Abstract

The paper presents the implementation of MAC (multiplier-accumulator) unit using Vedic multiplier. The speed of MAC depends on the speed of the multiplier. The Vedic multiplier uses “Urdhva Tiryagbhyam” algorithm. The proposed MAC unit is coded in VHDL, synthesized and simulated using Xilinx ISE 10.1 software. The MAC is implemented on a FPGA device.
MAC Implementation using Vedic Multiplication Algorithm

XC2S200-6PQ208 using Xilinx ISE10.1 tool. The proposed design shows improvement of speed over the design presented in [1].

Reference


Index Terms
Computer Science
Algorithms

Key words
MAC
Vedic multiplier
VHDL
Carry Save
Adder