

Destructive Physical Analysis (DPA) of Electronic Components – A Primer On MIL-STD-1580 “DPA for EEE Parts”

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Since 1980 MIL-STD-1580 “Destructive Physical Analysis (DPA) for Electronic, Electromechanical, and Electromagnetic Parts” has provided the framework for the performance of DPA for all major categories of EEE parts (e.g., capacitors, resistors, discrete semiconductors, ICs, hybrids, relays and more). This presentation provides an overview of DPA to assess the quality of individual production lots of EEE components intended for use in high reliability (e.g., aerospace and defense) applications. Emphasis will be on the history of MIL-STD-1580, applicability, purpose, techniques/methods and will include several DPA examples.