



Report No

VERITAS Curtis-Straus LLC, a wholly owned subsidiary of BV CPS

ER1610-4

Client	Powercast Corporation Charles Greene
Address	620 Alpha Drive Pittsburgh, PA 15238
Phone	(412) 923-4770
Items tested	Powercast Corporation Transmitter TX91503
Test Dates	November 21-22, 2017
Results	As detailed within this report
Prepared by	Christopher Brumley

Authorized by

Christopher Reynolds – EMC Supervisor

Christopher Bramley - Test Engineer

Issue Date 12/1/2017

Conditions of Issue This Test Report is issued subject to the conditions stated in the 'Conditions of Testing' section on page 16 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 1-JUL-14 (KM)



## Summary

On November 21-22, 2017 we measured the field strength generated by the EUT while transmitting at 915MHz at a test distance of 20cm. An isotropic laser field probe was used to perform the test measurement and is listed below. Field Strengths were maximized by measuring at multiple test points around the EUT as detailed in this report.

The antenna of the EUT cannot be maximized separately.

RF measurements were performed with the device in the following operational modes:

915MHz: 16.67kbps data rate915MHz: 8.33kbps data rate915MHz: Unmodulated (CW)

The device transmit output power could not be changed on the test sample.

The EUT was evaluated as a mobile device and found to be under the Limits for General Population/Uncontrolled Exposure at a separation distance of 20cm, which is 0.61 mW/cm<sup>2</sup> at 915MHz, as calculated from the measured field strength data.

Release Control Record Issue No. Reason for change 1 Original Release

December 1, 2017

One Distribution Center Circle, #1 • Littleton, MA • TEL (978) 486-8880 • FAX (978) 486-882

Date Issued





# **Product Tested - Configuration Documentation**

					EUT	Configuration					
Work O	rder:	R1610									
Comp	oany:	Powerc	ast Corporat	ion							
Company Add	lress:	620 Alı	oha Drive								
		Pittsbu	rgh, PA 152	38							
Cor	ntact:	Charles	Greene								
				MN						SN	
]	EUT:		T	X91503						Sample	1
EUT Descrip	tion:	RF Pov	ver Transmit	ter							
EUT Max Freque	ency:	915 MI	Hz								
EUT Components				Mi	N				SN		
CUI Inc AC Adapter				SMI1	8-5			S	SMI18-5-V-	P12	
Port Label	Port	Type	# ports	# populated	cable type	shielded	ferrites	length (m)	in/out	under	comment
										test	
AC Mains	Power	r AC	1	1	Power AC	No	No	1	in	yes	
Software Operating M	Iode De	escription	n:								
Test software was used	. A butt	ton press	on the unit	changed the data	rate from 16.6	7kbps to 8.33kbj	os to no data mo	de (for testing o	nly)		



## Test Results

#### **Final Data**

	POWER DENSITY													
Test Site: Chamber 2 Temp; Humid; Pres:	JT Power Input: SVDC Engineer: Chris Bramley													
CV	CW mode 16.67Kps data mode 8.33Kps data mode													
Test Point	Limit at 915MHz Limit at 915MHz									Test Point	E(V/m)	S(mW/cm^2)	Limit at 915MHz S(mW/cm^2)	Result
1	45.85	0.56	0.61	PASS	1	44.89	0.53	0.61	PASS	1	43.51	0.50	0.61	PASS
2	34.73	0.32	0.61	PASS	2	34.30	0.31	0.61	PASS	2	31.73	0.27	0.61	PASS
3	37.44	0.37	0.61	PASS	3	36.58	0.35	0.61	PASS	3	36.55	0.35	0.61	PASS
4	17.78	0.08	0.61	PASS	4	17.54	0.08	0.61	PASS	4	17.23	0.08	0.61	PASS
5	5 18.11 0.09 0.61 PASS 5 17.73 0.08 0.61 PASS									5	18.20	0.09	0.61	PASS
6	6 24.02 0.15 0.61 PASS 6 23.25 0.14 0.61 P.									6	22.78	0.14	0.61	PASS
7	30.89	0.89 0.25 0.61 PASS 7 29.76 0.23 0.61 PASS 7 28.98 0.22 0.61 PASS												
8	25.17	0.17	0.61	PASS	8	24.78	0.16	0.61	PASS	8	24.16	0.15	0.61	PASS

