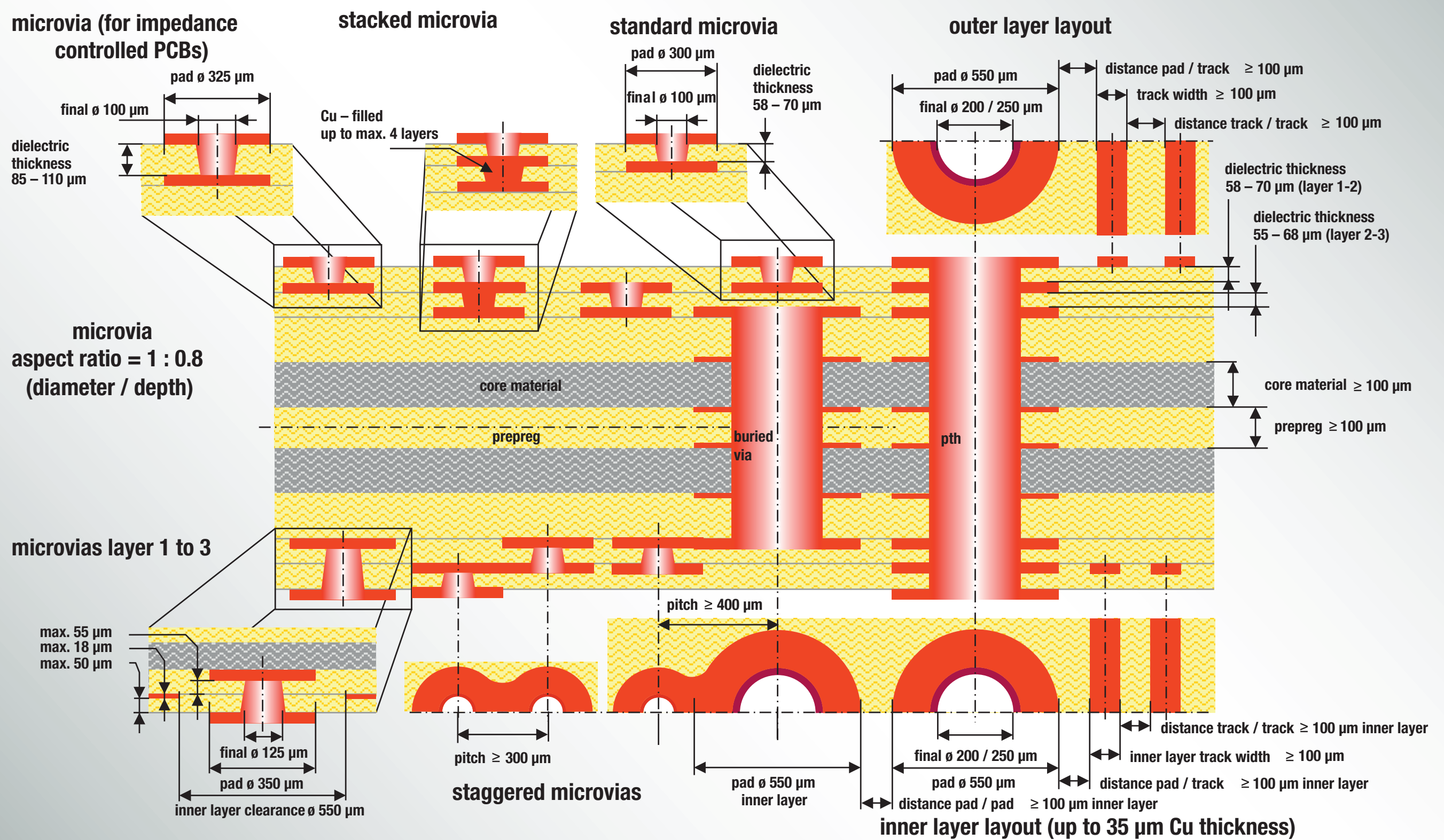


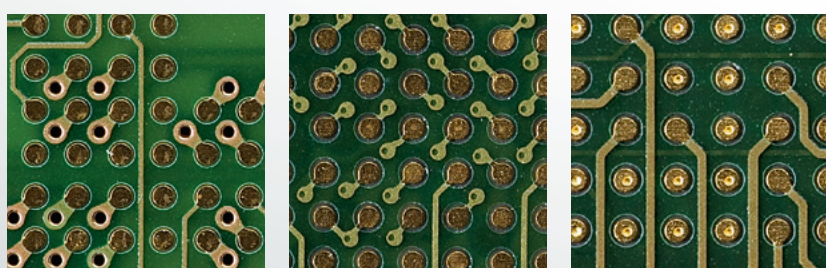
HDI Microvia Standard Design Guide



HDI Microvia Standard Design Rules



