Application for

US Code Title 47, Certification per Part 2, Subpart J
and
Part 15, Subpart C, Intentional Radiator Section 15.249 Intentional Radiator Operating within the Band 2400 MHz to 2483.5 MHz.

For the

Ventriloscope ATX Unit

Manufactured by

Lecat's Ventriloscope, LLC

UST Project: 08-0119
Issue Date: July 10, 2008

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Testing Tomorrow's Technology

I certify that I am authorized to sign for the test facility and that all of the statements in this report and in the Exhibits attached hereto are true and correct to the best of my knowledge and belief:

US TECH (Agent Responsible For Test):

By: _____

Name: Stephen A. Sawyer

Title: Chief Compliance Engineer

Date: July 10, 2008

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MEASUREMENT/TECHNICAL REPORT

COMPANY NAME: Lecat's Ventriloscope, LLC

MODEL: Ventriloscope ATX Unit

FCC ID: WNT-VENTRILOSCOPE

DATE: July 10, 2008

This report concerns (check one): Original grant_X_
Class II change_____

Equipment type: **Intentional Radiator Operating within the bands 2400-2483.5 MHz**

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? yes_____ No_X_

If yes, defer until:_____
date

__N.A.__ agrees to notify the Commission by__N.A.__
date
of the intended date of announcement of the product so that the grant can be issued on that date.

Report prepared by:

US Tech
3505 Francis Circle
Alpharetta, GA 30004

Phone Number: (770) 740-0717
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SUMMARY OF TEST REQUIREMENTS

FCC Requirement	Title	Disposition
15.107	Unintentional Radiator Power Line Conducted Emissions	Pass
15.207	Intentional Radiator Power Line Conducted Emissions	N/A
15.109	Unintentional Radiator Radiated Emissions	Pass
15.209	Intentional Radiator Radiated Emissions	Pass
15.249(a)	Fundamental Field Strength	Pass
15.249(d)	Band Edge Measurements	Pass

N/A = Not applicable for this unit.

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Letter of Agency Agreement

1 General Information

1.1 Product Description

The Equipment under Test (EUT) is the transmitter Unit of a one-way (half duplex) digital wireless audio transfer system called Ventriloscope, a portable 2.4 GHz frequency hopping spread spectrum (FHSS) transceiver system manufactured by Lecat's Ventriloscope, LLC. The system consists of a transmitting unit called the ATX (Audio Transmitter) having both a ISM band transmitter and receiver and a receiving unit called an ARX (Audio Receiver) having both a ISM band transmitter and receiver. The ATX transmits streaming audio from an embedded MP3 player or other similar device over the air to the ARX unit using the 2.4 GHz to 2.4835 GHz band ISM frequencies. The ARX unit receives the audio and places it into a stethoscope like device for passing heart and bronchial sounds to a medical student. It also transmits ISM band acknowledgements back to the ATX receiver. Twelve (12) individual sounds are transmitted based upon the position of 3 switches. The transmitter can also send sound from a separate audio device attached to it. Finally, the transmitter also allows for an output connector to play the sounds through an amplifier or head phones. The ARX unit also sends acknowledgement packets back to the ATX unit. Both the ATX unit and the ARX unit use the same identical 2.4 GHz wireless audio streamer chip-set, the Nordic Semiconductor nRF24Z1.

1.2 Related Submittal(s)/Grant(s)

The EUT will be used to send audible data. The transceiver presented in this report will be used with other like transceivers. Both the ATX unit and ARX unit have transmitters and Receivers. Though the ATX and ARX are Frequency Hopping Spread Spectrum transceivers, they are not being certified under CFR 15.247 because their pseudorandom hopping routines do not fit the FCC definition of pseudorandom. They are instead being presented under the requirements of CFR 15.249.

The EUT is subject to the following authorizations:

a) Certification as a transceiver.
b) Verification as a digital device and receiver.

The ARX unit, FCC ID: WNT-VENT-R, will also gain its distinct certification from the FCC in a parallel process as well as Verification as a digital device with receiver.

