

FCC TCB & IC CB



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AT-1945











3000 Bristol Circle,
Oakville, Ontario,
Canada L6H 6G4
Tel.: (905) 829-1570
Fax.: (905) 829-8050
Website: www.ultratech-labs.com
Email: vic@ultratech-labs.com

November 9, 2015

**ELPROTRONIC INC.** 35 Austin Rumble Crt, King City, ON Canada, L7B 0B2

Attn.: Mr. Gregory Czajkowski

Subject: Verification Testing under FCC PART 15, SUBPART B, Class A -

**Unintentional Radiators.** 

Product Name: XStream-Iso Model No.: XS-ISO rev 1.0

Dear Mr. Czajkowski,

The product sample, as provided by you, has been tested and found to comply with FCC PART 15, SUBPART B, Class A - Unintentional Radiators.

Enclosed you will find a copy of the engineering report. If you have any queries, please do not hesitate to contact us.

Yours truly,

Tri Minh Luu BASc. V.P., Engineering

Encl

## **VERIFICATION CERTIFICATE**



#### **NOT TRANSFERABLE**

This Verification Certificate is hereby issued to the named GRANTEE and is VALID ONLY for the equipment identified hereon for use under the rules and regulations listed below:

GRANTEE: ELPROTRONIC INC.

Address: 35 Austin Rumble Crt

King City, Ontario Canada, L7B 0B2

Contact Person: Mr. Gregory Czajkowski

Phone #: +905-539-0424 Fax #: +905 539 0474

Email Address Gregory@elprotronic.com

**Equipment Type:** Unintentional Radiators

Product Name: XStream-Iso Model No.: XS-ISO rev 1.0

The above product was tested by UltraTech Engineering Labs Inc. and found to comply with:

FCC Part 15, Subpart B - Class A Unintentional Radiators for Use in

Commercial and Industrial Areas.

**Date of Authorization:** November 9, 2015

Note(s): See attached report, UltraTech's File No.: 15ELP013\_FCCA, dated November 9, 2015 for details and conditions
of Verification Compliance.

Approved by: Tri M. Luu BASc. V.P. – Engineering

## **UltraTech**

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46390-2049

NVLAP LAB CODE 200093-0

AT-1945

SL2-IN-E-1119R

CA2049

TL363\_B

TPTDP DA1300

## **ENGINEERING TEST REPORT**



XStream-Iso Model No.: XS-ISO rev 1.0

Applicant: **ELPROTRONIC INC.** 

35 Austin Rumble Crt King City, Ontario Canada, L7B 0B2

Tested in Accordance With

Federal Communications Commission (FCC)
CFR 47, Part 15, Subpart B
Class A Unintentional Radiators

UltraTech's File No.: 15ELP013\_FCCA

This Test report is Issued under the Authority of

Tri M. Luu BASc.

Vice President of Engineering UltraTech Group of Labs

Date: November 9, 2015

Report Prepared by: Phuong Ho

Tested by: Mr. Hien Luu & Mr. Quan Ngo, EMI/EMC Technicians

Issued Date: November 9, 2015 Test Date: October 30, 2015

The results in this Test Report apply only to the sample(s) tested, and the sample tested is randomly selected.

This report must not be used by the client to claim product endorsement by NVLAP or any agency of the US Government.

## **UltraTech**

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Website: www.ultratech-labs.com Email: vic@ultratech-labs.com, Email: tri@ultratech-labs.com



















