

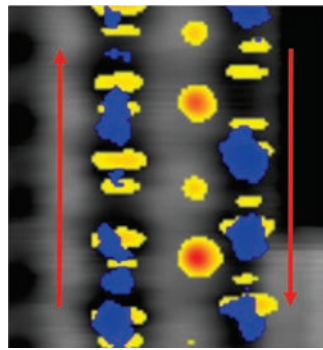
ELECTRONIC DEVICE FAILURE ANALYSIS™

A RESOURCE FOR TECHNICAL INFORMATION AND INDUSTRY DEVELOPMENTS

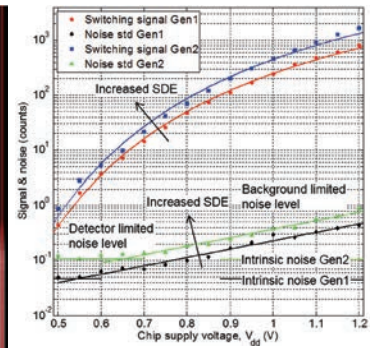
4 LVI and LVP Applications in In-Line Scan Chain Failure Analysis

Zhigang Song and Laura Safran

This article discusses the combination of laser voltage imaging and laser voltage probing to improve the failure analysis success rate for in-line scan chain logic macro diagnosis.



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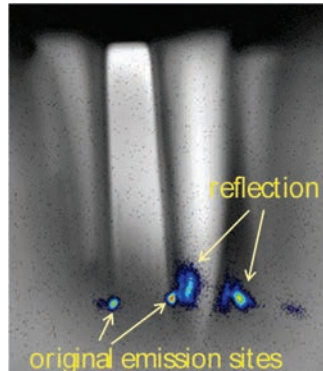


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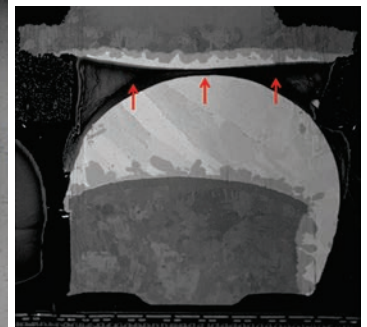
16 Superconducting Single-Photon Detector Enables Time-Resolved Emission Testing of Low-Voltage Scaled ICs

Andrea Bahgat Shehata, Franco Stellari, and Peilin Song

Time-resolved optical probing techniques remain an indispensable tool for increasing fault localization speed and accuracy. Read about the use of a novel photon detector for low-voltage applications.



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24 3-D Technology: Failure Analysis Challenges

Ingrid De Wolf

Chip-level 3-D integration promises performance and functionality improvements in microelectronics systems, but what are the additional challenges for the failure analysis community?

30 Emerging Techniques for 2-D/2.5-D/3-D Package Failure Analysis: EOTPR, 3-D X-Ray, and Plasma FIB

Christian Schmidt, Jesse Alton, Martin Igarashi, Lisa Chan, and Edward Principe

This article discusses emerging FA trends for package products using three techniques as the next-generation of FA methods to meet specific needs. Case studies highlight the benefits of the techniques and discuss obstacles and future improvements.

ABOUT THE COVER

See page 59 for a description of the contest winners' collage on the cover.

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