PCIe Low Level Driver

Release Notes

Applies to Product Release: 02.01.00.00
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Contributors to this document

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Contents

Release Notes

PCIe Low Level Driver version 02.01.00.00

Overview

This document provides the release information for the latest PCIe LLD which should be used by drivers and application that interface with PCIe.

PCIe LLD module includes:

- Compiled library (Big and Little) Endian of PCIe Low Level Driver.
- Sources, examples and unit test code.
- API reference guide

LLD Dependencies

LLD is dependent on following external components delivered in PDK package:

- CSL

New/Updated Features and Quality

Release 2.1.0.0

- Added k2e and k2l.
- Example NOT extended to support both pcie.

Release 2.0.0.4

- Add a pcie_device.c for each device, and remove cslr_device.h from the LLD. This allows support for more than one interface (up to 4), and allows one library to be used on more than one device. The user may compile device/k2h/src/pcie_device.c or device/k2k/src/pcie_device.c or define Pcie_InitCfg themselves.
- Note: Pcie_setMode configures all devices. Change to Pcie_setInterfaceMode to configure one interface.
- Note: LLD no longer touches kicker. Application should unlock kicker once before calling Pcie_setMode and leave unlocked

Release 2.0.0.3

- Renamed the device specific folders as per new naming conventions.

- Support for TCI6636K2H device (k2h).

Release 2.0.0.2:

- Updates for using auto-generated cslr_device.h and csl_device_interrupt.h files.

Release 2.0.0.1:

- Modification for single LLD library to work for all platforms. Moved the default location of C66x libraries to lib\c66x inside component directory

Release 1.0.0.3:

- Resolved Linux host compilation issue with example projects

Release 1.0.0.2:

- Added makefile support
- Simplified and automated process of LLD version update
- Complete functional API for all PCIe registers.
- Enable the -dpcie_DEBUG flag to bounds-check all input parameters. The default is disabled.
- Enable the configuration of all the registers other than the BAR registers via a single API call. The registers which took an index plus a value are expanded into an array of values.
- Enhance doxygen to cover descriptions of all register fields.

Release 1.0.0.1:

- Deprecated support for C64P ELF and COFF. Only C66 ELF is supported now
- In the example, block coherent API for L1D, L1P and L2 have been modified to use CACHE_FENCE_WAIT enumeration. This enumeration internally uses the C66 mfence instruction which is recommended for all block coherence cache operations.

Release 1.0.0.0:

- Initial Release

Resolved Incident Reports (IR)

Table 1 provides information on IR resolutions incorporated into this release.

Table 1 Resolved IRs for this Release

IR Parent/ Child Number	Severity Level	IR Description

Known Issues/Limitations

Table 2 Known Issue IRs for this Release

IR Parent/ Child Number	Severity Level	IR Description

Licensing

Please refer to the software Manifest document for the details.

Delivery Package

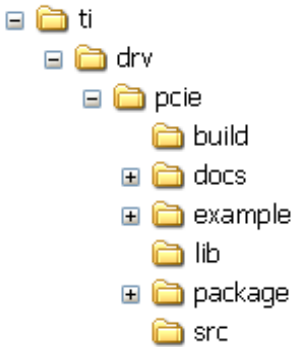
There is no separate delivery package. The PCIe LLD is being delivered as part of PDK.

Installation Instructions

The LLD is currently bundled as part of Platform Development Kit (PDK). Refer installation instruction to the release notes provided for PDK.

Directory structure

After installation, the PCIe LLD has the following directory structure:



The following table explains each individual directory:

Directory Name	Description
`ti/drv/pcie`	The top level directory contains the following:- 1. *Environment configuration batch file* The file "`setupenv.bat`" is used to configure the build environment for the PCIe low level driver. 2. *XDC Build and Package files* These files (`config.bld, package.xdc` etc) are the XDC build files which are used to create the PCIe package. 3. *Exported Driver header file*

	Header files which are provided by the PCIe low level driver and should be used by the application developers for driver customization and usage.
ti/drv/pcie/build	The directory contains internal XDC build related files which are used to create the PCIe low level driver package.
ti/drv/pcie/docs	The directory contains the PCIe low level driver documentation.
ti/drv/pcie/example	The "example" directory in the PCIe low level driver contains a simple example.
ti/drv/pcie/lib	The "lib" folder has pre-built Big and Little Endian libraries for the PCIe low level driver along with their *code/data size information*.
ti/drv/pcie/package	Internal PCIe low level driver package files.
ti/drv/pcie/src	Source code for the PCIe low level driver.

Customer Documentation List

Table 3 lists the documents that are accessible through the **/docs** folder on the product installation CD or in the delivery package.

Table 3 Product Documentation included with this Release

Document #	Document Title	File Name
1	API documentation (generated by Doxygen)	docs/pcieDocs.chm
2	Release Notes (this document)	docs/ReleaseNotes_PCIe_LLD.pdf