TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT By: TEST SYSTEMS, Inc.	CVH24.DAT 11/20/13 (15:17:18)
CUSTOMER:	TEST STARTED:
Microsemi SOC Corp. 3870 N. First Street	 Nov. 20, 2013
San Jose, CA 95134	TEST COMPLETED:
	Nov. 20, 2013

UNIT UNDER TEST IDENTIFICATION:

CORE1553BRM v4.0.007 running VHDL at 24 MHz (CVH24)
Tested on SF2-CORE1553-DB (DVP-101-000404-001) Board REV-A
and M2GL\M2S-EVAL-KIT REV-C (DVP-102-000402-001 RevC)
using Aeroflex ACT 4453-001-5 Transceiver
and Holt PM-DB2744 Transformers

SUMMARY OF TEST RESULTS:	A-Bus	B-Bus	,,,,,,,
Electrical: Required Protocol:	Passed Passed	Passed Passed	
Optional Protocol:	Passed	Passed	
Noise Rejection:	Passed	Passed	

CERTIFICATE OF COMPLIANCE:

TEST SYSTEMS, Inc., certifies that this MIL-STD-1553B REMOTE TERMINAL VALIDATION TEST REPORT provides the results of the RT Validation Testing performed on November 20, 2013, in Phoenix, AZ, for Microsemi SOC. TEST SYSTEMS, Inc., further certifies that this testing was in accordance with the RT VALIDATION TEST PROCEDURE dated 06-03-96 and complies with the RT Validation Test Plan (MIL-HDBK-1553 Appendix A) with the exceptions noted on page 2.

Leroy Earhart Date

TEST SYSTEMS, Inc. 217 W. Palmaire Phoenix, AZ 85021 602/861-1010

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By:	TEST SYS			13330 1	. valibali	J14 KEEDI	. KEFORI	1	(15:17:18)
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EXCEPTIONS TO THE RT VALIDATION TEST PLAN:

- 1. Step 6 of Reset remote terminal (5.2.1.5.3) is changed to repeat step 4 rather than step 5. (Error in Test Plan.)
- 2. Frequency Stability (5.1.1.10) and Terminal Fail-Safe (5.2.1.3.7) tests were not run.
- 3. Not all commands which cause the BUSY bit to be set are recorded for every test. This can be impractical in tests where 10,000 iterations are performed because of the volume of information that would be generated. Rather than recording each scenario in which the BUSY bit is set, this report provides a count of the messages in the scenarios which have the BUSY bit set.

TEST COMMENTS:

Remote Terminal Address and Status bits of Service Request, Busy and Terminal Flag were set and reset manually as required in the test plan from a laptop computer through a USB link on the unit and Subsystem Flag was set and reset using a switch on the unit.

- 5.1.1.3 Zero Crossing An additional test was run off-line to measure the time of the first half sync from +3.0 volts to -3.0 volts. The nominal time is 1500 ns. Bus A 1514 ns; Bus B 1514 ns.
- 5.1.2.3 Input Impedance magnitude measurements recorded as 9999 ohms are actually 9999 ohms or greater.
- 5.3 Noise Rejection passed on both Buses with 165 mv of noise (25 mv more than required).

Protocol in this report was run with the illegalization shown on pages 4 and 5 implemented using the registers within the core. This illegalization was done to demonstrate the illegalization capability of the core.

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	TEST	SYSTEMS, Inc. M	MIL-STD-1553B RT VALIDATION TEST R	EPORT	CVH24.DAT
ĺ	By:	TEST SYSTEMS,	Inc.		11/20/13 (15:17:18)
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NOTE:

Command words are expressed in four fields with 5 bits in the first, third and fourth fields and 1 bit in the second field. Status words are expressed in four fields with 5 bits in the first and fourth fields and 3 bits in the second and third fields. Each field is given in decimal.

TEST PERSONNEL:

Leroy Earhart

TSI

Eugene O'Rourke

Microsemi

EQUIPMENT LIST:

_	MOTIFICATION TO THE			
		MANUFACTURER	CALIBRAT	MOI
	EQUIPMENT TYPE	MODEL NO./SERIAL NO.	Date Done Da	ate Due
	1553 BUS TESTER *	 TSI 122 / 8804111	 N/A 	
	Oscilloscope	MSOX3054A/MY52010665	01/27/12	1/27/14
	Differential Probe	 AG N2791A / PH49270334 	 N/A	
	True RMS Voltmeter	HP 3400A / 1218A27635	04/08/13	4/08/15
	Impedance Analyzer	 HP 4192A /2830J06227 	04/08/13 0	04/08/15
	Function Generator	Tenma 72-5015/ 8981068	A\M	
	Connection Panel	 TSI 0100 / 900101 	 N/A 	
		•		

* The 1553 BUS TESTER was modified by installing a single board computer and the following three TSI cards inside the chassis: PC/AT PARALLEL I/O CARD, MANCHESTER CARD & 1553 NOISE GENERATOR CARD

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TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH24.DAT TEST SYSTEMS, Inc. 11/20/13 (15:17:18) By: Valid, Legal Non-Broadcast Commands (if not marked by '-') Receive (T/R=0) Word Count Field Transmit (T/R=1) Word Count Field 111111111122222222233 111111111122222222233 SA 01234567890123456789012345678901 SA 01234567890123456789012345678901 0 -----0 -12345678-----6-89------1 01234567890123456789012345678901 1 01234567890123456789012345678901 2 01234567890123456789012345678901 2 01234567890123456789012345678901 3 01234567890123456789012345678901 3 01234567890123456789012345678901 4 01234567890123456789012345678901 4 01234567890123456789012345678901 5 01234567890123456789012345678901 5 01234567890123456789012345678901 6 01234567890123456789012345678901 6 01234567890123456789012345678901 7 01234567890123456789012345678901 7 01234567890123456789012345678901 8 01234567890123456789012345678901 8 01234567890123456789012345678901 9 01234567890123456789012345678901 9 01234567890123456789012345678901 10 01234567890123456789012345678901 10 01234567890123456789012345678901 11 01234567890123456789012345678901 11 01234567890123456789012345678901 12 01234567890123456789012345678901 12 01234567890123456789012345678901 13 01234567890123456789012345678901 13 01234567890123456789012345678901 14 01234567890123456789012345678901 14 01234567890123456789012345678901 15 01234567890123456789012345678901 15 01234567890123456789012345678901 16 01234567890123456789012345678901 16 01234567890123456789012345678901 17 01234567890123456789012345678901 17 01234567890123456789012345678901 18 01234567890123456789012345678901 18 01234567890123456789012345678901 | 19 01234567890123456789012345678901 19 01234567890123456789012345678901 20 01234567890123456789012345678901 20 01234567890123456789012345678901 21 01234567890123456789012345678901 21 01234567890123456789012345678901 22 01234567890123456789012345678901 22 01234567890123456789012345678901 23 01234567890123456789012345678901 23 01234567890123456789012345678901 24 01234567890123456789012345678901 24 01234567890123456789012345678901 25 25 01234567890123456789012345678901 26 01234567890123456789012345678901 26 -----27 -----27 -----28 01234567890123456789012345678901 28 01234567890123456789012345678901 29 01234567890123456789012345678901 29 01234567890123456789012345678901 30 01234567890123456789012345678901 30 01234567890123456789012345678901 31 -----31 -12345678-----6-89-----Illegal Command Detection Implemented: Broadcast Implemented: Data Wrap-Around Receive SA: 30 Transmit SA: 30 Terminal Address Used: Coupling Used: Transformer Implemented Status bits: ME SRB BCR BUSY SF TF Implemented Non-Broadcast Mode Codes: 1,2,3,4,5,6,7,8,16,17,18,19 Implemented Broadcast Mode Codes: 1,3,4,5,6,7,8,17 SUBTITLE: Configuration Used DATE: 20 Nov 2013 |Page: Non-Broadcast Commands TIME: 4 of 26 17:17:47

TEST By:	SYSTEMS, Inc. MIL-ST TEST SYSTEMS, Inc.	TD-1553B RT VA	LIDATIO	N TEST	REPORT	1	CVH24.DAT 5 (15:17:18)
Va	alid, Legal Broadcast	Commands (if	not man	rked b	A , - ,)		
	Receive (T/R=0) Word	Count Field	T:	ransmi	t (T/R=1	.) Word Co	ount Field
	1111111111	2222222233			1111	111111222	22222233
SA —	01234567890123456789	012345678901	SA (012345	67890123	456789012	2345678901
0	7		0	-1-345	678		
1	01234567890123456789	012345678901	1			- 	
2	01234567890123456789	012345678901	2				
3	01234567890123456789	012345678901	3				
4	01234567890123456789	012345678901	4		-		
5	01234567890123456789	012345678901	5	-			
6	01234567890123456789	012345678901	6				
7	01234567890123456789	012345678901	7				
8	01234567890123456789	012345678901	8			.	
9	01234567890123456789	012345678901	9				
10	01234567890123456789		10				
11	01234567890123456789		11				
12	01234567890123456789		12				
13	01234567890123456789		1.3				
14	01234567890123456789		14				
	01234567890123456789						
15			15			- 	
16	01234567890123456789		16				
17	01234567890123456789		17				
	01234567890123456789		18				
	01234567890123456789		19				
•	01234567890123456789		20				
21	01234567890123456789	0012345678901	21				-
22	01234567890123456789	0012345678901	22		-		-
23	01234567890123456789	012345678901	23				
24	01234567890123456789	012345678901	24				
25			25				
26	01234567890123456789	012345678901	26			- 	
27			27				
28	01234567890123456789	9012345678901	28				
29	01234567890123456789	9012345678901	29				
	01234567890123456789		3.0				
:							
Te	st STAT abbreviation	definitions.					
!	RT: Test Aborted	BCR: Broadca	st Rece	ived l	BRTE.	Brdcet Da	vd+TermFlag
!	SY: Busy Bit	CS: Clear S		vcu			va+rermfrag us Accepted
!	DC: Don't Care	EF: Error F		 		Operator :	-
!	VL: Invalid Test	MBR: Msg Err		 انجہ بیمرو∨		operator . ME+TF+BCR	rumrnı¢6α
!		!					.
:	ME: Message Error	MTF: MsgErr+		_ ,		No Respon:	
!!	un: Not Run	RIF: Respond		mı		Subsystem	rlag
	SR: Service Request	TF: Termina	u Flag	ļ	TO: '	Timed Out	
	VR: Valid Response	I					
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SUB	TITLE: Configuration	n Used		DATE		Nov 2013	Page:
11	Broadcast Commands			TIME	17	:17:47	1 5 of 26