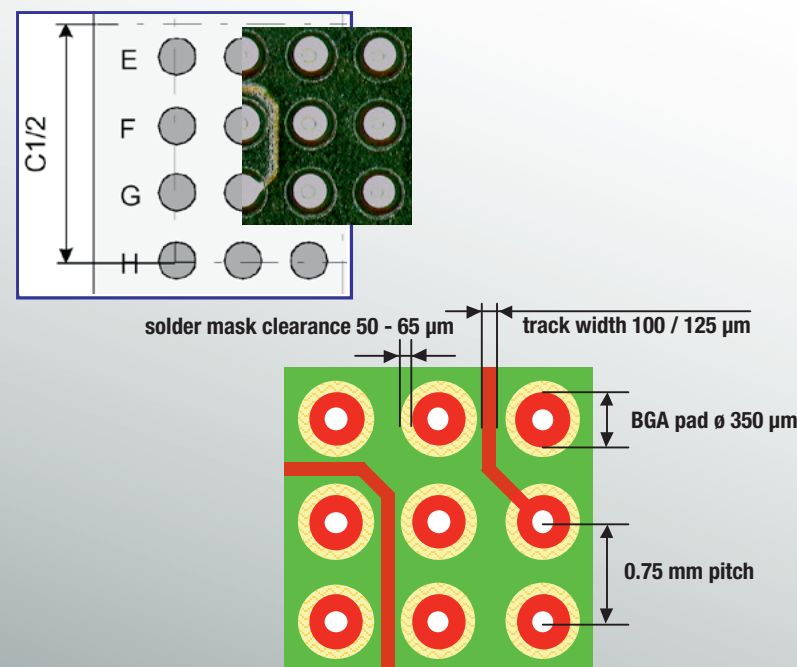
BGA 0.80 mm pitch



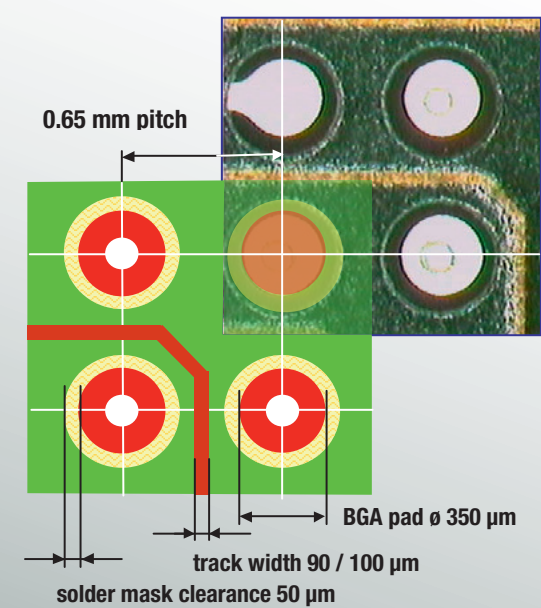
Var. 1: Dogbone with through-hole vias
 Var. 2: Dogbone with microvias
 Var. 3: Microvia in pad

