SPEED POST

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SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT-395 007.

No. DoME/NAB/5100/4315/2023-24

Date: 26/02/2024

To,

As per attached List

27 FEB 2024

SUB: - Enquiry for Data Acquisition System

Dear Sir,

You are requested to quote your prices for supply of stores listed overleaf. The quotations may be sent to the undersigned in a sealed envelope and subscribed as: "Quotation with reference to Enquiry No. DoME/NAB/5100 / /2023-24 dtd: 26/02/2024. Your quotation should reach the undersigned on or before **07/03/2024 at 5:00 pm.**

The quotations should be furnished with the following information.

1) The brand or make of each item should be specifically stated and wherever necessary, Complete set of specifications and dimensions should be given.
2) If asked, samples are accompany the quotations
3) Sales tax, General tax, Central Sales tax, Custom duty, Insurance charges, Packing and Forwarding charges, if not included in the prices quoted, should be clearly specified.
4) The period of validity of the quotation should be at least 45 Days. Offers subject to prior sale may please be avoided.
5) The delivery period is to be clearly mentioned in the quotation.
6) The mode of delivery of the stores may be mentioned. The delivery should be F.O.R. Surat or at the Institute.
7) All concessions available to an educational institution should be specified and also taken into account while quoting.
8) This Institute is located within the limits of S.M.C. & exempted from the paying of octroi duty on incoming goods from outside limits of S.M.C.
9) This Institute is registered with the dept. of scientific & industrial Research (DSIR) for the purpose of availing custom duty exemption & central excise duty exemption, and hence the certificate to this effect will be issued wherever it is necessary on demand.
10) Payment is normally made by cheque drawn on the S.V.N.I.T. Branch Office of State Bank of India, Surat-395007 within a period of thirty days from the date of receipt of stores.
11) Your specifications & terms- conditions should be as per the format attached, must be on your company letterhead & signed by an authorized person.
12) Offered quotation may be rejected if any ambiguity is found in offered specifications, terms & conditions supplied by party in specified tabular format.
13) The Director reserves the right to accept stores, which are not strictly in confirming with the specifications but otherwise, found suitable.

Kind Attention: Dr.Nikhil A. Baraiya, Asst. Prof., DoME

Yours faithfully,

26.2.24

Head, Mech. Engg. Dept.

Technical Specifications for Data Acquisition System

Sr. No	Data Acquisition System		Requirement
a.	**CompactDAQ Chassis**		1 set
1.	Number of slot counts required	4 slots	
2.	Bus Interface	USB, Hi-speed	
	Analog Input		
3.	Input FIFO size	127 samples per slot	
4.	Timing accuracy	50 ppm of sample rate	
5.	Timing resolution	12.5 ns	
	Analog Output		
6.	Onboard regeneration	16	
	Maximum update rate		
7.	Onboard regeneration	1.6 MS/s (multi-channel, aggregate)	
8.	Non-regeneration	Determined by the I/O module or modules	
9.	Timing accuracy	50 ppm of sample rate	
10.	Timing resolution	12.5 ns	
	Output FIFO size		
11.	Onboard regeneration	8,191 samples shared among channels used	
12.	Non-regeneration	127 samples per slot	
	Digital Waveform Characteristics		
13.	Waveform acquisition (DI) FIFO	127 samples per slot	
14.	Waveform generation (DO) FIFO	2,047 samples	
	Power Requirements		
15.	Input voltage range	9 to 30 V	
16.	Maximum required input power	15 W	
	Environmental		
17.	Operating temperature	-20 °C to 55 °C	
18.	Storage temperature	-40 °C to 85 °C	
19.	Operating humidity	10 to 90% RH	
20.	Storage humidity	5 to 95% RH	
b.	**Voltage Input Module**		
1.	Number of Channels	4 analog input channels	
2.	ADC resolution	16 bits	
3.	Type of ADC	Successive approximation register	
4.	Maximum Sampling Rate	100 kS/s/ch	
5.	Connecting terminal	BNC type	
6.	Input range	± 10.0 V	
	Measurement Voltage, AI+ to AI-		
7.	Minimum (V)	±10.2	
8.	Typical (V)	±10.4	

9.	Maximum (V)	±10.6	
	Maximum Voltage (Signal + Common Mode)		
10.	For BNC Type Voltage Module	All inputs must remain within 10.2 V of the average AI- inputs.	
11.	Overvoltage protection	±30 V	
	Stability		
12.	Operating signal voltage	60 VDC ± 10.6 V	
13.	Gain drift	10 ppm/°C	
14.	Offset drift	60 µV/°C	
15.	CMRR (fin = 60 Hz)	73 dB min	
16.	Input bandwidth (-3 dB)	420 kHz minimum	
	Resistance		
17.	Between any two AI- terminals)	200 kΩ	
18.	Input bias current	10 nA	
	Safety Voltages		
19.	AI+-to-AI-	±30 V maximum	
20.	Channel-to-channel (Isolation)	None	
21.	Continuous (Channel-to-earth ground)	60 V DC	
22.	Operating Temperature	-40 °C to +70 °C	
	Accuracy		
23.	Percent of Reading (Gain Error)	0.2%	
24.	Percent of Range (Offset Error)	0.082%	

Note- The quotation not fulfilling strictly the above technical specification will be rejected.