High Density and High Layer Count PCB

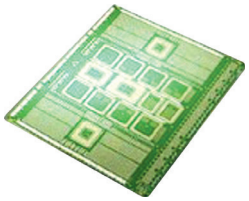
High-performance and High-reliability PCB for Supercomputers, Network systems,
AI Data Center Servers and also Millimeterwave systems

High Density and High Layer Count PCB

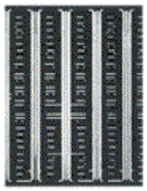
- High-density PCB with narrow pitch pattern and Vias with high-aspect ratio.
- Best design rule for customers' low-loss transmission requirements.
- High Tg PCB for Pb free mounting, application requirements, etc.

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)				



PCB for Servers

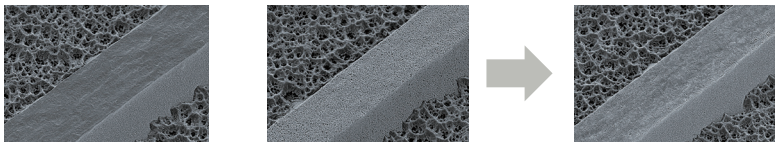


X-section

Layer construction : 50 layers with IVH
Thickness : 7.2mm
Via diameter : ϕ0.35mm (IVH ϕ0.12mm)

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.

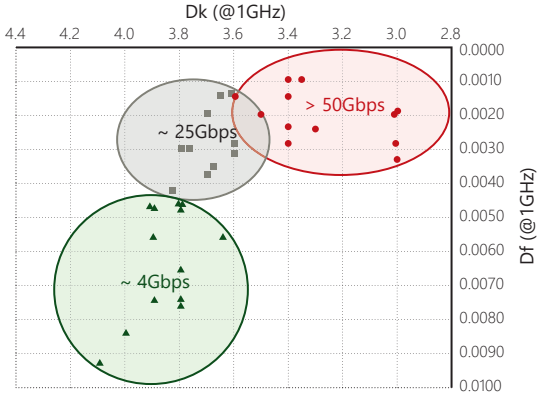


Before treatment

After treatment
Conventional process

After treatment
Chemical bonding

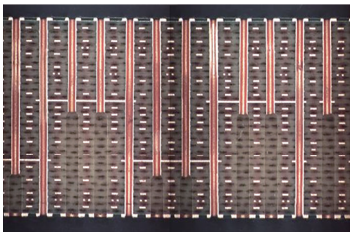
Surface view improvement



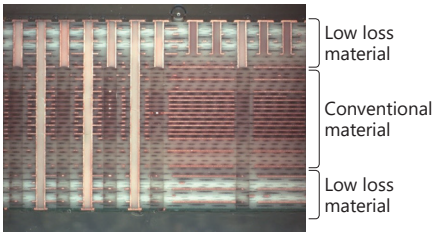
Over 50Gbps transmission enabled by optimal material and Chemical bonding technology

High speed transmission: Reflection loss minimization

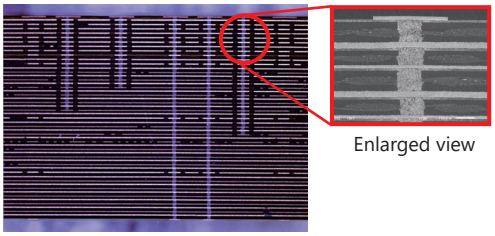
- Best structure to minimize reflection noise without open stub.
- Hybrid layer configuration composed of high density wiring layer and high speed low-loss transmission layer.
- Optimal design rules and layer structure at the early stage of PCB design.



Back-drilling technology



Hybrid material lamination technology



Any layer IVH with F-ALCS technology

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