



Applications

Materials Characterization Study of matter

XRF

Elemental composition

XRD

Powder diffraction
Residual stress

Imaging

CT scanner : Small animal imaging,
Medical study, Radiographic
inspection

Users

Synchrotron
Universitary Laboratory
Industry

MADE IN FRANCE

Feature

Feature	Benefits
Quantum detection	Single Photon/Particle Counting
Adjustable Detection Treshold	No read out noise, no dark current
2D detection	Wide detection information
Small, compact Design,Lightweight	Easy to integrate
Air cooled	Simple installation to operate
Embeded Processing	Fast Acquisition mode
External Trig in, Trig out signal	Synchronisation Ready
Multi software Interface	Easy to manage

Detection Module Charateristics

Sensors Available :

- Silicon 500um, 1000um
- GaAs 1000um

Active Area Without Gap :

- 2.08x3.12cm²
- 38400 pixels

Roic : Xpad3.2 :

- 130x130um Pixel size
- Threshold Range 5-30 KeV
- Counting Rate 7.10⁵ph/sec/pix (linear)
- Working Energy Range : 5-130 KeV
- RebirX 4750 Hz0 Roic number : 4.

Detector Specifications

Mechanical :

Dimensions : 191.5x92x49 mm³
Weight : 0.85Kg

Acquisition :

- Max Frame rate :
- Detector burst : 750 frame/sec (950frames)
- Computer Burst : 350 frame/sec (continuous)
- Dynamic range 32bits

Conectivity :

- Data Flow
USB3 SuperSpeed.
- Synchro Signals
5V TTL TrigIn,TrigOut.

Input Power

- 5VDC
- 3A

Conformity CE, Harmonised Standard

- EN61010-1 2019
- EN61326-1 2017 Class A

Detector Control

Detector Management

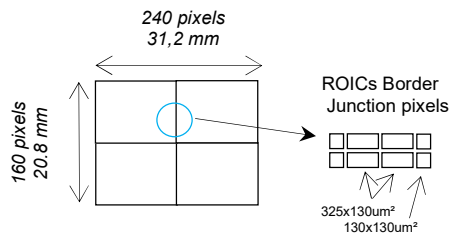
- Mini PC/Industrial computer running Linux OS.
Ethernet connectivity for remote operation

Software available:

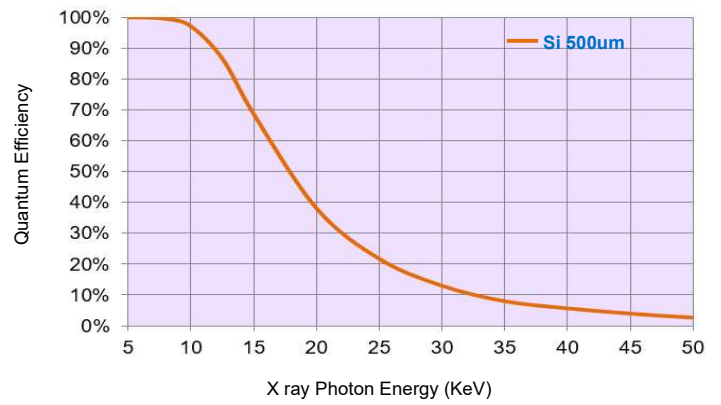
- RebirX Daq IHM (Linux,Windows)^{*1}
- RebirX Server(Linux,Windows)^{*2}
- Lima PlugIn
- Configured Tango Server
- Python Library

- ^{*1} Linux debian base remote client, Windows Seven or Higher
- ^{*2} Server available for operating detector from customer control computer.
Continuous max acquisition performances are not garantie in this case.

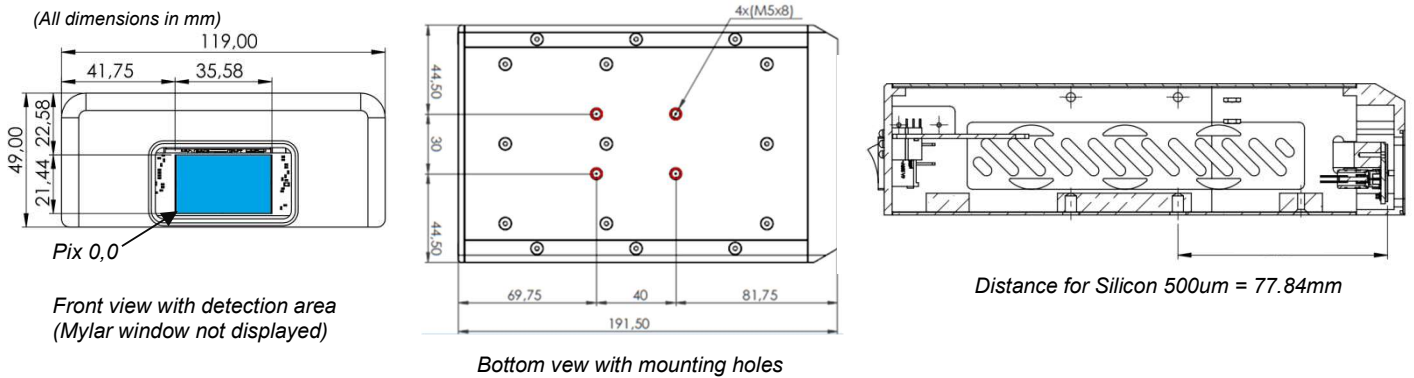
Module Detection Matrix



Sensor Efficiency



Mechanical Drawing



Hardware interfaces



Acquisition Computer

RebirX Server Configured Computer : Compact Mini Computer or Industrial 1U computer
Detector/Computer Link : 5m USB 3 superspeed cable or 30m optical/to usb3 cable.

Ordering

Detector Ordering Code	Sensor Material	Sensor thickness
REBIRX 40 - S - 500	Silicon	500 um
REBIRX 40 - GA - 1000	GaAs	1000 um

Computer Ordering	
Compact Mini Computer	Standard
Industrial 1U Computer	Indus
USB3 5m	Standard Link
30m Optical Usb extender	Extended Link

3 years limited warranty

Shipping Pack

Dimension = 40x20x60 cm³
 Weight = 6 Kg

For all orders without special request the shipping pack contains detector with its power supply, 5m Usb3 cable and mini PC control computer with its power supply unit.



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