

# Design for Manufacturability Guidelines

This document provides an overview of the Alorium Technology production and assembly Design for Manufacturability (DFM) guidelines.

## General Guidelines

### Board/Panel

- Minimum 1.0 inch in at least one direction
- Maximum 200mm x 300mm
- Minimum 100 mil holes at each of 4 corners
- Board or panel must include fiducials

### Parts Handling

- Minimum 0402 component size
- Minimum 25 mil pad pitch for QFPs/QFNs/BGAs
- Maximum 28x28mm part size
- 9mm max component height

### Board Edge Minimums

- Frameless boards: 40 mils (1.0 mm)
- Framed panels: No restriction
  - Note: requires a frame between the component and the edge of the panel

### Stencil Requirements

- Framed stainless steel stencil
- Maximum 18in x 18in
- Minimum 9in x 9in
- Minimum 10 mil x 10 mil square openings

## Manufacturing Capabilities - At A Glance

### ✓ Precision Manual Solder Stenciler Station

### ✓ Mancorp MC-300 Automated Pick and Place

- Vision-inspected pick and place
- PCB offset/misalignment correction
- Up to 1800 CPH

### ✓ Mancorp MC-301 Reflow Oven

- Programmable reflow profiles
- 9.84" x 7.87" (250 mm x 200 mm) soldering area capacity

### ✓ Visual Inspection

### ✓ Manual Rework Station

- Component replacement
- Schematic error fixes
- Debug/bring-up cuts & jumps

### ✓ Test Fixture Design

- Mechanical and electrical design
- Software interface
- Post-production testing