Circuit1:1 **ADD** MUX2x1 REG_1 d(7:0) a(7:0) sum(7:0) a(7:0) d(7:0) q(7:0) z(7:0) 1.661ns _ 1.313ns 1.413ns c(7:0) b(7:0) b(7:0) Clk Rst Add1 Mux0 Reg0 Clk Rst **COMP SUB** REG 2 time = 4.129ns time = 6.207ns time = 7.811ns a(7:0) diff(15:0) a(15:0) d(15:0) q(15:0) <u>x(1</u>5:0) eq 2.078ns Clk 2.038nsb(15:0) _1.604ns b(7:0) Rst Sub0 Comp0 Reg1 **ADD** gnd sum(7:0) 1.661ns b(7:0) b(7:0) XST GND Add0 Estimated critical path - input to Mul0 to Sub0 to Reg1 (delay = 7.811ns) Actual critical path delay = 3.719ns MUL Actual critical path: input a[2] to Reg1 time = 4.129ns time = 0prod(15:0) 4.129ns b(15:0) time = 0Mul0

Circuit1