



## Test Plan Execution Report

Test Project: VISIONSDK

Test Plan: PSDKR\_Test\_Plan\_3\_5\_Functional\_All\_Platform

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## Table Of Contents

### 1.1.Mono\_Cam

#### 1.1.1.ISS

##### 1.1.1.1.ISS\_Camera\_Capture\_Radar\_Capture\_Display

VISIONSDK-347: ISS\_Capture\_IMX390\_AR1243\_Display

VISIONSDK-348: TIDL\_Object\_Detection\_Radar\_Processing\_Display

#### 1.1.2.MISC

VISIONSDK-325: VSDK\_restructuring\_directory\_structure

### 1.2.Radar

VISIONSDK-150: Radar\_AR12\_Capture\_Null

VISIONSDK-152: Radar\_AR12\_Capture\_Radar\_FrameCopy\_DSP1\_Null

VISIONSDK-154: NullSrc\_Capture\_Radar\_FFT\_EVE1\_Null\_Read\_Frames\_SDcard

VISIONSDK-155: NullSrc\_Capture\_Radar\_FFT\_EVE1\_Null\_Write\_Frames\_SDcard

VISIONSDK-156: NullSrc\_Capture\_Radar\_FFT\_EVE1\_Null\_Read\_Frames\_NW

VISIONSDK-157: NullSrc\_Capture\_Radar\_FFT\_EVE1\_Null\_Write\_Frames\_NW

VISIONSDK-232: Radar\_AR12\_Capture\_Radar\_Object\_Detect\_EVE1\_Null

VISIONSDK-233: Radar\_AR12\_Capture\_Radar\_Object\_Detect\_EVE1\_Display

VISIONSDK-243: Radar\_Flash\_AR12\_Firmware

VISIONSDK-313: Radar\_AR12\_Multi\_Capture\_Radar\_FFT\_EVE1\_Display

VISIONSDK-314: Radar\_Test\_Source\_Object\_Detection

VISIONSDK-324: NullSrc\_Capture\_Radar\_Object\_Detect\_EVE1\_Null\_Read\_Frames\_SDcard

VISIONSDK-331: Radar\_AR12\_Capture\_Null\_Multiple\_Times

VISIONSDK-345: Cascade\_Radar\_AR12\_Capture\_Null

VISIONSDK-346: Cascade\_Radar\_AR12\_Capture\_Radar\_Object\_Detect\_DSP\_Null

VISIONSDK-350: Radar\_AR12\_PCl\_e\_Capture\_Null

### 1.3.Build

#### 1.3.1.Radar\_Builds

VISIONSDK-242: Radar\_default\_build

VISIONSDK-280: Radar\_BIOS\_different\_builds

VISIONSDK-349: Radar\_Linux\_build

### 1.4.Release\_Process

VISIONSDK-245: VSDK\_Radar\_release\_check\_list

VISIONSDK-247: Radar\_package\_creation\_and\_installation

## **1.5.Boot\_Modes**

### **1.5.1.SD\_Boot**

VISIONSDK-273: Load\_BIOS\_Binaries\_using\_SD\_Card

### **1.5.2.QSPI\_Boot**

VISIONSDK-274: Load\_Binaries\_using\_QSPI

### **1.5.3.QSPI\_SD\_Boot**

VISIONSDK-275: Load\_Binaries\_using\_QSPI\_SD

### **1.5.4.CCS\_Boot**

VISIONSDK-332: Load\_Binaries\_using\_CCS

## **Test Project: VISIONSDK**

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Project: VISIONSDK Location: TII Owner: Sivasankaran, Shiju

## **Test Plan: PSDKR\_Test\_Plan\_3\_5\_Functional\_All\_Platform**

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Radar Functional Test Plan

Will cover all functional test

## 1.1.Test Suite : Mono\_Cam

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## 1.1.1.Test Suite : ISS

### 1.1.1.1.Test Suite : ISS\_Camera\_Capture\_Radar\_Capture\_Display

<b>Test Case VISIONSDK-347: ISS_Capture_IMX390_AR1243_Display</b>			
<u>Summary:</u>			
Input : IMX390 & AR1243			
Output : HDMI 1080P			
<u>Preconditions:</u>			
Verify that Capture/Display is running on IPU1-0 at 30fps			
#:	Step actions:	Expected Results:	Execution Status:
1	Go to System Settings Select Capture Source as IMX390 & Display Output as HDMI 1080P	Capture Source should be IMX390 & Display device as HDMI 1080P	
2	Run "1: Camera and Radar Capture + Radar Processing (DSP1) + Display (HDMI)" UC	camera image and radar point cloud side by side.	
<u>Execution type:</u>	Automated		
<u>Estimated exec. duration (sec):</u>	60.00		
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1777: Camera Radar combo usecase		
<u>Keywords:</u>	None		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

