



To, M/s -----

Enquiry no:-NaMPET/EE/Refl/2016-2017

Dated: 14/09/2016

"Sealed Tenders are invited for procurement of Hot-air SMD Reflow machine (Oven)"

1. (A) Essential Technical Specifications for Hot-air SMD Reflow machine (Oven)

1. **Power Input:** 230V AC 50 HZ + 10%.
2. Maximum preheating Temperature in respect to time : 220 °C ± 10 %, 1200 s
3. **Maximum Re-flow Temperature:** 300 °C (preferably 327°C) or more in 900s or less (must be programmable).
4. **Maximum PCB Size:** 230mm X 300mm or more (preferably 380mm X 300mm).
5. **PCB Cooling:** Fan speed/cooling rate can be adjustable.
6. Preprogrammed with industry standard profiles.
7. Integrated USB communication port for easy programming of reflow profiles and process recording and analysis.
8. Motorized drawer for easy access and automatic fast cool-down after reflow process.
9. Temperature Stabilization time <5 min±5 %
10. Double side soldering facility is preferable.

1(B) SMT Solder Paste Printer/dispenser for SMT Boards (Pl. quoted separately in the same quotation if it is not a part of above).

- a. **Automatic Printing with accessories**
- b. **Semi Automatic Printing with accessories**
- c. **Manual Printing with accessories**

Specifications for above Printers

- a) Must have minimum pitch 0.3 mm (12 mils).
- b) Printing populated double-sided boards
- c) Screen printing
- d) Different size Frames
- e) Printing area must be at least 230mm X 300mm or more.

1(C) SMT solder paste stencils cutters/printer with accessories (Pl. quoted separately in the same quotation if it is not a part of above).

- a) Must have minimum pitch 0.3 mm (12 mils).
- b) Can make stencils cut both framed and frameless stencils.
- c) Can cut transparent plastic/polymer sheet.
- d) 230mm X 300mm or more (preferably 380mm X 300mm).
- e) Material thickness 1mm.
- f) Right angle precision: 4 angular seconds.
- g) Axial precision ±2µm

1(D) Pick & placer of components for SOIC, SOT, QFP & BGA with bins (Pl. quoted separately in the same quotation if it is not a part of above).

- a. **Semi Automatic Pick & placement with accessories**
- b. **Manual Pick & placement with accessories**

1(E) Term & conditions

1. **Accessories model** & price must be quoted separately with the specified equipment model in the same quotation.
2. **Consumables** price must be quoted separately with the specified equipment model in the same quotation.
3. Please attachment of Information **Brochure** of each model.
4. **Software** related to each machine must be free with the machine.
5. **Warranty** –At least 12 Months or more

Sealed Tender (one sealed envelope for **Technical details** & other sealed envelope for **commercial details** into the **main tender envelope**) is invited for above equipment with aforesaid specifications on or before **October 03, 2016** with marking the tender number at top of envelope, which should be in favour of **"Dr. P. Sensarma, Department of Electrical Engineering IIT Kanpur 208016"**. The Indenter has right to accept or reject the tender without assigning any reason thereof. Also the indenter reserves the right to reject or accept all or any of the offers made above.

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