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ENQUIRY No.EC/EMSD/PUR/2900/4405/1115

DATE: 17.10.2014

DUE DATE: 15.11.2014

ELECTRONICS CORPORATION OF INDIA LIMITED
(A Govt. of India Enterprise)
Electronic Manufacturing Services Division
Industrial Development Area, Phase-II,
Cherlapally,
HYDERABAD – 500 051

PLEASE SUBMIT YOUR QUOTE IN SEALED ENVELOPE SUPERSCRIBING RFQ ENQUIRY & DUE DATE BY POST / COURIER TO THE UNDERSIGNED. QUOTE YOUR BEST PRICE ETC., FOR THE FOLLOWING ITEM/S SO AS TO REACH US ON OR BEFORE DUE DATE AND TIME.

NOTE: QUOTATIONS RECEIVED THROUGH EMAIL / FAX WILL NOT BE CONSIDERED

01. “SOLDER REFLOW OVEN (LATEST VERSION)”
(TECHNICAL SPECIFICATIONS AS PER ANNEXURE-I)

- 02 NOS

GENERAL TERMS AND CONDITIONS:

THE QUOTE IS TO BE SUBMITTED BY HAND/POST/COURIER DULY SUPERSCRIBING OUR REFERENCE OF OUR “REQUEST FOR QUOTATION”.

THE BID SHALL BE IN TWO- PARTS:

TECHNICAL BID AND PRICE BID ENCLOSED IN SEPARATE SEALED ENVELOPES EACH SUPERSCRIBED WITH THE REFERENCE OF REQUEST FOR QUOTATION. THESE TWO PARTS SHOULD BE TOGETHER PUT IN A SINGLE SEALED ENVELOPE SUPERSCRIBED WITH REFERENCE OF REQUEST FOR QUOTATION AND SUBMITTED. THE PRICE BIDS WILL BE CONSIDERED FOR ONLY THOSE OFFERS WHICH QUALIFY IN TECHNO-COMMERCIAL BID EVALUATION.

OPENING OF TENDER:

TECHNICAL BIDS WILL BE OPENED ON 17th NOVEMBER, 2014, THE MONDAY AT 10 AM BEFORE THE BIDDERS PRESENT.

ANNEXURE -I				
TECHNICAL SPECIFICATIONS OF REFLOW SOLDERING MACHINE				
S.No	PARAMETER		SPECIFICATION REQUIRED	Complied
A	Basic features			
1.1	Power Supply		3 phase 380-415VAC 50Hz required	
1.2	Interface		Interface to inspection conveyor through standard circular SMEMA and to Next machine also.	
1.3	Safety Compliance		CE compliance required	
1.4	Oven Type		Hot Forced air convection type should be upgradable to nitrogen atmosphere at site	
1.5	Lead Free Compatibility		Must required	
1.6	PCB width to be handled		500mm	
1.7	PCB weight		Up to 3 kgs	
1.8	PCB Transport		Pin chain and mesh conveyors	
1.9	Top & Bottom Process clearance		25mm required on either side	
2.0	Total number of zones required		Min. 10 Top & Bottom Forced convection heating modules & Min. 2 Cooling zones	
2.1	Heating Module	2.1.1	One (1) each Forced convection blower on the top and bottom of every zone	
		2.1.2	Closed-loop blower control on each zone	
		2.1.3	Blower failure detection option with on-screen alarm required	
		2.1.4	Min. 100°C zone-to-zone segregation required to assist in lead-free profiles (at 350°C)	
2.2	Heating zone length		Minimum 2.5 Meters	
2.3	Temperature range and setting		To handle lead free soldering. To be variable in steps of 1 °C	
2.4	Process control accuracy		±1.0°C required @ no load steady state	
2.5	Typical oven start-up time		Ambient to full process ready state: < 20 minute	
2.6	Cooling Module	2.6.1	Independent access to cooling chambers	
		2.6.2	Minimum 2 Forced convection cooling modules with Top blowers	
		2.6.3	Closed-loop blower control function	
		2.6.4	Blower failure detection with feedback & on-screen alarm	
		2.6.5	Thermocouples required in cooling zone to monitor cooling zone temperatures	
		2.6.6	Cooling temperature alarm range 0 - 130° C	

