

## Tender Details

**Tender No:** SCL/PS2/2018E0100801

**Tender Date:** 16/05/2018

**Purchase Entity:** Pur\_Entity2

## Tender Notice

E-Procurement Tender No. SCL/PS2/2018E0100801 dated 16.05.2018. SEMI-CONDUCTOR LABORATORY [SCL] invites ONLINE offers in Two Part through e-tender portal <https://eprocure.isro.gov.in> for UV-Vis-NIR spectrophotometer Optical Thin Films Characterization. Tender documents can be downloaded from 18.05.2018 - 1601 hrs. to 14.06.2018 upto 1500 hrs. The vendors need to get registered in the e-tender portal to access tender and submit their offer online. Vendors need to have Digital Signature Certificate as detailed on our e-portal and corporate e-mail ID to register on the above portal. Only online tenders will be accepted. No Manual/Postal/courier/e-mail/fax tender will be entertained. Please note Tender fee shall not be applicable for tenders submitted on-line through this portal.

A Pre-bid conference shall be held with the prospective bidders at SCL on 30.05.2018 at 1100 hours (IST) to clarify issues regarding the specifications and other associated technical details of the subject procurement. The prospective bidders must, therefore, ensure that they or their authorized representatives attend the said pre-bid conference at SCL as per the given schedule. In order to enable meaningful discussions in the Pre-bid conference, the prospective Bidders are requested to list the queries/clarifications planned to be sought by them on this Tender in the Pre-bid conference, in a Query Sheet and send us the said Query Sheet in advance to reach us at least one day before the Pre-bid Conference.

Before submitting the bids, all prospective bidders are requested to go through the minutes of proceeding of the pre-bid conference which shall be placed at our website and take the same into account while submitting the bids. Please note that Tender of a firm who has not attended the Pre-bid conference shall be disqualified. Vendors interested to participate in this e-Tender are required to

register themselves as vendors, if not already registered, in our e-procurement portal <https://eprocare.isro.gov.in> by downloading plugins and help demos listed on the home page of the e-procurement link mentioned above to complete the vendor registration process. They can seek help from help desk 020 25315555 / 9167969601 (Email: support.isro@nextenders.com) also the home page of e-procurement portal may be accessed for any technical help for registration and subsequent process. Vendors may please note that without registering in our E-procurement portal they will not be able to quote for this tender.

## Tender Attachments

### Technical Write-up/Drawings

#### Attachment - I:

IDT001700000000000000isro05401.pdf

#### Attachment - II:

#### Attachment - III:

#### Attachment - IV:

#### Attachment - V:

### Instructions to Tenderers (PT)

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1. Interested tenderers may, at their option, login to <http://eprocure.isro.gov.in> and submit offers as per details in the tender notification.

#### 2. Pre-Bid Conference:

A Pre-bid conference shall be held with the prospective bidders as per schedule given in the Tender Notification at Semi-Conductor Laboratory, S.A.S. Nagar (Mohali), Punjab, India to clarify issues regarding the specifications and other associated technical details of the subject procurement. The prospective bidders must, therefore, ensure that they or their authorized representatives attend the said pre-bid meeting at SCL as per the given schedule.

In order to enable meaningful discussions in the Pre-bid conference, the prospective Bidders are requested to list the queries/clarifications planned to be sought by them on this Tender in the Pre-bid conference, in a Query Sheet and send us the said Query Sheet in advance to reach us at least one day before the Pre-bid Conference.

Foreign bidders to intimate their willingness to attend the Pre-bid conference well in advance in the prescribed standard format to arrange for their Security clearance.

Please note that Tender of a firm who has not attended the Pre-bid conference shall be disqualified.

In the event where the vendor is unable to attend the Pre-Bid Conference physically, and he does not have establishment/representative in India, a Pre-Bid Conference through Video Conference / Skype / Conference Call shall be arranged by SCL upon the request from the vendor(s).

3. Request for the extension of the due date will not be considered.
4. SCL reserves the right to accept or reject any / or all the tenders in part or full without assigning any reasons thereof. The bidder is at liberty to seek information related to bidding conditions, bidding process and/or rejection of its bid.
5. In this tender either the Indian Agent on behalf of the Principal/OEM or the Principal/OEM itself can bid, but both cannot bid simultaneously for the same item. Indian agents while quoting on behalf of their principals shall provide necessary latest authorization letter obtained from their Principals/Manufacturers in their bid.
6. 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 tender for the same item. If submitted, all offers submitted by the said agent shall be excluded from the procurement process.
7. The tenders of vendors who have not agreed to furnish Security Deposit and Performance Bank Guarantee as sought vide this tender shall be excluded from the procurement process.
8. The tenders of bidders where the validity of the tender is shorter than the period specified in the tender enquiry shall be excluded from the procurement process.
9. Late tenders, delayed tenders, fax quotations and e-mail quotations are not considered.
10. SCL reserves the right to verify all claims made by the bidder.
11. SCL reserves the right to change any milestone date of the tendering activity / tender schedule.
12. Tender which is not submitted in terms of instructions mentioned herein is liable to be rejected.
13. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderer shall supply the same at the rates quoted.
14. It is expressly agreed that the acceptance of the Stores Contracted for is subject to final approval in writing by the Purchaser.
15. It is to be noted that the drawings, specifications, end-use, etc., given by the purchaser, are confidential and shall not be disclosed to any third party.

16. Prices are required to be quoted according to the units indicated in the tender. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
17. The Prices are to be mentioned both in figures as well as in words. The taxes, duties etc. are to be calculated and indicated in the column provided in online forms explicitly.
18. Bidders are expected to comply with commercial and other terms and conditions given in vendor specified terms of this tender. In case of any deviation, the reasons thereof should be clearly specified in the vendor specified terms column.
19. All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.
20. Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to remove the samples at his own expense.
21. Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
22. Specifications: Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his bid. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.
23. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income-Tax clearance certificate duly countersigned by the Income-Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.
24. The Purchaser reserves the right to place order on the successful tenderer for additional quantities up to 25% of the quantity offered by them at the rates quoted.
25. The contractor shall also undertake the supply of additional number of items covered by the order as considered necessary by the purchaser at a later date, the actual price to be paid shall be mutually agreed to after negotiations.
26. Subletting and Assignment: The contractor/supplier cannot sublet, transfer or assign the order/Contract or any part thereof or interests therein or benefit or advantage thereof in any manner whatsoever, to any other party save with the previous written consent of the purchaser. Such consent by the purchaser, however, shall not relieve or discharge the contractor/supplier from any obligation, duty or responsibility under the Purchase Order/ Contract.

27. The contractor/supplier shall indemnify the purchaser against Workmen Compensation Act.
28. The authority of the person submitting the tender, if called for, should be produced.
29. This being a two part tender -Technical and Commercial part separate, the Technical part should not contain Pricing information. The tenders containing Price details in Technical part will be treated as unsolicited offers and rejected. Prices should be indicated in the Price Bid template only.
30. The bids shall be opened on first day of tender opening schedule as indicated in the Tender in the presence of the bidders/their authorized representatives who may like to attend the tender opening against presentation of Authorization letter.

Due to any breakdown in Server/Link, bid opening will be continued on the following dates.

31. If tender opening date happens to be a public holiday, tender will be opened on the next working day and interested bidders may depute their representatives to attend the Tender Opening, with proper authorization.

The schedule of opening of Price bids shall be intimated separately to the technically qualified bidders only.

32. Definitions:

- a) The term Purchaser shall mean the Director, Semi-Conductor Laboratory or his successors or assignees.
- b)The term Contractor shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractors Successors, representatives, heirs, executors and administrators unless excluded by the Contract.
- c) The term Purchase Order shall mean the communication signed on behalf of the Purchaser by an officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the Tender or offer of the Contractor for supply of stores of plant, machinery, Software or equipment or part thereof.
- d) The term Stores shall mean all that the Contractor agrees to supply under the Contract as specified in the Purchase Order including its installation, testing and commissioning as per the specifications.

33. PROCEDURE FOR EVALUATION OF TENDERS:

Technical Evaluation Criteria:

Vendor meeting the eligibility criteria and basic technical specifications mentioned in SCL Tender shall be considered to be technically qualified.

Evaluation of Price Bids

The following elements shall be considered for evaluation of Price Bids:

- a. Price quoted by the bidder in the price bid template for meeting the functionalities given in the Tender and Technical Specifications sheet.
- b. Compliance with the Payment Terms prescribed in this tender document. In the event, the bidder offers Payment Terms stringent than SCL prescribed Payment Terms, the bid of the bidder shall be loaded based on MCLR of SBI prevailing on the date of opening of price bids.
- c. Post warranty labour only AMC charge including software upgrade support and trouble shooting shall not be taken into account for evaluation of price bids.
- d). Calibration charges at user site after warranty shall not be taken into account for evaluation of price bids.