<b>Test Case VISIONSDK-348: TIDL_Object_Detection_Radar_Processing_Display</b>			
<u>Summary:</u>			
TIDL Object DetectionRadar Processing Display UC			
Check Performance numbers			
<u>Preconditions:</u>			
Verify below files should be present in SD card			
1. Use case config file (TIDLCFG.TXT)			
2. IN.RGB			
3. PRM_OD.BIN			
4. NET_OD.BIN			
5. inData_OD			
6. inHeader_OD			
#:	Step actions:	Expected Results:	Execution Status:

1	1. Select "2: TIDL OD + Radar Processing + Display (HDMI)" UC	Display should come up with algrthim running	
2	Press "P" to check performance numbers	Should be running at 10-15 fps	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1777: Camera Radar combo usecase		
<u>Keywords:</u>	None		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

## 1.1.2.Test Suite : MISC

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<b>Test Case VISIONSDK-325: VSDK_restructuring_directory_structure</b>			
<u>Summary:</u> restructuring directory structure for VSDk 3.0 release			
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
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	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1205: VSDK 3.0 restructuring ADASVISION-929: SDK FW and App separation		
<u>Keywords:</u>	None		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			



## 1.2.Test Suite : Radar

Test Case VISIONSDK-150: Radar\_AR12\_Capture\_Null

Summary:

Radar Capture Null UC

Input : AR12

Output : Null

Supported on : TDA3x/TDA3x ALPS/TDA2x Cascade

Preconditions:

Ensure AR12 sensor Radar HW is connected to TDA3x EVM

Debug prints will be in UART2

#:	Step actions:	Expected Results:	Execution Status:
1	Boot TDA3x with Radar setup/TDA3xx ALPS Board/TDA2x Cascade	Shoul display Main Menu	
2	Run "Radar (Single AR1243) Capture + Null (TDA3xx Only) usecase" UC	No Display	
3	Press "P"	Check performance stats	
Execution type:	Manual		
Estimated exec. duration (sec):			
Priority:	Medium		
Requirements	ADASVISION-1441: AR12xx sensor capture ADASVISION-1445: RADAR processing performance benchmarking ADASVISION-992: Radar Data Processing Usecase using AR12xx Sensor Data input		
Keywords:	c_regression c_qualification tda3xx-alps tda3xx-AR12-Booster		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
Execution Result:	Passed		
Execution Mode:	Manual		
Execution duration (sec):			

<b>Test Case VISIONSDK-152: Radar_AR12_Capture_Radar_FrameCopy_DSP1_Null</b>			
<u>Summary:</u>			
Radar Capture Radar Frame copy on DSP1 Null UC			
Input : AR12			
Output : Null			
<u>Preconditions:</u>			
Ensure AR12 sensor Radar HW is connected to TDA3x EVM			
Debug prints will be in UART2			
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Boot TDA3x with Radar setup/TDA3xx ALPS Board	Should display Main Menu	

2	Run "Radar (Single AR1243) Capture + Radar Frame Copy (DSP1) + Null (TDA3xx Only) usecase" UC	No Display	
3	Press "P"	Check performance stats	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK ADASVISION-1441: AR12xx sensor capture ADASVISION-1442: RADAR algorithm porting on DSP Alg link ADASVISION-985: Radar Processing Alg Plugin ADASVISION-986: Radar Processing Alg Plugin Flexibility ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE ADASVISION-992: Radar Data Processing Usecase using AR12xx Sensor Data input		
<u>Keywords:</u>	c_stress c_qualification c_stability tda3xx-alps tda3xx-AR12-Booster		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

**Test Case VISIONSDK-154: NullSrc\_Capture\_Radar\_FFT\_EVE1\_Null\_Read\_Frames\_SDcard**Summary:

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

Input : AR12

Output : Null

Preconditions:

Input files present in SD card

Debug prints will be in

UART1 for TDA2x & UART2 for TDA3x

<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Boot TDA2x/TDA3x	Should display Main Menu	
2	Run "Null Source (SD/Network) Input + Radar FFT (EVE1) + Null (SD/Network)" UC Select Data Read/Write Mode as SD card	No display	
3	Press "P"	Check performance stats	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1115: [RADAR] Support for build support and file based capture read process write ADASVISION-1255: Radar Advance frame configuration & dynamic configuration support ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK ADASVISION-1442: RADAR algorithm porting on DSP Alg link ADASVISION-1445: RADAR processing performance benchmarking ADASVISION-1570: power mamagement - CPU IDLE ADASVISION-1571: power mamagement - CPUIDLE: MPU Core 0/1 Idle ADASVISION-1572: power mamagement - CPUIDLE: IPU Core Idle ADASVISION-1573: power mamagement - CPUIDLE: DSP 1/2 Core Idle ADASVISION-1574: power mamagement - CPUIDLE: EVE 1/2/3/4 Core Idle ADASVISION-1575: PM - CPUIDLE: Vision SDK Integration of CPU IDLE ADASVISION-1699: [RADAR] Propagate each output channel info properly in RadarProcess Link Alg Plugin		

	ADASVISION-985: Radar Processing Alg Plugin ADASVISION-986: Radar Processing Alg Plugin Flexibility ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE ADASVISION-989: Radar data read from SD card ADASVISION-990: Radar Data output to SD Card ADASVISION-993: Radar Data Processing Usecase using File Sensor Data input
<u>Keywords:</u>	tda2xx-evm tda3xx-evm
<b>Execution Details</b>	
Build	REL_3_5
Tester	x0246581
<u>Execution Result:</u>	<b>Passed</b>
<u>Execution Mode:</u>	<b>Manual</b>
<u>Execution duration (sec):</u>	

### Test Case VISIONSDK-155: NullSrc\_Capture\_Radar\_FFT\_EVE1\_Null\_Write\_Frames\_SDcard

#### Summary:

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

Input : AR12

Output : Null

#### Preconditions:

Input files present in SD card

Debug prints will be in

UART1 for TDA2x & UART2 for TDA3x

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

Execution type: Manual

Estimated exec. duration (sec):

Priority: Medium

#### Requirements

ADASVISION-1115: [RADAR] Support for build support and file based capture read process write  
 ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK  
 ADASVISION-1570: power managemant - CPU IDLE  
 ADASVISION-1571: power managemant - CPUIDLE: MPU Core 0/1 Idle  
 ADASVISION-1572: power managemant - CPUIDLE: IPU Core Idle  
 ADASVISION-1573: power managemant - CPUIDLE: DSP 1/2 Core Idle  
 ADASVISION-1574: power managemant - CPUIDLE: EVE 1/2/3/4 Core Idle  
 ADASVISION-1575: PM - CPUIDLE: Vision SDK Integration of CPU IDLE  
 ADASVISION-985: Radar Processing Alg Plugin  
 ADASVISION-986: Radar Processing Alg Plugin Flexibility  
 ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE  
 ADASVISION-989: Radar data read from SD card  
 ADASVISION-990: Radar Data output to SD Card  
 ADASVISION-993: Radar Data Processing Usecase using File Sensor Data input

Keywords: tda2xx-evm  
tda3xx-evm

#### **Execution Details**

Build REL\_3\_5

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration (sec):

**Test Case VISIONSDK-156: NullSrc\_Capture\_Radar\_FFT\_EVE1\_Null\_Read\_Frames\_NW**Summary:

Null Source Capture(Network) Radar FFT on EVE1 Null UC

Input : AR12

Output : Null

Preconditions:

Ensure NDK is enabled in build

Input files sent through network using network\_tx

Debug prints will be in

UART1 for TDA2x &amp; UART2 for TDA3x

#:	Step actions:	Expected Results:	Execution Status:
1	Boot TDA2x/TDA3x	Should display Main Menu	
2	Run "Null Source (SD/Network) Input + Radar FFT (EVE1) + Null (SD/Network)" UC Select Data Read/Write Mode as Network	No display	
3	Press "P"	Check performance stats	
4	using network_ctrl tool send a diiferent parameter set	should be able to update with new parameter set	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK ADASVISION-1699: [RADAR] Propagate each output channel info properly in RadarProcess Link Alg Plugin ADASVISION-1919: Radar: Allow accepting mmwave messages from Network to translate to AWR1243 SPI commands - Base Infr ADASVISION-985: Radar Processing Alg Plugin ADASVISION-986: Radar Processing Alg Plugin Flexibility ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE ADASVISION-991: Radar data input and output via Ethernet		
<u>Keywords:</u>	tda2xx-evm tda3xx-evm		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

**Test Case VISIONSDK-157: NullSrc\_Capture\_Radar\_FFT\_EVE1\_Null\_Write\_Frames\_NW**Summary:

Null Source Capture(Network) Radar FFT on EVE1 Null UC

Input : AR12

Output : Null

Preconditions:

Ensure NDK is enabled in build

Input files sent through network using network\_tx

Debug prints will be in

UART1 for TDA2x &amp; UART2 for TDA3x

#:	Step actions:	Expected Results:	Execution Status:
1	Boot TDA2x/TDA3x	Should display Main Menu	

2	Run "Null Source (SD/Network) Input + Radar FFT (EVE1) + Null (SD/Network)" UC  Select Data Read/Write Mode as Network	No display	
3	Run network_rx to dump files	Should be able to dump frmaes	
4	Using network_ctrl tool send a different parameter set	should be able to update with new parameter set	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK ADASVISION-1919: Radar: Allow accepting mmwave messages from Network to translate to AWR1243 SPI commands - Base Infr ADASVISION-985: Radar Processing Alg Plugin ADASVISION-986: Radar Processing Alg Plugin Flexibility ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE ADASVISION-991: Radar data input and output via Ethernet ADASVISION-993: Radar Data Processing Usecase using File Sensor Data input		
<u>Keywords:</u>	tda2xx-evm tda3xx-evm		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

**Test Case VISIONSDK-232: Radar\_AR12\_Capture\_Radar\_Object\_Detect\_EVE1\_Null**Summary:

Radar Capture Radar Object Detect on EVE1 Null UC

Input : AR12

Output : Null

Preconditions:

Ensure AR12 sensor Radar HW is connected to TDA3x EVM

Debug prints will be in UART2

<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Boot TDA3x with Radar setup/TDA3xx ALPS Board	Should display Main Menu	
2	Run "Radar (Single AR1243) Capture + Radar Object Detect (EVE1) + Null (TDA3xx Only) usecase" UC	No Display	
3	Select Normal Frame/Advanced Frame.	Depending upon selection Normal Frame/Advanced Frame should be selected	
4	Press "P"	Check performance stats	
5	Press 'c' to read back and verify parameters.	Should be able to read and verify parameters	
6	Press 'd' to dynamically change the slope.	Slope should be changed dynamically	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK ADASVISION-985: Radar Processing Alg Plugin ADASVISION-986: Radar Processing Alg Plugin Flexibility ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE ADASVISION-992: Radar Data Processing Usecase using AR12xx Sensor Data input		
<u>Keywords:</u>	tda3xx-alps tda3xx-AR12-Booster		
<b>Execution Details</b>			
Build	REL_3_5		

Tester	x0246581
<u>Execution Result:</u>	<b>Passed</b>
<u>Execution Mode:</u>	<b>Manual</b>
<u>Execution duration (sec):</u>	

**Test Case VISIONSDK-233: Radar\_AR12\_Capture\_Radar\_Object\_Detect\_EVE1\_Display**Summary:

Radar Capture Radar Object Detect on EVE1 Display UC

Input : AR12

Output : HDMI

Preconditions:

Ensure AR12 sensor Radar HW is connected to TDA3x EVM

Debug prints will be in UART2

<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Boot TDA3x with Radar setup	Should display Main Menu	
2	Run "Radar (Single AR1243) Capture + Radar Object Detect (EVE1) + Display (TDA3xx Only) usecase" UC	Display should come up & no buffer drops should observed	
3	Select Normal Frame/Advanced Frame.	Depending upon selection Normal Frame/Advanced Frame should be selected	
4	Press "P"	Check performance stats	
5	Press 'c' to read back and verify parameters.	Should be able to read and verify parameters	
6	Press 'd' to dynamically change the slope.	Slope should be changed dynamically	

Execution type: ManualEstimated exec. duration (sec):Priority: MediumRequirements

ADASVISION-1255: Radar Advance frame configuration & dynamic configuration support  
 ADASVISION-1268: [RADAR] Integrate Peak Detection EVE Algorithm in SDK  
 ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK  
 ADASVISION-1441: AR12xx sensor capture  
 ADASVISION-1443: Radar output interpolation for display  
 ADASVISION-1444: Simple RADAR capture + display use case  
 ADASVISION-1672: [Radar] Add Radar System planner to the Release Package  
 ADASVISION-985: Radar Processing Alg Plugin  
 ADASVISION-986: Radar Processing Alg Plugin Flexibility  
 ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE  
 ADASVISION-988: Radar output visualization  
 ADASVISION-990: Radar Data output to SD Card  
 ADASVISION-992: Radar Data Processing Usecase using AR12xx Sensor Data input  
 ADASVISION-993: Radar Data Processing Usecase using File Sensor Data input

Keywords:

c\_regression  
 c\_stress  
 c\_stability  
 tda3xx-AR12-Booster

**Execution Details**

Build	REL_3_5
Tester	x0246581
<u>Execution Result:</u>	<b>Passed</b>
<u>Execution Mode:</u>	<b>Manual</b>
<u>Execution duration (sec):</u>	

