TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT By: TEST SYSTEMS, Inc.	CVH12.DAT   11/20/13 (14:52:10)
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 12 MHz (CVH12)
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

SUM	MARY OF TEST RESULTS:	A-Bus	B-Bus	
jj.				
	Electrical:	Passed	Passed	
[	Required Protocol:	Passed	Passed	
ĺ	Optional Protocol:	Passed	Passed	
ĺ	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

| SUBTITLE: Test Summary | DATE: 20 Nov 2013 | Page: | | TIME: 16:52:39 | 1 of 26

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT By: TEST SYSTEMS, Inc. 11/20/13 (14:52:10)

#### 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 170 mv of noise (30 mv more than required).

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

II.			
SUBTITLE:	DATE:	20 Nov 2013	Page:
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By: TEST SYSTEMS, Inc.   11/20/13 (14:52:10)   NOTE:	TEST S	YSTEMS,	Inc.	MIL-STD	-1553B F	RT VAL	IDATIC	N TEST	REPORT		C./	JH12.DAT	
NOTE:	By:	TEST SYS	TEMS,	Inc.						11/:	20/13	(14:52:	10)
	NOTE:									<u> </u>			

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 Eugene O'Rourke TSI Microsemi

## EQUIPMENT LIST:

 XOTIMENT PEDI.		
	MANUFACTURER	CALIBRATION
EQUIPMENT TYPE	MODEL NO./SERIAL NO.	Date Done Date Due
1553 BUS TESTER *	   TSI 122 / 8804111	 N/A
Oscilloscope	MSOX3054A/MY52010665	01/27/12 01/27/14
Differential Probe	  AG N2791A / PH49270334	   N/A 
True RMS Voltmeter	   HP 3400A / 1218A27635	04/08/13   04/08/15
Impedance Analyzer	   HP 4192A /2830J06227 	04/08/13   04/08/15
Function Generator	  Tenma 72-5015/ 8981068 	   N/A 
Connection Panel	TSI 0100 / 900101	   M/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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	SUBTITLE:	DATE:	20 Nov	2013	Page:	;		
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TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT TEST SYSTEMS, Inc. By: 11/20/13 (14:52:10) 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 -----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: 16:52:39 4 of 26

	SYSTEMS, Inc. MIL-S	TD-155	3B RT VAI	LIDATIO	N T	EST	REPORT		VH12.DAT
By:	TEST SYSTEMS, Inc.							11/20/13	(14:52:10)
۷a	lid, Legal Broadcast	: Comma	nds (if	not ma	rke	ed by	7 !-!)		
	D			_		-		-	
	Receive (T/R=0) Word	Count	: Fleld	Т	ran	ısmit	(T/R=	1) Word Co	ount Field
	1111111111	.22222	222233				111	1111111222	222222233
SA —	01234567890123456789	012345	678901	SA	012	3456	5789012	3456789012	345678901
0	<b></b>				-1-	3456	578 <b>-</b>	<b>-</b>	
1	01234567890123456789	012345	678901					<b></b>	
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17	01234567890123456789	012345	678901	17		<b></b> .	<b></b>	<b></b>	<b>-</b>
18	01234567890123456789	012345	678901	18		<del>-</del> .	<b></b>		
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						<b>-</b>		· <b>-</b>	
	01234567890123456789								
29	01234567890123456789	901234	5678901						
30	01234567890123456789	901234	678901	30					
31	7			31	-1-	-345	678		<b></b>
Tes	st STAT abbreviation	defin	tions:						
	RT: Test Aborted		Broadcas	st Pece	1776	l 5e	בתיקם.	Brdggt Pa	vd+TermFlag
	Y: Busy Bit	•	Clear St		- T V C	-u   			-
	OC: Don't Care	:	Error Fo			!			us Accepted
	L: Invalid Test	1				1		Operator :	ruurbited
		:	Msg Err			zva		ME+TF+BCR	
	ME: Message Error		MsgErr+		_			No Respon	
	in: Not Run		Respond		m	ļ		Subsystem	Flag
	R: Service Request	TF:	Terminal	L Flag			TO:	Timed Out	
	R: Valid Response								
 SUB1	TITLE: Configuration	n Used			Ī	DATE	. 2n	Nov 2013	Page:
	Broadcast Commands				- 1			5:52:39	5 of 26

Ref. Section	Test Description ( Xformr Coupled )	Limits	Units	BUS A Meas. STAT		B U S Meas.	B STA1
			<del>  </del>				
5.1.1	OUTPUT CHARACTERISTICS		TT	10.01	<b>*</b>	7.0.00	
5.1.1.1	OUTPUT AMPLITUDE Max Min	18.0-27.0  18.0-27.0	Vpp     Vpp	19.81 19.56		19.88 19.56	
			1	13.50	2000		
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	195	Pas
5.1.1.2	OUTPUT FALL TIME-Data	100- 300	ns	205	Pass	200	Pas
5.1.1.3	ZERO CROSSING STAB.	<u> </u>					<u> </u> 
	500ns Tzcp	475- 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	1997	Pass	1997	Pas
	500ns Tzcn	475- 525	ns	502	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	шVр	50	Pass	50	Pas
5.1.1.5	OUTPUT SYMMETRY	1 			 	Í	[ 
	(0000)	≤ ± 250	mVp	-53	Pass	9	Pas
	(5555)	≤ ± 250	mVp	-53	Pass	10	Pas
	(7FFF)	≤ ± 250	qVm	-31	Pass	20	Pas
	(8000)	≤ ± 250	mVp	-39	Pass	13	Pas
	(AAAA)	≤ ± 250	mVp	-46	Pass	11	Pas
	(FFFF)	≤ ± 250	mVp	-32	Pass	18	Pas
5.1.1.6	OUTPUT NOISE	<u> </u>			 	 	 
	with power on	≤ 14	mVrms	8	Pass	8	Pas
	with power off	≤ 14	mVrms	1	Pass	1	Pas
5.1.1.7	OUTPUT ISOLATION	j   ≥ 45	   db	   72	Pass	   72	Pas
	Active Bus	18.0-27.0	Vpp	19.81		•	•
	Inactive Bus		mVpp	5	Pass	5	Pas
5.1.1.8.1	  POWER ON/OFF NOISE	[			]	 	
~· · · · · · · · · · · ·	Power Up Amplitude	l ≤ + 250	mVp	180	  Pass	   200	  Pas
	Pulse Width	. –	us	180	Fab5 	200   .1	!
	Power Down Amplitude		mVp	l •±	  Pass	.⊥   50	  Pas
	Pulse Width	•	us	.1		.1	at
5.1.1.8.2	  POWER ON RESPONSE	   protocol		 	Pass	<u> </u> 	Pas
5.1.1.0.2	CHER ON REDECTION		i ====	 	l Leann	1	Pas

