

Notice Inviting Quotation (E-Procurement mode)

INDIAN INSTITUTE OF TECHNOLOGY DELHI

HAUZ KHAS, NEW DELHI-110016

Date: 16/06/2017

Open Tender Notice No. IITD/BPHY(SP-1065)/2017

Indian Institute of Technology Delhi is in the process of purchasing following item(s) as per details as given as under.

Details of the item	Purchase of Optical microscopy components
Earnest Money Deposit to be submitted	Nil
Warranty	1 Year
Performance security	Nil

Tender Documents may be downloaded from Central Public Procurement Portal <http://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement should enroll / register before participating through the website <http://eprocure.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

Tenderers can access tender documents on the website (For searching in the NIC site, kindly go to Tender Search option and type 'IIT'. Thereafter, Click on "GO" button to view all IIT Delhi tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <http://eprocure.gov.in/eprocure/app> as per the schedule given in the next page.

No manual bids will be accepted. All quotation (both Technical and Financial should be submitted in the E-procurement portal).

Schedule

Name of Organization	Indian Institute of Technology Delhi
Tender Type (Open/Limited/EOI/Auction/Single)	Open
Tender Category (Services/Goods/works)	Goods
Type/Form of Contract (Work/Supply/ Auction/ Service/ Buy/ Empanelment/ Sell)	Supply
Product Category (Civil Works/Electrical Works/Fleet Management/ Computer Systems)	Optomechanical
Source of Fund (Institute/Project)	Budget Code: Equipment / Project Code RP02684
Is Multi Currency Allowed	Yes
Date of Issue/Publishing	16/06/17 (15:00 Hrs)
Document Download/Sale Start Date	16/06/17 (15:00 Hrs)
Document Download/Sale End Date	07/07/17 (15:00 Hrs)
Date for Pre-Bid Conference	---
Venue of Pre-Bid Conference	---
Last Date and Time for Uploading of Bids	07/07/17 (15:00 Hrs)
Date and Time of Opening of Technical Bids	10/07/17 (15:00 Hrs)
Tender Fee	Rs. Nil_____-/- (For Tender Fee)
EMD	Rs. Nil_____-/- (For EMD) (To be paid through RTGS/NEFT. IIT Delhi Bank details are as under: Name of the Bank A/C : IITD Revenue Account SBI A/C No. : 10773572622 Name of the Bank : State Bank of India, IIT Delhi, Hauz Khas, New Delhi-110016 IFSC Code : SBIN0001077 MICR Code : 110002156 Swift No. : SBININBB547 (This is mandatory that UTR Number is provided in the on-line quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-II)
No. of Covers (1/2/3/4)	02
Bid Validity days (180/120/90/60/30)	120 days (From last date of opening of tender)
Address for Communication	Dr. Sunil Kumar, Department of Physics, IIT Delhi Hauz Khas, New Delhi 110016
Contact No.	+91-11-2659 1515
Fax No.	+91-11-2658 1114
Email Address	kumarsunil@physics.iitd.ac.in

**Chairman Purchase Committee
(Buyer Member)**

Instructions for Online Bid Submission:

As per the directives of Department of Expenditure, this tender document has been published on the Central Public Procurement Portal ([URL:http://eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app)). The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at:

<http://eprocure.gov.in/eprocure/app>

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal ([URL:http://eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app)) by clicking on the link “Click here to Enroll”. Enrolment on the CPP Portal is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the

bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Space” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as “on-line” to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD / Tender fees is sought, bidders need to pay the tender fee and EMD separately on-line through RTGS (Refer to Schedule, Page No.2).
- 4) A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. In some cases Financial Bids can be submitted in PDF format as well (in lieu of BOQ).
- 5) The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 6) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 7) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 9) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

General Instructions to the Bidders

- 1) The tenders will be received online through portal <http://eprocure.gov.in/eprocure/app> . In the Technical Bids, the bidders are required to upload all the documents in .pdf format.
- 2) Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <https://eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <https://eprocure.gov.in/eprocure/app> under the link “Information about DSC”.
- 3) Tenderer are advised to follow the instructions provided in the ‘Instructions to the Tenderer for the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at <https://eprocure.gov.in/eprocure/app> .

**Department of Physics
Indian Institute of Technology
Hauz Khas, New Delhi-110 016**

NOTICE INVITING QUOTATIONS

Dated: 16/06/2017

Subject: **Purchase of Optical microscopy components**

Invitation for Tender Offers

Indian Institute of Technology Delhi invites online Bids (Technical bid and Commercial bid) from eligible and experienced OEM (Original Equipment Manufacturer) OR OEM Authorized Dealer for **supply & installation of Optical microscopy components** with (warranty period as stated at page #1 of this tender) on site comprehensive warranty from the date of receipt of the material as per terms & conditions specified in the tender document, which is available on CPP Portal <http://eprocure.gov.in/eprocure/app>

TECHNICAL SPECIFICATION:

Sl. No.	Technical Specifications	Qty.	
1	Item name: Optical microscopy components Note : all dimensions are in metric scale	1 set	
	Sub item name	Sub-item specifications	
1.1	Vibration isolation optical table	<ol style="list-style-type: none"> 1. Size: l*b*h = 2.5m*1.2m*210mm 2. Stainless top and bottom skin thickness ~ 6 mm. 3. M6 tapped sealed (25 mm depth) holes on 25 mm center to center spacing and metal to metal bonding. 4. Surface flatness: +/- 0.1 mm or better over any 1 m² area. 5. Broad-band damping specially highly damped for smaller than 100 Hz. 	1
1.2	Passive vibration isolation set of four legs	<ol style="list-style-type: none"> 1. Compatible for the above table 2. Close pneumatic and oil free design for vertical vibration isolation. 3. Stable load capacity of more than 900 kg. 4. 700 mm high 	1
1.3	Breadboard lifting handles	<ol style="list-style-type: none"> 1. set of two 2. weight capacity of >250 kg 3. mounting slots for M6 cap screws 4. black anodized aluminum construction 	1

1.4	Manual XY-linear translational stage	<ol style="list-style-type: none"> 1. central SM1 threaded 25 mm diameter hole 2. Size ~110 mm x 110 mm mounting platform with each axis movement range of 10 mm or larger 3. Array of M6, M4 taps. 4. Resolution of better than 10 micron 5. black anodized aluminum construction 	1
1.5	Pair of Microscope Slide steel Spring Clips:	<ol style="list-style-type: none"> 1. attachable to a stage with M4 tapped holes 2. Contains dowel pins for aligning slides. 	1
1.6	Construction rail 1	<ol style="list-style-type: none"> 1. Dovetail mounting surfaces on all four sides 66 mm construction rail 2. Rail ends tapped with M3/M6 mounting holes rails contains ~55 mm diameter clear aperture through central hole. 3. length ~500 mm. 4. black anodized aluminum construction 	1
1.7	Construction rail 2	<ol style="list-style-type: none"> 1. Single dovetail mounting surface on 66 mm construction rail 2. Rail ends tapped with M3/M6 mounting holes 3. length ~500 mm. 4. black anodized aluminum construction 	1
1.8	Rail Carriage for 66 mm construction rails :	<ol style="list-style-type: none"> 1. Compatible for above mentioned rails. 2. Contains array of M4, M6 and 6-32 tapped holes 3. size ~70 mm x 70 mm or similar 4. black anodized aluminum construction 	2
1.9	Vertical Mounting Plate	<ol style="list-style-type: none"> 1. compatible for above mentioned rails. 2. size ~ 70 mm x 80 mm or similar 3. Four counterbored mounting slots for M6 cap screws. 4. contains array of M4, M6 and 6-32 tapped holes. 5. black anodized aluminum construction 	1
1.10	Double dovetail clamps:	<ol style="list-style-type: none"> 1. compatible for above mentioned 66 mm construction rails. 2. 40 mm long clamp with proper screw. 3. black anodized aluminum construction 	1
1.11	Cross bracket:	<ol style="list-style-type: none"> 1. compatible for above mentioned 66 mm construction rails 2. usable with dovetail clamps. 3. 90 degree intersection between two 66 mm rails. 4. black anodized aluminum construction 	1
1.12	Clamping platform:	<ol style="list-style-type: none"> 1. for above mentioned 66 mm construction rails. 2. M6 counterbored slot 3. ~40 mm long, 4. mountable on rail by two side-mounted screws. 5. black anodized aluminum construction 	1
1.13	Right angle bracket:	<ol style="list-style-type: none"> 1. for above mentioned 66 mm rails. 2. orients two 66 mm rails at 90 degree 3. combines three dovetails in single bracket. 4. used for dovetail clamps 5. black anodized aluminum construction 	1

1.14	Mounting platform:	<ol style="list-style-type: none"> 1. for 66 mm construction rail 2. fastened to rails with dovetail clamps. 3. contains 3 M6 counterbored holes. 4. 50 mm long 5. black anodized aluminum construction 	1
1.15	Mounting post:	<ol style="list-style-type: none"> 1. diameter ~ 1.5 inch 2. solid stainless steel construction 3. length or height ~200 mm. 4. M6 taps on both ends. 	4
1.16	Post mounting clamp:	<ol style="list-style-type: none"> 1. suitable for 1.5 inch diameter post. 2. contains one removable front plate tapped with arrays of M6 and M4 tapped holes and counterboreds. 3. contains a quick-release handle for securing the clamp to a post. 4. black anodized aluminum construction 	1
1.17	Studded pedestal base adapter with M6 thread	Studded pedestal base adapter with M6 thread	4
1.18	Clamping fork for 1.5 inch post pedestal base adapter	Clamping fork for 1.5 inch post pedestal base adapter <ol style="list-style-type: none"> 1. black anodized aluminum construction 	4
1.19	Table clamp:	<ol style="list-style-type: none"> 1. L-shape and rounded lip 2. pack of 5 pcs 3. black anodized aluminum construction 	1
1.20	30 mm cage cube 1:	<ol style="list-style-type: none"> 1. Top and bottom faces 44.5 mm through holes 2. SM threaded hole centered on each side face 3. clearance slots for 6 mm diameter cage rods on two opposing sides 4. Four 4-40 tapped holes on each of other two opposing sides. 5. black anodized aluminum construction 	3
1.21	30 mm cage cube connector:	<ol style="list-style-type: none"> 1. connects two 30 mm cages cubes side by side. 2. contains four 4-40 button head screws, 3. contains two 4-40 flat head screws, 6. black anodized aluminum construction 	1
1.22	30 mm cage cube 2:	<ol style="list-style-type: none"> 1. top and bottom faces 44.5 mm through holes, 2. All four sides have four 4-40 tapped holes around an SM1 threaded hole 3. Compatible with 6 mm diameter cage rods 4. black anodized aluminum construction 	3
1.23	30-mm-Cage-Compatible Rectangular Filter Mount:	<ol style="list-style-type: none"> 1. for optics from 26 - 43 mm Long 2. for optics thickness of 3.0 mm or larger. 3. black anodized aluminum construction 	3
1.24	Right-Angle Kinematic Mirror Mount with Tapped Cage Rod Holes:	<ol style="list-style-type: none"> 1. compatible for 30 mm Cage System 2. SM1 Compatible 3. M4 and M6 Mounting Holes 4. Mounts 25.4 mm Optics at a 45° Angle to the Optical Axis 5. Eight 4-40 Tapped Holes for <u>Cage Rods</u>, 6. ±4° Kinematic Tip and Tilt Adjustment 7. black anodized aluminum construction 	1

1.25	1-inch Optic Mount for 30 mm Cage Cube:	<ol style="list-style-type: none"> 1. supplied with Setscrew Optic Retention 2. Optics thickness up to 3 mm or larger. 3. black anodized aluminum construction 	3
1.26	1-inch Optic Mount with SM1-Threaded Bore:	<ol style="list-style-type: none"> 1. compatible for 30 mm Cage Cube 2. Optic thickness up to 3.4 mm 3. black anodized aluminum construction 	3
1.27	XY Translating Mount:	<ol style="list-style-type: none"> 1. compatible for 30 mm Cage System 2. suitable for 1-inch optics 3. supplied with quick release plate 4. travel range 1 mm 5. SM1 threaded 6. black anodized aluminum construction 	1
1.28	30 mm Cage Mounting Bracket:	<ol style="list-style-type: none"> 1. M4 tapped hole 2. black anodized aluminum construction 	2
1.29	Cage Assembly Rod:	<ol style="list-style-type: none"> 1. 4-inch Long, 2. 4 mm diameter, 3. pack of 4 4. Suitable with 30 mm Cage Systems, 5. 4-40 Removable Setscrew at Both Ends, 6. Material stainless steel 	4
1.30	Cage Assembly Rod:	<ol style="list-style-type: none"> 1. 8-inch Long 2. 6 mm diameter 3. pack of 4 4. Suitable with 30 mm Cage Systems, 5. 4-40 Removable Setscrew at Both Ends 6. Material stainless steel 	4
1.31	30 mm Cage Cube Clamp:	<ol style="list-style-type: none"> 1. Min thickness 11.5 mm 2. Max thickness 29.2 mm 3. 1/8 inch Hex Socket Adjuster Clamp with Delrin-Tipped Swivel Head 4. black anodized aluminum construction 	2
1.32	Small Adjustable Clamping Arm:	<ol style="list-style-type: none"> 1. M4 Threaded Post 2. Holds Optics up to 24.6 mm Tall 	3
1.33	Fixed Cage Cube Platform:	<ol style="list-style-type: none"> 1. compatible for 30 mm cage cubes 2. Four M4 and Four M3-Tapped Holes, 3. Four M3 Button-Head Screws 4. black anodized aluminum construction 	3
1.34	Kinematic Cage Cube Platform:	<ol style="list-style-type: none"> 1. compatible for 30 mm cage cubes 2. Four M4 and Five M3 Tapped Holes 3. Pitch, Roll, and Z Translation 4. black anodized aluminum construction 	1
1.35	30 mm cage cube Platform Adapter Kit:	<ol style="list-style-type: none"> 1. Four M3 Button-Head Screws for Mounting 2. Compatible with various 30 mm cage cube cover plates. 3. black anodized aluminum construction 	2
1.36	Blank Cover Plate:	<ol style="list-style-type: none"> 1. Compatible with 30 mm cage cubes. 2. four M3 Cap Screws included. 3. M4 taped holes 	2