**Test Case VISIONSDK-243: Radar\_Flash\_AR12\_Firmware**Summary:

Radar AR12 Firmware Flash UC

supported on TDA3x ALPS board

Input : AR12 Firmware

Preconditions:

AR12 firmware is part of binaries

Debug prints will be in UART2

#:	Step actions:	Expected Results:	Execution Status:
1	Boot TDA3xx ALPS Board	Shoul display Main Menu	
2	Run "AR12 Firmware Flash (ALPS board Only)" UC	No Display	
3	Erase AR12xx Flash	Should erase previous firmware from flash	
4	Flash AR12xx Firmware	New firmware should be flashed	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1106: [RADAR] Add support for ALPS Hardware ADASVISION-1107: [RADAR] Support for Flashing firmware to AR12 flash on ALPS		
<u>Keywords:</u>	tda3xx-alps		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

**Test Case VISIONSDK-313: Radar\_AR12\_Multi\_Capture\_Radar\_FFT\_EVE1\_Display**

Summary:

Radar Capture Radar FFT on EVE1 Display UC

Input : AR12

Output : HDMI

Preconditions:

Ensure AR12 sensor Radar HW is connected to TDA3x EVM

Debug prints will be in UART2

#:	Step actions:	Expected Results:	Execution Status:
1	Boot TDA3x/RVP with Radar setup	Should display Main Menu	
2	Run "Radar (Single AR1243) Capture + Radar FFT (EVE1) + Display (TDA3xx Only) usecase" UC	Display should come up & no buffer drops should observed	
3	Select Normal Frame/Advanced Frame.	Depending upon selection Normal Frame/Advanced Frame should be selected	
4	Press "P"	Check performance stats	
5	Press 'c' to read back and verify parameters.	Should be able to read and verify parameters	
6	Press 'd' to dynamically change the slope.	Slope should be changed dynamically	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1255: Radar Advance frame configuration & dynamic configuration support ADASVISION-1268: [RADAR] Integrate Peak Detection EVE Algorithm in SDK ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK ADASVISION-1441: AR12xx sensor capture ADASVISION-1443: Radar output interpolation for display ADASVISION-1444: Simple RADAR capture + display use case ADASVISION-1873: 4 x AWR1243 Satellite Demo ADASVISION-1875: Satellite radar chip support in Radar SDK		

	ADASVISION-985: Radar Processing Alg Plugin ADASVISION-986: Radar Processing Alg Plugin Flexibility ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE ADASVISION-988: Radar output visualization ADASVISION-990: Radar Data output to SD Card ADASVISION-992: Radar Data Processing Usecase using AR12xx Sensor Data input ADASVISION-993: Radar Data Processing Usecase using File Sensor Data input
<u>Keywords:</u>	c_regression c_stress c_stability tda3xx-AR12-Booster
<b>Execution Details</b>	
Build	REL_3_5
Tester	x0246581
<u>Execution Result:</u>	<b>Passed</b>
<u>Execution Mode:</u>	<b>Manual</b>
<u>Execution duration (sec):</u>	

### Test Case VISIONSDK-314: Radar\_Test\_Source\_Object\_Detection

#### Summary:

Radar Test Source Object Detection

Input : testdata

Output : HDMI

#### Preconditions:

Ensure AR12 sensor Radar HW is connected to TDA3x EVM

Debug prints will be in UART2

<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Enable Macro ENABLE_TEST_SOURCE in chains_common_ar12xx.c  & configure test source in ChainsCommon_ar12xxEnableTestSource	Should be able to configure test source	
2	Build the code by running below command  make -s -j depend; make -s -j	should be able to build	
3	Run "Radar (Single AR1243) Capture + Radar Object Detect (EVE1) + Display (TDA3xx Only) usecase" UC  Select Normal Frame/Advanced Frame.	Depending upon selection Normal Frame/Advanced Frame should be selected	
4	Press "P"	Check performance stats	
5	Press 'c' to read back and verify parameters.	Should be able to read and verify parameters	
6	Press 'd' to dynamically change the slope.	Slope should be changed dynamically	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1255: Radar Advance frame configuration & dynamic configuration support ADASVISION-1268: [RADAR] Integrate Peak Detection EVE Algorithm in SDK ADASVISION-1269: [RADAR] Integrate Beam Forming Algorithm in SDK ADASVISION-1441: AR12xx sensor capture ADASVISION-1443: Radar output interpolation for display ADASVISION-1444: Simple RADAR capture + display use case ADASVISION-1677: [RADAR] Dynamic chirp configuration and thorough dynamic configuration testing ADASVISION-985: Radar Processing Alg Plugin ADASVISION-986: Radar Processing Alg Plugin Flexibility ADASVISION-987: Radar Processing Single Alg Plugin on DSP and EVE ADASVISION-988: Radar output visualization ADASVISION-990: Radar Data output to SD Card ADASVISION-992: Radar Data Processing Usecase using AR12xx Sensor Data input ADASVISION-993: Radar Data Processing Usecase using File Sensor Data input		
<u>Keywords:</u>	c_regression c_stress c_stability tda3xx-AR12-Booster		



