TX cyclic frame monitoring tests

Project	AML422EV
Tester	ughyg
Execution Date	2018.07.30
Runtime	0:03:18
Responsible	ughyg
SW version	dummy sw version
HW version	dummy hw version
FBL version	dummy fbl version

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Monitor frame for a period and verify repetition rate, dlcs, crcs, counters

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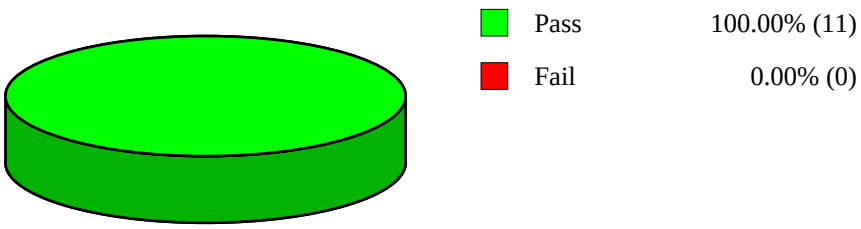

Test Cases	ID	Verdict
TX 0x050: RCM_HV_01 frame monitor test under normal conditions	TC-0001	Pass
TX 0x202: RCM_HV_02 frame monitor test under normal conditions	TC-0002	Pass
TX 0x302: RCM_HV_03 frame monitor test under normal conditions	TC-0003	Pass
TX 0x203: RCM_HV_04 frame monitor test under normal conditions	TC-0004	Pass
TX 0x050: RCM_HV_01 frame monitor test under diagnostics in background	TC-0005	Pass
TX 0x202: RCM_HV_02 frame monitor test under diagnostics in background	TC-0006	Pass
TX 0x302: RCM_HV_03 frame monitor test under diagnostics in background	TC-0007	Pass
TX 0x203: RCM_HV_04 frame monitor test under diagnostics in background	TC-0008	Pass
TX 0x050: RCM_HV_01 frame monitor test under high busload	TC-0009	Pass
TX 0x202: RCM_HV_02 frame monitor test under high busload	TC-0010	Pass
TX 0x302: RCM_HV_03 frame monitor test under high busload	TC-0011	Pass
TX 0x203: RCM_HV_04 frame monitor test under high busload	TC-0012	Pass

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TX 0x050: RCM_HV_01 frame monitor test under normal conditions

Test Case ID: TC-0001

Pass (6 Steps)

	Precondition steps
1	Normal communication conditions

	Test Step	Expected	Measured	Verdict
1	Frame with 0.09000 cycle time is measured for 60.00000 time			
2	Number of frames	[654, 674]	663	Pass
3	Check minimum frame repetition rate	>= 0.08100	0.08911	Pass
4	Check maximum frame repetition rate	<= 0.09900	0.09202	Pass
5	Check average frame repetition rate	[0.08910, 0.09090]	0.09023	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

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TX 0x202: RCM_HV_02 frame monitor test under normal conditions

Test Case ID: TC-0002

Pass (6 Steps)

	Precondition steps
1	Normal communication conditions

	Test Step	Expected	Measured	Verdict
1	Frame with 0.09000 cycle time is measured for 60.00000 time			
2	Number of frames	[654, 674]	663	Pass
3	Check minimum frame repetition rate	>= 0.08100	0.08911	Pass
4	Check maximum frame repetition rate	<= 0.09900	0.09202	Pass
5	Check average frame repetition rate	[0.08910, 0.09090]	0.09023	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

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TX 0x302: RCM_HV_03 frame monitor test under normal conditions

Test Case ID: TC-0003

Pass (6 Steps)

	Precondition steps
1	Normal communication conditions

	Test Step	Expected	Measured	Verdict
1	Frame with 0.20000 cycle time is measured for 60.00000 time			
2	Number of frames	[288, 308]	297	Pass
3	Check minimum frame repetition rate	>= 0.18000	0.19913	Pass
4	Check maximum frame repetition rate	<= 0.22000	0.20226	Pass
5	Check average frame repetition rate	[0.19800, 0.20200]	0.20052	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

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TX 0x203: RCM_HV_04 frame monitor test under normal conditions

Test Case ID: TC-0004

Pass (6 Steps)

	Precondition steps
1	Normal communication conditions

	Test Step	Expected	Measured	Verdict
1	Frame with 0.10000 cycle time is measured for 60.00000 time			
2	Number of frames	[588, 608]	596	Pass
3	Check minimum frame repetition rate	>= 0.09000	0.09913	Pass
4	Check maximum frame repetition rate	<= 0.11000	0.10203	Pass
5	Check average frame repetition rate	[0.09900, 0.10100]	0.10026	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

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TX 0x050: RCM_HV_01 frame monitor test under diagnostics in background

Test Case ID: TC-0005

Pass (6 Steps)

	Precondition steps
1	Start diagnostics commands in background

	Test Step	Expected	Measured	Verdict
1	Frame with 0.09000 cycle time is measured for 60.00000 time			
2	Number of frames	[654, 674]	661	Pass
3	Check minimum frame repetition rate	>= 0.08100	0.08900	Pass
4	Check maximum frame repetition rate	<= 0.09900	0.09500	Pass
5	Check average frame repetition rate	[0.08910, 0.09090]	0.09053	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

