



Documentation and Manufacturing Specifications

Documentation

- BOM (Bill Of Material) including reference designators
- AML (Approved Manufacturer List)
- Assembly Drawings
- Applicable ECN's
- Board pcb CAD file (such as neutral file)
- X & Y component centroid data
- Board gerber files including stencil gerber file (aperture list required if apertures are not embedded).
- Board panelization file or drawing (if applicable)
- Test Specifications (if applicable)
- Any customer specific information such as board label information and location.

Manufacturing

Standard Materials	
Solder Paste	Kester Easy Profile 256- 63/37
Core solder	Kester 245 #58 63/37
Bar solder	Kester 63/37 Ultra Pure
Wave Solder Spray Flux	Kester 973
Cleaning agent	Kyzen Aquanox A4520 in 18-22% concentration

Specifications			
	Minimum	Maximum	Comments
Board (panel) size	50mm x 50mm	440mm x 407mm	
Board thickness	0.4mm	4.0mm	
Board (panel)	5mm	-	Break-away rails should be on

break-away rail			the two long sides of the board (panel).
Component to board (panel) edge	5mm	-	
Board Fiducials	0.50mm	3.0mm	1mm preferred located in opposite corners of the board. Fiducials must be present on top and bottom copper and stencil layers.
Local Fiducials	0.50mm	3.0mm	1mm preferred located on opposite corners of all components 0.025" pitch or less.
Distance between chip components	0.5mm	-	0201, 0402, SOT-23, etc.
Distance between IC's	0.7mm	-	
Lead pitch	16mil	-	
Component size for vision placement		60mm	
Component height for machine placement	-	10mm	

Wire Bonding

Standard Materials	
Bond type	Wedge-wedge
Adhesive	Able bond 967-1 (low temperature two component silver filled, electrically conductive epoxy adhesive).
Encapsulant	Hysol FP4401 (liquid epoxy encapsulant)

Specifications			
	Minimum	Maximum	Comments
Gold Wire Size	0.0007"	0.020"	
Aluminum Wire Size	0.001"	0.020"	
Bondable area	16.0"	14.0"	
Bondable Device Size	-	2.50" x 2.50"	

Component Programming

Electronics file or master device

File format

Checksum

Revision or version of file

Reference designator of device to be programmed

Manufacturer and part number of device

Package type and pin count