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Ref. Section	Test Description (Xformr Coupled)	Limits	Units	B U S Meas.	A STAT	B U S Meas.	B STA
5.1.1	OUTPUT CHARACTERISTICS				 		
5.1.1.1	:	18.0-27.0	Vpp	19.81	Pass	19.88	Pas
	Min	18.0-27.0	Vpp	19.56		19.56	
5.1.1.2	 OUTPUT RISE TIME-Sync	 100- 300	ns	204	Pass	201	Pas
5.1.1.2	OUTPUT RISE TIME-Data	100- 300	ns	204	Pass	201	Pas
5.1.1.2	OUTPUT FALL TIME-Sync	100~ 300	ns	204	Pass		Pas
5.1.1.2	OUTPUT FALL TIME-Data	100- 300	ns	205	Pass	200	Pas
5.1.1.3	 ZERO CROSSING STAB.		 		 		
	500ns Tzcp	4 75- 525	ns	498	Pass	494	Pas
	1000ns Tzcp	975-1025	ns	1003	Pass	1004	Pas
	1500ns Tzcp	1475-1525	ns	1496	Pass	1497	Pas
	2000ns Tzcp	1975-2025	ns		Pass	1997	Pas
	500ns Tzcn	475- 525	ns		Pass	496	Pas
	1000ns Tzcn	975-1025	ns	1005	Pass	1006	Pas
	1500ns Tzcn	1475-1525	ns	1507	Pass	1507	Pas
	2000ns Tzcn	1975-2025	ns	2005	Pass	2005	Pas
5.1.1.4	DISTORTION, OVERSHOOT		 		 		
	AND RINGING	≤ ± 900	qVm	50	Pass	50	Pas
5.1.1.5	OUTPUT SYMMETRY				 		
	(0000)	≤ ± 250	mVp	-53	Pass	9	Pas
	(5555)	≤ ± 250	mVp	-53	Pass	10	Pas
	(7FFF)	≤ ± 250	mVp	-31	Pass	20	Pas
	(8000)	≤ ± 250	m√p	-39	Pass	13	Pas
	(AAAA)	≤ ± 250	mVp	-46	Pass	11	Pas
	(FFFF)	≤ ± 250	qVm	-32	Pass	18	Pas
5.1.1.6	OUTPUT NOISE				† 		
	with power on	≤ 14	mVrms	8	Pass	8	Pas
	with power off	≤ 14	mVrms	1	Pass		Pas
5.1.1.7	OUTPUT ISOLATION	 ≥ 45	db	72	 Pass	72	 Pas
	Active Bus	18.0-27.0	Vpp		!	19.88	
	Inactive Bus		mVpp	5	Pass	5	Pas
5.1.1.8.1	 POWER ON/OFF NOISE				 		
	Power Up Amplitude	≤ ± 250	mVp	180	Pass	200	Pa
	Pulse Width		นธ์	.1	:	.1	1
	Power Down Amplitude	≤ ± 250	mVp	50	Pass		Pas
	Pulse Width	:	us	.1	1	.1	:
5.1.1.8.2	POWER ON RESPONSE	 protocol			 Pass		 Pa:
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ef. Section	Test Description (Xformr Coupled)	Limits	Units	B U S Meas.	A STAT	B U S Meas.	B STA
5.1.1.9	TERMINAL RESPONSE TIME						
	Transmit	4.0-12.0	us	5.94	Pass	5.93	Pas
	Receive	4.0-12.0	us		Pass	5.84	
	RT-UUT	4.0-12.0	us	5.85	Pass	5.84	Pa
	Mode Command	4.0-12.0	us	5.94	Pass	5.93	Pas
5.1.1.10	FREQUENCY STABILITY				 		
	Min. Frequency		kHz		j j		İ
	Max. Frequency		kHz		į į		ĺ
	Avg. Frequency		kHz				
.1.2	INPUT CHARACTERISTICS						
.1.2.1.1	ZERO CROSSING				ĺ		İ
	DISTORTION				<u>l</u> 1		ļ
	Min. Deviation	≤ -150	ns		Pass	-187	Рa
	Max. Deviation Plus 150 nsec	≥ 150	ns	182	Pass	178	Pa
	Minus 150 nsec	protocol protocol			Pass Pass		Pa Pa
.1.2.1.2	AME TOUTH HAD TABLES				į į		İ
.1.2.1.2	AMPLITUDE VARIATIONS 1st CS threshold	200- 860	mTInn		 D= ==	E 0.0	 D-
	lst NR threshold	200- 860	mVpp mVpp	606 590	Pass Pass	580 570	Pa Pa
.1.2.1.3	RISE AND FALL TIME						
.1.2.1.3.1	TRAPEZOIDAL	protocol	 	<u> </u>	 Pass		 Þa
.1.2.1.3.2	SINUSOIDAL	protocol			Pass		ļ ₽a
.1.2.2	COMMON MODE REJECTION						
	+10 volt	protocol	 		 Pass		l Pa
	-10 volt	protocol	i	1	Pass		Pa
	±10 volt	protocol	j		Pass		Pa
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ef. Section	Test Description (Xformr Coupled)	Limits 	Units 	B U S Meas.	A STAT	B U S Meas.	B STA
.1.2.3	INPUT IMPEDANCE	 					
	75 kHz Power ON Phase Angle	≥ 1000	ohms degs	9999 46	Pass Pass	9999 42	 Pas
	100 kHz Power ON Phase Angle	 ≥ 1000 	ohms degs	99 9 9 18	 Pass 	9999 9	 Pas
	250 kHz Power ON Phase Angle	 ≥ 1000	ohms degs	8155 -62	Pass	7435 -66	 Pas
	500 kHz Power ON Phase Angle	 ≥ 1000 	ohms degs	3753 -77	 Pass 	3432 -79	 Pas
	1.0 MHz Power ON Phase Angle	≥ 1000	ohms degs	1846 -83	Pass	1690 -84	 Pa:
	75 kHz Power OFF Phase Angle	 ≥ 1000	ohms	9999 38	 Pass 		 Pa
	100 kHz Power OFF Phase Angle	≥ 1000	ohms degs	9999 5	 Pass		 Pa:
	250 kHz Power OFF Phase Angle	 ≥ 1000	ohms degs	7018 -65	 Pass		 Pa
	500 kHz Power OFF Phase Angle	≥ 1000	ohms degs	 3280 -78	 Pass 	[[Pa
	1.0 MHz Power OFF Phase Angle	≥ 1000	ohms degs	1616 -84	Pass] 	 Pa
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TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH24.DAT TEST SYSTEMS, Inc. By: 11/20/13 (15:17:18) BUS A B U S B Reference Test Description Command Response STAT Section Bus: (run cnt/ errors/ busy cnt) Command Response STAT 5.2.1.1 Response to Command Words RT Response to Commands 5.2.1.1.1 Non-Broadcast Commands Valid, Legal Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3 0:0 00 CS A: (1792/ 0/ 0) 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS В: (1792/ 0/ 3-1-00-18 3-0-0-00 CS 3-1-00-18 3:0:0 00 CS Valid, Illegal Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (128/ 0/ 0) 3-0-25-00 3-4-0-00 ME 3-0-25-00 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME B: (3,28/ 0/ Invalid Commands 3-0-01 00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (61440/ 0-0-00-00 NR 0-0-00-00 - - -NR B: (61440/ 0/ 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS Legal Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (16/ 0/ C) 3-0-00-17 3-0-0-00 CS 3-0-00-17 3-0-0-00 CS B: (16/ 0/ 0) 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS Illegal Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (6/ 0/ 3-0-00-20 3-4-0-00 ME 3-0-00-20 3-4-0-00 ME B: (3-1-00-18 3-4-0-00 ME 3-1-00 18 3-4-0-00 ME 6/ 0/ 0) Undefined Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0 00 CS 0/ A: (98/ 0) 3-0-00-00 3-4-0-00 ME 3-0-00-00 3-4-0-00 ME B: (98/ 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 20 Nov 2013 | Page: ||SUBTITLE: Required Protocol Tests DATE: 5.2.1.1. Response to Command Words TIME: 17:17:47 9 of 26

	S, Inc. MIL-STD-1553B RT VALI SYSTEMS, Inc.	DATION TES	T REPORT	11/20/13	TVH24.DA 3 (15:1		
Reference	Test Description	ви	s A	l BI	l bus b		
Section	Bus: (run cnt/ errors/ busy cnt)	1 7	Response ST.	!		STA	
		+					
5.2.1.1	Response to Command Words					 	
5,2,1,1,1	RT Response to Commands	i i	Ì				
	Broadcast Commands	į į	j	j			
						~~	
	Valid, Legal Commands A: (896/0/0)	3-0-01-00	3-0-0-00 CS NR		3-0-0-00	CS NR	
	A: (896/ 0/ 0) B: (896/ 0/ 0)	!!!!	3-0-0-16 BC		3-0-0-16	BC	
	B: (0507 07 0)	3-1-05-10	1-0-0-10 150	1 3-1-00-10	3-0-0-10		
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	Valid, Illegal Commands	1 :	3-0-0-00 CS	1 1 1 1 1 1	3-0-0-00	CS	
	A: (1024/ 0/ 0)	31-0-25-00	NR	!	!	NR MB	
	B: (1024/ 0/ 0)	3 -1 -00- 1.8	3 ·4 ·0 · 16 MB	K 3-1-00-18	3-4-0-16	MB.	
		į į	ļ		İ		
	Invalid Commands			/A	ļ	N	
				/A /A	<u> </u>	N	
				/A	! 	N	
	Legal Mode Commands	3-0-01-00	3-0-0-00 CS	3-0-91-00	3-0-0-00	j Ics	
	A: (8/ 0/ 0)	31-0-00-17	NR	:	1	NR	
	B:(8/ 0/ 0)	3-1-00-18	3 0 0 16 BC	R 3-1-00-18	3-0-0-36	ВС	
			1		l 		
	Illegal Mode Commands	3-0-01-00		•	3-0-0-00	CS	
	A: (14/ 0/ 0)	31000-20	NR	_	1	NR	
	B:(14/ 0/ 0)	3 1.00.18	3-4-0-16 MB	R 3-1-00-18	3-4-0 16	MB	
	Undefined Mode Commands	3-0-01-00	3-0-0-00 CS	3-0-01-00	3-0-0-00	j Ice	
	A: (98/ 0/ 0)	31-0-00-00	NR	:	i	NR	
	B: (98/ 0/ 0)	3-1-00-18	3-4-0-16 ME		:	MB	
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SUBTITLE:	Required Protocol Tests	DA	TE: 20	Nov 2013	Page:		