	Postcondition steps
1	Stop diagnostics commands in background

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TX 0x202: RCM_HV_02 frame monitor test under diagnostics in background

Test Case ID: TC-0006

Pass (6 Steps)

	Precondition steps
1	Start diagnostics commands in background

	Test Step	Expected	Measured	Verdict
1	Frame with 0.09000 cycle time is measured for 60.00000 time			
2	Number of frames	[654, 674]	661	Pass
3	Check minimum frame repetition rate	>= 0.08100	0.08900	Pass
4	Check maximum frame repetition rate	<= 0.09900	0.09500	Pass
5	Check average frame repetition rate	[0.08910, 0.09090]	0.09053	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

	Postcondition steps
1	Stop diagnostics commands in background

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TX 0x302: RCM_HV_03 frame monitor test under diagnostics in background

Test Case ID: TC-0007

Pass (6 Steps)

	Precondition steps
1	Start diagnostics commands in background

	Test Step	Expected	Measured	Verdict
1	Frame with 0.20000 cycle time is measured for 60.00000 time			
2	Number of frames	[288, 308]	296	Pass
3	Check minimum frame repetition rate	>= 0.18000	0.19949	Pass
4	Check maximum frame repetition rate	<= 0.22000	0.20514	Pass
5	Check average frame repetition rate	[0.19800, 0.20200]	0.20116	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

	Postcondition steps
1	Stop diagnostics commands in background

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TX 0x203: RCM_HV_04 frame monitor test under diagnostics in background

Test Case ID: TC-0008

Pass (6 Steps)

	Precondition steps
1	Start diagnostics commands in background

	Test Step	Expected	Measured	Verdict
1	Frame with 0.10000 cycle time is measured for 60.00000 time			
2	Number of frames	[588, 608]	594	Pass
3	Check minimum frame repetition rate	>= 0.09000	0.09910	Pass
4	Check maximum frame repetition rate	<= 0.11000	0.10505	Pass
5	Check average frame repetition rate	[0.09900, 0.10100]	0.10058	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

	Postcondition steps
1	Stop diagnostics commands in background

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TX 0x050: RCM_HV_01 frame monitor test under high busload

Test Case ID: TC-0009

Pass (6 Steps)

	Precondition steps
1	Increase busload to >75%

	Test Step	Expected	Measured	Verdict
1	Frame with 0.09000 cycle time is measured for 60.00000 time			
2	Number of frames	[654, 674]	663	Pass
3	Check minimum frame repetition rate	>= 0.08100	0.08953	Pass
4	Check maximum frame repetition rate	<= 0.09900	0.09201	Pass
5	Check average frame repetition rate	[0.08910, 0.09090]	0.09022	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

	Postcondition steps
1	Decrease busload to <6%

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TX 0x202: RCM_HV_02 frame monitor test under high busload

Test Case ID: TC-0010

Pass (6 Steps)

	Precondition steps
1	Increase busload to >75%

	Test Step	Expected	Measured	Verdict
1	Frame with 0.09000 cycle time is measured for 60.00000 time			
2	Number of frames	[654, 674]	664	Pass
3	Check minimum frame repetition rate	>= 0.08100	0.03722	Pass
4	Check maximum frame repetition rate	<= 0.09900	0.09201	Pass
5	Check average frame repetition rate	[0.08910, 0.09090]	0.09022	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

	Postcondition steps
1	Decrease busload to <6%

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TX 0x302: RCM_HV_03 frame monitor test under high busload

Test Case ID: TC-0011

Pass (6 Steps)

	Precondition steps
1	Increase busload to >75%

	Test Step	Expected	Measured	Verdict
1	Frame with 0.20000 cycle time is measured for 60.00000 time			
2	Number of frames	[288, 308]	298	Pass
3	Check minimum frame repetition rate	>= 0.18000	0.19935	Pass
4	Check maximum frame repetition rate	<= 0.22000	0.20252	Pass
5	Check average frame repetition rate	[0.19800, 0.20200]	0.20048	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

	Postcondition steps
1	Decrease busload to <6%

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TX 0x203: RCM_HV_04 frame monitor test under high busload

Test Case ID: TC-0012

Pass (6 Test Case)

	Precondition steps
1	Increase busload to >75%

	Test Step	Expected	Measured	Verdict
1	Frame with 0.10000 cycle time is measured for 60.00000 time			
2	Number of frames	[588, 608]	597	Pass
3	Check minimum frame repetition rate	>= 0.09000	0.09917	Pass
4	Check maximum frame repetition rate	<= 0.11000	0.10170	Pass
5	Check average frame repetition rate	[0.09900, 0.10100]	0.10024	Pass
6	Check frame error flags	All 0	All 0	Pass
7	Check frame lengths	All 8	All 8	Pass

	Postcondition steps
1	Decrease busload to <6%

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