Texas Instruments

# TestLink

# Test Plan Execution Report

Test Project: VISIONSDK
Test Plan: PSDKV_Test_Plan_3_6_Functional_TDA2Px

Printed by TestLink on 03/01/2019

**Table Of Contents**

### 1.2.2.CAL_SRV

#### 1.2.2.1.2D_SRV

VISIONSDK-128: ISS_2D_SRV_960/964deser

#### 1.2.2.2.3D_SRV

VISIONSDK-131: ISS_3D_SRV_960/964deser

VISIONSDK-133: ISS_3D_SRV_960/964deser_360_transition

VISIONSDK-134: ISS_3D_SRV_960/964deser_Dump_Frames

VISIONSDK-135: ISS_3D_2D_SRV_960/964deser

VISIONSDK-144: ISS_3D_SRV_960/964deser_without_TDA3X_Folder

VISIONSDK-317: ISS_1MP_3D_SRV_with_GPU_960/964deser_L

VISIONSDK-321: ISS_3D_SRV_960/964deser_Different_Output_resolution

VISIONSDK-323: ISS_2MP_3D_SRV_with_OV2775_IMX390_Fusion_Board_L

VISIONSDK-322: ISS_1MP_3D_SRV_with_GPU_960/964deser_4CH_AEWB_L

### 1.2.3.AVB_SRV

VISIONSDK-117: AVB_4CH_NW_Capture_SRV_Dispaly

VISIONSDK-261: AVB_4CH_NW_Capture_SRV_AVBTx

### 1.2.4.SRV_Calibration

VISIONSDK-137: SRV_Calibration_UC_auto_calibration

VISIONSDK-138: SRV_Calibration_UC_manual_calibration

VISIONSDK-139: SRV_Calibration_UC_default_calibration

VISIONSDK-140: SRV_Calibration_UC_auto_calibration_Dump_Frame

VISIONSDK-141: SRV_Calibration_UC_auto_calibration_update_2D_PERSMAT

VISIONSDK-142: SRV_Calibration_UC_auto_calibration_without_MMC_SD

### 1.2.5.Adaptive_Bowl

VISIONSDK-326: ISS_2MP_3D_SRV_with_OV2775_IMX390_Fusion_Board_Change_Bowl_Position

## 1.3.Mono_Cam

### 1.3.1.VIP

#### 1.3.1.1.VIP_SingleCam_Capture_Display

VISIONSDK-2: VIP_Capture_Display_Input_OV10635_Output_HDMI_720P

VISIONSDK-5: VIP_Capture_Display_Input_OV10635_Output_HDMI_1080P

VISIONSDK-195: VIP_Capture_SGX_Copy_Display_Input_OV10635_Output_HDMI_1080P

VISIONSDK-296: VIP_Capture_Display_without_Sensor

#### 1.3.1.2.VIP_Capture_FrameCopy_Display

VISIONSDK-6: VIP_Capture_FrameCopy_A15_Display

VISIONSDK-7: VIP_Capture_FrameCopy_DSP1_Display

VISIONSDK-8: VIP_Capture_FrameCopy_EVE1_Display

VISIONSDK-196: VIP_Capture_FrameCopy_A15_SGX_Copy_Display

VISIONSDK-197: VIP_Capture_FrameCopy_EVE1_SGX_Copy_Display

VISIONSDK-202: VIP_Capture_FrameCopy_A15_Connector_Links_A15_SGX_Copy_Display

### 1.3.1.3.VIP_Capture_SubFrameCopy_Display

VISIONSDK-168: VIP_Capture_SubFrameCopy_EVE1_Display

### 1.3.1.4.VIP_Capture_IPC_Display

VISIONSDK-230: VIP_Capture_IPC_Display_Single_core

VISIONSDK-231: VIP_Capture_IPC_Display_Multi_core

### 1.3.1.5.VIP_Capture_Color_To_Gray_Display

VISIONSDK-167: VIP_Capture_Color_To_Gray_Display

### 1.3.1.6.VIP_Capture_VPE_Display

VISIONSDK-189: VIP_Capture_VPE_Display

### 1.3.1.7.VIP_SingleCam_Capture_Analytics_Display

VISIONSDK-9: VIP_Capture_Edge_detect_Display

VISIONSDK-10: VIP_Capture_DOF_1Pyramid_Display

VISIONSDK-11: VIP_Capture_DOF_2Pyramid_Display

### 1.3.1.8.VIP_Capture_Encode_Decode_Display

VISIONSDK-12: VIP_Capture_Encode_Decode_MJPEG_Display

VISIONSDK-13: VIP_Capture_Encode_Decode_H264_Display

VISIONSDK-199: VIP_Capture_Encode_Decode_MJPEG_SGX_Copy_Display

VISIONSDK-198: VIP_Capture_Encode_Decode_H264_SGX_Copy_Display

### 1.3.1.9.VIP_Capture_Safe_FrameCopy_Display

VISIONSDK-290: VIP_Capture_Safe_FrameCopy_A15_Display

### 1.3.2.HDMI

### 1.3.2.1.HDMI_Capture_Display

VISIONSDK-4: HDMI_Capture_Display_Input_HDMI_Output_HDMI

### 1.3.2.2.HDMI_Capture_Analytics_Display

VISIONSDK-14: HDMI_Capture_SOF_Display

VISIONSDK-15: HDMI_Capture_LD_Display

VISIONSDK-16: HDMI_Capture_TLR_Display

VISIONSDK-17: HDMI_Capture_PD_Display

VISIONSDK-18: HDMI_Capture_TSR_Display

VISIONSDK-19: HDMI_Capture_VD_Display

VISIONSDK-20: HDMI_Capture_PD_TSR_VD_Display

VISIONSDK-21: HDMI_Capture_FrontCam_Analytics_Display

### 1.3.3.ISS

#### 1.3.3.1.ISS_SingleCam_Capture_Display_OV10640

VISIONSDK-47: ISS_Capture_OV10640_LM

VISIONSDK-318: ISS_Capture_OV10640_LM_Performance_L

#### 1.3.3.2.ISS_SingleCam_Capture_Display_OV2775

VISIONSDK-248: ISS_Capture_OV2775_LM

#### 1.3.3.3.ISS_SingleCam_Capture_Display_AR0143

VISIONSDK-254: ISS_Capture_AR0143_LM

VISIONSDK-307: ISS_dump_frames_various_tap_points

VISIONSDK-357: ISS_Capture_OV10640_Output_ARGB32

### 1.3.4.MISC

#### 1.3.4.1.NullSrc_Null_Link

VISIONSDK-181: NullSrc_Null_UC

VISIONSDK-182: NullSrc_Decode_Display_MJPEG_Frames

VISIONSDK-183: NullSrc_Decode_Display_H264_Frames

VISIONSDK-184: NullSrc_Display_UC_DataFormat_YUV420SP

VISIONSDK-185: NullSrc_Display_UC_DataFormat_YUV422I

VISIONSDK-201: NullSrc_Decode_Display_MJPEG_Frames_L

VISIONSDK-200: NullSrc_Decode_Display_H264_Frames_L

#### 1.3.4.2.SyncLink

VISIONSDK-187: VIP_Capture_Sync_Null

#### 1.3.4.3.DupLink

VISIONSDK-165: VIP_Capture_Dup_Display

#### 1.3.4.4.MergeLink

VISIONSDK-166: VIP_Capture_Merge_Display

#### 1.3.4.5.StatisticsLogs

VISIONSDK-211: VIP_SingleCam_Capture_Display_Statistics_Logs

VISIONSDK-212: Print_PRCM_Statistics_Dpll_Status

VISIONSDK-213: Print_PRCM_Statistics_Temperature

VISIONSDK-214: Print_PRCM_Statistics_Voltage

VISIONSDK-215: Print_PRCM_Statistics_Module_Power_State

VISIONSDK-216: Print_PRCM_Statistics_CPU_Frequency

VISIONSDK-217: Print_PRCM_Statistics_Peripherals_Frequency

VISIONSDK-218: Print_PRCM_Statistics_Prcm_Register_Data

VISIONSDK-219: Print_PRCM_Statistics_Power_Consumption

VISIONSDK-220: Print_PRCM_Statistics_All_PRCM_Stats

### 1.3.4.6.FATFS

VISIONSDK-228: File_IO_UC_MMCSD_IPU1_0

### 1.3.4.7.Limp_Home_Mode

VISIONSDK-277: Limp_Home_Mode

### 1.3.4.8.Task_time_measure_utility

VISIONSDK-289: VIP_Capture_Display_task_time_measure_utility

### 1.3.4.9.TLFW_verify

VISIONSDK-309: TLFW_verification

VISIONSDK-325: VSDK_restructuring_directory_structure

### 1.3.5.ECC_FFI

VISIONSDK-121: Capture_FrameCopy_FFI_DSP1_Display

### 1.3.6.IPC_LIB

VISIONSDK-123: IPC_LIB

VISIONSDK-240: Low_Latency_IPC

## 1.4.Multi_Cam

### 1.4.1.Multi_Channel_LVDS_Capture_Display

VISIONSDK-22: VIP_4CH_Capture_Display_OV10635_913deser

VISIONSDK-23: VIP_6CH_Capture_Display_OV10635_913deser

VISIONSDK-203: VIP_4CH_Capture_SGX_Mosaic_Display_OV10635_913deser

### 1.4.2.AVB_4CH_Capture_Mosaic_Display_AVBTx

VISIONSDK-116: AVB_4CH_NW_Capture_Mosaic_Dispaly_AVBTx

VISIONSDK-258: AVB_4CH_NW_Capture_Mosaic_AVBTx

### 1.4.3.SelectLink

VISIONSDK-186: VIP_4CH_Capture_Select_Display

### 1.4.4.VIP_4CH_Capture_Color_To_Gray_Display

VISIONSDK-188: VIP_4CH_Capture_Color_To_Gray_Display

### 1.4.5.VIP_4CH_Capture_VPE_Sync_DMA_SWMS_Display

VISIONSDK-192: VIP_4CH_Capture_VPE_Sync_DMA_SWMS_Display

## 1.5.Radar

VISIONSDK-154: NullSrc_Capture_Radar_FFT_EVE1_Null_Read_Frames_SDcard

VISIONSDK-155: NullSrc_Capture_Radar_FFT_EVE1_Null_Write_Frames_SDcard

VISIONSDK-156: NullSrc_Capture_Radar_FFT_EVE1_Null_Read_Frames_NW

VISIONSDK-157: NullSrc_Capture_Radar_FFT_EVE1_Null_Write_Frames_NW

VISIONSDK-350: Radar_AR12_PCIe_Capture_Null

VISIONSDK-352: Iss_Capture_Radar_FFT_DSP1_Display

VISIONSDK-353: Tidl_Od_Radar_FFT_DSP1_Display

## 1.6.Build

### 1.6.1.VSDK_Builds

VISIONSDK-249: VSDK_BIOS_different_builds

VISIONSDK-250: VSDK_Linux_different_builds

VISIONSDK-278: VSDK_KW_build

### 1.6.2.Radar_Builds

VISIONSDK-280: Radar_BIOS_different_builds

VISIONSDK-349: Radar_Linux_build

## 1.7.Release_Process

VISIONSDK-245: VSDK_Radar_release_check_list

VISIONSDK-246: VSDK_pacckage_creation_and_installation

VISIONSDK-247: Radar_pacckage_creation_and_installation

## 1.8.Boot_Modes

### 1.8.1.SD_Boot

VISIONSDK-273: Load_BIOS_Binaries_using_SD_Card

VISIONSDK-283: Load_Linux_Binaries_using_SD_Card

### 1.8.2.QSPI_Boot

VISIONSDK-274: Load_Binaries_using_QSPI

### 1.8.3.NFS_Boot

VISIONSDK-284: Load_Linux_Binaries_from_NFS

### 1.8.4.CCS_Boot

VISIONSDK-332: Load_Binaries_using_CCS

## Test Project: VISIONSDK

Project: VISIONSDK Location: TII Owner: Sivasankaran, Shiju

## Test Plan: PSDKV_Test_Plan_3_6_Functional_TDA2Px

TDA2Px Functional Test Plan

Will cover all functional test for tda2px-evm

## 1.1.Test Suite : Network

## 1.1.1.Test Suite : TCP/IP

| Test Case VISIONSDK-100: NW_Ctrl_cmd_echo | | | |
|---|---|---|---|
| Summary: | | | |
| Network Control Command "echo" | | | |
| Preconditions: | | | |
| verify that host and target can communicate and execute command accordingly | | | |
| Boot with SD card | | | |
| Make network cable connected | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Open command prompt in host PC<br><br>Execute "echo" command using network_ctrl.exe<br><br>#network_ctrl --ipaddr <ipaddr> [--port <server port>] --cmd <command string> <command parameters> | EVM should not hang, and network command should work according to command on target side | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>m_nw | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

| Test Case VISIONSDK-101: NW_Ctrl_cmd_sys_reset | | | |
|---|---|---|---|
| Summary: | | | |
| Network Control Command "sys_reset" | | | |
| Preconditions: | | | |
| verify that host and target can communicate and execute command accordingly | | | |
| Boot with SD card | | | |
| Make network cable connected | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Open command prompt in host PC | EVM should not hang, and network command should work according to command on target | |

| | Execute "sys_reset" command using network_ctrl.exe<br><br>#network_ctrl --ipaddr <ipaddr> [--port <server port>] --cmd <command string> <command parameters> | side | |
|---|---|---|---|

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

<br>

| **Test Case VISIONSDK-102: NW_Ctrl_cmd_qspi_wr** |
|---|
| Summary: |
| Network Control Command "qspi_wr" |
| Preconditions: |
| verify that host and target can communicate and execute command accordingly |
| Boot with SD card |
| Make network cable connected |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Open command prompt in host PC<br><br>Execute "qspi_wr" command using network_ctrl.exe<br><br>#network_ctrl --ipaddr <ipaddr> [--port <server port>] --cmd <command string> <command parameters> | EVM should not hang, and network command should work according to command on target side | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-103: NW_Ctrl_cmd_mem_rd**

| Summary: |
| --- |
| Network Control Command "mem_rd" |

| Preconditions: |
| --- |
| verify that host and target can communicate and execute command accordingly |
| Boot with SD card |
| Make network cable connected |

| #: | Step actions: | Expected Results: | Execution Status: |
| --- | --- | --- | --- |
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Open command prompt in host PC<br><br>Execute "mem_rd" command using network_ctrl.exe<br><br>#network_ctrl --ipaddr <ipaddr> [--port <server port>] --cmd <command string> <command parameters> | EVM should not hang, and network command should work according to command on target side | |

| Execution type: | Manual |
| --- | --- |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |

| **Execution Details** | |
| --- | --- |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

<br>

**Test Case VISIONSDK-104: NW_Ctrl_cmd_mem_wr**

| Summary: |
| --- |
| Network Control Command "mem_wr" |

| Preconditions: |
| --- |
| verify that host and target can communicate and execute command accordingly |
| Boot with SD card |
| Make network cable connected |

| #: | Step actions: | Expected Results: | Execution Status: |
| --- | --- | --- | --- |
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Open command prompt in host PC<br><br>Execute "mem_wr" command using network_ctrl.exe<br><br>#network_ctrl --ipaddr <ipaddr> [--port <server port>] --cmd <command string> <command parameters> | EVM should not hang, and network command should work according to command on target side | |

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

| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP |
|---|---|
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

| **Test Case VISIONSDK-105: NW_Ctrl_cmd_mem_save** | | | |
|---|---|---|---|
| Summary: | | | |
| Network Control Command "mem_save" | | | |
| Preconditions: | | | |
| verify that host and target can communicate and execute command accordingly | | | |
| Boot with SD card | | | |
| Make network cable connected | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Open command prompt in host PC<br><br>Execute "mem_save" command using network_ctrl.exe<br><br>#network_ctrl --ipaddr <ipaddr> [--port <server port>] --cmd <command string> <command parameters> | EVM should not hang, and network command should work according to command on target side | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

---

| **Test Case VISIONSDK-106: NW_Rx_Display** |
|---|
| Summary: |
| Network Rx Display UC |
| Input : RAW frames |
| Output : HDMI 1080P |
| Preconditions: |

verify that host and target can communicate and execute command accordingly

Boot with SD card

Make network cable connected

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "Network RX + Display" UC under Network UCs | UC should run without any issues | |
| 3 | Open command prompt in host PC & Send RAW frames to target using network_tx.exe<br># network_tx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1263: Null & NullSrc clean-up to move Networking RX/Tx functionalities to new network_rx and network_tx li<br>ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP<br>ADASVISION-1871: IPv6 support configuration<br>ADASVISION-2016: [networking] A15 performance optimization |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>c_stress<br>c_stability<br>m_nw |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-107: NW_Rx_Decode_Display_MJPEG_Frames**

Summary:

Network Rx Decode Display UC

Input : MPEG Encoded frames

Output : HDMI 1080P

Preconditions:

verify that host and target can communicate and execute command accordingly

Boot with SD card

Make network cable connected

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "Network RX + Decode + Display (TDA2x ONLY)" UC under Network UCs | UC should run without any issues | |
| 3 | Open command prompt in host PC & Send MJPEG Encode frames to target using network_tx.exe<br># network_tx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration | |

| | |
|---|---|
| (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-108: NW_Rx_Decode_Display_H264_Frames**

Summary:

Network Rx Decode Display UC

Input : H264Encoded frames

Output : HDMI 1080P

Preconditions:

verify that host and target can communicate and execute command accordingly

Boot with SD card

Make network cable connected

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "Network RX + Decode + Display (TDA2x ONLY)" UC under Network UCs | UC should run without any issues | |
| 3 | Open command prompt in host PC & Send H264 Encode frames to target using network_tx.exe<br># network_tx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-109: SingleCam_Capture_NW_Tx**

Summary:

1 Channel capture + Network Tx UC

| Preconditions: |
| --- |
| verify that host and target can communicate and execute command accordingly |
| Boot with SD card |
| Make network cable connected |

| #: | Step actions: | Expected Results: | Execution Status: |
| --- | --- | --- | --- |
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP Capture + Network TX" UC under Network UCs | UC should run without any issues | |
| 3 | Open command prompt in host PC & Recieve RAW frames from target using network_rx.exe<br># network_rx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| Execution type: | Manual |
| --- | --- |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1263: Null & NullSrc clean-up to move Networking RX/Tx functionalities to new network_rx and network_tx li<br>ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP<br>ADASVISION-1696: Improve error diagnostic information in network_rx for the network tools |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>m_nw |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-110: MultiCam_Capture_NW_Tx**

| Summary: |
| --- |
| 4 Channel VIP capture + Network Tx UC |

| Preconditions: |
| --- |
| verify that host and target can communicate and execute command accordingly |
| Boot with SD card |
| Make network cable connected |

| #: | Step actions: | Expected Results: | Execution Status: |
| --- | --- | --- | --- |
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH VIP Capture + Network TX" UC under Network UCs | UC should run without any issues | |
| 3 | Open command prompt in host PC & Recieve RAW frames from target using network_rx.exe<br># network_rx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| Execution type: | Manual |
| --- | --- |
| Estimated exec. duration | |

| (sec): | |
|---|---|
| Priority: | Medium |
| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP<br>ADASVISION-1696: Improve error diagnostic information in network_rx for the network tools |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

<br>

| **Test Case VISIONSDK-111: SingleCam_Capture_Encode_NW_Tx** | | | |
|---|---|---|---|
| Summary: | | | |
| 1 Channel capture + Encode + Network Tx UC | | | |
| Preconditions: | | | |
| verify that host and target can communicate and execute command accordingly | | | |
| Boot with SD card | | | |
| Make network cable connected | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP Capture + Encode + Network TX (TDA2x ONLY)" UC under Network UCs | UC should run without any issues | |
| 3 | Open command prompt in host PC & Recieve RAW frames from target using network_rx.exe<br># network_rx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP<br>ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP<br>ADASVISION-1696: Improve error diagnostic information in network_rx for the network tools |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.1.2.Test Suite : TFDTP

**Test Case VISIONSDK-234: NW_Rx_Display_TFDTP**

Summary:

Network Rx Display UC using TFDTP

Input : RAW frames

Output : HDMI 1080P

Preconditions:

Binaries should be built with NSP_TFDTP_INCLUDE=yes

verify that host and target can communicate and execute command accordingly

Boot with SD card

Make network cable connected

| #: | Step actions: | Expected Results: | Execution Status: |
|----|---------------|-------------------|-------------------|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "Network RX + Display" UC under Network UCs | UC should run without any issues | |
| 3 | Select TFDTP | TFDTP should be selected | |
| 4 | Open command prompt in host PC & Send RAW frames to target using network_tx.exe<br># network_tx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1135: TFDTP integration with VSDK<br>ADASVISION-1181: Retransmit support in TFDTP receive<br>ADASVISION-1183: TFDTP support on A15<br>ADASVISION-2016: [networking] A15 performance optimization |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-235: NW_Rx_Decode_Display_MJPEG_Frames_TFDTP**

Summary:

Network Rx Decode Display UC using TFDTP

Input : MPEG Encoded frames

Output : HDMI 1080P

Preconditions:

Binaries should be built with NSP_TFDTP_INCLUDE=yes

verify that host and target can communicate and execute command accordingly

Boot with SD card

Make network cable connected

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "Network RX + Decode + Display (TDA2x ONLY)" UC under Network UCs | UC should run without any issues | |
| 3 | Select TFDTP | TFDTP should be selected | |
| 4 | Open command prompt in host PC & Send MJPEG Encode frames to target using network_tx.exe<br># network_tx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| | |
| Requirements | ADASVISION-1135: TFDTP integration with VSDK<br>ADASVISION-1183: TFDTP support on A15 |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| Test Case VISIONSDK-236: NW_Rx_Decode_Display_H264_Frames_TFDTP |
|---|
| Summary: |

