



Test Plan Execution Report (on specific build)

Test Project: VISIONSDK

Test Plan: TDA2Px_Functional_Test_Plan

Build: REL_3_1

Printed by TestLink on 16/10/2017

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Test Project: VISIONSDK

Project: VISIONSDK Location: TII Owner: Sivasankaran, Shiju

Test Plan: TDA2Px_Functional_Test_Plan

TDA2Px Functional Test Plan

Will cover all functional test for tda2px-evm

1.1.Test Suite : SRV

1.1.1.Test Suite : CAL_SRV

1.1.1.1.Test Suite : 3D_SRV

Test Case VISIONSDK-127: CSI2_3D_SRV_OV10635_964deser

Summary:

CSI2 3D SRV UC supported on TDA2Ex/TDA2Ex 17x17 Linux

Input : OV10635 with 964 deserializer

Output : HDMI 1080P

Preconditions:

Ensure TDA2x folder present in SD card with CHARTPOS.BIN & LENS.BIN

Run SRV calibration UC if required to generate GPULUT.BIN

Verify whether display shows a smooth stitching of all 4 cameras.

All running at 30fps, Also check performance stats match with datasheet

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Boot EVM with Linux binaries	EVM boots without any error and usecase menu displayed		
2	Run "4CH CSI2 CAL capture + 3D SRV (SGX/A15) + DISPLAY - Only HDMI 1080p display supported" UC	Display must come up and no buffer drops should be observed		

Execution type: Manual

Estimated exec. duration (sec):

Priority: Medium

Execution Details

Build REL_3_1

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration (sec):

Test Case VISIONSDK-131: ISS_3D_SRV_960/964deser

Summary:

ISS 3D SRV UC

Input : IMI OV10640 / TIDA AR140 with 960 deserializer

or OV10635 with 964 deserializer

Output : HDMI 1080P

Binaries: 512MB & 128MB

Preconditions:

Ensure TDA3x folder present in SD card with CHARTPOS.BIN & LENS.BIN

Run SRV calibration UC if required to generate LUT.BIN

Verify whether display shows a smooth stitching of all 4 cameras.

All running at 30fps, Also check performance stats match with datasheet

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Go to System Settings	Capture Source should be		
	Select Capture Source as	OV10640 Sensor for SV - IMI (TDA3x ONLY) or		
	"OV10640 Sensor for SV - IMI (TDA3x ONLY)"	AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)		
	or			
	"AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)"	depending upon the hardware connected & selected by user		
2	& Display Output as HDMI 1080P	& Display device as HDMI 1080P		
	Run "3D SRV 4CH ISS capture + ISS ISP + DeWarp + Synthesis (DSP1) + Display" UC	Display must come up and no buffer drops should be observed		
		All the details in the scene should be visible. Noise levels should be very low.		

Execution type: Automated

Estimated exec. duration (sec): 60.00

Priority: Medium

Execution Details

Build REL_3_1

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration (sec):

Test Case VISIONSDK-133: ISS_3D_SRV_960/964deser_360_transition

Summary:

ISS 3D SRV UC

Input : IMI OV10640 / TIDA AR140 with 960 deserializer

or OV10635 with 964 deserializer

Output : HDMI 1080P

Preconditions:

Ensure TDA3x folder present in SD card with CHARTPOS.BIN & LENS.BIN

Run SRV calibration UC if required to generate LUT.BIN

Verify whether display shows a smooth stitching of all 4 cameras.

All running at 30fps, Also check performance stats match with datasheet

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Go to System Settings	Capture Source should be		
	Select Capture Source as	OV10640 Sensor for SV - IMI (TDA3x ONLY) or		
	"OV10640 Sensor for SV - IMI (TDA3x ONLY)"	AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)		
	or			
2	"AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)"	depending upon the hardware connected & selected by user		
	& Display Output as HDMI 1080P	& Display device as HDMI 1080P		
	Run "3D SRV 4CH ISS capture + ISS ISP + DeWarp + Synthesis (DSP1) + Display" UC	Display must come up and no buffer drops should be observed		
		All the details in the scene should be visible. Noise levels should be very low.		
3	Check for 3D SRV transition	SRV transition should cover 360 degree		
4	Check User is able to Start/Stop transition	On selecting "s"		
		Transitions should stop		
	Select "s" to Start/Stop transition	On selecting "n"		
	Select "n" to change to next View Point	Transition should happen to next view point		
	Select "r" to change to previous View Point	On selecting "r"		
		Transition should happen to previous view point		
		On selecting "s" again		

