

# Test Plan Execution Report

Test Project: VISIONSDK

Test Plan: PSDKV\_Test\_Plan\_3\_6\_Functional\_TDA2Ex

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2017 (c) Testlink Community

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# **Test Project: VISIONSDK**

Project: VISIONSDK Location: TII Owner: Sivasankaran, Shiju

# Test Plan: PSDKV\_Test\_Plan\_3\_6\_Functional\_TDA2Ex

TDA2Ex Functional Test Plan

Will cover all functional test for tda2ex-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

| <u>#:</u>                       | 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  Execute "echo" command using network_ctrl.exe  #network_ctrlipaddr <ipaddr> [port <server port="">]cmd <command string=""/> <command parameters=""/></server></ipaddr> | 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 ADASVISION-1611: Network RX and TX support  |  |                   |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>m_nw   |  |                   |
| <b>Execution Details</b>        |  |  |                   |
| 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

| <u>#:</u> | 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 |                   |

| .019                            | testreport i SDRV_Test_i  | Idil_3_0_1 dilodollal_1DAZEX |
|---------------------------------|---|------------------------------|
|                                 | Execute "sys_reset" command using network_ctrl.exe  #network_ctrlipaddr <ipaddr> [port <server port="">]cmd <command string=""/> <command parameters=""/></server></ipaddr> | side                         |
| Execution type:                 | Manual  |                              |
| Estimated exec. duration (sec): |   |                              |
| Priority:                       | Medium  |                              |
| Requirements                    | ADASVISION-1610: Network RX and TX support ADASVISION-1611: Network RX and TX support   |                              |
| 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-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

| Wake Hetwork Cable Collin       | J   |  |                   |
|---------------------------------|---|--|-------------------|
| <u>#:</u>                       | 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  Execute "qspi_wr" command using network_ctrl.exe  #network_ctrlipaddr <ipaddr> [port <server port="">]cmd <command string=""/> <command parameters=""/></server></ipaddr> | 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 ADASVISION-1611: Network RX and TX support   | on M4 Bios using NDK/NSP<br>on A15 Bios using NDK/NSP                                    |                   |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm  |  |                   |
| <b>Execution Details</b>        |   |  |                   |
| 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

| <u>#:</u>                       | 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  Execute "mem_rd" command using network_ctrl.exe  #network_ctrlipaddr <ipaddr> [port <server port="">]cmd <command string=""/> <command parameters=""/></server></ipaddr> | 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 ADASVISION-1611: Network RX and TX support  |  |                   |
| <u>Keywords:</u>                | 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-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

| <u>#:</u>                       | 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  Execute "mem_wr" command using network_ctrl.exe  #network_ctrlipaddr <ipaddr> [port <server port="">]cmd <command string=""/> <command parameters=""/></server></ipaddr> | 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 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   |
| <b>Execution Details</b>  |  |
| 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

| <u>#:</u>                       | 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  Execute "mem_save" command using network_ctrl.exe  #network_ctrlipaddr <ipaddr> [port <server port="">]cmd <command string=""/> <command parameters=""/></server></ipaddr> | 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 ADASVISION-1611: Network RX and TX support  |  |                   |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm   |  |                   |
| <b>Execution Details</b>        |  |  |                   |
| 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

| <u>#:</u>                                   | Step actions:   | Expected Results:                                      | Executio<br>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 # network_txhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr> |  |                     |
| Execution type:                             | Manual  |  |                     |
| Estimated exec. duration (sec):             |   |  |                     |
| Priority:                                   | Medium  |  |                     |
|   | and network_tx li ADASVISION-1610: Network RX and TX support on M4 Bio ADASVISION-1611: Network RX and TX support on A15 Bi ADASVISION-1871: IPv6 support configuration ADASVISION-1871: IPv6 support configuration   |  |                     |
|   | ADASVISION-2016: [networking] A15 performance optimized   | ation  |                     |
| <u>Keywords:</u>                            | tda2xx-evm tda2ex-evm tda2ex-evm tda2ex-evm tda2ex-evm tda2px-evm c_regression c_stress c_stability m_nw  | ation  |                     |
|   | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression c_stress c_stability  | ation  |                     |
| Execution Details                           | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression c_stress c_stability  | ation  |                     |
| Keywords:  Execution Details  Build  Tester | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2ex-entry tda2px-evm c_regression c_stress c_stability m_nw  | ation  |                     |
| <b>Execution Details</b><br>Build           | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression c_stress c_stability m_nw  REL_3_6  | ation  |                     |
| <b>Execution Details</b><br>Build<br>Tester | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression c_stress c_stability m_nw  REL_3_6 x0246581   | ation  |                     |

# 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

| <u>#:</u>                | 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 # network_txhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr> |  |                   |
| Execution type:          | Manual  |  |                   |
| Estimated exec. duration |   |  |                   |

| <u>(sec):</u>             |  |
|---------------------------|--|
| Priority:                 | Medium   |
| Requirements              | ADASVISION-1610: Network RX and TX support on M4 Bios using NDK/NSP 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   |
| <b>Execution Details</b>  |  |
| 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

| <u>#:</u>   | Step actions:  | Expected Results:  | Executi<br>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 # network_rxhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr>                                     | EVM should not hang, and network command should work according to command on target side |                    |
| Execution type:   | Manual   |  |                    |
| Estimated exec. duration (sec):                           |  |  |                    |
|   |  |  |                    |
| <u>Priority:</u>  | Medium   |  |                    |
|   | Medium  ADASVISION-1263: Null & NullSrc clean-up to move Network and network_tx li  ADASVISION-1610: Network RX and TX support on M4 Bid ADASVISION-1611: Network RX and TX support on A15 B ADASVISION-1696: Improve error diagnostic information in  | os using NDK/NSP<br>los using NDK/NSP  | twork_n            |
| <u>Requirements</u>                                       | ADASVISION-1263: Null & NullSrc clean-up to move Network and network_tx li ADASVISION-1610: Network RX and TX support on M4 Bit ADASVISION-1611: Network RX and TX support on A15 B  | os using NDK/NSP<br>los using NDK/NSP  | twork_rx           |
| Priority:  Requirements  Keywords:  Execution Details     | ADASVISION-1263: Null & NullSrc clean-up to move Network and network tx li ADASVISION-1610: Network RX and TX support on M4 Bit ADASVISION-1611: Network RX and TX support on A15 B ADASVISION-1696: Improve error diagnostic information in tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression               | os using NDK/NSP<br>los using NDK/NSP  | twork_r>           |
| Requirements  Keywords:  Execution Details                | ADASVISION-1263: Null & NullSrc clean-up to move Network and network tx li ADASVISION-1610: Network RX and TX support on M4 Bit ADASVISION-1611: Network RX and TX support on A15 B ADASVISION-1696: Improve error diagnostic information in tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression               | os using NDK/NSP<br>los using NDK/NSP  | twork_rx           |
| Requirements  Keywords:  Execution Details  Build         | ADASVISION-1263: Null & NullSrc clean-up to move Network and network_tx li ADASVISION-1610: Network RX and TX support on M4 Bit ADASVISION-1611: Network RX and TX support on A15 B ADASVISION-1696: Improve error diagnostic information in tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2ex-evm c_regression m_nw          | os using NDK/NSP<br>los using NDK/NSP  | twork_rx           |
| Requirements  Keywords:                                   | ADASVISION-1263: Null & NullSrc clean-up to move Network and network_tx li ADASVISION-1610: Network RX and TX support on M4 Bit ADASVISION-1611: Network RX and TX support on A15 B ADASVISION-1696: Improve error diagnostic information in tda2xx-evm tda2ex-evm tda2ex-evm tda2ex-entry tda2px-evm c_regression m_nw  REL_3_6 | os using NDK/NSP<br>los using NDK/NSP  | twork_rx           |
| Requirements  Keywords:  Execution Details  Build  Tester | ADASVISION-1263: Null & NullSrc clean-up to move Network and network tx li ADASVISION-1610: Network RX and TX support on M4 Bit ADASVISION-1611: Network RX and TX support on A15 B ADASVISION-1696: Improve error diagnostic information in tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c_regression m_nw  REL_3_6 x0246581   | os using NDK/NSP<br>los using NDK/NSP  | twork_n            |

### 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

|                                 |  |  | 1                 |
|---------------------------------|--|--|-------------------|
| <u>#:</u>                       | 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 # network_rxhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr> | 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 ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP ADASVISION-1696: Improve error diagnostic information in network_rx for the network tools   |  |                   |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-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-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

| <u>#:</u>                       | 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 # network_rxhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr> | 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  |  |                   |

|                           | ADASVISION-1611: Network RX and TX support on A15 Bios using NDK/NSP 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   |
| <b>Execution Details</b>  |  |
| 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

| <u>#:</u>                       | 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 # network_txhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr> |  |                   |
| Execution type:                 | Manual  |  |                   |
| Estimated exec. duration (sec): |   |  |                   |
| Priority:                       | Medium  |  |                   |
| <u>Requirements</u>             | ADASVISION-1135: TFDTP integration with VSDK ADASVISION-1181: Retransmit support in TFDTP receive ADASVISION-1183: TFDTP support on A15 ADASVISION-2016: [networking] A15 performance optimization  |  |                   |
| <u>Keywords:</u>                | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm  |  |                   |
| <b>Execution Details</b>        |   |  |                   |
| 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

|                                 | <del></del>   |  |                   |
|---------------------------------|---|--|-------------------|
| <u>#:</u>                       | 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 # network_txhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr> |  |                   |
| Execution type:                 | Manual  |  |                   |
| Estimated exec. duration (sec): |   |  |                   |
| Priority:                       | Medium  |  |                   |
| <u>Requirements</u>             | ADASVISION-1135: TFDTP integration with VSDK  |  |                   |
| <u>Keywords:</u>                | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression c_stress c_stability 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

| <u>#:</u>                | 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 # network_rxhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr> | EVM should not hang, and network command should work according to command on target side |                   |
| Execution type:          | Manual   |  |                   |
| Estimated exec. duration |  |  |                   |

| <u>(sec):</u>             |  |
|---------------------------|--|
| Priority:                 | Medium   |
| Requirements              | ADASVISION-1135: TFDTP integration with VSDK 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   |
| <b>Execution Details</b>  |  |
| 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

| <u>#:</u>                       | 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 # network_rxhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr> | EVM should not hang, and network command should work according to command on target side |                   |
| Execution type:                 | Manual   |  |                   |
| Estimated exec. duration (sec): |  |  |                   |
| Priority:                       | Medium   |  |                   |
| <u>Requirements</u>             | ADASVISION-1135: TFDTP integration with VSDK ADASVISION-1696: Improve error diagnostic information in  | n 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

| wake network cable confi        | ecteu  |  |                   |
|---------------------------------|--|--|-------------------|
| <u>#:</u>                       | 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 # network_rxhost_ip <ipaddr>target_ip <ipaddr> [port <server port="">usetfdtpverboseno_loopdelay <delay in="" secs="">]files <ch0 file=""> <ch1 file=""></ch1></ch0></delay></server></ipaddr></ipaddr> | EVM should not hang, and network command should work according to command on target side |                   |
| Execution type:                 | Manual   |  |                   |
| Estimated exec. duration (sec): |  |  |                   |
| Priority:                       | Medium   |  |                   |
| <u>Requirements</u>             | ADASVISION-1135: TFDTP integration with VSDK ADASVISION-1696: Improve error diagnostic information in network_rx for the network tools   |  |                   |
| <u>Keywords:</u>                | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>m_nw   |  |                   |
| <b>Execution Details</b>        |  |  |                   |
| 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

| <u>#:</u>                       | Step actions:   | Expected Results:  | Execution Status: |
|---------------------------------|---|--|-------------------|
| 1                               | Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P (TDA2x/TDA2Ex), HDMI XGA TDM mode (TDA3x ONLY)  | Capture Source shuld be OV10635  & 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 ADASVISION-1280: VIP Capture Link to support Inline scaling both down scale and upscale ADASVISION-1290: VIP Capture Link - Detect VIP port overflow & Reset ADASVISION-1290: Display Link support for various input data formats ADASVISION-1300: Display Link - Video window positioning support ADASVISION-1308: Display Link - support for custom resolutions ADASVISION-1321: Display Link - Support 8-bit TDM mode display ADASVISION-1582: Shall support LVDS multi-channel capture upto 4 channel ADASVISION-1584: Shall support all the Bios single multi camera usecases which use one DSP & M4 ADASVISION-830: For all SRV - DSP load optimization using SIMD |  |                   |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression c_qualification m_capture m_display   |  |                   |

| <b>Execution Details</b>  |          |
|---------------------------|----------|
| 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

| <u>#:</u>                       | Step actions:  | Expected Results:  | Execution Status: |
|---------------------------------|--|--|-------------------|
| 1                               | Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P (TDA2x/TDA2Ex), HDMI XGA TDM mode (TDA3x ONLY) | Capture Source shuld be OV10635  & 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 ADASVISION-830: For all SRV - DSP load optimization using SIMD    |  |                   |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry 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 |  |
|--|--|
| 0  |  |

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

| 0 1 7                           | •   |   |                   |
|---------------------------------|---|---|-------------------|
| <u>#:</u>                       | 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  |   |                   |
| <u>Requirements</u>             | ADASVISION-1184: IMI camera Linux kernel patch ADASVISION-1188: GPU application to allow Both fragment ADASVISION-1417: Open GL support ADASVISION-1418: DRM display ADASVISION-1420: 3D surround view demo ADASVISION-1585: TDA2Ex - shall support all the Linux sin DSP, A15 & M4 ADASVISION-1596: Support VSDK Linux GPU Off-screen reADASVISION-1767: SGX- system_egl & system_gb layers toptimization ADASVISION-830: For all SRV - DSP load optimization usin ADASVISION-887: Common Linux side Links (including SRV ADASVISION-911: Sync on Linux Vision SDK | gle & multi camera usecases which endering & M4 side display o support imported gbm_surfaces for g SIMD | use one           |
| Keywords:                       | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c_regression c_stress c_qualification c_stability m_capture 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 |  |  |                   |
| <u>#:</u>   | 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<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm   |  |                   |
| <b>Execution Details</b>  |  |  |                   |
| 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

| <u>#:</u>                       | 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 ADASVISION-887: Common Linux side Links (including 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 Applicable for all sgx based SRV |

### 1.2.2.Test Suite: CAL\_SRV

### 1.2.2.1.Test Suite : 2D\_SRV

Test Case VISIONSDK-126: CSI2\_2D\_SRV\_OV10635\_964deser

Summary:

CSI2 2D SRV UC supported on TDA2Ex/TDA2Ex 17x17/TDA3x/RVP

Input: OV10635 with 964 deserializer

Output: HDMI 1080P

Preconditions:

In case of TDA2Ex/TDA2Ex 17x17:

Ensure TDA2x folder present in SD card with CHARTPOS.BIN & LENS\_2D.BIN

Run SRV calibration UC if required to generate PERSMAT.BIN

In case of TDA3x:

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

| <u>#:</u>                       | Step actions:   | Expected Results:  | Execution Status: |
|---------------------------------|---|--|-------------------|
| 1                               | Go to System Settings Select Capture Source as "OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX & TDA3x)" & Display Output as HDMI 1080P  | Capture Source shuld be OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX & TDA3x)  & Display device as HDMI 1080P |                   |
| 2                               | Run "OV10635 & UB964 4CH CSI2<br>Surround View (DSP) + Display (HDMI)"<br>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-1076: Support 4 channels of OV10635/SAT0088 on 2 lanes of CSI2 ADASVISION-1078: TDA2Ex: Add 2D SRV based on CSI2/OV10635/SAT0088 ADASVISION-1131: TDA2Ex: 2D SRV Support (UB964 & 4 modules of SAT0088) ADASVISION-1133: Capture & Display usecase with UB9640 & 4 modules of SAT0088 on TDA2x 17x17 package ADASVISION-1542: Algorithm Link Support (Framework and Skeleton portion) ADASVISION-1543: Algorithm Link Support for all CPU cores ADASVISION-1544: Algorithm Link Support Prioritization ADASVISION-1545: Algorithm Link Support Multiple instantiation ADASVISION-1546: Algorithm Link Support Multiple input and output queues ADASVISION-1547: Algorithm Link Support Multiple input channels ADASVISION-1548: Algorithm Link Support Out of order release of input and output buffers ADASVISION-1549: Algorithm Link Support DSP subsystem DMA resource allocations ADASVISION-1550: Algorithm Link Support EVE subsystem DMA resource allocations ADASVISION-1551: Algorithm Link Support System DMA resource allocations ADASVISION-1552: Algorithm Link Support System DMA resource allocations ADASVISION-1553: Algorithm Link Support In place computation support ADASVISION-1555: Algorithm Link Support Non-In place computation support ADASVISION-1555: Algorithm Link Support Multiple Algos |  |                   |

|                           | ADASVISION-1556: Algorithm Link Support Alg Configurations ADASVISION-995: Support of CSI input in TDA2Ex |
|---------------------------|---|
| Keywords:                 | tda2ex-evm tda2ex-entry c_regression c_qualification m_iss  |
| Execution Details         |   |
| Build                     | REL_3_6   |
| Tester                    | x0246581  |
| Execution Result:         | Passed  |
| Execution Mode:           | Manual  |
| Execution duration (sec): |   |

### Test Case VISIONSDK-149: CSI2\_2D\_SRV\_OV10635\_964deser\_without\_TDAXX\_Folder

Summary:

CSI2 2D SRV UC supported on TDA2Ex/TDA2Ex 17x17/TDA3x

Input: OV10635 with 964 deserializer

Output: HDMI 1080P

Preconditions:

In case of TDA2Ex/TDA2Ex 17x17:

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

| <u>#:</u>                       | Step actions:  | Expected Results:  | Execution Status: |
|---------------------------------|--|--|-------------------|
| 1                               | Go to System Settings Select Capture Source as "OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX & TDA3x)" & Display Output as HDMI 1080P | Capture Source shuld be OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX & TDA3x)  & Display device as HDMI 1080P |                   |
| 2                               | Run "OV10635 & UB964 4CH CSI2<br>Surround View (DSP) + Display (HDMI)"<br>UC   | Display must come up and no buffer drops should be observe   |                   |
| Execution type:                 | Manual   |  |                   |
| Estimated exec. duration (sec): |  |  |                   |
| Priority:                       | Medium   | Medium   |                   |
| Requirements                    | ADASVISION-1131: TDA2Ex : 2D SRV Support (UB964 & 4 modules of SAT0088) ADASVISION-995: Support of CSI input in TDA2Ex                               |  |                   |
| Keywords:                       | tda2ex-evm<br>tda2ex-entry   |  |                   |
| <b>Execution Details</b>        |  |  |                   |
| 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-127: CSI2\_3D\_SRV\_OV10635\_964deser

Summary:

CSI2 3D SRV UC supported on TDA2Ex/TDA2Ex 17x17/TDA2Px Linux

Input: OV10635 with 964 deserializer

Output: HDMI 1080P

#### Preconditions:

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

Run SRV calibration UC if required to generate GPULUT.BIN

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

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

|                                 | •  |  |                   |
|---------------------------------|--|--|-------------------|
| <u>#:</u>                       | Step actions:  | Expected Results:  | Execution Status: |
| 1                               | Boot EVM with Linux binaries   | EVM boots without any error and usecase menu displayed     |                   |
| 2                               | Run "4CH CSI2 CAL capture + 3D SRV (SGX/A15) + DISPLAY - Only HDMI 1080p display supported" UC   | Display must come up and no buffer drops should be observe |                   |
| Execution type:                 | Manual   |  |                   |
| Estimated exec. duration (sec): |  |  |                   |
| Priority:                       | Medium   | Medium   |                   |
| Requirements                    | ADASVISION-1132: TDA2Ex : 3D SRV Support (UB964 & 4 modules of SAT0088) ADASVISION-1162: Enable J6Entry 3D SRV with UB96x (on Linux) ADASVISION-830: For all SRV - DSP load optimization using SIMD ADASVISION-995: Support of CSI input in TDA2Ex |  |                   |
| Keywords:                       | tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_qualification  |  |                   |
| <b>Execution Details</b>        |  |  |                   |
| Build                           | REL_3_6  |  |                   |
| Tester                          | x0246581   |  |                   |
| Execution Result:               | Passed   |  |                   |
| Execution Mode:                 | Manual   |  |                   |
| Execution duration (sec):       |  |  |                   |

### Test Case VISIONSDK-145: CSI2\_3D\_SRV\_OV10635\_964deser\_without\_TDA2X\_Folder

Summary:

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

Input: OV10635 with 964 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

| <u>#:</u>       | Step actions:  | Expected Results:                                      | Execution Status: |
|-----------------|--|--|-------------------|
| 1               | Boot EVM with Linux binaries   | EVM boots without any error and usecase menu displayed |                   |
| 2               | Run "4CH CSI2 CAL capture + 3D SRV (SGX/A15) + DISPLAY - Only HDMI 1080p display supported" UC | It throws error  |                   |
| Execution type: | Manual   |  |                   |
|                 |  |  |                   |

| Estimated exec. duration (sec): |   |
|---------------------------------|---|
| Priority:                       | Medium  |
| Requirements                    | ADASVISION-1132: TDA2Ex : 3D SRV Support (UB964 & 4 modules of SAT0088) ADASVISION-1162: Enable J6Entry 3D SRV with UB96x (on Linux) ADASVISION-995: Support of CSI input in TDA2Ex |
| Keywords:                       | tda2ex-evm<br>tda2ex-entry  |
| <b>Execution Details</b>        |   |
| Build                           | REL_3_6   |
| Tester                          | x0246581  |
| Execution Result:               | Passed  |
| Execution Mode:                 | Manual  |
| Execution duration (sec):       |   |

### 1.2.2.3.Test Suite: Car\_Black\_Box

Test Case VISIONSDK-209: CSI2\_3D\_SRV\_Car\_Black\_Box\_OV10635\_964deser

Summary:

CSI2 3D SRV + Car Black Box UC supported on TDA2Ex/TDA2Ex 17x17 Linux

Input: OV10635 with 964 deserializer

Output: HDMI 1080P

Preconditions:

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

Run SRV calibration UC if required to generate GPULUT.BIN

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

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

| <u>#:</u>                       | Step actions:   | Expected Results:   | Execution Status: |  |
|---------------------------------|---|---|-------------------|--|
| 1                               | Boot EVM with Linux binaries  | EVM boots without any error and usecase menu displayed  |                   |  |
| 2                               | Run "Car Black Box" UC  | Display must come up and no buffer drops should be observe  Recording will start & will be saved in SD card |                   |  |
| Execution type:                 | Manual  | Manual  |                   |  |
| Estimated exec. duration (sec): |   |   |                   |  |
| Priority:                       | Medium  |   |                   |  |
| Requirements                    | ADASVISION-1081: J6 Entry support for VSDK<br>ADASVISION-1164: Car Blackbox demo usecase on Linux (TDA2x/2ex/entry)<br>ADASVISION-1527: API config outbound check<br>ADASVISION-995: Support of CSI input in TDA2Ex |   |                   |  |
| Keywords:                       | tda2ex-evm<br>tda2ex-entry  |   |                   |  |
| Execution Details               |   |   |                   |  |
| Build                           | REL_3_6   |   |                   |  |
| Tester                          | x0246581  |   |                   |  |
| Execution Result:               | Passed  |   |                   |  |
| Execution Mode:                 | Manual  |   |                   |  |
| Execution duration (sec):       |   |   |                   |  |

Test Case VISIONSDK-210: CSI2\_3D\_SRV\_Car\_Black\_Box\_OV10635\_964deser\_Start\_Stop\_Playback
Summary:

CSI2 3D SRV + Car Black Box UC supported on TDA2Ex/TDA2Ex 17x17 Linux

Input: OV10635 with 964 deserializer

Output: HDMI 1080P

### Preconditions:

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

Run SRV calibration UC if required to generate GPULUT.BIN

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

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

| All running at oorps, Also c    | meck periormance stats mate   | on with datasheet   |                   |
|---------------------------------|---|---|-------------------|
| <u>#:</u>                       | Step actions:   | Expected Results:   | Execution Status: |
| 1                               | Boot EVM with Linux binaries  | EVM boots without any error and usecase menu displayed  |                   |
| 2                               | Run "Car Black Box" UC  | Display must come up and no buffer drops should be observe  Recording will start & will be saved in SD card |                   |
| 3                               | select start playback   | A new window will pop up & Playback will start  |                   |
| 4                               | select stop playback  | Playback will stop  |                   |
| 5                               | select start playback again   | Playback will start from the beginning  |                   |
| Execution type:                 | Manual  |   |                   |
| Estimated exec. duration (sec): |   |   |                   |
| Priority:                       | Medium  |   |                   |
| <u>Requirements</u>             | ADASVISION-1081: J6 Entr<br>ADASVISION-1164: Car Bla<br>ADASVISION-1527: API cor<br>ADASVISION-995: Support | ckbox demo usecase on Linux (TDA2x/2ex/entry) ifig outbound check   |                   |
| Keywords:                       | tda2ex-evm<br>tda2ex-entry  |   |                   |
| Execution Details               |   |   |                   |
| Build                           | REL_3_6   |   |                   |
| Tester                          | x0246581  |   |                   |
| 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

| <u>#:</u>                       | 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 ADASVISION-1261: Performance tuning for IVAHD codec in system ADASVISION-1283: VIP Capture Link to support DSS write back capture ADASVISION-1319: Display DSS write back Link ADASVISION-1334: IVA Decode Link - Multichannel MJPEG decode ADASVISION-1336: IVA Decode Link - Multichannel H264 decode ADASVISION-1337: IVA Decode Link - Support various Decode resolutions ADASVISION-1338: IVA Decode Link - Support for multiple Bit rates ADASVISION-1362: AVB Rx Link - Packet reception & multi-channel support ADASVISION-1363: AVB Rx Link - Frame level Notification ADASVISION-1364: AVB Rx Link - Sub-frame level Notification ADASVISION-1365: AVB Rx Link - Interoperability ADASVISION-1366: AVB Rx Link - Performance ADASVISION-1367: AVB Rx Link - Frest with PC talker ADASVISION-1368: AVB Rx Link - Test with PC talker ADASVISION-1394: 4CH AVB Capture + Decode +Surround View (DSPx) + Display ADASVISION-1447: IVA Encode Link support Multichannel MJPEG encode ADASVISION-1449: IVA Encode Link support Multichannel H264 encode ADASVISION-1450: IVA Encode Link Support various encode resolutions ADASVISION-1450: IVA Encode Link Support various encode resolutions ADASVISION-1453: IVA Encode Link Support Subframe/Slice based Encoding ADASVISION-1454: IVA Encode Link support Error-concealment |   |                  |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm   |   |                  |

|                           | tda2ex-entry tda2px-evm c_regression c_stress c_stability |
|---------------------------|---|
| <b>Execution Details</b>  |   |
| 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

| and no display                  |   |   |                      |
|---------------------------------|---|---|----------------------|
| <u>#:</u>                       | Step actions:   | Expected Results:   | Execution<br>Status: |
| 1                               | Boot EVM  | EVM should boot up  |                      |
| 2                               | Select UC   | UC should be selected   |                      |
| 3                               | Select AVB TX only  | option should be selected & no display  |                      |
| 4                               | Run avb talker & listener on PC side  | Using Talker sent files from PC to target Run "sudo ./avbtp_talker.sh [file1] [file2] [file3] [file4]" Using listener dump frame to PC Run "sudo ./avbtp_listener.sh recv.h264" |                      |
| 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 ADASVISION-1261: Performance tuning for IVAHD codec in system ADASVISION-1264: DSS M2M link in VSDK to support overlay write back ADASVISION-1334: IVA Decode Link - Multichannel MJPEG decode ADASVISION-1336: IVA Decode Link - Multichannel H264 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-1362: AVB Rx Link - Packet reception & multi-channel support |   |                      |

ADASVISION-1363: AVB Rx Link - frame level Notification ADASVISION-1364: AVB Rx Link - Sub-frame level Notification ADASVISION-1365: AVB Rx Link - Interoperability ADASVISION-1366: AVB Rx Link - Performance ADASVISION-1367: AVB Rx Link - Error handling ADASVISION-1368: AVB Rx Link - Test with PC talker ADASVISION-1394: 4CH AVB Capture + Decode +Surround View (DSPx) + Display ADASVISION-1447: IVA Encode Link support Multichannel MJPEG encode ADASVISION-1449: IVA Encode Link support Multichannel H264 encode 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-1453: IVA Encode Link support Subframe/Slice based Encoding ADASVISION-1454: IVA Encode Link support Error-concealment ADASVISION-1494: DSS M2M RSZ - resizer ADASVISION-1495: DSS M2M RSZ - output dataformat ADASVISION-1496: DSS M2M RSZ - resizer input pipe selection ADASVISION-1497: DSS M2M RSZ - input data format ADASVISION-1498: DSS M2M RSZ - Multi scale (pyramid generation for PD/TSR etc)
ADASVISION-1499: DSS M2M RSZ - multi-instance ADASVISION-1500: DSS M2M RSZ - multi-instance with Display link ADASVISION-1501: DSS M2M RSZ - multi-CH support Keywords: tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm m\_iva **Execution Details** Build REL\_3\_6 Tester x0246581 **Passed Execution Result: Execution Mode:** Manual Execution duration (sec):

### Test Case VISIONSDK-262: AVB\_4CH\_1MP\_H264\_Capture\_SRV\_AVBTx

Summary:

4CH AVB SRV Dispaly UC

Input: 1MP H264 ethernet Camera

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

| and no display           |                             |  |                   |
|--------------------------|-----------------------------|--|-------------------|
| <u>#:</u>                | 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                      |                   |
|                          |                             | & no display                                   |                   |
| 4                        | Run avb listener on PC      | Using listener dump frame to PC                |                   |
|                          | Truit avb listerier off i C | Run "sudo ./avbtp_listener.sh recv.h264"       |                   |
| 5                        | Press "P"                   | Check performance stats                        |                   |
|                          | 11633 1                     | should match with IVAHD codec performance data |                   |
| Execution type:          | Manual                      |  |                   |
| Estimated exec. duration |                             |  |                   |

| <u>(sec):</u>             |   |
|---------------------------|---|
| Priority:                 | Medium  |
| Requirements              | ADASVISION-1165: AVB Ethernet based SRV ADASVISION-1261: Performance tuning for IVAHD codec in system ADASVISION-1271: Surround view with 1MP H.264 Ethernet camera on TDA2/2E based Ethernet SRV platform ADASVISION-1394: 4CH AVB Capture + Decode +Surround View (DSPx) + Display ADASVISION-1652: TDA2EX ETH SRV platform board Support with VSDK |
| Keywords:                 | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm  |
| <b>Execution Details</b>  |   |
| Build                     | REL_3_6   |
| Tester                    | x0246581  |
| Execution Result:         | Passed  |
| Execution Mode:           | Manual  |
| Execution duration (sec): |   |

### Test Case VISIONSDK-257: AVB\_4CH\_1MP\_H264\_Capture\_SRV\_Dispaly

Summary:

4CH AVB SRV Dispaly UC

Input: 1MP H264 ethernet Camera

Output: HDMI 1080P

### Preconditions:

Ensure Build happened with NDK\_PROC\_TO\_USE=ipu1\_1

| Verify that 4ch AVB Captu       | re is running on IPU1-0   | at 30fps and display running on IPU1-0 at 60fps on LCD/HDMI            |                          |
|---------------------------------|---|--|--------------------------|
| <u>#:</u>                       | Step actions:   | Expected Results:  | <b>Execution Status:</b> |
| 1                               | Boot EVM  | EVM should boot up   |                          |
| 2                               | Select UC   | UC should be selected  |                          |
| 3                               | Seeclt HDMI Display   | Display should come up & no buffer drops should observed               |                          |
| 4                               | 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 ADASVISION-1261: Performance tuning for IVAHD codec in system ADASVISION-1271: Surround view with 1MP H.264 Ethernet camera on TDA2/2E based Ethernet SRV platform ADASVISION-1394: 4CH AVB Capture + Decode +Surround View (DSPx) + Display ADASVISION-1652: TDA2EX ETH SRV platform board Support with VSDK |  |                          |
| 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):       |   |  |                          |

### 1.2.4.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.

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

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|---------------------------------|---|--|
|                                 |   | 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  |  |
| <u>Requirements</u>             | ADASVISION-854: Support for handling re ADASVISION-883: Improved auto-calibrat                        | - auto slection of ROI for Surround View (1MB Vs 2MB)<br>egion-of-interest input frame for 3DSRV & 2DSRV use-cases<br>ion for 2D & 3D<br>c algorithm should work on shadowed buffers |
| <u>Keywords:</u>                | 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.

