



# Intel<sup>®</sup> USB 3.0 eXtensible Host Controller Driver

Release Notes (PV-HF1)

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*Revision 1.01*

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## Revision History

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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"><li>• Added note about driver not supporting Windows* XP and Vista</li><li>• Section 4 and 5 updates to Closed and Known Issues list</li><li>• Added section about 'Newer Versions' Question Pop-up Message shown during Driver Installation (section 3.1)</li></ul>	July 2011
0.9	Updated for Beta Driver Release (1.0.0.178) <ul style="list-style-type: none"><li>• Section 4 and 5 updates to Closed and Known Issues list</li></ul>	Sept 2011
0.95	Updated for PC Driver Release (1.0.0.199) <ul style="list-style-type: none"><li>• Updated Note in section 1.1 about Windows* XP and Vista support and BIOS settings</li><li>• Updated Intel(R) 7 Series/C216 Chipset Family naming</li><li>• Removed Section 3.1 about 'Newer Versions' Question pop-up message as it is no longer applicable for PC release</li><li>• Added Windows* 7 Starter (32-bit edition) and Windows* 7 Enterprise (32-bit &amp; 64-bit editions) to list of supported OS</li><li>• Section 4 and 5 updates to Closed and Known Issues list</li></ul>	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

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# 1 Introduction

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## 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 ( <a href="https://businessportal.intel.com">https://businessportal.intel.com</a> )
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

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### 2.1 Release Kit Details

**Kit Name:** Intel® USB 3.0 eXtensible Host Controller Driver

**Version:** 1.0.1.209 (PV-HF1 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 traces 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

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## 3 Important Notes

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### 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
<b>Intel® USB 3.0 eXtensible Host Controller Driver Bring-Up Guide</b>	Available in Intel® USB 3.0 eXtensible Host Controller Driver Kit Release Also available on IBP (Doc # 474002)
<b>Intel® USB 3.0 eXtensible Host Controller Driver - Customer Validation and Debug Guide</b>	IBP (Doc # 477627)
<b>Intel® USB 3.0 eXtensible Host Controller Driver - Debug Tools Training Video</b>	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
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)
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

Closed Issues



Issue #	Description	Resolution
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
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



Issue #	Description	Resolution
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
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
3881157	USB modem transfers might cause BSOD with error code 0xE6.	Resolved in Release Rev: 1.0.0.134
3881314	Optical disk drive behind USB 2.0 hub may not enumerate after resuming from S3.	Resolved in Release Rev: 1.0.0.134
3881272	Using two webcams connected to a USB 2.0 hub may cause BSOD with error code 0xD1.	Resolved in Release Rev: 1.0.0.134
3881285	BSOD 0xE6 may occur when disabling xHCI driver with USB device still connected.	Resolved in Release Rev: 1.0.0.134
3881089	BSOD 0x0B may occur when hot plugging USB device behind USB 2.0 hub.	Resolved in Release Rev: 1.0.0.134
3623897	The Intel® USB 3.0 eXtensible Host Controller Driver Installer displays blank ReadMe page during installation.	Resolved in Release Rev: 1.0.0.121
3880552	Wake up for connect/disconnect event from S3 works when USB device is plugged/unplugged to xHCI port directly, but does not work when USB device is behind USB 2.0 or USB 3.0 hub.	Resolved in Release Rev: 1.0.0.121
3623992	USB 3.0 driver ".sys" file properties details shows incorrect file version.	Resolved in Release Rev: 1.0.0.121

*Closed Issues*



Issue #	Description	Resolution
3880542	Enumeration time of a device attached to a hubs tree is bigger when it is connected to xHCI port than for EHCI port.	Resolved in Release Rev: 1.0.0.121
3880679	Audio file playback on USB thumb drive may cause BSOD with error code 0xE6.	Resolved in Release Rev: 1.0.0.121
3881025	USB device may become missing after system wakeup from S4 state.	Resolved in Release Rev: 1.0.0.121
3880983	Simultaneous transfers between several USB devices may cause BSOD with error code 0xD1.	Resolved in Release Rev: 1.0.0.121

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## 5 *Known Issues*

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Issue #	Description
3624824	Error message pop-up when installing USB 3.0 driver on fresh OS. Note: Target to Fix this issue in Maintenance Release.

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