

# Board Test Coverage: The Value of Prediction and How to Compare Numbers

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## **Abstract**

Test coverage prediction for board assemblies has an important function in, among others, test engineering, test cost modeling, test strategy definition and product quality estimation. Introducing a method that defines how this coverage is calculated can increase the value of such prediction across the electronics industry. There are three aspects to test coverage calculation: fault modeling, coverage-per-fault and total coverage. An abstraction level for fault categories is introduced, called MPS (material, placement, soldering) that enables us to compare coverage results using different fault models. Additionally, the rule-based fault coverage estimation and the weighted coverage calculation are discussed.

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