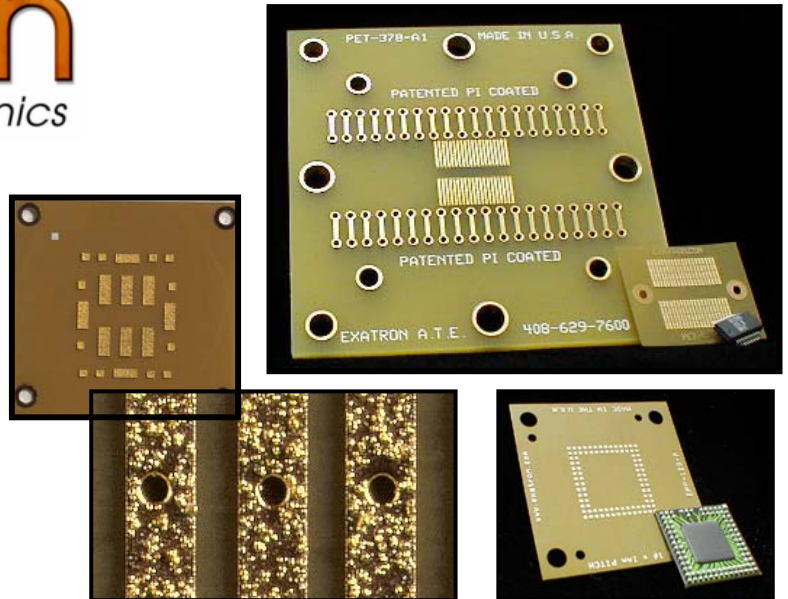


Diamond Particle Interconnect



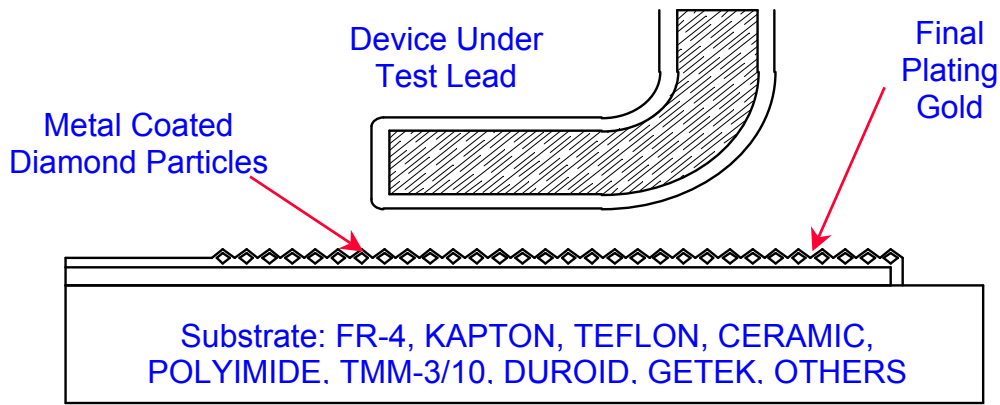
Unique features

- Contact resistance under 3 milliOhms
- Capacitance approaches zero
- Inductance approaches zero
- Tested to 40 GHz
- Artwork controlled 50 ohm impedance
- Excellent TDR results
- Contact pressure 10 to 12 grams / contact
- Contact height under 0.001”
- -70° C to +200° C temperature range
- Long life:
 - over 1,000,000 contacts on rigid material
 - over 100,000 contacts on flex material
- No wiping action required

Exatron provides an exciting technology for making electrical contact to semiconductor devices. Diamond Particle Interconnect (PI) contacts are ideally suited for interconnect between surface mount devices and load boards, testers, programmers, as well as other repeat-insertion applications. With a total interconnect of less than 0.001” between DUT lead and test circuit trace, PI is the only contactor method with effectively ZERO INDUCTANCE, CAPACITANCE and RESISTANCE, with a lifetime of up to one million insertions and more.

In addition, due to the superior physical characteristics of PI, and because PI contacts exhibit the same electrical characteristics as a solder connection, use of PI can effectively eliminate the impedance mis-match experienced in using conventional contactor assemblies.

What is Particle Interconnect ?

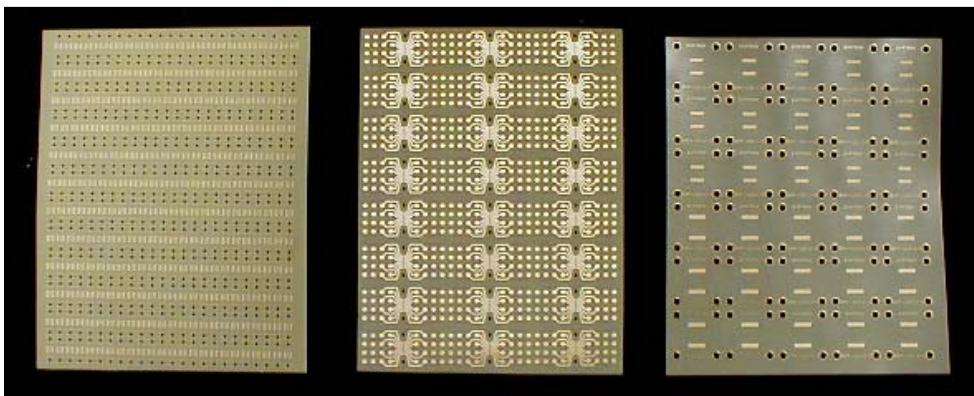


Particle Interconnect uses metalized diamond particles to form a micro "bed of nails" contact. The rough surface created by PI allows for zero lead length interconnect of DUT leads and test board circuits. PI pierces any contaminants on either the DUT leads or test contacts. The resulting contact has a resistance of under 3 milliOhms.

Electrical Properties	Kapton material
Dielectric Constant	3.6-4.0 (1MHz)
Dissipation Factor	0.02-0.03 (1 MHz)
Volume Resisitivity (mΩ-cm)	10 ⁸
Dielectric Breakdown (volts/mil)	4000-5000

- ### Particle Interconnect Plating details
- 15 micron Particle size
 - EPP plate rigid & flex PCB substrates
 - EPP plate BeCu or other metals
 - Final plating, typically .000030" of Gold
 - Can be applied to pads on 0.4mm pitch

Diamond Particle Interconnect (PI) replacement contacts



Exatron holds an exclusive license to make, use and sell Particle Interconnect for the automated handling and testing of integrated circuits. In addition, Exatron has a non-exclusive license for the use of Particle Interconnect in any other electrically-conductive application. Exatron can be the one-stop-shop for any Particle Interconnect application from prototype to production quantities.