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By: TEST SYS	STEMS, Inc.		[ ]	±±/	720/13	(14:52	·
Ref. Section	Test Description ( Xformr Coupled )	Limits	Units 	B U S Meas.	A STAT	B U S Meas.	B STA
5 <i>.</i> 1.1.9	TERMINAL RESPONSE TIME						 
	Transmit	4.0-12.0	us	6.59	Pass	6.57	Pas
	Receive	4.0-12.0	us	6.42	Pass	6.41	Pas
	RT-UUT	4.0-12.0	us	6.42	Pass	6.40	Pas
	Mode Command	4.0-12.0	us	6.59	Pass	6.57	Pas
5.1.1.10	FREQUENCY STABILITY						 
	Min. Frequency		kHz				
	Max. Frequency		kHz				
	Avg. Frequency		kHz		 		
5.1.2	INPUT CHARACTERISTICS				<u> </u> 		!
5.1.2.1.1	ZERO CROSSING		!				
	DISTORTION						
	Min. Deviation	≤ -150	ns	-178	Pass	-177	Pas
	Max. Deviation	≥ 150 _	ns	170	Pass		Pas
	Plus 150 nsec	protocol			Pass		Pas
	Minus 150 nsec	protocol			Pass   		Pas
5.1.2.1.2	AMPLITUDE VARIATIONS		į				
	1st CS threshold	200- 860	mVpp	606	Pass	580	Pas
	1st NR threshold	200- 860	mVpp	606	Pass	580	Pas
5.1.2.1.3	RISE AND FALL TIME			İ			
5.1.2.1.3.1	TRAPEZOIDAL	protocol			Pass		Pas
5.1.2.1.3.2	SINUSOIDAL	protocol	ļ		Pass		Pas
5.1.2.2	COMMON MODE REJECTION						]
	+10 volt	protocol		İ	Pass		Pas
	-10 volt	protocol		İ	Pass		Pas
	±10 volt	protocol	j	İ	Pass		Pas
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Ref. Section	Test Description	Limits	Units	виѕ	A	виѕ	В
	( Xformr Coupled )	<u> </u>		Meas.	STAT	Meas.	STA'
5.1.2.3	INPUT IMPEDANCE		<u> </u>				
	75 kHz Power ON Phase Angle	≥ 1000	ohms degs	9999 46	Pass	9 <b>99</b> 9 42	  Pas 
	100 kHz Power ON Phase Angle	≥ 1000	ohms  degs	   9999   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	3753 -77	  Pass	3432 -79	Pas
	1.0 MHz Power ON Phase Angle	   ≥ 1000	ohms	   1846   -83	  Pass  	1690 -84	  Pas 
	75 kHz Power OFF Phase Angle	   ≥ 1000	ohms degs	9999 38	Pass		  Pa: 
	100 kHz Power OFF   Phase Angle	≥ 1000	ohms degs	9999	Pass		Pa
	250 kHz Power OFF Phase Angle	   ≥ 1000	ohms	7018 -65	  Pass  		  Pa: 
	500 kHz Power OFF   Phase Angle	≥ 1000	ohms  degs	3280 -78	  Pass 		   ₽a 
	1.0 MHz Power OFF Phase Angle	   ≥ 1000	ohms  degs	   1616   -84	Pass		  Pa
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Reference	nce Test Description BUS A						BUSB				
Section	Bus: (run	-		cat)	Command	Response	TAT	Command		STA	
5.2.1.1	Response to	o Commi	and W	orde	     		[ [				
5.2.1.1.1	RT Respo				 		i	 		[	
	Non-Br									•	
	]				j i					ĺ	
	Valid,	_	Comm	ands	3 0 -01 -00	3-0-0-00	CS	3-0-01-00		!	
	A: (	1792/	0/	0)	3.0-01-00		CS	3-0-01-00			
	В: (	1792/	0/	٥)	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: (	128/	0/	0)	3-0-25-00	3-4-0-00	ME	3-0-25-00	3-4 0 00	ME	
	B: (	1,28/	0/	0)	3 -100-18	3-4-0-00	ME	3-1-00-18	3:4 0 00	ME	
	   Invali	d Comma	ands		3-0-01-00	3-0-0-00	cs	3-0-01-00	3-0-0-00	cs	
	A: (	61440/	0/	0)	8-0-00-00		NR	0-0-00-00		NR	
	B: (	61440/	0/	0)	3-1-00-18		cs	3-1-00-18		CS	
	Legal	Mada C	מ כ מוומכ	de	2 0 01 01	3-0-0-00	cs	3-0-01-00		cs	
	A:(	16/	0/	0)	:	3-0-0-00	!	3-0-01-00		lcs	
	B: (	16/	0/	0)	1	3-0-0-00	:	3-1-00-18		cs	
	   Illega	aboM [	Comm	nande		3-0-0-00	cs	3.0-01-00	3 0 0 00	cs	
	A: (	6/	0/	0)	;	3-4-0-00	ME	3-0-00-20		ME	
	B: (	6/	0/	0)	1	3 -4- 0-00	ME	3-1-00-18		ME	
	   Undefi	ned Mo	de Co	mmands	3-0-01-00	3.0.0.00	les	3-0-01-00	3 0 0 00		
	A: (	98/	0/	0)	;	3-4-0-00	ME	!	3-4-0-60	ME	
	Br (	98/	0/	0)	:	3-4-0-0C	ME	1	3-4-0-00	ME	
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TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT TEST SYSTEMS, Inc. 11/20/13 (14:52:10) Reference Test Description BUSA BUSB Section Bus: (run cnt/ errors/ busy cnt) Command Response STAT Command Response STAT 5,2.1.1 Response to Command Words 5.2.1.1.1 RT Response to Commands Broadcast Commands Valid, Legal Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: ( 896/ · · · NR 0/ 31.0 01-00 - - -NR 31-0-01-00 3-1-00-18 3-0-0-16 BCR | 3-1-00-18 3-0-0-16 BCR B: ( 896/ 0/ Valid, Illegal Commands | 3-0-01-00 | 3-0-0-00 | CS 3-0-01-00 3-0-0-00 CS 31-0-25-00 . - -A: ( 1024/ 0/ 0) NR 31-0-25-00 - - -B: ( 1024/ 0/ 3-1-00-18 3-4-0-16 MBR 3 1-00-18 3-4-0-16 MBR Invalid Commands N/AN/A N/AN/A|| N/AN/A|| Legal Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS  $\mathbf{A}_{t}$  ( 8/ 0/ 31 0-00-17 - - -NR 31-0-00 17 - - -3-1-00-18 3-0-0-16 BCR | 3-1-00-18 3 0-0-16 BCR B: ( 8/ 0/ Illegal Mode Commands 3-0-02-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: ( 0) 31-0-00-20 - - -NR 31-0-00-20 ... - -NR B: ( 14/ 0/ 0) 3-1-00-18 3-4-0-16 MBR 3-1-00-18 3 4-0-16 MBR Undefined Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: ( 98/ 0/ 0) 31-0-00-00 - - -NR31-0-00-00 B: ( 98/ 0/ 3-1-00-18 3-4-0-16 MBR 3-1 00-18 3-4-0-16 MBR SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page: Response to Command Words 5.2.1.1. TIME: 16:52:39 10 of 26

