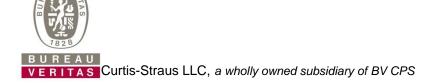
Test Report



Report No	EP2079-1
Client	Tyco Safety Products/Sensormatic
Address	6 Technology Pk Drive Westford, Ma 01886
Phone	978 577-4000
Items tested	RM2L-4000-P126, RM2-4000-P126
Standards	FCC 15.209: GENERAL, FCC 15.225: 13.110-14.010MHz, Canada (RSS-210)
Test Dates	August 31 to September 2, 2015
Results	As detailed within this report
Prepared by	Evan Griffith – EMC Engineer
Authorized by	Anik Zwirner – EMC Supervisor
Issue Date	September 8, 2015
Conditions of Issue	This Test Report is issued subject to the conditions stated in the ' <i>Conditions of Testing</i> ' section on page 19 of this report.

Curtis-Straus LLC is accredited to ISO/IEC 17025 by A2LA for the specific scope of accreditation under Certificate Number 1627-01. This report may contain data which is not covered by the A2LA accreditation. Any opinions or interpretations expressed in this report are outside the scope of our A2LA accreditation as A2LA only accredits testing.





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Form CPS Final Report REV 28-MAR-12 (KK)





Regulatory Information

FRN number	0005052626
FCC ID	BVC-4000-PI26
IC	3506A-4000-PI26

Release Control Record

Issue No. Reason for change

1 Original Issue

Date Issued Spetmeber 8, 2015



Curtis-Straus LLC, a wholly owned subsidiary of BV CPS One Distribution Center Circle, #1 • Littleton, MA • TEL (978) 486-8880 • FAX (978) 486-882



Summary

On August 31st, September 1st and 2nd 2015 and we tested the RM2L-4000-P126 (4000 Enclosure) for compliance with the following requirements:

EMC Emissions:

- CFR 47 FCC Part 15.207 Conducted limits
- CFR 47 FCC Part 15.209 Radiated emission limits; general requirements
- CFR 47 FCC Part 15.225 Radiated emission limits; general requirements
- RSS GEN General Requirements and Information for the Certification of Radio Apparatus Issue 3
- RSS 210 License exempt Radio Apparatus (All Frequency Bands): Category I Equipment -Issue 8

Two models of the 4000 Enclosure are represented in this report. Model RM2L-4000-P126 was tested, and the test results are considered representative of the second model, RM2-4000-P126. The difference between these is that the RM2L-4000-P126 has an LCD screen while the RM2-4000-P126 does not. All components of the RM2-4000-P126 (non-LCD) are included in the RM2L-4000-P126 (with LCD).

Product is an RFID system which operates at 125kHz and 13.56MHz. EUT emissions were maximized by rotating product around its axis and around 3 orthogonal axes. EUT antenna could not be maximized separately.

Testing was performed according to procedures outlined in Per ANSI C63.10 (2013)

Release Control Record Issue No. Reason for

sue No.Reason for change1Original Issue

Date Issued Spetmeber 8, 2015



Curtis-Straus LLC, a wholly owned subsidiary of BV CPS One Distribution Center Circle, #1 • Littleton, MA • TEL (978) 486-8880 • FAX (978) 486-882



page 4 of 20

Product Tested - Configuration Documentation

					EUT	Configuration	ı					
Work	Order:	P2079										
Cor	npany:	Softwa	re House, a l	Division of Sens	ormatic							
Company A	ddress:	6 Tech	nology Pk D	rive								
		Westfo	rd, MA, 018	86								
	ontact:	Matt B	urmon									
t	ontact.	Wiatt D	uman									
				MN			PN				;	SN
	EUT:		4000	Enclosure								
EUT Desci	ription:											
EUT Max Free	uency:	185 M	Hz									
EUT Min Free	uency:	0.125 N	MHz									
EUT ISM Free	uency:											
EUT Components				M						.=	N	
4000 Enclosure				RM2L-40						651A152		
4000 Enclosure				RM2-400	00-P126					651A151	7 000238	
Port Label	Port	Туре	# ports	# populated	cable type	shielded	ferrite	length	max	in/out	under	comment
1 010 20000	101	5 PC	" por to	" populated	cubic type	Silleraea	s	(m)	length (m)	in out	test	
IN 1	other		1	1	other	No	No	1		in	yes	
IN 2	other		1	1	other	No	No	1		in	yes	
AC/DC Brick	Powe	r AC	1	1	Power AC	Yes	No	1	3	in	yes	MN: PSAA15W-120V SN: P22704528A0
OUT 1	other		1	1	other	No	No	2		in	yes	
Out 2	other		1	1	other	No	No	2		in	yes	
Software Operating				1. 0								
Constantly transmitti	ng at 125	KHz and	13.56MHz s	earching for an	KFID Response.							
Performance Criter	ia:											
Emissions Only.												





Compliance Statement

RSS GEN	RSS 210	FCC		Compliant
		§15.225		(Yes) / (No) / (NA)
	A2.6(a)	15.225(a)	The field strength of any emissions within the band 13.553- 13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.	Yes
	A2.6(b)	15.225(b)	Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.	Yes
	A2.6(c)	15.225(c)	Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.	Yes
	A2.6(d)	15.225(d)	The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.	Yes
		15.225(e)	The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.	Yes
4.7	A2.6	15.225(f)	In the case of radio frequency powered tags designed to operate with a device authorized under this section, the tag may be approved with the device or be considered as a separate device subject to its own authorization. Powered tags approved with a device under a single application shall be labeled with the same identification number as the device.	Yes, Tags were tested with the Device
5.3		15.15(b)	There are no controls accessible to the user that varies the output power above specified limits.	Yes
5.2		15.19	The label is shown in the label exhibit.	Yes
7.1.5		15.21	Information to the user is shown in the instruction manual.	Yes





		15.27	No special accessories are required for compliance.	Yes
		15.31	The EUT was tested in accordance with the measurement standards in this section.	Yes
		15.33	Frequency range was investigated according to this section, unless noted in specific rule section under which the equipment operates.	Yes
		15.35	The EUT emissions were measured using the measurement detector and bandwidth specified in this section, unless noted in specific rule section under which the equipment operates.	Yes
7.1.4		15.203	EUT employs an integral antenna.	Yes
	2.6	15.205 15.209	The fundamental is not in a Restricted band and the spurious and harmonic emissions in the Restricted bands comply with the general emission limits of 15.209.	Yes
7.2.2		15.207	EUT meets the AC Line conducted emissions requirements of	Yes
4.6.1			Occupied Bandwidth measurements were made	Yes





Test Results

AC Mains Conducted Emissions

Test Method

Per ANSI c63.10 (2013)

Test Data

Date	: 02-Sep-15					(Company: Software Hous	se				Work Order:	P2079		
	: Evan Griffith						EUT Desc: 4000 Enclosu								
	: 23.1 ºC						Humidity: 55%					Pressure: 1007 mBar			
Notes	Antenna Not Rem	noved				F	cy Range: .15-30 MHz		FUT		(F	uency: 120V 60 Hz			
	Quasi-Pe	ook	Δ.ve	rage		LISN	cy Range: .15-30 MHz		EUT	input voitage	e/Frequ	uency: 120V 60 Hz			
	Reading			dings		Factors	Cable ATTN	FCC/	CISPR CI	ass B		FCC/CISPR	lass B		
Frequency	QP1	QP2	AVG1	AVG2	L1	L2	Factor Factor	QP Limit	Margin	Result	AVG	Limit Margin	Result		
(MHz)	(dBµV)	(dBµV)	(dBµV)	(dBµV)	(dB)) (dB)	(dB) (dB)	(dBµV)	(dB)	(Pass/Fail)	(dE	3μV) (dB)	(Pass/Fail)		
0.15	29.6	23.5	10.5	18.3	-0.2		-0.1 -20.5	66.0	-15.6	Pass		6.0 -17.0	Pass		
0.18	28.3	28.2	15.3	21.4	-0.1		-0.1 -20.5	64.7	-15.7	Pass		4.7 -12.7	Pass		
13.56	29.1	26.2	14.8	24.6	-0.1		-0.2 -20.5	60.0	-10.1	Pass		0.0 -4.6	Pass		
27.40 18.29	15.5 12.4	13.2 12.6	5.5 2.4	4.8 1.7	-0.1 -0.1		-0.3 -20.5 -0.3 -20.5	60.0 60.0	-23.6 -26.6	Pass Pass		0.0 -23.6 0.0 -26.8	Pass Pass		
0.30	22.0	24.4	2.4	2.7	-0.1		-0.3 -20.5	60.4	-20.0	Pass		0.0 -20.0	Pass		
0.50	22.0	24.4	2.5	2.1	-0.1	0.0	-0.1 -20.3		-13.4						
Result	Pass					L.	Norst Margin:	-4.6 c	B	Free	quer	167: 13.560	MHz		
easurement Device	LISN ASSET	1728(I ine 1		SSET 1729	(line 2	2)	Cable: CEMI-01			Spectrum	Anal	yzer: Reference I	MI Test Recei		
easurement Device	LIGN AGGET	1720(LINE I) LIGN A	55LT 1725			enuator: 20dB Atten	uator-07		opectrum	Alla	Site: CEMI3			
CEMI Calculator Version	3013					Atte	Alleni 2000 Alleni	uator-or				Equipment Facto	Sheet rev: 8/26/		
_															
	8/27/2015			5							. .				
ectrum Analyzers	/ Receivers /	/Preselect	ors	Range		MN	Mfr	SN	1	Asset	Cat	Calibration Due	e Calibrated		
ectrum Analyzers		/Preselect		Range 20Hz-8.4G	Hz	MN N9038A	Mfr Agilent		-	Asset 1168255	Cat I	Calibration Due 42537	e Calibrated 42171		
bectrum Analyzers MXE E	A Receivers /			20Hz-8.4G	Hz	N9038A	Agilent	MY5329	90009	1168255	Ι	42537	42171		
bectrum Analyzers MXE E LISNs/Mea	MI Receivers / MI Receiver		2	20Hz-8.4G Range		N9038A MN	Agilent Mfr	MY5329	90009 1	1168255 Asset	l Cat	42537 Calibration Due	42171 e Calibrated		
ectrum Analyzers MXE E LISNs/Mea LISN	MI Receivers / MI Receiver surement Pro Asset 1728		2 15	20Hz-8.4G Range 50kHz-30N	ИНz	N9038A MN LI-150A	Agilent Mfr Com-Power	MY5329 SN 2010	90009 1 184	1168255 Asset 1728	I Cat I	42537 Calibration Due 42467	42171 e Calibrated 42101		
ectrum Analyzers MXE E LISNs/Mea LISN	MI Receivers / MI Receiver		2 15	20Hz-8.4G Range	ИНz	N9038A MN	Agilent Mfr	MY5329	90009 1 184	1168255 Asset	l Cat	42537 Calibration Due	42171 e Calibrated		
bectrum Analyzers MXE E LISNs/Mea LISN LISN	A Receivers / EMI Receiver surement Pro Asset 1728 Asset 1729	obes	2 15	20Hz-8.4G Range 50kHz-30N 50kHz-30N	ИНz ИНz	N9038A MN LI-150A	Agilent Mfr Com-Power Com-Power	MY5329 SN 2010	90009 1 184	1168255 Asset 1728	I Cat I	42537 Calibration Due 42467 42467	42171 e Calibrated 42101 42101		
ectrum Analyzers MXE E LISNs/Mea LISN LISN LISN Conducted Test	Arrow Content of the second se	obes	2 15	20Hz-8.4G Range 50kHz-30N 50kHz-30N FCC Cod	MHz MHz le	N9038A MN LI-150A	Agilent Mfr Com-Power Com-Power	MY5329 SN 2010	90009 1 184	1168255 Asset 1728	I Cat I I Cat	42537 Calibration Due 42467 42467 Calibration Due	42171 e Calibrated 42101 42101 e Calibrated		
ectrum Analyzers MXE E LISNs/Mea LISN LISN LISN Conducted Test	A Receivers / EMI Receiver surement Pro Asset 1728 Asset 1729	obes	2 15	20Hz-8.4G Range 50kHz-30N 50kHz-30N	MHz MHz le	N9038A MN LI-150A	Agilent Mfr Com-Power Com-Power	MY5329 SN 2010	90009 1 184	1168255 Asset 1728	I Cat I	42537 Calibration Due 42467 42467	42171 e Calibrated 42101 42101		
ectrum Analyzers MXE E LISNs/Mea LISN LISN LISN Conducted Test	/ Receivers / EMI Receiver surement Pro Asset 1728 Asset 1729 Sites (Mains CEMI 3	obes s / Telco)	2 15	20Hz-8.4G Range 50kHz-30N 50kHz-30N FCC Cod	MHz MHz le	N9038A MN LI-150A	Agilent Mfr Com-Power Com-Power	MY5329 SN 2010	90009 1 84 85	1168255 Asset 1728	I Cat I Cat III	42537 Calibration Due 42467 42467 Calibration Due	42171 e Calibrated 42101 42101 e Calibrated N/A		
Dectrum Analyzers MXE E LISNs/Mea LISN LISN Conducted Test	/ Receivers / EMI Receivers / Surement Pro Asset 1728 Asset 1729 Sites (Mains CEMI 3 logical Meter	obes s / Telco) s	2 15	20Hz-8.4G Range 50kHz-30N 50kHz-30N FCC Cod	MHz MHz le	N9038A MN LI-150A LI-150A MN	Agilent Mfr Com-Power Com-Power VCCI Code A-0015 Mfr	MY5329 SN 2010 2010 SN	90009 1 84 85	1168255 Asset 1728 1729 Asset	I Cat I Cat III Cat	42537 Calibration Dua 42467 42467 Calibration Dua NA Calibration Dua	42171 e Calibrated 42101 42101 e Calibrated N/A e Calibrated		
ectrum Analyzers MXE E LISNs/Mea LISN LISN Conducted Test Conducted Test Conducted Test Conducted Test	A Receivers / EMI Receivers / Surement Pro Asset 1728 Asset 1729 Sites (Mains CEMI 3 logical Meterick (Pressure	obes s / Telco) s	2 15	20Hz-8.4G Range 50kHz-30N 50kHz-30N FCC Cod	MHz MHz le	N9038A MN LI-150A LI-150A MN BA928	Agilent Mfr Com-Power Com-Power VCCI Code A-0015 Mfr Oregon Scientific	MY5329 SN 2010 2010 SN	90009 1 84 85	1168255 Asset 1728 1729 Asset 831	I Cat I Cat III Cat III	42537 Calibration Due 42467 42467 Calibration Due NA Calibration Due 42448	42171 e Calibrated 42101 42101 e Calibrated N/A e Calibrated 41717		
Dectrum Analyzers MXE E LISNs/Mea LISN LISN Conducted Test Conducted Test Conducted Test Conducted Test	/ Receivers / EMI Receivers / Surement Pro Asset 1728 Asset 1729 Sites (Mains CEMI 3 logical Meter	obes s / Telco) s	2 15	20Hz-8.4G Range 50kHz-30N 50kHz-30N FCC Cod	MHz MHz le	N9038A MN LI-150A LI-150A MN	Agilent Mfr Com-Power Com-Power VCCI Code A-0015 Mfr	MY5329 SN 2010 2010 SN	90009 1 84 85	1168255 Asset 1728 1729 Asset	I Cat I Cat III Cat	42537 Calibration Dua 42467 42467 Calibration Dua NA Calibration Dua	42171 e Calibrated 42101 42101 e Calibrated N/A e Calibrated		
Dectrum Analyzers MXE E LISNs/Mea LISN LISN Conducted Test Conducted Test Weather Clo Th	/ Receivers / EMI Receivers / Surement Pro Asset 1728 Asset 1729 Sites (Mains CEMI 3 logical Meter ck (Pressure I A#2085	obes s / Telco) s	2 15	20Hz-8.4G Range 50kHz-30N 50kHz-30N 50kHz-30N FCC Cod 719150	MHz MHz le	N9038A MN LI-150A LI-150A MN BA928	Agilent Mfr Com-Power Com-Power VCCI Code A-0015 Mfr Oregon Scientific HDE	MY5329 SN 2010 2010 SN	90009 1 84 85	1168255 Asset 1728 1729 Asset 831	I Cat I Cat III Cat I II	42537 Calibration Due 42467 42467 Calibration Due NA Calibration Due 42448 42462	42171 e Calibrated 42101 42101 42101 e Calibrated N/A e Calibrated 41717 42096		
ectrum Analyzers MXE E LISNs/Mea LISN Conducted Test (Meteorc Weather Clo Th	/ Receivers / EMI Receivers / Surement Pro Asset 1728 Asset 1729 Sites (Mains CEMI 3 logical Meter ck (Pressure I A#2085 Cables	obes s / Telco) s	2	20Hz-8.4G Range 50kHz-30N 50kHz-30N 50kHz-30N FCC Cod 719150 Range	MHz MHz le	N9038A MN LI-150A LI-150A MN BA928	Agilent Mfr Com-Power Com-Power VCCI Code A-0015 Mfr Oregon Scientific HDE Mfr	MY5329 SN 2010 2010 SN	90009 1 84 85	1168255 Asset 1728 1729 Asset 831	I Cat I Cat III Cat I II Cat	42537 Calibration Duc 42467 42467 Calibration Duc NA Calibration Duc 42448 42462 Calibration Duc	42171 Calibrated 42101 42101 42101 Calibrated N/A Calibrated 41717 42096 Calibrated 41717 42096		
ectrum Analyzers MXE E LISNs/Mea LISN Conducted Test (Meteorc Weather Clo Th	/ Receivers / EMI Receivers / Surement Pro Asset 1728 Asset 1729 Sites (Mains CEMI 3 logical Meter ck (Pressure I A#2085	obes s / Telco) s	2	20Hz-8.4G Range 50kHz-30N 50kHz-30N 50kHz-30N FCC Cod 719150	MHz MHz le	N9038A MN LI-150A LI-150A MN BA928	Agilent Mfr Com-Power Com-Power VCCI Code A-0015 Mfr Oregon Scientific HDE	MY5329 SN 2010 2010 SN	90009 1 84 85	1168255 Asset 1728 1729 Asset 831	I Cat I Cat III Cat I II	42537 Calibration Due 42467 42467 Calibration Due NA Calibration Due 42448 42462	42171 e Calibrated 42101 42101 e Calibrated N/A e Calibrated 41717 42096		
ectrum Analyzers MXE E LISNs/Mea LISN Conducted Test (Meteorc Weather Clo Th	/ Receivers / EMI Receivers / Surement Pro Asset 1728 Asset 1729 Sites (Mains CEMI 3 Jogical Meter ck (Pressure I A#2085 Cables CEMI-01	obes s / Telco) s	2	20Hz-8.4G Range 50kHz-30N 50kHz-30N FCC Cod 719150 Range 9kHz - 2G	MHz MHz le	N9038A MN LI-150A LI-150A MN BA928 HTC-1	Agilent Mfr Com-Power Com-Power VCCI Code A-0015 Mfr Oregon Scientific HDE Mfr C-S	MY5326 SN 2010 2010 2010 C316	90009 1 84 85 1 6-1	1168255 Asset 1728 1729 Asset 831 2085	I Cat I Cat III Cat III Cat II	42537 Calibration Duc 42467 42467 Calibration Duc NA Calibration Duc 42448 42462 Calibration Duc 42261	42171 Calibratec 42101 42101 Calibratec N/A Calibratec 41717 42096 Calibratec 41787 42096		
pectrum Analyzers MXE E LISNs/Mea LISN Conducted Test (Meteorc Weather Clo Th C C	/ Receivers / EMI Receivers / Surement Pro Asset 1728 Asset 1729 Sites (Mains CEMI 3 logical Meter ck (Pressure I A#2085 Cables	obes s / Telco) s	2	20Hz-8.4G Range 50kHz-30N 50kHz-30N 50kHz-30N FCC Cod 719150 Range	ИНz ИНz le Hz	N9038A MN LI-150A LI-150A MN BA928	Agilent Mfr Com-Power Com-Power VCCI Code A-0015 Mfr Oregon Scientific HDE Mfr	MY5329 SN 2010 2010 SN	90009 1 84 85 1 6-1	1168255 Asset 1728 1729 Asset 831	I Cat I Cat III Cat III Cat II	42537 Calibration Duc 42467 42467 Calibration Duc NA Calibration Duc 42448 42462 Calibration Duc	42171 Calibrated 42101 42101 Calibrated N/A Calibrated 41717 42096 Calibrated 41787 42096		

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

AC Mains Setup Pictures





Spurious Radiated Emissions

Test Method

Per ANSI c63.10 (2013)

Test Data

Date:	31-Aug-15		Company:	Software H	louse, a D	Division of Senso	ormatic			V	Vork Order:	P2079	
Engineer:	Ryan Brown		EUT Desc:	RM2L-400	0				EUT Operat	ing Voltage/	Frequency:	120V/60H	
Temp:	23.3°C		Humidity:	56%		Pressure:	mBar			-	-		
	Freque	ncy Range:	.009-5MHz	2					Measureme	nt Distance:	3 m		
Notes:	EUT Standing	up											
								FCC Title					
Antenna Polarization	Frequency	Reading	Preamp Factor	Antenna Factor	Cable Factor	Adjusted Reading	Limit	47 §15.209 Margin	Result	Limit Margin Res			
(0° - 90°)	(MHz)	(dBµV)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dBµV/m)	Margin (dB)	Result (Pass/Fai	
0	0.009	11.4	-8.1	66.6	0.0	86.1	128.5	-42.4					
0	0.061	7.9	25.6	53.0	0.0	35.3	111.9	-76.6					
0	0.125	34.2	26.2	50.1	0.9	59.0	105.7	-46.7					
0	0.241	9.8	26.0	49.0	0.8	33.6	100.0	-66.4					
0	3.51	11.9	25.2	48.0	1.0	35.7	69.5	-33.8					
0	1.91	11.4	25.2	48.0	0.6	34.7	69.5	-34.8					
U	1.91	11.4	25.3	40.0	0.6	34.7	09.0	-34.0					
00	4.04	10.5		40.0									
90	4.34	12.5	25.1	48.2	0.8	36.4	69.5	-33.1					
90	0.349	9.5	25.9	48.7	0.7	33.0	96.7	-63.7					
90	0.125	29.5	26.2	50.1	0.9	54.3	105.7	-51.4					
90	0.077	7.9	26.0	51.4	0.0	33.3	109.9	-76.6					
90	0.012	10.8	0.6	64.6	0.0	74.8	126.0	-51.2					
					~ ~	45.4	447.0	70.4					
90	0.031	8.6	21.6	58.4	0.0	45.4	117.8	-72.4					
Table	e Result:	Pass	by	-33.1	dB	45.4	117.8			orst Freq:	4.34		
Table Test Site: Analyzer:		Pass	by Cable 1:	-33.1 Asset #20 Red-White	dB 54	45.4	117.8		Asset #2051		Cable 3: Preselector:	 Asset #15	
Table Test Site: Analyzer: Ssoft Radiate	e Result: EMI Chamber Rental SA#2	Pass 1 alculator	by Cable 1: Preamp: v 1.017.146	-33.1 Asset #20 Red-White	dB 54		117.8	Cable 2:	Asset #2051		Cable 3: Preselector:	 Asset #15	
Table Test Site: Analyzer: Ssoft Radiate djusted Read	e Result: EMI Chamber Rental SA#2 d Emissions C	Pass 1 alculator Preamp Fac	by Cable 1: Preamp: v 1.017.146 ctor + Anter	-33.1 Asset #20 Red-White	dB 54		117.8	Cable 2:	Asset #2051		Cable 3: Preselector:		
Table Test Site: Analyzer: Ssoft Radiate djusted Read	e Result: EMI Chamber Rental SA#2 d Emissions C ng = Reading	Pass 1 alculator Preamp Far DNS Tab	by Cable 1: Preamp: v 1.017.146 ctor + Anter	-33.1 Asset #20 Red-White	dB 54 + Cable F			Cable 2:	Asset #2051	F	Cable 3: Preselector:	 Asset #15 is-Straus LLC	
Table Test Site: Analyzer: Ssoft Radiate djusted Read	e Result: EMI Chamber Rental SA#2 d Emissions C ng = Reading IEmissio 31-Aug-15	Pass 1 alculator Preamp Fac	by Cable 1: Preamp: v 1.017.146 ctor + Anter	-33.1 Asset #20 Red-White	dB 54 + Cable F House, a [actor		Cable 2:	Asset #2051 Lg Loop	F	Cable 3: Preselector: Copyright Curti	Asset #15 is-Straus LLC	
Table Test Site: Analyzer: Ssoft Radiate djusted Read Radiatec Date: Engineer:	e Result: EMI Chamber Rental SA#2 d Emissions C ing = Reading Emissic 31-Aug-15 Ryan Brown	Pass 1 alculator Preamp Fac	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc:	-33.1 Asset #20 Red-White ma Factor	dB 54 + Cable F House, a [actor Division of Senso	prmatic	Cable 2:	Asset #2051 Lg Loop	F	Cable 3: Preselector: Copyright Curti	Asset #15 is-Straus LLC P2079	
Table Test Site: Analyzer: Ssoft Radiate djusted Read	e Result: EMI Chamber Rental SA#2 d Emissions C ing = Reading IEmissic 31-Aug-15 Ryan Brown 23.3°C	Pass 1 alculator Preamp Far ons Tab	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity:	-33.1 Asset #20 Red-White ma Factor	dB 54 + Cable F House, a [actor	prmatic	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat	F F V V Voltage/	Cable 3: Preselector: Copyright Curti Vork Order: Frequency:	Asset #15 is-Straus LLC	
Table Test Site: Analyzer: Ssoft Radiate djusted Read Radiateo Date: Engineer: Temp:	e Result: EMI Chamber Rental SA#2 d Emissions C ing = Reading IEmissic 31-Aug-15 Ryan Brown 23.3°C Freque	Pass 1 alculator Preamp Fac ons Tab	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity:	-33.1 Asset #20 Red-White ma Factor	dB 54 + Cable F House, a [actor Division of Senso	prmatic	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat	F V ing Voltage/ nt Distance:	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m	Asset #15 is-Straus LLC P2079	
Table Test Site: Analyzer: Ssoft Radiate djusted Read Radiateo Date: Engineer: Temp:	e Result: EMI Chamber Rental SA#2 d Emissions C ing = Reading IEmissic 31-Aug-15 Ryan Brown 23.3°C	Pass 1 alculator Preamp Fac ons Tab	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity:	-33.1 Asset #20 Red-White ma Factor	dB 54 + Cable F House, a [actor Division of Senso	prmatic	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat	F V ing Voltage/ nt Distance:	Cable 3: Preselector: Copyright Curti Vork Order: Frequency:	 Asset #15 is-Straus LLC P2079	
Table Test Site: Analyzer: Ssoft Radiate djusted Read Radiateo Date: Engineer: Temp:	e Result: EMI Chamber Rental SA#2 d Emissions C ing = Reading IEmissic 31-Aug-15 Ryan Brown 23.3°C Freque	Pass 1 alculator Preamp Fac ons Tab	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity:	-33.1 Asset #20 Red-White ma Factor	dB 54 + Cable F House, a [actor Division of Senso	prmatic	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat Measuremen	F V ing Voltage/ nt Distance:	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m 185MHz FCC Title	 Asset #15 is-Straus LLC P2079	
Table Test Site: Analyzer: Ssoft Radiate djusted Read Cadiatec Date: Engineer: Temp:	e Result: EMI Chamber Rental SA#2 d Emissions C ing = Reading IEmissic 31-Aug-15 Ryan Brown 23.3°C Freque	Pass 1 alculator Preamp Fac ons Tab	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity:	-33.1 Asset #20 Red-White ma Factor	dB 54 + Cable F House, a [actor Division of Senso	prmatic	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat Measuremen	F V ing Voltage/ nt Distance:	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m 185MHz	 Asset #15 is-Straus LLC P2079	
Table Test Site: Analyzer: Ssoft Radiate djusted Read Cadiatec Date: Engineer: Temp: Notes: Antenna	e Result: EMI Chamber Rental SA#2 d Emissions C ing = Reading IEmissic 31-Aug-15 Ryan Brown 23.3°C Freque	Pass 1 alculator Preamp Fac ons Tab	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity: 5-30MHz	-33.1 Asset #20 Red-White ana Factor Software F RM2L-400 56%	dB 54 + Cable F House, a D	actor Division of Senso Pressure:	prmatic	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat Measuremen	F V ing Voltage/ nt Distance:	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m 185MHz FCC Title	Asset #15 s-Straus LLC P2079 120V/60H	
Table Test Site: Analyzer: Sosoft Radiate dijusted Read Cadiatec Date: Engineer: Temp: Notes: Antenna	e Result: EMI Chamber Rental SA#2 d Emissions C ng = Reading I Emissic 31-Aug-15 Ryan Brown 23.3°C Freque EUT Standing	Pass 1 adculator Preamp Fac ons Tab ncy Range: up	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity: 5-30MHz	-33.1 Asset #20 Red-White ana Factor Software H RM2L-400 56%	dB 54 + Cable F Rouse, a [0 Cable	actor Division of Senso Pressure: Adjusted	mBar	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat Measuremen	V ing Voltage/ nt Distance:	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m 185MHz FCC Title 47 §15.209	Asset #15 s-Straus LLC P2079 120V/60H	
Table Test Site: Analyzer: Ssoft Radiate ijusted Read Cadiatec Date: Engineer: Temp: Notes: Antenna Polarization	e Result: EMI Chamber Rental SA#2 d Emissions C ng = Reading I Emissic 31-Aug-15 Ryan Brown 23.3°C Freque EUT Standing	Pass 1 alculator Preamp Far ons Tab ncy Range: up	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity: 5-30MHz Preamp Factor	-33.1 Asset #20 Red-White ana Factor Software H RM2L-400 56%	dB 54 + Cable F House, a [0 Cable Factor	actor Division of Senso Pressure: Adjusted Reading	mBar Limit	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat Measuremen	V ing Voltage/ nt Distance:	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m 185MHz FCC Title 47 §15.209 Margin	Asset #15 s-Straus LLC P2079 120V/60H	
Table Test Site: Analyzer: Ssoft Radiate jjusted Read Cadiatec Date: Engineer: Temp: Notes: Antenna Polarization (0° - 90°)	e Result: EMI Chamber Rental SA#2 d Emissions C ing = Reading 31-Aug-15 Ryan Brown 23.3°C Freque EUT Standing Frequency (M+2)	Pass 1 alculator Preamp Fac ons Tab ncy Range: up Reading (dBµV)	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity: 5-30MHz Preamp Factor (dB)	-33.1 Asset #20 Red-White ana Factor Software F RM2L-400 56% Antenna Factor (dB/m)	dB 54 + Cable F House, a [0) Cable Factor (dB)	actor Division of Senso Pressure: Adjusted Reading (dBµV/m)	mBar Limit	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat Measuremen	V ing Voltage/ nt Distance: Limit (dBµV/m)	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m 185MHz FCC Title 47 §15.209 Margin (dB)	Asset #15 s-Straus LLC P2079 120V/60H Result (Pass/Fa	
Table Test Site: Analyzer: Ssoft Radiate djusted Read Cadiatec Date: Engineer: Temp: Notes: Antenna Polarization (0° - 90°) 90 0	e Result: EMI Chamber Rental SA#2 d Emissions C ing = Reading IEmission 31-Aug-15 Ryan Brown 23.3°C Freque EUT Standing Frequency (Mtz) 7.15	Pass 1 alculator Preamp Fac ons Tab ncy Range : up Reading (dBµV) 13.5	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity: 5-30MHz Preamp Factor (dB) 25.1	-33.1 Asset #20 Red-White Software F RM2L-400 56% Antenna Factor (dB/m) 41.7	dB 54 + Cable F House, a D 0 Cable Factor (dB) 1.0 1.2	actor Division of Senso Pressure: Adjusted Reading (dBµV/m) 31.1	mBar Limit	Cable 2: Antenna:	Asset #2051 Lg Loop EUT Operat Measuremen (Pass/Fai) 	V ing Voltage/ nt Distance: Limit (dBµV/m) 69.5	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m 185MHz FCC Title 47 §15.209 Margin (dB) -38.4	Asset #15 s-Straus LLC P2079 120V/60H Result (Pass/Fa Pass Pass Pass	
Table Test Site: Analyzer: Sosoft Radiate djusted Read Cadiatec Date: Engineer: Temp: Notes: Antenna Polarization (0° - 90°) 90 0 Table	e Result: EMI Chamber Rental SA#2 d Emissions C ng = Reading I Emission 31-Aug-15 Ryan Brown 23.3°C Freque EUT Standing Frequency (MHz) 7.15 22.12 e Result:	Pass 1 adculator Preamp Far ons Tab ncy Range : up <u>Reading</u> (dBµV) 13.5 16.5 Pass	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity: 5-30MHz Preamp Factor (dB) 25.1 25.1 25.1 by	-33.1 Asset #20 Red-White ana Factor Software H RM2L-400 56% Antenna Factor (dB/m) 41.7 37.8 -38.4	dB 54 + Cable F House, a [0 Cable Factor (dB) 1.0 1.2 dB	actor Division of Senso Pressure: Adjusted Reading (dBµV/m) 31.1	mBar Limit	Cable 2: Antenna: Margin (dB)	Asset #2051 Lg Loop EUT Operat Measuremen Result (Pass/Fail) Wo	V ing Voltage/ nt Distance: (dBµV/m) 69.5 69.5 00rst Freq:	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m 185MHz FCC Title 47 §15.209 Margin (dB) -38.4 -39.1 7.15	Asset #15 s-Straus LLC P2079 120V/60H Result (Pass/Fa Pass Pass MHz	
Table Test Site: Analyzer: Ssoft Radiate djusted Read Cadiateo Date: Engineer: Temp: Notes: Antenna Polarization (0° - 90°) 90 0 Table Test Site:	e Result: EMI Chamber Rental SA#2 d Emissions C ang = Reading IEmission Ryan Brown 23.3°C Freque EUT Standing Frequency (M+2) 7.15 22.12	Pass 1 adculator Preamp Far ons Tab ncy Range : up <u>Reading</u> (dBµV) 13.5 16.5 Pass	by Cable 1: Preamp: v 1.017.146 ctor + Anter IC Company: EUT Desc: Humidity: 5-30MHz 5-30MHz Preamp Factor (dB) 25.1 25.1 25.1 25.1 by Cable 1:	-33.1 Asset #20 Red-White ana Factor Software F RM2L-400 56% Antenna Factor (dB/m) 41.7 37.8	dB 54 + Cable F House, a E 0 Cable Factor (dB) 1.0 1.2 dB 54	actor Division of Senso Pressure: Adjusted Reading (dBµV/m) 31.1	mBar Limit	Cable 2: Antenna: Margin (dB) Cable 2:	Asset #2051 Lg Loop EUT Operat Measuremen (Pass/Fai) 	V ing Voltage/ nt Distance: Limit (dBμV/m) 69.5 69.5 corst Freq:	Cable 3: Preselector: Copyright Curti Vork Order: Frequency: 3 m 185MHz FCC Title 47 §15.209 Margin (dB) -38.4 -39.1	P2079 120V/60H: Result (Pass/Fai Pass Pass MHz	





	31-Aug-15 Ryan Brown		EUT Desc:			Division of Se	ensormatic			rating Vo	Work Ord	
Engineer: Temp:			EUT Desc: Humidity:		0	Press	ure: mBar	1	Lor Ope	aung vo	oltage/Frequen	-y. 1207/00F
		ncy Range:				. 1000		N	leasuren	nent Dist	ance: 3 m	
Notes:	EUT Standing										Freq: 185MHz	
			1	1		1				-1	FCC Cla	es B
Antenna			Preamp	Antenna	Cable	Adjusted						-
Polarization (H / V)	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Factor (dB/m)	Factor (dB)	Reading (dBµV/m)		Margin (dB)	Result (Pass/Fai	Lin) (dBµ	-	Result (Pass/Fa
V	169.5	52.2	25.6	11.6	2.4	40.6				43		Pass
V	158.5	49.2	25.5	12.3	2.5	38.5				43	3.5 -5.0	Pass
V	147.5	52.0	25.5	12.6	2.4	41.5				43		Pass
	00.4	47.0										 Dooo
H H	88.4 110.5	47.3 46.4	25.3 25.3	7.7 12.7	1.6 1.9	31.3 35.7				43 43		Pass Pass
11	110.5	40.4										
FIDs Turned C	Off											
V	169.5	51.1	25.6	11.6	2.4	39.5				43	3.5 -4.0	Pass
V	158.5	49.0	25.5	12.3	2.5	38.3				43		Pass
V	147.5	51.8	25.5	12.6	2.4	41.3				43		Pass
V												
	00.4	47.0										 Daaa
Н	88.4	47.2	25.3	7.7	1.6	31.2				43		Pass
н	110.5	45.9	25.3	12.7	1.9	35.2				43		Pass
armonics of 13	3.56MHz											
V	40.68	28.4	25.1	13.3	1.4	18.0				40		Pass
V	54.24	37.1	25.2	7.3	1.4	20.6				40	-	Pass
V	67.8	36.0	25.4	8.1	1.5	20.2				40		Pass
V	81.36	42.8	25.4	7.6	1.6	26.6				40	.0 -13.4	Pass
V	94.92	48.6	25.3	8.9	1.6	33.8				43	8.5 -9.7	Pass
V	108.5	37.3	25.3	12.3	1.8	26.1				43		Pass
V	122.04	27.6	25.4	14.1	2.0	18.3				43		Pass
V	135.6	32.1	25.6	13.6	2.2	22.3				43		Pass
Н	40.68	24.2	25.1	13.3	1.4	13.8				40		Pass
н н	54.24 67.8	34.1 38.1	25.2 25.4	7.3 8.1	1.4 1.5	17.6 22.3				40 40		Pass Pass
Н	81.36	49.1	25.4	7.6	1.5	32.9				40		Pass
н	94.92	46.2	25.3	8.9	1.6	31.4				43		Pass
н	108.5	31.0	25.3	12.3	1.8	19.8				43		Pass
н	122.04	22.3	25.4	14.1	2.0	13.0				43		Pass
н	135.6	28.0	25.6	13.6	2.2	18.2				43		Pass
Table	e Result:	Pass	by	-2.0	dB					Worst F	Freq: 147	.5 MHz
Test Site:	EMI Chamber	1	Cable 1:	Asset #20	54			Cable 2: /	Asset #20	051	Cable	3:
	Rental SA#2			Red-White				Antenna:	Red-Brow	n		or: Asset #1
	d Emissions C ing = Reading ·		v 1.017.146 ctor + Anter		+ Cable	Factor					Copyright	Curtis-Straus LLC
v. 8/27/2015 Spectrum	Analyzers / Re SA #2 (1		selectors	Rar 9kHz-26		MN E7405A	Mfr Agilent	SN MY45104916	Asset 1860	Cat C	alibration Due 7/30/2016	Calibrated 7/30/201
	Radiated Emis			FCC (719		IC Code 2762A-6	VCCI Code A-0015	Range 30-1000MHz		Cat C	alibration Due 3/21/2017	Calibrated 3/21/201
Pream	ps/Couplers A		ilters	Rar		2702A-0	Mfr	SN	Asset		alibration Due	Calibrated
	Red-W	hite				ZFL-1000-LN	cs	N/A	1258	II	12/26/2015	12/26/201
	Antenr Red-Brow			Rar 30-200	•	MN JB1	Mfr Sunol	SN A0032406	Asset 1218	Cat C	alibration Due 12/4/2016	Calibrated 12/4/2014
	Red-Browi Small L			30-200 10kHz-		JB1 PLA-130/A	ARA	A0032406 1024	1218 755	i	12/4/2016 5/29/2016	12/4/2014 5/29/2014
	Large L			20Hz-		6511	EMCO	9704-1154	67	i	5/29/2016	5/29/201
	0.1	·										
						MN	Mfr	SN	Asset	Cat C	alibration Due	Calibrated
	Meteorologic											
v	Veather Clock (P	ressure Only)				BA928	Oregon Scientific	C3166-1	831	T	3/19/2016	3/19/201
W		ressure Only)										3/19/201
W	Veather Clock (P	ressure Only) 080		Rar	nge	BA928	Oregon Scientific		831	I II	3/19/2016	3/19/201 4/2/2015 Calibrated
W	Veather Clock (P TH A#2	ressure Only) 080 95		Rar 9kHz -		BA928	Oregon Scientific HDE		831	I II	3/19/2016 4/2/2016	3/19/201 4/2/201

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.





Spurious Radiated Emissions Setup Pictures





Frequency Stability

Test Method

Per ANSI c63.10 (2013)

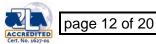
Test Data

Frequency Stab	oility		Curtis-								
Engineer:	Evan Griffith		Co	mpany:	Software House	se					
Date:	1-Sep-15			EUT:	4000 Enclosu	re					
Spectrum Analyzer:	1328		Wor	k Order:	P2079						
Set Frequency:	13561000 Hz										
Notes:	Reference Condition	is: 120Vac/60⊢	lz, 20°C								
Temperature	Supply Voltage	Nominal (Center Fre	quency	Measured Ce	nter F	requ	iency	Frequen	cy Deviation	
(°C)	(60Hz)		(Hz)		(Hz)			()	ppm)	
-30	120 VAC	-	13561000		135	61115				8.5	
-20	120 VAC	1	13561000		135	61145				10.7	
-10	120 VAC		13561000		135	61145				10.7	
0	120 VAC	1	13561000		135	61122				9.0	
10	120 VAC		13561000		135	61100				7.4	
20	138 VAC		13561000		135	61085			6.3		
20	120 VAC	1	13561000			61077			5.7		
20	102 VAC	1	13561000		13561085				6.3		
30	120 VAC		13561000	13561032					2.4		
40	120 VAC		13561000		13561002					0.1	
50	120 VAC		13561000		135	60987				1.0	
	Spectrum Analyz	er:		1328							
Rev. 8/27/2015											
Spectrum Analyzers / Re	ceivers /Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibr	ation Due	Calibrated or	
SA EMI Cham	ber (1328)	9kHz-13.2 GHz	E4405B	Agilent	MY44210241	1328	Ι	8/1	9/2016	8/19/2015	
Anteni	nas	Range	MN	Mfr	SN	Asset	Cat	Calibr	ation Due	Calibrated o	
Small L	.oop	10kHz-30MHz	PLA-130/A	ARA	1024	755	Ι	5/2	9/2016	5/29/2014	
Cable	es	Range		Mfr			Cat	Calibr	ation Due	Calibrated o	
Asset #	1787	9kHz - 18GHz		Florida RI	F		II	3/2	21/2016	3/21/2015	
Chaml	ber		MN	Mfr	SN	Asset	Cat	Calibr	ation Due	Calibrated o	
Environmenta	al (Safety)		GTH-31S	B-M-A Ind	c 2245	321	Ι	8/1	0/2015	8/10/2016	

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

Frequency Stability Setup Pictures





Spectrum Mask

Test Method

Per ANSI c63.10 (2013)

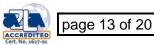
Test Data

Date:	31-Aug-15		Company:	Software H	louse, a D	Division of Senso	ormatic				Work Order:	P2079
Engineer:	Ryan Brown		EUT Desc:	RM2L-400	0				EUT Operat	ing Voltage	e/Frequency:	120V/60Hz
Temp:	23.3°C		Humidity:	56%		Pressure:	mBar					
	Freque	ncy Range:	13.56MHz						Measureme	nt Distance	:3 m	
Notes:	EUT Standing	up										
											FCC 15.209)
Antenna			Preamp	Antenna	Cable	Adjusted						
olarization	Frequency	Reading	Factor	Factor	Factor	Reading	Limit	Margin	Result	Limit	Margin	Result
(0° - 90°)	(MHz)	(dBµV)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dBµV/m)	(dB)	(Pass/Fai
0	13.56	70.1	25.0	39.2	0.2	84.5				124.0	-39.5	
90	13.56	68.4	25.0	39.2	0.2	82.8				124.0	-41.2	
Tabl	e Result:		by		dB				We	orst Freq	:	MHz
	EMI Chamber	1	Cable 1:	Asset #20	54			Cable 2:	Asset #2051		Cable 3:	
Test Site:												

Rev. 8/27/2015 Spectrum Analyzers / Receivers /Preselectors SA #2 (1860)	Range 9kHz-26.5 GHz	MN E7405A	Mfr Agilent	SN MY45104916	Asset 1860	Cat	Calibration Due 7/30/2016	Calibrated on 7/30/2015
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range		Cat	Calibration Due	Calibrated on
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz		II	3/21/2017	3/21/2015
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Red-White	0.009-2000MHz	ZFL-1000-LN	CS	N/A	1258	Ш	12/26/2015	12/26/2014
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Red-Brown Bilog	30-2000MHz	JB1	Sunol	A0032406	1218	I.	12/4/2016	12/4/2014
Meteorological Meters		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	1	3/19/2016	3/19/2014
TH A#2080		HTC-1	HDE		2080	Ш	4/2/2016	4/2/2015
Cables	Range		Mfr			Cat	Calibration Due	Calibrated on
Asset #2051	9kHz - 18GHz		Florida RF			Ш	3/8/2016	3/8/2015
Asset #2054	9kHz - 18GHz		Florida RF			II	3/8/2016	3/8/2015

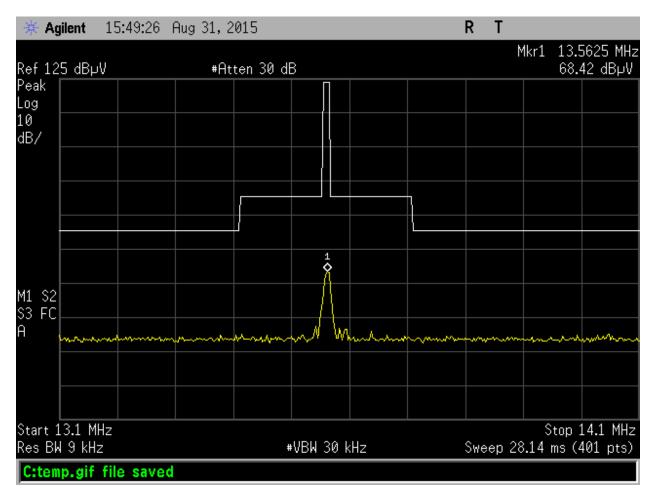
All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.





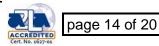
Plots

Correction Factors included in measurements shown.



90 Degrees





🔆 Agilent 🛛 1	5:45:36 Au	ıg 31, 201	5				RΤ		
Ref 125 dBµV		#Atter	n 30 dB						.5625 MHz 0.1 dBµV
Peak Log									
10 dB/									
		Г]			
V1 S2				\mathbb{A}					
S3 FC	human	nh-m-h	mm	$\mathcal{I}_{\mathcal{V}}$	Warn	Linn	h	man	v
Start 13.1 MHz Res BW 9 kHz			#UR	W 30 k	Ц-7		Sween		14.1 MHz (401 pts)
			#VD	M JU K			oweeh 1	10.14 ms	(401 pts)

0 Degrees

Spectrum Mask Setup Pictures



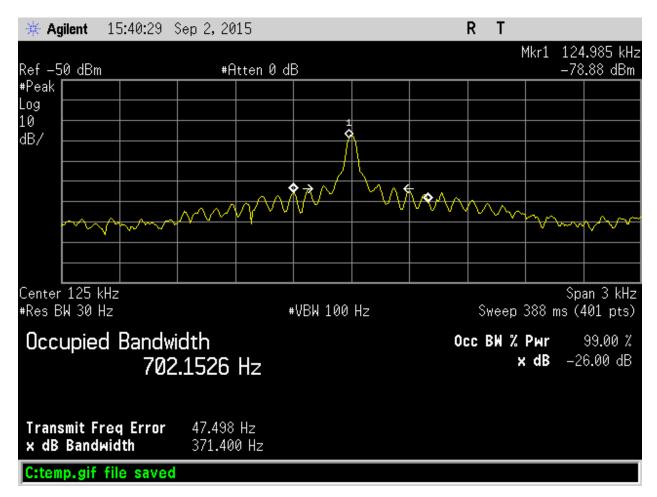


Occupied Bandwidth

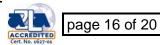
Test Method

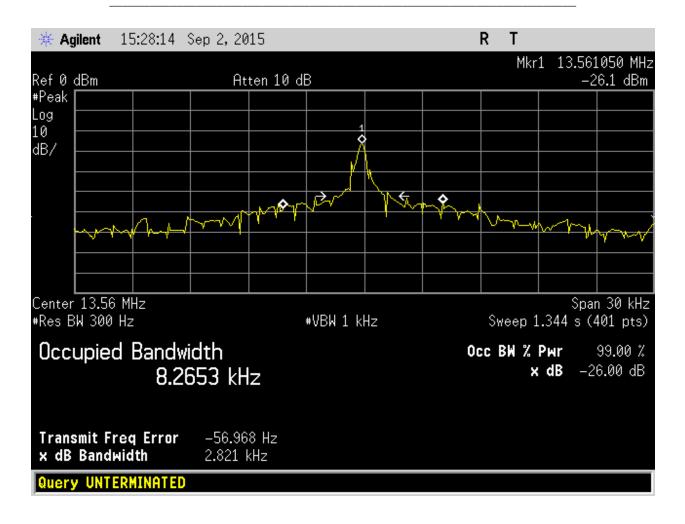
Per RSS GEN – Issue 3

Plots













Measurement Uncertainty

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

Radiated Ensistors (0)-10000Hz) CISPR6.66B5.WA 6.66BRadiated Ensistors (20-26.50Hz)4.68BNARadiated Ensistors (20-26.50Hz)4.68BNAMagnetic Radiated Ensistors (1928)3.64BNAConducted Ensistors (1928)3.64BNAConducted Ensistors (1928)3.64BNAConducted Ensistors (1928)3.64BNAConducted Ensistors (Current)2.94BNAElectroctatic Discharg11.5%NAElectroctatic Discharg11.5%NAElectroctatic Discharg23.1%NAConducted Ensistors (Vottage)4.4dBNAElectroctatic Discharg11.5%NAElectroctatic Discharg23.1%NAConducted Firmunity3dBNAConducted Firmunity3dBNAConducted RF Immunity3dBNAConducted RF Immunity3dBNAElectrical Fast3.5%NAElectrical Fast3.5%NAConducted RF Immunity3dB3dBConducted RF Immunity3dB3dBConducted RF Immunity3.3%S%Starge3.4%35%Conducted RF Immunity3.4%35%Conducted RF Immunity3.4%34%Conducted RF Immunity3.4%34%Conducted Resistor of neaver3.4%34%Conducted Resistor of neaver3.4%34%Conducted Resistor of neaver3.4%34%Conducted Resist	Macaurant	Expanded Uncertainty k=2		
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Radiated RF Immunity (Uniform Field) 1.6dB N/A Electrical Fast Transients 23.1% N/A Surge 23.1% N/A Conducted RF Immunity 3dB N/A Magnetic Immunity 12.5% N/A Opps and Interrupts 2.3V N/A Additional Interrupts 2.3V N/A Flicker 3.5% N/A Radio frequency (@ 24GHz) 323 x 10 ⁴ 1 x 10 ⁷ Radio frequency (@ 24GHz) 323 x 10 ⁴ 5% Maximum frequency deviation: 3.3% 3/B Within 300Hz and BkHz of audio frequency / Within 8KHz and 250Hz of audio trequency audio trequency / Within 8KHz and 0.30B 3/B Conducted spurious emission of transmitter, valid up to 12.75GHz 2.39dB 3/B Conducted spurious emission of transmitter, valid up to 25.5GHz 3.9dB 6/B Radiated emission of receiver, valid up to 80GHz 3.3dB 6/B Radiated emission of receiver, valid up to 80GHz 3.3dB 6/B Radiated emission of receiver, valid up to 80GHz 3.3dB 6/B Radiated emission of receiver, va				
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Conducted R Immunity 3dB NA Magnetic Immunity 12.8% NA Dips and Interrupts 2.3V NA Harmonics 3.5% NA Redic frequency (@ 2.4GHz) 3.23x 10 ⁴ 1x 10 ⁷ Redic frequency (@ 2.4GHz) 3.23x 10 ⁴ 1x 10 ⁷ Redic frequency (@ 2.4GHz) 3.23x 10 ⁴ 1x 10 ⁷ Redic frequency (@ 2.4GHz) 3.23x 10 ⁴ 1x 10 ⁷ Redic frequency (@ 2.4GHz) 3.23x 10 ⁴ 1x 10 ⁷ Redic frequency (@ 2.4GHz) 3.23x 10 ⁴ 1x 10 ⁷ Redic frequency (@ 2.4GHz) 3.23x 10 ⁴ 1x 10 ⁷ Redic frequency (@ 2.4GHz) 3.23x 10 ⁴ 1x 10 ⁷ Redicated frequency (@ 2.4GHz) 3.24% 5% 25KHz of audio frequency (Within 6KHz and 0.34% 3.4% 3.4% Conducted spurious emission of transmitter, valid up to 12.75GHz 2.39dB 3.6B Conducted emission of transmitter, valid up to 26.5GHz 3.9dB 6dB Redicated emission of receiver, valid up to 80GHz 3.3dB 6dB Redicated emission of receiver, valid up to 80GH	Electrical Fast Transients	23.1%	N/A	
Magnetic Immuniy12.8%NADips and Interrupts2.3VNAAAirmonics3.5%NAHarmonics3.5%NAFlicker3.5%NARadio frequency (@ 2.4GHz)3.23 x 10°1 x 10°RF power; conducted0.40dB0.75dBMaximum frequency deviation: 25kHz of audio frequency / Within 6kHz and 25kHz of audio frequency3.4%5%Conducted spurious emission of transmitter, valid up to 12.75GHz2.39dB3dBConducted emission of transmitter, valid up to 12.75GHz3.3dB6dBRadiated emission of transmitter, valid up to 26.5GHz3.9dB6dBRadiated emission of transmitter, valid up to 26.5GHz3.3dB6dBRadiated emission of transmitter, valid up to 26.5GHz3.3dB6dBConducted0.7°C1.0°C1.0°CTemperature0.7°C1.0°CTemperature0.7°C1.0°CTemperature0.7°C1.0°CTime4.1%10%DC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Surge	23.1%	N/A	
Dips and Interrupts2.3VN/AHarmonics3.5%N/AFlicker3.5%N/ARadio frequency (@ 2.4GHz)3.23 x 10°1 x 10°RF power, conducted0.40dB0.75dBMaximum frequency deviator: • Within 30Hz and 6kHz of audio frequency (Within 6kHz and 25kHz of audio frequency (Within 6kHz and 26kHz of audio frequency (Within 6kHz and 26kHz)3.4% 26kHzConducted spurious emission of transmitter, valid up to 12.75GHz Conducted emission of transmitter, valid up to 26.5GHz Radiated emission of treeiver, valid up to 26.5GHz SodB3.0dBRadiated emission of receiver, valid up to 26.5GHz Humidity3.0dB6dBRadiated emission of receiver, valid up to 80GHz Humidity3.3dB6dBGR6dB6dB6dBHumidity2.37%5%1.0°CTime0.7°C1.0°C1.0°CTime0.4dB3dBDC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Conducted RF Immunity	3dB	N/A	
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Flicker3.5%NARadio frequency (@ 2.4GHz)3.23 x 10°1 x 10°RF power, conducted0.40dB0.75dBMaximum frequency deviation: • Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency / Within 6kHz and 0.3dB3.4% 3.4%5% 3dBConducted spurious emission of transmitter, valid up to 12.75GHz2.39dB3dBConducted emission of transmitter, valid up to 12.75GHz3.9dB3dBConducted emission of transmitter, valid up to 26.5GHz3.9dB6dBRadiated emission of transmitter, valid up to 26.5GHz3.3dB6dBRadiated emission of receivers1.3dB6dBRadiated emission of receiver, valid up to 26.5GHz3.3dB6dBRadiated emission of receiver, valid up to 80GHz3.3dB6dBRadiated emission of receiver, valid up to 80GHz3.3dB6dBRef power Density, Conducted0.7°C1.0°CTime4.1%10%Cond cot frequency voltages1.3%3%Ot and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Dips and Interrupts	2.3V	N/A	
Radio frequency (@ 2.4GHz)3.23 x 10*1 x 10*7RF power, conducted0.40dB0.75dBMaximum frequency deviation: • Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency / Within 6kHz and 25kHz of audio frequency / Within 6kHz and 0.3dB3.4% 0.3dB5% 3dBAdjacent channel power1.9dB3dBConducted spurious emission of transmitter, valid up to 12.75GHz2.39dB3dBConducted emission of transmitter, valid up to 26.5GHz3.9dB6dBRadiated emission of transmitter, valid up to 26.5GHz3.9dB6dBRadiated emission of receivers3.3dB6dBRadiated emission of receiver, valid up to 26.5GHz3.9dB6dBRadiated emission of receiver, valid up to 26.5GHz3.9dB6dBGroup Competition0.7°C1.0°CTemperature0.7°C1.0°CTime4.1%10%DC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Harmonics	3.5%	N/A	
RF power, conducted0.40dB0.75dBMaximum frequency deviation: • Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency / Within 6kHz and 25kHz of audio frequency / Within 6kHz and 0.3dB3.4% 3.4% 3.3dB5% 3.3dBAdjacent channel power1.9dB3.dBConducted spurious emission of transmitter, valid up to 12.75GHz2.39dB3.dBConducted emission of receivers1.3dB3.dBRadiated emission of transmitter, valid up to 26.5GHz3.9dB6.dBRadiated emission of transmitter, valid up to 80GHz3.3dB6.dBRadiated emission of receiver, valid up to 80GHz3.3dB6.dBCommenture0.7°C1.0°C1.0°CTemperature0.7°C1.0°CTime4.1%10%DC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Flicker	3.5%	N/A	
Maximum frequency deviation: 3.4% 5% 25kHz of audio frequency 0.3dB 3dB Adjacent channel power 1.9dB 3dB Conducted spurious emission of transmitter, valid up to 12.75GHz 2.39dB 3dB Conducted emission of transmitter, valid up to 12.75GHz 2.39dB 3dB Conducted emission of transmitter, valid up to 26.5GHz 3.9dB 6dB Radiated emission of transmitter, valid up to 80GHz 3.3dB 6dB Radiated emission of receiver, valid up to 80GHz 3.3dB 6dB Radiated emission of receiver, valid up to 80GHz 3.3dB 6dB Radiated emission of receiver, valid up to 80GHz 3.3dB 6dB Radiated emission of receiver, valid up to 80GHz 3.3dB 6dB Radiated emission of receiver, valid up to 80GHz 3.3dB 6dB Radiated emission of receiver, valid up to 80GHz 3.3dB 6dB Temperature 0.7°C 1.0°C Temperature 0.7°C 1.0°C Time 4.1% 10% DC and low frequency voltages 1.3% 3% Voltage (DC) 0.62% 1%	Radio frequency (@ 2.4GHz)	3.23 x 10 ⁻⁸	1 x 10 ⁻⁷	
Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency3.4% 0.3dB5% 3dBAdjacent channel power1.9dB3dBConducted spurious emission of transmitter, valid up to 12.75GHz2.39dB3dBConducted emission of transmitter, valid up to 26.5GHz3.9dB6dBRadiated emission of transmitter, valid up to 26.5GHz3.3dB6dBRadiated emission of transmitter, valid up to 26.5GHz3.9dB6dBRadiated emission of receiver, valid up to 26.5GHz3.9dB6dBRadiated emission of receiver, valid up to 80GHz3.3dB6dBRadiated emission of receiver, valid up to 80GHz0.7°C1.0°CTemperature0.7°C1.0°C1.0°CTime4.1%10%3dBDC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	RF power, conducted	0.40dB	0.75dB	
Conducted spurious emission of transmitter, valid up to 12.75GHz2.39dB3dBConducted emission of receivers1.3dB3dBRadiated emission of transmitter, valid up to 26.5GHz3.9dB6dBRadiated emission of transmitter, valid up to 80GHz3.3dB6dBRadiated emission of receiver, valid up to 26.5GHz3.9dB6dBRadiated emission of receiver, valid up to 26.5GHz3.9dB6dBRadiated emission of receiver, valid up to 80GHz3.3dB6dBRadiated emission of receiver, valid up to 80GHz3.3dB6dBHumidity2.37%5%1.0°CTemperature0.7°C1.0°C1.0°CTime4.1%10%3%DC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	 Within 300Hz and 6kHz of audio frequency / Within 6kHz and 			
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Radiated emission of transmitter, valid up to 26.5GHz3.9dB6dBRadiated emission of transmitter, valid up to 80GHz3.3dB6dBRadiated emission of receiver, valid up to 26.5GHz3.9dB6dBRadiated emission of receiver, valid up to 26.5GHz3.9dB6dBRadiated emission of receiver, valid up to 80GHz3.3dB6dBMumidity2.37%5%Temperature0.7°C1.0°CTime4.1%10%RF Power Density, Conducted0.4dB3dBDC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Conducted spurious emission of transmitter, valid up to 12.75GHz	2.39dB	3dB	
Radiated emission of transmitter, valid up to 80GHz3.3dB6dBRadiated emission of receiver, valid up to 26.5GHz3.9dB6dBRadiated emission of receiver, valid up to 80GHz3.3dB6dBRadiated emission of receiver, valid up to 80GHz3.3dB6dBHumidity2.37%5%Temperature0.7°C1.0°CTime4.1%10%RF Power Density, Conducted0.4dB3dBDC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Conducted emission of receivers	1.3dB	3dB	
Radiated emission of receiver, valid up to 26.5GHz3.9dB6dBRadiated emission of receiver, valid up to 80GHz3.3dB6dBHumidity2.37%5%Temperature0.7°C1.0°CTime4.1%10%RF Power Density, Conducted0.4dB3dBDC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Radiated emission of transmitter, valid up to 26.5GHz	3.9dB	6dB	
Radiated emission of receiver, valid up to 80GHz3.3dB6dBHumidity2.37%5%Temperature0.7°C1.0°CTime4.1%10%RF Power Density, Conducted0.4dB3dBDC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Radiated emission of transmitter, valid up to 80GHz	3.3dB	6dB	
Humidity2.37%5%Temperature0.7°C1.0°CTime4.1%10%RF Power Density, Conducted0.4dB3dBDC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Radiated emission of receiver, valid up to 26.5GHz	3.9dB	6dB	
Temperature 0.7°C 1.0°C Time 4.1% 10% RF Power Density, Conducted 0.4dB 3dB DC and low frequency voltages 1.3% 3% Voltage (AC, <10kHz)	Radiated emission of receiver, valid up to 80GHz	3.3dB	6dB	
Time4.1%10%RF Power Density, Conducted0.4dB3dBDC and low frequency voltages1.3%3%Voltage (AC, <10kHz)	Humidity	2.37%	5%	
RF Power Density, Conducted 0.4dB 3dB DC and low frequency voltages 1.3% 3% Voltage (AC, <10kHz)	Temperature	0.7°C	1.0°C	
DC and low frequency voltages 1.3% 3% Voltage (AC, <10kHz)	Time	4.1%	10%	
Voltage (AC, <10kHz) 1.3% 2% Voltage (DC) 0.62% 1%	RF Power Density, Conducted	0.4dB	3dB	
Voltage (DC) 0.62% 1%	DC and low frequency voltages	1.3%	3%	
	Voltage (AC, <10kHz)	1.3%	2%	
The above reflects a 95% confidence level	Voltage (DC)	0.62%	1%	
	The above reflects a 95% confidence level			



