TJ GREEN ASSOCIATES, LLC

739 Redfern Lane
Bethlehem, PA 18017 USA
www.tjgreenllc.com

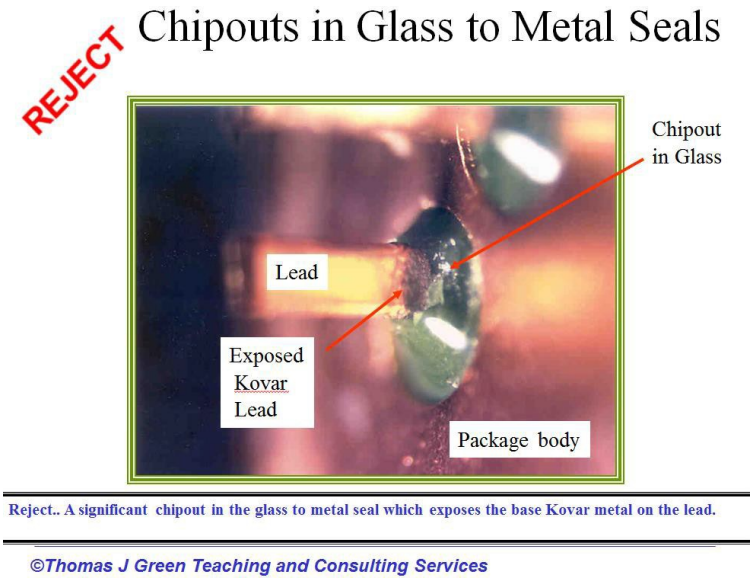
Direct: 610-625-2158
Mobile: 610-730-3224
Email: tgreen@tjgreenllc.com

Virtual Training Course Outline

External Visual Inspection per Mil-Std-883 TM 2009

(1 Session, 3 hrs)

Instructor: Thomas J. Green, TJ Green Associates, LLC



This course covers the visual inspection criteria for hermetic packaged microelectronic devices and similar devices and a review of typical plastic package defects in accordance with best commercial practices. Color photographs of actual production defects are reviewed and discussed in detail. The students are exposed to a variety of defects and the instructor explains why the defects are critical to the reliability of the end product. The class has a short test at the end and each student receives a certificate upon completion.

- ✓ Understand what to look for as part of external visual inspection Mil-STD-883 TM 2009
- ✓ Learn how to interpret and apply inspection criteria in JEDEC STD 9C

Course Outline

- Weld and Seal defects
- Glass and ceramic feedthrough defects e.g. meniscus cracking
  Package marking and pin/lead defects

- Inspection Criteria for Microelectronic Packages and Covers
  Foreign Material Identification and Contamination Control
- Review Applicable Criteria in JESD 9C
- Part Marking Defects
- Brief review of “non-hermetic” plastic part defects
- Summary and Review Q&A Session

INSTRUCTOR BIO

Thomas J. Green has more than 43 years combined experience in industry/academia and the DoD. He earned a B.S from Lehigh University in Materials Engineering and an MEA from Univ of Utah. He is a recognized expert in materials and processes used to assemble hybrids, RF microwave modules, Class III medical implants, optoelectronics, and other types of hermetic/non-hermetic packaged microcircuits and sensors. He has considerable expertise in hermetic testing methods per TM 1014 and moisture related failures in general. He is a consultant to companies developing next gen microelectronics for military and space. Serving as a Research Scientist at the U.S. Air Force Rome Air Development Center, Tom worked as a reliability engineer analyzing component failures and in industry, he was the process engineer at Lockheed Denver. He has invaluable experience in wirebond, die attach, hermetic sealing, FA and root cause identification and is an expert in the visual inspection criteria for hybrids and microcircuits Mil-Std-883 TM 2010 and TM 2017. For the last 20 years, Tom’s expertise has helped position TJ Green Associates, LLC as a recognized industry leader in teaching and consulting services for high-reliability military, space, and medical device applications. Tom is a Fellow of IMAPS (International Microelectronics and Packaging Society) and retired LtCol USAFR with 28 years of service.