		4. black anodized aluminum construction	
1.37	SM1 Threaded Cover Plate	1. compatible for 30 mm cage cubes 2. four M3 cap screws included. 3. M4 taped holes 4. black anodized aluminum construction	2
1.38	Right-Angle Bracket with Counterbored Slots:	1. Counterbored M6 slots 2. M6 Tapped Holes 3. M3 tapped holes 4. Dimension 50.8 mm x 38.1 mm x 50.8 mm 5. black anodized aluminum construction	1
1.39	Slim Right Angle Bracket with Counterbored holes:	1. counterbored M3 holes 2. M6 Tapped Holes 3. Dimension :50.8 mm x 19.1 mm x 50.8 mm 4. black anodized aluminum construction	1
1.40	Slim Right-Angle Bracket with Counterbored Slots:	1. M6 Tapped Holes 2. Dimension 50.8 mm x 19.1 mm x 50.8 mm 3. black anodized aluminum construction	1
1.41	Right-Angle Bracket with counterbored slots	1. M3, M4, M6 taped holes, M3 taps. 2. black anodized one piece aluminum construction 3. Angled rear support structure 4. each side Dimension: at least 50 mm x 50 mm 5. black anodized aluminum construction	1
1.42	SM1-Threaded 30 mm Cage Plate:	1. at least 8 mm Thick 2. 2 Retaining Rings 3. M4 Tap 4. black anodized aluminum construction	2
1.43	SM1-Threaded 30 mm Cage Plate:	1. 6 mm Thick 2. black anodized aluminum construction	2
1.44	30 mm Cage Plate with 1-inch Double Bore:	1. M4 Tap 2. Nylon-Tipped Locking Setscrew 3. black anodized aluminum construction	2
1.45	30 mm Cage Plate to half-inch Post Adapter:	1. 10 mm Spacing 2. SM1 threaded 3. black anodized aluminum construction	1
1.46	Rotation Platform:	1. compatible for 30 mm Cage Cube 2. Platform Includes Alignment Marks for 5 mm, 10 mm, 20 mm, and 25.4 mm Cube Optics 3. M3 , M4 taps 4. Continuously rotatable 5. black anodized aluminum construction	1
1.47	Rotation Mount for 1-inch Optics:	1. SM1 Threaded 2. Compatible for 30 mm cage 3. M4 Tap 4. 360 ⁰ continuous rotation 5. 9.4 mm or similar optic thickness 6. black anodized aluminum construction	1

1.48	Z-Axis Translation Mount:	<ol style="list-style-type: none"> 1. compatible for 30 mm Cage 2. SM1-threaded 2. 1-inch optical size 3. max optical thickness ~7 mm 4. travel range 0-2 mm or similar 5. Travel resolution 50 μ m/rev 6. black anodized aluminum construction 	1
1.49	Low Auto-fluorescence Immersion Oil:	<ol style="list-style-type: none"> 1. n = 1.518 2. Nikon Type N 3. quantity 50 mL 4. Viscosity 150 mm²/cm 	1
1.50	40X Olympus Plan Achromat Objective:	<ol style="list-style-type: none"> 1. 0.65 NA 2. 0.6 mm WD 3. RMS threading, 4. 45.06 mm Parfocal Length 	1
1.51	Adapter with External SM1 Threads and Internal RMS Threads	<ol style="list-style-type: none"> 1. Adapter with External SM1 Threads and Internal RMS Threads 2. black anodized aluminum construction 	2
1.52	1-inch diameter Aspheric Condenser Lens:	<ol style="list-style-type: none"> 1. focal length 16 mm 2. Numerical aperture 0.79 3. uncoated 4. Clear aperture > 22.9 mm 5. Non-aspheric surface spherical convex 	1
1.53	1-inch diameter Aspheric Condenser Lens:	<ol style="list-style-type: none"> 1. focal length 16 mm 2. Numerical aperture 0.79 3. anti-reflection coating 350-700 nm 4. Clear aperture > 22.9 mm 5. Non-aspheric surface spherical convex 	1
1.54	1-inch diameter Aspheric Condenser Lens:	<ol style="list-style-type: none"> 1. focal length 16 mm 2. Numerical aperture 0.79 3. anti-reflection coating 650-1050 nm 4. Clear aperture > 22.9 mm 5. Non-aspheric surface spherical convex 	1
1.55	Negative 1951 USAF Test Target:	<ol style="list-style-type: none"> 1. 1-inch outer diameter target for alignment 	1
1.56	Adapter for half-inch Optic, Mount:	<ol style="list-style-type: none"> 1. Outer diameter 1-inch 2. optic thickness ~5.6 mm 3. Counterbore 12.7 mm 4. black anodized aluminum construction 	2
1.57	1-inch diameter SM1-thread mounted Plano-Convex Lens:	<p>Focal length of 50 mm, Anti-reflection coating for 350 - 700 nm; Radius of curvature 23 mm, Back focal length 46 mm, Working distance 42.2 mm; Fabricated from UV grade fused silica;</p>	2

1.58	1-inch diameter SM1-thread mounted Plano-Convex Lens:	Focal length of 100 mm, Anti-reflection coating for 350 - 700 nm; Radius of curvature 46 mm, Back focal length 97.4 mm, Working distance 94.6 mm; Fabricated from UV grade fused silica;	2
1.59	1-inch diameter SM1-thread mounted Plano-Convex Lens	Focal length of 50 mm, Anti-reflection coating for 650 - 1050 nm; Radius of curvature 23 mm, Back focal length 46 mm, Working distance 42.2 mm; Fabricated from UV grade fused silica;	2
1.60	1-inch diameter SM1-thread mounted Plano-Convex Lens:	1. Focal length of 100 mm, 2. Anti-reflection coating for 650 - 1050 nm 3. Radius of curvature 46 mm, 4. Back focal length 97.4 mm, Working distance 94.6 mm 5. Fabricated from UV grade fused silica	2
1.61	Ruled Reflective Diffraction Grating:	1. Grooves 600/mm, 2. 750 nm Blaze wavelength 3. Dimension 12.7 x 12.7 x 6 mm, 4. Blaze angle 13 ⁰ , 5. Dispersion 1.62 nm/mrad, 6. Aluminum reflective coating	1
1.62	Kinematic Grating Mount Adapter:	1. for Grating Height ~20 mm 2. height adjustable from less than 20 mm to 20 mm or more 3. grating width 22 mm at least 4. grating thickness 4-8 mm 5. black anodized aluminum construction	1
1.63	Compact Dual Filter Holder:	Compact Size: 8 mm x 12.7 mm x 30 mm; Holds Two Thin Cards or Filters Simultaneously; Maximum Filter Thickness: 1.5 mm with Two Optics M4 tapped holes for mounting;	1
1.64	Compact Flexure Plate Clamp:	1. Post mountable 2. M6 Tap 3. Thumbscrew for sample locking 4. black anodized aluminum construction	1
1.65	Filter Holder Stackable:	1. suitable for filters of thickness at least 2 mm 2. M4 tapped hole for post mounting 3. black anodized aluminum construction	1
1.66	Large V-Clamp with Clamping Arm:	1. clamping arm length at least 63 mm 2. Three M4 tapped holes 3. Four M6 holes 4. included clamping arm with nylon-tipped setscrew 5. black anodized aluminum construction	1

1.67	Small V-Clamp with Clamping Arm:	<ol style="list-style-type: none"> 1. clamping arm length atleast 20 mm. 2. M4 holes 3. includes clamping arm with nylon-tipped setscrew 4. black anodized aluminum construction 	1
1.68	Post Clamp Mount for 12.7 mm Posts:	<ol style="list-style-type: none"> 1. includes a clamping arm with nylon-tipped setscrew 2. the setscrew is adjustable using 2 mm hex key 3. side located thumbscrew for locking 	2
1.69	Reflective 25 mm diameter SM1-mounted ND Filters:	<ol style="list-style-type: none"> 1. supplied in a box 2. set of 10 filters: OD = 0.1 to 4.0 	1
1.70	Nested 1-inch diameter Lens Holder inner ring:	<ol style="list-style-type: none"> 1. Laser Engraved Graduation Marks Every 2° Labeled Every 20° 2. included retaining ring 3. black anodized aluminum construction 	1
1.71	Nested 1-inch diameter Lens Mount Outer Ring:	<ol style="list-style-type: none"> 1. Suitable for above nested 1-inch lens holder inner ring. 2. M4 Tap for post mounting 3. Thumbscrew for locking 4. black anodized aluminum construction 	1
1.72	Rotation Mount for 25.4 mm round Optics:	<ol style="list-style-type: none"> 1. 360° Continuous Rotation 2. Laser-Engraved Graduation Marks at 2° Increments and 20 arcmin Vernier Scale 3. Lockable at any angle 4. M4 Tap for mounting 5. black anodized aluminum construction 	1
1.73	1.40-inch diameter metric Rotation Stage:	<ol style="list-style-type: none"> 1. Laser-Engraved Graduation Marks at 2° Increments and 20 arcmin Vernier Scale 2. Mounting Platform Height: ~0.5 inch " 3. Platform Mounting Taps: M3 and M4 4. Load Capacity: 20 kg or larger with Stage Mounted on Horizontal Surface, 5. Four M6 Clearance Holes to Mount to Optical Tables or Breadboards 6. 360° Continuous Rotation 7. black anodized aluminum construction 	1
1.74	12.7 mm Dovetail Translation Stage:	<ol style="list-style-type: none"> 1. M4 Taps 2. Lockable moving platform 	2
1.75	12.7 mm XYZ Dovetail Translation Stage:	<ol style="list-style-type: none"> 1. included Baseplate 2. M4 Taps 	1
1.76	Top Plate for 12.7 mm dovetail translation stage:	<ol style="list-style-type: none"> 1. M3 and M4 Tapped in four regions 2. M4 tap for mounting 2. Flatness: 0.05 mm 	1
1.77	Angle Bracket for 12.7 mm dovetail translation stage:	<ol style="list-style-type: none"> 1. M4 tap for mounting on both plates of the bracket 	1

1.78	Kinematic Prism Mount:	<ol style="list-style-type: none"> 1. 25.4 mm Deep 2. M4 Taps 3. Two 80 TPI Adjusters for $\pm 4^\circ$ Fine Tip and Tilt Control, 4. 8 mrad adjustment per revolution 5. Black anodized Aluminum 	2
1.79	Kinematic Platform Mount:	<ol style="list-style-type: none"> 1. Platform size 48.6 mm x 48.6 mm 2. Two 80 TPI Adjusters for Fine Tip and Tilt Control 3. M4 holes on the platform 4. Black anodized Aluminum 	2
1.80	1-inch round optic Clear-Edge Kinematic Mirror Mount:	<ol style="list-style-type: none"> 1. two Adjusters for angular adjustment of ± 4 degrees 2. resolution of 8.3 mrad/rev 3. optic thickness at least 5 mm 4. black anodized aluminum construction 	10
1.81	1-inch round optic Kinematic Mirror Mount::	<ol style="list-style-type: none"> 1. For Optic thickness atleast 3 mm 2. Optic Held with a Nylon-Tipped Setscrew 3. Angular Range: $\pm 4^\circ$ 4. Resolution: 0.5 degrees per rev or similar 5. Two ¼ inch-80 Precision Adjusters 6. Two Counterbored M4 Through Holes for horizontal or vertical orientation 7. black anodized aluminum construction 	10
1.82	Compact Kinematic Mirror Mount:	<ol style="list-style-type: none"> 1. Hex Adjusters 2. M4 Taps for Post Mounting 3. Compact Profile: 25.4 mm x 28.7 mm x 20.1 mm 4. Angular Range: $\pm 4^\circ$, 5. Shortened Adjuster Screws for Reduced Footprint 6. black anodized aluminum construction 	4
1.83	Mirror Holder for 1-inch Optics:	<ol style="list-style-type: none"> 1. optic thickness of 2.5 - 6.1 mm 2. Outer rings holds the mirror in the base plate 3. black anodized aluminum construction 	4
1.84	2-inch optics Kinematic Mirror Mount:	<ol style="list-style-type: none"> 1. Optic thickness 4 mm or larger 2. Optics Held with a Nylon Tipped Setscrew 3. Angular Range: $\pm 3^\circ$ 4. Resolution: 0.3 degrees per Rev via Two ¼ inch-80 Precision Adjusters six Counterbored M4 Through Holes for mounting 5. black anodized aluminum construction 	2
1.85	1-inch diameter Protected Aluminum Mirror:	<ol style="list-style-type: none"> 1. thickness of 3.2 mm 	20
1.86	1-inch diameter Protected Silver Mirror:	<ol style="list-style-type: none"> 1. thickness 3.2 mm 	10
1.87	1-inch square Broadband Dielectric Mirror:	<ol style="list-style-type: none"> 1. 400 - 750 nm 2. Material Fused silica substrate 	1
1.88	1-inch square Broadband Dielectric Mirror:	<ol style="list-style-type: none"> 1. range 750 - 1100 nm 2. Material Fused silica substrate 	1