Execution Details	
Build	REL_3_5
Tester	x0246581
<u>Execution Result:</u>	<b>Passed</b>
<u>Execution Mode:</u>	<b>Manual</b>
<u>Execution duration (sec):</u>	

#### Test Case VISIONSDK-324: NullSrc\_Capture\_Radar\_Object\_Detect\_EVE1\_Null\_Read\_Frames\_SDCard

##### Summary:

Null Source Capture(SD card) Radar FFT + peak Detect + Beam Form on EVE1 Null UC

Input : AR12

Output : Null

Bug ID : ADASVISION-1726

##### Preconditions:

Input files present in SD card

Debug prints will be in

UART1 for TDA2x

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

Execution type: Manual

Estimated exec. duration (sec):

Priority: Medium

Requirements  
ADASVISION-989: Radar data read from SD card  
ADASVISION-990: Radar Data output to SD Card

Keywords: tda2xx-evm

##### **Execution Details**

Build REL\_3\_5

Tester x0246581

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration (sec):

#### Test Case VISIONSDK-331: Radar\_AR12\_Capture\_Null\_Multiple\_Times

##### Summary:

Radar Capture Null UC

Input : AR12

Output : Null

##### Preconditions:

Ensure AR12 sensor Radar HW is connected to TDA3x EVM

Debug prints will be in UART2

<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Boot TDA3x with Radar setup/TDA3xx ALPS Board	Shoul display Main Menu	

2	Run "Radar (Single AR1243) Capture + Null (TDA3xx Only) usecase" UC	No Display	
3	Press "P"	Check performance stats	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1441: AR12xx sensor capture ADASVISION-1445: RADAR processing performance benchmarking ADASVISION-992: Radar Data Processing Usecase using AR12xx Sensor Data input		
<u>Keywords:</u>	c_regression c_qualification tda3xx-alps tda3xx-AR12-Booster		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

**Test Case VISIONSDK-345: Cascade\_Radar\_AR12\_Capture\_Null**Summary:

Cascade Radar Capture Null UC

Input : AR12

Output : Null

Supported on : TDA2x Cascade Radar board

<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Boot TDA2x Cascade radar board	Shoul display Main Menu	
2	Run "9: Cascade Radar (4 AWR1243) Capture + Null (TDA2xx Only)" UC	No Display	
4	Press "P"	Check performance stats	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1853: [RADAR] VSDK to support TDA2x cascade radar		
<u>Keywords:</u>	None		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

**Test Case VISIONSDK-346: Cascade\_Radar\_AR12\_Capture\_Radar\_Object\_Detect\_DSP\_Null**Summary:

Cascade Radar Capture Null UC

Input : AR12

Output : Null

Supported on : TDA2x Cascade Radar board

#:	Step actions:	Expected Results:	Execution Status:
1	Boot TDA2x Cascade radar board	Shoul display Main Menu	
2	Run "a: Cascade Radar (4 AWR1243) Capture + Radar Object Detect (DSP) + Null (TDA2xx Only)" UC	No Display	
4	Press "P"	Check performance stats	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1853: [RADAR] VSDK to support TDA2x cascade radar ADASVISION-1856: 4x AWR1243 MIMO Radar Cascade Usecase		
<u>Keywords:</u>	None		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

**Test Case VISIONSDK-350: Radar\_AR12\_PCle\_Capture\_Null**Summary:

Radar AR12 PCle Capture Null UC

Input : AR12

Output : Null

Supported on : TDA2Px Linux

#:	Step actions:	Expected Results:	Execution Status:
1	Boot TDA2Px with Radar setup	Shoul display Main Menu	
2	Run UC	No Display	
3	Press "P"	Check performance stats	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1920: Linux Support for Radar SDK ADASVISION-1921: Radar SDK Linux - enable PCle based capture		
<u>Keywords:</u>	None		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

## 1.3.Test Suite : Build

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### 1.3.1.Test Suite : Radar\_Builds

