USB 3.2 Product Test Matrix

4/22/2021

		xHCI and USB 3.2 Enhanced SuperSpeed Testing											USB 2.0 Testing		
		Uses Windows USB-IF tools[2]											Uses Windows USB-IF tools[2]		
		USB3CV Chap 9 Tests	USB3CV Class Tests[4]	USB3CV Connector Type Tests	XHCICV	3.2 Electrical	Link Tests	Current Test Measurement[6]	3.2 Interop with U1/U2 enabled[3]	xHC Debug Cap	BC 1.2	RFI	USB3CV Chap 9	USB3CV Class Tests	2.0 Electrical
xHCI Host	Silicon and IP	All speeds	Tests applicable to KGDs	Run with KGDs	Full Test Suite	✓	✓	n/a	✓	✓	✓		All speeds	All	✓
	End Product[1]	All speeds	Tests applicable to KGDs	Run with KGDs	Interface Tests	✓	✓	n/a	✓		✓	USB-C ports	All speeds	All	✓
USB 3.2 Devices	Silicon and IP / End Product[1]	✓	Applicable class tests	✓	n/a	✓	✓	✓	✓	n/a	✓		Run for all 2.0 supported speeds	Applicable class tests	✓
USB 3.2[5] Hubs	Silicon and IP	✓	Hub tests, Analyzer, Loopback tests; All classes DS	✓	n/a	UFP and DFPs	Hub LVS + Link UFP and DFPs	✓	✓	n/a	✓		All speeds + classes DS	Hub + all devices DS	UFP and DFPs
	End Product[1]	✓	Hub tests; all classes DS	✓	n/a	UFP and DFPs	Hub LVS + Link UFP and DFPs	✓	✓	n/a	✓	USB-C ports	All speeds + classes DS	Hub + all devices DS	UFP and DFPs

Test Notes:

[1] **Products with USB Type-C connectors must pass testing outlined in USB-C Product Matrix**

[2] See Targeted Host CTS for hosts that don't support full functionality or hosts that don't run with Windows.

[3] xHCI silicon and IP cert includes testing subset of 150 popular 2.0 devices.

[4] USB3CV tests run at the root port (Gen 1x1 and Gen 2x1) and behind hub (Gen 1x1 and Gen 2x1).

[5] USB 3.2 Hubs must have Hub TT tests run on the HS portion of the hub if the hub is not a separate, certified 2.0 hub chip.

[6] Current measurement with CV : unconfigured, U1, U2, U3. Current measurement with host driver stack: Operating current.