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## **TABLE OF CONTENTS**

EXHIB	IT 1.	INTRODUCTION	4
1.1.	SCOE	PE	,
1.1.		ION HISTORY	
1.3.		TED SUBMITTAL(S)/GRANT(S)	
1.4.	NOR	MATIVE REFERENCES	 4
EXHIB		PERFORMANCE ASSESSMENT	
2.1.		T INFORMATION	
2.2.		MENT UNDER TEST (EUT) INFORMATION	
2.3. 2.4.		TION /APPLICATION OF THE EUT OF COMPONENTS/PARTS OF THE EUT	
2.4.		OF EUT'S PORTS	
2.6.		LARY EQUIPMENT	
		EUT OPERATING CONDITIONS AND CONFIGURATIONS DURING TESTS	
EXHIB			
3.1.		ATE TEST CONDITIONS	
3.2.		ATIONAL TEST CONDITIONS & ARRANGEMENT FOR TEST SIGNALS	7
3.3.		CK DIAGRAM OF TEST SETUP FOR AC POWERLINE CONDUCTED EMISSION & RADIATED EMISSION	_
		NTS DGRAPHS OF TEST SETUP FOR AC CONDUCTED EMISSION MEASUREMENTS	
3.4. 3.5.		OGRAPHS OF TEST SETUP FOR AC CONDUCTED EMISSION MEASUREMENTS	
EXHIB	IT 4.	SUMMARY OF TEST RESULTS	13
4.1.	LOCA	ATION OF TESTS	13
4.2.	APPL	ICABILITY & SUMMARY OF EMC EMISSION TEST RESULTS	13
4.3.		FICATIONS REQUIRED FOR COMPLIANCE	
4.4.	DEVI	ATION OF THE STANDARD TEST PROCEDURES	13
EXHIB	IT 5.	MEASUREMENT DATA	14
5.1.	AC PO	OWERLINE CONDUCTED EMISSIONS @ FCC PART 15, SUBPART B, PARA.15.107(B)	14
5.1. 5.1.		Limits	
5.1.		Nethod of Measurements	
5.1.	<i>3. 7</i>	Fest Instruments	14
5.1.		Fest Results	
5.2.		ATED Emissions from Class A unintentional radiators (digital devices) @ FCC 15.109(B)	
5.2.		imits	
5.2.		Method of Measurements	
5.2.		Fest Instruments	
5.2.	4. 1	Fest Results	10
EXHIB		TEST INSTRUMENTS & MEASUREMENT UNCERTAINTY (K=2, 95% CONFIDENCE	
LEVEL	)	19	
6.1.		Conducted Emission Measurement Uncertainty (9 KHz - 30 MHz)	
6.2.	RADIA	ATED EMISSION MEASUREMENT UNCERTAINTY	20
EXHIB	IT 7.	LABELLING & VERIFICATION REQUIREMENTS	21
7.1.	SECTI	ON 15.19 - LABELING REQUIREMENTS	
7.1. 7.2.		ON 15.19 - LABELING REQUIREMENTSONS 15.21 & 15.105 - INFORMATION TO USER	
7.2.		ON 2 909 - RESPONSIBLE PARTY	22

November 9, 2015

XStrean	XStream-Iso Model No.: XS-ISO rev 1.0			
7.4.	SECTION 2.945 - SAMPLING TEST OF EQUIPMENT COMPLIANCE	22		
7.5.	SECTION 2.946 - PENALTY FOR FAILURE TO PROVIDE TEST SAMPLES AND DATA.	22		
7.6.	LIMITATION ON VERIFICATION: FCC PART 2, SUBPART J, SECTION 2.952	22		
7.7.	RESPONSIBILITY OF MANUFACTURER OR IMPORTER: FCC PART 2, SUBPART J, SECTION 2.953	23		
7.8.	IDENTIFICATION: FCC PART 2, SUBPART J, SECTION 2.954	23		
7.9.	RETENTION OF RECORDS: FCC PART 2, SUBPART J, SECTION 2.955	23		
7.10.	FCC INSPECTION & SUBMISSION OF EQUIPMENT FOR TESTING: FCC PART 2, SUBPART J, SEC			
2.956	24			
7.11.	SAMPLING TESTS OF EQUIPMENT COMPLIANCE: FCC PART 2, SUBPART J, SECTION 2.957	24		

SAMPLING TESTS OF EQUIPMENT COMPLIANCE: FCC Part 2, Subpart J, Section 2.957 ......24

**ULTRATECH GROUP OF LABS** 3000 Bristol Circle, Oakville, Ontario, Canada L6H 6G4 Tel.: 905-829-1570, Fax.: 905-829-8050

Model No.: XS-ISO rev 1.0 XStream-Iso

#### EXHIBIT 1. INTRODUCTION

#### 1.1. **SCOPE**

Reference:	FCC Part 15, Subpart B, Sections 15.107 & 15.109		
Title	Telecommunication - Code of Federal Regulations, CFR 47, Part 15		
Purpose of Test:	To gain FCC Verification Authorization for a Class A Unintentional Radiator.		
Test Procedures	Both conducted and radiated emissions measurements were conducted in accordance with American National Standards Institute ANSI C63.4 - American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.		
Environmental Classification:	Light-industry, Commercial & Industry		

