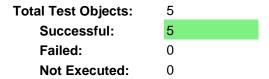
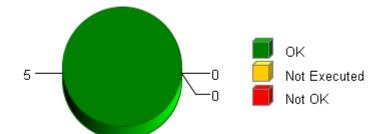


# **Summary**

# **Overall Test Object Results (including Coverage)**



**Date:** 2014-12-17 **Time:** 19:10:48+0530



# **Selected Project Items**

Test Object "CBD UnitTest/IoHwAbstractionUsr/IoHwAb CaptureADC"

Test Object "CBD UnitTest/IoHwAbstractionUsr/IoHwAb Init"

Test Object "CBD\_UnitTest/IoHwAbstractionUsr/IoHwAb\_ReadADC"

Test Object "CBD\_UnitTest/IoHwAbstractionUsr/IoHwAb\_SlowADCGroupValidity"

Test Object "CBD\_UnitTest/IoHwAbstractionUsr/IoHwAb\_StartADC"

#### **Used Test Environments**

TI TMS 570 PLS UDE (Default)

### **Batch Operation Settings**

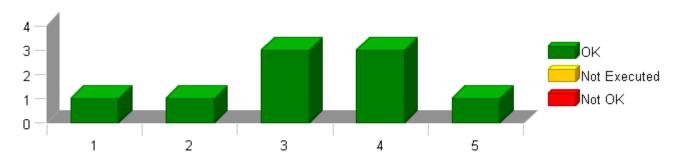
Check Interface: No
Generate Driver: Yes
Execute Test: Yes
Create New Test Run: No

**Instrumentation:** Test Object Only

Coverage: Statement Coverage, Branch Coverage, Decision Coverage, Modified Condition /

Decision Coverage, Multiple Condition Coverage

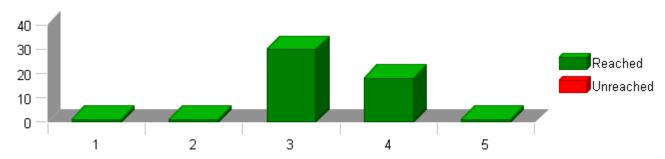
### Test Case Results for Each Test Object (without Coverage)



The table above shows each test object on the x axis and the number of test cases of the respective test object on the y axis. Each bar is divided into passed, not executed and failed test cases. The test case results do not take into account any coverage result (i.e. if all test cases of a test object are passed in this table but the coverage is failed, the overall test object result will be failed).

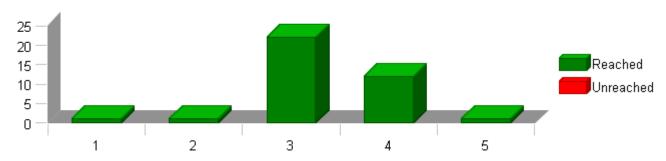


# Statement (C0) Coverage: Total Statements for Each Test Object



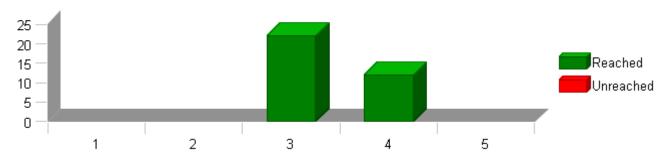
The table above shows each test object on the x axis and the number of statements of the respective test object on the y axis. Each bar is divided into reached statements (i.e. statements that have been executed during the test) and unreached statements.

### Branch (C1) Coverage: Total Branches for Each Test Object



The table above shows each test object on the x axis and the number of branches of the respective test object on the y axis. Each bar is divided into reached branches (i.e. branches that have been executed during the test) and unreached branches.

# **Decision Coverage: Total Decision Outcomes for Each Test Object**

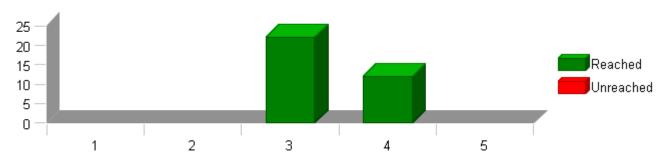


The table above shows test objects on the x axis and the number of possible outcomes of all decisions of the respective test object on the y axis. To achieve full DC coverage, each decision must evaluate to both true and false.

Each bar is divided into reached and unreached decision outcomes.



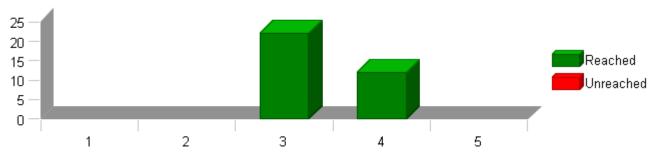
# MC/DC Coverage: Total Condition Combinations for Each Test Object



The table above shows test objects on the x axis and the number of condition combinations of all decisions of the respective test object on the y axis. The number of condition combinations is based on the number of boolean conditions within each decision of the test object. To achieve full MC/DC coverage, each decision requires all contained atomic conditions to evaluate to both true and false independently of all other conditions. The cumulated number of rows within such tables of condition combinations is what is displayed in this table.

Each bar is divided into reached condition combinations (i.e. combinations of boolean condition values that have been executed during the test) and unreached condition combinations.

# MCC Coverage: Total Condition Combinations for Each Test Object



The table above shows test objects on the x axis and the number of condition combinations of all decisions of the respective test object on the y axis. The number of condition combinations is based on the number of boolean conditions within each decision of the test object. To achieve full MCC coverage, each decision requires all contained atomic conditions to evaluate to all possible combinations of true and false values. The cumulated number of rows within such tables of condition combinations is what is displayed in this table.

Each bar is divided into reached condition combinations (i.e. combinations of boolean condition values that have been executed during the test) and unreached condition combinations.

### **TEST OVERVIEW REPORT**

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Project IoHwAbstractionUsr

# **Test Object List**

The following table lists all test objects with their test case and coverage results. The cumulated results for modules, folders and test collections are also displayed, the indentation within the name column indicates the parent relationship of the elements.

Please note that only test objects are numbered within the first column. This number is referenced on the x axis within the overview charts for test case and coverage results available on previous pages (if included into the report).

| No. | Name                        | C0    | C1    | DC    | MC/DC | МСС   | Test Cases Res | sult |
|-----|-----------------------------|-------|-------|-------|-------|-------|----------------|------|
|     | IoHwAbstractionUsr          | 100 % | 100 % | 100 % | 100 % | 100 % | 9 of 9 passed  | •    |
|     | CBD_UnitTest                | 100 % | 100 % | 100 % | 100 % | 100 % | 9 of 9 passed  | •    |
|     | IoHwAbstractionUsr          | 100 % | 100 % | 100 % | 100 % | 100 % | 9 of 9 passed  | •    |
| 1   | IoHwAb CaptureADC           | 100 % | 100 % | -     | -     | -     | 1 of 1 passed  | •    |
| 2   | <u>loHwAb Init</u>          | 100 % | 100 % | -     | -     | -     | 1 of 1 passed  | •    |
| 3   | IoHwAb ReadADC              | 100 % | 100 % | 100 % | 100 % | 100 % | 3 of 3 passed  | •    |
| 4   | IoHwAb SlowADCGroupValidity | 100 % | 100 % | 100 % | 100 % | 100 % | 3 of 3 passed  | •    |
| 5   | <u>IoHwAb StartADC</u>      | 100 % | 100 % | -     | -     | -     | 1 of 1 passed  | •    |

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 Project
 IoHwAbstractionUsr

 Module
 IoHwAbstractionUsr

 Test Object
 IoHwAb\_StartADC

# Instrumentation: Test Object Only

| Statement (C0) Coverage | 100 % |
|-------------------------|-------|
| Branch (C1) Coverage    | 100 % |

#### **Statistics**

| Total Testcases | 1 |   |
|-----------------|---|---|
| Successful      | 1 | ~ |
| Failed          | 0 |   |
| Not Executed    | 0 |   |

# **Module Properties**

| Project Root Directory | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr   |
|------------------------|--|
| Configuration File     | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr\UnitTestEnv\config<br>\TMS570_GCC_UDE_CCS4_Config.xml   |
| Target Environment     | TI TMS 570 PLS UDE (Default)   |
| Kind of Test           | Unit Test  |
| Linker Options         |  |
| Source File(s)         |  |
| File                   | \$(PROJECTROOT)\loHwAbstractionUsr\src\loHwAbstractionUsr.c  |
| Compiler Options       | -DSKIP_MAGIC_NUMBER= -D_DATA_ACCESS= -Dconst= -I\$(PROJECTROOT)\loHwAbstractionUsr\utp\contract -I\$(PROJECTROOT) \loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\utp\cont |

|                             | Text  |
|-----------------------------|---|
| Module 'loHwAbstractionUsr' | Name of Tester: Ajit Shrivastava Code File(s) Under Test: loHwAbstractionUsr.c Code File(s) Version: 5 Module Design Document: N/A Module Design Document Version: 2 Unit Test Plan Version: 2 Unit Test Plan Version: 2 Unit Test Plan Version: 2 Optimization Level: Level 2 Compiler (CodeGen) Version: TMS470_4.9.5 Model Type: Excel Macro Model Version:Nexteer EPS Unit Test Tool 2.7d/EPS Library 1.31 Total FLASH Used (Bytes): 860 Total RAM Used (Bytes): 28 Total CALS Used (Bytes): 36 Special Test Requirements: Test Date: 12-17-2014 Comments:" NOTE 1: Changes made in the file Rte_Types.h and adc_regs.h to provide deciration to the used variables. NOTE 2: In "IoHwAb_SlowADCGroupValidity" to have 100% coverage, Out of range value of "DMAData_G_str.SlowADC_Cnt_u16(i)" is taken As per the Data Dictionary is 3762 so to satisfy "If (DMAData_G_str.SlowADC_Cnt_u16(i) = &HFFFF)" the value is taken as 65535.  NOTE 3: ""CBD_Sandbox_dbg.map"" map file is embedded for reference." |

| Attributes            |  |  |
|-----------------------|--|--|
| Name                  | Value  |  |
| Compiler Install Path | \$(ProgramFiles)\Texas Instruments\ccsv4\tools\compiler\tms470_4.9.5 |  |
| Float Precision       | 9  |  |
| InitObjDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\obj                   |  |
| InitSrcDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\src                   |  |
| Linker File           | \$(PROJECTROOT)\UnitTestEnv\static_build_files\sys_link.cmd          |  |
| Makefile Template     | \$(PROJECTROOT)\UnitTestEnv\config\Nexteer_ts_make_ude_ti_tms570.tpl |  |
| Target Install Path   | \$(ProgramFiles)\pls\UDE 4.0   |  |
| Time Unit             | Cycles   |  |
| Timer Enabled         | false  |  |
| Timer Prescale        | 0  |  |

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IoHwAb\_StartADC



| Attributes  |       |  |
|---|-------|--|
| Name  | Value |  |
| Timer Resolution 1  |       |  |
| UDE Config File \$(PROJECTROOT)\UnitTestEnv\config\TMS570_UDE_12PIN_JTAG.cfg                        |       |  |
| Workspace File D:\Synergy_Work_Area\C1XX_IOHWADstractionUsr\UnitTestEnv\config\UDE_TMS570_DEBUG.WSP |       |  |



# Test Case 1: Boundary Test

Performance Metrics (With "None" Instrumentation and WithPS Environment) Specification

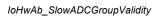
TS1.1 15.00 Cycles

Description Vector Description

TS1.1 Test case to check output

| Test Step 1.1 (Repeat Count = 1) |                  |                | <b>✓</b> |
|----------------------------------|------------------|----------------|----------|
| Name                             | Input Value      |                |          |
| adcREG1_temp                     | tgt_adcREG1_temp |                |          |
| Name                             | Actual Value     | Expected Value | Result   |
| CDD_ePWM4CMPB_Cnt_G_u16          | 100              | 100            | <b>✓</b> |
| tgt_adcREG1_temp.GxSR[0]         | 0                | 0              | ✓        |
| tgt_adcREG1_temp.GxSR[1]         | 0                | 0              | ✓        |
| tgt_adcREG1_temp.GxSR[2]         | 1                | 1              | <b>✓</b> |

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 Project
 IoHwAbstractionUsr

 Module
 IoHwAbstractionUsr

 Test Object
 IoHwAb\_SlowADCGroupValidity

# Instrumentation: Test Object Only

| Statement (C0) Coverage  | 100 % |
|--------------------------|-------|
| <b>Decision Coverage</b> | 100 % |
| Branch (C1) Coverage     | 100 % |
| MCC Coverage             | 100 % |
| MC/DC Coverage           | 100 % |

#### Statistics

| Total Testcases | 3 |   |
|-----------------|---|---|
| Successful      | 3 | ~ |
| Failed          | 0 |   |
| Not Executed    | 0 |   |

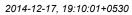
# **Module Properties**

| Project Root Directory | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr   |
|------------------------|--|
| Configuration File     | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr\UnitTestEnv\config \TMS570_GCC_UDE_CCS4_Config.xml  |
| Target Environment     | TI TMS 570 PLS UDE (Default)   |
| Kind of Test           | Unit Test  |
| Linker Options         |  |
| Source File(s)         |  |
| File                   | \$(PROJECTROOT)\loHwAbstractionUsr\src\loHwAbstractionUsr.c  |
| Compiler Options       | -DSKIP_MAGIC_NUMBER= -D_DATA_ACCESS= -Dconst= -I\$(PROJECTROOT)\loHwAbstractionUsr\utp\contract -I\$(PROJECTROOT)\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\upp\cont |

| Name                        | Text   |
|-----------------------------|--|
| Module 'IoHwAbstractionUsr' | Name of Tester: Ajit Shrivastava Code File(s) Under Test: IoHwAbstractionUsr.c Code File(s) Version: 5 Module Design Document: N/A Module Design Document Version: N/A Data Dictionary Version: 2 Unit Test Plan Version: 2 Unit Test Plan Version: 2 Optimization Level: Level 2 Compiler (CodeGen) Version: TMS470_4.9.5 Model Type: Excel Macro Model Version:Nexteer EPS Unit Test Tool 2.7d/EPS Library 1.31 Total FLASH Used (Bytes): 860 Total RAM Used (Bytes): 880 Total CALS Used (Bytes): 28 Total CALS Used (Bytes): 36 Special Test Requirements: Test Date: 12-17-2014 Comments:" NOTE 1: Changes made in the file Rte_Types.h and adc_regs.h to provide decIration to the used variables. NOTE 2: In "IoHwAb_SlowADCGroupValidity" to have 100% coverage, Out of range value of "DMAData_G_str.SlowADC_Cnt_u16(i)" is take As per the Data Dictionary is 3762 so to satisfy "If (DMAData_G_str.SlowADC_Cnt_u16(i) = &HFFFF)" the value is taken as 65535.  NOTE 3: ""CBD_Sandbox_dbg.map"" map file is embedded for reference." |

| Attributes            |  |  |  |  |
|-----------------------|--|--|--|--|
| Name                  | Value  |  |  |  |
| Compiler Install Path | \$(ProgramFiles)\Texas Instruments\ccsv4\tools\compiler\tms470_4.9.5 |  |  |  |
| Float Precision       | 9  |  |  |  |
| InitObjDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\obj                   |  |  |  |
| InitSrcDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\src                   |  |  |  |
| Linker File           | \$(PROJECTROOT)\UnitTestEnv\static_build_files\sys_link.cmd          |  |  |  |
| Makefile Template     | \$(PROJECTROOT)\UnitTestEnv\config\Nexteer_ts_make_ude_ti_tms570.tpl |  |  |  |

IoHwAb\_SlowADCGroupValidity





| Attributes          |  |  |  |  |  |
|---------------------|--|--|--|--|--|
| Name                | Value  |  |  |  |  |
| Target Install Path | <pre>\$(ProgramFiles)\pls\UDE 4.0</pre>  |  |  |  |  |
| Time Unit           | Cycles   |  |  |  |  |
| Timer Enabled       | false  |  |  |  |  |
| Timer Prescale      | 0  |  |  |  |  |
| Timer Resolution    | 1  |  |  |  |  |
| UDE Config File     | \$(PROJECTROOT)\UnitTestEnv\config\TMS570_UDE_12PIN_JTAG.cfg                         |  |  |  |  |
| Workspace File      | D:\Synergy_Work_Area\C1XX_IOHwAbstractionUsr\UnitTestEnv\config\UDE_TMS570_DEBUG.WSP |  |  |  |  |



#### Test Case 1: Metrics Test

IoHwAb\_SlowADCGroupValidity

Specification Performance Metrics (With "None" Instrumentation and WithPS Environment)

TS1.1 235.00 Cycles TS1.2 2429.00 Cycles

Description Vector Description

 $TS1.1Shortest\ Path ==> If\ (DMAData\_G\_str.SlowADC\_Cnt\_u16(i) = \&HFFFF) = False; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADC\_Cnt\_u16(i) = \&HFFFF) = True; \\ If\ (DiagFailed\_m(IoHwAb\_SlowADCValidAcc\_Cnt\_M\_u16, k\_SlowADCValidDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_cnt\_str) = D\_TRUE\_CNT\_LGC) = True; \\ TS1.2"Longest\ Path ==> If\ (DMAData\_G\_str.SlowADCValidDiag\_cnt\_str) = D\_TRUE\_cnt\_str) = D\_TRUE\_cnt$ 

| Name                                 | Input Value  |                |          |
|--------------------------------------|--------------|----------------|----------|
|                                      | · ·          |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 3762         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 3762         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 3762         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 3762         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 65535        |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb SlowADCValidAcc Cnt M u16     | 0            | 0 ± 0          | <b>✓</b> |

| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

| Test Step 1.2 (Repeat Count = 1)     |              |                | ✓      |
|--------------------------------------|--------------|----------------|--------|
| Name                                 | Input Value  |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 65535        |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 65535        |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 65535        |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 65535        |                |        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 65535        |                |        |
| k_SlowADCValidDiag_Cnt_str.Threshold | 65535        |                |        |
| k_SlowADCValidDiag_Cnt_str.PStep     | 65535        |                |        |
| k_SlowADCValidDiag_Cnt_str.NStep     | 65535        |                |        |
| Name                                 | Actual Value | Expected Value | Result |
| IoHwAb_SlowADCGroupValidity()        | 0            | 0              | ~      |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 65535        | 65535 ± 0      | ✓      |

| Test Step Call Trace  |       |                       |       |        |  |
|-----------------------|-------|-----------------------|-------|--------|--|
| Actual Function       | Count | Expected Function     | Count | Result |  |
| DMA REPORTERRORSTATUS | 4     | DMA REPORTERRORSTATUS | 4     | •      |  |





#### **Test Case 2: Boundary Test**

IoHwAb\_SlowADCGroupValidity

Specification

Performance Metrics (With "None" Instrumentation and WithPS Environment)

CPU Cycles:

TS2.1 235.00 Cycles
TS2.2 220.00 Cycles
TS2.2 220.00 Cycles
TS2.3 220.00 Cycles
TS2.3 220.00 Cycles
TS2.5 255.00 Cycles
TS2.6 224.00 Cycles
TS2.7 224.00 Cycles
TS2.9 224.00 Cycles
TS2.9 224.00 Cycles
TS2.10 224.00 Cycles
TS2.11 224.00 Cycles
TS2.12 224.00 Cycles
TS2.12 224.00 Cycles
TS2.13 224.00 Cycles
TS2.13 224.00 Cycles
TS2.14 224.00 Cycles
TS2.15 271.00 Cycles
TS2.16 224.00 Cycles
TS2.17 224.00 Cycles
TS2.17 224.00 Cycles

#### Description Vector Description

TS2.1All Min

TS2.2All Max IS2.2AII Max
TS2.3IoHwAb\_SlowADCValidAcc\_Cnt\_M\_u16 = Min
TS2.4IoHwAb\_SlowADCValidAcc\_Cnt\_M\_u16 = Max
TS2.5IoHwAb\_SlowADCValidAcc\_Cnt\_M\_u16 = Pos
TS2.6DMAData\_G\_str.SlowADC\_Cnt\_u16[5]=Min
TS2.7DMAData\_G\_str.SlowADC\_Cnt\_u16[5]=Pos
TS2.9M\_SlowADCValidDiag\_Cnt\_str.Threshold=Min
S2.10E\_SlowADCValidDiag\_Cnt\_str.Threshold=Min TS2.9k\_SlowADCValidDiag\_Cnt\_str.Threshold= MIn TS2.10k\_SlowADCValidDiag\_Cnt\_str.Threshold= Max TS2.11k\_SlowADCValidDiag\_Cnt\_str.Threshold= Pos TS2.12k\_SlowADCValidDiag\_Cnt\_str.Pstep = Min TS2.13k\_SlowADCValidDiag\_Cnt\_str.Pstep = Max TS2.14k\_SlowADCValidDiag\_Cnt\_str.Pstep = Pos TS2.15k\_SlowADCValidDiag\_Cnt\_str.Nstep = Min TS2.16k\_SlowADCValidDiag\_Cnt\_str.Nstep = Max TS2.17k\_SlowADCValidDiag\_Cnt\_str.Nstep = Pos

| Test Step 2.1 (Repeat Count = 1)     |              |                |          |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 1216         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 1216         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 1216         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 1216         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 0            |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 0            |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 0            |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| loHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | <b>✓</b> |

| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

| Test Step 2.2 (Repeat Count = 1)     |              |                |        |
|--------------------------------------|--------------|----------------|--------|
| Name                                 | Input Value  |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 2489         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 2489         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 2489         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 2489         |                |        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 65535        |                |        |
| k_SlowADCValidDiag_Cnt_str.Threshold | 65535        |                |        |
| k_SlowADCValidDiag_Cnt_str.PStep     | 65535        |                |        |
| k_SlowADCValidDiag_Cnt_str.NStep     | 65535        |                |        |
| Name                                 | Actual Value | Expected Value | Result |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | •      |
| IoHwAb SlowADCValidAcc Cnt M u16     | 0            | 0 ± 0          | •      |

| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

IoHwAb\_SlowADCGroupValidity



| Test Step 2.3 (Repeat Count = 1)     |              |                | ✓        |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 1686         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 1687         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 1688         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 1689         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 14040        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 0            |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 16380        |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | <b>✓</b> |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | ✓        |

| Test Step Call Trace |       |                          |       |        |  |
|----------------------|-------|--------------------------|-------|--------|--|
| Actual Function      | Count | Expected Function        | Count | Result |  |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |  |

| Test Step 2.4 (Repeat Count = 1)     |              |                | ✓        |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 1876         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 1877         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 1878         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 1879         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 16380        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 18720        |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | <b>✓</b> |

| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

| Test Step 2.5 (Repeat Count = 1)     |              |                | ✓        |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 2066         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 2067         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 2068         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 2069         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 32767        |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 18720        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 32767        |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 21060        |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | <b>✓</b> |

| Test Step Call Trace |       |                          |       | <b>✓</b> |
|----------------------|-------|--------------------------|-------|----------|
| Actual Function      | Count | Expected Function        | Count | Result   |
| *none*               | 0     | *** No Call Expected *** | 0     | _        |

| Test Step 2.6 (Repeat Count = 1)     |             |
|--------------------------------------|-------------|
| Name                                 | Input Value |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 1216        |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 1216        |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 1216        |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 1216        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0           |
| k_SlowADCValidDiag_Cnt_str.Threshold | 21060       |

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IoHwAb\_SlowADCGroupValidity

| Name                             | Input Value  |                |          |  |
|----------------------------------|--------------|----------------|----------|--|
| k_SlowADCValidDiag_Cnt_str.PStep | 0            |                |          |  |
| k_SlowADCValidDiag_Cnt_str.NStep | 23400        | 23400          |          |  |
| Name                             | Actual Value | Expected Value | Result   |  |
| IoHwAb_SlowADCGroupValidity()    | 1            | 1              | ~        |  |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16 | 0            | 0 ± 0          | <b>✓</b> |  |

| Test Step Call Trace |       |                          |       | <b>✓</b> |
|----------------------|-------|--------------------------|-------|----------|
| Actual Function      | Count | Expected Function        | Count | Result   |
| *none*               | 0     | *** No Call Expected *** | 0     | ~        |

| Test Step 2.7 (Repeat Count = 1)     |              |                | ✓        |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 3762         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 3762         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 3762         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 3762         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 2340         |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 23400        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 2340         |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 25740        |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | <b>✓</b> |

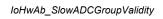
| Test Step Call Trace |       |                          |       | <b>✓</b> |
|----------------------|-------|--------------------------|-------|----------|
| Actual Function      | Count | Expected Function        | Count | Result   |
| *none*               | 0     | *** No Call Expected *** | 0     | ~        |

| Test Step 2.8 (Repeat Count = 1)     |              |                | ✓      |
|--------------------------------------|--------------|----------------|--------|
| Name                                 | Input Value  |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 2489         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 2489         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 2489         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 2489         |                |        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 4680         |                |        |
| k_SlowADCValidDiag_Cnt_str.Threshold | 25740        |                |        |
| k_SlowADCValidDiag_Cnt_str.PStep     | 4680         |                |        |
| k_SlowADCValidDiag_Cnt_str.NStep     | 42120        |                |        |
| Name                                 | Actual Value | Expected Value | Result |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~      |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | ✓      |

| Test Step Call Trace |       |                          |       | ~      |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     |        |

| Test Step 2.9 (Repeat Count = 1)     |              |                | ✓        |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 3016         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 3017         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 3018         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 3019         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 7020         |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 0            |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 7020         |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 44460        |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb SlowADCValidAcc Cnt M u16     | 0            | 0 ± 0          | <b>✓</b> |





| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

| Test Step 2.10 (Repeat Count = 1)    |              |                | <b>✓</b> |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 3206         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 3207         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 3208         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 3209         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 9360         |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 9360         |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 9360         |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | •        |

| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

| Test Step 2.11 (Repeat Count = 1)    |              |                | ✓      |
|--------------------------------------|--------------|----------------|--------|
| Name                                 | Input Value  |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 3396         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 3397         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 3398         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 3399         |                |        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 11700        |                |        |
| k_SlowADCValidDiag_Cnt_str.Threshold | 32767        |                |        |
| k_SlowADCValidDiag_Cnt_str.PStep     | 11700        |                |        |
| k_SlowADCValidDiag_Cnt_str.NStep     | 11700        |                |        |
| Name                                 | Actual Value | Expected Value | Result |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~      |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | ~      |

| Test Step Call Trace |                 |       |                          |       | <b>✓</b> |
|----------------------|-----------------|-------|--------------------------|-------|----------|
|                      | Actual Function | Count | Expected Function        | Count | Result   |
|                      | *none*          | 0     | *** No Call Expected *** | 0     | ~        |

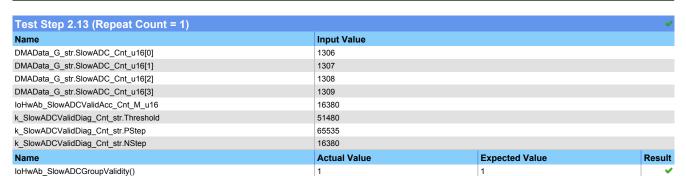
| Test Step 2.12 (Repeat Count = 1)    |              |                | V      |
|--------------------------------------|--------------|----------------|--------|
| Name                                 | Input Value  |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 3586         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 3587         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 3588         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 3589         |                |        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 14040        |                |        |
| k_SlowADCValidDiag_Cnt_str.Threshold | 49140        |                |        |
| k_SlowADCValidDiag_Cnt_str.PStep     | 0            |                |        |
| k_SlowADCValidDiag_Cnt_str.NStep     | 14040        |                |        |
| Name                                 | Actual Value | Expected Value | Result |
| loHwAb_SlowADCGroupValidity()        | 1            | 1              | ~      |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | ~      |

| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

IoHwAb\_SlowADCGroupValidity

IoHwAb\_SlowADCValidAcc\_Cnt\_M\_u16





| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

0 ± 0

0

| Test Step 2.14 (Repeat Count = 1)    |              |                | ✓        |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 1496         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 1497         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 1498         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 1499         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 18720        |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 53820        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 32767        |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 18720        |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb SlowADCValidAcc Cnt M u16     | 0            | 0 ± 0          | <b>✓</b> |

| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

| Test Step 2.15 (Repeat Count = 1)    |              |                | ✓        |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 1686         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 1687         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 1688         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 1689         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 21060        |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 56160        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 21060        |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 0            |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 21060        | 21060 ± 0      | <b>✓</b> |

| Test Step Call Trace |       |                          |       |        |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

| Test Step 2.16 (Repeat Count = 1)    |             | <b>✓</b> |
|--------------------------------------|-------------|----------|
| Name                                 | Input Value |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 1876        |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 1877        |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 1878        |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 1879        |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 23400       |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 65535       |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 23400       |          |

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IoHwAb\_SlowADCGroupValidity

| Name                             | Input Value  |                |          |
|----------------------------------|--------------|----------------|----------|
| k_SlowADCValidDiag_Cnt_str.NStep | 65535        |                |          |
| Name                             | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()    | 1            | 1              | ~        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16 | 0            | 0 ± 0          | <b>v</b> |

| Test Step Call Trace |       |                          |       |        |  |
|----------------------|-------|--------------------------|-------|--------|--|
| Actual Function      | Count | Expected Function        | Count | Result |  |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |  |

| Test Step 2.17 (Repeat Count = 1)    |              |                | ✓      |
|--------------------------------------|--------------|----------------|--------|
| Name                                 | Input Value  |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 3586         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 3587         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 3588         |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 3589         |                |        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 25740        |                |        |
| k_SlowADCValidDiag_Cnt_str.Threshold | 11700        |                |        |
| k_SlowADCValidDiag_Cnt_str.PStep     | 25740        |                |        |
| k_SlowADCValidDiag_Cnt_str.NStep     | 32767        |                |        |
| Name                                 | Actual Value | Expected Value | Result |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | •      |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 0            | 0 ± 0          | •      |

| Test Step Call Trace |       |                          |       | <b>✓</b> |
|----------------------|-------|--------------------------|-------|----------|
| Actual Function      | Count | Expected Function        | Count | Result   |
| *none*               | 0     | *** No Call Expected *** | 0     | ~        |

#### Test Case 3: Path Test

Specification

Performance Metrics (With "None" Instrumentation and WithPS Environment)

CPU Cycles:

TS3.1 235.00 Cycles TS3.2 2429.00 Cycles TS3.3 422.00 Cycles TS3.4 359.00 Cycles

Description Vector Description

 $TS3.1lf (DMAData\_G\_str.SlowADC\_Cnt\_u16(i) = \&HFFFF) = False; \\ TS3.2" If (DMAData\_G\_str.SlowADC\_Cnt\_u16(i) = \&HFFFF) = True; \\ If (DiagFailed\_m(loHwAb\_SlowADCValidAcc\_Cnt\_M\_u16, k\_SlowADCValidDiag\_Cnt\_str) = D_TRUE\_CNT_LGC) = True; \\ TS3.3" If (DMAData\_G\_str.SlowADC\_Cnt\_u16(i) = \&HFFFF) = True; \\ If (DiagFailed\_m(loHwAb\_SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidDiag\_Cnt\_str) = D_TRUE\_CNT_LGC) = False; \\ TS3.4" If (DMAData\_G\_str.SlowADC\_Cnt_u16(i) = \&HFFFF) = False; \\ DiagNStep\_m(loHwAb\_SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidDiag\_Cnt\_str) = True" \\ \\ TS3.4" If (DMAData\_G\_str.SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidDiag\_Cnt\_str) = True" \\ TS3.4" If (DMAData\_G\_str.SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidDiag\_Cnt\_str) = True" \\ TS3.4" If (DMAData\_G\_str.SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidDiag\_Cnt\_str) = True" \\ TS3.4" If (DMAData\_G\_str.SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidAcc\_Cnt_M\_u16, k\_SlowADCValidAcc\_Cnt_M\_u16, k\_SlowA$ 

| Name                                 | Input Value  |                |          |
|--------------------------------------|--------------|----------------|----------|
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 3762         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 3762         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 3762         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 3762         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 65535        |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | -        |
| IoHwAb SlowADCValidAcc Cnt M u16     | 0            | 0 ± 0          | <b>✓</b> |

| Test Step Call Trace |       |                          |       |        |  |
|----------------------|-------|--------------------------|-------|--------|--|
| Actual Function      | Count | Expected Function        | Count | Result |  |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |  |

IoHwAb\_SlowADCGroupValidity



| Test Step 3.2 (Repeat Count = 1)     |              |                | ✓        |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 65535        |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 65535        |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 65535        |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 65535        |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 65535        |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 65535        |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 0            | 0              | ~        |
| IoHwAb SlowADCValidAcc Cnt M u16     | 65535        | 65535 ± 0      | <b>✓</b> |

| Test Step Call Trace  |       |                       |       | <b>✓</b> |
|-----------------------|-------|-----------------------|-------|----------|
| Actual Function       | Count | Expected Function     | Count | Result   |
| DMA_REPORTERRORSTATUS | 4     | DMA_REPORTERRORSTATUS | 4     | ~        |

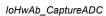
| Test Step 3.3 (Repeat Count = 1)     |              |                | ✓      |
|--------------------------------------|--------------|----------------|--------|
| Name                                 | Input Value  |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 65535        |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 65535        |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 65535        |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 65535        |                |        |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 3            |                |        |
| k_SlowADCValidDiag_Cnt_str.Threshold | 6554         |                |        |
| k_SlowADCValidDiag_Cnt_str.PStep     | 55           |                |        |
| k_SlowADCValidDiag_Cnt_str.NStep     | 432          |                |        |
| Name                                 | Actual Value | Expected Value | Result |
| IoHwAb_SlowADCGroupValidity()        | 0            | 0              | ~      |
| IoHwAb SlowADCValidAcc Cnt M u16     | 223          | 223 ± 0        | ✓      |

| Test Step Call Trace |       |                          |       | V      |
|----------------------|-------|--------------------------|-------|--------|
| Actual Function      | Count | Expected Function        | Count | Result |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |

| Test Step 3.4 (Repeat Count = 1)     |              |                | ✓        |
|--------------------------------------|--------------|----------------|----------|
| Name                                 | Input Value  |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]     | 1686         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]     | 1687         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]     | 1688         |                |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]     | 1689         |                |          |
| IoHwAb_SlowADCValidAcc_Cnt_M_u16     | 21060        |                |          |
| k_SlowADCValidDiag_Cnt_str.Threshold | 56160        |                |          |
| k_SlowADCValidDiag_Cnt_str.PStep     | 21060        |                |          |
| k_SlowADCValidDiag_Cnt_str.NStep     | 0            |                |          |
| Name                                 | Actual Value | Expected Value | Result   |
| IoHwAb_SlowADCGroupValidity()        | 1            | 1              | ~        |
| IoHwAb SlowADCValidAcc Cnt M u16     | 21060        | 21060 ± 0      | <b>✓</b> |

| Test Step Call Trace |       |                          |       |        |  |
|----------------------|-------|--------------------------|-------|--------|--|
| Actual Function      | Count | Expected Function        | Count | Result |  |
| *none*               | 0     | *** No Call Expected *** | 0     | ~      |  |

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 Project
 IoHwAbstractionUsr

 Module
 IoHwAbstractionUsr

 Test Object
 IoHwAb\_CaptureADC

# Instrumentation: Test Object Only

| Statement (C0) Coverage | 100 % |
|-------------------------|-------|
| Branch (C1) Coverage    | 100 % |

#### **Statistics**

| Total Testcases | 1 |     |
|-----------------|---|-----|
| Successful      | 1 | 9   |
| Guococciai      |   | · · |
| Failed          | 0 |     |
|                 |   |     |
| Not Executed    | 0 |     |

### **Module Properties**

| Project Root Directory | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr   |
|------------------------|--|
| Configuration File     | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr\UnitTestEnv\config \TMS570_GCC_UDE_CCS4_Config.xml  |
| Target Environment     | TI TMS 570 PLS UDE (Default)   |
| Kind of Test           | Unit Test  |
| Linker Options         |  |
| Source File(s)         |  |
| File                   | \$(PROJECTROOT)\loHwAbstractionUsr\src\loHwAbstractionUsr.c  |
| Compiler Options       | -DSKIP_MAGIC_NUMBER= -D_DATA_ACCESS= -Dconst= -I\$(PROJECTROOT)\loHwAbstractionUsr\utp\contract -I\$(PROJECTROOT)\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\utp |

| Name                        | Text   |
|-----------------------------|--|
| Module 'loHwAbstractionUsr' | Name of Tester: Ajit Shrivastava Code File(s) Under Test: IoHwAbstractionUsr.c Code File(s) Version: 5 Module Design Document: N/A Module Design Document Version: N/A Data Dictionary Version: 2 Unit Test Plan Version: 2 Unit Test Plan Version: 2 Unit Test Plan Version: 2 Optimization Level: Level 2 Compiler (CodeGen) Version: TMS470_4.9.5 Model Type: Excel Macro Model Vyrsion:Nexteer EPS Unit Test Tool 2.7d/EPS Library 1.31 Total FLASH Used (Bytes): 860 Total RAM Used (Bytes): 860 Total RAM Used (Bytes): 36 Special Test Requirements: Test Date: 12-17-2014 Comments:" NOTE 1:Changes made in the file Rte_Types.h and adc_regs.h to provide deciration to the used variables. NOTE 2: In "IoHwAb_SlowADCGroupValidity" to have 100% coverage, Out of range value of "DMAData_G_str.SlowADC_Cnt_u16(i)" is take As per the Data Dictionary is 3762 so to satisfy "If (DMAData_G_str.SlowADC_Cnt_u16(i) = &HFFFF)" the value is taken as 65535.  NOTE 3: ""CBD_Sandbox_dbg.map"" map file is embedded for reference." |

| Attributes            |   |  |  |
|-----------------------|---|--|--|
| Name                  | Value   |  |  |
| Compiler Install Path | <pre>\$(ProgramFiles)\Texas Instruments\ccsv4\tools\compiler\tms470_4.9.5</pre> |  |  |
| Float Precision       | 9   |  |  |
| InitObjDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\obj                              |  |  |
| InitSrcDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\src                              |  |  |
| Linker File           | \$(PROJECTROOT)\UnitTestEnv\static_build_files\sys_link.cmd                     |  |  |
| Makefile Template     | \$(PROJECTROOT)\UnitTestEnv\config\Nexteer_ts_make_ude_ti_tms570.tpl            |  |  |
| Target Install Path   | \$(ProgramFiles)\pls\UDE 4.0  |  |  |
| Time Unit             | Cycles  |  |  |
| Timer Enabled         | false   |  |  |
| Timer Prescale        | 0   |  |  |

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IoHwAb\_CaptureADC



| Attributes       |  |  |
|------------------|--|--|
| Name             | Value  |  |
| Timer Resolution |  |  |
| UDE Config File  | \$(PROJECTROOT)\UnitTestEnv\config\TMS570_UDE_12PIN_JTAG.cfg                         |  |
| Workspace File   | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr\UnitTestEnv\config\UDE_TMS570_DEBUG.WSP |  |



# **Test Case 1: Boundary Test** Specification Performance Metrics (With "None" Instrumentation and WithPS Environment) $\,$ CPU Cycles: TS1.1 8.00 Cycles TS1.2 8.00 Cycles TS1.3 8.00 Cycles TS1.4 8.00 Cycles TS1.5 8.00 Cycles TS1.6 8.00 Cycles TS1.7 8.00 Cycles Description Vector Description $$\label{eq:transformation} \begin{split} &TS1.1 \; (TRUE == DataValid\_Cnt\_T\_lgc) = False \\ &TS1.2 \; "(TRUE == DataValid\_Cnt\_T\_lgc) = True; \\ &(Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32) = True; \end{split}$$ (DiagFailed\_m( IoHwAb\_ADCVrefErrorAco\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) == D\_TRUE\_CNT\_LGC)=True TS1.3 "(TRUE == DataValid\_Cnt\_T\_lgc)=True; (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32)=True; (DiagFailed\_m(IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) == D\_TRUE\_CNT\_LGC)=False; TS1.4 "(TRUE == DataValid\_Cnt\_T\_lgc)=True; (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32)=False; (Vref\_Volt\_M\_f32 < k\_VrefMin\_Volts\_f32)=True; (DiagFailed\_m( loHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) == D\_TRUE\_CNT\_LGC)=True; TS1.5 "(TRUE == DataValid\_Cnt\_T\_lgc)=True; (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32)=False; (Vref\_Volt\_M\_f32 < k\_VrefMin\_Volts\_f32)=True; (Vidt\_M\_f32 < k\_VrefMin\_Volts\_f32)=True; (DiagFailed\_m( loHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) == D\_TRUE\_CNT\_LGC)=False; " TS1.6 "(TRUE == DataValid\_Cnt\_T\_lgc)=True; (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32)=False; (Vref\_Volt\_M\_f32 < k\_VrefMin\_Volts\_f32)=False; (DiagFailed\_m( IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) == D\_TRUE\_CNT\_LGC)=True; "TS1.7 "(TRUE == DataValid\_Cnt\_T\_lgc)=True; (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32)=False; (Vref\_Volt\_M\_f32 < k\_VrefMin\_Volts\_f32)=False; (DiagFailed\_m( loHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) == D\_TRUE\_CNT\_LGC)=False;

| Test Step 1.1 (Repeat Count = 1) |              |                | <b>~</b> |
|----------------------------------|--------------|----------------|----------|
| Name                             | Input Value  |                |          |
| CDD_CDDDataAccessBfr_Cnt_G_u16   | 0            |                |          |
| DMAData_G_str.FastADC_Cnt_u16[0] | 0            |                |          |
| DMAData_G_str.FastADC_Cnt_u16[1] | 0            |                |          |
| DMAData_G_str.FastADC_Cnt_u16[2] | 0            |                |          |
| DMAData_G_str.FastADC_Cnt_u16[3] | 0            |                |          |
| Name                             | Actual Value | Expected Value | Result   |
| CDD_SysCVSwitchADC_Cnt_G_u16[0]  | 0            | 0              | -        |
| CDD_SysCVSwitchADC_Cnt_G_u16[1]  | 0            | 0              | <b>✓</b> |

| Test Step                       | 1.2 (Repeat Count = 1)   |              |                | <b>✓</b> |  |
|---------------------------------|--|--------------|----------------|----------|--|
| Prolog                          | <pre>CDD_SysCVSwitchADC_Cnt_G_u16[0]=0; CDD_SysCVSwitchADC_Cnt_G_u16[1]=0;</pre> |              |                |          |  |
| Name                            |  | Input Value  |                |          |  |
| CDD_CDDData                     | aAccessBfr_Cnt_G_u16   | 1            |                |          |  |
| DMAData_G_s                     | tr.FastADC_Cnt_u16[0]  | 65535        |                |          |  |
| DMAData_G_s                     | tr.FastADC_Cnt_u16[1]  | 65535        | 65535          |          |  |
| DMAData_G_s                     | tr.FastADC_Cnt_u16[2]  | 65535        |                |          |  |
| DMAData_G_s                     | tr.FastADC_Cnt_u16[3]  | 65535        |                |          |  |
| Name                            |  | Actual Value | Expected Value | Result   |  |
| CDD_SysCVSwitchADC_Cnt_G_u16[0] |  | 0            | 0              | ~        |  |
| CDD_SysCVSwitchADC_Cnt_G_u16[1] |  | 65535        | 65535          | <b>✓</b> |  |

| Test Step 1.3 (Repeat Count = 1) |  | ✓           |  |
|----------------------------------|--|-------------|--|
| Prolog                           | <pre>CDD_SysCVSwitchADC_Cnt_G_u16[0]=0;<br/>CDD_SysCVSwitchADC_Cnt_G_u16[1]=0;</pre> |             |  |
| Name                             |  | Input Value |  |
| CDD_CDDData/                     | AccessBfr_Cnt_G_u16  | 0           |  |
| DMAData_G_str                    | .FastADC_Cnt_u16[0]  | 0           |  |
| DMAData_G_str.FastADC_Cnt_u16[1] |  | 0           |  |

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IoHwAb\_CaptureADC

| Name                             | Input Value  |                |          |  |
|----------------------------------|--------------|----------------|----------|--|
| DMAData_G_str.FastADC_Cnt_u16[2] | 0            |                |          |  |
| DMAData_G_str.FastADC_Cnt_u16[3] | 0            | 0              |          |  |
| Name                             | Actual Value | Expected Value | Result   |  |
| CDD_SysCVSwitchADC_Cnt_G_u16[0]  | 0            | 0              | ~        |  |
| CDD_SysCVSwitchADC_Cnt_G_u16[1]  | 0            | 0              | <b>v</b> |  |

| Test Step   | 1.4 (Repeat Count = 1)   |              |                | <b>✓</b> |
|-------------|--|--------------|----------------|----------|
| Prolog      | <pre>CDD_SysCVSwitchADC_Cnt_G_u16[0]=0; CDD_SysCVSwitchADC_Cnt_G_u16[1]=0;</pre> |              |                |          |
| Name        |  | Input Value  |                |          |
| CDD_CDDData | aAccessBfr_Cnt_G_u16   | 1            |                |          |
| DMAData_G_s | tr.FastADC_Cnt_u16[0]  | 65535        |                |          |
| DMAData_G_s | tr.FastADC_Cnt_u16[1]  | 65535        |                |          |
| DMAData_G_s | tr.FastADC_Cnt_u16[2]  | 65535        |                |          |
| DMAData_G_s | tr.FastADC_Cnt_u16[3]  | 65535        |                |          |
| Name        |  | Actual Value | Expected Value | Result   |
| CDD_SysCVSv | witchADC_Cnt_G_u16[0]  | 0            | 0              | ~        |
| CDD SysCVSv | witchADC Cnt G u16[1]  | 65535        | 65535          | <b>✓</b> |

| rest Step                        | 1.5 (Repeat Count = 1)   |              |                | <u> </u> |  |
|----------------------------------|--|--------------|----------------|----------|--|
| Prolog                           | <pre>CDD_SysCVSwitchADC_Cnt_G_u16[0]=0; CDD_SysCVSwitchADC_Cnt_G_u16[1]=0;</pre> |              |                |          |  |
| Name                             |  | Input Value  |                |          |  |
| CDD_CDDDataAccessBfr_Cnt_G_u16   |  | 0            |                |          |  |
| DMAData_G_str.FastADC_Cnt_u16[0] |  | 100          | 100            |          |  |
| DMAData_G_str.FastADC_Cnt_u16[1] |  | 200          |                |          |  |
| DMAData_G_str.FastADC_Cnt_u16[2] |  | 300          | 300            |          |  |
| DMAData_G_str.FastADC_Cnt_u16[3] |  | 400          | 400            |          |  |
| Name                             |  | Actual Value | Expected Value | Result   |  |
| CDD_SysCVSwitchADC_Cnt_G_u16[0]  |  | 400          | 400            | ~        |  |
| CDD SysCVSwitchADC Cnt G u16[1]  |  | 0            | 0              | <b>✓</b> |  |

| Test Step 1                      | Test Step 1.6 (Repeat Count = 1)   |              |                | <b>✓</b> |
|----------------------------------|--|--------------|----------------|----------|
| Prolog                           | <pre>CDD_SysCVSwitchADC_Cnt_G_u16[0]=0; CDD_SysCVSwitchADC_Cnt_G_u16[1]=0;</pre> |              |                |          |
| Name                             |  | Input Value  |                |          |
| CDD_CDDDataAccessBfr_Cnt_G_u16   |  | 0            |                |          |
| DMAData_G_str.FastADC_Cnt_u16[0] |  | 500          |                |          |
| DMAData_G_str.FastADC_Cnt_u16[1] |  | 600          |                |          |
| DMAData_G_str.FastADC_Cnt_u16[2] |  | 700          |                |          |
| DMAData_G_str.FastADC_Cnt_u16[3] |  | 800          |                |          |
| Name                             |  | Actual Value | Expected Value | Result   |
| CDD_SysCVSwitchADC_Cnt_G_u16[0]  |  | 800          | 800            | ~        |
| CDD_SysCVSw                      | CDD_SysCVSwitchADC_Cnt_G_u16[1]  |              | 0              | ✓        |

| Prolog                           | CDD_SysCVSwitchADC_Cnt_G_u16[0]=0;<br>CDD_SysCVSwitchADC_Cnt_G_u16[1]=0; |              |                |          |
|----------------------------------|--|--------------|----------------|----------|
| Name                             |  | Input Value  |                |          |
| CDD_CDDDataAccessBfr_Cnt_G_u16   |  | 1            |                |          |
| DMAData_G_str.FastADC_Cnt_u16[0] |  | 1000         |                |          |
| DMAData_G_str.FastADC_Cnt_u16[1] |  | 2000         |                |          |
| DMAData_G_str.FastADC_Cnt_u16[2] |  | 3000         |                |          |
| DMAData_G_s                      | tr.FastADC_Cnt_u16[3]  | 4000         |                |          |
| Name                             |  | Actual Value | Expected Value | Result   |
| CDD_SysCVSwitchADC_Cnt_G_u16[0]  |  | 0            | 0              | <b>✓</b> |
| CDD SysCVSwitchADC Cnt G u16[1]  |  | 4000         | 4000           | <b>✓</b> |

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IoHwAb\_ReadADC

| Project     | IoHwAbstractionUsr |
|-------------|--------------------|
| Module      | IoHwAbstractionUsr |
| Test Object | IoHwAb_ReadADC     |

# Instrumentation: Test Object Only

| Statement (C0) Coverage  | 100 % |
|--------------------------|-------|
| <b>Decision Coverage</b> | 100 % |
| Branch (C1) Coverage     | 100 % |
| MCC Coverage             | 100 % |
| MC/DC Coverage           | 100 % |

### **Statistics**

| Total Testcases | 3 |   |
|-----------------|---|---|
| Successful      | 3 | ✓ |
| Failed          | 0 |   |
| Not Executed    | 0 |   |

# **Module Properties**

| Project Root Directory | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr   |
|------------------------|--|
| Configuration File     | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr\UnitTestEnv\config<br>\TMS570_GCC_UDE_CCS4_Config.xml   |
| Target Environment     | TI TMS 570 PLS UDE (Default)   |
| Kind of Test           | Unit Test  |
| Linker Options         |  |
| Source File(s)         |  |
| File                   | \$(PROJECTROOT)\loHwAbstractionUsr\src\loHwAbstractionUsr.c  |
| Compiler Options       | -DSKIP_MAGIC_NUMBER= -D_DATA_ACCESS= -Dconst= -I\$(PROJECTROOT)\IoHwAbstractionUsr\utp\contract -I\$(PROJECTROOT) \IoHwAbstractionUsr\utp\contract\IoHwAbstract\IoHwAbstractionUsr\utp\contract\IoHwAbstract\IoHwAb |

| Name                        | Text   |
|-----------------------------|--|
| Module 'loHwAbstractionUsr' | Name of Tester: Ajit Shrivastava Code File(s) Under Test: IoHwAbstractionUsr.c Code File(s) Under Test: IoHwAbstractionUsr.c Code File(s) Version: 5 Module Design Document: N/A Module Design Document Version: N/A Data Dictionary Version: 2 Unit Test Plan Version: 2 Unit Test Plan Version: 2 Optimization Level: Level 2 Compiler (CodeGen) Version: TMS470_4.9.5 Model Type: Excel Macro Model Version:Nexteer EPS Unit Test Tool 2.7d/EPS Library 1.31 Total FLASH Used (Bytes): 860 Total RAM Used (Bytes): 88 Total CALS Used (Bytes): 38 Special Test Requirements: Test Date: 12-17-2014 Comments:" NOTE 1:Changes made in the file Rte_Types.h and adc_regs.h to provide decIration to the used variables. NOTE 2: In "IoHwAb_SlowADCGroupValidity" to have 100% coverage, Out of range value of "DMAData_G_str.SlowADC_Cnt_u16(i)" is take As per the Data Dictionary is 3762 so to satisfy "If (DMAData_G_str.SlowADC_Cnt_u16(i) = &HFFFF)" the value is taken as 65535.  NOTE 3: ""CBD_Sandbox_dbg.map"" map file is embedded for reference." |

| Attributes            |  |  |
|-----------------------|--|--|
| Name                  | Value  |  |
| Compiler Install Path | \$(ProgramFiles)\Texas Instruments\ccsv4\tools\compiler\tms470_4.9.5 |  |
| Float Precision       | 9  |  |
| InitObjDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\obj                   |  |
| InitSrcDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\src                   |  |
| Linker File           | \$(PROJECTROOT)\UnitTestEnv\static_build_files\sys_link.cmd          |  |
| Makefile Template     | \$(PROJECTROOT)\UnitTestEnv\config\Nexteer_ts_make_ude_ti_tms570.tpl |  |

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IoHwAb\_ReadADC



| Attributes          |  |  |
|---------------------|--|--|
| Name                | Value  |  |
| Target Install Path | \$(ProgramFiles)\pls\UDE 4.0   |  |
| Time Unit           | Cycles   |  |
| Timer Enabled       | false  |  |
| Timer Prescale      | 0  |  |
| Timer Resolution    |  |  |
| UDE Config File     | \$(PROJECTROOT)\UnitTestEnv\config\TMS570_UDE_12PIN_JTAG.cfg                         |  |
| Workspace File      | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr\UnitTestEnv\config\UDE_TMS570_DEBUG.WSP |  |



#### **Test Case 1: Metrics Test**

Performance Metrics (With "None" Instrumentation and WithPS Environment) Specification

TS1.1 1542.00 Cycles TS1.2 2955.00 Cycles

Description Vector Description

TS1.1"Longest Path ==> If (True = DataValid\_Cnt\_T\_lgc)=True;
If (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32)=False;
If (Vref\_Volt\_M\_f32 < k\_VrefMin\_Volts\_f32)= True;
If (DiagFailed\_m(loHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC)=True;
If (DiagFailed\_m(loHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC)=True;

TS1.2Shortest Path ==> If (True = DataValid\_Cnt\_T\_lgc)=False;

| Test Step 1.1 (Repeat Count = 1)   | Inner 4 Webse                 |  |       |  |
|--|-------------------------------|--|-------|--|
| Name   | Input Value                   |  |       |  |
| BattSwitched_Volt_M_f32  | 6.4000001                     |  |       |  |
| Batt_Volt_M_f32  | 6.30000019                    |  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[0]   | 3100                          |  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]   | 3200                          |  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]   | 3000                          |  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]   | 3762                          |  |       |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 1                             |  |       |  |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionI | Jsr  |       |  |
| $Rte\_Task\_2ms\_10.Rte\_RB.Rte\_IoHwAbstractionUsr\_IoHwAb\_ReadADC.Rte$ | e_SysC 1216                   |  |       |  |
| SysCVSwitch_Volt_M_f32   | 7.4000001                     |  |       |  |
| Temperature_Volt_M_f32   | 0.5                           |  |       |  |
| Vref_Volt_M_f32  | 180.5                         |  |       |  |
| k_ADCVrefScaling_Uls_f32   | 1                             |  |       |  |
| k_SlowADCValidDiag_Cnt_str.Threshold   | 1                             |  |       |  |
| k_SlowADCValidDiag_Cnt_str.PStep   | 0                             |  |       |  |
| k_SlowADCValidDiag_Cnt_str.NStep   | 0                             |  |       |  |
| k_VrefMax_Volts_f32  | 4.5                           |  |       |  |
| k_VrefMin_Volts_f32  | 4.5                           |  |       |  |
| k VrefOORDiag Cnt str.Threshold  | 300                           |  |       |  |
| k VrefOORDiag Cnt str.PStep  | 300                           |  |       |  |
| k VrefOORDiag Cnt str.NStep  | 500                           |  |       |  |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 6.4000001                     |  |       |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 6.30000019                    |  |       |  |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value  | 7.4000001                     |  |       |  |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value   | 0.5                           |  |       |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32   | tgt IoHwAb ReadADC BattSv     | vitched Volt f32   |       |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32   | tgt_loHwAb_ReadADC_Batt_\     |  |       |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32  |                               | tgt IoHwAb ReadADC SysCVSwitch Volt f32                              |       |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Vol  |                               | tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32                           |       |  |
| Name   | Actual Value                  | Expected Value   | Resu  |  |
| BattSwitched_Volt_M_f32  | 15.4782562                    | 15.4782562 ± 0.00732600732600733                                     | Resul |  |
| Batt Volt M f32  | 26.3624001                    | 26.3623981 ± 0.00732600732600733                                     |       |  |
| CDD ePWM4CMPB Cnt G u16  | 65535                         | 65535  |       |  |
| IoHwAb ADCVrefErrorAcc Cnt M u16   | 300                           | 300 ± 0  |       |  |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC Cnt T enu   |                               | 70   |       |  |
|  |                               | 2  |       |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_ui  | ,                             | 1  |       |  |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_er   |                               |  |       |  |
| SysCVSwitch_Volt_M_f32   | 5.00307274                    | 5.00307274 ± 0.00488400488400488                                     |       |  |
| Temperature_Volt_M_f32 Vref Volt M f32   | 3.78510404                    | 3.7851038 ± 0.00122100122100122                                      |       |  |
| VIEL VUILIVI 132   | 3.66300368                    | 3.66300368 ± 0.000009  |       |  |
|  | 15 4702562                    | 15 4702562 + 0.0070260072260722                                      |       |  |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 15.4782562<br>26.3624001      | 15.4782562 ± 0.00732600732600733<br>26.3623981 ± 0.00732600732600733 | •     |  |

| Test Step 1.2 (Repeat Count = 1) |             |
|----------------------------------|-------------|
| Name                             | Input Value |
| BattSwitched_Volt_M_f32          | 5.5999999   |
| Batt_Volt_M_f32                  | 5.5         |
| DMAData_G_str.SlowADC_Cnt_u16[0] | 65535       |
| DMAData_G_str.SlowADC_Cnt_u16[1] | 65535       |
| DMAData_G_str.SlowADC_Cnt_u16[2] | 65535       |
| DMAData_G_str.SlowADC_Cnt_u16[3] | 65535       |

5.00307274

3.78510404

tgt\_loHwAb\_ReadADC\_SysCVSwitch\_Volt\_f32.value

 $tgt\_loHwAb\_ReadADC\_TemperatureADC\_Volt\_f32.value$ 

5.00307274 ± 0.00488400488400488

3.7851038 ± 0.00122100122100122

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IoHwAb\_ReadADC

| Name  | Input Value                        |                                   |      |
|---|------------------------------------|-----------------------------------|------|
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 15                                 |                                   |      |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr    |                                   |      |
| Rte Task 2ms 10.Rte RB.Rte IoHwAbstractionUsr IoHwAb ReadADC.Rte SysC   | 1216                               |                                   |      |
| SysCVSwitch Volt M f32  | 5.80000019                         |                                   |      |
| Temperature Volt M f32  | 0.100000001                        |                                   |      |
| Vref Volt M f32   | 100.099998                         |                                   |      |
| k ADCVrefScaling UIs f32  | 1                                  |                                   |      |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 0                                  |                                   |      |
| k_SlowADCValidDiag_Cnt_str.PStep  | 0                                  |                                   |      |
| k_SlowADCValidDiag_Cnt_str.NStep  | 0                                  |                                   |      |
| k_VrefMax_Volts_f32   | 2                                  |                                   |      |
| k_VrefMin_Volts_f32   | 0                                  |                                   |      |
| k_VrefOORDiag_Cnt_str.Threshold   | 0                                  |                                   |      |
| k_VrefOORDiag_Cnt_str.PStep   | 5                                  |                                   |      |
| k_VrefOORDiag_Cnt_str.NStep   | 0                                  |                                   |      |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.5999999                          |                                   |      |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 5.5                                |                                   |      |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 5.80000019                         |                                   |      |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 0.100000001                        |                                   |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitched_Vo | lt_f32                            |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32   |                                   |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwitch_Vo  | lt_f32                            |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC  | C_Volt_f32                        |      |
| Name  | Actual Value                       | Expected Value                    | Resu |
| BattSwitched_Volt_M_f32   | 5.5999999                          | 5.5999999 ± 0.00732600732600733   | ٠,   |
| Batt_Volt_M_f32   | 5.5                                | 5.5 ± 0.00732600732600733         |      |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                              | 65535                             | •    |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 15                                 | 15 ± 0                            |      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                 | 70                                | •    |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 2                                  | 2                                 | •    |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                                  | 1                                 | ٠,   |
| SysCVSwitch_Volt_M_f32  | 5.80000019                         | 5.80000019 ± 0.00488400488400488  | ٠,   |
| Temperature_Volt_M_f32  | 0.100000001                        | 0.100000001 ± 0.00122100122100122 | •    |
| Vref_Volt_M_f32   | 100.099998                         | 100.099998 ± 0.0009               | •    |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.5999999                          | 5.5999999 ± 0.00732600732600733   | •    |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 5.5                                | 5.5 ± 0.00732600732600733         | •    |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 5.80000019                         | 5.80000019 ± 0.00488400488400488  | •    |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 0.100000001                        | 0.100000001 ± 0.00122100122100122 | •    |



#### **Test Case 2: Boundary Test**

#### Specification

Performance Metrics (With "None" Instrumentation and WithPS Environment)

CPU Cycles:

