



Intel[®] USB 3.0 eXtensible Host Controller Driver

Release Notes (PV-HF4)

March 2012

Revision 1.03

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Revision History

| Revision Number | Description | Revision Date |
|-----------------|---|---------------|
| 0.7 | Initial release. | February 2011 |
| 0.71 | Removed 64-bit driver only comments. | March 2011 |
| 0.72 | Updated Release Notes for Driver Release 1.0.0.105; Removed duplicated sightings 3880659, 3880609, 3880656 in section 5 Known issues. They are documented in PPT Pre-ES1 Sightings Report Rev 0.3; | April 2011 |
| 0.8 | Updated for Alpha Driver Release (1.0.0.121) | May 2011 |
| 0.85 | Updated for Alpha2 Driver Release (1.0.0.134) <ul style="list-style-type: none">• Added note about driver not supporting Windows* XP and Vista• Section 4 and 5 updates to Closed and Known Issues list• Added section about 'Newer Versions' Question Pop-up Message shown during Driver Installation (section 3.1) | July 2011 |
| 0.9 | Updated for Beta Driver Release (1.0.0.178) <ul style="list-style-type: none">• Section 4 and 5 updates to Closed and Known Issues list | Sept 2011 |
| 0.95 | Updated for PC Driver Release (1.0.0.199) <ul style="list-style-type: none">• Updated Note in section 1.1 about Windows* XP and Vista support and BIOS settings• Updated Intel(R) 7 Series/C216 Chipset Family naming• Removed Section 3.1 about 'Newer Versions' Question pop-up message as it is no longer applicable for PC release• Added Windows* 7 Starter (32-bit edition) and Windows* 7 Enterprise (32-bit & 64-bit editions) to list of supported OS• Section 4 and 5 updates to Closed and Known Issues list | Dec 2011 |
| 1.0 | Updated for PV Driver Release (1.0.0.199) | Dec 2011 |
| 1.01 | Updated for PV-HF1 Driver Release (1.0.1.209) | Jan 2012 |
| 1.02 | Updated for PV-HF3 Driver Release (1.0.3.214) | Feb 2012 |
| 1.03 | Updated for PV-HF4 Driver Release (1.0.4.220) | Mar 2012 |



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 Intel® 7 Series/C216 Chipset Family (Panther Point) based platform.

1.2 System Requirements

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

- Intel® 7 Series/C216 Chipset Family (Panther Point)

The following Operating Systems are supported:

- Windows* 7 Starter (32-bit edition)
- Windows* 7 Home Basic (32-bit & 64-bit editions)
- Windows* 7 Home Premium (32-bit & 64-bit editions)
- Windows* 7 Professional (32-bit & 64-bit editions)
- Windows* 7 Enterprise (32-bit & 64-bit editions)
- Windows* 7 Ultimate (32-bit & 64-bit editions)

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 Intel® 7 Series/C216 Chipset Family (Panther Point) Platform Controller Hub 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 |
| 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 |
| RMH | Rate Matching Hub |
| SS | Super-Speed |
| USB | Universal Serial Bus |



| Term | Description |
|------|---------------------------------------|
| 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® USB 3.0 eXtensible Host Controller Driver

Version: 1.0.4.220 (PV-HF4 Release)

2.2 Kit Contents

The contents of this release kit include:

- Intel® USB 3.0 eXtensible Host Controller Driver Installer
(Note that driver CAT, INF, MAN and SYS files are located in the respective subfolders). 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
- USB 3.0 Debug Scripts

The “Debug_Scripts” folder provides the scripts to capture USB 3.0 WPP logs for issue debug. For more information, see the readme.txt file located in the same folder.
- 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



3 Important Notes

3.1 USB 3.0 Collaterals

Please refer to following USB 3.0 Collaterals for USB 3.0 bring-up, validation and debug guidance.

| Document | Doc Number & Location |
|--|---|
| Intel® USB 3.0 eXtensible Host Controller Driver Bring-Up Guide | Available in Intel® USB 3.0 eXtensible Host Controller Driver Kit Release Also available on IBP (Doc # 474002) |
| Intel® USB 3.0 eXtensible Host Controller Driver - Customer Validation and Debug Guide | IBP (Doc # 477627) |
| Intel® USB 3.0 eXtensible Host Controller Driver - Debug Tools Training Video | IBP (Doc # 470570) |

3.2 Platform Best Known Configuration

Please refer to “Maho Bay and Chief River Platforms with Emerald Lake 2 / Los Lunas 2 (CRB) Best Known Configuration (BKC)” from Intel Business Portal (IBP) for platform configuration setup that aligns to PV milestone releases.

