

Synthesis Report

Group No : 28 - 18CS10013, 18CS10024

Combinational Unsigned Binary Multiplier (Array Multiplier)

Hardware Requirement for Combinational unsigned binary multiplier (array multiplier):

LUT	46
IO	24

The board used is Nexys4 DDR.

Sequential Unsigned Binary Multiplier (left-shift version)

Hardware Requirement for Sequential unsigned binary multiplier (left-shift version):

LUT	40
FF	38
IO	27

The board used is Nexys4 DDR.

Sequential Unsigned Binary Multiplier (right-shift version)

Hardware Requirement for Sequential unsigned binary multiplier (right-shift version):

LUT	29
FF	38
IO	27

The board used is Nexys4 DDR.

The board used for all the multipliers is Nexys4 DDR. The hardware implementation for left shift sequential multiplier is more than the other two. Since the array multiplier is purely combinational, it requires less hardware resources than the sequential multipliers which requires additional flip-flops.