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Reference Section	-	escript		cat)	B T	JSA Response	STAT	B U		STA
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5.2.1.1	Non-Br		to ∍							
	 Valid,	Legal	Comm	ands	 3-0-01-00	3-0-0-00	l CS	3-0-01-co	3-0-0-00	lcs
	A; (896/	0/	0)	3-0-01-00		lcs	3-0-01-01	3-0-0-00	CS
	В: (896/	0/	0)	4-1-01-01	4-0-0-00	cs	:	4.0.0-00	lcs
	İ				3-1-00-18	3-0-0-00	cs	3-1-00-18	3-0-0-00	cs
	 Valid,	Illega	al Co	mmands	3 0-01-00	3-0-0-00	 cs	3-0-01-00	3-0-0-00	cs
	A: (64/	0/	0)	3-0-25-01	3-4-0-00	ME	3-0-25-01		ME
	В: (64/	0/	0)	4-1-01-01	4 - 0 - 0 - 00	CS	4-1 01-01	4-0-0-00	cs
	<u>[</u>				31-00-18	3-4-0-00	ME	3-1-00-18	3-4-0-00	ME
	 Invali	.d Comm	ands		3-0-01-00	3-0-0-00	cs	3-0-01-00	3 -0 -0-00	i [cs
	A: (30720/	0/	0)	0.0-00-00		NR	0-0-00-00		NR
	B: (30720/	0/	0)	2.1-01-00	2-0-0-00	cs	2-1-01-00	2.0-0-00	CS
					3 -100-18	3-0-0-00	cs 	3-1-00-18	3-0-0-00	CS
	Legal Mode Commands				3-0-01-00	3-0-0-00	cs	3-0 01-00	3-0-0-00	j cs
	A: (2/	0/	0)	3-0-00-17	3-0-0-00	cs	3-0-00-17	3-0-0-00	cs
	B: (2/	0/	0)	4-1-01-01	4-0-0-00	CS	4-1-01-01	4 0-0-00	CS
					3-1-00-18	3-0-0-00	CS 	3-1-00-18	3 -0-0-00	cs
	Illega	al Mode	Comm	ands	3-0-01-00	3-0-0-00	 CS	3-0-01-00	3-0-0·00	 CS
	A: (4/	0/	0)	3-0-00-20	3-4-0-00	ME	3-0-00-20	3-4-0-00	ME
	H: (4/	0/	0)	i	4-0-0-00	CS	4-1 01 01	4-0-0-00	CS
					3-1-00-18	3-4-0-00	ME 	3-1-00 18	3-4-0-00	ME
	 Undefi	ned Mo	de Co	mmands	3-0-01-00	3-0-0-00	cs] 3-0-01-00	3 0-0-00	cs cs
	A: (58/	0/	C)	3-0-00 00	3-4-0-00	ME	3-0-00-00	3-4 0-00	ME
	B: (58/	0/	0)	4-1-01-00	4-0-0-00	CS	4-1-01-00	4 0-0-00	CS
					3-1-00-16	3-4-0 00	ME 	3-1-00-19	3-4-0-00	ME
						 	[[<u> </u> 		

Section	By: TEST	SYSTEMS, In	c.]	11/20/13	(15:1	7:18)
Non-Broadcast Transmit Commands Non-Broadcast Transmit Commands Valid, Legal Commands 3-0-01-00 3-0-000 CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 31-01-01 31-00-01 31-00-01 CS 31-01-01 31-00-01 CS 31-00-12 31-00-01 CS 31-00-02	Reference Section		_		cnt)	!		STAT			STA
Non-Broadcast Transmit Commands Valid, Legal Commands Valid, Legal Commands Valid, Legal Commands Valid, Legal Commands Valid, Legal Commands Valid, Legal Commands Valid, Legal Commands Valid, Legal Commands Valid, Illegal Commands Valid, Illegal Commands Valid, Illegal Commands Valid, Illegal Commands Valid, Illegal Commands Valid, Illegal Commands Valid, V	5.2.1.1	 Response t	o Comma	and W	ords			 			
Non-Broadcast Transmit Commands Valid, Legal Commands Valid, Legal Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-0-01-00 CS 3-0-01-00 CS 3-0-01-00 CS 3-0-01-00 CS 3-0-01-00 CS 3-0-01-00 CS 3-0-01-00 CS 3-0-01-00 CS 3-0-01-00 CS 3-0-01-00 CS 3-1-00-10 3-0-0-00 CS 3-1-00-10 3-0-0-00 CS 3-1-00-10 3-1-00	5.2.1.1.2	RT-RT Re	sponse	to				İ			
Valid, Legal Commands								ļ			
Valid, Legal Commands A: (896/ 0/ 0)		1		t Tra	nsmit] 		i i			
A: (896/ 0/ 0) 4-0-01-01 NR		Commi	anas			! 		! 	1		
B:(896/ 0/ 0) 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-01 3-0-0-00 CS 3-1-01-00 3-1-01-00 CS 3-1-01-00 CS 3-1-01-00 CS 3-1-01-00 CS 3-1-01-00 CS 3-1-01-01 CS CS CS CS CS CS CS C		Valid,	Legal	Comm	ands	3-0-01-00	3-0-0-00	CS	3-0-01-00	3-0-0-00	cs
Valid, Illegal Commands		A: (896/	0/	0)	4-0-01-01		!	4-0-01-01		NR
Valid, Illegal Commands \[\lambda_1 \cdot \text{(64/ 0/ 0)} \] \[\lambda_1 \cdot \text{(64/ 0/ 0)} \] \[\lambda_2 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_4 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_3 \cdot \text{(64/ 0/ 0)} \] \[\lambda_4 \cdot \t		B: (896/	0/	0)			!	1 1		CS
A: (64/ 0/ 0)						3-1-00-18	3-0-0-00	CS 	3 1.00.18	3-0-0-00	CS
B: (64/ 0/ 0) 3-1-26-01 3-4-0-00 ME 3-1-26-01 3-4-0-00 ME 3-1-26-01 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-1-00-18 3-1-00-18 3-1		Valid,	Illeg	al Co	mmands	3-0-01-00	3-0-0-00	 CS	3-0-01-00	3 0 -0 -00	 cs
Invalid Commands 3-0-01-00 3-0-000 CS 3-0-01-00 3-0-000 CS A: { 30720/ 0/ 0} 2-0-01-00 NR 2-0-01-00 3-0-000 CS B: (30720/ 0/ 0) 0-1-00-00 NR 0-1-00-00 NR 3-1-00-18 3-0-00 CS 3-0-01-00 3-0-0-00 CS 3-1-00-18 3-0-00 CS 3-0-01-00 3-0-0-00 CS A: (14/ 0/ 0) 4-0-01-00 NR 4-0-01-00 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS Illegal Mode Commands 3-0-01-00 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS A: (2/ 0/ 0) 4-0-01-00 NR 4-0-01-00 NR B: (2/ 0/ 0) 3-1-00-00 3-4-0-00 ME 3-1-00-01 3-4-0-00 ME Undefined Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (40/ 0/ 0) 4-0-01-00 NR 4-0-01-00 3-0-0-00 CS A: (40/ 0/ 0) 4-0-01-00 NR 4-0-01-00 3-0-0-00 CS A: (40/ 0/ 0) 4-0-01-00 NR 4-0-01-00 3-0-0-00 CS A: (40/ 0/ 0) 4-0-01-00 NR 4-0-01-00 3-0-0-00 CS A: (40/ 0/ 0) 4-0-01-00 NR 4-0-01-00 3-0-0-00 CS A: (40/ 0/ 0) 4-0-01-00 NR 4-0-01-00 3-0-0-00 CS A: (40/ 0/ 0) 4-0-01-00 NR 4-0-01-00 3-0-0-00 CS A: (40/ 0/ 0) 4-0-01-00 NR 4		Y: (64/	0/	C)	4-0-01-31		NR	4-0-01-01		NR
Invalid Commands A: (30720/ 0/ 0) 2-0-01-00		B:(64/	0/	C)	3-1-26-01	3-4-0-00	ME	3-1-26-01	3-4-0-00	ME
A: (30720/ 0/ 0) 2-0-01-00 NR 2-0-01-00 NI B: (30720/ 0/ 0) 0-1-00-00 NR 0-1-00-00 NI 3-1-00-18 3-0-000 CS 3-1-00-18 3-0-0-00 CS A: (14/ 0/ 0) 4-0-01-00 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS B: (14/ 0/ 0) 3-1-00-18 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS A: (2/ 0/ 0) 4-0-01-00 NR 4-0-01-00 NI B: (2/ 0/ 0) 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME B: (40/ 0/ 0) 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 ME B: (40/ 0/ 0) 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 ME B: (40/ 0/ 0) 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 ME						3-1-00-18	3-4-0-00	ME 	3-1-00-18	3-4-0-00	ME
A: (30720/ 0/ 0) 2-0-01-00 NR 2-0-01-00 NR B: (30720/ 0/ 0) 0-1-00-00 NR 0-1-00-00 NR 0-1-00-00 NR 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 3-1-00-18		 Invali	d Comm	ands		3-0-01-00	3-0-0-00	cs	3-0-01-00	3:0:0:00	lcs.
Legal Mode Commands		A: (30720/	0/	0)	2-0-01-00		NR	1 1		NR
Legal Mode Commands A: (14/ 0/ 0)		B:(30720/	0/	0)	0-1-00-00		NR	0-1-00-00		NR
A: (14/ 0/ 0)						3-1-00-18	3~0.0.00	CS 	3-1-00-18	3 0.0-00	CS
A: (14/ 0/ 0)		Legal Mode Commands				3-0-01-00	3-0-0-00	l cs	3-0-01-00	3-0-0-00	j Ics
3-1-00-18 3-0-0 00 CS 3-1-00-18 3-0-0 00 C Illegal Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0 00 C A:(2/ 0/ 0) 4-0-01-00 NR 4-0-01-00 N B:(2/ 0/ 0) 3-1-00-00 3-4-0-00 ME 3-1-00-00 3-4-0-00 M 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 M Undefined Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01 00 3-0-0-00 C A:(40/ 0/ 0) 4-0-01-00 NR 4 0-01-00 N B:(40/ 0/ 0) 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 M		i -				:	1	!	1		NR
Illegal Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CA A: (2/ 0/ 0) 4-0-01-00 NR 4-0-01-00 NA B: (2/ 0/ 0) 3-1-00-00 3-4-0-00 ME 3-1-00-00 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0-00 ME 3-1-00-00 CA A: (40/ 0/ 0) 4-0-01-00 NR 4 0-01-00 NR 4 0-01-00 NA 4 0-01-00 NA 4 0-01-00 3-4-0-00 ME 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 ME		В: (14/	0/	0)	3-1-00-01	3-0-0-00	cs	3-1-00-01	3 -0 - 0 - 00	CS
A:(2/ 0/ 0)		1				3-1-00-18	3-0-0 GO	CS 	3-1-00-18	3-0-0 00	CS
A:(2/ 0/ 0)		Illegal Mode Commands				3-0-01-00	3-0-0-00	lcs	3-0-01-00	3-00-00	cs
Undefined Mode Commands 3-0-01-00 2-0-0-00 CS 3-0-01-00 3-0-0-00 C A: (40/ 0/ 0) 4-0-01-00 NR 4 0.01-00 NR B: (40/ 0/ 0) 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 ME		i				!	<u> </u>	1	:		NR
Undefined Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01 00 3-0-0-00 C A: (40/ 0/ 0) 4-0-01-00 NR 4 0.01-00 N B: (40/ 0/ 0) 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 M		B: (2/	0/	0)	3-1-00-00	3-4-0-00	ME	3-1-00-00	3-4-0-00	ME
A: (40/ 0/ 0) 4-0-01-00 NR 4 0.01-00 N. B: (40/ 0/ 0) 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 M.						3-1-00-18	3-4-0-00	ME 	3-1-00-18	3-4-0-00	ME
A: (40/ 0/ 0) 4-0-01-00 NR 4 0.01-00 N. B: (40/ 0/ 0) 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 M.		Undefined Mode Commands				3-0-01-00	3-0-0-00	cs	3-0-05 00	3-0-0-00	CE
B: (40/ 0/ 0) 3-1-00-09 3-4-0-00 ME 3-1-00-09 3-4-0-00 M		i				i	!	!	1		NR
3-1-00-18 3-4-0-00 ME 3-1-00-18 3-4-0 00 M		B: (40/			3-1-00-09	3-4-0-00	ME	:		!
						3-1-00-18	3-4-0-00	ME [3-1-00-18	3-4-0 00	ME
							<u> </u>		<u> </u>	 	<u> </u>

