



SATYENDRA NATH BOSE NATIONAL CENTRE FOR BASIC SCIENCES

[Funded by the Department of Science & Technology, Government of India]

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Ref: SNB/ENQ/SM/CCD Camera/16-17/133

04th May, 2016

Dear Sir(s),

Quotation is hereby invited for the following item in two parts (Technical and Commercial bids) through E-Tender mode available at <http://eprocure.gov.in/eprocure/app> or click at SNBNCBS@CPPP within <http://newweb.bose.res.in/InfoAnnouncements/Tender.jsp>

Sl#.	PARTICULARS	Qty.
01.	Astronomical 4K X 4K APOGEE CCD camera, filter-wheel and UBVRI filters	01 no.

You are requested to visit <http://eprocure.gov.in/eprocure/app> or click at SNBNCBS@CPPP within www.bose.res.in to participate in the E-Tender.

For participation in E-Tendering process, one time registration is to be made in the Central Public Procurement Portal (CPPP).

Schedule of Dates for e-Tendering:

Sl. No.	Activity	Date & Time
1.	Publishing Date	04.05.2016 at 16:00 Hrs.
2.	Document Download start date	05.05.2016 at 16:00 Hrs.
3.	Bid submission start date	05.05.2016 at 16:00 Hrs.
4.	Bid submission end date	02.06.2016 up to 17:00 Hrs.
5.	Last date of physical submission of EMD	04.06.2016 up to 17:00 Hrs.
6.	Technical Bid opening date	On or after 06.06.2016

Thanking you,
Yours faithfully,

S. K. Singh
AR (Purchase)

(i) Technical Specifications of a 4K x 4K APOGEE ASPEN CG16M
Astronomical front-illuminated CCD camera

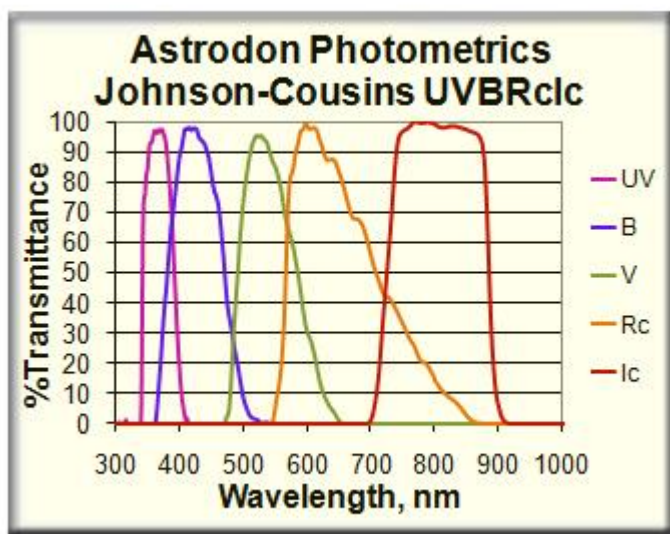
CCD camera made	ASPEN CG16M by APOGEE under Andor -
CCD Camera system	An Astronomical Front-illuminated CCD chip with the TE cooling system and control electronics and data acquisition software.
CCD array size	4096 X 4096 pixels in a single chip
CCD type	Front-illuminated and Monochrome
Detector chip	Class 1/ Scientific Grade
Pixel size	9 X 9 micron square
Quantum efficiency	> 60% @ peak
Readout noise	< 10 electrons/pixel/sec
Dark current	< 0.02 elector/pix/sec at -30 deg C
Full well capacity per pixel	>= 90, 000 electrons
Cooling system	Thermoelectric cooling -60 deg C from Ambient temperature with +/- 0.1 deg C temperature stability.
Operating Environment	10 - 40 deg C
PC Interface	USB 2.0 with Cable length of more than 30 meter
Exposure time	100 milliseconds to 180 minutes in full frame.
Digital Resolution	16 bits
Binning Modes	1X1, 2X2, 3X3, 4X4 and custom
Frame reading	Full frame @0.05 fps, sub-frame, focus mode
Power	International standard AC input plug (100-240V, 50-60Hz).
CCD camera Window	AR coated silica
Shutter	> 55 mm with shutter
Camera software	Windows, Macintosh, Linux operating system. Imaging data from CCD should be in standard FITS image format.
Camera Adapter	Provide the Camera adapter to fit the standard telescope system

(ii) Technical Specifications for 7 positions 50 mm SQUARE FILTER WHEEL:

Filter Thickness	2 – 7 mm
Filter Shape	Square
Numbers of filters	7
Weight including filters	1.6 kg
Thickness	1.15”with mounting plate
Camera mount method	Required Adapter plate to be attached with ASPEN CG16M cameras
Interface	USB 2.0
Power input	12 V DC
Mechanical mount	3”24 threads/inch

(iii) Technical Specifications Astronomical Johnson-Bessell-Cousine UVBRI filters of 50 mm square size:

Size	50 mm square (of the shelf item)
Shape	square
Substrate	Striae-free, single fused silica substrates
Substrate thickness	3.000 mm
Accuracy	1/4-wave propagated wave-front prior to coating
Bandwidth	depends on Johnson-Bessell-Cousine filters band (as per figure)
Substrate Parallelism	< 0.5 arcminute
Peak transmission	90% minimum



Specific Terms & Conditions for Astronomical 4K x 4K APOGEE ASPEN CG16M front-illuminated CCD camera and accessories:

- (a) The quotation should include an *Earnest money (EMD)* for Rs.30,000.00 (*Rupees Thirty Thousand only*) in the form of Demand Draft in favour of “S. N. Bose National Centre for Basic Sciences”, payable at Kolkata. **Bid without EMD will not be considered and shall be rejected summarily.**
- (b) **Annexure-I (Checklist) should be duly filled in by the bidder and should be submitted with the Technical Bid. Offer received without any of the relevant information / certificate / document asked as per “Annexure I & II” may not be considered for further evaluation.**
- (c) The Centre reserves the right to accept or reject offer of the tenderer without assigning any reason whatsoever. The Centre’s decision shall be final and binding on the tenderer.
- (d) Quotations in Foreign Currency should be CIF/CIP upto Kolkata Airport basis and Quotation in INR should be F.O.R upto S.N. Bose National Centre for Basic Sciences, Kolkata need to be mentioned.
- (e) Bid validity should not be less than 90 days from the closing date of tender submission.
- (f) Delivery period should be mentioned in the quotation.
- (g) Our ref. no. should be mentioned on top of the EMD envelope.
- (h) Principal manufacturer's current authorization certificate.
- (i) Warranty: Minimum 01 year onsite replacement warranty from the date of installation and Commissioning. Additional warranty may be quoted separately.
- (j) Vendor will specify maintenance procedure and after sales service.
- (k) Instruction/working manual included to be given.
- (l) Installation is to be carried out by the OEM/Supplier of the instrument.

General Terms & Conditions:

- 1) The bid should be submitted in two bid system as instructed in the “**Instruction to Bidder for E-tendering**” part.
- 2) The bidder should submit copy of Purchase Orders and installation certificates of equipment with similar specification executed in scientific research institutes.
- 3) Against such offers, if statutory requirement demands clearance from concerned Governments the tenderers should confirm in their offer that “Export License” in that respect would be arranged by them at their own cost.
- 4) Offers should be complete in all respect indicating therein the unit price(s) including manuals, make, model, duties and taxes, delivery period, gross and net weight of the consignment, together with the descriptive leaflet/catalogue/pamphlet/manufacturer’s brochure.
- 5) The offers shall remain valid at least for a period of **90 days**. The period starts from the closing date of tender submission.
- 6) The aforesaid Open Tender is being issued with no financial commitment and purchaser reserves the right to change/vary any item or items or quantity of item at any stage.
- 7) No tenderer shall be entitled for any compensation whatsoever for rejection/non consideration of their tender.
- 8) Invitation of tender does not constitute any right or claim for issue of purchase order to the tenderer.
- 9) The Centre will not be responsible for any misprinting by the newspapers concerned and inaccessibility of the downloading facility for any reason whatsoever and in that case the tenderer(s) should contact to the tendering authority to verify the fact in case of confusion.

- 10) If any information furnished by the tenderer is found incorrect or false at a later stage he shall be liable to be debarred from ordering / tendering
- 11) For items originating from abroad 80% payment shall be made by letter of credit and the balance 20% payment will be released after successful completion of installation & commissioning at site.
- 12) For indigenous item, payment will be made after satisfactory installation & commissioning of the equipment / instrument at site.



INSTRUCTIONS TO BIDDERS for E-tendering

Instructions/ Guidelines for electronic submission of the tenders are mentioned below for assisting the bidders to participate in e-Tendering.

1. Registration of bidder:

Any bidder willing to take part in the process of e-Tendering will have to be enrolled & registered with the e-Procurement system, through logging on to <http://eprocure.gov.in/eprocure/app> or click at SNBNCBS@CPPP within www.bose.res.in

2. Digital Signature certificate (DSC):

Each bidder is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of bids.

3. The bidder can search and download NIT & Tender Documents electronically from the website mentioned in <http://eprocure.gov.in/eprocure/app> or or click at SNBNCBS@CPPP within www.bose.res.in using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

4. Submission of Tenders:

4.1 General process of submission

Bid is to be submitted online through the website <http://eprocure.gov.in/eprocure/app> or or click at SNBNCBS@CPPP within www.bose.res.in. All the documents uploaded by the Tender Inviting Authority form an integral part of the contract. Tenderers are required to upload all the tender documents along with the other documents, as asked for in the tender, through the above website within the stipulated date and time as given in the Tender. Tenders are to be submitted in two folders - one is Technical Bid and the other is Financial Bid. The tenderer shall carefully go through the documents and prepare the required documents and upload the scanned documents in Portable Document Format (PDF) to the portal in the designated locations of Technical Bid.

The bidder needs to download the Forms / Annexures, fill up the particulars in the designated Cell and upload the same in the designated location of Technical Bid. Bidder needs to download the BOQ, fill up the rates of items in the BOQ in the designated Cell and upload the same in the designated location of Financial Bid.

The documents uploaded shall be virus scanned and digitally signed using the Digital Signature Certificate (DSC). Tenderers should take note of all the addendum/corrigendum related to the tender and upload the latest documents as part of the tender.

4.2 Technical Bid:

The Technical Bid shall contain scanned copies and/or declarations in the following standardized formats in two covers (folders).

A. The **Statutory Cover** should contain the following documents:

Folder Name	Sn	Document Description
DRAFTS	1	Scanned copy of Earnest Money Deposit (EMD) in the form of Demand Draft in favour of "S. N. Bose National Centre for Basic Sciences", payable at Kolkata.
ANNEXURE	1.	Duly filled ANNEXURE-I in the prescribed format
	2.	Duly filled ANNEXURE-II in the prescribed format

B. **Non-Statutory Cover (My Document)**

Category	Sub Category	Sn	Sub Category Description
CERTIFICATES	CERTIFICATES	1	Copy of Trade License, VAT/CST, PAN, Service Tax Registration no. enclosed with the technical bid.
Purchase Order Details	Purchase Orders - 1	2	Copy of P.O. and installation certificate with the same specification from at least one user
Miscellaneous	Laboratory Equipment Details	3	1.Current Authorization Certificate from the Principal Manufacturer 2.Literature/Manual of the offered item 3.Name, address, email & ph. no. of users in India should be mentioned specifically in a separate sheet.(Preferably Research laboratories)
Financial Details	Bankers Details	4	Bank details of the beneficiary to be mentioned

5. Submission of original copies of documents of Earnest Money Deposit :

5.1 Place of submission: The original copy of the Demand Draft, towards Earnest Money Deposit shall be submitted in the following office:

To
Mr.S. K. Singh, AR (Purchase)
S. N. Bose National Centre for Basic Sciences; Block-JD, Sector-III; Salt Lake;
Kolkata – 700 106.

5.2 Time of submission: The original DD of EMD shall be submitted in a sealed envelope in the office as stated above within the date and time as specified in the NIT. If the bidder fails to submit the original copies within the due date and time his tender will not be opened and his bid will stand rejected. The reference no. should be mentioned on top of the EMD envelope.

6. Opening and evaluation of tender:

6.1 Opening of Technical Bid

- i. Technical Bid will be opened by the Tender Inviting Authority or his authorised representative electronically from the website stated above, using their Digital Signature Certificate.
- ii. Technical Bid for those tenders whose original copies of DD towards EMD have been received will only be opened. Bid corresponding to which original copy of DD of EMD has not been received, will not be opened and will stand rejected.
- iii. The technical bids will be opened by the center internally.
- iv. Decrypted (transformed into readable formats) documents of the Statutory and Non-statutory Covers will be downloaded for the purpose of evaluation.

6.2 Techno-commercial Evaluation of Tender

- i) While evaluation, the Tender Inviting Authority or his authorised representative may summon of the tenderers and seek clarification / information or additional documents or original hard copy of any of the documents already submitted and if these cannot be produced within the stipulated timeframe, their proposals will be liable for rejection.
- ii) The list of tenderers, whose bids will be found technically eligible, will be uploaded in the web portals. Date of opening of financial bid will be intimated to the techno-commercially qualified tenderers.

6.3 Opening and evaluation of Financial Bid

- i. Financial Bid of the tenderers declared technically eligible, will be opened electronically by the Tender Inviting Authority from the web portal stated above on the prescribed date.
- ii. The encrypted copies will be decrypted and after opening of the Financial Bid the preliminary summary result containing inter-alia, name of bidders and the rates quoted by them will be uploaded.
- iii. The Tender Accepting Authority may ask any of the tenderers to submit analysis to justify the rate quoted by that tenderer.

Annexure – I

The following form should be submitted along with the technical bid duly filled and signed.

S/N	PARTICULARS	Yes/No	REMARKS
01	Technical bid & Financial bid duly sealed & signed enclosed in separate envelopes as instructed.		
02	<u>Contents of Technical bid</u> (a) Technical details as per specification enclosed with technical bid ⇨ (b) Technical Compliance Statement (as per Annexure – III) to be furnished and any deviation should mentioned specifically in a separate sheet. ⇨ (c) Literature/Manual of the offered item ⇨ (d) Current Authorization Certificate from the Principal Manufacturer ⇨ (e) Name, address, email & ph. no. of users in India. (Preferably Research laboratories) ⇨ (f) Copy of P.O. and installation certificate with the same specification from at least one user ⇨		
03	Quotation in Foreign Currency, should be CIF/CIP Kolkata Sea/Airport basis and quotation in INR, should be on F.O.R basis up to S.N. Bose National Centre for Basic Sciences, Kolkata need to be mentioned.		
04	All applicable tax (VAT/CST/Sales/Service tax) is mentioned		
05	Whether the price quoted is without excise duty, as the centre is fully exempted from payment of excise duty		
06	Copy of Trade License, VAT, PAN, Service Tax Registration no. enclosed		
07	Installation charges included (if any) is mentioned		
08	01 year Standard warranty from the date of installation is mentioned		
09	Delivery/installation time from the date of PO is mentioned		
10	Validity of Quotation should not be less than 90 days from the closing date of tender submission		
11	Contact details of after sales service centres in Kolkata is mentioned		
12	Bank details of the beneficiary is mentioned		
13	In case of any defect found after receipt of material or in case of any deviation from the specifications or in case of any operational defect found during the warranty period, any part or the entire material is to be replaced by the supplier at no extra cost to the Centre.		
14	Whether your company has been blacklisted by any Central/State Govt. organization.		

Note: Offer received without any of the relevant information / certificate / document asked in the above sl. nos. 01 to 14 may not be considered. The Centre reserves the right to accept or reject offer of the tenderer. The Centre's decision shall be final and binding on the tenderer. Attached documents should be duly marked.

Seal, Signature of bidder with date

TENDER TERMS & CONDITIONS

1. Earnest Money Deposit (EMD):

- a) Tenderers are required to submit an Earnest Money Deposit (EMD) in the form of Demand Draft in favour of “S. N. Bose National Centre for Basic Sciences”, payable at Kolkata. Bid without EMD will not be considered and shall be rejected.
- b) EMD of unsuccessful bidder will be refunded without any interest whatsoever within 30 days after issue of purchase order to the successful bidder. EMD of the successful bidder will be returned without any interest whatsoever after receipt of performance Guarantee of 5% of Purchase Order Value
- c) EMD of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender including extended period, if any. Further, if the successful tenderer fails to furnish the required performance guarantee within the specified period, its EMD will be forfeited.

2. Performance Guarantee (PG):

- a) In case Purchase Order is placed in foreign currency, equivalent amount in INR @5% of P.O. value is to be submitted through Demand Draft/Bank Guarantee issued by scheduled commercial bank as per model format of the Centre.
- b) In case Purchase Order placed is in INR, 5% of P.O. value is to be submitted through Demand Draft/Bank Guarantee of scheduled commercial bank as per model format of the Centre.
- c) The Demand Draft should be in favour of “S. N. Bose National Centre for Basic Sciences”, payable at Kolkata. PG is to be furnished within 45 days from the date of issue of purchase order. PG will cover the period of warranty/guarantee including extended warranty and will remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty/guarantee obligations.
- d) PG will be refunded to the supplier without any interest whatsoever after it duly performs and completes the contract in all respects within 60 days of completion of all such obligations under the contract. In case the time for completion of work gets enlarged, the validity period of performance security will get extended accordingly to cover such enlarged time for completion of work.
- e) PG will be forfeited and credited to the Centre’s account in the event of any breach of contractual obligations by the supplier.

3. Delivery & Installation: The whole work should be completed within the time limit mentioned in the P.O. Thereafter LD clause for both delay in delivery of material and delay in installation and commissioning of work will be applicable.

4. LD Clause:

- a) If the supplier fails to deliver any or all the goods or to perform services like installation, erection, testing, commissioning or other allied works on or before specified time period mentioned in the purchase order or extended date of completion time granted by the Centre if any, he shall, without prejudice to any other right or remedy available under the law to the Centre on account of such breach, pay as agreed compensation the amount calculated at the rate stipulated below:
- b) LD Clause for delay of delivery, installation, testing, commissioning or other allied works will be as follows:- 0.5% of delivered price of delayed goods (or delayed services) for each week or part thereof subject to maximum 10% of contract value.

TENDER TERMS & CONDITIONS

5. Arbitration:

- a) In case of any dispute, difference, question or disagreement or matter whatsoever, shall, before and after completion or abandonment of work or during extended period, hereafter arises between the parties, as to the meaning, operation or effect of the contract or out or relating to the contract or breach thereof, shall be referred to Sole Arbitrator to be appointed by the Director of the Centre at the time of dispute.
 - b) It is a term of the contract that the party invoking arbitration shall specify all disputes to be referred to arbitration at the time of invocation or arbitration under the clause.
 - c) It is a term of the contract that the cost of arbitration will be borne by the parties themselves.
 - d) The venue of the arbitration shall be at KOLKATA.
 - e) Subject to as aforesaid the provisions of the Arbitrations and Conciliation Act 1996 and any statutory modification or reenactment thereof rules made hereunder and for the time being in force shall apply to the arbitration proceeding under this clause.
6. The contract shall be deemed to have been entered at Kolkata and all causes of actions in relation to the contract will, therefore, be deemed to have arisen within the Ordinary Original Jurisdiction of High Court, at Kolkata, and shall be deemed to have taken effect from (date) when the purchase order for the goods was issued to the contractor.

7. Termination of Contract for Default:

- i) 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 in part:
 - a) If the supplier fails to deliver any or all of the goods within the time period specified in the contract or any extension thereof granted by the purchaser; or
 - b) If the supplier fails to perform any other obligation under the contract within the period specified in the contract or any extension thereof granted by the purchase.
- ii) In the event the purchaser terminates the contract in whole or in part; the purchaser may take recourse to any one or more of the following action:
 - a) The performance guarantee is to be forfeited;
 - b) the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of contract.
 - c) however, the supplier shall continue to perform the contract to the extent not terminated.

8. Termination of Contract for Insolvency:

If the supplier becomes bankrupt or otherwise insolvent, the purchaser may, at any time, terminate the contract, by giving written notice to the supplier, without compensation to the supplier provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

TENDER TERMS & CONDITIONS

9. Force Majeure Clause:

- i) For the purpose of this clause, Force Majeure means an event or situation beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable. Such events may include, but are not restricted to, acts of the purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, strikes, lockouts, and freight embargoes.
- ii) If a Force Majeure situation arises, the supplier shall promptly notify the purchaser in writing of such conditions and the cause thereof within 21 days of occurrence of such event. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- iii) If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussion on either side.

10. Extension of Time:

- i) The supplier shall deliver the goods and complete performance of service on or before specified time period mentioned in purchase order.
- ii) If, at any time during the contract period, supplier encounters situation impeding timely delivery of goods and timely completion of service, it will promptly notify the purchaser in writing of the fact of delay, its likely duration and its cause. After receipt of supplier's notice, the purchaser will evaluate the situation and may, at its discretion, extend time for completion of work with or without penalty as per clause 4. If the purchaser agrees to extend time for delivery of goods or time for performance of service, the same may be done by issue of amendment letter with suitable amendment of the contract.
- iii) Except situation mentioned in clause 9 and clause 10 (ii), clause 4 will be imposed for delay in delivery of goods or for delay in completion of service.

☞ Please submit this with tender document duly sealed and signed as an acceptance of the above mentioned terms & conditions.

Seal, Signature of bidder with date