

November 1, 2000

Fabrication and Assembly of Mother Board Sections 1, 2, 3, 4

1. We wish to procure four types of printed circuit boards assemblies (PCBs) as specified in the drawings B-2310, B-2313, B-2316, and B-2319. The number of assemblies required of each type are 271, 262, 262, 262, respectively. In addition we request 8 bare boards of each type to be returned to the University of Chicago to serve as spares.
2. The University of Chicago will supply all parts. The vendor is responsible for PCB fabrication and component mounting. The component mounting includes cable assemblies mounted on the PCBs referenced in drawings B-2310, B2313, and B-2316. Mechanical drawings for these cable assemblies are provided.
3. The finished assemblies must conform to the Gerber files, and drawings supplied by the University of Chicago.
4. The PCBs should be fabricated with FR4 material having a minimum transition temperature of 170°C.
5. Prior to production of any PCBs the artwork must be inspected and approved by the University of Chicago.
6. The boards may be panelized for production but the finished assemblies must conform to the supplied mechanical drawings and be thoroughly cleaned prior to delivery.
7. Note that the specification drawings B-2310, B-2313, B2316, and B-2319 call for layers 3 and 4 to be fabricated with 2 oz. copper conductor.
8. Prior to assembly, each PCB should be 100% tested for shorts and continuity according to the supplied net list. The boards used for assembly must pass these tests without being repaired.
9. Vendor will affix self-adhesive serial number bar-code labels supplied by the University of Chicago in the indicated positions on each of the four assemblies. There will be a separate sequence of numbers for each of the four. Serial numbers will correspond to the production sequence of the component placement process. Serial numbers, together with the date, time, machine, and operator will be logged at the start and stop of each production run and at the time of any anomaly in the production. A copy of this production log will be provided to the University of Chicago.
10. The first shipment will be 5 completed assemblies of each type. These will be sent to the University of Chicago for testing and approval. Further production should be placed in a hold status until these tests are complete and satisfactory. This step will require assemblies to be at the university for 3 days.

11. Upon approval of the above sample of 5 boards of each type, the balance may be assembled, shipped, and invoiced.
12. Guarantee – The vendor shall be responsible for all workmanship attributes. Since the final testing will not be complete for a period of one year after delivery of the final assembly, the period of warranty shall be an equal period of one year.
13. The vendor agrees to correct workmanship errors in the assemblies that have been indicated and located by tests at the University. The corrections shall be made in 10 working days.
14. Ten percent of the contract price shall be withheld and then paid as a monthly annuity as the period of guarantee progresses. Upon completion of this period the entire contract shall be totally fulfilled.
15. Price quotations are requested within two weeks. A delay of more than three weeks will be considered a no-bid. Quotations should include separate pricing for PCB fabrication and for assembly. The delivery schedule should be specified together with any special conditions.
16. First delivery is requested no more than 4 weeks after receipt of components from the University of Chicago. All deliveries should be complete within 6 months from the first delivery.
17. Unused components and unassembled boards should be returned to the University of Chicago at the conclusion of the assembly work.

Shipping address:

Electronics Development Group
Enrico Fermi Institute
University of Chicago
5641 S. Ingleside Ave.
Chicago, IL 60637

University of Chicago contact:

Mr. Harold Sanders, Head of Engineering
harold@frodo.uchicago.edu
773-702-7801