

## **CAPABILITIES**

| Items                                      | Manufacturing<br>Capabilities                             | Remarks   |
|--|---|---|
| Number of Layers                           | 1-12 layers   | For orders above 12 layers, please contact our sales rep.   |
| Material                                   | FR-4, Aluminum  | For Flex, Rigid-flex, Metal-based (Aluminum etc.,), HDI, Halogen-free, High Tg, etc., please contact sales rep.                                 |
| Maximum PCB<br>Size(Dimension)             | 40cm * 50cm   | Any sizes beyond this dimension, please contact us.   |
| Board Size<br>Tolerance(Outline)           | ±0.1mm  | ±0.1mm for CNC routing  |
| Board Thickness                            | Double Layer: 0.3-7.0mm<br>Multiple Layer : 0.3-<br>8.0mm | /   |
| Board Thickness<br>Tolerance) ( T≥1.0mm )  | ± 10%   | Normally "+ Tolerance" will occur due to PCB processing steps such as electroless copper, solder mask and other types of finish on the surface. |
| Board Thickness Tolerance<br>( T < 1.0mm ) | ±0.1mm  | For example: T=0.8mm , Actual thickness is 0.7mm ( T-0.1 ) $\sim$ 0.9mm ( T+0.1 ) .   |
| Min Trace & Min Spacing                    | Outer: 2mil (0.05mm)<br>Inner: 2.5 mil (0.0635mm)         | Min manufacturable trace is 2mil(0.05mm), strongly suggest to design trace above 3mil(0.075mm) to save cost.                                    |
| Outer Layer Copper<br>Thickness            | 1oz/2oz(35μm/70μm)  | Also known as copper weight. 35μm=1oz, 70μm=2oz Please contact us if you need copper<br>weight greater than 2oz.                                |
| Inner Layer Copper<br>Thickness            | 1oz/1.5oz(35μm/50μm)                                      | nner copper weight as per customer's request for 4 and 6 layers. Please contact us if you need copper weight greater than 1.5oz.                |
| Drill Sizes                                | 0.2mm (CNC)<br>3mil/0.075mm(Laser)                        | Min drill size is 0.2mm, max drill is 6.3mm. Any holes greater than 6.3mm or smaller than 0.3mm will be subject to extra charges.               |
| Min Width of Annular Ring                  | 0.1mm(4mil)   | For pads with vias in the middle, Min width for Annular Ring is 0.15mm(6mil).   |
| Max Aspect Ratio                           | 13 : 1  | /   |
| Solder Mask                                | LPI   | Liquid Photo-Imageable is the mostly adopted. Thermosetting Ink is used in the inexpensive paper-based boards.                                  |
| Minimum Character<br>Width(Legend)         | 0.15mm(6mil)  | Characters of less than 0.15mm wide will be too narrow to be identifiable.  |

| Minimum Diameter of<br>Plated Half Holes | 0.6mm   | Design Half-Holes greater than 0.6mm to ensure better connection between boards.  |
|--|---|---|
| Surface Finishing                        | HASL with lead<br>HASL lead free<br>Immersion gold                          | The most popular three types of PCB surface finish. Please contact us for other finishes.   |
| Solder Mask                              | Green ,Red, Yellow, Blue,<br>White ,Black                                   | No extra charge (Green, Red, Yellow, Blue)  |
| Silkscreen                               | White, Black, None  | No extra charge.  |
| Panelization                             | V-scoring,<br>Tab-routing,<br>Tab-routing with<br>Perforation (Stamp Holes) | Leave min clearance of 1.6mm between boards for break-routing. For V-score panelization, set the space between boards to be zero. |