

**Government of India
Bhabha Atomic Research Centre
Electronics Division**


ESC Building, BARC,
Trombay,
Mumbai 400 085

Ref: BARC/ED/Minor Fab/08/2017/155213

Dated: 06/09 /2017.

Sub: Pcb fabrication from given gerber file (2 types). Job includes minor modification by the pcb supplier on given gerber, pcb fabrication with gold plating , fpt test of pcbs .

1. Quotations are invited for and on behalf of President of India, under minor fabrication job for pcb fabrication from given gerber file, fpt test and gold plating, as per details in Annexure - A & technical specification in Annexure - B.
2. GST shall be quoted separately & will be paid.
3. The quotations must reach, Head, Electronics Division, BARC by 30/09/2017 and must be sent in a sealed envelope by Indian Speed Post only, super scribed with the above reference number and due date given above.
4. The address on the envelope should read:
**Head, Electronics Division,
Bhabha Atomic Research Centre,
Modular Labs D Block, Trombay, Mumbai 400 085.
Attn.: Kuldip Jha ,SO/F, ED, BARC**
5. Head. Electronics Division, BARC reserves the right to accept/reject any or all quotations without assigning any reason.
6. Work order shall be completed within 6 weeks from date of order issued to bidder.
7. Supplier must attach technical compliant statement meeting the technical specification attached without which offer may not be considered.
8. The fabrication work shall be subject to inspection by our engineer. The finished components shall not be dispatched prior to approval by our engineer at bidders works.
9. Items delivered should have 1 year warranty against manufacturing defect & quality of pcb.
10. Liquidity damage of 0.5% per month of PO amount, subject to max 5% of PO cost.
11. Enclosed:
 - Specifications and scope of work as per Annexure - A.
 - Enclosed Confidentiality Clause
 - Technical specification as per Annexure - B


04/09/2017

(Kuldip Jha)
SO/F, For and on behalf of
President of India

1.0 Confidentiality Clause

- 1.1 No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as “**Proprietary**” in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.

This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force.

1.2 “Restricted information” categories under Section 18 of the Atomic Energy Act, 1962 and “Official Secrets” under Section 5 of the Official Secrets Acts, 1923:-

Any contravention of the above-mentioned provision by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

1.3 Prohibition against use of BARC’s name without permission for publicity purposes:-

The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC’s name for any publicity purpose through any public media like Press, Radio, TV or Internet without the prior written approval of BARC.

Annexure 'A'

Details of pcbs to be fabricated from given gerber file

Sl. no.	Name of items	Qty (nos)
1.	Pcb fabrication from given gerber file, type-1, 4-layer pcb Size (305 mm X 190 mm approx.) as per technical specification in annexure B.	15
2.	Pcb fabrication from given gerber file, type-2, 4-layer pcb Size (100 mm X 190mm approx.) as per technical specification in annexure B.	15
TOTAL		30

Note: Job includes minor modification on one type of given gerber by pcb supplier, pcb fabrication of 2 types (4 layer), fpt test, gold plating of pcbs and delivery at BARC in 6 weeks.


04/09/2017

Kuldip Jha

SO/F, Electronics Division, BARC

वैज्ञानिक अधिकारी / Scientific Officer
इलेक्ट्रॉनिक्स प्रभाग / Electronics Division
भारत सरकार / Government of India
भाभा परमाणु अनुसंधान केंद्र / Bhabha Atomic Research Centre
टॉम्बे, मुंबई / Trombay, Mumbai - 400 085.

Annexure 'B'

Technical Specification for pcb fabrication:

1. General Specification:

- i. Work details to be collected from BARC, which include given gerber files for the 2 types of job.
- ii. Interaction on regular basis inside BARC is preferred. PVC is required for interaction on regular basis.
- iii. All requirements of the indenter, to be fulfilled with mutual discussions in BARC
- iv. Delivery time 6 weeks from date of order issued to bidder .
- v. Quotations valid till the completion of PURCHASE ORDER.
- vi. The bidder shall include flying probe BBT charges for all types of PCBs .
- vii. Free replacement of PCB/PCBs in case of any mistake by the party.
- viii. Any minor edit in the gerber has to be approved by the indenter before fabrication.
- ix. The PCB design should support DMEE package for gerber editing

2. Fabrication Specification: 2 Items (15 PCBs each)

- i. Fabrication of Multi layered PCBs of suitable layers as per the Gerber files provided by indenting official. PCB shall be made with FR4 Material of 1.6 mm thickness. The PCB shall have thick copper and HASL (Hot air solder leveling) finish. Solder mask shall be applied.
- ii. Uniform Excellon drilling for PTH.
- iii. Legends shall be printed on both sides of the PCB.
- iv. Laser photo plotting to be done for film preparation.
- v. Micro drilling with drilling diameter of 0.35/0.4 mm.
- vi. Fine track thickness of 6 mil with 6 mil gap and vias drill 0.3 mm is required to be supported.
- vii. Solder thickness on pad 10 to 14 microns in holes 6 to 8 microns.
- viii. Mechanical accuracy +/- 0.1 mm.
- ix. Complete gold flash of 0.25 micron on full PCB and for 86 pin connector 1 micron gold plating.
- x. Finish shall be ENIG/gold
- xi. Solder ability IPC standard class II to class III.
 - a. PTH cards IPC 600-E
 - b. ML cards IPC-ML-950
- xii. Cu plating in PTH 25 microns, conductor thickness 2 ounce
- xiii. Flying probe technique to be followed for BBT of multi layer board