HALF ADDER

The Half Adder is a combinational circuit which can be used to perform the binary addition of two single-bit binary numbers. The half adder is a basic building block for more complex adder circuits such as full adders and multiple-bit adders.

1. Block Diagram

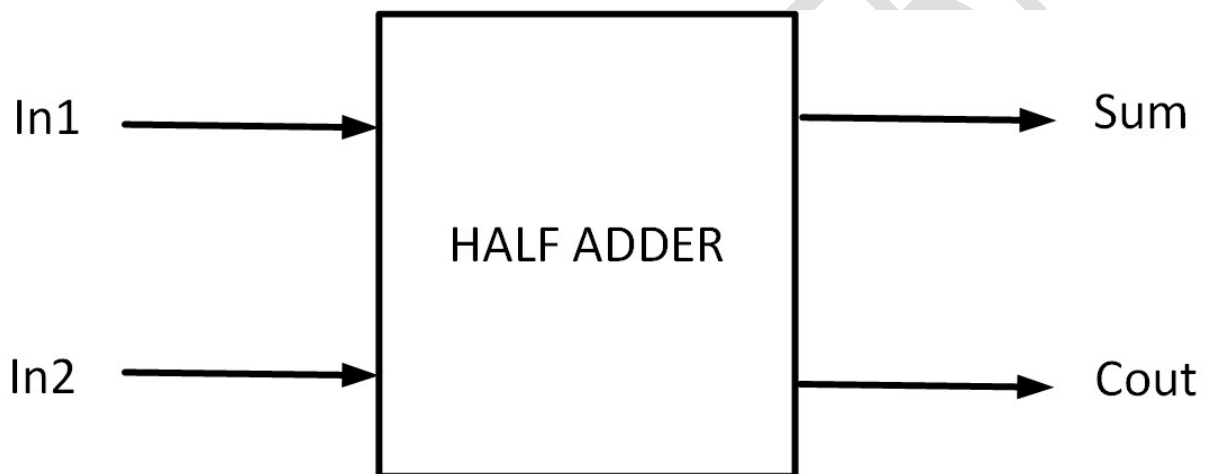It has two inputs, In1 and In2, and two outputs, Sum and Cout.

Figure 1 Block Diagram of Half Adder

2. Interface

Signal Name	I/O	Width	Description
In1	Input	1	Input for addition
In2	Input	1	Input for addition
Sum	Output	1	Result of addition: Sum
Cout	Output	1	Output Carry