An efficient diagnosis march-based algorithm for coupling faults in SRAM

ABSTRACT

This paper presents an applying of march test algorithms to diagnose coupling faults (CFs) of SRAMs memories. Two phases of test algorithm is used to identify all the CFs. At Phase 1 march Cd is used to detect and diagnosis partially of the CFs. The March Distinguish Algorithm (MDA) is used in phase 2 to identify the identical fault syndromes which cannot be identified by the march Cd. Therefore, the proposed test algorithms which (13N + 3N/4N) read/write operations for a bit-oriented SRAM can achieve full diagnose.