eference Section	Test Downser to Response to RT-RT Re Comman Non-Br Comm  Valid,  A:( B:(	o Comma sponse d Word oadcas ands	and Wa to s t Rec	ords	B C	JSA Response	STAT	B U	S B	STAT
.2.1.1 F	Response to RT-RT Re Comman Non-Br Comm Valid,	o Comma sponse d Word oadcas ands Legal	and Wo to s t Rec	ords	Command	Response	STAT	Command.	Response	STAT
:	RT-RT Re Comman Non-Br Comm Valid,	sponse d Word oadcas ands Legal	to s t Rec							
:	RT-RT Re Comman Non-Br Comm Valid,	sponse d Word oadcas ands Legal	to s t Rec					,   		
	Comman Non-Br Comm Valid,	d Word oadcas ands Legal	s t Rec	eive			!			,
	Comm Valid,	ands Legal		eive	1		l	i i		
	Valid,	Legal	Comm					i i		İ
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		896/	COmmit	ands	   3-0-01-00	3-0-0-00	  CS	3-0-01-00	3-0-0-00	  CS
	В: (		0/	0)	3-0-01-01	3-0-0-00	CS	3-0-01-01	3-0-0-00	CS
		896/	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 I	3-1-00-18	3-0-0-00	CS
ļ	77-14-A	Tllee	n] Co		<u>.</u>		laa	į		
	Valid,	111 <b>e</b> g	ar co: 0/	mmands 0)	1	3-0-0-00	CS  ME		3-0-0-00	CS
l I	A: ( B: (	64/	0/	0)	!	4-0-00	CS	3-0-25 01 4-1-01-01		ME  CS
	D- (	51/	۰,	o,	1	3-4-0-00	ME	: :	3 4 0 - 00	ME
					 		<u> </u>			
į	Invali	d Comm	ands		3-0-01-00	3-0-0-00	CS	3-0-01-00	3-0-0-00	cs
ĺ	A: (	30720/	0/	C)	00-00-00		NR	0-0-00-00		NR
	В: (	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	3-6-0-00	CS
	Legal	Mode C	omman	de		3-0-0-00	i Ics			
	A: (	2/	0/	0)	3-0-00-17	:	CS	3-0-01-00		CS
i	В: (	2/	0/	0)	4-1-01-01	;	cs	i	4-0-0-00	
	·	,		-,		3-0-0-00	CS	ì	3-0-0-00	1
	Illega				3-0-01-00	;	CS	3-0-01 00	3-0-0-00	cs
ļ	A: (	4/	0/	0)	3-0-00-20		ME	:	3-4-0-00	ME
<u> </u>	B: (	4/	0/	0)	4-1-01-01	!	CS	;	4-0-0-00	CS
					3-1-00-18	3-4-0-00	ME 	3-7-00-18	3-4-0-00	ME 
	Undefi	ned Mo	de Co	mmands	3-0-01-00	3-0-0-00	lcs	3-0-01-00	3 /00-00	lcs
	Λ: (	58/	0/	0)	3-0-00-00	:	ME	3-0-00-00		ME
j	B: (	58/	0/	0)	4-1-01-00	i .	CS	4-1-01-00		CS
ļ					3-1-00-18	3-4-0-00	ME	3-1-00-18	3-4-0-00	ME
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Reference	Test Description				BUSA			Визв			
Section	Bus: (run	_		ant)	Command	Response	STAT	Command	Response	STAT	
				,			<u> </u>	 			
5.2.1.1 5.2.1.1.2	Response to			ords	1		]   				
).4.1.1.2	RT-RT Re	_			 		 	. I		 	
	Non-Br		_	nsmit	i :		i 			 	
	Comm			reactions -	,     					   	
	Valid,	Legal	Comma	ands	3-0-01-00	3-0-0-00	CS	3-0-01-00	3-0-0-00	CS	
	A: (	896/	0/	0)	400101		NR	4-0-01-01		NR	
	B:(	896/	0/	0)	3-1-01-01		CS	3-1-01-01		CS	
					3 ·1 ·00 ·18 }	30-0-00	CS   	3-1-00-18	3-0-0-00	CS 	
	   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/	0)	4-0-01-01		NR	4-0-01-01		NR	
	B:(	64/	0/	0)	3-1-26-01	3-4-0-00	ME	3-1 26-01	3-4-0-00	ME	
	<u> </u>				3-1-00-18	3-4-0-00	ME	3-1-00-18	3-4-0-00	ME	
	Invali	d Comma	ands		3-0-01-00	30-0-00	CS	3-0-01-00	3-0-0-00	cs	
	A: (	30720/	0/	0)	2-0-01-00		NR	2-0-01-00		NR	
	В: (	30720/	0/	0)	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	
	   Legal	Mode C	omman	ds	3-0-01 00	3-0-0-00	CS	3-0-01-00	3 0 0-00	cs	
	A: (	14/	0/	0)	4-0-01-00		NR	4-0-01-00		NR	
	B: (	14/	0/	0)	3-1-00-01	3-0-0-00	CS	3-1-00-01	3-0-0-00	cs	
	<b>!</b>				3-1-00-18	3-0-0-00	cs 	] 3-1-00-18  	3-0-0-00	CS 	
	   Illega	l Mode	Comm	ands	3-0-01-00	3-0-0-00	cs	3-0-01-00	3-0-0-00	l lcs	
	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	3-1-00-00	3-4-0-00	ME	
	ļ ļ				3-1-00-18	3-1-0-00	ME 	3-% 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	
	A: (	40/	0/	0)	4-0-01-00	j	NR	4-0-01-00		NR	
	В: (	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	
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TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT TEST SYSTEMS, Inc. 11/20/13 (14:52:10) By: Test Description BUSA BUSB Reference Section Command Response STAT Command Response STAT Bus: (run cnt/ errors/ busy cnt) Response to Command Words ||5.2.1.1|RT-RT Response to §5.2.1.1.2 Command Words Broadcast Receive Commands Valid, Legal Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: ( 896/ 0) 31-0-01-01 - - -NR 31-0-01-01 - - -0-1-01-01 0-0-0-00 CS B: ( 896/ 3-1-01-01 0-0-0-00 CS 3-1-00-18 3-0-0-16 BCR 3-1-00-18 3-0-0-16 BCR Valid, Illegal Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0 00 CS 31-0-25-01 - - -NR - - -64/ 0/ 31-0-25-01 NR A: ( 0-3-01-01 0-0-0-00 lcs B; ( 64/ 0/ 0) 0-1-01-01 0-0-0-00 3-1-00-18 3-4-0 16 MBR 3-1-00-18 3-4-0-16 **MBR** Invalid Commands N/A N/A|| N/A N/AN/A n/all N/A N/Al Legal Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3 0-0-00 CS 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 0-0-0-00 CS 3-1-00-18 3-0-0-16 BCR 3-1-00-18 3-0-0-16 BCR Illegal Mode Commands 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: ( 4/ 31-0-00-20 - - -NR31-0-00-20 - - -NR B: ( e) 0-1-01-01 0-0-0-00 CS 0-1-91-01 0-0-0-00 CS 4/ 0/ 3-1-00-18 3-4-0-16 MBR 3 1 00-18 3-4-0-16 MBR Undefined Mode Commands 3-0-01-00 3.0 0.00 CS 3-0-01-00 3-0-0-00 CS A: ( 58/ 0/ 31-0-00-00 - -NR 31-0-00-00 B:( 58/ n) 0-1-01-00 | 0-0-0-00 | CS 0/ 0 1 01-00 0-0-0-00 CS 3-1-00-18 3-4-0-16 MBR 3-1-00-18 3-4-0-16 MBR SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page: 5.2.1.1. Response to Command Words TIME: 16:52:39 13 of 26 |

