Invitation for Expression of Interest (EOI)

Expression of Interest to take up prototyping and low volume IC Packaging Work

Semi-Conductor Laboratory (SCL), an autonomous body under Department of Space, Government of India, is an R&D organisation having its own semi-conductor design and wafer fabrication facilities.

Scope of Work:

SCL solicits Expression of Interest (EOI) from the vendors interested to take up prototyping and low volume IC packaging work. The requirements will be both ceramic packaging as well as plastic packaging in various type of packages viz. DIP, QFP, QFN, BGA, SOP, PGA etc. in various pin counts. For ceramic packaging, approximately 200 Nos. to 5000 Nos. of devices will be required whereas for Plastic packaging, 200 Nos. to 50000 Nos. shall be required for each type of products.

Vendors having suitable infrastructure and willing to take up such work are requested to participate in the pre-qualification process. SCL shall be qualifying more than one facility initially for 03 years. Vendor not having complete infrastructure / set of equipment, may also participate. Such vendors may be qualified for activities, if deemed fit by SCL. SCL technical team, at its option can visit the facility while carrying out the evaluation.

Eligibility Criteria:

Sr. No.	Criteria	Supporting Documents Required	Vendor's Compliance/ Response
1.	**Work Experience:** The vendor should have minimum 3 (three) years' experience in packaging of semi-conductor devices.	List of customers with brief outline of work done including quantity of devices packaged, Package type, Package out-line handled with pin counts. Vendor to share in process documentation formats being used.	
2.	**Manpower:** Vendor to have adequate skilled and semi-skilled manpower including QA staff.	Vendor to provide details and nos. of such personnel on their rolls.	

Infrastructure:

1.	a) Class 100 or better for carrying out all pre-cap/ pre-sealing packaging processes, Class 10000 or better for post-cap / post-sealing packaging operations, class 100000 or better for dicing and other packaging operations .	Details of the existing infrastructure .	
	b) All class 100, class 10000 and class 100000 areas are to be static safe zones with static dissipative table mats, floor mats, grounding of all equipments and personal grounding of employees.		
	c) Temp. and Relative Humidity Controlled Environment. (The required clean room should have 22℃±3℃ temperature and RH to be 50±10%).		
2.	**Desired Equipment**		
	a) Fully Automatic dicing equipment capable of handling 8”/ 12” wafers returning a kerf of 60μm (maximum)	Detailed specifications of the existing equipment and accessories.	
	b) Die attachment equipment capable of handling 8”/12 wafers.	Detailed specifications of the existing equipment, if available else provide alternative methods being followed.	
	c) Multi-zone (around 10 zones) conveyor furnace for curing of silver glass adhesive.	Detailed specifications of the existing equipment.	
	d) Full Automatic Aluminium wedge-wedge wire bonder with a capability to bond on Al metalized pads typically sized 57μm x 57μm with a pitch of 64μm.	Detailed specifications of the existing equipment	
	e) Full Automatic Au/Cu ball wire bonder with a capability to bond on Al metalized pads typically sized 57μm x 57μm with a pitch of 64μm.	Detailed specifications of the existing equipment.	
	f) Multi-Zone (around 10 zones) conveyor furnace for hermetic sealing of devices in Nitrogen ambient.	Detailed specifications of the existing equipment	
	g) Infrastructure for plastic moulding.	Vendor to provide details	

		of capabilities including package types, pin-counts etc. that can be handled.	
	h) Ovens	Vendor to provide details	
	i) Equipment for measuring particle count, Temperature, Humidity at regular intervals (mandatory).	Vendor to provide details	
	j) Equipment for measuring and recording Die-shear strength and wire pull strength (mandatory).	Vendor to provide details	
	k) Details of the other equipment available for semi-conductor packaging.	Vendor to provide details	

Activity Outline:.

Sr. No.	Activity	Responsibility	Vendor's Compliance/ Response
1.	Issuance of packaging requirement document containing quantity details, package type & other materials details, wire bonding diagram, documentation requirement/ formats etc.	SCL	
2.	Issue of wafers/dies, IC packages and lids (in case of ceramic/ metal packages), die- attach epoxy.	SCL	
3.	Bonding wire and other consumables.	Contractor	
4.	Assembly & packaging	Contractor	
5.	In-process QC	Contractor	
6.	Final Quality audit	SCL	
7.	Documentation	Contractor	
8.	Dispatch	Contractor	
9.	Any other	Vendor to specify	

Selection Criteria

Vendors bidding in response to this EOI will be shortlisted based on the assessment of their capabilities, experience and potential to carry out the proposed activities defined in the Scope of Work.

General Instructions for the submission of Expression of Interest (EOI)

1. The proposal should be submitted as an Expression of Interest (EOI), clearly indicating the expertise of the vendor in the assembly line along with Company profile and previous experience in this field.

2. EOI should contain all the relevant details and supporting documents including whitepapers / patents.
3. If required, the vendor responding to the EOI may be invited for further discussions at SCL for assessment of the capabilities stated in the EOI and for providing any clarifications.
4. The request for EOI is not an offer and is issued with no commitment. SCL reserves the right to withdraw the request for EOI and change or vary any part thereof at any stage.
5. The vendors shortlisted (based on EOI and assessment of their potential to carry out the proposed assembly work) would be issued formal tender inquiry / Request for Proposal, inviting their technical and commercial bids at a later date.
6. SCL reserves the right to accept or reject all or any such Expression of Interest without assigning any reasons thereof.
7. SCL reserves the right to verify all claims made by the vendor.

Date & Time of Submission of Submission of Expression of Interest in Sealed Cover	**25.04.2018 upto 1530 बजे/hrs (IST)**

Expression of Interest –Response Form

Vendors are requested to furnish the following details:		
1	Registered address with Phone, fax, e-mail, website etc., and year of establishment	
2	Status (Proprietary/Partnership/Private Ltd./ Limited etc.) with names and addresses of Proprietor, Partners, Board of Directors etc.	
3	List of similar contracts executed for the last three years with full address of customer and contact person (A copy of executed Purchase Orders/Contracts shall been closed)	
4	Details of Contracts, now in hand	
5	Details of Infrastructure such as Manufacturing/ Production, R&D, Technical& Administrative manpower etc. of the Company/Associates/ Joint Ventures.(Company's Profile and Organisation Chart shall be attached)	
6	Financial Capacity/Credit facilities available with copy of balance sheet, profit & loss account and latest income tax returns for last three years.	
7	Name and address of Bankers	

8	Any other information you consider Relevant	

We affirm that the information submitted is complete in all respects and true to the best of our knowledge and that we are authorized to submit this application. We understand that the information furnished in the form above is liable to be verified and any misrepresentation may lead to our disqualification from the tendering process.

Name: Signature of the authorized Signatory
Designation: Date: