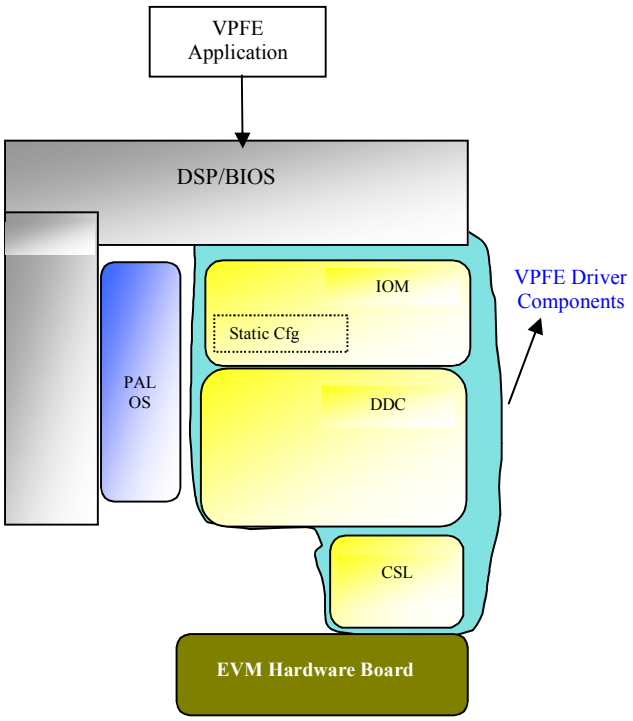
- **Single Instance and re-entrant safe driver**
- **Operates in INTERRUPT mode only.**
- **Support individual channels for CCDC.**
- **Supports flipping of multiple frame buffers for seamless capture from CCDC.**
- **Easy to maintain &re-target to new platforms.**



Description

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

Capabilities

The VPFE BIOS device driver adopts a scalable architecture that eases customization/extension

- Isolates H/W and OS Accesses
- Easy to maintain & re-target to new platforms.

The driver is constituted of following sub components:

- VPFE IOM –OS Specific Adaptation of VPFE Device Driver
- VPFE DDC – OS Independent part of VPFE Driver Core. This also includes LLC.
- System components – BIOS: BIOS Abstraction.

The following table gives a quick overview of the supported API services. For help on interfaces refer to the VPFE Driver Help File:

GIO_create	Call PSP_VPFECreate, Creates the channel for the data transfer by setting up VPFE hardware params
GIO_Delete	Call PSP_VPFEClose, which will Delete a given VPFE driver (channel).
GIO_submit	Call the PSP_VPFESubmitRequest for Queuing and Dequeuing the Frame buffers for CCDC and other VPFE modules.
GIO_control	Call PSP_VPFEIoctl that will do Ioctl interface. Ioctl's Supported are: Refer User guide document

Driver Performance Characteristics

VPFE DEVICE DRIVER SUB-COMPONENT	PROGRAM MEMORY (IN BYTES)	DATA MEMORY (IN BYTES)		
		MEMORY TYPE		TOTAL
		INITIALIZED	UN INITIALIZED	
<VPFE/IOM>	3392	132	116	**3640**
<VPFE/DDC>	8768	99	154	**9021**
<VPFE/LLC>	3168	0	4	**3172**
Total	**15328**	**231**	**274**	**15833**

- VPFE System Components Total Memory (Code & Data): **15833** Bytes

Note: The Driver Performance Characteristics can be included once testing is done on DM6437 SOC.

PRODUCT PREVIEW

- Latency graph for VPFE/VPBE driver

References

[1] VPSS Module Hardware Specifications

[2] BIOS Documentation from TI

[3] VPFE Device Driver Documentation

Glossary

IOM	TI Terminology, Input/Output Mini Driver.
DDA	TI Terminology, Device Driver Adaptation that is OS dependent
DDC	TI Terminology, Device Driver Core that is OS independent
LLC	TI Terminology, Device Driver Core that is hardware dependent

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