The information contained in this report is presented for the certification & verification authorization(s) for the ATX EUT.

2 Tests and Measurements

2.1 Configuration of Tested System

The sample was setup and tested per ANSI C63.4, *Methods of Measurement from Low-Voltage Electrical and Electronic Equipment in the Frequency Range of 9 kHz to 40 GHz (2003).* Conducted and radiated emissions data were taken with the test receiver (or spectrum analyzer's) resolution bandwidth adjusted to 9 kHz and 120 kHz, respectively. All measurements are peak unless stated otherwise. The video filter associated with the spectrum analyzer was off throughout the evaluation process. A Block diagram of the tested system is shown in Figure 3. Test configuration photographs for spurious and fundamental emissions are shown in Figures 6 - 9.

2.2 EUT Characterization

The sample used for testing was received by US Tech on June 26, 2008 in good condition.

2.3 Test Facility

Testing was performed at US Tech's measurement facility at 3505 Francis Circle, Alpharetta, GA. This site has been fully described and registered with the FCC under designation number US5117. Additionally this site has also been fully described and submitted to Industry Canada (IC), and has been approved under file number 2982A-1.

2.4 Test Equipment

Table 1 describes test equipment used to evaluate this product.

2.5 Modifications to EUT

No modifications were made by US Tech to bring the EUT into compliance with FCC Part 15, Subpart B, Class B Limits for the receiver and digital portion of the EUT or the Subpart C, Transmitter requirements.

2.6 Measurement Standards (CFR 15.31)

Intentional and unintentional radiators are to use the methods of ANSI C63.4 – 2003. Measurements were made on an Open Area Test Site (OATS) wherever possible. For battery powered equipment, new (or fully charged) batteries were used.

2.6 Measurement Standards (CFR 15.31) (Cont'd)

Section 15.31(m) indicates that because the EUT System operates over the 2.4 GHz to 2.4835 GHz ISM band, measurements must be made near the bottom of the band (around 2.405 GHz for example) and in the middle of the band (2.441 GHz) as well as near the top of the band (2.480 GHz).

2.7 Frequency Range of Radiated Measurements (CFR 15.33)

2.7.1 Intentional Radiators

The spectrum was investigated from the lowest RF signal generated without going below 9 kHz to the 10^{th} harmonic of the highest fundamental transmitter frequency (24.835 GHz maximum).

2.7.2 Unintentional Radiators

The spectrum was investigated from the lowest RF signal generated without going below the lowest frequency for which an emissions limit is specified (30 MHz) to the 5^{th} harmonic of the highest fundamental frequency of the digital device (5 GHz maximum).

2.8 Measurement Detector Function and Bandwidth (CFR 15.35)

On any frequency below 1000 MHz, the limits shown are based upon measuring equipment employing a CISPR quasi-peak detector function and related measurement bandwidths. On frequencies above 1000 MHz, the radiation limits are based upon the use of measuring instrumentation employing an average detector function.

When average detector measurements are specified for use, including emission measurements below 1000 MHz, there is also a corresponding limit for Peak detector measurements having a limit of 20 dB above the corresponding average limit unless a different peak emission limit is specified. Measurements above 1000 MHz utilize a minimum resolution band width of 1 MHz.

When radiated emissions limits are expressed in terms of the average value of the emission and pulsed operation is employed, the measurement field strength is determined by averaging over one complete pulse train (Duty Cycle) including blanking intervals for pulse trains up to 0.1 second in duration. The exact method of calculating the average field strength is included in paragraph 2.10 of this report.

2.9 Antenna Requirement (CFR 15.203)

The intentional radiator is designed to assure that no antenna other than that furnished by the manufacturer is used with the device. The use of a permanently attached antenna is considered sufficient to comply with this requirement. Below is a table of the permanently attached antenna used with this system and its characteristics. If, in the future, additional antennas are contemplated for use, they must be formally evaluated and approved for suitability to these requirements.