	SYSTEMS, Inc. MIL-) 3 B F	CT VALIL	ATION TE	SST REP	!	ر 11/20/13	VH24.D (15:1)	
	<u> </u>				[i	!		
Reference Section	Test De	_			BU		Lamam	ВТ		Lama
section	Bus: (nm c	nt/ error	s/busy	cat)	Command	Response	STAT	Command	Response	STA
5.2.1.1 5.2.1.1.2	Response to RT-RT Res Command Broadca Comma	sponse l Word ast Red	to s				,			
	Valid,	Legal	Comm	ande	1 1 3-0-01-00	30000	l CS	 3-0-02-00	3 0 0 00	l Ics
	A: (896/	0/	0)	31-0-01-00		NR	31-0-01-01		NR
	B: (896/	0/	0)	0-1-01-01		CS	0-1-01-01		CS
		034,	5,	0,	3-1-00-18		BCR	3-1-00-18		BC
							į	į į		
	Valid,	Illeg	al Co	mmands	3-0-01-00	3 -0-0-00	CS	3 0-01-00	3-0-0-00	 cs
	A: (64/	0/	G)	31-0-25-01		NR	31-0 25-01		NR
	B: (64/	0/	C)	0-1-01-01	0-0-0-00	CS	0-1-01-01	0-0-0-00	cs
 	 				3-1-00-18	3-4-0-16	MBR	3-1-00-18	3-4-0-16	MB.
	Invalid	l Comm	ands				N/A N/A N/A N/A			N N N N
	Legal Mode Commands				3-0-01-00	3-0-0-00	CS	3-0-01-00	3-0-0-00	l lcs
	A: (2/	0/	0)	31-0-00-17		NR	31-0-00-17		NR
	B:(2/	0/	0)	0-1-01-01	0-0-0-00	cs	0-1-01-01		CS
					3-1-00-18	3-0-0-16	BCR	3-1-00-18		ВС
	 Illegal	Mode	Comm	ande	3 6 61 66	3-0-0-00	cs			
	A: (4/	0/	0)	31-0-00-20		NR	3-0-01.00	3-0-0-00	CS
	B: (4/	0/	C)	0-1-01-01		CS	:	0-0-0-00	CS
		-4		**	3-1-00-18	!	MBR	3 1.00-18		ME
	77 7 61									
	Undefin				3-0-01-00	:	1	1	3-0-0-00	CS
	A: (58/	0/	0)	31-0-00-00	!	NR	31-0-00-00		NF
	B: (58/	0/	0)	0.1-01-00	:	CS	0-1-01-00		CS
					3-1-00-18	3-4-0-,16	MBR	3-1-00 18	3-4-0-16	ME
						<u> </u> 	ļ L			<u> </u>
UBTITLE: 5.2.1.1	Required Pro					ATE: IME:	20 No 17:1	v 2013 7:47	Page:	of 2

Reference	Test De	script	ion		ВТ	JS A	•	вυ	US B	
Section	Bus: (run ca	_		cnt)	Command	Response	STAT	Command	Response	STAT
5.2.1.1 5.2.1.1.2	Response to RT-RT Res Command Broadca Comma	ponse Words st Tra	to §							
	Valid,	Legal	Comm	ands			N/A N/A N/A N/A			N/1 N/1 N/1 N/1
	Valid, A:(B:(Illega 960/ 960/	al Co 0/ 0/	mmands 0) 0)	0-0-01-01 31-1-01-01		!	3-0-01-00 0-0-01-01 31-1-01-01 3:1-00-18		CS NR NR NR MBR
	Invalid	. Comma	ands				 N/A N/A N/A N/A			N/. N/. N/. N/.
	Legal M A:(B:(ode Co 6/ 6/	omman 0/ 0/	o) 0) 0)	3-0-01-00 0-0-01-00 31-1-00-01 3 · 1 · 00 · 18		CS NR NR BCR	3-0-01-00 0-0-01-00 31-1-00-01 3-1-00-18	- · 	CS NR NR BCR
	Illegal A:(B:(. Mode 10/ 10/	Commo/ o/	oands 0) 0)	3-0-01-00 0-0-01-00 31-1-00-00 3-1-00-18		CS NR NR NR MBR	3-0-01-00 0-0-01-00 31-1-00-00 3-1-00-18	· ·	CS NR NR NR MBR
	Undefin	ed Mo 40/ 40/	de Cc º/ º/	ommands 0) 0)	3-0-01-00 0-0-01-00 31-1-00-09 31-00-18		CS NR NR MBR	3-0-01-00 0-0-01-00 31-1-00-09 3-1-00-18		CS NR NR MBR

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH24.DAT 11/20/13 (15:17:18) By: TEST SYSTEMS, Inc. Reference Test Description BUS B U S В Section Command Response STAT Bus: (rum cnt/ errors/ busy cnt) Command Response STAT ||5.2.1*.*2 Intermessage Gap 5.2.1.2.1 Minimum Time BC-UUT Transfer 3-0-05-00 3-0 0-00 CS 3-0-05-00 3-0-0-00 CS 1000/ CS A: (07 3.0 01.00 3-0-0-00 3-0-01-00 3-0-0 00 CS 1000/ UUT-BC Transfer 3-1-02-00 3-0 0-00 CS 3-1-02-00 3:0:0:00 CS 1000/ 3-0-01-00 3.0.0.00 CS 3-0-01-00 3-0-0-00 CS B: (1000/ 0/ UUT/RT Transfer 3-0-21-00 3-0-0-00 CS 3 0 21-00 3-0-0-00 CS A: (4-1-01-00 4-0-0-00 CS 1000/ 0/ CS a) 4-1 01-00 4-0-0-00 1000/ 3-0-01-00 3-0-0-00 CS B: (3-0-01-00 3-0-0-00 CS RT/UUT Transfer 25-0-01-00 25-0-0-00 DC 4-0-01-00 4-0-0-00 DC A: ! 1000/ 0/ 3-1-24-00 3-0-0-00 CS 3 -1 - 24 - 00 | 3 - 0 - 0 - 00 CS 03 B: (1000/ 3.0.01-00 3-0-0-00 C\$ 3.0.01-00 3-0-0-00 Ç\$ Mode Command w/o data 3-1-00-01 3.0.0-00 CS 3-1-00:01 CS 3-0-0-00 A: (1000/ 3-0-01-00 3.0-0-00 CS 3-0-01-00 3-0-0-00 CS 1000/ Mode Command, 3-1-00-16 3-0-0-00 CS 3-1-00-16 3-0-0-00 CS Transmit w/Data 3-0-01-00 3-0-0-00 les CS 3-0-01-00 3-0-0-00 A: (1000/ 0/ B: (1000/ 0/ 0) Mode Command, 3-0-00-17 3-0-0-00 CS 3-0-00-17 3-0-0:00 Receive w/Data 3-0-01-00 3-0-0-00 CS cs 3-0-01-00 3-0-0.00 A: (1000/ B: (1000/ 0/ Broadcast BC-UUT 31-0-00-00 NR 31-0-00-00 NR A: (1000/ 0/ 3.0 01-00 3-0-0-00 ICS CS 01 3-0-01-00 3-0-0-00 B: (1.000/ Broadcast RT/UUT 31-0-01-30 - - -NR NR 31-0-01-30 A: (1000/ 0/ 3-1-30-30 3-0-0-00 CS 3-1-30-30 3-0-0-00 CS B: (1000/ 3-0-01-00 3-0-0-00 CS 0/ 0) CS 3-0-01-00 3-0-0-00 Broadcast UUT/RT 31-0-00-17 INR 31-0 00 17 NR A: (1.000/ 0-1-01-01 0-0 0-00 CS 0/ 0) 0-1-01 01 0-0-0-00 CS B : (10007 3-0-01-00 3.0.0-00 CS 0/ 0) 3-0 01-00 3-0-0-00 CS Broadcast Mode Cmnd NR 31-1-00-01 31-1-00 01 NR w/o data 3-0-01-00 3-0-0-00 CS 3-0-01-00 | 3-0-0-00 | CS 1000/ A: (0) 1000/ 07 0) Broadcast Mode Cmnd 31-0-00-17 NR 31-0:00 17 NR w/data CS 3-0-01-00 3-0-0-00 3-0 01 00 3-0-0-00 CS A: (1000/ 1000/ 0/ 0) B; (SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page: 5.2.1.2. TIME: Intermessage Gap 17:17:47 15 of 26