Formula: S (mW/cm^2) = (V/m)^2/377/10

# Laser Probe X, Y, Z Corrected Data

Horizontal		8.33kbps					16.67kpbs					cw		
				Magnitude					Magnitude					Magnitude
Test Point	X (V/m)	Y (V/m)	Z (V/m)	√(X^2+Y^2+Z^2)	Test Point	X (V/m)	Y (V/m)	Z (V/m)	√(X^2+Y^2+Z^2)	Test Point	X (V/m)	Y (V/m)	Z (V/m)	√(X^2+Y^2+Z^2)
1	31.56	29.81	2.89	43.51	1	31.51	31.83	2.97	44.89	1	32.06	32.65	2.91	45.85
2	17.63	26.37	0.74	31.73	2	18.87	28.63	0.74	34.30	2	19.22	28.92	0.75	34.73
3	31.02	19.04	3.31	36.55	3	31.12	18.92	3.36	36.58	3	31.51	19.92	3.46	37.44
4	14.31	9.56	0.90	17.23	4	14.56	9.74	0.92	17.54	4	14.67	10.01	0.94	17.78
5	8.55	16.01	1.29	18.20	5	8.51	15.50	1.30	17.73	5	8.50	15.93	1.32	18.11
Elevation														
				Magnitude					Magnitude					Magnitude
Test Point	X (V/m)	Y (V/m)	Z (V/m)	√(X^2+Y^2+Z^2)	Test Point	X (V/m)	Y (V/m)	Z (V/m)	√(X^2+Y^2+Z^2)	Test Point	X (V/m)	Y (V/m)	Z (V/m)	√(X^2+Y^2+Z^2)
6	17.91	12.50	6.47	22.78	6	17.85	13.28	6.76	23.25	6	18.37	13.86	6.91	24.02
7	20.78	20.02	2.64	28.98	7	21.14	20.80	2.49	29.76	7	22.44	21.04	2.89	30.89
8	13.14	17.82	9.69	24.16	8	13.16	18.81	9.34	24.78	8	13.94	18.56	9.74	25.17
Laser Probe Corr X Factor = 1.00		r has been Y Factor = 1		each X, Y, Z value Z Factor = 1.01										

# Raw X, Y, Z Data

Н	orizontal		8.33kbps				16.67kpbs				CW	
	Test Point	X (V/m)	Y (V/m)	Z (V/m)	Test Point	X (V/m)	Y (V/m)	Z (V/m)	Test Point	X (V/m)	Y (V/m)	Z (V/m)
	1	31.56	29.52	2.86	1	31.51	31.52	2.94	1	32.06	32.33	2.88
	2	17.63	26.11	0.73	2	18.87	28.35	0.74	2	19.22	28.63	0.75
	3	31.02	18.85	3.28	3	31.12	18.73	3.33	3	31.51	19.72	3.42
	4	14.31	9.47	0.90	4	14.56	9.64	0.91	4	14.67	9.91	0.93
	5	8.55	15.85	1.27	5	8.51	15.35	1.29	5	8.50	15.78	1.31
El	levation											
	Test Point	X (V/m)	Y (V/m)	Z (V/m)	Test Point	X (V/m)	Y (V/m)	Z (V/m)	Test Point	X (V/m)	Y (V/m)	Z (V/m)
	6	17.91	12.38	6.40	6	17.85	13.15	6.70	6	18.37	13.72	6.84
	7	20.78	19.82	2.62	7	21.14	20.59	2.47	7	22.44	20.83	2.86
	8	13.14	17.64	9.60	8	13.16	18.62	9.25	8	13.94	18.38	9.64





# **Test Equipment Used**

Rev	4	1/1	0	n	117

Rev	11/10/2017								
	Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range	Asset	Cat	<b>Calibration Due</b>	Calibrated on
	EMI Chamber 2	719150	2762A-7	A-0015	30-1000MHz	1686	1	12/21/2018	12/21/2016
	Meteorological Meters/Chambers		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
	Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	- 1	4/28/2018	4/28/2016
	TH A#2078		HTC-1	HDE		2078	II	3/23/2018	3/23/2017
	Field Probes/Compasses	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
	2128 AR Laser Probe	0.1-6000MHz	FL7006	AR	344959	2128	I	1/3/2018	1/3/2017
	Tape Measures		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
	2448 Tape measure		TX1-26ME	Starrett	17361433	2448	- 1	9/1/2022	9/1/2017