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Conditions Of Testing

[Bureau Veritas Consumer Products Services, Inc., a Massachusetts corporation], and/or its affiliates (collectively, the "Company") will conduct, at the request of the Submitter ("Client"), the tests specified on the submitted Test Request Form or equivalent in accordance with, and subject to, the following terms and conditions (collectively, "Conditions"):

1. All orders for tests are subject to acceptance by the Company, and no order will constitute a binding commitment of the Company unless and until such order is accepted by it, as evidenced by the issuance of a written report ("**Test Report**") by the Company. The Test Report is issued solely by the Company, is intended for the exclusive use of Client and shall not be published, used for advertising purposes, copied or replicated for distribution to any other person or entity or otherwise publicly disclosed without the prior written consent of the Company. By submitting a request for services to the Company, Client consents to the disclosure to accreditation bodies of those records of Client relevant to the accreditation body's assessment of the Company's competence and compliance with relevant accreditation criteria. The Company shall not be liable for any loss or damage whatsoever resulting from the failure of the Company to provide its services within any time period for completion estimated by the Company. If Client anticipates using the Test Report in any legal proceeding, arbitration, dispute resolution forum or other proceeding, it shall so notify the Company prior to submitting the Test Report in such proceeding. The Company has no obligation to provide a fact or expert witness at such proceeding unless the Company agrees in advance to do so for a separate and additional fee.

2. The Test Report will set forth the findings of the Company solely with respect to the test samples identified therein. Unless specifically and expressly indicated in the Test Report, the results set forth in such Test Report are not intended to be indicative or representative of the quality or characteristics of the lot from which a test sample is taken, and Client shall not rely upon the Test Report as being so indicative or representative of the lot or of the tested product in general. The Test Report will reflect the findings of the Company at the time of testing only, and the Company shall have no obligation to update the Test Report after its issuance. The Test Report will set forth the results of the tests performed by the Company based upon the written information provided to the Company. The Test Report will be based solely on the samples and written information submitted to the Company by Client, and the Company shall not be obligated to conduct any independent investigation or inquiry with respect thereto.

3. The Company may, in its sole discretion, destroy samples which have been furnished to the Company for testing and which have not been destroyed in the course of testing. The Company may delegate the performance of all or a portion of the services contemplated hereunder to an affiliate, agent or subcontractor of the Company, and Client consents to such delegation.

4. These Conditions and the Test Report represent the entire understanding of the parties hereto with respect to the subject matter hereof and of the Test Report, and no modification, variance or extrapolation with respect thereto shall be permitted without the prior written consent of the Company.

5. The names, service marks, trademarks and copyrights of the Company and its affiliates, including the names "BUREAU VERITAS," "BUREAU VERITAS CONSUMER PRODUCTS SERVICES," "BVCPS", "MTL", "ACTS", "MTL-ACTS" and CURTIS-STRAUS (collectively, the "Marks") are and shall remain the sole property of the Company or its affiliates and shall not be used by Client except solely to the extent that Client obtains the prior written approval of the Company and then only in the manner prescribed by the Company. Client shall not contest the validity of the Marks or take any action that might impair the value or goodwill associated with the Marks or the image or reputation of the Company or its affiliates.

6. Payment in full shall be due 30 days after the date of invoice. Interest shall be due on overdue amounts from the due date until paid at an interest rate of 1.5% per month or, if less, the maximum rate permitted by law. The Company reserves the right, at any time and from time to time, to revoke any credit extended to Client. Client shall reimburse the Company for any costs it incurs in collecting past due amounts, including court costs and fees and expenses of attorneys and collection agencies. The Test Report may not be used or relied upon by Client if and for so long as Client fails to pay when due any invoice issued by the Company or any affiliate or subsidiary of Client together with interest and penalties, if any, accrued thereon. 7. The Company disclaims any and all responsibility or liability arising out of or in connection with e-mail transmissions of such information.

8. Client understands and agrees that the Company is neither an insurer nor a guarantor, that the Company does not take the place of Client or any designer, manufacturer, agent, buyer, distributor or transportation or shipping company, and that the Company disclaims all liability in such capacities. Client further understands that if it seeks assurance against loss or damage, it should obtain appropriate insurance.

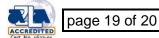
9. Client agrees that the Company, by providing the services, does not take the place of Client nor any third party, nor does the Company release them from any of their obligations, nor does the Company otherwise assume, abridge, abrogate or undertake to discharge any duty of any third party to Client or any duty of Client or any third party to any other third party, and Client will not release any third party from its obligations and duties with respect to the tested goods.

10. Client shall, on a timely basis, (a) provide adequate instructions to the Company in order to enable the Company to perform properly its services, (b) provide, or cause Client's suppliers and contractors to provide, the Company with all documents necessary to enable the Company to perform its services, (c) furnish the Company with all relevant information regarding Client's intended use and purposes of the tested goods, (d) advise the Company of essential dates and deadlines relevant to the tested goods and (e) fully exercise all rights and remedies available to Client against third parties in respect of the tested goods.

11. The Company shall undertake due care and ordinary skill in the performance of its services to Client, and the Company shall accept responsibility only were such skill has not been exercised and, even in such event, only to the extent of the limitation of liability set forth herein.

12. If Client desires to assert a claim arising from or relating to (i) the performance, purported performance or non-performance of any services by the Company or (ii) the sale, resale, manufacture, distribution or use of any tested goods, it must submit that claim to the Company in a writing that sets forth with particularity the basis for such claim within 60 days from discovery of the potential claim and not more than six months after the date of issuance of the Test Report to Client. Client waives any and all such claims including, without limitation, claims that the Test Report is inaccurate, incomplete or misleading or that additional or different testing is required, unless and then only to the extent that Client submits a written claim to the Company within both such time periods. 13. CLIENT SHALL, EXCEPT TO THE EXTENT OF COMPANY'S LIABILITY TO CLIENT HEREUNDER (WHICH IN NO EVENT SHALL EXCEED THE LIMITATION OF LIABILITY HEREIN), HOLD HARMLESS AND INDEMNIFY THE COMPANY, ITS





AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AGENTS AND SUBCONTRACTORS AGAINST ALL ACTUAL OR ALLEGED THIRD PARTY CLAIMS FOR LOSS, DAMAGE OR EXPENSE OF WHATSOEVER NATURE AND HOWSOEVER ARISING FROM OR RELATING TO (i) THE PERFORMANCE, PURPORTED PERFORMANCE OR NON-PERFORMANCE OF ANY SERVICES BY THE COMPANY OR (ii) THE SALE, RESALE, MANUFACTURE, DISTRIBUTION OR USE OF ANY TESTED GOODS.

14. EXCEPT AS MAY OTHERWISE BE EXPRESSLY AGREED TO IN WRITING BY THE COMPANY AND NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN OR IN ANY TEST REPORT, NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, IS MADE.

15. (A) IN NO EVENT WHATSOEVER SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE TEST REPORT OR THE SERVICES PROVIDED BY THE COMPANY HEREUNDER, INCLUDING WITHOUT LIMITATION LOSS OF OR DAMAGE TO PROPERTY; LOSS OF INCOME, PROFIT OR USE; OR ANY CLAIMS OR DEMANDS MADE AGAINST CLIENT OR ANY OTHER PERSON BY ANY THIRD PARTY IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE SERVICES PROVIDED BY THE COMPANY HEREUNDER.

(B)NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN, AND IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS TO CLIENT AND THE COMPANY ASSOCIATED WITH THE TESTING SERVICES CONTEMPLATED HEREBY, THE RISKS HAVE BEEN ALLOCATED SUCH THAT UNDER NO CIRCUMSTANCES WHATSOEVER SHALL THE LIABILITY OF THE COMPANY TO CLIENT OR ANY THIRD PARTY IN RESPECT OF ANY CLAIM FOR LOSS, DAMAGE OR EXPENSE, OF WHATSOEVER NATURE OR MAGNITUDE, AND HOWSOEVER ARISING, EXCEED AN AMOUNT EQUAL TO FIVE (5) TIMES THE AMOUNT OF THE FEES PAID TO THE COMPANY FOR THE SPECIFIC SERVICES WHICH GAVE RISE TO SUCH CLAIM OR U.S.\$10,000, WHICHEVER IS THE LESSER AMOUNT.

16. The Company shall not be liable for any loss or damage resulting from any delay or failure in performance of its obligations hereunder resulting directly or indirectly from any event of force majeure or any event outside the control of the Company. If any such event occurs, the Company may immediately cancel or suspend its performance hereunder without incurring any liability whatsoever to Client.

17. Company's services, including these Conditions, shall be governed by, and construed in accordance with, the local laws of the country where the Company performs the tests or, in the case of tests performed in the United States of America, the laws of Massachusetts without regard to conflicts of laws principles. If any aspect(s) of these Conditions is found to be illegal or unenforceable, the validity, legality and enforceability of all remaining aspects of these Conditions shall not in any way be affected or impaired thereby. Any proceeding related to the subject matter hereof shall be brought, if at all, in the courts of the country where the Company performs the tests or, in the case of tests performed in the United States of America, in the courts of Massachusetts. Client waives the right to interpose any counterclaim or setoffs of any nature in any litigation arising hereunder.

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