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Space and Military Standards for Hybrids and RF Microwave Modules

1/2 DAY

The US military specifications for the manufacture of hybrids and RF microwave modules can be confusing and overwhelming to the inexperienced user. This course is designed to explain in a logical manner the quality and manufacturing requirements for building custom hybrids for military and space applications. A comparison is also drawn between the US and European Space Agency requirements.

The course is intended for anyone interested in gaining better insight and understanding of the quality and process control requirements for hi reliability space and military products.

Course Outline

Overview of MIL-PRF-38534 Hybrid Performance Specification

- Description and intent of the specification
- History and applicability
- Overview of MIL-STD-883 test methods and procedures

Overview of ECSS-Q-ST-60-05C Generic Procurement Requirements for Hybrids

MIL-PRF-38534 General Hybrid Specification:

- General requirements, e.g., product classification, marking, ESD, clean room, etc.
- Product verification
- Quality management program
- Generic performance verification
 - element evaluation
 - process controls
 - device screening (100 %)
 - conformance inspection and periodic inspection (sample basis)
 - qualification procedures and when to re-qualify the M&P process baseline

Rework limitations

Design and construction requirements

Radiation hardness assurance requirements for space applications

Course Summary

Student Examination Test and Review

Student Feedback and Course Critique