

# TEST DETAILS REPORT

2022-04-06, 11:09:43+0200

CurrentInterface\_Ini\_2



|             |                        |
|-------------|------------------------|
| Project     | MRW420                 |
| Module      | Stromregler            |
| Test Object | CurrentInterface_Ini_2 |

## Instrumentation: Test object and called functions

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

## Metrics

|                                      |      |
|--------------------------------------|------|
| Cyclomatic Complexity (CC)           | 2    |
| Test Case to Complexity Ratio (TC/C) | 1.50 |
| Result Significance (RS)             | ✓    |

## Statistics

|                 |   |
|-----------------|---|
| Total Testcases | 3 |
| Successful      | 2 |
| Failed          | 1 |
| Not Executed    | 0 |

## Module Properties

|                        |  |
|------------------------|--|
| Project Root Directory | C:\MOBA\TessyProject\MRW420_Tessy\MRW_Tessy_projekt  |
| Configuration File     | \$(PROJECTROOT)\tessy\config\configuration.xml   |
| Target Environment     | GNU GCC Eclipse CDT (Default)  |
| Kind of Test           | Unit Test  |
| Linker Options         |  |
| Source Root Directory  | C:\MOBA\TessyProject\MRW420_Tessy\MRW420_source  |
| Source File(s)         |  |
| File                   | \$(SOURCEROOT)\CurrentInterface.c  |
| Compiler Options       | -DADuC836_ADC_PRIMARY_TOGGLE=2 -DCHANNEL_0 -DCURRENTINTERFACE_MIT_I_REGLER=1 -DFALSE=0 -DLIMIT_ALARMLIMIT_EXCEEDED=0x80 -DLIMIT_HANGINGLIMIT_EXCEEDED=1 -DSYSTEMCND_ADC_BLOCKING_TIME_MS=200 -DSYSTEMTIME -DTRUE=1 -Dbit=char -DOFF=0 -DON=1 |

| Interface                                    |            |                |
|--|------------|----------------|
| Element                                      | Passing    | Target Passing |
| <b>External Functions</b>                    |            |                |
| float ADuC836_DACGetGain(unsigned char)      |            |                |
| float ADuC836_DACGetGain()                   | IN         |                |
| unsigned char ADuC836_DACGetGain(chWhat2Get) | IRRELEVANT |                |
| <b>Global Variables</b>                      |            |                |
| CURRENT_INTERFACE g_CurrentInterface         | OUT        |                |
| FEEDBACK FeedBack                            | OUT        |                |
| RESULTS Results                              | IRRELEVANT |                |
| MEASUREMENT_VALUE FilteredMeasurementFromADC | IRRELEVANT |                |
| long nLong                                   | IRRELEVANT |                |
| float fFloat                                 | IRRELEVANT |                |
| MEASUREMENT_VALUE Deviation                  | IRRELEVANT |                |
| long nLong                                   | IRRELEVANT |                |
| float fFloat                                 | IRRELEVANT |                |
| MEASUREMENT_VALUE CalibratedMeasurement      | IRRELEVANT |                |
| long nLong                                   | IRRELEVANT |                |
| float fFloat                                 | IRRELEVANT |                |
| unsigned char byNewMeasurement               | IRRELEVANT |                |
| float fSimulatedDerivation                   | IRRELEVANT |                |
| float fMaxDeviation                          | OUT        |                |
| unsigned char byMaxDeviationCounter          | OUT        |                |

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| Interface                              |            |                |
|--|------------|----------------|
| Element                                | Passing    | Target Passing |
| char chIntegralPortion                 | IRRELEVANT |                |
| char chProportionalPortion             | IRRELEVANT |                |
| DAC_T DAC                              | IRRELEVANT |                |
| long IRatedDACOutput                   | IRRELEVANT |                |
| long ICalPointFeedBack_RMV[2]          | IRRELEVANT |                |
| float fCalPointFeedBack_Actual[2]      | IRRELEVANT |                |
| unsigned char byAdjustCurrentInterface | IRRELEVANT |                |
| long IRMWForCalibration[2]             | IRRELEVANT |                |
| unsigned char byConversionState        | IRRELEVANT |                |
| unsigned char byLastConversionState    | IRRELEVANT |                |

## Test Case 1



## Test Step 1.1 (Repeat Count = 1)



| Name  | Input Value  |  |        |
|---|--------------|--|--------|
| ADuC836_DACGetGain()                              | 0.47         |  |        |
| Name  | Actual Value | Expected Value                           | Result |
| g_CurrentInterface.FeedBack.fMaxDeviation         | 0.08         | SYSTEMCND_MAX_CURRENT_DEVIATI(0.08)      | ✓      |
| g_CurrentInterface.FeedBack.byMaxDeviationCounter | 12           | (SYSTEMCND_CURRENT_DEVIATION_C - 1) (12) | ✓      |

## Test Case 2



## Test Step 2.1 (Repeat Count = 1)



| Name  | Input Value  |  |        |
|---|--------------|--|--------|
| ADuC836_DACGetGain()                              | 0.50         |  |        |
| Name  | Actual Value | Expected Value                           | Result |
| g_CurrentInterface.FeedBack.fMaxDeviation         | 0.16         | SYSTEMCND_MAX_CURRENT_DEVIATI(0.16)      | ✓      |
| g_CurrentInterface.FeedBack.byMaxDeviationCounter | 12           | (SYSTEMCND_CURRENT_DEVIATION_C - 1) (12) | ✓      |

## Test Step 2.2 (Repeat Count = 1)



| Name  | Input Value  |  |        |
|---|--------------|--|--------|
| ADuC836_DACGetGain()                              | 1            |  |        |
| Name  | Actual Value | Expected Value                           | Result |
| g_CurrentInterface.FeedBack.fMaxDeviation         | 0.16         | SYSTEMCND_MAX_CURRENT_DEVIATI(0.16)      | ✓      |
| g_CurrentInterface.FeedBack.byMaxDeviationCounter | 12           | (SYSTEMCND_CURRENT_DEVIATION_C - 1) (12) | ✓      |

## Test Case 3



## Test Step 3.1 (Repeat Count = 1)



**Comment** 0.48000001, da durch float: 0.48 -> 0.479999989

| Name  | Input Value  |  |        |
|---|--------------|--|--------|
| ADuC836_DACGetGain()                              | 0.48000001   |  |        |
| Name  | Actual Value | Expected Value                           | Result |
| g_CurrentInterface.FeedBack.fMaxDeviation         | 0.16         | SYSTEMCND_MAX_CURRENT_DEVIATI(0.16)      | ✓      |
| g_CurrentInterface.FeedBack.byMaxDeviationCounter | 12           | (SYSTEMCND_CURRENT_DEVIATION_C - 1) (12) | ✓      |

## Test Step 3.2 (Repeat Count = 1)



**Comment** Simulator ersetzt 0.48 durch 0.479999989

| Name  | Input Value  |  |        |
|---|--------------|--|--------|
| ADuC836_DACGetGain()                              | 0.48         |  |        |
| Name  | Actual Value | Expected Value                           | Result |
| g_CurrentInterface.FeedBack.fMaxDeviation         | 0.08         | SYSTEMCND_MAX_CURRENT_DEVIATI(0.16)      | ✗      |
| g_CurrentInterface.FeedBack.byMaxDeviationCounter | 12           | (SYSTEMCND_CURRENT_DEVIATION_C - 1) (12) | ✓      |