CPU Cycles:
TS2.1 1535.00 Cycles
TS2.2 1469.00 Cycles
TS2.3 1424.00 Cycles
TS2.3 1424.00 Cycles
TS2.4 1424.00 Cycles
TS2.5 1424.00 Cycles
TS2.5 1424.00 Cycles
TS2.7 1424.00 Cycles
TS2.8 1424.00 Cycles
TS2.8 1424.00 Cycles
TS2.10 1424.00 Cycles
TS2.11 1424.00 Cycles
TS2.11 1424.00 Cycles
TS2.12 1424.00 Cycles
TS2.13 1424.00 Cycles
TS2.14 1424.00 Cycles
TS2.15 1424.00 Cycles
TS2.16 1424.00 Cycles
TS2.17 1424.00 Cycles
TS2.17 1424.00 Cycles
TS2.17 1424.00 Cycles
TS2.18 1424.00 Cycles
TS2.19 1424.00 Cycles TS2.17 1424.00 Cycles
TS2.18 1424.00 Cycles
TS2.19 1424.00 Cycles
TS2.20 1424.00 Cycles
TS2.21 1424.00 Cycles
TS2.21 1424.00 Cycles
TS2.22 1424.00 Cycles
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TS2.25 1424.00 Cycles
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TS2.26 1424.00 Cycles
TS2.27 1424.00 Cycles
TS2.28 1424.00 Cycles
TS2.29 1424.00 Cycles
TS2.30 1424.00 Cycles
TS2.31 1424.00 Cycles
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TS2.33 1424.00 Cycles
TS2.35 1424.00 Cycles
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TS2.39 1424.00 Cycles
TS2.40 1424.00 Cycles
TS2.40 1424.00 Cycles
TS2.40 1424.00 Cycles

#### Description

#### Vector Description

TS2.1IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16=MIN TS2.11oHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16=MIN
TS2.21oHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16=MAX
TS2.31oHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16=MID
TS2.4DMAData\_G\_str.SlowADC\_Cnt\_u16[5]=MIN
TS2.5DMAData\_G\_str.SlowADC\_Cnt\_u16[5]=MIN
TS2.5DMAData\_G\_str.SlowADC\_Cnt\_u16[5]=MID
TS2.7SysCVSwitchADC\_Cnt\_u16=MIN
TS2.8SysCVSwitchADC\_Cnt\_u16=MIN
TS2.8SysCVSwitchADC\_Cnt\_u16=MID
TS2.10k\_ADCVrefScaling\_UIs\_f32=MIN
TS2.11k\_ADCVrefScaling\_UIs\_f32=MID TS2.11k\_ADCVrefScaling\_UIs\_132=MID
TS2.12k\_ADCVrefScaling\_UIs\_132=MID
TS2.13k\_VrefMax\_Volts\_132=MIN
TS2.14k\_VrefMax\_Volts\_132=MAX
TS2.15k\_VrefMax\_Volts\_132=MID
TS2.16k\_VrefOORDiag\_Cnt\_str.Threshold=MIN
TS2.17k\_VrefOORDiag\_Cnt\_str.Threshold=MAX TS2.18k\_VrefOORDiag\_Cnt\_str.Threshold=MID TS2.19k\_VrefOORDiag\_Cnt\_str.Pstep=MIN TS2.20k\_VrefOORDiag\_Cnt\_str.Pstep=MAX TS2.21k\_VrefOORDiag\_Cnt\_str.Pstep=MID TS2.22k\_VrefOORDiag\_Cnt\_str.Nstep=MIN TS2.23k\_VrefOORDiag\_Cnt\_str.Nstep=MAX TS2.24k\_VrefOORDiag\_Cnt\_str.Nstep=MID TS2.25k VrefMin Volts f32=MIN TS2.26k VrefMin Volts f32=MAX TS2.27k VrefMin Volts f32=MID TS2.28IoHwAb\_SlowADCGroupValidity=MIN
TS2.28IoHwAb\_SlowADCGroupValidity=MAX
TS2.30k\_SlowADCValidDiag\_Cnt\_str.Threshold=MIN
TS2.31k\_SlowADCValidDiag\_Cnt\_str.Threshold=MAX TS2.31k\_SlowADCValidDiag\_Cnt\_str.Threshold=MID TS2.32k\_SlowADCValidDiag\_Cnt\_str.Threshold=MID TS2.33k\_SlowADCValidDiag\_Cnt\_str.Pstep=MIN TS2.34k\_SlowADCValidDiag\_Cnt\_str.Pstep=MAX TS2.35k\_SlowADCValidDiag\_Cnt\_str.Pstep=MID TS2.36k\_SlowADCValidDiag\_Cnt\_str.Nstep=MIN TS2.37k\_SlowADCValidDiag\_Cnt\_str.Nstep=MAX TS2.37k\_SlowADCValidDiag\_Cnt\_str.Nstep=MAX TS2.37k\_SlowADCValidDiag\_Cnt\_str.Nstep=MID TS2.38k\_SlowADCValidDiag\_Cnt\_str.Nstep=MID TS2.39All Min TS2.40All Max

| Test Step 2.1 (Repeat Count = 1) | <b>✓</b>    |
|----------------------------------|-------------|
| Name                             | Input Value |
| BattSwitched_Volt_M_f32          | 5.5999999   |
| Batt_Volt_M_f32                  | 5.5         |
| DMAData_G_str.SlowADC_Cnt_u16[0] | 1216        |
| DMAData_G_str.SlowADC_Cnt_u16[1] | 1217        |
| DMAData_G_str.SlowADC_Cnt_u16[2] | 1218        |
| DMAData_G_str.SlowADC_Cnt_u16[3] | 1220        |

IoHwAb\_ReadADC

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Input Value IoHwAb ADCVrefErrorAcc\_Cnt\_M\_u16 tgt\_Rte\_Inst\_IoHwAbstractionUsr Rte\_Inst\_IoHwAbstractionUsr Rte\_Task\_2ms\_10.Rte\_RB.Rte\_loHwAbstractionUsr\_loHwAb\_ReadADC.Rte\_SysC | 1216 SysCVSwitch\_Volt\_M\_f32 5.80000019 0.100000001 Temperature Volt M f32 Vref\_Volt\_M\_f32 100.099998 k\_ADCVrefScaling\_Uls\_f32 1.10000002  $k\_SlowADCValidDiag\_Cnt\_str.Threshold$ 0 k\_SlowADCValidDiag\_Cnt\_str.PStep 0  $k\_SlowADCValidDiag\_Cnt\_str.NStep$ 0 0 k\_VrefMax\_Volts\_f32 k\_VrefMin\_Volts\_f32 n k\_VrefOORDiag\_Cnt\_str.Threshold 0 0 k\_VrefOORDiag\_Cnt\_str.PStep k\_VrefOORDiag\_Cnt\_str.NStep 0 tgt\_loHwAb\_ReadADC\_BattSwitched\_Volt\_f32.value 5.5999999 tgt\_loHwAb\_ReadADC\_Batt\_Volt\_f32.value tgt\_loHwAb\_ReadADC\_SysCVSwitch\_Volt\_f32.value 5.80000019 tgt\_loHwAb\_ReadADC\_TemperatureADC\_Volt\_f32.value 0.100000001 tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_BattSwitched\_Volt\_f32 tgt\_loHwAb\_ReadADC\_BattSwitched\_Volt\_f32 tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_Batt\_Volt\_f32 tgt\_IoHwAb\_ReadADC\_Batt\_Volt\_f32 tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_SysCVSwitch\_Volt\_f32 tgt\_loHwAb\_ReadADC\_SysCVSwitch\_Volt\_f32  $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_Volt\_f32$ tgt\_loHwAb\_ReadADC\_TemperatureADC\_Volt\_f32 Actual Value Name **Expected Value** Result BattSwitched\_Volt\_M\_f32 5.0195303 5.0195303 ± 0.00732600732600733 10.0259504  $10.0259495 \pm 0.00732600732600733$ Batt\_Volt\_M\_f32 CDD\_ePWM4CMPB\_Cnt\_G\_u16 65535 65535 IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16 0 ± 0 0  $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(NTC\_Cnt\_T\_enum)$ 70 70 Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Param\_Cnt\_T\_u08) 1 1  $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ SysCVSwitch Volt M f32 5.00307274 5.00307274 ± 0.00488400488400488 1 48473752 + 0.00122100122100122 Temperature\_Volt\_M\_f32 1 48473752 Vref Volt M f32 1.63589752 1.6358974 ± 0.000009 5.0195303 ± 0.00732600732600733 tgt\_loHwAb\_ReadADC\_BattSwitched\_Volt\_f32.value 5.0195303 tgt\_loHwAb\_ReadADC\_Batt\_Volt\_f32.value 10.0259504 10.0259495 ± 0.00732600732600733 tgt IoHwAb ReadADC SysCVSwitch Volt f32.value 5.00307274 5.00307274 ± 0.00488400488400488 tgt\_loHwAb\_ReadADC\_TemperatureADC\_Volt\_f32.value 1.48473752  $1.48473752 \pm 0.00122100122100122$ 



| Test Step 2.2 (Repeat Count = 1)  |                                   |                                  | ✓        |  |
|---|-----------------------------------|----------------------------------|----------|--|
| Name  | Input Value                       |                                  |          |  |
| BattSwitched_Volt_M_f32   | 5.80000019                        |                                  |          |  |
| Batt Volt M f32   | 5.6999981                         |                                  |          |  |
| DMAData G str.SlowADC Cnt u16[0]  | 1256                              |                                  |          |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 1257                              | 1257                             |          |  |
| DMAData G str.SlowADC Cnt u16[2]  | 1258                              |                                  |          |  |
| DMAData G str.SlowADC Cnt u16[3]  | 1259                              |                                  |          |  |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 65535                             |                                  |          |  |
| Rte Inst IoHwAbstractionUsr   | tgt Rte Inst IoHwAbstractionUsr   |                                  |          |  |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC   | 1550                              |                                  |          |  |
| SysCVSwitch Volt M f32  | 6.19999981                        |                                  |          |  |
| Temperature_Volt_M_f32  | 0.200000003                       |                                  |          |  |
| Vref_Volt_M_f32   | 120.199997                        |                                  |          |  |
| k ADCVrefScaling Uls f32  | 11.3000002                        |                                  |          |  |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 65535                             |                                  |          |  |
| k SlowADCValidDiag Cnt str.PStep  | 65535                             |                                  |          |  |
| k SlowADCValidDiag Cnt str.NStep  | 65535                             |                                  |          |  |
| k_VrefMax_Volts_f32   | 0.185000002                       |                                  |          |  |
| k VrefMin Volts f32   | 0.185000002                       |                                  |          |  |
| k_VrefOORDiag_Cnt_str.Threshold   | 37                                |                                  |          |  |
| k VrefOORDiag Cnt str.PStep   | 37                                |                                  |          |  |
| k VrefOORDiag Cnt str.NStep   | 37                                |                                  |          |  |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                          | 5.80000019                        |                                  |          |  |
| tgt IoHwAb ReadADC Batt Volt f32.value                                  | 5.6999981                         |                                  |          |  |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value                           | 6.19999981                        |                                  |          |  |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value                        | 0.200000003                       |                                  |          |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32    | tgt IoHwAb ReadADC BattSwitched V | nlt f32                          |          |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32  | 010_102                          |          |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32     | tgt IoHwAb ReadADC SysCVSwitch V  | olt f32                          |          |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureAD  | _                                |          |  |
|   |                                   |                                  | Daguilé  |  |
| Name  | Actual Value<br>5.17999077        | Expected Value                   | Result   |  |
| BattSwitched_Volt_M_f32   |                                   | 5.17999077 ± 0.00732600732600733 |          |  |
| Batt_Volt_M_f32   | 10.3554802                        | 10.3554802 ± 0.00732600732600733 |          |  |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                             | 65535                            |          |  |
| loHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 37                                | 37 ± 0                           |          |  |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                | 70                               |          |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1                                 | 1                                |          |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                                 | 1                                |          |  |
| SysCVSwitch_Volt_M_f32  | 6.37727261                        | 6.37727213 ± 0.00488400488400488 | <b>*</b> |  |
| Temperature_Volt_M_f32  | 1.53357756                        | 1.53357756 ± 0.00122100122100122 | -        |  |
| Vref_Volt_M_f32   | 17.3570213                        | 17.3570213 ± 0.00009             |          |  |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.17999077                        | 5.17999077 ± 0.00732600732600733 | <b>V</b> |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 10.3554802                        | 10.3554802 ± 0.00732600732600733 | <b>V</b> |  |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 6.37727261                        | 6.37727213 ± 0.00488400488400488 | <b>*</b> |  |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 1.53357756                        | 1.53357756 ± 0.00122100122100122 | <b>~</b> |  |

| Test Step 2.3 (Repeat Count = 1)  | ✓                               |
|---|---------------------------------|
| Name  | Input Value                     |
| BattSwitched_Volt_M_f32   | 6                               |
| Batt_Volt_M_f32   | 5.9000001                       |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 1296                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 1297                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 1298                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 1299                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 32767                           |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysControl | 1884                            |
| SysCVSwitch_Volt_M_f32  | 6.5999999                       |
| Temperature_Volt_M_f32  | 0.300000012                     |
| Vref_Volt_M_f32   | 140.300003                      |
| k_ADCVrefScaling_UIs_f32  | 21.5                            |
| k_SlowADCValidDiag_Cnt_str.Threshold  | 14040                           |
| k_SlowADCValidDiag_Cnt_str.PStep  | 0                               |
| k_SlowADCValidDiag_Cnt_str.NStep  | 16380                           |
| k_VrefMax_Volts_f32   | 0.370000005                     |
| k_VrefMin_Volts_f32   | 0.370000005                     |
| k_VrefOORDiag_Cnt_str.Threshold   | 74                              |
| k_VrefOORDiag_Cnt_str.PStep   | 74                              |
| k_VrefOORDiag_Cnt_str.NStep   | 74                              |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                              | 6                               |

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IoHwAb\_ReadADC

| Name  | Input Value                            |                                  |          |
|---|--|----------------------------------|----------|
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 5.9000001                              |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 6.5999999                              |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 0.30000012                             |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitched_Volt_t | f32                              |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32       |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_   | <u>f</u> 32                      |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC_\    | /olt_f32                         |          |
| Name  | Actual Value                           | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 5.34456587                             | 5.34456539 ± 0.00732600732600733 | •        |
| Batt_Volt_M_f32   | 10.6850109                             | 10.68501 ± 0.00732600732600733   | ~        |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                  | 65535                            | ~        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 74                                     | 74 ± 0                           | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                     | 70                               | •        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1                                      | 1                                | •        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                                      | 1                                | •        |
| SysCVSwitch_Volt_M_f32  | 7.75147152                             | 7.75147104 ± 0.00488400488400488 | •        |
| Temperature_Volt_M_f32  | 1.58241761                             | 1.58241761 ± 0.00122100122100122 | ~        |
| Vref_Volt_M_f32   | 34.074482                              | 34.074482 ± 0.00009              | •        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.34456587                             | 5.34456539 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 10.6850109                             | 10.68501 ± 0.00732600732600733   | <b>✓</b> |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 7.75147152                             | 7.75147104 ± 0.00488400488400488 | •        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 1.58241761                             | 1.58241761 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 2.4 (Repeat Count = 1)   |                                |  |       |
|--|--------------------------------|--|-------|
| Name   | Input Value                    |  |       |
| BattSwitched_Volt_M_f32  | 6.19999981                     |  |       |
| Batt_Volt_M_f32  | 6.0999999                      |  |       |
| DMAData_G_str.SlowADC_Cnt_u16[0]   | 1216                           |  |       |
| DMAData_G_str.SlowADC_Cnt_u16[1]   | 1216                           |  |       |
| DMAData_G_str.SlowADC_Cnt_u16[2]   | 1216                           |  |       |
| DMAData_G_str.SlowADC_Cnt_u16[3]   | 1216                           |  |       |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 0                              |  |       |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUs | et.  |       |
| Rte_Task_2ms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC.Rte_Sy  | sC 2218                        |  |       |
| SysCVSwitch_Volt_M_f32   | 7                              |  |       |
| Temperature_Volt_M_f32   | 0.40000006                     |  |       |
| Vref_Volt_M_f32  | 160.399994                     |  |       |
| k_ADCVrefScaling_Uls_f32   | 31.7000008                     |  |       |
| k_SlowADCValidDiag_Cnt_str.Threshold   | 16380                          |  |       |
| k_SlowADCValidDiag_Cnt_str.PStep   | 65535                          |  |       |
| k_SlowADCValidDiag_Cnt_str.NStep   | 18720                          |  |       |
| k_VrefMax_Volts_f32  | 0.555000007                    |  |       |
| k_VrefMin_Volts_f32  | 0.555000007                    |  |       |
| k_VrefOORDiag_Cnt_str.Threshold  | 111                            |  |       |
| k_VrefOORDiag_Cnt_str.PStep  | 111                            |  |       |
| k_VrefOORDiag_Cnt_str.NStep  | 111                            |  |       |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 6.19999981                     |  |       |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 6.0999999                      |  |       |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value  | 7                              |  |       |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value   | 0.400000006                    |  |       |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32   | tgt IoHwAb ReadADC BattSwii    | tched Volt f32   |       |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC Batt Volt f32   | tgt IoHwAb ReadADC Batt Vo     |  |       |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32  | tgt IoHwAb ReadADC SysCVS      | _  |       |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC TemperatureADC Volt f32   |                                |  |       |
| Name   | Actual Value                   | Expected Value   | Resu  |
| BattSwitched Volt M f32  | 5.00307274                     | 5.00307274 ± 0.00732600732600733   | rtoou |
| Batt Volt M f32  | 10.0177116                     | 10.0177116 ± 0.00732600732600733   |       |
| CDD ePWM4CMPB Cnt G u16  | 65535                          | 65535  |       |
| oHwAb ADCVrefErrorAcc Cnt M u16  | 111                            | 111 ± 0  |       |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC Cnt T enum)   | 70                             | 70   |       |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)  | 1                              | 1  |       |
|  |                                | 1  |       |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)<br>SysCVSwitch Volt M f32  | 9.12567139                     | 9.12567043 ± 0.00488400488400488   |       |
| ·  | 1.48473752                     | 9.12567043 ± 0.00488400488400488<br>1.48473752 ± 0.00122100122100122                                     |       |
|  | 47.0661812                     | 1.48473752 ± 0.00122100122100122<br>47.0661774 ± 0.00009   |       |
| ·  |                                | 47.0001774 ± 0.00009   |       |
| Vref_Volt_M_f32  |                                | E 00207274 + 0 00722600722602722   |       |
| Vref_Volt_M_f32<br>tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value  | 5.00307274                     | 5.00307274 ± 0.00732600732600733   |       |
| Temperature_Volt_M_f32  Vref_Volt_M_f32  tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value  tgt_loHwAb_ReadADC_Batt_Volt_f32.value  tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value |                                | 5.00307274 ± 0.00732600732600733<br>10.0177116 ± 0.00732600732600733<br>9.12567043 ± 0.00488400488400488 |       |



| Test Step 2.5 (Repeat Count = 1)  |                                       |                                  | ✓        |
|---|---------------------------------------|----------------------------------|----------|
| Name  | Input Value                           |                                  |          |
| BattSwitched_Volt_M_f32   | 6.4000001                             |                                  |          |
| Batt_Volt_M_f32   | 6.30000019                            |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 3762                                  |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 3762                                  |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 3762                                  |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 3762                                  |                                  |          |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 2340                                  |                                  |          |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr       |                                  |          |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC   | 2552                                  |                                  |          |
| SysCVSwitch_Volt_M_f32  | 7.4000001                             |                                  |          |
| Temperature_Volt_M_f32  | 0.5                                   |                                  |          |
| Vref_Volt_M_f32   | 180.5                                 |                                  |          |
| k_ADCVrefScaling_Uls_f32  | 41.9000015                            |                                  |          |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 18720                                 |                                  |          |
| k_SlowADCValidDiag_Cnt_str.PStep  | 32767                                 |                                  |          |
| k_SlowADCValidDiag_Cnt_str.NStep  | 21060                                 |                                  |          |
| k_VrefMax_Volts_f32   | 0.74000001                            |                                  |          |
| k_VrefMin_Volts_f32   | 0.74000001                            |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold   | 148                                   |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep   | 148                                   |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep   | 148                                   |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 6.4000001                             |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 6.30000019                            |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 7.4000001                             |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 0.5                                   |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitched_Volt_ | _f32                             |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32      |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_  | _f32                             |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC_    | Volt_f32                         |          |
| Name  | Actual Value                          | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 15.4782562                            | 15.4782562 ± 0.00732600732600733 |          |
| Batt Volt M f32   | 30.9922962                            | 30.9922943 ± 0.00732600732600733 | <b>✓</b> |
| CDD ePWM4CMPB Cnt G u16   | 65535                                 | 65535                            |          |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 148                                   | 148 ± 0                          | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                    | 70                               | ~        |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1                                     | 1                                | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                                     | 1                                | ~        |
| SysCVSwitch_Volt_M_f32  | 10.4998703                            | 10.4998693 ± 0.00488400488400488 | <b>✓</b> |
| Temperature_Volt_M_f32  | 4.59340668                            | 4.59340668 ± 0.00122100122100122 | _        |
| Vref_Volt_M_f32   | 192.463745                            | 192.46373 ± 0.0009               | <b>✓</b> |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 15.4782562                            | 15.4782562 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 30.9922962                            | 30.9922943 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 10.4998703                            | 10.4998693 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 4.59340668                            | 4.59340668 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 2.6 (Repeat Count = 1)                                      | <b>✓</b>                        |
|---|---------------------------------|
| Name  | Input Value                     |
| BattSwitched_Volt_M_f32   | 6.5999999                       |
| Batt_Volt_M_f32   | 6.5                             |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 2489                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 2489                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 2489                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 2489                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 4680                            |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC | 2786                            |
| SysCVSwitch_Volt_M_f32  | 7.80000019                      |
| Temperature_Volt_M_f32  | 0.600000024                     |
| Vref_Volt_M_f32   | 200.600006                      |
| k_ADCVrefScaling_Uls_f32  | 52.0999985                      |
| k_SlowADCValidDiag_Cnt_str.Threshold                                  | 21060                           |
| k_SlowADCValidDiag_Cnt_str.PStep                                      | 0                               |
| k_SlowADCValidDiag_Cnt_str.NStep                                      | 200                             |
| k_VrefMax_Volts_f32   | 0.925000012                     |
| k_VrefMin_Volts_f32   | 0.925000012                     |
| k_VrefOORDiag_Cnt_str.Threshold                                       | 185                             |
| k_VrefOORDiag_Cnt_str.PStep   | 185                             |





| Name   | Input Value                            |                                  |        |
|--|--|----------------------------------|--------|
| k_VrefOORDiag_Cnt_str.NStep  | 185                                    |                                  |        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                   | 6.5999999                              |                                  |        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 6.5                                    |                                  |        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                    | 7.80000019                             |                                  |        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                 | 0.600000024                            |                                  |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32             | tgt_loHwAb_ReadADC_BattSwitched_Volt_f | 32                               |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                     | tgt_loHwAb_ReadADC_Batt_Volt_f32       |                                  |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32              | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_t  | f32                              |        |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_Volt\_f32$  | tgt_loHwAb_ReadADC_TemperatureADC_V    | olt_f32                          |        |
| Name   | Actual Value                           | Expected Value                   | Result |
| BattSwitched_Volt_M_f32  | 10.2406645                             | 10.2406645 ± 0.00732600732600733 | ~      |
| Batt_Volt_M_f32  | 20.505003                              | 20.505003 ± 0.00732600732600733  | •      |
| CDD_ePWM4CMPB_Cnt_G_u16  | 65535                                  | 65535                            | ~      |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 185                                    | 185 ± 0                          | •      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)             | 70                                     | 70                               | ~      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)            | 1                                      | 1                                | •      |
| $Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ | 1                                      | 1                                | ~      |
| SysCVSwitch_Volt_M_f32   | 11.4626331                             | 11.4626322 ± 0.00488400488400488 | •      |
| Temperature_Volt_M_f32   | 3.03907204                             | 3.03907204 ± 0.00122100122100122 | ~      |
| Vref_Volt_M_f32  | 158.335648                             | 158.335648 ± 0.0009              | •      |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                   | 10.2406645                             | 10.2406645 ± 0.00732600732600733 | ~      |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 20.505003                              | 20.505003 ± 0.00732600732600733  | ~      |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                    | 11.4626331                             | 11.4626322 ± 0.00488400488400488 | ~      |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                 | 3.03907204                             | 3.03907204 ± 0.00122100122100122 | ~      |

| Test Step 2.7 (Repeat Count = 1)  |  |  |       |
|---|--|--|-------|
|   | Innut Value                            |  |       |
| Name  | Input Value                            |  |       |
| BattSwitched_Volt_M_f32   | 6.80000019                             |  |       |
| Batt_Volt_M_f32   | 6.69999981                             |  |       |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 1306                                   |  |       |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 1307                                   |  |       |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 1308                                   |  |       |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 1309                                   |  |       |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 7020                                   |  |       |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr        |  |       |
| Rte_Task_2ms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC.Rte_SysC   |  |  |       |
| SysCVSwitch_Volt_M_f32  | 8.19999981                             |  |       |
| Temperature_Volt_M_f32  | 0.699999988                            |  |       |
| Vref_Volt_M_f32   | 220.699997                             |  |       |
| k_ADCVrefScaling_Uls_f32  | 62.2999992                             |  |       |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 23400                                  |  |       |
| k_SlowADCValidDiag_Cnt_str.PStep  | 2340                                   |  |       |
| k_SlowADCValidDiag_Cnt_str.NStep  | 25740                                  |  |       |
| k_VrefMax_Volts_f32   | 1.11000001                             |  |       |
| k_VrefMin_Volts_f32   | 1.11000001                             |  |       |
| k_VrefOORDiag_Cnt_str.Threshold   | 222                                    |  |       |
| k_VrefOORDiag_Cnt_str.PStep   | 222                                    |  |       |
| k_VrefOORDiag_Cnt_str.NStep   | 222                                    |  |       |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 6.80000019                             |  |       |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 6.69999981                             |  |       |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 8.19999981                             |  |       |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 0.699999988                            | 1.1/ 1/ 100  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitche         |  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f3        |  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwitc          |  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_Temperatur          |  |       |
| Name  | Actual Value                           | Expected Value   | Resul |
| BattSwitched_Volt_M_f32   | 5.38570929                             | 5.38570929 ± 0.00732600732600733   | •     |
| Batt_Volt_M_f32   | 10.7673931                             | 10.7673922 ± 0.00732600732600733   | •     |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                  | 65535  | •     |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 222                                    | 222 ± 0  | •     |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                     | 70   | •     |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1                                      | 1  | •     |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                                      | 1  | •     |
| SysCVSwitch_Volt_M_f32  | 5.00307274                             | 5.00307274 ± 0.00488400488400488   | •     |
| Temperature_Volt_M_f32  | 1.59462762                             | 1.59462762 ± 0.00122100122100122   | •     |
| Vref_Volt_M_f32   | 99.4974365                             | 99.4974365 ± 0.00009   | •     |
|   |  |  |       |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.38570929                             | 5.38570929 ± 0.00732600732600733   |       |
|   | 5.38570929<br>10.7673931<br>5.00307274 | 5.38570929 ± 0.00732600732600733<br>10.7673922 ± 0.00732600732600733<br>5.00307274 ± 0.00488400488400488 |       |

IoHwAb\_ReadADC

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| Name   | Actual Value | Expected Value                   | Result |
|--|--------------|----------------------------------|--------|
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value | 1.59462762   | 1.59462762 ± 0.00122100122100122 |        |

| Test Step 2.8 (Repeat Count = 1)  |                                    |                                  | <b>✓</b> |  |
|---|------------------------------------|----------------------------------|----------|--|
| Name  | Input Value                        | Input Value                      |          |  |
| BattSwitched_Volt_M_f32   | 7                                  |                                  |          |  |
| Batt_Volt_M_f32   | 6.9000001                          |                                  |          |  |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 1496                               |                                  |          |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 1497                               |                                  |          |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 1498                               |                                  |          |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 1499                               |                                  |          |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 9360                               |                                  |          |  |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr    |                                  |          |  |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC   | 4095                               |                                  |          |  |
| SysCVSwitch_Volt_M_f32  | 8.60000038                         |                                  |          |  |
| Temperature_Volt_M_f32  | 0.800000012                        |                                  |          |  |
| Vref Volt M f32   | 240.800003                         |                                  |          |  |
| k_ADCVrefScaling_Uls_f32  | 72.5                               |                                  |          |  |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 25740                              |                                  |          |  |
| k SlowADCValidDiag Cnt str.PStep  | 4680                               |                                  |          |  |
| k SlowADCValidDiag Cnt str.NStep  | 42120                              |                                  |          |  |
| k VrefMax Volts f32   | 1.29499996                         |                                  |          |  |
| k VrefMin Volts f32   | 1.29499996                         |                                  |          |  |
| k_VrefOORDiag_Cnt_str.Threshold   | 259                                |                                  |          |  |
| k VrefOORDiag Cnt str.PStep   | 259                                |                                  |          |  |
| k_VrefOORDiag_Cnt_str.NStep   | 259                                |                                  |          |  |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                          | 7                                  |                                  |          |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 6.9000001                          |                                  |          |  |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 8.60000038                         |                                  |          |  |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value                        | 0.800000012                        |                                  |          |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32    | tgt IoHwAb ReadADC BattSwitched Vo | lt f32                           |          |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32   |                                  |          |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32     | tgt IoHwAb ReadADC SysCVSwitch Vo  | olt f32                          |          |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC  | _                                |          |  |
| Name  | Actual Value                       | Expected Value                   | Result   |  |
| BattSwitched Volt M f32   | 6.16743946                         | 6.16743898 ± 0.00732600732600733 | result   |  |
| Batt_Volt_M_f32   | 12.3326607                         | 12.3326597 ± 0.00732600732600733 |          |  |
| CDD ePWM4CMPB Cnt G u16   | 65535                              | 65535                            |          |  |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 259                                | 259 ± 0                          |          |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                 | 70                               |          |  |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC_Ont_T_enum)    | 1                                  | 1                                |          |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                                  | 1                                |          |  |
| SysCVSwitch Volt M f32  | 16.848341                          | 16.848341 ± 0.00488400488400488  |          |  |
| Temperature_Volt_M_f32  | 1.82661784                         | 1.82661784 ± 0.00122100122100122 |          |  |
| Vref Volt M f32   | 132.606842                         | 132.606842 ± 0.0009              | -        |  |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                          | 6.16743946                         | 6.16743898 ± 0.00732600732600733 |          |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 12.3326607                         | 12.3326597 ± 0.00732600732600733 | -        |  |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value                           | 16.848341                          | 16.848341 ± 0.00488400488400488  |          |  |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value                        | 1.82661784                         | 1.82661784 ± 0.00122100122100122 |          |  |
| IGI_IOI IWAD_REGUADO_TEITIPETATUTEADO_VOIL_132.Value                    | 1.02001704                         | 1.02001704 I 0.00122100122100122 |          |  |

| Test Step 2.9 (Repeat Count = 1)                                      |                                 |  |
|---|---------------------------------|--|
| Name  | Input Value                     |  |
| BattSwitched_Volt_M_f32   | 7.19999981                      |  |
| Batt_Volt_M_f32   | 7.0999999                       |  |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 1686                            |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 1687                            |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 1688                            |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 1689                            |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 11700                           |  |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |  |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC | 2655                            |  |
| SysCVSwitch_Volt_M_f32  | 9                               |  |
| Temperature_Volt_M_f32  | 0.899999976                     |  |
| Vref_Volt_M_f32   | 260.899994                      |  |
| k_ADCVrefScaling_UIs_f32  | 82.6999969                      |  |
| k_SlowADCValidDiag_Cnt_str.Threshold                                  | 0                               |  |
| k_SlowADCValidDiag_Cnt_str.PStep                                      | 7020                            |  |
| k_SlowADCValidDiag_Cnt_str.NStep                                      | 44460                           |  |
| k_VrefMax_Volts_f32   | 1.48000002                      |  |