Table 1. Ventriloscope ATX Unit Antenna**.**

Manufacturer	Model Number	Antenna Type	Frequency Range	Peak Gain dB_i	Impedance Ohms
Fractus	FR05-S1-N-0-102	Compact Chip	2.4 – 2.5 GHz	> 1.1	50 Unbalanced

2.10 ATX Duty Cycle Correction Factor

Because the EUT is not transmitting continuously, a duty cycle factor can be derived from measured peak data and applied for recording average data and comparing it to the average limits.

From Figures 1 and 2 below:

In a 100 m Sec period, there are four pulses at 1.3875 mSec each. Therefore, the Duty Cycle correction factor is:

4 x 1.3875 mS = 5.55 mS/100 mS = 5.55 % or 20 log (0.0555)

= - 25.1 dB

From theory of operation;

For 44.1 kHz, t_p = 2.9 msec. For the minimum number of channels, 20 channels, 2.9 x 20 =58 mS , therefore in a 100 mS period we would see most of two channels. Therefore, duty Cycle = (2.9 x 2)/100 = 5.8% = 20 log (0.058) = -24.7 dB = worst case.

For 38 channels we would have 2.9x38=110.2 mS and in a 100 mS period we would see only one channel. Therefore, (2.9 x 1)/100 = 2.9% = 20 log (0.029) = - 30.7 dB.

The measured value must have been a case where some of the channels were banned.

