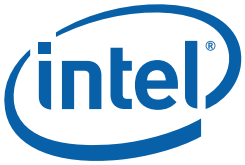

Intel® USB 3.0 eXtensible Host Controller Driver

Release Notes (3.0.2.54)

November 2014

Revision 1.2

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Revision History

Revision Number	Description	Revision Date
0.7	Initial Release.	September 2013
0.8	Alpha Release	October 2013
0.85	Alpha2 Release	December 2013
0.86	Beta Release	March 2014
0.90	ENG 3.0.0.27 Release	May 2014
0.95	ENG 3.0.0.31 Release	May 2014
1.0	PC/PV Release – 3.0.0.34	June 2014
1.1	HF1 Release - 3.0.1.41	August 2014
1.2	MR2 Release - 3.0.2.54	November 2014

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1 Introduction

1.1 Scope of Document

This document provides release information about the Intel® USB 3.0 eXtensible Host Controller Driver. It covers Release Kit summary, Important Notes, Resolved Issues and Known Issues. This document is intended for OEMs and ODMs that are validating the Intel® USB 3.0 eXtensible Host Controller Driver on their platform.

1.2 System Requirements

The Intel® USB 3.0 eXtensible Host Controller Driver contains support for the following Intel Chipsets:

- Intel® 8 Series/C220 Chipset Family
- 4th Generation Intel® Core™ Processors
- Intel® C610 series Chipset Family
- Intel® 9 Series Chipset Family
- Intel® Pentium® Processor or Intel® Celeron® Processor N- & J- Series
- 5th Generation Intel® Core™ Processors
- Intel® Core™ M Processor

The following Operating Systems are supported:

Intel® 8 Series Chipset Family
4th Generation Intel® Core™ Processors
Intel® 9 Series Chipset Family
Intel® Pentium® Processor or Intel® Celeron® Processor N- & J- Series
5th Generation Intel® Core™ Processors
Intel® Core™ M Processor:

- Windows* 7 Operating System (both 32-bit and 64-bit versions).

Intel® C220 series chipset family
Intel® C610 series Chipset Family:

- Windows* 7 Operating System (both 32-bit and 64-bit versions).
- Windows* Server 2008 R2 Operating System.
- Windows* Small Business Server 2008 Operating System.

Note: The Intel® USB 3.0 eXtensible Host Controller Driver is not supported on Windows* XP and Windows Vista*. For these operating systems, ensure your BIOS settings have the

xHCI Mode set to “Auto” or “Smart Auto”. This will reconfigure the USB 3.0 ports to function as USB 2.0 ports using the native Windows* EHCI driver. For more information, see the Wildcat Point-LP Platform Controller Hub (PCH) BIOS Specification document.

The Intel® USB 3.0 eXtensible Host Controller Driver Installer and Intel® USB 3.0 Monitor support the following languages:

- Arabic (International)
- Chinese (Simplified)
- Chinese (Traditional)
- Czech
- Danish
- German
- Greek
- English (United States)
- Spanish
- Finnish
- French (International)
- Hebrew
- Hungarian
- Italian
- Japanese
- Korean
- Dutch
- Norwegian
- Polish
- Portuguese (Brazil)
- Portuguese (Portugal)
- Russian
- Slovak
- Slovenian
- Swedish
- Thai
- Turkish

1.3 Acronyms and Terminology

Term	Description
BSOD	Blue Screen of Death (Stop Error)
CRB	Customer Reference Board
EHCI	Enhanced Host Controller Interface

Term	Description
FS	Full-Speed
HID	Human Interface Device (ex: keyboard or mouse)
HS	High-Speed
IBP	Intel Business Portal (https://businessportal.intel.com)
LS	Low-Speed
PCH	Platform Control Hub
RMH	Rate Matching Hub
SS	Super-Speed
USB	Universal Serial Bus
xHCI	eXtensible Host Controller Interface
WPP	Windows* software trace Pre-Processor

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2 Release Kit Summary

2.1 Release Kit Details

Kit Name: Intel(R) USB 3.0 eXtensible Host Controller Driver

Version: 3.0.2.54

2.2 Kit Contents

The contents of this release kit include:

- Intel® USB 3.0 eXtensible Host Controller Driver Installer

  The Intel® USB 3.0 eXtensible Host Controller Driver Installer “Setup.exe” will install the following drivers and application on the system:

  - Intel® USB 3.0 eXtensible Host Controller Driver
  - Intel® USB 3.0 Root Hub Driver
  - Intel® USB 3.0 Host Controller Switch Driver
  - Intel® USB 3.0 Monitor
- Intel® USB 3.0 eXtensible Host Controller Driver – Release Notes
- Intel® USB 3.0 eXtensible Host Controller Driver – Bring Up Guide
- Intel Software License Agreement

Note: It’s recommended that USB3.0 driver should only be installed using the setup.exe. Proper device functionality cannot be ensured if INF installation is used.

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3 Important Notes

3.1 USB 3.0 Collaterals

Please see the document “Intel(R) USB 3.0 eXtensible Host Controller Driver - Bring Up Guide” for information on driver installation and usage. This document can be found in the Intel® USB 3.0 eXtensible Host Controller Driver release kit.

Another useful document to reference is the “Intel(R) USB 3.0 eXtensible Host Controller Driver - Customer Validation and Debug Guide”. This document is available on CDI. Please contact your Intel FAE for access.

3.2 Platform Best Known Configuration

Please refer to “Client Base Platform Best Known Configuration” from Intel Business Portal (IBP) for platform configuration setup that aligns to this milestone releases.

3.3 New Root Certificate Signing

The current driver is signed with 2048 Bit Root certificate. Some Windows* 7 OS image might not contain the correct root certificate to authenticate it. If this is the case, it’s required to install Microsoft* KB 931125.

For more detail of 2048 Bit root certificate, see Root Certification Guidance - customer communication #549032.

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4 Closed Issues

Issue #	Description	Resolution
4636516	BSOD 0x50 caused by iusb3hub.sys may occurs during stress Sx/Reboot cycle.	Resolved in Release Rev: 3.0.2.54 (MR2)
4636373	Specific Bluetooth device may take long time to get disabled or enabled.	Resolved in Release Rev: 3.0.2.54 (MR2)
4636006	Under certain condition, specific High resolution USB3.0 ISOCH camera may fail to enumerate when connected to xHCI controller.	Resolved in Release Rev: 3.0.2.54 (MR2)
4636460	Specific Bluetooth device power state data is stuck in D0 when is connected to the xHCI controller if driver 3.0.1.41 is reinstalled	Resolved in Release Rev: 3.0.2.54 (MR2)
4636065	BSOD 0x7E caused by iusb3hub.sys may occurs during stress power cycle test.	Resolved in Release Rev: 3.0.2.54 (MR2)
3881963	On a specific USB3.0 Hub, the xHCI driver may send High Speed packets to Low/Full Speed device connected behind USB3.0 Hub after resuming from S4.	Resolved in Release Rev: 3.0.2.54 (MR2)
2164715	Improved w/a for issue #4635699	Resolved in Release Rev: 3.0.2.54 (MR2)
5228776	Full Speed barcode scanner may fail to enumerate when connected behind a USB2.0	Resolved in Release Rev: 3.0.1.41
4043547	USB3.0 Pendrive may fail to enumerate when connected behind USB3.0 Hub after S4 power cycle	Resolved in Release Rev: 3.0.1.41
4636027	BSOD 0x9F may occurs during long S3 streets test	Resolved in Release Rev: 3.0.1.41
4802601	Certain Bluetooth device Power state data is stuck in D0 when is connected to the xHCI controller	Resolved in Release Rev: 3.0.1.41
4635699	In certain condition when a USB3.0 Hub is connected behind xHCI controller and both Hub and xHCI controller have entered selective suspend, the xHCI will fail to detect USB3.0 devices if plugged behind the USB3.0 Hub.	Resolved in Release Rev: 3.0.1.41
4635532	USB3.0 monitor application may crash under Windows 7 OS Simplified Chinese if USB3.0 device with a long name is connected to USB2.0 port.	Resolved in Release Rev: 3.0.1.41
4635987	Intel logo displayed in the installer windows is overlapped if display configuration is set to medium -125% under control panel	Resolved in Release Rev: 3.0.1.41 (installer build 1.5.16.0)
N/A	Added support for 5th Generation Intel® Core™ Processors / Intel® Core™ M Processor	Resolved in Release Rev: 3.0.0.34