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4 Closed Issues

| Issue # | Description | Resolution |
|---------|---|---|
| 3624824 | Error message pop-up when installing USB 3.0 driver on fresh OS. | Resolved in Release Rev: 1.0.4.220 (PV-HF4) |
| 3707230 | Image corruption seen on external monitor attached to USB Port Replicator when playback DVD title in full screen mode | Resolved in Release Rev: 1.0.4.220 (PV-HF4) |
| 3624903 | "USB Device Not Recognized " message might pop-up after USB2.0 device is plugged in into USB 3.0 port | Resolved in Release Rev: 1.0.4.220 (PV-HF4) |
| 3707198 | 'This device can perform faster' pop-up message is not localized to traditional Chinese when OS language code is ZH (Hong Kong Chinese) | Resolved in Release Rev: 1.0.4.220 (PV-HF4) |
| 3624910 | When external Audio System USB2.0 device is plugged in into USB3.0 port, BSOD D1 might occur | Resolved in Release Rev: 1.0.4.220 (PV-HF4) |
| 3707312 | USB3.0 device might not be recognized during hot plug testing in USB3.0 ports | Resolved in Release Rev: 1.0.4.220 (PV-HF4) |
| 3624735 | External monitor abnormal behavior seen on USB2.0 Docking station when attached to USB3.0 ports. | Resolved in Release Rev: 1.0.4.220 (PV-HF4) |
| 3707124 | Keyboard hotkeys do not work after pressing zoom-in or zoom-out hotkey once. | Resolved in Release Rev: 1.0.3.214 (PV-HF3) |
| 3624986 | USB 2.0 audio device sometimes fails to enumerate. | Resolved in Release Rev: 1.0.3.214 (PV-HF3) |
| 3707117 | USB 3.0 driver to support S3 wake-up on a hybrid Sleep transition. | Resolved in Release Rev: 1.0.3.214 (PV-HF3) |
| 3625027 | Changed HC Switch Driver to be same as PCI Bus "Boot Bus Extender" group to work with imaging tools and booting over network. | Resolved in Release Rev: 1.0.3.214 (PV-HF3) |
| 3707094 | USB 3.0 Driver installer allows new installation even if system is not rebooted after uninstalling USB 3.0 driver. This results in BSOD 0x7B. | Resolved in Release Rev: 1.0.1.209 (PV-HF1) |



| Issue # | Description | Resolution |
|---------|---|---|
| 3624853 | When AMD* SG driver is already installed on system, installing USB 3.0 driver after will see pop-up question window asking user to confirm install of older driver version for PCI bus. | Resolved in Release Rev: 1.0.1.209 (PV-HF1) |
| 3707068 | iusb3hcs.inf needs to be updated to fix supported operating systems list in mup.xml file. | Resolved in Release Rev: 1.0.1.209 (PV-HF1) |
| 3624746 | Conflict between AMD* Switchable Graphics PCI bus filter driver and Intel USB3 PCI bus filter driver (This causes the USB 3.0 ports to route to EHCI instead of xHCI). | Resolved in Release Rev: 1.0.0.199 (PV) |
| 3881695 | USB 2.0 Hub stops to work after S4 after unplugging webcam device in S4. | Resolved in Release Rev: 1.0.0.194 |
| 3881698 | Keyboard enumerates as 'Unknown device' after connecting it in S4 | Resolved in Release Rev: 1.0.0.194 |
| 3881714 | USB3 external HDD is missing after S5 | Resolved in Release Rev: 1.0.0.194 |
| 3881712 | BSOD 0x0B after topology change of USB device connected to USB tree | Resolved in Release Rev: 1.0.0.194 |
| 3881630 | BSOD 0xCC after waking platform from S4 with multiple devices plugged in | Resolved in Release Rev: 1.0.0.194 |
| 3881691 | USB 2.0 device is not enumerated in S0 after previously unplugging it in S3 | Resolved in Release Rev: 1.0.0.186 |
| 3881641 | BSOD 0x50 after unplugging big tree of devices in S0 | Resolved in Release Rev: 1.0.0.186 |
| 3881629 | BSOD 0xC4 after platform wake from S4 with multiple devices connected | Resolved in Release Rev: 1.0.0.186 |
| 3881616 | Platform wakes-up by itself from Sx with TI* Hub and keyboard connected and S4 performed previously | Resolved in Release Rev: 1.0.0.186 |
| 3881608 | BSOD 0xC4 after connecting USB game controller into xHCI port | Resolved in Release Rev: 1.0.0.186 |