Network Rx Decode Display UC using TFDTP

Input : H264Encoded frames

Output : HDMI 1080P

Preconditions:

Binaries should be built with NSP_TFDTP_INCLUDE=yes

verify that host and target can communicate and execute command accordingly

Boot with SD card

Make network cable connected

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "Network RX + Decode + Display (TDA2x ONLY)" UC under Network UCs | UC should run without any issues | |
| 3 | Select TFDTP | TFDTP should be selected | |
| 4 | Open command prompt in host PC & Send H264 Encode frames to target using network_tx.exe<br># network_tx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration | |

| (sec): | |
|---|---|
| Priority: | Medium |
| Requirements | ADASVISION-1135: TFDTP integration with VSDK |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>c_stress<br>c_stability<br>m_nw |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## Test Case VISIONSDK-237: SingleCam_Capture_NW_Tx_TFDTP

Summary:

Single Channel capture + Network Tx UC using TFDTP

Preconditions:

Binaries should be built with NSP_TFDTP_INCLUDE=yes

verify that host and target can communicate and execute command accordingly

Boot with SD card

Make network cable connected

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP Capture + Network TX" UC under Network UCs | UC should run without any issues | |
| 3 | Select TFDTP | TFDTP should be selected | |
| 4 | Open command prompt in host PC & Recieve RAW frames from target using network_rx.exe<br># network_rx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1135: TFDTP integration with VSDK<br>ADASVISION-1696: Improve error diagnostic information in network_rx for the network tools | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## Test Case VISIONSDK-238: MultiCam_Capture_NW_Tx_TFDTP

**Summary:**

4 Channel VIP capture + Network Tx UC using TFDTP

**Preconditions:**

Binaries should be built with NSP_TFDTP_INCLUDE=yes

verify that host and target can communicate and execute command accordingly

Boot with SD card

Make network cable connected

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH VIP Capture + Network TX" UC under Network UCs | UC should run without any issues | |
| 3 | Select TFDTP | TFDTP should be selected | |
| 4 | Open command prompt in host PC & Recieve RAW frames from target using network_rx.exe<br># network_rx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1135: TFDTP integration with VSDK<br>ADASVISION-1696: Improve error diagnostic information in network_rx for the network tools |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

**Test Case VISIONSDK-239: SingleCam_Capture_Encode_NW_Tx_TFDTP**

**Summary:**

Single Channel capture + Encode + Network Tx UC using TFDTP

**Preconditions:**

Binaries should be built with NSP_TFDTP_INCLUDE=yes

verify that host and target can communicate and execute command accordingly

Boot with SD card

Make network cable connected

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP Capture + Encode + Network TX (TDA2x ONLY)" UC under Network UCs | UC should run without any issues | |
| 3 | Select TFDTP | TFDTP should be selected | |
| 4 | Open command prompt in host PC & Recieve RAW frames from target using network_rx.exe<br># network_rx --host_ip <ipaddr> --target_ip <ipaddr> [--port <server port> --usetfdtp --verbose --no_loop --delay <delay in secs>] --files <CH0 file> <CH1 file> | EVM should not hang, and network command should work according to command on target side | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1135: TFDTP integration with VSDK<br>ADASVISION-1696: Improve error diagnostic information in network_rx for the network tools |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>m_nw |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.2.Test Suite : SRV

## 1.2.1.Test Suite : VIP_SRV

### 1.2.1.1.Test Suite : 2D_SRV

**Test Case VISIONSDK-124: VIP_2D_SRV_OV10635_913deser**

| Summary: |
| --- |
| VIP 2D SRV UC supported on TDA2x/TDA2Ex/TDA3x |
| Input : OV10635 with 913/914 deserializer |
| Output : HDMI 1080P (TDA2x/TDA2Ex) , 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

Run SRV calibration to genearte PERSMAT.BIN if required

In case of TDA3x:

Ensure TDA3x folder present in SD card with CHARTPOS.BIN & LENS_2D.BIN

Run SRV calibration to genearte LUT.BIN if required

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 Status: |
| --- | --- | --- | --- |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P (TDA2x/TDA2Ex), HDMI XGA TDM mode (TDA3x ONLY) | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P (TDA2x/TDA2Ex), HDMI XGA TDM mode (TDA3x ONLY) | |
| 2 | Run "4CH VIP Capture + Surround View (DSP) + Display (HDMI)" UC | Display must come up and no buffer drops should be observe | |

| | |
| --- | --- |
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1275: VIP Capture Link to support Multi channel capture<br>ADASVISION-1280: VIP Capture Link to support Inline scaling both down scale and upscale<br>ADASVISION-1290: VIP Capture Link - Detect VIP port overflow & Reset<br>ADASVISION-1295: Display Link support for various input data formats<br>ADASVISION-1300: Display Link - Video window positioning support<br>ADASVISION-1308: Display Link - support for custom resolutions<br>ADASVISION-1321: Display Link - Support 8-bit TDM mode display<br>ADASVISION-1582: Shall support LVDS multi-channel capture upto 4 channel<br>ADASVISION-1584: Shall support all the Bios single multi camera usecases which use one DSP & M4<br>ADASVISION-830: For all SRV - DSP load optimization using SIMD |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>c_qualification<br>m_capture<br>m_display |

| Execution Details | |
|---|---|
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-146: VIP_2D_SRV_OV10635_913deser_without_TDAXX_Folder**

Summary:

VIP 2D SRV UC supported on TDA2x/TDA2Ex/TDA3x

Input : OV10635 with 913/914 deserializer

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

Preconditions:

In case of TDA2x/TDA2Ex:

Ensure TDA2x folder not present in SD card

In case of TDA3x:

Ensure TDA3x folder not present in SD card

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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P (TDA2x/TDA2Ex), HDMI XGA TDM mode (TDA3x ONLY) | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P (TDA2x/TDA2Ex), HDMI XGA TDM mode (TDA3x ONLY) | |
| 2 | Run "4CH VIP Capture + Surround View (DSP) + Display (HDMI)" UC | Display must come up and no buffer drops should be observe | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1275: VIP Capture Link to support Multi channel capture<br>ADASVISION-830: For all SRV - DSP load optimization using SIMD |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |

| Execution Details | |
|---|---|
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.2.1.2.Test Suite : 3D_SRV

**Test Case VISIONSDK-125: VIP_3D_SRV_OV10635_913deser**

Summary:

VIP 3D SRV UC supported on TDA2x/TDA2Ex/TDA2Px

Input : OV10635 with 913/914 deserializer

   or OV10640 with 913/914 deserializer (apply IMI kernel patch)

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 Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH VIP LVDS capture + 3D SRV (SGX/A15) + DISPLAY - Only HDMI 1080p display supported" UC | Display must come up and no buffer drops should be observe | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1184: IMI camera Linux kernel patch<br>ADASVISION-1188: GPU application to allow Both fragment and Vertex shader to work in parallel<br>ADASVISION-1417: Open GL support<br>ADASVISION-1418: DRM display<br>ADASVISION-1420: 3D surround view demo<br>ADASVISION-1585: TDA2Ex - shall support all the Linux single & multi camera usecases which use one DSP, A15 & M4<br>ADASVISION-1596: Support VSDK Linux GPU Off-screen rendering & M4 side display<br>ADASVISION-1767: SGX- system_egl & system_gb layers to support imported gbm_surfaces for GPU optimization<br>ADASVISION-830: For all SRV - DSP load optimization using SIMD<br>ADASVISION-887: Common Linux side Links (including SRV links) for VSDK Linux & InfoAdas<br>ADASVISION-911: Sync on Linux Vision SDK |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>c_stress<br>c_qualification<br>c_stability<br>m_capture<br>m_display |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-147: VIP_3D_SRV_OV10635_913deser_without_TDA2X_Folder**

| Summary: |
|---|

VIP 3D SRV UC supported on TDA2x/TDA2Ex

Input : OV10635 with 913/914 deserializer

Output : HDMI 1080P

Preconditions:

Ensure TDA2x folder not present in SD card

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 Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH VIP LVDS capture + 3D SRV (SGX/A15) + DISPLAY - Only HDMI 1080p display supported" UC | It throws error | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1420: 3D surround view demo ADASVISION-830: For all SRV - DSP load optimization using SIMD ADASVISION-911: Sync on Linux Vision SDK | | |
| Keywords: | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

**Test Case VISIONSDK-253: VIP_3D_SRV_OV10635_913deser_MultipleTimes**

Summary:

VIP 3D SRV UC supported on TDA2x/TDA2Ex

Input : OV10635 with 913/914 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 Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH VIP LVDS capture + 3D SRV (SGX/A15) + DISPLAY - Only HDMI 1080p display supported" UC | Display must come up and no buffer drops should be observe | |
| 3 | Stop UC | Should stop the UC & display MAin menu | |
| 4 | Stop the application (apps.out) & rerun application | should be able to rerun application | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1184: IMI camera Linux kernel patch ADASVISION-830: For all SRV - DSP load optimization using SIMD ADASVISION-887: Common Linux side Links (including SRV links) for VSDK Linux & InfoAdas ADASVISION-911: Sync on Linux Vision SDK | | |
| Keywords: | tda2xx-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |

| Tester | x0246581 |
|---|---|
| Execution Result: | **Failed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |
| Execution notes | ADASVISION-1836: [TDA2Px] Running Back to Back 2MP 3D SRV UC failed<br>Applicable for all sgx based SRV |

## 1.2.2. Test Suite : CAL_SRV

### 1.2.2.1. Test Suite : 2D_SRV

| Test Case VISIONSDK-128: ISS_2D_SRV_960/964deser | | | |
|---|---|---|---|
| **Summary:** | | | |
| ISS 2D 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 Status:** |
| 1 | Go to System Settings<br><br>Select Capture Source as<br><br>"OV10640 Sensor for SV - IMI (TDA3x ONLY)"<br><br>or<br><br>"AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)"<br><br>& Display Output as HDMI 1080P | Capture Source shuld be<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected & selected by user<br><br>& Display device as HDMI 1080P | |
| 2 | Run "4CH ISS capture + ISS ISP + Simcop + Surround View (DSP1) +  Display" UC | Display must come up and no buffer drops should be observe | |
| **Execution type:** | Automated | | |
| **Estimated exec. duration (sec):** | 60.00 | | |
| **Priority:** | Medium | | |
| **Requirements** | ADASVISION-1396: 4ch 2D surround view with OV10640 Bayer sensors<br>ADASVISION-1579: low cost surround view with TDA3x | | |
| **Keywords:** | tda3xx-evm<br>tda3xx_rvp<br>c_qualification<br>m_iss | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| **Execution Result:** | **Passed** | | |
| **Execution Mode:** | **Manual** | | |
| **Execution duration (sec):** | | | |

### 1.2.2.2. Test Suite : 3D_SRV

**Test Case VISIONSDK-131: ISS_3D_SRV_960/964deser**

Summary:

ISS 3D SRV UC

Input : IMI OV10640 / TIDA AR140 / TIDA AR143 with 960/964 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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as<br><br>"OV10640 Sensor for SV - IMI (TDA3x ONLY)"<br><br>or<br><br>"AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)"<br><br>& Display Output as HDMI 1080P | Capture Source shuld be<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected & selected by user<br><br>& Display device as HDMI 1080P | |
| 2 | Run "3D SRV 4CH ISS capture + ISS ISP + DeWarp + Synthesis (DSP1) + Display" UC | Display must come up and no buffer drops should be observed<br><br>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 |
| Requirements | ADASVISION-1037: TDA3x 3D SRV: Improve imaging for SRV with Improve AE stability & Integrate Photometric alignment<br>ADASVISION-1068: TDA3x 3D SRV : Auto calculate number of slice parameters<br>ADASVISION-1069: TDA3c 3D SRV: Lens type : Distortion table<br>ADASVISION-1071: TDA3x 3D SRV : Boot time optimization<br>ADASVISION-1087: Support synchronization of camera in UB964<br>ADASVISION-1090: Update TI logo<br>ADASVISION-1257: AR0143 Sensor Support<br>ADASVISION-1295: Display Link support for various input data formats<br>ADASVISION-1298: Display Link - Progressive mode display<br>ADASVISION-1300: Display Link - Video window positioning support<br>ADASVISION-1304: Display Link - Display Multi instance support<br>ADASVISION-1306: Display Link - HDMI display support<br>ADASVISION-1307: Display Link - Support for standard display resolutions<br>ADASVISION-1308: Display Link - support for custom resolutions<br>ADASVISION-1309: Display Link - Blending support of Grpx and Video planes<br>ADASVISION-1310: Display Link - Blending support for Video planes<br>ADASVISION-1311: Display Link - Color keying support<br>ADASVISION-1312: Display Link - Set back Ground Color of VENC<br>ADASVISION-1317: Display Link - Transparency Color Key Selection support<br>ADASVISION-1318: Display Link - VENC section<br>ADASVISION-1324: multi sensors support<br>ADASVISION-1325: support LVDS capture<br>ADASVISION-1326: Support OV10640 Raw/Bayer sensors<br>ADASVISION-1456: ISS capture - mode<br>ADASVISION-1457: ISS capture - interface<br>ADASVISION-1458: ISS capture - CSI2 mode<br>ADASVISION-1459: ISS capture - resolution<br>ADASVISION-1461: ISS capture - packing<br>ADASVISION-1466: ISS multi-channel capture<br>ADASVISION-1467: ISS M2M -ISP - GLBCE selection<br>ADASVISION-1468: ISS M2M -ISP - resizer<br>ADASVISION-1469: ISS M2M -ISP - output dataformat |

ADASVISION-1470: ISS M2M -ISP - input data format
ADASVISION-1471: ISS M2M -ISP - NF
ADASVISION-1472: ISS M2M -ISP - WDR modes
ADASVISION-1473: ISS M2M -ISP - resizer
ADASVISION-1474: ISS M2M -ISP multiple instance
ADASVISION-1475: ISS M2M - H3A
ADASVISION-1477: ISS M2M (LDC + VTNF) - LDC selection
ADASVISION-1478: ISS M2M (LDC + VTNF) - LDC data format
ADASVISION-1479: ISS M2M (LDC + VTNF) - VTNF data format
ADASVISION-1480: ISS M2M (LDC + VTNF) - LDC create time config
ADASVISION-1481: ISS M2M (LDC + VTNF) - VTNF create time config
ADASVISION-1482: ISS M2M (LDC + VTNF) - general
ADASVISION-1483: ISS M2M RSZ - resizer
ADASVISION-1484: ISS M2M RSZ - output dataformat
ADASVISION-1485: ISS M2M RSZ - input data format
ADASVISION-1486: ISS M2M RSZ - Multi scale (pyramid generation for PD/TSR etc)
ADASVISION-1487: ISS M2M RSZ - multi-instance
ADASVISION-1488: ISS M2M RSZ - multi-instance with ISP M2M
ADASVISION-1489: ISS M2M RSZ - multi-CH
ADASVISION-1579: low cost surround view with TDA3x
ADASVISION-1606: Algo Link DeWarp for multiple channel LDC correction.
ADASVISION-1621: ISS: Capture Link & M2M ISP : Support MIPI RAW 12 dataformat
ADASVISION-1643: ISP Based SRV : Split LUT's
ADASVISION-1644: ISP Based SRV: Configurable blend seam angle
ADASVISION-1645: ISP Based SRV: Configurable blend seam start point
ADASVISION-1647: ISP Based SRV: Compression of LUT's
ADASVISION-1684: ISP Based SRV: Updated interface of Mesh Generation Tool
ADASVISION-1685: ISP Based SRV: Parametric transition between view points
ADASVISION-1686: ISP Based SRV: Adaptive bowl support on LDC Surroundview
ADASVISION-1687: ISP Based SRV: Compression and reorganization of V2W Table(s)
ADASVISION-1688: ISP Based SRV: Generating Car Box Edges/view
ADASVISION-1701: AR143 (MARs) Camera and Fusion board support on TDA2Px
ADASVISION-1709: TDA3x SRV: Add multi camera harmonization
ADASVISION-1786: SerDes cleanup for ISS sensor drivers
ADASVISION-830: For all SRV - DSP load optimization using SIMD
ADASVISION-889: 3D SRV on TDA3x Ã¢Ã€Â" Enhancements
ADASVISION-932: TDA3x 3D SRV on 128MB memory map
ADASVISION-962: TDA3x 3D SRV: Enabling 2A and WDR

| Keywords: | tda3xx-evm<br>tda3xx_rvp<br>c_qualification |
|---|---|
| **Execution Details** | |
| Build | REL_3_6 |
| 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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as | Capture Source shuld be<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or | |

| | | | |
|---|---|---|---|
| | "OV10640 Sensor for SV - IMI (TDA3x ONLY)"<br><br>or<br><br>"AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)"<br><br>& Display Output as HDMI 1080P | AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected & selected by user<br><br>& Display device as HDMI 1080P | |
| 2 | Run "3D SRV 4CH ISS capture + ISS ISP + DeWarp + Synthesis (DSP1) + Display" UC | Display must come up and no buffer drops should be observed<br><br>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<br><br>Select "s" to Start/Stop transition<br><br>Select "n" to change to next View Point<br><br>Select "r" to change to previous View Point | On selecting "s"<br><br>Transitions should stop<br><br>On selecting "n"<br><br>Transition should happen to next view point<br><br>On selecting "r"<br><br>Transition should happen to previous view point<br><br>On selecting "s" again<br><br>Transition should start normally | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1036: TDA3x 3D SRV: 360 degree flyaround (Phase 1)<br>ADASVISION-1037: TDA3x 3D SRV: Improve imaging for SRV with Improve AE stability & Integrate Photometric alignment<br>ADASVISION-1068: TDA3x 3D SRV : Auto calculate number of slice parameters<br>ADASVISION-1069: TDA3c 3D SRV: Lens type : Distortion table<br>ADASVISION-1071: TDA3x 3D SRV : Boot time optimization<br>ADASVISION-1527: API config outbound check<br>ADASVISION-1736: Enable AEWB for all 4 Channels for ISS based 3D SRV on TDA2Px and TDA3x<br>ADASVISION-889: 3D SRV on TDA3x Ã¢Â€Â" Enhancements<br>ADASVISION-962: TDA3x 3D SRV: Enabling 2A and WDR |
| Keywords: | tda3xx-evm<br>tda3xx_rvp<br>c_integration |
| **Execution Details** | |
| Build | REL_3_6 |
| 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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as<br><br>"OV10640 Sensor for SV - IMI (TDA3x ONLY)"<br><br>or<br><br>"AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)"<br><br>& Display Output as HDMI 1080P | Capture Source shuld be<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected & selected by user<br><br>& Display device as HDMI 1080P | |
| 2 | Run "3D SRV 4CH ISS capture + ISS ISP + DeWarp + Synthesis (DSP1) + Display" UC | Display must come up and no buffer drops should be observed<br><br>All the details in the scene should be visible. Noise levels should be very low. | |
| 3 | Select "1" to Save a Captured RAW frame from channel 0 (Will be saved in DDR)<br><br>Select "2" to Save a DeWarp Output Frame (Will be saved in DDR)<br><br>Select "3" to Save ISP output frames (Will be saved in MMC/SD : All channels)<br><br>Select "d" to Save Display Frame to MMC/SD card | On selecting "1"<br><br>RAW frame from channel 0 should be saved in DDR<br><br>On selecting "2"<br><br>DeWarp Output Frame should be saved in DDR<br><br>On selecting "3"<br><br>ISP output frames should be saved in MMC/SD : All channels<br><br>On selecting "d"<br><br>Display Frame should be saved to MMC/SD card | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1036: TDA3x 3D SRV: 360 degree flyaround (Phase 1)<br>ADASVISION-1037: TDA3x 3D SRV: Improve imaging for SRV with Improve AE stability & Integrate Photometric alignment<br>ADASVISION-1068: TDA3x 3D SRV : Auto calculate number of slice parameters<br>ADASVISION-1069: TDA3c 3D SRV: Lens type : Distortion table<br>ADASVISION-1071: TDA3x 3D SRV : Boot time optimization<br>ADASVISION-1542: Algorithm Link Support (Framework and Skeleton portion)<br>ADASVISION-1543: Algorithm Link Support for all CPU cores<br>ADASVISION-1544: Algorithm Link Support Prioritization<br>ADASVISION-1545: Algorithm Link Support Multiple instantiation<br>ADASVISION-1546: Algorithm Link Support Multiple input and output queues<br>ADASVISION-1547: Algorithm Link Support Multiple input channels<br>ADASVISION-1548: Algorithm Link Support Out of order release of input and output buffers<br>ADASVISION-1549: Algorithm Link Support Memory allocations<br>ADASVISION-1550: Algorithm Link Support DSP subsystem DMA resource allocations<br>ADASVISION-1551: Algorithm Link Support EVE subsystem DMA resource allocations<br>ADASVISION-1552: Algorithm Link Support System DMA resource allocations<br>ADASVISION-1553: Algorithm Link Support In place computation support<br>ADASVISION-1554: Algorithm Link Support Non-In place computation support<br>ADASVISION-1555: Algorithm Link Support Multiple Algos<br>ADASVISION-1556: Algorithm Link Support Alg Configurations<br>ADASVISION-889: 3D SRV on TDA3x ¢Â€Â" Enhancements<br>ADASVISION-962: TDA3x 3D SRV: Enabling 2A and WDR | | |
| Keywords: | tda3xx-evm<br>tda3xx_rvp | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| 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 / TIDA AR143 with 960/964 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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as<br><br>"OV10640 Sensor for SV - IMI (TDA3x ONLY)"<br><br>or<br><br>"AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)"<br><br>& Display Output as HDMI 1080P | Capture Source shuld be<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected & selected by user<br><br>& Display device as HDMI 1080P |  |
| 2 | 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<br><br>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 |
| Requirements | ADASVISION-1398: IPC between M4s<br>ADASVISION-1399: IPC between DSPs<br>ADASVISION-1402: IPC between M4 & DSP<br>ADASVISION-1403: IPC between M4 & EVE<br>ADASVISION-1405: IPC between DSP & EVE<br>ADASVISION-1410: shall support link sendcmd across all cores<br>ADASVISION-1466: ISS multi-channel capture<br>ADASVISION-1467: ISS M2M -ISP - GLBCE selection<br>ADASVISION-1468: ISS M2M -ISP - resizer<br>ADASVISION-1469: ISS M2M -ISP - output dataformat<br>ADASVISION-1470: ISS M2M -ISP - input data format<br>ADASVISION-1472: ISS M2M -ISP - WDR modes<br>ADASVISION-1473: ISS M2M -ISP - resizer<br>ADASVISION-1474: ISS M2M -ISP multiple instance<br>ADASVISION-1475: ISS M2M - H3A<br>ADASVISION-1476: ISS M2M sub-frame<br>ADASVISION-1483: ISS M2M RSZ - resizer<br>ADASVISION-1484: ISS M2M RSZ - output dataformat<br>ADASVISION-1485: ISS M2M RSZ - input data format<br>ADASVISION-1487: ISS M2M RSZ - multi-instance<br>ADASVISION-1488: ISS M2M RSZ - multi-instance with ISP M2M<br>ADASVISION-1489: ISS M2M RSZ - multi-CH<br>ADASVISION-1490: Algorithm Link ISS 2A - Auto-exposure using H3A data as input<br>ADASVISION-1491: Algorithm Link ISS 2A - Auto-white balance using H3A data as input<br>ADASVISION-1492: Algorithm Link ISS 2A - Auto-exposure for WDR mode operation using H3A data as input<br>ADASVISION-1493: Algorithm Link ISS 2A - multi-CH mode of operation for H3A for surround view cameras<br>ADASVISION-1503: ESM support<br>ADASVISION-1504: DAP MPU support<br>ADASVISION-1518: Synchronization of frames across multiple channels |