Issue #	Description	Resolution
N/A	Added functionality (for the BayTrail M/D Platform only) to automatically reboot the platform after the driver is uninstalled through the control panel.	Resolved in Release Rev: 3.0.0.33 (installer build 1.5.9.0)
5317181	USB link doesn't transition to L2 when Bluetooth module is connected to the xHCI controller and LPM L1 support is enabled in the device.	Resolved in Release Rev: 3.0.0.33
4635482	Added support for BIOS ACPI definition for embedded hub ports.	Resolved in Release Rev: 3.0.0.31
4635372	BSOD 0x9F may occurs during reboot stress test if device descriptor information is corrupted.	Resolved in Release Rev: 3.0.0.31
4635687	xHCI driver may cause delay on Velocity Test Suit – suspend test.	Resolved in Release Rev: 3.0.0.31
N/A	Added support for WinPE 3.x environment.	Resolved in Release Rev: 3.0.0.31
4635443	xHCI driver incorrectly read the DeviceRemovable field from USB HUB descriptor causing internal device defined as non-removable to show up as removable device.	Resolved in Release Rev: 3.0.0.27
4635480	BSOD 0x7E may occurs during platform stress test.	Resolved in Release Rev: 3.0.0.27
4635356	USB3.0 monitor application may crash when it's forced shutdown.	Resolved in Release Rev: 3.0.0.27
4635513	BSOD 0x9F may occurs during S4 stress test.	Resolved in Release Rev: 3.0.0.27
1024655	Added a new switch option (-s0) to allow a return code '0' instead of '14' when silent installation is used.	Resolved in Release Rev: 3.0.0.27 (installer build 1.5.6.0)
298094	BSOD 0x9F may occurs while platform goes to S3/S4 during stress test with dynamic delay enabled between s-states.	Resolved in Release Rev: 3.0.0.27
4802224	USB 3.0 synthetic HID device will not enter U1/U2 if the S3 wake is triggered by the device.	Resolved in Release Rev: 3.0.0.27
4802297	Improved xHCI driver handling of LPM L1 feature on device that only supports pre-errata version of LPM specification.	Resolved in Release Rev: 3.0.0.27
N/A	Added support for BayTrail M/D Platform.	Resolved in Release Rev: 3.0.0.19
N/A	Added support for Intel® 9 Series Chipset Family.	Resolved in Release Rev: 3.0.0.16
4635104	BSOD 0x9F may occurs during reboot test with WLAN/BT device connected to xHCI controller.	Resolved in Release Rev: 3.0.0.12

Issue #	Description	Resolution
2164688	BSOD 0x9F may occurs during system Sleep & PnP on Win7 with WLAN/BT device connected to xHCI controller.	Resolved in Release Rev: 3.0.0.12
3709786	Improve BSOD 0xE8086002 check in the release driver.	Resolved in Release Rev: 3.0.0.12
2164685	Bluetooth module (WiFi/BT combo) connected to the xHCI controller may show up with yellow bang after resuming from S4 stress test cycle.	Resolved in Release Rev: 3.0.0.12
3709829	BSOD 0xE6 may occurs during S3 stress testing with driver verifier enabled and Bluetooth module (WiFi/BT combo) connected to the xHCI controller.	Resolved in Release Rev: 3.0.0.12
3709981	BSOD 0x9F may occurs during warm reboot stress testing with Bluetooth module (WiFi/BT combo) connected to the xHCI controller.	Resolved in Release Rev: 3.0.0.12
4802017	After an overcurrent event, USB3.0 device connected behind USB3.0 HUB will fail to enumerate if the USB3.0 device re-connected again on the same port.	Resolved in Release Rev: 3.0.0.12
3709824	BSOD 0xD1 may occurs during burn-in test.	Resolved in Release Rev: 3.0.0.8
3709917	Updated driver w/a for issue 3707101 - USB3.0 monitor fails (video hang) when connected to USB3.0 port.	Resolved in Release Rev: 3.0.0.8
4043513	System will auto wake from Sx state if USB keyboard is reconnected while system is in the Sx state.	Resolved in Release Rev: 3.0.0.8
3709806	Self-powered USB3.0 HDD may not enumerate correctly if the HDD is reconnected to a different USB port when the system is in S4.	Resolved in Release Rev: 3.0.0.8

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5 Known Issues

Issue #	Description
N/A	

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