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| Name   | Input Value                            |                                  |          |
|--|--|----------------------------------|----------|
| k_VrefMin_Volts_f32  | 1.48000002                             |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold  | 296                                    |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep  | 296                                    |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep  | 296                                    |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                   | 7.19999981                             |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 7.0999999                              |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                    | 9                                      |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                 | 0.899999976                            |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32             | tgt_loHwAb_ReadADC_BattSwitched_Volt_f | 32                               |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                     | tgt_loHwAb_ReadADC_Batt_Volt_f32       |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32              | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_   | f32                              |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32           | tgt_loHwAb_ReadADC_TemperatureADC_V    | /olt_f32                         |          |
| Name   | Actual Value                           | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32  | 6.94916964                             | 6.94916916 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32  | 13.8979282                             | 13.8979273 ± 0.00732600732600733 | ~        |
| CDD_ePWM4CMPB_Cnt_G_u16  | 65535                                  | 65535                            | -        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 296                                    | 296 ± 0                          | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)             | 70                                     | 70                               | -        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)            | 1                                      | 1                                | ~        |
| $Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ | 1                                      | 1                                | ~        |
| SysCVSwitch_Volt_M_f32   | 10.9236498                             | 10.9236498 ± 0.00488400488400488 | ~        |
| Temperature_Volt_M_f32   | 2.05860806                             | 2.05860806 ± 0.00122100122100122 | ~        |
| Vref_Volt_M_f32  | 170.448837                             | 170.448837 ± 0.0009              | ~        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                   | 6.94916964                             | 6.94916916 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 13.8979282                             | 13.8979273 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                    | 10.9236498                             | 10.9236498 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                 | 2.05860806                             | 2.05860806 ± 0.00122100122100122 | ~        |

| Test Step 2.10 (Repeat Count = 1)  |  |                                  |          |
|--|--|----------------------------------|----------|
| Name   | Input Value                              |                                  |          |
| BattSwitched_Volt_M_f32  | 7.4000001                                |                                  |          |
| Batt_Volt_M_f32  | 7.30000019                               |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]   | 1876                                     |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]   | 1877                                     |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]   | 1878                                     |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]   | 1879                                     |                                  |          |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 14040                                    |                                  |          |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr          |                                  |          |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysCommunicationUsr_IoHwAb_Read | 2552                                     |                                  |          |
| SysCVSwitch_Volt_M_f32   | 9.39999962                               |                                  |          |
| Temperature_Volt_M_f32   | 1  |                                  |          |
| Vref_Volt_M_f32  | 281                                      |                                  |          |
| k_ADCVrefScaling_Uls_f32   | 1  |                                  |          |
| k_SlowADCValidDiag_Cnt_str.Threshold   | 65535                                    |                                  |          |
| k_SlowADCValidDiag_Cnt_str.PStep   | 9360                                     |                                  |          |
| k_SlowADCValidDiag_Cnt_str.NStep   | 9360                                     |                                  |          |
| k_VrefMax_Volts_f32  | 1.66499996                               |                                  |          |
| k_VrefMin_Volts_f32  | 1.66499996                               |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold  | 333                                      |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep  | 333                                      |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep  | 333                                      |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 7.4000001                                |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 7.30000019                               |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value  | 9.39999962                               |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value   | 1  |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32   | tgt_IoHwAb_ReadADC_BattSwitched_Volt_f32 |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32   | tgt_loHwAb_ReadADC_Batt_Volt_f32         |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32  | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32  |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32   |  |                                  |          |
| Name   | Actual Value                             | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32  | 7.73089981                               | 7.73089933 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32  | 15.4631948                               | 15.4631948 ± 0.00732600732600733 | <b>✓</b> |
|  |  |                                  |          |

65535

333

70

1

10.4998703

2.29059839

2.29304028

7.73089981

65535

333 ± 0

 $10.4998693 \pm 0.00488400488400488$ 

2.29059839 ± 0.00122100122100122

7.73089933 ± 0.00732600732600733

2.29304028 ± 0.000009

70

1

Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(NTC\_Cnt\_T\_enum)

Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Param\_Cnt\_T\_u08)

 $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ 

CDD\_ePWM4CMPB\_Cnt\_G\_u16

SysCVSwitch\_Volt\_M\_f32

Temperature\_Volt\_M\_f32

Vref\_Volt\_M\_f32

IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16

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| Name   | Actual Value | Expected Value                   | Result   |
|--|--------------|----------------------------------|----------|
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value           | 15.4631948   | 15.4631948 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value    | 10.4998703   | 10.4998693 ± 0.00488400488400488 | ~        |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value | 2.29059839   | 2.29059839 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 2.11 (Repeat Count = 1)  |  |  | <b>✓</b> |
|--|--|--|----------|
| Name   | Input Value                            |  |          |
| BattSwitched_Volt_M_f32  | 7.5999999                              |  |          |
| Batt_Volt_M_f32  | 7.5                                    |  |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]   | 2066                                   |  |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]   | 2067                                   |  |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]   | 2068                                   |  |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]   | 2069                                   |  |          |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 16380                                  |  |          |
| Rte Inst IoHwAbstractionUsr  | tgt Rte Inst IoHwAbstractionUsr        |  |          |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC                | 2786                                   |  |          |
| SysCVSwitch Volt M f32   | 9.80000019                             |  |          |
| Temperature_Volt_M_f32   | 1.10000002                             |  |          |
| Vref Volt M f32  | 301.100006                             |  |          |
| k ADCVrefScaling UIs f32   | 100                                    |  |          |
| k_SlowADCValidDiag_Cnt_str.Threshold   | 32767                                  |  |          |
| k SlowADCValidDiag Cnt str.PStep   | 11700                                  |  |          |
| k SlowADCValidDiag Cnt str.NStep   | 11700                                  |  |          |
| k VrefMax Volts f32  | 1.85000002                             |  |          |
| k VrefMin Volts f32  | 1.85000002                             |  |          |
| k VrefOORDiag Cnt str.Threshold  | 370                                    |  |          |
| k VrefOORDiag Cnt str.PStep  | 370                                    |  |          |
| k VrefOORDiag Cnt str.NStep  | 370                                    |  |          |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                                       | 7.5999999                              |  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 7.5                                    |  |          |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value  | 9.80000019                             |  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                     | 1.10000002                             |  |          |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32                 | tgt IoHwAb ReadADC BattSwitched Volt f | 32   |          |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC Batt Volt f32                         | tgt_loHwAb_ReadADC_Batt_Volt_f32       |  |          |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32                  | tgt IoHwAb ReadADC SysCVSwitch Volt    | f32  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32               | tgt_loHwAb_ReadADC_TemperatureADC_V    |  |          |
| Name   | Actual Value                           | Expected Value   | Result   |
| BattSwitched_Volt_M_f32  | 8.51262951                             | 8.51262951 ± 0.00732600732600733                                     | 11000    |
| Batt_Volt_M_f32  | 17.0284634                             | 17.0284615 ± 0.00732600732600733                                     | •        |
| CDD ePWM4CMPB Cnt G u16  | 65535                                  | 65535  |          |
| IoHwAb ADCVrefErrorAcc Cnt M u16   | 370                                    | 370 ± 0  |          |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC Cnt T enum)                 | 70                                     | 70   |          |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(Param Cnt T u08)                | 1                                      | 1  |          |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(Status Cnt T enum)              | 1                                      | 1  |          |
| SysCVSwitch Volt M f32   | 11.4626331                             | 11.4626322 ± 0.00488400488400488                                     |          |
| Temperature Volt M f32   | 2.52258873                             | 2.52258849 ± 0.00122100122100122                                     |          |
| Vref Volt M f32  | 252.503067                             | 252.503052 ± 0.0009  |          |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                                       | 8.51262951                             | 8.51262951 ± 0.00732600732600733                                     |          |
|  |  |  |          |
|  |  | 17.0284615 ± 0.00732600732600733                                     | •        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value | 17.0284634<br>11.4626331               | 17.0284615 ± 0.00732600732600733<br>11.4626322 ± 0.00488400488400488 |          |

| Test Step 2.12 (Repeat Count = 1)                                    | <b>✓</b>                        |
|--|---------------------------------|
| Name   | Input Value                     |
| BattSwitched_Volt_M_f32  | 7.80000019                      |
| Batt_Volt_M_f32  | 7.69999981                      |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                     | 2256                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                     | 2257                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                     | 2258                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                     | 2259                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                     | 18720                           |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_Sys | C 3020                          |
| SysCVSwitch_Volt_M_f32   | 10.1999998                      |
| Temperature_Volt_M_f32   | 1.20000005                      |
| Vref_Volt_M_f32  | 321.200012                      |
| k_ADCVrefScaling_Uls_f32   | 50.5                            |
| k_SlowADCValidDiag_Cnt_str.Threshold                                 | 49140                           |
| k_SlowADCValidDiag_Cnt_str.PStep                                     | 0                               |

tgt\_loHwAb\_ReadADC\_BattSwitched\_Volt\_f32.value

tgt\_loHwAb\_ReadADC\_SysCVSwitch\_Volt\_f32.value

 $tgt\_loHwAb\_ReadADC\_TemperatureADC\_Volt\_f32.value$ 

tgt\_loHwAb\_ReadADC\_Batt\_Volt\_f32.value

IoHwAb\_ReadADC

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9.29435921 ± 0.00732600732600733

18.593729 ± 0.00732600732600733

12.4253941 ± 0.00488400488400488

2.75457883 ± 0.00122100122100122

| Name  | Input Value                             |                                  |          |
|---|---|----------------------------------|----------|
| k_SlowADCValidDiag_Cnt_str.NStep  | 14040                                   |                                  |          |
| k_VrefMax_Volts_f32   | 2.03500009                              |                                  |          |
| k_VrefMin_Volts_f32   | 2.03500009                              |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold   | 407                                     |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep   | 407                                     |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep   | 407                                     |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                  | 7.80000019                              |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 7.69999981                              |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                   | 10.1999998                              |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                | 1.20000005                              |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32            | tgt_loHwAb_ReadADC_BattSwitched_Volt_   | _f32                             |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                    | tgt_loHwAb_ReadADC_Batt_Volt_f32        |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32             | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32 |                                  |          |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_Volt\_f32$ | tgt_loHwAb_ReadADC_TemperatureADC_      | Volt_f32                         |          |
| Name  | Actual Value                            | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 9.29436016                              | 9.29435921 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 18.593729                               | 18.593729 ± 0.00732600732600733  | <b>✓</b> |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                   | 65535                            | -        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 407                                     | 407 ± 0                          | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)            | 70                                      | 70                               | •        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)           | 1                                       | 1                                | •        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         | 1                                       | 1                                | ~        |
| SysCVSwitch_Volt_M_f32  | 12.425395                               | 12.4253941 ± 0.00488400488400488 | <b>✓</b> |
| Temperature_Volt_M_f32  | 2.75457883                              | 2.75457883 ± 0.00122100122100122 | ~        |
| Vref_Volt_M_f32   | 139.229553                              | 139.229553 ± 0.0009              | <b>✓</b> |

9.29436016

18.593729

12.425395

2.75457883

| Name   | Input Value                                |                                  |       |
|--|--|----------------------------------|-------|
| BattSwitched_Volt_M_f32  | 8  |                                  |       |
| Batt_Volt_M_f32  | 7.9000001                                  |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                       | 2446                                       |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                       | 2447                                       |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                       | 2448                                       |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                       | 2449                                       |                                  |       |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                       | 21060                                      |                                  |       |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr            |                                  |       |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_Syst  | 3254                                       |                                  |       |
| SysCVSwitch_Volt_M_f32   | 10.6000004                                 |                                  |       |
| Temperature_Volt_M_f32   | 1.2999995                                  |                                  |       |
| Vref_Volt_M_f32  | 341.299988                                 |                                  |       |
| k_ADCVrefScaling_UIs_f32   | 2.29999995                                 |                                  |       |
| k_SlowADCValidDiag_Cnt_str.Threshold                                   | 51480                                      |                                  |       |
| k_SlowADCValidDiag_Cnt_str.PStep                                       | 535  |                                  |       |
| k_SlowADCValidDiag_Cnt_str.NStep                                       | 16380                                      |                                  |       |
| k_VrefMax_Volts_f32  | 0  |                                  |       |
| k_VrefMin_Volts_f32  | 2.22000003                                 |                                  |       |
| k_VrefOORDiag_Cnt_str.Threshold  | 444  |                                  |       |
| k_VrefOORDiag_Cnt_str.PStep  | 444  |                                  |       |
| k_VrefOORDiag_Cnt_str.NStep  | 444  |                                  |       |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                         | 8  |                                  |       |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                 | 7.9000001                                  |                                  |       |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                          | 10.6000004                                 |                                  |       |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                       | 1.2999995                                  |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32   | tgt_loHwAb_ReadADC_BattSwitched_Volt_f32   |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32           | tgt_loHwAb_ReadADC_Batt_Volt_f32           |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32    | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32    |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32 | tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32 |                                  |       |
| Name   | Actual Value                               | Expected Value                   | Resul |
| BattSwitched_Volt_M_f32  | 10.0760899                                 | 10.0760899 ± 0.00732600732600733 |       |
| Batt Volt M f32  | 20.1589985                                 | 20.1589966 ± 0.00732600732600733 |       |

| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32           | _Volt_f32   tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32 |                                  |          |
|--|--|----------------------------------|----------|
| Name   | Actual Value   | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32  | 10.0760899   | 10.0760899 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32  | 20.1589985   | 20.1589966 ± 0.00732600732600733 | <b>✓</b> |
| CDD_ePWM4CMPB_Cnt_G_u16  | 65535  | 65535                            | ~        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 444  | 444 ± 0                          | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)             | 70   | 70                               | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)            | 1  | 1                                | <b>✓</b> |
| $Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ | 1  | 1                                | ~        |
| SysCVSwitch_Volt_M_f32   | 13.3881569   | 13.3881569 ± 0.00488400488400488 | •        |
| Temperature_Volt_M_f32   | 2.98656917   | 2.98656893 ± 0.00122100122100122 | ~        |

IoHwAb\_ReadADC

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| Name   | Actual Value | Expected Value                   | Result   |
|--|--------------|----------------------------------|----------|
| Vref_Volt_M_f32                                  | 6.87472534   | 6.87472534 ± 0.000009            | <b>✓</b> |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 10.0760899   | 10.0760899 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value           | 20.1589985   | 20.1589966 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value    | 13.3881569   | 13.3881569 ± 0.00488400488400488 | ~        |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value | 2.98656917   | 2.98656893 ± 0.00122100122100122 | <b>✓</b> |

| Name   | Input Value                    |                                  |      |
|--|--------------------------------|----------------------------------|------|
| BattSwitched_Volt_M_f32  | 8.19999981                     |                                  |      |
| Batt_Volt_M_f32  | 8.10000038                     |                                  |      |
| DMAData G str.SlowADC Cnt u16[0]                                     | 2636                           |                                  |      |
| DMAData G str.SlowADC Cnt u16[1]                                     | 2637                           |                                  |      |
| DMAData G str.SlowADC Cnt u16[2]                                     | 2638                           |                                  |      |
| DMAData G str.SlowADC Cnt u16[3]                                     | 2639                           |                                  |      |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                     | 23400                          |                                  |      |
| Rte Inst IoHwAbstractionUsr  | tgt Rte Inst IoHwAbstractionUs | Sr .                             |      |
| Rte Task 2ms 10.Rte RB.Rte IoHwAbstractionUsr IoHwAb ReadADC.Rte S   | V                              |                                  |      |
| SysCVSwitch Volt M f32   | 11                             |                                  |      |
| Temperature_Volt_M_f32   | 1.39999998                     |                                  |      |
| Vref Volt M f32  | 361.399994                     |                                  |      |
| k ADCVrefScaling Uls f32   | 12.5                           |                                  |      |
| k SlowADCValidDiag Cnt str.Threshold                                 | 53820                          |                                  |      |
| k SlowADCValidDiag Cnt str.PStep                                     | 367                            |                                  |      |
| k SlowADCValidDiag Cnt str.NStep                                     | 18720                          |                                  |      |
| k_VrefMax_Volts_f32  | 5                              |                                  |      |
| k_VrefMin_Volts_f32  | 2.40499997                     |                                  |      |
| k VrefOORDiag Cnt str.Threshold                                      | 481                            |                                  |      |
| k VrefOORDiag Cnt str.PStep  | 481                            |                                  |      |
| k VrefOORDiag Cnt str.NStep  | 481                            |                                  |      |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                       | 8.19999981                     |                                  |      |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                               | 8.10000038                     |                                  |      |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                        | 11                             |                                  |      |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value                     | 1.39999998                     |                                  |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32 | tgt IoHwAb ReadADC BattSwii    | tched Volt f32                   |      |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC Batt Volt f32         | tgt IoHwAb ReadADC Batt Vo     |                                  |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32  | tgt IoHwAb ReadADC SysCVS      | _                                |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f |                                |                                  |      |
| Name   | Actual Value                   | Expected Value                   | Resu |
| BattSwitched Volt M f32  | 10.8578205                     | 10.8578196 ± 0.00732600732600733 | Resu |
| Batt Volt M f32  | 21.7242661                     | 21.7242641 ± 0.00732600732600733 |      |
| CDD ePWM4CMPB Cnt G u16  | 65535                          | 65535                            |      |
| IoHwAb ADCVrefErrorAcc Cnt M u16                                     | 481                            | 481 ± 0                          |      |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum  |                                | 70                               |      |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08 |                                | 1                                |      |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Falam_Cit_T_uoo |                                | 1                                |      |
| SysCVSwitch Volt M f32   | 14.3509197                     | 14.3509188 ± 0.00488400488400488 |      |
| Temperature Volt M f32   | 3.21855927                     | 3.21855927 ± 0.00122100122100122 |      |
| Vref Volt M f32  | 40.262516                      | 40.262516 ± 0.00009              |      |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                       | 10.8578205                     | 10.8578196 ± 0.00732600732600733 |      |
| tgt IoHwAb ReadADC Batt Volt f32.value                               | 21.7242661                     | 21.7242641 ± 0.00732600732600733 |      |
|  | L 1.1 LTLUU I                  | 21.7272071 1 0.00702000702000703 |      |
| tgt_loHwAb_ReadADC_Batt_voit_ls2.value                               | 14.3509197                     | 14.3509188 ± 0.00488400488400488 |      |

| Test Step 2.15 (Repeat Count = 1)                                     |                                 |  |
|---|---------------------------------|--|
| Name  | Input Value                     |  |
| BattSwitched_Volt_M_f32   | 8.39999962                      |  |
| Batt_Volt_M_f32   | 8.30000019                      |  |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 2826                            |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 2827                            |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 2828                            |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 2829                            |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 25740                           |  |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |  |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC | 3722                            |  |
| SysCVSwitch_Volt_M_f32  | 11.3999996                      |  |
| Temperature_Volt_M_f32  | 1.5                             |  |
| Vref_Volt_M_f32   | 381.5                           |  |
| k_ADCVrefScaling_Uls_f32  | 22.7000008                      |  |





| Name   | Input Value                             |                                  |          |
|--|---|----------------------------------|----------|
| k_SlowADCValidDiag_Cnt_str.Threshold   | 56160                                   |                                  |          |
| k_SlowADCValidDiag_Cnt_str.PStep   | 21060                                   |                                  |          |
| k_SlowADCValidDiag_Cnt_str.NStep   | 0                                       |                                  |          |
| k_VrefMax_Volts_f32  | 2.5                                     |                                  |          |
| k_VrefMin_Volts_f32  | 2.58999991                              |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold  | 518                                     |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep  | 518                                     |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep  | 518                                     |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                   | 8.39999962                              |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 8.30000019                              |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                    | 11.3999996                              |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                 | 1.5                                     |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32             | tgt_loHwAb_ReadADC_BattSwitched_Volt_fa | 32                               |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                     | tgt_loHwAb_ReadADC_Batt_Volt_f32        |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32              | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32 |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32           | tgt_loHwAb_ReadADC_TemperatureADC_V     | olt_f32                          |          |
| Name   | Actual Value                            | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32  | 11.6395512                              | 11.6395502 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32  | 23.2895336                              | 23.2895317 ± 0.00732600732600733 | <b>✓</b> |
| CDD_ePWM4CMPB_Cnt_G_u16  | 65535                                   | 65535                            | ~        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 518                                     | 518 ± 0                          | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)             | 70                                      | 70                               | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)            | 1                                       | 1                                | ~        |
| $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ | 1                                       | 1                                | ~        |
| SysCVSwitch_Volt_M_f32   | 15.3136816                              | 15.3136816 ± 0.00488400488400488 | ~        |
| Temperature_Volt_M_f32   | 3.4505496                               | 3.45054936 ± 0.00122100122100122 | <b>✓</b> |
| Vref_Volt_M_f32  | 78.3829117                              | 78.3829041 ± 0.00009             | ~        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                   | 11.6395512                              | 11.6395502 ± 0.00732600732600733 | ~        |
| tgt IoHwAb ReadADC Batt Volt f32.value   | 23.2895336                              | 23.2895317 ± 0.00732600732600733 | ~        |
| V  |   |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                    | 15.3136816                              | 15.3136816 ± 0.00488400488400488 | ~        |

| Name  | Input Value                            |                                  |       |
|---|--|----------------------------------|-------|
| BattSwitched Volt M f32   | 8.60000038                             | 8.60000038                       |       |
| Batt Volt M f32   | 8.5                                    |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 3016                                   |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 3017                                   |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 3018                                   |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 3019                                   |                                  |       |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 28080                                  |                                  |       |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr        |                                  |       |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysControl | 3956                                   |                                  |       |
| SysCVSwitch_Volt_M_f32  | 11.8000002                             |                                  |       |
| Temperature_Volt_M_f32  | 1.60000002                             |                                  |       |
| Vref_Volt_M_f32   | 401.600006                             |                                  |       |
| k_ADCVrefScaling_Uls_f32  | 32.9000015                             |                                  |       |
| k_SlowADCValidDiag_Cnt_str.Threshold  | 65                                     |                                  |       |
| k_SlowADCValidDiag_Cnt_str.PStep  | 23400                                  |                                  |       |
| k_SlowADCValidDiag_Cnt_str.NStep  | 35                                     |                                  |       |
| k_VrefMax_Volts_f32   | 1.85000002                             |                                  |       |
| k_VrefMin_Volts_f32   | 2.7750001                              |                                  |       |
| k_VrefOORDiag_Cnt_str.Threshold   | 0                                      |                                  |       |
| k_VrefOORDiag_Cnt_str.PStep   | 555                                    |                                  |       |
| k_VrefOORDiag_Cnt_str.NStep   | 555                                    |                                  |       |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                              | 8.60000038                             |                                  |       |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                      | 8.5                                    |                                  |       |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                               | 11.8000002                             |                                  |       |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                            | 1.60000002                             |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32        | tgt_loHwAb_ReadADC_BattSwitched_Volt_f | 32                               |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                | tgt_loHwAb_ReadADC_Batt_Volt_f32       |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32         | tgt_IoHwAb_ReadADC_SysCVSwitch_Volt_t  | 32                               |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32      | tgt_loHwAb_ReadADC_TemperatureADC_V    | olt_f32                          |       |
| Name  | Actual Value                           | Expected Value                   | Resul |
| BattSwitched_Volt_M_f32   | 12.4212809                             | 12.4212799 ± 0.00732600732600733 | •     |
| Patt Volt M f22   | 24 8548012                             | 24 8547003 + 0 00732600732600733 |       |

| 19 _ 1. 10 _ 1. 10 _ 1. 10 1. | tgt_ioi im ib_rtodd ib o_romporataio ib o_voit_ioz |                                  |          |  |
|---|--|----------------------------------|----------|--|
| Name  | Actual Value                                       | Expected Value                   | Result   |  |
| BattSwitched_Volt_M_f32   | 12.4212809   | 12.4212799 ± 0.00732600732600733 | •        |  |
| Batt_Volt_M_f32   | 24.8548012   | 24.8547993 ± 0.00732600732600733 | <b>✓</b> |  |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535  | 65535                            | ~        |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 0  | 0 ± 0                            | <b>✓</b> |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)  | 70   | 70                               | ~        |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1  | 1                                | •        |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)   | 1  | 1                                | ~        |  |
|   |  |                                  |          |  |

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| Name   | Actual Value | Expected Value                   | Result   |
|--|--------------|----------------------------------|----------|
| SysCVSwitch_Volt_M_f32                           | 16.2764435   | 16.2764435 ± 0.00488400488400488 | •        |
| Temperature_Volt_M_f32                           | 3.6825397    | 3.6825397 ± 0.00122100122100122  | ~        |
| Vref_Volt_M_f32                                  | 121.235909   | 121.235901 ± 0.0009              | <b>✓</b> |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 12.4212809   | 12.4212799 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value           | 24.8548012   | 24.8547993 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value    | 16.2764435   | 16.2764435 ± 0.00488400488400488 | <b>✓</b> |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value | 3.6825397    | 3.6825397 ± 0.00122100122100122  | <b>✓</b> |

| Test Step 2.17 (Repeat Count = 1)  |                                      |  |       |  |
|--|--------------------------------------|--|-------|--|
| Name   | Input Value                          | •  |       |  |
| BattSwitched_Volt_M_f32  | 8.80000019                           | 8.80000019   |       |  |
| Batt_Volt_M_f32  | 8.6999981                            | 8.69999981   |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[0]   | 3206                                 |  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]   | 3207                                 |  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]   | 3208                                 |  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]   | 3209                                 |  |       |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 30420                                |  |       |  |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr      |  |       |  |
| $Rte\_Task\_2ms\_10.Rte\_RB.Rte\_IoHwAbstractionUsr\_IoHwAb\_ReadADC.Rte\_SysContinuous (Section 1998) and (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are also as a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998) are a finite of the continuous (Section 1998) and (Section 1998)$ | 1216                                 |  |       |  |
| SysCVSwitch_Volt_M_f32   | 12.1999998                           |  |       |  |
| Temperature_Volt_M_f32   | 1.70000005                           |  |       |  |
| Vref_Volt_M_f32  | 421.700012                           |  |       |  |
| k_ADCVrefScaling_Uls_f32   | 43.0999985                           |  |       |  |
| k_SlowADCValidDiag_Cnt_str.Threshold   | 11700                                |  |       |  |
| k_SlowADCValidDiag_Cnt_str.PStep   | 25740                                |  |       |  |
| k_SlowADCValidDiag_Cnt_str.NStep   | 32767                                |  |       |  |
| k_VrefMax_Volts_f32  | 2.03500009                           |  |       |  |
| k_VrefMin_Volts_f32  | 2.96000004                           |  |       |  |
| k VrefOORDiag Cnt str.Threshold  | 1000                                 |  |       |  |
| k VrefOORDiag Cnt str.PStep  | 592                                  |  |       |  |
| k VrefOORDiag Cnt str.NStep  | 592                                  |  |       |  |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value   | 8.80000019                           |  |       |  |
| tgt IoHwAb ReadADC Batt Volt f32.value   | 8.69999981                           |  |       |  |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value  | 12.1999998                           |  |       |  |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value   | 1.70000005                           |  |       |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32   | tgt IoHwAb ReadADC BattSwitched Volt | f32  |       |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32   | tgt IoHwAb ReadADC Batt Volt f32     |  |       |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32  | tgt IoHwAb ReadADC SysCVSwitch Volt  | f32  |       |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32   | tgt_loHwAb_ReadADC_TemperatureADC_   | _  |       |  |
| Name   | Actual Value                         | Expected Value   | Resu  |  |
| BattSwitched Volt M f32  | 13.2030106                           | 13.2030106 ± 0.00732600732600733                                     | rtoou |  |
| Batt Volt M f32  | 26.4200668                           | 26.4200668 ± 0.00732600732600733                                     |       |  |
| CDD ePWM4CMPB Cnt G u16  | 65535                                | 65535  |       |  |
| IoHwAb ADCVrefErrorAcc Cnt M u16   | 1000                                 | 1000 ± 0   |       |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)   | 70                                   | 70   |       |  |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC_Cnt_T_endin)  | 1                                    | 1  |       |  |
|  | 1                                    | 1  |       |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)  |                                      |  |       |  |
| SysCVSwitch_Volt_M_f32 Temperature_Volt_M_f32  | 5.00307274                           | 5.00307274 ± 0.00488400488400488                                     |       |  |
| Temperature_Volt_M_f32   | 3.91453004                           | 3.9145298 ± 0.00122100122100122                                      |       |  |
| Vref_Volt_M_f32  | 168.821487                           | 168.821487 ± 0.0009  |       |  |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 13.2030106                           | 13.2030106 ± 0.00732600732600733                                     |       |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value   | 26.4200668<br>5.00307274             | 26.4200668 ± 0.00732600732600733<br>5.00307274 ± 0.00488400488400488 |       |  |
|  | 15 DUSU/ //A                         | $+5.00307274 \pm 0.00488400488400488$                                |       |  |

| Test Step 2.18 (Repeat Count = 1)                                     | ✓                               |
|---|---------------------------------|
| Name  | Input Value                     |
| BattSwitched_Volt_M_f32   | 9                               |
| Batt_Volt_M_f32   | 8.89999962                      |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 3396                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 3397                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 3398                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 3399                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 32760                           |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC | 1350                            |
| SysCVSwitch_Volt_M_f32  | 12.6000004                      |
| Temperature_Volt_M_f32  | 1.79999995                      |