|  |  |
|---|---|
| | ADASVISION-1519: duplication of output<br>ADASVISION-1520: Merging of multiple outputs<br>ADASVISION-1701: AR143 (MARs) Camera and Fusion board support on TDA2Px<br>ADASVISION-882: 2D+3D SRV on TDA3x |
| Keywords: | tda3xx-evm<br>tda3xx_rvp<br>c_regression<br>c_stress<br>c_qualification<br>c_stability<br>m_iss<br>m_algorithm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| **Test Case VISIONSDK-144: ISS_3D_SRV_960/964deser_without_TDA3X_Folder** | | | |
|---|---|---|---|
| Summary:<br><br>ISS 3D SRV UC<br><br>Input : IMI OV10640 / TIDA AR140 with 960 deserializer<br><br>    or OV10635 with 964 deserializer<br><br>Output : HDMI 1080P | | | |
| Preconditions:<br><br>Ensure TDA3x folder not present in SD card<br><br>Verify whether display shows a smooth stitching of all 4 cameras.<br><br>All running at 30fps, Also check performance stats match with datasheet | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Go to System Settings<br><br>Select Capture Source as<br><br>"OV10640 Sensor for SV - IMI (TDA3x ONLY)"<br><br>or<br><br>"AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)"<br><br>& Display Output as HDMI 1080P | Capture Source shuld be<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected & selected by user<br><br>& Display device as HDMI 1080P | |
| 2 | Run "3D SRV 4CH ISS capture + ISS ISP + DeWarp + Synthesis (DSP1) + Display" UC | It throws error | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1036: TDA3x 3D SRV: 360 degree flyaround (Phase 1)<br>ADASVISION-1037: TDA3x 3D SRV: Improve imaging for SRV with Improve AE stability & Integrate Photometric alignment<br>ADASVISION-1068: TDA3x 3D SRV : Auto calculate number of slice parameters<br>ADASVISION-1069: TDA3c 3D SRV: Lens type : Distortion table<br>ADASVISION-1071: TDA3x 3D SRV : Boot time optimization<br>ADASVISION-1167: Error handling requirements<br>ADASVISION-1526: Error handling<br>ADASVISION-962: TDA3x 3D SRV: Enabling 2A and WDR | | |
| Keywords: | tda3xx-evm<br>tda3xx_rvp | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |

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

**Test Case VISIONSDK-317: ISS_1MP_3D_SRV_with_GPU_960/964deser_L**

Summary:

ISS 3D SRV UC supported on TDA2Px linux

Input : IMI OV10640 / TIDA AR140 with 960/964 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 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 Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH ISS Capture + ISP + 3DSRV + SGX + Display" UC | Display must come up and no buffer drops should be observed<br><br>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 |
| Requirements | ADASVISION-1188: GPU application to allow Both fragment and Vertex shader to work in parallel<br>ADASVISION-1466: ISS multi-channel capture<br>ADASVISION-1467: ISS M2M -ISP - GLBCE selection<br>ADASVISION-1468: ISS M2M -ISP - resizer<br>ADASVISION-1469: ISS M2M -ISP - output dataformat<br>ADASVISION-1470: ISS M2M -ISP - input data format<br>ADASVISION-1471: ISS M2M -ISP - NF<br>ADASVISION-1472: ISS M2M -ISP - WDR modes<br>ADASVISION-1473: ISS M2M -ISP - resizer<br>ADASVISION-1474: ISS M2M -ISP multiple instance<br>ADASVISION-1475: ISS M2M - H3A<br>ADASVISION-1476: ISS M2M sub-frame<br>ADASVISION-1483: ISS M2M RSZ - resizer<br>ADASVISION-1484: ISS M2M RSZ - output dataformat<br>ADASVISION-1485: ISS M2M RSZ - input data format<br>ADASVISION-1486: ISS M2M RSZ - Multi scale (pyramid generation for PD/TSR etc)<br>ADASVISION-1487: ISS M2M RSZ - multi-instance<br>ADASVISION-1488: ISS M2M RSZ - multi-instance with ISP M2M<br>ADASVISION-1489: ISS M2M RSZ - multi-CH<br>ADASVISION-1679 Support for Reading DCC profile from Linux filesystem<br>ADASVISION-830: For all SRV - DSP load optimization using SIMD |
| Keywords: | tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-321: ISS_3D_SRV_960/964deser_Different_Output_resolution**

Summary:

ISS 3D SRV UC

Input : IMI OV10640 / TIDA AR140 with 960 deserializer

    or OV10635 with 964 deserialize

Output : HDMI 1080P

Binaries: 512MB & 128MB

| Preconditions: |
| --- |

Ensure TDA3x folder present in SD card with CHARTPOS,CARIMG,V2W & LENS.BIN

Using Mesh generation tool generate V2W with resolution same as set in UC

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 Status: |
| --- | --- | --- | --- |
| 1 | Change output resolution for 3D SRV UC & build | User should be able to build for different resolution than default | |
| 2 | Go to System Settings<br><br>Select Capture Source as<br><br>"OV10640 Sensor for SV - IMI (TDA3x ONLY)"<br><br>or<br><br>"AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)"<br><br>& Display Output as HDMI 1080P | Capture Source shuld be<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected & selected by user<br><br>& Display device as HDMI 1080P | |
| 3 | Run "3D SRV 4CH ISS capture + ISS ISP + DeWarp + Synthesis (DSP1) + Display" UC | Display must come up and no buffer drops should be observed<br><br>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 |

| Requirements | ADASVISION-1036: TDA3x 3D SRV: 360 degree flyaround (Phase 1)<br>ADASVISION-1037: TDA3x 3D SRV: Improve imaging for SRV with Improve AE stability & Integrate Photometric alignment<br>ADASVISION-1068: TDA3x 3D SRV : Auto calculate number of slice parameters<br>ADASVISION-1069: TDA3c 3D SRV: Lens type : Distortion table<br>ADASVISION-1071: TDA3x 3D SRV : Boot time optimization<br>ADASVISION-1466: ISS multi-channel capture<br>ADASVISION-1467: ISS M2M -ISP - GLBCE selection<br>ADASVISION-1468: ISS M2M -ISP - resizer<br>ADASVISION-1469: ISS M2M -ISP - output dataformat<br>ADASVISION-1470: ISS M2M -ISP - input data format<br>ADASVISION-1472: ISS M2M -ISP - WDR modes<br>ADASVISION-1473: ISS M2M -ISP - resizer<br>ADASVISION-1474: ISS M2M -ISP multiple instance<br>ADASVISION-1475: ISS M2M - H3A<br>ADASVISION-1483: ISS M2M RSZ - resizer<br>ADASVISION-1484: ISS M2M RSZ - output dataformat<br>ADASVISION-1485: ISS M2M RSZ - input data format<br>ADASVISION-1487: ISS M2M RSZ - multi-instance<br>ADASVISION-1488: ISS M2M RSZ - multi-instance with ISP M2M<br>ADASVISION-1489: ISS M2M RSZ - multi-CH<br>ADASVISION-1579: low cost surround view with TDA3x<br>ADASVISION-1606: Algo Link DeWarp for multiple channel LDC correction.<br>ADASVISION-1621: ISS: Capture Link & M2M ISP : Support MIPI RAW 12 dataformat<br>ADASVISION-1643: ISP Based SRV : Split LUT's<br>ADASVISION-1644: ISP Based SRV: Configurable blend seam angle<br>ADASVISION-1645: ISP Based SRV: Configurable blend seam start point<br>ADASVISION-1647: ISP Based SRV: Compression of LUT's<br>ADASVISION-1684: ISP Based SRV: Updated interface of Mesh Generation Tool<br>ADASVISION-1685: ISP Based SRV: Parametric transition between view points<br>ADASVISION-1686: ISP Based SRV: Adaptive bowl support on LDC Surroundview<br>ADASVISION-1687: ISP Based SRV: Compression and reorganization of V2W Table(s) |
| --- | --- |

| | |
|---|---|
| | ADASVISION-1688: ISP Based SRV: Generating Car Box Edges/view<br>ADASVISION-1715: [TDA3x 3D SRV]: Add support for Output Resolution change<br>ADASVISION-1761: [TDA3x 3D SRV] Update Mesh tool for output resolution change<br>ADASVISION-830: For all SRV - DSP load optimization using SIMD<br>ADASVISION-889: 3D SRV on TDA3x Ã¢Â€Â" Enhancements<br>ADASVISION-932: TDA3x 3D SRV on 128MB memory map<br>ADASVISION-962: TDA3x 3D SRV: Enabling 2A and WDR |
| Keywords: | tda3xx-evm<br>tda3xx_rvp<br>c_qualification |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-323: ISS_2MP_3D_SRV_with_OV2775_IMX390_Fusion_Board_L**

| | |
|---|---|
| Summary: | |

ISS 3D SRV UC supported on TDA2Px linux

Input : OV2775 / IMX390 with Fusion board

Output : HDMI 1080P

| | |
|---|---|
| Preconditions: | |

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

For 2MP SRV to work, build with INPUT_720P = 0

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 Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH ISS Capture + ISP + 3DSRV + SGX + Display" UC | Display must come up and no buffer drops should be observed<br><br>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 | | |
| Requirements | ADASVISION-1045: 2MP SRV demo<br>ADASVISION-1047: 4/6 camera capture and display with Fusion board and TDA2x+ using PHYs (Phy1 and Phy2)<br>ADASVISION-1246: OV2775 2MP sensor support<br>ADASVISION-1466: ISS multi-channel capture<br>ADASVISION-1467: ISS M2M -ISP - GLBCE selection<br>ADASVISION-1468: ISS M2M -ISP - resizer<br>ADASVISION-1469: ISS M2M -ISP - output dataformat<br>ADASVISION-1470: ISS M2M -ISP - input data format<br>ADASVISION-1471: ISS M2M -ISP - NF<br>ADASVISION-1472: ISS M2M -ISP - WDR modes<br>ADASVISION-1473: ISS M2M -ISP - resizer<br>ADASVISION-1474: ISS M2M -ISP multiple instance<br>ADASVISION-1475: ISS M2M - H3A<br>ADASVISION-1476: ISS M2M sub-frame<br>ADASVISION-1483: ISS M2M RSZ - resizer<br>ADASVISION-1484: ISS M2M RSZ - output dataformat<br>ADASVISION-1485: ISS M2M RSZ - input data format<br>ADASVISION-1486: ISS M2M RSZ - Multi scale (pyramid generation for PD/TSR etc)<br>ADASVISION-1487: ISS M2M RSZ - multi-instance<br>ADASVISION-1488: ISS M2M RSZ - multi-instance with ISP M2M<br>ADASVISION-1489: ISS M2M RSZ - multi-CH | | |

ADASVISION-1676: Fusion board bring-up and enable 2MP SRV with TDA2Px
ADASVISION-1680: TIDA1130 (OV2775) IQ Tuning
ADASVISION-1681: IMX390 Sensor Driver and basic IQ Tuning
ADASVISION-1764: IMX390 Sensor IQ Tuning
ADASVISION-830: For all SRV - DSP load optimization using SIMD

| | |
|---|---|
| Keywords: | tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

**Test Case VISIONSDK-322: ISS_1MP_3D_SRV_with_GPU_960/964deser_4CH_AEWB_L**

Summary:

ISS 3D SRV UC supported on TDA2Px linux

Input : IMI OV10640 / TIDA AR140 with 960/964 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 LUT.BIN

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

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

Aewb is enabled for all 4 channel

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH ISS Capture + ISP + 3DSRV + SGX + Display" UC | Display must come up and no buffer drops should be observed<br><br>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 |
| Requirements | ADASVISION-1466: ISS multi-channel capture<br>ADASVISION-1467: ISS M2M -ISP - GLBCE selection<br>ADASVISION-1468: ISS M2M -ISP - resizer<br>ADASVISION-1469: ISS M2M -ISP - output dataformat<br>ADASVISION-1470: ISS M2M -ISP - input data format<br>ADASVISION-1471: ISS M2M -ISP - NF<br>ADASVISION-1472: ISS M2M -ISP - WDR modes<br>ADASVISION-1473: ISS M2M -ISP - resizer<br>ADASVISION-1474: ISS M2M -ISP multiple instance<br>ADASVISION-1475: ISS M2M - H3A<br>ADASVISION-1476: ISS M2M sub-frame<br>ADASVISION-1483: ISS M2M RSZ - resizer<br>ADASVISION-1484: ISS M2M RSZ - output dataformat<br>ADASVISION-1485: ISS M2M RSZ - input data format<br>ADASVISION-1486: ISS M2M RSZ - Multi scale (pyramid generation for PD/TSR etc)<br>ADASVISION-1487: ISS M2M RSZ - multi-instance<br>ADASVISION-1488: ISS M2M RSZ - multi-instance with ISP M2M<br>ADASVISION-1489: ISS M2M RSZ - multi-CH<br>ADASVISION-1736: Enable AEWB for all 4 Channels for ISS based 3D SRV on TDA2Px and TDA3x<br>ADASVISION-830: For all SRV - DSP load optimization using SIMD |
| Keywords: | tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |

| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.2.3. Test Suite : AVB_SRV

| **Test Case VISIONSDK-117: AVB_4CH_NW_Capture_SRV_Dispaly** | | | | |
|---|---|---|---|---|
| Summary: | | | | |
| Supported on TDA2x/TDA2Ex/TDA2Ex Entry/TDA2Px both Bios & Linux | | | | |
| 4CH AVB Capture + Surround View (DSPx) + AVB_TX/Display (TDA2x & TDA2Ex ONLY) UC | | | | |
| Input: Through network (using avbtalker) | | | | |
| Output: HDMI1080P | | | | |
| Preconditions: | | | | |
| Ensure Build happened with NDK_PROC_TO_USE=ipu1_1 | | | | |
| Ensure Host PC & target is connected through network cable | | | | |
| Run AVB talker in host PC & send MPEG encoded frames to target | | | | |
| Verify that AVB Receives frames from network,decoder is able to decode the MJPEG frame and Display | | | | |
| Verify that 4ch AVB Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps on LCD/HDMI | | | | |
| **#:** | **Step actions:** | **Expected Results:** | | **Execution Status:** |
| 1 | Boot EVM | EVM should boot up | | |
| 2 | Select UC | UC should be selected | | |
| 3 | Seeclt HDMI Display | HDMI display should be selected | | |
| 4 | Run avb talker on PC side | Using Talker sent files from PC to target Run "sudo ./avbtp_talker.sh [file1] [file2] [file3] [file4]" | | |
| 5 | Press "P" | Check performance stats should match with IVAHD codec performance data | | |
| Execution type: | Manual | | | |
| Estimated exec. duration (sec): | | | | |
| Priority: | Medium | | | |
| Requirements | ADASVISION-1165: AVB Ethernet based SRV<br>ADASVISION-1261: Performance tuning for IVAHD codec in system<br>ADASVISION-1283: VIP Capture Link to support DSS write back capture<br>ADASVISION-1319: Display DSS write back Link<br>ADASVISION-1334: IVA Decode Link - Multichannel MJPEG decode<br>ADASVISION-1336: IVA Decode Link - Multichannel H264 decode<br>ADASVISION-1337: IVA Decode Link - Support various Decode resolutions<br>ADASVISION-1338: IVA Decode Link - Support for multiple Bit rates<br>ADASVISION-1362: AVB Rx Link - Packet reception & multi-channel support<br>ADASVISION-1363: AVB Rx Link - frame level Notification<br>ADASVISION-1364: AVB Rx Link - Sub-frame level Notification<br>ADASVISION-1365: AVB Rx Link - Interoperability<br>ADASVISION-1366: AVB Rx Link - Performance<br>ADASVISION-1367: AVB Rx Link - Error handling<br>ADASVISION-1368: AVB Rx Link - Test with PC talker<br>ADASVISION-1394: 4CH AVB Capture + Decode +Surround View (DSPx) + Display<br>ADASVISION-1447: IVA Encode Link support Multichannel MJPEG encode<br>ADASVISION-1449: IVA Encode Link support Multichannel H264 encode<br>ADASVISION-1450: IVA Encode Link Support various encode resolutions<br>ADASVISION-1452: IVA Encode Link Performance<br>ADASVISION-1453: IVA Encode Link support Subframe/Slice based Encoding<br>ADASVISION-1454: IVA Encode Link support Error-concealment | | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm | | | |

|  | |
|---|---|
|  | tda2ex-entry<br>tda2px-evm<br>c_regression<br>c_stress<br>c_stability |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-261: AVB_4CH_NW_Capture_SRV_AVBTx**

Summary:

Supported on TDA2x/TDA2Ex/TDA2Ex Entry

4CH AVB Capture + Surround View (DSPx) + AVB_TX/Display (TDA2x & TDA2Ex ONLY) UC

Input: Through network (using avbtalker)

Output: PC

Preconditions:

Ensure Build happened with NDK_PROC_TO_USE=ipu1_1

Ensure Host PC & target is connected through network cable

Run AVB talker in host PC & send MPEG encoded frames to target

Verify that AVB Receives frames from network,decoder is able to decode the MJPEG frame and Display

Verify that 4ch AVB Capture is running on IPU1-0 at 30fps

and no display

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM should boot up | |
| 2 | Select UC | UC should be selected | |
| 3 | Select AVB TX only | option should be selected<br><br>& no display | |
| 4 | Run avb talker & listener on PC side | Using Talker sent files from PC to target<br><br>Run "sudo ./avbtp_talker.sh [file1] [file2] [file3] [file4]"<br><br>Using listener dump frame to PC<br><br>Run "sudo ./avbtp_listener.sh recv.h264" | |
| 5 | Press "P" | Check performance stats<br><br>should match with IVAHD codec performance data | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1165: AVB Ethernet based SRV<br>ADASVISION-1261: Performance tuning for IVAHD codec in system<br>ADASVISION-1264: DSS M2M link in VSDK to support overlay write back<br>ADASVISION-1334: IVA Decode Link - Multichannel MJPEG decode<br>ADASVISION-1336: IVA Decode Link - Multichannel H264 decode<br>ADASVISION-1337: IVA decode Link - Support various Decode resolutions<br>ADASVISION-1338: IVA Decode Link - Support for multiple Bit rates<br>ADASVISION-1339: IVA Decode Link - Performance<br>ADASVISION-1340: IVA Decode Link - Subframe/Slice based decoding<br>ADASVISION-1341: IVA Decode Link - Error-concealment<br>ADASVISION-1362: AVB Rx Link - Packet reception & multi-channel support | | |

| | |
|---|---|
| | ADASVISION-1363: AVB Rx Link - frame level Notification<br>ADASVISION-1364: AVB Rx Link - Sub-frame level Notification<br>ADASVISION-1365: AVB Rx Link - Interoperability<br>ADASVISION-1366: AVB Rx Link - Performance<br>ADASVISION-1367: AVB Rx Link - Error handling<br>ADASVISION-1368: AVB Rx Link - Test with PC talker<br>ADASVISION-1394: 4CH AVB Capture + Decode +Surround View (DSPx) + Display<br>ADASVISION-1447: IVA Encode Link support Multichannel MJPEG encode<br>ADASVISION-1449: IVA Encode Link support Multichannel H264 encode<br>ADASVISION-1450: IVA Encode Link Support various encode resolutions<br>ADASVISION-1451: IVA Encode Link Support for multiple Bit rates<br>ADASVISION-1452: IVA Encode Link Performance<br>ADASVISION-1453: IVA Encode Link support Subframe/Slice based Encoding<br>ADASVISION-1454: IVA Encode Link support Error-concealment<br>ADASVISION-1494: DSS M2M RSZ - resizer<br>ADASVISION-1495: DSS M2M RSZ - output dataformat<br>ADASVISION-1496: DSS M2M RSZ - resizer input pipe selection<br>ADASVISION-1497: DSS M2M RSZ - input data format<br>ADASVISION-1498: DSS M2M RSZ - Multi scale (pyramid generation for PD/TSR etc)<br>ADASVISION-1499: DSS M2M RSZ - multi-instance<br>ADASVISION-1500: DSS M2M RSZ - multi-instance with Display link<br>ADASVISION-1501: DSS M2M RSZ - multi-CH support |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>m_iva |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.2.4.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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display Output as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | Capture Source shuld be<br><br>OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display device as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | |
| 2 | Run "SRV Calibration" UC | Display must come up with mosaic view of all 4 cameras<br><br>8 Red color rectangle boxes (2 in eah quadrant) should be visible<br><br>and no buffer drops should be observe | |
| 3 | Select Auto Calibration | On selecting Auto calibration<br><br>It will detect corners for all 4 cameras & generate | |

| | | 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 |
| Requirements | ADASVISION-1762: SRV Auto calibration - auto slection of ROI for Surround View (1MB Vs 2MB)<br>ADASVISION-854: Support for handling region-of-interest input frame for 3DSRV & 2DSRV use-cases<br>ADASVISION-883: Improved auto-calibration for 2D & 3D<br>ADASVISION-999: Performance: Complex algorithm should work on shadowed buffers |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp<br>c_qualification |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

