



### Applications

**Materials Characterization  
Mater Analysis**

**XRF**

Elemental composition

**XRD**

Powder diffraction  
Residual stress

**Imaging**

Small animal imaging, Medical study  
Radiographic inspection.

**Users**

Synchrotron  
Universitary Laboratory  
Industry

MADE IN FRANCE

### Feature

Feature	Benefits
Direct Xray detection	Single Photon 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.

**Active Area Without Gap :**

- 7x3 cm<sup>2</sup>
- 134400 pixels

**Roic : Xpad3.2 :**

- 130x130um Pixel size
- Threshold Range 5-30 KeV
- Counting Rate 7.10<sup>5</sup>ph/sec/pix (linear)
- Working Energy Range : 5-50 KeV
- RebirX 140 Roic number : 14.

### Detector Specifications

**Mechanical :**

Dimensions : 238x123.7x54.5mm<sup>3</sup>  
Weight : 1.4Kg

**Acquisition :**

- Max Frame rate :
- Burst mode : 700frame/sec
- Continuous mode :300frame/sec
- Dynamic range 32bits

**Conectivity :**

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

**Input Power**

- 5VDC
- 4.3A

**Conformity CE, Harmonised Standard**

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

### Detector Control

**Detector Management**

- Mini PC included running Linux  
Ethernet connectivity for remote  
operation

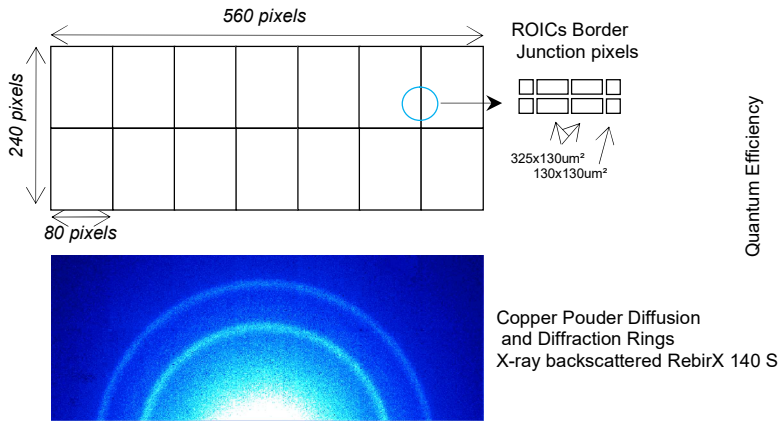
**Software available:**

- RebirX Daq IHM (Linux,Windows)<sup>\*1</sup>
- RebirX Server(Linux,Windows)<sup>\*2</sup>
- Lima PlugIn
- Configured Tango Server
- Python Library

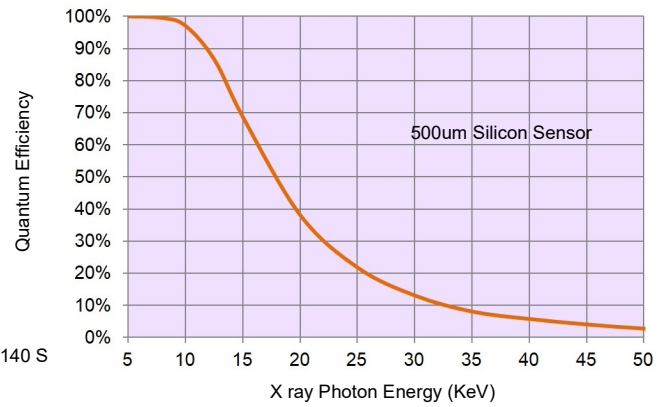
- <sup>\*1</sup> Linux debian base remote client, Windows Seven or Higher
- <sup>\*2</sup> Server available for operating detector from customer control computer.  
Continuous max acquisition performances are not garantie in this case.



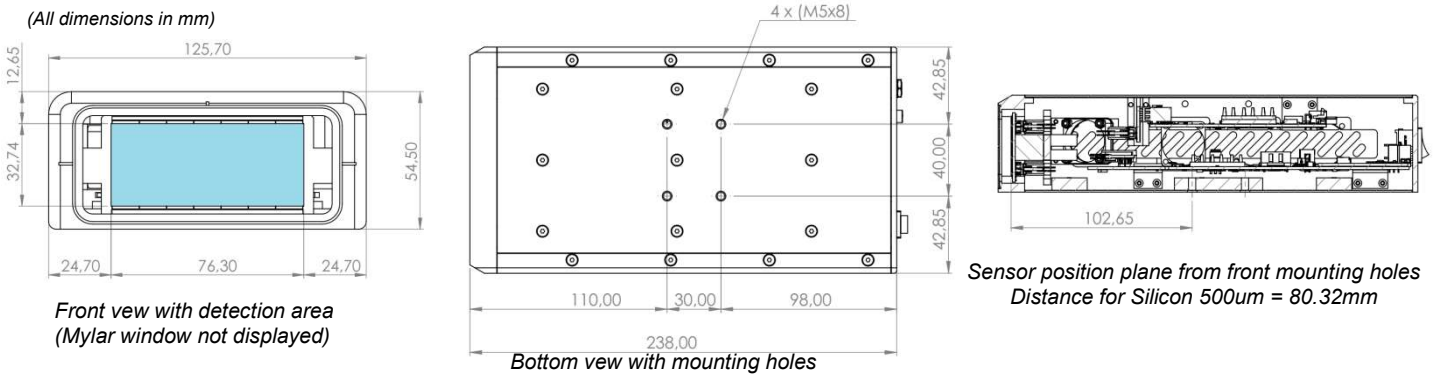
## Module Detection Matrix



## Sensor Efficiency



## Mechanical Drowing



## 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 140 - S - 500	Silicon	500 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 cm<sup>3</sup>  
 Weight = 6 Kg

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



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