June 2014 Newsletter

All the news you need to know!

17 Equations That Changed the World – There are More than That!!!

Mathematics has been a part of our lives forever and is used in numerous ways in our everyday lives. Recently, created by Ian Stewart, listed on Dr. Paul Coxon’s Twitter account and discussed on mathematics blogger Larry Philip’s site is a list of the “17 Equations that Changed the Course of History,” many of which have been mentioned on the Big Bang Theory TV series. However, the list is incomplete. There are numerous equations that help to determine the reliability of electronics products that DFR believes should be included. These formulas are all integral to DFR’s Sherlock software and are the basis for the validation of the results obtained in an ADA analysis. Please see Part 1 of this two part white paper. For more information please contact Nathan Blattau or Greg Caswell.

Join the DFR Solutions Consortia

Over the past four years, DFR Solutions has experienced great success in establishing a ground-breaking approach in establishing research consortiums. Through our single topic focus and use of professional staff, our consortium activity has been able to provide a strong return on investment for its participants and greatly enhance the electronics industry's understanding and knowledge of Pb-free risks and mitigations.

Two new consortia are being established in 2014:

Quantifying Mitigation Strategies for Pb-free Assemblies: Effect of Potting and Coatings

Quantifying Mitigation Strategies for Pb-free Assemblies: Transitioning to Printed Electronics (Stage I)

Information on each consortium is provided. If you would like more information on participating in either/both consortia please contact Craig Hillman.

Instability, Metastability or Failure: Assessing the Reliability of 28nm FPGA Technology

EVENTS

June 20, 23, 25: EIPC-IPC Workshops, Turkey, Germany Denmark
June 26: Reliability of Power Modules Using Sherlock Webinar
July 31: Reliability of Next Generation CPU, GPU, and FPGAs Webinar
Aug 21: Users-Part Wizard Patterns Webinar
Sept 16-18: Battery Conference – Electric Vehicle Expo, Novi, MI
Sept 18-19: Medical Electronics Symposium 2014, Portland, OR
Sept 28-Oct 2: SMTA+Rosemont, IL
Oct 13-16: IMAPS, San Diego, CA
Oct 21-22: SAE Convergence Conference, Detroit, MI
Oct 28-30: Automotive Testing Expo, Novi, MI

2014 WEBINAR SERIES

Mark Your Calendars!

"Reliability of Power Modules Using Sherlock"
Thursday, June 26 2014
11:00am EDT and 2:00pm EDT
Greg Caswell, Presenter, DFR Solutions
Register for the 11:00 am session
Register for the 2:00pm session

SHERL

Click the image below to view a short video about Sherlock’s New 3D Capabilities.
Ed Wyrwas recently presented this paper at the MAPLD Conference. Space-bound systems use 65nm Radiation Hardened FPGA technologies that are nearing end-of-life (Xilinx Virtex 5QV). Rather than redevelop these systems using the next successor FPGAs at 40nm, which offers only a limited improvement in performance, the industry found it necessary to skip this generation and start performing viability analyses on the 28nm FPGAs instead. Was this a good idea? Check the paper to find out. For more information please contact Ed Wyrwas.

Other Interesting Items

A Review of Reliability Tools and Paradigms for Effectiveness and Best Practices
The Quality profession is noted for continuously developing, updating and implementing methods and tools that have produced a dynamic, diverse and intermixable palette of quality tools that vary from Statistical Process Control (SPC) to Lean Six Sigma. This allows organizations to mix and match techniques in order to adapt them to their products, processes and services.

By contrast, some segments of the Reliability profession seem to be frozen in time, using reliability standards and specification templates that have not been updated in decades. The aerospace and defense industries seem to be especially rooted to using traditional reliability methods. However other industries, such as automotive and electronics, are driven by relentless competitive pressure from global low-cost manufacturers (who also excel in product Quality, Reliability and Durability (QRD)), to be innovative and develop enhanced and new reliability methods in order to survive in their markets.

This presentation reviews traditional reliability methods and paradigms, and compare them to modern methods in order to communicate and promote cross-industry pollination of best practices. Click here to read the presentation. For more information please contact Jim McLeish.

DfR Solutions On Location

At DfR Solutions we still believe that personal relationships are best. Our Senior Staff spend a lot of time visiting clients in order to personally ensure that their projects are going well and discussing their overall reliability needs.

If you would like a personal visit from DfR Solutions, please Contact Us.

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