#### 1.2. REVISION HISTORY

Document	Issue Date	Description
15ELP013_FCCB	Nov. 9, 2015	Original Document

#### 1.3. RELATED SUBMITTAL(S)/GRANT(S)

None

#### 1.4. **NORMATIVE REFERENCES**

Publication	Year	Title		
CISPR 22	2008-09, Edition	Information Technology Equipment - Radio Disturbance Characteristics -		
	6.0	Limits and Methods of Measurement		
EN 55022	2010			
CISPR 16-1-1	2006	Specification for radio disturbance and immunity measuring apparatus and		
+A1	2006	methods.		
+A2	2007	Part 1-1: Measuring Apparatus		
CISPR 16-1-2	2003	Specification for radio disturbance and immunity measuring apparatus and		
+A1: 2004		methods.		
+A2: 2006		Part 1-2: Conducted disturbances		
FCC 47 CFR 15	2013	Code of Federal Regulations – Telecommunication		
ANSI C63.4	2009	American National Standard for Methods of Measurement of Radio-Noise		
		Emissions from Low-Voltage Electrical and Electronic Equipment in the		
		Range of 9 KHz to 40 GHz		

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### **EXHIBIT 2. PERFORMANCE ASSESSMENT**

### 2.1. CLIENT INFORMATION

APPLICANT:	
Name:	ELPROTRONIC INC.
Address:	35 Austin Rumble Crt, King City, ON, L7B0B2, Canada
Contact Person:	Gregory Czajkowski
Email Address:	Gregory@elprotronic.com
Telephone No.:	+905-539-0424
Fax No.:	+905 539 0474

MANUFACTURER:	
Name:	ELPROTRONIC INC.
Address:	35 Austin Rumble Crt, King City, ON, L7B0B2, Canada
Contact Person:	Gregory Czajkowski
Email Address:	Gregory@elprotronic.com
Telephone No.:	+905-539-0424
Fax No.:	+905 539 0474

## 2.2. EQUIPMENT UNDER TEST (EUT) INFORMATION

The following information (with the exception of the Date of Receipt) has been supplied by the applicant.

Brand Name:	Elprotronic Inc.
Product Name:	XStream-Iso
Model Name or Number:	XS-ISO rev 1.0
Firmware Version Identification Number :	Rev 1.0
Serial Number:	20150002
Oscillator Frequencies:	12 MHz
CPU Frequencies:	120 MHz
Power input ratings:	120/230 VAC, 60/50 Hz
Equipment Environment / Type:	Unintentional Radiators

3000 Bristol Circle, Oakville, Ontario, Canada L6H 6G4

Model No.: XS-ISO rev 1.0 XStream-Iso

#### **FUNCTION /APPLICATION OF THE EUT** 2.3.

#### 2.4. LIST OF COMPONENTS/PARTS OF THE EUT

	Name, Make, Model of Component / Part	Short Description of Use	
1	XSream-ISO adapter	-	
2	USB cable	-	
3	JTAG ribbon cable	-	

#### 2.5. **LIST OF EUT'S PORTS**

Port	EUT's Port Description	Number of	Port Type	Cable Type
Number		Identical Ports		(Shielded/Non-shielded)
1	Power port	1	3 prong	Non-shielded
2	Ribbon port	1	Ribbon	Non-shielded
3	USB port	1	USB	Shielded

#### 2.6. **ANCILLARY EQUIPMENT**

The EUT was tested while connected to the following representative configuration of ancillary equipment necessary to exercise the ports during tests:

Ancillary Equipment # 1	
Equipment Make and Name:	Acer Laptop Aspire 4830 series
Model Name or Number:	P4LJO
Cable Length & Type:	Shielded
Connected to EUT's Port:	USB

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# EXHIBIT 3. EUT OPERATING CONDITIONS AND CONFIGURATIONS DURING TESTS

#### 3.1. CLIMATE TEST CONDITIONS

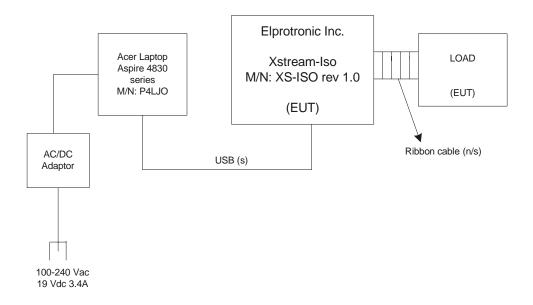
The climate conditions of the test environment are as follows:

Temperature:	23°C
Humidity:	35%
Pressure:	100 kPa
Power input source:	120 Vac

#### 3.2. OPERATIONAL TEST CONDITIONS & ARRANGEMENT FOR TEST SIGNALS

Connect XStream-Iso adapter to USB port in PC. Connect 14-wires ribbon cable between XStream-Iso and target device (any example that can be supplied by XStream-Iso). Run application software from PC – FlashPro-ARM and rub the test – e.g. verify – in loop.