**Test Case VISIONSDK-138: SRV_Calibration_UC_manual_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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY) | Capture Source shuld be<br><br>OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or | |

| | | | |
|---|---|---|---|
| | depending upon the hardware connected<br><br>& Display Output as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display device as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | |
| 2 | Run "SRV Calibration" UC | Display must come up with mosaic view of all 4 cameras<br><br>and no buffer drops should be observe | |
| 3 | Select Manual Calibration & generate CALMAT | should be able to generate CALMAT.BIN | |
| 4 | Remove the card &<br><br>refer "VisionSDK_UserGuide_3D_SurroundView_Manual_CalibTool.pdf" useguide<br><br>to generate PERSMAT.BIN (in case of TDA2x/TDA2ex) & LUT.BIN (in case of TDA3x) | Should be able to generate<br><br>PERSMAT.BIN (in case of TDA2x/TDA2ex)<br><br>& LUT.BIN (in case of TDA3x) | |
| 5 | Copy the PERSMAT.BIN (in case of TDA2x/TDA2ex) & LUT.BIN (in case of TDA3x)<br><br>to MMC/SD card & insert into EVM<br><br>& Run any SRV UC | SRV output should be proper | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-854: Support for handling region-of-interest input frame for 3DSRV & 2DSRV use-cases<br>ADASVISION-984: Calibration: Allow to pass a parameter where all the generated files get read from/written<br>ADASVISION-999: Performance: Complex algorithm should work on shadowed buffers |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| |
|---|
| **Test Case VISIONSDK-139: SRV_Calibration_UC_default_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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display Output as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | Capture Source shuld be<br><br>OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display device as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | |
| 2 | Run "SRV Calibration" UC | Display must come up with mosaic view of all 4 cameras<br><br>and no buffer drops should be observe | |
| 3 | Select Default Calibration | On selecting Default calibration<br><br>It will generate<br><br>PERSMAT.BIN (in case of TDA2x/TDA2ex)<br><br>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 |
| Requirements | ADASVISION-854: Support for handling region-of-interest input frame for 3DSRV & 2DSRV use-cases |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-140: SRV_Calibration_UC_auto_calibration_Dump_Frame**

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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display Output as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | Capture Source shuld be<br><br>OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display device as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | |
| 2 | Run "SRV Calibration" UC | Display must come up with mosaic view of all 4 cameras<br><br>and no buffer drops should be observe | |
| 3 | Select Auto Calibration | On selecting Auto calibration<br><br>It will detect corners for all 4 cameras & generate<br><br>PERSMAT.BIN (in case of TDA2x/TDA2ex)<br><br>LUT.BIN (in case of TDA3x) | |
| 4 | Select "d" to Save Display Frame to MMC/SD card | On selecting "d"<br><br>Display Frame should be saved to MMC/SD card | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1601: SD card file system support with VSDK | | |

ADASVISION-854: Support for handling region-of-interest input frame for 3DSRV & 2DSRV use-cases
ADASVISION-883: Improved auto-calibration for 2D & 3D

| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| --- | --- |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| Test Case VISIONSDK-141: SRV_Calibration_UC_auto_calibration_update_2D_PERSMAT |
| --- |

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 Status: |
| --- | --- | --- | --- |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display Output as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | Capture Source shuld be<br><br>OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display device as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | |
| 2 | Run "SRV Calibration" UC | Display must come up with mosaic view of all 4 cameras<br><br>and no buffer drops should be observe | |

| # | Step actions | Expected Results | |
|---|---|---|---|
| 3 | Select Auto Calibration | On selecting Auto calibration<br><br>It will detect corners for all 4 cameras & generate<br><br>PERSMAT.BIN (in case of TDA2x/TDA2ex)<br><br>LUT.BIN (in case of TDA3x) | |
| 4 | Select "7" to Update 2D Pers Mat (after auto/manual calibration if required) | On selecting "7"<br><br>2D Pers Mat should be updated | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-854: Support for handling region-of-interest input frame for 3DSRV & 2DSRV use-cases<br>ADASVISION-883: Improved auto-calibration for 2D & 3D |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| | |
|---|---|
| **Test Case VISIONSDK-142: SRV_Calibration_UC_auto_calibration_without_MMC_SD** | |
| Summary: | |

Summary:

SRV Calibration UC supported on TDA2x/TDA2ex/TDA3x

Input : OV10635 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:

Boot from QSPI

No MMC/SD card present

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display Output as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | Capture Source shuld be<br><br>OV10635 Sensor 720P30 or<br><br>OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX ONLY) or<br><br>OV10640 Sensor for SV - IMI (TDA3x ONLY) or<br><br>AR0140  Sensor for SV - TIDA00262 (TDA3x ONLY)<br><br>depending upon the hardware connected<br><br>& Display device as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY) | |
| 2 | Run "SRV Calibration" UC | It throws error | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-854: Support for handling region-of-interest input frame for 3DSRV & 2DSRV use-cases<br>ADASVISION-883: Improved auto-calibration for 2D & 3D |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.2.5.Test Suite : Adaptive_Bowl

| **Test Case VISIONSDK-326: ISS_2MP_3D_SRV_with_OV2775_IMX390_Fusion_Board_Change_Bowl_Position** | | | |
|---|---|---|---|
| Summary: | | | |
| ISS 3D SRV UC supported on TDA2Px linux | | | |
| Input : OV2775 / IMX390 with Fusion board | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Ensure TDA2x folder present in SD card with CHARTPOS.BIN & LENS.BIN | | | |
| For 2MP SRV to work, build with INPUT_720P = 0 | | | |
| 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 Status: |
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH ISS Capture + ISP + 3DSRV + SGX + Display" UC | Display must come up and no buffer drops should be observed<br><br>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 | | |
| Requirements | ADASVISION-1045: 2MP SRV demo<br>ADASVISION-1082: Dynamic bowl creation support in 3D Surround View on TDA2x and TDA2x+<br>ADASVISION-1246: OV2775 2MP sensor support<br>ADASVISION-1466: ISS multi-channel capture<br>ADASVISION-1467: ISS M2M -ISP - GLBCE selection<br>ADASVISION-1468: ISS M2M -ISP - resizer<br>ADASVISION-1469: ISS M2M -ISP - output dataformat<br>ADASVISION-1470: ISS M2M -ISP - input data format<br>ADASVISION-1471: ISS M2M -ISP - NF<br>ADASVISION-1472: ISS M2M -ISP - WDR modes<br>ADASVISION-1473: ISS M2M -ISP - resizer<br>ADASVISION-1474: ISS M2M -ISP multiple instance<br>ADASVISION-1475: ISS M2M - H3A<br>ADASVISION-1476: ISS M2M sub-frame<br>ADASVISION-1483: ISS M2M RSZ - resizer<br>ADASVISION-1484: ISS M2M RSZ - output dataformat<br>ADASVISION-1485: ISS M2M RSZ - input data format<br>ADASVISION-1486: ISS M2M RSZ - Multi scale (pyramid generation for PD/TSR etc)<br>ADASVISION-1487: ISS M2M RSZ - multi-instance<br>ADASVISION-1488: ISS M2M RSZ - multi-instance with ISP M2M<br>ADASVISION-1489: ISS M2M RSZ - multi-CH<br>ADASVISION-1676: Fusion board bring-up and enable 2MP SRV with TDA2Px<br>ADASVISION-1680: TIDA1130 (OV2775) IQ Tuning<br>ADASVISION-1681: IMX390 Sensor Driver and basic IQ Tuning<br>ADASVISION-1691: Adaptive Bowl SRV: Add Ultrasonic drivers<br>ADASVISION-1870: Adaptive 3D SRV - enhancements<br>ADASVISION-830: For all SRV - DSP load optimization using SIMD | | |
| Keywords: | tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |

| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.Test Suite : Mono_Cam

## 1.3.1.Test Suite : VIP

### 1.3.1.1.Test Suite : VIP_SingleCam_Capture_Display

| Test Case VISIONSDK-2: VIP_Capture_Display_Input_OV10635_Output_HDMI_720P | | | |
|---|---|---|---|
| Summary: | | | |
| Capture Display UC | | | |
| Input : OV10635 | | | |
| Output : HDMI 720P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635 Sensor<br><br>& Display Output as HDMI 720P | Capture Source shuld be OV10635 Sensor<br><br>& Display device as HDMI 720P | |
| 2 | Run 1 Ch VIP capture + Display UC | Display must come up and no buffer drops should be observe | |
| Execution type: | Automated | | |
| Estimated exec. duration (sec): | 60.00 | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1279: VIP Capture Link to support Sensor capture<br>ADASVISION-1284: VIP Capture Link to support Non-mux Discrete sync Hsync style capture modes<br>ADASVISION-1285: VIP Capture Link to support Non-mux Discrete sync ACTVID style capture modes<br>ADASVISION-1288: VIP Capture Link to support Progressive mode capture<br>ADASVISION-1291: VIP Capture Link to support Cropping of output video<br>ADASVISION-1293: VIP Capture Link - Capture HW configuration<br>ADASVISION-1295: Display Link support for various input data formats<br>ADASVISION-1298: Display Link - Progressive mode display<br>ADASVISION-1299: Display Link - Inline scaling support in display<br>ADASVISION-1306: Display Link - HDMI display support<br>ADASVISION-1307: Display Link - Support for standard display resolutions<br>ADASVISION-1311: Display Link - Color keying support<br>ADASVISION-1312: Display Link - Set back Ground Color of VENC<br>ADASVISION-1317: Display Link - Transparency Color Key Selection support<br>ADASVISION-1318: Display Link - VENC section<br>ADASVISION-1322: Support OV10635 video sensors<br>ADASVISION-1329: Shall support multiple dsiplay devices - HDMI (on-chip) & LCD displays<br>ADASVISION-1627: DSS Link: support override the input data format of the link. | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

| Test Case VISIONSDK-5: VIP_Capture_Display_Input_OV10635_Output_HDMI_1080P |
|---|
| Summary: |

Capture Display UC

supported on all platforms

Input : OV10635/OV10640

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

should not change Capture output dynamically

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + Display UC | Display must come up and no buffer drops should be observe | |
| 3 | Check for graphics elements displayed on screen | TI logo should be on left top corner<br><br>All load bars should be on left bottom corner | |
| 4 | Press "P" | Check performance stats<br><br>Should print CPU Load of all cores,<br><br>Capture & Display FPS numbers<br><br>DDR, Heap memory, OCMC, SR1, remote log buffer memory usage | |

| Execution type: | Automated |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |

| Requirements | ADASVISION-1090: Update TI logo<br>ADASVISION-1274: VIP Capture Link to support Single channel capture<br>ADASVISION-1279: VIP Capture Link to support Sensor capture<br>ADASVISION-1281: VIP Capture Link -VIP capture with Dynamic output resolution change will not be supported<br>ADASVISION-1284: VIP Capture Link to support Non-mux Discrete sync Hsync style capture modes<br>ADASVISION-1285: VIP Capture Link to support Non-mux Discrete sync ACTVID style capture modes<br>ADASVISION-1287: VIP Capture Link to support 8 bit, 16bit & 24bit Capture bus width<br>ADASVISION-1288: VIP Capture Link to support Progressive mode capture<br>ADASVISION-1298: Display Link - Progressive mode display<br>ADASVISION-1301: Display Link - Dynamic resolution change of input video<br>ADASVISION-1303: Display Link - Dynamic output image resolution change<br>ADASVISION-1306: Display Link - HDMI display support<br>ADASVISION-1309: Display Link - Blending support of Grpx and Video planes<br>ADASVISION-1310: Display Link - Blending support for Video planes<br>ADASVISION-1311: Display Link - Color keying support<br>ADASVISION-1312: Display Link - Set back Ground Color of VENC<br>ADASVISION-1318: Display Link - VENC section<br>ADASVISION-1322: Support OV10635 video sensors<br>ADASVISION-1329: Shall support multiple dsiplay devices - HDMI (on-chip) & LCD displays<br>ADASVISION-1381: 1CH VIP capture + Display<br>ADASVISION-1429: Capture + Display generic usecase using OV10640<br>ADASVISION-1529: Multiple heap support<br>ADASVISION-1530: Cache configuration<br>ADASVISION-1531: Memory config<br>ADASVISION-1532: External Memory allocation<br>ADASVISION-1533: Internal memory allocation from OCMC<br>ADASVISION-1534: Internal memory allocation from DSP L2 SRAM at create time only, no run time allocation and de-alloc<br>ADASVISION-1535: Internal memory allocation from DSP L1 SRAM<br>ADASVISION-1581: TDA2Ex - shall support single channel capture<br>ADASVISION-1584: Shall support all the Bios single multi camera usecases which use one DSP & M4<br>ADASVISION-1604: Support sensor frame work |
|---|---|
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_stress |

c_performance
c_qualification
c_stability

| Execution Details | |
|---|---|
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## Test Case VISIONSDK-195: VIP_Capture_SGX_Copy_Display_Input_OV10635_Output_HDMI_1080P

Summary:

Capture SGX copy Display UC supported on TDA2x/TDA2Ex/TDA2Ex Entry Linux

Input : OV10635

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

Boot mode - SD boot mode (u-boot,MLO, File system all in SD card)

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP capture + SGX Copy + DISPLAY" UC | Display must come up and no buffer drops should be observe | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1407: vision SDK with Linux on A15<br>ADASVISION-1411: shall support IPC links on A15 linux<br>ADASVISION-1412: support links & chain on Linux<br>ADASVISION-1413: support processing Links on Linux<br>ADASVISION-1414: support chains (usecases) on Linux<br>ADASVISION-1415: Resource sharing between Linux and other CPUs<br>ADASVISION-1416: Linux boot loader<br>ADASVISION-1419: VSDK Linux support simple capture + display<br>ADASVISION-1424: Basic board configuration bringup using u-boot/Linux<br>ADASVISION-1580: Support for TDA2Ex (J6-Eco) in vision SDK<br>ADASVISION-1581: TDA2Ex - shall support single channel capture<br>ADASVISION-1585: TDA2Ex - shall support all the Linux single & multi camera usecases which use one DSP, A15 & M4<br>ADASVISION-1596: Support VSDK Linux GPU Off-screen rendering & M4 side display<br>ADASVISION-1601: SD card file system support with VSDK<br>ADASVISION-1604: Support sensor frame work<br>ADASVISION-831: VSDK Linux - Display device & sensors configure from M4/Bios with a dedicated I2C<br>ADASVISION-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex<br>ADASVISION-99: Splitting of header files required for InfoADAS |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_stress<br>c_qualification<br>c_stability<br>m_capture<br>m_display |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-296: VIP_Capture_Display_without_Sensor**

| Summary: | |
|---|---|
| Capture Display UC without sensor connected | |
| supported on all platforms | |
| Input : No Sensor connected | |
| Output : HDMI 1080P | |

| Preconditions: | |
|---|---|
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | |
| None of the sensors are connected | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + Display UC | Assert with sensor initialization fails | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1167: Error handling requirements<br>ADASVISION-1526: Error handling |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.1.2.Test Suite : VIP_Capture_FrameCopy_Display

**Test Case VISIONSDK-6: VIP_Capture_FrameCopy_A15_Display**

| Summary: | |
|---|---|
| Capture FrameCopy Display UC on A15 | |
| Input : OV10635 | |
| Output : HDMI 1080P | |

| Preconditions: | |
|---|---|
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + FrameCopy (A15) + Display UC | Display must come up and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1384: 1CH VIP capture + Alg Frame Copy (A15) + Display |

ADASVISION-1552: Algorithm Link Support System DMA resource allocations
ADASVISION-1554: Algorithm Link Support Non-In place computation support
ADASVISION-1557: Support Sample Algorithm Link with separate input output buffers (Frame Copy Plug-Ins)

| | |
|---|---|
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| **Test Case VISIONSDK-7: VIP_Capture_FrameCopy_DSP1_Display** | | | |
|---|---|---|---|
| Summary: | | | |
| Capture FrameCopy Display UC on DSP1 | | | |
| Input : OV10635 | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + FrameCopy (DSP1) + Display UC | Display must come up and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1382: 1CH VIP capture + Alg Frame Copy (DSP1) + Display<br>ADASVISION-1550: Algorithm Link Support DSP subsystem DMA resource allocations<br>ADASVISION-1557: Support Sample Algorithm Link with separate input output buffers (Frame Copy Plug-Ins)<br>ADASVISION-1584: Shall support all the Bios single multi camera usecases which use one DSP & M4 |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>c_qualification<br>m_algorithm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| **Test Case VISIONSDK-8: VIP_Capture_FrameCopy_EVE1_Display** |
|---|
| Summary: |
| Capture FrameCopy Display UC on EVE1 |
| Input : OV10635 |

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + FrameCopy (EVE1) + Display UC | Display must come up and no buffer drops should be observe | |

| Execution type: | Automated |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1383: 1CH VIP capture + Alg Frame Copy (EVE1)+ Display<br>ADASVISION-1551: Algorithm Link Support EVE subsystem DMA resource allocations<br>ADASVISION-1557: Support Sample Algorithm Link with separate input output buffers (Frame Copy Plug-Ins) |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |


**Test Case VISIONSDK-196: VIP_Capture_FrameCopy_A15_SGX_Copy_Display**

| Summary: |
|---|

Capture FrameCopy SGX copy Display UC on A15

supported on TDA2x/TDA2Ex/TDA2Ex Entry Linux

Input : OV10635

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP capture + Alg Frame Copy (A15) + SGX Copy + DISPLAY" UC | Display must come up and no buffer drops should be observe | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1585: TDA2Ex - shall support all the Linux single & multi camera usecases which use one DSP, A15 & M4<br>ADASVISION-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_qualification |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |

| Execution Result: | **Passed** |
|---|---|
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-197: VIP_Capture_FrameCopy_EVE1_SGX_Copy_Display**

| Summary: | |
|---|---|

Capture FrameCopy SGX copy Display UC on EVE1

supported on TDA2x Linux

Input : OV10635

Output : HDMI 1080P

| Preconditions: |
|---|

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP capture + Alg FrameCopy (EVE1) + SGX Copy + DISPLAY - (TDA2xx ONLY)" UC | Display must come up and no buffer drops should be observe | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-178: EVE loader update to use SBL lib and PM lib<br>ADASVISION-890: EVE loader should use SBL lib and PM lib for loading application images and clock configuration<br>ADASVISION-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex |
| Keywords: | tda2xx-evm<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-202: VIP_Capture_FrameCopy_A15_Connector_Links_A15_SGX_Copy_Display**

| Summary: | |
|---|---|

Capture + FrameCopy + Connetor Links (Dup, Merge, Select, Gate) + SGX copy Display UC on A15

supported on TDA2x/TDA2Ex/TDA2Ex Entry Linux

Input : OV10635

Output : HDMI 1080P

| Preconditions: |
|---|

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP + Alg Frame Copy (A15) + Connetor Links (Dup, Merge, Select, Gate on A15) + SGX Copy + DISPLAY" UC | Display must come up and no buffer drops should be observe | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1407: vision SDK with Linux on A15 |

|  | ADASVISION-1411: shall support IPC links on A15 linux<br>ADASVISION-1412: support links & chain on Linux<br>ADASVISION-1413: support processing Links on Linux<br>ADASVISION-1414: support chains (usecases) on Linux<br>ADASVISION-1415: Resource sharing between Linux and other CPUs<br>ADASVISION-886: Enable all connector links for VSDK Linux<br>ADASVISION-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex |
|---|---|
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>m_connector_links |
| **Execution Details** |  |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): |  |

## 1.3.1.3. Test Suite : VIP_Capture_SubFrameCopy_Display

| Test Case VISIONSDK-168: VIP_Capture_SubFrameCopy_EVE1_Display | | | |
|---|---|---|---|
| Summary: | | | |
| Capture Sub Frame Copy Display UC with EVE1 | | | |
| Input : OV10635 | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + SubFrameCopy (EVE1) + Display UC | Display must come up and no buffer drops should be observe | |
| Execution type: | Automated | | |
| Estimated exec. duration (sec): | 60.00 | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1292: VIP Capture Link to support Slice/sub-frame wise capture | | |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.3.1.4. Test Suite : VIP_Capture_IPC_Display

| Test Case VISIONSDK-230: VIP_Capture_IPC_Display_Single_core |
|---|
| Summary: |
| Capture IPC Display UC with Single core |
| supported on TDA2x/TDA2Ex/TDA3x |

