CLC_R1

Introduction

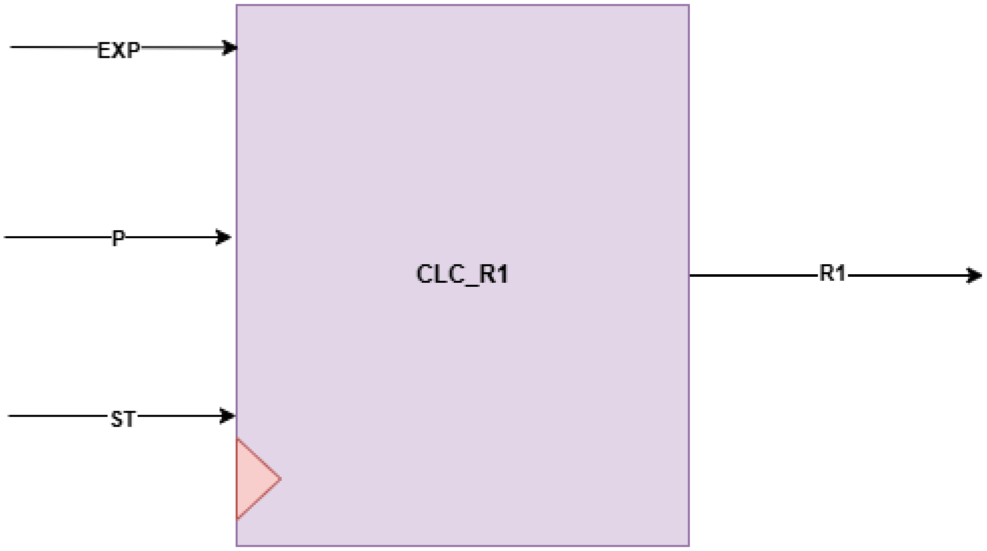
It’s response to calculate R1 from input exp

Problem Statement

Exponentiation is only supported if the base is a power of 2 or the exponent is 2.

Design and Implementation:

Block Diagram



Interfaces

Signals	Width	Interface	Description
EXP	INPUT	U0_exponentiation	input value of g^x
P	INPUT	TOP MODULE INPUT	The prime number p must be very large
ST	INPUT	U0_exponentiation	Start flag
R1	OUTPUT	ENCRYPTION_R1 || CHECK_2 || U2_exponentiation_r	R1 = (g^x) mod p