Reference Section	Test Description				BUSA			BUSB			
	Bus: (run c	_		cnt)	Command	Response	STAT	Command	Response	STAT	
  5.2.1.1  5.2.1.1.2 	Response to RT-RT Res Command Broadca	ponse   Word:  st Tra	to 3								
	Valid,	Legal	Comm	ands			N/A   N/A   N/A   N/A   N/A			N/F   N/F   N/F   N/F	
	Valid,	Illega 960/ 960/	al Co 0/ 0/	mmands 0) 0)	0-0-01-01 31-1-01-01		  CS  NR  NR  MBR	3-0-01-00 0-0-01-01 31-1-01-01 3-1-00-18		CS NR NR NR MBR	
	Invalid	l Comma	ands				N/A   N/A   N/A   N/A			   N/I   N/I   N/I   N/I	
	Legal M A:( B:(	Iode Ce 6/ 6/	omman 0/ 0/	ds 0) 0)	0-0-01-00 31-1-00-01		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/	Comm 0/ 0/	ands 0) 0)	0-0-01-00 31-1-00-00		CS NR NR NR MBR	3-0-01 00 0-0-01 00 31-1-00 00 3-1-00 18		  CS  NR  NR  MBR	
	Undefir A:( B:(	aed Moo 40/ 40/	de Co 0/ 0/	mmands 0} 0}	3.0.01-00 0.0 01-00 31-1.00-09 3-1-00-18		CS NR 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 CVH12.DAT By: TEST SYSTEMS, Inc. 11/20/13 (14:52:10) Reference Test Description BUS B U S Response STAT Section Command Response STAT Bus: (num cnt/ errors/ busy cnt) Command 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/ 0/ 3-0-01-00 3-0-0-00 cs 3-0-01 00 3 0-0-00 CS At ! 01 1000/ ٥/ UUT-BC Transfer CS 3-1-02-00 3-0-0-00 3-1-02-00 3 0 0 00 CS A: ( 1000/ 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0 00 CS 8:1 10007 0/ UUT/RT Transfer 3-0-21-00 3-0-0-00 CS 3-0-21-00 3-0-0-00 CS 4-1-01-00 4-0-0-00 CS lcs A: ( 4-1-01-00 4-0-0-00 1.0007 0/ a) 1000/ 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS B: ( 0/ RT/UUT Transfer 25-0-01-00 25-0-0-00 DC 4 0 01 00 4-0-0-00 DC A: (3-1-24-00 3-0-0-00 CS 3-1-24-00 3-0-0-00 CS 1000/ 0/ 0) B:( 1000/ 0/ 3-0-01-00 3-0-0-00 CS 3-0 01-00 3-0-0-00 CS Mode Command w/o data CS 3.1.00.01 3-0-0-00 3-1-00-01 l CS 3-0-0-00 A: ( 1000/ 0) 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS B: ( 1000/ Mode Command. 3-1-00-16 3-0-0-00 CS |CS 3-1-00-16 3-0-0-00 Transmit w/Data 3-0-01-00 3-0-0-00 CS 3.0 01.00 3-0-0-00 CS 1000/ A: ( 0/ B: ( 1000/ 0/ O) Mode Command, 3-0-00-17 3-0-0-00 CS 3-0-00-17 3-0-0-00 CS Receive w/Data 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: ( 1000/ 0/ B: ( 1000/ 0/ Broadcast BC-UUT 31-0-00-00 NR 31-0-00-00 NR A: ( 1000/ ics CS 0/ 0) 3-0-01-00 3-0-0-00 3-0-01-00 3-0-0-00 B: ( 1000/ Broadcast RT/UUT 31-0-01-30 - - -INR 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 CS B: ( 10007 3-0-01-00 3-0-0 00 3-0-01-00 3-0-0 00 0/ 0) CS Broadcast UUT/RT 31-0-00-17 l NR NR 31-0-00-17 A: ( CS 1000/ 0/ 0) 0 1.-01.-01 0-0-0-00 0-1-01-01 0 0-0-00 CS CS B: ( 1000/ 0/ 0) 3 -0 -01 -00 3 -0 -0 -00 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 ÇS 1000/ A: ( 0/ 0) 1000/ οź 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 CS 3-0-01-00 3-0-0-00 A: ( 1000/ 0/ 0) в: ( 1000/ 0) 0/ SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page: 5.2.1.2. TIME: 16:52:39 15 of 26 Intermessage Gap

