

FERMILAB-PREP FOUR CHANNEL CALORIMETER AMPLIFIER

1.0 SCOPE

This engineering specification describes particular techniques to be used in the fabrication of a Four Channel Calorimeter Amplifier.

2.0 GENERAL

Exceptions to any specifications in this document and accompanying drawings should be specifically listed in the vendor's quotation.

3.0 APPLICABLE DOCUMENTS

The following documents of the latest issue listed below shall form a part of this specification.

3.1 Fermilab Drawings

2530-ED-47899	Schematic
2530-MD-47906	Front and Rear Panel Machine Drawing
2530-MD-47907	Front and Rear Panel Silk Screen Details
	Printed Circuit Board Layout

4.0 CONSTRUCTION

4.1 Front Panel

After machining according to Fermilab drawing #2530-MD-47906, the front and rear panels shall be de-greased and primed using a good quality zinc chromate primer; then painted with flat white, then fluorescent lusterless paint as per paint chip supplied.

The front and rear surfaces shall be silk-screened (using Fermilab supplied artwork) with good adhering white paint.

The entire front and rear surfaces shall then be coated with a clear, non-yellowing epoxy.

4.2 Printed Circuit Boards

All printed circuit cards shall be fabricated of 1/16 inch thick G-10 glass epoxy substrate with double-sided 2 oz. copper clad. All holes shall be plated thru. The copper surfaces shall then be reflow solder coated.

Components shall be mounted flush to the card to minimize the height of the assembled card and shall be mounted so that identification labeling is visible. Soldering of component leads shall be done in a manner to assume high conductivity electrical joints and neat appearance.

5.0 ASSEMBLY

5.1 All leads shall be dressed in such a manner to make a neat package and of minimum length.

6.0 INSPECTION AND ACCEPTANCE

6.1 Fermilab representatives shall at any time during the fabrication of the equipment be allowed to visit the vendor's shops and offices for the purpose of determining progress. The vendor shall provide all reasonable information, facilities, and assistance for the safety and convenience of the Fermilab representatives.

Final acceptance shall be after the the equipment is inspected and given a performance check at Fermilab.

7.0 DELIVERY

7.1 All equipment fabricated and all remaining parts supplied to the vendor shall be delivered to Fermi National Accelerator Laboratory, east of Batavia, Illinois.

7.2 The seller shall be responsible for and make good any and all damage resulting from improper preparation for shipment and handling.