Binary Divider

bin_divider_0

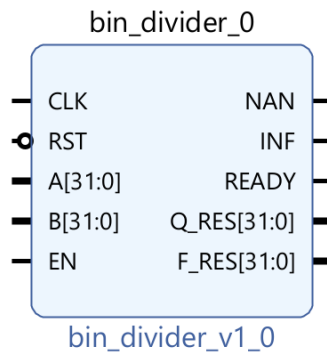| CLK | NAN |
RST	INF
A[31:0]	READY
B[31:0]	Q_RES[31:0]
EN	F_RES[31:0]

bin_divider_v1_0

This IP computes the division of input A by input B (in 32bit binary format). Result has two parts:

- Quotient part (32bit),
- Fractional part after the decimal point (32 bit).

[Q_RES, F_RES] = A / B

Depending on the input value(s), the result can be NaN or Infinite. This case is shown by NAN and INF outputs.

All Input/Output descriptions can be found in the following table.

Pin name	Description	Direction	Property
CLK	CLK input	IN	1bit
RST	Reset input	IN	1bit, active High
EN	Enable	IN	1bit, active High
A	Dividend operand	IN	32bit, binary format
B	Divisor operand	IN	32bit, binary format
Q_RES	Division Result	OUT	32bit, binary format
F_RES	Division Result	OUT	32bit, binary format
READY	Result is valid and ready	OUT	1bit, active High
NAN	Result is not valid: NaN	OUT	1bit, active High
INF	Result is not +/- Infinite	OUT	1bit, active High