USB_DEVTRSAC

Verification table

author: Maksim Shaklunov

email: mshaklunov@gmail.com

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№	Testcase description	Testcase in testbench
1	POWERED state. All EPs is not active at any USB transactions. Transaction interface has no any activity.	tcase_powered
2	DEFAULT state. - Detecting USB reset. - EP0 is available through Control transfers. - EP15-1 is not active at any USB transactions.	tcase_default
3	ADDRESSED state. - Processing SetAddress() request. Applying new address. - EP0 is available through Control transfers. - EP15-1 is not active at any USB transactions. - EP15-0 is not respond at transaction with previous address. - Transition to DEFAULT state with SetAddress(0). - Transition to DEFAULT state with USB reset.	tcase_addressed
4	CONFIGURED state. - Processing SetConfiguration() request. - All EP15-0 is available through transactions. - Transition to ADDRESSED state with SetConfiguration(0). - Transition to DEFAULT state with USB reset.	tcase_configured
5	SUSPENDED state. - POWERED to SUSPENDED and back. Wakeup signaling is not available in POWERED state. - DEFAULT to SUSPENDED and back. Wakeup signaling is not available in DEFAULT state. - ADDRESSED to SUSPENDED and back. Wakeup signaling is not available in ADDRESSED state. - CONFIGURED to SUSPENDED and back. Wakeup signaling is not available in CONFIGURED state. - Remote wakeup signaling.	tcase_suspended
6	Bulk/Interrupt transfers. - BulkIn with various packet size. - BulkIn with NAK. - BulkIn with STALL. - BulkIn host don’t reply by handshake. - BulkOut with various packet size. - BulkOut with NAK. - BulkOut with STALL. - BulkOut host send data with previous DATA PID. - InterruptIn with don’t çare about ACK (always toggle bit). - Resetting toggle bits with SetConfiguration().	tcase_bulkint

№	Testcase description	Testcase in testbench
	- Not resetting toggle bits with failed SetConfiguration(). - Resetting toggle bits with ClearFeature(EP_HALT). - Not resetting toggle bits with failed SetConfiguration(EP_HALT). - Resetting toggle bits with ep_enable inputs.	
7	Isochronous transfers. - IsochronousIn with various packet size. - IsochronousOut with various packet size. - SOF receiving	tcase_trfer_isoch
8	Control transfers. - ControlIn interleaved BulkIn. - ControlIn interleaved BulkOut. - ControlIn interrupted by ControlIn. - ControlIn with multiple Status stage. - ControlOut interleaved BulkIn. - ControlOut interleaved BulkOut. - ControlIn interrupted by ControlOut. - ControlOut with multiple Status stage.	tcase_trfer_control
9	Bit stream receiving. - Consecutive jitter equal +20ns for full-speed and +141ns for low-speed. DUT must receive packet with no error. - Consecutive jitter equal -20ns for full-speed and -141ns for low-speed. DUT must receive packet with no error. - Invalid value of two first SYNC bits. DUT must receive packet with no error. - Invalid duration (up 90% shrinking) of two first SYNC bits. DUT must receive packet with no error. - Error PID. DUT must ignore packet. - Error CRC5, CRC16. DUT must ignore packet. - Packet with stuffed last bit. DUT must receive/send packet with no error. - Packet with lengthened last bit by as mach as 75ns for full-speed and 260ns for low-speed. DUT must receive packet with no error.	tcase_bitstream
10	Reply delay. Checking that is no error when DUT receive reply with 35 cycles delay on transaction interface.	tcase_reply_delay