Title:

Final Assembly Procedure

Revision	Description of Change	Date Effective	Author
A	Initial Release	05/13/99	Dior Wu

Originator

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Title:

Final Assembly Procedure

1.0 Purpose

1.1 The purpose of this document is to describe the final assembly process.

2.0 Scope

2.1 The procedure covers all of the general final assembly operations.

3.0 Reference

3.1 SOP22 Electrostatic Discharge Control (ESD)

3.2 SOP11 First Article Procedure

3.3 IPC-A-610 Acceptability of Electronic Assemblies

3.4 Material Safety Data Sheets for ink and activator

4.0 Definitions

4.1 PCA: Printed Circuit Assembly

5.0 Responsibilities

5.1 It is everyone's responsibility to follow the ESD and safety rules described in this procedure.

5.2 Operators are responsible for following applicable assembly aids and/or customer documents.

5.3 The area supervisor shall follow First Article Procedure SOP11 and will assist operators as necessary.

6.0 Equipment

6.1 Power / non-power screw driver and bits

6.2 Press fit tooling

6.3 Hand tools

7.0 Materials

7.1 Final assembly components

7.2 Permanent marker and/or ink

7.3 Thread adhesive

8.0 Records

8.1 The total retention time for the records is reflected on the Master Forms Listing under the column heading Record Retention, in which the record may be kept in an active status. If the status is inactive and the customer specifies a longer period, the records may be forwarded to Document Control and filed / maintained in accordance with SOP 29.

9.0 Procedures

9.1 Clipping

9.1.1 Safety: Wear safety glasses and gloves.

9.1.2 Trim all leads to IPC-A-610 class 2 guideline or as specified by customer requirements.

9.1.3 Do not twist cutter while you are cutting leads.

9.1.4 Use only sharp cutters.

9.1.5 Do not cut solder joints.

9.1.6 Do not cut the leads unless necessary.

9.2 Hardware Installation

9.2.1 Safety: Do not open the case with electrical screw drivers or transformer to prevent electrical shock.

9.2.2 Set-up power / non-power screw drivers per MPI or customer specifications.

9.2.3 Hand assemble screws, nuts, components, or bolts per visual aids, MPI or customer document to ensure proper fit before tightening. Verify the part numbers and direction of installation.

9.2.4 Tighten the hardware per MPI or customer requirements.

9.2.5 Replace screw/ bolt if the thread or head is damaged.

9.2.6 Verify for proper alignment.

9.3 Press Fit Connector

9.3.1 Safety: Leave the punch handle at safe position to prevent injury.

9.3.2 Install the proper punch onto the press.

9.3.3 Load PCA on press fit fixture by aligning tooling holes with tooling pins.

9.3.4 Align press fit connector to PCA properly, make sure all leads are in the holes.

9.3.5 Press down connector flush to board.

9.3.6 Verify that there is no damage or bent pins.

9.3.7 Do not add solder to press connectors unless specified. All holes for press fit connectors must be free of solder

9.4 Revision Marking

9.4.1 Clearly hand mark revision letter on PCA with permanent marker per customer drawing or MPI unless specified.

9.4.2 Use only approved activator, ink, or pen per customer requirements.

9.5 Plug In Components

9.5.1 Lay PCAs flat on soft ESD safe mats or foam to prevent bent leads during assembly.

9.5.2 Hand plug in components per visual aids, MPI, or customer documentation.

9.5.3 Verify the part number and revision level.

9.5.4 If necessary to remove IC, use only IC extractor tool.

9.6 Hardware

9.6.1 Install all other hardware per MPI.

9.7 De-Panelization

9.7.1 Start the initial break by flexing the board in one direction.

9.7.2 Then bend the board in the other direction.

9.7.3 Ensure all fiber are broken before separating the board or tab.

9.7.4 Follow the special breaking sequence per instructions if required.

9.7.5 If any damage to the PCB laminate or traces is noticed stop work immediately. Contact your area Supervisor or Engineering for further instructions.