### **Terms and Conditions - Imported Items**

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1. The Tenderers should submit the bids through e-procurement portal <http://eprocure.isro.gov.in> and complete in all respects with technical specifications, including pamphlets and catalogues.

2. The bid should contain the following information:-

a. The FCA value for import by Air Freight upto IGI Airport, New Delhi.

b. Agency Commission: Bidders are required to provide the following information in respect of their authorised Indian Agent, if any, alongwith technical bid as the same is mandatory as is required for consideration of the bid.

Name, Address, Telephone no. , fax no., email of the Indian Agent including the contact person.

A letter from the Manufacturer/supplier in the current date certifying that the said Indian Agent is their authorised Indian Agent and also indicating the responsibilities/role of the Indian Agent under the proposed purchase.

Renumeration/service charges payable to the Indian Agent under the proposed purchase.

The amount of agency commission included in the price and payable to Indian Agent of the contractor shall be paid directly to the Indian Agents by the Purchasers in equivalent in Indian rupees on the basis of an invoice from him applying TT buying rate of exchange ruling on the date of placement of the Purchase Order and which shall not be subject to any further exchange variations. The payment will be released to the Indian Agents within 30 days from the date of acceptance of the goods.

c. The earliest delivery period and country of origin of the Stores.

- d. Bankers name and address of the contractor.
  - e. The approximate net and gross weight and dimensions of packages/cases.
  - f. Details of any technical service, if required for erection, assembly, commissioning and demonstration as applicable.
3. The FCA prices quoted should be inclusive of all taxes, levies, duties arising in the tenderers country.
  4. The offer should be valid for a minimum period of 120 days from the due date of opening of the tender.
  5. Samples, if called for should be sent free of all charges.
  6. Bids will not be entertained after the due date and time.
  7. Offers made by Indian Agents on behalf of their Principals, should be supported by the necessary authorization letter from their Principals.
  8. The details of Import License will be furnished in the Purchase Order.
  9. The Authority of person submitting the tender, if called for, shall be produced.
  10. Instruction/operation manual containing all assembly details including wiring diagrams should be sent wherever necessary in duplicate. All documents/correspondence should be in English Language only.
  11. The Purchaser reserves the right to accept or reject the lowest or any other offer in whole or in part without assigning any reason.
  - 12 It is expressly agreed that the acceptance of the stores contracted for is subject to final approval in writing by the Purchaser.
  - 13 a. Part shipment is not allowed unless specifically agreed to by us.  
b. As far as possible, stores should be dispatched by Indian Flagged Vessels/ Air India or through any Agency nominated by us.
  14. Inspection/Test Certificates should be provided for the goods after testing it thoroughly at the Contractors works. If any inspection by Lloyds or any other testing agency is considered necessary, it shall be arranged by Contractors.
  15. Where erection or assembly or commissioning is a part of the contract, it should be done immediately on notification. The Contractor shall be responsible for any loss / damages sustained due to delay in fulfilling this responsibility.
  16. For items having shelf life / those with maximum shelf should be supplied, if order is placed.



## Bid Templates

### Technical Specifications

#### Item Specifications

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
1	Scope of Supply:1.1. Vendor to provide hardware system & accessories such as cables for characterization of Optical thin films coatings (reflectance, transmission, absorbance, and optical constants: refractive index (n) & absorption coefficient (k) values) both on packaged & wafer level.1.2. The system should consist of all the requisite Software & measurement Hardware (Sources, Detector, Optics etc.) for carrying out Optical Thin films characterization. 1.3. The system should be capable of measuring on any type of sample such as thin films, solids, liquid, paper, cloth etc. 1.4. System shall be supplied with pair of Quartz Cells of 3ml capacity and 10mm path-length for UV-VIS-NIR Range and pair of Quartz Cells of <1ml capacity and			

