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CHEKLIST FOR DESIGNERS

GENERAL REQUIREMENTS

PCB DESIGN

- Polarity of polarity-sensitive components indicated on the overlay (standard practice is: for diodes mark the cathode, capacitors mark the positive, IC's or multiple pin components mark pin 1)
- Designators supplied in BOM match the PCB overlay
- Sufficient clearance between components
- No solder mask or overlay on SMD pads
- Sufficient solder mask on tracks to stop solder migration from SMD pads to other parts of the circuit (via's, through-hole pads or other SMD pads)
- No via's-in-pads unless absolutely necessary, any via not isolated from an SMD pad by solder mask to be"tented"
- No via or other heatsinks attached to SMD pads without thermal relief
- SMD pad size correct for component being mounted
- PCB with a long thin shape should have approximately equal copper load on top and bottom sides
- Even on PCB's with single sided tracks, double-sided plated through-holes are preferred for component pads

THROUGH HOLE REQUIREMENTS

- Holes in pads are large enough to allow component pins to fit easily
- Pad size sufficient for the size of the though hole
- Pad integrity maintained when waved or hand soldered

SPECIAL ASSEMBLY INSTRUCTIONS

- Special instructions supplied if required (eg, gluing/staking, component mounting height, wire links etc)
- Labelling or serial numbering information supplied if required
- Conformal coating requirements specified if required

BOARD QUALITY

- Solder mask will retain integrity through reflow oven/solder wave
- No etching shorts or opens (Bare board testing advised)
- Plating in via/component pad holes is continuous and the adhesion of the plating to the wall is sufficient
to withstand reflow process
- Solderability of tinning/plating on pads adequate for reflow/wave soldering process