

Department of Physics, Indian Institute of Technology  
IIT.P.O. Madras-600 036

Ref. No.

Date: 03/ Feb/2015

|     |      |     |        |
|-----|------|-----|--------|
| PHY | 2014 | 033 | STORES |
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To,

Dear Sir,

Due date: 11/ Feb/2015

1. Quotation are invited in duplicate for the item specified below/overleaf/ enclosed.
2. The quotations duly sealed and superscribed on the envelope with the Reference No. and due date, should be addressed to the undersigned so as to reach him/her on or before the due date stipulated above.
3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS &D RATE CONTRACT, RC No.and the price must be mentioned. It may be also please be indicated whether the supply can be made direct to us at the Rate Contract price. If so, please send copy of the RC ( Please note that we are not Direct Demanding Officers)
5. Relevant literature pertaining to the items quoted with full specifications ( and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for, should be submitted free of charges, and collected back at the supplier's expenses.
6. **Local Firms** : Quotations should be for free delivery to this Institute. If Quotations are for Ex-godown . delivery charges should be indicated separately.
7. **Firms outside Chennai:** Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train/lorry transport must be indicated. If Ex-godown, packing, forwarding and freight charges must be indicated.
8. The rate of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim, for Sales/General taxes will be admitted at any stage and on any ground whatsoever . **The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to non-Government Educational Institutions run with no profit motive for which a concession. Sales tax Certificate will be issued at the time of final settlement of the bill.**
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

**SPECIFICATION ENCLOSED**

Yours Sincerely  
Sivarama Krishnan  
Assistant Professor,  
Department of Physics,  
IIT-Madras, Chennai  
600036.  
**(Head/Co-ordinator)**

**Item: Signal Acquisition System - 1.0 GHz digitized Quad Channel Acquisition on PCIe**

| <b>Sr. no.</b>   | <b>Parameter</b>                       | <b>Value</b>  |
|--|--|---|
| 1.   | Bandwidth                              | 1.0 Ghz or higher (-3 dB)   |
| 2.   | Number of Channels                     | 4 or more   |
| 3.   | Sampling rate                          | 1.25GS/s sample rate on all channels under simultaneous operation (2.5GS/s on 2 channels, 5GS/s on 1 channel)   |
| 4.   | Resolution                             | 8 bit   |
| 5.   | Acquisition Memory                     | 4 Gigasamples   |
| 6.   | Averaging                              | On-board averaging  |
| 7.   | Analog input impedance                 | 50 ohm  |
| 8.   | Input Ranges                           | $\pm 200$ mV, $\pm 500$ mV, $\pm 1$ V, $\pm 2.5$ V  |
| 9.   | Input Coupling                         | both AC/DC options should be possible   |
| 10.  | Over voltage protection                | +/- 2 volt or greater   |
| <b>Trigger</b>   |  |   |
| 11.  | Trigger mode                           | Channel Trigger, External and Software  |
| 12.  | Trigger level resolution               | 8 bit   |
| 13.  | Trigger edge                           | Both options – rising and falling   |
| 14.  | Internal/External trigger accuracy     | 1 sample  |
| 15.  | External trigger input impedance       | 50 $\Omega$   |
| 16.  | External trigger coupling              | AC or DC  |
| 17.  | External input level                   | $\pm 10$ V (1 k $\Omega$ ), $\pm 2.5$ V (50 $\Omega$ )  |
| 18.  | External trigger level                 | $\pm 10$ V in steps of 1 mV   |
| 19.  | External trigger maximum input voltage | $\pm 30$ V  |
| 20.  | Trigger rate                           | 1 kHz or more should be possible  |
| <b>Clock</b>   |  |   |
| 21.  | Clock Modes                            | internal PLL, external reference clock, sync  |
| 22.  | Internal clock accuracy                | $\leq \pm 20$ ppm   |
| 23.  | External reference clock range         | $\geq 10$ MHz and $\leq 1$ GHz  |
| 24.  | Operating temperature                  | Range greater than 0°C to 50°C  |
| 25.  | Humidity                               | 10% to 90%  |
| <b>Host interface</b>  |  |   |
| 26.  | Host interface                         | PCIe x8   |
| 27.  | Slot compatibility (physical)          | x8  |
| 28.  | PCIe slot compatibility (electrical)   | x1, x4, x8, Generation 1, Generation 2, Generation 3  |
| 29.  | Host                                   | Host with Intel i7 3GHz, 4 Full length PCIe Slots, 8GB RAM, 1TB HDD, Windows 8 Pro 64 bit, 21" Monitor, Keyboard and Mouse is to be supplied. The complete working of the digitizer in the supplied host is to be demonstrated. |
| <b>Accessories (price will not be compared on accessories)</b> |  |   |
| 30.  | Options                                | Quote for Input and Clock cables  |
| 31.  | Processing                             | Quote optionally for Processing Options   |