	<p>1mm path-length for UV-VIS-NIR Range to be used in the same cell holder.1.5. System shall be supplied with One set of Source Lamp, Certified NIST and calibrated reflectance standards Polarizer and depolarizer accessories, specular reflectance accessories, transmission holders and single unit capable of performing all mentioned measurements.1.6. Suitable Branded OEM/factor supplied PC OR i7 or PC with RAM 4GB, 500 GB hard disk &amp; color Laser Jet Printer (HP) and should work on Windows 10 platform.1.7. Vendor must provide Proprietary and patent certificates in case applicable 1.8. Vendor shall provide the services of qualified personnel in sufficient quantity to assure installation and acceptance at the customer's facility. Training of customer personnel will include details on the operation and maintenance of the system as well as information on the installation and calibration of the system.1.9. Any item(s) not specifically</p>			
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	<p>mentioned in the specifications but required for safe and efficient operations of the system shall deemed to be included in the scope of supply of the vendor(s) unless explicitly indicated in the bid by the vendor(s).1.10. The equipment offered should be of latest design and represent state of art technology in machine tool and control system design/manufacture. The equipment shall be rated for continuous heavy duty to work round the clock without stoppage.</p>			
2	<p>Eligibility Criteria:2.1. Vendors should have supplied, installed and commissioned successfully similar setup in last 5 years. Vendor shall provide list of organizations where such system/equipment have already been supplied, installed and successfully commissioned in last 5 years. SCL is at liberty to seek reference from any such user.2.2. Vendor can be called upon to establish capability to integrate quoted products and software with those available with SCL by way of a demonstration or</p>			

	proof-of-concept if required by SCL technical evaluation committee.			
3	<p>Scope of Installation, Testing and commissioning:3.1. Installation of UV-Vis-NIR Spectrophotometer, Optical thin films characterisation system hardware complying as specified in technical specifications &amp; scope of supply.3.2. Vendor to demonstrate Thin Films Coatings characterisation on-wafer as well as on packaged device measurements using the proposed setup. 3.3. Vendor shall uncarted the tool, move the same to the respective area (s) and install the tool on foundations, etc. SCL will provide utilities hook-up up to the tool. 3.4. Vendor shall bring all necessary tools/instruments like calibration reference devices etc. that are required for successful commissioning/ installation/ verification of the setup.</p>			
4	<p>Technical Specifications:This section describes the requirements for a</p>			

	<p>measurement tool to be used for characterizing Optical thin films coatings (reflectance, transmission, absorbance, and optical constants: refractive index (n) &amp; absorption coefficient (k) values) on wafers and device samples. The system shall be supplied with all items required to provide the capability to perform the intended functions in conformance to all specifications referenced herein.</p> <p>4.1. UV-Vis-NIR Spectrophotometer must have the following measurements capabilities-</p> <ul style="list-style-type: none"> <li>• Software controlled Absolute specular reflection at variable angle from 5°–85° in 0.02° intervals.</li> <li>• Software controlled direct transmission and variable angle transmission from 0°–90° in 0.02° intervals.</li> <li>• Automated and software controlled Diffused scattering, Diffuse reflection and Diffuse transmission through independent sample rotation (360°) and detector positioning between 10°-350° at 0.02° in intervals.</li> <li>• Automated measurement of Absorptions, A where A=</li> </ul>			
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	<p>1-R-T at variable angle without moving the sample or beam on to the sample. • Reflection and Transmission at single wavelength (read) and wavelength range (scan). • Automated, unattended, measurement of absolute reflection and transmission, at defined angles, for s-polarized and p-polarized light. • Measuring absolute reflection and transmission from exactly the same point on the sample without moving or disturbing it or the light incident upon it. • Provide a measurement system capable of measuring optical properties viz: absolute reflectance, transmission and scattering without contacting the sample and wafer. • Ability to move the detector and the sample independently of each other, providing a true multi-modal measurement system capable of absolute reflectance, transmission and scattering without moving the sample.</p>			
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**Technical Specifications**

**Item Specifications -I**

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
4	<p>4.2. Wavelength Range:175-3300nm</p> <p>4.3. Monochromator: Double beam, Suitable double monochromator with required gratings to provide desired resolution and sample thickness compensated detector optics. UV-Vis-NIR Spectrophotometer must be capable of analyzing in Optical Constants (n and k values), thicknesses of thin films deposited (single layer and multilayer stack) along with Transmission, Reflection, Absorbance, scattering modes and all the desired accessories needed for the same to be included in the offer. System should come with programmable sample and reference beam attenuators for high absorbance measurements and system should come with precise adjustment of beam height to match samples of different dimension.</p> <p>4.4. Spectral Band width/Band Pass(nm): 0.05 to 5.00nm or better (UV-Vis) with 0.01nm step width of 0.20 to 20nm or better (NIR)</p>			

	<p>with 0.04nm/suitable (please specify) step width.4.5. Photometric Range: 8Abs or better UV-Vis-NIR Range (Not less than 8 Abs)4.6. Photometric Accuracy: 0.0002Abs or better4.7. Resolution:Less than or equal to 0.05nm (UV-Vis) and Less than or equal to 0.2 nm (NIR) or better4.8. Wavelength Accuracy: +/- 0.08nm or better (UV-Vis range) &amp; +/- 0.4nm in NIR range</p>			
4	<p>4.9. Stray Light: Less than or equal to 0.00007% (at 220 and 370nm), At 1420nm: Less than or equal to 0.00040% , At 2365nm: Less than or equal to 0.00050% 4.10. Source: Pre-aligned Tungsten Halogen source (Visible) Deuterium source (UV)4.11. Detectors: Full range (UV-Vis-NIR) compatible (Party must specify the detectors used to cover required wavelength range at the time of participation)4.12. Baseline Flatness: Better than or equal to +/- 0.0008Abs from 200-3000 nm,0.2 Sec SAT, no smoothing applied (2nm slit/SBW for UV/Vis)4.13. Noise Level UV-Vis-NIR (Abs/RMS): Better than or</p>			

	<p>equal to 0.00005, 0Abs at 500nm (2nm slit/SBW) &amp; Better than or equal to 0.00004, 0Abs at 1500nm (2nm slit/SBW)4.14. Power Requirement: As per Indian Standard 230V +/- 10%, 1 PHASE, 50Hz +/- 5% OR 415V +/- 10%/3 PHASE, 50 Hz +/- 5%.</p>			
4	<p>4.15. Instrument Dimensions: Within 1100 mm(width) x 1000 mm(breadth) x 500 mm(height)4.16. Software: Compatible user friendly software for operating the basic equipment, upgradable free on net in future.4.17. Sample Compartment: Suitable for all necessary accessories required to hold samples such as Thin films on glass and wafer of size 230mm diameter, liquids, solids, paper, cloth etc. 4.18. Solid sample transmission Holder: 02 Number Solid sample transmission holder for thin film coated wafers and glass etc.4.19. Quartz Cuvettes: Pair of Quartz Cells of 3ml capacity and 10mm path-length for UV-Vis-NIR Range and Pair of Quartz Cells of &lt;1ml capacity and 1mm path-length for UV-Vis-NIR range to be used in the same cell holder4.20.</p>			

	<p>Hardware Features: At least 230mm coverage should be ensured with use of any attachment in conjunction with the standard detector. • Sample Size: 5mm minimum -230mm maximum circular wafer • Aperture masks: Incident beam: 1°, 2° and 3° and Detector: 1°, 2°, 3°, 4°, 5° and 6°. • Wavelength Range (With AutoPolarized): 250-2500nm without moving the sample • Direct View: With suitable detector/s must provide coverage in the UV-Vis-NIR range without using integrating spheres or light pipes. (to avoid attenuate signal and not to compromise data quality)</p>			
5	<p>Acceptance Procedure: The UV-Vis-NIR Spectrophotometer should meet all the required specifications as mentioned in Specification Sheet. Specifications quoted in specification sheet should be demonstrable by using standard specimens (NIST standards) on purchaser's site at the time of installation. Vendor must provide the test reports for the specifications verified at vendor's site</p>			

	<p>before shipment. The system after satisfactory compliance with respect to the required specifications will be cleared for shipment to purchaser's site. After satisfactory completion of onsite installation, commissioning of the equipment, training of SCL personnel and after satisfactory compliance to the required specifications the equipment will be finally accepted. The test and evaluation protocol consists of the following and the equipment evaluation will be carried out, based on this scheme.</p> <ul style="list-style-type: none"> <li>• Visual inspection of various systems, sub-systems and components of the equipment and their compliance against the identified deliverables.</li> <li>• System working and functionality (such scanning range, absorbance measurement etc. as mentioned in the Purchase Order and RFP) should be demonstrated at purchaser's site.</li> <li>• Inspection of the documents/reports on procurement of various sub-systems and parts sourced from any third party by the manufacturer</li> </ul>			
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	<p>and their compliance against the identified sources of procurement. • Vendor must produce the tests and evaluation reports with serial number for the sub-systems, namely sources, detectors, gratings, monochromator used in the equipment. • Total system evaluation namely, a) Overall system operation for operation including software controls and verification of the system operation in manual and fully automatic modes. b) Performance (measurement for Transmission, Reflection and absorption full range on a multilayer coated sample (Provided by SCL). c) All other Performance specifications tests namely, Photometric Linearity, Photometric reproducibility, Photometric Stability, wavelength reproducibility must be demonstrated by vendor with standards methods/Techniques. A detailed Test and Evaluation scheme, comprising of the above, will be evolved and mutually agreed upon at the time of equipment</p>			
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	design review.			
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**Technical Specifications**