By: TEST S	YSTEMS, Inc.	_		j	11/20/13 (14:52:10)			
Reference	Test Description	BUSA			BUSB			
Section	Bus: (run cnt/ errors/ busy cnt)	Command	Response	STAT	Command	Response	STAT	
5,2.1 <i>.</i> 2	Intermessage Gap	į					<u> </u>	
5.2.1.2.2	Transmission Rate						1	
	Transmit-Transmit	1 3.1.06.00	3-0-0-00	lcs		3-0-0-00	l lcs	
	A: ( 19328/ 0/ 0)	: :		lcs	3-1-01-00		cs cs	
	B: ( 19332/ 0/ 0)		3.0-0-00	!	!	3-0-0-00	cs	
	,,,,	- :	3-0-0-00	!	3-1 01-00		cs	
	Busy (usec)		0			0		
	Receive-Receive	3-0-10-00	   3-0-0-00	l Ics	3-0-10-00	3-0-00	lcs	
į	A: ( 19310/ 0/ 0)	;	3-0-0-00	CS	;	3-0-0-00		
	B:( 19306/ 0/ 0)	1	3-0-0-00	CS	1 :	3-0-0-00	:	
. <b>i</b>			3-0-0-00	CS	3-0-11-00		C\$	
j	Busy (usec)		0	İ		0		
l !	Transmit-Receive			l an				
1			!	CS	1	3-0-0-00	!	
	A: ( 19312/ 0/ 0) B: ( 19340/ 0/ 0)		!	CS	: :	3-0-0-00	CS	
	B: ( 19340/ 0/ 0)	- 1	3-0-0-00 3-0-0-00	cs		3-0-0-00	CS	
	Busy (usec)	3-0-21-00	30-0-0-E 1	CS	3-0-21-00 	3 -0-0-00	CS	
	basy (asec)							
5.2.1.3	Error Injection							
5.2.1.3.1	Parity	Ì	ĺ	ĺ	j		i	
5.2.1.3.1.1	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	3-0-0-00	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	3-0-00	  CS	
ĺ		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	l Ics	
	A: ( 32/ 0/ 0)	3-0-05-00		NR	3-0-05-00		NR	
	ਡ:( 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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<u> </u>	Required Protocol Tests	I	ATE:	<u> </u>			<u>i                                    </u>	

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT TEST SYSTEMS, Inc. 11/20/13 (14:52:10)| Reference Test Description BUS A BUSB Section Bus: (run cnt/ errors/ busy cnt) STAT Command Response Command. Response STAT 5.2.1.3.2 Word Length 15.2.1.3.2.1 Transmit Command 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS NR A: ( 2/ 0/ 0) 3 1-06-00 3-1-06-00 NR 3-1 00-02 3-0-0-00 CS 3 1-00-02 3-0-0-00 CS 5.2.1.3.2.2 Receive Command Short Receive commands 3-0-01-00 3-0-0 00 CS 3-0-01-00 3-0-0-00 l cs A: ( 2/ 0/ 0) 3-0-05-00 \_ - . NR 3-0-05-00 NR Be ( 2/ 3-1-00-02 3-0-0-00 CS c/ 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/ 0) 3 -0 -05-00 - - -NR 3-0-05-00 NR B: ( 2/ 0/ 3-1-00 02 3-4-0-00 ME 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 3-0-0-00 CS - - . A: ( 126/ 0/ 3-0-05-00 NR o) 3-0-05-00 - - -NR B: ( 126/ 3-1-00-02 3-4-0:00 ME 3-1-00-02 3-4-0-00 ME 15.2,1.3.3 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 CS A: ( 34/ 3-1-06-00 NR 3-1-06-00 NR B: í 34/ 07 3-1-00-02 3-0-0-00 CS n١ 3-1 00-02 3-0-0-00 CS 5.2.1.3,3.2 Receive Command 3-0-0-00 CS 3.0.01-00 3-0-01-00 3-0-0-00 CS A: ( 34/ 3 -0-05-00 NR 3-0-05-00 - - -NR B : ( 34/ 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 3-0-0-00 CS 3-0-01 00 A: ( 1088/ 0/ 3-0-05-00 NR 0) 3-0-05-00 ΝR B: ( 1088/ 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 15.2.1.3.4.1 Transmit Command 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A: ( 5/ 0) 3 -1 -06 - 00 NR 3-1-06-00 NR B: ( 0/ 0) 3-1-00-02 3-0-0-00 CS 5/ 3-1-00-02 3-0-0-00 CS 5.2.1.3.4.2 Receive Command 3-0-01-00 3-0-0-00 CS 3-0-02-00 3-0-0-00 CS A: ( 5/ 3-0-05-00 - - -NR3-0-05-00 - - -NR В: ( 5/ 0/ 3-1-00-02 3-0-0-00 CS 3-1-00-02 | 3 0-0-00 | C\$ 5,2.1,3.4.3 Receive Data Words 3-0-01-00 3-0 0-00 CS 3-0-01-00 3-0 0 00 CS A: ( 160/ 3-0-05-00 NR 3 -0-05-00 NR B: ( 160/ 0/ 0) 3-1-00-02 3-4-0 00 ME 3-1:00-02 ME 3-4-0-00 SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page: 5.2.1.3.2. Word Length TIME: 16:52:39 17 of 26

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT TEST SYSTEMS, Inc. 11/20/13 (14:52:10) By: BUS A BUSB Reference Test Description Section Bus: (rum cnt/ errors/ busy cnt) Command Response STAT Command Response STAT 15.2.1.3.5 Message Length Transmit Command 5.2.1.3.5.1 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 C\$ 3-1-06-00 - - -3-1-06-00 - - -MR ИB 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 NR A: ( 33/ 3-0-05-00 - - -NR 3-1-00-02 3-4-0-00 ME 3-1-00-02 | 3-4-0-00 | ME 33/ B: ( 0/ ||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/ ٥Z 3-0-00-17 - - -NR 3-0-00-17 NR 3-1-00-02 3-4-0-00 ME 3-1-00-02 3-4-0-00 ME B: ( 2/ 07 Transmit Mode Command 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 3-1-00-01 - - -NR A: ( 1/ 3-1-00-01 NR B: ( 1/ 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 CS A: ( 2/ 0/ C) 4-1-01-00 4-0-0-00 4-1-01-00 4-0-0-00 CS 3-0-08-00 - - -NR NR B: ( 2/ 0/ 3-0-08-00 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 - - -NR 0/ 0) 3-1-00-02 3-4-0-00 ME B: ( 32/ 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 3-0-01-00 - - -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 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 lcs 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 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0 00 CS ||SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page: 5.2.1.3.5. Message Length TIME: 16:52:39 18 of 26