1.89	1-inch Square Protected Aluminum Mirror:	1. thickness of 3.2 mm	4
1.90	1-inch Square Protected Silver Mirror:	1. thickness of 3.2 mm	2
1.91	2-inch diameter Protected Aluminum Mirror:	1. thickness of 3.2 mm	1
1.92	2-inch diameter Protected Silver Mirror:	1. thickness of 3.2 mm	1
1.93	2-inch Protected Aluminum Mirror:	1. thickness 3.2 mm	1
1.94	2-inch Square Protected Silver Mirror	1. thickness 3.2 mm	1
1.95	1-inch diameter Aluminum-Coated Concave Mirror:	1. focal length 50 mm 2. radius of curvature 100 mm	2
1.96	2-inch diameter Aluminum-Coated Concave Mirror:	1. focal length of 100 mm 2. radius of curvature of 200 mm	2
1.97	1-inch UV-Enhanced Aluminum D-Shaped Mirror:	1. More than 90% reflection in the 250-450 nm range 2. thickness ~5-7 mm	1
1.98	1-inch broadband dielectric D-Shaped Mirror:	1. Spectral range 750 - 1100 nm 2. thickness ~5-7 mm	1
1.99	Kinematic mirror Mount for 1-inch D-Shaped Mirrors:	1. 6 mm max optic thickness 2. Mount horizontally and vertically 3. Angular range of $\pm 4^\circ$, 4. Resolution ~0.5 degrees per rev 5. black anodized aluminum construction	1
1.100	Fixed Mount for 1-inch D-Shaped Mirrors:	1. M4 Taps on two sides 2. Nylon-Tipped Locking Setscrew with 5/64" (2.0 mm) Hex on one side. 3. 6.1 mm max optic thickness, 4. black anodized aluminum construction	1
1.101	2 mm Hex Key Thumbscrew:	1. supplied in pack of 4	1
1.102	Fixed 1-inch diameter optical mount:	1. M4 Tap at bottom for vertical mounting 2. Nylon-Tipped Locking Setscrew with 5/64" (2.0 mm) Hex on the top 3. Includes retaining ring 4. supplied in pack of 5 5. black anodized aluminum construction	1
1.103	Half-inch Lens Mount:	1. For half-inch optics 2. M4 tap at the bottom for vertical mounting 3. Included retaining ring 4. 5 mm optic thickness 5. 11 mm clear aperture 6. 16 mm optical height from bottom 7. black anodized aluminum construction	2

1.104	One-inch Lens Mount:	<ol style="list-style-type: none"> 1. For 1-inch optics 2. M4 tap at bottom for vertical mounting 3. 7.1 mm optic thickness 4. 23 mm clear aperture 5. 22.1 optical height from bottom 6. includes retaining ring 7. supplied in pack of 5 pcs 8. black anodized aluminum construction 	2
1.105	One-inch Lens Mount with Internal and External SM1 Threads	<ol style="list-style-type: none"> 1. M4 Tap at bottom for vertical mounting 2. 7.1 mm optic thickness 3. 23 mm clear aperture 4. 22.1 mm optical height 5. included retaining ring 6. black anodized aluminum construction 	4
1.106	Half-inch Lens Mount with Internal and External SM05 Threads:	<ol style="list-style-type: none"> 1. M4 tap at bottom for vertical mounting 2. Clear 16 mm optical height from bottom 3. 10.9 mm clear aperture 4. included retaining ring 5. black anodized aluminum construction 	2
1.107	90 degree Flip Mount:	<ol style="list-style-type: none"> 1. For 1-inch diameter optics 2. M4 tapped hole for mounting 3. included retaining ring 4. black anodized aluminum construction 	2
1.108	120-degree clear-Edge Flexure Mount :	<ol style="list-style-type: none"> 1. For 1-inch diameter optics. 2. M4 tapped hole 3. 6-80 adjuster for $\pm 4^\circ$ Pitch Adjustment 4. black anodized aluminum construction 	2
1.109	Adjustable Flip mount:	<ol style="list-style-type: none"> 1. Mount platform size ~40 mm x 40 mm and having array of M4 holes. 2. 90 and 180 degree adjustment range 3. Side locking 4. black anodized aluminum construction 	5
1.110	Centering Plate for mirror mounts:	<ol style="list-style-type: none"> 1. M6 Tapped holes 2. 30 mm length 3. 2 M4 holes for mounting the mirror mounts. 4. black anodized aluminum construction 	2
1.111	45° Mirror Mount:	<ol style="list-style-type: none"> 1. For 1-inch optics of thickness 3 mm. 2. Back side clear aperture of 13.9 mm 3. Bottom clear aperture 12.7 mm 4. black anodized aluminum construction 	4
1.112	45° Mounting Adapter:	<ol style="list-style-type: none"> 1. M4 and M6 taps, 2. Black anodized aluminum 3. black anodized aluminum construction 	2
1.113	Optical posts:	<ol style="list-style-type: none"> 1. Half inch diameter. 2. Stainless steel construction 3. 8-32 setscrew 4. Quarter inch-20 tap 5. Length = 2 inches 6. Supplied in packs of 5 	2

1.114	Post Holder:	<ol style="list-style-type: none"> 1. For half inch posts. 2. Spring-Loaded Hex-Locking Thumbscrew, 3. Length 1.5 inch 4. Supplied in pack of 5 5. M6 mounting hole at the bottom plate. 6. black anodized aluminum construction 	2
1.115	Right-Angle 0.5 inch to 6 mm Post Clamp:	<ol style="list-style-type: none"> 1. 5 mm Hex Thumbscrew 2. black anodized aluminum construction 	4
1.116	Right-Angle End Clamp:	<ol style="list-style-type: none"> 1. Suitable for 12.7 mm or half inch diameter posts. 2. M6 stud and 5 mm hex 3. Clamp angle 90 degree 4. Each pack of 5 5. black anodized aluminum construction 	1
1.117	Right-Angle Clamp:	<ol style="list-style-type: none"> 1. Suitable for 12.7 mm or half inch diameter posts. 2. Clamp angle 90 degree 3. Pack of 5 4. black anodized aluminum construction 	1
1.118	Centered Mounting Post Joist:	<ol style="list-style-type: none"> 1. M4 Mounting Hardware, 2. M4 counterbored slots on either side of central mounting hole. 3. black anodized aluminum construction 	2
1.119	Nanosecond Pulsed Laser Diode System:	<ol style="list-style-type: none"> 1. Supplied with all necessary accessories including power supply, cables, software, etc. 2. Center wavelength 520 nm 3. Pulse duration adjustable from 5 to 40 ns. 4. Average power more than 10 mW. 5. Generates Pulses with or without a User-Supplied Trigger 6. Internally Triggered Pulse Rates variable between 1-10 MHz 	1
1.120	Epoxy encased white LED with a Glass Lens in TO-18 or T1 – $\frac{3}{4}$ package:	<ol style="list-style-type: none"> 1. center wavelength 430-660 nm 2. optical power 10 mW or higher 3. supplied in pack of 5. 	2
1.121	LED for 375 nm with a Glass Lens in TO-18 or T1 – $\frac{3}{4}$ package:	<ol style="list-style-type: none"> 1. center wavelength 375 nm with FWHM ~10 nm optical power 2 mW or higher 	2
1.122	LED for 405 nm with a Glass Lens in TO-18 or T1 – $\frac{3}{4}$ package:	<ol style="list-style-type: none"> 1. center wavelength 405 nm with FWHM ~15 nm optical power 10 mW or higher 	2
1.123	LED for 450 nm with a Glass Lens in TO-18 or T1 – $\frac{3}{4}$ package:	<ol style="list-style-type: none"> 1. center wavelength 450 nm with FWHM ~20 nm optical power 7 mW or higher 	2
1.124	LED for 505 nm with a Glass Lens in TO-18 or T1 – $\frac{3}{4}$ package:	<ol style="list-style-type: none"> 1. center wavelength 505 nm with FWHM ~30 nm optical power 4 mW or higher 	2
1.125	LED for 590 nm with a Glass Lens in TO-18 or T1 – $\frac{3}{4}$ package:	<ol style="list-style-type: none"> 1. center wavelength 590 nm with FWHM ~20 nm optical power 2 mW or higher 	2
1.126	LED for 670 nm with a Glass Lens in TO-18 or T1 – $\frac{3}{4}$ package:	<ol style="list-style-type: none"> 1. center wavelength 670 nm and FWHM of ~15 nm. optical power 12 mW or higher. 	2

	package:		
1.127	USB-Powered LED Mount:	1. External SM05 Mounting Thread, 2. Includes Micro-B USB to USB Type 3. Includes a Cable for Power LED Module	1
1.128	SM1-threaded mount for LEDs:	1. For LED models such as TO-18 and TO-39, TO-46, or T-1 3/4 LEDs with all support accessories	2
1.129	Two-pin Socket for LEDs:	1. Beryllium copper conductor pins 2. Teflon insulator, 3. 0.41 mm compatible lead diameter, 5.6 mm compatible lead length, 4. 5.8 mm outer diameter, 6.9 mm substrate thickness	4
1.130	NIR detector card	1. Dimensions (W x H): ~5 cm x 7 cm with most part as active region 2. Absorption 700-1400 nm 3. Emission in visible range	1
1.131	VIS/IR fluorescing 25.4 mm diameter alignment disc:	1. Absorption 400 - 640 nm, 800 - 1700 nm 2. 1.5 mm Central Hole 3. Emission 580-750 nm	1
1.132	IR fluorescing 25.4 mm diameter alignment disc:	1. 1.5 mm central hole 2. Absorption 790-840 nm, 870-1070 nm, 1500-1590 nm 3. Emission 520-780 nm	1
1.133	Frosted Glass Alignment Disk	1. SM1-Mounted 2. 1 mm diameter hole in the center 3. 500 Grit Ground Glass on Both Sides with Drilled Centering Hole	1
1.134	Large Area Mounted Silicon Photodiode:	1. 10 ns rise time @ 632 nm, 20 V 2. SM05 threaded 3. active area 13 mm ² , 4. Dark current ~1 nA @ 1 V 5. spectral range 350-1100 nm 6. Reverse bias voltage 25 V (max) 7. Cathode Grounded	1
1.135	Large Area Mounted Germanium Photodiode	1. 600 ns rise time @ 3 V, 2. active area 7.1 mm ² 3. Cathode Grounded 4. Dark current 4 μA @ 1 V, 5. spectral range 800-1800 nm 6. Reverse bias voltage 3 V 7. SM05 threaded.	1
1.136	Bias Module for Mounted Photodiodes:	1. BNC Input and SMA Output 2. Bias voltage -25 to +25 V, 3. Cutoff frequency 350 MHz, 4. DC input connector 2.5 mm phono, 5. Housing dimensions ~63 mm x 35.6 mm x 20.3 mm 6. Post Mountable via Bottom-Located 8-32 and M4 Taps	1

1.137	Si Photodiode:	<ol style="list-style-type: none"> wavelength range of 350-1100 nm Rise Time <10 ns, active area of 3.6 mm x 3.6 mm Dark current ~1.0 nA @ 20 V, Junction capacitance ~24 pf @ 20 V, package TO-5 	2
1.138	Solder Tail Photodiode Socket for TO-8 Diodes:	<ol style="list-style-type: none"> Material Beryllium copper, Compatible lead diameter of 0.38 - 0.51 mm Current rating 3A, Resistance 10 mΩ (max), outer diameter 14 mm, Substrate thickness 3.18 mm 	5
1.139	Solder Tail Photodiode Socket for TO-5 and TO-39 Diodes:	<ol style="list-style-type: none"> Material Beryllium copper, Compatible lead diameter of 0.38 - 0.51 mm Current rating 3A, Resistance 10 mΩ (max), outer diameter 9.1 mm, Substrate thickness 3.18 mm 	5
1.140	Biased Si detector:	<ol style="list-style-type: none"> spectral range if 200-1100 nm rise time ~ 1 ns active area ~1 mm² M4 tapped hole for mounting internal A23 – 12 V VDC bias battery and external supply option included housing contains SM1 thread for connecting fiber adapters BNC output 	2
1.141	Biased Si detector:	<ol style="list-style-type: none"> spectral range if 350-1100 nm rise time ~ 14 ns active area ~13 mm² M4 tapped hole for mounting internal A23 – 12 V VDC bias battery and external supply option included housing contains SM1 thread for connecting fiber adapters BNC output 	2
1.142	Wall Mount cable rack:	<ol style="list-style-type: none"> Test lead holder for wires up to 5.33 mm diameter and 14 slots for cables Material: Cold rolled steel with a baked enamel finish Four mounting halls saperated by ~75 mm length ~280 mm 	2
1.143	SMA Fiber Adapter Plate with External SM1 Thread	SMA Fiber Adapter Plate with External SM1 Thread	2
1.144	ST/PC Fiber Adapter Plate with External SM1 Thread	ST/PC Fiber Adapter Plate with External SM1 Thread	2
1.145	FC/PC Fiber Adapter Plate with External SM1 Thread	FC/PC Fiber Adapter Plate with External SM1 Thread	2
1.146	SC/PC Fiber Adapter Cap with Internal SM1 Thread	SC/PC Fiber Adapter Cap with Internal SM1 Thread	1
1.147	LC/PC Fiber adapter cap with internal SM1 thread	LC/PC Fiber adapter cap with internal SM1 thread	1

