

# Test Report

#### Bureau Veritas Consumer Product Services

Report No EV0616

Client Amazon Robotics LLC

Address 300 Riverpark Drive

North Reading, MA 01864

Phone (978) 276-2815

Items tested SRBRS ELF Module 2AEZR-SRBRSELF 10244A-SRBRSELF

Equipment Type Low Power Communication Device Transmitter Equipment Code DXX

Standards | CFR Title 47 FCC Part 15.249, RSS-210 Issue 9 Annex B.10

Test Dates May 13-June 22, 2021

Prepared by

Bryan Valcourt - EMC Test Engineer

Authorized by

Ryan M. Brown- Sr. EMC Engineer

Issue Date

8/31/2021

Conditions of Issue

This Test Report is issued subject to the conditions stated in the 'Conditions of Testing' section on page 13 of this report.

Curtis-Straus LLC is accredited by the American Association for Laboratory Accreditation for the specific scope of accreditation under Certificate Number 1627-01. This report may contain data which is not covered by the A2LA accreditation.





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Form Final Report REV 2-16-07 (DW)



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# **Product Tested - Configuration Documentation**

EUT Configuration													
Work Order:	V0616												
Company:	Amazon Robotics	LLC											
Company Address:	300 River Park Dri	ve											
	North Reading, MA	A, 01864											
Contact:	Dao Keopadith												
	MN PN SN												
EUT:	SRBR	SRBRS ELF Badge 600-02357-001											
EUT Description:	SRBRS ELF Badge												
EUT Max Frequency: 5800 MHz													
EUT Min Frequency: 0.125 MHz													
EUT Components		M	N				SN						
SRBRS ELF Badge		600-023	57-001										
<u>.</u>													
Port Label Port	Type # ports	# populated	cable type	shielded	ferrites	length (m)	in/out	under	comment				
								test					
Interconnecting Port other J1	1	1	Other	Yes	No	1	in	yes					
USB Service Port USB	1	1	USB	Yes	No	1	in	no	Service Port only				
Software Operating Mode Do	escription:												
	·		<u> </u>					•					
Performance Criteria:													
This is Emissions only no Crite	eria for Immunity												

Note: This product contains also a 0.125Khz Transmitter and a certified 5GHz (5180-5825MHz) transmitter module, FCC ID: XF6-RS9113DB



Reason for change Original Release Date Issued August 31, 2021

#### Summary and Test Methodology

On May 13-June 22, 2021 we tested the SRBRS Badge Module for compliance with the following requirements:

CFR Title 47 FCC Part 15.249, RSS-210 Issue 9 Annex B.10

EUT transmits at 925MHz. Emissions were maximized by rotating the device around 3 orthogonal planes. EUT has an integral antenna.

Radiated emission testing was performed according to the procedures specified in ANSI C63.10-2013 and RSS-Gen Issue 4.

AC mains conducted emission testing was not required because the EUT is battery powered.

EUT operating voltage is 15VDC.

The following bandwidths were used during radiated spurious emissions testing.

Frequency	RBW	VBW
30-1000MHz	120kHz	1MHz
1-25GHz	1MHz	3MHz

We found that the product met the above limits. The test sample was received in good condition.



# **Compliance Statement**

RSS-GEN	RSP-100	RSS 210	Part 15	Comments
6.3			15.15(b)	There are no controls accessible to the user that
				vary the output power.
	3.1		15.19	The label is shown in the label exhibit.
	3.2		15.21	Information to the user is shown in the instruction manual exhibit.
			15.27	No special accessories are required for compliance.
6.1, 6.5			15.31	The EUT was tested in accordance with the measurement standards in this section.
			15.33	Frequency range was investigated according to this section, unless noted in specific rule section under which the equipment operates.
8.1			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.
8.3			15.203	The antenna for this device is an internal surface- mount antenna with 1.4dBi gain.
8.10			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 or RSS-Gen as applicable
8.8			15.207	Not applicable since EUT is battery powered.
		B.10(a)	15.249(a)	The fundamental and harmonics meet the limits in 15.249(a)
		B.10(b)	15.249(d)	Spurious emissions meet the limits in 15.209.
6.6				99% emissions bandwidth plot is provided.

