

S. N. Bose National Centre for Basic Sciences

Block JD, Sector III, Salt Lake, Kolkata – 700098

(An autonomous national centre funded by the Department of Science & Technology, Government of India)

NOTICE INVITING TENDER

Tender No.SNB/PUR/OT/29/024

Dated: 13/11/2014

Sealed tenders are invited for the equipment as per the details enclosed from the reputed, established and competent manufacturers / suppliers in two bids – technical and financial. The details of tender documents are as follows:-

1.	<i>Name of office inviting tender</i>	S.N. Bose National Centre for Basic Sciences Block JD, Sector III, Salt Lake, Kolkata – 700098
2.	<i>Name of equipments</i>	Microwave Analog Signal Generator
3.	<i>Specifications of the equipments</i>	Can be obtained / downloaded from our website address: www.bose.res.in
4.	<i>Separate bid for Part-A: Technical and Part-B: Commercial</i>	One large envelope having two smaller envelopes containing separately – Part-A: Technical bid and Part-B: Commercial bid need to be submitted. Tender ref. no. and item name should be mentioned on top of the large envelope. Two smaller envelopes should be superscribed Technical bid / Commercial bid as the case may be.
5.	<i>Submission of Tender</i>	The tender documents duly filled in arranged and sealed in aforesaid manner should be sent to: The Director, at the address given under SI.No.1 above so as to reach him within 12.12.2014. The envelope should be superscribed “Tender for Item no..... Item Name..... Against Advt. No..... dtd:.....” The commercial bid of only technical qualified tenders will be opened.
6.	<i>Opening of Commercial bid</i>	The Commercial bid will be opened in the presence of Tenderers / their representatives. The tenderer who will qualify for above will be notified in due course after technical selection.
7.	<i>Documents to be attached along with the tender</i>	A list showing names and address of the National Research Institutes / Universities / Centre of Higher Learning around the world to whom similar equipments have been sold mentioning Model number and year of manufacture / supply, including those sold in India.

This Centre will not be responsible for postal or any other delay and the **Authority of the Centre reserves the right to accept or reject any or all tenders without assigning any reason.** Tenders / offers sent by fax / email will not be entertained and would be rejected.

Registrar

S.N. BOSE NATIONAL CENTRE FOR BASIC SCIENCES

General Terms & Conditions:

- 1) The bid should be submitted in two bid system each of which is to be submitted in separate envelope. One envelope should contain “techno commercial bid” i.e., technical specifications, terms and condition, terms of payment except price and another envelope should contain price of the quoted item. Both the envelopes should be separately sealed and kept in another large envelope which should be marked with tender reference number, name of the equipment and tender opening date. Separate bid should be submitted for each of the items. Combined bids will not be entertained.
- 2) The tenderer should have high technical, financial reputation with sufficient experience and capable enough for supply, installation & commissioning of similar type of equipment to actual users. Documentary evidence should be submitted in this respect.
- 3) Against such offers, if statutory requirement demands clearance from concerned Governments the tenderers should confirm in their offer that “Export License” in that respect would be arranged by them at their cost.
- 4) Offers should be complete in all respect indicating therein the unit price(s) including manuals, make, model, duties and taxes, delivery period, gross and net weight of the consignment, terms of payment, together with the descriptive leaflet/catalogue/pamphlet/manufacturer’s brochure.
- 5) The offers shall remain valid at least for a period of **90 days. The period starts from the date of closing of tender submission.**
- 6) The Institute shall not be responsible for delay, loss or non-receipt of the tender through post/Air Mail
- 7) The aforesaid Open Tender is being issued with no financial commitment and purchaser reserves the right to change / vary any items or items thereof at any stage.
- 8) No tenderer shall be entitled for any compensation what so ever for rejection/non consideration of their tender.
- 9) Invitation of tender does not constitute any right or claim for issue of purchase order to the tenderer.
- 10) Only Price Bids will be opened in presence of the technically qualified bidders or their authorized representative who choose to attend on the date and time informed to them after opening of technical bids and its evaluation.
- 11) The Centre will not be responsible for any misprinting by the news papers concerned and inaccessibility of the downloading facility for any reason whatsoever and in that case the tenderer(s) should contact to the tendering authority to verify the fact in case of confusion.
- 12) If any information furnished by the tenderer is found incorrect or false at a later stage he shall be liable to be debarred from ordering / tendering
- 13) For items originating from abroad 80% payment shall be made by letter of credit and the balance 20% payment will be released after successful completion of installation & commissioning at site.
- 14) For indigenous item, payment will be made after satisfactory installation & commissioning of the equipment / instrument at site.

Technical Specification for Microwave Analog Signal Generator

Sl. No	Desired Parameters	Specification
1	Frequency Range	100 KHz to 20 GHz
2	Frequency Resolution	0.001 Hz
3	Resolution of Phase offset	0.1°
4	Reference frequency	10 MHz
	a) Time base aging rate	< ± 1 x 10 ⁻⁶ /year
	b) Internal output & external input	
	CW Switching Speed	< 6 msec
	Step Sweep settling time	< 0.5 msec
5	Frequency up gradation option for future	Up to 50 GHz
6	Output power @ 20 GHz	-120 dBm to +15 dBm
7	High Harmonic suppression	<-30 dBc
8	Impedance	50 ohm
9	RF Output SWR (reflection loss)	≤ 1.6
10	Frequency & power sweep Capability	Single, start/stop, user selectable
11	Modulations Schemes	AM, FM, Phase, Pulse, LF generator
12	Pulse rise time/fall time	< 20 ns
13	Spectral Purity	
	a) Harmonics @ 8dBm	< -30 dBc (-30dBc to -50dBc depends on frequency band)
14	SSB phase noise (dBc/Hz) (CW) @ 1KHz Offset	
	@ 20GHz	< -86 dBc/Hz
	SSB phase noise (dBc/Hz) (CW) @ 10KHz Offset	
	@ 20GHz	< -95 dBc/Hz
15	Interface	IEEE 488.2 (GPIB)/ high speed USB/LAN interface Labview VIs and Commands compatible with Labview programming available for free.
16	Power Supply	240 V AC ± 10 %; 50 Hz Nominal Operation
17	Temperature stability	0.01 dB/°C (typ) for temperatures < 20 °C or > 30 °C
18	Operating temperature	0 °C to +55 °C
19	Climatic resistance	+40°C, 95% relative humidity

Following should also be a part of the technical specification:

- ◆ Warranty: 3 years.
- ◆ Vendor will specify maintenance procedure and after sales service.
- ◆ Provide list of users in Indian Research Laboratories.
- ◆ Instruction/working manual included.

 Quantity Required: 01 no.