1.148	Step-index multi-mode fiber patch cable SMA ended:	<ol style="list-style-type: none"> 1. Core diameter $50 \mu\text{m} \pm 2\%$ 2. 0.22 ± 0.02 NA, 3. Cladding diameter $125 \pm 1 \mu\text{m}$, 4. short-term bend radius 15 mm and long-term bend radius 30 mm 5. Wavelength range 400-2400 nm 6. 1 meter length 	1
1.149	Step-index multi-mode fiber patch cable SMA ended:	<ol style="list-style-type: none"> 1. Core diameter $25 \pm 3 \mu\text{m}$ 2. 0.10 ± 0.015 NA, 3. Cladding diameter $125 \pm 2 \mu\text{m}$, 4. Proper coating and 3 mm outer jacket 5. Wavelength range 400-550 nm 6. 1 meter length 	1
1.150	CMOS camera:	<ol style="list-style-type: none"> 1. Electronic Rolling Shutter 2. USB 2.0 Connection and cable 3. 25 fps - 200 fps 4. 1280 x 1024 pixels, Color Sensor 	1
1.151	Adjustable lens tube 1 inch diameter:	<ol style="list-style-type: none"> 1. Threaded adjustment Range up to 33.3 mm 2. Maximum Optic Thickness 10.7 mm 3. External thread length 38.1 mm 4. anodized black painted aluminum construction 	1
1.152	SM1 Lens tube 0.3-inch thread depth:	<ol style="list-style-type: none"> 1. SM1-Threaded bore for one-inch diameter optics 2. 7.6 mm thread Depth 3. Included the retaining ring 4. 11.4 mm length 5. Pack of 5 6. anodized black painted aluminum construction 	4
1.153	SM1 Lens tube 0.5-inch thread depth:	<ol style="list-style-type: none"> 1. SM1-Threaded bore for one-inch diameter optics 2. 12.7 mm thread Depth 3. Included the retaining ring 4. 16.5 mm length 5. Pack of 5 6. anodized black painted aluminum construction 	3
1.154	SM1 Lens tube one-inch thread depth:	<ol style="list-style-type: none"> 1. SM1-Threaded bore for one-inch diameter optics 2. 25.4 mm thread Depth 3. Included the retaining ring 4. 29.2 mm length 5. Pack of 5 6. anodized black painted aluminum construction 	1
1.155	Lens tube spacer one-inch long:	<ol style="list-style-type: none"> 1. External SM1 threading on each end 2. 24 mm clear aperture 3. Length 25.4 mm 4. anodized black painted aluminum construction 	5
1.156	SM1 Lens tube spacer three-inch long:	<ol style="list-style-type: none"> 1. External SM1 threading on each end 2. 24 mm clear aperture 3. Length 88.9 mm 4. anodized black painted aluminum construction 	4

1.157	SM1 Lens tube without external threads:	<ol style="list-style-type: none"> 1. Internal SM1 threading with optics retention lip at one end 2. 25.4 mm thread depth 3. 22.9 mm clear aperture 4. Included one retaining ring 5. anodized black painted aluminum construction 	5
1.158	SM1 extension tube 6-inch long:	<ol style="list-style-type: none"> 1. 25.4 mm thread depth 2. SM1 threaded bore accepts 25.4 mm diameter optics 3. anodized black painted aluminum construction 	2
1.159	C-Mount extension tube coupler internal C-mount:	<ol style="list-style-type: none"> 1. length 8.9 mm 2. anodized black painted aluminum construction 	4
1.160	C-Mount extension tube coupler external C-mount	<ol style="list-style-type: none"> 1. length 12.7 mm, max adjustable range 3 mm 2. anodized black painted aluminum construction 	2
1.161	C-Mount extension locking ring:	<ol style="list-style-type: none"> 1. Internal C-mount, 2. length 2.8 mm, 3. 1.25 inch outer Diameter 4. anodized black painted aluminum construction 	5
1.162	Lens tube coupler internal SM1 threaded:	<ol style="list-style-type: none"> 1. length 7.1 mm 2. anodized black painted aluminum construction 	5
1.163	Lens tube coupler external SM1 threaded:	<ol style="list-style-type: none"> 1. length 12.7 mm 2. anodized black painted aluminum construction 	2
1.164	SM1 Locking ring:	<ol style="list-style-type: none"> 1. 1.25 inch outer diameter, 2. slots for spanner wrench, 3. length 2.8 mm 4. anodized black painted aluminum construction 	2
1.165	Adapter external M26 thread internal M25 thread:	<ol style="list-style-type: none"> 1. external M26 x 0.706 threads 2. internal M25 x 2.0.75 threads 3. anodized black painted aluminum construction 	2
1.166	Adapter external SM1 threads internal M25 threads:	<ol style="list-style-type: none"> 1. external SM1 threads 2. internal M25 x 0.75 threads 3. anodized black painted aluminum construction 	2
1.167	Adapter external RMS thread internal M25 thread:	<ol style="list-style-type: none"> 1. external RMS threads 2. internal M25 x 0.75 threads 3. anodized black painted aluminum construction 	2
1.168	Adapter external M25 thread internal RMS thread:	<ol style="list-style-type: none"> 1. external M25 x 0.75 threads 2. internal RMS threads 3. anodized black painted aluminum construction 	2
1.169	Adapter external M25 thread internal SM1 thread:	<ol style="list-style-type: none"> 1. external M25 x 0.75 threads 2. internal SM1 threads 3. anodized black painted aluminum construction 	2
1.170	Adjustable spanner wrench:	<ol style="list-style-type: none"> 1. Diameter range from 3 mm to 73.4 mm 2. Self centering, one-handed diameter adjustment mechanism 3. Replaceable stainless steel blades 	1

1.171	Magnetic base Laser Safety Screen:	<ol style="list-style-type: none"> 1. Homogeneously diffusive black anodized coated aluminum construction with laser-engraved target grid. 2. Size of ~300 mm x 75 mm 3. black anodized aluminum construction 	1
1.172	Magnetic base Beam Height Measurement Tool 2:	<ol style="list-style-type: none"> 1. Dimension: 30 mm x 160 mm 2. Footprint : 30 mm x 30 mm 3. Numbered graduations at every one-inch and 10 mm, Graduations: 1/16" and 1 mm, Hole spacing: 1" and 25 mm, Hole diameter: 2 mm 4. black anodized aluminum construction 	1
1.173	Mounted Precision Pinhole:	<ol style="list-style-type: none"> 1. pinhole Diameter: $50 \pm 5 \mu\text{m}$ 2. stainless steel construction. 3. black anodized aluminum housing with 25 mm outer diameter 	1
1.174	Mounted iris:	<ol style="list-style-type: none"> 1. continuously variable. 2. included housing and mounting post 3. Black anodized aluminum housing 4. aperture size 0.8 to 15 mm 	5
Optional items: The following list has optionla items			
1.175	Optical Chopper System:	<ol style="list-style-type: none"> 1. Included crystal-Stabilized, Phase-Locked Feedback Loop to Suppress Low Frequency Drift and Phase Jitter 2. Harmonic, Subharmonic, and Fractional Harmonic Chopping with Sum and Difference Reference Outputs 3. USB and external trigger controller 4. Included atleast one 10/100 Slot (36°) Chopper Blade for frequency range of 20 - 1000 Hz and 200 Hz - 10 kHz 5. Supplied with complete user manual, control software and accessories 	1
1.176	Chopping Frequency blade 1 compatible for above chopper:	<ol style="list-style-type: none"> 1. Frequency range 30 Hz – 1.5 kHz 2. Duty Cycle- 50% 3. Slots-15 with Slot Angle-24 degrees 4. Max Phase Jitter: ± 0.3 degrees 5. black anodized aluminum construction 	1
1.177	Chopping Frequency blade 2 compatible for above chopper:	<ol style="list-style-type: none"> 1. Inner : 6–300Hz 2. Outer: 60 Hz – 3 kHz 3. Duty Cycle-50% 4. Slots-Inner: 3, Outer: 30 5. Slot Angle-Inner:120 degrees, Outer: 12 degrees. 6. Max Phase Jitter-0.3 degrees. 7. black anodized aluminum construction 	1

Please note that -

- 1. Only those bids quoting all the above sub-items with given specifications will be accepted.**
- 2. All the quoted sub-items must be from a single OEM.**

A complete set of tender documents* may be Downloaded by prospective bidder free of cost from the website <http://eprocure.gov.in/eprocure/app>. Bidder has to make payment of requisite fees (i.e. Tender fees (if any) and EMD) online through RTGS/NEFT only.

Terms & Conditions Details

Sl. No.	Specification
1.	Due date: The tender has to be submitted on-line before the due date. The offers received after the due date and time will not be considered. No manual bids will be considered.
2.	Preparation of Bids: The offer/bid should be submitted in two bid systems (i.e.) Technical bid and financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate item wise price for the items mentioned in the technical bid in the given format .Financial Bids to be submitted in PDF format. The Technical bid and the financial bid should be submitted Online.
3.	EMD (if applicable): The tenderer should submit an EMD amount through RTGS/NEFT. The Technical Bid without EMD would be considered as UNRESPONSIVE and will not be accepted. The EMD will be refunded without any interest to the unsuccessful bidders after the award of contract. Refer to Schedule (at page 1 of this document) for its actual place of submission.
4.	Refund of EMD: The EMD will be returned to unsuccessful Tenderer only after the Tenders are finalized. In case of successful Tenderer, it will be retained till the successful and complete installation of the equipment.
5.	Opening of the tender: The online bid will be opened by a committee duly constituted for this purpose. Online bids (complete in all respect) received along with EMD (if any) will be opened as mentioned at “Annexure: Schedule” in presence of bidders representative if available. Only one representative will be allowed to participate in the tender opening. Bid received without EMD (if present) will be rejected straight way. The technical bid will be opened online first and it will be examined by a technical committee (as per specification and requirement). The financial offer/bid will be opened only for the offer/bid which technically meets all requirements as per the specification, and will be opened in the presence of the vendor’s representatives subsequently for further evaluation. The bidders if interested may participate on the tender opening Date and Time. The bidder should produce authorization letter from their company to participate in the tender opening.
6.	Acceptance/ Rejection of bids: The Committee reserves the right to reject any or all offers without assigning any reason.
7.	Pre-qualification criteria: (i) Bidders should be the manufacturer / authorized dealer. Letter of Authorization from original equipment manufacturer (OEM) on the same and specific to the tender should be enclosed. (ii) An undertaking from the OEM is required stating that they would facilitate the bidder on a regular basis with technology/product updates and extend support for the warranty as well. (Ref. Annexure-II) (iii) OEM should be internationally reputed Branded Company. (iv) Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between bidder specification and supporting documents etc. may lead to rejection of the bid. (v) In the tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender. (vi) If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
8.	Performance Security: The supplier shall require to submit the performance security in the form

	of irrevocable bank guarantee issued by any Indian Nationalized Bank for an amount which is stated at page #1 of the tender document within 21 days from the date of receipt of the purchase order/LC and should be kept valid for a period of 60 days beyond the date of completion of warranty period.
9.	<p>Force Majeure: The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.</p> <ul style="list-style-type: none"> ● For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes. ● If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
10.	Risk Purchase Clause: In event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from the other source on the total risk of the supplier under risk purchase clause.
11.	<p>Packing Instructions: Each package will be marked on three sides with proper paint/indelible ink, the following:</p> <ol style="list-style-type: none"> i. Item Nomenclature ii. Order/Contract No. iii. Country of Origin of Goods iv. Supplier's Name and Address v. Consignee details vi. Packing list reference number
12.	<p>Delivery and Documents:</p> <p>Delivery of the goods should be made within a maximum of 08 to 16 weeks from the date of placement of purchase order and the opening of LC. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail the full details of the shipment including contract number, railway receipt number/ AAP etc. and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:</p> <ol style="list-style-type: none"> 1. 4 Copies of the Supplier invoice showing contract number, goods' description, quantity 2. unit price, total amount; 3. Insurance Certificate if applicable; 4. Manufacturer's/Supplier's warranty certificate; 5. Inspection Certificate issued by the nominated inspection agency, if any 6. Supplier's factory inspection report; and 7. Certificate of Origin (if possible by the beneficiary); 8. Two copies of the packing list identifying the contents of each package. 9. The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.
13.	Delayed delivery: If the delivery is not made within the due date for any reason, the Committee will have the right to impose penalty 1% per week and the maximum deduction is 10% of the contract value / price.

