

**Indian Institute of Technology Kanpur
Department of Physics**

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Tender Notice

Enquiry No.: IITK/PHY/2018-19/10
Enquiry Date: 10/12/2018
Last Date: 02/01/2019

Sealed quotations should reach the undersigned latest by 5:00 pm on 2nd January 2019 for the following items:

S. No.	Description of item	Quantity
1	Phase only Reflective Spatial Light Modulator with reflective LCOS display for 1064 nm.	1
2	Cooling system for the display	1
3	Optional accessories: Additional reflective LCOS display for 532 nm compatible with the same controller	1
4	Optional accessories: Cooling system for the display for 532 nm	1

The above-mentioned item should meet the following technical specifications and appropriate data sheets should be attached showing the extent of compliance:

1. Phase only Reflective Spatial Light Modulator with reflective LCOS display for 1064 nm:

- Display type: Phase only reflective
- Resolution: $\geq 1920 \times 1080$ px
- Active area: ≥ 15.0 mm \times 8.5 mm
- Fill factor: $\geq 93\%$
- Bit depth: ≥ 8 Bit
- Frame rate: Faster than 60Hz
- Reflectivity: $> 92\%$
- Max. phase shift: $\sim 2\pi$ at 1064 nm
- Damage threshold: The display should be able to withstand a 5W expanded CW beam at 1064 nm
- Controller: Appropriate controller for the SLM along with necessary components.

2. Cooling system for the display:

- The above-mentioned display will be used with 5W expanded CW laser beam at 1064 nm. Quote for an appropriate (recommended as per the display damage threshold specification) cooling system.
- Even if no cooling is required (recommended as per the display damage threshold specification) please quote for a passive cooling system with appropriate mount for the display.

3. **Optional accessories: Additional reflective LCOS display for 532 nm compatible with the same controller**

- Quote for an additional display to be used at 532 nm with the following specifications.
- Compatibility: The display should be compatible with the same controller. It should be possible to replace one display with the other.
- Resolution: $\geq 1920 \times 1080$ px
- Active area: ≥ 15.0 mm \times 8.5 mm
- Fill factor: $\geq 93\%$
- Bit depth: ≥ 8 Bit
- Frame rate: Faster than 60Hz
- Reflectivity: $> 92\%$
- Max. phase shift: $\sim 2\pi$ at 532 nm
- Damage threshold: The display should be able to withstand a 10W expanded CW beam at 532 nm

4. **Cooling system for the display:**

- The above-mentioned display will be used with 10W expanded CW laser beam at 532 nm. Quote for an appropriate (recommended as per the display damage threshold specification) cooling system along with the display.

Terms and conditions:

- Quotations should have a validity of a minimum of 60 days.
- The equipment should be provided with a warranty of 1 to 3 years.
- Single technocommercial bid in a sealed envelope should be sent to us with enquiry number mentioned on the envelope. Technical specifications along with the extent of compliance should be mentioned. Quotations that do not provide a compliance sheet will be rejected.
- The delivery period should be specifically stated.
- Permissible educational discount should be provided since the equipment will be used for research work and teaching in an educational institute.
- For suppliers from outside India, the rate offered should show both FOB (specify city) in the country of origin and CIF (New Delhi, India). IIT Kanpur has its own freight forwarder for shipping from outside India.
- IIT Kanpur is exempted from payment of Excise Duty under notification no.10/97 & partially @ 5.15% Customs Duty exemption certificate under notification 51/96. Road permit will be provided if applicable.

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