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Reference	Test Description	B t	JS A		В		
Section	Bus: (run cat/ errors/ busy cat)	Command.	Response	STAT	Command	Response	STA
j 5.2.1.2	Intermessage Gap			j I			
5.2.1.2.2	Transmission Rate			! !	1 1		
	Transmit-Transmit	3-1-06-00	3-0-0-00	cs	3-1-01-00	3-0-0-00	cs
į	A: (19352/ 0/ 0)	3-1-07-00	3-0-0-00	cs	3-1-01-00		cs
į	B: (19342/ 0/ 0)	3-1-06-00	3-0-0-00	cs	3-1-01-00		cs
į		3-1-07-00	3-0-0-00	cs	3-1-01-00	3-0-0-00	cs
į	Busy (usec)		0	į	į '	0	ļ
	Receive-Receive	3-0 10-00	3-0-0-00	 CS	 3 0 10-00	3-0-0-00	l Cs
j	A: (19322/ 0/ 0)	3-0-11-00	30-0-00	CS	3-0-11-00	3-0-0-00	cs
j	B:(19336/ D/ C)	3-0-10-00	3-0-0-00	CS	3-0-10-00	3-0-0-00	CS
		3-0-11-00	3-0-0-00	CS	3-0-11-00	3-0-0-00	CS
.	Busy (usec)		0			0	
1	Transmit-Receive	1 2 2 22 22	3 -0 -0-00	l Lee	1 7 7 00 00		l lcs
1	A: (19324/ 0/ 0)	: :		cs cs	:	3-0-0-00 3-0-0-00	cs
1	B: (19324/ 0/ 0)			l CS	1	3-0-0-00	lcs
	B. (15524) 0/ 0/	- :		l cs	1	3-0-0-00	lcs
	Busy (usec)	1 7 7 22 50	0		3.0.21.00	0	
5.2.1.3 5.2.1.3.1 5.2.1.3.1.1	Error Injection Parity Transmit Command	3-1-06-00	3-0-0-00	 CS NR	3-1 05-00		CS
[3-1-00-02	30-00-00	CS 	3-1-00 02	3-0-0-00	CS
5.2.1.3.1.2	Receive Command	3-0-01-00	3-0-0-00	cs	3-0-01-00	3 -6 -000	cs
•		3-0-05-00		NR	3-0-05-00		NR
		3-1-00-02	3-0-0-00	cs	3-1-00-02	3-0-0.00	cs
5.2.1.3.1.3	Receive Data Words	3-0-01-00	3-0-0-00	cs	3-0-01.00	3-0-0-00	CS
ļ	A: (32/ 0/ 0)	3-0-05-00		NR	3-0-05-00		NR
	B: (32/ 0/ 0)	3-1-00-02	3-4-0-00	ME	3-1-00-02	3 4 -0 -00	ME
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TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH24.DAT TEST SYSTEMS, Inc. By: 11/20/13 (15:17:18) Reference Test Description BUSA BUSB Section Bus: (rum cnt/ errors/ busy cnt) Command Response STAT Command Response STAT 5.2.1.3.2 Word Length ||5.2.1.3.2.1|Transmit Command 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0 0-00 CS A: (2/ 0/ 0) 3-1-06-00 NR3-1-06-00 _ . . NR 3:1 2/ 07 3-1-00-02 3-0-0-00 CS 3-1-90-02 3-0-0-00 CS 5.2.1.3.2.2 Receive Command Short Receive commands CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-8-0-00 3-0-05-00 ΝR 3-0-05-00 NR 3-1-00-02 3-0-0-00 CS B: (2/ o/ 01 3-1-00-02 3-0-0-00 CS Long Receive commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3.0.0-00 CS A: (2/ 3-0-05-00 - - .. NR 3-0-05-00 NR B: (2/ 0/ 3-1-00-02 3-4-0-00 ME o) 3 -1 -00 -02 3 -4 -0 -00 ME 5.2.1.3.2.3 Receive Data Words 3-0-01-00 3 0-0-00 CS 3-0-01-00 CS 3 -0 -0-00 126/ 3-0-05-00 -- -- -NR 3-0-05-00 NR B: (126/ 0/ 0) 3-1-00-02 3-4-0-00 ME ME 3-3-00-02 3-4-0-00 5.2.1.3.3 Bi-Phase Encoding 5.2.1.3.3.1 Transmit Command 3-0-01-00 3-0-0-00 CS 3-0-01 00 3-0-0-00 lcs At (34/ 3-1-06-00 0/ NR 3-1-06-00 . . -NR В: (34/ 0/ 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 5.2.1.3.3.2 Receive Command |CS 3-0-01-00 3.0-0-00 3-0-01-00 3-0-0-00 CS A: (34/ 0) 3-0-05-00 . .. -NR 3-0-05-00 - - -NR B: (34/ 0/ 0) 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS ||5,2,1,3,3,3|Receive Data Words 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (1088/ 0/ 0) 3-0-05-00 - - -NR 3-0-05-00 NR B: (1088/ 0/ 3 -1 - 00 - 02 | 3 - 4 - 0 - 00 ME 3-1-00-02 3-4-0-00 ME 5.2.1.3.4 Sync Encoding 5.2.1.3.4.1 Transmit Command 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (5/ NRn/ 3-1-06-00 NR 0) 3-1-06-00 В: (5/ 0/ 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 5.2.1.3.4.2 Receive Command cs 3-0-01-00 3-0-0-00 3-0-01-00 3-0-0-00 CS A: (5/ 0) 3-0-05-00 - - -NR 3-0-05-00 NR B: (5/ 0/ 0) 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 5.2.1.3.4.3 Receive Data Words 3-0-01-00 3-0-0-00 CS 3-9-01-00 3-0-0 00 |CS A: (1.60/ 0/ 3-0-05-00 - - -NŔ 3-0-05-00 NR B: (160/ 0) 3-1-00-02 3-4-0-00 ME 0/ 3 1-00-02 3-4-0-00 ME ||SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page: 5.2.1.3.2. Word Length TIME: 17:17:47 17 of 26

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH24.DAT 11/20/13 (15:17:18) By: TEST SYSTEMS, Inc. BUSA Reference Test Description BUS B Section Command Response STAT Bus: (rum cnt/ errors/ busy cnt) Command Response STAT Message Length 5.2.1.3.5 5.2.1.3.5.1 Transmit Command 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-1-06-00 - - -NR 3-1-06-00 - - -|NR 3-1-00-02 3-4-0-00 ME 3-1-00 02 3-4-0-00 ME ||5,2,1,3,5,2| Receive Command 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0 0 00 CS 3-0-05-00 A: (33/ 3-0-05-00 - - -NR NR3-1-00-02 3-4-0-00 ME B: / 33/ 3-1-00-02 3-4-0 00 ME 07 5.2.1.3.5.3 Receive Mode Command 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (2/ 3-0-00-17 - - -NR 3-0-00-17 - - -INR 2/ 3-1-00-02 3-4-0-00 ME 3-1, 00 02 3-4-0-00 ME B: (0/ B) Transmit Mode Command 3 0 01 00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 1/ 3-1-00-01 NR - - -3-1-00-01 NR B: (17 3-1-00-02 3-4-0-00 ME 3-1-00-02 3-4-0-00 ME 5.2.1.3.5.4 RT-RT Word Count Error 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (2/ 0/ 4-1-01-00 4-0-0-00 CS 4-1-01-00 4-0-0-00 CS NR B: (2/ 0/ 3-0-08-00 3-0-08-00 - - -NR 4-1-01-00 4-0-0-00 CS 4-1-01-00 4-0-0-00 CS 3-1-00-02 3-4-0-00 ME 3-1-00-02 3-4-0-00 ME 5.2.1.3.6 Contiguous Data 3-0-01-00 3-0-0-00 CS 3-0-01-00 3 0-0-00 CS A: (32/ 3-0-05-00 ... NR 3-0-05-00 - - -0/ | NR 0) 3-1-00-02 3-4-0 00 ME B:(32/ 0/ 0) 3-1-00-02 3-4-0 00 ME 5.2.1.3.7 Terminal Fail-Safe ||5.2.1.4|Superseding Commands part A 3-0-02-00 - - -NR 3.0 01.00 - - -NR 3 1 01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0 0-00 CS part B NR 3.0.01.00 - - -3-0-01-00 -NR 3-1-00-02 3-4-0-00 ME 3-1-00-02 3-4-0 00 ME 3-1-00-02 3-4-0-00 ME 3-1-00-02 3-4-0-00 ME part C 3-0-01-00 - - -NR 3-0-01-00 - - -NR 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 3 1.00-02 3-0-0-00 CS part D 3-0-01-00 - - -NR 3-0-01, 00 . .. -NR 3-1-01-00 3-0-0-00 CS 3-1-01-00 3 C-0-00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-02 3 0.0 00 CS DATE: 20 Nov 2013 | Page: SUBTITLE: Required Protocol Tests 5.2.1.3.5. Message Length TIME: 18 of 26 17:17:47

