Power Management Low Level Driver

Release Notes

Applies to Product Release: 01.04.00.05
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Contributors to this document

Texas Instruments, Incorporated
20250 Century Boulevard
Germantown, MD 20874 USA

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Release Notes

Power Management Low Level Driver version 01.04.00.05

Overview

This document provides the release information for the latest PM LLD which should be used by drivers and application that wish to interface with thermal and power management capabilities.

PM LLD module includes:

- AM57xx - Compiled ARM A15, M4, and C66 libraries of Power Management Low Level Driver.
- AM437x - Compiled ARM A9 library of Power Management Low Level Driver.
- AM335x - Compiled ARM A8 library of Power Management Low Level Driver.
- K2G – Compiled ARM A15 and C66 libraries of Power Management Low Level Driver.
- Sources and examples code.
- API reference guide

LLD Dependencies

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

- CSL (AM57xx, K2G)
- Starterware (AM335x & AM437x)

New/Updated Features and Quality

Release 1.4.0.5:

- Added RULES_MAKE macro to support build based on custom Rules.make location

Release 1.4.0.4:

- Bug fixes

Release 1.4.0.3:

- Migrated to gcc 6.3.1

Release 1.4.0.2:

- Bug fixes

Release 1.4.0.1:

- Add UART menu-based application for testing OPPs and power performance on AM335x and AM437x devices

Release 1.4.0.0:

- Add support for K2G power management via PMMC
    - A15 and C66 OPP modifications
        - Support LOW, NOM, OD, HIGH, and HIGH2 OPPs
    - A15 and C66 Sleep mode
        - Put the a15 and c66 into idle to be woken by peripheral interrupts via PMMC

Release 1.3.0.0:

- Add support for AM437x
    - A9 OPP modifications
        - Support LOW, NOM, OD, HIGH, and HIGH2 OPPs
    - A9 Sleep mode
        - Put the a9 into idle to be woken by peripheral interrupts

Release 1.2.0.0:

- Add support for AM335x
    - A8 OPP modifications
        - Support LOW, NOM, OD, HIGH, and HIGH2 OPPs
    - A8 Sleep mode
        - Put the a8 into idle to be woken by peripheral interrupts

Release 1.1.0.0:

- Implemented Power_get/set/releaseDependency APIs. These APIs can be used to manipulate the dependencies between device modules when manipulating power, clock, and reset domains.
- Added PowerDevice_Cfg_Init API for initializing the configuration structure used during Power_init().
- AM572x M4 and C66 RTOS Power API support for power and thermal management

Release 1.0.0.0:

- Initial Release

- AM572x ARM A15 RTOS Power API support for power and thermal management

Resolved Incident Reports (IR)

Release 1.0.0.0:

IR #	Description

Known Issues/Limitations

Licensing

Please refer to the PDK software Manifest document for the details.

Delivery Package

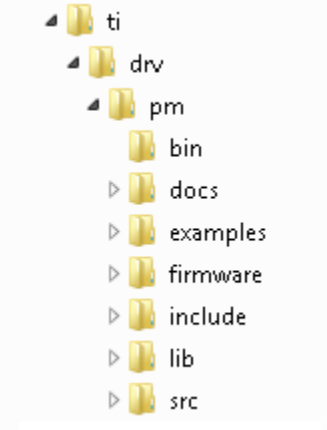
There is no separate delivery package. The PM LLD is being delivered as part of PDK.

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 PM LLD has the following directory structure:



The following table explains each individual directory:

Directory Name	Description
ti/drv/pm	The top level directory contains the following:- 1. *Exported Driver header file* Header files which are provided by the PM low level driver and should be used by the application developers for driver customization and usage.
ti/drv/pm/bin	The directory contains pre-compiled and linked example application binaries.
ti/drv/pm/docs	The directory contains the PM low level driver documentation.
ti/drv/pm/examples	The "examples" directory in the PM low level driver contains power and thermal management examples.
ti/drv/pm/firmware	The "firmware" folder has firmware images for SoCs with co-processor based power management features.
ti/drv/pm/include	The "include" directory has private PM header files except for the SoC specific extensions of the RTOS Power APIs under "include/prcm/Vx/PowerDevice.h".
ti/drv/pm/lib	The "lib" folder has pre-built libraries for the PM low level driver along with their *code/data size information*.
ti/drv/pm/src	Source code for the PM IP and SoC specific low level driver.

Customer Documentation List

Table 1 lists the documents that are accessible through the ***/docs*** folder on the product installation CD or in the delivery package.

Table 1 Product Documentation included with this Release

Document #	Document Title	File Name

Document #	Document Title	File Name
1	API documentation (generated by Doxygen)	docs/pmDocs.chm
2	Release Notes	docs/Release Notes_PM_LLD.pdf