



Test Plan Execution Report

Test Project: VISIONSDK

Test Plan: PSDKR_Test_Plan_3_5_Functional_All_Platform

Printed by TestLink on 01/10/2018

2017 (c) Testlink Community

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_PClE_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

Project: VISIONSDK Location: TII Owner: Sivasankaran, Shiju

Test Plan: PSDKR_Test_Plan_3_5_Functional_All_Platform

Radar Functional Test Plan

Will cover all functional test

1.1.Test Suite : Mono_Cam

1.1.1.Test Suite : ISS

1.1.1.1.Test Suite : ISS_Camera_Capture_Radar_Capture_Display

Test Case VISIONSDK-347: ISS_Capture_IMX390_AR1243_Display			
<u>Summary:</u>			
Input : IMX390 & AR1243			
Output : HDMI 1080P			
<u>Preconditions:</u>			
Verify that Capture/Display is running on IPU1-0 at 30fps			
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>
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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

Test Case VISIONSDK-348: TIDL_Object_Detection_Radar_Processing_Display			
<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			
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>	<u>Execution Status:</u>

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

1.1.2.Test Suite : MISC

Test Case VISIONSDK-325: VSDK_restructuring_directory_structure			
<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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

1.2.Test Suite : Radar

Test Case VISIONSDK-150: Radar_AR12_Capture_Null			
<u>Summary:</u>			
Radar Capture Null UC			
Input : AR12			
Output : Null			
Supported on : TDA3x/TDA3x ALPS/TDA2x Cascade			
<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/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	
<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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

Test Case VISIONSDK-152: Radar_AR12_Capture_Radar_FrameCopy_DSP1_Null			
<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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

Test Case VISIONSDK-154: NullSrc_Capture_Radar_FFT_EVE1_Null_Read_Frames_SDCard			
<u>Summary:</u>			
Null Source Capture(SD card) Radar FFT on EVE1 Null UC			
Input : AR12			
Output : Null			
<u>Preconditions:</u>			
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
Execution Details	
Build	REL_3_5
Tester	x0246581
<u>Execution Result:</u>	Passed
<u>Execution Mode:</u>	Manual
<u>Execution duration (sec):</u>	

Test Case VISIONSDK-155: NullSrc_Capture_Radar_FFT_EVE1_Null_Write_Frames_SDcard			
<u>Summary:</u>			
Null Source Capture(SD card) Radar FFT on EVE1 Null UC			
Input : AR12			
Output : Null			
<u>Preconditions:</u>			
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	
<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-1269: [RADAR] Integrate Beam Forming Algorithm in SDK 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-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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

Test Case VISIONSDK-156: NullSrc_Capture_Radar_FFT_EVE1_Null_Read_Frames_NWSummary:

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

Input : AR12

Output : Null

Preconditions:

Ensure NDK is enabled in build

Input files sent through network using network_tx

Debug prints will be in

UART1 for TDA2x & UART2 for TDA3x

<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 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	

Execution type: Manual

Estimated exec. duration (sec):

Priority: Medium

Requirements

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

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-157: NullSrc_Capture_Radar_FFT_EVE1_Null_Write_Frames_NWSummary:

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

Input : AR12

Output : Null

Preconditions:

Ensure NDK is enabled in build

Input files sent through network using network_tx

Debug prints will be in

UART1 for TDA2x & UART2 for TDA3x

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

Test Case VISIONSDK-232: Radar_AR12_Capture_Radar_Object_Detect_EVE1_Null			
<u>Summary:</u>			
Radar Capture Radar Object Detect on EVE1 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 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		
Execution Details			
Build	REL_3_5		

Tester	x0246581
<u>Execution Result:</u>	Passed
<u>Execution Mode:</u>	Manual
<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: Manual

Estimated exec. duration (sec):

Priority: Medium

Requirements

- 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

Execution Result: **Passed**

Execution Mode: **Manual**

Execution duration (sec):