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

| 019                             | testreport PSDKV_Test_Plan_3_6_Function  | nai_TDA2EX  |
|---------------------------------|--|---|
|                                 | depending upon the hardware connected  | OV10640 Sensor for SV -<br>IMI (TDA3x ONLY) or  |
|                                 | & Display Output as HDMI 1080P (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY)  | AR0140 Sensor for SV -<br>TIDA00262 (TDA3x ONLY)  |
|                                 |  | depending upon the hardware connected   |
|                                 |  | & Display device as HDMI<br>1080P<br>(TDA2x/TDA2Ex/TDA3x),<br>HDMI XGA TDM mode<br>(TDA3x ONLY) |
|                                 |  | Display must come up with mosaic view of all 4 cameras  |
| 2                               | Run "SRV Calibration" UC   | and no buffer drops should be observe   |
| 3                               | Select Manual Calibration & generate CALMAT  | should be able to generate CALMAT.BIN   |
|                                 | Remove the card &  | Should be able to generate  |
| 4                               | refer "VisionSDK_UserGuide_3D_SurroundView_Manual_CalibTool.pdf" useguide  | PERSMAT.BIN (in case of TDA2x/TDA2ex)   |
|                                 | to generate PERSMAT.BIN (in case of TDA2x/TDA2ex) & LUT.BIN (in case of TDA3x)   | & LUT.BIN (in case of TDA3x)  |
|                                 | Copy the PERSMAT.BIN (in case of TDA2x/TDA2ex) & LUT.BIN (in case of TDA3x)  |   |
| 5                               | to MMC/SD card & insert into EVM & 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 frar ADASVISION-984: Calibration: Allow to pass a parameter where al from/written ADASVISION-999: Performance: Complex algorithm should work o | I the generated files get read  |
| 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.

| <u>#:</u>                 | Step actions:   | Expected Results:   | Execution Status: |
|---------------------------|---|---|-------------------|
|                           | Go to System Settings   | Conture Source abuild be  | Status.           |
|                           | , ,   | Capture Source shuld be   |                   |
|                           | Select Capture Source as OV10635 Sensor 720P30 or   | OV10635 Sensor 720P30 or  |                   |
|                           | OV10635 Sensor for Mosaic Display -<br>SAT0088/OV10635 (TDA2EX ONLY) or                   | OV10635 Sensor for Mosaic Display -<br>SAT0088/OV10635 (TDA2EX ONLY) or                   |                   |
| 1                         | OV10640 Sensor for SV - IMI (TDA3x ONLY) or   | OV10640 Sensor for SV - IMI (TDA3x ONLY) or   |                   |
|                           | AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)   | AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)   |                   |
|                           | depending upon the hardware connected   | depending upon the hardware connected   |                   |
|                           | & Display Output as HDMI 1080P<br>(TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM<br>mode (TDA3x ONLY) | & Display device as HDMI 1080P<br>(TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM<br>mode (TDA3x ONLY) |                   |
|                           |   | Display must come up with mosaic view of all 4 cameras                                    |                   |
| 2                         | Run "SRV Calibration" UC  | and no buffer drops should be observe   |                   |
|                           | Select Default Calibration  | On selecting Default calibration  |                   |
|                           |   | It will generate  |                   |
| 3                         |   | 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):<br>Priority:       | Medium  |   |                   |
|                           |   | (; , , , , , , , , , , opopy, a apopy,  |                   |
| Requirements              | 1   | -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.

| <u>#:</u>                      | Step actions:   | Expected Results:   | Execution Status: |
|--------------------------------|---|---|-------------------|
|                                | Go to System Settings   | Capture Source shuld be   |                   |
|                                | Select Capture Source as OV10635 Sensor 720P30 or   | OV10635 Sensor 720P30 or  |                   |
|                                | OV10635 Sensor for Mosaic Display -<br>SAT0088/OV10635 (TDA2EX ONLY) or                   | OV10635 Sensor for Mosaic Display -<br>SAT0088/OV10635 (TDA2EX ONLY) or                   |                   |
| I                              | OV10640 Sensor for SV - IMI (TDA3x ONLY) or   | OV10640 Sensor for SV - IMI (TDA3x ONLY) or   |                   |
|                                | AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)   | AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)   |                   |
|                                | depending upon the hardware connected   | depending upon the hardware connected   |                   |
|                                | & Display Output as HDMI 1080P<br>(TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM<br>mode (TDA3x ONLY) | & Display device as HDMI 1080P<br>(TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM<br>mode (TDA3x ONLY) |                   |
|                                |   | Display must come up with mosaic view of all 4 cameras                                    |                   |
| 2                              | Run "SRV Calibration" UC  | and no buffer drops should be observe   |                   |
|                                |   | On selecting Auto calibration   |                   |
| ı                              | Select Auto Calibration   | It will detect corners for all 4 cameras & generate                                       |                   |
|                                |   | PERSMAT.BIN (in case of TDA2x/TDA2ex)   |                   |
|                                |   | LUT.BIN (in case of TDA3x)  On selecting "d"  |                   |
| 1                              | Select "d" to Save Display Frame to MMC/SD card   | 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 suppo  | ort 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 tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm 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.

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

| 3                               | Select Auto Calibration   | On selecting Auto calibration  It will detect corners for all 4 cameras & generate  PERSMAT.BIN (in case of TDA2x/TDA2ex)  LUT.BIN (in case of TDA3x) |  |
|---------------------------------|---|---|--|
| 4                               | Select "7" to Update 2D Pers Mat (after auto/manual calibration if required)  | On selecting "7"  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 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:

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

| NO MINIC/SD Card present |   |   |                   |
|--------------------------|---|---|-------------------|
| <u>#:</u>                | Step actions:   | Expected Results:   | Execution Status: |
|                          | Go to System Settings   | Capture Source shuld be   |                   |
|                          | Select Capture Source as OV10635 Sensor 720P30 or   | OV10635 Sensor 720P30 or  |                   |
|                          | OV10635 Sensor for Mosaic Display -<br>SAT0088/OV10635 (TDA2EX ONLY) or                   | OV10635 Sensor for Mosaic Display -<br>SAT0088/OV10635 (TDA2EX ONLY) or                   |                   |
| 1                        | OV10640 Sensor for SV - IMI (TDA3x ONLY) or   | OV10640 Sensor for SV - IMI (TDA3x ONLY) or   |                   |
|                          | AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)   | AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)   |                   |
|                          | depending upon the hardware connected   | depending upon the hardware connected   |                   |
|                          | & Display Output as HDMI 1080P<br>(TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM<br>mode (TDA3x ONLY) | & Display device as HDMI 1080P<br>(TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM<br>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 ADASVISION-883: Improved auto-calibration for 2D & 3D |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm tda3xx_rvp   |
| <b>Execution Details</b>        |   |
| Build                           | REL_3_6   |
| Tester                          | x0246581  |
| Execution Result:               | Passed  |
| Execution Mode:                 | Manual  |
| Execution duration (sec):       |   |

#### Test Case VISIONSDK-143: SRV\_Calibration\_UC\_auto\_calibration\_without\_TDAXX\_Folder

Summary:

SRV Calibration UC supported on TDA2x/TDA2ex/TDA3x

Input: OV10635 with 913/914 deserializer or

lmx290 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 not present in SD card

Run SRV calibration UC to generate PERSMAT.BIN

In case of TDA3x:

Ensure TDA3x folder not present in SD card

Run SRV calibration UC to generate LUT.BIN

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

| <u>#:</u> | Step actions:                                     | Expected Results:   | Execution Status: |
|-----------|---|---|-------------------|
| 1         | Go to System Settings                             | Capture Source shuld be   |                   |
|           | Select Capture Source as OV10635 Sensor 720P30 or | OV10635 Sensor 720P30 or  |                   |
|           | OV10635 Sensor for Mosaic Display -               | OV10635 Sensor for Mosaic Display -<br>SAT0088/OV10635 (TDA2EX ONLY) or |                   |
|           | SAT0088/OV10635 (TDA2EX ONLY) or                  | OV10640 Sensor for SV - IMI (TDA3x ONLY)                                |                   |
|           | OV10640 Sensor for SV - IMI (TDA3x ONLY)          | or  |                   |
|           | OF  | AR0140 Sensor for SV - TIDA00262 (TDA3x                                 |                   |
|           | AR0140 Sensor for SV - TIDA00262 (TDA3x ONLY)     | ONLY)   |                   |
|           | depending upon the hardware connected             | depending upon the hardware connected                                   |                   |
|           | & Display Output as HDMI 1080P                    | & Display device as HDMI 1080P<br>(TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM    |                   |
|           | a Display Output as Hibivii 1000F                 | mode (TDA3x ONLY)   |                   |

|  | o   |
|--|---|
| (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY)                               |   |
| Run "SRV Calibration" UC   | It throws error   |
| Manual   |   |
|  |   |
| Medium   |   |
|  | n-of-interest input frame for 3DSRV & 2DSRV use-cases for 2D & 3D   |
| tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp |   |
|  |   |
| REL_3_6  |   |
| x0246581   |   |
| Passed   |   |
| Manual   |   |
|  |   |
|  | (TDA2x/TDA2Ex/TDA3x), HDMI XGA TDM mode (TDA3x ONLY)  Run "SRV Calibration" UC  Manual  Medium  ADASVISION-854: Support for handling region ADASVISION-883: Improved auto-calibration tda2xx-evm tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm tda3xx_rvp  REL_3_6  x0246581  Passed |

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-1           | : VIP_Capture_Display_Input_OV106   | 35_Output_7inch_LCD   |           |  |
|---------------------------------|---|---|-----------|--|
| Summary:                        |   |   |           |  |
| Capture Display UC              |   |   |           |  |
| Input : OV10635                 |   |   |           |  |
| Output : 7" LCD                 |   |   |           |  |
| Preconditions:                  |   |   |           |  |
| Verify that Canture is runn     | ing on IPU1-0 at 30fps and display run  | ning on IPLI1-0 at 60fps  |           |  |
|                                 |   |   | Execution |  |
| <u>#:</u>                       | Step actions:   | Expected Results:   | Status:   |  |
|                                 | Go to System Settings   |   |           |  |
|                                 | Select Capture Source as OV10635  | Capture Source shuld be OV10635 Sensor  |           |  |
| 1                               | Sensor  | & Display device as 7" LCD  |           |  |
|                                 | & Display Output as 7" LCD  | a display device as 1 LOD   |           |  |
|                                 |   |   |           |  |
| 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   | 60.00   |           |  |
| Priority:                       | Medium  |   |           |  |
| Requirements                    | ADASVISION-1274: VIP Capture Link ADASVISION-1291: VIP Capture Link ADASVISION-1305: Display Link - LC ADASVISION-1311: Display Link - Co ADASVISION-1316: Display Link - Se ADASVISION-1316: Display Link - VE ADASVISION-1318: Display Link - VE ADASVISION-1322: Support OV1063 ADASVISION-1330: support LCD display Link - VE ADASVISION-1330: Set Brightness le ADASVISION-1381: 1CH VIP capture | to support Cropping of output video CD display support Hor keying support It back Ground Color of VENC CD timing configuration ENC section 5 video sensors Dlays Evels of LCD display |           |  |
| <u>Keywords:</u>                | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>m_capture<br>m_display  |   |           |  |
| <b>Execution Details</b>        |   |   |           |  |
| Build                           | REL_3_6   |   |           |  |
| Tester                          | x0246581  |   |           |  |
| Execution Result:               | Passed  |   |           |  |
| Execution Mode:                 | Manual  |   |           |  |
| Execution duration (sec):       |   |   |           |  |

|  | 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 Execution Step actions: **Expected Results:** Status: Go to System Settings Capture Source shuld be OV10635 Sensor Select Capture Source as OV10635 Sensor & Display device as HDMI 720P & Display Output as HDMI 720P Display must come up and no buffer drops should Run 1 Ch VIP capture + Display UC 2 be observe **Execution type:** Automated Estimated exec. duration 60.00 (sec): Priority: Medium Requirements ADASVISION-1279: VIP Capture Link to support Sensor capture ADASVISION-1284: VIP Capture Link to support Non-mux Discrete sync Hsync style capture modes ADASVISION-1285: VIP Capture Link to support Non-mux Discrete sync ACTVID style capture modes ADASVISION-1288: VIP Capture Link to support Progressive mode capture ADASVISION-1291: VIP Capture Link to support Cropping of output video ADASVISION-1293: VIP Capture Link - Capture HW configuration ADASVISION-1295: Display Link support for various input data formats ADASVISION-1298: Display Link - Progressive mode display ADASVISION-1299: Display Link - Inline scaling support in display ADASVISION-1306: Display Link - HDMI display support ADASVISION-1307: Display Link - Support for standard display resolutions ADASVISION-1311: Display Link - Color keying support ADASVISION-1312: Display Link - Set back Ground Color of VENC ADASVISION-1317: Display Link - Transparency Color Key Selection support ADASVISION-1318: Display Link - VENC section ADASVISION-1322: Support OV10635 video sensors ADASVISION-1329: Shall support multiple dsiplay devices - HDMI (on-chip) & LCD displays ADASVISION-1627: DSS Link: support override the input data format of the link. Keywords: tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm **Execution Details** Build REL\_3\_6 Tester x0246581 **Execution Result: Passed Execution Mode:** Manual

| Test Case VISIONS      | DK-5: VIP_Capture_Display_Input_OV106        | 35_Output_HDMI_1080P            |                      |
|------------------------|--|---------------------------------|----------------------|
| Summary:               |  |                                 |                      |
| Capture Display UC     |  |                                 |                      |
| supported on all plat  | forms  |                                 |                      |
| Input: OV10635/OV      | 10640  |                                 |                      |
| Output : HDMI 1080I    | P  |                                 |                      |
| Preconditions:         |  |                                 |                      |
| Verify that Capture is | s running on IPU1-0 at 30fps and display run | ning on IPU1-0 at 60fps         |                      |
| should not change C    | capture output dynamically                   |                                 |                      |
| <u>#:</u>              | Step actions:                                | Expected Results:               | Execution<br>Status: |
| 1                      | Go to System Settings                        | Capture Source shuld be OV10635 |                      |
|                        | Select Capture Source as OV10635             | & Display device as HDMI 1080P  |                      |

Execution duration (sec):

| 1                               | testreport i S   | DRV_lest_Flait_3_0_1 unctional_1 DAZEX  |
|---------------------------------|--|---|
|                                 | & Display Output as HDMI 1080P   |   |
| 2                               | Run 1 Ch VIP capture + Display UC  | Display must come up and no buffer drops should be observe  |
|                                 |  | TI logo should be on left top corner  |
| 3                               | Check for graphics elements displayed on screen  | All load bars should be on left bottom corner   |
|                                 |  | Check performance stats   |
| 4                               | Press "P"  | Should print CPU Load of all cores,   |
| 4                               | Piess P  | Capture & Display FPS numbers   |
|                                 |  | DDR, Heap memory, OCMC, SR1, remote log buffer memory usage   |
| Execution type:                 | Automated  |   |
| Estimated exec. duration (sec): | 60.00  |   |
| Priority:                       | Medium   |   |
| Requirements  Keywords:         | supported ADASVISION-1284: VIP Capture Link ADASVISION-1285: VIP Capture Link ADASVISION-1287: VIP Capture Link ADASVISION-1288: VIP Capture Link ADASVISION-1288: VIP Capture Link ADASVISION-1288: VIP Capture Link ADASVISION-1298: Display Link - Pro ADASVISION-1301: Display Link - Dy ADASVISION-1303: Display Link - Ble ADASVISION-1309: Display Link - Ble ADASVISION-1310: Display Link - Ble ADASVISION-1311: Display Link - Col ADASVISION-1312: Display Link - Sel ADASVISION-1318: Display Link - VE ADASVISION-1329: Shall support mul ADASVISION-1329: Shall support mul ADASVISION-1329: Shall support mul ADASVISION-1530: Cache configurat ADASVISION-1530: Cache configurat ADASVISION-1531: Memory config ADASVISION-1533: Internal memory a ADASVISION-1533: Internal memory a ADASVISION-1535: Internal memory a ADASVISION-1535: Internal memory a ADASVISION-1535: Internal memory a ADASVISION-1535: Internal memory a ADASVISION-1536: TDA2Ex - shall su ADASVISION-1584: Shall support all t ADASVISION-1604: Support sensor fr | to support Sensor capture -VIP capture with Dynamic output resolution change will not be  to support Non-mux Discrete sync Hsync style capture modes to support Non-mux Discrete sync ACTVID style capture modes to support 8 bit, 16bit & 24bit Capture bus width to support Progressive mode capture ogressive mode display namic resolution change of input video namic output image resolution change MI display support ending support of Grpx and Video planes sort keying support to back Ground Color of VENC NC section 5 video sensors Itiple dsiplay devices - HDMI (on-chip) & LCD displays + Display y generic usecase using OV10640 oport ion  allocation allocation from DSP L2 SRAM at create time only, no run time allocation from DSP L1 SRAM upport single channel capture the Bios single multi camera usecases which use one DSP & M4 |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_stress c_performance c_qualification c_stability  |   |
| <b>Execution Details</b>        |  |   |
| Build                           | REL_3_6  |   |
| Tester                          | x0246581   |   |
| Execution Result:               | Passed   |   |
| Execution Mode:                 | Manual   |   |
| Execution duration (sec):       |  |   |

| Test Case VISIONSDK-112: VIP_Capture_Display_Input_OV10635_Output_10inch_LCD |  |
|--|--|
| <u>Summary:</u>  |  |

Capture Display UC Input: OV10635

Output : 10" LCD Preconditions:

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

| <u>#:</u>                       | Step actions:  | Expected Results:  | Execution Status: |
|---------------------------------|--|--|-------------------|
| 1                               | Go to System Settings Select Capture Source as OV10635 Sensor & Display Output as 10" LCD                    | Capture Source shuld be OV10635 Sensor & Display device as 10" LCD |                   |
| 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-1274: VIP Capture Link<br>ADASVISION-1305: Display Link - LC<br>ADASVISION-1329: Shall support mu |  | s                 |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<br>c_integration        |  |                   |
| Execution Details               |  |  |                   |
| Build                           | REL_3_6  |  |                   |
| Tester                          | x0246581   |  |                   |
| Execution Result:               | Passed   |  |                   |
| Execution Mode:                 | Manual   |  |                   |
| Execution duration (sec):       |  |  |                   |

| Test Case VISIONSDK-1           | 13: VIP_Capture_Display_Input_OV1   | 0635_Output_10inch_OSD_LCD   |                      |
|---------------------------------|---|--|----------------------|
| Summary:                        |   |  |                      |
| Capture Display UC              |   |  |                      |
| Input: OV10635                  |   |  |                      |
| Output : 10" OSD LCD            |   |  |                      |
| Preconditions:                  |   |  |                      |
| Verify that Capture is runn     | ing on IPU1-0 at 30fps and display run  | nning on IPU1-0 at 60fps   |                      |
| <u>#:</u>                       | Step actions:   | Expected Results:  | Execution<br>Status: |
| 1                               | Go to System Settings Select Capture Source as OV10635 Sensor & Display Output as 10" OSD LCD | Capture Source shuld be OV10635 Sensor & Display device as 10" OSD LCD |                      |
| 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-1274: VIP Capture Link   | k to support Single channel capture                                    |                      |

|                           | ADASVISION-1305: Display Link - LCD display support                  |
|---------------------------|--|
| Keywords:                 | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm |
| <b>Execution Details</b>  |  |
| Build                     | REL_3_6  |
| Tester                    | x0246581   |
| Execution Result:         | Passed   |
| Execution Mode:           | Manual   |
| Execution duration (sec): |  |

| _  | 95: VIP_Capture_SGX_Copy_Display_I  | nput_OV10635_Output_HDMI_1080P  |                   |
|--|---|---|-------------------|
| <u>Summary:</u>  |   |   |                   |
| Capture SGX copy Display                                       | y UC supported on TDA2x/TDA2Ex/TDA2   | Ex Entry Linux  |                   |
| Input : OV10635  |   |   |                   |
| Output : HDMI 1080P  |   |   |                   |
| Preconditions:   |   |   |                   |
| Verify that Capture is runn                                    | ing on IPU1-0 at 30fps and display runnin   | g on IPU1-0 at 60fps  |                   |
| Boot mode - SD boot mod  | e (u-boot,MLO, File system all in SD card   | )   |                   |
| <u>#:</u>  | 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  |   |                   |
|  | DSP, A15 & M4 ADASVISION-1596: Support VSDK Linu. ADASVISION-1601: SD card file system ADASVISION-1604: Support sensor fran   | etween Linux and other CPUs  t simple capture + display iration bringup using u-boot/Linux ( (J6-Eco) in vision SDK port single channel capture port all the Linux single & multi camera usecases what X GPU Off-screen rendering & M4 side display support with VSDK ne work | nich use one      |
|  | ADASVISION-831: VSDK Linux - Display<br>ADASVISION-891: Vision SDK Linux - di<br>ADASVISION-99: Splitting of header files   | isplay on M4 for both TDA2x & TDA2Ex  | edicated I2C      |
| Keywords:  | ADASVISION-891: Vision SDK Linux - di   | isplay on M4 for both TDA2x & TDA2Ex  | edicated I2C      |
|  | ADASVISION-891: Vision SDK Linux - di<br>ADASVISION-99: Splitting of header files<br>tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_stress<br>c_qualification<br>c_stability<br>m_capture              | isplay on M4 for both TDA2x & TDA2Ex  | edicated I2C      |
| Execution Details  | ADASVISION-891: Vision SDK Linux - di<br>ADASVISION-99: Splitting of header files<br>tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_stress<br>c_qualification<br>c_stability<br>m_capture              | isplay on M4 for both TDA2x & TDA2Ex  | edicated I2C      |
| <b>Execution Details</b><br>Build                              | ADASVISION-891: Vision SDK Linux - di<br>ADASVISION-99: Splitting of header files<br>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 | isplay on M4 for both TDA2x & TDA2Ex  | edicated I2C      |
| Keywords:  Execution Details  Build  Tester  Execution Result: | ADASVISION-891: Vision SDK Linux - di<br>ADASVISION-99: Splitting of header files<br>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 | isplay on M4 for both TDA2x & TDA2Ex  | edicated I2C      |

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

|                                 | or in rootou  |  |                   |
|---------------------------------|---|--|-------------------|
| <u>#:</u>                       | Step actions:   | Expected Results:  | Execution Status: |
| 1                               | Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P | Capture Source shuld be OV10635 & 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 requ<br>ADASVISION-1526: Error handling               | uirements  |                   |
| <u>Keywords:</u>                | 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-312: VIP\_Capture\_SGX\_Copy\_Display\_Input\_OV10635\_Output\_10inch\_LCD

Summary:

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

Input : OV10635

Output: HDMI 1080P

DTB: lcd.dtb
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)

| <u>#:</u>       | Step actions:   | Expected Results:  | Execution Status: |
|-----------------|---|--|-------------------|
| 1               | Boot EVM with Linux binaries                            | EVM boots without any error and usecase menu displayed     |                   |
| 2               | Go to system setting & select display device as LCD 10" | LCD 10" should be selected                                 |                   |
| 3               | 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   |
| <u>Requirements</u>             | ADASVISION-1407: vision SDK with Linux on A15 ADASVISION-1411: shall support IPC links on A15 linux ADASVISION-1412: support links & chain on Linux ADASVISION-1413: support processing Links on Linux ADASVISION-1414: support chains (usecases) on Linux ADASVISION-1415: Resource sharing between Linux and other CPUs ADASVISION-1416: Linux boot loader ADASVISION-1416: Linux boot loader ADASVISION-1419: VSDK Linux support simple capture + display ADASVISION-1424: Basic board configuration bringup using u-boot/Linux ADASVISION-1596: Support VSDK Linux GPU Off-screen rendering & M4 side display ADASVISION-1601: SD card file system support with VSDK ADASVISION-1651: LG 10 inch LCD display support for VSDK-Linux ADASVISION-831: VSDK Linux - Display device & sensors configure from M4/Bios with a dedicated I2C ADASVISION-99: Splitting of header files required for InfoADAS |
| <u>Keywords:</u>                | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c_stress c_qualification c_stability m_capture m_display   |
| 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 Disp  | lay UC on A15   |  |                      |  |
| Input : OV10635   |   |  |                      |  |
| Output : HDMI 1080P   |   |  |                      |  |
| Preconditions:  |   |  |                      |  |
|   | ing on IPU1-0 at 30fps and display running c  | on IPU1-0 at 60fps   |                      |  |
| <u>#:</u>   | Step actions:   | Expected Results:  | Execution<br>Status: |  |
| 1   | Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P | Capture Source shuld be OV10635 & 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  |  |                      |  |
| 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 Pluglns) |   |  |                      |  |
| Keywords:   | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm                                |  |                      |  |

| <b>Execution Details</b> |          |
|--------------------------|----------|
| 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

| verily that Capture is furili   | ing on 1PO 1-0 at 301ps and display fullning on  | 11F01-0 at 601ps   |                   |
|---------------------------------|--|--|-------------------|
| <u>#:</u>                       | Step actions:  | Expected Results:  | Execution Status: |
| 1                               | Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P  | Capture Source shuld be OV10635 & 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   |  |                   |
| <u>Requirements</u>             | ADASVISION-1382: 1CH VIP capture + Alg Frame Copy (DSP1) + Display ADASVISION-1550: Algorithm Link Support DSP subsystem DMA resource allocations ADASVISION-1557: Support Sample Algorithm Link with separate input output buffers (Frame Copy Pluglns) ADASVISION-1584: Shall support all the Bios single multi camera usecases which use one DSP & M4 |  |                   |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression c_qualification m_algorithm  |  |                   |
| <b>Execution Details</b>        |  |  |                   |
| 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

#: <u>Step actions:</u> <u>Expected Results:</u> <u>Execution Status:</u>

| 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 ADASVISION-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex |  |  |
| Keywords:                       | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c qualification   |  |  |
| <b>Execution Details</b>        |   |  |  |
| 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

| <u>#:</u>                       | 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 ADASVISION-1412: support links & chain on Linux ADASVISION-1413: support processing Links on Linux ADASVISION-1414: support chains (usecases) on Linux ADASVISION-1415: Resource sharing between Linux and other ADASVISION-886: Enable all connector links for VSDK Linux ADASVISION-891: Vision SDK Linux - display on M4 for both TI |  |                   |
| Keywords:                       | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm m connector links   |  |                   |
| <b>Execution Details</b>        |   |  |                   |
| Build                           | REL_3_6   |  |                   |
| Tester                          | x0246581  |  |                   |
| Execution Result:               | Passed  |  |                   |
| Execution Mode:                 | Manual  |  |                   |
| Execution duration (sec):       |   |  |                   |

## 1.3.1.3.Test Suite: VIP\_Capture\_IPC\_Display

| Test Case VISIONSDK-23          | 30: VIP_Capture_I   | PC_Display_Single_core                           |                   |
|---------------------------------|---|--|-------------------|
| Summary:                        |   |  |                   |
| Capture IPC Display UC w        | vith Single core  |  |                   |
| supported on TDA2x/TDA          | 2Ex/TDA3x   |  |                   |
| Input : OV10635 Sensor          |   |  |                   |
| Output : HDMI 1080P             |   |  |                   |
| Scenrios:                       |   |  |                   |
|                                 | 0   |  |                   |
| IPU1_0 -> DSP1 -> IPU1_         | -   |  |                   |
| 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        | 1_0   |  |                   |
| IPU1_0 -> A15 -> IPU1_0         |   |  |                   |
| Preconditions:                  |   |  |                   |
| Verify that Capture is runn     | ing on IPU1-0 at 30   | Ofps and display running on IPU1-0 at 60fps      |                   |
| <u>#:</u>                       | Step actions:   | Expected Results:                                | Execution Status: |
|                                 |   | Check Logs of Capture IPC Display UC             |                   |
| 1                               | Run Testsuite   | 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  |  |                   |
| <u>Requirements</u>             | ADASVISION-1398: IPC between M4s ADASVISION-1399: IPC between DSPs ADASVISION-1400: IPC between EVEs ADASVISION-1401: IPC between M4 & A15 ADASVISION-1402: IPC between M4 & DSP ADASVISION-1403: IPC between M4 & EVE ADASVISION-1404: IPC between DSP & A15 ADASVISION-1405: IPC between DSP & EVE ADASVISION-1406: IPC between EVE & A15 |  |                   |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm m_ipc  |  |                   |
| Execution Details               |   |  |                   |
| Build                           | REL_3_6   |  |                   |
| Tester                          | x0246581  |  |                   |
| Execution Result:               | Passed  |  |                   |
| Execution Mode:                 | Manual  |  |                   |

### 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

| <u>#:</u>                       | Step actions:  | Expected Results:  | Execution Status: |
|---------------------------------|--|--|-------------------|
| 1                               | Run Testsuite  | Check Logs of Capture IPC Display UC  Capture should be running on IPU1-0 at 30fps and   |                   |
| P                               | Marria   | Display should be running on IPU1-0 at 60fps   |                   |
| Execution type:                 | Manual   |  |                   |
| Estimated exec. duration (sec): |  |  |                   |
| <u>Priority:</u>                | Medium   |  |                   |
| <u>Requirements</u>             | ADASVISION-13<br>ADASVISION-14<br>ADASVISION-14<br>ADASVISION-14<br>ADASVISION-14<br>ADASVISION-14<br>ADASVISION-14<br>ADASVISION-14 | 398: IPC between M4s 399: IPC between DSPs 400: IPC between EVEs 401: IPC between M4 & A15 402: IPC between M4 & DSP 403: IPC between M4 & EVE 404: IPC between DSP & A15 405: IPC between DSP & EVE 406: IPC between EVE & A15 410: shall support link sendcmd across all cores |                   |
| <u>Keywords:</u>                | tda2xx-evm tda2ex-evm tda3xx-evm tda3xx-evm tda2ex-entry 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\_Color\_To\_Gray\_Display

| Test Case VISIONSDK-167: VIP_Capture_Color_To_Gray_Display |                    |  |                   |
|--|--------------------|--|-------------------|
| Summary:   |                    |  |                   |
| Single Cam Capture Col                                     | or to Gray Display | UC   |                   |
| supported on TDA2x/TD                                      | A2Ex/TDA3x         |  |                   |
| Input : OV10635 Sensor                                     |                    |  |                   |
| Output: HDMI 1080P   |                    |  |                   |
| Preconditions:   |                    |  |                   |
| Verify that Capture is run                                 | nning on IPU1-0 at | 30fps and display running on IPU1-0 at 60fps     |                   |
| <u>#:</u>  | Step actions:      | Expected Results:                                | Execution Status: |
| 1  | Run Testsuite      | Check Logs of Capture Color to Gray 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-1553: Algorithm Link Support In place computation support ADASVISION-1558: Support Sample Algorithm Link (Color to Gray Plug-Ins) with inplace buffer processing |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm  |
| <b>Execution Details</b>        |   |
| Build                           | REL_3_6   |
| Tester                          | x0246581  |
| Execution Result:               | Passed  |
| Execution Mode:                 | Manual  |
| Execution duration (sec):       |   |

## 1.3.1.5.Test Suite: VIP\_Capture\_DSSWB\_Display

| Test Case VISIONSDK-17          | 78: VIP_Capture_  | DSSWB_Display  |                   |
|---------------------------------|---|--|-------------------|
| Summary:                        |   |  |                   |
| Single Cam Capture DSS          | WB Display UC   |  |                   |
| supported on TDA2x/TDA          | 2Ex   |  |                   |
| Input : OV10635 Sensor          |   |  |                   |
| Output : HDMI 1080P             |   |  |                   |
| Preconditions:                  |   |  |                   |
| Verify that Capture is runn     | ing on IPU1-0 at 3  | Ofps and display running on IPU1-0 at 60fps  |                   |
| <u>#:</u>                       | Step actions:   | Expected Results:  | Execution Status: |
|                                 |   | Check Logs of Capture DSSWB Display UC   |                   |
| 1                               | Run Testsuite   | Capture should be running on IPU1-0 at 30fps and   |                   |
|                                 |   | display should be running on IPU1-0 at 60fps   |                   |
| Execution type:                 | Manual  | and the state of t |                   |
| Estimated exec. duration (sec): |   |  |                   |
| Priority:                       | Medium  |  |                   |
| Requirements                    | ADASVISION-1283: VIP Capture Link to support DSS write back capture<br>ADASVISION-1319: Display DSS write back Link |  |                   |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm<br>c_qualification   |  |                   |
| <b>Execution Details</b>        |   |  |                   |
| 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                |  |

Tester

**Execution Result:** 

**Execution Mode:** 

Execution duration (sec):

testreport PSDKV\_Test\_Plan\_3\_6\_Functional\_TDA2Ex 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:** Check Logs of Capture VPE Display UC Run Testsuite Capture should be running on IPU1-0 at 30fps and display should be running on IPU1-0 at 60fps Manual Execution type: Estimated exec. duration (sec): Priority: Medium Requirements ADASVISION-1369: VPE link to support scaling of input video ADASVISION-1370: VPE link to support de-interlacing ADASVISION-1371: VPE link to support multiple output queues ADASVISION-1372: VPE link to support Multi instance ADASVISION-1373: VPE link to support input type progressive ADASVISION-1374: VPE link to support various Input Data Formats ADASVISION-1375: VPE link to support various output data format ADASVISION-1376: VPE link to support De-interlaced enable/disable ADASVISION-1377: VPE link to support input resolution change ADASVISION-1378: VPE link to support output resolution change ADASVISION-1379: VPE link to support frame rate down sampling Keywords: tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm m\_vpe **Execution Details** Build REL\_3\_6

## 1.3.1.7.Test Suite: VIP\_Capture\_Encode\_Decode\_Display

x0246581

**Passed** 

Manual

| Test Case VISIONSDK-12: VIP_Capture_Encode_Decode_MJPEG_Display                       |   |  |  |
|---|---|--|--|
|   |   |  |  |
| ode Display UC with MJPEG Frames  |   |  |  |
|   |   |  |  |
|   |   |  |  |
|   |   |  |  |
| ing on IPU1-0 at 30fps and display runnin   | g on IPU1-0 at 60fps  |  |  |
| Step actions:   | Expected Results:   | Execution<br>Status:   |  |
| Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P | Capture Source shuld be OV10635 & Display device as HDMI 1080P  |  |  |
| Run 1 Ch VIP capture + ENC + DEC + Display UC & select "0" for MJPEG Frames           | Display must come up and no buffer drops should be observe  |  |  |
| Press "P"   | Check performance stats   |  |  |
| Automated   |   |  |  |
| 60.00   |   |  |  |
|   | ing on IPU1-0 at 30fps and display runnin  Step actions:  Go to System Settings  Select Capture Source as OV10635  & Display Output as HDMI 1080P  Run 1 Ch VIP capture + ENC + DEC + Display UC  & select "0" for MJPEG Frames  Press "P"  Automated | ing on IPU1-0 at 30fps and display running on IPU1-0 at 60fps  Step actions:  Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P  Run 1 Ch VIP capture + ENC + DEC + Display UC  & select "0" for MJPEG Frames  Press "P"  Check performance stats  Automated |  |

| 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-1451: 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   |
| <b>Execution Details</b>  |  |
| 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:

