## Dept. of Electrical Engineering Indian Institute of Technology Delhi

19<sup>th</sup> January, 2012.

Sealed quotations are invited (in two bids: technical, commercial sealed separately) for supply of High Speed Bipolar Power Amplifier having the following specifications/ features:

## **Technical Specifications for Bipolar Power Amplifier**

- The bipolar power supply should be a wide band power amplifier capable of giving dc plus superimposed ac of frequencies ranging from 0 to 1 MHz with three different range selections (peak-to-peak magnitude, frequency range combinations should be: (i) 100 V: 0.5 MHz to 1MHz, (ii) 125 V: 0.1 MHz to 0.5MHz, (iii) 150 V: 0.0 MHz to 0.1MHz,).
- The slew rate should be: 300 V/µs (at least)
- The power amplifier should be having output voltage and current measurement feature (displaying full voltage and current).
- The power amplifier should be having "OFFset" and "fine adjustment" features ( $\pm 0.5$  V for one rotation)
- Overshoot or sag should be less than 5%
- Output impedance is less than 0.3 Ohms
- Input impedance switching feature, between two different values, is essential. The minimum input impedance selection should be 50 Ohms.
- Gain switching between input and output: In fixed-mode- at least four settings; In continuously variable mode- at least ten rotations.
- The power amplifier should be capable of driven by a laboratory type normal signal generators.
- Power supply requirements: Single phase AC supply- 220V (±10%), 50 Hz (±5 %) (Power supply connecting cable should be compatible to the available three pin plug utility power point of Indian standard)
- Operating Temperature range:  $0 \sim 40^{\circ}$ C

Terms & Conditions: (i) Vendors need to quote the price of equipment on FOB basis, (ii) applicable taxes, (iii) Vendors have to supply the agency certificate and other essential documents, (iv) Warranty period, (v) quote delivery period, (vi) validity of quotation must be three months, (vii) LC terms must be specified clearly, (viii) compliance sheet and checklist of technical specifications must be supplied along with the quotation.

Complete technical information of the equipment should be supplied along with the quotation/ tender documents. Quotations with in-sufficient details of specifications, terms and conditions will not be considered. IIT Delhi reserves the right to reject any quotation or all without assigning any reason. Quotations (Technical and financial bids must be sealed in separate covers) in sealed cover should reach the undersign on or before <u>5.00 P.M of 03<sup>rd</sup></u> **February, 2012**.

## **Terms & Conditions:**

1. Please submit the TECHNICAL and FINANCIAL bids in separate sealed envelopes. Mark the two envelopes clearly as "Technical Bid" and "Financial Bid". Both the sealed envelopes should be sent in a single sealed envelope, with clearly marked as "High Speed Bipolar Amplifier". The quote should reach the following address on or before 03/02/2012 up to 5.00 P.M.

Name: Dr. M. Veerachary, Address:

Dept. of Electrical Engineering, Indian Institute of Technology Delhi, Hauz Khas, NEW DELHI - 110 016

- 2. Please quote prices at FOB New Delhi, inclusive of installation charges.
- 3. Quote should be in Indian Rupees as well as US Dollars and to be valid for at least three months.
- 4. Attach all the technical literature of the above item.
- 5. A minimum of three years comprehensive on site warranty, also exclude warranty for three years.
- 6. Mention if you can provide any technical support like training of IIT Delhi personnel at IIT Delhi or in your factory and providing a technical person for operation of the machine for the initial period of 2 years. Kindly mention about this in the technical bid.
- 7. If the quote is being submitted by the representative of the Principals/manufactures themselves, a valid Agency ship/Dealership Certificate authorizing the agent to quote to IIT Delhi on behalf of the Principals should be enclosed.
- 8. The Institute reserves the rights to accept/reject any/all quotations without assigning any reasons thereof.
- 9. Complete set of manuals for the operation and servicing of equipment should be given. All circuit diagrams, other mechanical and electrical schematics must be provided to Main unit, sub systems and accessories.
- 10. Spare set- A complete set of spares and consumables should be supplied for three years of trouble free operation.
- 11. Delivery period 4-6 weeks on receipt of PO.
- 12. Clearly specify the installation requirements such as space, power, frequency, environment (Temperature and humidity) etc.
- 13. If the items quoted are proprietary in nature, please enclose proprietary certificate from the principals stating "certified that ------ is a proprietary item of M/s. -- \_\_\_\_\_ and no other manufacture make these items".
- 14. If the bidder is Indian agent, the agency certificate should be enclosed.
- 15. Please produce compliance certificate for the specification.
- 16. Please ensure that the Indian agent has been enlisted with the Department of Expenditure, evidence may please be attached.