

# tb\_cocotb.v

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## AUTHORS

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## DATES

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## INFORMATION

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### Brief

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Test bench wrapper for cocotb

### License MIT

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## tb\_cocotb

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```
module tb_cocotb #(
  parameter
    CLOCK_SPEED
    =
    20000000,
  parameter
    DELAY
    =
    0
) ( input clk, input rstn, input start0, input clr, input hold, input [31:0]
```

Mod rate enable generator test bench

**Parameters**

<b>CLOCK_SPEED</b> parameter	This is the aclk frequency in Hz
<b>DELAY</b> parameter	Delay the enable by a number of clock ticks

**Ports**

<b>clk</b>	Clock used for enable generation
<b>rstn</b>	Negative reset for anything clocked on clk
<b>start0</b>	Start counter at rate if set. Otherwise set to CLOCK_SPEED/2+rate (midpoint).
<b>clr</b>	Clear counter to initial values.
<b>hold</b>	hold enable low and pause + reset count till hold removed (low).
<b>rate</b>	rate that enable pulse will be generated, must be less then the clock rate.
<b>ena</b>	positive enable that is pulsed high at enable rate.

**INSTANTIATED MODULES**

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**dut**

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```
mod_clock_ena_gen #(
    CLOCK_SPEED(CLOCK_SPEED),
    DELAY(DELAY)
) dut ( .clk(clk), .rstn(rstn), .start0(start0), .clr(clr), .hold(hold), .rate(rate) )
```

Device under test, mod\_clock\_ena\_gen