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





# Test Configuration Photographs



Horizontal Setup



Elevation Setup







Test Point 1



Test Point 2







Test Point 3



Test Point 4







Test Point 5



Test Point 6







Test Point 7



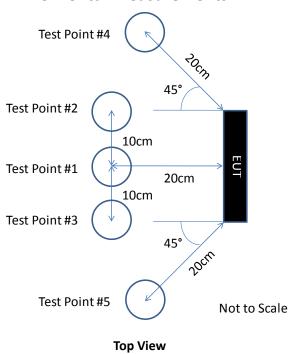
Test Point 8



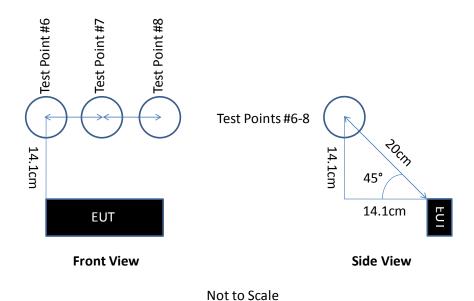


## Test Points per Test Plan

#### **Horizontal Measurements**



**Elevation Measurements** 







## Laser Probe Calibration Certificate



# Liberty Labs A division of Liberty Calibration, LLC

A division of Liberty Calibration, LLC 1346 Yellowwood Road, Kimbaliton, IA 51543 Phone: (712) 764-2197 Fax: (712) 764-2195 www.libertycalibration.com



CERTIFICATE OF CALIBRATION: 161228-162007-5611ce

OL.		, till C	71 O/ (EII	DIVITION.	IOILLO	102001 00	1100	
			1612	228-162007-561	1ce			
CLIENT:	AR, R USA	F/Micro	wave Instr	rumentation,	160 Schoo	l House Road	d, Souderton, PA	, 18964,
MANUFACTURER:	AR							
EQUIPMENT TYPE:	Field F	⊃robe						
MODEL NUMBER:	FL700	) <del>6</del>						
SERIAL NUMBER:	03449	59						
ASSET NUMBER:	N/A							
Instrumentation Environme	nt:		TEMP:	20°C	<b>R</b> H: 3	36%		
Calibration Environment:			TEMP:	20°C	<b>RH</b> : 3	36%	BAR. PRES.:	30.06 in
DATE OF CALIBRATION:		01/03/2	017					
CALIBRATION DUE DATE	:	01/03/2	018					
CALIBRATION CYCLE NO							cycle has been re en received and	
CALIBRATION LOCATION	l:	Liberty	Labs					
CALIBRATION BY:		Angela	Johnson					
EQUIPMENT STATUS								
Received in tolerance:	<b>✓</b>			Return	ed in toler	ance:	2	
Received with limited cal.:					ed with lim			
Received out of tolerance:				Return	ed out of t	tolerance:		
CALIBRATION STANDARI	D(S)	CA	LIBRATIO	N METHOD	(S)	CALIBRAT	TION PROCEDU	RE(S)
IEEE Std. 1309-2013		Sul	bstitution			798559		
NOTES: A probe pand fibero			ent is incl	uded with this	s certificate	e. Calibrated	with Liberty Labs	s' monitor

ENGINEER IN CHARGE MICHAEL W. HOWARD

NARTE CERTIFIED EMC ENGINEER, NO. EM C-000102-NE

n. Howard

This report is not to be reproduced, except in full, without written approval of Liberty Calibration, LLC. All results of this calibration relate only to the item that was calibrated. The limits stated in the report correspond to the published specification of the equipment and/or standard, at the specified parameters. MEASURED VALUES ARE REPORTED ON THE ATTACHED PAGES.

Certificate #: 161228-162007-5611ce

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#### **CALIBRATION EQUIPMENT USED:**

	4-11 1112111				
<u>Manufacturer</u>	<b>Equipment Type</b>	Model Number	Serial Number	Trace #	Cal Due Date
Agilent Technologies, Inc	EPM Series Power Meter	E4419B	GB40202746	160824-083816- 904ce3	08/29/2017
Agilent Technologies, Inc	Power Meter	E4419B	MY45103648	160321-125609- 40d8b	03/21/2017
Agilent Technologies, Inc	Power Sensor	E9304A	MY41495575	160408-140427- c708e8	04/12/2017
Agilent Technologies, Inc	Power Sensor	E9304A	MY41495576	160408-140814- cda569	04/13/2017
Agilent Technologies, Inc	Signal Generator	8648D	3847M00396	161111-110751- ae10a8	11/14/2017
Ampifier Research	Amp	250W1000A	0340733	NA	NA
Amplifier Research	Amp	500A100A	0324394	NA	NA
Amplifier Research	Amplifier	15T4G18	27816	NA	NA
Amplifier Research	Amplifier	50S1G4A	28877	NA	NA
Amplifier Research	Dual Directional Coupler	DC3510A	306784	160408-074120- 91f851	04/13/2017
AR	Directional Coupler	DC7420	0347905	160407-153259- 0592c7	04/18/2017
AR	Interface	FI7000	0323380	700516	NA
AR	Iso Probe	FL7006	322105	2015020168-2	03/19/2018
EMCO	GTEM	5405	00023854	160606-152938- 6062d0	06/10/2018
Hewlett-Packard	Power Sensor	8481A	3318A91887	160511-132336- 01e57b	05/12/2017
Hewlett-Packard	Power Sensor	8487A	3318A02839	161026-091643- 9ea15e	11/01/2017
Hewlett-Packard	Signal Generator	83640L	3844A00411	161206-112011- 9fc260	12/07/2017
Mike Howard	TEM Cell	MH-1	1	NA	NA
Schwarzbeck	Horn	BBHA 9120D	181	160919-085455- b8344b	09/19/2017

