

# **Advanced Packaging Technology to Attach Electrical Surface Mount Components Directly to Unmodified Electrical Connectors**

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Silicone Rubber Inserts for electrical connectors utilize a unique packaging technology for surface mount components. Contrary to traditional circuit boards or flex circuits, there is no rigid substrate supporting the components. Instead, the components are suspended in silicone rubber with flexible interconnections so that the silicone disc can be compressed or stretched without damaging the circuit. This is particularly advantageous when installed at the interface of an electrical connector pair, where it is important to maintain the environmental seal of the connectors. The patented construction completely encases the components and will survive extreme environmental abuse. The inserts can be used for EMI filtering, transient protection, grounding, adding pull-up resistors and more. Circuitry can be customized to connect devices from a pin to the connector shell, pin to pin, short pins or coax shields to the connector shell, or leave pins untreated. Multiple devices can be connected in parallel to enhance filtering or increase transient suppression levels. Applications include Military and Commercial Aerospace, Medical, Transportation, Industrial, etc.

A fully customized silicone insert can be designed, built and shipped in one to two days, often in time to test and solve difficult EMI problems while at the test site. The connector inserts typically can save 20-50% over the cost of filtered connectors or adaptors, require no additional space, and add negligible weight to the system. Custom samples are most often provided free of charge.