Transition should start normally

Execution type: Manual
Estimated exec. duration (sec):
Priority: Medium

Execution Details

Build REL_3_1
Tester x0246581
Execution Result: Passed
Execution Mode: Manual
Execution duration (sec):

Test Case VISIONSDK-134: ISS_3D_SRV_960/964deser_Dump_Frames

Summary:

ISS 3D SRV UC

Input : IMI OV10640 / TIDA AR140 with 960 deserializer
or OV10635 with 964 deserializer

Output : HDMI 1080P

Preconditions:

Ensure TDA3x folder present in SD card with CHARTPOS.BIN & LENS.BIN

Run SRV calibration UC if required to generate LUT.BIN

Verify whether display shows a smooth stitching of all 4 cameras.

All running at 30fps, Also check performance stats match with datasheet

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Go to System Settings	Capture Source shuld be		
	Select Capture Source as	OV10640 Sensor for SV - IMI (TDA3x ONLY) or		
	"OV10640 Sensor for SV - IMI (TDA3x ONLY)"	AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)		
	or			
	"AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)"	depending upon the hardware connected & selected by user		

2	& Display Output as HDMI 1080P	& Display device as HDMI 1080P
	Run "3D SRV 4CH ISS capture + ISS ISP + DeWarp + Synthesis (DSP1) + Display" UC	Display must come up and no buffer drops should be observed All the details in the scene should be visible. Noise levels should be very low.
3		On selecting "1"
	Select "1" to Save a Captured RAW frame from channel 0 (Will be saved in DDR)	RAW frame from channel 0 should be saved in DDR
	Select "2" to Save a DeWarp Output Frame (Will be saved in DDR)	On selecting "2"
	Select "3" to Save ISP output frames (Will be saved in MMC/SD : All channels)	DeWarp Output Frame should be saved in DDR
	Select "d" to Save Display Frame to MMC/SD card	On selecting "3"
		ISP output frames should be saved in MMC/SD : All channels
		On selecting "d"
		Display Frame should be saved to MMC/SD card

Execution type: Manual

Estimated exec.
duration (sec):

Priority: Medium

Execution Details

Build REL_3_1

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration
(sec):

Test Case VISIONSDK-135: ISS_3D_2D_SRV_960/964deser

Summary:

ISS 2D + 3D SRV UC

Input : IMI OV10640 / TIDA AR140 with 960 deserializer

or OV10635 with 964 deserializer

Output : HDMI 1080P

Preconditions:

Ensure TDA3x folder present in SD card with CHARTPOS.BIN & LENS.BIN

Run SRV calibration UC if required to generate LUT.BIN

Verify whether display shows a smooth stitching of all 4 cameras.

All running at 30fps, Also check performance stats match with datasheet

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Go to System Settings	Capture Source should be		
	Select Capture Source as	OV10640 Sensor for SV - IMI (TDA3x ONLY) or		
	"OV10640 Sensor for SV - IMI (TDA3x ONLY)"	AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)		
	or	depending upon the hardware connected & selected by user		
2	& Display Output as HDMI 1080P	& Display device as HDMI 1080P		
	Run "3D + 2D SRV 4CH ISS capture + ISS ISP + DeWarp + Synthesis (DSP1) + Display" UC	Display must come up and no buffer drops should be observed		
		All the details in the scene should be visible. Noise levels should be very low.		