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IoHwAb\_ReadADC

| Name  | Input Value                              |                                  |          |
|---|--|----------------------------------|----------|
| Vref_Volt_M_f32   | 441.799988                               |                                  |          |
| k_ADCVrefScaling_UIs_f32  | 53.2999992                               |                                  |          |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 14040                                    |                                  |          |
| k_SlowADCValidDiag_Cnt_str.PStep  | 0  |                                  |          |
| k_SlowADCValidDiag_Cnt_str.NStep  | 16380                                    |                                  |          |
| k_VrefMax_Volts_f32   | 2.22000003                               |                                  |          |
| k_VrefMin_Volts_f32   | 3.14499998                               |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold   | 500                                      |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep   | 629                                      |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep   | 629                                      |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 9  |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 8.89999962                               |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 12.6000004                               |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 1.79999995                               |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitched_Volt_f32 |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32         |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_     | f32                              |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC_V      | /olt_f32                         |          |
| Name  | Actual Value                             | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 13.9847403                               | 13.9847403 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 27.9853363                               | 27.9853344 ± 0.00732600732600733 | ~        |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                    | 65535                            | ~        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 500                                      | 500 ± 0                          | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                       | 70                               | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1  | 1                                | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1  | 1                                | ~        |
| SysCVSwitch_Volt_M_f32  | 5.55439806                               | 5.55439806 ± 0.00488400488400488 | ~        |
| Temperature_Volt_M_f32  | 4.14652014                               | 4.14652014 ± 0.00122100122100122 | ~        |
| Vref_Volt_M_f32   | 221.139694                               | 221.139679 ± 0.0009              | ~        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 13.9847403                               | 13.9847403 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 27.9853363                               | 27.9853344 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 5.55439806                               | 5.55439806 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 4.14652014                               | 4.14652014 ± 0.00122100122100122 | •        |
|   |  |                                  |          |

| Name   | Input Value                            |                                  |        |
|--|--|----------------------------------|--------|
| BattSwitched Volt M f32  | 9.19999981                             |                                  |        |
| Batt Volt M f32  | 9.10000038                             |                                  |        |
| DMAData G str.SlowADC Cnt u16[0]                                       | 3586                                   |                                  |        |
| DMAData G str.SlowADC Cnt u16[1]                                       | 3587                                   |                                  |        |
| DMAData G str.SlowADC Cnt u16[2]                                       | 3588                                   |                                  |        |
| DMAData G str.SlowADC Cnt u16[3]                                       | 3589                                   |                                  |        |
| IoHwAb ADCVrefErrorAcc Cnt M u16                                       | 35100                                  |                                  |        |
| Rte Inst IoHwAbstractionUsr  | tgt Rte Inst IoHwAbstractionUsr        |                                  |        |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC  |  |                                  |        |
| SysCVSwitch_Volt_M_f32   | 13                                     |                                  |        |
| Temperature_Volt_M_f32   | 1.8999998                              |                                  |        |
| Vref_Volt_M_f32  | 461.899994                             |                                  |        |
| k_ADCVrefScaling_Uls_f32   | 63.5                                   |                                  |        |
| k_SlowADCValidDiag_Cnt_str.Threshold                                   | 16380                                  |                                  |        |
| k_SlowADCValidDiag_Cnt_str.PStep                                       | 35                                     |                                  |        |
| k_SlowADCValidDiag_Cnt_str.NStep                                       | 18720                                  |                                  |        |
| k_VrefMax_Volts_f32  | 2.40499997                             |                                  |        |
| k_VrefMin_Volts_f32  | 3.32999992                             |                                  |        |
| k_VrefOORDiag_Cnt_str.Threshold  | 481                                    |                                  |        |
| k_VrefOORDiag_Cnt_str.PStep  | 0                                      |                                  |        |
| k_VrefOORDiag_Cnt_str.NStep  | 666                                    |                                  |        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                         | 9.19999981                             |                                  |        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                 | 9.10000038                             |                                  |        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                          | 13                                     |                                  |        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                       | 1.89999998                             |                                  |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32   | tgt_loHwAb_ReadADC_BattSwitched_Volt_f | 32                               |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32           | tgt_loHwAb_ReadADC_Batt_Volt_f32       |                                  |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32    | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_t  | 32                               |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32 | tgt_loHwAb_ReadADC_TemperatureADC_V    | olt_f32                          |        |
| Name   | Actual Value                           | Expected Value                   | Result |
| BattSwitched_Volt_M_f32  | 14.7664709                             | 14.7664709 ± 0.00732600732600733 | •      |
| Batt_Volt_M_f32  | 29.5506039                             | 29.550602 ± 0.00732600732600733  | •      |
| CDD_ePWM4CMPB_Cnt_G_u16  | 65535                                  | 65535                            | •      |
|  | 1                                      |                                  |        |

481

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 $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(NTC\_Cnt\_T\_enum)$ 

IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16

481 ± 0

70





| Name  | Actual Value | Expected Value                   | Result   |
|---|--------------|----------------------------------|----------|
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1            | 1                                | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1            | 1                                | ~        |
| SysCVSwitch_Volt_M_f32  | 6.10572386   | 6.10572386 ± 0.00488400488400488 | ~        |
| Temperature_Volt_M_f32  | 4.37851048   | 4.37851048 ± 0.00122100122100122 | ~        |
| Vref_Volt_M_f32   | 278.19046    | 278.190491 ± 0.0009              | ~        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 14.7664709   | 14.7664709 ± 0.00732600732600733 | <b>~</b> |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 29.5506039   | 29.550602 ± 0.00732600732600733  | •        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 6.10572386   | 6.10572386 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 4.37851048   | 4.37851048 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 2.20 (Repeat Count = 1)                                       |                                  |                                  | ✓       |
|---|----------------------------------|----------------------------------|---------|
| Name  | Input Value                      |                                  |         |
| BattSwitched Volt M f32   | 9.3999962                        |                                  |         |
| Batt Volt M f32   | 9.30000019                       |                                  |         |
| DMAData G str.SlowADC Cnt u16[0]  | 1306                             |                                  |         |
| DMAData G str.SlowADC Cnt u16[1]  | 1307                             |                                  |         |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 1308                             |                                  |         |
| DMAData G str.SlowADC Cnt u16[3]  | 1309                             |                                  |         |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 37440                            |                                  |         |
| Rte Inst IoHwAbstractionUsr   | tgt Rte Inst IoHwAbstractionUsr  |                                  |         |
| Rte_Task_2ms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC.Rte_SysC   | 1618                             |                                  |         |
| SysCVSwitch Volt M f32  | 13.3999996                       |                                  |         |
| Temperature_Volt_M_f32  | 2                                |                                  |         |
| Vref Volt M f32   | 482                              |                                  |         |
| k ADCVrefScaling Uls f32  | 73.6999969                       |                                  |         |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 18720                            |                                  |         |
| k SlowADCValidDiag Cnt str.PStep  | 32767                            |                                  |         |
| k SlowADCValidDiag Cnt str.NStep  | 21060                            |                                  |         |
| k VrefMax Volts f32   | 2.58999991                       |                                  |         |
| k VrefMin Volts f32   | 3.5150001                        |                                  |         |
| k VrefOORDiag Cnt str.Threshold   | 518                              |                                  |         |
| k VrefOORDiag Cnt str.PStep   | 1000                             |                                  |         |
| k VrefOORDiag Cnt str.NStep   | 703                              |                                  |         |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                          | 9.39999962                       |                                  |         |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 9.30000019                       |                                  |         |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 13.3999996                       |                                  |         |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2                                |                                  |         |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32    | tgt IoHwAb ReadADC BattSwitched  | Volt f32                         |         |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC Batt Volt f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32 |                                  |         |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32     | tgt IoHwAb ReadADC SysCVSwitch   | Volt f32                         |         |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureA  | _                                |         |
| Name  | Actual Value                     | Expected Value                   | Result  |
| BattSwitched Volt M f32   | 5.38570929                       | 5.38570929 ± 0.00732600732600733 | ixesuit |
|   | 10.7673931                       | 10.7673922 ± 0.00732600732600733 |         |
| Batt_Volt_M_f32 CDD ePWM4CMPB Cnt G u16                                 | 65535                            | 65535                            |         |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 518                              | 518 ± 0                          |         |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC Cnt T enum)    | 70                               | 70                               |         |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cit_1_enum)    | 1                                | 1                                |         |
|   | 1                                | 1                                |         |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) |                                  |                                  |         |
| SysCVSwitch_Volt_M_f32  | 6.65704966<br>1.59462762         | 6.65704918 ± 0.00488400488400488 |         |
| Temperature_Volt_M_f32  |                                  | 1.59462762 ± 0.00122100122100122 |         |
| Vref_Volt_M_f32   | 117.704025                       | 117.704033 ± 0.0009              |         |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.38570929                       | 5.38570929 ± 0.00732600732600733 |         |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 10.7673931                       | 10.7673922 ± 0.00732600732600733 |         |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 6.65704966                       | 6.65704918 ± 0.00488400488400488 |         |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 1.59462762                       | 1.59462762 ± 0.00122100122100122 | •       |

| Test Step 2.21 (Repeat Count = 1)                                     |                                 |
|---|---------------------------------|
| Name  | Input Value                     |
| BattSwitched_Volt_M_f32   | 9.60000038                      |
| Batt_Volt_M_f32   | 9.5                             |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 1496                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 1497                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 1498                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 1499                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 39780                           |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC | 1752                            |

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| Name  | Input Value                           |                                  |          |
|---|---------------------------------------|----------------------------------|----------|
| SysCVSwitch_Volt_M_f32  | 13.8000002                            |                                  |          |
| Temperature_Volt_M_f32  | 2.0999999                             |                                  |          |
| Vref_Volt_M_f32   | 140.199997                            |                                  |          |
| k_ADCVrefScaling_UIs_f32  | 83.9000015                            |                                  |          |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 21060                                 |                                  |          |
| k_SlowADCValidDiag_Cnt_str.PStep  | 0                                     |                                  |          |
| k_SlowADCValidDiag_Cnt_str.NStep  | 23400                                 |                                  |          |
| k_VrefMax_Volts_f32   | 2.7750001                             |                                  |          |
| k_VrefMin_Volts_f32   | 3.70000005                            |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold   | 555                                   |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep   | 500                                   |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep   | 740                                   |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 9.60000038                            |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 9.5                                   |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 13.8000002                            |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2.0999999                             |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitched_Volt_ | f32                              |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32      |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_  | <u>f</u> 32                      |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC_\   | /olt_f32                         |          |
| Name  | Actual Value                          | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 6.16743946                            | 6.16743898 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 12.3326607                            | 12.3326597 ± 0.00732600732600733 | ✓        |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                 | 65535                            | <b>✓</b> |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 555                                   | 555 ± 0                          | ✓        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                    | 70                               | <b>✓</b> |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1                                     | 1                                | ✓        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                                     | 1                                | ~        |
| SysCVSwitch_Volt_M_f32  | 7.20837498                            | 7.2083745 ± 0.00488400488400488  | <b>✓</b> |
| Temperature_Volt_M_f32  | 1.82661784                            | 1.82661784 ± 0.00122100122100122 | <b>✓</b> |
| Vref_Volt_M_f32   | 153.45813                             | 153.458115 ± 0.0009              | <b>✓</b> |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 6.16743946                            | 6.16743898 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 12.3326607                            | 12.3326597 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 7.20837498                            | 7.2083745 ± 0.00488400488400488  | <b>✓</b> |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value                        | 1.82661784                            | 1.82661784 ± 0.00122100122100122 | ~        |

| Name   | Input Value                                  |                                  |        |  |
|--|--|----------------------------------|--------|--|
| BattSwitched_Volt_M_f32  | 9.80000019                                   | 9.80000019                       |        |  |
| Batt Volt M f32  | 9.69999981                                   |                                  |        |  |
| DMAData G str.SlowADC Cnt u16[0]                                       | 1686   |                                  |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                       | 1687   |                                  |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                       | 1688   |                                  |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                       | 1689   |                                  |        |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                       | 42120  |                                  |        |  |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr              |                                  |        |  |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC  | 1886   |                                  |        |  |
| SysCVSwitch_Volt_M_f32   | 14.1999998                                   |                                  |        |  |
| Temperature_Volt_M_f32   | 2.20000005                                   |                                  |        |  |
| Vref_Volt_M_f32  | 185.300003                                   |                                  |        |  |
| k_ADCVrefScaling_UIs_f32   | 94.0999985                                   |                                  |        |  |
| k_SlowADCValidDiag_Cnt_str.Threshold                                   | 23400  |                                  |        |  |
| k_SlowADCValidDiag_Cnt_str.PStep                                       | 2340   |                                  |        |  |
| k_SlowADCValidDiag_Cnt_str.NStep                                       | 25740  |                                  |        |  |
| k_VrefMax_Volts_f32  | 2.96000004                                   |                                  |        |  |
| k_VrefMin_Volts_f32  | 3.88499999                                   |                                  |        |  |
| k_VrefOORDiag_Cnt_str.Threshold  | 592  |                                  |        |  |
| k_VrefOORDiag_Cnt_str.PStep  | 592  |                                  |        |  |
| k_VrefOORDiag_Cnt_str.NStep  | 0  |                                  |        |  |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                         | 9.80000019                                   |                                  |        |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                 | 9.69999981                                   |                                  |        |  |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                          | 14.1999998                                   |                                  |        |  |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                       | 2.20000005                                   |                                  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32   | tgt_loHwAb_ReadADC_BattSwitched_Volt_f       | 32                               |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32           | tgt_loHwAb_ReadADC_Batt_Volt_f32             |                                  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32    | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32      |                                  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32 | 2 tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32 |                                  |        |  |
| Name   | Actual Value                                 | Expected Value                   | Result |  |
| BattSwitched_Volt_M_f32  | 6.94916964                                   | 6.94916916 ± 0.00732600732600733 | •      |  |
| Batt_Volt_M_f32  | 13.8979282                                   | 13.8979273 ± 0.00732600732600733 | •      |  |
|  | 1  | 1                                |        |  |

65535

65535

IoHwAb\_ReadADC



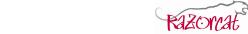


| Name  | Actual Value | Expected Value                   | Result |
|---|--------------|----------------------------------|--------|
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 592          | 592 ± 0                          | ~      |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70           | 70                               | ~      |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1            | 1                                | ~      |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1            | 1                                | ~      |
| SysCVSwitch_Volt_M_f32  | 7.75969982   | 7.75969982 ± 0.00488400488400488 | ~      |
| Temperature_Volt_M_f32  | 2.05860806   | 2.05860806 ± 0.00122100122100122 | ~      |
| Vref_Volt_M_f32   | 193.944824   | 193.944809 ± 0.0009              | ~      |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 6.94916964   | 6.94916916 ± 0.00732600732600733 | ~      |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 13.8979282   | 13.8979273 ± 0.00732600732600733 | ~      |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 7.75969982   | 7.75969982 ± 0.00488400488400488 | ~      |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2.05860806   | 2.05860806 ± 0.00122100122100122 | ~      |

| Test Step 2.23 (Repeat Count = 1)                                       |                                 |                                  | ✓         |  |
|---|---------------------------------|----------------------------------|-----------|--|
| Name  | Input Value                     |                                  |           |  |
| BattSwitched_Volt_M_f32   | 10                              | 10                               |           |  |
| Batt_Volt_M_f32   | 9.89999962                      |                                  |           |  |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 1876                            |                                  |           |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 1877                            |                                  |           |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 1878                            |                                  |           |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 1879                            |                                  |           |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 44460                           |                                  |           |  |
| Rte Inst IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |                                  |           |  |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC   | 2020                            |                                  |           |  |
| SysCVSwitch Volt M f32  | 14.6000004                      |                                  |           |  |
| Temperature_Volt_M_f32  | 2.29999995                      |                                  |           |  |
| Vref Volt M f32   | 230.399994                      |                                  |           |  |
| k ADCVrefScaling Uls f32  | 3.5999999                       |                                  |           |  |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 25740                           |                                  |           |  |
| k SlowADCValidDiag Cnt str.PStep  | 4680                            |                                  |           |  |
| k SlowADCValidDiag Cnt str.NStep  | 42120                           |                                  |           |  |
| k VrefMax Volts f32   | 3.14499998                      |                                  |           |  |
| k VrefMin Volts f32   | 4.07000017                      |                                  |           |  |
| k_VrefOORDiag_Cnt_str.Threshold   | 629                             |                                  |           |  |
| k VrefOORDiag Cnt str.PStep   | 629                             |                                  |           |  |
| k VrefOORDiag Cnt str.NStep   | 1000                            |                                  |           |  |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                          | 10                              |                                  |           |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 9.89999962                      |                                  |           |  |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value                           | 14.6000004                      |                                  |           |  |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2.29999995                      |                                  |           |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32    | tgt IoHwAb ReadADC BattSwitche  | d Volt f32                       |           |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC Batt Volt f32            | tgt_loHwAb_ReadADC_Batt_Volt_f3 |                                  |           |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32     | tgt IoHwAb ReadADC SysCVSwitc   |                                  |           |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_Temperature  |                                  |           |  |
| Name  | Actual Value                    | Expected Value                   | Result    |  |
| BattSwitched Volt M f32   | 7.73089981                      | 7.73089933 ± 0.00732600732600733 | - Ttoouit |  |
| Batt_Volt_M_f32   | 15.4631948                      | 15.4631948 ± 0.00732600732600733 | •         |  |
| CDD ePWM4CMPB Cnt G u16   | 65535                           | 65535                            |           |  |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 629                             | 629 ± 0                          |           |  |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC Cnt T enum)    | 70                              | 70                               | -         |  |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1                               | 1                                |           |  |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(Status Cnt T enum) | 1                               | 1                                |           |  |
| SysCVSwitch Volt M f32  | 8.31102562                      | 8.31102562 ± 0.00488400488400488 |           |  |
| Temperature Volt M f32  | 2.29059839                      | 2.29059839 ± 0.00122100122100122 |           |  |
| Vref Volt M f32   | 8.2549448                       | 8.2549448 ± 0.000009             |           |  |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 7.73089981                      | 7.73089933 ± 0.00732600732600733 |           |  |
| tgt IoHwAb ReadADC Batt Volt f32.value                                  | 15.4631948                      | 15.4631948 ± 0.00732600732600733 |           |  |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 8.31102562                      | 8.31102562 ± 0.00488400488400488 |           |  |
|   | 2.29059839                      |                                  |           |  |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2.29059839                      | 2.29059839 ± 0.00122100122100122 | -         |  |

| Test Step 2.24 (Repeat Count = 1) |             | <b>✓</b> |
|-----------------------------------|-------------|----------|
| Name                              | Input Value |          |
| BattSwitched_Volt_M_f32           | 10.1999998  |          |
| Batt_Volt_M_f32                   | 10.1000004  |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 2066        |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 2067        |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 2068        |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 2069        |          |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 46800       |          |

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| Name  | Input Value                              |                                  |          |
|---|--|----------------------------------|----------|
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr          |                                  |          |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC   | 2154                                     |                                  |          |
| SysCVSwitch_Volt_M_f32  | 15                                       |                                  |          |
| Temperature_Volt_M_f32  | 2.4000001                                |                                  |          |
| Vref_Volt_M_f32   | 275.5                                    |                                  |          |
| k_ADCVrefScaling_UIs_f32  | 16.8999996                               |                                  |          |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 0  |                                  |          |
| k_SlowADCValidDiag_Cnt_str.PStep  | 70                                       |                                  |          |
| k_SlowADCValidDiag_Cnt_str.NStep  | 44460                                    |                                  |          |
| k_VrefMax_Volts_f32   | 3.32999992                               |                                  |          |
| k_VrefMin_Volts_f32   | 4.25500011                               |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold   | 666                                      |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep   | 666                                      |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep   | 500                                      |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 10.1999998                               |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 10.1000004                               |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 15                                       |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2.4000001                                |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitched_Volt_f32 |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32         |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_t    | f32                              |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC_V      | olt_f32                          |          |
| Name  | Actual Value                             | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 8.51262951                               | 8.51262951 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 17.0284634                               | 17.0284615 ± 0.00732600732600733 | •        |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                    | 65535                            | ~        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 666                                      | 666 ± 0                          | •        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                       | 70                               | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1  | 1                                | •        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1  | 1                                | ~        |
| SysCVSwitch_Volt_M_f32  | 8.86235142                               | 8.86235046 ± 0.00488400488400488 | •        |
| Temperature_Volt_M_f32  | 2.52258873                               | 2.52258849 ± 0.00122100122100122 | ~        |
| Vref_Volt_M_f32   | 42.6730156                               | 42.6730156 ± 0.00009             | •        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 8.51262951                               | 8.51262951 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 17.0284634                               | 17.0284615 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 8.86235142                               | 8.86235046 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2.52258873                               | 2.52258849 ± 0.00122100122100122 | <b>✓</b> |

| Name   | Input Value                           |                                  |       |
|--|---------------------------------------|----------------------------------|-------|
| BattSwitched Volt M f32  | 10.3999996                            |                                  |       |
| Batt Volt M f32  | 10.3000002                            |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[0]   | 2256                                  |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[1]   | 2257                                  |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[2]   | 2258                                  |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[3]   | 2259                                  |                                  |       |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 49140                                 |                                  |       |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr       |                                  |       |
| $Rte\_Task\_2ms\_10.Rte\_RB.Rte\_IoHwAbstractionUsr\_IoHwAb\_ReadADC.Rte\_System (Color of the Color of$ | 2288                                  |                                  |       |
| SysCVSwitch_Volt_M_f32   | 15.3999996                            |                                  |       |
| Temperature_Volt_M_f32   | 2.5                                   |                                  |       |
| Vref_Volt_M_f32  | 320.600006                            |                                  |       |
| k_ADCVrefScaling_UIs_f32   | 30.2000008                            |                                  |       |
| k_SlowADCValidDiag_Cnt_str.Threshold   | 65535                                 |                                  |       |
| k_SlowADCValidDiag_Cnt_str.PStep   | 9360                                  |                                  |       |
| k_SlowADCValidDiag_Cnt_str.NStep   | 9360                                  |                                  |       |
| k_VrefMax_Volts_f32  | 3.5150001                             |                                  |       |
| k_VrefMin_Volts_f32  | 0                                     |                                  |       |
| k_VrefOORDiag_Cnt_str.Threshold  | 703                                   |                                  |       |
| k_VrefOORDiag_Cnt_str.PStep  | 703                                   |                                  |       |
| k_VrefOORDiag_Cnt_str.NStep  | 703                                   |                                  |       |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 10.3999996                            |                                  |       |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 10.3000002                            |                                  |       |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value  | 15.3999996                            |                                  |       |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value   | 2.5                                   |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32   | tgt_loHwAb_ReadADC_BattSwitched_Volt_ | f32                              |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32   | tgt_loHwAb_ReadADC_Batt_Volt_f32      |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32  | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_  | f32                              |       |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_Volt\_f32$  | tgt_loHwAb_ReadADC_TemperatureADC_\   | /olt_f32                         |       |
| Name   | Actual Value                          | Expected Value                   | Resul |
| BattSwitched_Volt_M_f32  | 9.29436016                            | 9.29435921 ± 0.00732600732600733 | •     |

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| Name  | Actual Value | Expected Value                   | Result   |
|---|--------------|----------------------------------|----------|
| Batt_Volt_M_f32   | 18.593729    | 18.593729 ± 0.00732600732600733  | •        |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535        | 65535                            | ~        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 703          | 703 ± 0                          | •        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70           | 70                               | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1            | 1                                | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1            | 1                                | •        |
| SysCVSwitch_Volt_M_f32  | 9.41367626   | 9.41367626 ± 0.00488400488400488 | <b>✓</b> |
| Temperature_Volt_M_f32  | 2.75457883   | 2.75457883 ± 0.00122100122100122 | <b>✓</b> |
| Vref_Volt_M_f32   | 83.2620316   | 83.2620239 ± 0.00009             | •        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 9.29436016   | 9.29435921 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 18.593729    | 18.593729 ± 0.00732600732600733  | •        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 9.41367626   | 9.41367626 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2.75457883   | 2.75457883 ± 0.00122100122100122 | <b>✓</b> |

| Name  | Input Value                     |  |        |  |
|---|---------------------------------|--|--------|--|
| BattSwitched_Volt_M_f32   | 10.6000004                      |  |        |  |
| Batt Volt M f32   | 10.5                            | 10.5   |        |  |
| DMAData G str.SlowADC Cnt u16[0]  | 2446                            |  |        |  |
| DMAData G str.SlowADC Cnt u16[1]  | 2447                            |  |        |  |
| DMAData G str.SlowADC Cnt u16[2]  | 2448                            |  |        |  |
| DMAData G str.SlowADC Cnt u16[3]  | 2449                            |  |        |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 51480                           |  |        |  |
| Rte Inst IoHwAbstractionUsr   | tgt Rte Inst IoHwAbstractionUsr |  |        |  |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_Sys                    |                                 |  |        |  |
| SysCVSwitch_Volt_M_f32  | 15.8000002                      |  |        |  |
| Temperature Volt M f32  | 2.5999999                       |  |        |  |
| Vref Volt M f32   | 365.700012                      |  |        |  |
| k ADCVrefScaling Uls f32  | 43.5                            |  |        |  |
| k SlowADCValidDiag Cnt str.Threshold  | 32767                           |  |        |  |
| k SlowADCValidDiag Cnt str.PStep  | 100                             |  |        |  |
| k SlowADCValidDiag Cnt str.NStep  | 11700                           |  |        |  |
| k VrefMax Volts f32   | 3.70000005                      |  |        |  |
| k_VrefMin_Volts_f32   | 5                               |  |        |  |
| k VrefOORDiag Cnt str.Threshold   | 740                             |  |        |  |
| k_VrefOORDiag_Cnt_str.PStep   | 740                             |  |        |  |
| k VrefOORDiag Cnt str.NStep   | 740                             |  |        |  |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value  | 10.6000004                      |  |        |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 10.5                            |  |        |  |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value   | 15.8000002                      |  |        |  |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value  | 2.5999999                       |  |        |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32                    | tgt IoHwAb ReadADC BattSwitc    | hed Volt f32   |        |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC Batt Volt f32                            | tgt IoHwAb ReadADC Batt Volt    |  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32                     | tgt IoHwAb ReadADC SysCVSw      | _  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32                  | tgt_loHwAb_ReadADC_Temperat     |  |        |  |
| Name  | Actual Value                    | Expected Value   | Resul  |  |
| BattSwitched_Volt_M_f32   | 10.0760899                      | 10.0760899 ± 0.00732600732600733                                     | rtooui |  |
| Batt_Volt_M_f32   | 20.1589985                      | 20.1589966 ± 0.00732600732600733                                     |        |  |
| CDD ePWM4CMPB Cnt G u16   | 65535                           | 65535  |        |  |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 740                             | 740 ± 0  |        |  |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC Cnt T enum)                    | 70                              | 70   |        |  |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(Param Cnt T u08)                   | 1                               | 1  |        |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)                 | 1                               | 1  |        |  |
| SysCVSwitch Volt M f32  | 9.96500206                      | 9.96500206 ± 0.00488400488400488                                     |        |  |
| Temperature Volt M f32  | 2.98656917                      | 2.98656893 ± 0.00122100122100122                                     |        |  |
| Vref Volt M f32   | 130.021988                      | 130.021973 ± 0.0009  |        |  |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value  | 10.0760899                      | 10.0760899 ± 0.00732600732600733                                     |        |  |
| igt_io ib ioda. ibo_battomtonoa_voit_iob.valao  |                                 |  |        |  |
|   | 20 1589985                      | 20 1589966 + 0 00732600732600733                                     |        |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value<br>tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value | 20.1589985<br>9.96500206        | 20.1589966 ± 0.00732600732600733<br>9.96500206 ± 0.00488400488400488 |        |  |

| Test Step 2.27 (Repeat Count = 1) | ✓           |
|-----------------------------------|-------------|
| Name                              | Input Value |
| BattSwitched_Volt_M_f32           | 10.8000002  |
| Batt_Volt_M_f32                   | 10.6999998  |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 2636        |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 2637        |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 2638        |