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S.No	PARAMETER		SPECIFICATION REQUIRED	Complied
2.7	Rail Configuration		left - right flow configuration	
2.8	Chain speed		Adjustable up to > 60 Inches / Minute	
2.9	Automatic chain lubrication		Machine should have automatic lubrication facility for conveyor chain	
3.0	Process width Pin chain conveyor		Should be Capable of handling boards up to 20 inches (508mm)	
3.1	Conveyor rail parallelism		Should be within $\pm 0.5\text{mm}$ @ cold state & motorized width adjustment	
3.2	Alarms & protection Required	3.2.1	Process Temperature deviation alarm	
		3.2.2	High Temperature limit alarm	
		3.2.3	Thermocouple failure detection	
3.3	UPS requirement	3.3.1	Should provides power to the control system and conveyor in the event of a power failure for automatic product evacuation from the process chamber	
		3.3.2	Audible and on-screen visual alarms required for UPS	
		3.3.3	On-line battery charging; 30+ minutes of battery backup required	
		3.3.4	Continuous monitoring of line power; on-board self-test diagnostics required	
3.4	Access to Heating and cooling sections		Separate access to Heating and cooling module required for the oven for easy maintenance & access	

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TECHNICAL SPECIFICATIONS OF REFLOW SOLDERING MACHINE			
S.No	PARAMETER	SPECIFICATION REQUIRED	Complied
3.5	Software support	3.5.1 User friendly software & real time graphic animation of system with display process parameters, set points, alarm status and product flow tracking required	
		3.5.2 CPU should have minimum of Core i7 processor with 4 GB RAM, Speed 3.0 GHz, and 21" monitor (4:3 aspect ratio) for both machine and off line station. (Incase monitor is located at height more than 5 feet dual monitor support be provided to have comfortable level of vision.)	
		3.5.3 Windows 7 or higher with networking facility	
		3.5.4 On-screen index help, maintenance screens, system debug utility screens required	
		3.5.5 Programmable seven-day automatic start/stop timer required	
		3.5.6 Alarm screen containing user configurable alarm parameters, actions, alarm and process dead bands	
		3.5.7 vii)Print capability provides recipe printing as well as on-line alarm logging	
		3.5.8 History log stores machine events such as recipe changes, alarms, and start/stop functions to disk	
		3.5.9 Software controlled thermocouple failure detection	
		3.5.10 On screen Help required	
		3.5.11 Data logging required	
		3.5.12 Should be capable of storing a virtually unlimited number of recipes for rapid process setup	
		3.5.13 Individual Blower speed control required along with standard machine software	
		3.5.14 Option for saving current profile on power failure	
3.6	Manual chain movement	Handle must be provided to drive the chain in emergency	
3.7	Consumables	Consumables for maintenance like high temperature oil, coolant etc. should be supplied with the machine. Continued availability should be ensured.	
3.8	Exhaust specification	to be specified as per the machine requirement	
3.9	Noise levels	Should not be more than 75dBA	
B	Optional		
4.0	Bar code reading	Required to read 1D/2D barcode on PCB	

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5	QUALIFICATION DOCUMENTS	5.1	Bidders must be the original equipment manufacturers or their authorised agents only.	
		5.2	Only one bid must be submitted either by the manufacturer or their authorised agent.	
		5.3	The authorised agent should submit documentary evidence to that effect along with the bid.	
		5.4	In case multiple bids are submitted by manufacturer or their authorised agents, the bids would be liable for rejection.	
		5.5	The bid must be accompanied by documentary evidence of similar equipment having been supplied to customers in India in the last 3 years along with the performance certificates from the users. In case such equipment has not been supplied to Indian customers, details of customers in other countries to whom such equipment has been supplied, in the last three years, should be provided along with the performance certificates from such users.	
		5.6	The manufacturer should have their authorised service agent in India. Service engineer training & experience certificate form OEM should also be enclosed.	
6	BID DOCUMENTS	6.1	The bid must be submitted in two parts.	
		6.2	The first part, marked "Techno-commercial" should contain all technical, commercial and qualification documents except the price. The commercial terms and conditions should also be part of the Techno-commercial bid.	
		6.3	The second part, marked "Price Bid" should contain the unit rate and total price. No other information should be included in the price bid.	
		6.4	Price should not be mentioned anywhere in the techno-commercial bid. Failure to comply with this requirement would render the bid liable for rejection.	

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6	CONTINUED.. BID DOCUMENTS	6.5	Clause-wise compliance statement of technical specifications	
		6.6	Clause-wise compliance of commercial conditions	
		6.7	Deviations from technical specifications and commercial conditions, if any	
		6.8	Technical data and catalogues	
		6.9	a) List of international standards to which the equipment conforms along with documentary evidence. b) Machine should comply with CE / UL certification	
		6.10	List of customers to whom similar equipment has been supplied in the last 3 years	
		6.11	Performance certificates from the customers	
		6.12	The list of tools, accessories, calibration and preventive maintenance kits that will be supplied along with the equipment.	
		6.13	Copy of the price bid with the values replaced with "xxx"	
7	SPARE PARTS	7.1	List of basic spare parts and consumables kit required for operation and maintenance of the equipment up to the warranty period	
		7.2	List of spares recommended for 5 years operation after the warranty period which should include all parts prone to wear-and-tear, all printed circuit boards and consumables.	
		7.3	Confirmation of availability of spares and service for a period of 10 years beyond the warranty period.	
8	GENERAL TERMS	8.1	Prices should be quoted CIF Hyderabad, India.	
		8.2	The bids should be valid for a period of 120 days from the due date of the tender.	
		8.3	The equipment quoted should be brand new.	
		8.4	The price bids of only technically qualified bidders would be opened and considered for placement of order.	

