

Government eProcurement System		Government eProcurement System			
		Tender Details			
		Date : 27-Jun-2022 02:46 PM			
		Print			
<b>Basic Details</b>					
Organisation Chain	Council of Scientific and Industrial Research  CSIO-Chandigarh - CSIR  Purchase-CSIO - CSIR				
Tender Reference Number	CSIO-3-3-2021-Pur				
Tender ID	2022_CSIR_120406_1				
Tender Type	Open Tender	Form of contract	EOI		
Tender Category	Goods	No. of Covers	1		
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No		
Payment Mode	Not Applicable	Is Multi Currency Allowed For BOQ	No		
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No		
<b>Cover Details, No. Of Covers - 1</b>					
Cover No	Cover	Document Type	Description		
1	Fee/PreQual/Technical/Finance	.pdf	Expression of Interest for procurement of direct Writing Laser Lithography System details attached		
<b>Tender Fee Details, [Total Fee in ₹ * - 0.00]</b>				<b>EMD Fee Details</b>	
Tender Fee in ₹	0.00		EMD Amount in ₹	0.00	EMD through BG/ST or EMD Exemption Allowed
Fee Payable To	Nil	Fee Payable At	Nil		
Tender Fee Exemption Allowed	No				
			EMD Fee Type	fixed	EMD Percentage
			EMD Payable To	Nil	EMD Payable At
					NA
					Nil
<a href="#">Click to view modification history</a>					
<b>Work /Item(s)</b>					
Title	CSIO-3-3-2021				
Work Description	Expression of Interest for procurement of direct Writing Laser Lithography System details attached				
Pre Qualification Details	Please refer Tender documents.				
Independent External Monitor/Remarks	NA				
Show Tender Value in Public Domain	No				
Tender Value in ₹	0.00	Product Category	Laboratory and scientific equipment	Sub category	NA
Contract Type	Tender	Bid Validity(Days)	90	Period Of Work (Days)	45
Location	CSIR-CSIO Sector 30 Chandigarh	Pincode	160030	Pre Bid Meeting Place	Online
Pre Bid Meeting Address	Online as per line given in the BOQ	Pre Bid Meeting Date	14-Jul-2022 02:30 PM	Bid Opening Place	CSIR-CSIO chandigarh-Online

Should Allow NDA Tender	No	Allow Preferential Bidder	No
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**Critical Dates**

Publish Date	27-Jun-2022 03:00 PM	Bid Opening Date	18-Jul-2022 03:30 PM
Document Download / Sale Start Date	27-Jun-2022 03:00 PM	Document Download / Sale End Date	15-Jul-2022 03:00 PM
Clarification Start Date	27-Jun-2022 03:00 PM	Clarification End Date	13-Jul-2022 03:00 PM
Bid Submission Start Date	27-Jun-2022 03:00 PM	Bid Submission End Date	15-Jul-2022 03:00 PM

**Tender Documents**

NIT Document	S.No	Document Name	Description	Document Size (in KB)
	1	Tendernotice_1.pdf	Expression of Interest for procurement of direct Writing Laser Lithography System details attached	218.36

  

Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	BOQ	BOQ_131304.xls	Expression of Interest for procurement of direct Writing Laser Lithography System details attached	280.50

**Auto Extension Corrigendum Properties for Tender**

Iteration	No. of bids required for bid opening a tender	Tender gets extended to No. of days
1.	2	7

**Bid Openers List**

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	ramesh.eproc@csir.res.in	Ramesh Kumar	RAMESH KUMAR
2.	sunder.eproc@csir.res.in	Sunder Lal	SUNDER LAL
3.	jayantrao.eproc@csir.res.in	Jayant Mohan Rao	JAYANT MOHAN RAO
4.	anilyadav.eproc@csir.res.in	Anil Kumar Yadav	ANIL KUMAR YADAV

**GeMARPTS Details**

Reason for non availability of GeMARPTS ID	Urgent nature of Procurement
Remarks	Expression of Interest
Document Name	DWLSTPC.pdf
Document Size (in KB)	351.92