# 3.3. BLOCK DIAGRAM OF TEST SETUP FOR AC POWERLINE CONDUCTED EMISSION & RADIATED EMISSION MEASUREMENTS



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#### 3.4. PHOTOGRAPHS OF TEST SETUP FOR AC CONDUCTED EMISSION **MEASUREMENTS**



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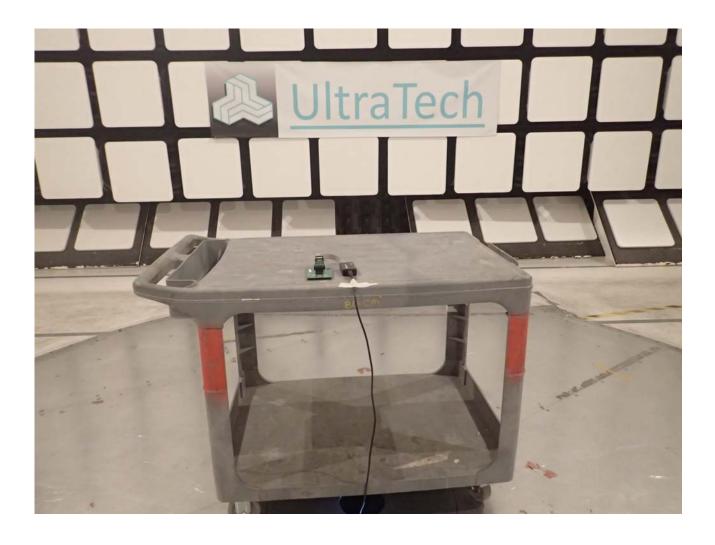
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File #: 15ELP013\_FCCA November 9, 2015



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#### 3.5. PHOTOGRAPHS OF TEST SETUP FOR RADIATED EMISSION **MEASUREMENTS**



Model No.: XS-ISO rev 1.0 XStream-Iso



Model No.: XS-ISO rev 1.0 XStream-Iso



### **EXHIBIT 4. SUMMARY OF TEST RESULTS**

#### 4.1. LOCATION OF TESTS

All of the measurements described in this report were performed at Ultratech Group of Labs located in the city of Oakville, Province of Ontario, Canada.

- AC Power line Conducted Emissions were performed in UltraTech's shielded room, 16'(L) by 12'(W) by 12'(H).
- Radiated Emissions were performed at the Ultratech's 3-10 TDK Semi-Anechoic Chamber situated in the Town of Oakville, province of Ontario. This test site been calibrated in accordance with ANSI C63.4, and found to be in compliance with the requirements of Sec. 2.948 of the FCC Rules. The descriptions and site measurement data of the Oakville 3-10 TDK Semi-Anechoic Chamber has been filed with FCC office (FCC File No.: 91038) and Industry Canada office (Industry Canada File No.: 2049A-3). Expiry Date: 2017-04-02.

#### 4.2. APPLICABILITY & SUMMARY OF EMC EMISSION TEST RESULTS

FCC PART 15, SUBPART B	TEST REQUIREMENTS	MARGIN BELOW (-) / ABOVE (+) THE LIMITS	COMPLIANCE (YES/NO)
15.107(b), Class A	AC Power Line Conducted Emissions Measurements	- 13.1 dB @ 0.151 MHz	Yes
15.109(b), Class A	Radiated Emissions from Computing Devices (Digital Devices)	- 13.4 dB @ 33.90 MHz	Yes

#### 4.3. MODIFICATIONS REQUIRED FOR COMPLIANCE

None

### 4.4. DEVIATION OF THE STANDARD TEST PROCEDURES

None

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### **EXHIBIT 5. MEASUREMENT DATA**

# 5.1. AC POWERLINE CONDUCTED EMISSIONS @ FCC PART 15, SUBPART B, PARA.15.107(B)

#### 5.1.1. Limits

The equipment shall meet the limits of the following table:

	CLASS A LIMITS		
Test Frequency Range (MHz)	Quasi-Peak (dBµV)	Average* (dBµV)	Measuring Bandwidth
0.15 to 0.5	79	66	RBW = 9 kHz VBW ≥ 9 kHz for QP VBW = 10 Hz for Average
0.5 to 30	73	60	RBW = 9 kHz VBW ≥ 9 kHz for QP VBW = 10 Hz for Average

#### 5.1.2. Method of Measurements

Refer to Ultratech Test Procedures ULTR-P001-2004 & ANSI C63.4 for method of measurements.