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT 11/20/13 (14:52:10) TEST SYSTEMS, Inc. Reference Test Description BUS BUS В Section Command | Response | STAT | Bus: (run cnt/ errors/ busy cnt) Command | Response | STAT 5.2.1.5 Required Mode Commands 5.2.1.5.1 Transmit Status 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 Les A: ( 2/ 0/ 0) 3-1-00-02 3-0-0-00 |CS 3 -1 -00 -02 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 2/ 0/ 3 0 01 00 3-0-0-00 CS B: ( 0) 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS NR NR 3-0-01-00 - .. . 3-0-01-00 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 3-1-00-02 3-4-0-00 ME ME3-1-00-02 3-4-0-00 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 3-1-00-02 3-0-0-00 CS 3-1-00 02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0 00 CS 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 cs  $\mathbf{A} : I$ 4/ 0/ o١ 3-0-01-00 3-0-0-00 3-0-01-00 3-0-0-00 CS B: ( 4/ 3-1-00-04 3-0 0-00 CS 3-1-00-04 3-0-0-00 lcs 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 3-1-00-05 - - -NR NR 3-1-00-05 NR 3-0-01-00 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 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 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 1764/ 0) 3-1-01-00 3-0-0-00 lcs 3-1-01-00 3-0-0-00 CS 0/ B: ( 3764/  $(T \leq 5000us)$ 4 4 Shutdown 3-1-00-04 3-0-0-00 CS 3-1-00 04 3-0-0-00 CS A: ( 2/ 3-1-01-00 INR 3-1-01-00 NR 0/ D) 3-1-00-08 3-0-0 00 B: ( 2/ 0/ CS 3-1-00-09 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/ 0/ 3-1-30-00 3-0-0-00 CS 3-1-30-00 3-0-0-00 CS B: ( 100007 n/ a) 5.2.1.7 RT-RT Timeout Delay Time to first NR 3.0-01-00 - - -3 0 -01-00 ---NR 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  $(54us \le T \le 60us)$ 57.5 57.5 Time to first CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 lcs 4-1-01-00 4-0-0-00 CS 4-1-01-00 4-0-0-00 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0 0-00 CS 57.0l  $(54us \le T \le 60us)$ 57.0 SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page:

5.2.1.5.

Required Mode Commands

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TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT TEST SYSTEMS, Inc. 11/20/13 (14:52:10) BUS A BUS B Test Description Reference Section Bus: (rum cnt/ errors/ busy cnt) Command Response STAT Command Response STAT 5.2.1.8 Bus Switching RT Transmitting Valid, Legal Command 3-1-02-00 - - - NR 3-1-02-00 - - -NR A: ( 10945/ 0/ 0) 3-1-05-00 3-0-0-00 CS 3-1-05-00 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS B:( 10945/ 0/ 0) Command w/Parity Error 3-1-02-00 3-0-0-00 CS 3-1-02-00 3-0-0-00 CS NR NR A: ( 3-1-05-00 - - -3-1-05-00 - - -10945/ 0) 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS B:( 10945/ 0) 0/ Command to another RT 3-1-02-00 3-0-0-00 CS 3-1-02-00 3 0 0-00 CS A: ( 10945/ 0/ 0) 4-1-05-00 - - - NR 4-1-05-00 ... NR 0/ 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS В: ( 10945/ 0) RT Receiving Valid, Legal Command 3-0-01-00 - - --NR 3-0-01-00 - - -NR A: ( 11649/ 4-1-05-00 4-0-0-00 CS 4-1-05-00 4-0-0-00 CS 0/ 0) B: ( 11649/ 0/ 3-1-05-00 3-0-0-00 CS 3-1-05-00 3-0-0-00 CS 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0 0-00 CS Command w/Parity Error 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 4-1-05-00 4-0-0-00 CS 4-1-05-00 4-0-0-00 CS A: ( 11649/ 0/ 0) B: ( 1.1649/ 3-1-05-00 - - -NR 0/ 0) 3-1-05-00 - - -NR 3 1-00-02 3-0-0-00 CS 3-1-00-02 3 0:0:00 CS Command to another RT 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS A:( 11649/ 4-1-05-00 4-0-0-00 CS 0/ 0) 4-1-05 00 4-0-0-00 CS 4-1-05-00 - - NR B:( 11649/ 0/ 0) 4-1-05-00 NR 3-1-00-02 3-0-0-00 CS 3-1-00-02 3-0 0-00 CS SUBTITLE: Required Protocol Tests DATE: 20 Nov 2013 Page: TIME: 5.2.1.8. Bus Switching 16:52:39 20 of 26

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT TEST SYSTEMS, Inc. 11/20/13 (14:52:10) By: Reference Test Description BUS BUS В Section Command Response STAT Command Response STAT Bus: (rum cnt/ errors/ busy cnt) ||5.2.1.9 Unique UUT Address part A UUT Adr 0 0-0-05-00 0-0-0-00 CS 0-0-05-00 0-0 0 0 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 3-0-05-00 3-0-0-00 CS UUT Adr 4 4-0-05-00 4-0-0-00 CS 4 0 05:00 4-0:0-00 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 CS 6-0-05-00 6-0-0-00 6-0-05-00 6 0 0 0 CS UUT Adr 7 7-0-05-00 7-0-0-00 CS 7-0-05-00 7-0-0 00 CS UUT Adr 8 8-0-05-00 8-0-0-00 CS 8-0-05-00 8-0-0-00 CS 9-0-05-00 9-0-0-00 CS UUT Adr 9 9-0-05-00 9-0-0-00 CS UUT Adr 10 (0A) 10-0-05-00 10-0-0-00 CS 10-0 05-00 10-0-0-00 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 12-0-05-00 12 0-0-00 CS UUT Adr 13 (0D) | 13-0-05-00 | 13-0-0-00 | CS 13-0-05-00 13-0-0-00 CS UUT Adr 14 (OE) 14 0-05-00 14-0-0-00 CS 14-0-05-00 14 0-0-00 CS UUT Adr 15 (OF) 15-0-05-00 15-0-0-00 CS 15-0-05-00 15:0:0:00 CS UUT Adr 16 (10) | 16-0-05-00 | 16-0-0-00 | CS 16-0-05-00 16-0-0 00 CS UUT Adr 17 (11) 17-0-05-00 17-0-0 00 CS 17-0-05-00 17-0-0-00 CS UUT Adr 18 (12) 18-0-05-00 18-0-0 00 CS 18-0-05-00 18-0-0-00 CS UUT Adr 19 (13) 19-0-05-00 19-0-0-00 CS 19-0-05-00 19-0-0-00 CS UUT Adr 20 (14) 20-0-05-00 20-0-0-00 CS 20-9-95-00 20-0-0-00 UUT Adr 21 (15) 21-0-05-00 21-0-0-00 lcs 21-0-05-00 21-0-0-00 CS UUT Adr 22 (16) 22-0-05-00 22-0-0-00 CS 22-0-05-09 22-9-0-00 CS UUT Adr 23 (17) 23-0-05-00 23-0-0-00 CS 23-0-05-00 23-0-0-00 CS UUT Adr 24 (18) 24-0-05-00 24-0-0-00 CS 24-0-05-00 24-0-0-00 CS UUT Adr 25 (19) 25-0-05-00 25-0-0-00 CS 25 0:05-00 25-0-0-00 CS UUT Adr 26 (1A) 26-0-03-00 26-0-0-00 CS 25 0 05 00 26-0-0-00 CS 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 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 - - -ΝR part B 31-0-05-00 - - -NR 31.-0-05-00 - - -NR DATE: Required Protocol Tests SUBTITLE: 20 Nov 2013 | Page: 5.2.1.9. Unique UUT Address TIME: 16:52:39 21 of 26

