

Electrical Overstress Failure Analysis- Mission critical transient voltage suppressor power applications

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In mission critical applications, power that's applied to communication, control and navigation circuits must be free of Electro-magnetic Interference (EMI), transients & parasitic noise generated by power supply sources, sub-systems or external events. Power filter CCA's / assemblies use combinations of chokes, power Inductors, capacitors, EMI filters, Transient Voltage Suppressors (TVS) & Logic control to protect critical circuit function. This presentation will review a test process failure, where high voltage was inadvertently applied to several power filter units during system level functional test. We will review how exposed components were analyzed and how the critical systems & power filter assemblies were deemed safe.