# Modifications Required for Compliance

None.





#### Test Results

#### Fundamental Measurements

The field strength from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902 - 928 MHz	50	500
2400 - 2483.5 MHz	50	500
5725 - 5875 MHz	50	500
24.0 - 24.25 GHz	250	2500

[15.249(a)]

#### **MEASUREMENTS / RESULTS**

Radiated Emission	ns Tab	le		
Date: 20-May-21				Work Order: V0616
Engineer: Bryan Valcourt				EUT Operating Voltage/Frequency: 15VDC
		000/	_	

**Temp:** 24.1°C Humidity: 33% Pressure: 1010mbar

Frequency Range: 925MHz Fundamental Measurement Distance: 3 m

Notes: Peak readings.

Antenna			Preamp	Antenna	Cable	Adjusted				FCC 15.249			
Polarization	Frequency	Reading	Factor	Factor	Factor	Reading	Limit	Margin	Result	Limit	Margin	Result	
(H / V)	(MHz)	(dBµV)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dBµV/m)	(dB)	(Pass/Fail)	
X Axis													
V	925.0	86.7	33.3	29.0	5.9	88.3				93.98	-5.7		
Н	925.0	85.0	33.3	29.0	5.9	86.7				93.98	-7.3		
Y-Axis													
V	925.0	86.0	33.3	29.0	5.9	87.6				93.98	-6.3		
Н	925.0	83.4	33.3	29.0	5.9	85.1				93.98	-8.9		
Z-Axis													
V	925.0	84.1	33.3	29.0	5.9	85.7				93.98	-8.2		
Н	925.0	85.5	33.3	29.0	5.9	87.1				93.98	-6.8		

Cable 2: Asset #2682 Test Site: EMI Chamber 1 Cable 1: Asset #2580 Cable 3: Asset #2466 **Analyzer:** 1170725 Preamp: 2311 Antenna: 1218 Preselector: --v 1.017.215 CSsoft Radiated Emissions Calculator

Adjusted Reading = Reading - Preamp Factor + Antenna Factor + Cable Factor

925MHz Peaks





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# Radiated Spurious Emissions LIMITS

15.249 (d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.

#### **MEASUREMENTS / RESULTS**

Bureau Veritas Consumer Product Services Inc.

Radiated Emissions Electric Field 3m Distance

30-1000MHz Vertical Data

Notes:

Normal Mode 925MHz Signal

SN21140003

Work Order - V0616

EUT Power Input - 15VDC

Test Site - Chamber 1

Conditions - 25.9°C; 32.6%RH; 1015mBar

Test Engineer - Bryan Valcourt

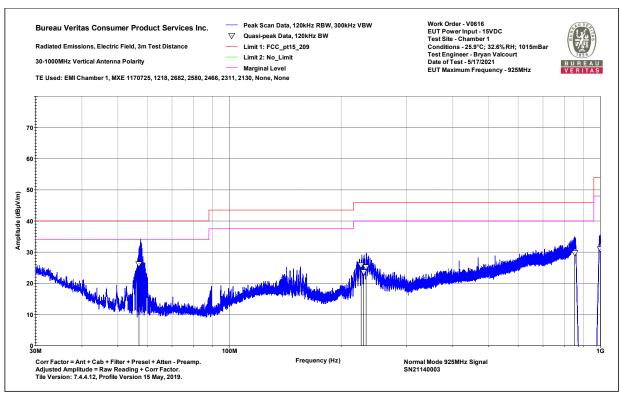
Date of Test - 5/17/2021

Frequency	Raw QP Reading	Correction Factor	Adjusted QP Amplitude	Lim1: FCC_pt15_20 9	Margin to	Test Results Lim1	Worst Margin Lim1
(MHz)	(dBμV)	(dB/m)	(dBμV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dB)
56.998	46.4	-20.2	26.3	40	-13.7	PASS	-13.7
226.381	40.4	-14.6	25.9	46	-20.1	PASS	
229.985	38	-14.4	23.7	46	-22.3	PASS	
233.466	39.4	-14.1	25.2	46	-20.8	PASS	
851.705	26.1	3.7	29.8	46	-16.2	PASS	
999.681	25.7	5.3	31	54	-23	PASS	

