



TUSB73x0 xHCI Host Controller Driver

Release Notes

January 13, 2015

Version 1.16.5

NOTE: U1/U2 link power management support is disabled for maximum compatibility as a number of devices currently on the market do not properly implement U1/U2.

Issues Fixed:

Issue #	Description	Fixed in Version
18566	Unexpected 32-bit frame number value reported by QueryBusTime and URB_FUNCTION_GET_CURRENT_FRAME_NUMBER.	1.16.5
18653	USB Control register port disable bits map to incorrect logical ports.	1.16.5
17992	AVerMedia video capture card communication error.	1.16.4
17910	VeriFone MX915 HS card reader fails to enumerate.	1.16.4
17781	Failure to write file if application provides mismatched buffer size.	1.16.4
17628	Overcurrent condition does not generate pop-up message.	1.16.4
17745	LeCroy Voyager M3i USB analyzer fails to record.	1.16.4
17619	Bulk IN transfer stops with NumP=0 during stress test.	1.16.4
17239	USB Ports non-functional on WinXP with multi-processor disabled.	1.16.3
16987	Elo Touchscreen fails to operate.	1.16.3
16981	M2TECH USB2.0 Digital Audio Interface fails.	1.16.3
16200	Nike Fuelband fails to enumerate after reporting incorrect device descriptor length.	1.16.2
16041	BSOD(BugCheck D5) during plug and unplug mouse.	1.16.2
15922	BSOD 7F: plug and unplug mouse and keyboard together.	1.16.2
15808	The device(s) enter Compliance mode when testing with 502a re-driver.	1.16.2
15763	File transfer fails from USB3.0 thumb drive attached to TUSB7340 to System's HDD.	1.16.2
15662	Driver fails to send FS vendor-defined control packets to iLok device.	1.16.2
15048	BSOD 7E: Fixed a race condition present on systems using a single core CPU (Multi-processor disabled).	1.12.25
15603	BSOD 9F: resolved a power transition timing out when re-enabling the host controller while having either a Hub or mice plugged-in.	1.12.25
15583	LS/HS driver fails to load when inserted first time into USB3 port.	1.12.25

15047	BSOD 9F: Driver Power State Failure while running S4 cycles with USB 3.0 mass storage attached.	1.12.24
15154	Added a timeout function to checks for device removal after resume.	1.12.24
14173	Resolved a race condition with one port issuing a command in the command ring and another port attempting to abort the command ring.	1.12.24
15122	Added a timer to SS port state machine to poll for compliance mode and recover by cycling power and issuing warm reset.	1.12.23
15046	Added a testing feature to concurrently enumerate two devices on the same physical port - one on the USB 2.0 side and the other on the USB 3.0 side.	1.12.22
90111	Removed a restriction to customize the driver's device description.	1.12.22
14733	BSOD 9F: Driver Power State Failure after swapping a flash drive for a mouse while asleep (S3).	1.12.22
14549	Added initialization of Link TRB of the Command Ring during restore.	1.12.21
90110	Always put the port into suspend (U3) if the device has been safe-removed. (Was limited to WinXP.)	1.12.20
90109	Accessing "disabled" ports on TUSB73x0 causes enabled ports to fail.	1.12.20
13723	When users click "Safe Removal" of an external MSC device, xhcd ignores the event or doesn't do anything while NEC stack puts the device to U3.	1.12.20
12795	System-Level DTM failure: Suspend/Resume times exceed WHQL-allowed budgets. (Implement fast resume logic.)	1.12.20
14469	Uptech Hybrid TV HD 2 Tuner and Microsoft HD 5000 webcam attached to root ports fails. (Partial fix – disable s/w bandwidth calculation.)	1.12.20
12949	Wintek mouse fails to operate.	1.12.20
14448	Disable Wake from Device Manager (sometimes) Fails.	1.12.18
14401	Ports cannot be disabled independently. (Through PCI Config register option.)	1.12.18
90108	xHC does not always report HCHalted when going to sleep.	1.12.18
90107	Pre-OS to OS Handoff fails on some systems.	1.12.18
14148	Mouse does not come back when system resumes from S4.	1.12.18
14147	Some PC Remotes fail to enumerate. (Devices have spurious endpoint.)	1.12.18
13998	Transcend USB3.0 16GB thumb drive disappears and reappears after an S3->Resume cycle.	1.12.18

