



# How to eradicate PCB and system level No Failure Found (NFF)

## Press Release:

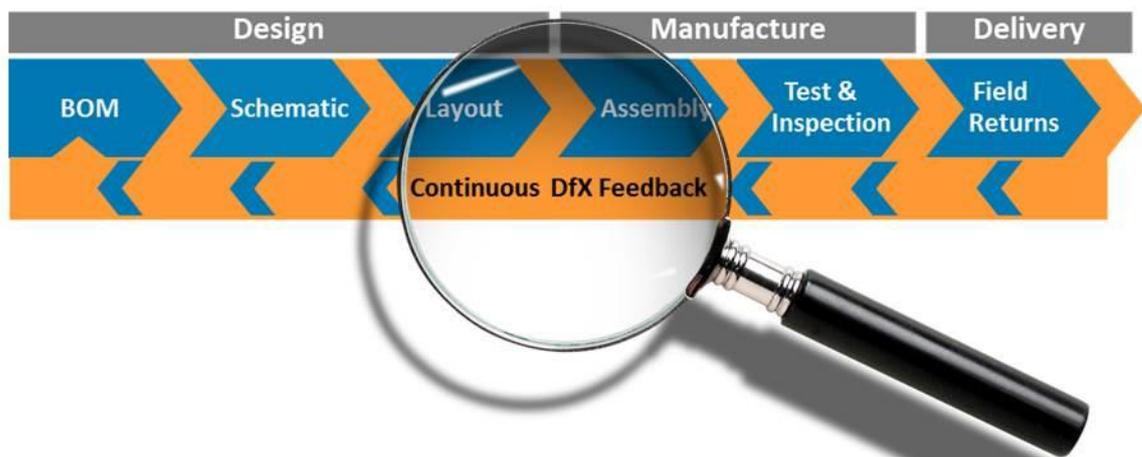
Cesson-Sévigné, FRANCE /Electronica 2014, Munich, Germany, 11<sup>th</sup> November 2014.

One of the most difficult challenges facing the electronics industry today are PCB and system level malfunctions that are problematic, or impossible, to reproduce. These are referred to as No Failure Found (NFF). ASTER Technologies has addressed this problem by developing software tools such as *QuadDPMO* to extract accurate quality data and *twExpress* to use this data to optimize the manufacturing test strategy.

NFF problems are detected when products are delivered to the customer, but returned to the supplier either as an “out of box”, or infant mortality failure. Unfortunately these failures cannot be reproduced by the supplier, but can be attributed to a combination of test escapes, ageing, and environmental conditions. To understand the root cause of NFF at board level, it is required to have an understanding of the defect spectrum relating to this problem, measured by DPMO (defects per million opportunities). Good test coverage ensures the capture of all possible defects.

To ensure that defects are detected before shipment to the customer, tools are needed to provide efficient DfX feedback at each stage in the “design to delivery” product cycle. This ensures a better understanding of the DPMO in order to produce better products.

## Advanced DfX approach to eradicate NFF



*twExpress* analyzes the design data in the early design phase by providing electrical and mechanical rules checking to identify design issues prior to manufacturing. Test coverage analysis will reduce the escape rate by controlling the test coverage for test and inspection stages such as AOI, AXI, BST, ICT, FPT and Functional test.

*QuadDPMO* extracts the **true** DPMO figures from the manufacturing line and optimizes test coverage where greater defect opportunities exist. This can be used to leverage the test strategies by using innovative algorithms on either our own QUAD system database or, alternatively, any satisfactory third party traceability and repair database.

In a concerted effort to eradicate this problem, ASTER Technologies, along with partners from the electronics industry and academia, are part of a European collaborative research project BASTION - [fp7-bastion.eu](http://fp7-bastion.eu)

## **About ASTER Technologies**

ASTER is the leading supplier in Board-Level Testability analysis tools, capitalizing on proven expertise in board testability and strong customer relations. Founded in 1993, ASTER develops a wide range of products dealing with PCB Testability, Viewing and Quality Management. TestWay is a proven solution, used by many PCB design and manufacturing companies worldwide. It provides a unique approach to identify electrical testability requirements and compute theoretical test coverage early in the design chain.

For more information, or to get a demonstration of these new tools, why not visit ASTER Technologies at Booth **352** during the Electronica exhibition in Munich between 11<sup>th</sup> and 14<sup>th</sup> November, 2014. Alternatively visit [www.aster-technologies.com](http://www.aster-technologies.com) or call +33 299 830101.