**Tender Properties**

Auto Tendering Process allowed	No	Show Technical bid status	Yes
Show Finance bid status	Yes	Show Bids Details	Yes
BoQ Comparative Chart model	Normal	BoQ Compative chart decimal places	2
BoQ Comparative Chart Rank Type	L	Form Based BoQ	No

**Tender Inviting Authority**

Name	Controller ofStores and Purchase
Address	The Director CSIR-CSIO Chandigarh



**Tender Creator Details**

<b>Created By</b>	Ramesh Kumar
<b>Designation</b>	Assistant
<b>Created Date</b>	27-Jun-2022 02:41 PM

## Expression of Interest (Eoi) for procurement of Direct Writing Laser Lithography System

Documents to be submitted by the OEM or Authorized Representative of OEM:

1. Model number(s) of the instrument which meets the specifications (or very closely matches the specifications).
2. Brochures/Catalogues w.r.t point no.1.
3. Compliance sheet of the specifications mentioned in the Eoi. The compliance sheet must be vetted by the OEM. If any of the specification is not complying, then mention the actual parameter value for the instrument Model mentioned in point no. 1.
4. Valid authorization letter from OEM.
5. Domestic user list of similar system with Model No.
6. Any other relevant point the OEM/ Authorized Representative of OEM wants to share or discuss.

## Direct Writing Laser Lithography System Specifications

S. No.	Indented Specifications	
1.	<b>Substrate size</b>	<p>8" diameter or higher;</p> <p>The system should also be able to handle substrates of smaller sizes of diameter 6", 4", 3", 2" &amp; other smaller irregular pieces of substrate starting from 0.5" diameter up to 8" diameter. Suitable substrate adaptors and vacuum chucks should be provided for above mentioned substrate sizes.</p>
2.	<b>Substrate thickness</b>	(0.1 mm) to (10 mm or higher)
3.	<b>Writing features</b>	<ul style="list-style-type: none"> <li>• Minimum linewidth/feature size: 300 nm or smaller</li> <li>• Grating half-pitch: 500 nm or smaller</li> <li>• Max exposure area: 8" diameter or higher</li> <li>• Linewidth uniformity: 50 nm or lesser</li> <li>• Write modes: Vector mode and raster scan mode</li> <li>• No. of Grayscale levels: 256 levels or higher</li> </ul>
4.	<b>Exposure resolutions</b>	<p>Automatic selection of following resolution settings through the software should be possible. No manual lens changing should be required:</p> <ul style="list-style-type: none"> <li>• <math>0.3 \mu\text{m} \leq \text{Resolution} &lt; 0.5 \mu\text{m}</math></li> <li>• <math>0.6 \mu\text{m} \leq \text{Resolution} &lt; 0.8 \mu\text{m}</math></li> <li>• <math>0.8 \mu\text{m} \leq \text{Resolution} \leq 1.2 \mu\text{m}</math></li> <li>• <math>\text{Resolution} \geq 2 \mu\text{m}</math></li> </ul>
5.	<b>Exposure source</b>	<ul style="list-style-type: none"> <li>• Exposure Source Type: Semiconductor diode laser or Equivalent</li> <li>• Exposure wavelength: 405 nm.</li> <li>• Guaranteed lifetime of exposure source should be <math>\geq 10000</math> hours</li> <li>• Source Power: 5 mW or higher in the spot; Software controllable</li> <li>• Exposure control: Automatic or Software Controllable</li> <li>• Grey scale exposure mode for 3-dimensional patterning</li> </ul>
6.	<b>XYZ stage</b>	<ul style="list-style-type: none"> <li>• XY stage with dual beam interferometric encoder</li> <li>• Z stage with automatic focus and surface tracking capability</li> <li>• Autofocus compensation range: 75 micron or higher</li> </ul>
7.	<b>Multilayer alignment</b>	<ul style="list-style-type: none"> <li>• Automatic multilayer alignment capability</li> <li>• Maximum overlay error in multilayer patterning (Top Side Alignment accuracy): 500 nm or lower.</li> </ul>