X Axis 30-1000MHz Vertical Data







X Axis 30-1000MHz Vertical Graph

Bureau Veritas Consumer Product Services Inc. Radiated Emissions Electric Field 3m Distance

30-1000MHz Horizontal Data

Notes:

Normal Mode 925MHz Signal

SN21140003

Work Order - V0616

EUT Power Input - 15VDC

Test Site - Chamber 1

Conditions - 25.9°C; 32.6%RH; 1015mBar

Test Engineer - Bryan Valcourt

Date of Test - 5/17/2021

Frequency (MHz)	Raw QP Reading (dBµV)	Correction Factor (dB/m)	Adjusted QP Amplitude (dBµV/m)	Lim1: FCC_pt15_20 9 (dbµV/m)	Margin to Lim1 (dB)	Test Results Lim1 (Pass/Fail)	Worst Margin Lim1 (dB)
226.256	44.6	-14.6	30	46	-16	PASS	
229.404	45.2	-14.4	30.8	46	-15.2	PASS	
232.597	45.1	-14.2	30.9	46	-15.1	PASS	-15.1
236.367	42.3	-14	28.3	46	-17.7	PASS	
846.168	26.2	3.3	29.5	46	-16.5	PASS	
993.007	25.7	5.3	31.1	54	-22.9	PASS	

X Axis 30-1000MHz Horizontal Data





Bureau Veritas Consumer Product Services Inc.

Peak Scan Data, 120Htz RBW, 300Htz VBW
Quasi-peak Data, 120 Htz BW
Limit : PCC\_ptt5\_209

## X Axis 30-1000MHz Horizontal Graph

Bureau Veritas Consumer Product Services Inc. Radiated Emissions Electric Field 3m Distance

1-6GHz Vertical Data

Notes:

Normal Mode 925MHz Signal X Axis

SN21140003

Work Order - V0616 EUT Power Input - 15VDC

Test Site - Chamber 2

Conditions - 22.9C; 53.0%RH; 1011mBar Test Engineer - Bryan Valcourt

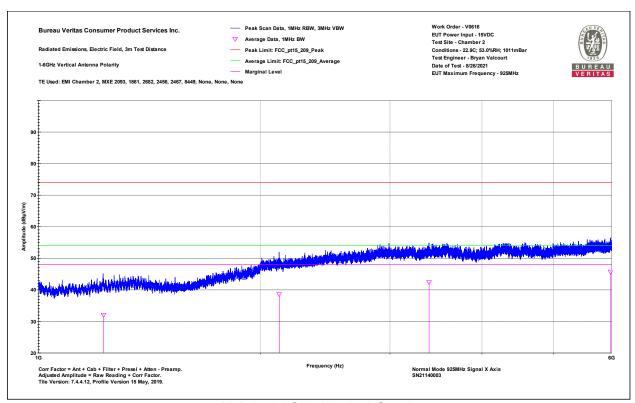
Test Engineer - Bryan Valco Date of Test - 8/26/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Raw Avg Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_20 9_Peak (dBµV/m)	Peak Margin (dB)	Peak Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dBµV/m)	Av Lim: FCC_pt15_20 9_Average (dBµV/m)		Avg Results (Pass/Fail)	Worst Avg Margin (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
1225	45.6	36.4	-4.4	41.3	74	-32.7	PASS		32	54	-22	PASS		286	28
2123.2	42.9	34.8	3.7	46.6	74	-27.4	PASS		38.5	54	-15.5	PASS		296	113
3390.6	43.8	34.3	8.1	51.9	74	-22.1	PASS		42.4	54	-11.6	PASS		225	222
5977.8	43.6	33.6	12.2	55.8	74	-18.2	PASS	-18.2	45.7	54	-8.3	PASS	-8.3	125	237