Execution type: Automated

Estimated exec. duration (sec): 60.00

Priority: Medium

Execution Details

Build REL_3_1

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration (sec):

1.1.2.Test Suite : SRV_Calibration

Test Case VISIONSDK-137: SRV_Calibration_UC_auto_calibration

Summary:

SRV Calibration UC supported on TDA2x/TDA2ex/TDA3x

Input : OV10635 with 913/914 deserializer or

Imx290 with 913/914 deserializer or

OV10635 with 964 deserializer or

IMI OV10640 / TIDA AR140 with 960 deserializer

Output : HDMI 1080P (TDA2x/TDA2Ex/TDA3x) , HDMI XGA TDM mode (TDA3x ONLY)

Preconditions:

In case of TDA2x/TDA2Ex:

Ensure TDA2x folder present in SD card with CHARTPOS.BIN,LENS_2D.BIN & LENS.BIN

Run SRV calibration UC to generate PERSMAT.BIN

In case of TDA3x:

Ensure TDA3x folder present in SD card with CHARTPOS.BIN & LENS.BIN

Run SRV calibration UC to generate LUT.BIN

Verify whether display shows a smooth stitching of all 4 cameras.

All running at 30fps, Also check performance stats match with datasheet

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Go to System Settings	Capture Source should be		
	Select Capture Source as OV10635 Sensor 720P30 or	OV10635 Sensor 720P30 or		
	OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or	OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or		
	OV10640 Sensor for SV - IMI (TDA3x ONLY) or	OV10640 Sensor for SV - IMI (TDA3x ONLY) or		
		AR0140 Sensor for SV - TIDA00262 (TDA3x		

AR0140 Sensor for SV - ONLY)
 TIDA00262 (TDA3x ONLY)
 depending upon the hardware connected
 & Display device as HDMI 1080P
 & Display Output as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY)
 (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY)

Display must come up with mosaic view of all 4 cameras

2 Run "SRV Calibration" UC and no buffer drops should be observe

On selecting Auto calibration

It will detect corners for all 4 cameras & generate

3 Select Auto Calibration
 PERSMAT.BIN (in case of TDA2x/TDA2ex)

LUT.BIN (in case of TDA3x)

4 Run any SRV UC & verify the output
 SRV Output should be proper

Execution type: Manual

Estimated exec. duration (sec):

Priority: Medium

Execution Details

Build REL_3_1

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration (sec):

1.2.Test Suite : Mono_Cam

1.2.1.Test Suite : ISS

1.2.1.1.Test Suite : ISS_SingleCam_Capture_Display_OV10640

Test Case VISIONSDK-47: ISS_Capture_OV10640_LM

Summary:

Linear mode - basic ISS functionality test

ISS Single channle Capture UC with OV10640

Input : OV10640 sensor

Output : HDMI 1080P

Preconditions:

Verify that Capture/Display is running on IPU1-0 at 30fps

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
	Go to System Settings			
1	Select Capture Source as OV10640 & Display Output as HDMI 1080P	Capture Source shuld be OV10640 & Display device as HDMI 1080P		
2	Run 1CH ISS capture + ISS + Display UC	Display must come up and no buffer drops should be observed Exposure and colors should look correct. Most important - white/grey objects should not have any color cast		

Execution type: Automated

Estimated exec.
duration (sec): 60.00

Priority: Medium

Execution Details

Build REL_3_1

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration
(sec):

1.2.1.2.Test Suite : ISS_SingleCam_Capture_Display_OV2775

Test Case VISIONSDK-248: ISS_Capture_OV2775_LM**Summary:**

Linear mode - basic ISS functionality test

ISS Single channle Capture UC with OV2775

Input : OV2775 sensor

Output : HDMI 1080P

Preconditions:

Verify that Capture/Display is running on IPU1-0 at 30fps

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Go to System Settings Select Capture Source as OV2775 & Display Output as HDMI 1080P	Capture Source shuld be OV2775 & Display device as HDMI 1080P		
2	Run "1CH ISS capture + ISS ISP + ISS LDC+VTNF + Display" UC	Display must come up and no buffer drops should be observed Exposure and colors should look correct. Most important - white/grey objects should not have any color cast		

Execution type: Automated

Estimated exec. duration (sec): 60.00

Priority: Medium

Execution Details

Build REL_3_1

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration (sec):

1.3.Test Suite : Build

1.3.1.Test Suite : VSDK_Builds

Test Case VISIONSDK-249: VSDK_BIOS_different_builds**Summary:**

VSDK BIOS different configurations Build

Preconditions:

Follow UG to Install release package

All ti_cmponents (including PDK) should be part of release package

Copy all necessary components (gcc tool,linaro tool chain)