### Calculation of Conducted Emission Voltage (dBµV):

This is calculated by adding the L.I.S.N factor, Cable loss factor, and Attenuator factor to the measured reading. The basic equation with a sample calculation is as follows:

Voltage 
$$(dB\mu V) = RA + AF + CF + LF$$

Where

 $RA = Receiver/Analyzer Reading in dB\mu V$ 

AF = Attenuation Factor in dB CF = Cable loss Factor in dB LF = L.I.S.N Factor in dB

#### 5.1.3. Test Instruments

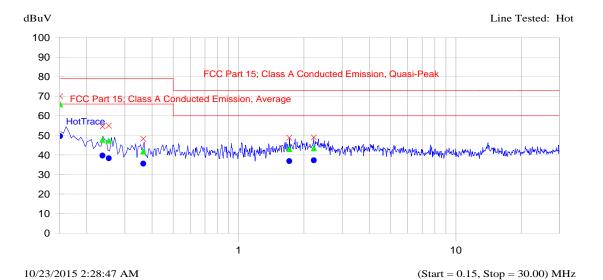
Refer to Exhibit 6 for Test Instruments & Measurement Uncertainty

#### 5.1.4. Test Results

The emissions were scanned from 150 kHz to 30 MHz at AC mains Terminal via a LISN, and all emissions less than 20 dB below the limits were recorded.

Description: Supply Voltage:120 Vac Setup Name: FCC 15 Class A Customer Name: ELPROTRONIC INC Project Number: XStream-Iso Operator Name: QUAN KHAI NGO EUT Name: XStream -Iso Adapter Date Created: 10/23/2015 2:19:56 AM Date Modified: 10/23/2015 2:19:56 AM

#### **Plot #1**



Frequency MHz	Peak dBuV	QP dBuV	Delta QP-QP Limit dB	Avg dBuV	Delta Avg-Avg Limit dB	Trace Name
0.151	70.0	65.9	-13.1	49.6	-16.4	HotTrace
0.236	54.6	47.7	-31.3	39.7	-26.3	HotTrace
0.253	55.0	47.3	-31.7	38.3	-27.7	HotTrace
0.364	48.3	41.8	-37.2	35.5	-30.5	HotTrace
1.711	48.8	43.0	-30.0	36.9	-23.1	HotTrace
2.220	49.0	43.4	-29.6	37.2	-22.8	HotTrace

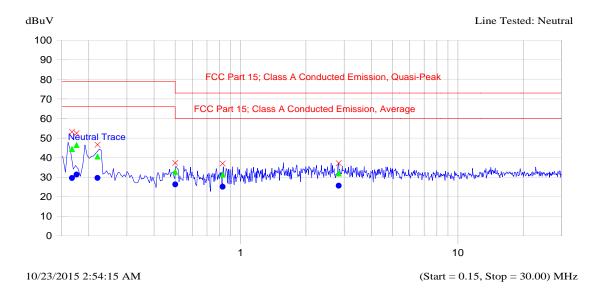
**ULTRATECH GROUP OF LABS** 

3000 Bristol Circle, Oakville, Ontario, Canada L6H 6G4

Description: Supply Voltage:120Vac Setup Name: FCC 15 Class A Customer Name: ELPROTRONIC INC

Project Number: ELP-013Q Operator Name: QUAN NGO EUT Name: XStream-Iso Adapter Date Created: 10/23/2015 2:52:13 AM Date Modified: 10/23/2015 3:00:28 AM

### Plot#2



Frequency MHz	Peak dBuV		Delta QP-QP Limit dB	Avg dBuV	0 0	Trace Name
0.168 0.176	53.2 52.5		-34.6 -32.6	29.5 31.3		Neutral Trace Neutral Trace
0.220 0.501	46.6 37.3	40.6 32.7	-38.4 -40.3	29.6 26.3	-36.4 -33.7	Neutral Trace Neutral Trace
0.826 2.827		31.4 31.9	-41.6 -41.1	25.1 25.6	-34.9 -34.4	Neutral Trace Neutral Trace

# 5.2. RADIATED EMISSIONS FROM CLASS A UNINTENTIONAL RADIATORS (DIGITAL DEVICES) @ FCC 15.109(B)

#### 5.2.1. Limits

The equipment shall meet the limits of the following table:

Test Frequency Range (MHz)	Class A Limits (dBµV/m)	EMI Detector Used	Measurement Distance (meters)
30 – 88	39.0	Quasi-Peak	10
88 – 216	43.5	Quasi-Peak	10
216 – 960	46.4	Quasi-Peak	10
960 -1000	49.5	Quasi-Peak	10
Above 1000	60.0	Average	3
	80.0	Peak	

#### 5.2.2. Method of Measurements

Refer to Ultratech Test Procedures ULTR-P001-2004 & ANSI C63.4 for method of measurements.

The spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

Highest frequency generated or used in the device or on which	
the device operates or tunes (MHz)	Upper frequency of measurement range
	(MHz)
Below 1.705	30
1.705 - 108	1000
108 – 500	2000
500 -1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz,
	whichever is lower

### **Calculation of Field Strength:**

The field strength is calculated by adding the calibrated antenna factor and cable factor, and subtracting the Amplifier gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CF - AG$$

Where FS = Field Strength

RA = Receiver/Analyzer Reading

AF = Antenna Factor

CF = Cable Attenuation Factor

AG = Amplifier Gain

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Tel.: 905-829-1570, Fax.: 905-829-8050

File #: 15ELP013\_FCCA November 9, 2015

November 9, 2015

XStream-Iso Model No.: XS-ISO rev 1.0

### 5.2.3. Test Instruments

Refer to Exhibit 6 for Test Instruments & Measurement Uncertainty

#### 5.2.4. Test Results

The emissions were scanned from 30 MHz to 1 GHz at 10 Meters distance and all emissions less than 20 dB below the limits were recorded.

mints were recorded.							
FREQUENCY	RF LEVEL	DETECTOR USED	ANTENNA PLANE	LIMIT	MARGIN	PASS/	
(MHz)	(dBuV/m)	(PEAK/QP)	(H/V)	(dBuV/m)	( <b>dB</b> )	FAIL	
33.90	25.60	QP	V	39.0	-13.4	PASS	
84.05	23.68	QP	Н	39.0	-15.3	PASS	
155.91	25.65	PEAK	V	43.5	-17.9	PASS	

No significant Radiated Emissions was found in the frequency range from 1 to 2 GHz at 3 Meters distance.

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3000 Bristol Circle, Oakville, Ontario, Canada L6H 6G4

November 9, 2015

XStream-Iso Model No.: XS-ISO rev 1.0

# EXHIBIT 6. TEST INSTRUMENTS & MEASUREMENT UNCERTAINTY (K=2, 95% CONFIDENCE LEVEL)

The measurement uncertainties stated were calculated in accordance with the requirements of CISPR 16-4-2 @ IEC:2003 and JCGM 100:2008 (GUM 1995) – Guide to the Expression of Uncertainty in Measurement.

# 6.1. LINE CONDUCTED EMISSION MEASUREMENT UNCERTAINTY (9 KHZ - 30 MHZ)

Test Instruments	Manufacturer	Model No.	Serial No.	Frequency Range	Calibration Due Date
Spectrum Analyzer	НР	E7401A	US40240432	9 kHz-26.5 GHz	Apr. 9, 2017
Attenuator	Pasternack	PE7010-20	-	DC–2 GHz	Feb. 3, 2017
LISN Used	EMCO	3825/2	8907-1531	10 kHz-100 MHz	Sep. 29, 2016

Test Software: Agilent (HP) designed E7415A EMI Test Measurement Software version A.01.40 is used for automated measurement.

Test Date: October 30, 2015

	Line Conducted Emission Measurement Uncertainty (9 kHz – 30 MHz):	Measured	Limit
u <sub>c</sub>	Combined standard uncertainty: $u_c(y) = \sqrt{\sum_{i=1}^{m} \sum_{j=1}^{m} u_i^2(y)}$	<u>+</u> 1.44	<u>+</u> 1.8
U	Expanded uncertainty U: U = 2u <sub>c</sub> (y)	<u>+</u> 2.89	<u>+</u> 3.6

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#### 6.2. RADIATED EMISSION MEASUREMENT UNCERTAINTY

<b>Test Instruments</b>	Manufacturer	Model No.	Serial No.	Frequency Range	Cal Due Date
EMI Receiver	Rohde &	ESU40	100037	20 Hz to 40 GHz	May 8, 2017
	Schawrz				
Pre Amplifier	Com-Power	PAM-0118	551016	500 MHz to 18 GHz	Jan. 6, 2016
Biconilog Antenna	EMCO	3142C	00026873	26 – 3000 MHz	April 14, 2016
Horn Antenna	EMCO	3115	9911-5955	1GHz – 18 GHz	Mar. 26, 2016
Semi-Anechoic	TDK	FCC: 91038			April 2, 2017
Chamber		IC: 2049A-3			_

