

ABSTRACT OF THE DISCLOSURE

AUTOMATIC FAULT-TESTING OF LOGIC BLOCKS USING INTERNAL AT-SPEED LOGIC-BIST

System and method for automatic fault-testing of a logic block and the interfaces of macros with logic gates inside a chip, using an at-speed logic-BIST internal to the chip. Following an initialization of internal storage elements, a set of test signals are generated and processed by the logic block. The output of the logic block is accumulated into a signature and compared to a reference signature to detect faults. Testing can be performed on an ATE (Automatic Test Equipment) using a simple test vector, or can be performed by a field engineer on the actual board comprising the chip.

Fig. 1