**Item Specifications -II**

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
6	<p>Warranty &amp; Service:</p> <ul style="list-style-type: none"> <li>• For Instrument (software and Hardware): 02 years from the date of Installation.</li> <li>• For Consumable: 60 days from the date of Installation</li> </ul> <p>Two-year from the date of installation. The complete instrument and accessories excluding consumables (60 days' warranty) should be under warranty for a period of two (02) years from the date of installation. Extended warranty is preferable. In case of breakdown during warranty period, a competent service engineer of the supplier should make as many visits as are necessary to rectify the problems and replace the faulty parts. But it should be replaced within 48 hours from the date and time of complaint lodged by the user. The supplier should provide all spares required</p>			

	<p>for making the instrument operational. All the warranty replacement parts should be dispatch on DDP (free domicile) at site. SCL will return defective parts after replacement. The system should have standard two-year warranty. During the warranty period, vendor shall provide all support, repair and parts free of charge. Optionally vendor can quote warranty for up to 3 years upfront.</p>			
7	<p>Post warranty Maintenance Support: Vendor to provide post warranty labour only AMC charges (for reference only) including software upgrade support and trouble shooting. Vendor should be easily accessible and available on demand within 24 hours of any problem in the instrument. Two compulsory visits per year for maintenance must be included for the initial 2 years after installation.</p>			
8	<p>Installation and Training: Vendor shall provide the services of qualified personnel in sufficient quantity to assure installation and acceptance at the</p>			

	<p>customer's facility.</p> <p>Training of customer personnel will include details on the operation and maintenance of the system as well as information on the installation and calibration of the system. The operation and maintenance training shall include, but not be limited to disassembly, cleaning and repair of all the system components, review of software operation, review of error status and trouble shooting and pertinent subject requested by the customer during installation and training. The entire installation, acceptance, demonstration and training shall be carried out within one week from the date of arrival of the equipment at SCL and not later than one month from the date of acceptance of the contract. During commissioning of set-up, vendor should provide on-site hands-on-training to the concerned SCL personnel on calibration, measurement flow, test program setup, measurement routines operations,</p>			
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	software, trouble-shooting and preventive maintenance of the set-up at SCL. Training can be in 2 parts as per SCL requirements.			
9	Calibration:9.1. Vendor shall provide calibration certificate of all test & measurement equipment.9.2. The validity of calibration certificates should be at least twelve months from the date of successful installation of the equipment at SCL.9.3. Vendor shall quote calibration charges at user site after warranty			

### Technical Specifications

### Item Specifications -III

Sl. No	Specifications	Compliance (Yes /No)	Offered Specifications	Re
10	Safety: 10.1. Appropriate safety mechanism in terms of alarms and EMO should be provided for operator safety. Vendor to provide the details.10.2. The system should be design to be compliant with CE standards or other Industrial safety standard. 10.3. Fitted with all necessary safety interlocks			

	(Hardware and software) for safe operation.			
11	Technical Documentation: Vendor shall provide softcopy of technical documentation (in English language) containing, but not limited to, the following: 1. System user manuals 2. System Hardware / Software manuals. 3. Maintenance /Diagnostic/ Trouble shooting manuals including schematics, Circuit diagram (Electrical & Plumbing) along with Parts for all spares. 4. OEM system/subsystem/accessories manuals. 5. Vendor shall supply all additional information such as application development notes, paper published/process information etc. related to the system.			
12	Utility Requirements for Tool: See Annexure -A			

### Vendor Specified Terms

Description	Vendor Terms
1.1 For imported stores, prices shall be quoted on FCA nearest International airport basis.	
1.2 For indigenous stores, prices shall be quoted on F.O.R destination basis i.e. SCL, S.A.S. Nagar, Mohali, Punjab exclusive of taxes as may be	

applicable.

1.3 For indigenous stores, please indicate the rate of GST /any other Govt levy as applicable.

1.4 Purchaser is eligible for concessional CGST of 2.5 % and IGST of 5 % as per Ministry of Finance, Department of Revenue, Notification Nos. 45/ 2017 Central Tax (Rate) and 47/2017 Integrated Tax (Rate) both dated 14th November, 2017 respectively. The necessary exemption certificate will be provided by the Purchaser for the items covered under the said notification.