Test Date: October 30, 2015

	Radiated Emission Measurement Uncertainty @ 10m, Horizontal	Measured	Limit
	(30-1000 MHz):	(dB)	(dB)
u <sub>c</sub>	Combine <u>d standa</u> rd uncertainty:	<u>+</u> 2.32	<u>+</u> 2.6
	$u_c(y) = \sqrt{\sum_{i=1}^{m} u_i^2(y)}$	_	_
	· · · ·		
U	Expanded uncertainty U:	<u>+</u> 4.65	<u>+</u> 5.2
	$U = 2u_{c}(y)$		

	Radiated Emission Measurement Uncertainty @ 10m, Vertical (30-1000 MHz):	Measured (dB)	Limit (dB)
u <sub>c</sub>	Combined standard uncertainty: $u_c(y) = \sqrt{\sum_{i=1}^{m} u_i^2(y)}$	<u>+</u> 2.32	<u>+</u> 2.6
U	Expanded uncertainty U: U = 2u <sub>c</sub> (y)	<u>+</u> 4.64	<u>+</u> 5.2

	Radiated Emission Measurement Uncertainty @ 3 m, Horizontal & Vertical (1 – 18 GHz):	Measured (dB)	Limit (dB)
u <sub>c</sub>	Combined standard uncertainty: $u_c(y) = \sqrt{\sum_{l=1}^{m} \sum_{i=1}^{m} u_i^2(y)}$	<u>+</u> 1.87	Under consideration
U	Expanded uncertainty U: U = 2u <sub>c</sub> (y)	<u>+</u> 3.75	Under consideration

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File #: 15ELP013\_FCCA November 9, 2015

November 9, 2015

### **EXHIBIT 7. LABELLING & VERIFICATION REQUIREMENTS**

#### 7.1. SECTION 15.19 - LABELING REQUIREMENTS

For a Class A digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location on the device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- (1) The label shall <u>NOT</u> be a stick-on, paper label. The label on these products shall be permanently affixed to the product and shall be readily visible to the purchaser at the time of purchase, as described in FCC 2.925(d). "Permanently" affixed means that the label is etched, engraved, stamped, silk-screened, indelibly printed, or otherwise permanently marked on a permanently attached part of the equipment or on a nameplate of metal plastic, or other material fastened to the equipment by welding, riveting, or a permanent adhesive. The label must be designed to last the expected life-time of the equipment in the environment in which the equipment may be operated and must not be readily detachable.
- Where a device is constructed in two or more sections connected by wires and marketed together, the statement specified in this Section is required to be affixed only to the main control unit.
- (3) When the device is so small or for such use that it is not practicable to place the statement specified in this Section on it, the information required by these paragraphs shall be placed in the instruction manual or pamphlet supplied to the user or, alternatively, shall be placed on the container in which the device is marketed. However, the FCC identifier or the unique identifier, as appropriate, must be displayed on the device.

#### 7.2. SECTIONS 15.21 & 15.105 - INFORMATION TO USER

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provided reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

<u>Warning</u>: Changes or modifications not expressly approved by <manufacturer> could void the user's authority to operate the equipment.

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#### 7.3. SECTION 2.909 - RESPONSIBLE PARTY

The following parties are responsible for the compliance of radio frequency equipment with the applicable standards:

- (c) In the case of the equipment subject to authorization under the Declaration of Conformity procedure:
  - (1) The manufacturer or, if the equipment is assembled from individual component parts and the resulting system is subject to authorization under Declaration of Conformity, the assembler.
  - (2) If the equipment, by itself, is subject to Declaration of Conformity and the equipment is imported, the importer.

#### 7.4. SECTION 2.945 - SAMPLING TEST OF EQUIPMENT COMPLIANCE

The Commission will, from time to time, request the responsible party to submit equipment subject to this chapter to determine the extent to which subsequent production of such equipment continues to comply with the data filed by the applicant (or on file with the responsible party for equipment subject to notification or a Declaration of Conformity). Shipping costs to the Commission's laboratory and return shall be borne by the responsible party.

## 7.5. SECTION 2.946 - PENALTY FOR FAILURE TO PROVIDE TEST SAMPLES AND DATA.

- (a) Any responsible party, as defined in Section 2.909 of this chapter, or nay party who markets equipment subject to the provisions of this chapter, shall provide test sample(s) or data upon request by the Commission. Failure to comply with such a request with the time frames shown below may be cause for forfeiture, pursuant to Section 1.80 of Part 1 of this chapter, or other administrative sanctions such as suspending action on any applications for equipment authorization submitted by such party while the matter is being resolved.
  - (1) When the equipment is subject to authorization under Declaration of Conformity, data shall be provided within 14 days of delivery of the request and test sample(s) shall be provided within 60 days of delivery of the request.
  - (2) For all other devices, test sample(s) or data shall be provided within 60 days of the request.
- In the case of the equipment involving harmful interference or safety of life or property, the Commission may specify that test samples subject to the provisions of this section be submitted within less than 60 days, but not less than 14 days. Failure to comply within the specified time period will be subject to the sanctions specified in paragraph (a) of this section.

