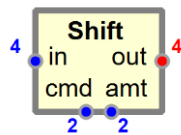

Shifter - Gate



A **shifter** is a digital circuit that can shift or rotate a data word (*in*) by a specified number of bits (*amt*) using a selectable mode (*cmd*) into an output word (*out*).

Port Name	Port Function
<i>in</i>	input word of bits
<i>out</i>	output word of bits with same length as input word
<i>amt</i>	amounts of positions to be shifted
<i>cmd</i>	shifting mode (see table below)

cmd	Shift-Function
00	Logical Shift Left
01	Logical Shift Right
10	Arithmetic Shift Right
11	Rotate Right

Property	Settings	Meaning
Data Bits	Standard	Number of bits of input word <i>in</i> and output word <i>out</i>
Delay	Delays	Propagation delay from each input port to output port <i>out</i> . $t_{pd} = t_{plh} = t_{phl}$
Rejection Limit	Delays	Inertial delay for all input ports. All signal spikes shorter than the rejection limit are canceled. This is called pulse rejection: $t_{pd} \geq t_{inertial}$