



Intel[®] USB 3.0 eXtensible Host Controller Driver

Release Notes (3.0.0.19)

March 2014

Revision 0.95

Intel Confidential



INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

A "Mission Critical Application" is any application in which failure of the Intel Product could result, directly or indirectly, in personal injury or death. SHOULD YOU PURCHASE OR USE INTEL'S PRODUCTS FOR ANY SUCH MISSION CRITICAL APPLICATION, YOU SHALL INDEMNIFY AND HOLD INTEL AND ITS SUBSIDIARIES, SUBCONTRACTORS AND AFFILIATES, AND THE DIRECTORS, OFFICERS, AND EMPLOYEES OF EACH, HARMLESS AGAINST ALL CLAIMS COSTS, DAMAGES, AND EXPENSES AND REASONABLE ATTORNEYS' FEES ARISING OUT OF, DIRECTLY OR INDIRECTLY, ANY CLAIM OF PRODUCT LIABILITY, PERSONAL INJURY, OR DEATH ARISING IN ANY WAY OUT OF SUCH MISSION CRITICAL APPLICATION, WHETHER OR NOT INTEL OR ITS SUBCONTRACTOR WAS NEGLIGENT IN THE DESIGN, MANUFACTURE, OR WARNING OF THE INTEL PRODUCT OR ANY OF ITS PARTS.

Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information.

The products described in this document may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

Copies of documents which have an order number and are referenced in this document, or other Intel literature, may be obtained by calling 1-800-548-4725, or go to: <http://www.intel.com/design/literature.htm%20>

All products, computer systems, dates, and figures specified are preliminary based on current expectations, and are subject to change without notice.

This document contains information on products in the design phase of development. Do not finalize a design with this information. Revised information will be published when the product is available. Verify with your local sales office that you have the latest datasheet before finalizing a design.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for details.

Code names featured are used internally within Intel to identify products that are in development and not yet publicly announced for release. Customers, licensees and other third parties are not authorized by Intel to use code names in advertising, promotion or marketing of any product or services and any such use of Intel's internal code names is at the sole risk of the user.

Intel and the Intel logo are trademarks of Intel Corporation in the U.S. and/or other countries.

*Other names and brands may be claimed as the property of others.

Copyright © 2014, Intel Corporation. All rights reserved.



Contents

| | | |
|---|---|----|
| 1 | Introduction | 5 |
| | 1.1 Scope of Document | 5 |
| | 1.2 System Requirements | 5 |
| | 1.3 Acronyms and Terminology | 6 |
| 2 | Release Kit Summary | 8 |
| | 2.1 Release Kit Details | 8 |
| | 2.2 Kit Contents | 8 |
| 3 | Important Notes | 9 |
| | 3.1 USB 3.0 Collaterals | 9 |
| | 3.2 Platform Best Known Configuration | 9 |
| 4 | Closed Issues | 10 |
| 5 | Known Issues | 11 |



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 |
| 0.9 | PV release for Intel® 9 Series Chipset | February 2014 |
| 0.95 | PV release – added support for BayTrail M/D Platform | March 2014 |

§



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 Broadwell PCH-LP based platform.

1.2 System Requirements

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

- Intel® 8 Series Chipset Family
- 4th Generation Intel® Core™ Processor Family
- Intel® 9 Series Chipset Family

The following Operating Systems are supported:

Intel® 8 Series Chipset Family
4th Generation Intel® Core™ Processor Family
Intel® 9 Series Chipset Family
BayTrail M/D Platform:

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

Intel® C220 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 |
| 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 |



| Term | Description |
|------|---------------------------------------|
| 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 |

§



2 Release Kit Summary

2.1 Release Kit Details

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

Version: 3.0.0.19

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.

§



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(R) 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 for Broadwell Platform" from Intel Business Portal (IBP) for platform configuration setup that aligns to this milestone releases.

§



4 Closed Issues

| Issue # | Description | Resolution |
|---------|--|-----------------------------------|
| 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 |
| 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 |



5 Known Issues

| Issue # | Description |
|---------|-------------|
| | N/A |

§