VIP Capture Encode Decode Display UC with H264 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

| <u>#:</u>   | Step actions:   | Expected Results:  | Execution Status: |
|---|---|--|-------------------|
| 1   | Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P | Capture Source shuld be OV10635 & Display device as HDMI 1080P         |                   |
| 2   | Run 1 Ch VIP capture + ENC + DEC + Display UC  & select "1" for H264 Frames           | Display must come up and no buffer drops should be observe             |                   |
| 3   | Press "P"   | Check performance stats should match with IVAHD codec performance data |                   |
| Execution type:   | Automated   |  |                   |
| Estimated exec. duration (sec):   | 60.00   |  |                   |
| Priority:   | Medium  |  |                   |
| ADASVISION-1261: Performance tuning for IVAHD codec in system ADASVISION-1273: IVA H264 Encoder - IDR frame only configuration ADASVISION-1335: IVA Decode Link - H264 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-1340: IVA Decode Link - Error-concealment ADASVISION-1341: IVA Decode Link - Output data format YUV420SP ADASVISION-1448: IVA Encode Link support H264 encode ADASVISION-1450: IVA Encode Link Support various encode resolutions ADASVISION-1451: IVA Encode Link Support for multiple Bit rates ADASVISION-1452: IVA Encode Link Support Subframe/Slice based Encoding ADASVISION-1453: IVA Encode Link support Subframe/Slice based Encoding ADASVISION-1454: IVA Encode Link support Error-concealment |   |  |                   |

|                           | totaloport   05111 _ 1001_1   tan _ 0_0_1   tan _ 0_0_1   |
|---------------------------|---|
|                           | ADASVISION-1455: IVA Encode Link support Input data format YUV420SP ADASVISION-1516: Tiler memory mode shall not be supported with VSDK |
| Keywords:                 | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c_qualification m_iva   |
| <b>Execution Details</b>  |   |
| 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

| , ,                             | 1 1 3   |  |                   |
|---------------------------------|---|--|-------------------|
| <u>#:</u>                       | 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 & 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 ADASVISION-1447: IVA Encode Link support Multichannel MJPEG encode 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-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex |  |                   |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm  |  |                   |
| <b>Execution Details</b>        |   |  |                   |
| 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

| <u>#:</u>                       | Step actions:   | Expected Results:  | Execution |
|---------------------------------|---|--|-----------|
|                                 |   | EVM boots without any error and usecase                                | Status:   |
| 1                               | Boot EVM with Linux binaries  | menu displayed   |           |
| 2                               | Run "1CH VIP capture + Encode + Decode + SGX<br>Copy + DISPLAY" UC<br>& select "1" for H264   | Display must come up and no buffer drops should be observe             |           |
| 3                               | Press "P"   | Check performance stats should match with IVAHD codec performance data |           |
| Execution type:                 | Manual  |  |           |
| Estimated exec. duration (sec): |   |  |           |
| Priority:                       | Medium  |  |           |
| <u>Requirements</u>             | ADASVISION-1261: Performance tuning for IVAHD codec in system ADASVISION-1448: IVA Encode Link support H264 encode 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-891: Vision SDK Linux - display on M4 for both TDA2x & TDA2Ex |  |           |
| <u>Keywords:</u>                | 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):       |   |  |           |

## 1.3.1.8.Test Suite: VIP\_Capture\_Safe\_FrameCopy\_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

| <u>#:</u>                | Step actions:   | Expected Results:  | Execution Status: |
|--------------------------|---|--|-------------------|
| 1                        | Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P | Capture Source shuld be OV10635 & 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 | 60.00   |  |                   |

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

## 1.3.2.Test Suite: HDMI

## 1.3.2.1.Test Suite : HDMI\_Capture\_Display

| Test Case VISIONSDK-3:          | : HDMI_Capture_Display_Input_  | HDMI_Output_LCD  |                      |
|---------------------------------|--|--|----------------------|
| Summary:                        |  |  |                      |
| Capture Display UC              |  |  |                      |
| Input : HDMI                    |  |  |                      |
| Output : LCD                    |  |  |                      |
| Preconditions:                  |  |  |                      |
| Verify that Capture is runn     | ing on IPU1-0 at 30fps and displa  | y running on IPU1-0 at 60fps                               |                      |
| <u>#:</u>                       | Step actions:  | Expected Results:  | Execution<br>Status: |
| 1                               | Go to System Settings Select Capture Source as HDMI & Display Output as LCD  | Capture Source shuld be HDMI & Display device as LCD       |                      |
| 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<br>ADASVISION-1305: Display Link<br>ADASVISION-1323: capture from<br>ADASVISION-1330: support LCD<br>ADASVISION-1331: support for H | s - LCD display support<br>n HDMI source<br>D displays     |                      |
| <u>Keywords:</u>                | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_regression<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-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 |                             |                   |           |
| <u>#:</u>  | Step actions:               | Expected Results: | Execution |

| 019                             | testrepo  | rt PSDKV_Test_Plan_3_6_Functional_TDA2Ex   |         |
|---------------------------------|---|--|---------|
|                                 |   |  | Status: |
| 1                               | Go to System Settings Select Capture Source as HDMI & Display Output as HDMI  | Capture Source shuld be HDMI & 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-1287: VIP Capture<br>ADASVISION-1288: VIP Capture<br>ADASVISION-1296: Display Link<br>ADASVISION-1298: Display Link<br>ADASVISION-1300: Display Link<br>ADASVISION-1306: Display Link<br>ADASVISION-1306: Display Link | Link to support Non-mux Embedded sync capture mode Link to support 8 bit, 16bit & 24bit Capture bus width Link to support Progressive mode capture  - Display support for ARGB 16/24/32 bit data formats  - Progressive mode display  - Video window positioning support  - Active video channel selection  - HDMI display support  - Digital Output data format with discrete sync  - VENC section  HDMI source | s       |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>c_qualification<br>c_integration  |  |         |
| <b>Execution Details</b>        |   |  |         |
| 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-16: HDMI_Capture_TLR_Display  |  |   |  |  |
|---|--|---|--|--|
| Summary:  |  |   |  |  |
| HDMI Capture Traffic Ligh   | nt Display UC  |   |  |  |
| Input : HDMI  |  |   |  |  |
| Output : HDMI 1080P   |  |   |  |  |
| Preconditions:  |  |   |  |  |
|   | ows a smooth stitching of the single cam views Traff<br>check performance stats match with datasheet | ic Light detection  |  |  |
| <u>#:</u>   | Step actions: Expected Results: Execution Status:  |   |  |  |
| 1   | Go to System Settings Select Capture Source as HDMI & Display Output as HDMI 1080P                   | Capture Source shuld be HDMI & Display device as HDMI 1080P |  |  |
| 2   | Run 1CH VIP capture (HDMI) + Traffic Light<br>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   |   |  |  |
| ADASVISION-1278: VIP Capture Link to support HDMI capture ADASVISION-1323: capture from HDMI source |  |   |  |  |

|                           | 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 |
| <b>Execution Details</b>  |  |
| Build                     | REL_3_6  |
| Tester                    | x0246581   |
| Execution Result:         | Passed   |
| Execution Mode:           | Manual   |
| Execution duration (sec): |  |

## 1.3.3.Test Suite: MISC

# 1.3.3.1.Test Suite : NullSrc\_Null\_Link

| Test Case VISIONSDK-181: NullSrc_Null_UC |  |   |                   |  |
|--|--|---|-------------------|--|
| Summary:                                 | Summary:   |   |                   |  |
| Null Src Null UC                         | Null Src Null UC   |   |                   |  |
| supported on TDA2x/TDA                   | 2Ex/TDA3x  |   |                   |  |
| Input Data Format: MJPE                  | G Bitstream  |   |                   |  |
| Output : Null                            |  |   |                   |  |
| Preconditions:                           |  |   |                   |  |
| Verify that Capture is runn              | ning on IPU1-0 at  | 30fps and display running on IPU1-0 at 60fps      |                   |  |
| <u>#:</u>                                | Step actions:  | Expected Results:                                 | Execution Status: |  |
|  |  | Check Logs of Null Src Null UC                    |                   |  |
| 1  | Run Testsuite  | Capture should be running on IPU1-0 at 30fps and  |                   |  |
|  |  | display should be running on IPU1-0 at 60fps      |                   |  |
| Execution type:                          | Manual   | display should be fulfilling of 1F 0 1-0 at offps |                   |  |
| Estimated exec. duration                 | Mariaar  | Yalludi   |                   |  |
| <u>(sec):</u>                            |  |   |                   |  |
| Priority:                                | Medium   | Medium  |                   |  |
| Requirements                             | ADASVISION-1263: Null & NullSrc clean-up to move Networking RX/Tx functionalities to new network_rx and network_tx li ADASVISION-1522: Dummy Sink (Null Link) ADASVISION-1523: Dummy source (NUllSrc Link) |   |                   |  |
| Keywords:                                | tda2xx-evm<br>m_connector_links  |   |                   |  |
| <b>Execution Details</b>                 |  |   |                   |  |
| Build                                    | REL_3_6  |   |                   |  |
| Tester                                   | x0246581   |   |                   |  |
| Execution Result:                        | Passed   |   |                   |  |
| Execution Mode:                          | Manual   |   |                   |  |
| Execution duration (sec):                |  |   |                   |  |

| Test Case VISIONSDK-       | Test Case VISIONSDK-182: NullSrc_Decode_Display_MJPEG_Frames                             |  |                          |
|----------------------------|--|--|--------------------------|
| Summary:                   |  |  |                          |
| Null Src Decode Display    | UC   |  |                          |
| supported on TDA2x/TD      | A2Ex/TDA3x   |  |                          |
| Input Data Format: MJPI    | EG Bitstream   |  |                          |
| Output : HDMI 1080P        |  |  |                          |
| Preconditions:             |  |  |                          |
| Verify that Capture is rur | Verify that Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps |  |                          |
| <u>#:</u>                  | Step actions:  | Expected Results:                                | <b>Execution Status:</b> |
|                            |  | Check Logs of Null Src Decode Display UC         |                          |
| 1                          | Run Testsuite  | 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-1523: Dummy source (NUIISrc Link) |
| Keywords:                       | tda2xx-evm                                   |
| <b>Execution Details</b>        |  |
| Build                           | REL_3_6                                      |
| Tester                          | x0246581                                     |
| Execution Result:               | Passed                                       |
| Execution Mode:                 | Manual                                       |
| Execution duration (sec):       |  |

| Test Case VISIONSDK-1           | Test Case VISIONSDK-183: NullSrc_Decode_Display_H264_Frames |  |                   |  |
|---------------------------------|---|--|-------------------|--|
| Summary:                        |   |  |                   |  |
| Null Src Decode Display U       | Null Src Decode Display UC                                  |  |                   |  |
| supported on TDA2x/TDA          | 2Ex/TDA3x   |  |                   |  |
| Input Data Format: H264 I       | Bitstream   |  |                   |  |
| Output : HDMI 1080P             |   |  |                   |  |
| Preconditions:                  |   |  |                   |  |
|                                 | ing on IDLI1 0 of 3   | 20fns and display rupping on IDLI4 0 at 60fns                  |                   |  |
|                                 | Step actions:   | Ofps and display running on IPU1-0 at 60fps  Expected Results: | Execution Status: |  |
| <u>#:</u>                       | Step actions.   |  | EXECUTION Status. |  |
|                                 |   | Check Logs of Null Src Decode Display UC                       |                   |  |
| 1                               | Run Testsuite   | Capture should be running on IPU1-0 at 30fps and               |                   |  |
|                                 |   | display should be running on IPU1-0 at 60fps                   |                   |  |
| Execution type:                 | Manual  | Manual   |                   |  |
| Estimated exec. duration (sec): |   |  |                   |  |
| Priority:                       | Medium  |  |                   |  |
| Requirements                    | ADASVISION-15   | ADASVISION-1523: Dummy source (NUIISrc Link)                   |                   |  |
| Keywords:                       | tda2xx-evm  | rda2xx-evm   |                   |  |
| <b>Execution Details</b>        |   |  |                   |  |
| Build                           | REL_3_6   |  |                   |  |
| Tester                          | x0246581  |  |                   |  |
| Execution Result:               | Passed  |  |                   |  |
| Execution Mode:                 | Manual  | Manual   |                   |  |
| Execution duration (sec):       |   |  |                   |  |

| Test Case VISIONSDK-201: NullSrc_Decode_Display_MJPEG_Frames_L |  |  |                   |  |
|--|--|--|-------------------|--|
| Summary:   |  |  |                   |  |
| Null Src Decode Displa   | y UC   |  |                   |  |
| supported on TDA2x/TI  | DA2Ex/TDA2Ex Entry Linux   |  |                   |  |
| Input Data Format: MJF   | PEG Bitstream  |  |                   |  |
| Output : HDMI 1080P  |  |  |                   |  |
| Preconditions:   |  |  |                   |  |
| Verify that Capture is ru                                      | inning on IPU1-0 at 30fps and display running on IPU1-0 at 60                                    | Ofps   |                   |  |
| <u>#:</u>  | 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 (NUIISrc Link) |
| Keywords:                       | tda2xx-evm                                   |
| <b>Execution Details</b>        |  |
| 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 Execution Step actions: **Expected Results:** <u>#:</u> Status: EVM boots without any error and Boot EVM with Linux binaries 1 usecase menu displayed Run "NullSrc + Decode + Display (Only 1920x1080 Display must come up and no 2 H264/MJPEG Video Input Bit-Stream Supported)" UC buffer drops should be observe Manual Execution type: Estimated exec. duration (sec): Priority: Medium Requirements ADASVISION-1523: Dummy source (NUIISrc Link) Keywords: tda2xx-evm **Execution Details** Build **REL\_3\_6** Tester x0246581 **Execution Result: Passed** Manual **Execution Mode:** Execution duration (sec):

#### 1.3.3.2.Test Suite: SyncLink

| Test Case VISIONSDK-187: VIP_Capture_Sync_Null   |               |  |                   |
|--|---------------|--|-------------------|
| Summary:   |               |  |                   |
| Single Cam Capture Syno  | Null UC       |  |                   |
| supported on TDA2x/TDA   | A2Ex/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 |               |  |                   |
| <u>#:</u>  | Step actions: | Expected Results:                                | Execution Status: |
| 1  | Run Testsuite | Check Logs of Capture Sync Null 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-1518: Synchronization of frames across multiple channels        |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm m_connector_links |
| <b>Execution Details</b>        |  |
| Build                           | REL_3_6  |
| Tester                          | x0246581   |
| Execution Result:               | Passed   |
| Execution Mode:                 | Manual   |
| Execution duration (sec):       |  |

## 1.3.3.3.Test Suite : DupLink

| Test Case VISIONSDK-16      | 65: VIP Capture            | Dup Display                                       |                   |  |
|-----------------------------|----------------------------|---|-------------------|--|
| Summary:                    |                            |   |                   |  |
| Single Cam Capture Dup I    | Display UC                 |   |                   |  |
| supported on TDA2x/TDA2     |                            |   |                   |  |
|                             | ZEX/TDA3X                  |   |                   |  |
| Input : OV10635 Sensor      |                            |   |                   |  |
| Output : HDMI 1080P         |                            |   |                   |  |
| Preconditions:              |                            |   |                   |  |
| Verify that Capture is runn | ing on IPU1-0 at           | 30fps and display running on IPU1-0 at 60fps      |                   |  |
| <u>#:</u>                   | Step actions:              | Expected Results:                                 | Execution Status: |  |
|                             |                            | Check Logs of Capture Dup Display UC              |                   |  |
| 1                           | Run Testsuite              | Capture should be running on IPU1-0 at 30fps and  |                   |  |
|                             |                            | display should be running on IPU1-0 at 60fps      |                   |  |
| Execution type:             | Manual                     | alopte, challe so tallining circle of the decorpt |                   |  |
| Estimated exec. duration    |                            |   |                   |  |
| (sec):                      |                            |   |                   |  |
| Priority:                   | Medium                     |   |                   |  |
| Requirements                | ADASVISION-15              | ADASVISION-1519: duplication of output            |                   |  |
| Keywords:                   | tda2xx-evm<br>tda2ex-evm   |   |                   |  |
|                             | tda3xx-evm<br>tda2ex-entry |   |                   |  |
|                             | tda2px-evm                 |   |                   |  |
| Execution Details           | m_connector_lin            | ks  |                   |  |
| Build                       | DEL 3.6                    |   |                   |  |
| Tester                      | REL_3_6<br>x0246581        |   |                   |  |
| Execution Result:           | Passed                     |   |                   |  |
| Execution Mode:             | Manual                     |   |                   |  |
| Execution duration (sec):   |                            |   |                   |  |

## 1.3.3.4.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 **Expected Results: Execution Status:** <u>#:</u> Step actions: Check Logs of Capture Merge Display UC Run Testsuite Capture should be running on IPU1-0 at 30fps and 1 display should be running on IPU1-0 at 60fps Manual Execution type: Estimated exec. duration (sec): Priority: Medium Requirements ADASVISION-1520: Merging of multiple outputs Keywords: tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm m\_connector\_links **Execution Details** Build REL\_3\_6 Tester x0246581 **Execution Result: Passed** 