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH24.DAT TEST SYSTEMS, Inc. 11/20/13 (15:17:18) | Reference Test Description BUS A B U S B Section Bus: (run cnt/ errors/ busy cnt) Command | Response | STAT || Command Response STAT 5.2.1.5 Required Mode Commands 15.2.1.5.1 Transmit Status 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0 0:00 CS A: (2/ 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 B: (2/ 0/ o١ 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 l ¢s 3-1-00-02 3.0.0.00 CS 3-1-00:02 3-0-0-00 CS 3-0-01-00 - - -NR 3-0-01-00 NR 3-1-00-02 3-4-0-00 ME 3-1-00-02 3-4 0 00 ME ME 3 1 00 02 3-4-0-00 3-1-00-02 3-4-0 00 ME 3-1-00-02 3-4-0-00 ME 3-1-00-02 3-4-0 00 ME 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0 00 CS 3-4-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS cs 3 1-00-02 3-0-0-00 5.2.1.5.2 Xmtr Shutdown/Override 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 4/ 3-0-01-00 3-0-0-00 3-0-01-00 3-0-0-00 lcs CS B: (4/ 3-1-00-04 3-0-0-00 CS 3-1-00-04 3-0 0-00 CS 3-0-01-00 - - -INR 3-0-01-00 . . . NR 3-0-01-00 3-0-0-00 CS 3-0-01-00 3 0 0-00 CS 3 1-00-05 NR 3-1-00-05 NR 3-0-01-00 - - -NR 3-0-01-00 NR 3-1-00 05 3-0-0-00 CS 3-1-00-05 3-0 0-00 CS 3-0-01-00 3-0-0-00 1cs 3-0-01-00 3-0-0 00 cs 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 5.2.1.5.3 Reset Remote Terminal Delay to Stable Response 3-1-00-08 3-0-0-00 | CS 3-1-00-08 3-0-0-00 CS A: (1764/ 3-1-01-00 3-0-0-00 CS 3-1-01 00 3-0-0-00 CS B: (1764/ 0/ 0) $(T \le 5000us)$ Shutdown 3-1-00-04 3:0:0-00 CS 3-1-00-04 3-0-0 00 CS A: (2/ 0/ 3-1-01-00 NR 0) 3 - 1 - 01 - 00 NR B: (2/ 3-1-00-08 3 0-0-00 CS 0/ n١ 3-1-00-08 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 5.2.1.6 Data Wrap-around 3-0-30-00 3-0-0-00 CS 3-0-30-00 3-0-0-00 CS A: (10000/ 3-1-30-00 3-0 0 00 CS 0/ 3-1-30-00 3-0-0-00 CS 10000/ 0/ 0) RT-RT Timeout Delay ||5.2.1.7 Time to first NR 3-0-01-00 - - -NR 3-0-01-00 - - -NR 4-1-01-00 4-0-0-00 4-1-01-00 4-0-0-00 CS 3-1-00-02 3-4-0-00 3-1-00-02 3-4 0 00 ME ME $(54us \le T \le 60us)$ 57.5 57.5 Time to first CS 3-0-01-00 3.0-0-00 CS 3-0-01-00 3-0-0 CS 4-1-01-00 4-0-0-00 CS 4-1-01-00 4-0-0 00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS $(54us \le T \le 60us)$ 57.0 57.0 SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page: Required Mode Commands 5.2.1,5. TIME: 17:17:47 19 of 26

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eference	Test Description	!	US A		ј вт	E 2	
Section	Bus: (rum cnt/ errors/ busy cnt)	Command	l Response	STAT	Command	Response	STA
.2.1.8	Bus Switching	İ	į Į	<u> </u>	 		<u> </u>
	RT Transmitting		!	 			
	Valid, Legal Command	3-1-02-6	so	NR	3-1 02-00		NR
	A:(10945/ 0/ 0) 3-1-05-0	00-0-00 8 00	cs	3-1-05-00	3-0-0-00	CS
	B: (10945/ 0/ 0) 3-1-00-0	3-0-0-00	CS	3-1-00-02	3 -0 0-00	CS
	Command w/Parity Err	ror 3-1-02-0	3-0-0-00	 CS	3-1-02 00	3-0-0-00	 cs
	A: (10945/ 0/ 0	i	00	NR	3-1-05-00		NR
	B: (10945/ 0/ 0	:	3-0 0 00	!	3-1-00-02		CS
	Command to another I	PT 3100	2000	l -		2.5.0.00	
	A: (10945/ 0/ 0		00 3-0-0-00 30	NR	3-1-02-00 4-1-05-00		CS NR
	B: (10945/ 0/ 0		!	1	3-1-00-02		CS
	DM Deneted to						
	RT Receiving Valid, Legal Command	a					
	A: (11649/ 0/ 0	i	00	NR CS	3-0-01-00		NR
	B: (11649/ 0/ 0		00 3-0-0-00	lcs	4-1-05-00 3-1-05-00		CS CS
		1	3-0-0-00	CS	3-1-05-00		cs
	Command w/Parity Err	ror	3-0-0-03	l cs	30-01-00		 - CS
	A: (11649/ 0/ 0	1	1	;	4-1-05-00		CS
	B:(11649/ 0/ 0	1		NR	3-1-05:00		NR
		3-1-00-	3-0-0-00	cs	3-3-00-02	3-0-0-00	cs
	Command to another I	R T 3-0-01-	00 3-0-0-00	cs	3-0-01-00	3-0-0-00	 cs
	i) 4-1-05-		CS	4-1-05-00		cs
	B: (11649/ 0/ 0)) 4-1-05-	00	NR	4-1-05-00		NR
		3-1-00-0 	3-0-0-00	cs	3-1-00-02	3 0-0-00	CS
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SUBTITLE:	Required Protocol Tests	<u> </u>	DATE:	20 No	v 2013	Page:	

