

ZVEI recommended design rules for microvias

(the user is responsible for implementation)

Description	Standard		High end
Copper foil thickness	9 μm		9 μm
Final thickness of copper plating ($i-h$)	34 μm (+15 μm / -5 μm)		34 μm (+15 μm / -5 μm)
Anular ring (microvias)	> 150 μm		> 100 μm
Thickness of copper plating (unfilled) (e)	IPC class 2 > 15 μm	IPC class 3 > 20 μm	> 20 μm for PTFE
Filling factor (h/i ratio of filled vias)	60% - 90%		

Possible variations

Hole diameter f [μm]	Hole depth h [μm]	Prepreg	Aspect ratio (max. 0.85:1)	Final diameter ($f-2e$) [μm]
100	63	1 x 1080	0.63:1	50 - 70
140	100	2 x 106	0.71:1	90 - 110
170	100	2 x 106	0.59:1	120 - 140

