



सत्यमेव जयते

Government of India
Bhabha Atomic research Centre
Ion Accelerator Development Division
Mumbai-400085, INDIA

REF. NO.: BARC/IADD/HK/2022/.104

DATE: 01.04/2022

Subject: Inviting quotation for "Fabrication of electronics work bench consist of four channel Analog Input, 34 channel digital input logic analyzer, arbitrary function generator, DC power supply, and digital multimeter all in one unit as per ANNEXURE A."

Dear Sir,

On behalf of the President of India, you are invited to quote for "Fabrication of electronics work bench consist of four channel Analog Input, 34 channel digital input logic analyzer, arbitrary function generator, DC power supply, and digital multimeter all in one unit as per ANNEXURE A."

Terms & conditions are given below.

S. No.	Description of the Job	Quantity
1.	"Fabrication of electronics work bench consist of four channel Analog Input, 34 channel digital input logic analyzer, arbitrary function generator, DC power supply, and digital multimeter all in one unit as per ANNEXURE A."	1 No

Terms and Conditions:

1. The supplier should submit **sealed quote** for fabrication of the items, including the technical specification and cost of the materials.
2. The material will be inspected before the start of the fabrication.
3. The quotations should have the minimum validity period of two month.
4. BARC being a Government organization is exempted from payment of excise duty. However, excise duty exemption certificates will be issued if required. GST @ 5% will be applicable. Income tax @ 3% & surcharge as applicable on IT will be deducted from your bill.
5. Supplier should submit their offers in their (**via speed post**) letterhead, placed in sealed envelope super scribed with the above-mentioned Reference No., due date and Title Inviting quotation for "Fabrication of electronics work bench consist of four channel Analog Input, 34

- channel digital input logic analyzer, arbitrary function generator, DC power supply, and digital multimeter all in one unit as per ANNEXURE A. " addressed to Head, IADD, BARC, Trombay, Mumbai-400085, on or before 13/04/22 4:00 hours). The quotation should contain the following details like (i) Period of validity, (ii) terms and conditions of offer, (iii) Approximate period of completion of job, (iv) Copies of registration and income tax clearance certificates.
6. The item shall be subjected to inspection by our Scientists / Engineers at the supplier's works. Necessary inspection facilities should be provided to them during fabrication at the supplier's premises. Additional charges will not be admissible for such minor modifications, if any. The item should be delivered to us at **Van De Graff Extension building, IADD, BARC** after approval by our Scientists / Engineers.
 7. Please note that shorter delivery period will be preferred. For any clarifications you may contact, Kewlani Hitesh/ S. H. Gharat IADD, BARC on Tel. 25592070/25593742.
 8. Payment will be made only after delivery and installation of the item to the above-mentioned address and approval by our Scientists / Engineers as per BARC rules.


11/4/22

Dr. S. Krishnagopal
Head, IADD, BARC

डॉ. श्रीनिवास कृष्णगोपाल / Dr. Srinivas Krishnagopal
अध्यक्ष / Head
आयन त्वरक विकास प्रभाग / Ion Accelerator Development Division
भारत सरकार / Government of India
बी.ए.आर.सी., मुंबई / B.A.R.C., Mumbai - 400 055

ANNEXURE A

Subject: "Fabrication of electronics work bench consist of four channel Analog Input, 34 channel digital input logic analyzer, arbitrary function generator, DC power supply, and digital multimeter all in one unit as per ANNEXURE A."

Four channel Analog input

Number of channels	4 single-ended, non-isolated
Bandwidth (-3 dB)	350 MHz
Resolution	8 bits
Accuracy	±2% of input ±1% full scale (Vpk-pk)
Input coupling	DC, AC
Vertical sensitivity (range)	5 mV/div (40 mVpk-pk) 10 mV/div (100 mVpk-pk) 20 mV/div (200 mVpk-pk) 50 mV/div (400 mVpk-pk) 100 mV/div (1 Vpk-pk) 200 mV/div (2 Vpk-pk) 500 mV/div (4 Vpk-pk) 1 V/div (10 Vpk-pk) 2 V/div (20 Vpk-pk) 5 V/div (40 Vpk-pk)

Input impedance (user selectable) 1 M Ω || 15 pF or 50 Ω

Acquisition modes Sample, peak detect, averaging Horizontal System

Maximum sample rate 1.5 GS/s/channel

Maximum record length 1 MS/channel

Digital Channels/Logic Analyzer Vertical System

Number of channels	34
Maximum input frequency	100 MHz
Input voltage	0 V to 5 V
Input current	≤50 μ A
Timing mode sample rate	1 GS/s (down to ~15 kS/s)
Maximum external sample clock rate	100 MHz
Record length	1 MS
Decimation External Sample Clock,	1:1, 2:1, and n*4:1 where n is an integer

Triggering

Trigger modes	Normal, Auto, Single, Force
Trigger sources	Analog channels, digital channels, function generator start, digital I/O lines, external trigger (TRIG), power line frequency
Trigger types	Analog Edge with hysteresis, Digital Edge, glitch5, level, pattern
Trigger resolution	Analog 667 ps; Digital/logic analyzer 1 ns
Trigger export	Available through external trigger (TRIG)

Function Generator (FGEN)

Waveforms	Sine, square, ramp/triangle, DC, arbitrary
Update rate	125 MS/s
Resolution	14 bits
Number of channels	1

Output impedance	50 Ω
Maximum frequency	20 MHz
Triggering	Trigger types Start of buffer10
Trigger resolution	8 ns
Trigger	export Available through external trigger (TRIG)

Digital I/O

Number of channels	8
Direction control	Input or output, software-selectable
Logic level	5 V compatible TTL input, 3.3 V LVTTTL output
Drive strength	4 mA
Input voltage	0 V to 5 V

DC Power Supply

Outputs 3 No

1. 0 V to +6 V/0 A to 3 A
2. 0 V to +25 V/0 A to 1 A
3. 0 V to -25 V/0 A to 1 A

Digital Multimeter

Functions	DC voltage, AC voltage, DC current, AC current, resistance, diode, continuity
Resolution	5½ digits
Sample rate	5 S/s

Connectivity

- Wired USB Interface -- USB specification USB 2.0 Hi-Speed
- Wired Ethernet Interface-- Network interface 1000 Base-TX, full-duplex;

Connectivity

Analog input of 350 MHz	4, BNC
Logic analyzer 1,	2x20 shrouded IDC header
External trigger	1, BNC
Function generator	1, BNC
Digital I/O	Type 1, pluggable screw terminal, 3.5 mm (14 position)

Dimensions

Enclosure	30.48 cm × 20.32 cm × 9.40 cm (12.0 in. × 8.0 in. × 3.7 in.)
Weight	3.130 kg (6 lb 4.4 oz)

Supplied accessories :

- | | |
|--|---------|
| 1. Four probes for Analog Input | [4 No] |
| 2. BNC to BNC 50 Ohm cable 2 meter | [10 No] |
| 3. BNC Male to Micro grabber cable | [10 No] |
| 4. Probe for Digital channel | |
| 5. Screw driver set for star and minus | |

NOTE

[1] Supplier should provide necessary accessories for installation of above mentioned items.

[2] Warranty of work: 1 years