Input : OV10635 Sensor

Output : HDMI 1080P

Scenrios:

IPU1_0 -> DSP1 -> IPU1_0

IPU1_0 -> DSP2 -> IPU1_0

IPU1_0 -> EVE1 -> IPU1_0

IPU1_0 -> EVE2 -> IPU1_0

IPU1_0 -> EVE3 -> IPU1_0

IPU1_0 -> EVE4 -> IPU1_0

IPU1_0 -> IPU1_1 -> IPU1_0

IPU1_0 -> A15 -> IPU1_0

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Run Testsuite | Check Logs of Capture IPC Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>Display should be running on IPU1-0 at 60fps | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1398: IPC between M4s<br>ADASVISION-1399: IPC between DSPs<br>ADASVISION-1400: IPC between EVEs<br>ADASVISION-1401: IPC between M4 & A15<br>ADASVISION-1402: IPC between M4 & DSP<br>ADASVISION-1403: IPC between M4 & EVE<br>ADASVISION-1404: IPC between DSP & A15<br>ADASVISION-1405: IPC between DSP & EVE<br>ADASVISION-1406: IPC between EVE & A15 |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>m_ipc |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-231: VIP_Capture_IPC_Display_Multi_core**

Summary:

Capture IPC Display UC with Multi core

supported on TDA2x/TDA2Ex/TDA3x

Input : OV10635 Sensor

Output : HDMI 1080P

Scenrios:

IPU1_0 -> DSP1 -> IPU1_1 -> DSP2 -> IPU1_0

IPU1_0 -> EVE1 -> DSP1 -> A15_0 -> DSP1 -> IPU1_0

IPU1_0 -> EVE1 -> DSP1 -> A15_0 -> IPU1_0

IPU1_0 -> A15_0 -> DSP1 -> DSP2 -> IPU1_1 -> EVE1 -> IPU1_0

IPU1_0 -> EVE1 -> DSP1 -> EVE2 -> DSP2 -> EVE3 -> A15_0 -> IPU1_1 -> EVE4 (Repeated twice) -> IPU1_0

| Preconditions: |
|---|

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Run Testsuite | Check Logs of Capture IPC Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>Display should be running on IPU1-0 at 60fps | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1398: IPC between M4s<br>ADASVISION-1399: IPC between DSPs<br>ADASVISION-1400: IPC between EVEs<br>ADASVISION-1401: IPC between M4 & A15<br>ADASVISION-1402: IPC between M4 & DSP<br>ADASVISION-1403: IPC between M4 & EVE<br>ADASVISION-1404: IPC between DSP & A15<br>ADASVISION-1405: IPC between DSP & EVE<br>ADASVISION-1406: IPC between EVE & A15<br>ADASVISION-1410: shall support link sendcmd across all cores |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.1.5. Test Suite : VIP_Capture_Color_To_Gray_Display

| **Test Case VISIONSDK-167: VIP_Capture_Color_To_Gray_Display** |
|---|

| Summary: |
|---|

Single Cam Capture Color to Gray Display UC

supported on TDA2x/TDA2Ex/TDA3x

Input : OV10635 Sensor

Output : HDMI 1080P

| Preconditions: |
|---|

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Run Testsuite | Check Logs of Capture Color to Gray Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1553: Algorithm Link Support In place computation support<br>ADASVISION-1558: Support Sample Algorithm Link (Color to Gray Plug-Ins) with inplace buffer processing |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm |

|  |  |
|---|---|
|  | tda2ex-entry<br>tda2px-evm |
| **Execution Details** |  |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): |  |

## 1.3.1.6. Test Suite : VIP_Capture_VPE_Display

| **Test Case VISIONSDK-189: VIP_Capture_VPE_Display** | | | |
|---|---|---|---|
| Summary: | | | |
| Single Cam Capture VPE Display UC | | | |
| supported on TDA2x/TDA2Ex/TDA3x | | | |
| Input : OV10635 Sensor | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Run Testsuite | Check Logs of Capture VPE Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1369: VPE link to support scaling of input video<br>ADASVISION-1370: VPE link to support de-interlacing<br>ADASVISION-1371: VPE link to support multiple output queues<br>ADASVISION-1372: VPE link to support Multi instance<br>ADASVISION-1373: VPE link to support input type progressive<br>ADASVISION-1374: VPE link to support various Input Data Formats<br>ADASVISION-1375: VPE link to support various output data format<br>ADASVISION-1376: VPE link to support De-interlaced enable/disable<br>ADASVISION-1377: VPE link to support input resolution change<br>ADASVISION-1378: VPE link to support output resolution change<br>ADASVISION-1379: VPE link to support frame rate down sampling | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>m_vpe | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.3.1.7. Test Suite : VIP_SingleCam_Capture_Analytics_Display

| **Test Case VISIONSDK-9: VIP_Capture_Edge_detect_Display** |
|---|
| Summary: |
| VIP Capture Edge Detect Display UC with EVE1 |
| Input : OV10635 |

| Output : HDMI 1080P | | | |
|---|---|---|---|
| **Preconditions:** | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| **#:** | **Step actions:** | **Expected Results:** | **Execution Status:** |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + Edge Detect (EVE1) + Display UC | Display must come up and no buffer drops should be observe | |
| **Execution type:** | Automated | | |
| **Estimated exec. duration (sec):** | 60.00 | | |
| **Priority:** | Medium | | |
| **Requirements** | ADASVISION-1385: 1CH VIP capture + Edge Detect (EVE1) + Display | | |
| **Keywords:** | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| **Execution Result:** | **Passed** | | |
| **Execution Mode:** | **Manual** | | |
| Execution duration (sec): | | | |

| **Test Case VISIONSDK-10: VIP_Capture_DOF_1Pyramid_Display** | | | |
|---|---|---|---|
| **Summary:** | | | |
| VIP Capture DOF Display UC with 1 Pyramid | | | |
| Input : OV10635 | | | |
| Output : HDMI 1080P | | | |
| **Preconditions:** | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| **#:** | **Step actions:** | **Expected Results:** | **Execution Status:** |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + Dense Optical Flow (EVEx) + Display UC with 1 Pyramid | Display must come up and no buffer drops should be observe | |
| **Execution type:** | Automated | | |
| **Estimated exec. duration (sec):** | 60.00 | | |
| **Priority:** | Medium | | |
| **Requirements** | ADASVISION-1386: 1CH HDMI capture + Dense Optical Flow (EVEx) + Display<br>ADASVISION-1554: Algorithm Link Support Non-In place computation support | | |
| **Keywords:** | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| **Execution Result:** | **Passed** | | |
| **Execution Mode:** | **Manual** | | |
| Execution duration (sec): | | | |

| Test Case VISIONSDK-11: VIP_Capture_DOF_2Pyramid_Display | | | |
|---|---|---|---|
| Summary: | | | |
| VIP Capture DOF Display UC with 2 Pyramid | | | |
| Input : OV10635 | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + Dense Optical Flow (EVEx) + Display UC with 2 Pyramid | Display must come up and no buffer drops should be observe | |
| Execution type: | Automated | | |
| Estimated exec. duration (sec): | 60.00 | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1386: 1CH HDMI capture + Dense Optical Flow (EVEx) + Display | | |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.3.1.8.Test Suite : VIP_Capture_Encode_Decode_Display

| Test Case VISIONSDK-12: VIP_Capture_Encode_Decode_MJPEG_Display | | | |
|---|---|---|---|
| Summary: | | | |
| VIP Capture Encode Decode Display UC with MJPEG Frames | | | |
| Input : OV10635 | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + ENC + DEC + Display UC<br><br>& select "0" for MJPEG Frames | Display must come up and no buffer drops should be observe | |
| 3 | Press "P" | Check performance stats | |
| Execution type: | Automated | | |
| Estimated exec. duration (sec): | 60.00 | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1035: Display link to support cropping feature | | |

ADASVISION-1333: IVA Decode Link - MJPEG decode
ADASVISION-1337: IVA Decode Link - Support various Decode resolutions
ADASVISION-1338: IVA Decode Link - Support for multiple Bit rates
ADASVISION-1339: IVA Decode Link - Performance
ADASVISION-1340: IVA Decode Link - Subframe/Slice based decoding
ADASVISION-1341: IVA Decode Link - Error-concealment
ADASVISION-1342: IVA Decode Link - Output data format YUV420SP
ADASVISION-1446: IVA Encode Link support MJPEG encode
ADASVISION-1452: IVA Encode Link Performance
ADASVISION-1454: IVA Encode Link support Error-concealment
ADASVISION-1455: IVA Encode Link support Input data format YUV420SP
ADASVISION-2011: [IVA] Support for 617 MHz TDA2eex PRCM sequence

| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm |
|---|---|
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| **Test Case VISIONSDK-13: VIP_Capture_Encode_Decode_H264_Display** | | | |
|---|---|---|---|
| Summary:<br><br>VIP Capture Encode Decode Display UC with H264 Frames<br><br>Input : OV10635<br><br>Output : HDMI 1080P | | | |
| Preconditions:<br><br>Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| **#:** | **Step actions:** | **Expected Results:** | **Execution Status:** |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + ENC + DEC + Display UC<br><br>& select "1" for H264 Frames | Display must come up and no buffer drops should be observe | |
| 3 | Press "P" | Check performance stats<br><br>should match with IVAHD codec performance data | |
| Execution type: | Automated | | |
| Estimated exec. duration (sec): | 60.00 | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1035: Display link to support cropping feature<br>ADASVISION-1261: Performance tuning for IVAHD codec in system<br>ADASVISION-1273: IVA H264 Encoder - IDR frame only configuration<br>ADASVISION-1335: IVA Decode Link - H264 decode<br>ADASVISION-1337: IVA Decode Link - Support various Decode resolutions<br>ADASVISION-1338: IVA Decode Link - Support for multiple Bit rates<br>ADASVISION-1339: IVA Decode Link - Performance<br>ADASVISION-1340: IVA Decode Link - Subframe/Slice based decoding<br>ADASVISION-1341: IVA Decode Link - Error-concealment<br>ADASVISION-1342: IVA Decode Link - Output data format YUV420SP<br>ADASVISION-1448: IVA Encode Link support H264 encode<br>ADASVISION-1450: IVA Encode Link Support various encode resolutions<br>ADASVISION-1451: IVA Encode Link Support for multiple Bit rates<br>ADASVISION-1452: IVA Encode Link Performance<br>ADASVISION-1453: IVA Encode Link support Subframe/Slice based Encoding<br>ADASVISION-1454: IVA Encode Link support Error-concealment<br>ADASVISION-1455: IVA Encode Link support Input data format YUV420SP<br>ADASVISION-1516: Tiler memory mode shall not be supported with VSDK | | |

| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_qualification<br>m_iva |
|---|---|
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

| **Test Case VISIONSDK-199: VIP_Capture_Encode_Decode_MJPEG_SGX_Copy_Display** | | | |
|---|---|---|---|
| Summary: | | | |
| VIP Capture Encode Decode SGX copy Display UC with MJPEG Frames | | | |
| supported on TDA2x/TDA2Ex/TDA2Ex Entry Linux | | | |
| Input : OV10635 | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP capture + Encode + Decode + SGX Copy + DISPLAY" UC<br><br>& select "0" for MJPEG Frames | Display must come up and no buffer drops should be observe | |
| 3 | Press "P" | Check performance stats | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1446: IVA Encode Link support MJPEG encode<br>ADASVISION-1447: IVA Encode Link support Multichannel MJPEG encode<br>ADASVISION-1450: IVA Encode Link Support various encode resolutions<br>ADASVISION-1451: IVA Encode Link Support for multiple Bit rates<br>ADASVISION-1452: IVA Encode Link Performance<br>ADASVISION-1454: IVA Encode Link support Error-concealment<br>ADASVISION-1455: IVA Encode Link support Input data format YUV420SP<br>ADASVISION-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

| **Test Case VISIONSDK-198: VIP_Capture_Encode_Decode_H264_SGX_Copy_Display** |
|---|
| Summary: |
| VIP Capture Encode Decode SGX copy Display UC with H264 Frames |
| supported on TDA2x/TDA2Ex/TDA2Ex Entry Linux |
| Input : OV10635 |

| Output : HDMI 1080P | | | |
|---|---|---|---|
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "1CH VIP capture + Encode + Decode + SGX Copy + DISPLAY" UC<br><br>& select "1" for H264 | Display must come up and no buffer drops should be observe | |
| 3 | Press "P" | Check performance stats<br><br>should match with IVAHD codec performance data | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |

| Requirements | ADASVISION-1261: Performance tuning for IVAHD codec in system<br>ADASVISION-1448: IVA Encode Link support H264 encode<br>ADASVISION-1450: IVA Encode Link Support various encode resolutions<br>ADASVISION-1451: IVA Encode Link Support for multiple Bit rates<br>ADASVISION-1452: IVA Encode Link Performance<br>ADASVISION-1454: IVA Encode Link support Error-concealment<br>ADASVISION-1455: IVA Encode Link support Input data format YUV420SP<br>ADASVISION-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex |
|---|---|
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_qualification<br>m_iva |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

### 1.3.1.9.Test Suite : VIP_Capture_Safe_FrameCopy_Display

| **Test Case VISIONSDK-290: VIP_Capture_Safe_FrameCopy_A15_Display** | | | |
|---|---|---|---|
| Summary: | | | |
| Capture Safe FrameCopy Display UC on A15 | | | |
| Input : OV10635 | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run "1CH VIP capture + Safe Frame Copy (A15) + Display" UC | Display must come up and no buffer drops should be observe | |
| Execution type: | Automated | | |
| Estimated exec. duration (sec): | 60.00 | | |
| Priority: | Medium | | |

| | |
|---|---|
| <u>Requirements</u> | ADASVISION-1503: ESM support<br>ADASVISION-1504: DAP MPU support<br>ADASVISION-1510: DCC support |
| <u>Keywords:</u> | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| <u>Execution Result:</u> | **Passed** |
| <u>Execution Mode:</u> | **Manual** |
| <u>Execution duration (sec):</u> | |

## 1.3.2.Test Suite : HDMI

### 1.3.2.1.Test Suite : HDMI_Capture_Display

**Test Case VISIONSDK-4: HDMI_Capture_Display_Input_HDMI_Output_HDMI**

| | |
|---|---|
| Summary: | |

Capture Display UC

Input : HDMI

Output : HDMI

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI | Capture Source shuld be HDMI<br><br>& Display device as HDMI | |
| 2 | Run 1 Ch VIP capture + Display UC | Display must come up and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1278: VIP Capture Link to support HDMI capture<br>ADASVISION-1286: VIP Capture Link to support Non-mux Embedded sync capture modes<br>ADASVISION-1287: VIP Capture Link to support 8 bit, 16bit & 24bit Capture bus width<br>ADASVISION-1288: VIP Capture Link to support Progressive mode capture<br>ADASVISION-1296: Display Link - Display support for ARGB 16/24/32 bit data formats<br>ADASVISION-1298: Display Link - Progressive mode display<br>ADASVISION-1300: Display Link - Video window positioning support<br>ADASVISION-1302: Display Link - Active video channel selection<br>ADASVISION-1306: Display Link - HDMI display support<br>ADASVISION-1315: Display Link - Digital Output data format with discrete sync<br>ADASVISION-1318: Display Link - VENC section<br>ADASVISION-1323: capture from HDMI source<br>ADASVISION-1331: support for HDMI (off chip) via ADV chip |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_qualification<br>c_integration |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

### 1.3.2.2.Test Suite : HDMI_Capture_Analytics_Display

**Test Case VISIONSDK-14: HDMI_Capture_SOF_Display**

| | |
|---|---|
| Summary: | |

HDMI Capture SOF Display UC

Input : HDMI

Output : HDMI

Preconditions:

Verify whether display shows flow vectors of the captured input
Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI 1080P | Capture Source shuld be HDMI<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH VIP capture (HDMI) + Sparse Optical Flow (EVE1) + Display UC | Display must come up and no buffer drops should be observe<br><br>Flow vectors of the captured input should be displayed | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1389: 1CH HDMI capture + Sparse Optical Flow (EVEx) + Display |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

| **Test Case VISIONSDK-15: HDMI_Capture_LD_Display** |
|---|

Summary:

HDMI Capture Lane Detect Display UC

Input : HDMI

Output : HDMI 1080P

Preconditions:

Verify whether display shows a smooth stitching of the single cam views Lane detection
All running at 30fps, Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI 1080P | Capture Source shuld be HDMI<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH VIP capture (HDMI) + Lane Detect (DSP1 + EVE1) + Display UC | Display must come up and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1391: 1CH HDMI capture + Lane Detection (DSP+EVE) + Display |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |

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

**Test Case VISIONSDK-16: HDMI_Capture_TLR_Display**

Summary:

HDMI Capture Traffic Light Display UC

Input : HDMI

Output : HDMI 1080P

Preconditions:

Verify whether display shows a smooth stitching of the single cam views Traffic Light detection
All running at 30fps, Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI 1080P | Capture Source shuld be HDMI<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH VIP capture (HDMI) + Traffic Light Recognition (TLR) (DSP1) + Display UC | Display must come up and no buffer drops should be observe | |

| Execution type: | Automated |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1278: VIP Capture Link to support HDMI capture<br>ADASVISION-1323: capture from HDMI source<br>ADASVISION-1331: support for HDMI (off chip) via ADV chip |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-17: HDMI_Capture_PD_Display**

Summary:

HDMI Capture Pedestrian Detect Display UC

Input : HDMI

Output : HDMI 1080P

Preconditions:

Verify whether display shows a smooth stitching of the single cam views Pedestrian detection
All running at 30fps, Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI 1080P | Capture Source shuld be HDMI<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH VIP capture (HDMI) + PD + Display UC | Display must come up and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1390: 1CH HDMI capture + Pedestrian Detection (EVE+DSP) + Display |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-18: HDMI_Capture_TSR_Display**

Summary:

HDMI Capture Traffic Sign Detect Display UC

Input : HDMI

Output : HDMI 1080P

Preconditions:

Verify whether display shows a smooth stitching of the single cam views Traffic Sign detection
All running at 30fps, Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI 1080P | Capture Source shuld be HDMI<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH VIP capture (HDMI) + TSR + Display UC | Display must come up and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1392: 1CH HDMI capture + Traffic sign detection (DSP1 + DSP2) + Display |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-19: HDMI_Capture_VD_Display**

Summary:

HDMI Capture Vehicle Detect Display UC

Input : HDMI

Output : HDMI 1080P

Preconditions:

Verify whether display shows a smooth stitching of the single cam views Vehicle detection
All running at 30fps, Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI 1080P | Capture Source shuld be HDMI<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH VIP capture (HDMI) + VD + Display UC | Display must come up and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1278: VIP Capture Link to support HDMI capture<br>ADASVISION-1323: capture from HDMI source |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

**Test Case VISIONSDK-20: HDMI_Capture_PD_TSR_VD_Display**

Summary:

HDMI Capture Pedestrian, Traffic Sign, Vehicle Detect Display UC

Input : HDMI

Output : HDMI 1080P

Preconditions:

Verify whether display shows a smooth stitching of the single cam views Pedestrian, Traffic Sign, Vehicle Detect
All running at 30fps, Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI 1080P | Capture Source shuld be HDMI<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH VIP capture (HDMI) + PD+TSR+VD + Display UC | Display must come up and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1555: Algorithm Link Support Multiple Algos |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm<br>m_algorithm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

**Test Case VISIONSDK-21: HDMI_Capture_FrontCam_Analytics_Display**

Summary:

HDMI Capture FrontCam Analytics Display UC

Input : HDMI

Output : HDMI 1080P

Preconditions:

Verify whether display shows a smooth stitching of the single cam views PD+TSR+VD+LD+TLR+SFM
All running at 15fps, Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI 1080P | Capture Source shuld be HDMI<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH VIP capture (HDMI) + FrontCam Analytics 2 (PD+TSR+VD+LD+TLR+SFM) (DSPx, EVEx) + Display UC | Display must come up and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |

| | |
|---|---|
| Requirements | ADASVISION-1380: Support ISS based Multi scale (pyramid generation for PD/TSR etc)<br>ADASVISION-1486: ISS M2M RSZ - Multi scale (pyramid generation for PD/TSR etc)<br>ADASVISION-1542: Algorithm Link Support (Framework and Skeleton portion)<br>ADASVISION-1543: Algorithm Link Support for all CPU cores<br>ADASVISION-1544: Algorithm Link Support Prioritization<br>ADASVISION-1545: Algorithm Link Support Multiple instantiation<br>ADASVISION-1546: Algorithm Link Support Multiple input and output queues<br>ADASVISION-1547: Algorithm Link Support Multiple input channels<br>ADASVISION-1548: Algorithm Link Support Out of order release of input and output buffers<br>ADASVISION-1549: Algorithm Link Support Memory allocations<br>ADASVISION-1555: Algorithm Link Support Multiple Algos<br>ADASVISION-1556: Algorithm Link Support Alg Configurations<br>ADASVISION-1602: Support Image pyramid using ISS<br>ADASVISION-1603: support for Image pyramid using VPE<br>ADASVISION-1607: EU-NCAP demo support with TDA2X/3X |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm<br>c_stress<br>c_stability<br>m_algorithm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.3.Test Suite : ISS

