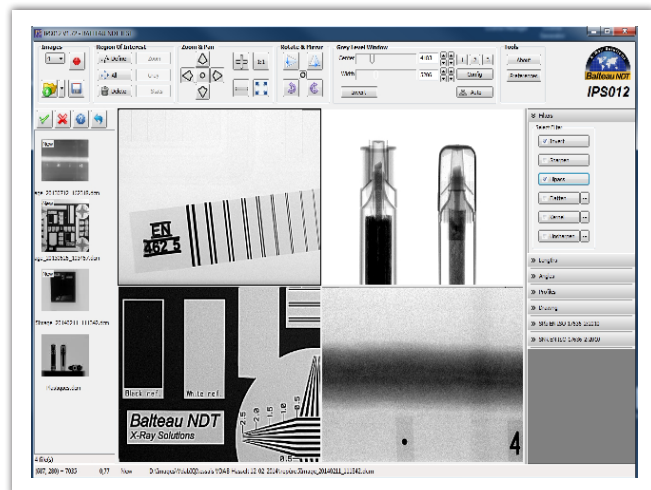
If you display a given size indication on a defined area and you increase the size of the displaying area, you will get an increased definition or precision when measuring the indication. That will help him emphasizing tiny details that are barely visible otherwise. This greatly helps interpretation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

Specifications	Units	BALTOSCOPE FPDigit 16-100
Dimensions:	mm	304 (w) x 354 (l) x 34,5 (h)
Receptor Type:		Amorphous silicon TFT
Conversion screen:		Csl or Gadox
Pixel matrix - Total:	Pixels	3008 x 2512
Pixel pitch:	μm	100
Frame rate:	fps	Full size: 5,5 fps / 2 x 2 binning: 11 fps / 4 x 4 : 20 fps
A/D Conversion	bits	16
Energy range:	kV	20 - 450
Standard shielding:		225 kV X-Ray radiation (450 kV optional)
System Interface:		1 Gigabit Ethernet port
Power supply:		100-240 VAC 50/60 Hz
Operating temperature:	$^{\circ}\text{C}$	0 to 40 $^{\circ}$
Humidity (Operating/storage):	%	30 to 70 RH (non-condensing)



ACQUISITION SOFTWARE

- Included with the panel standard package
- Grey level histogram & ROI
- Compatible with most detectors



IPS012 (Image Processing Software)

- Includes all common analyzing tools
- Compliant with major standards
- User friendly

Contact details

Balteau NDT

Rue Voie de Liège, 12
B-4681 Hermalle Sous Argenteau
Belgium

www.balteau.com

balteau@balteau.com

Tel. +32 (0) 4 374 75 75

Fax +32 (0) 4 374 75 85

Distributed by:

