



INDIAN INSTITUTE OF TECHNOLOGY KANPUR
CENTER FOR LASERS & PHOTONICS
AND
PHOTONICS SCIENCE & ENGINEERING
PROGRAMME

Prof Asima Pradhan
Professor
Department CELP,
IIT Kanpur

Enquiry no.: *CELP/2013-14/NC/AP/3A*

Enquiry date: 19/12/2013
Last Date: 26/12/2013

Enquiry for one Lock-in Amplifier

We would like to purchase lock-in amplifier for our laboratory scale experimentation.
Offered product should take into account specifications given below.

Specifications:

Two Channels	Signal and Reference
Input Signal	
Voltage	Single ended & differential
Coupling	DC & AC
Sensitivity	(< 2nV) to (>1V)
Current	10^6 or 10^8 V/A
Reference: 1.Type	Internal & External
2.Input	Sinusoidal or TTL
3.Phase Resolution	0.01°
4.Phase Drift	$< 0.1^\circ /C$
5.Minimum Frequency	0
6.Maximum Frequency	>100 KHz
7.Harmonic Detection	2F,3F,---,nF
Internal Oscillator: 1.Frequency Range:	0 to more than 100KHz
2.Accuracy	25 ppm + 30 μ Hz

Asima Pradhan

3.Frequency Resolution	0.1 mHz
4.Output	Analog Sine and TTL
5.Amplitude	0-5 Vrms
6.Amplitude Stability	< 50 ppm/°C
Outputs: X, R, X-noise	±10V updated at frequency more than 512 Hz
Y, θ, Y-noise	±10V updated at frequency more than 512 Hz
Other Facilities	Trigger, Time constants, Dynamic Reserve & Line filters
Connectors:	BNC for X, R, X-noise BNC for Y, θ, Y-noise
Control	Manual and Computer Control through RS232/GPIB/USB

Terms & Conditions:

- 1) All the equipments should be compatible with 210-230V 50-60 Hz AC supply (as per the Indian power supply standard).
- 2) Quotations should have bifurcated in two parts one containing all the technical details of the required item (technical bid) and other should contain only price (financial bid). Both technical bid and financial bid should be sent in sealed envelope separately.
- 3) Cost of the items including relevant accessories with technical specification should be mentioned in detail.
- 4) Prices should include delivery up to IIT Kanpur.
- 5) Warranty should at least be for one year after installation.
- 6) Validity of quotation should be at least for 90 days.
- 7) Delivery period: Within 45 days from the date of purchase order.

Kindly send your best offer (Technical offer separately) and the quotation along with your authorized dealer certificate to address given below.



Dr. Asima Pradhan
 Email: asima@iitk.ac.in
 Phone: 0512-2597691
 Southern Labs, SL-111
 Department CELP
 Indian Institute of Technology Kanpur,
 Kanpur, UP-208016, India