VAYU-BSP-01.00.00.01 ReleaseNotes

BSP Version 01.00.00.01

Release Notes
19th October, 2012

Important Note

This release is for TDA2SEDx (Vayu) and TI814x platforms.

Document License

Introduction

This release notes provides important information that will assist you in using the BSP software package. This document provides the product information and know issues that are specific to the BSP software package.

New in this Release

This is the first release for FVID2 Capture (VIP) driver.

Installation and Usage

Installation and Usage of the BSP package could be found at BSP_UserGuide

Upgrade and Compatibility Information

- **Memory Map**
  - 256 MB or 512MB second partition memory is mapped to 0xA0000000 instead of 0xC0000000 for TI814x platforms and accordingly the gel file configuration is changed. Hence the TI814x GEL file present at BSP_Insall_Dir\docs\ti814x\TI814x_ES_2x_evm_A8_ddr3.gel should be used.
- **VIP Capture**
  - This is the first release for Capture (VIP) driver, core and HAL for TDA2SEDx. This package has been verified/validated on TDA2SEDx VIP Simulator and TI814x EVM platforms.

Dependencies

This release requires following tools/packages to be installed.

- Code Composer Studio Version: 5.1.0.09000
- XDC Tools Version: 3.24.01.29
- BIOS Version: 6.34.00.12
- CG Tool (TMS470) Version: 5.0.1

Devices Supported

- TDA2SEDx Simulator [0.2.0]
- TI814x EVM [PG 2.1]

Application Boards Supported

- TI814x VS application board
- TI814x VC application board
- TI814x Vision application board
- TI814x Catalog application board

What is Supported

Common

- Supports for TDA2SEDx SIM and TI814x EVMs
- Supports FVID2 interfaces for all the supported drivers
- Package includes BSP driver sources, sample applications that demonstrate use of drivers and sample applications executables
- BIOS SMP mode is enabled and tested
- Benelli M4 Core 0 for TDA2SEDx and Ducati M3 Core 1 for TI814x
- Virtual to physical address translation for VPDMA descriptor memory is supported

Capture Drivers

- Supports VIP capture driver (4 instance on TI814x and 12 instance on TDA2SEDx)
- Support for TVP5158, TVP7002 and MT9v022 devices for TI814x daughter cards

Features

VIP Driver Features

Feature	Supported	Tested
12 instances (3 VIP x 2 Slice x 2 Port)	YES	YES (4 on TI814x EVM, 12 on TDA2SEDx SIM)
8/16-bit Embedded Sync	YES	YES
8/16/24-bit Discrete Sync	YES	YES (only 16-bit VSYNC/HSYNC mode)
YUV422I, YUV420SP, RGB888 output formats	YES	YES
YUV422SP, YUV444 output formats	NO	NO
Sub-frame based capture	YES	YES (only on TI814x)
Sub-frame based OTF use case	YES	NO
Bypass mode	YES	NO
Inline SC	YES	YES
Inline CSC	YES	YES
Configurable VPDMA Line Limit Feature	YES	YES
Buffer Capture Modes - drop frame, last frame repeat, circular frame repeat	YES	YES
Frame Drop IOCTL	YES	YES
Instance and channel status	YES	YES
Re-packer	YES	YES (only on TDA2SEDx Zebu)

Driver Maturity

Driver Maturity

Driver	TDA2SEDx	TI814x
VIP Capture	Pre-Alpha 1.0	Pre-Alpha 1.0

Supported/Validated Examples

Supported/Validated Examples

Examples	TDA2SEDx-SIM	TI814x-EVM
VIP Capture	YES (Only last two options)	YES
VIP Sub-frame	NO	YES

- Examples could be found at `$BSP_Install_Dir\packages\ti\bsp\examples\common\vps\`

What is Not Supported

Common

- Checking for most of the input parameters for out of range and invalid values is not done
- Scaler lazy loading and user coefficient loading are not supported in VIP capture driver
- VIP Reset IOCTL is not supported in VIP capture driver. The driver internally resets the VIP during driver create. In case of TI814x, the whole VIP is reset and hence any capture operation on other port during create of a port will be affected.
- Detailed TI81xx to TDA2SEDx driver migration guide is not provided. Instead an overview of the migration guide PPT is provided in the docs folder.
- Mux-mode VIP capture is not supported
- Multiple stream outputs from same video source is not supported

TDA2SEDx

- None

TI814x

- None

Fixed in this Release

Common

- NA. This is the first release.

Known Issues / Limitations

VIP Capture Driver

- In RGB888 output from VIP, R and B are swapped in memory
- When in-line scaling is performed, overflow is observed for every frame in TI814x
- YUV422SP and YUV444 output from VIP is not working
- Back-to-back running of tests involving different paths within VIP results in no capture. Application has to reset and reload CPU for running a different VIP configuration test.
- Following features are not tested
  - 8/16/24-bt RAW output - No support in EVM
  - RGB888 input to VIP - No support in EVM/Simulator
  - Various discrete sync modes except HSYNC/VSYNC mode - No support in EVM

Validation Information

- This release is validated on TDA2SEDx SIM and TI814x ES2.1 for the above mentioned components.

Technical Support and Product Updates

For further information or to report any problems, contact http://e2e.ti.com or http://community.ti.com or http://support.ti.com.

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