

## SCHEDULE OF REQUIREMENT AND TECHNICAL SPECIFICATIONS

SI No.	Description of items	Quantity
<b>PUR/627/SIP/SB/E/2019-20</b>		
	SUPPLY AND INSTALLATION OF AUTOMATIC DOUBLE SIDE PCB FABRICATION MACHINE	1

### 1. INSTALLATION, COMMISSIONING AND TRAINING

- 1.1. The ordered goods are required to be installed and commissioned within 15 days of receipt of goods at final destination. Installation should be carried out only by expert engineers of Supplier / Manufacturer. During the course of installation, necessary training on operation and maintenance of the goods shall be imparted to Institute's Scientist / Engineers/Technicians.

### 2. WARRANTY

- 2.1. Comprehensive on-site warranty for a period of **ONE YEAR** must be provided to be effective from the date of successful completion of installation and commissioning and final acceptance of the items / equipment at the user's laboratory / Institute.

## Annexure - I

### **Automatic Double side PCB Fabrication machine**

#### Technical Specification

- Working area (XxYxZ) : 320 mm x 230 mm or higher
  - Tool Change : Automatic and ( minimum 12 positions)
  - Internal Resolution (X, Y, Z) : 0.5  $\mu$ m *or lower.*
  - Positioning Repeatability (X, Y, Z) : 1.5  $\mu$ m *or lower.*
  - Spindle speed [rpm] : 5,000 to 40,000 software control or higher
  - Control motor : Stepper motor *Salmon.*
  - Tool Change : Automatic
  - Minimum track size : 0.1 mm (4 mil) *or lower.*
  - Minimum gap size : 0.1 mm (4 mil) *"*
  - Drilling Performance : Up to 120 stroke per minute or higher
  - Max Travel speed (X,Y,Z) : ~~Up to~~ 60 mm/s or higher
  - Interface to PC : USB 2.0
  - OS compatibility : Windows based
  - Imports : Gerber RS-274X files; Excellon Drill and Definition files; AutoCAD DXF 2D files
  - Camera *for hole alignment* : should be included.
  - Software *Salmon* : CAM Software, Gerber utility software.
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- Including:
    - A) Vacuum system *for dust removal.*
    - B) Different types of bits which are necessary for making PCBs and min 10 nos. of double side PCB.
    - C) CPU with Preloaded CAM software included and Gerber utility software.
    - D) Multi Function Test & measurement Instruments:  
It has PC Based DSO, Function Generator, Power supply, Logic Analyzer, Binary Data Generator and control by software

*Salmon*  
20.01.2020.

*J. Panimee*  
21/01/2020