



Department of Electrical Engineering
Indian Institute of Technology, Delhi
Hauz Khas, New Delhi 110016

NIQ no. IITD/EE/PLN03-BEEN/IEC/11

Due Date: **22.2.2013, 5 PM**

Notice inviting quotations for 15 Function Generators

Sealed quotations are invited for 15 Function Generators. The required specifications are given below. The purchase will be made through a two part bidding process. Technical and Financial bids have to be made separately. Complete technical information should be provided along with the Technical bid. Please refer to the last page on Terms and Conditions for details on how and when to submit Technical and Financial bids.

Required Specifications

1. Frequency range for sine and square waves: 0.1 Hz to 4 MHz.
2. Frequency range for triangle waves: 0.1 Hz to 1 MHz.
3. Frequency resolution of 0.1 Hz.
4. Frequency stability of ± 20 ppm.
5. Frequency accuracy of ± 20 ppm.
6. Frequency ageing of ± 5 ppm.
7. Amplitude range from 2 mV to 10 V pk-pk, driving a 50 Ω load.
8. Output impedance of 50 Ω .
9. Two 20 dB attenuators should be available for use.
10. Harmonic distortion of -55dBc from 0.1 Hz to 200 kHz for the sine wave.
11. DC offset control from -5 V to +5 V.
12. Warranty of 3 years.

Terms and Conditions

1. Please submit the TECHNICAL and FINANCIAL bids in separate sealed envelopes. Mark the two envelopes clearly as “Technical Bid” and “Financial Bid” respectively. Both the sealed envelopes should be sent in a single sealed envelope, clearly marked as “Quotation for 15 Function Generators”. The quote should reach the following address on or before **22.2.2013, 5 PM**.

Dr. S. Chatterjee, II-401
Department of Electrical Engineering
IIT Delhi, Hauz Khas
New Delhi, 110016
2. Please quote prices for FOB New Delhi, inclusive of all taxes and duties.
3. Quote should be in Indian Rupees for agents of Indian manufacturers, or in foreign currency, for agents of foreign manufacturers, and needs to be valid for at least three months.
4. Attach all the technical literature and a list of similar installations done in India.
5. If the quote is being submitted by a representative of the manufacturer, a valid agency-ship or dealership certificate authorizing the agent to quote to IIT Delhi on behalf of the manufacturers should be enclosed.
6. Either the Indian agent on behalf of the principal/OEM, or the principal/OEM can bid, but both cannot bid simultaneously.
7. Complete set of manuals for the operation of the equipment should be given.
8. Clearly specify the installation requirements - such as space, power, frequency, environment etc.
9. If the item quoted is proprietary in nature, please enclose proprietary certificate from the principals stating, “Certified that _____ is a proprietary item of M/s _____ and no other manufacturer makes this item.”
10. Please attach a signed and stamped compliance chart for the specifications. The format of the compliance chart is attached to this document.
11. Please specify all of your terms and conditions clearly, including delivery period.
12. Mode of payment for purchases in foreign currency are through irrevocable letter of credit, or through wire transfer on delivery. Only bank charges within India are payable by IIT Delhi, all bank charges outside India are the responsibility of the seller. For purchases in INR, payment is on delivery.
13. The Institute reserves the right to accept or reject any or all quotations without assigning any reasons thereof.

Dr. S. Chatterjee
(Chairman, purchase committee)

Compliance chart

| Parameter | Requirement | Model spec | Complies? |
|----------------------------|--------------------|------------|-----------|
| Freq range (sine, square) | 0.1 Hz to 4 MHz | | |
| Freq range (triangle) | 0.1 Hz to 1 MHz | | |
| Freq resolution | 0.1 Hz | | |
| Freq stability | ± 20 ppm | | |
| Freq accuracy | ± 20 ppm | | |
| Freq ageing | ± 5 ppm | | |
| Ampl range | 2 mV to 10 V pk-pk | | |
| Output impedance | 50 Ω | | |
| 20-dB attenuators | Two | | |
| Harmonic distortion (sine) | -55 dBc | | |
| DC offset control | -5 to +5 V | | |
| Warranty | 3 year | | |