SWC_InpMgmt_AFE Test Report

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Chapter 1. Overall Results

1.1. InpMgmt_AFE_Complex - Test Summary

Total Test Cases	Untested	Passed	Failed
9	0	3	6

1.2. InpMgmt_AFE_Complex - Test Coverage

Analyzed Model	SimMode	Complexity	Decision	Execution
SWC_InpMgmt_AFE	Normal	8	54%	100%

Chapter 2. Test Description

2.1. InpMgmt_AFE_Complex - Test Cases

Test Case Name	Description	Result
InMgmt_Grid_Current_Pass	Test that outputs contains initial values till 40ms.	Passed
InMgmt_Grid_Current_Fail	Test that outputs contains initial values till 40ms.	Failed
InMgmt_Grid_Voltage_Pass	Test that outputs contains initial values till 40ms.	Passed
InMgmt_Grid_Voltage_Fail	Test that outputs contains initial values till 40ms.	Failed
InMgmt_DCV_Act_rf	Test that outputs contains initial values till 200us.	Failed
InMgmt_AFE_RefDCV	Test that outputs contains initial values till 200us.	Passed
InMgmt_AFE_IGBTTemp	Test that outputs contains initial values till 200us.	Failed
InMgmt_BSWIn_AFE_GDR	Test that outputs contains initial values till 200us.	Failed
InMgmt_UART_Comm_Signal	Test that outputs contains initial values till 200us.	Failed

Chapter 3. Test Summary

3.1. InpMgmt_AFE_Complex- TEST CASES

3.1.1. Test Case: InMgmt_Grid_Current_Pass

Test Step: InMgmt_Grid_Current_Pass_VerifyOutputs	Result
Inputs:	
HWInGrid_IRru=uint16(2149)	
HWInGrid_IYru=uint16(2149)	
HWInGrid_IBru=uint16(2149)	
Expected Results:	
abs(InMgmtGrid_IRrf- 3.48667)<=0.00001	Passed
abs(InMgmtGrid_IYrf- 3.48667)<=0.00001	Passed
abs(InMgmtGrid_IBrf- 3.48667)<=0.00001	Passed

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3.1.2. Test Case: InMgmt_Grid_Current_Fail

Test Step: InMgmt_Grid_Current_Fail_VerifyOutputs	Result
Inputs:	
HWInGrid_IRru=uint16(2149)	
HWInGrid_IYru=uint16(2149)	
HWInGrid_IBru=uint16(2149)	
Expected Results:	
abs(InMgmtGrid_IRrf- 4.00001)<=0.00001	Failed
abs(InMgmtGrid_IYrf- 4.00001)<=0.00001	Failed
abs(InMgmtGrid_IBrf-4.00001)<=0.00001	Failed
Actual Results:	
InMgmtGrid_IRrf =3.486670e+00	
InMgmtGrid_IYrf =3.486670e+00	
InMgmtGrid_IBrf =3.486670e+00	

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3.1.3. Test Case: InMgmt_Grid_Voltage_Pass

Test Step: InMgmt_Grid_Voltage_Pass_VerifyOutputs	Result
Inputs:	
HWInGrid_VRru=uint16(2149)	
HWInGrid_VYru=uint16(2149)	
HWInGrid_VBru=uint16(2149)	
Expected Results:	
abs(InMgmtGrid_VRrf- 16.7401)<=0.00001	Passed
abs(InMgmtGrid_VYrf- 16.7401)<=0.00001	Passed

Test Step: InMgmt_Grid_Voltage_Pass_VerifyOutputs	Result
abs(InMgmtGrid_VBrf-16.7401)<=0.00001	Passed

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3.1.4. Test Case: InMgmt_Grid_Voltage_Fail

Test Step: InMgmt_Grid_Voltage_Fail_VerifyOutputs	Result
Inputs:	
HWInGrid_VRru=uint16(2149)	
HWInGrid_VYru=uint16(2149)	
HWInGrid_VBru=uint16(2149)	
Expected Results:	
abs(InMgmtGrid_VRrf- 17.7401)<=0.00001	Failed
abs(InMgmtGrid_VYrf- 17.7401)<=0.00001	Failed
abs(InMgmtGrid_VBrf-17.7401)<=0.00001	Failed
Actual Results:	
InMgmtGrid_VRrf =1.674010e+01	
InMgmtGrid_VYrf =1.674010e+01	
InMgmtGrid_VBrf =1.674010e+01	

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3.1.5. Test Case: InMgmt_DCV_Act_rf

Test Step: InMgmt_DCV_Act_rf_VerifyOutputs	Result
Inputs:	
HWInDCV_Actru=uint16(2149)	
Expected Results:	
abs(InMgmtDCV_Actrf- 1049.573)<=0.0000001	Failed
Actual Results:	
InMgmtDCV_Actrf =1.049579e+03	

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3.1.6. Test Case: InMgmt_AFE_RefDCV

Test Step: InMgmt_AFE_RefDCV_VerifyOutputs	Result
Inputs:	
HWInComRequestedDCV_Refru=uint16(25)	
Expected Results:	
InMgmtRequested_DCVRefrf==uint16(25)	Passed

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3.1.7. Test Case: InMgmt_AFE_IGBTTemp

Test Step: InMgmt_AFE_IGBTTemp_VerifyOutputs	Result
Inputs:	
HWInAFE_SicTemp=true	

Test Step: InMgmt_AFE_IGBTTemp_VerifyOutputs	Result
Expected Results:	
InMgmtAFE_SicTemp==false	Failed
Actual Results:	
InMgmtAFE_SicTemp = 1	

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3.1.8. Test Case: InMgmt_BSWIn_AFE_GDR

Test Step: InMgmt_BSWIn_AFE_GDR_VerifyOutputs	Result
Inputs:	
BSWInAFE_GDR=true	
Expected Results:	
InMgmtAFE_GDR==false	Failed
Actual Results:	
InMgmtAFE_GDR = 1	

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3.1.9. Test Case: InMgmt_UART_Comm_Signal

Test Step: InMgmt_UART_Comm_Signal_VerifyOutputs	Result
Inputs:	
UARTComm_Signal=true	
Expected Results:	
InMgmtUARTComm_Signal==false	Failed
Actual Results:	
InMgmtUARTComm_Signal= 1	

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