Shift left or right X25794_en

Design a circuit that shifts an N-bus one position to the left or to the right. The direction of the shift is determined by a control signal called *LR*. When *LR*=0, the shift must be to the left. When *LR*=1, the shift must be to the right. N must be a parameter of the circuit with default value 8.

Specification

module *shift_left_right* (*in* , *LR*, *out*);
parameter N=8;
input [N−1:0] *in*;
input *LR*;
output [N−1:0] *out*;

Input

- *in* is the N-bit input bus.
- *LR* is the control signal that determines the direction of the shift.

Output

- *out* is the value of the bus shifted one position to the left or right.

Problem information

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