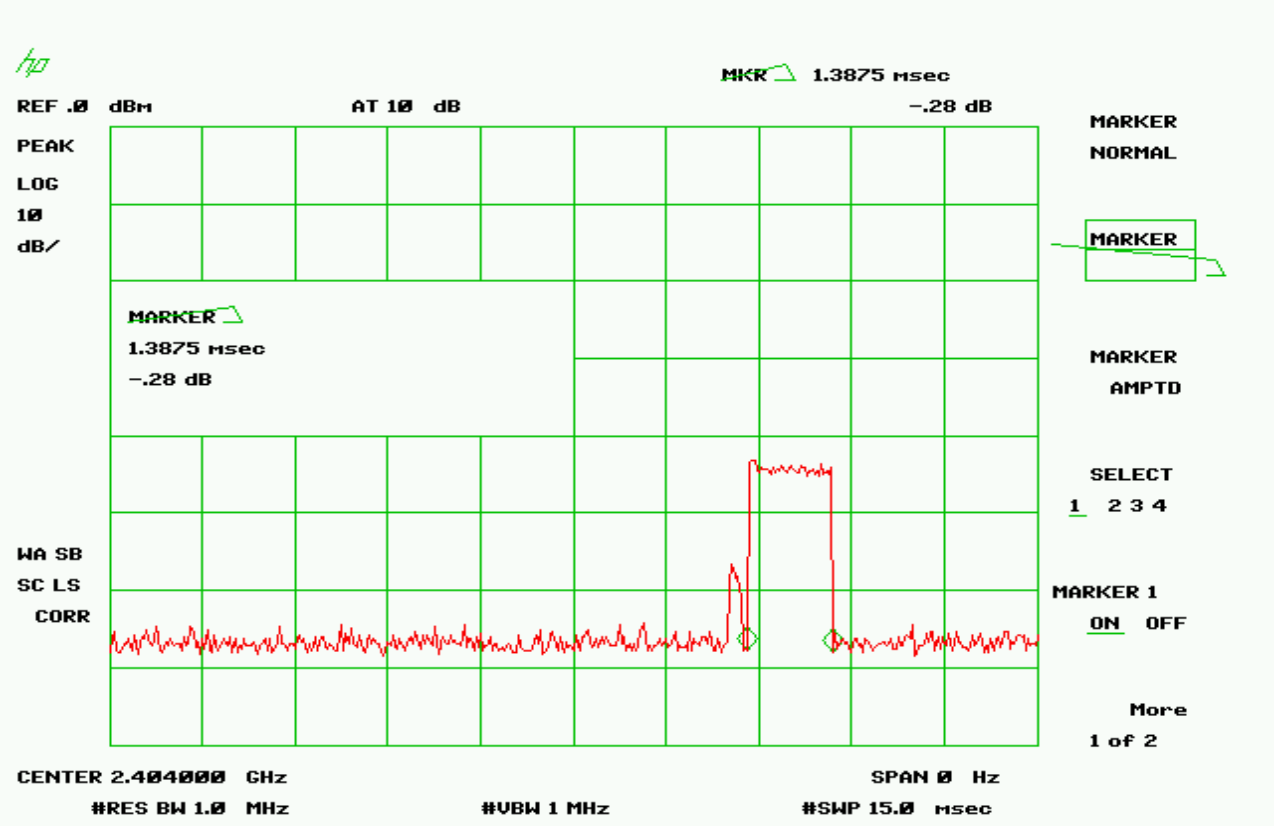


Figure 1. ATX Transmitter Pulse Width.

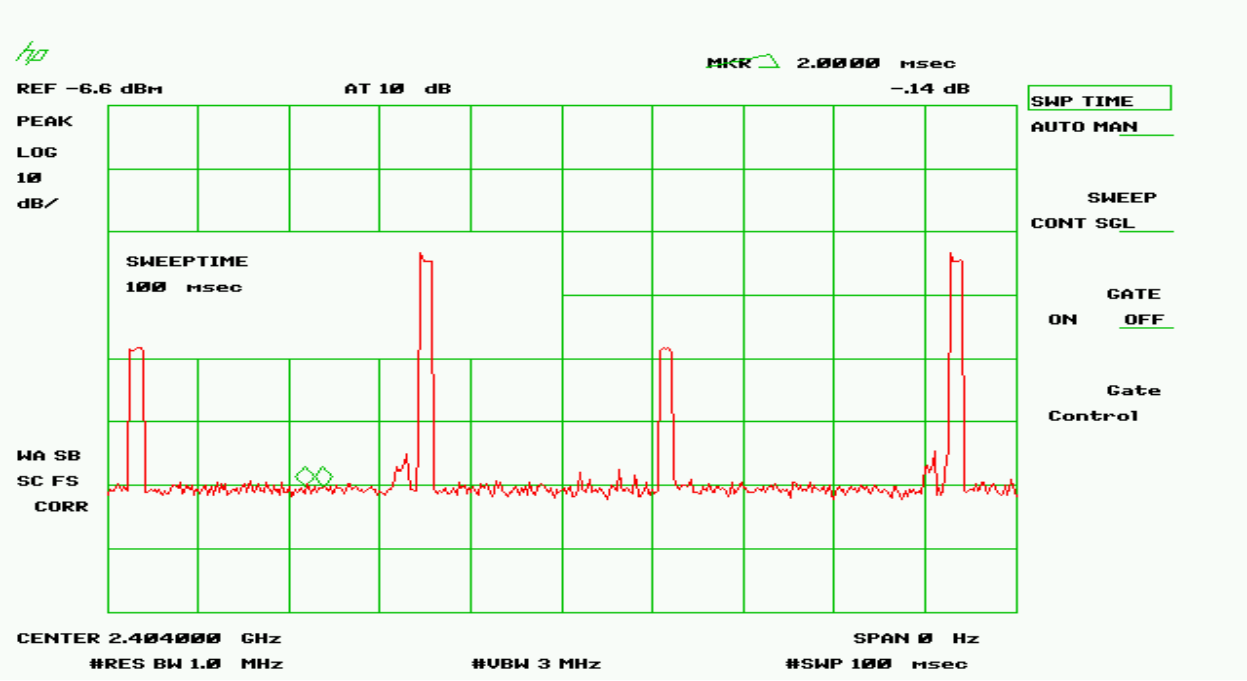


Figure 2. Pulses in 100 mSec period.

2.11 Unintentional Radiator Power Line Conducted Emissions (CFR 15.107)

The ATX unit was set-up and measured for conducted power line emissions. The measurement setup and test procedures were in accordance with ANSI C63.4, paragraph 7. The ATX unit was connected to its power adapter (Motorola model FMP5202A AC power Supply) for measurement. By design, the EUT operating state is such that it is restricted to the battery charge mode only and does not transmit (or receive) while connected to AC power.