By: TEST S	YSTEMS, Inc.				11/20/13 (14:52:10)			
Reference   Section	Test Description  Bus: (run cut/ errors/ busy cut)	B U	SA Response	STAT	B U	IS B Response	STAT	
5.2.2.1	Optional Protocol						 	
5.2.2.1.1	Dynamic Bus Control	3-1-00-00	3-4-0-00	ME	3-1-00-00	3-4-0-00	ME	
	A:( 2/ 0/ 0)							
	B:( 2/ 0/ 0)							
5.2.2.1.2	Synchronize							
5.2.2.1.2.1	Synchronize without data	3-1-00-01	3-0-0-00	CS	3-1-00-01	3-0-0-00	CS	
ļ	A: ( 2/ 0/ 0)							
•	B:( 2/ 0/ 0)							
5.2.2.1.2.2	Synchronize with data	3-0-00-17	3-0-0-00	CS	3-0-00-17	3-0-0-00	CS	
	A: ( 2/ 0/ 0)							
	B:( 2/ 0/ 0)							
	SYNC Word		0000			0000		
5.2.2.1.3	Initiate Self-Test	3-1-00-03	3-0-0-00	CS	3-1-00-03	3-0-0-00	CS	
	A: ( 1964/ 0/ 0)	3-1-01-00	3-0-0-00	CS	3 1 01 00	3-0-0-00	CS	
	B: ( 1964/ 0/ 0)							
	(T ≤ 100,000us)		4			4		
5.2.2.1.4	Transmit BIT word	3-1-00 19	3-0-0-00	CS	3-1-00-19	3-0-0-00	CS	
	A: ( 2/ 0/ 0)	1						
	B: ( 2/ 0/ 0)	 	D.O.O	 		000.		
	BIT Word	<b> </b> 	200c	•		200d	!	
5.2.2.1.5	Selective Xmtr Shutdown	: !	3-0-0-00	CS	3-0-01-00		]CS	
	A:( 4/ 0/ 0)	:	3.0.0.00	CS	i	3-0-0-00	CS	
	B:( 4/ 0/ 0)	: :	3-4-0-00	ME	1	3-4-0-00	ME	
		: :	3-0-0-00	CS	3-0-01-00	!	CS	
	 i	:	3-0-0-00	CS  ME	3-0-01-00		CS	
	 	: :		l CS	3-0-00-21		ME	
	[ 	3-0-01-00	! !	ME	3-0-01-00		CS	
	 	3.0.00.21		l CS	3-0-00-21		ME  CS	
	1	3.0.01.00	l I	CS	1	3.0.0.00	CS	
		3-0-00-20	! !	ME	i	3-0-0-00	ME	
		!	3-0-0-00	cs	!	3-0-0-00	!	
		! !	3-0-0-00	!	!	3-0-0-00	!	
	Alt Bus Selection Word	3 0 01 00   	0000	:	3 0 01 00	0000	!	
	Pri Bus Selection Word	<u> </u>	0000	!	<b>!</b>	0000	•	
		į			İ		i	
5.2.2.1.6	Terminal Flag Bit Inhibit	3-0-01-00	30-0-00	cs	3-0-01-00	3-0-0-00	cs	
	A: ( 4/ 0/ 0)	!	3-0-0-01	DC	3-1-01-01	1	!	
	B: ( 4/ 0/ 0)	1	3-0-0-01	TF	3-0-01-00	!	!	
		1	3-0-0-00	CS	3-1-00-06	!	!	
		:	3-0-0-00	cs	:	3-0-0-00	:	
	į	3-1-31-07	3-0-0-01	TF		3-0-0-01	•	
	į	3-0-01-00	3-0-0-01	TF	3:0:01:00	3-0-0-01	TF	
	į	3-1-01-01	3-0-0-00	DC	3-1-01-01	:	!	
		3-0-01-00	3-0-0-00	cs	3-0-01-00	:	!	
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SUBTITLE:	Optional Protocol Tests	l m	ATE:	OO NT.	ov 2013	Page:		

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT TEST SYSTEMS, Inc. By: |11/20/13 (14:52:10)| Reference Test Description BUSA B U.S B Section Bus: (rum cnt/ errors/ busy cnt) Command Response STAT Command Response 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 CS 2/ B: / 0/ 0) VECTOR Word 880f 880f 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/ 3-0-01-01 - - -NR 3-0-01-01 - --B: ( 2/ 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 3-1-00-18 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 3-0-01-00 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 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 1-0-00 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 3-0-0-00 DC 3-1-01-01 3-0-0-00 DC 3-0-01-00 3-0-0-00 CS 3-0-01-09 3-0-0-00 CS 5.2.2.2.2 Broadcast Command Received 31-0-01-00 ---NR 31-0-01-00 - - -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 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 ...- NR 31-0-01-00 .... NR 3-1-00-18 | 3 4-0-16 | MBR | 3-1-00-18 | 3-4-0-16 | MBR 15.2.2.2.3 Busy 3-1-01-01 3-0-0-08 DC 3 1-01-01 3-0-0:08 DC 3-1-02-00 3-0 0-08 | BUSY | 3-1 02-00 | 3-0-0-08 | BUSY || 3-1-01-01 3-0-0 DC 3-1-01-01 3-0-0-00 DC 3-1-01 01 3-0-0-00 CS 3-1-01-01 3-0 0-00 CS 5.2.2.2.4 Subsystem Flag 3-1-01-01 3-0-0-04 DC 3-1-02-01 3-0-0-04 DC 3-1-02-00 3-0-0-04 SF 3-1-02-00 3-0-0-04 SF 3-1-01-01 3-0-0-00 DC 3-2-01:01 3-0-0-00 DC 3-1-01-00 3-0-0·00 CS 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 5.2.2.2.5 Terminal Flag 3-1-01-01 3-0-0-01 DC 3-1-01-01 3-0-0-01 DC 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 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS SUBTITLE: Optional Protocol Tests DATE: 20 Nov 2013 | Page: 5.2.2.1.7. Transmit Vector Word TIME: 16:52:39 23 of 26

