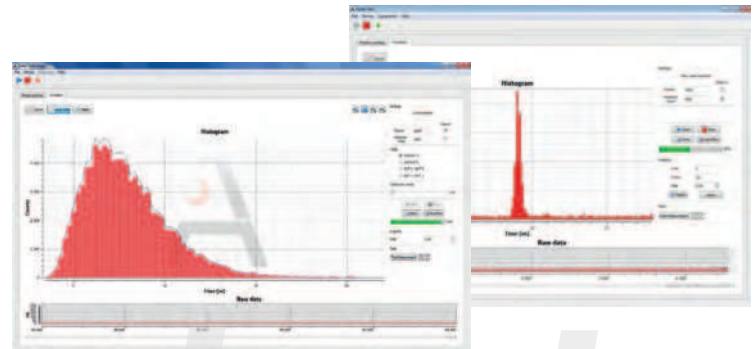


# CHRONOXEA

## Time Correlation module

Picosecond resolution



The CHRONOXEA is a stand-alone Time Correlated Single Photon Counting (TCSPC) module. It features 1 start channel and 4 independent stop channels to perform time correlated measurements with a resolution of 13 ps on measurement range up to 1 second.

In addition, the CHRONOXEA offers a PC connection via its USB interface. Its ergonomic Graphical User Interface allows the user to manage the settings and display the measured data. Moreover, the DLL libraries compatible with the most well-known programming languages, such as LabVIEW and C++ are also provided.

Very well-designed, the CHRONOXEA is fully compatible with all commercial single photon avalanche photodiode detectors (SPAD) modules. The modern interface and the flexibility of the CHRONOXEA makes it your essential TCSPC instrument for any time-correlated measurements.

### Features

- 13 ps time resolution
- 1 start channel
- 4 independent stop channels
- Dual TTL/NIM compatibility
- Time Tagging
- Lifetime
- USB interface
- DLL Libraries : LabVIEW, C++, Python

### Applications

- TCSPC measurements
- Lifetime measurements
- FLIM microscopy
- Coincidence measurements
- Geiger-mode LIDAR
- Optical fiber sensing

### Options

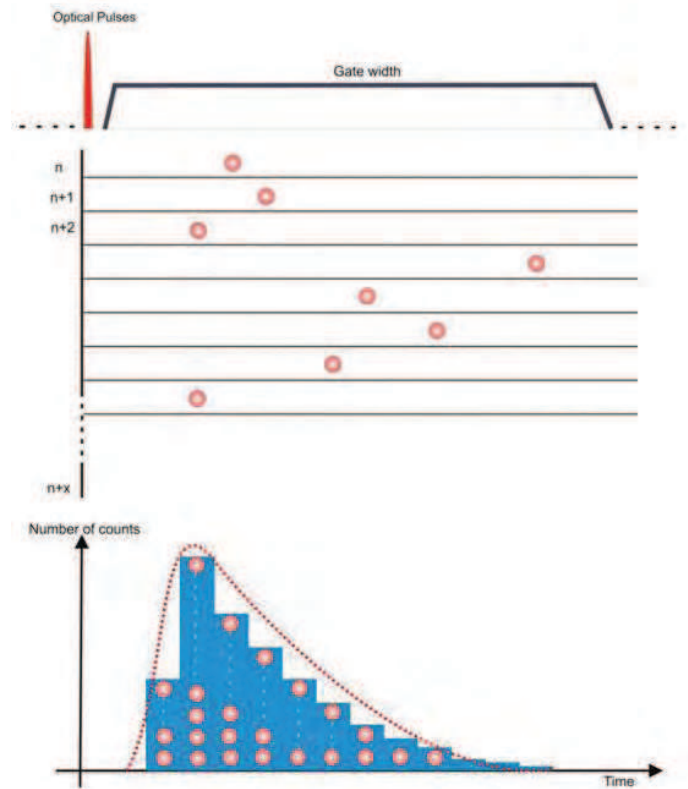
- 2 channels
- 4 channels



## TECHNICAL SPECIFICATIONS

Time Correlation	
Start channel	1 channel
Stop channels	4 independent stop channels
Bin Width	13 ps
Time Resolution	13 ps
Measurement range	From 0 to 1 sec
Data transfer rate	1 x 10 <sup>6</sup> correlations/channel/sec
Max sync. rate (Start)	4 MHz
Max event. rate (Stop) :	
- Continuous mode	4 MHz/stop channel
- Burst mode*	200 MHz/stop channel
Min gate width input	4 ns
Measurements	Lifetime measurements Time Tagging Antibunching measurements
Input/Output - Mechanical - Environmental	
Computer Connection	Mini USB 2.0 type B
Sync (IN) - Start	SMA - Dual TTL/NIM compatibility
Events inputs (IN) - Stops	SMA - Dual TTL/NIM compatibility
Dimension (LxWxH)	160 x 165 x 52 mm <sup>3</sup>
Weight	< 1 kg
Power consumption	< 10 W

\*Burst mode : burst of 15 successive events



Time histogram building representation

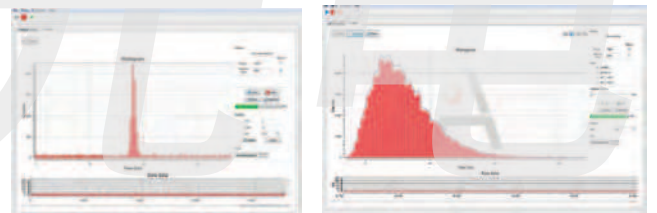
## OTHER PRODUCTS : COMPLETE QUANTUM SYSTEMS

AUREA Technology also provides complete Quantum Optics systems with Entangled Photon Sources, Photon Counters, Timing Electronics and Software. Both 1550 nm and 810 nm versions are available.



Complete Quantum instruments suite

## SOFTWARE INTERFACE



The software interface allows adjusting the synchronization, the parameters and displaying the temperature and live photon count. DLL libraries compatible to the most well-known programming languages are also provided.

## ORDERING INFORMATION

**CHRONOXEA\_X** ——— X 2 : 2 channels  
4 : 4 channels

Please contact us for custom solutions and options

## NOTE

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