Cennamo Electronics

Cennamo Electronics specializes in electrical system design, analysis, and reliability testing. Analysis focuses include electrical stress (within the circuit and their impact on the expected life) and potential failure modes (circuit failure modes and their effects). Reliability testing includes accelerated stresses for early failure mode identification during design.

Cennamo Electronics provides a vast suite of specialty engineering products and services including the following.

- Reliability Prediction
- Electrical De-rating
- Failure Mode and Effects Analysis (FMEA)
- Testability Analysis
- Maintainability Analysis
- Failure Reporting, Analysis, and Corrective Action System (FRACAS)
- Highly Accelerated Life Test (HALT)
- Highly Accelerated Stress Screening (HASS)
- Root Cause Analysis (RCA)
- Safety Analysis
- Internal and Vendor Quality

ASQ Certified Reliability Engineer
The Global Voice of Quality™

Cennamo Electronics

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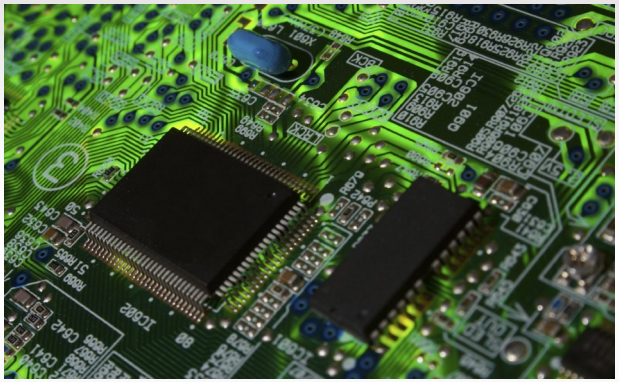
Reliability Program Planning and Execution

CENNAMO ELECTRONICS



Let Us Be Your Expert

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RELIABILITY CE™
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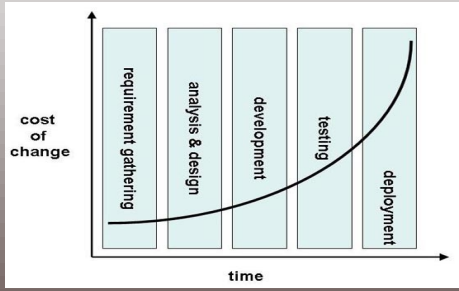
Benefits of Services

Warranty returns and reduced customer satisfaction can be immediate cost and logistic burdens to a fielded product as well as a negative impact to future sales. Discovering early life failure modes and designing out of the product early in the development process is the most cost effective way to reduce those future burdens. Analysis coupled with experience is used to aid in the development process and reduce the chance of a design going down the wrong path that is costly to correct later in the program. Most of the services listed are designed to reduce long term costs associated with failures or supportability issues. The tasks should be part of a program plan that utilizes the unique outputs of each to make a reliable, maintainable, and safe system. Investing in these activities will pay for itself and beyond over time. All tasks have formal reports, but the true benefit lies in design influence.



Reliability Prediction

Reliability Prediction is a continuous task to analyze the design at various stages and provide an estimation of the expected reliability. Changes are evaluated for impact to current expectations during the decision process. The analysis process identifies areas for reliability improvement that is fed to the design team for consideration during trade studies.

Failure Mode and Effects Analysis (FMEA)

FMEA is a continuous task like the Reliability Prediction, but focuses on the failure modes of the design and their effects. This process identifies end effects and assesses their severity to help identify critical areas to mitigate and provides feedback to the design team for consideration.

Highly Accelerated Life Test (HALT)

HALT is a destructive test initially performed on the prototype design (potentially later design iterations as well). The objective is to find the weakest points in the design as early as possible in the design cycle. This is accomplished by applying increasing stress levels during the test to push the design to its destruction limits. Pushing the design to these extreme stress conditions is required to simulate the life of the product in a short time. Often simple fixes are found that make the product more robust and increase the expected life.

Owner/Founder
Greg Cennamo, ASQ CRE

Mr. Cennamo is an American Society for Quality (ASQ) Certified Reliability Engineer (CRE). He has a decade of experience across several industries, commercial and military, and various product types. Prior to this experience Mr. Cennamo obtained a Bachelor of Science in Electrical Engineering (BSEE) from The Ohio State University and recently completed a Masters of Business Administration (MBA) from Franklin University.

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