X Axis 1-6GHz Vertical Data







### X Axis 1-6GHz Vertical Graph

Bureau Veritas Consumer Product Services Inc. Radiated Emissions Electric Field 3m Distance 1-6GHz Horizontal Data

Notes:

Normal Mode 925MHz Signal X Axis SN21140003

Work Order - V0616 EUT Power Input - 15VDC Test Site - Chamber 2

Date of Test - 8/26/2021

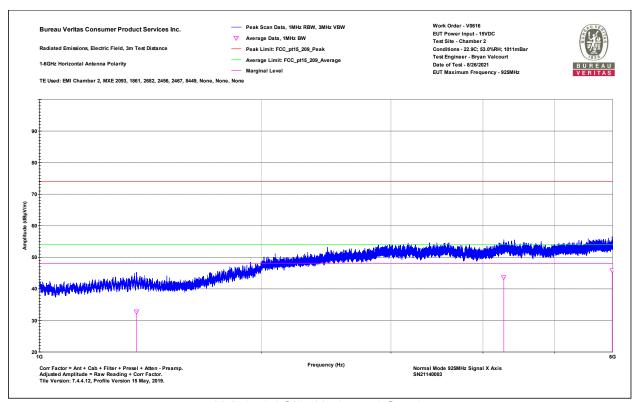
Conditions - 22.9C; 53.0%RH; 1011mBar Test Engineer - Bryan Valcourt

Pk Lim: Adjusted Adjusted Av Lim: Worst Raw Peak FCC\_pt15\_20 Raw Avg Correction Peak FCC\_pt15\_20 Worst Peal Avg Average Factor Margin Height Azimuth (dBµV) (dBµV/m) (dB) (Pass/Fail) (dB) (Pass/Fail) (MHz) (dBµV) (dB/m)  $(dB\mu V/m)$ (dBµV/m) (dBµV/m) (dB) (cm) (degrees) 1354.6 44 36.1 40.7 74 -33.3 PASS 32.8 54 -21.2 PASS 175 -3.3 138 4270.2 41.6 32.9 10.7 52.4 74 -21.6 PASS 43.6 54 -10.4 PASS 113 93 41.9 33.7 54.1 PASS -19.9 45.9 -8.1 PASS 268 5991 12.2 -19.9

X Axis 1-6GHz Horizontal Data







### X Axis 1-6GHz Horizontal Graph

Bureau Veritas Consumer Product Services Inc. Radiated Emissions Electric Field 1m Distance

6-18GHz Vertical Data

Notes:

Normal Mode 925MHz Signal X Axis

SN21140003

Work Order - V0616 EUT Power Input - 15VDC Test Site - Chamber 2

Conditions - 22.9°C; 53.0%RH; 1011mBar

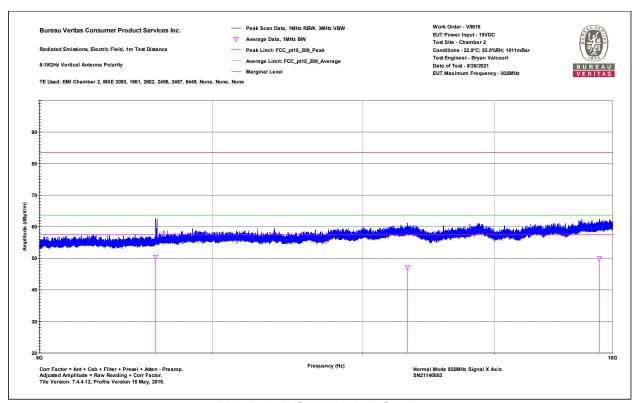
Test Engineer - Bryan Valcourt Date of Test - 8/26/2021

