

A Library of Self-Timed Elements or ASIC-Technology

Abstract

Speed independent (SI) circuits possess a number of the properties standing out them from general set of digital devices. They are "naturally reliable" as are characterized by non-testable self-diagnostics, self-checking and preservation of working capacity at the environment conditions of extremely wide range, and more high-speed. The library of SI-elements in basis of ASIC-technology, principles of realization of SI-elements are considered. The list of library elements of national ASIC series 5503 and 5508 is described that provides effective designing of SI-circuits of various classes.