| Issue # | Description | Resolution |
|---------|---|------------------------------------|
| 3881584 | Creative Live! Cam Socialize HD does not record video file after S4 | Resolved in Release Rev: 1.0.0.186 |
| 3881533 | FS device is enumerated as Unrecognized Device | Resolved in Release Rev: 1.0.0.186 |
| 3881500 | BSOD 0xC9 when safely removing USB device and unplugging it | Resolved in Release Rev: 1.0.0.186 |
| 3881462 | BSOD 0x7E may occur after disconnecting a USB tree (several hubs and devices) from xHCI port. | Resolved in Release Rev: 1.0.0.186 |
| 3881245 | Bandwidth Exceeded pop-up message is not seen when FS device connected behind HS hub exceeds allowed bandwidth | Resolved in Release Rev: 1.0.0.186 |
| 3624752 | USB3 device can perform faster pop-up message is not translated for Japanese | Resolved in Release Rev: 1.0.0.186 |
| 3624556 | Cannot wake up from USB Mouse if keep clicking mouse button when system proceed to S3 | Resolved in Release Rev: 1.0.0.186 |
| 3624280 | xHCI driver can cause BSOD 0xCA when 3 Seagate Goflex USB 3.0 HDD adapters are connected | Resolved in Release Rev: 1.0.0.186 |
| 3881324 | During file transfer with a SS mass storage device, if system is put to S4 state and resumed, this may lead to transfer being stopped and Windows transfer error message. | Resolved in Release Rev: 1.0.0.178 |
| 3881201 | For USB Bluetooth device connected to xHCI port, file transfers may fail. | Resolved in Release Rev: 1.0.0.178 |
| 3624254 | USB 3.0 driver version 1.0.0.134 installer shows 'newer version' Question pop-up message when installing over USB 3.0 driver version 1.0.0.121. | Resolved in Release Rev: 1.0.0.178 |
| 3881353 | Some USB devices may be detected by xHCI port but fail to enumerate and the system shows a message (USB Device not Recognized). | Resolved in Release Rev: 1.0.0.178 |
| 3881348 | When multiple USB devices (mass storage, webcam and keyboard) are connected to a xHCI port, simultaneous transfers between all devices may cause BSOD 0xD5. | Resolved in Release Rev: 1.0.0.178 |



| Issue # | Description | Resolution |
|---------|--|------------------------------------|
| 3881249 | When disconnecting some USB (FS/LS/HS) devices while system is in S3, a BSOD 0x9F may occur upon resuming from S3. | Resolved in Release Rev: 1.0.0.178 |
| 3624296 | Some USB 2.0 webcams may have the video freeze after first active S3 test case after cold reboot. | Resolved in Release Rev: 1.0.0.178 |
| 3881311 | USB 3.0 HID device may not resume from U3 (S3) to U0 (S0) correctly if issued by device. | Resolved in Release Rev: 1.0.0.178 |

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5 Known Issues

| Issue # | Description |
|---------|---|
| 3707117 | Composite Keyboard cannot wake-up system on hybrid Sleep transition Note: Target to Fix this issue in Maintenance Release. |

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