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9	INSTALLATION AND COMMISSIONING	9.1	Special requirements for installation and commissioning including power, civil works, clean room, air-conditioning and ventilation.
		9.2	Installation and commissioning of the equipment at ECIL should be carried out by the supplier at no additional cost . The supplier should demonstrate the full capabilities of the equipment during commissioning.
		9.3	The supplier's representative should visit the site and indicate the works to be carried out to make the site ready for the installation and commissioning of the equipment
		9.4	In case of delay in supply and/or installation and commissioning of the equipment beyond the agreed schedule, penalty would be levied at 0.5% of the equipment value per week or part thereof, subject to a maximum of 10% of the order value.
10	TRANING		One week training on operation, maintenance, programming and basic troubleshooting to be provided to ECIL engineers at the time of commissioning.
11	MANUALS	11.1	Two sets (each set comprising of one hard copy and one soft copy) of operation, programming and maintenance to be supplied with machine
		11.2	Machine drawings should contain Mechanical assembly details, Electrical drawings (including schematic & wire drawings) and Spare part list (including mechanical & electrical parts) for the model offered.
12	DELIVERY		The equipment should be delivered preferably within 12 weeks of the release of order.
13	COC		Certificate of conformance along with test results should be furnished along with invitation for pre-despatch inspection.

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14	INSPECTION	14.1	List of tests that would be conducted during pre-despatch inspection.	
		14.2	The travel and living expenses for pre-despatch inspection would be borne by ECIL.	
		14.3	The equipment should be despatched only after satisfactory completion of pre-despatch inspection at manufacturer’s site for the full range of operations and to be witnessed by ECIL	
15	SOFTWARE UPGRADATION	All software updates should be sent at free of cost		
16	PAYMENT TERMS	Payment terms would be as follows: a. 80% of the supply value through irrevocable letter of credit with a usance of 60 days. b. Balance 20% upon acceptance of the equipment post installation and commissioning at ECIL. However, all bank charges inside India will be borne by ECIL and outside India to your account only.		
17	BANK GUARANTEE	The successful bidder should submit a performance bank guarantee equivalent to 10% of the order value before the final 20% payment is released. The performance bank guarantee should be valid till the end of the warranty period and should have a claim period of 1 month		
18	WARRANTY	18.1	Availability of warranty and post-warranty support	
		18.2	Confirmation of availability of AMC for a period of 5 years post-warranty, the prices for which should be included in the price bid.	
		18.3	The equipment warranty should be for a period of 42 months from the date of supply or 3 years from the date of commissioning whichever is earlier. The warranty should be comprehensive on-site warranty inclusive of all charges towards spares, labour, freight, insurance, taxes and levies. Preventive maintenance should be carried out as per schedule during the warranty period. The preventive maintenance schedule should be detailed in the techno-commercial bid.	

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19	SERVICE SUPPORT	19.1	Breakdown calls should be attended to and the equipment restored to running condition within 48 hours of intimation during warranty and AMC. Any delay would result in a penalty of 0.1% of the equipment value per day or part thereof.	
		19.2	Details of their authorised service agent who should be contacted for service requirements.	
20	LIQUIDATED DAMAGES	In the event of any delay in supply beyond the stipulated delivery schedule, Liquidated damages will be recovered at the rate 0.5% per week of delay subject to maximum of 10% of the value of the order.		
21	RISK PURCHASE	In case of failure to deliver the goods within the delivery date stipulated in the purchase order, unless prior extension of delivery period is obtained, ECIL will be at liberty to obtain such items as necessary from other sources and recover the additional costs incurred from the supplier		
22	ORDER CANCELLATION	22.1	ECIL will be at liberty to cancel the order if the equipment is not delivered within the delivery date specified in the order including any extensions granted.	
		22.2	ECIL has the right to close the tender without placing the order without assigning any reasons.	

1. Please provide point-wise compliance to all our above terms and conditions/notes.
2. All further clarifications regarding this tender and all communications including e-mails and letters and minutes of meeting shall be treated as part of the tender.
3. For any clarifications, please contact Shri. K.P Reddy, Senior Manager, EMSD, and ECIL, e-mail: puremsd@ecil.co.in , Phone: 9949079313/040-27260071.