

High Density and High Layer Count PCB

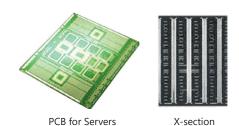
High-performance and High-reliability PCB for Supercomputers, Network systems, Al Data Center Servers and also Millimeterwave systems

High Density and High Layer Count PCB

- High-density PCB with narrow pitch pattern and Vias with high-aspect ratio.
- · Best design rule for customers' low-loss transmission requirements.
- · High Tg PCB for Pb free mounting, application requirements, etc.

Design Rule (mm)

Thickness	≤1.6	≤4.0	≤5.0	≤6.5	≤8.0
Via Diameter	φ0.15	φ0.20	φ0.25	φ0.30	φ0.35
Land Diameter	φ0.35	φ0.40	φ0.45	φ0.50	φ0.55
Line/Space	0.05 / 0.05-0.09 / 0.09 (depends on Cu thickness)				



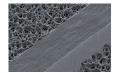
Layer construction : 50 layers with IVH

Thickness : 7.2mm

Via diameter : ϕ 0.35mm (IVH ϕ 0.12mm)

High-speed transmission: Transmission-loss improvement

- · Wide range of optimal low loss materials.
- Over 50Gbps signal transmission throughout the board.
- Chemical bonding technology to minimize the transmission loss due to skin effect at high frequency.



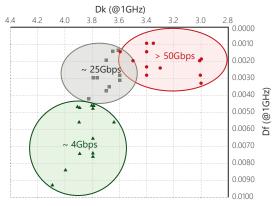
Before treatment



After treatment Conventional process Surface view improvement



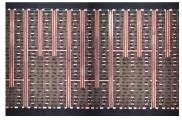
After treatment Chemical bonding



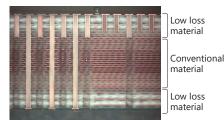
Over 50Gbps transmission enabled by optimal material and Chemical bonding technology

High speed transmission: Reflection loss minimization

- Best structure to minimize reflection noise without open stub.
- · Hybrid layer configuration composed of high density wiring layer and high speed low-loss transmission layer.
- Optimal design rules and layer structure at the early stage of PCB design.



Back-drilling technology



Hybrid material lamination technology



Any layer IVH with F-ALCS technology

Contact

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