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Test, Testability and Reliability Aspects of Integrated Circuits

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Abstract
The role of testing is to detect whether something went wrong and the role of diagnosis is to determine exactly what went wrong. Testability is a design criterion and should be included in design reviews. Quiescent power supply current (IDDQ) testing of a CMOS integrated circuit is a technique for production quality and reliability improvement, design validation, and failure analysis. It has been used for many years by a few companies and has now receiving wider acceptance as an industry tool.

Keywords: ASIC, IDDQ, NNR, SEC, TCV, operational test, test methods, reliability

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