**Department of Physics, Indian Institute of Technology**

**IIT.P.O. Madras-600 036**

Ref. No. **Date: 19 / 05 / 2017**

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| **PHY** | **2017** | **022** | **STORES** |

To Whom It May Concern:

Dear Sir,  **Due date: 12 / 06 / 2017**

# Please find below the specification of a Shack-Hartmann Wavefront Detector for Beam Profiling we require for purchase. Kindly send us a quotation by the due date mentioned above

# Minimum specification for Shack-Hartmann Wavefront Detector for Beam Profiling (Quantity 1 – 5 nos. please quote unit price)

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Parameters** | **Value** |
| 1 | Spectral Range | 400 - 1100 nm |
|  |  |  |
|  | **General CMOS Camera Specifications** |  |
| 2 | Detector Array Type | CMOS |
| 3 | Camera Resolution | 1440X1080 pixels or larger , software selectable |
| 4 | Pixel Size | 5.0 µm or smaller |
| 5 | Aperture Size | 7 mm x 40 mm or larger |
| 6 | Exposure Range | 4 µs - 83.3 ms |
| 7 | Shutter | Global |
| 8 | Image Digitization | 8 Bit or higher |
|  | **Wavefront Sensor Performance** |  |
| 9 | Wavefront Accuracy | λ/30 rms |
| 10 | Wavefront Sensitivity | λ/100 rms |
| 11 | Wavefront Dynamic Range | >100λ |
| 12 | Wavefront Slope (Max) | ±0.8° |
| 13 | Local Wavefront Curvature | >10.0 mm |
|  | **Microlens Arrays** |  |
| 15 | Coating | AR Coated for 400 - 900 nm |
| 19 | Reflectivity | <1% or less |
| 20 | Number of Active Lenslets | 47 by 35 or more in each dimension |
| 24 | Lenslet Pitch | 150 µm |
| 25 | Lens Shape | Round, Plano-Convex Spherical |
| 26 | Fill Factor | > 70 % |
| 29 | Array Size | 10 mm x 10 mm or larger |

**Accessories**

The vendor may quote optional accessories which can be used with the instrument mentioned for purchase together but will not be used for price comparison.

Please provide a clear warranty statement.

Please send the quotation (technical and price details) by email (signed and scanned) OR hard copy before the due date.

Please mark reference number on top of the quotation.

Yours Sincerely,

**Sivarama Krishnan**

**Co-ordinator**

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