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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<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
Keywords:	c_regression c_stress c_stability tda3xx-AR12-Booster
Execution Details	
Build	REL_3_5
Tester	x0246581
Execution Result:	Passed
Execution Mode:	Manual
Execution duration (sec):	

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			
#:	Step actions:	Expected Results:	Execution Status:
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	
Execution type:	Manual		
Estimated exec. duration (sec):			
Priority:	Medium		
Requirements	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		
Keywords:	c_regression c_stress c_stability tda3xx-AR12-Booster		

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

Test Case VISIONSDK-324: NullSrc_Capture_Radar_Object_Detect_EVE1_Null_Read_Frames_SDCard			
<u>Summary:</u>			
Null Source Capture(SD card) Radar FFT + peak Detect + Beam Form on EVE1 Null UC			
Input : AR12			
Output : Null			
Bug ID : ADASVISION-1726			
<u>Preconditions:</u>			
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	
<u>Execution type:</u>	Manual		
<u>Estimated exec. duration (sec):</u>			
<u>Priority:</u>	Medium		
<u>Requirements</u>	ADASVISION-989: Radar data read from SD card ADASVISION-990: Radar Data output to SD Card		
<u>Keywords:</u>	tda2xx-evm		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

Test Case VISIONSDK-331: Radar_AR12_Capture_Null_Multiple_Times			
<u>Summary:</u>			
Radar Capture 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	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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

Test Case VISIONSDK-345: Cascade_Radar_AR12_Capture_NullSummary:

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

Test Case VISIONSDK-346: Cascade_Radar_AR12_Capture_Radar_Object_Detect_DSP_NullSummary:

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

Test Case VISIONSDK-350: Radar_AR12_PCl_e_Capture_Null

Summary:

Radar AR12 PCIe Capture Null UC

Input : AR12

Output : Null

Supported on : TDA2Px Linux

#:	Step actions:	Expected Results:	Execution Status:
1	Boot TDA2Px with Radar setup	Shoul display Main Menu	
2	Run UC	No Display	
3	Press "P"	Check performance stats	
<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 PCIe based capture		
<u>Keywords:</u>	None		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

1.3.Test Suite : Build

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)			
#:	Step actions:	Expected Results:	Execution Status:
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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

Test Case VISIONSDK-280: Radar_BIOS_different_builds			
<u>Summary:</u> Radar different configurations Build			
<u>Preconditions:</u> Follow UG to Install release package All ti_components (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 & run make -s showconfig	tda3xx_evm_bios_radar	
2	Modify Rules.mk file to other available MAKECONFIG & run make -s showconfig	Should display config for MAKECONFIG selected	
3	run make -s -j depend & then make -s -j	Should build binaries without any error	
4	run make -s appimage	should create Appimage	
5	run make -s sbl	Should create SBL	
<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"> • Radar Different Build Config : build_radar.sh • build_radar.sh 		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

Test Case VISIONSDK-349: Radar_Linux_build			
<u>Summary:</u>			
Radar Linux Build			
<u>Preconditions:</u>			
Follow Linux UG to Install release package, clone kernel,u-boot,sgx,ipumm,cmem, download filesystems (4.4 kernel)			
All ti_cmpnents (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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

1.4.Test Suite : Release_Process

Test Case VISIONSDK-245: VSDK_Radar_release_check_list			
<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, 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) & executed in testing phase	Tracebility 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 pain, 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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

Test Case VISIONSDK-247: Radar_pacckage_creation_and_installation

Summary:

Radar package creation & installation on windows & linux machine			
<u>Preconditions:</u>			
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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			

1.5.Test Suite : Boot_Modes

1.5.1.Test Suite : SD_Boot

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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<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 & AppImage to QSPI	SBL & AppImage 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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<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	Disconnect 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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<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		
Execution Details			
Build	REL_3_5		
Tester	x0246581		
<u>Execution Result:</u>	Passed		
<u>Execution Mode:</u>	Manual		
<u>Execution duration (sec):</u>			