



सत्यमेव जयते

Government of India
Bhabha Atomic Research Centre
ELECTRON BEAM CENTRE
Rain Tree Marg, Sector-7, CBD Belapur,
Navi Mumbai – 400 614, INDIA

Sh. R K Rajawat

AD BTDG

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Ref. No.: BARC/APPD/EBC/VY/2019/121

Date: 15/07/19

Subject: Invitation of Quotation for “Fabrication, testing and supply of Dual channel ultra low current measurement device”

Kindly refer to the subject mentioned above. On behalf of President of India, you are invited to quote for carrying out “**Fabrication, testing and supply of dual channel ultra low current measurement device**”


| Sl. No. | Description of the work | Qty |
|---------|------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1. | Fabrication, testing and supply of dual channel ultra low current measurement device as per details mentioned in Annexure-I | 01 no. |
| | | |

Terms and conditions

1. The supplier should quote for fabrication of the items, including delivery costs.
2. The quotations should have the minimum validity period of two month.
3. GST will be paid as per the applicable rate.
4. Supplier should submit their offers in their letterhead, placed in sealed envelope super scribed with the above mentioned Reference No., due date and Title “ Quotations for “**Fabrication, testing and supply of Dual channel ultra low current measurement device**”. Kind attention: “Shri Vivek yadav”, addressed to “AD BTDG, Electron Beam Center, Sector 7, CBD Belapur, Navi Mumbai-400614”, on or before 25/07 -2019 (before 18:00 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 (v) PAN, GST and registration no.
5. The fabrication of 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. The purchaser has the right to make the minor modifications in the design and drawings. Additional charges will not be admissible for such minor modifications, if any. The item should be delivered to us at **Electron Beam Centre, Rain tree marg, Sector 7, CBD Belapur, Navi Mumbai** after approval by our Scientists / Engineers.

6. Please note that shorter delivery period will be preferred. For any clarifications you may contact, Vivek Yadav, APPD, BARC on Tel. 27524566, Fax. 91-22-27524551.
7. 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.
8. Head APPD, BARC, reserves the right to accept / reject any or all quotations without assigning any reason

Approved by


11/4/19

(R K Rajawat)

Head APPD & AD, BTDG, BARC

आर.के. राजावत / R.K. Rajawat
11/4/19

Encl:

1. Annexure -I (specifications of work)

CC: A.A.O., Works Section,
Central Complex, BARC.

Annexure-I

Specifications of Dual channel ultra low current measurement device

- a) Current measurement range: 0 to 2000 pA or more
- b) Current resolution: 1pA or less
- c) No. of channels: 02
- d) Output bias voltage: $\pm 400V$ or more
- e) Input line voltage: $230V \pm 10\%$, single phase
- f) Remote monitoring: Isolated analog signal of 0-10V corresponding to 0-2000pA or offered range
- g) Linearity: 0.3% of reading for full range of 0-2000pA
- h) Leakage current: less than 10fA
- i) Temperature STABILITY:
It should be less than or equal to 0.01% / °C in the range 10° to 40°C
- j) Display: a) Input current should be measured with a resolution of 1pA or less on a 4 ½ digit or more on a LCD display or similar type
b) Output bias voltage should be displayed with a resolution of 1V or less on 3 digit or more on a LCD display or similar type.
- k) Connector: 1) Tri-axial TNC(F) connector for HV output bias voltage and current measurement
2) Output connector for remote monitoring of voltage signal should be banana connector or BNC(F) coaxial connector.
- l) Vendor's qualification: Vendor should have facility for design and development of electronic devices. Also, vendor should have minimum one engineering graduate as a design engineer of electronic or electrical stream. The Vendor should have previously developed similar device.
- m) Dimensional and weight constraint: The unit should be 19" rack mountable of 2U height or less and depth of less than 500mm. Weight should be less than 5kG.
- n) Vendor will get the final design approved by our engineers before initiating the fabrication of the device.
- o) Acceptance test
 - 1) Vendor will arrange calibrated current source and measurement device. Then vendor will demonstrate the device for the complete current range of 0-2000pA. Display accuracy, linearity and reproducibility will be confirmed as per specifications.
 - 2) Display resolution of input and output voltage will be verified as per specifications.
 - 3) All input and output connectors will be confirmed as per specifications.
 - 4) The device will also be tested with ionization chamber at site before final acceptance.

Prepared by


(Vivek Yadav)

SO/F, APPD, BARC