Test Case VISIONSDK-242: Radar_default_build			
<u>Summary:</u>			
Radar Default Build			
<u>Preconditions:</u>			
Follow UG to Install release package			
Copy all necessary components (gcc tool)			
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Navigate to (radar_install_path)/vision_sdk/build & run make -s showconfig	Should display config for tda3xx_evm_bios_radar	
2	Check default config	By default all IPU1_0, IPU1_1, DSP1, EVE1 are enabled  Memory should be 128MB  NDK should be disabled  & A15_TARGET_OS=Bios	
3	run make -s -j depend & then make -s -j	Should build binaries without any error	
4	run make -s appimage	should create Appimage	
5	run make -s sbl	Should create SBL	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1108: [RADAR] Support for 128 MB build by default ADASVISION-1348: AppImage generation		
<u>Keywords:</u>	tda3xx-evm c_qualification		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

<b>Test Case VISIONSDK-280: Radar_BIOS_different_builds</b>			
<u>Summary:</u> Radar different configurations Build			
<u>Preconditions:</u> Follow UG to Install release package All ti_cmpnents (including PDK) should be part of release package Copy all necessary components (gcc tool,linaro tool chain)			
#:	Step actions:	Expected Results:	Execution Status:
1	Navigate to	Should display config for	

	(vsdk_install_path)/vision_sdk/build	tda3xx_evm_bios_radar	
	& run make -s showconfig		
2	Modify Rules.mk file to other available MAKECONFIG	Should display config for MAKECONFIG selected	
	& run make -s showconfig		
3	run make -s -j depend	Should build binaries without any error	
	& then make -s -j		
4	run make -s appimage	should create Appimage	
5	run make -s sbl	Should create SBL	
<u>Execution type:</u>		Manual	
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>		Medium	
<u>Requirements</u>		ADASVISION-1106: [RADAR] Add support for ALPS Hardware ADASVISION-1108: [RADAR] Support for 128 MB build by default ADASVISION-1115: [RADAR] Support for build support and file based capture read process write ADASVISION-1348: Applmage generation ADASVISION-1350: CPU selection ADASVISION-1351: Multiple Memory maps ADASVISION-1352: Multiple platforms support ADASVISION-1354: Build profile selection ADASVISION-1359: MMU configs of different CPUs ADASVISION-1360: Platform selection ADASVISION-1755: [RADAR] Add support for TDA2px EVM ADASVISION-1853: [RADAR] VSDK to support TDA2x cascade radar	
<u>Keywords:</u>		tda2xx-evm tda3xx-evm tda3xx_rvp tda3xx-alps tda3xx-AR12-Booster c_integration	
<u>Attached files</u>		<ul style="list-style-type: none"><li>• Radar Different Build Config : build_radar.sh</li><li>• build_radar.sh</li></ul>	
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>		<b>Passed</b>	
<u>Execution Mode:</u>		<b>Manual</b>	
<u>Execution duration (sec):</u>			

**Test Case VISIONSDK-349: Radar\_Linux\_build**Summary:

Radar Linux Build

Preconditions:

Follow Linux UG to Install release package, clone kernel,u-boot,sgx,ipumm,cmem, download filesystems (4.4 kernel)

All ti\_cmponents (including PDK) should be part of release package

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

<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Navigate to (vsdk_install_path)/vision_sdk/build  Modify Rules.mk file to  MAKECONFIG=tda2px_evm_linux_radar  & run make -s showconfig	Should display config for tda2px_evm_linux_radar	
2	Check config params	Memory should be 1024MB 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 & make -s -j	should build apps.out	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1920: Linux Support for Radar SDK		
<u>Keywords:</u>	None		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

## 1.4.Test Suite : Release\_Process

<b>Test Case VISIONSDK-245: VSDK_Radar_release_check_list</b>			
<u>Summary:</u>			
VSDK & Radar release check list			
<u>Preconditions:</u>			
VSDK & Radar RC package already installed & tested			
Verify that release goes through the standard release process			
#:	Step actions:	Expected Results:	Execution Status:
1	Check for licenses, manifest, 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)  & executed in testing phase	Traceability report (Req -> Test) should have all req mapped to tc  Test result matrix should have nothing in "Not Run" state	
3	Check updated project plan, test plan, 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 updated docs for current release should be available	
5	Check for all docs available in vision_sdk/docs folder	All updated 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	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	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		
<u>Keywords:</u>	None		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

### Test Case VISIONSDK-247: Radar\_package\_creation\_and\_installation

Summary:



Radar package creation & installation on windows & linux machine

Preconditions:

Radar RC package installed & tested

<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Modify MPI files to pick correct ti_components  Modify InstallJammer Environment script  Trigger Jenking project for packaging	Windows & Linux installer should be created	
2	Install on windows machine  Check for all customer collaterals  & Build with default config	Installation should be success  Release package should include all customer collaterals such as user guide, data sheet, Release notes, Test reports, Developer guide etc  Build should be success	
3	Install on Linux machine  Check for all customer collaterals  & Build with default config	Installation should be success  Release package should include all customer collaterals such as user guide, data sheet, Release notes, Test reports, Developer guide etc  Build should be success	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1096: packaging and installation ADASVISION-1514: Customer collaterals ADASVISION-917: Separate packaging for Radar SDKs		
<u>Keywords:</u>	c_qualification		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

## 1.5.Test Suite : Boot\_Modes

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### 1.5.1.Test Suite : SD\_Boot

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Test Case VISIONSDK-273: Load_BIOS_Binaries_using_SD_Card			
<u>Summary:</u>			
Load Binaries using SD Card			
supported on TDA2x/TDA2Ex/TDA2Ex Entry			
<u>Preconditions:</u>			
Build & Copy Appimage & MLO to SD card			
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Insert SD card into card slot  & Follow UG to set SYSBOOT PIN for SD boot	SYSBOOT PINs should be for SD boot	
2	Boot EVM	EVM should boot with binaries & Display Main Menu	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1344: SD boot mode ADASVISION-1423: Basic board bringup (serial, pinmux, ddr, nand) using SBL ADASVISION-1425: Boot mode bringup		
<u>Keywords:</u>	tda2xx-evm tda2ex-evm tda2ex-entry tda2px-evm c_qualification		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

## 1.5.2.Test Suite : QSPI\_Boot

Test Case VISIONSDK-274: Load_Binaries_using_QSPI			
<u>Summary:</u>			
Load Binaries using QSPI			
<u>Preconditions:</u>			
Build Appimage & SBL for QSPI			
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
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 & ApplImage to QSPI	SBL & ApplImage should be flashed to QSPI	
3	Discoonnect CCS & Follow UG to set SYSBOOT PIN for QSPI Boot	SYSBOOT PIN should be for QSPI Boot	
4	Boot EVM	EVM should boot with binaries & Display Main Menu	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1346: QSPI boot mode ADASVISION-1347: Flashing method		
<u>Keywords:</u>	tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm tda3xx_rvp		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

### 1.5.3.Test Suite : QSPI\_SD\_Boot

Test Case VISIONSDK-275: Load_Binaries_using_QSPI_SD			
<u>Summary:</u>			
Load Binaries using QSPI SD			
supported only on TDA3x/RVP			
<u>Preconditions:</u>			
Build Appimage & SBL for QSPI SD Boot			
Copy AppImage to SD card			
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
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	SBL should be flashed to QSPI	
3	Discoonnect CCS  Insert SD card to SD card slot  Follow UG to set SYSBOOT PIN for QSPI SD Boot	SYSBOOT PIN should be for QSPI SD Boot	
4	Boot EVM	EVM should boot with binaries &  Display Main Menu	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-1344: SD boot mode ADASVISION-1347: Flashing method ADASVISION-1423: Basic board bringup (serial, pinmux, ddr, nand) using SBL ADASVISION-1425: Boot mode bringup ADASVISION-1601: SD card file system support with VSDK		
<u>Keywords:</u>	tda3xx-evm tda3xx_rvp		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			

## 1.5.4.Test Suite : CCS\_Boot

Test Case VISIONSDK-332: Load_Binaries_using_CCS			
<u>Summary:</u>			
Load Binaries using CCS			
<u>Preconditions:</u>			
Build binaries			
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
1	Connect EVM through CCS debug  & Follow UG to set SYSBOOT PIN for CCS debug	SYSBOOT PINs should be for debug	
2	Load binaries on each core separately  or use the ".js" script available under vision_sdk/build/rtos/scripts to load on all cores at once	Binaries should be load on each core successfully  & Display main menu on uart console	
3	From Main Menu run any UC	UC should run successfully	
4	Check for few register address whether displaying proper data or not	Data should be proper	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	None		
<u>Keywords:</u>	tda2xx-evm tda2ex-evm tda3xx-evm tda2ex-entry tda2px-evm tda3xx_rvp tda3xx-alps tda3xx-AR12-Booster		
<b>Execution Details</b>			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	<b>Passed</b>		
<u>Execution Mode:</u>	<b>Manual</b>		
<u>Execution duration (sec):</u>			