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT Ву: TEST SYSTEMS, Inc. 11/20/13 (14:52:10) Reference Test Description BUS BUSB Section Bus: (run cnt/ errors/ busy cnt) Command Response STAT Command Response STAT 5.2.2.3 Illegal Command part A 3-0-25-00 3-4-0 00 ME 3-0-25-00 3-4-0-00 ME 3-1-02-00 3-0-0-00 LCS 3-1-02-00 3-0-0-00 les 3-0-25-00 NR 3 - 0 - 25 - 00 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 - - -NR 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 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 - - -NR NR 3-0-25-00 - - -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 5.2.2.4.1 Synchronize without data 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0 0-00 CS 2/ 0/ 0) 31-1-00-01 - - -NR 31-1-00-01 .... NR 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 A: ( 2/ 31-0-00-17 - ... NR 31-0-00-17 ...-B: ( 2/ 0/ 0) 3-1-00-18 3-0-0-16 BCR 3-1-00-18 3-0-0-16 BCR SYNC Word 0000 0000 Initiate Self-Test 5.2.2.4.3 31-1-00-03 - - NR 31-1-00 03 - - -NR Ar ( 3-1-01-00 3-0-0-00 CS 1968/ 0) 3-1-07:00 3-0-0-00 В: ( 1.968/ 0/ 0)  $(T \le 100,000us)$ 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 - ( 0/ 3-0-01-00 3-0 0-00 CS 3-0-01-00 3-0-0-00 CS B: ( 0/ \_ \_ .. 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 ----NR 3 0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 31-1-00-05 - - -NR 31-1-00-05 - -NR 3-0-01-00 - - -NR 3-0-01-00 NR 31-1-00-05 NR 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 20 Nov 2013 | Page: DATE: Illegal Command TIME: 5.2.2.3. 16:52:39 24 of 26

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT TEST SYSTEMS, Inc. By: 11/20/13 (14:52:10) BUS A Reference Test Description BUSB Section Command Response STAT Bus: (run cnt/ errors/ busy cnt) 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 3-0-01-00 3-0-0-00 CS A: ( 0/ B: ( 4/ 0/ 0) 31-0-00 20 NR31-0-00-20 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 cs 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 31 -0 00 -21 31-0-00-22 - - -NR INR 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 CO 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 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 Alt Bus Selection Word 0000 0000 Pri Bus Selection Word 0000 0000 15.2.2.4.6 Terminal Flag Bit Inhibit 3-0-01-00 3-0-0 00 CS 3-0-01-00 3-0-0:00 CS 3-1-01-01 3-0-0-01 DC 3-1-01-01 3-0-0-01 A : / 4/ 0/ 0) Loc B: ( 4/ 3-0-01-00 3-0-0-01 TF 0/ 3-0-01-00 3-0-0-01 TF INR 31-1-00-06 - - -NR 31-1-00-06 - - -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 07 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 - - -A: ( 3-1-01-00 3-0-0-00 CS 3-1-01-00 3-0-0-00 CS 1768/ nΖ G) B: ( 1768/ (T ≤ 5000us) 4 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/ NR NR 0/ a) 31-1-00-08 31-1-00:08 - - -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 3-1-01-00 3 0:0:00 CS 3-1-01-00 3 0-0-00 CS A: ( 2/ 0/ 0) 31-1-00-00 \_ ... NR31-1-00-00 - - -NR B:( 0) 3-1-00-02 3-4-0-16 MBR 27 07 3-1-00-02 3-4-0-16 MBR SUBTITLE: Optional Protocol Tests DATE: 20 Nov 2013 | Page: 5.2.2.4.5. Selective Xmtr Shutdown TIME: 16:52:39 25 of 26

TEST SYSTEMS, Inc. MIL-STD-1553B RT VALIDATION TEST REPORT CVH12.DAT ∥By: TEST SYSTEMS, Inc. 11/20/13 (14:52:10) Reference Test Description BUS A BUSB Section Bus: (run cnt/ errors/ busy cnt) Command Response STAT Command | Response | STAT | ||5.2.2.5 Error Injection -Broadcast Messages 5.2.2.5.1 Parity: BC-RT Broadcast 5.2.2.5.1.1 Command w/Parity Error 31-0-01-01 NR 31-0-01-01 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 31-0-01-00 - - - | NR NR 31-0-01 00 - - -3 1 00 18 3-0-0-00 CS 3-1-00-18 3-0 0 00 CS 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0 0-00 CS ||5.2.2.5.1.2|Data Word Error 31-0-01-01 NR 31-0-01-01 ... NR 3-1-00-18 3-0-0-16 BCR A: ( 32/ 0/ 3-1-00-18 3-0-0-16 BCR 3-0-01-00 3-0-0-00 CS B: ( 32/ 0/ 3-9-01-00 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 3-4-0-16 MBR 3-0-01-00 3-0-0-00 CS 3-0-01-00 3-0-0-00 CS 5.2.2.5.2 Message Length: BC-RT 31-0-01-01 - - -NR 31-0-01-01 - - -NR Broadcast 3-1-00-18 3-0-0-16 BCR 3-3-00 18 3-0-0-16 BCR A: ( 33/ 3-0-01-00 3-0-0-00 CS 0/ o) 3-0-01-00 3-0-00 CS B: ( 33/ 0/ 0) 31-0-01-00 - - -NR 31:0-01-00 - - -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 [5.2.3] Noise Rejection 3-0-30-00 3-0-0-00 CS 3-0-30-00 --- EF Words Received 44,000,022 PASS 52,100,004 PASS Noise Level used (mV) 170 170 A: ( 1333334/ B:( 1578788/ 1/ SUBTITLE: Optional Protocol Tests DATE: 20 Nov 2013 | Page: 5.2.2.5. Error Injection TIME: 16:52:39 26 of 26 |