

| Standard Capability |                    |  |   | PCB Technologies                       |                                    |  |
|---------------------|--------------------|--|---|--|------------------------------------|--|
| Item                | Process            | Manufacturing Capability   | Remark  | Item                                   | Max Capability                     |  |
| 1                   | Surface Finishing  | HASL, HASL LF, ENIG, Gold fingers plating, OSP, Immersion Ag, Immersion Sn, Hard gold+ENIG, ENIG+OSP, Hard gold+OSP, Carbon Ink, Peelable mask |   | Buried and Blind Vias                  | 5 steps                            |  |
| 2                   | Board Thickness    | 0.1 MM ~ 8.0 MM  |   | Sequential lamination                  | Y                                  |  |
| 3                   | Layers             | 1 ~ 36 L   |   | Mixed dielectric / Hybrid construction | Aluminum-FR4, FR4-Rogers, Flex-FR4 |  |
| 4                   | Material           | Brand: KB, ITEQ, Shengyi, Huazheng, NanYa, CEM, Arlon, Rogers, Teflon, Polyimide, VT, TU, Panasonic, Aluminum Base, Halogen Free material      |   | Aluminium Back PCB                     | Y                                  |  |
|                     |                    | TG: low to high, TG135 to TG180; CTI: 175 to 600   |   | Carbon Ink hole plug                   | Y                                  |  |
| 5                   | Board Size         | Max board size : 650 x 1200 MM; Min board size: 3*3 MM   |   | Silver Paste hole plug                 | Y                                  |  |
| 6                   | Inner Layer        | (1) ring of line: single sided 4mil  | Aspect ratio : 10: 1                          | Epoxy hole plug                        | Y                                  |  |
|                     |                    | (2) min trace w/s for 1 OZ : 3 mil/2.6mil  | Max finished copper thickness : 18/18 oz      | Solder mask hole plug                  | Y                                  |  |
|                     |                    | (3) hole to line or pad spacing: min 6mil  |   | Countersink/Conterbore                 | Y                                  |  |
| 7                   | Lamination         | (1) Max size can be laminated : 790 x 890 mm   |   | Depth Control Drill and Rout           | Y                                  |  |
|                     |                    | (2) Layer to Layer Registration tolerance : ± 3 mil  |   | Edge Metallized                        | Y                                  |  |
| 8                   | Drilling           | (1) min finished hole size: laser 0.1mm mechanical 0.15mm  |   | Thick hard gold plating                | 2U" to 60U"                        |  |
|                     |                    | (2) PTH hole size tolerance: ± 3 mil, NPTH hole size tolerance: ± 2 mil  | hole position registration tolerance: ± 2 mil | Impedance                              | +/- 5%                             |  |
|                     |                    | (3) min slot size : 0.55 mm  |   | Thick Copper                           | 18OZ outer and inner layers        |  |
| 9                   | Outer Layer        | (1) 1oz: 3/3 mil, 2oz : 5/5 mil  | Max finished copper thickness : 18/18 oz      | Thick hard gold fingers plating        | 2U" to 60U"                        |  |
|                     |                    | (2) Hole to line PAD 6 mil   |   | Selective hard gold plating            | 2U" to 60U"                        |  |
|                     |                    | (3) line to outline > 10 mil   |   | Carbon on pad                          | Y                                  |  |
| 10                  | Plating            | (1) hole wall copper thickness 1-10 mil  |   | Selective flash gold                   | Y                                  |  |
|                     |                    | (2) 10:1   |   | Peelable solder mask                   | Y                                  |  |
| 11                  | Etch               | Etch tolerance : ±10%  |   |  |                                    |  |
|                     |                    |  |   | <b>HDI</b>                             |                                    |  |
| 12                  | Soldermask         | (1) min soldermask bridge 4mil   | min PAD 20 mil                                | Item                                   | Max Capability                     |  |
|                     |                    | (2) pad to outer layer line: 3mil, min ring 2 mil  |   | Layer Count / Technology               | 4 - 26 Layers                      |  |
|                     |                    | (3) soldermask thickness 0.4~1.0 mil   |   | PCB Thickness Range                    | 0.5 - 2.4 mm                       |  |
|                     |                    | (4) soldermask color : green, blue, yellow, red, black, white, transparent and so on   |   | Build Up Technology                    | up to 5+N+5                        |  |
| 13                  | ENIG+Gold Finger   | (1) gold thickness of ENIG : 1~ 6 u" , Nickle thickness of ENIG : 100 ~ 200 u"   |   | Min. Laser Drill Diameter              | 0.075 mm                           |  |
|                     |                    | (2) gold thickness of gold finger; 1 ~ 60u"  |   | Laser Technology                       | CO2 Direct Drilling (UV/CO2)       |  |
| 14                  | Silkscreen         | (1) min line width : 5 mil ; line height : 36 mil  | max line height: 40 mil                       | Hope Wall Copper Thickness             | 20 um                              |  |
|                     |                    | (2) Silkscreen Color : white, black, yellow, red...etc.  | Serial number, Barcode, QR code               | Min. Line / Spacing                    | 2/2 mil                            |  |
| 15                  | Profiling          | (1) Tolerance of outline: ± 0.1mm  |   | Smallest mechanical Drill              | 0.2 mm                             |  |
|                     |                    | (2) V-CUT Angle: 30 degree & 45 degree & 60 degree   | min V-Cut width 75 MM                         | <b>Quality System and Certificates</b> |                                    |  |
|                     |                    | (3) Depth : Board thickness ≥ 1.2 mm Remain thicknss: 1/3 ; Board thickness ≡ 1.2 mm, remain thickness 20 mil (0.5 mm)                         | min distance V-Cut to copper 0.4 MM           | IPC-600, 6012, Class II and III        |                                    |  |
|                     |                    | (4) Beveling angle/depth: 20°/1.8 mm ; 30° /1.0 mm ; 45°/0.5 mm ; tolerance : ± 5°± 0.2 mm   |   | ISO 9001                               |                                    |  |
| 16                  | Test               | (1) max test points/one time : 50000   |   | ISO 14000                              |                                    |  |
|                     |                    | (2) max board size/one time: 1200x650 mm   |   | IATF 16949                             |                                    |  |
| 17                  | Peelable Thickness | 0.2mil~ 2mil   |   | UL: E339171 ZPMV2 & Canada ZPMV8       |                                    |  |
| 17                  | Bow and Twist      | 1L≤1.0% 2L≤0.75% Multi layers≤0.75%  |   |  |                                    |  |
| 18                  | Monthly Capcity    | 120,000m²  |   |  |                                    |  |