

Abstract

**X-Codes for failing scan cell identification and
convolutional test response compaction**

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X-Compact is a test response compaction technique for integrated circuits with scan-based design-for-testability support in the presence of unknown logic values. X-Codes are a mathematical equivalent of compactor circuits for X-compact. In this talk, we give X-codes having additional properties for particular purposes such as yielding analysis and convolutional time compaction. We introduce special classes of X-codes and give combinatorial construction techniques for various parameters.