13788	BusPower JMicron USB3/SATA device disappears after resume from S3 or warm reboot.	1.12.18
14074	BSOD 7E: Null Pointer dereference; TV Tuner dongle crashes hub driver (usually) during second S3 resume.	1.12.17
90105	Registry control of xHC Save/Restore support.	1.12.17
90106	Disconnect/reconnect on resume with slow USB3 thumb drives. (Increase power-up delay on root hub.)	1.12.17
14074	BSOD 7E: Null Pointer dereference; TV Tuner dongle crashes hub driver (usually) during second S3 resume.	1.12.16
90104	Add global registry value for Dynamic D3 to support an installer option.	1.12.16
90103	Host remains in D0 if flash drive removed and language translation service running.	1.12.15
13573	Updated over-current handling in the Hub driver	1.12.15
13760	Wake System (S3) using Mouse stops working after Hibernation (S4)	1.12.15
13906	FlingPC bluetooth dongle fails to enumerate	1.12.15
13542	Addressed intermittent enumeration issue with devices behind a hub that reports a bInterval >7	1.12.15
13977	USB-Serial Port devices show in Device Manager as "Unknown Device"	1.12.15
90102	Support needed for external (BIOS and Registry) control of Dynamic D3.	1.12.15
13669	Epson STYLUS PHOTO R210 has yellow exclamation after a unsafe removal from USB3 and insertion into EHCI.	1.12.14
13765	BSOD 7E: iPhone Auto-sync Hibernation/Resume crashes	1.12.14
13722	With dynamic suspend (D3) of host enabled, Wake from sleep with attached mouse sometimes results in lost mouse, unresponsive host.	1.12.13
90101	BSOD 7E: System sometimes crashes during install or system start.	1.12.13
13588	DTM Failure: Device is Missing	1.12.12
13519	Dynamic suspend of Host when system is idle	1.12.12
13565	Wake on connect/disconnect behind USB hub still enabled when disabled in INF	1.12.11
13592	XHCD improperly overwrite HC BIOS Owned semaphore	1.12.11

13594	S4 Resume fails when BIOS claims host controller during POST	1.12.11
12793	Removed REV IDs from INF	1.12.9
13142	PHY Control setting change to work around suspend issue.	1.12.9
13237	USB devices slow to disappear in Device Manager	1.12.9
13243	With Selective Suspend enabled and daisy chained hub, device not recognized on Hub2 if Hub1 is in U0 and Hub2 is in U3.	1.12.9
13368	USB3 Device initiates U3 exit fails on second attempt.	1.12.9
13388	System will NOT go to Sleep if selective suspend enabled and a USB3 device is plugged into DS port of USB3 hub.	1.12.9
13444	Driver hangs on enumeration of Symwave device when inserted behind hub with U1 enabled.	1.12.9
13531	ETD LS Device emulator fails with TI xHCI controller but not with EHCI controller.	1.12.9
12126	URB_ISOCH_TRANSFER.StartFrame is not range-checked	1.12.9
13369	SW issues a Set_Feature(Port_Link_State = U3) when DS port of hub is in Rx.Detect.	1.12.9
13395	BSOD C9: Driver Verifier I/O Manager Violation – occurs with nusb3mon.exe loaded.	1.12.9
13439	Hcd initialization fails on WinXP with 1.12.6	1.12.7
13236	Need software change for PG1.61 silicon to keep port power on during shut-down.	1.12.7
13067	No Dial-up sound for USB Modem	1.12.6
13071	Creative Zen (PIL0078) produces "Code 10" error after resuming from active suspend test.	1.12.6
13244	WARM RESET generated whenever there is a FUNCTION WAKE notification. (Wake was resetting devices unnecessarily.)	1.12.6
13308	WAKE from Disconnect does not work	1.12.6
12909	BSOD CE: Driver Unloaded Without Cancelling Pending Operations	1.12.4
12991	Power Management tab in the Device Manager Controller Properties for host are always present even when USB wake support is not wanted.	1.12.4

Known issues:

Issue #	Description
12922	VIA SATA bridge devices sometimes fail enumeration. This is a non-compliance issue with the VIA device. This issue can be alleviated by disabling SSC. SSC can be disabled by setting bit 31 to 1 at PCI register offset 0x0E0 via a PCI register access or using the external EEPROM.