#### 1.3.3.5.Test Suite: StatisticsLogs

Manual

**Execution Mode:** 

Execution duration (sec):

| Test Case VISIONSDK-211: VIP_SingleCam_Capture_Display_Statistics_Logs |   |   |                   |  |  |
|--|---|---|-------------------|--|--|
| Summary:   |   |   |                   |  |  |
| Capture Display UC   |   |   |                   |  |  |
| Input : OV10635  |   |   |                   |  |  |
| Output : HDMI 1080P  |   |   |                   |  |  |
| Preconditions:   |   |   |                   |  |  |
| Verify that Capture is runn  | ning on IPU1-0 at 30fps and displa  | y running on IPU1-0 at 60fps  |                   |  |  |
| <u>#:</u>  | Step actions:   | Expected Results:   | Execution Status: |  |  |
| 1  | Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P | Capture Source shuld be OV10635 & 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  1. Load on all cores  2. DDR BW usage  3. FPS for each Link  4. Latency to process frames |                   |  |  |
| Execution type:  | Automated   |   |                   |  |  |
| Estimated exec. duration (sec):  | 60.00   |   |                   |  |  |
| Priority:  | Medium  |   |                   |  |  |

| Requirements              | ADASVISION-1536: System debug logs ADASVISION-1537: Statistics logs ADASVISION-1538: latency measurement ADASVISION-1539: system loading ADASVISION-1540: DDR BW measurement ADASVISION-1541: Global timestamp ADASVISION-1563: Vision SDK Print Statistics for PM |
|---------------------------|--|
| Keywords:                 | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm tda3xx_rvp  |
| <b>Execution Details</b>  |  |
| 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                          |  |   |                      |  |  |  |
| <u>#:</u>  | Step actions:  | Expected Results:                             | Execution<br>Status: |  |  |  |
| 1  | Go to System Settings -> Print PRCM Statistics  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 ADASVISION-1562: power mamagemant - Profilling Support for Actual CPU idle time 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   |   |                      |  |  |  |
| <b>Execution Details</b>                                   |  |   |                      |  |  |  |
| 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 Stat  | tistics Temperature   |  |                      |  |  |
| <u>#:</u>  | Step actions:   | Expected Results:  | Execution<br>Status: |  |  |
| 1  | Go to System Settings -> Print PRCM Statistics  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 ADASVISION-1563: Vision SDK Print Statistics for PM ADASVISION-1566: PM - VSDKPRINTSTATS: Print the Temperature |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm tda3xx_rvp  |
| <b>Execution Details</b>        |  |
| Build                           | REL_3_6  |
| Tester                          | x0246581   |
| Execution Result:               | Passed   |
| Execution Mode:                 | Manual   |
| Execution duration (sec):       |  |

| Test Case VISIONSDK-2           | Test Case VISIONSDK-214: Print_PRCM_Statistics_Voltage   |   |  |  |  |
|---------------------------------|--|---|--|--|--|
| Summary:                        |  |   |  |  |  |
| Print PRCM Statistics Voltage   |  |   |  |  |  |
| <u>#:</u>                       | <u>Step actions:</u> <u>Expected Results:</u> <u>Execution Status:</u>   |   |  |  |  |
| 1                               | Go to System Settings -> Print PRCM Statistics  Press "3" for Voltage  | On selecting "3" should print voltage usage |  |  |  |
| Execution type:                 | Automated  | <u>'</u>                                    |  |  |  |
| Estimated exec. duration (sec): | 60.00  |   |  |  |  |
| Priority:                       | Medium   |   |  |  |  |
| Requirements                    | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex ADASVISION-1563: Vision SDK Print Statistics for PM ADASVISION-1567: PM - VSDKPRINTSTATS: Print the Voltage |   |  |  |  |
| Keywords:                       | · · · · · · · · · · · · · · · · · · ·  |   |  |  |  |
| <b>Execution Details</b>        |  |   |  |  |  |
| Build                           | REL_3_6  |   |  |  |  |
| Tester                          | x0246581   |   |  |  |  |
| Execution Result:               | Passed   |   |  |  |  |
| Execution Mode:                 | Manual   |   |  |  |  |
| Execution duration (sec):       |  |   |  |  |  |

| Test Case VISIO | Test Case VISIONSDK-215: Print_PRCM_Statistics_Module_Power_State |  |                      |  |  |
|-----------------|---|--|----------------------|--|--|
| <u>Summary:</u> |   |  |                      |  |  |
| Print PRCM Sta  | tistics Module Power State  |  |                      |  |  |
| # <u>:</u>      | Step actions:   | Expected Results:                            | Execution<br>Status: |  |  |
|                 | Go to System Settings -> Print PRO                                | CM On selecting "4" should print Module Powe |                      |  |  |

| 013                             | tootroport obitt_   | icst_i laii_5_6_i dilottoriai_1DAZEX |       |
|---------------------------------|---|--------------------------------------|-------|
|                                 | Press "4" for Module Power State  | Module Name & Module state           |       |
|                                 |   | Module SIDLE State                   |       |
|                                 |   | Clock Activite State                 |       |
|                                 |   | Power Domain State                   |       |
|                                 |   |                                      |       |
| Execution type:                 | Automated   |                                      |       |
| Estimated exec. duration (sec): | 60.00   |                                      |       |
| Priority:                       | Medium  |                                      |       |
| Requirements                    | ADASVISION-1561: power mamagemant S<br>TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print Statis<br>ADASVISION-1565: PM - VSDKPRINTSTA |                                      | s for |
| 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-2           | 16: Print_PRCM_Statistics_CPU_Frequer   | ісу  |  |  |
|---------------------------------|---|--|--|--|
| Summary:                        |   |  |  |  |
| Print PRCM Statistics CPU       | J Frequency   |  |  |  |
| <u>#:</u>                       | <u>Step actions:</u> <u>Expected Results:</u> <u>Execution Status:</u>  |  |  |  |
| 1                               | Go to System Settings -> Print PRCM Statistics 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 ADASVISION-1563: Vision SDK Print Statistics for PM ADASVISION-1564: PM - VSDKPRINTSTATS: Print Module Frequencies |  |  |  |
| <u>Keywords:</u>                | 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):       |   |  |  |  |

Summary:

| Print PRCM Statistics Peri      | ipherals Frequency  |   |                      |
|---------------------------------|---|---|----------------------|
| <u>#:</u>                       | Step actions:   | Expected Results:   | Execution<br>Status: |
| 1                               | Go to System Settings -> Print PRCM Statistics  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  |   |                      |
| <u>Requirements</u>             | ADASVISION-1561: power mamager<br>TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Print<br>ADASVISION-1564: PM - VSDKPRIN |   | for                  |
| <u>Keywords:</u>                | 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):       |   |   |                      |

| Summary:                        |  |  |                   |  |
|---------------------------------|--|--|-------------------|--|
| Print PRCM Statistics Prc       | m Register Data  |  |                   |  |
| <u>#:</u>                       | Step actions:  | Expected Results:  | Execution Status: |  |
| 1                               | Go to System Settings -> Print PRCM Statistics Press "7" for Prcm Register Data    | On selecting "6" should print Prcm Register Data of all POWER DOMAIN  Reg. Address & Value                   |                   |  |
| Execution type:                 | Automated  |  |                   |  |
| Estimated exec. duration (sec): | 60.00  |  |                   |  |
| <u>Priority:</u>                | Medium   | Medium   |                   |  |
| <u>Requirements</u>             | TDA2x/TDA3x/TDA2Ex<br>ADASVISION-1563: Vision SDK Pr                               | emant Software Enhancements and Advanced Features into Statistics for PM RINTSTATS: Print Module Power State | for               |  |
| 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   |  |                   |  |

### Test Case VISIONSDK-219: Print\_PRCM\_Statistics\_Power\_Consumption

#### Summary:

Print PRCM Statistics Power Consumption

Supported only on TDA2x

| <u>#:</u>                       | Step actions:   | Expected Results:                                  | Execution<br>Status: |
|---------------------------------|---|--|----------------------|
| 1                               | Go to System Settings -> Print PRCM Statistics  Press "8" for Power Consumption   | On selecting "8" should print Power<br>Consumption |                      |
| Execution type:                 | Automated   |  |                      |
| Estimated exec. duration (sec): | 60.00   |  |                      |
| Priority:                       | Medium  |  |                      |
| <u>Requirements</u>             | ADASVISION-1561: power mamagemant Software Enhancements and Advanced Features for TDA2x/TDA3x/TDA2Ex ADASVISION-1563: Vision SDK Print Statistics for PM ADASVISION-1565: PM - VSDKPRINTSTATS: Print Module Power State |  |                      |
| <u>Keywords:</u>                | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm<br>tda3xx_rvp  |  |                      |
| <b>Execution Details</b>        |   |  |                      |
| Build                           | REL_3_6   |  |                      |
| Tester                          | x0246581  |  |                      |
| Execution Result:               | Passed  |  |                      |
| Execution Mode:                 | Manual  |  |                      |
| Execution duration (sec):       |   |  |                      |

| Test Case VISIONSDK-2           | 20: Print_PRCM_Statistics_All_PRCM_St  | ats  |                      |
|---------------------------------|--|--|----------------------|
| Summary:                        |  |  |                      |
| Print PRCM Statistics All F     | PRCM Stats   |  |                      |
| <u>#:</u>                       | Step actions:  | Expected Results:                            | Execution<br>Status: |
|                                 |  | On selecting "9" should print All PRCM Stats |                      |
|                                 |  | Dpll Status                                  |                      |
|                                 |  | Temperature                                  |                      |
|                                 | Go to System Settings -> Print PRCM Statistics   | Voltage                                      |                      |
| 1                               | Press "9" for All PRCM Stats   | Module Power State                           |                      |
|                                 |  | CPU frequency                                |                      |
|                                 |  | Peripherals Frequency                        |                      |
|                                 |  | Prcm register Data                           |                      |
|                                 |  | Power Consumption                            |                      |
| Execution type:                 | Automated  |  |                      |
| Estimated exec. duration (sec): | 60.00  |  |                      |
| <u>Priority:</u>                | Medium   |  |                      |
| <u>Requirements</u>             | 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 measureme<br>ADASVISION-1541: Global timestamp<br>ADASVISION-1561: power mamagemant |  | ıres for             |

|                           | TDA2x/TDA3x/TDA2Ex ADASVISION-1563: Vision SDK Print Statistics for PM ADASVISION-1564: PM - VSDKPRINTSTATS: Print Module Frequencies ADASVISION-1565: PM - VSDKPRINTSTATS: Print Module Power State ADASVISION-1566: PM - VSDKPRINTSTATS: Print the Temperature ADASVISION-1567: PM - VSDKPRINTSTATS: Print the Voltage |
|---------------------------|--|
| Keywords:                 | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm tda3xx_rvp  |
| <b>Execution Details</b>  |  |
| Build                     | REL_3_6  |
| Tester                    | x0246581   |
| Execution Result:         | Passed   |
| Execution Mode:           | Manual   |
| Execution duration (sec): |  |

### 1.3.3.6.Test Suite: FATFS

| Test Case VISIONSDK-22  | Test Case VISIONSDK-228: File_IO_UC_MMCSD_IPU1_0         |  |                      |  |
|---|--|--|----------------------|--|
| Summary:  |  |  |                      |  |
| File IO UC using MMCSD  | on IPU1_0  |  |                      |  |
| Read Applmage from SD   | card &   |  |                      |  |
| write back same to SD car   | rd   |  |                      |  |
| Preconditions:  |  |  |                      |  |
| Verify FATFS running IPU  | 1_0  |  |                      |  |
| Build SDK with FATFS flag   | gs enabled & NDK disabled and                            | FATFS lib on IPU1_0  |                      |  |
| <u>#:</u>   | Step actions:  | Expected Results:  | Execution<br>Status: |  |
|   | 4.0.1.15".10.110.5                                       | No Display   |                      |  |
| 1   | Select File IO UC from Menu                              | On console, Time taken to read & write should be displayed |                      |  |
| Execution type:   | Automated  |  |                      |  |
| Estimated exec. duration (sec):   | 60.00  | 60.00  |                      |  |
| Priority:   | Medium   |  |                      |  |
| Requirements  ADASVISION-1524: Dummy source with file read ADASVISION-1595: Support for FAT File system with MMC/SD card. (When networking is enabled FAT FS is disabled) ADASVISION-1601: SD card file system support with VSDK ADASVISION-743: FAT FS throughput measurements and optimizations |  |  |                      |  |
| Keywords:   | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm |  |                      |  |
| <b>Execution Details</b>  | Execution Details  |  |                      |  |
| Build   | REL_3_6  |  |                      |  |
| Tester  | Fester x0246581  |  |                      |  |
| Execution Result: Passed  |  |  |                      |  |
| Execution Mode: Manual  |  |  |                      |  |
| Execution duration (sec):   |  |  |                      |  |

## 1.3.3.7.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

|                                 |   | .,  |                   |
|---------------------------------|---|---|-------------------|
| <u>#:</u>                       | Step actions:   | Expected Results:   | Execution Status: |
| 1                               | Go to System Settings Select Capture Source as OV10635 & Display Output as HDMI 1080P | Capture Source shuld be OV10635 & 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<br>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 me<br>ADASVISION-1381: 1CH VIP ca                         | easure time taken for a function in multi-task environment apture + Display           |                   |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm                  |   |                   |
| <b>Execution Details</b>        |   |   |                   |
| Build                           | REL_3_6   |   |                   |
| Tester                          | x0246581  |   |                   |
| Execution Result:               | Passed  |   |                   |
| Execution Mode:                 | Manual  |   |                   |
| Execution duration (sec):       |   |   |                   |

# 1.3.3.8.Test Suite : TLFW\_verify

| Test Case VISIONSD     | K-309: TLFW_verification   |  |                   |
|------------------------|--|--|-------------------|
| <u>Summary:</u>        |  |  |                   |
| Verifying testlink fw  |  |  |                   |
| Preconditions:         |  |  |                   |
| staf should be running |  |  |                   |
| <u>#:</u>              | Step actions:  | Expected Results:  | Execution Status: |
| 1                      | 1. Add all vision SDk test cases to test link, Map with requirements from JIRA 2. Create a test plan & under that create a build 3. Add test cases to execute for that particular build 4. Trigger all automated test cases from test link 5. Execute remaining manual test cases from test link 6. Generate test report | User should be able to trigger all automated test cases from test link & also able to update test result for manula test cases |                   |
| Execution type:        | Manual   |  |                   |

| Estimated exec. duration (sec): |  |
|---------------------------------|--|
| Priority:                       | Medium   |
| Requirements                    | ADASVISION-369: Deploy TestLink for VSDK test-case management and automation |
| Keywords:                       | None   |
| <b>Execution Details</b>        |  |
| Build                           | REL_3_6  |
| Tester                          | x0246581   |
| Execution Result:               | Passed   |
| Execution Mode:                 | Manual   |
| Execution duration (sec):       |  |

| Tost Case VISIONSDK-3   | Test Case VISIONSDK-325: VSDK_restructuring_directory_structure  |   |                   |  |
|---|--|---|-------------------|--|
| Summary: restructuring directory structure for VSDk 3.0 release |  |   |                   |  |
| <u>#:</u>   | Step actions:  | Expected Results:                       | Execution Status: |  |
| 1   | Restructure directory structure for VSDK into separate Folder as below link_fw  Make System (Common for FW & all Apps modules) sample_app apps algorithms docs testsuite | Directory structure should be as stated |                   |  |
| Execution type:   | Manual   |   |                   |  |
| Estimated exec. duration (sec):                                 |  |   |                   |  |
| Priority:   | Medium   |   |                   |  |
| Requirements  | ADASVISION-1205: VSDK 3.0 restructuring 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):                                       |  |   |                   |  |

### 1.3.4.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

| verily that Capture/display     | ris running on ir o 1-0 at soips  |   |                   |
|---------------------------------|---|---|-------------------|
| <u>#:</u>                       | 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<br>ADASVISION-1505: FFI (DSP EDMA & EVE) - L3FI<br>ADASVISION-1506: EMIF ECC support<br>ADASVISION-1510: DCC support | w   |                   |
| Keywords:                       | None  |   |                   |
| <b>Execution Details</b>        |   |   |                   |
| Build                           | REL_3_6   |   |                   |
| Tester                          | x0246581  |   |                   |
| Execution Result:               | Passed  |   |                   |
| Execution Mode:                 | Manual  |   |                   |
| Execution duration (sec):       |   |   |                   |

## 1.3.5.Test Suite: IPC\_LIB

| Test Case VISIONSDK-12          | 23: IPC_LIB   |   |                   |
|---------------------------------|---|---|-------------------|
| Summary:                        |   |   |                   |
| IPC LIB UC                      |   |   |                   |
| Input : OV10635 sensor          |   |   |                   |
| •                               |   |   |                   |
| Output : HDMI 1080P             |   |   |                   |
| Preconditions:                  |   |   |                   |
| Build binaries for all platfo   | rm with IPC_LIB_INCLUDE=yes   |   |                   |
| Verify that Capture/display     | is running on IPU1-0 at 30fps   |   |                   |
| <u>#:</u>                       | 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 Performance stats must match with Datasheet |                   |
| Execution type:                 | Manual  |   |                   |
| Estimated exec. duration (sec): |   |   |                   |
| <u>Priority:</u>                | Medium  |   |                   |
| Requirements .                  | ADASVISION-925: Safe IPC imple  | ementation and integration with Vision SDK  |                   |
| <u>Keywords:</u>                | 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-2           | 40: Low_Latency_IPC                 |   |                   |
|---------------------------------|-------------------------------------|---|-------------------|
| Summary:                        |                                     |   |                   |
| Low Latency IPC UC              |                                     |   |                   |
| Input : OV10635 sensor          |                                     |   |                   |
| Output : HDMI 1080P             |                                     |   |                   |
| Preconditions:                  |                                     |   |                   |
| Build binaries for all platfo   | orm with IPC_LIB_INCLUDE=yes &      | WORKQ_INCLUDE=yes   |                   |
| Verify that Capture/display     | y is running on IPU1-0 at 30fps     |   |                   |
| <u>#:</u>                       | 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 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 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 : Open\_Compute