#### CALIBRATION DATA FILE(S) THAT ARE PART OF THIS CERTIFICATE:

CF\_FL7006\_0344959.txt FL7006\_Critical\_Angle-2.doc

Probe01.txt Probe02.txt

Probe03.txt

\* All data/documentation is available online from Liberty Calibration's certXpress.



page page

#### IN TOLERANCE/OUT OF TOLERANCE EXPLANATION:

The criterion to determine the "In Tolerance/Out of Tolerance" status is based on one of the following conditions:

- If the manufacturer has a specified tolerance for the item being calibrated, then the calibration values, combined with our uncertainty, are compared to this tolerance, and the combined values must fall within the manufacturer's tolerance. The tolerance may be obtained from the manufacturer's web site, data sheets, equipment manuals, etc.
- 2. In case the manufacturer does not provide any tolerances, the calibration results, combined with our uncertainty, are compared to typical values provided by the manufacturer or to historical in-house data with a +/- 3 dB tolerance
- 3. Where results are compared to published specifications in a standard, the calibration results, combined with our uncertainty, are compared to this tolerance, and the combined values must fall within the standard's tolerance.
- 4. In the situation that this laboratory's measurement uncertainty is larger than the manufacturer's specified tolerance, the comparison criterion will be based on historical in-house data as defined above. This judgement will only be made using accredited calibration methods.

#### CALIBRATION TRACEABILITY:

This laboratory is accredited to ISO/IEC 17025:2005 and NCSL/ANSI Z540-1-1994. All measurement instrumentation is traceable to a recognized National Metrology Institute, which is a signatory to the International Committee for Weights & Measures, Mutual Recognition Arrangement. Supporting documentation related to traceability is on file and is available for examination upon request.

#### INTERPRETATION TO THE GUIDANCE AND USE OF CALIBRATION DATA:

The calibration values supplied with this certificate apply to measurements made under the physical (geometric) arrangements with respect to the applicable calibration standard. Use of this item under other conditions will result in additional sources of error of which is the responsibility of the user.

#### CALIBRATION UNCERTAINTY:

Ac	tual	uncertaint	y (	Ex	panded	)
----	------	------------	-----	----	--------	---

Uncertainties that apply to this calibration are shown below. CMC represents our typical uncertainty for the calibration documented in this certificate since, to the best of our knowledge, the conditions under which the CMC for this facility and calibration item was determined applied to this calibration as well. The repeatability contribution to CMC is based on a type A evaluation of at least 10 data sets or more.

Parameter/Equipment:	Range:	CMC** (+/-):
RF Laser E-Field Probes - TEM Cell - Frequency Response	5 kHz to 200 MHz	0.73 dB
RF Laser E-Field Probes - TEM Cell - Linearity	9 kHz to 200 MHz	0.91 dB
RF Laser E-Field Probes - TEM Cell - Isotropic	9 kHz to 200 MHz	0.92 dB
RF Laser E-Field Probes - GTEM Cell - Frequency Response	(200 to 1000) MHz	0.81 dB
RF Laser E-Field Probes - GTEM Cell - Isotropic	(200 to 1000) MHz	0.97 dB
RF Laser E-Field Probes - Anechoic Chamber - Frequency Response	(1 to 18) GHz	0.91 dB
RF Laser E-Field Probes - Anechoic Chamber - Isotropic	(1 to 18) GHz	1.1 dB

<sup>\*\*</sup> Calibration and Measurement Capability (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measurement Capabilities represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of k = 2. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration. In the statement of CMC, M is the uncertainty contribution of the mismatch error caused by the impedance mismatch between the calibration system of the laboratory and the device under calibration.

For further detailed explanations, a complete copy of the scope of our A2LA accreditation is available upon request.

Certificate #: 161228-162007-5611ce

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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 of it to Client 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 HERELINDER

(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.

The complete list of the Approved Subcontractors Curtis-Straus may use to delegate the performance of work can be provided upon request. Rev.160009121(2)\_#684340 v14CS