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Input Value DMAData\_G\_str.SlowADC\_Cnt\_u16[3] 2639 IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16 53820 Rte\_Inst\_IoHwAbstractionUsr tgt\_Rte\_Inst\_IoHwAbstractionUsr Rte\_Task\_2ms\_10.Rte\_RB.Rte\_loHwAbstractionUsr\_loHwAb\_ReadADC.Rte\_SysC 2556 SysCVSwitch Volt M f32 16.2000008 Temperature\_Volt\_M\_f32 2.70000005 Vref\_Volt\_M\_f32 410.799988 k\_ADCVrefScaling\_Uls\_f32 56.7999992 k\_SlowADCValidDiag\_Cnt\_str.Threshold 49140 k\_SlowADCValidDiag\_Cnt\_str.PStep k\_SlowADCValidDiag\_Cnt\_str.NStep 14040 k\_VrefMax\_Volts\_f32 3 88499999 k\_VrefMin\_Volts\_f32 2.5  $k\_VrefOORDiag\_Cnt\_str.Threshold$ 777 k\_VrefOORDiag\_Cnt\_str.PStep 777 k\_VrefOORDiag\_Cnt\_str.NStep 777 tgt\_loHwAb\_ReadADC\_BattSwitched\_Volt\_f32.value 10.8000002 tgt\_loHwAb\_ReadADC\_Batt\_Volt\_f32.value 10.6999998  $tgt\_loHwAb\_ReadADC\_SysCVSwitch\_Volt\_f32.value$ 16.2000008 tgt\_loHwAb\_ReadADC\_TemperatureADC\_Volt\_f32.value 2.70000005  $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_BattSwitched\_Volt\_f32$ tgt\_loHwAb\_ReadADC\_BattSwitched\_Volt\_f32 tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_Batt\_Volt\_f32 tgt\_IoHwAb\_ReadADC\_Batt\_Volt\_f32  $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_SysCVSwitch\_Volt\_f32$  $tgt\_loHwAb\_ReadADC\_SysCVSwitch\_Volt\_f32$ tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_Volt\_f32 tgt\_loHwAb\_ReadADC\_TemperatureADC\_Volt\_f32 Name **Actual Value Expected Value** BattSwitched\_Volt\_M\_f32 10.8578196 ± 0.00732600732600733 10.8578205 Batt\_Volt\_M\_f32 21.7242661 21.7242641 ± 0.00732600732600733 CDD ePWM4CMPB Cnt G u16 65535 65535 IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16 777 777 ± 0  $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(NTC\_Cnt\_T\_enum)$ 70 70  $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Param\_Cnt\_T\_u08)$ 1 1 Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum) 10.5163269 ± 0.00488400488400488 SysCVSwitch\_Volt\_M\_f32 10.5163279 3.21855927 ± 0.00122100122100122 Temperature Volt M f32 3.21855927 Vref\_Volt\_M\_f32 182.952881 182.952866 ± 0.0009 tgt\_loHwAb\_ReadADC\_BattSwitched\_Volt\_f32.value 10.8578205 10.8578196 ± 0.00732600732600733 tgt\_loHwAb\_ReadADC\_Batt\_Volt\_f32.value 21.7242661 21.7242641 ± 0.00732600732600733 tgt\_loHwAb\_ReadADC\_SysCVSwitch\_Volt\_f32.value 10.5163279  $10.5163269 \pm 0.00488400488400488$ 3.21855927 ± 0.00122100122100122 3.21855927  $tgt\_loHwAb\_ReadADC\_TemperatureADC\_Volt\_f32.value$ 



| Test Step 2.28 (Repeat Count = 1)                                       | Input Value                     |                                  |       |
|---|---------------------------------|----------------------------------|-------|
| Name  | Input Value                     |                                  |       |
| BattSwitched_Volt_M_f32   | 11                              |                                  |       |
| Batt_Volt_M_f32   | 10.8999996                      |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 2826                            |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 2827                            |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 2828                            |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 2829                            |                                  |       |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 56160                           |                                  |       |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |                                  |       |
| Rte_Task_2ms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC.Rte_Sys    |                                 |                                  |       |
| SysCVSwitch_Volt_M_f32  | 16.6000004                      |                                  |       |
| Temperature_Volt_M_f32  | 2.79999995                      |                                  |       |
| Vref_Volt_M_f32   | 455.899994                      |                                  |       |
| k_ADCVrefScaling_Uls_f32  | 70.0999985                      |                                  |       |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 51480                           |                                  |       |
| k_SlowADCValidDiag_Cnt_str.PStep  | 65535                           |                                  |       |
| k_SlowADCValidDiag_Cnt_str.NStep  | 16380                           |                                  |       |
| k_VrefMax_Volts_f32   | 4.07000017                      |                                  |       |
| k_VrefMin_Volts_f32   | 4.07000017                      |                                  |       |
| k_VrefOORDiag_Cnt_str.Threshold   | 814                             |                                  |       |
| k_VrefOORDiag_Cnt_str.PStep   | 814                             |                                  |       |
| k_VrefOORDiag_Cnt_str.NStep   | 814                             |                                  |       |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 11                              |                                  |       |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 10.8999996                      |                                  |       |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 16.6000004                      |                                  |       |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2.79999995                      |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitch   | ed_Volt_f32                      |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f  | 32                               |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwit    | ch_Volt_f32                      |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_Temperatu    | reADC_Volt_f32                   |       |
| Name  | Actual Value                    | Expected Value                   | Resul |
| BattSwitched_Volt_M_f32   | 11.6395512                      | 11.6395502 ± 0.00732600732600733 | •     |
| Batt_Volt_M_f32   | 23.2895336                      | 23.2895317 ± 0.00732600732600733 |       |
| CDD ePWM4CMPB Cnt G u16   | 65535                           | 65535                            |       |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 814                             | 814 ± 0                          |       |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC Cnt T enum)    | 70                              | 70                               | ٠,    |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(Param Cnt T u08)   | 1                               | 1                                |       |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                               | 1                                | ٠,    |
| SysCVSwitch_Volt_M_f32  | 11.0676537                      | 11.0676527 ± 0.00488400488400488 |       |
| Temperature_Volt_M_f32  | 3.4505496                       | 3.45054936 ± 0.00122100122100122 | ٠,    |
| Vref Volt M f32   | 242.054703                      | 242.054703 ± 0.0009              |       |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                          | 11.6395512                      | 11.6395502 ± 0.00732600732600733 |       |
| tgt IoHwAb ReadADC Batt Volt f32.value                                  | 23.2895336                      | 23.2895317 ± 0.00732600732600733 |       |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value                           | 11.0676537                      | 11.0676527 ± 0.00488400488400488 |       |
| Go  |                                 |                                  |       |

| Test Step 2.29 (Repeat Count = 1)  | · ·                             |
|--|---------------------------------|
| Name   | Input Value                     |
| BattSwitched_Volt_M_f32  | 11.1999998                      |
| Batt_Volt_M_f32  | 11.1000004                      |
| DMAData_G_str.SlowADC_Cnt_u16[0]   | 3016                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]   | 3017                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]   | 3018                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]   | 3019                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 65535                           |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr |
| $Rte\_Task\_2ms\_10.Rte\_RB.Rte\_loHwAbstractionUsr\_loHwAb\_ReadADC.Rte\_System (Continuous Continuous Co$ | C 2824                          |
| SysCVSwitch_Volt_M_f32   | 17                              |
| Temperature_Volt_M_f32   | 2.9000001                       |
| Vref_Volt_M_f32  | 490.600006                      |
| k_ADCVrefScaling_Uls_f32   | 83.4000015                      |
| k_SlowADCValidDiag_Cnt_str.Threshold   | 51480                           |
| k_SlowADCValidDiag_Cnt_str.PStep   | 835                             |
| k_SlowADCValidDiag_Cnt_str.NStep   | 16380                           |
| k_VrefMax_Volts_f32  | 4.25500011                      |
| k_VrefMin_Volts_f32  | 4.25500011                      |
| k_VrefOORDiag_Cnt_str.Threshold  | 851                             |
| k_VrefOORDiag_Cnt_str.PStep  | 851                             |
| k_VrefOORDiag_Cnt_str.NStep  | 851                             |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 11.1999998                      |

3.4505496

tgt\_loHwAb\_ReadADC\_TemperatureADC\_Volt\_f32.value

3.45054936 ± 0.00122100122100122

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| Name  | Input Value                            |                                  |          |
|---|--|----------------------------------|----------|
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 11.1000004                             |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                   | 17                                     |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                | 2.9000001                              |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32            | tgt_loHwAb_ReadADC_BattSwitched_Volt_f | 32                               |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                    | tgt_loHwAb_ReadADC_Batt_Volt_f32       |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32             | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_   | f32                              |          |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_Volt\_f32$ | tgt_loHwAb_ReadADC_TemperatureADC_V    | /olt_f32                         |          |
| Name  | Actual Value                           | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 12.4212809                             | 12.4212799 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 24.8548012                             | 24.8547993 ± 0.00732600732600733 | <b>✓</b> |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                  | 65535                            | <b>~</b> |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 851                                    | 851 ± 0                          | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)            | 70                                     | 70                               | •        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)           | 1                                      | 1                                | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         | 1                                      | 1                                | •        |
| SysCVSwitch_Volt_M_f32  | 11.6189785                             | 11.6189785 ± 0.00488400488400488 | <b>✓</b> |
| Temperature_Volt_M_f32  | 3.6825397                              | 3.6825397 ± 0.00122100122100122  | •        |
| Vref_Volt_M_f32   | 307.327484                             | 307.327484 ± 0.0009              | <b>✓</b> |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                  | 12.4212809                             | 12.4212799 ± 0.00732600732600733 | <b>~</b> |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 24.8548012                             | 24.8547993 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                   | 11.6189785                             | 11.6189785 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                | 3.6825397                              | 3.6825397 ± 0.00122100122100122  | <b>✓</b> |

| Test Step 2.30 (Repeat Count = 1)   |   |   |      |
|---|---|---|------|
| Name  | Input Value                             |   |      |
| BattSwitched_Volt_M_f32   | 5.5999999                               |   |      |
| Batt_Volt_M_f32   | 5.5                                     |   |      |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 1496                                    |   |      |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 1497                                    |   |      |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 1498                                    |   |      |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 1499                                    |   |      |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 39780                                   |   |      |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr         |   |      |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_Sys  | sC 1752                                 |   |      |
| SysCVSwitch_Volt_M_f32  | 5.80000019                              |   |      |
| Temperature_Volt_M_f32  | 0.100000001                             |   |      |
| Vref_Volt_M_f32   | 100.099998                              |   |      |
| k_ADCVrefScaling_Uls_f32  | 83.9000015                              |   |      |
| k_SlowADCValidDiag_Cnt_str.Threshold  | 0                                       |   |      |
| k_SlowADCValidDiag_Cnt_str.PStep  | 18720                                   |   |      |
| k_SlowADCValidDiag_Cnt_str.NStep  | 70                                      |   |      |
| k_VrefMax_Volts_f32   | 2.7750001                               |   |      |
| k_VrefMin_Volts_f32   | 0                                       |   |      |
| k_VrefOORDiag_Cnt_str.Threshold   | 555                                     |   |      |
| k_VrefOORDiag_Cnt_str.PStep   | 0                                       |   |      |
| k_VrefOORDiag_Cnt_str.NStep   | 0                                       |   |      |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value  | 5.5999999                               |   |      |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 5.5                                     |   |      |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value   | 13.8000002                              |   |      |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value  | 0.100000001                             |   |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32  | tgt IoHwAb ReadADC BattSwitch           | hed Volt f32  |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32  | tgt_loHwAb_ReadADC_Batt_Volt_           | f32   |      |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32   | tgt IoHwAb ReadADC SysCVSw              |   |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_Temperat             | rureADC_Volt_f32  |      |
| Name  | Actual Value                            | Expected Value  | Resu |
| BattSwitched Volt M f32   | 6.16743946                              | 6.16743898 ± 0.00732600732600733                                    |      |
| Batt Volt M f32   | 12.3326607                              | 12.3326597 ± 0.00732600732600733                                    |      |
| CDD ePWM4CMPB Cnt G u16   | 65535                                   | 65535   |      |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 555                                     | 555 ± 0   |      |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(NTC Cnt T enum)  | 70                                      | 70  |      |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(Param Cnt T u08)   | 1                                       | 1   |      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)   | 1                                       | 1   |      |
| SysCVSwitch Volt M f32  | 7.20837498                              | 7.2083745 ± 0.00488400488400488                                     |      |
| Temperature Volt M f32  | 1.82661784                              | 1.82661784 ± 0.00122100122100122                                    |      |
| Vref Volt M f32   | 153.45813                               | 153.458115 ± 0.0009   |      |
|   | 6.16743946                              | 6.16743898 ± 0.00732600732600733                                    |      |
| tot IoHwAh ReadADC BattSwitched Volt f32 value  |   | 0.107 +3030 ± 0.007 320007 32000733                                 | 1    |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value  | *************************************** | 12 3326597 + 0 00732600732600733                                    |      |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value tgt_loHwAb_ReadADC_Batt_Volt_f32.value tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value | 12.3326607<br>7.20837498                | 12.3326597 ± 0.00732600732600733<br>7.2083745 ± 0.00488400488400488 |      |



| SeatSwitched_Voit_M_192   5.80000019   5.800000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5.80000019   5. | Test Step 2.31 (Repeat Count = 1)                                       |  |                                  | ✓        |
|--|---|--|----------------------------------|----------|
| Batt_Volt_M_122  | Name  | Input Value                            |                                  |          |
| DMAData_G_str_SlowADC_Cnt_u16[0]   1686   1687   1688   1689    | BattSwitched_Volt_M_f32   | 5.80000019                             |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[7]   1687   1688   1688   1688   1689   1688   1689   1689   1689   1689   1689   1689   1688    | Batt_Volt_M_f32   | 5.69999981                             |                                  |          |
| MADIAIL_C_str.SlowADC_Cnt_u16[2]   1688  | DMAData G str.SlowADC Cnt u16[0]  | 1686                                   |                                  |          |
| MADBLA_C_str_SlowADC_Cnt_ut  | DMAData G str.SlowADC Cnt u16[1]  | 1687                                   |                                  |          |
| DelhwAb_ADCVIrefErrorAcc_Cnt_M_u16   | DMAData G str.SlowADC Cnt u16[2]  | 1688                                   |                                  |          |
| Rite_Inst_IoHwAbstractionUsr   | DMAData_G_str.SlowADC_Cnt_u16[3]  | 1689                                   |                                  |          |
| Rte_Task_Zms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC.Rte_SysC   1886   | IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 42120                                  |                                  |          |
| SysCVSwitch Volt M_132   | Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr        |                                  |          |
| Temperature_Voit_M_f32   | Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC   | 1886                                   |                                  |          |
| VerE_Voit_M_[32  | SysCVSwitch_Volt_M_f32  | 6.19999981                             |                                  |          |
| K_ADCVrefScaling_Uls_f32   | Temperature_Volt_M_f32  | 0.200000003                            |                                  |          |
|  | Vref_Volt_M_f32   | 120.199997                             |                                  |          |
| K_SlowADCValidDiag_Cnt_str.PStep   | k_ADCVrefScaling_Uls_f32  | 94.0999985                             |                                  |          |
| K_VirefMax_Volts_f32   | k_SlowADCValidDiag_Cnt_str.Threshold                                    | 65535                                  |                                  |          |
| k_VrefMax_Voits_f32  | k_SlowADCValidDiag_Cnt_str.PStep  | 21060                                  |                                  |          |
| K_VrefMin_Volts_[32   0.185000002  | k_SlowADCValidDiag_Cnt_str.NStep  | 9360                                   |                                  |          |
| K_VrefOORDiag_Cnt_str.Threshold   592     K_VrefOORDiag_Cnt_str.PStep   37     K_VrefOORDiag_Cnt_str.NStep   37     K_VrefVolt_M_S2   37     K_VrefVolt_M_S2   37     K_VrefVolt_M_S2   37     K_Volt_M_S2   38     K_VetLal_Value   48     K_VetL | k_VrefMax_Volts_f32   | 2.96000004                             |                                  |          |
| VerfOORDiag_Cnt_str.NStep   37   37   37   37   37   37   37   3   | k_VrefMin_Volts_f32   | 0.185000002                            |                                  |          |
| Section   Sect | k_VrefOORDiag_Cnt_str.Threshold   | 592                                    |                                  |          |
| St_IoHwAb_ReadADC_Batt_Volt_f32.value   5.80000019   | k_VrefOORDiag_Cnt_str.PStep   | 37                                     |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value         5.69999981           tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value         14.1999998           tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value         0.200000003           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_BattSwitched_Volt_f32         tgt_loHwAb_ReadADC_Batt_Volt_f32           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_Batt_Volt_f32         tgt_loHwAb_ReadADC_Batt_Volt_f32           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_SysCVSwitch_Volt_f32         tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_TemperatureADC_Volt_f32         tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32           Name         Actual Value         Expected Value           BattSwitched_Volt_M_f32         13.8979282         13.8979273 ± 0.00732600732600733           Batt_Volt_M_f32         13.8979282         13.8979273 ± 0.00732600732600733           CDD_ePWM4CMPB_Cnt_G_u16         65535         65535           LoHwAb_ADCVertErrorAcc_Cnt_M_u16         592         592 ± 0           Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)         70         70           Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         1         1           SysCVSwitch_Volt_M_f32         7.75969982         7.75969982 ± 0.00488400488           Vref_Volt_M_f32         193.944824   | k_VrefOORDiag_Cnt_str.NStep   | 37                                     |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value         14.1999998           tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value         0.200000003           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_BattSwitched_Volt_f32         tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_Batt_Volt_f32           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_SysCVSwitch_Volt_f32         tgt_Ict_Inst_loHwAbstractionUsr.loHwAb_ReadADC_SysCVSwitch_Volt_f32           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_TemperatureADC_Volt_f32         tgt_IoHwAb_ReadADC_TemperatureADC_Volt_f32           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_TemperatureADC_Volt_f32         tgt_IoHwAb_ReadADC_TemperatureADC_Volt_f32           Name         Actual Value         Expected Value           BattSwitched_Volt_M_f32         6.94916964         6.94916916 ± 0.00732600732600733         ✓           Batt_Volt_M_f32         13.8979282         13.8979273 ± 0.00732600732600733         ✓           CDD_ePWM4CMPB_Cnt_G_u16         592         592 ± 0         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)         70         70         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         1         1            SysCVSwitch_Volt_M_f32         7.75969982 ± 0.00488400488400488         ✓           Vref_Volt_M_f32         193.944824         193.944809 ± 0.0009         ✓ <td>tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value</td> <td>5.80000019</td> <td></td> <td></td>  | tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.80000019                             |                                  |          |
| Igt_loHwAb_ReadADC_TemperatureADC_Volt_f32_value   0.200000003   Igt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_BattSwitched_Volt_f32   Igt_loHwAb_ReadADC_BattSwitched_Volt_f32   Igt_loHwAb_ReadADC_Batt_Volt_f32   Igt_loHwAb_ReadADC_Batt_Volt_f32   Igt_loHwAb_ReadADC_SysCVSwitch_Volt_f32   Igt_loHwAb_ReadADC_SysCVSwitch_Volt_f32   Igt_loHwAb_ReadADC_SysCVSwitch_Volt_f32   Igt_loHwAb_ReadADC_SysCVSwitch_Volt_f32   Igt_loHwAb_ReadADC_SysCVSwitch_Volt_f32   Igt_loHwAb_ReadADC_SysCVSwitch_Volt_f32   Igt_loHwAb_ReadADC_TemperatureADC_Volt_f32   Igt_loHwAb_TemperatureADC_Volt_f32   Igt_loHwAb_TemperatureADC_Volt_f32   Igt_loHwAb_TemperatureADC_Volt_f32   Igt_loHwAb_TemperatureADC_Volt_f32    | tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 5.69999981                             |                                  |          |
| tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_BattSwitched_Volt_f32         tgt_IoHwAb_ReadADC_BattSwitched_Volt_f32           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_Batt_Volt_f32         tgt_IoHwAb_ReadADC_Batt_Volt_f32           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_SysCVSwitch_Volt_f32         tgt_IoHwAb_ReadADC_SysCVSwitch_Volt_f32           tgt_Rte_Inst_loHwAbstractionUsr.loHwAb_ReadADC_TemperatureADC_Volt_f32         tgt_IoHwAb_ReadADC_TemperatureADC_Volt_f32           Name         Actual Value         Expected Value         Result           Batt_Volt_M_f32         6.94916964         6.94916916 ± 0.00732600732600733         ✓           Batt_Volt_M_f32         13.8979282         13.8979273 ± 0.00732600733600733         ✓           CDD_ePWM4CMPB_Cnt_G_u16         65535         65535         65535         ✓           IoHwAb_ADCVrefErrorAcc_Cnt_M_u16         592         592 ± 0         ✓           Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)         70         70         ✓           Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         1         1         1           SysCVSwitch_Volt_M_f32         7.75969982         7.75969982 ± 0.00488400488400488         ✓           Temperature_Volt_M_f32         193.944824         193.944809 ± 0.0009         ✓           Vref_Volt_M_f32         193.944824  | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 14.1999998                             |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32         tgt_IoHwAb_ReadADC_Batt_Volt_f32         tgt_IoHwAb_ReadADC_Batt_Volt_f32           tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32         tgt_IoHwAb_ReadADC_TemperatureADC_Volt_f32         tgt_IoHwAb_ReadADC_TemperatureADC_Volt_f32           Name         Actual Value         Expected Value         Result           Batt_Volt_M_f32         6.94916964         6.94916916 ± 0.00732600732600733         ✓           Batt_Volt_M_f32         13.8979282         13.8979273 ± 0.00732600732600733         ✓           CDD_ePWMACMPB_Cnt_G_u16         65535         65535         65535         ✓           IoHwAb_ADCVrefErrorAcc_Cnt_M_u16         592         592 ± 0         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)         70         70         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)         1         1         ✓           SysCVSwitch_Volt_M_f32         7.75969982         7.75969982 ± 0.00488400488400488         ✓           Temperature_Volt_M_f32         2.05860806         2.05860806 ± 0.00122100122100122         ✓           Vref_Volt_M_f32         193.944824         193.944809 ± 0.0009         ✓           tgt_IoHwAb_ReadADC_Batt_Volt_f32.value         6.94916964         <   | tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 0.200000003                            |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32         tgt_IoHwAb_ReadADC_SysCVSwitch_Volt_f32           tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32         tgt_IoHwAb_ReadADC_TemperatureADC_Volt_f32           Name         Actual Value         Expected Value         Result           BattSwitched_Volt_M_f32         6.94916964         6.94916916 ± 0.00732600732600733         ✓           Batt_Volt_M_f32         13.8979282         13.8979273 ± 0.00732600732600733         ✓           CDD_ePWM4CMPB_Cnt_G_u16         65535         65535         65535         ✓           IoHwAb_ADCVrefErrorAcc_Cnt_M_u16         592         592 ± 0         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)         70         70         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_Tu08)         1         1         1         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         1         1         1         ✓           SysCVSwitch_Volt_M_f32         7.75969982         7.75969982 ± 0.00488400488400488         ✓           Temperature_Volt_M_f32         193.944824         193.944809 ± 0.0009         ✓           Vref_Volt_M_f32         193.944824         193.944809 ± 0.000732600732600733         ✓           tg  | tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitched_Volt_f | 32                               |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32         tgt_IoHwAb_ReadADC_TemperatureADC_Volt_f32           Name         Actual Value         Expected Value         Result           BattSwitched_Volt_M_f32         6.94916964         6.94916916 ± 0.00732600732600733         ✓           Batt_Volt_M_f32         13.8979282         13.8979273 ± 0.00732600732600733         ✓           CDD_ePWM4CMPB_Cnt_G_u16         65535         65535         65535         ✓           IoHwAb_ADCVrefErrorAcc_Cnt_M_u16         592         592 ± 0         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)         70         70         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         1         1         1           SysCVSwitch_Volt_M_f32         7.75969982         7.75969982 ± 0.00488400488400488         ✓           Temperature_Volt_M_f32         2.05860806         2.05860806 ± 0.00122100122100122         ✓           Vref_Volt_M_f32         193.944824         193.944809 ± 0.0009         ✓           tg_IoHwAb_ReadADC_BattSwitched_Volt_f32.value         6.94916964         6.94916916 ± 0.00732600732600733         ✓           tg_IoHwAb_ReadADC_Batt_Volt_f32.value         13.8979282         13.8979273 ± 0.00732600732600733         ✓   | tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32       |                                  |          |
| Name         Actual Value         Expected Value         Result           BattSwitched_Volt_M_f32         6.94916964         6.94916916 ± 0.00732600732600733         ✓           Batt_Volt_M_f32         13.8979282         13.8979273 ± 0.00732600732600733         ✓           CDD_ePWM4CMPB_Cnt_G_u16         65535         65535         65535         ✓           IoHwAb_ADCVrefErrorAcc_Cnt_M_u16         592         592 ± 0         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)         70         70         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_Tu08)         1         1         1         ✓           Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         1         1         1         ✓           SysCVSwitch_Volt_M_f32         7.75969982         7.75969982 ± 0.00488400488400488         ✓           Temperature_Volt_M_f32         2.05860806         2.05860806 ± 0.00122100122100122         ✓           Vref_Volt_M_f32         193.944824         193.944809 ± 0.0009         ✓           tg_IoHwAb_ReadADC_BattSwitched_Volt_f32.value         6.94916964         6.94916916 ± 0.00732600732600733         ✓           tg_IoHwAb_ReadADC_Batt_Volt_f32.value         13.8979282         13.8979273 ± 0.00732600732600733         ✓  <   | tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_   | f32                              |          |
| BattSwitched_Volt_M_f32  | tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC_V    | olt_f32                          |          |
| Batt_Volt_M_f32       13.8979282       13.8979273 ± 0.00732600732600733         CDD_ePWM4CMPB_Cnt_G_u16       65535       65535         IoHwAb_ADCVrefErrorAcc_Cnt_M_u16       592       592 ± 0         Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)       70       70         Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_Tu08)       1       1         Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)       1       1         SysCVSwitch_Volt_M_f32       7.75969982       7.75969982 ± 0.00488400488400488         Temperature_Volt_M_f32       2.05860806       2.05860806 ± 0.00122100122100122         Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009         tgt_IoHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733         tgt_IoHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733  | Name  | Actual Value                           | Expected Value                   | Result   |
| CDD_ePWM4CMPB_Cnt_G_u16       65535       65535       592 ± 0         IoHwAb_ADCVrefErrorAcc_Cnt_M_u16       592       592 ± 0       70         Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)       70       70       70         Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)       1       1       1         Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)       1       1       1         SysCVSwitch_Volt_M_f32       7.75969982       7.75969982 ± 0.00488400488400488       *         Temperature_Volt_M_f32       2.05860806       2.05860806 ± 0.00122100122100122       *         Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009       *         tg_loHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733       *         tg_loHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733       *   | BattSwitched Volt M f32   | 6.94916964                             | 6.94916916 ± 0.00732600732600733 |          |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16       592       592 ± 0         Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)       70       70         Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)       1       1         Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)       1       1         SysCVSwitch_Volt_M_f32       7.75969982       7.75969982 ± 0.00488400488400488         Temperature_Volt_M_f32       2.05860806       2.05860806 ± 0.00122100122100122         Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009         tg_IoHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733         tg_IoHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733   | Batt Volt M f32   | 13.8979282                             | 13.8979273 ± 0.00732600732600733 | <b>✓</b> |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)       70       70         Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_Tu08)       1       1         Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)       1       1         SysCVSwitch_Volt_M_f32       7.75969982       7.75969982 ± 0.00488400488400488         Temperature_Volt_M_f32       2.05860806       2.05860806 ± 0.00122100122100122         Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009         tgt_IoHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733         tgt_IoHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733   | CDD ePWM4CMPB Cnt G u16   | 65535                                  | 65535                            | -        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_Tu08)       1       1         Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_Tenum)       1       1         SysCVSwitch_Volt_M_f32       7.75969982       7.75969982 ± 0.00488400488400488         Temperature_Volt_M_f32       2.05860806       2.05860806 ± 0.00122100122100122         Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009         tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733         tgt_loHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733   | IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 592                                    | 592 ± 0                          | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)       1       1         SysCVSwitch_Volt_M_f32       7.75969982       7.75969982 ± 0.00488400488400488         Temperature_Volt_M_f32       2.05860806       2.05860806 ± 0.00122100122100122         Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009         tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733         tgt_loHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733   | Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                                     | 70                               | <b>✓</b> |
| SysCVSwitch_Volt_M_f32       7.75969982       7.75969982 ± 0.00488400488400488         Temperature_Volt_M_f32       2.05860806       2.05860806 ± 0.00122100122100122         Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009         tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733         tgt_loHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733   | Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1                                      | 1                                | <b>✓</b> |
| Temperature_Volt_M_f32       2.05860806       2.05860806 ± 0.00122100122100122       ✓         Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009       ✓         tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733       ✓         tgt_loHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733       ✓  | Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                                      | 1                                | <b>✓</b> |
| Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009       ✓         tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733       ✓         tgt_loHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733       ✓   |   | 7.75969982                             | 7.75969982 ± 0.00488400488400488 | <b>✓</b> |
| Vref_Volt_M_f32       193.944824       193.944809 ± 0.0009         tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value       6.94916964       6.94916916 ± 0.00732600732600733         tgt_loHwAb_ReadADC_Batt_Volt_f32.value       13.8979282       13.8979273 ± 0.00732600732600733   | Temperature_Volt_M_f32  | 2.05860806                             | 2.05860806 ± 0.00122100122100122 | -        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value 6.94916964 6.94916916 ± 0.00732600732600733 ✓ tgt_loHwAb_ReadADC_Batt_Volt_f32.value 13.8979282 13.8979273 ± 0.007326007326007333 ✓   |   |  |                                  | <b>✓</b> |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value 13.8979282 13.8979273 ± 0.00732600732600733    ✓  |   | 6.94916964                             | 6.94916916 ± 0.00732600732600733 | -        |
|  |   | 13.8979282                             | 13.8979273 ± 0.00732600732600733 | <b>✓</b> |
|  | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 7.75969982                             | 7.75969982 ± 0.00488400488400488 | -        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value 2.05860806 2.05860806 ± 0.00122100122100122   | tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 2.05860806                             | 2.05860806 ± 0.00122100122100122 | ~        |

| Test Step 2.32 (Repeat Count = 1)                                     | ✓                               |
|---|---------------------------------|
| Name  | Input Value                     |
| BattSwitched_Volt_M_f32   | 6                               |
| Batt_Volt_M_f32   | 5.9000001                       |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 1876                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 1877                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 1878                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 1879                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 44460                           |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |
| Rte_Task_2ms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC.Rte_SysC | 2020                            |
| SysCVSwitch_Volt_M_f32  | 6.5999999                       |
| Temperature_Volt_M_f32  | 0.300000012                     |
| Vref_Volt_M_f32   | 140.300003                      |
| k_ADCVrefScaling_Uls_f32  | 3.5999999                       |
| k_SlowADCValidDiag_Cnt_str.Threshold                                  | 32767                           |
| k_SlowADCValidDiag_Cnt_str.PStep                                      | 23400                           |
| k_SlowADCValidDiag_Cnt_str.NStep                                      | 100                             |
| k_VrefMax_Volts_f32   | 3.14499998                      |
| k_VrefMin_Volts_f32   | 0.370000005                     |
| k_VrefOORDiag_Cnt_str.Threshold                                       | 629                             |
| k_VrefOORDiag_Cnt_str.PStep   | 74                              |

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| Name  | Input Value                            |                                  |          |
|---|--|----------------------------------|----------|
| k_VrefOORDiag_Cnt_str.NStep   | 74                                     |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                  | 6                                      |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 5.9000001                              |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                   | 14.6000004                             |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                | 0.300000012                            |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32            | tgt_loHwAb_ReadADC_BattSwitched_Volt_f | 32                               |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                    | tgt_loHwAb_ReadADC_Batt_Volt_f32       |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32             | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_t  | 32                               |          |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_Volt\_f32$ | tgt_loHwAb_ReadADC_TemperatureADC_V    | olt_f32                          |          |
| Name  | Actual Value                           | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 7.73089981                             | 7.73089933 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 15.4631948                             | 15.4631948 ± 0.00732600732600733 | •        |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                  | 65535                            | •        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 629                                    | 629 ± 0                          | •        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)            | 70                                     | 70                               | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)           | 1                                      | 1                                | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         | 1                                      | 1                                | ~        |
| SysCVSwitch_Volt_M_f32  | 8.31102562                             | 8.31102562 ± 0.00488400488400488 | •        |
| Temperature_Volt_M_f32  | 2.29059839                             | 2.29059839 ± 0.00122100122100122 | ~        |
| Vref_Volt_M_f32   | 8.2549448                              | 8.2549448 ± 0.000009             | •        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                  | 7.73089981                             | 7.73089933 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 15.4631948                             | 15.4631948 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                   | 8.31102562                             | 8.31102562 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                | 2.29059839                             | 2.29059839 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 2.33 (Repeat Count = 1) Name   | Input Value                   |                                  |      |
|--|-------------------------------|----------------------------------|------|
| BattSwitched Volt M f32  | 6.19999981                    |                                  |      |
|  | 6.0999999                     |                                  |      |
| Batt_Volt_M_f32  | 2066                          |                                  |      |
| DMAData_G_str.SlowADC_Cnt_u16[0]   |                               |                                  |      |
| DMAData_G_str.SlowADC_Cnt_u16[1]   | 2067                          |                                  |      |
| DMAData_G_str.SlowADC_Cnt_u16[2]   | 2068                          |                                  |      |
| DMAData_G_str.SlowADC_Cnt_u16[3]   | 46800                         |                                  |      |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   |                               |                                  |      |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionU | SI                               |      |
| Rte_Task_2ms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC.Rte_!   | 7                             |                                  |      |
| SysCVSwitch_Volt_M_f32   | 0.40000006                    |                                  |      |
| Temperature_Volt_M_f32   | 160.399994                    |                                  |      |
| Vref_Volt_M_f32  | 16.8999996                    |                                  |      |
| k_ADCVrefScaling_UIs_f32   | 65535                         |                                  |      |
| k_SlowADCValidDiag_Cnt_str.Threshold   |                               |                                  |      |
| <_SlowADCValidDiag_Cnt_str.PStep   | 0                             |                                  |      |
| <_SlowADCValidDiag_Cnt_str.NStep   |                               |                                  |      |
| <_VrefMax_Volts_f32 <_VrefMin_Volte_f32  | 3.32999992<br>0.555000007     |                                  |      |
| C_VrefMin_Volts_f32 C_VrefOODDing_Cot_str_Throughold   | 666                           |                                  |      |
| <pre>&lt;_VrefOORDiag_Cnt_str.Threshold</pre>  |                               |                                  |      |
| VrefOORDiag_Cnt_str.PStep  | 111                           |                                  |      |
| k_VrefOORDiag_Cnt_str.NStep  | 111                           |                                  |      |
| gt_loHwAb_ReadADC_BattSwitched_Volt_f32.value  | 6.19999981                    |                                  |      |
| gt_loHwAb_ReadADC_Batt_Volt_f32.value  | 6.0999999                     |                                  |      |
| gt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value   | 15                            |                                  |      |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value   | 0.400000006                   |                                  |      |
| gt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32  | tgt_loHwAb_ReadADC_BattSw     |                                  |      |
| gt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32  | tgt_loHwAb_ReadADC_Batt_Vd    |                                  |      |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32  | tgt_loHwAb_ReadADC_SysCV3     |                                  |      |
| gt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f  |                               | ratureADC_Volt_f32               |      |
| Name   | Actual Value                  | Expected Value                   | Resu |
| BattSwitched_Volt_M_f32  | 8.51262951                    | 8.51262951 ± 0.00732600732600733 | •    |
| Batt_Volt_M_f32  | 17.0284634                    | 17.0284615 ± 0.00732600732600733 |      |
| CDD_ePWM4CMPB_Cnt_G_u16  | 65535                         | 65535                            |      |
| oHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 666                           | 666 ± 0                          |      |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum  | 70                            | 70                               |      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08   | 3) 1                          | 1                                |      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enu  | m) 1                          | 1                                |      |
| SysCVSwitch_Volt_M_f32   | 8.86235142                    | 8.86235046 ± 0.00488400488400488 |      |
|  | 2.52258873                    | 2.52258849 ± 0.00122100122100122 |      |
| Femperature_Volt_M_f32   |                               | 42.6730156 ± 0.00009             |      |
| ·  | 42.6730156                    |                                  |      |
| Vref_Volt_M_f32  | 42.6730156<br>8.51262951      | 8.51262951 ± 0.00732600732600733 |      |
| Temperature_Volt_M_f32 Vref_Volt_M_f32 tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value tgt_loHwAb_ReadADC_Batt_Volt_f32.value |                               |                                  |      |