1.5 The prices of the indigenous items shall also be exclusive of transit insurance which shall be arranged by the Purchaser and shall be to Purchaser account.

1.6 For imported materials, the Purchaser is entitled to issue Customs duty exemption certificate (CDEC) to the contractor under customs notification no.51/96 dated 23.07.1996 and subsequent amendments to enable the contractor to avail off the benefit of concessional rate of customs duty under this notification. CVD under this notification is nil. In addition to the above CDEC, any documentary support requested by the contractor from the purchaser for customs clearance of goods against the above CDEC shall be provided by the purchaser.

**2. SECURITY DEPOSIT:**

On acceptance of the tender, the Contractor shall submit security deposit for ten percent (10 percent) value of the Purchase Order (PO) within 15 days from the date of PO towards successful execution of the PO. Security Deposit shall be submitted through Demand Draft / Bankers Cheque/ fixed deposit receipt or Bank Guarantee from any of the Scheduled Banks executed on non-judicial stamp paper of appropriate value, and shall be valid for a period of sixty (60) days beyond the date for completion of the Purchase Order.

(This will be returned by SCL immediately on execution of the PO satisfactorily as per order terms. If not, the amount will be forfeited).

**3. DELIVERY PERIOD:**

<p>The bidder shall specify the total time required for execution of the Purchase Order including supply, installation &amp; commissioning as per the tendered specifications.</p>	
<p>4. GUARANTEE &amp; REPLACEMENT:</p> <p>(a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance.</p> <p>(b) For a period of twenty four (24) months after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 26 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty.</p> <p>(c) If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 26 months from the date of acceptance thereof.</p> <p>(d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.</p> <p>(e) The decision of the purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defect has developed within the said period of 24 months or as to whether the nature of the defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor.</p> <p>(f) PERFORMANCE BANK GUARANTEE:</p> <p>To fulfil guarantee conditions outlined in clause 4 (a) to (e) above, the Contractor shall furnish a Bank Guarantee (as per format given by purchaser) from any scheduled bank/ bank approved by the Purchaser</p>	

for an amount equivalent to 10% of the value of the Contract and shall be valid for a period of 60 days beyond the expiry date of warranty period. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.

(g) All the replacement stores shall also be guaranteed for a period of 24 months from the date of arrival of the stores at purchasers site.

(h) Even while the 24 months guarantee applies to all stores, in case where a greater period is called for by our specifications then such a specification shall apply in such cases the period of 26 months referred to in clause 6 (b) & (c) shall be the asked for guarantee period plus two months.

**5. INSTALLATION, COMMISSIONING AND TRAINING:**

5.1. Installation as per Purchasers tendered specifications shall be carried out by the Contractor/factory trained service engineer at Purchasers site at S.A.S. Nagar, Punjab, India at no extra cost to the purchaser. The contractor shall provide in advance guidelines for preparation of the installation site and list of items to be supplied by the Purchaser during installation. On receipt of intimation from the Purchaser, the Contractor shall depute its engineer(s) to the Purchasers site to carry out installation and commissioning and will demonstrate the functionality of the tendered equipment to Purchasers specifications as per the Scope of Installation, Testing and Commissioning and Acceptance Criteria given in Technical specifications sheet. The Contractor shall be responsible for any loss/damages sustained due to delay on the part of the Contractor to send its engineer for installation and commissioning.

5.2. TRAINING:

The vendor shall provide on-site comprehensive training to the concerned SCL personnel as specified in the tender specifications.

**6. SUPPLY OF SPARES AND SERVICES:**

The contractor shall guarantee supply of spares and services support for a period of at least eight (08) years post installation of the

equipment. In the event of breach of this commitment on the part of the Contractor, Purchaser reserves the right to take appropriate measures including legal action claiming suitable compensation etc.

The bidder shall also quote for the following:

- i) Itemized quote for recommended spares and consumables required for one year of operation.
- ii) Post warranty (labour only) AMC charge including software upgrade support and trouble shooting.
- iii) Calibration charges at user site after warranty.

The quote for the above shall be uploaded as a separate pdf file under tab Supporting documents from vendors (Commercial).

(However it may please be noted that prices of items at Sr. no.i) to iii) above are for reference purpose only and shall not be considered for commercial evaluation of bids).

