"F-ALCS" technology (F- All Layer Z-Connection structure)

Innovative technology "F-ALCS" for ultra-high density wiring

The innovative technology "F-ALCS" maximizes wiring capacity of Printed Wiring Board and enables high performance design with its ultra-high wiring flexibility.

Design flexibility improved

- Design flexibility improved with any Layer IVH structure.
- Fine IVH holes formed on small PADs by laser drilling.
- Device mounting area expanded by enabling to place Vias only where you need them to be.

No open stub layer structure

- The transmission loss of high-speed signal, caused by open stubs, is solved by the any layer IVH structure. It reduces return loss and helps PCB to achieve a good signal integrity at ultra-high frequency operations.

Manufacturing lead time shortened

- This process enables PCB manufacturing of any layer IVH structure with one-time lamination and decreases its manufacturing process steps by 50%.

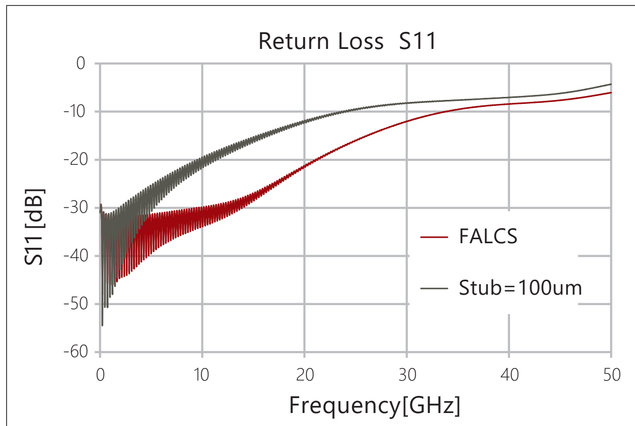
Environmentally friendly fabrication process

- No need of copper plating at the Via formation makes this process environmentally friendly!

● Advantage : Electrical characteristics

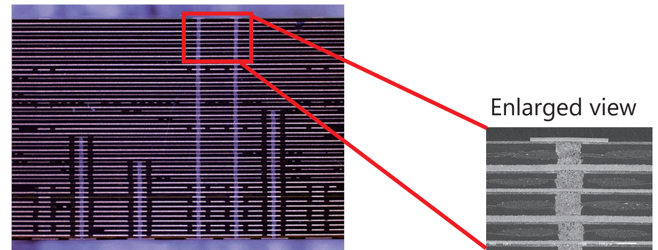
Reduction of return loss with stub less structure

Condition : 12 layers, PCB thickness=1.2mm, Wire length=15cm, Simulation tool: MW STUDIO(CST)

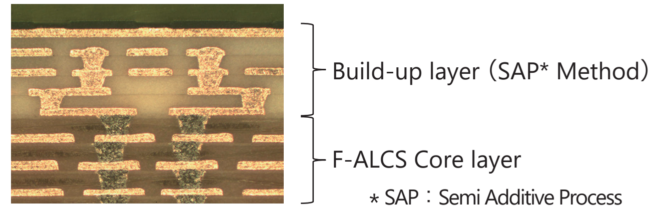


● Advantage : Structural type selection

All layer IVH with F-ALCS Technology



F-ALCS core + Build-up (SAP* Method)

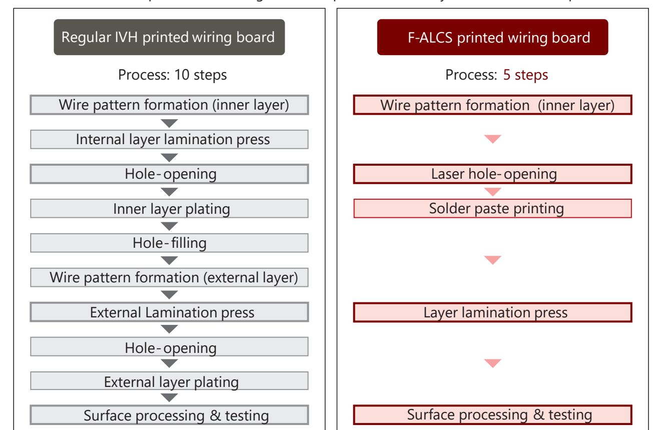


＊SAP：Semi Additive Process

● Advantage : Reduce process steps by 50%

Plating-less and any layer IVH with one-time lamination

Comparison between general IVH process and all layer IVH with F-ALCS process



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