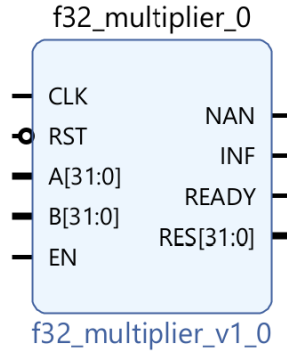


IEEE754 single precision floating point (f32) support Multiplier



This IP computes multiplication of inputs A and B (in [IEEE754 single precision floating point format](#)). The result is also in the same format:

$$\text{RES} = A * B$$

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 | Multiplication operand-1 | IN | 32bit, IEEE754 single precision floating point format |
| B | Multiplication operand-2 | IN | 32bit, IEEE754 single precision floating point format |
| RES | Multiplication Result | OUT | 32bit, IEEE754 single precision floating point format |
| READY | Result is valid and ready | OUT | 1bit, active High |
| NAN | Result is not valid: NaN (Not a Number) | OUT | 1bit, active High |
| INF | Result is not valid: +/- Infinite | OUT | 1bit, active High |