14.	<p>Prices: The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges. The offer/bid should be exclusive of taxes and duties, which will be paid by the purchaser as applicable. However the percentage of taxes & duties shall be clearly indicated. The price should be quoted without custom duty and excise duty, since IIT Delhi is exempted from payment of Excise Duty and is eligible for concessional rate of custom duty. Necessary certificate will be issued on demand.</p> <p>In case of imports, the price should be quoted on FOB/FCA origin Airport Basis only. Under special circumstances (eg. perishable chemicals), when the item is imported on CIF/CIP, please indicate CIF/CIP charges separately upto IIT Delhi indicating the mode of shipment. IIT Delhi will make necessary arrangements for the clearance of imported goods at the Airport/Seaport. Hence the price should not include the above charges. At any circumstances, it is the responsibility of the foreign supplier to handover the material to our forwarder at the origin airport after completing all the inland clearing. No Ex- Works consignment will be entertained.</p> <p>“In case of CIF/CIP shipments, kindly provide the shipment information at least 2 days in advance before landing the shipment along with the documents i.e. invoice, packing list, forwarder Name, address, contact No. in India to save penalty/demurrage charges (imposed by Indian Customs) . Otherwise these charges will be recovered from the supplier/Indian Agent.”</p>
15.	<p>Notices: For the purpose of all notices, the following shall be the address of the Purchaser and Supplier.</p> <p>Purchaser: Dr. Sunil Kumar, Department of Physics Indian Institute of Technology Hauz Khas, New Delhi - 110016.</p> <p>Supplier: (To be filled in by the supplier) (All supplier’s should submit its supplies information as per Annexure-II).</p> <hr/> <hr/>
16.	<p>Progress of Supply: Wherever applicable, supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:</p> <ol style="list-style-type: none"> 1. Quantity offered for inspection and date; 2. Quantity accepted/rejected by inspecting agency and date; 3. Quantity dispatched/delivered to consignees and date; 4. Quantity where incidental services have been satisfactorily completed with date; 5. Quantity where rectification/repair/replacement effected/completed on receipt of any communication from consignee/Purchaser with date; 6. Date of completion of entire Contract including incidental services, if any; and 7. Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required may also be specified).
17.	<p>Inspection and Tests: Inspection and tests prior to shipment of Goods and at final acceptance are as follows:</p> <ul style="list-style-type: none"> • After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier’s plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer’s test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser shall be present at the supplier’s premises during such inspection and testing if need is felt. The location where the inspection is required to be conducted should be clearly indicated. The supplier shall inform the purchaser about the site

	<p>preparation, if any, needed for installation of the goods at the purchaser's site at the time of submission of order acceptance.</p> <ul style="list-style-type: none"> • The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified. • In the event of the ordered item failing to pass the acceptance test, a period not exceeding one weeks will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser. • Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.
18.	<p>Resolution of Disputes: The dispute resolution mechanism to be applied pursuant shall be as follows:</p> <ul style="list-style-type: none"> • In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director, Indian Institute of Technology (IIT) Delhi and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order. • In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules. • The venue of the arbitration shall be the place from where the order is issued.
19.	<p>Applicable Law: The place of jurisdiction would be New Delhi (Delhi) INDIA.</p>
20.	<p>Right to Use Defective Goods If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.</p>
21.	<p>Supplier Integrity The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.</p>
22.	<p>Training The Supplier is required to provide training to the designated Purchaser's technical and end user personnel to enable them to effectively operate the total equipment.</p>
23.	<p>Installation & Demonstration The supplier is required to done the installation and demonstration of the equipment within one month of the arrival of materials at the IITD site of installation, otherwise the penalty clause will be the same as per the supply of materials.</p> <p>In case of any mishappening/damage to equipment and supplies during the carriage of supplies</p>

	from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. IITD will not be liable to any type of losses in any form.
24.	Insurance: For delivery of goods at the purchaser's premises, the insurance shall be obtained by the supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after installation and commissioning. In case of orders placed on FOB/FCA basis, the purchaser shall arrange Insurance. If orders placed on CIF/CIP basis, the insurance should be up to IIT Delhi.
25.	Incidental services: The incidental services also include: <ul style="list-style-type: none"> ● Furnishing of 01 set of detailed operations & maintenance manual. ● Arranging the shifting/moving of the item to their location of final installation within IITD premises at the cost of Supplier through their Indian representatives.
26.	Warranty: <ol style="list-style-type: none"> (i) Warranty period shall be (as stated at page #2 of this tender) from date of installation of Goods at the IITD site of installation. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests. The warranty should be comprehensive on site. (ii) The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall immediately within in 02 days arrange to repair or replace the defective goods or parts thereof free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 02 days. If the supplier having been notified fails to remedy the defects within 02 days, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract. (iii) The warranty period should be clearly mentioned. The maintenance charges (AMC) under different schemes after the expiry of the warranty should also be mentioned. The comprehensive warranty will commence from the date of the satisfactory installation/commissioning of the equipment against the defect of any manufacturing, workmanship and poor quality of the components. (iv) After the warranty period is over, Annual Maintenance Contract (AMC)/Comprehensive Maintenance Contract (CMC) up to next two years should be started. The AMC/CMC charges will not be included in computing the total cost of the equipment.
27.	Governing Language The contract shall be written in English language. English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.
28.	Applicable Law The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction.
29.	Notices <ul style="list-style-type: none"> ● Any notice given by one party to the other pursuant to this contract/order shall be sent to the

	<p>other party in writing or by cable, telex, FAX or e mail and confirmed in writing to the other party's address.</p> <ul style="list-style-type: none"> • A notice shall be effective when delivered or on the notice's effective date, whichever is later.
30.	<p>Taxes Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, VAT in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in the order.</p>
31.	<p>Duties IIT Delhi is exempted from paying custom duty under notification No.51/96 (partially or full) and necessary "Custom Duty Exemption Certificate" can be issued after providing following information and Custom Duty Exemption Certificate will be issued to the shipment in the name of the Institute, (no certificate will be issued to third party): The procured product should be used for teaching, scientific and research work only.</p> <p>a) Shipping details i.e. Master Airway Bill No. and House Airway No. (if exists) b) Forwarder details i.e. Name, Contact No., etc.</p> <p>IIT Delhi is exempted from paying Excise Duty and necessary Excise Duty Exemption Certificate will be provided for which following information are required.</p> <p>b) Quotation with details of Basic Price, Rate, Tax & Amount on which ED is applicable c) Supply Order Copy d) Proforma-Invoice Copy.</p>
32.	<p>Agency Commission: Agency commission if any will be paid to the Indian agent in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances. The details should be explicitly shown in Tender even in case of Nil commission. The tenderer should indicate the percentage of agency commission to be paid to the Indian agent.</p>
33.	<p>Payment:</p> <p>(i) For imported items Payment will be made through irrevocable Letter of Credit (LC) Cash Against Documents (CAD)/Against delivery/after satisfactory installation by T.T. Letter of Credit (LC) will be established in favour of foreign Supplier after the submission of performance security. The letter of credit (LC) will be established on the exchange rates as applicable on the date of establishment. For Imports, LC will be opened for 100% FOB/CIF value. 80% of the LC amount shall be released on presentation of complete and clear shipping documents and 20% of the LC amount shall be released after the installation and demonstration of the equipment at the INST site of installation in faultless working condition for period of 60 days from the date of the satisfactory installation and subject to the production of unconditional performance bank guarantee as specified in Clause 8 of tender terms and conditions.</p> <p>(ii) For Indigenous supplies, 100% payment shall be made by the Purchaser against delivery, inspection, successful installation, commissioning and acceptance of the equipment at IITD in good condition and to the entire satisfaction of the Purchaser and on production of unconditional performance bank guarantee as specified in Clause 9 of tender terms and conditions.</p> <p>(iii) Indian Agency commission (IAC), if any shall be paid after satisfactory installation & commissioning of the goods at the destination at the exchange rate prevailing on the date of negotiation of LC documents, subject to DGS&D registration for restricted items.</p> <p>(iv) All the bank charges within India will be borne by the Institute and outside India will be borne by the Supplier.</p>

34.	User list: Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items enquired have been supplied must be provided. (Ref. Annexure-III)
35.	<p>Manuals and Drawings</p> <p>(i) Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals. These shall be in such details as will enable the Purchaser to operate, maintain, adjust and repair all parts of the works as stated in the specifications.</p> <p>(ii) The Manuals shall be in the ruling language (English) in such form and numbers as stated in the contract.</p> <p>(iii) Unless and otherwise agreed, the goods equipment shall not be considered to be completed for the purposes of taking over until such manuals and drawing have been supplied to the Purchaser.</p>
36.	Application Specialist: The Tenderer should mention in the Techno-Commercial bid the availability and names of Application Specialist and Service Engineers in the nearest regional office. (Ref. to Annexure-III)
37.	<p>Site Preparation: The supplier shall inform to the Institute about the site preparation, if any, needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the equipment, which the Institute should arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter.</p> <p>The supplier shall visit the Institute and see the site where the equipment is to be installed and may offer his advice and render assistance to the Institute in the preparation of the site and other pre-installation requirements.</p>
38.	<p>Spare Parts</p> <p>The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:</p> <p>ii. Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and</p> <p>iii. In the event of termination of production of the spare parts:</p> <p>iv. Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and</p> <p>v. Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.</p> <p>Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.</p>
39.	Defective Equipment: If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Tenderer with 18% interest if such payments for such equipment have already been made. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms & conditions, IIT Delhi may consider "Banning" the supplier.
40.	<p>Termination for Default</p> <p>The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:</p> <p>i. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the</p>

	<p>order, or within any extension thereof granted by the Purchaser; or</p> <p>ii If the Supplier fails to perform any other obligation(s) under the Contract.</p> <p>iii If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.</p> <ul style="list-style-type: none"> ● For the purpose of this Clause: <ul style="list-style-type: none"> i. “Corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. ii. “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;” ● In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.
41.	Shifting: After 1-2 years once our new Academic Block will be ready, the supplier has to shift and reinstall the instrument free of cost (if required).
42.	Downtime: During the warranty period not more than 5% downtime will be permissible. For every day exceeding permissible downtime, penalty of 1/365 of the 5% FOB value will be imposed. Downtime will be counted from the date and time of the filing of complaint with in the business hours.
43.	Training of Personnel: The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the Institute premises, immediately after completing the installation of the equipment for a minimum period of one week at the supplier’s cost.
44.	Disputes and Jurisdiction: Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within New Delhi.
45.	Compliance certificate: This certificate must be provided indicating conformity to the technical specifications. (Annexure-I)

COMPLIANCE SHEET

TECHNICAL SPECIFICATION

Sl. No.	Technical Specifications	Compliance (Y/N)
1	Item name: Optical microscopy components Note : all dimensions are in metric scale	
	Sub item name	Sub-item specifications
1.1	Vibration isolation optical table	<ol style="list-style-type: none"> 1. Size: l*b*h = 2.5m*1.2m*210mm 2. Stainless top and bottom skin thickness ~ 6 mm. 3. M6 tapped sealed (25 mm depth) holes on 25 mm center to center spacing and metal to metal bonding. 4. Surface flatness: +/- 0.1 mm or better over any 1 m² area. 5. Broad-band damping specially highly damped for smaller than 100 Hz.
1.2	Passive vibration isolation set of four legs	<ol style="list-style-type: none"> 1. Compatible for the above table 2. Close pneumatic and oil free design for vertical vibration isolation. 3. Stable load capacity of more than 900 kg. 4. 700 mm high
1.3	Breadboard lifting handles	<ol style="list-style-type: none"> 1. set of two 2. weight capacity of >250 kg 3. mounting slots for M6 cap screws 4. black anodized aluminum construction
1.4	Manual XY-linear translational stage	<ol style="list-style-type: none"> 1. central SM1 threaded 25 mm diameter hole 2. Size ~110 mm x 110 mm mounting platform with each axis movement range of 10 mm or larger 3. Array of M6, M4 taps. 4. Resolution of better than 10 micron 5. black anodized aluminum construction
1.5	Pair of Microscope Slide steel Spring Clips:	<ol style="list-style-type: none"> 1. attachable to a stage with M4 tapped holes 2. Contains dowel pins for aligning slides.
1.6	Construction rail 1	<ol style="list-style-type: none"> 1. Dovetail mounting surfaces on all four sides 66 mm construction rail 2. Rail ends tapped with M3/M6 mounting holes rails contains ~55 mm diameter clear aperture through central hole. 3. length ~500 mm. 4. black anodized aluminum construction

1.7	Construction rail 2	<ol style="list-style-type: none"> 1. Single dovetail mounting surface on 66 mm construction rail 2. Rail ends tapped with M3/M6 mounting holes 3. length ~500 mm. 4. black anodized aluminum construction 	
1.8	Rail Carriage for 66 mm construction rails :	<ol style="list-style-type: none"> 5. Compatible for above mentioned rails. 6. Contains array of M4, M6 and 6-32 tapped holes 7. size ~70 mm x 70 mm or similar 8. black anodized aluminum construction 	
1.9	Vertical Mounting Plate	<ol style="list-style-type: none"> 1. compatible for above mentioned rails. 2. size ~ 70 mm x 80 mm or similar 3. Four counterbored mounting slots for M6 cap screws. 4. contains array of M4, M6 and 6-32 tapped holes. 5. black anodized aluminum construction 	
1.10	Double dovetail clamps:	<ol style="list-style-type: none"> 1. compatible for above mentioned 66 mm construction rails. 2. 40 mm long clamp with proper screw. 3. black anodized aluminum construction 	
1.11	Cross bracket:	<ol style="list-style-type: none"> 1. compatible for above mentioned 66 mm construction rails 2. usable with dovetail clamps. 3. 90 degree intersection between two 66 mm rails. 4. black anodized aluminum construction 	
1.12	Clamponing platform:	<ol style="list-style-type: none"> 1. for above mentioned 66 mm construction rails. 2. M6 counterbored slot 3. ~40 mm long, 4. mountable on rail by two side-mounted screws. 5. black anodized aluminum construction 	
1.13	Right angle bracket:	<ol style="list-style-type: none"> 1. for above mentioned 66 mm rails. 2. orients two 66 mm rails at 90 degree 3. combines three dovetails in single bracket. 4. used for dovetail clamps 5. black anodized aluminum construction 	
1.14	Mounting platform:	<ol style="list-style-type: none"> 1. for 66 mm construction rail 2. fastened to rails with dovetail clamps. 3. contains 3 M6 counterbored holes. 4. 50 mm long 5. black anodized aluminum construction 	
1.15	Mounting post:	<ol style="list-style-type: none"> 1. diameter ~ 1.5 inch 2. solid stainless steel construction 3. length or height ~200 mm. 4. M6 taps on both ends. 	
1.16	Post mounting clamp:	<ol style="list-style-type: none"> 1. suitable for 1.5 inch diameter post. 2. contains one removable front plate tapped with arrays of M6 and M4 tapped holes and counterbores. 3. contains a quick-release handle for securing the clamp to a post. 4. black anodized aluminum construction 	

