

g47_barrel_shifter

Barrel shifter circuit

Description:

The barrel shifter circuit takes as input a 26-bit vector (X, representing a letter) as well as a 5-bit vector (N, the shift amount) and produces a 26-bit output (Y, the barrel shifted letter). The output of this circuit is the input vector shifted by the given amount.

Input:

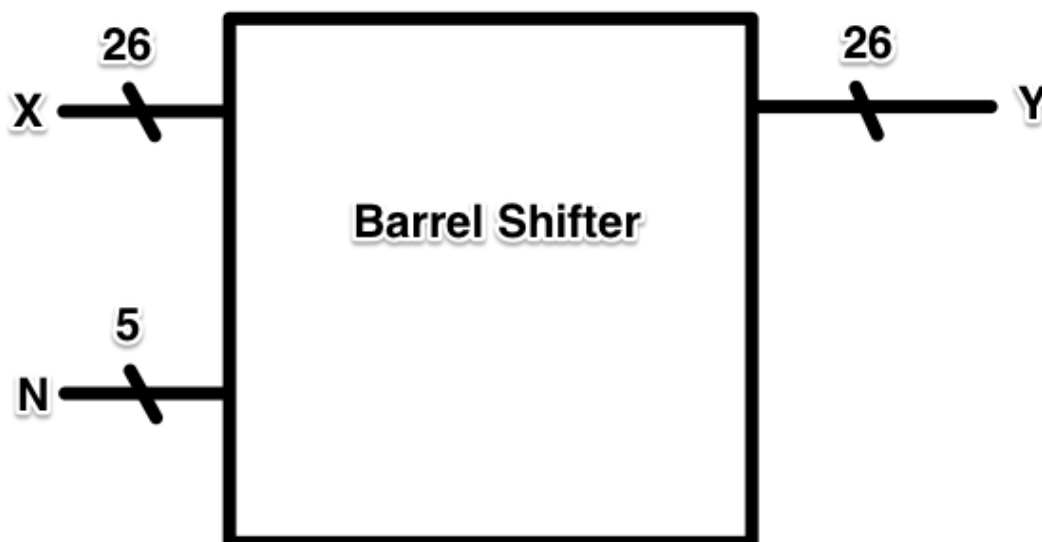
X signal (26-bits) - the value being shifted

N signal (5-bits) - the shift amount

Output:

Y signal (26-bits) - the shifted result

Diagram:



Testing:

We tested several shifts of an input signal to confirm that the barrel shift was working properly.