### 1.3.3.1.Test Suite : ISS_SingleCam_Capture_Display_OV10640

| **Test Case VISIONSDK-47: ISS_Capture_OV10640_LM** | | | |
|---|---|---|---|
| Summary: | | | |
| Linear mode - basic ISS functionality test<br><br>ISS Single channle Capture UC with OV10640<br><br>Input : OV10640 sensor<br><br>Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture/Display is running on IPU1-0 at 30fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Go to System Settings<br><br>Select Capture Source as OV10640<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10640<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH ISS capture + ISS + Display UC | Display must come up and no buffer drops should be observed<br>Exposure and colors should look correct.<br>Most important - white/grey objects should not have any color cast | |
| Execution type: | Automated | | |
| Estimated exec. duration (sec): | 60.00 | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1326: Support OV10640 Raw/Bayer sensors<br>ADASVISION-1395: 1CH 720p30 CSI2/LVDS/Paralle capture + ISS ISP M2M WDR + ISS M2M LDC+VTNF + Display<br>ADASVISION-1429: Capture + Display generic usecase using OV10640<br>ADASVISION-1436: Basic Capture + ISP processing + display use case<br>ADASVISION-1461: ISS capture - packing<br>ADASVISION-1621: ISS: Capture Link & M2M ISP : Support MIPI RAW 12 dataformat | | |
| Keywords: | tda3xx-evm<br>c_qualification<br>c_integration | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

| **Test Case VISIONSDK-318: ISS_Capture_OV10640_LM_Performance_L** | |
|---|---|
| Summary: | |
| Linear mode - basic ISS, performance test on TDA2Px Linux<br><br>ISS Single channle Capture UC with OV10640<br><br>Input : OV10640 sensor<br><br>Output : HDMI 1080P | |

Preconditions:

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

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10640<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10640<br><br>& 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 | |
| 3 | Press "P" & check for FPS | FPS should be in the range 29.5 - 30.5 | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1395: 1CH 720p30 CSI2/LVDS/Paralle capture + ISS ISP M2M WDR + ISS M2M LDC+VTNF + Display<br>ADASVISION-1429: Capture + Display generic usecase using OV10640<br>ADASVISION-1436: Basic Capture + ISP processing + display use case<br>ADASVISION-1456: ISS capture - mode<br>ADASVISION-1457: ISS capture - interface<br>ADASVISION-1458: ISS capture - CSI2 mode<br>ADASVISION-1459: ISS capture - resolution<br>ADASVISION-1467: ISS M2M -ISP - GLBCE selection<br>ADASVISION-1468: ISS M2M -ISP - resizer<br>ADASVISION-1469: ISS M2M -ISP - output dataformat<br>ADASVISION-1470: ISS M2M -ISP - input data format<br>ADASVISION-1473: ISS M2M -ISP - resizer<br>ADASVISION-1475: ISS M2M - H3A<br>ADASVISION-1483: ISS M2M RSZ - resizer<br>ADASVISION-1484: ISS M2M RSZ - output dataformat<br>ADASVISION-1485: ISS M2M RSZ - input data format<br>ADASVISION-1490: Algorithm Link ISS 2A - Auto-exposure using H3A data as input<br>ADASVISION-1491: Algorithm Link ISS 2A - Auto-white balance using H3A data as input<br>ADASVISION-1492: Algorithm Link ISS 2A - Auto-exposure for WDR mode operation using H3A data as input<br>ADASVISION-1604: Support sensor frame work |
| Keywords: | tda2px-evm<br>c_regression<br>c_performance<br>m_iss |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.3.2.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 Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV2775 | Capture Source shuld be OV2775<br><br>& Display device as HDMI 1080P | |

| | |
|---|---|
| | & Display Output 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<br>Exposure and colors should look correct.<br>Most important - white/grey objects should not have any color cast | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1395: 1CH 720p30 CSI2/LVDS/Paralle capture + ISS ISP M2M WDR + ISS M2M LDC+VTNF + Display<br>ADASVISION-1436: Basic Capture + ISP processing + display use case<br>ADASVISION-1604: Support sensor frame work |
| Keywords: | tda3xx-evm<br>tda2px-evm<br>c_stress<br>c_qualification<br>c_stability |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.3.3.Test Suite : ISS_SingleCam_Capture_Display_AR0143

| **Test Case VISIONSDK-254: ISS_Capture_AR0143_LM** | | | |
|---|---|---|---|
| Summary: | | | |
| Linear mode - basic ISS functionality test | | | |
| ISS Single channle Capture UC with AR0143 | | | |
| Input : AR0143 sensor | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture/Display is running on IPU1-0 at 30fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Go to System Settings<br><br>Select Capture Source as AR0143<br><br>& Display Output as HDMI 1080P | Capture Source shuld be AR0143<br><br>& 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<br>Exposure and colors should look correct.<br>Most important - white/grey objects should not have any color cast | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | 60.00 | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1257: AR0143 Sensor Support<br>ADASVISION-1395: 1CH 720p30 CSI2/LVDS/Paralle capture + ISS ISP M2M WDR + ISS M2M LDC+VTNF + Display<br>ADASVISION-1436: Basic Capture + ISP processing + display use case<br>ADASVISION-1604: Support sensor frame work<br>ADASVISION-1701: AR143 (MARs) Camera and Fusion board support on TDA2Px | | |
| Keywords: | tda3xx-evm<br>c_stress<br>c_qualification<br>c_stability | | |

**Execution Details**

| | |
|---|---|
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

**Test Case VISIONSDK-307: ISS_dump_frames_various_tap_points**

Summary:

ISS Single channle Capture UC with AR140/OV10640/IMX224

Input : AR140/OV10640/IMX224 sensor

Output : HDMI 1080P

Preconditions:

Binaries should built with NDK enabled

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

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as AR140/OV10640/IMX224<br><br>& Display Output as HDMI 1080P | Capture Source shuld be AR140/OV10640/IMX224<br><br>& 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<br>Exposure and colors should look correct. Most important - white/grey objects should not have any color cast | |
| 3 | Run DCC tool for ISS image tuning<br><br>Connect to target EVM (using IP) & dump frames from various tap-points | should be able to dump frames from various tap-points | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1395: 1CH 720p30 CSI2/LVDS/Paralle capture + ISS ISP M2M WDR + ISS M2M LDC+VTNF + Display<br>ADASVISION-1436: Basic Capture + ISP processing + display use case<br>ADASVISION-1511: ISS tuning tool<br>ADASVISION-1587: TDA3x ISS UC - SDK links and Utils to support static memory allocation<br>ADASVISION-1600: ISS - add various tap-points for dumping the frames<br>ADASVISION-1604: Support sensor frame work<br>ADASVISION-1671: APIs to read UB960/964/954/953 status registers and to enable test pattern |
| Keywords: | None |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

**Test Case VISIONSDK-357: ISS_Capture_OV10640_Output_ARGB32**

Summary:

ISS Capture display UC

supported on TDA3x

Input : OV10640 Sensor

Output : ARGB32 over resizer window

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Enable use-case in test suite& build<br><br>Load Testsuite binaries on TDA3xx EVM & Run | Check Logs of iss_isp_display use-case<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| | |
| Requirements | ADASVISION-1927: ARGB32 output support for Iss_memResizer Link |
| Keywords: | None |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.4. Test Suite : MISC

### 1.3.4.1. Test Suite : NullSrc_Null_Link

| Test Case VISIONSDK-181: NullSrc_Null_UC | | | |
|---|---|---|---|
| Summary: | | | |
| Null Src Null UC | | | |
| supported on TDA2x/TDA2Ex/TDA3x | | | |
| Input Data Format: MJPEG Bitstream | | | |
| Output : Null | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| **#:** | **Step actions:** | **Expected Results:** | **Execution Status:** |
| 1 | Run Testsuite | Check Logs of Null Src Null UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1263: Null & NullSrc clean-up to move Networking RX/Tx functionalities to new network_rx and network_tx li<br>ADASVISION-1522: Dummy Sink (Null Link)<br>ADASVISION-1523: Dummy source (NUllSrc Link) | | |
| Keywords: | tda2xx-evm<br>m_connector_links | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

| Test Case VISIONSDK-182: NullSrc_Decode_Display_MJPEG_Frames | | | |
|---|---|---|---|
| Summary: | | | |
| Null Src Decode Display UC | | | |
| supported on TDA2x/TDA2Ex/TDA3x | | | |
| Input Data Format: MJPEG Bitstream | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| **#:** | **Step actions:** | **Expected Results:** | **Execution Status:** |
| 1 | Run Testsuite | Check Logs of Null Src Decode Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |
| Execution type: | Manual | | |

| | |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1523: Dummy source (NUllSrc Link) |
| Keywords: | tda2xx-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-183: NullSrc_Decode_Display_H264_Frames**

Summary:

Null Src Decode Display UC

supported on TDA2x/TDA2Ex/TDA3x

Input Data Format: H264 Bitstream

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Run Testsuite | Check Logs of Null Src Decode Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1523: Dummy source (NUllSrc Link) |
| Keywords: | tda2xx-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-184: NullSrc_Display_UC_DataFormat_YUV420SP**

Summary:

Null Src Display UC

supported on TDA2x/TDA2Ex/TDA3x

Input Data Format: YUV420SP

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Run Testsuite | Display must come up and no buffer drops should be observed<br><br>Check Logs of Null Src Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| | |
| Requirements | ADASVISION-1523: Dummy source (NUllSrc Link) |
| Keywords: | tda2xx-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

**Test Case VISIONSDK-185: NullSrc_Display_UC_DataFormat_YUV422I**

Summary:

Null Src Display UC

supported on TDA2x/TDA2Ex/TDA3x

Input Data Format: YUV422I

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Run Testsuite | Display must come up and no buffer drops should be observed<br><br>Check Logs of Null Src Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| | |
| Requirements | ADASVISION-1523: Dummy source (NUllSrc Link) |
| Keywords: | tda2xx-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

---

**Test Case VISIONSDK-201: NullSrc_Decode_Display_MJPEG_Frames_L**

Summary:

Null Src Decode Display UC

supported on TDA2x/TDA2Ex/TDA2Ex Entry Linux

Input Data Format: MJPEG Bitstream

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |

| 2 | Run "NullSrc + Decode + Display (Only 1920x1080 H264/MJPEG Video Input Bit-Stream Supported)" UC | Display must come up and no buffer drops should be observe | |
|---|---|---|---|
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1523: Dummy source (NUllSrc Link) | | |
| Keywords: | tda2xx-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

| **Test Case VISIONSDK-200: NullSrc_Decode_Display_H264_Frames_L** | | | |
|---|---|---|---|
| Summary: | | | |

Null Src Decode Display UC

supported on TDA2x/TDA2Ex/TDA2Ex Entry Linux

Input Data Format: H264 Bitstream

Output : HDMI 1080P

| Preconditions: | | | |
|---|---|---|---|

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "NullSrc + Decode + Display (Only 1920x1080 H264/MJPEG Video Input Bit-Stream Supported)" UC | Display must come up and no buffer drops should be observe | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1523: Dummy source (NUllSrc Link) | | |
| Keywords: | tda2xx-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.3.4.2.Test Suite : SyncLink

| **Test Case VISIONSDK-187: VIP_Capture_Sync_Null** | | | |
|---|---|---|---|
| Summary: | | | |

Single Cam Capture Sync Null UC

supported on TDA2x/TDA2Ex/TDA3x

Input : OV10635 Sensor

Output : Null

| Preconditions: | | | |
|---|---|---|---|

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|

| 1 | Run Testsuite | Check Logs of Capture Sync Null UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |
|---|---|---|---|
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1518: Synchronization of frames across multiple channels | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>m_connector_links | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.3.4.3.Test Suite : DupLink

| **Test Case VISIONSDK-165: VIP_Capture_Dup_Display** | | | |
|---|---|---|---|
| Summary:<br><br>Single Cam Capture Dup Display UC<br><br>supported on TDA2x/TDA2Ex/TDA3x<br><br>Input : OV10635 Sensor<br><br>Output : HDMI 1080P | | | |
| Preconditions:<br><br>Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Run Testsuite | Check Logs of Capture Dup Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1519: duplication of output | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>m_connector_links | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.3.4.4.Test Suite : MergeLink

**Test Case VISIONSDK-166: VIP_Capture_Merge_Display**

Summary:

Single Cam Capture Merge Display UC

supported on TDA2x/TDA2Ex/TDA3x

Input : OV10635 Sensor

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Run Testsuite | Check Logs of Capture Merge Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1520: Merging of multiple outputs |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>m_connector_links |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.4.5.Test Suite : StatisticsLogs

**Test Case VISIONSDK-211: VIP_SingleCam_Capture_Display_Statistics_Logs**

Summary:

Capture Display UC

Input : OV10635

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + Display UC | Display must come up and no buffer drops should be observe | |
| 3 | Press "P" | It should print all performance statistics<br><br>1. Load on all cores<br><br>2. DDR BW usage<br><br>3. FPS for each Link<br><br>4. Latency to process frames | |

| Execution type: | Automated |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1536: System debug logs<br>ADASVISION-1537: Statistics logs<br>ADASVISION-1538: latency measurement<br>ADASVISION-1539: system loading<br>ADASVISION-1540: DDR BW measurement<br>ADASVISION-1541: Global timestamp<br>ADASVISION-1563: Vision SDK Print Statistics for PM |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| **Test Case VISIONSDK-212: Print_PRCM_Statistics_Dpll_Status** | | | |
|---|---|---|---|
| Summary: | | | |
| Print PRCM Statistics Dpll Status | | | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings -> Print PRCM Statistics<br><br>Press "1" for Dpll Status | On selecting "1" should print DPLL Statistics | |

| Execution type: | Automated |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1562: power mamagemant - Profiling Support for Actual CPU idle time<br>ADASVISION-1563: Vision SDK Print Statistics for PM |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| **Test Case VISIONSDK-213: Print_PRCM_Statistics_Temperature** | | | |
|---|---|---|---|
| Summary: | | | |
| Print PRCM Statistics Temperature | | | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|

| 1 | Go to System Settings -> Print PRCM Statistics<br><br>Press "2" for Temperature | On selecting "2" should print current min & max temperature on all cores | |

| Execution type: | Automated |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print Statistics for PM<br>ADASVISION-1566: PM - VSDKPRINTSTATS: Print the Temperature |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-214: Print_PRCM_Statistics_Voltage**

Summary:

Print PRCM Statistics Voltage

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings -> Print PRCM Statistics<br><br>Press "3" for Voltage | On selecting "3" should print voltage usage | |

| Execution type: | Automated |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print Statistics for PM<br>ADASVISION-1567: PM - VSDKPRINTSTATS: Print the Voltage |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-215: Print_PRCM_Statistics_Module_Power_State**

Summary:

Print PRCM Statistics Module Power State

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings -> Print PRCM Statistics<br><br>Press "4" for Module Power State | On selecting "4" should print Module Power State<br><br>Module Name & Module state<br><br>Module SIDLE State<br><br>Clock Activite State<br><br>Power Domain State | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| | |
| Requirements | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print Statistics for PM<br>ADASVISION-1565: PM - VSDKPRINTSTATS: Print Module Power State |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-216: Print_PRCM_Statistics_CPU_Frequency**

Summary:

Print PRCM Statistics CPU Frequency

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings -> Print PRCM Statistics<br><br>Press "5" for CPU Frequency | On selecting "5" should print Frequency of all cores | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| | |
| Requirements | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print Statistics for PM<br>ADASVISION-1564: PM - VSDKPRINTSTATS: Print Module Frequencies |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-217: Print_PRCM_Statistics_Peripherals_Frequency**

Summary:

Print PRCM Statistics Peripherals Frequency

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings -> Print PRCM Statistics<br><br>Press "6" for Peripherals Frequency | On selecting "6" should print Peripherals Frequency of QSPI & DSS | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print Statistics for PM<br>ADASVISION-1564: PM - VSDKPRINTSTATS: Print Module Frequencies |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-218: Print_PRCM_Statistics_Prcm_Register_Data**

Summary:

Print PRCM Statistics Prcm Register Data

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings -> Print PRCM Statistics<br><br>Press "7" for Prcm Register Data | On selecting "6" should print Prcm Register Data of all POWER DOMAIN<br><br>Reg. Address & Value | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print Statistics for PM<br>ADASVISION-1565: PM - VSDKPRINTSTATS: Print Module Power State |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |

| Execution duration (sec): | |
|---|---|

**Test Case VISIONSDK-219: Print_PRCM_Statistics_Power_Consumption**

Summary:

Print PRCM Statistics Power Consumption

Supported only on TDA2x

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings -> Print PRCM Statistics<br><br>Press "8" for Power Consumption | On selecting "8" should print Power Consumption | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print Statistics for PM<br>ADASVISION-1565: PM - VSDKPRINTSTATS: Print Module Power State |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-220: Print_PRCM_Statistics_All_PRCM_Stats**

Summary:

Print PRCM Statistics All PRCM Stats

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings -> Print PRCM Statistics<br><br>Press "9" for All PRCM Stats | On selecting "9" should print All PRCM Stats<br><br>Dpll Status<br><br>Temperature<br><br>Voltage<br><br>Module Power State<br><br>CPU frequency<br><br>Peripherals Frequency<br><br>Prcm register Data<br><br>Power Consumption | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1536: System debug logs |

|  | ADASVISION-1537: Statistics logs<br>ADASVISION-1538: latency measurement<br>ADASVISION-1539: system loading<br>ADASVISION-1540: DDR BW measurement<br>ADASVISION-1541: Global timestamp<br>ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print Statistics for PM<br>ADASVISION-1564: PM - VSDKPRINTSTATS: Print Module Frequencies<br>ADASVISION-1565: PM - VSDKPRINTSTATS: Print Module Power State<br>ADASVISION-1566: PM - VSDKPRINTSTATS: Print the Temperature<br>ADASVISION-1567: PM - VSDKPRINTSTATS: Print the Voltage |
|---|---|
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |
| **Execution Details** |  |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): |  |

## 1.3.4.6. Test Suite : FATFS

| **Test Case VISIONSDK-228: File_IO_UC_MMCSD_IPU1_0** |  |  |  |
|---|---|---|---|
| Summary:<br><br>File IO UC using MMCSD on IPU1_0<br><br>Read AppImage from SD card &<br><br>write back same to SD card |  |  |  |
| Preconditions:<br><br>Verify FATFS running IPU1_0<br><br>Build SDK with FATFS flags enabled & NDK disabled and FATFS lib on IPU1_0 |  |  |  |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | 1. Select File IO UC from Menu | No Display<br><br>On console, Time taken to read & write should be displayed |  |
| Execution type: | Automated |  |  |
| Estimated exec. duration (sec): | 60.00 |  |  |
| Priority: | Medium |  |  |
| Requirements | ADASVISION-1524: Dummy source with file read<br>ADASVISION-1595: Support for FAT File system with MMC/SD card. (When networking is enabled FAT FS is disabled)<br>ADASVISION-1601: SD card file system support with VSDK<br>ADASVISION-743: FAT FS throughput measurements and optimizations |  |  |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |  |  |
| **Execution Details** |  |  |  |
| Build | REL_3_6 |  |  |
| Tester | x0246581 |  |  |
| Execution Result: | **Passed** |  |  |
| Execution Mode: | **Manual** |  |  |
| Execution duration (sec): |  |  |  |

## 1.3.4.7. Test Suite : Limp_Home_Mode

**Test Case VISIONSDK-277: Limp_Home_Mode**

Summary:

Limp Home Mode UC

Input : HDMI

Output : HDMI 1080P

Preconditions:

Verify whether display shows a smooth stitching of the single cam views PD+TSR+VD+LD+TLR+SFM
All running at 15fps, Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as HDMI<br><br>& Display Output as HDMI 1080P | Capture Source shuld be HDMI<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1CH VIP capture (HDMI) + FrontCam Analytics 2 (PD+TSR+VD+LD+TLR+SFM) (DSPx, EVEx) + Display UC | Display must come up and no buffer drops should be observe | |
| 3 | Press "t" | Should Show Thermal Configuration Menu | |
| 4 | Choose below listed options one by one by one<br><br>1: Change THOT Temperature<br><br>2: Change TCOLD Temperature<br><br>3: Show current THOT Temperature<br><br>4: Show current TCOLD Temperature<br><br>5: Change Threshold Step Size<br><br>6: Show Limp Home Status<br><br>7: Switch to Limp Home Mode<br><br>8: Return to Normal Usecase Mode<br><br>x: Exit Thermal Menu | Option should be selected<br><br>On pressing "1" should display temperature to change ranging from 10 -100 deg c<br><br>On pressing "2" should display temperature to change ranging from 10 -100 deg c<br><br>On pressing "3" should display current THOT temperature<br><br>On pressing "4" should display current TCOLD temperature<br><br>On pressing "5" should display temperature to change ranging from 3 - 15 deg c<br><br>On pressing "6" should display current Limp Home Status (Limp Home Mode = ACTIVE!! or IN-ACTIVE!! should display on console)<br><br>On pressing "7" should switch to Limp Home Mode<br><br>On pressing "8" Return to Normal Usecase Mode<br><br>On pressing "x" should Exit from Thermal menu | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1527: API config outbound check<br>ADASVISION-1568: PM - Limp Home Mode on Vision SDK<br>ADASVISION-1569: PM - VSDKLIMPHOME: Demonstration of Limp Home<br>ADASVISION-1607: EU-NCAP demo support with TDA2X/3X |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.4.8.Test Suite : Task_time_measure_utility

**Test Case VISIONSDK-289: VIP_Capture_Display_task_time_measure_utility**

Summary:

Capture Display UC

supported on all platforms

Input : OV10635

Output : HDMI 1080P

Preconditions:

Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 1 Ch VIP capture + Display UC | Display must come up and no buffer drops should be observe | |
| 3 | Press "4" for Demonstrate Task Timer utility | On console should print Global time taken & actual time taken by utility for function | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1199: Utility to measure time taken for a function in multi-task environment<br>ADASVISION-1381: 1CH VIP capture + Display |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.3.4.9.Test Suite : TLFW_verify

**Test Case VISIONSDK-309: TLFW_verification**

Summary:

Verifying testlink fw

Preconditions:

staf should be running

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | 1. Add all vision SDk test cases to test link, Map with requirements from JIRA<br><br>2. Create a test plan & under that create a build<br><br>3. Add test cases to execute for that particular build<br><br>4. Trigger all automated test cases from test link | User should be able to trigger all automated test cases from test link<br><br>& also able to update test result for manula test cases | |

| | 5. Execute remaining manual test cases from test link<br><br>6. Generate test report | | |
|---|---|---|---|
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-369: Deploy TestLink for VSDK test-case management and automation | | |
| Keywords: | None | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

| **Test Case VISIONSDK-325: VSDK_restructuring_directory_structure** | | | |
|---|---|---|---|
| Summary:<br>restructuring directory structure for VSDk 3.0 release | | | |
| **#:** | **Step actions:** | **Expected Results:** | **Execution Status:** |
| 1 | Restructure directory structure for VSDK into separate Folder as below<br><br>link_fw<br><br>Make System (Common for FW & all Apps modules)<br><br>sample_app<br><br>apps<br><br>algorithms<br><br>docs<br><br>testsuite | Directory structure should be as stated | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1205: VSDK 3.0 restructuring<br>ADASVISION-929: SDK FW and App separation | | |
| Keywords: | None | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.3.5. Test Suite : ECC_FFI

| Test Case VISIONSDK-121: Capture_FrameCopy_FFI_DSP1_Display | | | |
|---|---|---|---|
| **Summary:** | | | |
| ECC FFI UC - 1CH VIP capture + QM Alg Frame Copy with FFI (DSP1) + Display | | | |
| Input : OV10635 sensor | | | |
| Output : HDMI 1080P | | | |
| **Preconditions:** | | | |
| Ensure Binaries build with ECC_FFI_INCLUDE=yes | | | |
| Verify that Capture/display is running on IPU1-0 at 30fps | | | |
| **#:** | **Step actions:** | **Expected Results:** | **Execution Status:** |
| 1 | Run "1CH VIP capture + QM Alg Frame Copy with FFI (DSP1) + Display " UC | Display must come up and no buffer drops should be observed Performance stats must match with Datasheet | |
| **Execution type:** | Automated | | |
| **Estimated exec. duration (sec):** | 60.00 | | |
| **Priority:** | Medium | | |
| **Requirements** | ADASVISION-1502: FFI (DSP CPU) - XMC ADASVISION-1505: FFI (DSP EDMA & EVE) - L3FW ADASVISION-1506: EMIF ECC support ADASVISION-1510: DCC support | | |
| **Keywords:** | None | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| **Execution Result:** | **Passed** | | |
| **Execution Mode:** | **Manual** | | |
| **Execution duration (sec):** | | | |

## 1.3.6. Test Suite : IPC_LIB

**Test Case VISIONSDK-123: IPC_LIB**

| Summary: | |
|---|---|
| IPC LIB UC<br><br>Input : OV10635 sensor<br><br>Output : HDMI 1080P | |

| Preconditions: | |
|---|---|
| Build binaries for all platform with IPC_LIB_INCLUDE=yes<br><br>Verify that Capture/display is running on IPU1-0 at 30fps | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Run all UCc one by one from UC menu | Display must come up and no buffer drops should be observed<br>Performance stats must match with Datasheet | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-925: Safe IPC implementation and integration with Vision SDK |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>m_ipc |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-240: Low_Latency_IPC**

| Summary: | |
|---|---|
| Low Latency IPC UC<br><br>Input : OV10635 sensor<br><br>Output : HDMI 1080P | |

| Preconditions: | |
|---|---|
| Build binaries for all platform with IPC_LIB_INCLUDE=yes & WORKQ_INCLUDE=yes<br><br>Verify that Capture/display is running on IPU1-0 at 30fps | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Run all UCc one by one from UC menu | Display must come up and no buffer drops should be observed<br>Performance stats must match with Datasheet | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |

| | |
|---|---|
| Priority: | Medium |
| Requirements | ADASVISION-1137: Low latency IPC support in VSDK to reduce the CPU load and latency<br>ADASVISION-925: Safe IPC implementation and integration with Vision SDK |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.4.Test Suite : Multi_Cam

## 1.4.1.Test Suite : Multi_Channel_LVDS_Capture_Display

**Test Case VISIONSDK-22: VIP_4CH_Capture_Display_OV10635_913deser**

| | |
|---|---|
| Summary: | |

4 Channel Capture Display UC

Input : OV10635 with 913/914 deserializer

Output : HDMI 1080P

| Preconditions: |
|---|

Verify whether display shows a smooth stitching of the 4 views in Mosaic
All running at 30fps.  Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run "4CH VIP Capture + Mosaic Display" UC<br><br>Select "0" For Single channel mode<br><br>Select "1" For Multi channel mode | On selecting "0"<br><br>Display must come up with CH0 preview on full screen and no buffer drops should be observe<br><br>On selecting "1"<br><br>Display must come up with 4CH mosaic on full screen and no buffer drops should be observe | |

| | |
|---|---|
| Execution type: | Automated |
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1275: VIP Capture Link to support Multi channel capture<br>ADASVISION-1276: VIP Capture Link to support Multi channel capture<br>ADASVISION-1277: VIP Capture Link- VIP port Config per VIP instance in multi-VIP port mode<br>ADASVISION-1282: VIP Capture Link to support Multi instance link support<br>ADASVISION-1294: VIP Capture Link to support Multi-channel capture upto 4CH<br>ADASVISION-1304: Display Link - Display Multi instance support<br>ADASVISION-1306: Display Link - HDMI display support<br>ADASVISION-1324: multi sensors support<br>ADASVISION-1325: support LVDS capture<br>ADASVISION-1387: 4CH LVDS VIP Capture + VPE + Sync + Alg DMA SW Mosaic (IPU1-0) + Display<br>ADASVISION-1580: Support for TDA2Ex (J6-Eco) in vision SDK<br>ADASVISION-1582: Shall support LVDS multi-channel capture upto 4 channel<br>ADASVISION-1584: Shall support all the Bios single multi camera usecases which use one DSP & M4<br>ADASVISION-1668: Custom SWMS link to use VPE (scalar) internally to avoid DMA copy<br>ADASVISION-897: Add single camera campture display using lvds for all platforms |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>c_qualification<br>m_capture<br>m_display |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |

| Execution duration (sec): | |
|---|---|

**Test Case VISIONSDK-23: VIP_6CH_Capture_Display_OV10635_913deser**

Summary:

6 Channel Capture Display UC

Input : OV10635 with 913/914 deserializer

Output : HDMI 1080P

Preconditions:

Regenerate UC with numbert of max LVDS channel = 6

Verify whether display shows a smooth stitching of the 6 views in Mosaic
All running at 30fps.  Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Go to System Settings<br><br>Select Capture Source as OV10635<br><br>& Display Output as HDMI 1080P | Capture Source shuld be OV10635<br><br>& Display device as HDMI 1080P | |
| 2 | Run 4CH VIP Capture + Mosaic Display Display UC | Display must come up and no buffer drops should be observe<br>Six views should come up in Mosaic | |

| Execution type: | Automated |
|---|---|
| Estimated exec. duration (sec): | 60.00 |
| Priority: | Medium |
| Requirements | ADASVISION-1282: VIP Capture Link to support Multi instance link support<br>ADASVISION-1290: VIP Capture Link - Detect VIP port overflow & Reset<br>ADASVISION-1294: VIP Capture Link to support Multi-channel capture upto 4CH<br>ADASVISION-1324: multi sensors support |
| Keywords: | tda2xx-evm<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-203: VIP_4CH_Capture_SGX_Mosaic_Display_OV10635_913deser**

Summary:

4 Channel Capture SGX Mosaic Display UC

supported on TDA2x/TDA2Ex/TDA2Ex Entry Linux

Input : OV10635 with 913/914 deserializer

Output : HDMI 1080P

Preconditions:

Verify whether display shows a smooth stitching of the 4 views in Mosaic
All running at 30fps.  Also check performance stats match with datasheet

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM with Linux binaries | EVM boots without any error and usecase menu displayed | |
| 2 | Run "4CH VIP LVDS capture + SGX MOSAIC + DISPLAY" UC | Display must come up with 4CH mosaic on full screen and no buffer drops should be observe | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |

| Priority: | Medium |
|---|---|
| Requirements | ADASVISION-1580: Support for TDA2Ex (J6-Eco) in vision SDK<br>ADASVISION-1582: Shall support LVDS multi-channel capture upto 4 channel<br>ADASVISION-1585: TDA2Ex - shall support all the Linux single & multi camera usecases which use one DSP, A15 & M4<br>ADASVISION-1596: Support VSDK Linux GPU Off-screen rendering & M4 side display<br>ADASVISION-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>c_qualification<br>m_capture<br>m_display |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.4.2.Test Suite : AVB_4CH_Capture_Mosaic_Display_AVBTx

| Test Case VISIONSDK-116: AVB_4CH_NW_Capture_Mosaic_Dispaly_AVBTx | | | |
|---|---|---|---|
| Summary: | | | |
| Supported on TDA2x/TDA2Ex/TDA2Ex Entry | | | |
| 4CH AVB Capture + Decode + VPE + Sync + Alg DMA SW Mosaic (IPU1-0) + AVB_Tx/Display (TDA2x & TDA2Ex ONLY) UC | | | |
| Input: Throuh Network (using AVB Talker) | | | |
| Output: HDMI1080P/PC | | | |
| Preconditions: | | | |
| Ensure Build happened with NDK_PROC_TO_USE=ipu1_1 | | | |
| Ensure Host PC & target is connected through network cable | | | |
| Run AVB talker in host PC & send MPEG encoded frames to target | | | |
| Verify that AVB Receives frames from network,decoder is able to decode the MJPEG frame and Display | | | |
| Verify that 4ch AVB Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps on LCD/HDMI | | | |
| **#:** | **Step actions:** | **Expected Results:** | **Execution Status:** |
| 1 | Boot EVM | EVM should boot | |
| 2 | Select UC | UC should be selected | |
| 3 | Enter no of channels as 4 | No of channels should be 4 | |
| 4 | Seeclt HDMI Display + AVB TX | Option should be selected | |
| 5 | Run avb talker & listener on PC side | Using Talker sent files from PC to target<br><br>Run "sudo ./avbtp_talker.sh [file1] [file2] [file3] [file4]"<br><br>Using listener dump frame to PC<br><br>Run "sudo ./avbtp_listener.sh recv.h264" | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1261: Performance tuning for IVAHD codec in system<br>ADASVISION-1273: IVA H264 Encoder - IDR frame only configuration<br>ADASVISION-1334: IVA Decode Link - Multichannel MJPEG decode<br>ADASVISION-1336: IVA Decode Link - Multichannel H264 decode<br>ADASVISION-1337: IVA Decode Link - Support various Decode resolutions<br>ADASVISION-1338: IVA Decode Link - Support for multiple Bit rates<br>ADASVISION-1339: IVA Decode Link - Performance<br>ADASVISION-1340: IVA Decode Link - Subframe/Slice based decoding<br>ADASVISION-1341: IVA Decode Link - Error-concealment<br>ADASVISION-1342: IVA Decode Link - Output data format YUV420SP<br>ADASVISION-1362: AVB Rx Link - Packet reception & multi-channel support<br>ADASVISION-1363: AVB Rx Link - frame level Notification<br>ADASVISION-1364: AVB Rx Link - Sub-frame level Notification<br>ADASVISION-1365: AVB Rx Link - Interoperability<br>ADASVISION-1366: AVB Rx Link - Performance<br>ADASVISION-1367: AVB Rx Link - Error handling<br>ADASVISION-1368: AVB Rx Link - Test with PC talker<br>ADASVISION-1393: 4CH AVB Capture + Decode + VPE + Sync + Alg DMA SW Mosaic (IPU1-0) + Display<br>ADASVISION-1447: IVA Encode Link support Multichannel MJPEG encode<br>ADASVISION-1449: IVA Encode Link support Multichannel H264 encode<br>ADASVISION-1450: IVA Encode Link Support various encode resolutions | | |

ADASVISION-1451: IVA Encode Link Support for multiple Bit rates
ADASVISION-1452: IVA Encode Link Performance
ADASVISION-1454: IVA Encode Link support Error-concealment
ADASVISION-1455: IVA Encode Link support Input data format YUV420SP
ADASVISION-1583: Shall support AVB multi-channel capture upto 4 channel

| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>m_iva |
|---|---|
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| **Test Case VISIONSDK-258: AVB_4CH_NW_Capture_Mosaic_AVBTx** |
|---|
| Summary: |
| Supported on TDA2x/TDA2Ex/TDA2Ex Entry |
| 4CH AVB Capture + Decode + VPE + Sync + Alg DMA SW Mosaic (IPU1-0) + AVB_Tx/Display (TDA2x & TDA2Ex ONLY) UC |
| Input: Throuh Network (using AVB Talker) |
| Output: PC |
| Preconditions: |
| Ensure Build happened with NDK_PROC_TO_USE=ipu1_1 |
| Ensure Host PC & target is connected through network cable |
| Run AVB talker in host PC & send MPEG encoded frames to target |
| Verify that AVB Receives frames from network,decoder is able to decode the MJPEG frame and Display |
| Verify that 4ch AVB Capture is running on IPU1-0 at 30fps |
| No Display |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot EVM | EVM should boot | |
| 2 | Select UC | UC should be selected | |
| 3 | Enter no of channels as 4 | No of channels should be 4 | |
| 4 | Seeclt AVB TX | Option should be selected<br><br>& no display over HDMI | |
| 5 | Run avb talker & listener on PC side | Using Talker sent files from PC to target<br><br>Run "sudo ./avbtp_talker.sh [file1] [file2] [file3] [file4]"<br><br>Using listener dump frame to PC<br><br>Run "sudo ./avbtp_listener.sh recv.h264" | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1261: Performance tuning for IVAHD codec in system<br>ADASVISION-1273: IVA H264 Encoder - IDR frame only configuration<br>ADASVISION-1362: AVB Rx Link - Packet reception & multi-channel support<br>ADASVISION-1363: AVB Rx Link - frame level Notification<br>ADASVISION-1364: AVB Rx Link - Sub-frame level Notification<br>ADASVISION-1365: AVB Rx Link - Interoperability<br>ADASVISION-1366: AVB Rx Link - Performance |

|  | ADASVISION-1367: AVB Rx Link - Error handling<br>ADASVISION-1368: AVB Rx Link - Test with PC talker<br>ADASVISION-1393: 4CH AVB Capture + Decode + VPE + Sync + Alg DMA SW Mosaic (IPU1-0) + Display<br>ADASVISION-1449: IVA Encode Link support Multichannel H264 encode<br>ADASVISION-1450: IVA Encode Link Support various encode resolutions<br>ADASVISION-1451: IVA Encode Link Support for multiple Bit rates<br>ADASVISION-1452: IVA Encode Link Performance<br>ADASVISION-1454: IVA Encode Link support Error-concealment<br>ADASVISION-1455: IVA Encode Link support Input data format YUV420SP |
|---|---|
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** |  |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): |  |

## 1.4.3.Test Suite : SelectLink

| Test Case VISIONSDK-186: VIP_4CH_Capture_Select_Display | | | |
|---|---|---|---|
| Summary: | | | |
| Multi Cam Capture Select Display UC | | | |
| supported on TDA2x/TDA2Ex/TDA3x | | | |
| Input : OV10635 Sensor | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Run Testsuite | Check Logs of LVDS Capture Select Display UC Capture should be running on IPU1-0 at 30fps and display should be running on IPU1-0 at 60fps | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1521: select a particular channel | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.4.4.Test Suite : VIP_4CH_Capture_Color_To_Gray_Display

| Test Case VISIONSDK-188: VIP_4CH_Capture_Color_To_Gray_Display | | | |
|---|---|---|---|
| Summary: | | | |
| Multi Cam Capture Color to Gray Display UC | | | |
| supported on TDA2x/TDA2Ex/TDA3x | | | |
| Input : OV10635 Sensor | | | |
| Output : HDMI 1080P | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Run Testsuite | Check Logs of LVDS Capture Color to Gray Display UC<br><br>Capture should be running on IPU1-0 at 30fps and<br><br>display should be running on IPU1-0 at 60fps | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1558: Support Sample Algorithm Link (Color to Gray Plug-Ins) with inplace buffer processing | | |
| Keywords: | tda2xx-evm<br>tda3xx-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.4.5.Test Suite : VIP_4CH_Capture_VPE_Sync_DMA_SWMS_Display

| Test Case VISIONSDK-192: VIP_4CH_Capture_VPE_Sync_DMA_SWMS_Display | | | |
|---|---|---|---|
| Summary: | | | |
| Multi Cam Capture VPE Sync DMA SWMS Display UC | | | |
| supported on TDA2x/TDA3x | | | |
| Input : OV10635 Sensor | | | |
| Output : HDMI 1080P | | | |
| On IPU/A15: System EDMA | | | |
| On DSP: Local DMA | | | |
| Preconditions: | | | |
| Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Run Testsuite | Check Logs of LVDS Capture VPE Sync DMA SWMS Display UC  Capture should be running on IPU1-0 at 30fps and  display should be running on IPU1-0 at 60fps | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1559: Sample Algorithm Link (DMA SW Mosaic Plug-Ins) | | |
| Keywords: | tda2xx-evm  tda2ex-evm  tda3xx-evm  tda2ex-entry  tda2px-evm  c_integration  m_vpe | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.5.Test Suite : Radar

**Test Case VISIONSDK-154: NullSrc_Capture_Radar_FFT_EVE1_Null_Read_Frames_SDcard**

Summary:

Null Source Capture(SD card) Radar FFT on EVE1 Null UC

Input : AR12

Output : Null

Preconditions:

Input files present in SD card

Debug prints will be in

UART1 for TDA2x & UART2 for TDA3x

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot TDA2x/TDA3x | Should display Main Menu | |
| 2 | Run "Null Source (SD/Network) Input + Radar FFT (EVE1) + Null (SD/Network)" UC<br><br>Select Data Read/Write Mode as SD card | No display | |
| 3 | Press "P" | Check performance stats | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1115: [RADAR] Support for build support and file based capture read process write<br>ADASVISION-1255: Radar Advance frame configuration & dynamic configuration support<br>ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK<br>ADASVISION-1442: RADAR algorithm porting on DSP Alg link<br>ADASVISION-1445: RADAR processing performance benchmarking<br>ADASVISION-1570: power mamagemant - CPU IDLE<br>ADASVISION-1571: power mamagemant - CPUIDLE: MPU Core 0/1 Idle<br>ADASVISION-1572: power mamagemant - CPUIDLE: IPU Core Idle<br>ADASVISION-1573: power mamagemant - CPUIDLE: DSP 1/2 Core Idle<br>ADASVISION-1574: power mamagemant - CPUIDLE: EVE 1/2/3/4 Core Idle<br>ADASVISION-1575: PM - CPUIDLE: Vision SDK Integration of CPU IDLE<br>ADASVISION-1699: [RADAR] Propagate each output channel info properly in RadarProcess Link Alg Plugin<br>ADASVISION-985: Radar Processing Alg Plugin<br>ADASVISION-986: Radar Processing Alg Plugin Flexibility<br>ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE<br>ADASVISION-989: Radar data read from SD card<br>ADASVISION-990: Radar Data output to SD Card<br>ADASVISION-993: Radar Data Processing Usecase using File Sensor Data input |
| Keywords: | tda2xx-evm<br>tda3xx-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-155: NullSrc_Capture_Radar_FFT_EVE1_Null_Write_Frames_SDcard**

Summary:

Null Source Capture(SD card) Radar FFT on EVE1 Null UC

Input : AR12

Output : Null

| Preconditions: |
| --- |
| Input files present in SD card |
| Debug prints will be in |
| UART1 for TDA2x & UART2 for TDA3x |

| #: | Step actions: | Expected Results: | Execution Status: |
| --- | --- | --- | --- |
| 1 | Boot TDA2x/TDA3x | Should display Main Menu | |
| 2 | Run "Null Source (SD/Network) Input + Radar FFT (EVE1) + Null (SD/Network)" UC<br><br>Select Data Read/Write Mode as SD card | No display | |
| 3 | Select File IO menu<br><br>Write single frame to SD card | Writing single frame to SD card should be successfull | |

| Execution type: | Manual |
| --- | --- |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1115: [RADAR] Support for build support and file based capture read process write<br>ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK<br>ADASVISION-1570: power mamagemant - CPU IDLE<br>ADASVISION-1571: power mamagemant - CPUIDLE: MPU Core 0/1 Idle<br>ADASVISION-1572: power mamagemant - CPUIDLE: IPU Core Idle<br>ADASVISION-1573: power mamagemant - CPUIDLE: DSP 1/2 Core Idle<br>ADASVISION-1574: power mamagemant - CPUIDLE: EVE 1/2/3/4 Core Idle<br>ADASVISION-1575: PM - CPUIDLE: Vision SDK Integration of CPU IDLE<br>ADASVISION-985: Radar Processing Alg Plugin<br>ADASVISION-986: Radar Processing Alg Plugin Flexibility<br>ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE<br>ADASVISION-989: Radar data read from SD card<br>ADASVISION-990: Radar Data output to SD Card<br>ADASVISION-993: Radar Data Processing Usecase using File Sensor Data input |
| Keywords: | tda2xx-evm<br>tda3xx-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| Test Case VISIONSDK-156: NullSrc_Capture_Radar_FFT_EVE1_Null_Read_Frames_NW |
| --- |
| Summary: |
| Null Source Capture(Network) Radar FFT on EVE1 Null UC |
| Input : AR12 |
| Output : Null |
| Preconditions: |
| Ensure NDK is enabled in build |
| Input files sent through network using network_tx |
| Debug prints will be in |
| UART1 for TDA2x & UART2 for TDA3x |

| #: | Step actions: | Expected Results: | Execution Status: |
| --- | --- | --- | --- |
| 1 | Boot TDA2x/TDA3x | Should display Main Menu | |
| 2 | Run "Null Source (SD/Network) Input + Radar FFT (EVE1) | No display | |

| | + Null (SD/Network)" UC | | |
|---|---|---|---|
| | Select Data Read/Write Mode as Network | | |
| 3 | Press "P" | Check performance stats | |
| 4 | using network_ctrl tool send a diiferent parameter set | should be able to update with new parameter set | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK<br>ADASVISION-1699: [RADAR] Propagate each output channel info properly in RadarProcess Link Alg Plugin<br>ADASVISION-1919: Radar: Allow accepting mmwave messages from Network to translate to AWR1243 SPI commands - Base Infr<br>ADASVISION-985: Radar Processing Alg Plugin<br>ADASVISION-986: Radar Processing Alg Plugin Flexibility<br>ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE<br>ADASVISION-991: Radar data input and output via Ethernet | | |
| Keywords: | tda2xx-evm<br>tda3xx-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

| **Test Case VISIONSDK-157: NullSrc_Capture_Radar_FFT_EVE1_Null_Write_Frames_NW** | | | |
|---|---|---|---|
| Summary: | | | |
| Null Source Capture(Network) Radar FFT on EVE1 Null UC | | | |
| Input : AR12 | | | |
| Output : Null | | | |
| Preconditions: | | | |
| Ensure NDK is enabled in build | | | |
| Input files sent through network using network_tx | | | |
| Debug prints will be in | | | |
| UART1 for TDA2x & UART2 for TDA3x | | | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot TDA2x/TDA3x | Should display Main Menu | |
| 2 | Run "Null Source (SD/Network) Input + Radar FFT (EVE1) + Null (SD/Network)" UC<br><br>Select Data Read/Write Mode as Network | No display | |
| 3 | Run network_rx to dump files | Should be able to dump frmaes | |
| 4 | Using network_ctrl tool send a different parameter set | should be able to update with new parameter set | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK<br>ADASVISION-1919: Radar: Allow accepting mmwave messages from Network to translate to AWR1243 SPI commands - Base Infr<br>ADASVISION-985: Radar Processing Alg Plugin<br>ADASVISION-986: Radar Processing Alg Plugin Flexibility<br>ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE<br>ADASVISION-991: Radar data input and output via Ethernet<br>ADASVISION-993: Radar Data Processing Usecase using File Sensor Data input | | |
| Keywords: | tda2xx-evm | | |

| | tda3xx-evm |
|---|---|
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

### Test Case VISIONSDK-350: Radar_AR12_PCIe_Capture_Null

Summary:

Radar AR12 PCIe Capture Null UC

Input : AR12

Output : Null

Supported on : TDA2Px Linux

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot TDA2Px with Radar setup | Shoul display Main Menu | |
| 2 | Run UC | No Display | |
| 3 | Press "P" | Check performance stats | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1920: Linux Support for Radar SDK<br>ADASVISION-1921: Radar SDK Linux - enable PCIe based capture | | |
| Keywords: | None | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

### Test Case VISIONSDK-352: Iss_Capture_Radar_FFT_DSP1_Display

Summary:

ISS Capture Radar FFT on DSP1 Display UC

Input : ISS sensor

Output : HDMI

Preconditions:

Ensure AR12 sensor Radar HW is connected to TDA2Px EVM

Debug prints will be in UART2

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot TDA2Px with Radar setup | Should display Main Menu | |
| 2 | Run usecase | Display should come up & no buffer drops should observed | |
| 3 | Press "P" | Check performance stats | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1777: Camera Radar combo usecase | | |
| Keywords: | None | | |

| Execution Details | |
|---|---|
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-353: Tidl_Od_Radar_FFT_DSP1_Display**

Summary:

TIDL OD Radar FFT on DSP1 Display UC

Input : File IO

Output : HDMI

Preconditions:

Ensure AR12 sensor Radar HW is connected to TDA2Px EVM

Debug prints will be in UART2

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Boot TDA2Px with Radar setup | Should display Main Menu | |
| 2 | Run usecase | Display should come up & no buffer drops should observed | |
| 3 | Press "P" | Check performance stats | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1777: Camera Radar combo usecase |
| Keywords: | None |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.6.Test Suite : Build

## 1.6.1.Test Suite : VSDK_Builds

**Test Case VISIONSDK-249: VSDK_BIOS_different_builds**

| | | | |
|---|---|---|---|
| Summary: | | | |
| VSDK BIOS different configuartions 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 Status: |
|---|---|---|---|
| 1 | Navigate to (vsdk_install_path)/vision_sdk/build<br><br>& run make -s showconfig | Should dislay config for tda2xx_evm_bios_all | |
| 2 | Modify Rules.mk file to other available MAKECONFIG<br><br>& run make -s showconfig | Should display config for MAKECONFIG selected | |
| 3 | run make -s -j depend<br><br>& 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 |
| Requirements | ADASVISION-1080: TDA2Px (J6+) Support with VSDK<br>ADASVISION-1081: J6 Entry support for VSDK<br>ADASVISION-1095: Platform support & maintainability<br>ADASVISION-1167: Error handling requirements<br>ADASVISION-1348: AppImage generation<br>ADASVISION-1350: CPU selection<br>ADASVISION-1351: Multiple Memory maps<br>ADASVISION-1352: Multiple platforms support<br>ADASVISION-1354: Build profile selection<br>ADASVISION-1355: 256MB memory map<br>ADASVISION-1356: 1GB memory map<br>ADASVISION-1357: 128MB memory map<br>ADASVISION-1358: 512MB memory map<br>ADASVISION-1359: MMU configs of different CPUs<br>ADASVISION-1360: Platform selection<br>ADASVISION-1361: Selective builds for following links - VPE, ISS<br>ADASVISION-1408: shall support Bios only build<br>ADASVISION-1409: shall support bios + Liux on A15<br>ADASVISION-1529: Multiple heap support<br>ADASVISION-1530: Cache configuration<br>ADASVISION-1531: Memory config<br>ADASVISION-1532: External Memory allocation<br>ADASVISION-1533: Internal memory allocation from OCMC<br>ADASVISION-1534: Internal memory allocation from DSP L2 SRAM at create time only, no run time allocation and de-alloc<br>ADASVISION-1535: Internal memory allocation from DSP L1 SRAM<br>ADASVISION-1570: power mamagemant - CPU IDLE<br>ADASVISION-1571: power mamagemant - CPUIDLE: MPU Core 0/1 Idle<br>ADASVISION-1572: power mamagemant - CPUIDLE: IPU Core Idle<br>ADASVISION-1573: power mamagemant - CPUIDLE: DSP 1/2 Core Idle<br>ADASVISION-1574: power mamagemant - CPUIDLE: EVE 1/2/3/4 Core Idle<br>ADASVISION-1575: PM - CPUIDLE: Vision SDK Integration of CPU IDLE<br>ADASVISION-1580: Support for TDA2Ex (J6-Eco) in vision SDK<br>ADASVISION-1586: Static memory allocation in Vision SDK and its component |

| | ADASVISION-1633: Migrate DSP CGT version of VSDK to use CGT 8.2.4<br>ADASVISION-1652: TDA2EX ETH SRV platform board Support with VSDK<br>ADASVISION-1751: Support in the makefile to allow for file specific compile options<br>ADASVISION-1857: [TDA3x-RVP] Support 1GB memory map<br>ADASVISION-1980: Add support for the TDA2PX RVP to vision SDK<br>ADASVISION-648: Improve the build time and build process<br>ADASVISION-666: [BSP/STW] Removal of dynamic allocation from BSP and STW libraries<br>ADASVISION-892: RVP support in vision SDK<br>ADASVISION-930: PDK integration with Vision SDK.<br>ADASVISION-955: RVP support in PSDK & VSDK |
|---|---|
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp<br>c_integration |
| Attached files | • BIOS Different Build Config : build_vsdk.sh<br>• build_vsdk.sh |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-250: VSDK_Linux_different_builds**

| Summary: |
|---|
| VSDK Linux different configuartions Build |

| Preconditions: |
|---|
| Follow Linux UG to Install release package, clone kernel,u-boot,sgx,ipumm,cmem, download filesystems (4.4 kernel) |
| 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 Status: |
|---|---|---|---|
| 1 | Navigate to (vsdk_install_path)/vision_sdk/build<br><br>Modify Rules.mk file to<br><br>MAKECONFIG=tda2xx_evm_linux_all<br><br>& run make -s showconfig | Should dislay config for tda2xx_evm_linux_all | |
| 2 | Check config params | Memory should be 1024MB<br><br>IPU_PRIMARY_CORE=ipu2<br><br>& A15_TARGET_OS=Linux | |
| 3 | run make linux<br><br>& then make linux_install | Should build kernel | |
| 4 | run make -s -j depend<br><br>& make -s -j | should build apps.out | |
| 5 | Modify Rule.mk file to other available MAKECONFIG<br><br>& run make -s showconfig | Should display config for MKAECONFIG selected | |
| 6 | Repeat step 3 & 4 | Should build sucessfully | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1350: CPU selection<br>ADASVISION-1352: Multiple platforms support | | |

| | |
|---|---|
| | ADASVISION-1356: 1GB memory map<br>ADASVISION-1360: Platform selection<br>ADASVISION-1407: vision SDK with Linux on A15<br>ADASVISION-1409: shall support bios + Liux on A15<br>ADASVISION-1597: IPU2 support in VSDK with SMP bios mode<br>ADASVISION-1598: IPU1 SMP mode support<br>ADASVISION-1833: PSDK Linux 3.4 migration and validation<br>ADASVISION-648: Improve the build time and build process<br>ADASVISION-666: [BSP/STW] Removal of dynamic allocation from BSP and STW libraries<br>ADASVISION-884: IPUMM + vision SDK merge<br>ADASVISION-885: Linux VSDK with IPU2 as main IPU core<br>ADASVISION-930: PDK integration with Vision SDK.<br>ADASVISION-935: 4.4 Kernel migration |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_integration |
| Attached files | • Linux Different Build Config : build_Linux.sh<br>• build_Linux.sh |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| | |
|---|---|
| **Test Case VISIONSDK-278: VSDK_KW_build** | |
| Summary: | |
| VSDK Klocwork Build | |
| Preconditions: | |
| Jenkin Node is up & running | |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Login to Jenkin server &<br><br>trigger VSK_KW_build projet | Should build KW project &<br><br>sent a report with open criticcal & major MISRA-C issues | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1353: Static code checker Klockwork<br>ADASVISION-1517: Static code checker MISRA-C<br>ADASVISION-1525: Follow coding guidelines |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.6.2.Test Suite : Radar_Builds

**Test Case VISIONSDK-280: Radar_BIOS_different_builds**

| | |
|---|---|
| Summary: | |
| Radar different configuartions 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 Status: |
|---|---|---|---|
| 1 | Navigate to (vsdk_install_path)/vision_sdk/build<br><br>& run make -s showconfig | Should dislay config for tda3xx_evm_bios_radar | |
| 2 | Modify Rules.mk file to other available MAKECONFIG<br><br>& run make -s showconfig | Should display config for MAKECONFIG selected | |
| 3 | run make -s -j depend<br><br>& 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 |
| Requirements | ADASVISION-1106: [RADAR] Add support for ALPS Hardware<br>ADASVISION-1108: [RADAR] Support for 128 MB build by default<br>ADASVISION-1115: [RADAR] Support for build support and file based capture read process write<br>ADASVISION-1348: AppImage generation<br>ADASVISION-1350: CPU selection<br>ADASVISION-1351: Multiple Memory maps<br>ADASVISION-1352: Multiple platforms support<br>ADASVISION-1354: Build profile selection<br>ADASVISION-1359: MMU configs of different CPUs<br>ADASVISION-1360: Platform selection<br>ADASVISION-1755: [RADAR] Add support for TDA2px EVM<br>ADASVISION-1853: [RADAR] VSDK to support TDA2x cascade radar |
| Keywords: | tda2xx-evm<br>tda3xx-evm<br>tda3xx_rvp<br>tda3xx-alps<br>tda3xx-AR12-Booster<br>c_integration |
| Attached files | • Radar Different Build Config : build_radar.sh<br>• build_radar.sh |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-349: Radar_Linux_build**

| Summary: |
| --- |
| Radar Linux Build |

| Preconditions: |
| --- |
| Follow Linux UG to Install release package, clone kernel,u-boot,sgx,ipumm,cmem, download filesystems (4.4 kernel) |
| 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 Status: |
| --- | --- | --- | --- |
| 1 | Navigate to (vsdk_install_path)/vision_sdk/build<br><br>Modify Rules.mk file to<br><br>MAKECONFIG=tda2px_evm_linux_radar<br><br>& run make -s showconfig | Should dislay config for tda2px_evm_linux_radar | |
| 2 | Check config params | Memory should be 1024MB<br><br>IPU_PRIMARY_CORE=ipu2<br><br>& A15_TARGET_OS=Linux | |
| 3 | run make linux<br><br>& then make linux_install | Should build kernel | |
| 4 | run make -s -j depend<br><br>& make -s -j | should build apps.out | |

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

| Requirements | ADASVISION-1920: Linux Support for Radar SDK |
| --- | --- |
| Keywords: | None |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.7. Test Suite : Release_Process

**Test Case VISIONSDK-245: VSDK_Radar_release_check_list**

| Summary: |
| --- |
| VSDK & Radar release check list |

| Preconditions: |
| --- |
| VSDK & Radar RC package already installed & tested |
| Verify that release goes through the standard release process |

| #: | Step actions: | Expected Results: | Execution Status: |
| --- | --- | --- | --- |
| 1 | Check for licenses, mainfest, release notes, test reports, datasheets | Release shall comply for the basic release process such as export license, OSRB approval etc. | |
| 2 | Check there are test cases for all product requirements (planned in release) <br><br> & executed in testing phase | Tracebility report (Req -> Test) should have all req mapped to tc <br><br> Test result matrix should have nothing in "Not Run" state | |
| 3 | Check updated project plan, test paln, test strategy docs for release are all available in clearcase | All updated version of docs should be available in clearcase | |
| 4 | Check for all docs available in vision_sdk/docs folder | All upddated docs for current release should be available | |
| 5 | Check for all docs available in vision_sdk/docs folder | All upddated docs for current release should be available | |
| 6 | Check all links in the "index.html" <br><br> Remove unwanted links | All links in the "index.html" should work properly | |
| 7 | Check all links in the "index.html" <br><br> Remove unwanted links | All links in the "index.html" should work properly | |

| Execution type: | Manual |
| --- | --- |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1094: Software release process <br> ADASVISION-1168: SW quality requirements <br> ADASVISION-1513: Release process <br> ADASVISION-1528: Product requirements <br> ADASVISION-1672: [Radar] Add Radar System planner to the Release Package <br> ADASVISION-1675: Processor SDK Vision ti.com landing page - clean-up <br> ADASVISION-1690: Process: Update Software Integration and Test Strategy document <br> ADASVISION-1752: [Radar] Add Radar System planner to the Release Package <br> ADASVISION-875: Develop a How to Debug best practices document, that outlines how to rapidly load binaries, restart |
| Keywords: | None |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

**Test Case VISIONSDK-246: VSDK_pacckage_creation_and_installation**

| Summary: |
| --- |

VSDK package creation & installation on windows & linux machine

Preconditions:

VSDK RC package installed & tested

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Modify MPI files to pick correct ti_components<br><br>Modify InstallJammer Environment script<br><br>Trigger Jenking project for packaging | Windows & Linux installer should be created | |
| 2 | Install on windows machine<br><br>Check for all customer collaterals<br><br>& Build with default config | Installation should be success<br><br>Release package should include all customer collaterals such as user guide, data sheet, Release notes, Test reports, Developer guide etc<br><br>Build should be success | |
| 3 | Install on Linux machine<br><br>Check for all customer collaterals<br><br>& Build with default config | Installation should be success<br><br>Release package should include all customer collaterals such as user guide, data sheet, Release notes, Test reports, Developer guide etc<br><br>Build should be success | |

| Execution type: | Manual |
|---|---|
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1096: packaging and installation<br>ADASVISION-1512: Single installer for vision SDK<br>ADASVISION-1514: Customer collaterals |
| Keywords: | c_qualification |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

| **Test Case VISIONSDK-247: Radar_pacckage_creation_and_installation** |
|---|
| Summary: |
| Radar package creation & installation on windows & linux machine |
| Preconditions: |
| Radar RC package installed & tested |

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Modify MPI files to pick correct ti_components<br><br>Modify InstallJammer Environment script<br><br>Trigger Jenking project for packaging | Windows & Linux installer should be created | |
| 2 | Install on windows machine<br><br>Check for all customer collaterals | Installation should be success<br><br>Release package should include all customer collaterals such as user guide, data sheet, Release notes, Test reports, Developer guide etc | |

| | & Build with default config | Build should be success | |
|---|---|---|---|
| 3 | Install on Linux machine | Installation should be success | |
| | Check for all customer collaterals | Release package should include all customer collaterals such as user guide, data sheet, Release notes, Test reports, Developer guide etc | |
| | & Build with default config | Build should be success | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1096: packaging and installation<br>ADASVISION-1514: Customer collaterals<br>ADASVISION-917: Separate packaging for Radar SDKs |
| Keywords: | c_qualification |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.8.Test Suite : Boot_Modes

## 1.8.1.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 (opp_nom, opp_od, opp_high)to SD card

| #: | Step actions: | Expected Results: | Execution Status: |
|---|---|---|---|
| 1 | Insert SD card into card slot<br><br>& Follow UG to set SYSBOOT PIN for SD boot | SYSBOOT PINs should be for SD boot | |
| 2 | Boot EVM with different OPP MLO | EVM should boot with binaries &<br><br>Display Main Menu | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1344: SD boot mode<br>ADASVISION-1423: Basic board bringup (serial, pinmux, ddr, nand) using SBL<br>ADASVISION-1425: Boot mode bringup |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_qualification |
| **Execution Details** | |
| Build | REL_3_6 |
| 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 Status: |
|---|---|---|---|
| 1 | Insert SD card into card slot<br><br>& Follow UG to set SYSBOOT PIN for SD boot | SYSBOOT PINs should be for SD boot | |
| 2 | Boot EVM | EVM should boot with binaries &<br><br>Display Main Menu | |

| | |
|---|---|
| Execution type: | Manual |
| Estimated exec. duration (sec): | |
| Priority: | Medium |
| Requirements | ADASVISION-1344: SD boot mode |

| | ADASVISION-1424: Basic board configuration bringup using u-boot/Linux<br>ADASVISION-1425: Boot mode bringup<br>ADASVISION-1601: SD card file system support with VSDK<br>ADASVISION-1833: PSDK Linux 3.4 migration and validation |
|---|---|
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_qualification |
| **Execution Details** | |
| Build | REL_3_6 |
| Tester | x0246581 |
| Execution Result: | **Passed** |
| Execution Mode: | **Manual** |
| Execution duration (sec): | |

## 1.8.2.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 Status: |
| 1 | Connect EVM through CCS debug<br><br>& Follow UG to set SYSBOOT PIN for CCS debug | SYSBOOT PINs should be for debug | |
| 2 | Follow UG to Flash SBL & AppImage to QSPI | SBL & AppImage should be flashed to QSPI | |
| 3 | Discoonect CCS &<br><br>Follow UG to set SYSBOOT PIN for QSPI Boot | SYSBOOT PIN should be for QSPI Boot | |
| 4 | Boot EVM | EVM should boot with binaries &<br><br>Display Main Menu | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1346: QSPI boot mode<br>ADASVISION-1347: Flashing method | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.8.3.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 Status: |
| 1 | Insert SD card into card slot<br><br>& 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 &<br><br>Display Main Menu | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | ADASVISION-1424: Basic board configuration bringup using u-boot/Linux | | |
| Keywords: | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |

## 1.8.4. Test Suite : CCS_Boot

| Test Case VISIONSDK-332: Load_Binaries_using_CCS | | | |
|---|---|---|---|
| Summary: | | | |
| Load Binaries using CCS | | | |
| Preconditions: | | | |
| Build binaries | | | |
| #: | Step actions: | Expected Results: | Execution Status: |
| 1 | Connect EVM through CCS debug & Follow UG to set SYSBOOT PIN for CCS debug | SYSBOOT PINs should be for debug | |
| 2 | Load binaries on each core separately or use the ".js" script available under vision_sdk/build/rtos/scripts to load on all cores at once | Binaries should be load on each core successfully & Display main menu on uart console | |
| 3 | From Main Menu run any UC | UC should run successfully | |
| 4 | Check for few register address whether displaying proper data or not | Data should be proper | |
| Execution type: | Manual | | |
| Estimated exec. duration (sec): | | | |
| Priority: | Medium | | |
| Requirements | None | | |
| Keywords: | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm tda3xx_rvp tda3xx-alps tda3xx-AR12-Booster | | |
| **Execution Details** | | | |
| Build | REL_3_6 | | |
| Tester | x0246581 | | |
| Execution Result: | **Passed** | | |
| Execution Mode: | **Manual** | | |
| Execution duration (sec): | | | |