# 1.4.1.Test Suite : OpenVX

| Test Case VISIONSDK-22          | 23: OpenVX_Confirmation_Test  |  |                   |
|---------------------------------|---|--|-------------------|
| Summary:                        |   |  |                   |
| OpenVX Confirmation Tes         | et v1.1   |  |                   |
| supported on both Bios/Lin      | nux   |  |                   |
| Preconditions:                  |   |  |                   |
| Verify that Capture is runn     | ing on IPU1-0 at 30fps and display runn                                 | ing on IPU1-0 at 60fps                     |                   |
| <u>#:</u>                       | Step actions:   | Expected Results:                          | Execution Status: |
| 1                               | Boot EVM  Run OpenVX Confirmation Test v1.1                             | Confirmation test should run automatically |                   |
| Execution type:                 | Manual  |  |                   |
| Estimated exec. duration (sec): | 60.00   |  |                   |
| Priority:                       | Medium  |  |                   |
| Requirements                    | ADASVISION-1553: Algorithm Link Sup<br>ADASVISION-936: OpenVX framework |  |                   |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm    |  |                   |
| <b>Execution Details</b>        |   |  |                   |
| Build                           | REL_3_6   |  |                   |
| Tester                          | x0246581  |  |                   |
| Execution Result:               | Passed  |  |                   |
| Execution Mode:                 | Manual  |  |                   |
| Execution duration (sec):       |   |  |                   |

| Test Case VISIONSDK-22          | 24: OpenVX_Tutorials                                     |                                    |                   |
|---------------------------------|--|------------------------------------|-------------------|
| Summary:                        |  |                                    |                   |
| OpenVX Tutorials                |  |                                    |                   |
| supported on both Bios/Lii      | nux  |                                    |                   |
| Preconditions:                  |  |                                    |                   |
| Verify that Capture is runn     | ing on IPU1-0 at 30fps and d                             | isplay running on IPU1-0 at 60fps  |                   |
| <u>#:</u>                       | Step actions:  | Expected Results:                  | Execution Status: |
| 1                               | Boot EVM Run OpenVX Tutorials                            | Tutorials should run automatically |                   |
| Execution type:                 | Manual   | <u>'</u>                           |                   |
| Estimated exec. duration (sec): | 60.00  | 60.00                              |                   |
| Priority:                       | Medium   |                                    |                   |
| Requirements                    | ADASVISION-936: OpenVX                                   | framework - BIOS, Linux (Phase 1)  |                   |
| Keywords:                       | tda2xx-evm tda2ex-evm tda3xx-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-22          | 25: VIP_Capture_OpenVX_Display_Input_O   | V10635_Output_HDMI_1080P  |                   |  |
|---------------------------------|--|---|-------------------|--|
| Summary:                        |  |   |                   |  |
| OpenVX Capture Display          | UC supported on Bios   |   |                   |  |
| Input : OV10635                 |  |   |                   |  |
| Output : HDMI 1080P             |  |   |                   |  |
| Preconditions:                  |  |   |                   |  |
| Verify that Capture is runn     | ing on IPU1-0 at 30fps and display running on  | IPU1-0 at 60fps   |                   |  |
| <u>#:</u>                       | Step actions:  | Expected Results:   | Execution Status: |  |
| 1                               | Go to System Settings Select Capture Source as OV10635 Sensor & Display Output as HDMI 1080P | Capture Source shuld be OV10635 Sensor & Display device as HDMI 1080P |                   |  |
| 2                               | Run "VIP Single Channel Capture + OpenVX + 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-936: OpenVX framework - BIO   | S, Linux (Phase 1)  |                   |  |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm                         |   |                   |  |
| <b>Execution Details</b>        |  |   |                   |  |
| Build                           | REL_3_6  |   |                   |  |
| Tester                          | x0246581   |   |                   |  |
| Execution Result:               | Passed   |   |                   |  |
| Execution Mode:                 | Manual   |   |                   |  |
| Execution duration (sec):       |  |   |                   |  |

1.5.Test Suite : Multi\_Cam

## 1.5.1.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

| <u>#:</u>                       | Step actions:   | Expected Results:   | Execution Status: |
|---------------------------------|---|---|-------------------|
| 1                               | Go to System Settings<br>Select Capture Source as<br>OV10635  | Capture Source shuld be OV10635   |                   |
|                                 | & Display Output as HDMI<br>1080P   | & Display device as HDMI 1080P  |                   |
|                                 | Run "4CH VIP Capture +<br>Mosaic Display" UC  | On selecting "0"  Display must come up with CH0 preview on full screen and no             |                   |
| 2                               | Select "0" For Single channel mode  | buffer drops should be observe On selecting "1"   |                   |
|                                 | Select "1" For Multi channel mode   | 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   |   |                   |
| <u>Priority:</u>                | Medium  |   |                   |
| Requirements                    | ADASVISION-1276: VIP Captu<br>ADASVISION-1277: VIP Captu<br>ADASVISION-1282: VIP Captu<br>ADASVISION-1294: VIP Captu<br>ADASVISION-1304: Display Li<br>ADASVISION-1306: Display Li<br>ADASVISION-1326: support L'<br>ADASVISION-1325: support L'<br>ADASVISION-1580: Support for<br>ADASVISION-1580: Support for<br>ADASVISION-1582: Shall support for<br>ADASVISION-1584: Shall support for<br>ADASVISION-1584: Shall support for<br>ADASVISION-1668: Custom Standard S | sors support  | Display           |
| <u>Keywords:</u>                | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_regression c_qualification m_capture m_display   |   |                   |
| Execution Details               |   |   |                   |
| Build                           | REL_3_6   |   |                   |
| Tester                          | x0246581  |   |                   |
| Execution Result:               | Passed  |   |                   |
| Execution Mode:                 | Manual  |   |                   |

Execution duration (sec):

#### Test Case VISIONSDK-132: CSI2\_4CH\_Capture\_Display\_OV10635\_964deser

Summary:

4 Channel Capture Display UC

Input: OV10635 with 964 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

| 7 th Farming at corpo. 7 the    | The control manage state material with datas   |  |                   |  |
|---------------------------------|--|--|-------------------|--|
| <u>#:</u>                       | Step actions:  | Expected Results:  | Execution Status: |  |
| 1                               | Go to System Settings Select Capture Source as "OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX & TDA3x)" & Display Output as HDMI 1080P   | Capture Source shuld be "OV10635 Sensor for Mosaic Display - SAT0088/OV10635 (TDA2EX & TDA3x)"  & Display device as HDMI 1080P |                   |  |
| 2                               | Run "OV10635 & UB964 4CH CSI2<br>Capture + Display" UC<br>Select "1" For Multi channel mode  | On selecting "1"  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   | Medium   |                   |  |
| Requirements                    | ADASVISION-1133: Capture & Display usecase with UB9640 & 4 modules of SAT0088 on TDA2x 17x17 package ADASVISION-1582: Shall support LVDS multi-channel capture upto 4 channel ADASVISION-1584: Shall support all the Bios single multi camera usecases which use one DSP & M4 ADASVISION-1604: Support sensor frame work |  |                   |  |
| Keywords:                       | tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry   |  |                   |  |
| <b>Execution Details</b>        |  |  |                   |  |
| 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

| <u>#:</u> | 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 | Display must come up with 4CH mosaic on full screen    |                   |

|                                 | MOSAIC + DISPLAY" UC   | and no buffer drops should be observe   |
|---------------------------------|--|---|
| Execution type:                 | Manual   |   |
| Estimated exec. duration (sec): |  |   |
| Priority:                       | Medium   |   |
| Requirements                    | ADASVISION-1585: TDA2Ex - shall s<br>DSP, A15 & M4<br>ADASVISION-1596: Support VSDK L          | PEX (J6-Eco) in vision SDK DS multi-channel capture upto 4 channel upport all the Linux single & multi camera usecases which use one nux GPU Off-screen rendering & M4 side display - display on M4 for both TDA2x & TDA2Ex |
| Keywords:                       | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c_regression c_qualification m_capture m_display |   |
| <b>Execution Details</b>        |  |   |
| Build                           | REL_3_6  |   |
| Tester                          | x0246581   |   |
| Execution Result:               | Passed   |   |
| Execution Mode:                 | Manual   |   |
| Execution duration (sec):       |  |   |

### 1.5.2.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

| <u>#:</u>                       | 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 Run "sudo ./avbtp_talker.sh [file1] [file2] [file3] [file4]" Using listener dump frame to PC Run "sudo ./avbtp_listener.sh recv.h264"   |                   |
| Execution type:                 | Manual  |   |                   |
| Estimated exec. duration (sec): |   |   |                   |
| Priority:                       | Medium  |   |                   |
| Requirements                    | ADASVISION-1338: IVA Decode Lir ADASVISION-1339: IVA Decode Lir ADASVISION-1340: IVA Decode Lir ADASVISION-1341: IVA Decode Lir ADASVISION-1342: IVA Decode Lir ADASVISION-1362: AVB Rx Link - ADASVISION-1363: AVB Rx Link - ADASVISION-1365: AVB Rx Link - ADASVISION-1366: AVB Rx Link - ADASVISION-1366: AVB Rx Link - ADASVISION-1366: AVB Rx Link - ADASVISION-1367: AVB Rx Link - ADASVISION-1368: AVB Rx Link - ADASVISION-1368: AVB Rx Link - ADASVISION-1369: AVB Rx Link - ADASVISION-1347: IVA Encode Lir ADASVISION-1447: IVA Encode Lir ADASVISION-1449: IVA Encode Lir | oder - IDR frame only configuration nk - Multichannel MJPEG decode nk - Multichannel H264 decode nk - Support various Decode resolutions nk - Support for multiple Bit rates nk - Performance nk - Subframe/Slice based decoding nk - Error-concealment nk - Output data format YUV420SP Packet reception & multi-channel support frame level Notification Sub-frame level Notification Interoperability Performance Error handling | (IPU1-0) + Displa |

| .010                      | todroport object largo_o_r andional_rb/teex   |
|---------------------------|---|
|                           | 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 tda2ex-evm tda2ex-entry tda2px-evm c_regression 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

| <u>#:</u>                       | Step actions:   | Expected Results:   | Execution<br>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 & no display over HDMI  |                      |
| 5                               | Run avb talker & listener on PC side  | Using Talker sent files from PC to target Run "sudo ./avbtp_talker.sh [file1] [file2] [file3] [file4]" Using listener dump frame to PC 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 ADASVISION-1273: IVA H264 Encoder - IDR frame only configuration ADASVISION-1362: AVB Rx Link - Packet reception & multi-channel support ADASVISION-1363: AVB Rx Link - frame level Notification ADASVISION-1364: AVB Rx Link - Sub-frame level Notification ADASVISION-1365: AVB Rx Link - Interoperability ADASVISION-1366: AVB Rx Link - Performance |   |                      |

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|---------------------------|--|
|                           | ADASVISION-1367: AVB Rx Link - Error handling ADASVISION-1368: AVB Rx Link - Test with PC talker ADASVISION-1393: 4CH AVB Capture + Decode + VPE + Sync + Alg DMA SW Mosaic (IPU1-0) + Display ADASVISION-1449: IVA Encode Link support Multichannel H264 encode 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 |
| Keywords:                 | tda2xx-evm<br>tda2ex-evm<br>tda2ex-entry<br>tda2px-evm   |
| <b>Execution Details</b>  |  |
| Build                     | REL_3_6  |
| Tester                    | x0246581   |
| Execution Result:         | Passed   |
| Execution Mode:           | Manual   |
| Execution duration (sec): |  |

#### Test Case VISIONSDK-259: AVB\_4CH\_1MP\_H264\_Capture\_Mosaic\_Dispaly\_AVBTx

Summary:

Supported on TDA2Ex Ethernet SRV board

4CH AVB Capture + Decode + VPE + Sync + Alg DMA SW Mosaic (IPU1-0) + AVB\_Tx/Display (TDA2x & TDA2Ex ONLY) UC

Input: 1MP H264 ethernet cameras

Output: HDMI1080P/PC

Preconditions:

Ensure Build happened with NDK\_PROC\_TO\_USE=ipu1\_1

Ensure Host PC & target is connected through network cable

Verify that 4ch AVB Capture is running on IPU1-0 at 30fps and display running on IPU1-0 at 60fps on LCD/HDMI

| <u>#:</u>                       | Step actions:   | Expected Results:  | Execution<br>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<br>TX   | Display should come up & no buffer drops should be seen  |                                |
| 5                               | Run avb listener on PC side   | Using listener dump frame to PC Run "sudo ./avbtp_listener.sh recv.h264"   |                                |
| Execution type:                 | Manual  |  |                                |
| Estimated exec. duration (sec): |   |  |                                |
| Priority:                       | Medium  |  |                                |
| <u>Requirements</u>             | ADASVISION-1273: IVA H264 ADASVISION-1336: IVA Decod ADASVISION-1337: IVA Decod ADASVISION-1338: IVA Decod ADASVISION-1339: IVA Decod ADASVISION-1340: IVA Decod ADASVISION-1341: IVA Decod ADASVISION-1341: IVA Decod ADASVISION-1342: IVA Decod ADASVISION-1393: 4CH AVB ADASVISION-1449: IVA Encod ADASVISION-1450: IVA Encod ADASVISION-1451: IVA Encod ADASVISION-1452: IVA Encod ADASVISION-1454: IVA Encod | de Link - Subframe/Slice based decoding de Link - Error-concealment de Link - Output data format YUV420SP Capture + Decode + VPE + Sync + Alg DMA SW Mosaic de Link support Multichannel H264 encode de Link Support various encode resolutions de Link Support for multiple Bit rates | (IPU1-0) + Displa <sub>)</sub> |

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

#### Test Case VISIONSDK-260: AVB\_4CH\_1MP\_H264\_Capture\_Mosaic\_AVBTx

Summary:

Supported on TDA2Ex Eth SRV board

4CH AVB Capture + Decode + VPE + Sync + Alg DMA SW Mosaic (IPU1-0) + AVB\_Tx/Display (TDA2x & TDA2Ex ONLY) UC

Input: 1MP H264 ethernet cameras

Output: PC

Preconditions:

Ensure Build happened with NDK\_PROC\_TO\_USE=ipu1\_1

Ensure Host PC & target is connected through network cable

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

#### No Display

| <u>#:</u>                       | 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  |                           |
|                                 |   | & No display over HDMI   |                           |
| _                               | D I I' I DO I I   | Using listener dump frame to PC  |                           |
| 5                               | Run avb listener on PC side   | Run "sudo ./avbtp_listener.sh recv.h264"   |                           |
| Execution type:                 | Manual  |  |                           |
| Estimated exec. duration (sec): |   |  |                           |
| Priority:                       | Medium  |  |                           |
| Requirements                    | ADASVISION-1273: IVA H264 I<br>ADASVISION-1393: 4CH AVB (<br>ADASVISION-1449: IVA Encod<br>ADASVISION-1450: IVA Encod<br>ADASVISION-1451: IVA Encod<br>ADASVISION-1452: IVA Encod<br>ADASVISION-1454: IVA Encod<br>ADASVISION-1455: IVA Encod | ce tuning for IVAHD codec in system Encoder - IDR frame only configuration Capture + Decode + VPE + Sync + Alg DMA SW e Link support Multichannel H264 encode e Link Support various encode resolutions e Link Support for multiple Bit rates e Link Performance e Link support Error-concealment e Link support Input data format YUV420SP ort AVB multi-channel capture upto 4 channel | Mosaic (IPU1-0) + Display |
| <u>Keywords:</u>                | 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  |  |                           |
|                                 |   |  |                           |

## 1.5.3.Test Suite: SelectLink

| Test Case VISIONSDK-1             | 86: VIP_4CH_Cap   | oture_Select_Display  |                   |
|-----------------------------------|---|---|-------------------|
| <u>Summary:</u>                   |   |   |                   |
| Multi Cam Capture Select          | Display UC  |   |                   |
| supported on TDA2x/TDA            | 2Ex/TDA3x   |   |                   |
| Input : OV10635 Sensor            |   |   |                   |
| Output : HDMI 1080P               |   |   |                   |
| Preconditions:                    |   |   |                   |
|                                   | : IDII4 0 -+ 0  | 20fee and display marries and IDLIA 0 at 00fee                  |                   |
| verify that Capture is runn<br>#: | Step actions:   | Sofps and display running on IPU1-0 at 60fps  Expected Results: | Execution Status: |
| <u>r.</u>                         | <u>Step actions.</u>  | Check Logs of LVDS Capture Select Display UC                    | Execution Status. |
| 4                                 | Dun Taatauita   |   |                   |
| 1                                 | Run Testsuite   | 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-15   | ADASVISION-1521: select a particular channel                    |                   |
| <u>Keywords:</u>                  | tda2xx-evm tda2ex-evm tda3xx-evm tda3xx-evm tda2ex-entry tda2px-evm |   |                   |
| Execution Details                 |   |   |                   |
| Build                             | REL_3_6   |   |                   |
| Tester                            | x0246581  |   |                   |
| Execution Result:                 | Passed  |   |                   |
| Execution Mode:                   | Manual  |   |                   |
| Execution duration (sec):         |   |   |                   |