Frequency	Raw Peak Reading	Raw Avg Reading	Correction Factor	Adjusted Peak Amplitude	Pk Lim: FCC_pt15_20 9_Peak		Peak Results	Worst Peak Margin	Adjusted Avg Amplitude	Av Lim: FCC_pt15_20 9_Average	Avg Margin	Avg Results	Worst Avg Margin	Antenna Height	EUT Azimuth
(MHz)	(dBµV)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	(Pass/Fail)	(dB)	(cm)	(degrees)
6653	40.7	37	13.4	54.1	83.5	-29.4	PASS		50.4	63.5	-13.1	PASS	-13.1	119	107
8327.6	40.9	31.9	15.2	56.1	83.5	-27.4	PASS		47.1	63.5	-16.4	PASS		200	229
9884.5	40.6	32.8	17.3	57.9	83.5	-25.6	PASS	-25.6	50.1	63.5	-13.4	PASS		138	104

X Axis 6-10GHz Vertical Data







# X Axis 6-10GHz Vertical Graph

Bureau Veritas Consumer Product Services Inc. Radiated Emissions Electric Field 1m Distance

6-18GHz Horizontal Data

Notes:

Normal Mode 925MHz Signal X Axis

SN21140003

Work Order - V0616 EUT Power Input - 15VDC Test Site - Chamber 2

Conditions - 22.9°C; 53.0%RH; 1011mBar

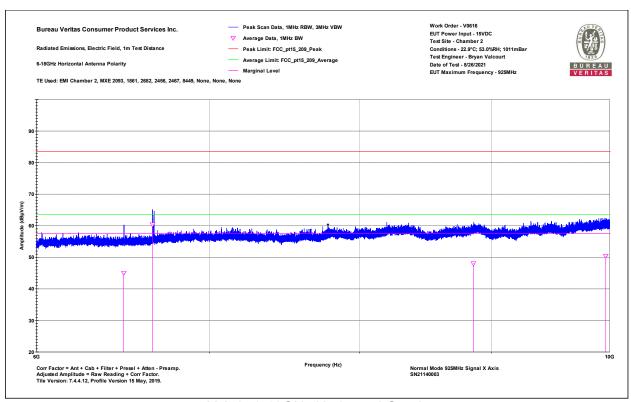
Test Engineer - Bryan Valcourt Date of Test - 8/26/2021

Frequency (MHz)	Raw Peak Reading (dBµV)	Raw Avg Reading (dBµV)	Correction Factor (dB/m)	Adjusted Peak Amplitude (dBµV/m)	Pk Lim: FCC_pt15_20 9_Peak (dBµV/m)	Peak Margin (dB)	Peak Test Results (Pass/Fail)	Worst Peak Margin (dB)	Adjusted Avg Amplitude (dВµV/m)	Av Lim: FCC_pt15_20 9_Average (dBµV/m)	Avg Margin (dB)	Avg Test Results (Pass/Fail)	Worst Avg Margin (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
6484.7	40.7	31.8	13.2	53.9	83.5	-29.6	PASS		45	63.5	-18.5	PASS		190	0
6654.1	50.5	47	13.4	63.9	83.5	-19.6	PASS	-19.6	60.4	63.5	-3.1	PASS	-3.1	184	151
8858	40.8	32.2	15.8	56.6	83.5	-26.9	PASS		48	63.5	-15.5	PASS		105	284
9965.9	41.1	32.8	17.5	58.6	83.5	-24.9	PASS		50.3	63.5	-13.2	PASS		200	36