1.17	Studded pedestal base adapter with M6 thread	Studded pedestal base adapter with M6 thread	
1.18	Clamping fork for 1.5 inch post pedestal base adapter	Clamping fork for 1.5 inch post pedestal base adapter 1. black anodized aluminum construction	
1.19	Table clamp:	1. L-shape and rounded lip 2. pack of 5 pcs 3. black anodized aluminum construction	
1.20	30 mm cage cube 1:	1. Top and bottom faces 44.5 mm through holes 2. SM threaded hole centered on each side face 3. clearance slots for 6 mm diameter cage rods on two opposing sides 4. Four 4-40 tapped holes on each of other two opposing sides. 5. black anodized aluminum construction	
1.21	30 mm cage cube connector:	1. connects two 30 mm cages cubes side by side. 2. contains four 4-40 button head screws, 3. contains two 4-40 flat head screws, 6. black anodized aluminum construction	
1.22	30 mm cage cube 2:	1. top and bottom faces 44.5 mm through holes, 2. All four sides have four 4-40 tapped holes around an SM1 threaded hole 3. Compatible with 6 mm diameter cage rods 4. black anodized aluminum construction	
1.23	30-mm-Cage-Compatible Rectangular Filter Mount:	1. for optics from 26 - 43 mm Long 2. for optics thickness of 3.0 mm or larger. 3. black anodized aluminum construction	
1.24	Right-Angle Kinematic Mirror Mount with Tapped Cage Rod Holes:	1. compatible for 30 mm Cage System 2. SM1 Compatible 3. M4 and M6 Mounting Holes 4. Mounts 25.4 mm Optics at a 45° Angle to the Optical Axis 5. Eight 4-40 Tapped Holes for <u>Cage Rods</u> , 6. ±4° Kinematic Tip and Tilt Adjustment 7. black anodized aluminum construction	
1.25	1-inch Optic Mount for 30 mm Cage Cube:	1. supplied with Setscrew Optic Retention 2. Optics thickness up to 3 mm or larger. 3. black anodized aluminum construction	
1.26	1-inch Optic Mount with SM1-Threaded Bore:	1. compatible for 30 mm Cage Cube 2. Optic thickness up to 3.4 mm 3. black anodized aluminum construction	

1.27	XY Translating Mount:	<ol style="list-style-type: none"> 1. compatible for 30 mm Cage System 2. suitable for 1-inch optics 3. supplied with quick release plate 4. travel range 1 mm 5. SM1 threaded 6. black anodized aluminum construction 	
1.28	30 mm Cage Mounting Bracket:	<ol style="list-style-type: none"> 1. M4 tapped hole 2. black anodized aluminum construction 	
1.29	Cage Assembly Rod:	<ol style="list-style-type: none"> 1. 4-inch Long, 2. 4 mm diameter, 3. pack of 4 4. Suitable with 30 mm Cage Systems, 5. 4-40 Removable Setscrew at Both Ends, 6. Material stainless steel 	
1.30	Cage Assembly Rod:	<ol style="list-style-type: none"> 1. 8-inch Long 2. 6 mm diameter 3. pack of 4 4. Suitable with 30 mm Cage Systems, 5. 4-40 Removable Setscrew at Both Ends 6. Material stainless steel 	
1.31	30 mm Cage Cube Clamp:	<ol style="list-style-type: none"> 1. Min thickness 11.5 mm 2. Max thickness 29.2 mm 3. 1/8 inch Hex Socket Adjuster Clamp with Delrin-Tipped Swivel Head 4. black anodized aluminum construction 	
1.32	Small Adjustable Clamping Arm:	<ol style="list-style-type: none"> 1. M4 Threaded Post 2. Holds Optics up to 24.6 mm Tall 	
1.33	Fixed Cage Cube Platform:	<ol style="list-style-type: none"> 1. compatible for 30 mm cage cubes 2. Four M4 and Four M3-Tapped Holes, 3. Four M3 Button-Head Screws 4. black anodized aluminum construction 	
1.34	Kinematic Cage Cube Platform:	<ol style="list-style-type: none"> 1. compatible for 30 mm cage cubes 2. Four M4 and Five M3 Tapped Holes 3. Pitch, Roll, and Z Translation 4. black anodized aluminum construction 	
1.35	30 mm cage cube Platform Adapter Kit:	<ol style="list-style-type: none"> 1. Four M3 Button-Head Screws for Mounting 2. Compatible with various 30 mm cage cube cover plates. 3. black anodized aluminum construction 	
1.36	Blank Cover Plate:	<ol style="list-style-type: none"> 1. Compatible with 30 mm cage cubes. 2. four M3 Cap Screws included. 3. M4 taped holes 4. black anodized aluminum construction 	
1.37	SM1 Threaded Cover Plate	<ol style="list-style-type: none"> 1. compatible for 30 mm cage cubes 2. four M3 cap screws included. 3. M4 taped holes 4. black anodized aluminum construction 	

1.38	Right-Angle Bracket with Counterbored Slots:	<ol style="list-style-type: none"> 1. Counterbored M6 slots 2. M6 Tapped Holes 3. M3 tapped holes 4. Dimension 50.8 mm x 38.1 mm x 50.8 mm 5. black anodized aluminum construction 	
1.39	Slim Right Angle Bracket with Counterbored holes:	<ol style="list-style-type: none"> 1. counterbored M3 holes 2. M6 Tapped Holes 3. Dimension :50.8 mm x 19.1 mm x 50.8 mm 4. black anodized aluminum construction 	
1.40	Slim Right-Angle Bracket with Counterbored Slots:	<ol style="list-style-type: none"> 1. M6 Tapped Holes 2. Dimension 50.8 mm x 19.1 mm x 50.8 mm 3. black anodized aluminum construction 	
1.41	Right-Angle Bracket with counterbored slots	<ol style="list-style-type: none"> 1. M3, M4, M6 taped holes, M3 taps. 2. black anodized one piece aluminum construction 3. Angled rear support structure 4. each side Dimension: at least 50 mm x 50 mm 5. black anodized aluminum construction 	
1.42	SM1-Threaded 30 mm Cage Plate:	<ol style="list-style-type: none"> 1. at least 8 mm Thick 2. 2 Retaining Rings 3. M4 Tap 4. black anodized aluminum construction 	
1.43	SM1-Threaded 30 mm Cage Plate:	<ol style="list-style-type: none"> 1. 6 mm Thick 2. black anodized aluminum construction 	
1.44	30 mm Cage Plate with 1-inch Double Bore:	<ol style="list-style-type: none"> 1. M4 Tap 2. Nylon-Tipped Locking Setscrew 3. black anodized aluminum construction 	
1.45	30 mm Cage Plate to half-inch Post Adapter:	<ol style="list-style-type: none"> 1. 10 mm Spacing 2. SM1 threaded 3. black anodized aluminum construction 	
1.46	Rotation Platform:	<ol style="list-style-type: none"> 1. compatible for 30 mm Cage Cube 2. Platform Includes Alignment Marks for 5 mm, 10 mm, 20 mm, and 25.4 mm Cube Optics 3. M3 , M4 taps 4. Continuously rotatable 5. black anodized aluminum construction 	
1.47	Rotation Mount for 1-inch Optics:	<ol style="list-style-type: none"> 1. SM1 Threaded 2. Compatible for 30 mm cage 3. M4 Tap 4. 360⁰ continuous rotation 5. 9.4 mm or similar optic thickness 6. black anodized aluminum construction 	
1.48	Z-Axis Translation Mount:	<ol style="list-style-type: none"> 1. compatible for 30 mm Cage 2. SM1-threaded 2. 1-inch optical size 3. max optical thickness ~7 mm 4. travel range 0-2 mm or similar 	

		<ul style="list-style-type: none"> 5. Travel resolution 50 μ m/rev 6. black anodized aluminum construction 	
1.49	Low Auto-fluorescence Immersion Oil:	<ul style="list-style-type: none"> 1. n = 1.518 2. Nikon Type N 3. quantity 50 mL 4. Viscosity 150 mm²/cm 	
1.50	40X Olympus Plan Achromat Objective:	<ul style="list-style-type: none"> 1. 0.65 NA 2. 0.6 mm WD 3. RMS threading, 4. 45.06 mm Parfocal Length 	
1.51	Adapter with External SM1 Threads and Internal RMS Threads	<ul style="list-style-type: none"> 1. Adapter with External SM1 Threads and Internal RMS Threads 2. black anodized aluminum construction 	
1.52	1-inch diameter Aspheric Condenser Lens:	<ul style="list-style-type: none"> 1. focal length 16 mm 2. Numerical aperture 0.79 3. uncoated 4. Clear aperture > 22.9 mm 5. Non-aspheric surface spherical convex 	
1.53	1-inch diameter Aspheric Condenser Lens:	<ul style="list-style-type: none"> 1. focal length 16 mm 2. Numerical aperture 0.79 3. anti-reflection coating 350-700 nm 4. Clear aperture > 22.9 mm 5. Non-aspheric surface spherical convex 	
1.54	1-inch diameter Aspheric Condenser Lens:	<ul style="list-style-type: none"> 1. focal length 16 mm 2. Numerical aperture 0.79 3. anti-reflection coating 650-1050 nm 4. Clear aperture > 22.9 mm 5. Non-aspheric surface spherical convex 	
1.55	Negative 1951 USAF Test Target:	<ul style="list-style-type: none"> 1. 1-inch outer diameter target for alignment 	
1.56	Adapter for half-inch Optic, Mount:	<ul style="list-style-type: none"> 1. Outer diameter 1-inch 2. optic thickness ~5.6 mm 3. Counterbore 12.7 mm 4. black anodized aluminum construction 	
1.57	1-inch diameter SM1-thread mounted Plano-Convex Lens:	<ul style="list-style-type: none"> Focal length of 50 mm, Anti-reflection coating for 350 - 700 nm; Radius of curvature 23 mm, Back focal length 46 mm, Working distance 42.2 mm; Fabricated from UV grade fused silica; 	
1.58	1-inch diameter SM1-thread mounted Plano-Convex Lens:	<ul style="list-style-type: none"> Focal length of 100 mm, Anti-reflection coating for 350 - 700 nm; Radius of curvature 46 mm, Back focal length 97.4 mm, Working distance 94.6 mm; Fabricated from UV grade fused silica; 	

1.59	1-inch diameter SM1-thread mounted Plano-Convex Lens	Focal length of 50 mm, Anti-reflection coating for 650 - 1050 nm; Radius of curvature 23 mm, Back focal length 46 mm, Working distance 42.2 mm; Fabricated from UV grade fused silica;	
1.60	1-inch diameter SM1-thread mounted Plano-Convex Lens:	6. Focal length of 100 mm, 7. Anti-reflection coating for 650 - 1050 nm 8. Radius of curvature 46 mm, 9. Back focal length 97.4 mm, Working distance 94.6 mm 10. Fabricated from UV grade fused silica	
1.61	Ruled Reflective Diffraction Grating:	6. Grooves 600/mm, 7. 750 nm Blaze wavelength 8. Dimension 12.7 x 12.7 x 6 mm, 9. Blaze angle 13 ⁰ , 10. Dispersion 1.62 nm/mrad, 6. Aluminum reflective coating	
1.62	Kinematic Grating Mount Adapter:	1. for Grating Height ~20 mm 2. height adjustable from less than 20 mm to 20 mm or more 3. grating width 22 mm at least 4. grating thickness 4-8 mm 5. black anodized aluminum construction	
1.63	Compact Dual Filter Holder:	Compact Size: 8 mm x 12.7 mm x 30 mm; Holds Two Thin Cards or Filters Simultaneously; Maximum Filter Thickness: 1.5 mm with Two Optics M4 tapped holes for mounting;	
1.64	Compact Flexure Plate Clamp:	1. Post mountable 2. M6 Tap 3. Thumbscrew for sample locking 4. black anodized aluminum construction	
1.65	Filter Holder Stackable:	1. suitable for filters of thickness at least 2 mm 2. M4 tapped hole for post mounting 3. black anodized aluminum construction	
1.66	Large V-Clamp with Clamping Arm:	1. clamping arm length at least 63 mm 2. Three M4 tapped holes 3. Four M6 holes 4. included clamping arm with nylon-tipped setscrew 5. black anodized aluminum construction	
1.67	Small V-Clamp with Clamping Arm:	1. clamping arm length atleast 20 mm. 2. M4 holes 3. includes clamping arm with nylon-tipped setscrew 4. black anodized aluminum construction	
1.68	Post Clamp Mount for 12.7 mm Posts:	1. includes a clamping arm with nylon-tipped setscrew 2. the setscrew is adjustable using 2 mm hex key	

		3. side located thumbscrew for locking	
1.69	Reflective 25 mm diameter SM1-mounted ND Filters:	1. supplied in a box 2. set of 10 filters: OD = 0.1 to 4.0	
1.70	Nested 1-inch diameter Lens Holder inner ring:	1. Laser Engraved Graduation Marks Every 2° Labeled Every 20° 2. included retaining ring 3. black anodized aluminum construction	
1.71	Nested 1-inch diameter Lens Mount Outer Ring:	1. Suitable for above nested 1-inch lens holder inner ring. 2. M4 Tap for post mounting 3. Thumbscrew for locking 4. black anodized aluminum construction	
1.72	Rotation Mount for 25.4 mm round Optics:	6. 360° Continuous Rotation 7. Laser-Engraved Graduation Marks at 2° Increments and 20 arcmin Vernier Scale 8. Lockable at any angle 9. M4 Tap for mounting 10. black anodized aluminum construction	
1.73	1.40-inch diameter metric Rotation Stage:	6. Laser-Engraved Graduation Marks at 2° Increments and 20 arcmin Vernier Scale 7. Mounting Platform Height: ~0.5 inch " 8. Platform Mounting Taps: M3 and M4 9. Load Capacity: 20 kg or larger with Stage Mounted on Horizontal Surface, 10. Four M6 Clearance Holes to Mount to Optical Tables or Breadboards 6.360° Continuous Rotation 7. black anodized aluminum construction	
1.74	12.7 mm Dovetail Translation Stage:	1. M4 Taps 2. Lockable moving platform	
1.75	12.7 mm XYZ Dovetail Translation Stage:	1. included Baseplate 2. M4 Taps	
1.76	Top Plate for 12.7 mm dovetail translation stage:	1. M3 and M4 Tapped in four regions 2. M4 tap for mounting 2. Flatness: 0.05 mm	
1.77	Angle Bracket for 12.7 mm dovetail translation stage:	1. M4 tap for mounting on both plates of the bracket	
1.78	Kinematic Prism Mount:	1. 25.4 mm Deep 2. M4 Taps 3. Two 80 TPI Adjusters for ±4° Fine Tip and Tilt Control, 4. 8 mrad adjustment per revolution 5. Black anodized Aluminum	

