

Axiom Electronics PCBA Design for Manufacturability Guidelines

Section: 10.8	Revision: A	Revision Date: 2/14/13
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DFM Subject: Multi-Pack Framing and Removable Rails

DFM Requirement:

Multi-pack framing shall be used when:

- The PCB is smaller than 100mm (4") x 100mm (4").
- The PCB shape is irregular (i.e. L-Shaped).
- All four corners of the PCB are not square.
- The PCB edges parallel to the direction of travel are not uniform (Section 10.2).
- Components violate the edge clearance requirement (Section 10.2).
- Connectors extend beyond the PCB edge. Routing under the connector may be required.

Multi-pack framing design requirements:

- Multi-pack framing parallel to the direction of travel must be continuous. Gaps greater than 3mm (0.120") can cause conveyor sensor reading errors.
- The minimum width of a Multi-pack rail shall be 6.25mm (0.250").
- The minimum length of a Multi-pack rail shall be 25mm (1.0").
- All Multi-pack rail sections must break in a straight line along a single axis.
- V-scoring is preferred over drilled breakaway tabs (see Section 10.9)

DFM Impact:

PCBAs are manufactured on machines that use edge conveyors to transport and hold the PCB. If edge clearance is not provided it will be necessary to add a Multi-pack frame or use expensive fixtures to hold the PCB during assembly.

DFM Details:

