

Testability measures: probability calculation

1. Calculation of the probability of a signal (7,8)
2. Comparison of probability calculation with Parker McCluskey and straightforward method (7,8)
3. Calculation of the probabilistic testability of a fault (7,9)
4. Calculation of the length of random test for detecting a fault (7,9)
5. Calculating of signal probabilities with Cutting Method (10,11)
6. Calculating of signal probabilities with the method of Conditional Probabilities (12,13)

Design for testability:

7. Comparison of test lengths for detecting a fault with and without of DFT (Test point insertion) (7,9,14,25)
8. Calculation of test lengths (number of LFSR clocks) for different ad hoc designs: multiplexing of observers, de-multiplexing of control, time sharing (15-20)
9. Comparison of test lengths (number of LFSR clocks) for ad hoc and scan-based DFT solutions (15-20, 28)

Built-in Self-test

10. Calculation of the test sequence for a given LFSR polynomials (45,49)
11. Design of LFSR reconfiguration logic for given functions (43,44)
12. Determination if the LFSR polynomial is primitive or not (46,47,48)
13. Design a LFSR for a weighted pseudorandom testing with given probabilities (54,55)
14. Synthesis of an LFSR which is able to cover a given test pattern set