

**Department of Optoelectronics, University of Kerala, Kariavattom,  
Thiruvananthapuram, Kerala, India – 695581, Ph: 91 471 2308167**

**Quotation Notice**

OPTO/P-4/2016-17

Quotations are invited for the following item in the Department of Optoelectronics, University of Kerala, Kariavattom, Thiruvananthapuram

**Item: Chopper**

**Specifications**

- Chopping Frequency, with Various Blades : 1 Hz – 10 kHz
- Frequency Drift : <20 ppm/°C
- Ext. Reference Compatibility : TTL/CMOS
- Frequency Resolution : 0.01 Hz (2-Slot Blade)  
: 1 Hz (All Other Blades)
- External Reference Signal Synchronization
  - Harmonic : 2 to 15X
  - Sub-harmonic : 1/2 to 1/15X
- Crystal-Stabilized, Low Frequency Drift and Phase Jitter
- Harmonic, Sub-harmonic, and Fractional Harmonic Chopping with Sum and Difference Reference Outputs
- 2-Frequency Blades for Pump-Probe and Other Nonlinear Experiments
- Save and Recall User Setups in Non-Volatile RAM
- USB Interface
- Control Software Package

The firms who wish to supply the items are requested to submit the quotation in sealed cover to the undersigned on or before 22.07.2016.

02.07.2016



Professor & Head

PROFESSOR & HEAD  
Department of Optoelectronics  
University of Kerala, Kariavattom  
Thiruvananthapuram - 695 581

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**Quotation Notice**

OPTO/P-5/2016-17

Quotations are invited for the following item in the Department of Optoelectronics, University of Kerala, Kariavattom, Thiruvananthapuram

**Item: Lock-in Amplifier**

**Specifications**

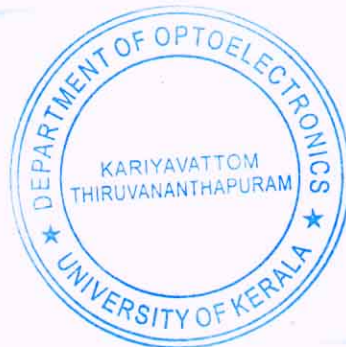
- 1 mHz to 102.4 kHz frequency range
- >100 dB dynamic reserve
- 5 ppm/°C stability
- 0.01 degree phase resolution
- Time constants from 10  $\mu$ s to 30 ks (up to 24 dB/oct rolloff)
- Auto-gain, -phase, -reserve and -offset
- Synthesized reference source
- GPIB and RS-232 interfaces

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**Quotation Notice**

OPTO/P-6/2016-17

Quotations are invited for the following item in the Department of Optoelectronics, University of Kerala, Kariavattom, Thiruvananthapuram

**Item:**

Fabrication of Photo-acoustics cell and Z-Scan setup

- a. For solid samples- front surface and rear surface illumination- microphone detection
- b. For liquid samples- PZT detector
- c. Z-Scan setup with computer interface

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