Section Pus: (run cnt/ errors/ buy cnt) Command Response STAT Command Response	No. Section Page Campand Page STAT Campand Response Campand Response Campand Campand Response Campand			<u> </u>		i	<u> </u>		••••
	2.1.9 Unique UUT Address part A UUT Adr 0 0-0-0-00 CS 0-0-0-00 0-0-0-00 CS UUT Adr 1 1-0-05-00 1-0-0-00 CS 1 0 05-00 1-0-0-00 CS UUT Adr 2 2-0-05-00 2-0-0-00 CS 2-0-05-00 2-0-0-00 CS UUT Adr 3 3-0 05 00 3-0 0-00 CS 2-0-05-00 3-0 0 00 CS UUT Adr 4 4-0-05-00 4-0-0-00 CS 3-0-05-00 3-0 0 00 CS UUT Adr 5 5-0-05-00 5-0-0-00 CS 6-0-0-00 CS 0-0-0-00 CS UUT Adr 6 6-0-05-00 6-0-0-00 CS 6-0-0-00 CS 0-0-0-00 CS UUT Adr 7 7-0-05-00 7-0-0-00 CS 7-0-0-00 CS 0-0-0-00 CS UUT Adr 8 8-0-05-00 8-0-0-00 CS 7-0-0-00 CS 0-0-0-00 CS UUT Adr 9 9-0-05-00 9-0-0-00 CS 11-0-05-00 1-0-0-00 CS UUT Adr 11 (0B) 11-0-0-05-00 11-0-0-00 CS 11-0-0-00 12-0-0-00 CS UUT Adr 12 (0C) 12-0-05-00 12-0-0-00 CS 11-0-05-00 11-0-0-00 CS UUT Adr 14 (0E) 11-0-05-00 13-0-0-00 CS 11-0-05-00 11-0-0-00 CS 11-0-05-00 11-0-0-00 CS UUT Adr 16 (10) 11-0-05-00 11-0-0-00 CS 11-0-05-00 11-0-0-00 CS 11-0-05-00 11-0-0-00 CS 11-0-05-00 11-0-0-00 CS		Test Description	1		1 am a m			l ama
Part A	Part A	Section	Bus: (run cnt/ errors/ busy cnt)	Command	Response	STAT	Command	Response	STA
Part A	Part A	5 2 1 9	 			j I	į į		İ
UUT Adr 0	UUT Adr 0	,,	:				!		
UUT Adr 1 UUT Adr 2 UUT Adr 3 UUT Adr 3 UUT Adr 3 UUT Adr 4 UUT Adr 5 UUT Adr 5 UUT Adr 5 UUT Adr 6 UUT Adr 7 T-0-05-00 3-0-0-00 CS 3-0-05-00 3-0-0-00	UUT Adr 1		! -	0-0-05-00	0-0-0-00	cs	 0-0-05-00	0-0-0-00	cs
UUT Adr 2	UUT Adr 2 2-0-05-00 2-0-0-00 CS 2-0-05-00 2-0-0-00 CS UUT Adr 3 3-0-05-00 3-0-0-00 CS 3-0-05-00 3-0-0-00 CS UUT Adr 4 4-0-05-00 4-0-0-00 CS 3-0-05-00 3-0-0-00 CS UUT Adr 5 5-0-05-00 5-0-0-00 CS 5-0-05-00 5-0-0-00 CS UUT Adr 6 6-0-05-00 6-0-0-00 CS 6-0-05-00 5-0-0-00 CS UUT Adr 7 7-0-05-00 7-0-0-00 CS 6-0-05-00 7-0-0-00 CS UUT Adr 8 8-0-05-00 8-0-0-00 CS 7-0-05-00 7-0-0-00 CS UUT Adr 9 9-0-05-00 9-0-0-00 CS 9-0-05-00 9-0-0-00 CS UUT Adr 11 (0B) 11-0-05-00 11-0-0-00 CS 11-0-05-00 11-0-0-00 CS UUT Adr 12 (0C) 12-0-05-00 12-0-0-00 CS 11-0-05-00 13-0-0-00 CS UUT Adr 13 (0D) 13-0-05-00 12-0-0-00 CS 11-0-05-00 13-0-0-00 CS UUT Adr 14 (0B) 14-0-05-00 15-0-0-00 CS 11-0-05-00 13-0-0-00 CS UUT Adr 15 (0F) 15-0-05-00 15-0-0-00 CS 11-0-05-00 13-0-0-00 CS UUT Adr 16 (10) 15-0-05-00 15-0-0-00 CS 11-0-05-00 13-0-0-00 CS UUT Adr 19 (13) 19-0-5-00 15-0-0-00 CS 11-0-05-00 13-0-0-00 CS UUT Adr 20 (14) 20-0-05-00 21-0-0-05-00 20-0-0-00 CS UUT Adr 21 (15) 21-0-05-00 21-0-0-0-00 CS 22-0-05-00 22-0-0-00 CS UUT Adr 22 (16) 22-0-05-00 21-0-0-00 CS 22-0-05-00 22-0-0-00 CS UUT Adr 24 (18) 24-0-05-00 21-0-0-00 CS 22-0-05-00 22-0-0-00 CS UUT Adr 27 (1B) 27-0-05-00 27-0-0-00 CS 22-0-05-00 22-0-0-00 CS UUT Adr 29 (1D) 29-0-05-00 29-0-0-00 CS 29-0-05-00 29-0-0-00 CS UUT Adr 30 (1E) 30-0-05-00 30-0-0-00 CS 30-0-05-00 29-0-0-00 CS UUT Adr 29 (1D) 39-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS UUT Adr 30 (1E) 30-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS UUT Adr 31 (1F) 31-0-05-00 30-0-0-00 CS 30-0-05-00 23-0-0-00 CS UUT Adr 29 (1D) 30-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS UUT Adr 30 (1E) 30-0-05-00 30-0-0-00 CS 30-0-05-00		UUT Adr 1			l r]		i.
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UUT Adr 6	UUT Adr 6		UUT Adr 5			!	1 1		cs
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UUT Adr 27 (1B) 27-0-05-00 27-0-0 00 CS 27-0-05-00 27 0.0-00 UUT Adr 28 (1C) 28-0-05-00 28-0-0 00 CS 28-0-05-00 28 0.0-00 UUT Adr 29 (1D) 29-0-05-00 29 0-0-00 CS 29-0-5 00 29-0-00	UUT Adr 27 (1B) 27-0-05-00 27-0-0 00 CS 27-0-05-00 27 0.0-00 CS UUT Adr 28 (1C) 28-0-05-00 28-0-0 00 CS 28-0-05-00 28 0.0-00 CS UUT Adr 29 (1D) 29-0-05-00 29 0-0-00 CS 29-0-05 00 29-0-00 CS UUT Adr 30 (1E) 30-0-05-00 30-0-0-00 CS 30-0 05-00 30-0-0-00 CS UUT Adr 31 (1F) 31-0-05-00 NR 31-0-05-00 NF		•	- 1	1	:	1	:	lcs
UUT Adr 28 (1C) 28-0-05-00 28-0-0-00 CS 28-0-05-00 28-0-0-00 UUT Adr 29 (1D) 29-0-05-00 29-0-0-00 CS 29-0-05-00 29-0-0-00	UUT Adr 28 (1C) 28-0-05-00 28-0-0-00 CS 28-0-05-00 28 0-0-00 CS UUT Adr 29 (1D) 29-0-05-00 29 0-0-00 CS 29-0-05-00 29-0-0-00 CS UUT Adr 30 (1E) 30-0-05-00 30-0-0-00 CS 30-0 05-00 30-0-0-00 CS UUT Adr 31 (1F) 31-0-05-00 NR 31-0-05-00 NF		!	:	!	1	1	!	1
UUT Adr 29 (1D) 29-0-05-00 29 0-0-00 CS 29-0-05-00 29-0-0-00	UUT Adr 29 (1D) 29-0-05-00 29 0-0-00 CS 29-0-05-00 29-0-05-00 CS UUT Adr 30 (1E) 30-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS UUT Adr 31 (1F) 31-0-05-00 NR 31-0-05-30 NF		:	:	!	;	:	:	1
	UUT Adr 30 (1E) 30-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS 30-0-05-00 30-0-0-00 CS		!	:	!	!	1		1
[UUT Adr 31 (1F) 31.0-05-00 NR 31.0-05-00 NF		!	:	:	!	:	:	:
UUT Adr 31 (1F) 31.0-05-00 NR 31.0-05-00	part B 31-0-05 00 NR 31-0-05 00 NF		!	;	:	!	:	:	NR
part B 31-0-05 00 NR 31-0-05-00			part B	31-0-05 00		NR	31-0-05-00	 	NR
	·······································							=	
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	, Inc. MIL-STD-1553B RT VALIDA YSTEMS, Inc.	ATION TES	T REPOR		C 11/20/13	:VH24.D (15:1	
Reference Section	Test Description Bus: (run cnt/ errors/ busy cnt)	B U		TAT	B U	JSB Response	STA:
			<u> </u>		i i		<u> </u>
	Optional Protocol		ļ				
5.2.2.1.1	Dynamic Bus Control	3.1.00.00	3-4-0-00 M	Ε	3-1-00-00	3-4-0-00	ME
	A: (2/ 0/ 0)		ļ				ļ
	B: (2/ 0/ 0)		1				
5.2.2.1.2	Synchronize		~				l ac
5.2.2.1.2.1	Synchronize without data	3-1-00-01	3-0-0-00 C	!S	3 -1 - 00 - 0_ 3	3-0-0-00	LS
i	B: (2/ 0/ 0)						
5.2.2. 1 .2.2	Synchronize with data	 3-0-00-17	3-0-0-00 C	S	3-0-00-37	3-0-0-00	cs
	A: (2/ 0/ 0)					5 6 4 43	
	B:(2/ 0/ 0)		į		i i		İ
	SYNC Word	,	0000		į '	0000	İ
5.2.2.1.3	Initiate Self-Test	3-1-00-03	3-0-0-00 C	S	3-1 00-03	3-0-0-00	CS
	A:(1964/ 0/ 0)	3-1-01-00	3-0-0-00 C	'S	3-1-01-00	3-0-0-00	CS
	B:(1964/ 0/ 0)						
	(T ≤ 100,000us)		4		!	4	
	, n , n , n , n , n , n , n , n , n , n						
5.2.2.1.4	Transmit BIT word	3-1-00-19	3-0-0-00 C	:\$	3-1-00-19	3-0-0-00	CS
	A:(2/ 0/ 0) B:(2/ 0/ 0)						
	B:(2/ 0/ 0) BIT Word	 	200cl			i 200c	
5.2.2.1.5	Selective Xmtr Shutdown	3-0-01-00		:s	3-0-01-00	3-0-0-00	lcs
3,2,2,2,3	A: (4/ 0/ 0)	3-0-01-00		is	3-0-01-00		cs
	B:(4/ 0/ 0)	: :		Œ	3-0-00-20		ME
		3-0-01-00	3-0-0-00	:S	3-0-01-00		CS
		3.0.0100	3-0-0-00 C	S	3-0-01-00	3 0-0-00	CS
		3-0-00-21	3 - 4 - 0 - 00 1	Œ	3-0-00-21	3-4-0-00	ME
		3-0-01-00	3-0-0.00	S	3-0-01-00	3-0-0-00	CS
		: :		Œ	3-0-00-21	3-4-0-00	ME
		3-0-01-00		S	3-0-01-00	3-0-0-00	CS
		3-0-01-00	:	S	3-0-01-00	:	CS
] 	3-0-00-20		ie Cs	3.0.00.20	3-4-0-00	ME CS
	1	3-0-01-00	!	.s :s		3-0-0-00	cs
	Alt Bus Selection Word		0000		1 3 0 101 100	0000	!
	Pri Bus Selection Word		0000			0000	
					İ		i
5.2.2.1.6	Terminal Flag Bit Inhibit	3-0-01-00	3-0-0-00	S	3-0-01-00	3-0 0 00	cs
	A:(4/ 0/ 0)	3-1-01-01	3-0-0-01 I	DC .	3-1-01-01	3-0-0-01	DC
	B:(4/ 0/ 0)	3-0-01-00	3-0-0-01 7	rf	3-0-01-00	3-0-0-01	TF
		3-1-00-06	:	CS	1	3-0-0-00	CS
		3-0-01-00	:	S	:	3-0-0-00	CS
		3-1-31-07		rf -	:	3-0-0-01	TF
	 	3-0-01-00	!	rF	:	3-0-0-01	TF
	!	3-1-01-01		DC TC	:	3-0-0-00	DC
	<u> </u>	3-0-01-00	3-0-0-00 (CS	3-0-01-00	3-0-0-00	CS
SUBTITLE:	Optional Protocol Tests		TE: 20) NT-	v 2013	Dage	
5.2.2.1		:			DV 2013 L7:47	Page: 22 c	

Reference Section	Test Description Bus: (rum cnt/ errors/ busy cnt)	B U Command		STAT	B U	S B	STAT
5.2.2.1.7	Transmit Vector Word	3-1-00-16	3.0-0-00	CS	3-1-00-16	3-0-0-00	lcs
	A: (2/ 0/ 0)	i i		ĺ	j i		İ
	B:(2/ 0/ 0)	į į			i i		
	VECTOR Word	į .	9040		<u>'</u>	9040	
5.2.2.1.8	Transmit Last Command	3-0-01-00	3-0-0-00	cs	3-0-01-00	3-0-0-00	cs
	A: (2/ 0/ 0)	3-0-01-01		NR	3-0-01-01		NR
	B: (2/ 0/ 0)	3-1-00-18	3-4-0-00	ME	3-1-00-18	3-4-0-00	ME
		3-1-00-02	3-4-0-00	ME	3 1 00 02	3-4-0-00	ME
		3-1.000-18	3-4-0-00	ME	3-1-00-18	3 4-0-00	ME
		3-1-00-18	3-4-0-00	ME	3-1-00-18	3-4-0-00	ME
		3-0-01-00	3-0-0-00	CS	3-0-01-00	3-0-0-00	CS
		3-1-00-18	3-0-0-00	CS	3-1-00-18	3-0-0-00	cs
		3-1-01-00	3-0-0-00	CS	3-1-01-00	3-0-0-00	cs
		3-1-00-18	3-0-0-00	CS	3-1-00-18	3-0-0-00	CS
5.2.2.2	Status Word			ĺ	İ		į
5.2.2.2.1	Service Request	3-0-01-00	3-0-0-00	CS	3-0-01-00	3-0-0 00	cs
		3-1-01-01	3-1-0-00	DC	3-1-01-01	3-3-0 00	DC
		3 -1 - 01 - 00	3-1-0-00	SR	3-1-01-00	3-1-0-00	SR
		3-1-01 00	3-1-0-00	SR	3 1-01-00	3-1-0-00	SR
		3-1-01-01	30-0-00	DC	3-1-01-01	3-0-0-00	DC
		3-0-01-00	3-0-0-00	CS	3-0-01-00	3-0-0-00	cs
5.2.2.2.2	Broadcast Command Received	 31-0-01-00	 	 NR	31-0-01-00		NR
	İ	3-1-00-18	3-0-0-16	BCR	3-1-00-18	! :	1
	İ	3-0-01-00	3-0-0-00	cs	3-0-01-00	1	CS
		31 -0-01-00		NR	31-0-01-00		NR
		3-1-01-01	3-0-0-00	cs	3 - 1 - 01 - 01	3-0-0-00	cs
		31-0-01-00	į	NR	31-0-01-00		NR
		3-1-00-18	3-4-0-16	MBR	3-1-00-18	3-4-0-16	MBR
5.2.2.3	Busy	3.1-01-01	3-0-0-08	l DC	3-1-01-01	 30 0-08	l Idc
		:	3-0-0-08	:	:	3-0 0-08	!
	İ	3-1-01-01	3-0-0:00	DC	:	3-0-0-00	!
		3-1-01-03	3000	cs	,	3-0-0-00	1
5.2.2.2.4	 Subsystem Flag	3-1-03-01	3-0-0-04	 DC	3-1 01-01	3-0-0-04	 DC
		3-1-02-00	3·0-C-04	!	1	3-0-0-04	!
		3-1-01-01	3.0 0.00	DC	1	3-0-0-00	!
		:	3-0-0-00	:	3-1-01-00	3-0-0-00	cs
		:	3-0-0-00	:	1	3-0-0-00	1
5.2.2.2.5	 Terminal Flag	3-1-01-01	3-0-0-01	l Ide	3-1-01-01	3 0 0-01	DC
	j	1	3-0-0-01	TF	:	3 0 0 01	
	· ·	1	3-0-0-00	!	:	3-0-0-00	
			3-0-0-00	:	!	3-0 0-00	!
	j	:	3-0-0-00	cs	!	3 0 0 00	!

||TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH24.DAT TEST SYSTEMS, Inc. By: [11/20/13 (15:17:18)| Reference BUS A Test Description BUSB Section Bus: (run cnt/ errors/ busy cnt) Command Response STAT Command Response STAT 5.2.2.3 | Illegal Command part A 3-9-25 00 3-4-0-00 ME 3-0-25-00 3-4-0 00 ME 3 ·1 ·02 · 00 | 3 · 0 - 0 - 00 | CS 3-1-02-00 3 0 0 00 CS 3-0-25-00 - - -NR 3-0-25-00 INR 3-1-00-02 3-4-9-00 ME 3-1-00-02 3 4 0 00 ME 3-1-01-00 3-0-0-00 CS 3-1-01-00 3:0:0 00 CS - - -NR 3-0-25-00 3-0-25-00 - - -NR 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS part B 3-1-26-00 3-4-0-00 ME 3-1-26-00 3-4-0 00 ME 3-1-02-00 3-0-0-00 CS 3-1-02-00 3-0-0 00 CS 3-0-25-00 - .. . NR 3-0-25-00 - - -NR 3-1-00-02 3-4-0-00 ME 3-1-00-02 3-4-0-00 ME 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0 00 CS 3-0-25-00 NR3-0-25-00 NR 3-1-00-18 3-0-0-00 CS 3-1-00-18 3-0-0-00 CS 5.2.2.4 Broadcast Mode Commands 15,2,2,4.1 Synchronize without data 3 0.01.00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (2/ 0/ n) 31-1-00 01 - - - NR NR 31-1-00 01 B: (2/ 0/ 3-1-00-18 3-0-0-16 BCR 3-1-00-18 3-0-0-16 BCR 5.2.2.4.2 Synchronize with data 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (31-0-00-17 - - -NR 2/ 31-0-00-17 -- . B: (2/ 3-1-00-18 3-0-0-16 BCR 3-1-00-18 3-0-0-15 BCR SYNC Word 0000 0000 5.2.2.4.3 Initiate Self-Test 31-1-00-03 - - -NR 31-1-00-03 - - -NR A: (1968/ 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS o/ 0) B;(1968/ 0) $(T \le 100,000us)$ 4 4 5.2.2.4.4 Xmtr Shutdown/Override 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: (4/ 07 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 0) B: (4/ 07 31-1-00-04 NR - - -31-1-00-04 - - - NR 3 1-00-18 3-0-0-16 BCR 3-1-00-18 3-0-0-16 BCR 3-0 01-00 - - -NR 3 0:01:00 - - -NR 3-0-01-00 3-0-0-00 CS 3-0-01 00 3-0-0-00 CS NR 31-1-00 05 31-1-00 05 NR 3-0-01-00 NR 3-0-01-00 NR NR 31-1-00-05 - - - -31-1-00-05 NR 3-1-00-18 3-0-0-16 BCR 3-1-00-18 3-0-0-16 BCR 3-0-01-00 3-0-0 00 CS 3-0-01-00 3-0 0 00 CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS SUBTITLE: Optional Protocol Tests DATE: 20 Nov 2013 | Page: 5.2.2.3. Illegal Command TIME: 24 of 26 17:17:47

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH24.DAT TEST SYSTEMS, Inc. 11/20/13 (15:17:18) Test Description BUS Reference Α BUS B Section Bus: (rum cmt/ errors/ busy cmt) Command Response STAT Command Response STAT ||5.2.2.4.5 Selective Xmtr Shutdown 3-0 01 00 3-0-0-00 CS 3-0-01-00 3:0:0:00 CS 3-0-01-00 3-0-0-00 CS A: (4/ 0/ 3-0-01-00 3-0-0-00 Ics B: (4/ 0/ 0) 31-0-00-20 NR 31-0-00-20 - - - -NR 3-1-00-18 3-4 0 16 MBR 3-1-00-18 3-4-0-16 MBR 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 31-0-00-21 - - -NR 31-0-00 21 - - -NR 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 31-0-00-21 - - -NR 31-0-00-21 - - -NR 3-1-00-18 3-4-0-16 MBR 3-1-00-18 3-4-0-16 MBR 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 31-0-00-20 - - -NR 31-0-00-20 - - -NR 3-1 00-18 3-4-0-16 MBR 3-1 00-18 3-4-0-16 MBR 3-0-01-00 3.0.0-00 CS 3-0-01:00 3-0-0-00 CS 3-0-01-00 3-0-0 00 CS 3-0-01-00 3 0 0 00 CS Alt Bus Selection Word 0000 0000 Pri Bus Selection Word 0000 00001 5.2.2.4.6 Terminal Flag Bit Inhibit 3-0-01-00 3-0-0-00 CS 3-0-01-00 | 3-0-0 00 | CS A: (4/ 0/ 3-1-01-01 3-0-0-01 DC 0) 3-1-01-01 3-0-0-01 DC В: (4/ 0/ 3-0-01-00 3-0-0-01 TF 3-0-01-00 3-0-0-01 TF 31-1-00-06 ... - -NR 31-1-00-06 - - -ΝR 3-1-00-18 3-0-0-16 BCR 3-1-00-18 3-0-0-16 BCR 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 31-1-31-07 ... - -NR 31..1..31-07 - - -NR 3-1-00-18 3-0-0-17 BRTF 3-1-00-18 3-0-0-17 BRTF 3-0-01-00 3-0-0 01 TF 3-0-01-00 3-0-0-01 TF 3-1-01-01 3-0-0-00 DC 3-1-01-01 3 0:0-00 DC 3-0-01-00 3-0-0-00 CS 3-0-01-00 3.0 0.00 CS 15.2.2.4.7 Reset Remote Terminal Delay to Stable Response 31-1-00-08 NR 31-1-00-08 - -NR A: (1768/ 0/ 03 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0:00 CS B:(1769/ $(T \le 5000us)$ 4 Clear Xmtr Shutdown 3-1-00-04 | 3-0-0-00 | CS 3-1-00-04 3-0-0-00 CS A: (2/ 0/ 3-1-01-00 NR 3-1-01-00 NR B: (2/ 0/ 0) 31-1-00-08 NR 31-1-00 08 - - -NR 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 5.2.2.4.8 Dynamic Bus Control cs 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 A: (2/ 0/ | 33-1-00-00 | NR 31-1-00-00 NRB: (3-1-00-02 3-4-0-16 MBR 2/ 0) 3-1-00-02 3-4-0-15 MBR SUBTITLE: Optional Protocol Tests DATE: 20 Nov 2013 Page: 5.2.2.4.5. Selective Xmtr Shutdown TIME: 17:17:47 25 of 26

rest systems By: TEST S	SYSTEMS, In		553B	RT VALI	DATION TE	EST REP		C 11/20/13	VH24.DA	
	,10111110, 11							T	(15:1	7:10
Reference	Test I	Descrip	tion		В) S A		ви	IS B	
Section	Bus: (ru	cnt/erro	rs/busy	cnt)	Command	Response	STAT	Command	Response	STA
5.2.2.5	Error Inje		anaa.	3				 		
5.2.2.5.1	Parity:		_		j i		 			
5.2.2.5.1.1	_	nd w/Pa			31-0 01 01		 NR	 31 0 01:01		l NR
			1		31.00-18		BCR	3 -1-00-18		BCI
					300100	3-0-0-00	CS	3-0-01-00		cs
					310-01-00		NR	31-0 01-00		NR
					3-1-00-18	3-0 0-00	CS	3-1-00-38	3 -0-0-00	CS
					3-0-01-00	3-0-0.00	CS	3-0-07-00	3 (0 0 (00	cs
5.2.2.5.1.2	Data I	Word En	ror		31-0-01-01		NR NR	31-0-01-01		 NR
	A: (32/	0/	0)	3-1-00-18	3-0-0-16	BCR	3-1-00-18	3-0-0 16	ВСІ
	В: (32/	0/	C)	3-0-01-00	3-0-0-00	cs	3-0-01-00	3-0-0-00	CS
					31-0-01-00		NR	31-0-01-00		NR
					3-1 00-18	3-4-0-16	MBR	3-1-00-18	3-4-0-1.6	MBI
					3-0-01-00	3 -0 -0 -00	CS I	3-0 01 00	3-0-0-00	CS I
5.2.2.5.2	Message		a: BC	-RT	310 -01 01		NR	31-0-01-01		NR
	Broade	cast			3-1-00-38	3-0-0-16	BCR	3 1-00-18		BCI
	A: (33/	0/	0)	3-0-01-00	L I	CS	3 0-01-00		CS
	13: (33/	0/	0)	31-0-01.00	i i	NR	31-0-01-00		NR
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5.2.3	Noise Rej	ection			3-0-30-00		 EF	3-0-30.00	 	 EF
		Receiv	ved		1	, 100,004	!	!	200,019	!
	Noise	Level	used	(mV)		165	:		165	:
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