

Polyimide Supported Bridges

Polyimide Supported Bridges (Poly Bridges) provide a dramatically improved alternative to traditional wire bonding or standard air bridges. Because bridge height, length and overall placement are very consistent and durable, optimum performance can be easily repeated which can minimize or eliminate test and tune time.

Poly Bridges offer increased assurance over ordinary Air Bridges or bond wires because the bridge is maintained at a consistent height by the polyimide, 3–6 microns, and keeps the bridge from collapsing preventing unwanted electrical shorts.

Because the parts will be delivered to you with this type of consistent interconnect solution, assembly time can be minimized or eliminated.

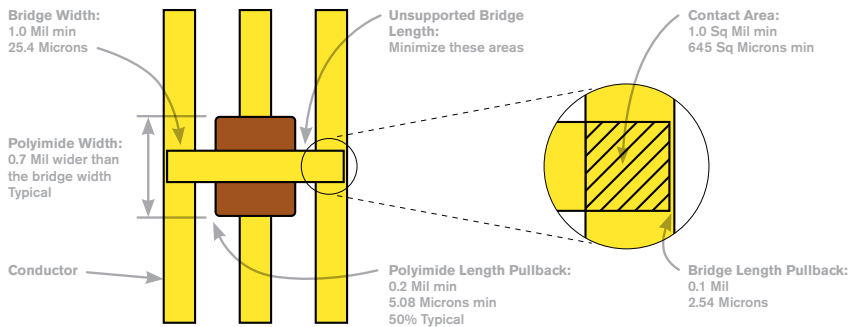
Poly Bridges can also dramatically improve assembly yields by eliminating the shorts caused by traditional bond wire methods on very small interdigital structures, such as Lange Couplers.

ATP's Team of CAD professionals are ready and willing to add these types of interconnect solutions to your existing designs.

For more information, please request document #DG50020 "Design For Manufacturability."



Polyimide Bridges



Polyimide Properties

Tensile Strength	Mpa	215
Young's Modulus	Gpa	2.5
Tensile Elongation	%	85
Glass Transition Temperature	°C	285
Thermal Decomposition Temperature	°C	525
Coefficient of Thermal Expansion	ppm/°C	55
Coating Stress (100 silicon)	MPa	33
Dielectric Constant 1 MHz; 0%/50% RH		3.2/3.3
Dissipation Factor 1 MHz; 0%/50% RH		0.003/0.008
Dielectric Strength	V/μm	345
Moisture Absorption @ 50% RH	%	1.08
Density	g/cc	1.39
Refractive Index @ 633nm		1.69



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