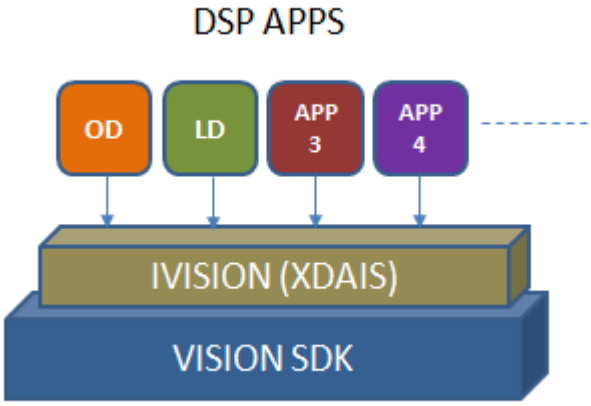
- **IVISION (XDAIS) interface compliant**
- **Validated on TDA3x EVM**
- **Supports Scene Obstruction Detection**



Description

Scene Obstruction Detection module is TI's proprietary Vision and Imaging algorithm implemented on TMS320C66x DSP. This module is validated with Code Composer Studio version 5.5.0.00077 and code generation tools version 7.4.2.

Performance and Memory Summery

Table 1. Configuration Table

CONFIGURATION	ID
Scene Obstruction Detection	SCENE_OBSTRUCTION_DETECTION_001

Table 2. Performance Statistics

CONFIGURATION ID	TEST DESCRIPTION	TI C66X DSP PERFORMANCE STATISTICS	
		MIN (MEGA-CYCLES)	MAX(MEGA-CYCLES)
SCENE_OBSTRUCTION_DETECTION_001	3 x3 paxels	0.02	0.02

[1] Performance is validated by running on TDA2x platform. DDR-532Mhz, DSP-600Mhz

Table 3. Memory Statistics - Generated with Code Generation Tools

CONFIGURATION ID	MEMORY STATISTICS[1]						
	PROGRAM MEMORY	DATA MEMORY				STACK	TOTAL
		INTERNAL	EXTERNAL				
			PERSISTENT	SCRATCH	CONST		
SCENE_OBSTRUCTION_DETECTION_001	3.71	N/A	0	0	0.08	N/A	N/A

[1] All memory requirements are expressed in kilobytes (1 K-byte = 1024 bytes) and there could be a variation of around 1-2% in the numbers.

Table 4. Internal Data Memory Split-up

CONFIGURATION ID	DATA MEMORY – INTERNAL[2]		
	SHARED		INSTANCE[3]
	CONSTANTS	SCRATCH	
SCENE_OBSTRUCTION_DETECTION_001	0.08	0	-

[2] Internal memory refers to on chip memory. All memory requirements are expressed in kilobytes and there could be a variation of around 1-2% in numbers.

notes

- N/A

references

- SceneObstructionDetection_DSP_UserGuide.pdf

glossary

Constants	Elements that go into .const memory section
Scratch	Memory space that can be reused across different instances of the algorithm
Shared	Sum of Constants and Scratch
Instance	Persistent-memory that contains persistent information - allocated for each instance of the algorithm

acronyms

CIF	Common Intermediate Format
DMA	Direct Memory Access
DMAN3	DMA Manager
EVM	Evaluation Module
MV	Motion Vector
QCIF	Quarter Common Intermediate Format
QVGA	Quarter Video Graphics Array
SQCIF	Sub Quarter Common Intermediate Format
UMV	Unrestricted Motion Vectors
VGA	Video Graphics Array

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