1.79	Kinematic Platform Mount:	<ol style="list-style-type: none"> 1. Platform size 48.6 mm x 48.6 mm 2. Two 80 TPI Adjusters for Fine Tip and Tilt Control 3. M4 holes on the platform 4. Black anodized Aluminum 	
1.80	1-inch round optic Clear-Edge Kinematic Mirror Mount:	<ol style="list-style-type: none"> 1. two Adjusters for angular adjustment of ± 4 degrees 2. resolution of 8.3 mrad/rev 3. optic thickness at least 5 mm 4. black anodized aluminum construction 	
1.81	1-inch round optic Kinematic Mirror Mount::	<ol style="list-style-type: none"> 8. For Optic thickness atleast 3 mm 9. Optic Held with a Nylon-Tipped Setscrew 10. Angular Range: $\pm 4^\circ$ 11. Resolution: 0.5 degrees per rev or similar 12. Two ¼ inch-80 Precision Adjusters 13. Two Counterbored M4 Through Holes for horizontal or vertical orientation 14. black anodized aluminum construction 	
1.82	Compact Kinematic Mirror Mount:	<ol style="list-style-type: none"> 1. Hex Adjusters 2. M4 Taps for Post Mounting 3. Compact Profile: 25.4 mm x 28.7 mm x 20.1 mm 4. Angular Range: $\pm 4^\circ$, 5. Shortened Adjuster Screws for Reduced Footprint 6. black anodized aluminum construction 	
1.83	Mirror Holder for 1-inch Optics:	<ol style="list-style-type: none"> 1. optic thickness of 2.5 - 6.1 mm 2. Outer rings holds the mirror in the base plate 3. black anodized aluminum construction 	
1.84	2-inch optics Kinematic Mirror Mount:	<ol style="list-style-type: none"> 6. Optic thickness 4 mm or larger 7. Optics Held with a Nylon Tipped Setscrew 8. Angular Range: $\pm 3^\circ$ 9. Resolution: 0.3 degrees per Rev via Two ¼ inch-80 Precision Adjusters six Counterbored M4 Through Holes for mounting 10. black anodized aluminum construction 	
1.85	1-inch diameter Protected Aluminum Mirror:	<ol style="list-style-type: none"> 1. thickness of 3.2 mm 	
1.86	1-inch diameter Protected Silver Mirror:	<ol style="list-style-type: none"> 1. thickness 3.2 mm 	
1.87	1-inch square Broadband Dielectric Mirror:	<ol style="list-style-type: none"> 1. 400 - 750 nm 2. Material Fused silica substrate 	
1.88	1-inch square Broadband Dielectric Mirror:	<ol style="list-style-type: none"> 1. range 750 - 1100 nm 2. Material Fused silica substrate 	
1.89	1-inch Square Protected Aluminum Mirror:	<ol style="list-style-type: none"> 1. thickness of 3.2 mm 	
1.90	1-inch Square Protected Silver Mirror:	<ol style="list-style-type: none"> 1. thickness of 3.2 mm 	

1.91	2-inch diameter Protected Aluminum Mirror:	1. thickness of 3.2 mm	
1.92	2-inch diameter Protected Silver Mirror:	1. thickness of 3.2 mm	
1.93	2-inch Protected Aluminum Mirror:	1. thickness 3.2 mm	
1.94	2-inch Square Protected Silver Mirror	1. thickness 3.2 mm	
1.95	1-inch diameter Aluminum-Coated Concave Mirror:	1. focal length 50 mm 2. radius of curvature 100 mm	
1.96	2-inch diameter Aluminum-Coated Concave Mirror:	1. focal length of 100 mm 2. radius of curvature of 200 mm	
1.97	1-inch UV-Enhanced Aluminum D-Shaped Mirror:	1. More than 90% reflection in the 250-450 nm range 2. thickness ~5-7 mm	
1.98	1-inch broadband dielectric D-Shaped Mirror:	1. Spectral range 750 - 1100 nm 2. thickness ~5-7 mm	
1.99	Kinematic mirror Mount for 1-inch D-Shaped Mirrors:	1. 6 mm max optic thickness 2. Mount horizontally and vertically 3. Angular range of $\pm 4^\circ$, 4. Resolution ~0.5 degrees per rev 5. black anodized aluminum construction	
1.100	Fixed Mount for 1-inch D-Shaped Mirrors:	1. M4 Taps on two sides 2. Nylon-Tipped Locking Setscrew with 5/64" (2.0 mm) Hex on one side. 3. 6.1 mm max optic thickness, 4. black anodized aluminum construction	
1.101	2 mm Hex Key Thumbscrew:	1. supplied in pack of 4	
1.102	Fixed 1-inch diameter optical mount:	6. M4 Tap at bottom for vertical mounting 7. Nylon-Tipped Locking Setscrew with 5/64" (2.0 mm) Hex on the top 8. Includes retaining ring 9. supplied in pack of 5 10. black anodized aluminum construction	
1.103	Half-inch Lens Mount:	1. For half-inch optics 2. M4 tap at the bottom for vertical mounting 3. Included retaining ring 4. 5 mm optic thickness 5. 11 mm clear aperture 6. 16 mm optical height from bottom 7. black anodized aluminum construction	
1.104	One-inch Lens Mount:	1. For 1-inch optics 2. M4 tap at bottom for vertical mounting 3. 7.1 mm optic thickness 4. 23 mm clear aperture 5. 22.1 optical height from bottom 6. includes retaining ring 7. supplied in pack of 5 pcs	

		8. black anodized aluminum construction	
1.105	One-inch Lens Mount with Internal and External SM1 Threads	1. M4 Tap at bottom for vertical mounting 2. 7.1 mm optic thickness 3. 23 mm clear aperture 4. 22.1 mm optical height 5. included retaining ring 6. black anodized aluminum construction	
1.106	Half-inch Lens Mount with Internal and External SM05 Threads:	1. M4 tap at bottom for vertical mounting 2. Clear 16 mm optical height from bottom 3. 10.9 mm clear aperture 4. included retaining ring 5. black anodized aluminum construction	
1.107	90 degree Flip Mount:	1. For 1-inch diameter optics 2. M4 tapped hole for mounting 3. included retaining ring 4. black anodized aluminum construction	
1.108	120-degree clear-Edge Flexure Mount :	5. For 1-inch diameter optics. 6. M4 tapped hole 7. 6-80 adjuster for $\pm 4^\circ$ Pitch Adjustment 8. black anodized aluminum construction	
1.109	Adjustable Flip mount:	5. Mount platform size ~40 mm x 40 mm and having array of M4 holes. 6. 90 and 180 degree adjustment range 7. Side locking 8. black anodized aluminum construction	
1.110	Centering Plate for mirror mounts:	5. M6 Tapped holes 6. 30 mm length 7. 2 M4 holes for mounting the mirror mounts. 8. black anodized aluminum construction	
1.111	45° Mirror Mount:	5. For 1-inch optics of thickness 3 mm. 6. Back side clear aperture of 13.9 mm 7. Bottom clear aperture 12.7 mm 8. black anodized aluminum construction	
1.112	45° Mounting Adapter:	4. M4 and M6 taps, 5. Black anodized aluminum 6. black anodized aluminum construction	
1.113	Optical posts:	7. Half inch diameter. 8. Stainless steel construction 9. 8-32 setscrew 10. Quarter inch-20 tap 11. Length = 2 inches 12. Supplied in packs of 5	

1.114	Post Holder:	<ul style="list-style-type: none"> 7. For half inch posts. 8. Spring-Loaded Hex-Locking Thumbscrew, 9. Length 1.5 inch 10. Supplied in pack of 5 11. M6 mounting hole at the bottom plate. 12. black anodized aluminum construction 	
1.115	Right-Angle 0.5 inch to 6 mm Post Clamp:	<ul style="list-style-type: none"> 3. 5 mm Hex Thumbscrew 4. black anodized aluminum construction 	
1.116	Right-Angle End Clamp:	<ul style="list-style-type: none"> 6. Suitable for 12.7 mm or half inch diameter posts. 7. M6 stud and 5 mm hex 8. Clamp angle 90 degree 9. Each pack of 5 10. black anodized aluminum construction 	
1.117	Right-Angle Clamp:	<ul style="list-style-type: none"> 5. Suitable for 12.7 mm or half inch diameter posts. 6. Clamp angle 90 degree 7. Pack of 5 8. black anodized aluminum construction 	
1.118	Centered Mounting Post Joist:	<ul style="list-style-type: none"> 4. M4 Mounting Hardware, 5. M4 counterbored slots on either side of central mounting hole. 6. black anodized aluminum construction 	
1.119	Nanosecond Pulsed Laser Diode System:	<ul style="list-style-type: none"> 7. Supplied with all necessary accessories including power supply, cables, software, etc. 8. Center wavelength 520 nm 9. Pulse duration adjustable from 5 to 40 ns. 10. Average power more than 10 mW. 11. Generates Pulses with or without a User-Supplied Trigger 12. Internally Triggered Pulse Rates variable between 1-10 MHz 	
1.120	Epoxy encased white LED with a Glass Lens in TO-18 or T1 – ¾ package:	<ul style="list-style-type: none"> 4. center wavelength 430-660 nm 5. optical power 10 mW or higher 6. supplied in pack of 5. 	
1.121	LED for 375 nm with a Glass Lens in TO-18 or T1 – ¾ package:	<ul style="list-style-type: none"> 2. center wavelength 375 nm with FWHM ~10 nm optical power 2 mW or higher 	
1.122	LED for 405 nm with a Glass Lens in TO-18 or T1 – ¾ package:	<ul style="list-style-type: none"> 2. center wavelength 405 nm with FWHM ~15 nm optical power 10 mW or higher 	
1.123	LED for 450 nm with a Glass Lens in TO-18 or T1 – ¾ package:	<ul style="list-style-type: none"> 1. center wavelength 450 nm with FWHM ~20 nm 2. optical power 7 mW or higher 	
1.124	LED for 505 nm with a Glass Lens in TO-18 or T1 – ¾ package:	<ul style="list-style-type: none"> 1. center wavelength 505 nm with FWHM ~30 nm 2. optical power 4 mW or higher 	
1.125	LED for 590 nm with a Glass Lens in TO-18 or T1 – ¾ package:	<ul style="list-style-type: none"> 1. center wavelength 590 nm with FWHM ~20 nm 2. optical power 2 mW or higher 	
1.126	LED for 670 nm with a Glass Lens in TO-18 or T1 – ¾ package:	<ul style="list-style-type: none"> 3. center wavelength 670 nm and FWHM of ~15 nm. 4. optical power 12 mW or higher. 	

	¾ package:		
1.127	USB-Powered LED Mount:	4. External SM05 Mounting Thread, 5. Includes Micro-B USB to USB Type 6. Includes a Cable for Power LED Module	
1.128	SM1-threaded mount for LEDs:	2. For LED models such as TO-18 and TO-39, TO-46, or T-1 3/4 LEDs with all support accessories	
1.129	Two-pin Socket for LEDs:	5. Beryllium copper conductor pins 6. Teflon insulator, 7. 0.41 mm compatible lead diameter, 5.6 mm compatible lead length, 8. 5.8 mm outer diameter, 6.9 mm substrate thickness	
1.130	NIR detector card	4. Dimensions (W x H): ~5 cm x 7 cm with most part as active region 5. Absorption 700-1400 nm 6. Emission in visible range	
1.131	VIS/IR fluorescing 25.4 mm diameter alignment disc:	4. Absorption 400 - 640 nm, 800 - 1700 nm 5. 1.5 mm Central Hole 6. Emission 580-750 nm	
1.132	IR fluorescing 25.4 mm diameter alignment disc:	4. 1.5 mm central hole 5. Absorption 790-840 nm, 870-1070 nm, 1500-1590 nm 6. Emission 520-780 nm	
1.133	Frosted Glass Alignment Disk	4. SM1-Mounted 5. 1 mm diameter hole in the center 6. 500 Grit Ground Glass on Both Sides with Drilled Centering Hole	
1.134	Large Area Mounted Silicon Photodiode:	8. 10 ns rise time @ 632 nm, 20 V 9. SM05 threaded 10. active area 13 mm ² , 11. Dark current ~1 nA @ 1 V 12. spectral range 350-1100 nm 13. Reverse bias voltage 25 V (max) 14. Cathode Grounded	
1.135	Large Area Mounted Germanium Photodiode	1. 600 ns rise time @ 3 V, 2. active area 7.1 mm ² 3. Cathode Grounded 4. Dark current 4 µA @ 1 V, 5. spectral range 800-1800 nm 6. Reverse bias voltage 3 V 7. SM05 threaded.	
1.136	Bias Module for Mounted Photodiodes:	1. BNC Input and SMA Output 2. Bias voltage -25 to +25 V, 3. Cutoff frequency 350 MHz, 4. DC input connector 2.5 mm phono, 5. Housing dimensions ~63 mm x 35.6 mm x 20.3 mm 6. Post Mountable via Bottom-Located 8-32 and M4 Taps	

