VAREX IMAGING

Making the Invisible Visible

DC-THOR.10G

High-Speed Photon Counting Detector

200 x 50 mm² active area, air-cooled variant

OVERVIEW

Varex Imaging's DC-THOR.10G is a family of high- speed photon counting detectors designed for demanding X-ray imaging applications such as industrial micro-CT or inspection welds in high-density or thick materials.

The DC-THOR.10G detectors offer very high imaging speed for high-speed inline CT or for imaging moving objects. The sensitivity of the detector reduces the required dose per frame to take advantage of this imaging speed.

User adjustable dual energy functionality can be used for material discrimination, energy windowing for scientific applications and scatter rejection.

The flexible triggering engine combined with the included calibration and correction toolset offers an easy solution for challenging imaging needs.

FEATURES AND BENEFITS

- Dual energy photon counting
- 100x50 mm² and 200x50 mm²
- Up to 3200 fps @ 100 µm
- X-ray energy to 300 kVp
- IP67 ingress protection
- Air and liquid cooled variants

APPLICATIONS[1]

- Inline Battery Inspection
- Inline ·CT
- Metrology
- Weld inspection
- Scientific application

TECHNICAL SPECIFICATIONS

PIXEL

Pixel..... Dual energy Photon Counting
Direct conversion material..... CdTe
Pixel Size..... 100 µm
Pixel fill-factor..... 100%
Charge sharing correction..... Yes in dual energy
Trapped charge release technology..... Yes
Low energy threshold..... 15 - 65 keV
High energy threshold..... 20 - 70 keV
Maximum X-ray energy..... 160 or 300 kVp

INTERFACES

Datalink..... Optical 10G Ethernet
Triggering..... Flexible triggering engine

SOFTWARE

OS..... 64-bit Windows and Linux
SDK Languanges..... C/C++ and C#
Advanced calibration tools..... Yes

IMAGING MODES

Output mode..... Frame output
Energy mode..... Single or Dual
Binning..... 1 x 1 or 2 x 2
Frame rate..... Up to 5000 fps

OPERATING CONDITIONS

Ambient temperature (air-cooled) ..... +15 - +28°C

Ambient temperature (water-cooled) ..... +15 - +40°C

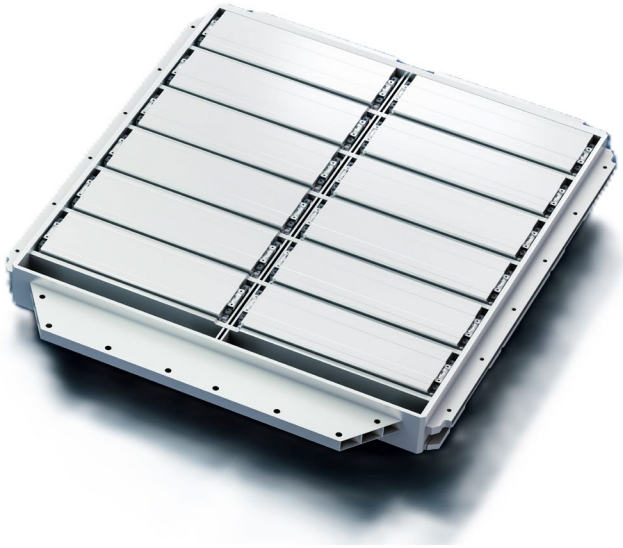
DETECTOR VARIANTS

ACTIVE AREA mm²	100 x 50	200 x 50
	102 x 50	206 x 50
PHYSICAL DIMENSIONS mm³	197 x 305 x 107	301 x 305 x 107 (air)
		301 x 304 x 61 (liquid)
PIXEL MATRIX	1031 x 513	2063 x 513
MAX SPEED (fps) [1]		
-Single energy 100 µm	1300 / 3200	850/ 1600
-Single energy 200 µm	3900/ 4500	2250 / 4500
-Dual energy 100 µm	500 / 500	500 / 500
Temperature control	Air-cooled	Air or liquid cooled
Power consumption (W)	300 W	600 W

[1] Continuous acquisition / 5 second burst

[1] 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.

Electric vehicle lithium ion rechargeable battery



VAREX IMAGING CORPORATION

USA HEADQUARTERS
Salt Lake City, UT
P: +1-801-972-5000

For a complete listing of our global offices, visit www.vareximaging.com

©2024 Varex Imaging Corporation. All Rights reserved. Production of any of the material contained herein in any format or media without the express written permission of Varex Imaging Corporation is prohibited.

20009261-000 Rev A 10/2024

The data in this document is for reference only.
Contents in this document are subject to change without notice.