DM814x AM387x EZSDK 5.02 Release Notes

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Easy Software Development Kit (EZSDK) 5_02_02_60 for the DM814x/AM387x

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This is an Early Adopter release of the Easy Software Development Kit (EZSDK) 5.02 for the DM814x/AM387x platform. This EZ SDK Software release gives developers the ability to evaluate the hardware and software capabilities of the DM814x/AM387x platform. Developers will be able to evaluate the ARM Linux programming environment and easily utilize the hardware support for powerful DSP algorithms and multimedia accleration.

This document is divided into the following sections:

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Documentation

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- Latest up to the minute information and updates may be found on the <u>Texas Instruments Embedded</u> Processors Wiki.
- The *Quick Start Guide* contains information on how to set up your EVM for an out of box demo showcase as well as for software development. It is located in the *docs/* folder in the EZ SDK along with other documentation.
- The *Software Developer's Guide* contains information on how to start developing software on the DM814x/AM387x EVM and is located in the *docs/* folder in the EZSDK along with other documentation.

Components

The Linux EZSDK for Sitara AM387x and DaVinci DM814x is a single package that includes the following components:

- Platform Support Package
 - ♦ Linux kernel 2.6.37
 - ♦ Boot loaders (u-boot)
- DSP Package
 - ♦ Codec Engine Framework
 - ♦ C6000 code generation tool chain
 - ♦ SYS/BIOS Real Time Operating System
 - ♦ SYS/Link Inter Processor Communication
 - ♦ C6Accel easy access to DSP accelerated function libraries
- Graphics Package
 - ♦ Neon accelerated Qt/Webkit application framework
 - ♦ 3D Graphics Support
- Multimedia Package
 - ♦ OpenMAX IL libraries
- Demos
 - ♦ OMTB tool to easily create different OpenMAX IL component chains
 - ♦ Signal Analyzer Demo that showcases DSP Acceleration with QT 2D Graphics
 - ♦ Matrix GUI Launcher
 - ♦ Benchmarking applications

What's New

The following high-level features are new from the previous SDKs:

- This is a new release that supports DM814x EVMs.
- This release adds support for LCD with Touchscreen.
- This release adds support for MP3 and AAC audio codecs.

This release fixes the following issues -

1. SDOCM00084162 Part numbers are incorrectly described in the toplevel documentation

Documentation 2

Installation and Usage

The *Software Developer's Guide* contains information on how to start developing software on the DM814x/AM387x EVM and is located in the *docs/* folder in the EZSDK along with other documentation.

Host Support

This release only supports <u>Ubuntu 10.04 LTS 32-bit</u> as your development host.

Dependencies

The EZSDK requires the CodeSourcery toolchain, a link is provided on the EZSDK 5.02 Release Page or provided with a CD in your EVM kit.

Device Support

This EZSDK supports the DM814x/AM387x EVM.

Validation Information

This release has been tested with ES 2.1 Silicon with EVM Base board Revision-B and an Expansion IO Card Revision-A having an LCD panel attached.

Upgrade and Compatibility Information

By default, this version of the SDK is designed to work out of the box with a Touchscreen LCD on an Expansion IO Card. If you do not have this card connected to the DM814x EVM, then the SDK does support changing HDMI as the default display. Please run the following steps on the target

```
target # cd /usr/share/ti/ti-media-controller-utils
target # ./change_display hdmi
```

Now power cycle your board. Once the board comes up it will be setup to use HDMI by default. For more information please read the *Software Developer's Guide*.

Known Issues and Limitations

Known Issues

- 1. SDOCM00073168 SDK installer deletes the entire contents of the install folder when installation is cancelled (Cloned from DVSDK 4.0).
- 2. SDOCM00083560 GUI Installer does not launch the SDG on completion
- 3. SDOCM00083586 DSP benchmark demo fails

Limitations

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- 1. The EZSDK does not ship with a full Graphics SDK installation but only contains the Kernel sources, OpenGL libraries and header files. As a result it is not possible to build the OpenGL Demos from within the EZSDK. To get the full Graphics SDK which includes demos, you can download the latest version from
 - http://software-dl.ti.com/dsps/dsps_public_sw/sdo_sb/targetcontent/gfxsdk/latest/index_FDS.html
- 2. The signal analyzer demo is best seen on the HDMI display and not on the LCD display. The current limitation is that the demo does not show buttons correctly on the LCD.

Versioning

This is an early adopter release (EZSDK 5_02_02_60) for DM814x/AM387x.

Technical Support and Product Updates

Latest up to the minute information and updates may be found on the <u>Texas Instruments Embedded</u> Processors Wiki.

The <u>Embedded Software Linux forum</u> is a forum for discussing the Linux EZSDK development. New versions of the EZSDK are also announced here.

The EZSDK download page is a top level page for finding the latest EZSDK releases for all TI platforms.

Additional Information

- 1. EZ SDK FAQ is available and will contain updated information on questions http://processors.wiki.ti.com/index.php/EZ SDK FAQ
- 2. Embedded Processor Wiki http://processors.wiki.ti.com/index.php/Main Page

E2E Forum Support

- 1. E2E Linux Forum http://e2e.ti.com/support/embedded/f/354.aspx
- 2. E2E DaVinci Processor Forum http://e2e.ti.com/support/dsp/davinci-digital-media-processors/default.aspx