

tb_cocotb_up.py

AUTHORS

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DATES

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INFORMATION

Brief

Cocotb test bench

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FUNCTIONS

random_bool

```
def random_bool()
```

Return a infinite cycle of random bools

Returns: List

start_clock

```
def start_clock(  
    dut  
)
```

Start the simulation clock generator.

Parameters

dut Device under test passed from cocotb test function

reset_dut

```
async def reset_dut(  
    dut  
)
```

Cocotb coroutine for resets, used with await to make sure system is reset.

write_slave_test

```
@cocotb.test()  
async def write_slave_test(  
    dut  
)
```

Coroutine that is identified as a test routine. Simply write data over uP bus to SPI mosi

Parameters

dut Device under test passed from cocotb.

loop_test

```
@cocotb.test()  
async def loop_test(  
    dut  
)
```

Coroutine that is identified as a test routine. Loop test SPI

Parameters

dut Device under test passed from cocotb.

IRRDY_test

```
@cocotb.test()  
async def IRRDY_test(  
    dut  
)
```

Coroutine that is identified as a test routine. Receive Ready interrupt test

Parameters

dut Device under test passed from cocotb.

ITRDY_test

```
@cocotb.test()
async def ITRDY_test(
    dut
)
```

Coroutine that is identified as a test routine. Transmit Ready interrupt test

Parameters

dut Device under test passed from cocotb.

ITOE_test

```
@cocotb.test()
async def ITOE_test(
    dut
)
```

Coroutine that is identified as a test routine. Transmit Written when not ready interrupt test

Parameters

dut Device under test passed from cocotb.

IROE_test

```
@cocotb.test()
async def IROE_test(
    dut
)
```

Coroutine that is identified as a test routine. Receive was never read, we missed data.

Parameters

dut Device under test passed from cocotb.

SSO_assert_test

```
@cocotb.test()
async def SSO_assert_test(
    dut
)
```

Coroutine that is identified as a test routine. Write control SS bit to assert all enable lines.

Parameters

dut Device under test passed from cocotb.

end_of_packet_test

```
@cocotb.test()
async def end_of_packet_test(
    dut
)
```

Coroutine that is identified as a test routine. check if the packet 0xAA has been added every 10th word. No check on EOP receive at the moment.

Parameters

dut Device under test passed from cocotb.

in_reset

```
@cocotb.test()
async def in_reset(
    dut
)
```

Coroutine that is identified as a test routine. This routine tests if device stays in unready state when in reset.

Parameters

dut Device under test passed from cocotb.

no_clock

```
@cocotb.test()
async def no_clock(
    dut
)
```

Coroutine that is identified as a test routine. This routine tests if no ready when clock is lost and device is left in reset.

Parameters

dut Device under test passed from cocotb.