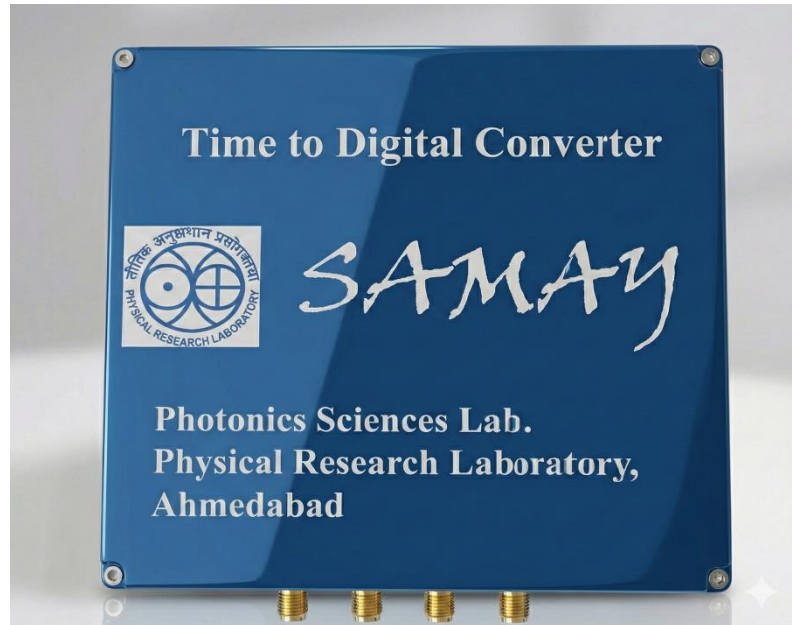




Photonic Sciences Lab | Physical Research Laboratory

All in one time tagging and coincidence correlation



Observe detection rates for up to four single-photon detectors, generate up to four coincidence pair between any pair of connected detectors or trigger signals, and record every time tag for an exceptionally high number of detected photons, all with sub nanosecond precision.

Beyond measurement, access four input with customizable and conditional pulses, to control and react to your experiments and applications in real time.

Get the most out of your photonic experiments and applications with the SAMAY.

APPLICATIONS

- ▶ QKD and quantum communication
- ▶ Quantum optics and computing
- ▶ Single-photon source characterisation
- ▶ Fluorescence lifetime imaging
- ▶ Failure analysis of integrated circuits
- ▶ VIS, NIR and MIR spectroscopy

KEY FEATURES

- four interchangeable input and reference channels
 - High-resolution mode: up to 100 MHz across all inputs, with 20 ps resolution
 - High speed mode: up to 25 MHz per input, with 20 ps resolution
- Measure four coincidence in parallel configuration
- Record the precise arrival time of every detection event
- Tailored pulses (NIM or TTL) from four output channels, with customizable patterns and widths
- Quick and easy lab integration: suite of LabView and Python scripts

Specifications

Timing precision

RMS jitter (typical)	230 ps
digital resolution	20 ps

Processing capabilities

input channels	4
dead time	5 ns
data rate (USB to PC)	1.1 Mbps
data rate (Ethernet to SAMAY)	100 Mbps
burst memory	4 Mtags
maximum input frequency per channel	25 MHz

Input signals

input impedance	50 Ω
recommended input signal range	0.6 to 3 V
minimum pulse width	5000 ps
minimum pulse height	500 mV

General parameters

data interface	USB / Ethernet
size (L x W x H) in mm	120 x 103 x 64.5

Typical performance