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Navigate to (vsdk_install_path)/vision_sdk/build & run make -s showconfig	Should display config for tda2xx_evm_bios_all		
2	Modify Rules.mk file to other available MAKECONFIG & run make -s showconfig	Should display config for MAKECONFIG selected		
3	run make -s -j depend & then make -s -j	Should build binaries without any error		
4	run make -s appimage	should create Appimage		
5	run make -s sbl	Should create SBL		
Execution type:	Manual			
Estimated exec. duration (sec):				
Priority:	Medium			
Attached files	<ul style="list-style-type: none"> • BIOS Different Build Config : build_vsdk.sh • build_vsdk.sh 			

Execution Details

Build REL_3_1

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration
(sec):

1.4.Test Suite : Boot_Modes

1.4.1.Test Suite : SD_Boot

Test Case VISIONSDK-273: Load_BIOS_Binaries_using_SD_Card

Summary:

Load Binaries using SD Card

supported on TDA2x/TDA2Ex/TDA2Ex Entry

Preconditions:

Build & Copy Appimage & MLO to SD card

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Insert SD card into card slot & Follow UG to set SYSBOOT PIN for SD boot	SYSBOOT PINs should be for SD boot		
2	Boot EVM	EVM should boot with binaries & Display Main Menu		

Execution type: Manual

Estimated exec.
duration (sec):

Priority: Medium

Execution Details

Build REL_3_1

Tester x0246581

Execution Result: **Passed**Execution Mode: **Manual**Execution duration
(sec):**Test Case VISIONSDK-283: Load_Linux_Binaries_using_SD_Card**

Summary:

Load Binaries using SD Card

supported on TDA2x/TDA2Ex/TDA2Ex Entry

Preconditions:

Build & Copy u-boot, MLO & File system to SD card

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Insert SD card into card slot & Follow UG to set SYSBOOT PIN for SD boot	SYSBOOT PINs should be for SD boot		
2	Boot EVM	EVM should boot with binaries &		

Display Main Menu

Execution type: Manual
 Estimated exec.
 duration (sec):
 Priority: Medium

Execution Details

Build REL_3_1
 Tester x0246581
 Execution Result: **Passed**
 Execution Mode: **Manual**
 Execution duration
 (sec):

1.4.2.Test Suite : QSPI_Boot

Test Case VISIONSDK-274: Load_Binaries_using_QSPI

Summary:

Load Binaries using QSPI

Preconditions:

Build Appimage & SBL for QSPI

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Connect EVM through CCS debug & Follow UG to set SYSBOOT PIN for CCS debug	SYSBOOT PINs should be for debug		
2	Follow UG to Flash SBL & AppImage to QSPI Discoconnect CCS &	SBL & AppImage should be flashed to QSPI		
3	Follow UG to set SYSBOOT PIN for QSPI Boot	SYSBOOT PIN should be for QSPI Boot		
4	Boot EVM	EVM should boot with binaries & Display Main Menu		

Execution type: Manual
 Estimated exec.
 duration (sec):
 Priority: Medium

Execution Details

Build REL_3_1

Tester x0246581
 Execution Result: **Passed**
 Execution Mode: **Manual**
 Execution duration
 (sec):

1.4.3.Test Suite : NFS_Boot

Test Case VISIONSDK-284: Load_Linux_Binaries_from_NFS

Summary:

Load Binaries from NFS

supported on TDA2x/TDA2Ex/TDA2Ex Entry

Preconditions:

Build & Copy u-boot, MLO & File system to SD card

Modify uenv.txt to point to filesystem from your NFS path

#:	Step actions:	Expected Results:	Execution notes:	Execution Status:
1	Insert SD card into card slot & Follow UG to set SYSBOOT PIN for SD boot	SYSBOOT PINs should be for SD boot		
2	Boot EVM	EVM should boot with binaries from NFS path & Display Main Menu		

Execution type: Manual
 Estimated exec.
 duration (sec):
 Priority: Medium

Execution Details

Build REL_3_1
 Tester x0246581
 Execution Result: **Passed**
 Execution Mode: **Manual**
 Execution duration
 (sec):