

TABLE 1 TYPICAL TRANSITION DELAY

Transition	Dimension	Length (in.)	Delay (psec/in.)	Total delay (psec)
Layer 1 BGA exit	Ball height	0.040 air	85	3.4
Layer 16 BGA exit (through-hole vias)	Ball	0.040 air	85	15
	Via	0.063 FR-4	180	
Mezzanine connector	Via	0.063 FR-4	180	44
	Connector	0.250 air	85	
	Via	0.063 FR-4	180	
Thick backplane connector	Via	0.063 FR-4	180	121
	Connector	0.500 plastic	130	
	Thick back-plane	0.250 FR-4	180	