8.	<b>Camera:</b>	<ul style="list-style-type: none"> <li>• Required for: Substrate inspection, automatic and manual alignment, dimensional measurements</li> <li>• Type of focus: Optical Focus</li> <li>• Through focusing objective by CCD/CMOS camera of 5 Megapixel or more</li> </ul>
9.	<b>Control hardware &amp; Software:</b>	<ul style="list-style-type: none"> <li>• The system should have control electronics and software/driver to operate the laser writer system, to define the writing mode, speed, laser power, alignment, beam size, controlling autofocus system, image processing hardware etc. The bidder should provide detailed features and capabilities of data processing and control software.</li> <li>• Write time estimation: Capability to automatically calculate the estimated time required to expose the substrate before and during the writing process.</li> <li>• Mask design software: Latest version of any standard mask design software or layout editor is to be supplied preloaded with the system</li> <li>• Database manager for handling and retrieving all data files.</li> <li>• Grey-level data handling suite (with BMP and raw data processor).</li> <li>• PC with high end CPU &amp; graphic card and high-resolution flat panel monitor (min. 17 inch), with graphical user interface for system control and data conversion, operated under Microsoft Windows (Latest Version).</li> <li>• Software to translate design files in CIF, GDSII, BMP, DXF, PNG format. It should be able to handle CIF, GDSII, BMP, DXF, PNG and any other necessary file formats with unlimited licenses. Details about the conversion software should be clearly mentioned</li> </ul>
10.	<b>Vibration isolation</b>	Must be supplied with the system to achieve the desired writing features (Refer to Sr. No. 3)
11.	<b>Environment chamber</b>	Must be supplied with the system to achieve the desired writing features (Refer to Sr. No. 3)
12.	<b>Accessories</b>	<ul style="list-style-type: none"> <li>• The firm is required to supply suitable vacuum pump (oil free) compatible to the class 100 clean room.</li> <li>• System should be supplied with all necessary safety interlocks and switches for safe operation including suitable light with its details.</li> <li>• Suitable photoresist with respective developer, thinner and adhesion promoter to be provided with the instrument/system so as to demonstrate the functionality (especially resolution/minimum feature) of the system. These consumables will be retained by the institute.</li> </ul>

**Note:**

**Acceptance criteria:**

**General:**

- Support of spares for minimum ten years.
- System should be clean room (Class 100) compatible.
- Manufacturer should have their service support/ office in India.
- There must be a provision for the remote control of the system for trouble shooting purposes.
- Should provide and quote all the necessary attachments for the system to be fully functional.
- **All the technical specifications must be available for inspection in brochures/ catalogues/ application notes/ datasheets/ websites of Principal Manufacturer/OEM.**

**Warranty and service support:**

- 12 months standard warranty from the date of installation/commissioning and final acceptance
- Vender/OEM should quote 02 yrs extended warranty for the system and sub-systems after the completion of standard warranty.
- The complete supply must be guaranteed for free repair / replacement and free software upgrades (wherever applicable) during the warranty period.

**Installation and commissioning:**

- The supplier or the representative will do the installation and commissioning of the lithography unit as per above description at customer site and demonstrate the operation.
- After the successful installation, supplier should provide complete free user training.
- Training includes: Loading of substrate, alignment, setting up exposure and all other parameters and unloading.
- Supplier will have to demonstrate the feature size, speed and other alignment parameters at customer site.
- Optical alignment and software-controlled calibration using standard and nonstandard sample should be demonstrated during training
- Users should be trained for operation, maintenance and servicing of the unit at customer site.
- Samples should be given as test samples for exposure during technical evaluation.
- Supplier should provide adequate samples for practice
- Detailed drawing of the equipment (System dimensions L x W x H), details of power supply requirements, infrastructure/ utilities required for the installation should be intimated with the offer.

**Documentation:**

- All the documents and software for the system to be supplied in English language. A complete set of original manuals (soft and hard copies) including user manuals, maintenance manuals, troubleshooting tips, built assembly drawings, foundation layouts and manuals of all imported/purchased components, together with manuals of the system must be provided in English Language.

**OEM/Supplier/Vendor criterion:**

- Only reputed OEM/suppliers will be considered.
- **At least one Direct Writing Laser Lithography system of the OEM should be installed in India for proven capability.**
- A user list with the similar systems to be provided.
- Details /contact numbers, e-mail etc. of the place where the systems have been supplied and installed should be mentioned.