

Government of India
Bhabha Atomic Research Center
Photonics & Nanotechnology Section, AMPD

Reference: AMPD/BARCV/20-21/Minorfab/2

Date: 23.11.2020

SUB: **Fabrication and supply of components to be used in digital holographic microscopy system**

Dear Sir,

1. Quotations are invited for the minor fabrication job, as per the enclosed scope of work
2. Bidder shall quote for fabrication/supply of these components with materials.
3. Taxes shall be quoted separately.
4. The quotation must reach the Head, Photonics & Nanotechnology Section by **15.12.2020** and must be sent in a sealed, printed envelope superscripted with reference number and the due date given above.
5. The address of the envelope should read –

**Head, Photonics & Nanotechnology Section
PEB-6, Gandivanipalem,
Bhabha Atomic Research Centre (BARC),
Dossuru Panchayat, Atchutapuram Mandal,
Visakhapatnam-531011
(Attention: SDVS J Raju)**

1. The finished component shall not be dispatched prior to approval of our engineer at bidder's premises.
2. The bidder shall deliver the finished components after approval by our engineer within 6 weeks from the date of firm work order issued to the bidder. The finished components along with left over material (in case any free material is issued) shall be delivered by the bidder at the address mentioned in point no. 5.
3. Head, PNTS reserves the rights to accept/ reject any or all quotations without assigning any reasons.
4. Delivery charges if any, must be clearly mentioned within the offer.
5. Quotation must also indicate the validity of offer starting from the due date.
6. Drawing / sketches supplied if any, must be returned along with the offer.
7. Quotation is to be in printed letter-head / quotation format only. Quotation received in computer-generated forms will be considered as invalid and rejected.
8. Quotation should consist of Sales Tax registration number (Registered with local ST / CST authority), GSTIN No., PAN number of the firm, services tax registration number etc.
9. Claim preferred by the firms are also to be in printed INVOICE format consisting of the above registration numbers.
10. No free issue material will be given.
11. No advance payment is possible. Payment will be made within 30 days after satisfactory completion of work and on production of bill and advance stamped receipt with bank details.

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Head, Photonics & Nanotechnology Section
BARC, Visakhapatnam - 531011

Scope of work

Fabrication and supply of components to be used in digital holographic microscopy system.

Quantity: 3 Sets(One set consists of all eleven components in the specifications)

I. Specifications

- 1) 2X2 single mode fiber coupler
Single mode Centre wavelength: 632nm
Single mode Band width:±15nm or greater
coupling ratio: 75:25
Coupling ratio tolerance: ±8 % or better
Termination: FC/PC on all ends
- 2) 2X2 single mode fiber coupler
Single mode Centre wavelength: 830nm
Single mode Band width:±15nm or greater
coupling ratio: 75:25
Coupling ratio tolerance: ±5 % or better
Termination: FC/PC on all ends
- 3) Non polarising Cube beam splitter
Side length=20mm
Surface flat ness at 633nm: $\lambda/10$ or better
Clear aperture: 15.5mmx15.5mm or greater
Wavelength range: 400nm to 700nm
Splitting ratio: 50:50
Absolute Transmission at 0 degree incidence angle: 50±13 % or better for 400nm to 700nm wavelength range
Absolute Reflectance at 0 degree incidence angle: 50±13 % or better for 400nm to 700nm wavelength range
- 4) Mounted achromatic doublet lens
Focal length=20mm
Lens diameter=8mm
Threading on mount=M12x0.5
Wavelength range: 650nm to 1000nm
- 5) Single mode fiber patch cord
length=10cm
operating wavelength=633nm
Jacket OD=0.9mm or 3mm
core diameter=4 micrometers
clad diameter=125 micrometers
Termination: FC/UPC at both ends
- 6) Single mode fiber patch cord

length=15cm
operating wavelength=633nm
Jacket OD=0.9mm or 3mm
core diameter=4 micrometers
clad diameter=125 micrometers
Termination: FC/UPC at both ends

- 7) Single mode fiber patch cord
length=10cm
operating wavelength=780nm
Jacket OD=0.9mm or 3mm
core diameter=5 micrometers
clad diameter=125 micrometers
Termination: FC/UPC at both ends
- 8) Single mode fiber patch cord
length=15cm
operating wavelength=780nm
Jacket OD=0.9mm or 3mm
core diameter=5 micrometers
clad diameter=125 micrometers
Termination: FC/UPC at both ends
- 9) FC/PC to FC/PC mating sleeve
2.2mm wide key slot
D-Hole type
Insertion loss:0.5 dB or less
- 10) FC/PC to FC/PC mating sleeve
2.2mm wide key slot
Square flange type
Insertion loss:0.5 dB or less
- 11) Bread Board
Dimensions: 400mm(Length)x400mm(Breadth)x10mm(Thickness)
Material: Aluminium
Finish: Black anodised
Tapping: M6 holes
Surface flatness:±0.18mm over 300mm² area or better