ICSS_EMAC Low Level Driver

Release Notes

Applies to Product Release: 01.00.00.16
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TEXAS INSTRUMENTS

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Contents

ICSS_EMAC Low Level Driver version 01.00.00.16

Overview

This document provides the release information for the latest ICSS_EMAC LLD which should be used by drivers and application that interface with PRU-ICSS subsystem.

ICSS_EMAC LLD module includes:
- Compiled library (Little) Endian of ICSS_EMAC Low Level Driver.
- Sources and unit test code.
- API reference guide
- User Guide

LLD Dependencies

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

New/Updated Features and Quality

Release 1.0.0.16:

- Bug fixes

Release 1.0.0.15:

- Fixed typo in Dual EMAC ICSS firmware design document
- Added receive interrupt pacing functionality to Dual EMAC ICSS firmware.
- Bug fixes

Release 1.0.0.14:

- Bug fixes

Release 1.0.0.13:

- Bug fixes

Release 1.0.0.12:

- Bug fixes

Release 1.0.0.11:

- Bug fixes
- Misra-C warning cleanup.

Release 1.0.0.10:

- Migration to gcc 6.3.1
- Support for AM574x
- Bug fixes

Release 1.0.0.9:

- IR Fixes.
  - PRSDK-3034: RTOS: ICSS EMAC switch test does not complete for M4
  - PRSDK-3054: idkAM572x-ICSS_EMAC-M4/DSP LE: queue-overflow failure
  - PRSDK-2861: ICSS EMAC LLD: ICSSMemInit() API does not init entire memory.

Release 1.0.0.8:

- Support for switch firmware build infrastructure using TI CLPRU compiler toolchain.
- Support for Linux User Space for K2G.
- IR Fixes.

Release 1.0.0.7:

- Support for dual emac firmware build infrastructure using TI CLPRU compiler toolchain.
- Support for Linux User Space for idkAm437x and icev2AM335x.
- IR Fixes.

Release 1.0.0.6:

- Support for Linux User Space for idkAM571x and idkAM572x.
- IR Fixes.

Release 1.0.0.5:

- Support for ICE_K2G EVM
- News API's provided to allow driver to be configured with custom specific firmware memory map configurations.
- IR Fixes.

Release 1.0.0.4:

- Support to run on C66x Core for idAM571x/idkAM572x EVM.
- IR Fixes.

Release 1.0.0.3:

- Support Time Triggered Send feature.
- IR Fixes

Release 1.0.0.2:

- LLD supports registration of custom Receive and Transmit API's to support features such as HSR/PRP.
- IR Fixes.

Release 1.0.0.1:

- Support for Host Notification of packet transmission by ICSS_EMAC LLD
- Support for multi-PRU-ICSS instances in ICSS_EMAC LLD
- IR Fixes.

Release 1.0.0.0:

- Initial Release

Known Issues/Limitations

Licensing

Please refer to the software Manifest document for the details.
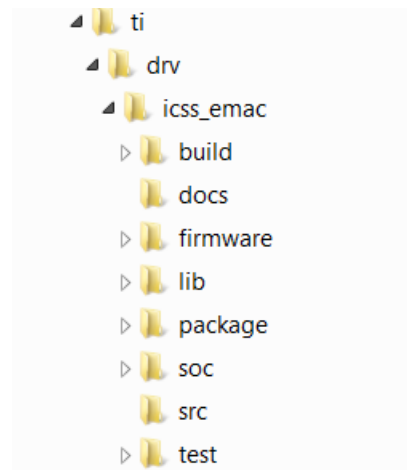
Delivery Package

There is no separate delivery package. The ICSS_EMAC 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 ICSS_EMAC LLD has the following directory structure:

```
ti
  drv
    icss_emac
      build
      docs
      firmware
      lib
      package
      soc
      src
      test
```

The following table explains each individual directory:

Directory Name	Description
ti/drv/icss_emac	The top level directory contains the following:- 1. *XDC Build and Package files* These files (config.bld, package.xdc etc) are the XDC build files which are used to create the ICSS_EMAC package. 2. *Exported Driver header file* Header files which are provided by the ICSS_EMAC low level driver and should be used by the application developers for driver customization and usage.
ti/drv/ icss_emac/build	The directory contains internal XDC build related files which are used to create the ICSS_EMAC low level driver package.
ti/drv/ icss_emac/docs	The directory contains the ICSS_EMAC low level driver documentation.
ti/drv/ icss_emac/lib	The "lib" folder has Little Endian libraries for the ICSS_EMAC low level driver along with their *code/data size information*.
ti/drv/ icss_emac/package	Internal ICSS_EMAC low level driver package files.
ti/drv/ icss_emac/soc	This directory contains SoC specific files.
ti/drv/ icss_emac/src	Source code for the icss_emac low level driver.
ti/drv/ icss_emac/test	The "test" directory in the ICSS_EMAC low level driver has test application which is used by the development team to test the ICSS_EMAC 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
1	API documentation (generated by Doxygen)	docs/icss_emaclldDocs.chm
2	User Guide	http://ap-fpdsp-swapps.dal.design.ti.com/index.php/Processor_SDK_RTOS_ICSS-EMAC

Document #	Document Title	File Name
3	Software Manifest	docs/ PDK_ICSS_EMAC_LLD_01.00.00_manifest.html