



# **DSP/BIOS VPFE Device Driver**

**Version: 1.10.03**

## **Release Notes**

**April 16, 2009**

The product release notes in this document are for DM6437 DSP/BIOS VPFE Device Driver, which is part of the DM6437 BIOS package.

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## **1 General information**

The VPFE device driver included in this release package supports h/w capabilities of DSP VPFE (VPSS Front End) peripheral device.

The driver supports only interrupt modes of operation.

The driver is based on an architecture that allows for easy customization/extension. It separates usage policies such as buffering scheme and blocked-calls from basic device management for data transfers.

The driver is single instance and re-entrant safe for use in multi-threaded environment.

## **2 New In This Release**

- The pragma definitions, macro definitions and compiler switches used are documented in the user guide.

## **3 System Requirements**

Details about the tools and the BIOS version that the driver is compatible with can be found in the system Release Notes.

## **4 Installation and Usage**

1. Install BIOS package as per instructions provided along with the package.
2. VPFE Device driver sources are available in `<root>\packages\ti\sdo\pspdrivers\drivers\vpfe\src` folder.
3. Build the VPFE project file in build directory to build the debug/release library.
4. Sample application / test code for YUV capture from TVP5146 is provided in `<root>\packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\loopback` folder.
5. Sample application /test code for raw capture from MT9T001 sensor is provided  
`<root>\packages\ti\sdo\pspdrivers\system\dm6437\bios\evmDM6437\video\sample\build\rawcapture` folder.

## **5 Uninstallation**

1. Un-install the Driver package as per instructions provided with the package.

## **6 Adding instance of the device driver**

To have VPFE device driver included in the application, it is required to add the TCI file i.e. "dm6437\_vpfe0.tci" in the TCF file of the application. Refer to section 5 in DM6437\_BIOS\_PSP\_Release\_Notes.pdf.

## 7 Fixed In This Release

MR DPSP00010351 is fixed by correcting the comment. The comment was added to state that 8<sup>th</sup> bit needs to be set and that the square pixel setting needs to be extracted from the user supplied mode parameter.

## 8 Known Issues

1.	<b>Fault Pixel Correction not Tested</b>
<b>Release Note</b>	
<ul style="list-style-type: none"> <li>Fault Pixel Correction is not tested.</li> </ul>	
<b>Workaround</b>	

2.	<b>MR status</b>
<b>Release Note</b>	
<ul style="list-style-type: none"> <li>The hardware issue is suspected for MR No DPSP00005336, DPSP00005712 and DPSP00005697.</li> <li>The hardware issue is suspected for MR No DPSP00006496. The data lines 8 and 9 coming from MT9T001 sensor board is not coming at the interface of Dm6437 board and sandwich board.</li> <li>The Chroma artifacts mentioned in MR No DPSP00006537 is reduced with S-video input.</li> <li>MR No DPSP00006536 is suspected to be interlacing effects.</li> <li>MR No DPSP00006002 is a known observation. The interlacing effect will be seen when front end (capture) is configured in interlaced mode and back end (display) is configured in progressive mode.</li> <li>The MR No DPSP00008649 is suspected as TVP issue. The first few frames might come improper because the TVP requires few frames to latch on the signal.</li> </ul>	
<b>Workaround</b>	

3.	MR No DPSP00006408 and DPSP00007083
<b>Release Note</b>	
<ul style="list-style-type: none"> <li>Gel issue is suspected. The loopback application works properly by removing the gel file on consecutive re-load.</li> </ul>	
<b>Workaround:</b> The issue is not reproducible using gel file provided along with the package.	

**Note: Channel handle should not be shared across multiple tasks. Sharing of handle across multiple tasks might cause corruption in the GIO layer.**



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**9 Revision history**

<b>Date</b>	<b>Author</b>	<b>Comments</b>	<b>Version</b>
November 23, 2006	Maulik Desai	BFT release 0.2.0	1.1
November 30, 2006	Maulik Desai	Modified for the release 0.3.0	1.2
16 January 2007	Maulik Desai	Bios version modified. Modifications for the release 0.4.1 done.	1.3
February 3, 2007	Maulik Desai	CCS version modified.	1.4
April 25, 2007	Maulik Desai	Updated for release	1.5
May 8, 2007	Maulik Desai	Updated for GA release	1.6
June 22, 2007	Anuj Aggarwal	Updated for GA patch release 1.00.01	1.7
June 29, 2007	Amit Chatterjee	Modified Release Version	1.8
July 1, 2007	Maulik Desai	Updated for GA patch release 1.00.03.00	1.9
November 30, 2007	Sivaraj R	PSP merge package changes - directory structure changes, FVID_allocBuffer and FVID_freeBuffer functions are implemented as GIO control commands	1.10
May 28, 2008	M Sriram	Updated for release 1.10.01	1.11