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CIRCUITS LIMITED

| PRODUCTION CAPABILITIES FOR RIGID BOARDS | | | |
|--|---|--|--|
| Sr.No. | Parameters | Standard | Complex |
| 1 | Base Material (CAF Resistance) | FR4, G10, PTFE, P95, ROGERS, Metal Clad, Taconic, Arlon, Nelco, Panasonic | RT/duroid - 5870, 5880, 5880LZ, 6002, 6006, 6010, 6035 HTC, 6202, 6202 PR, Bergquist. (As is required by Customer) |
| 2 | SAC approved Base Material (Space Application Centre, ISRO) | FR4, Very High TG PCBs | RT Duroid 6002, 6010 |
| 3 | Surface Finishes | Lead Free HASL, HASL, ENIGold, ENI Palladium Gold, Immersion Tin, Immersion Silver, Carbon | Electrolytic Gold over Nickel, Electrolytic Direct Gold on copper, Electroless Direct Gold on copper, Electrolytic Palladium |
| 4 | SAC approved Surface Finishes (Space Application Centre, ISRO) | Leaded HASL | Electrolytic Direct Gold on Copper (Thick Soft Gold of upto 4 microns) |
| 5 | Minimum Copper Thickness | 1/2 oz Copper (18 Microns) to 6 or (210 Microns) (Unbalanced copper Layers also available on special request) | As is required by Customer |
| 6 | Board Thickness | 14 mils to 125 Mils (0.35 to 3.2mm) Can be thicker for special Mlb Back Panels | 0.30 to 5.50mm |
| 6A | Minimum Core thickness for MLBs | 4 mils (0.10mm) | 3 Mils (0.076mm) |
| 7 | OL track Width / Space | 5/5 Mils (0.127mm / 0.127mm) | 4 Mils (0.10mm) |
| 8 | I/L Track Width / Space | 5/5 Mils (0.127mm / 0.127mm) | 4 Mils (0.10mm) |
| 9 | Minimum Finished Hole size | 8 Mils (0.20mm) | 6 Mils (0.15mm) |
| 10 | Minimum SMD Pitch | 19 Mils (0.50mm) | 10 Mils (0.25mm) |
| 11 | Minimum Gap between SMDS | 9 Mils (0.225mm) | 7 Mils (0.20mm) |
| 12 | BGA Pitch | 31 Mils (0.78mm) | 31 Mils (0.78mm) |
| 13 | Cu Thick/Tr.Width/Space | 35 with 5 Mils Track/5 Mils Spacing 70 with 12 Mils Track/12 Mils Spacing 105 with 14 mils Track/14 Mils Spacing | 35 with 5/5 Mils 70 with 10/10 Mils 105 with 12/12 Mils |
| 14 | Isolation Of Pads or Traces or SMTs on ground Planes | 10 Mils Minimum (0.25mm) | 8 Mils Minimum (0.20mm) |
| 15 | Inner Layer Isolation | 12 Mils (0.30mm) | 10 mils (0.25mm) |
| 16 | Minimum Annular Ring I/L via | 5 Mils (0.125mm) | 5 mils (0.125mm) |
| 17 | Minimum Annular Ring O/L via | 5 mils (0.125mm) | 5 mils (0.125mm) |
| 18 | Minimum Annular Ring Comp | 6 Mils (0.15mm) | 5 mils (0.125mm) |
| 19 | Minimum Epoxy space in hatch | 10 Mils (0.25mm) | 8 Mils (0.20mm) |
| 20 | Aspect Ratio | 10 : 1 | 12 : 1 |
| 21 | Buried Via | Yes | Yes |
| 22 | Blind Via | Yes | Yes |
| 23 | Maximum PCB or array Size | 2L 15" x 20". 4L 15" x 20". | As standard |
| 24 | Legend Character Width | 7 Mils (0.175mm) | 6 Mils (0.15mm) |
| 25 | Carbon(Resistance) | >20 ohms | 10 to 20 Ohms |
| 26 | Peelable Mask Thickness | 300 microns | 600 microns |
| 27 | Maximum dia for Peelable Mask | 3.2 mm | as per customer requirement |
| 28 | Non Standard Build-up | Refer Fineline | As standard |
| 26 | Minimum Scoring Web | 12 Mils (0.30mm) | 12 Mils (0.30mm) |
| 29 | PCB Edge to Clearence | 8 Mils (0.20mm) Minimum | 6 Mils (0.15mm) |
| 30 | Minimum Npth Slot width | 0.75mm | 0.50mm |
| 31 | Board Thickness Tolerance | +/- 10% | +/- 8% |
| 32 | PTH Tolerance | +/- 3 Mils (+/- 0.076mm) | +/- 2 Mils (+/- 0.050mm) |
| 33 | NPTH Tolerance | +/- 3 Mils (+/- 0.076mm) | +/- 2 Mils (+/- 0.050mm) |
| 34 | Routing Tolerance | +/- 6 Mils (+/- 0.15mm) | +/- 4 Mils (+/- 0.100mm) |
| 35 | Press Fit Hole Tolerance | +/- 2 Mils (+/- 0.05mm) | +/- 2 Mils (+/-0.050mm) |
| 36 | Punching Fr4 Board Max Thickness | 1.6 mm (0.062") | 1.6 (0.062") |
| 37 | Punching | [Single Punch & Remove] or [Punch & Retain] | As standard |