IoHwAb\_ReadADC



| Name   | Actual Value | Expected Value                   | Result |
|--|--------------|----------------------------------|--------|
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value | 2.52258873   | 2.52258849 ± 0.00122100122100122 |        |

| Name  | Input Value                     |                                  |             |
|---|---------------------------------|----------------------------------|-------------|
| BattSwitched_Volt_M_f32   | 6.4000001                       |                                  |             |
| Batt Volt M f32   | 6.30000019                      |                                  |             |
| DMAData G str.SlowADC Cnt u16[0]  | 2256                            |                                  |             |
| DMAData G str.SlowADC Cnt u16[1]  | 2257                            |                                  |             |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 2258                            |                                  |             |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 2259                            |                                  |             |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 49140                           |                                  |             |
| Rte Inst IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |                                  |             |
| Rte Task 2ms 10.Rte RB.Rte IoHwAbstractionUsr IoHwAb ReadADC.Rte Sys    |                                 |                                  |             |
| SysCVSwitch Volt M f32  | 7.4000001                       |                                  |             |
| Temperature_Volt_M_f32  | 0.5                             |                                  |             |
| Vref Volt M f32   | 180.5                           |                                  |             |
| k ADCVrefScaling Uls f32  | 30.2000008                      |                                  |             |
| k SlowADCValidDiag Cnt str.Threshold                                    | 32767                           |                                  |             |
| k_SlowADCValidDiag_Cnt_str.PStep  | 65535                           |                                  |             |
| k_SlowADCValidDiag_Cnt_str.NStep  | 65535                           |                                  |             |
| k VrefMax Volts f32   | 3.5150001                       |                                  |             |
| k VrefMin Volts f32   | 0.74000001                      |                                  |             |
| k VrefOORDiag Cnt str.Threshold   | 703                             |                                  |             |
| k VrefOORDiag Cnt str.PStep   | 148                             |                                  |             |
| k_VrefOORDiag_Cnt_str.NStep   | 148                             |                                  |             |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                          | 6.4000001                       |                                  |             |
| tgt IoHwAb ReadADC Batt Volt f32.value                                  | 6.30000019                      |                                  |             |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 15.3999996                      |                                  |             |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value                        | 0.5                             |                                  |             |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt IoHwAb ReadADC BattSwitche  | ed Volt f32                      |             |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC Batt Volt f32            | tgt IoHwAb ReadADC Batt Volt f  |                                  |             |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32     | tgt IoHwAb ReadADC SysCVSwit    |                                  |             |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_Temperatu    |                                  |             |
| Name  | Actual Value                    | Expected Value                   | Resu        |
| BattSwitched_Volt_M_f32   | 9.29436016                      | 9.29435921 ± 0.00732600732600733 | ,           |
| Batt Volt M f32   | 18.593729                       | 18.593729 ± 0.00732600732600733  |             |
| CDD ePWM4CMPB Cnt G u16   | 65535                           | 65535                            |             |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 703                             | 703 ± 0                          |             |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                              | 70                               |             |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1                               | 1                                |             |
| Rte Call IoHwAbstractionUsr NxtrDiagMgr SetNTCStatus(Status Cnt T enum) | 1                               | 1                                |             |
| SysCVSwitch Volt M f32  | 9.41367626                      | 9.41367626 ± 0.00488400488400488 |             |
| Temperature Volt M f32  | 2.75457883                      | 2.75457883 ± 0.00122100122100122 |             |
| Vref Volt M f32   | 83.2620316                      | 83.2620239 ± 0.00009             |             |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 9.29436016                      | 9.29435921 ± 0.00732600732600733 |             |
| tgt IoHwAb ReadADC Batt Volt f32.value                                  | 18.593729                       | 18.593729 ± 0.00732600732600733  |             |
| 2   | 1 1 1 1 1                       |                                  | ٠,          |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value                           | 9.41367626                      | 9.41367626 ± 0.00488400488400488 | · · · · · · |

| Test Step 2.35 (Repeat Count = 1)                                     | <b>✓</b>                        |
|---|---------------------------------|
| Name  | Input Value                     |
| BattSwitched_Volt_M_f32   | 6.5999999                       |
| Batt_Volt_M_f32   | 6.5                             |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 2446                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 2447                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 2448                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 2449                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 51480                           |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC | 2422                            |
| SysCVSwitch_Volt_M_f32  | 7.80000019                      |
| Temperature_Volt_M_f32  | 0.600000024                     |
| Vref_Volt_M_f32   | 200.600006                      |
| k_ADCVrefScaling_UIs_f32  | 43.5                            |
| k_SlowADCValidDiag_Cnt_str.Threshold                                  | 49140                           |
| k_SlowADCValidDiag_Cnt_str.PStep                                      | 32767                           |
| k_SlowADCValidDiag_Cnt_str.NStep                                      | 835                             |
| k_VrefMax_Volts_f32   | 3.70000005                      |

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IoHwAb\_ReadADC

| Name   | Input Value                            |                                  |          |
|--|--|----------------------------------|----------|
| k_VrefMin_Volts_f32  | 0.925000012                            |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold  | 740                                    |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep  | 185                                    |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep  | 185                                    |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                   | 6.5999999                              |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 6.5                                    |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                    | 15.8000002                             |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                 | 0.600000024                            |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32             | tgt_loHwAb_ReadADC_BattSwitched_Volt_t | 732                              |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                     | tgt_loHwAb_ReadADC_Batt_Volt_f32       |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32              | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_   | f32                              |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32           | tgt_loHwAb_ReadADC_TemperatureADC_V    | /olt_f32                         |          |
| Name   | Actual Value                           | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32  | 10.0760899                             | 10.0760899 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32  | 20.1589985                             | 20.1589966 ± 0.00732600732600733 | <b>✓</b> |
| CDD_ePWM4CMPB_Cnt_G_u16  | 65535                                  | 65535                            | ~        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 740                                    | 740 ± 0                          | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)             | 70                                     | 70                               | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)            | 1                                      | 1                                | <b>✓</b> |
| $Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ | 1                                      | 1                                | ~        |
| SysCVSwitch_Volt_M_f32   | 9.96500206                             | 9.96500206 ± 0.00488400488400488 | <b>✓</b> |
| Temperature_Volt_M_f32   | 2.98656917                             | 2.98656893 ± 0.00122100122100122 | ~        |
| Vref_Volt_M_f32  | 130.021988                             | 130.021973 ± 0.0009              | <b>✓</b> |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                   | 10.0760899                             | 10.0760899 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value   | 20.1589985                             | 20.1589966 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                    | 9.96500206                             | 9.96500206 ± 0.00488400488400488 | <b>✓</b> |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value                                 | 2.98656917                             | 2.98656893 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 2.36 (Repeat Count = 1)   |                                  |                                  | <b>✓</b> |
|---|----------------------------------|----------------------------------|----------|
| Name  | Input Value                      |                                  |          |
| BattSwitched_Volt_M_f32   | 6.80000019                       |                                  |          |
| Batt_Volt_M_f32   | 6.69999981                       |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 2636                             |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 2637                             |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 2638                             |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 2639                             |                                  |          |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 53820                            |                                  |          |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr  |                                  |          |
| Rte_Task_2ms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC.Rte_s  | SysC 2556                        |                                  |          |
| SysCVSwitch_Volt_M_f32  | 8.19999981                       |                                  |          |
| Temperature_Volt_M_f32  | 0.69999988                       |                                  |          |
| Vref_Volt_M_f32   | 220.699997                       |                                  |          |
| k_ADCVrefScaling_Uls_f32  | 56.7999992                       |                                  |          |
| k_SlowADCValidDiag_Cnt_str.Threshold  | 51480                            |                                  |          |
| k_SlowADCValidDiag_Cnt_str.PStep  | 843                              |                                  |          |
| k_SlowADCValidDiag_Cnt_str.NStep  | 0                                |                                  |          |
| k_VrefMax_Volts_f32   | 3.88499999                       |                                  |          |
| k_VrefMin_Volts_f32   | 1.11000001                       |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold   | 777                              |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep   | 222                              |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep   | 222                              |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value  | 6.80000019                       |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 6.69999981                       |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value   | 16.2000008                       |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value  | 0.69999988                       |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32  | tgt_loHwAb_ReadADC_BattSwitche   | ed_Volt_f32                      |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32  | tgt_loHwAb_ReadADC_Batt_Volt_f3  | 32                               |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32   | tgt_loHwAb_ReadADC_SysCVSwite    | ch_Volt_f32                      |          |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_Volt\_formula to the property of the property o$ | 32 tgt_loHwAb_ReadADC_Temperatur | reADC_Volt_f32                   |          |
| Name  | Actual Value                     | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 10.8578205                       | 10.8578196 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 21.7242661                       | 21.7242641 ± 0.00732600732600733 | -        |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                            | 65535                            | -        |
|   |                                  |                                  |          |

777

70

1

10.5163279

3.21855927

182.952881

10.8578205

777 ± 0

10.5163269 ± 0.00488400488400488

3.21855927 ± 0.00122100122100122

10.8578196 ± 0.00732600732600733

182.952866 ± 0.0009

70

1

Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(NTC\_Cnt\_T\_enum)

Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Param\_Cnt\_T\_u08)

 $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ 

IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16

SysCVSwitch\_Volt\_M\_f32

Temperature\_Volt\_M\_f32

Vref\_Volt\_M\_f32

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| Name   | Actual Value | Expected Value                   | Result   |
|--|--------------|----------------------------------|----------|
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value           | 21.7242661   | 21.7242641 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value    | 10.5163279   | 10.5163269 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value | 3.21855927   | 3.21855927 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 2.37 (Repeat Count = 1)                                       |                                 |                                  |       |
|---|---------------------------------|----------------------------------|-------|
| Name  | Input Value                     |                                  |       |
| BattSwitched_Volt_M_f32   | 7                               |                                  |       |
| Batt_Volt_M_f32   | 6.9000001                       |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 2826                            |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 2827                            |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 2828                            |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 2829                            |                                  |       |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 56160                           |                                  |       |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |                                  |       |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysCo  | 2690                            |                                  |       |
| SysCVSwitch_Volt_M_f32  | 8.60000038                      |                                  |       |
| Temperature_Volt_M_f32  | 0.800000012                     |                                  |       |
| Vref_Volt_M_f32   | 240.800003                      |                                  |       |
| k_ADCVrefScaling_UIs_f32  | 70.0999985                      |                                  |       |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 80                              |                                  |       |
| k_SlowADCValidDiag_Cnt_str.PStep  | 3                               |                                  |       |
| k SlowADCValidDiag Cnt str.NStep  | 65535                           |                                  |       |
| k VrefMax Volts f32   | 4.07000017                      |                                  |       |
| k VrefMin Volts f32   | 1.29499996                      |                                  |       |
| k_VrefOORDiag_Cnt_str.Threshold   | 814                             |                                  |       |
| k VrefOORDiag Cnt str.PStep   | 259                             |                                  |       |
| k VrefOORDiag Cnt str.NStep   | 259                             |                                  |       |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                          | 7                               |                                  |       |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 6.9000001                       |                                  |       |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value                           | 16.6000004                      |                                  |       |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value                        | 0.800000012                     |                                  |       |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32    | tgt IoHwAb ReadADC BattSwitch   | hed Volt f32                     |       |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC Batt Volt f32            | tgt IoHwAb ReadADC Batt Volt    |                                  |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSw      | _                                |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_Temperat     |                                  |       |
| Name  | Actual Value                    | Expected Value                   | Resul |
| BattSwitched Volt M f32   | 11.6395512                      | 11.6395502 ± 0.00732600732600733 | Resul |
|   | 23.2895336                      | 23.2895317 ± 0.00732600732600733 |       |
| Batt_Volt_M_f32   |                                 |                                  |       |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                           | 65535                            |       |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 814                             | 814 ± 0                          |       |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70                              | 70                               |       |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1                               | 1                                | •     |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1                               | 1                                | •     |
| SysCVSwitch_Volt_M_f32  | 11.0676537                      | 11.0676527 ± 0.00488400488400488 | •     |
| Temperature_Volt_M_f32  | 3.4505496                       | 3.45054936 ± 0.00122100122100122 |       |
| Vref_Volt_M_f32   | 242.054703                      | 242.054703 ± 0.0009              |       |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 11.6395512                      | 11.6395502 ± 0.00732600732600733 | •     |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 23.2895336                      | 23.2895317 ± 0.00732600732600733 | •     |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 11.0676537                      | 11.0676527 ± 0.00488400488400488 | •     |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 3.4505496                       | 3.45054936 ± 0.00122100122100122 | -   - |

| Test Step 2.38 (Repeat Count = 1)                                     | ✓                               |
|---|---------------------------------|
| Name  | Input Value                     |
| BattSwitched_Volt_M_f32   | 7.19999981                      |
| Batt_Volt_M_f32   | 7.0999999                       |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 3016                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 3017                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 3018                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 3019                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 65535                           |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_loHwAbstractionUsr |
| Rte_Task_2ms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC.Rte_Syst | 2824                            |
| SysCVSwitch_Volt_M_f32  | 9                               |
| Temperature_Volt_M_f32  | 0.899999976                     |
| Vref_Volt_M_f32   | 260.899994                      |
| k_ADCVrefScaling_Uls_f32  | 83.4000015                      |
| k_SlowADCValidDiag_Cnt_str.Threshold                                  | 53                              |
| k_SlowADCValidDiag_Cnt_str.PStep                                      | 65                              |

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| Name  | Input Value                            |  |          |
|---|--|--|----------|
| k_SlowADCValidDiag_Cnt_str.NStep  | 32767                                  |  |          |
| k_VrefMax_Volts_f32   | 4.25500011                             |  |          |
| k_VrefMin_Volts_f32   | 1.48000002                             |  |          |
| k_VrefOORDiag_Cnt_str.Threshold   | 851                                    |  |          |
| k_VrefOORDiag_Cnt_str.PStep   | 296                                    |  |          |
| k_VrefOORDiag_Cnt_str.NStep   | 296                                    |  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value  | 7.19999981                             |  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 7.0999999                              |  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value   | 17                                     |  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                      | 0.89999976                             |  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32                  | tgt_loHwAb_ReadADC_BattSwitched_Volt_f | 32   |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                          | tgt_loHwAb_ReadADC_Batt_Volt_f32       |  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32                   | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f  | 32   |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32                | tgt_loHwAb_ReadADC_TemperatureADC_V    | olt_f32  |          |
| Name  | Actual Value                           | Expected Value   | Result   |
| BattSwitched_Volt_M_f32   | 12.4212809                             | 12.4212799 ± 0.00732600732600733                                     | ~        |
| Batt_Volt_M_f32   | 24.8548012                             | 24.8547993 ± 0.00732600732600733                                     | <b>✓</b> |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                  | 65535  | <b>✓</b> |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 851                                    | 851 ± 0  | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)                  | 70                                     | 70   | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)                 | 1                                      | 1  | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)               | 1                                      | 1  | ~        |
| SysCVSwitch_Volt_M_f32  | 11.6189785                             | 11.6189785 ± 0.00488400488400488                                     | <b>✓</b> |
| Temperature_Volt_M_f32  | 3.6825397                              | 3.6825397 ± 0.00122100122100122                                      | •        |
| Vref_Volt_M_f32   | 307.327484                             | 307.327484 ± 0.0009  | ~        |
|   | 12.4212809                             | 12.4212799 ± 0.00732600732600733                                     | ~        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value  |  |  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value tgt_loHwAb_ReadADC_Batt_Volt_f32.value | 24.8548012                             | 24.8547993 ± 0.00732600732600733                                     | <b>✓</b> |
|   | 24.8548012<br>11.6189785               | 24.8547993 ± 0.00732600732600733<br>11.6189785 ± 0.00488400488400488 | ~        |

| Test Step 2.39 (Repeat Count = 1)   |           |  |                                  |       |
|---|-----------|--|----------------------------------|-------|
| Name  |           | Input Value                                |                                  |       |
| BattSwitched_Volt_M_f32   |           | 5  |                                  |       |
| Batt_Volt_M_f32   |           | 5  |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[0]  |           | 1216                                       |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[1]  |           | 1216                                       |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[2]  |           | 1216                                       |                                  |       |
| DMAData_G_str.SlowADC_Cnt_u16[3]  |           | 1216                                       |                                  |       |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  |           | 0  |                                  |       |
| Rte_Inst_IoHwAbstractionUsr   |           | tgt_Rte_Inst_IoHwAbstractionUsr            |                                  |       |
| Rte_Task_2ms_10.Rte_RB.Rte_loHwAbstractionUsr_loHwAb_ReadADC  | .Rte_SysC | 1216                                       |                                  |       |
| SysCVSwitch_Volt_M_f32  |           | 5  |                                  |       |
| Temperature_Volt_M_f32  |           | 0  |                                  |       |
| Vref_Volt_M_f32   |           | 0  |                                  |       |
| k_ADCVrefScaling_Uls_f32  |           | 1  |                                  |       |
| k_SlowADCValidDiag_Cnt_str.Threshold  |           | 0  |                                  |       |
| k_SlowADCValidDiag_Cnt_str.PStep  |           | 0  |                                  |       |
| k_SlowADCValidDiag_Cnt_str.NStep  |           | 0  |                                  |       |
| k_VrefMax_Volts_f32   |           | 0  |                                  |       |
| k_VrefMin_Volts_f32   |           | 0  |                                  |       |
| k_VrefOORDiag_Cnt_str.Threshold   |           | 0  |                                  |       |
| k_VrefOORDiag_Cnt_str.PStep   |           | 0  |                                  |       |
| k_VrefOORDiag_Cnt_str.NStep   |           | 0  |                                  |       |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value  |           | 5  |                                  |       |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  |           | 5  |                                  |       |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value   |           | 5  |                                  |       |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value  |           | 0  |                                  |       |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_BattSwitched\_Volt\_States and States are also also also also also also also also$   | _f32      | tgt_loHwAb_ReadADC_BattSwitche             | ed_Volt_f32                      |       |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32  |           | tgt_loHwAb_ReadADC_Batt_Volt_f3            | 32                               |       |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_SysCVSwitch\_Volt\_SysCVSwitch\_SysCV$ | _f32      | tgt_loHwAb_ReadADC_SysCVSwite              | ch_Volt_f32                      |       |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_$  | Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32 |                                  |       |
| Name  |           | Actual Value                               | Expected Value                   | Resul |
| BattSwitched_Volt_M_f32   |           | 5.00307274                                 | 5.00307274 ± 0.00732600732600733 | •     |
| Batt_Volt_M_f32   |           | 10.0177116                                 | 10.0177116 ± 0.00732600732600733 | •     |
| CDD_ePWM4CMPB_Cnt_G_u16   |           | 65535                                      | 65535                            | •     |
| Individe ADOV/mfFmmAnn Ont M ::40   |           | 0  | 0.0                              |       |

0

70

1

5.00307274

1.48473752

0 ± 0

70

1

5.00307274 ± 0.00488400488400488 1.48473752 ± 0.00122100122100122

 $Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(NTC\_Cnt\_T\_enum)$ 

 $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Param\_Cnt\_T\_u08)$ 

 $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ 

IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16

SysCVSwitch\_Volt\_M\_f32

Temperature\_Volt\_M\_f32

IoHwAb\_ReadADC



| Name   | Actual Value | Expected Value                   | Result   |
|--|--------------|----------------------------------|----------|
| Vref_Volt_M_f32                                  | 1.48473752   | 1.48473752 ± 0.000009            | ~        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 5.00307274   | 5.00307274 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value           | 10.0177116   | 10.0177116 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value    | 5.00307274   | 5.00307274 ± 0.00488400488400488 | ~        |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value | 1.48473752   | 1.48473752 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 2.40 (Repeat Count = 1)                                   |                               |                                  |        |
|---|-------------------------------|----------------------------------|--------|
| Name  | Input Value                   |                                  |        |
| BattSwitched_Volt_M_f32   | 31                            |                                  |        |
| Batt_Volt_M_f32   | 31                            |                                  |        |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                    | 3762                          |                                  |        |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                    | 3762                          |                                  |        |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                    | 3762                          |                                  |        |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                    | 3762                          |                                  |        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                    | 65535                         |                                  |        |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionI | Jsr                              |        |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.R      | Rte_SysC 4095                 |                                  |        |
| SysCVSwitch_Volt_M_f32  | 31                            |                                  |        |
| Temperature_Volt_M_f32  | 5                             |                                  |        |
| Vref_Volt_M_f32   | 500                           |                                  |        |
| k_ADCVrefScaling_Uls_f32  | 100                           |                                  |        |
| k_SlowADCValidDiag_Cnt_str.Threshold                                | 65535                         |                                  |        |
| k_SlowADCValidDiag_Cnt_str.PStep                                    | 65535                         |                                  |        |
| k_SlowADCValidDiag_Cnt_str.NStep                                    | 65535                         |                                  |        |
| k_VrefMax_Volts_f32   | 5                             |                                  |        |
| k_VrefMin_Volts_f32   | 5                             |                                  |        |
| k_VrefOORDiag_Cnt_str.Threshold                                     | 1000                          |                                  |        |
| k_VrefOORDiag_Cnt_str.PStep   | 1000                          |                                  |        |
| k_VrefOORDiag_Cnt_str.NStep   | 1000                          |                                  |        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                      | 31                            |                                  |        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                              | 31                            |                                  |        |
| tgt IoHwAb ReadADC SysCVSwitch Volt f32.value                       | 31                            |                                  |        |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value                    | 5                             |                                  |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f3 | tgt IoHwAb ReadADC BattSv     | witched Volt f32                 |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32        | tgt_loHwAb_ReadADC_Batt_\     | /olt f32                         |        |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f   |                               |                                  |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_V     |                               |                                  |        |
| Name  | Actual Value                  | Expected Value                   | Resul  |
| BattSwitched_Volt_M_f32   | 15.4782562                    | 15.4782562 ± 0.00732600732600733 | rtoour |
| Batt Volt M f32   | 30.9922962                    | 30.9922943 ± 0.00732600732600733 |        |
| CDD ePWM4CMPB Cnt G u16   | 65535                         | 65535                            |        |
| IoHwAb ADCVrefErrorAcc Cnt M u16                                    | 1000                          | 1000 ± 0                         |        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_ei   |                               | 70                               |        |
|   | ,                             | 1                                |        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_   | · '                           | 1                                |        |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_  | ,                             |                                  |        |
| SysCVSwitch_Volt_M_f32 Temperature_Volt_M_f32                       | 16.848341                     | 16.848341 ± 0.00488400488400488  |        |
| Temperature_Volt_M_f32  | 4.59340668                    | 4.59340668 ± 0.00122100122100122 |        |
| Vref_Volt_M_f32   | 459.340668                    | 459.340668 ± 0.0009              |        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                      | 15.4782562                    | 15.4782562 ± 0.00732600732600733 | •      |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                              | 30.9922962                    | 30.9922943 ± 0.00732600732600733 | •      |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                       | 16.848341                     | 16.848341 ± 0.00488400488400488  | •      |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                    | 4.59340668                    | 4.59340668 ± 0.00122100122100122 | •      |



#### Test Case 3: Path Test

Specification

Performance Metrics (With "None" Instrumentation and WithPS Environment)

CPU Cycles:

TS3.1 1535.00 Cycles TS3.2 1032.00 Cycles TS3.3 981.00 Cycles TS3.4 991.00 Cycles TS3.5 1490.00 Cycles TS3.5 1490.00 Cycles TS3.6 1447.00 Cycles TS3.7 2933.00 Cycles

#### Description

Vector Description

TS3.1"If (True = DataValid\_Cnt\_T\_lgc)=True;
If (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32)=True;
If (DiagFailed\_m(loHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC)=True"
TS3.2"If (True = DataValid\_Cnt\_T\_lgc)=True;
If (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32)=False;
Elself (Vref\_Volt\_M\_f32 < k\_VrefMin\_Volts\_f32)=False;
If (loHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16 = D\_ZERO\_CNT\_U16)=False

"TS3.1"If (True = DataValid\_Cnt\_T\_lgc)=True;
If (DiagFailed\_m(loHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16 = D\_ZERO\_CNT\_U16)=False

 $\label{eq:total_total_total} TS3.3" If (True = DataValid\_Cnt_T_lgc) = True \ ; \\ If (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32) = True \ ; \\ \\$ 

If (DiagFailed\_m(loHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC)=False

"TS3.4"If (True = DataValid\_Cnt\_T\_lgc)=True;

If (Vref\_Volt\_M\_f32 > k\_VrefMax\_Volts\_f32)=False;

If (Vref\_Volt\_M\_f32 < k\_VrefMin\_Volts\_f32)=True;"

TS3.5"If (True = DataValid\_Cnt\_T\_lgc)=True;

If (Vref\_Volt\_M\_f32 < k\_VrefMax\_Volts\_f32)=False;

If (Vref\_Volt\_M\_f32 < k\_VrefMax\_Volts\_f32)=True;

If (Vref\_Volt\_M\_f32 < k\_VrefMin\_Volts\_f32)= True;

If (DiagFailed\_m(IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16, k\_VrefOORDiag\_Cnt\_str) = D\_TRUE\_CNT\_LGC)=True;

 $\label{eq:total_$ 

If (IoHwAb\_ADCVrefErrorAcc\_Cnt\_M\_u16 = D\_ZERO\_CNT\_U16)=True;

TS3.7" If (True = DataValid\_Cnt\_T\_lgc)=False;

| Test Step 3.1 (Repeat Count = 1)                                       |   |                                  | ~      |  |
|--|---|----------------------------------|--------|--|
| Name   | Input Value                             |                                  |        |  |
| BattSwitched_Volt_M_f32  | 5.5999999                               |                                  |        |  |
| Batt_Volt_M_f32  | 5.5                                     |                                  |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                       | 1216                                    |                                  |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                       | 1217                                    |                                  |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                       | 1218                                    |                                  |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                       | 1220                                    |                                  |        |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                       | 0                                       |                                  |        |  |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr         |                                  |        |  |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_Sys   | C 1216                                  |                                  |        |  |
| SysCVSwitch_Volt_M_f32   | 5.80000019                              |                                  |        |  |
| Temperature_Volt_M_f32   | 0.100000001                             |                                  |        |  |
| Vref_Volt_M_f32  | 100.099998                              |                                  |        |  |
| k_ADCVrefScaling_UIs_f32   | 1.10000002                              |                                  |        |  |
| k_SlowADCValidDiag_Cnt_str.Threshold                                   | 0                                       |                                  |        |  |
| k_SlowADCValidDiag_Cnt_str.PStep                                       | 0                                       | 0                                |        |  |
| k_SlowADCValidDiag_Cnt_str.NStep                                       | 0                                       |                                  |        |  |
| k_VrefMax_Volts_f32  | 0                                       |                                  |        |  |
| k_VrefMin_Volts_f32  | 0                                       |                                  |        |  |
| k_VrefOORDiag_Cnt_str.Threshold  | 0                                       |                                  |        |  |
| k_VrefOORDiag_Cnt_str.PStep  | 0                                       |                                  |        |  |
| k_VrefOORDiag_Cnt_str.NStep  | 0                                       |                                  |        |  |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                         | 5.5999999                               |                                  |        |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                 | 5.5                                     |                                  |        |  |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                          | 5.80000019                              |                                  |        |  |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                       | 0.100000001                             |                                  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32   | tgt_loHwAb_ReadADC_BattSwitched_Volt_t  | 32                               |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32           | tgt_loHwAb_ReadADC_Batt_Volt_f32        |                                  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32    | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32 |                                  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32 | tgt_loHwAb_ReadADC_TemperatureADC_\     | olt_f32                          |        |  |
| Name   | Actual Value                            | Expected Value                   | Result |  |
| BattSwitched_Volt_M_f32  | 5.0195303                               | 5.0195303 ± 0.00732600732600733  | -      |  |
| Batt_Volt_M_f32  | 10.0259504                              | 10.0259495 ± 0.00732600732600733 | -      |  |
| CDD_ePWM4CMPB_Cnt_G_u16  | 65535                                   | 65535                            | -      |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                       | 0                                       | 0 ± 0                            | -      |  |