1.137	Si Photodiode:	<ul style="list-style-type: none"> 6. wavelength range of 350-1100 nm 7. Rise Time <10 ns, 8. active area of 3.6 mm x 3.6 mm 9. Dark current ~1.0 nA @ 20 V, Junction capacitance ~24 pf @ 20 V, 10. package TO-5 	
1.138	Solder Tail Photodiode Socket for TO-8 Diodes:	<ul style="list-style-type: none"> 5. Material Beryllium copper, 6. Compatible lead diameter of 0.38 - 0.51 mm 7. Current rating 3A, Resistance 10 mΩ (max), 8. outer diameter 14 mm, Substrate thickness 3.18 mm 	
1.139	Solder Tail Photodiode Socket for TO-5 and TO-39 Diodes:	<ul style="list-style-type: none"> 5. Material Beryllium copper, 6. Compatible lead diameter of 0.38 - 0.51 mm 7. Current rating 3A, Resistance 10 mΩ (max), 8. outer diameter 9.1 mm, Substrate thickness 3.18 mm 	
1.140	Biased Si detector:	<ul style="list-style-type: none"> 8. spectral range if 200-1100 nm 9. rise time ~ 1 ns 10. active area ~1 mm² 11. M4 tapped hole for mounting 12. internal A23 – 12 V VDC bias battery and external supply option included 13. housing contains SM1 thread for connecting fiber adapters 14. BNC output 	
1.141	Biased Si detector:	<ul style="list-style-type: none"> 8. spectral range if 350-1100 nm 9. rise time ~ 14 ns 10. active area ~13 mm² 11. M4 tapped hole for mounting 12. internal A23 – 12 V VDC bias battery and external supply option included 13. housing contains SM1 thread for connecting fiber adapters 14. BNC output 	
1.142	Wall Mount cable rack:	<ul style="list-style-type: none"> 5. Test lead holder for wires up to 5.33 mm diameter and 14 slots for cables 6. Material: Cold rolled steel with a baked enamel finish 7. Four mounting halls saperated by ~75 mm 8. length ~280 mm 	
1.143	SMA Fiber Adapter Plate with External SM1 Thread	SMA Fiber Adapter Plate with External SM1 Thread	
1.144	ST/PC Fiber Adapter Plate with External SM1 Thread	ST/PC Fiber Adapter Plate with External SM1 Thread	
1.145	FC/PC Fiber Adapter Plate with External SM1 Thread	FC/PC Fiber Adapter Plate with External SM1 Thread	
1.146	SC/PC Fiber Adapter Cap with Internal SM1 Thread	SC/PC Fiber Adapter Cap with Internal SM1 Thread	

1.147	LC/PC Fiber adapter cap with internal SM1 thread	LC/PC Fiber adapter cap with internal SM1 thread	
1.148	Step-index multi-mode fiber patch cable SMA ended:	<ul style="list-style-type: none"> 7. Core diameter $50 \mu\text{m} \pm 2\%$ 8. 0.22 ± 0.02 NA, 9. Cladding diameter $125 \pm 1 \mu\text{m}$, 10. short-term bend radius 15 mm and long-term bend radius 30 mm 11. Wavelength range 400-2400 nm 12. 1 meter length 	
1.149	Step-index multi-mode fiber patch cable SMA ended:	<ul style="list-style-type: none"> 7. Core diameter $25 \pm 3 \mu\text{m}$ 8. 0.10 ± 0.015 NA, 9. Cladding diameter $125 \pm 2 \mu\text{m}$, 10. Proper coating and 3 mm outer jacket 11. Wavelength range 400-550 nm 12. 1 meter length 	
1.150	CMOS camera:	<ul style="list-style-type: none"> 5. Electronic Rolling Shutter 6. USB 2.0 Connection and cable 7. 25 fps - 200 fps 8. 1280 x 1024 pixels, Color Sensor 	
1.151	Adjustable lens tube 1 inch diameter:	<ul style="list-style-type: none"> 5. Threaded adjustment Range up to 33.3 mm 6. Maximum Optic Thickness 10.7 mm 7. External thread length 38.1 mm 8. anodized black painted aluminum construction 	
1.152	SM1 Lens tube 0.3-inch thread depth:	<ul style="list-style-type: none"> 7. SM1-Threaded bore for one-inch diameter optics 8. 7.6 mm thread Depth 9. Included the retaining ring 10. 11.4 mm length 11. Pack of 5 12. anodized black painted aluminum construction 	
1.153	SM1 Lens tube 0.5-inch thread depth:	<ul style="list-style-type: none"> 1. SM1-Threaded bore for one-inch diameter optics 2. 12.7 mm thread Depth 3. Included the retaining ring 4. 16.5 mm length 5. Pack of 5 6. anodized black painted aluminum construction 	
1.154	SM1 Lens tube one-inch thread depth:	<ul style="list-style-type: none"> 7. SM1-Threaded bore for one-inch diameter optics 8. 25.4 mm thread Depth 9. Included the retaining ring 10. 29.2 mm length 11. Pack of 5 12. anodized black painted aluminum construction 	
1.155	Lens tube spacer one-inch long:	<ul style="list-style-type: none"> 5. External SM1 threading on each end 6. 24 mm clear aperture 7. Length 25.4 mm 8. anodized black painted aluminum construction 	
1.156	SM1 Lens tube spacer three-inch long:	<ul style="list-style-type: none"> 5. External SM1 threading on each end 6. 24 mm clear aperture 7. Length 88.9 mm 8. anodized black painted aluminum construction 	

1.157	SM1 Lens tube without external threads:	<ol style="list-style-type: none"> 6. Internal SM1 threading with optics retention lip at one end 7. 25.4 mm thread depth 8. 22.9 mm clear aperture 9. Included one retaining ring 10. anodized black painted aluminum construction 	
1.158	SM1 extension tube 6-inch long:	<ol style="list-style-type: none"> 4. 25.4 mm thread depth 5. SM1 threaded bore accepts 25.4 mm diameter optics 6. anodized black painted aluminum construction 	
1.159	C-Mount extension tube coupler internal C-mount:	<ol style="list-style-type: none"> 1. length 8.9 mm 2. anodized black painted aluminum construction 	
1.160	C-Mount extension tube coupler external C-mount	<ol style="list-style-type: none"> 1. length 12.7 mm, max adjustable range 3 mm 2. anodized black painted aluminum construction 	
1.161	C-Mount extension locking ring:	<ol style="list-style-type: none"> 1. Internal C-mount, 2. length 2.8 mm, 3. 1.25 inch outer Diameter 4. anodized black painted aluminum construction 	
1.162	Lens tube coupler internal SM1 threaded:	<ol style="list-style-type: none"> 1. length 7.1 mm 2. anodized black painted aluminum construction 	
1.163	Lens tube coupler external SM1 threaded:	<ol style="list-style-type: none"> 1. length 12.7 mm 2. anodized black painted aluminum construction 	
1.164	SM1 Locking ring:	<ol style="list-style-type: none"> 1. 1.25 inch outer diameter, 2. slots for spanner wrench, 3. length 2.8 mm 4. anodized black painted aluminum construction 	
1.165	Adapter external M26 thread internal M25 thread:	<ol style="list-style-type: none"> 1. external M26 x 0.706 threads 2. internal M25 x 2.0.75 threads 3. anodized black painted aluminum construction 	
1.166	Adapter external SM1 threads internal M25 threads:	<ol style="list-style-type: none"> 1. external SM1 threads 2. internal M25 x 0.75 threads 3. anodized black painted aluminum construction 	
1.167	Adapter external RMS thread internal M25 thread:	<ol style="list-style-type: none"> 1. external RMS threads 2. internal M25 x 0.75 threads 3. anodized black painted aluminum construction 	
1.168	Adapter external M25 thread internal RMS thread:	<ol style="list-style-type: none"> 1. external M25 x 0.75 threads 2. internal RMS threads 3. anodized black painted aluminum construction 	

1.169	Adapter external M25 thread internal SM1 thread:	1. external M25 x 0.75 threads 2. internal SM1 threads 3. anodized black painted aluminum construction	
1.170	Adjustable spanner wrench:	4. Diameter range from 3 mm to 73.4 mm 5. Self centering, one-handed diameter adjustment mechanism 6. Replaceable stainless steel blades	
1.171	Magnetic base Laser Safety Screen:	4. Homogeneously diffusive black anodized coated aluminum construction with laser-engraved target grid. 5. Size of ~300 mm x 75 mm 6. black anodized aluminum construction	
1.172	Magnetic base Beam Height Measurement Tool 2:	5. Dimension: 30 mm x 160 mm 6. Footprint : 30 mm x 30 mm 7. Numbered graduations at every one-inch and 10 mm, Graduations: 1/16" and 1 mm, Hole spacing: 1" and 25 mm, Hole diameter: 2 mm 8. black anodized aluminum construction	
1.173	Mounted Precision Pinhole:	3. pinhole Diameter: $50 \pm 5 \mu\text{m}$ 4. stainless steel construction. 3. black anodized aluminum housing with 25 mm outer diameter	
1.174	Mounted iris:	1. continuously variable. 2. included housing and mounting post 3. Black anodized aluminum housing 4. aperture size 0.8 to 15 mm	
Optional items: The following list has optionla items			
1.175	Optical Chopper System:	6. Included crystal-Stabilized, Phase-Locked Feedback Loop to Suppress Low Frequency Drift and Phase Jitter 7. Harmonic, Subharmonic, and Fractional Harmonic Chopping with Sum and Difference Reference Outputs 8. USB and external trigger controller 9. Included atleast one 10/100 Slot (36°) Chopper Blade for frequency range of 20 - 1000 Hz and 200 Hz - 10 kHz 10. Supplied with complete user manual, control software and accessories	
1.176	Chopping Frequency blade 1 compatible for above chopper:	6. Frequency range 30 Hz – 1.5 kHz 7. Duty Cycle- 50% 8. Slots-15 with Slot Angle-24 degrees 9. Max Phase Jitter: ± 0.3 degrees black anodized aluminum construction	

1.177	Chopping Frequency blade 2 compatible for above chopper:	8. Inner : 6–300Hz 9. Outer: 60 Hz – 3 kHz 10. Duty Cycle-50% 11. Slots-Inner: 3, Outer: 30 12. Slot Angle-Inner:120 degrees, Outer: 12 degrees. 13. Max Phase Jitter-0.3 degrees. . black anodized aluminum construction	
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I have also enclosed all relevant documents in support of my claims, (as above) in the following pages.

Signature of Bidder

Name: _____

Designation: _____

Organization Name: _____

Contact No. : _____

**<< Organization Letter Head >>
DECLARATION SHEET**

We, _____ hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology / product updates and extend support for the warranty.

The prices quoted in the financial bids are subsidized due to academic discount given to IIT Delhi.

We, further specifically certify that our organization has not been Black Listed/De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.	NAME & ADDRESS OF THE Vendor/ Manufacturer / Agent
1 Phone	
2 Fax	
3 E-mail	
4 Contact Person Name	
5 Mobile Number	
6 TIN Number	
7 PAN Number	
(In case of on-line payment of Tender Fees)	
8 UTR No. (For Tender Fee)	
(In case of on-line payment of EMD)	
9 UTR No. (For EMD)	
10 Kindly provide bank details of the bidder in the following format:	
a) Name of the Bank	
b) Account Number	
c) Kindly attach scanned copy of one Cheque book page to enable us to return the EMD to unsuccessful bidder	

(Signature of the Tenderer)

Name:

Seal of the Company

Bid Submission

Online Bid Submission:

The Online bids (complete in all respect) must be uploaded online in **two** Envelops as explained below:-

Envelope – 1 (folder 1) (Following documents to be provided as single PDF file)			
Sl. No.	Documents	Content	File Types
1.	Technical Bid	Compliance Sheet as per Annexure - I	.PDF
2.		Organization Declaration Sheet as per Annexure - II	.PDF
3.		List of organizations/ clients where the same or similar products have been supplied (in last two years) along with their contact number(s). (Annexure-III)	.PDF
4.		Technical supporting documents in support of all claims made at Annexure-I (Annexure-IV)	.PDF
Envelope – 2 (folder 2)			
Sl. No.	TYPES	Content	
1.	Financial Bid	Price bid should be submitted in PDF format.	.PDF

Department of Physics
Indian Institute of Technology Delhi
Hauz Khas, New Delhi-110016

Date: 16/06/2017

Subject: Purchase of Optical microscopy components(Following format is used for imported items)

S. No.	Currency	Description and Specification of the Item	Qty. in Units	Unit Price (a)	Agency Commission (If applicable) (b)	Discount (c)	Ex-works price (d=a+b-c)	Packing + Handling + DOC + Inland Freight + FCA Charges (e)	FOB/FCA Airport Price (f=d+e)	Insurance + Freight (g)	CIF Price (f+g)
1		Optical microscopy components with specifications as per the table given in the tender									

Note: At any circumstances, it is the responsibility of the foreign supplier to hand over the material to our forwarder at the origin airport after completing all the inland clearing. No Ex-works consignment will be entertained.

For indigenous items please quote as per following format.

S. No.	Description and Specification of the Item	Qty. in Units	Unit Price in Rs.	Excise Duty %	CST/VAT%	Octroi%	Total Price in Rs.
1.	Optical microscopy components with specifications as per the table given in the tender						

Note: The above financial template should be strictly followed. Any deviation from the above template (in terms of description and specification of the item) may lead to cancellation of the tender.