



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

Powai, Mumbai 400076.

Technical Specifications for Time Correlation Counter for single photons

RFX NO. 6100000795 (Reference No. 1000020953)

Technical Specifications for Time Correlation Counter for single photons-- Streaming time-to-digital converters

4-channel streaming time tagging system with 42 ps or better time resolution (RMS jitter) with USB 3.0, 65 Mtags/s, 2ns dead time and +/- 3.3 V input range, +/- 2.5 V trigger level range, synchronizable, full software package, free software and firmware updates included

Description	Specifications
Timing Precision	
RMS jitter	42 ps or better
FWHM jitter	100 ps or better
Digital resolution	1ps or better
Processing capabilities	
input channels	4
dead time	2 ns
data transfer rate	65 M tags/s or better
burst memory	512 M tags or more
maximum input frequency	500 Mhz or more
Input signals	
input impedance	50 Ω
input signal range	-3 V to 3 V
Maximum input level (no damage)	-5 V to 5 V
trigger level range	-2.5 V to 2.5 V
Minimum pulse width	500 ps
Minimum pulse height	100 mV
External clock input	
Frequency	10MHz or 500 MHz
Coupling	AC 50 Ω
Amplitude	1 to 3 Vpp
Data interface	USB 3.0

Additional requirements from the prospective supplier

- The supplier should provide Authorisation Certificate from the OEM for the Quoted Brand of the equipment.
- The supplier should state categorically whether they have fully trained technical staff for installation of the equipment.

- ☒ The supplier should have a minimum 03 (three) years of experience in supplying and successfully installing equipment of similar specifications and should provide references (installation sites) from premier Institutes in India or abroad (preferably Government Organisations in India). Provide the list along-with contact details of the users.
- ☒ At the time of commissioning the successful bidder has to demonstrate/ training the complete functioning of the equipment.
- After-sales service support for repair/ replacement of non-functional parts should be available (including all services under warranty).
- Warranty : Standard 12 months from date of commissioning.