X Axis 6-10GHz Horizontal Data







# X Axis 6-10GHz Horizontal Graph

Spectrum Analyzers / Receivers / Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated o
2093 MXE EMI Receiver	20Hz-26.5GHz	N9038A	Agilent	MY51210181	2093	- 1	1/14/2022	1/14/2021
Rental MXE EMI Receiver(1170725)	20Hz-26.5GHz	N9038A	Agilent	MY51210151	1170725	I	12/7/2021	12/7/2020
Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range	Asset	Cat	Calibration Due	Calibrated o
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz	1685	- 1	12/6/2022	12/6/2020
EMI Chamber 1	719150	2762A-6	A-0015	1-18GHz	1685	- 1	12/8/2022	12/8/2020
EMI Chamber 2	719150	2762A-7	A-0015	1-18GHz	1686	I	12/8/2022	12/8/2020
Preamps /Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated of
2311 PA	1-1000MHz	PAM-103	COM-POWER	441174	2311	П	10/11/2021	10/11/2020
8449B HF Preamp	1-18GHz	8449B	Agilent	1149055		II	11/8/2021	11/8/2020
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated of
Red-Brown Bilog	30-2000MHz	JB1	Sunol	A0032406	1218	1	4/28/2023	4/28/2021
Blue Horn	1-18Ghz	3117	ETS	157647	1861	- 1	4/26/2023	4/26/2021
2615 Active Loop Antenna	9KHz-30MHz	6502	EMCO	2049	2615	I	11/23/2022	11/23/2020
Meteorological Meters/Chambers		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	1	11/23/2022	11/23/202
Asset #2653		1235C97	Control Company	200435382	2653	1	7/23/2022	7/23/2020
Asset #2654		1235C97	Control Company	200477432	2654	I	8/13/2022	8/13/2020
Cables	Range		Mfr			Cat	Calibration Due	Calibrated
Asset #2466	9KHz-18GHz		MegaPhase			П	11/7/2021	11/7/2020
Asset #2467	9KHz-18GHz		MegaPhase			П	11/7/2021	11/7/2020
Asset #2580	9KHz-18GHz		Pasternack			П	1/17/2022	1/17/2021
Asset #2584	9KHz-18GHz		Pasternack			П	11/7/2021	11/7/2020
Asset #2681	9KHz-18GHz		Pasternack			П	1/17/2022	1/17/2021
Asset #2682	9KHz-18GHz		Pasternack			Ш	1/23/2022	1/23/2021

Test Equipment Used





# Occupied Bandwidth

#### REQUIREMENT

When an occupied bandwidth is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is its 99% emission bandwidth, as calculated or measured. [RSS-GEN 6.6]



Occupied Bandwidth 925MHz radio X-Axis Worst Case





# 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.

Measurement	Expanded Uncertainty k=2	Maximum allowable uncertainty
Radiated Emissions (30-1000MHz) NIST CISPR	5.6dB 4.6dB	N/A 5.2dB (Ucispr)
Radiated Emissions (1-26.5GHz)	4.6dB	N/A
Radiated Emissions (above 26.5GHz)	4.9dB	N/A
Magnetic Radiated Emissions	5.6dB	N/A
Conducted Emissions NIST CISPR	3.9dB 3.6dB	N/A 3.6dB (Ucispr)
Telco Conducted Emissions (Current)	2.9dB	N/A
Telco Conducted Emissions (Voltage)	4.4dB	N/A
Electrostatic Discharge	11.5%	N/A
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	12.8%	N/A
Dips and Interrupts	2.3V	N/A
Harmonics	3.5%	N/A
Flicker	3.5%	N/A
Radio frequency (@ 2.4GHz)	3.23 x 10 <sup>-8</sup>	1 x 10 <sup>-7</sup>
RF power, conducted	0.40dB	0.75dB
Maximum frequency deviation:  • Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency	3.4% 0.3dB	5% 3dB
Adjacent channel power	1.9dB	3dB
Conducted spurious emission of transmitter, valid up to 12.75GHz	2.39dB	3dB
Conducted emission of receivers	1.3dB	3dB
Radiated 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 26.5GHz	3.9dB	6dB
Radiated emission of receiver, valid up to 80GHz	3.3dB	6dB
Humidity	2.37%	5%
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)	1.3%	2%
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 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 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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