	Var. 1	Var. 2	Var. 3
BGA solder pad	max. 400 μ m	-	max. 500 μ m
Solder mask clearance	50 μ m	\geq 50 μ m	50 μ m
Via pad size BGA area	500 μ m	-	-
Microvia pad outer layers	-	300 / 350 μ m	300 / 350 μ m
Microvia pad inner layers	-	300 / 350 μ m	300 / 350 μ m
Track width / spacing outer layers	\geq 100 μ m	\geq 100 μ m	\geq 100 μ m
Track width / spacing inner layers	\geq 100 μ m	\geq 100 μ m	\geq 100 μ m

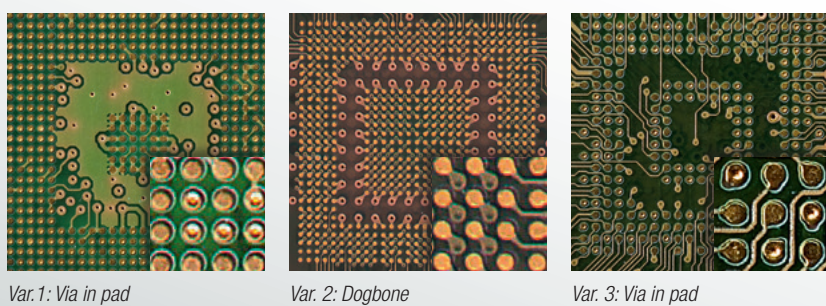
BGA 0.75 mm pitch



BGA 0.65 mm pitch



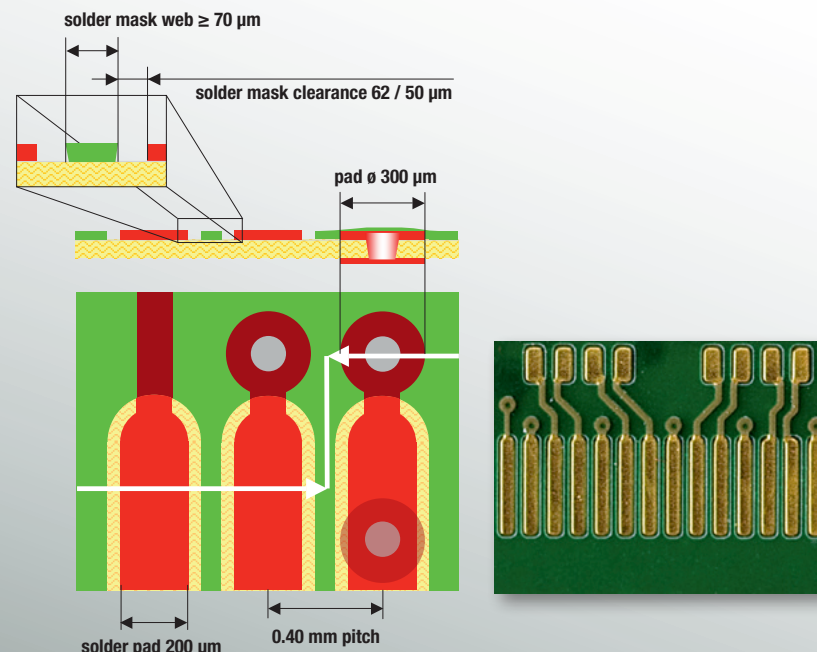
BGA 0.50 mm pitch



Var. 1: Via in pad
 Var. 2: Dogbone
 Var. 3: Via in pad

	Var. 1	Var. 2	Var. 3
BGA solder pad	300 – 330 μ m	240 μ m	275 μ m
Solder mask clearance	50 μ m	40 μ m	35 μ m
Microvia pad outer layers	\geq 300 μ m	275 μ m	275 μ m
Microvia pad inner layers	275 μ m	275 μ m	275 μ m
Track width / spacing outer layers	\geq 100 μ m	80 / 90 μ m	75 μ m
Track width / spacing inner layers	75 μ m	75 μ m	75 μ m

QFP 0.40 mm pitch



BGA 0.40 mm pitch