### 7.6. LIMITATION ON VERIFICATION: FCC PART 2, SUBPART J, SECTION 2.952

- (a) Verification signifies that the manufacturer or importer has determined that the equipment has been shown to be capable of compliance with the applicable technical standards if no unauthorized change is made in the equipment and if the equipment is properly maintained and operated. Compliance with these standards shall not be construed to be a finding by the manufacturer or importer with respect to matters not encompassed by the Commission's rules.
- (b) Verification of the equipment by the manufacturer or importer is effective until a termination date is otherwise established by the Commission.

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File #: 15ELP013\_FCCA November 9, 2015

November 9, 2015

XStream-Iso Model No.: XS-ISO rev 1.0

(c) No person shall, in any advertising matter, brochure, etc., use or make reference to a verification in a deceptive or misleading manner or convey the impression that such verification reflects more than a determination by the manufacturer or importer that the device or product has been shown to be capable of compliance with the applicable technical standards of the Commission's Rules.

# 7.7. RESPONSIBILITY OF MANUFACTURER OR IMPORTER: FCC PART 2, SUBPART J, SECTION 2.953

- (a) In verifying compliance, the manufacturer or importer (in the case of imported equipment) warrants that each unit of the equipment marketed under the verification procedure will conform to the unit tested and found acceptable by the manufacturer or importer and that data on file with the manufacturer or importer continues to be representative of the equipment being produced under such verification within the variation that can be expected due to quantity production and testing on a statistical basis.
- (b) The importer of equipment subject to verification may upon receiving a written statement from the manufacturer that the equipment complies with the appropriate technical standards rely on the manufacturer or independent testing agency to verify compliance. The test records required by Section 2.955 however should be in English language and made available to the Commission upon a reasonable request.
- (c) In the case of transfer of control of equipment, as in the case of sale or merger of the grantee, the new manufacturer or importer shall bear the responsibility of continued compliance of the equipment.
- (d) Equipment verified by the manufacturer or importer shall be re-verified if the modification or change adversely affects the emanation characteristics of the modified equipment. The manufacturer or importer continues to bear the responsibility for continued compliance of subsequently produced equipment.

### 7.8. IDENTIFICATION: FCC PART 2, SUBPART J, SECTION 2.954

The identification of equipment subject to verification shall be consistent with current manufacturer or marketing practices: *Provided*, The manufacturer or importer maintains adequate identification records for each unit verified to facilitate positive identification of each equipment marketed.

### 7.9. RETENTION OF RECORDS: FCC PART 2, SUBPART J, SECTION 2.955

- (a) For each equipment subject to verification, the manufacturer (or importer) shall maintain the records listed below:
  - (1) A record of the original design drawings and specifications and all changes that have been made that may affect compliance with the requirements of Section 2.953.
  - (2) A record of the procedures used for production inspection and testing (if tests were performed) to insure the conformance required by Section 2.953. (Statistical production line emission testing is not required).
- (b) The records listed in paragraphs (a) of this section shall be retained for two years after the manufacture of said equipment item has been permanently discontinued, or until the conclusion of an investigation or a proceeding if the manufacturer or importer is officially notified that an investigation or any other administrative proceeding involving his equipment has been instituted.

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November 9, 2015

XStream-Iso Model No.: XS-ISO rev 1.0

# 7.10. FCC INSPECTION & SUBMISSION OF EQUIPMENT FOR TESTING: FCC PART 2, SUBPART J, SEC. 2.956

- (a) Each manufacturer or importer of equipment subject to verification shall upon receipt of reasonable request submit to the Commission the records required by Section 2.955.
- (b) The Commission may require the manufacturer or importer of equipment subject to verification to submit one or more of sample units for measurements at the Commission's Laboratory.
- (c) In the event the manufacturer believes that shipment of the sample to the Commission's Laboratory is impractical because of the size or weight of the equipment, or the power requirement or for any other reason, the applicant may submit a written explanation why such shipment is impractical and should not be required.

## 7.11. SAMPLING TESTS OF EQUIPMENT COMPLIANCE: FCC PART 2, SUBPART J, SECTION 2.957

The Commission will from time to time, request the manufacturer or importer to submit to the FCC Laboratory in Columbia, Maryland, various equipment(s) for which verification has been made, to determine the extent to which subsequently produced units continue to comply with the applicable standards.

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