## 1.5.4.Test Suite: VIP\_4CH\_Capture\_VPE\_Sync\_DMA\_SWMS\_Display

| Test Case VISIONSDK-19      | 92: VIP_4CH_C  | apture_VPE_Sync_DMA_SWMS_Display                        |                   |  |
|-----------------------------|--|---|-------------------|--|
| Summary:                    |  |   |                   |  |
| Multi Cam Capture VPE S     | Sync DMA SWMS  | S Display UC  |                   |  |
| supported on TDA2x/TDA      | .3x  |   |                   |  |
| Input : OV10635 Sensor      |  |   |                   |  |
| Output : HDMI 1080P         |  |   |                   |  |
| On IPU/A15: System EDM      | 1.0  |   |                   |  |
| ,                           | MA .   |   |                   |  |
| On DSP: Local DMA           |  |   |                   |  |
| Preconditions:              |  |   |                   |  |
| Verify that Capture is runn | ning on IPU1-0 a   | t 30fps and display running on IPU1-0 at 60fps          |                   |  |
| <u>#:</u>                   | Step actions:  | Expected Results:                                       | Execution Status: |  |
|                             |  | Check Logs of LVDS Capture VPE Sync DMA SWMS Display UC |                   |  |
| 1                           | Run Testsuite  | Capture should be running on IPU1-0 at 30fps and        |                   |  |
|                             |  | display should be running on IPU1-0 at 60fps            |                   |  |
| Execution type:             | Manual   | display should be fullling of it of 1-0 at onps         |                   |  |
| Estimated exec. duration    | Mariaar  |   |                   |  |
| <u>(sec):</u>               |  |   |                   |  |
| Priority:                   | Medium   |   |                   |  |
| Requirements                | ADASVISION-  | 1559: Sample Algorithm Link (DMA SW Mosaic Plug-Ins)    |                   |  |
| <u>Keywords:</u>            | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm c_integration m_vpe |   |                   |  |
| Execution Details           |  |   |                   |  |
| Build                       | REL_3_6  | REL_3_6   |                   |  |
| Tester                      | x0246581   | x0246581  |                   |  |
| Execution Result:           | Passed   |   |                   |  |
| Execution Mode:             | Manual   |   |                   |  |
| Execution duration (sec):   |  |   |                   |  |

1.6.Test Suite : Build

## 1.6.1.Test Suite: VSDK\_Builds

| <u>Summary:</u>                 |   |   |                   |
|---------------------------------|---|---|-------------------|
| VSDK BIOS different conf        | iquartions Build  |   |                   |
| Preconditions:                  | g   |   |                   |
| Follow UG to Install releas     | se package  |   |                   |
|                                 | g PDK) should be part of release package  |   |                   |
| <b>–</b> . , ,                  | onents (gcc tool,linaro tool chain)   |   |                   |
| <u>#:</u>                       | Step actions:   | Expected Results:   | Execution Status: |
| 1                               | Navigate to (vsdk_install_path)/vision_sdk/build  | Should dislay config for tda2xx_evm_bios_all  |                   |
|                                 | & run make -s showconfig  Modify Rules.mk file to other available   |   |                   |
| 2                               | MAKECONFIG  | Should display config for MAKECONFIG selected   |                   |
|                                 | & run make -s showconfig  |   |                   |
| 3                               | run make -s -j depend<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  |   |                   |
|                                 | allocation and de-alloc ADASVISION-1535: Internal memory alloca ADASVISION-1570: power mamagemant - ADASVISION-1571: power mamagemant - | intainability nents  port  nt CPUs  owing links - VPE, ISS build  ux on A15  ation ation from OCMC tion from DSP L2 SRAM at create time only, no ation from DSP L1 SRAM CPU IDLE CPUIDLE: MPU Core 0/1 Idle | o run time        |
|                                 | ADASVISION-1572: power mamagement -   |   |                   |

| 0.0                       | 1001.0poilt. 05.111001_1.1010_0_1.101.01.01.01.01.01.01.01.01.01.01.01.0   |
|---------------------------|--|
|                           | ADASVISION-1633: Migrate DSP CGT version of VSDK to use CGT 8.2.4 ADASVISION-1652: TDA2EX ETH SRV platform board Support with VSDK ADASVISION-1751: Support in the makefile to allow for file specific compile options ADASVISION-1857: [TDA3x-RVP] Support 1GB memory map ADASVISION-1980: Add support for the TDA2PX RVP to vision SDK ADASVISION-648: Improve the build time and build process ADASVISION-666: [BSP/STW] Removal of dynamic allocation from BSP and STW libraries ADASVISION-892: RVP support in vision SDK ADASVISION-930: PDK integration with Vision SDK. ADASVISION-955: RVP support in PSDK & VSDK |
| Keywords:                 | tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm tda3xx_rvp c_integration  |
| Attached files            | BIOS Different Build Config : build_vsdk.sh     build_vsdk.sh  |
| <b>Execution Details</b>  |  |
| 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 configurations 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)

| <u>#:</u>                       | Step actions:  | Expected Results:                             | Execution Status: |
|---------------------------------|--|---|-------------------|
| 1                               | Navigate to (vsdk_install_path)/vision_sdk/build  Modify Rules.mk file to  MAKECONFIG=tda2xx_evm_linux_all  & run make -s showconfig | Should dislay config for tda2xx_evm_linux_all |                   |
|                                 |  | Memory should be 1024MB                       |                   |
| 2                               | Check config params  | IPU_PRIMARY_CORE=ipu2                         |                   |
|                                 |  | & A15_TARGET_OS=Linux                         |                   |
| 3                               | run make linux & then make linux_install   | Should build kernel                           |                   |
| 4                               | run make -s -j depend<br>& make -s -j  | should build apps.out                         |                   |
| 5                               | Modify Rule.mk file to other available MAKECONFIG & 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 sup  | port  |                   |

| .010                      | testreport i obitv_rest_i lan_o_o_i unctional_ib/zex  |
|---------------------------|---|
|                           | ADASVISION-1356: 1GB memory map ADASVISION-1360: Platform selection ADASVISION-1407: vision SDK with Linux on A15 ADASVISION-1409: shall support bios + Liux on A15 ADASVISION-1597: IPU2 support in VSDK with SMP bios mode ADASVISION-1598: IPU1 SMP mode support ADASVISION-1833: PSDK Linux 3.4 migration and validation ADASVISION-648: Improve the build time and build process ADASVISION-666: [BSP/STW] Removal of dynamic allocation from BSP and STW libraries ADASVISION-884: IPUMM + vision SDK merge ADASVISION-885: Linux VSDK with IPU2 as main IPU core ADASVISION-930: PDK integration with Vision SDK. ADASVISION-935: 4.4 Kernel migration |
| Keywords:                 | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c_integration   |
| Attached files            | <ul> <li>Linux Different Build Config : build_Linux.sh</li> <li>build_Linux.sh</li> </ul>   |
| <b>Execution Details</b>  |   |
| Build                     | REL_3_6   |
| Tester                    | x0246581  |
| Execution Result:         | Passed  |
| Execution Mode:           | Manual  |
| Execution duration (sec): |   |

| Test Case VISIONSDK-278: VSDK_KW_build |   |  |                   |  |
|--|---|--|-------------------|--|
| Summary:                               | Summary:  |  |                   |  |
| VSDK Klocwork Build                    |   |  |                   |  |
| Preconditions:                         |   |  |                   |  |
| Jenkin Node is up & runni              | ng  |  |                   |  |
| <u>#:</u>                              | Step actions:   | Expected Results:  | Execution Status: |  |
| 1                                      | Login to Jenkin server & trigger VSK_KW_build projet  | Should build KW project & 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 ADASVISION-1517: Static code checker MISRA-C ADASVISION-1525: Follow coding guidelines |  |                   |  |
| Keywords:                              | tda2xx-evm<br>tda2ex-evm<br>tda3xx-evm<br>tda2ex-entry<br>tda2px-evm  |  |                   |  |
| <b>Execution Details</b>               |   |  |                   |  |
| Build                                  | REL_3_6   |  |                   |  |
| Tester                                 | x0246581  |  |                   |  |
| Execution Result:                      | Passed  |  |                   |  |
| Execution Mode:                        | Manual  | 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

| <u>#:</u>                       | 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)  | Tracebility report (Req -> Test) should have all req mapped to tc                             |                   |  |
|                                 | & executed in testing phase   | 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"  Remove unwanted links  | All links in the "index.html" should work properly  |                   |  |
| 7                               | Check all links in the "index.html"  Remove unwanted links  | All links in the "index.html" should work properly  |                   |  |
| Execution type:                 | Manual  | 1   |                   |  |
| Estimated exec. duration (sec): |   |   |                   |  |
| Priority:                       | Medium  |   |                   |  |
| Requirements                    | ADASVISION-1094: Software release process ADASVISION-1168: SW quality requirements ADASVISION-1513: Release process ADASVISION-1528: Product requirements ADASVISION-1672: [Radar] Add Radar System planner to the Release Package ADASVISION-1675: Processor SDK Vision ti.com landing page - clean-up ADASVISION-1690: Process: Update Software Integration and Test Strategy document ADASVISION-1752: [Radar] Add Radar System planner to the Release Package 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  | x0246581  |                   |  |
| Execution Result:               | Passed  | 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

| VSDK RC package install         | ed & lested   |  |                   |  |
|---------------------------------|---|--|-------------------|--|
| <u>#:</u>                       | Step actions:   | Expected Results:  | Execution Status: |  |
| 1                               | Modify MPI files to pick<br>correct ti_components<br>Modify InstallJammer<br>Environment script<br>Trigger Jenking project<br>for packaging | Windows & Linux installer should be created  |                   |  |
|                                 | Install on windows machine  | Installation should be success   |                   |  |
| 2                               | 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  |                   |  |
|                                 | Install on Linux machine  | Installation should be success   |                   |  |
| 3                               | 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  | Manual   |                   |  |
| Estimated exec. duration (sec): |   |  |                   |  |
| Priority:                       | Medium  |  |                   |  |
| Requirements                    | ADASVISION-1096: packaging and installation ADASVISION-1512: Single installer for vision SDK ADASVISION-1514: Customer collaterals          |  |                   |  |
| Keywords:                       | c_qualification   | c_qualification  |                   |  |
| Execution Details               |   |  |                   |  |
| Build                           | REL_3_6   |  |                   |  |
| Tester                          | x0246581  |  |                   |  |
| Execution Result:               | Passed  | 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/TDA                                    | 2Ex/TDA2Ex Entry  |                                    |                   |  |
| Preconditions:  |   |                                    |                   |  |
| Build & Copy Appimage &                                   | MLO (opp_nom, opp_od, opp_high)to SD card   |                                    |                   |  |
| <u>#:</u>   | Step actions:   | Expected Results:                  | Execution Status: |  |
| 1   | Insert SD card into card slot   | SYSBOOT PINs should be for SD boot |                   |  |
|   | & Follow UG to set SYSBOOT PIN for SD boot  |                                    |                   |  |
| 2   | Boot EVM with different OPP MLO   | EVM should boot with binaries &    |                   |  |
| _   |   | Display Main Menu                  |                   |  |
| Execution type:   | Manual  |                                    |                   |  |
| Estimated exec. duration (sec):                           |   |                                    |                   |  |
| Priority:   | Medium  | Medium                             |                   |  |
| Requirements  | ADASVISION-1344: SD boot mode ADASVISION-1423: Basic board bringup (serial, pinmux, ddr, nand) using SBL ADASVISION-1425: Boot mode bringup |                                    |                   |  |
| Keywords:   | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c_qualification   |                                    |                   |  |
| Execution Details   | cecution Details  |                                    |                   |  |
| Build   | REL_3_6   |                                    |                   |  |
| Tester  | x0246581  |                                    |                   |  |
| Execution Result:   | recution Result: Passed   |                                    |                   |  |
| Execution Mode:   | ution Mode: Manual  |                                    |                   |  |
| Execution duration (sec):                                 |   |                                    |                   |  |

| Test Case VISIONSDK-283: Load_Linux_Binaries_using_SD_Card |  |                                    |                   |
|--|--|------------------------------------|-------------------|
| Summary:   |  |                                    |                   |
| Load Binaries using SD C                                   | ard  |                                    |                   |
| supported on TDA2x/TDA                                     | 2Ex/TDA2Ex Entry                           |                                    |                   |
| Preconditions:   |  |                                    |                   |
| Build & Copy u-boot, MLO                                   | & File system to SD card                   |                                    |                   |
| <u>#:</u>  | Step actions:                              | Expected Results:                  | Execution Status: |
| 1  | Insert SD card into card slot              | SYSBOOT PINs should be for SD boot |                   |
|  | & Follow UG to set SYSBOOT PIN for SD boot |                                    |                   |
| 2  | Boot EVM                                   | EVM should boot with binaries &    |                   |
|  |  | 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 ADASVISION-1425: Boot mode bringup ADASVISION-1601: SD card file system support with VSDK ADASVISION-1833: PSDK Linux 3.4 migration and validation |
|---------------------------|--|
| Keywords:                 | tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c_qualification  |
| <b>Execution Details</b>  |  |
| Build                     | REL_3_6  |
| Tester                    | x0246581   |
| Execution Result:         | Passed   |
| Execution Mode:           | Manual   |
| Execution duration (sec): |  |

# 1.8.2.Test Suite : QSPI\_Boot

| xpected Results:  | Execution<br>Status: |  |
|---|----------------------|--|
|   |                      |  |
| SYSBOOT PINs should be for debug                                    |                      |  |
| BL & AppImage should be flashed to SPI                              |                      |  |
|   |                      |  |
| SYSBOOT PIN should be for QSPI Boot                                 |                      |  |
| VM should boot with binaries &                                      |                      |  |
| isplay Main Menu  |                      |  |
|   | 1                    |  |
|   |                      |  |
| Medium  |                      |  |
| ADASVISION-1346: QSPI boot mode<br>ADASVISION-1347: Flashing method |                      |  |
|   |                      |  |
|   |                      |  |
|   |                      |  |
|   |                      |  |
|   |                      |  |
|   |                      |  |
|   |                      |  |

# 1.8.3.Test Suite : NOR\_Boot

| Test Case VISIONSDK-2           | 76: Load_Binaries_using_NOR   |   |                      |
|---------------------------------|---|---|----------------------|
| Summary:                        |   |   |                      |
| Load Binaries using NOR         |   |   |                      |
| Preconditions:                  |   |   |                      |
| Build Appimage & SBL for        | NOR   |   |                      |
| <u>#:</u>                       | Step actions:   | Expected Results:                                 | Execution<br>Status: |
| 1                               | Connect EVM through CCS debug  & Follow UG to set SYSBOOT PIN for CCS debug | SYSBOOT PINs should be for debug                  |                      |
| 2                               | Follow UG to Flash SBL & Applmage to NOR                                    | SBL & Applmage should be flashed to NOR           |                      |
| 3                               | Disconnect CCS & Follow UG to set SYSBOOT PIN for NOR Boot                  | SYSBOOT PIN should be for NOR Boot                |                      |
| 4                               | Boot EVM  | EVM should boot with binaries & Display Main Menu |                      |
| Execution type:                 | Manual  |   |                      |
| Estimated exec. duration (sec): |   |   |                      |
| Priority:                       | Medium  |   |                      |
| Requirements                    | ADASVISION-1345: NOR boot mode  |   |                      |
| Keywords:                       | tda2xx-evm<br>tda2ex-evm  |   |                      |
| Execution Details               |   |   |                      |
| Build                           | REL_3_6   |   |                      |
| Tester                          | x0246581  |   |                      |
| Execution Result:               | Passed  |   |                      |
| Execution Mode:                 | Manual  |   |                      |
| Execution duration (sec):       |   |   |                      |

## 1.8.4.Test Suite : NFS\_Boot

| Test Case VISIONSDK-2           | 84: Load_Linux_Binaries_from_NFS                                      |  |           |
|---------------------------------|---|--|-----------|
| Summary:                        |   |  |           |
| Load Binaries from NFS          |   |  |           |
| supported on TDA2x/TDA          | s2Ex/TDA2Ex Entry   |  |           |
| Preconditions:                  | ·   |  |           |
| Build & Copy u-boot, MLC        | 0 & File system to SD card  |  |           |
| Modify ueny txt to point to     | filesystem from your NFS path   |  |           |
| #:                              | Step actions:   | Expected Results:                      | Execution |
| <u>#.</u>                       |   | Expected Nesults.                      | Status:   |
|                                 | Insert SD card into card slot   |  |           |
| 1                               | & Follow UG to set SYSBOOT PIN for SD boot                            | SYSBOOT PINs should be for SD boot     |           |
|                                 |   | EVM should boot with binaries from NFS |           |
| 2                               | Boot EVM  | path &                                 |           |
|                                 |   | Display Main Menu                      |           |
| Execution type:                 | Manual  |  |           |
| Estimated exec. duration (sec): |   |  |           |
| Priority:                       | Medium  |  |           |
| Requirements                    | ADASVISION-1424: Basic board configuration bringup using u-boot/Linux |  |           |
| <u>Keywords:</u>                | tda2xx-evm  |  |           |
|                                 | tda2ex-evm<br>tda2ex-entry  |  |           |
|                                 | tda2px-evm  |  |           |
| Execution Details               |   |  |           |
| Build                           | REL_3_6   |  |           |
| Tester                          | x0246581  |  |           |
| Execution Result:               | Passed  |  |           |
| Execution Mode:                 | Manual  |  |           |
| Execution duration (sec):       |   |  |           |

## 1.8.5.Test Suite : CCS\_Boot

| Test Case VISIONSDK-33          | 32: Load_Binaries_using_CCS  |   |                      |
|---------------------------------|--|---|----------------------|
| Summary:                        |  |   |                      |
| Load Binaries using CCS         |  |   |                      |
| Preconditions:                  |  |   |                      |
| Build binaries                  |  |   |                      |
| <u>#:</u>                       | Step actions:  | Expected Results:                                 | Execution<br>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                                  | Binaries should be load on each core successfully |                      |
|                                 | vision_sdk/build/rtos/scripts to load on all cores at once   | & 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_rvp tda3xx-alps tda3xx-AR12-Booster |   |                      |
| Execution Details               |  |   |                      |
| Build                           | REL_3_6  |   |                      |
| Tester                          | x0246581   |   |                      |
| Execution Result:               | Passed   |   |                      |
| Execution Mode:                 | Manual   |   |                      |
| Execution duration (sec):       |  |   |                      |