



INDIAN INSTITUTE OF TECHNOLOGY dhArwAD **ChikkamalligawAD, dhArwAD, KarnATaka - 580011**

For the “Supply and Installation of RF Spectrum analyzer setup accessories & Lock-in amplifier” **INDIAN INSTITUTE OF TECHNOLOGY DHARWAD**

NOTICE INVITING QUOTATIONS FOR LOCAL PURCHASE

1.	Description		For the “Supply and Installation of RF Spectrum analyzer setup accessories & Lock-in amplifier” INDIAN INSTITUTE OF TECHNOLOGY DHARWAD		
2.	Description & Quantity		Sl. No.	Description (RF Spectrum analyzer setup accessories & Lock-in amplifier)	QTY
			1	Piezo Tunable Metric Micrometer Stage, 70mm, Side Drive, Standard Top	1
			2	Piezo Assist Micrometer Stage Controller, 1 Axis	1
			3	Piezo Assist Controller Power Supply	1
			4	Lock-in amplifier	1
3.	Specifications		As per Annexure Given Below		
4.	Procurement Category		OH-35, Electronics Lab Equipment		
5.	Procurement Type		Local Purchase		
6.	Submission of Quotation: by email to mmd.office@iitdh.ac.in and armm@iitdh.ac.in				
7.	Cover No.	Cover Type	Description		
	1	Financial/ Price	Commercial Bid		
8.	Form of Contract		Buy/Supply		
9.	Bid Validity (Days):		30 Days		
10.	Period of Work/Delivery Period (Days)		Delivery period of materials 20 days		
11.	Payment Terms		Within 15 days from the date of delivery and receipt.		
12.	Delivery Location		IIT dhArwAD Permanent Campus, ChikkamalligawAD, dhArwAD-580011, Karnataka, India		
13.	Pin Code		580011		
14.	Quotation Inviting Authority:		Assistant Registrar (MMD), IIT dhArwAD Address: IIT dhArwAD Permanent Campus, ChikkamalligawAD, dhArwAD-580011, Karnataka, India		

Annexure

Detailed Technical Specifications of the RF Spectrum analyzer setup accessories:

1. Piezo Tunable Metric Micrometer Stage, 70mm, Side Drive, Standard Top:

Make: Edmund Optics #23-583 or similar

Type: Metric

Type of Movement: Linear (X)

Guide System: Crossed Roller Bearing

Drive: Side Drive

Stage Size (mm): More than 60X 60

Travel (mm): >12

Center Hole: M6 x 1

Construction: Aluminium

Leadscrew Pitch (mm): 0.5 or better

Load Capacity (kg): 4 or more

Straight Line Accuracy (μm): 2

Pitch (arcsec): 30

Yaw (arcsec): 25

Piezo Travel (mm): 0.03

Piezo Resolution (nm): 20.00

Resolution (μm): 10

2. Piezo Assist Micrometer Stage Controller, 1 Axis:

Make: Edmund Optics #23-586 or similar

Dimensions (mm): 80 x 80 x 25

Input Voltage (V): 6 V VDC

Operating Temperature ($^{\circ}\text{C}$): +5 to +40

3. Piezo Assist Controller Power Supply:

Make: Edmund Optics #28-907 or similar

Output Current (A): 2.4

Output Voltage (V): 6V VDC

4. Lock-in amplifier:

Make: Edmund Optics #55-784 or similar

Time Constant: Selectable: 100 μs to 30s at different ranges

Maximum Acquisition Time (s): 10.00 or better

Phase Control: 90 $^{\circ}$ Steps 0 - 100 $^{\circ}$ Fine Shift Range

Phase Stability ($^{\circ}/^{\circ}\text{C}$): 0.1

Trigger: Sine: 100 mV RMS min (15 V Max.)

Pulse: 5 V, 95% Mark/Space Ratio Min.

Frequency (Hz): 10 - 100,000

Gain (dB): 60.00 or better

Gain Accuracy (%): 1.00

Gain Stability (ppm/ $^{\circ}\text{C}$): 200.00

Input Impedance (k Ω): 109

Power Supply: 230V AC $\pm 5\%$ at 50Hz or 60Hz

Operating Temperature ($^{\circ}\text{C}$): 0 to +40