**7. NEW MACHINE CERTIFICATE:**

The contractor shall submit a certificate alongwith the equipment as well as with the documents for claiming payment indicating the date of manufacture and certifying that the equipment supplied is brand new equipment and not used/refurbished/ remanufactured/reconditioned equipment.

**8. TERMS OF PAYMENT IN CASE OF OVERSEAS SUPPLIER[S]:**

8.1 Being a Department of the Government of India, the normal terms of payment are by Sight Draft.

8.2 While the purchasers bank charges shall be borne by the purchaser, the contractor shall bear the bank charges payable to his banker.

**9. TERMS OF PAYMENT IN CASE OF INDIGENOUS SUPPLIER[S]:**

100% Payment shall be made for the accepted stores within 30 days

<p>from the date of receipt of the materials at SCL.</p> <p>While the purchasers bank charges shall be borne by the purchaser, the contractor shall bear the bank charges payable to his banker.</p>	
<p>10.1. ADDRESS OF INDIAN AGENT, if any</p> <p>10.2. AMOUNT OF AGENCY COMMISSION, if any</p>	
<p>11. VALIDITY:</p> <p>The tender must be valid for a minimum period of 120 days from the date of opening of bids.</p>	
<p>12. MODE OF DESPATCH:</p> <p>Generally, stores should be despatched through Indian Flagged Vessel / Air India or through any other Agency nominated by the purchaser whose contact details shall be indicated in the purchase order.</p> <p>A copy of the invoice and packing list should invariably be kept inside each of the packages.</p>	
<p>13. INSURANCE OF THE STORES:</p> <p>Insurance wherever necessary, will be arranged by the Purchaser. The necessity or otherwise of insurance will be as indicated in the Purchase Order/Contract.</p>	
<p>14. TECHNICAL DOCUMENTATION:</p> <p>The vendor shall provide Soft copy of technical documentation covering operation, maintenance and schematic as specified in the technical specifications.</p>	

Technical documentation shall include safety operating procedure.  
All documentation shall be in English language only.

**15. DELAY IN COMPLETION/LIQUIDATED DAMAGES:**  
If the Contractor fails to deliver the stores within the time specified in the Contract or any extension thereof, the purchaser shall recover from the Contractor as liquidated damages a sum of one-half of one percent (0.5 percent) of the Contract price of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed ten percent (10percent) of the Contract price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the stores will be considered as delayed until such time as the missing parts are delivered.  
Delivery of stores shall be complete on Installation, commissioning, Testing and Acceptance.

**16. PACKING & FORWARDING:**  
The Contractor shall pack and crate all stores for air/sea/road shipment as applicable in a manner suitable for export to a tropical humid climate, in accordance with internationally accepted export practices and in such a manner so as to protect it from damage and deterioration in transit by road, rail, air or sea. The Contractors shall be responsible for all damages due to improper packing.

**17. ARBITRATION:**  
If at any time any question, dispute or difference whatsoever shall arise between the purchaser and the Contractor upon or in connection with this Contract, either party may forthwith give to the other notice in writing of the existence of such question, dispute or difference and the same shall be referred to the adjudication of two arbitrators, one to be nominated by purchaser, other by a Contractor and in the event of any difference of opinion, the arbitrators will refer the matter to the umpire. The arbitration shall be conducted in accordance with he rules

<p>and procedure for arbitration of the International Chamber of Commerce at Paris. The expenses of the arbitrators and umpire shall be paid as may be determined by them. However, the venue of such arbitration should be in India.</p> <p>In case of dispute arises with domestic/Indian suppliers, the applicable Arbitration procedure shall be as per Indian Arbitration &amp; Conciliation Act, 1996.</p>	
<p>18. APPLICABLE LAW:</p> <p>The Contract shall be interpreted, construed and governed by the laws of India.</p>	
<p>19. Any Other Term:</p>	

**Supporting Documents from Vendor**

**Attachment - I:**

**Attachment - II:**

**Price Bid Form**

Item Description	Slab Range	Qty	UOM	Currency	Unit Price
UV-Vis-NIR spectrophotometer Optical Thin Films Characterization	-	1	No.	-	-

Break-up of other taxes and other costs should be specified in respective narration columns.

Sum of these Break-up values should be specified in respective value columns.

**Supporting Documents from Vendor (Commercial)**

**Document attachment with price bid**

**Attachment - I:**

**Attachment - II:**