BOSE INSTITUTE KOLKATA

Tender No.	CAPSS/85/130/(DoS-DG)/15-16
Tender Date	17/11/15
Tender Type	OPEN

Tender Title	**Multichannel Analyzer**
Specification	Please see Annexure - 1
Quantity	01 (one)

Last Date & Time for submission	22/12/2015 upto 13.00 hrs
Date & Time for opening bids	22/12/2015 at 14.00 hrs
Submission of Tender (address)	CAPSS, Bose Institute, Kolkata 700 091
Venue of bid opening	CAPSS, Bose Institute, Kolkata 700 091
For any query the interested bidders may contact (Dept./Section/Div./Unit)	Dr Dhruba Gupta,Deptt. of Physics,2303-1167

General Terms & Conditions	
Warranty	1 year from the date of satisfactory installation and commissioning
Payment terms	Payment will be made after complete delivery of the instrument in good condition and satisfactorily installation.
Delivery schedule	Within 45 days from date of order & if any defect of the supplied item is found, it should be replaced immediately from your side.
Bid security (earnest money deposit) if applicable	NO
Submission of Performance Bank Guarantee (PBG), if applicable	NO
Any other information (if applicable)	NA

<u>Name of the instrument</u> and <u>submission of tender no</u> should be mentioned on the envelope positively.
Director, Bose Institute reserves the right to accept or reject any or all tenders either in part or in full. The reasons for rejecting the tender of a prospective bidder will be disclosed only when enquiries are made.

Sr. Prof. & Incharge, Registrar's Office

Annexure I

Specification

Multichannel Analyzer

The Multichannel Analyzer should have following features.

- Should have following operating modes:
  - PHA (pulse height analysis)
  - SVA (sampled voltage analysis) mode
  - SCOPE mode
  - FFT mode
  - Simultaneous SCOPE / FFT / PHA usage
  - MCS (multichannel scaling) using 1 or 2 inputs (to be quoted optionally)
- On board 125MHz sampling, virtually dead- time-less pulse height analyzing 16 bit ADCs
- > 1 M PHA events per second
- ADC resolution 32k/16k(64k)
- Should have optimized pulse height analysis fitting algorithms (absolute maximum, for Gaussian pulses, for flat-top pulses, future kinds optional)
- ADC input range switchable (0...+10V or ±5V)
- GATE inputs and SCA outputs
- Digital stabilizer for gain and zero stabilization
- MCS mode should offer two inputs with programmable (fast/slow NIM, rising/falling edge) discriminators
  - Maximum MCS count rates of 400MHz
  - Dwell time < 40ns for 1 input and 50 ns for 2 inputs up to several hours in steps on 10 ns or external
  - No dead-time between channels, no double counting, no end-of-sweep dead-time
  - Automatic sequential mode for sequential MCS spectra
  - On board MCS memory (16M x 32bit)
- 8 bit digital I/O lines can be used as 8 TAG bits, sampled with 2.5 µsec
- Single Channel Analyzer (SCA) outputs, software programmable for several SYNC signals
- 1 ms real time clock (RTC) tagging standard,
- 8 ns RTC to be quoted optionally for each ADC
- List-mode storage of analyzed PHA data
- USB connectivity with PC
- Power supply should be included

Software:

The Multichannel Analyzer should be supplied with complete operating that operates under the MS-WINDOWS environment. It should offer full software control of the MCA.
If Linux Driver is there, that should be quoted optionally.

Listmode as well as histogramming mode should be there. The data format should be compatible to other spectrum analysis programs such as: GANAAS, QXAS, OSQ, SAMPO etc.