70

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1

 $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(NTC\_Cnt\_T\_enum)$ 

 $Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Param\_Cnt\_T\_u08)$ 

 $Rte\_Call\_loHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(Status\_Cnt\_T\_enum)$ 





| Name   | Actual Value | Expected Value                   | Result   |
|--|--------------|----------------------------------|----------|
| SysCVSwitch_Volt_M_f32                           | 5.00307274   | 5.00307274 ± 0.00488400488400488 | <b>✓</b> |
| Temperature_Volt_M_f32                           | 1.48473752   | 1.48473752 ± 0.00122100122100122 | <b>✓</b> |
| Vref_Volt_M_f32                                  | 1.63589752   | 1.6358974 ± 0.000009             | <b>✓</b> |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 5.0195303    | 5.0195303 ± 0.00732600732600733  | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value           | 10.0259504   | 10.0259495 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value    | 5.00307274   | 5.00307274 ± 0.00488400488400488 | <b>✓</b> |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value | 1.48473752   | 1.48473752 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 3.2 (Repeat Count = 1)   |                                  |                                  |       |  |
|--|----------------------------------|----------------------------------|-------|--|
| Name   | Input Value                      |                                  |       |  |
| BattSwitched_Volt_M_f32  | 5.5999999                        |                                  |       |  |
| Batt_Volt_M_f32  | 5.5                              |                                  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[0]   | 1216                             |                                  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]   | 1217                             |                                  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]   | 1218                             |                                  |       |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]   | 1220                             |                                  |       |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 15                               |                                  |       |  |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr  |                                  |       |  |
| $Rte\_Task\_2ms\_10.Rte\_RB.Rte\_IoHwAbstractionUsr\_IoHwAb\_ReadADC.Rte\_SysConstant (Section 1) and (Section 1) and$ | 1216                             |                                  |       |  |
| SysCVSwitch_Volt_M_f32   | 5.80000019                       |                                  |       |  |
| Temperature_Volt_M_f32   | 0.100000001                      |                                  |       |  |
| Vref_Volt_M_f32  | 100.099998                       |                                  |       |  |
| k_ADCVrefScaling_Uls_f32   | 1                                |                                  |       |  |
| k_SlowADCValidDiag_Cnt_str.Threshold   | 0                                |                                  |       |  |
| k_SlowADCValidDiag_Cnt_str.PStep   | 0                                |                                  |       |  |
| k_SlowADCValidDiag_Cnt_str.NStep   | 0                                |                                  |       |  |
| k_VrefMax_Volts_f32  | 2                                |                                  |       |  |
| k_VrefMin_Volts_f32  | 0                                |                                  |       |  |
| k_VrefOORDiag_Cnt_str.Threshold  | 25                               |                                  |       |  |
| k_VrefOORDiag_Cnt_str.PStep  | 5                                |                                  |       |  |
| k VrefOORDiag Cnt str.NStep  | 0                                |                                  |       |  |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value   | 5.5999999                        |                                  |       |  |
| tgt IoHwAb ReadADC Batt Volt f32.value   | 5.5                              |                                  |       |  |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value  | 5.80000019                       |                                  |       |  |
| tgt IoHwAb ReadADC TemperatureADC Volt f32.value   | 0.100000001                      |                                  |       |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32   | tgt IoHwAb ReadADC BattSwitched  | Volt f32                         |       |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32   | tgt_loHwAb_ReadADC_Batt_Volt_f32 | -                                |       |  |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32  | tgt IoHwAb ReadADC SysCVSwitch   | Volt f32                         |       |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32   | tgt_loHwAb_ReadADC_TemperatureAl | <del>-</del>                     |       |  |
| Name   | Actual Value                     | Expected Value                   | Resu  |  |
| BattSwitched Volt M f32  | 5.0195303                        | 5.0195303 ± 0.00732600732600733  | Resul |  |
| Batt Volt M f32  | 10.0259504                       | 10.0259495 ± 0.00732600732600733 |       |  |
| CDD ePWM4CMPB Cnt G u16  | 65535                            | 65535                            |       |  |
|  |                                  |                                  |       |  |
| loHwAb_ADCVrefErrorAcc_Cnt_M_u16   | 15<br>70                         | 15 ± 0                           |       |  |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)   |                                  | *none*                           |       |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)  | 1                                | *none*                           |       |  |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)  | 1                                | *none*                           |       |  |
| SysCVSwitch_Volt_M_f32   | 5.00307274                       | 5.00307274 ± 0.00488400488400488 |       |  |
| Temperature_Volt_M_f32   | 1.48473752                       | 1.48473752 ± 0.00122100122100122 |       |  |
| Vref_Volt_M_f32  | 1.48717952                       | 1.48717952 ± 0.000009            |       |  |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value   | 5.0195303                        | 5.0195303 ± 0.00732600732600733  | - '   |  |
| tgt IoHwAb ReadADC Batt Volt f32.value   | 10.0259504                       | 10.0259495 ± 0.00732600732600733 | •     |  |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value  | 5.00307274                       | 5.00307274 ± 0.00488400488400488 |       |  |

| Test Step 3.3 (Repeat Count = 1)                                      | <b>✓</b>                        |
|---|---------------------------------|
| Name  | Input Value                     |
| BattSwitched_Volt_M_f32   | 5.5999999                       |
| Batt_Volt_M_f32   | 5.5                             |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 1216                            |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 1217                            |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 1218                            |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 1220                            |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 15                              |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC | 1216                            |
| SysCVSwitch_Volt_M_f32  | 5.80000019                      |
| Temperature_Volt_M_f32  | 0.100000001                     |

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| Name  | Input Value                                |                                  |        |
|---|--|----------------------------------|--------|
| Vref_Volt_M_f32   | 100.099998                                 |                                  |        |
| k_ADCVrefScaling_UIs_f32  | 1.10000002                                 |                                  |        |
| k_SlowADCValidDiag_Cnt_str.Threshold  | 0  |                                  |        |
| k_SlowADCValidDiag_Cnt_str.PStep  | 0  |                                  |        |
| k_SlowADCValidDiag_Cnt_str.NStep  | 0  |                                  |        |
| k_VrefMax_Volts_f32   | 0  |                                  |        |
| k_VrefMin_Volts_f32   | 0  |                                  |        |
| k_VrefOORDiag_Cnt_str.Threshold   | 25   |                                  |        |
| k_VrefOORDiag_Cnt_str.PStep   | 5  |                                  |        |
| k_VrefOORDiag_Cnt_str.NStep   | 0  |                                  |        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                  | 5.5999999                                  |                                  |        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 5.5  |                                  |        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                   | 5.80000019                                 |                                  |        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                | 0.100000001                                |                                  |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32            | tgt_loHwAb_ReadADC_BattSwitched_Volt_t     | 32                               |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                    | tgt_loHwAb_ReadADC_Batt_Volt_f32           |                                  |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32             | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_       | f32                              |        |
| $tgt\_Rte\_Inst\_IoHwAbstractionUsr.IoHwAb\_ReadADC\_TemperatureADC\_Volt\_f32$ | tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32 |                                  |        |
| Name  | Actual Value                               | Expected Value                   | Result |
| BattSwitched_Volt_M_f32   | 5.0195303                                  | 5.0195303 ± 0.00732600732600733  | ~      |
| Batt_Volt_M_f32   | 10.0259504                                 | 10.0259495 ± 0.00732600732600733 | ~      |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                      | 65535                            | ~      |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 20   | 20 ± 0                           | ~      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)            | 70   | *none*                           | ~      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)           | 1  | *none*                           | ~      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum)         | 1  | *none*                           | ~      |
| SysCVSwitch_Volt_M_f32  | 5.00307274                                 | 5.00307274 ± 0.00488400488400488 | ~      |
| Temperature_Volt_M_f32  | 1.48473752                                 | 1.48473752 ± 0.00122100122100122 | ~      |
| Vref_Volt_M_f32   | 1.63589752                                 | 1.6358974 ± 0.000009             | ~      |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                  | 5.0195303                                  | 5.0195303 ± 0.00732600732600733  | ~      |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 10.0259504                                 | 10.0259495 ± 0.00732600732600733 | ~      |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                   | 5.00307274                                 | 5.00307274 ± 0.00488400488400488 | ~      |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                | 1.48473752                                 | 1.48473752 ± 0.00122100122100122 | ~      |

| Name   | Input Value                           |                                  |        |  |
|--|---------------------------------------|----------------------------------|--------|--|
| BattSwitched_Volt_M_f32  | 6.4000001                             | 6.4000001                        |        |  |
| Batt_Volt_M_f32  | 6.30000019                            |                                  |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                       | 3100                                  | 3100                             |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                       | 3200                                  | 3200                             |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                       | 3000                                  |                                  |        |  |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                       | 3762                                  |                                  |        |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                       | 0                                     |                                  |        |  |
| Rte_Inst_IoHwAbstractionUsr  | tgt_Rte_Inst_IoHwAbstractionUsr       |                                  |        |  |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_Sy    | sC 1216                               |                                  |        |  |
| SysCVSwitch_Volt_M_f32   | 7.4000001                             |                                  |        |  |
| Temperature_Volt_M_f32   | 0.5                                   |                                  |        |  |
| Vref_Volt_M_f32  | 180.5                                 |                                  |        |  |
| k_ADCVrefScaling_Uls_f32   | 1                                     |                                  |        |  |
| k_SlowADCValidDiag_Cnt_str.Threshold                                   | 1                                     |                                  |        |  |
| k_SlowADCValidDiag_Cnt_str.PStep                                       | 0                                     | 0                                |        |  |
| k_SlowADCValidDiag_Cnt_str.NStep                                       | 0                                     | 0                                |        |  |
| k_VrefMax_Volts_f32  | 4.5                                   |                                  |        |  |
| k_VrefMin_Volts_f32  | 4.5                                   |                                  |        |  |
| k_VrefOORDiag_Cnt_str.Threshold  | 500                                   |                                  |        |  |
| k_VrefOORDiag_Cnt_str.PStep  | 300                                   |                                  |        |  |
| k_VrefOORDiag_Cnt_str.NStep  | 500                                   |                                  |        |  |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                         | 6.4000001                             |                                  |        |  |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                 | 6.30000019                            |                                  |        |  |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                          | 7.4000001                             |                                  |        |  |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                       | 0.5                                   |                                  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32   | tgt_loHwAb_ReadADC_BattSwitched_Volt_ | <u>f</u> 32                      |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32           | tgt_loHwAb_ReadADC_Batt_Volt_f32      |                                  |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32    | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_  | _f32                             |        |  |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32 | tgt_loHwAb_ReadADC_TemperatureADC_    | Volt_f32                         |        |  |
| Name   | Actual Value                          | Expected Value                   | Result |  |
| BattSwitched_Volt_M_f32  | 15.4782562                            | 15.4782562 ± 0.00732600732600733 | •      |  |
| Batt_Volt_M_f32  | 26.3624001                            | 26.3623981 ± 0.00732600732600733 | •      |  |
| CDD_ePWM4CMPB_Cnt_G_u16  | 65535                                 | 65535                            |        |  |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                       | 300                                   | 300 ± 0                          |        |  |
|  |                                       |                                  |        |  |

70

\*none\*

 $Rte\_Call\_IoHwAbstractionUsr\_NxtrDiagMgr\_SetNTCStatus(NTC\_Cnt\_T\_enum)$ 



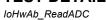


| Name  | Actual Value | Expected Value                   | Result |
|---|--------------|----------------------------------|--------|
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1            | *none*                           | ~      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1            | *none*                           | ~      |
| SysCVSwitch_Volt_M_f32  | 5.00307274   | 5.00307274 ± 0.00488400488400488 | ~      |
| Temperature_Volt_M_f32  | 3.78510404   | 3.7851038 ± 0.00122100122100122  | ~      |
| Vref_Volt_M_f32   | 3.66300368   | 3.66300368 ± 0.000009            | •      |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 15.4782562   | 15.4782562 ± 0.00732600732600733 | ~      |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 26.3624001   | 26.3623981 ± 0.00732600732600733 | •      |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 5.00307274   | 5.00307274 ± 0.00488400488400488 | ~      |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 3.78510404   | 3.7851038 ± 0.00122100122100122  | ~      |

| Test Step 3.5 (Repeat Count = 1)  |  |   | <b>✓</b> |
|---|--|---|----------|
| Name  | Input Value  |   |          |
| BattSwitched Volt M f32   | 6.4000001  |   |          |
| Batt Volt M f32   | 6.30000019   | 3.30000019                                |          |
| DMAData G str.SlowADC Cnt u16[0]  | 3100   |   |          |
| DMAData G str.SlowADC Cnt u16[1]  | 3200   |   |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 3000   |   |          |
| DMAData G str.SlowADC Cnt u16[3]  | 3762   |   |          |
| IoHwAb ADCVrefErrorAcc Cnt M u16  | 1  |   |          |
| Rte Inst IoHwAbstractionUsr   | tgt Rte Inst IoHwAbstractionUsr  |   |          |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC   | 1216   |   |          |
| SysCVSwitch Volt M f32  | 7.4000001  |   |          |
| Temperature_Volt_M_f32  | 0.5  |   |          |
| Vref Volt M f32   | 180.5  |   |          |
| k ADCVrefScaling Uls f32  | 1  |   |          |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 1  |   |          |
| k SlowADCValidDiag Cnt str.PStep  | 0  |   |          |
| k SlowADCValidDiag Cnt str.NStep  | 0  |   |          |
| k VrefMax Volts f32   | 4.5  |   |          |
| k VrefMin Volts f32   | 4.5<br>4.5   |   |          |
| k VrefOORDiag Cnt str.Threshold   | 300  |   |          |
| k VrefOORDiag Cnt str.PStep   | 300  |   |          |
| k VrefOORDiag Cnt str.NStep   | 500  |   |          |
| tgt IoHwAb ReadADC BattSwitched Volt f32.value                          | 6.4000001  |   |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 6.3000001  |   |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 6.30000019<br>7.4000001  |   |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 0.5  |   |          |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC BattSwitched Volt f32    |  | Volt f32                                  |          |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC Batt Volt f32            | tgt_loHwAb_ReadADC_BattSwitched_Volt_f32 tgt_loHwAb_ReadADC_Batt_Volt_f32          |   |          |
| tgt Rte Inst IoHwAbstractionUsr.IoHwAb ReadADC SysCVSwitch Volt f32     |  |   |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32 tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32 |   |          |
| Name  | Actual Value   | Expected Value                            | Result   |
|   | 15.4782562   | · ·                                       | Kesuit   |
| BattSwitched_Volt_M_f32   |  | 15.4782562 ± 0.00732600732600733          | -        |
| Batt_Volt_M_f32   | 26.3624001<br>65535  | 26.3623981 ± 0.00732600732600733<br>65535 |          |
| CDD_ePWM4CMPB_Cnt_G_u16   | 300  | 300 ± 0                                   | _        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 70   | 70  |          |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 2  | 2   | _        |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   |  |   |          |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 1  | 1   | -        |
| SysCVSwitch_Volt_M_f32  | 5.00307274   | 5.00307274 ± 0.00488400488400488          |          |
| Temperature_Volt_M_f32  | 3.78510404   | 3.7851038 ± 0.00122100122100122           | ~        |
| Vref_Volt_M_f32   | 3.66300368   | 3.66300368 ± 0.000009                     |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 15.4782562   | 15.4782562 ± 0.00732600732600733          | -        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 26.3624001   | 26.3623981 ± 0.00732600732600733          |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 5.00307274   | 5.00307274 ± 0.00488400488400488          | -        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 3.78510404   | 3.7851038 ± 0.00122100122100122           | <b>~</b> |

| Test Step 3.6 (Repeat Count = 1)                                      | <u>,                                      </u> |
|---|--|
| Name  | Input Value                                    |
| BattSwitched_Volt_M_f32   | 5.5999999                                      |
| Batt_Volt_M_f32   | 5.5  |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                      | 1216   |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                      | 1217   |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                      | 1218   |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                      | 1220   |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16                                      | 15   |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr                |
| Rte_Task_2ms_10.Rte_RB.Rte_IoHwAbstractionUsr_IoHwAb_ReadADC.Rte_SysC | 1216   |

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| Name  | Input Value                                |                                  |          |
|---|--|----------------------------------|----------|
| SysCVSwitch_Volt_M_f32  | 5.80000019                                 |                                  |          |
| Temperature_Volt_M_f32  | 0.100000001                                |                                  |          |
| Vref_Volt_M_f32   | 100.099998                                 |                                  |          |
| k_ADCVrefScaling_Uls_f32  | 2  |                                  |          |
| k_SlowADCValidDiag_Cnt_str.Threshold                                    | 0  |                                  |          |
| k_SlowADCValidDiag_Cnt_str.PStep  | 0  |                                  |          |
| k_SlowADCValidDiag_Cnt_str.NStep  | 0  |                                  |          |
| k_VrefMax_Volts_f32   | 4  |                                  |          |
| k_VrefMin_Volts_f32   | 0  |                                  |          |
| k_VrefOORDiag_Cnt_str.Threshold   | 25   |                                  |          |
| k_VrefOORDiag_Cnt_str.PStep   | 5  |                                  |          |
| k_VrefOORDiag_Cnt_str.NStep   | 23   |                                  |          |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.5999999                                  |                                  |          |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 5.5  |                                  |          |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 5.80000019                                 |                                  |          |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 0.100000001                                |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32    | tgt_loHwAb_ReadADC_BattSwitched_Volt_      | f32                              |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32            | tgt_loHwAb_ReadADC_Batt_Volt_f32           |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32     | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32    |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32  | tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32 |                                  |          |
| Name  | Actual Value                               | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 5.0195303                                  | 5.0195303 ± 0.00732600732600733  | ~        |
| Batt_Volt_M_f32   | 10.0259504                                 | 10.0259495 ± 0.00732600732600733 | •        |
| CDD_ePWM4CMPB_Cnt_G_u16   | 65535                                      | 65535                            | ~        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 0  | 0 ± 0                            | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70   | 70                               | ~        |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1  | 1                                | <b>✓</b> |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 0  | 0                                | ~        |
| SysCVSwitch_Volt_M_f32  | 5.00307274                                 | 5.00307274 ± 0.00488400488400488 | ~        |
| Temperature_Volt_M_f32  | 1.48473752                                 | 1.48473752 ± 0.00122100122100122 | ~        |
| Vref_Volt_M_f32   | 2.97435904                                 | 2.97435904 ± 0.000009            | ~        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.0195303                                  | 5.0195303 ± 0.00732600732600733  | ~        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 10.0259504                                 | 10.0259495 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 5.00307274                                 | 5.00307274 ± 0.00488400488400488 | ~        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 1.48473752                                 | 1.48473752 ± 0.00122100122100122 | ~        |

| Test Step 3.7 (Repeat Count = 1)  |  |                | ~      |
|---|--|----------------|--------|
|   | Input Value                              |                |        |
| BattSwitched_Volt_M_f32   | 5.5999999                                |                |        |
| 1.2 1.2 21  | 5.5                                      |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[0]  | 65535                                    |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[1]  | 65535                                    |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[2]  | 65535                                    |                |        |
| DMAData_G_str.SlowADC_Cnt_u16[3]  | 65535                                    |                |        |
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 15                                       |                |        |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr          |                |        |
| $Rte\_Task\_2ms\_10.Rte\_RB.Rte\_IoHwAbstractionUsr\_IoHwAb\_ReadADC.Rte\_SysC$ | 1216                                     |                |        |
| SysCVSwitch_Volt_M_f32  | 5.80000019                               |                |        |
| Temperature_Volt_M_f32  | 0.100000001                              |                |        |
| Vref_Volt_M_f32   | 100.099998                               |                |        |
| k_ADCVrefScaling_Uls_f32  | 1  |                |        |
| k_SlowADCValidDiag_Cnt_str.Threshold  | 0  |                |        |
| k_SlowADCValidDiag_Cnt_str.PStep  | 0  |                |        |
| k_SlowADCValidDiag_Cnt_str.NStep  | 0  |                |        |
| k_VrefMax_Volts_f32   | 2  |                |        |
| k_VrefMin_Volts_f32   | 0  |                |        |
| k_VrefOORDiag_Cnt_str.Threshold   | 25                                       |                |        |
| k_VrefOORDiag_Cnt_str.PStep   | 5  |                |        |
| k_VrefOORDiag_Cnt_str.NStep   | 0  |                |        |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                                  | 5.5999999                                |                |        |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value  | 5.5                                      |                |        |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                                   | 5.80000019                               |                |        |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                                | 0.100000001                              |                |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_BattSwitched_Volt_f32            | tgt_loHwAb_ReadADC_BattSwitched_Volt_f32 |                |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_Batt_Volt_f32                    | tgt_loHwAb_ReadADC_Batt_Volt_f32         |                |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_SysCVSwitch_Volt_f32             | tgt_loHwAb_ReadADC_SysCVSwitch_Volt_t    | f32            |        |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_ReadADC_TemperatureADC_Volt_f32          | tgt_loHwAb_ReadADC_TemperatureADC_V      | olt_f32        |        |
| Name  | Actual Value                             | Expected Value | Result |
|   |  |                |        |

5.5

65535

Batt\_Volt\_M\_f32

5.5 ± 0.00732600732600733

65535

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# Razorcat

| Name  | Actual Value | Expected Value                    | Result |
|---|--------------|-----------------------------------|--------|
| IoHwAb_ADCVrefErrorAcc_Cnt_M_u16  | 15           | 15 ± 0                            | ~      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(NTC_Cnt_T_enum)    | 70           | *none*                            | ~      |
| Rte_Call_IoHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Param_Cnt_T_u08)   | 1            | *none*                            | ~      |
| Rte_Call_loHwAbstractionUsr_NxtrDiagMgr_SetNTCStatus(Status_Cnt_T_enum) | 0            | 0                                 | ~      |
| SysCVSwitch_Volt_M_f32  | 5.80000019   | 5.80000019 ± 0.00488400488400488  | •      |
| Temperature_Volt_M_f32  | 0.100000001  | 0.100000001 ± 0.00122100122100122 | ~      |
| Vref_Volt_M_f32   | 100.099998   | 100.099998 ± 0.0009               | •      |
| tgt_loHwAb_ReadADC_BattSwitched_Volt_f32.value                          | 5.5999999    | 5.5999999 ± 0.00732600732600733   | ~      |
| tgt_loHwAb_ReadADC_Batt_Volt_f32.value                                  | 5.5          | 5.5 ± 0.00732600732600733         | ~      |
| tgt_loHwAb_ReadADC_SysCVSwitch_Volt_f32.value                           | 5.80000019   | 5.80000019 ± 0.00488400488400488  | ~      |
| tgt_loHwAb_ReadADC_TemperatureADC_Volt_f32.value                        | 0.100000001  | 0.100000001 ± 0.00122100122100122 | ~      |

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 Project
 IoHwAbstractionUsr

 Module
 IoHwAbstractionUsr

 Test Object
 IoHwAb\_Init

### Instrumentation: Test Object Only

| Statement (C0) Coverage | 100 % |
|-------------------------|-------|
| Branch (C1) Coverage    | 100 % |

### **Statistics**

| Total Testcases | 1 |   |
|-----------------|---|---|
| Successful      | 1 | ~ |
| Failed          | 0 |   |
| Not Executed    | 0 |   |

### **Module Properties**

| Project Root Directory | D:\Synergy_Work_Area\C1XX_IoHwAbstractionUsr   |
|------------------------|--|
| Configuration File     | D:\Synergy_Work_Area\C1XX_loHwAbstractionUsr\UnitTestEnv\config<br>\TMS570_GCC_UDE_CCS4_Config.xml   |
| Target Environment     | TI TMS 570 PLS UDE (Default)   |
| Kind of Test           | Unit Test  |
| Linker Options         |  |
| Source File(s)         |  |
| File                   | \$(PROJECTROOT)\loHwAbstractionUsr\src\loHwAbstractionUsr.c  |
| Compiler Options       | -DSKIP_MAGIC_NUMBER= -D_DATA_ACCESS= -Dconst= -I\$(PROJECTROOT)\loHwAbstractionUsr\utp\contract -I\$(PROJECTROOT) \loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\loHwAbstractionUsr\utp\contract\utp\contr |

|                             | Text  |
|-----------------------------|---|
| Module 'loHwAbstractionUsr' | Name of Tester: Ajit Shrivastava Code File(s) Under Test: loHwAbstractionUsr.c Code File(s) Version: 5 Module Design Document: N/A Module Design Document Version: 2 Unit Test Plan Version: 2 Unit Test Plan Version: 2 Unit Test Plan Version: 2 Optimization Level: Level 2 Compiler (CodeGen) Version: TMS470_4.9.5 Model Type: Excel Macro Model Version:Nexteer EPS Unit Test Tool 2.7d/EPS Library 1.31 Total FLASH Used (Bytes): 860 Total RAM Used (Bytes): 28 Total CALS Used (Bytes): 36 Special Test Requirements: Test Date: 12-17-2014 Comments:" NOTE 1: Changes made in the file Rte_Types.h and adc_regs.h to provide deciration to the used variables. NOTE 2: In "IoHwAb_SlowADCGroupValidity" to have 100% coverage, Out of range value of "DMAData_G_str.SlowADC_Cnt_u16(i)" is taken As per the Data Dictionary is 3762 so to satisfy "If (DMAData_G_str.SlowADC_Cnt_u16(i) = &HFFFF)" the value is taken as 65535.  NOTE 3: ""CBD_Sandbox_dbg.map"" map file is embedded for reference." |

| Attributes            |   |  |
|-----------------------|---|--|
| Name                  | Value   |  |
| Compiler Install Path | <pre>\$(ProgramFiles)\Texas Instruments\ccsv4\tools\compiler\tms470_4.9.5</pre> |  |
| Float Precision       | 9   |  |
| InitObjDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\obj                              |  |
| InitSrcDir            | \$(PROJECTROOT)\UnitTestEnv\static_build_files\src                              |  |
| Linker File           | \$(PROJECTROOT)\UnitTestEnv\static_build_files\sys_link.cmd                     |  |
| Makefile Template     | \$(PROJECTROOT)\UnitTestEnv\config\Nexteer_ts_make_ude_ti_tms570.tpl            |  |
| Target Install Path   | \$(ProgramFiles)\pls\UDE 4.0  |  |
| Time Unit             | Cycles  |  |
| Timer Enabled         | false   |  |
| Timer Prescale        | 0   |  |

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| Attributes       |  |
|------------------|--|
| Name             | Value  |
| Timer Resolution | 1  |
| UDE Config File  | \$(PROJECTROOT)\UnitTestEnv\config\TMS570_UDE_12PIN_JTAG.cfg                         |
| Workspace File   | D:\Synergy_Work_Area\C1XX_IOHwAbstractionUsr\UnitTestEnv\config\UDE_TMS570_DEBUG.WSP |



### Test Case 1: Boundary Test

Specification Performance Metrics (With "None" Instrumentation and WithPS Environment)

CPU Cycles:

TS1.1 106.00 Cycles TS1.2 106.00 Cycles TS1.3 106.00 Cycles

Description Vector Description

TS1.1DMAData\_G\_str.SlowADC\_Cnt\_u16= MIN TS1.2DMAData\_G\_str.SlowADC\_Cnt\_u16=MAX TS1.3DMAData\_G\_str.SlowADC\_Cnt\_u16=MID

| Test Step 1.1 (Repeat Count = 1)                                    |   |                                  | V        |
|---|---|----------------------------------|----------|
| Name  | Input Value                             |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                    | 1216                                    |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                    | 1216                                    |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                    | 1216                                    |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                    | 1216                                    |                                  |          |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr         |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_Init_BattSwitched_Volt_f32   | tgt_loHwAb_Init_BattSwitched_Volt_f32   |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_Init_Batt_Volt_f32           | tgt_loHwAb_Init_Batt_Volt_f32           |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_Init_TemperatureADC_Volt_f32 | tgt_loHwAb_Init_TemperatureADC_Volt_f32 |                                  |          |
| Name  | Actual Value                            | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 5.00307274                              | 5.00307274 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 10.0177116                              | 10.0177116 ± 0.00732600732600733 | <b>✓</b> |
| Temperature_Volt_M_f32  | 1.48473752                              | 1.48473752 ± 0.00122100122100122 | ~        |
| tgt_loHwAb_Init_BattSwitched_Volt_f32.value                         | 5.00307274                              | 5.00307274 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_Init_Batt_Volt_f32.value                                 | 10.0177116                              | 10.0177116 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_Init_TemperatureADC_Volt_f32.value                       | 1.48473752                              | 1.48473752 ± 0.00122100122100122 | ~        |

| Test Step 1.2 (Repeat Count = 1)                                    |   |                                  | <b>✓</b> |
|---|---|----------------------------------|----------|
| Name  | Input Value                             |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                    | 3762                                    |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                    | 3762                                    |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                    | 3762                                    |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                    | 3762                                    |                                  |          |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_IoHwAbstractionUsr         |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_Init_BattSwitched_Volt_f32   | tgt_loHwAb_Init_BattSwitched_Volt_f32   |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_Init_Batt_Volt_f32           | tgt_loHwAb_Init_Batt_Volt_f32           |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_Init_TemperatureADC_Volt_f32 | tgt_loHwAb_Init_TemperatureADC_Volt_f32 |                                  |          |
| Name  | Actual Value                            | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 15.4782562                              | 15.4782562 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 30.9922962                              | 30.9922943 ± 0.00732600732600733 | <b>✓</b> |
| Temperature_Volt_M_f32  | 4.59340668                              | 4.59340668 ± 0.00122100122100122 | •        |
| tgt_loHwAb_Init_BattSwitched_Volt_f32.value                         | 15.4782562                              | 15.4782562 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_Init_Batt_Volt_f32.value                                 | 30.9922962                              | 30.9922943 ± 0.00732600732600733 | ~        |
| tgt_loHwAb_Init_TemperatureADC_Volt_f32.value                       | 4.59340668                              | 4.59340668 ± 0.00122100122100122 | <b>✓</b> |

| Test Step 1.3 (Repeat Count = 1)                                    |   |                                  |          |
|---|---|----------------------------------|----------|
| Name  | Input Value                             |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[0]                                    | 2489                                    |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[1]                                    | 2489                                    |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[2]                                    | 2489                                    |                                  |          |
| DMAData_G_str.SlowADC_Cnt_u16[3]                                    | 2489                                    |                                  |          |
| Rte_Inst_IoHwAbstractionUsr   | tgt_Rte_Inst_loHwAbstractionUsr         |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_Init_BattSwitched_Volt_f32   | tgt_loHwAb_Init_BattSwitched_Volt_f32   |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_Init_Batt_Volt_f32           | tgt_loHwAb_Init_Batt_Volt_f32           |                                  |          |
| tgt_Rte_Inst_IoHwAbstractionUsr.IoHwAb_Init_TemperatureADC_Volt_f32 | tgt_loHwAb_lnit_TemperatureADC_Volt_f32 |                                  |          |
| Name  | Actual Value                            | Expected Value                   | Result   |
| BattSwitched_Volt_M_f32   | 10.2406645                              | 10.2406645 ± 0.00732600732600733 | ~        |
| Batt_Volt_M_f32   | 20.505003                               | 20.505003 ± 0.00732600732600733  | <b>✓</b> |
| Temperature_Volt_M_f32  | 3.03907204                              | 3.03907204 ± 0.00122100122100122 | ~        |
| tgt_loHwAb_Init_BattSwitched_Volt_f32.value                         | 10.2406645                              | 10.2406645 ± 0.00732600732600733 | <b>✓</b> |
| tgt_loHwAb_Init_Batt_Volt_f32.value                                 | 20.505003                               | 20.505003 ± 0.00732600732600733  | ~        |
| tgt IoHwAb Init TemperatureADC Volt f32.value                       | 3.03907204                              | 3.03907204 ± 0.00122100122100122 | <b>✓</b> |

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Razorcat

IoHwAb\_Init