

SHERLOCK - Reliability analysis service

The Sherlock reliability analysis service utilizes Sherlock Automated Design Analysis software from DfR Solutions. The Sherlock software provides a **versatile tool for reliability analysis, verification and lifetime estimation of electronics products.**

Sherlock analysis enables you to save time and money:

- **Evaluate** how component selection and PCB design affects reliability already at the start of product development
- **Optimize** your design before prototype building and environmental/validation testing
- **Model** how the PCB fixtures and protective materials (e.g. coating, potting, underfills) influence overall reliability
- **Verify** that your product is robust enough for the service conditions of your customers
- **Predict the failures and operational life of your product**

Our Sherlock analysis service enables you to study quickly and efficiently the effects of **components, structures and materials** on the overall reliability of your product early during product development.

- The software creates a 3D finite element method (FEM) model directly from the design files of the electronics device
 - Gerber, ODB++, IPC-2581
- The environmental stresses affecting the product can be modelled comprehensively
 - *Thermal cycling, impacts, harmonic and random vibration*
- Using the 3D FEM model, material parameters and physics-of-failure algorithms, the lifetime of the electronics product can be predicted using either a single environmental stress factor or the combined effect of several stresses
 - *Solder joint and plated through hole fatigue, component specific stresses, semiconductor failures*

We will help you to determine and obtain the necessary information required for the analysis. We will create a 3D FEM model from your product and carry out the analysis. After analysis we will provide you with a comprehensive report of the results.

Why to utilize the Sherlock software?

<https://www.dfrsolutions.com/why-sherlock>

More about the Sherlock analysis service:

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