

# FAILURE ANALYSIS AND MATERIALS ENGINEERING LAB:

## FREQUENTLY ASKED QUESTIONS

### Where is the Failure Analysis and Materials Engineering Lab located?

- Our state of the art labs are located in Andover, Massachusetts. We have satellite labs in Tewksbury and Portsmouth.

### Does the Failure Analysis and Materials Engineering Lab perform custom analyses?

- Yes. For more information, contact one of our staff members at 1-800-RAL-4784 or [analysis@raytheon.com](mailto:analysis@raytheon.com)

By IDS Failure Analysis and Materials Engineering Lab

### What types of problems can the Failure Analysis and Materials Engineering Lab help me with?

Virtually any type of electrical, electronic, electro-optical, or mechanical interconnect can be investigated. We also have well-equipped chemical and materials analysis labs. In addition, the vast resources of Raytheon are available for investigations involving environmental analyses, radiation effects, and electromagnetic interference.

### How does the Failure Analysis and Materials Engineering Lab deliver analyses results?

In-depth reports will be PDF generated and provided to the customer upon completion of analysis through a dedicated share site.

### What are the qualifications and experience of the Failure Analysis and Materials Engineering Lab staff?

The Materials Engineering Lab is staffed with engineers, scientists, and technicians from a variety of disciplines, including electrical engineering, chemical engineering, mechanical engineering, and physics. Team members hold high level degrees, from bachelors to masters to Ph.D.s. The senior staff members have considerable experience in device level design, analysis, and processing. Subject matter experts hold numerous qualifications in their fields of expertise.

### What makes Failure Analysis and Materials Engineering Lab different from other analytical laboratories?

Materials Engineering Lab engineers are able to quickly and completely understand your situation based on the experience of Raytheon as a leader in the design, development, production, and field support of a wide range of electronic devices. All of this experience comes together through our database archives, a vast knowledgebase of product development information. The information contained in our database archives allows us to address your analysis in a much greater context of possible design and manufacturing issues. Rather than rigidly applying "standard" test plans, we know how to ask the more esoteric questions that help you avoid paying for unnecessary tests and prevent acting on unfounded conclusions.

### Is Failure Analysis and Materials Engineering Lab focus only on military hardware?

The Materials Engineering Lab has been supporting commercial/off-the-shelf hardware for many years, both for internal and external customers. The Materials Engineering Lab has also been active in assessing commercial hardware for military and government applications, and is involved in the relevant professional societies (such as IEEE, ASM, SMTA, and ISHM) where we publish numerous papers on the topic.