Measurements were made over the 150 kHz to 30 MHz frequency range for the ATX unit. The measurement receiver was connected to the RF (receiver) port on the LISN and each power lead was individually measured. Test results are shown on Tables 2 and 3 for the ATX unit.

Table 2. ATX Power Line (Hot Line) Average Conducted Emissions Data, Class B.

Test Date: **July 22, 2008**
UST Project: **08-0119**
Customer: **Lecat's Ventriloscope LLC**
Model: **Ventriloscope ATX Unit**

.

ATX Average Power Line Conducted Emissions							
Test By: KM	**Test:** FCC Power Line Conducted Emissions 150 KHz – 30 MHz , Hot Phase			**Client:** Lecat's Ventriloscope LLC			
	Project: 08-0119	Sect. 15.107 Class: B		**Model:** Ventriloscope ATX Unit EUT in Charge Mode Only.			
Frequency (MHz)	**Test Data (dBuV)**	**IL+CL -AMP (dB)**	**Results (dBuV)**	**AVG Limits (dBuV)**	**Phase /Neutral**	**Margin (dB)**	**PK / QP**
0.195	46.1	-0.4	45.7	53.8	Phase	**8.1**	**PK**
0.389	44.2	0.0	44.2	48.7	Phase	**4.5**	**PK**
0.501	42.3	0.0	42.3	46.0	Phase	**3.7**	**PK**
1.16	41.6	0.0	41.6	46.0	Phase	**4.4**	**PK**
5.21	37.6	0.0	37.6	50.0	Phase	**12.4**	**PK**
23.4	34.9	0.0	34.9	50.0	Phase	**15.1**	**PK**

Tested from 150 kHz to 30 MHz.
SAMPLE CALCULATIONS: at 0.195 MHz, 46.1 dBuV + (- 0.4) = 45.7 dBuV

Tester Signature: Keyvan Muvahhed **Name: Keyvan Muvahhed**

Table 3. ATX Average Power Line (Neutral) Conducted Emissions Data, Class B

Test Date: **July 22, 2008**
UST Project: **08-0119**
Customer: **Lecat's Ventriloscope LLC**
Model: **Ventriloscope ATX Unit**

ATX Average Power Line Conducted Emissions							
Test By: KM	**Test:** FCC Conducted Emissions 150 KHz – 30 MHz, Neutral			**Client:** Lecat's Ventriloscope LLC			
	Project: 08-0119	Sect. 15.107 Class: B		**Model:** Ventriloscope ATX Unit			
Frequency (MHz)	**Test Data (dBuV)**	**IL+CL -AMP (dB)**	**Corrected Results (dBuV)**	**Avg Limits (dBuV)**	**Phase**	**Margin (dB)**	**PK / QP/ Avg DET**
0.1551	49.2	-0.1	49.1	54.3	Neutral	**4.4**	**PK**
0.365	35.7	-0.1	35.6	48.6	Neutral	**13.0**	**PK**
0.502	27.4	-0.1	27.3	46.0	Neutral	**16.7**	**PK**
1.15	42.3	0.2	42.5	46.0	Neutral	**3.5**	**PK**
5.345	37.3	0.3	37.6	50.0	Neutral	**12.4**	**PK**
23.42	35.5	0.2	35.7	50.0	Neutral	**14.3**	**PK**

Tested from 150 kHz to 30 MHz.
SAMPLE CALCULATIONS: at 1.15 MHz, 42.3 dBuV + 0.2 dB = 42.5 dBuV

Tester Signature: Keyvan Muvahhed **Name: Keyvan Muvahhed**

2.12 Intentional Radiator Power Line Conducted Emissions (CFR 15.207)

The EUT power lines were tested for the Receiver and digital mode in paragraph 2.11 above. The transmitter was covered at the same time because when the EUT is connected to the power lines through its battery charger, the EUT is inhibited from transmitting or receiving. It can only charge the battery. Therefore, additional test data is not available.

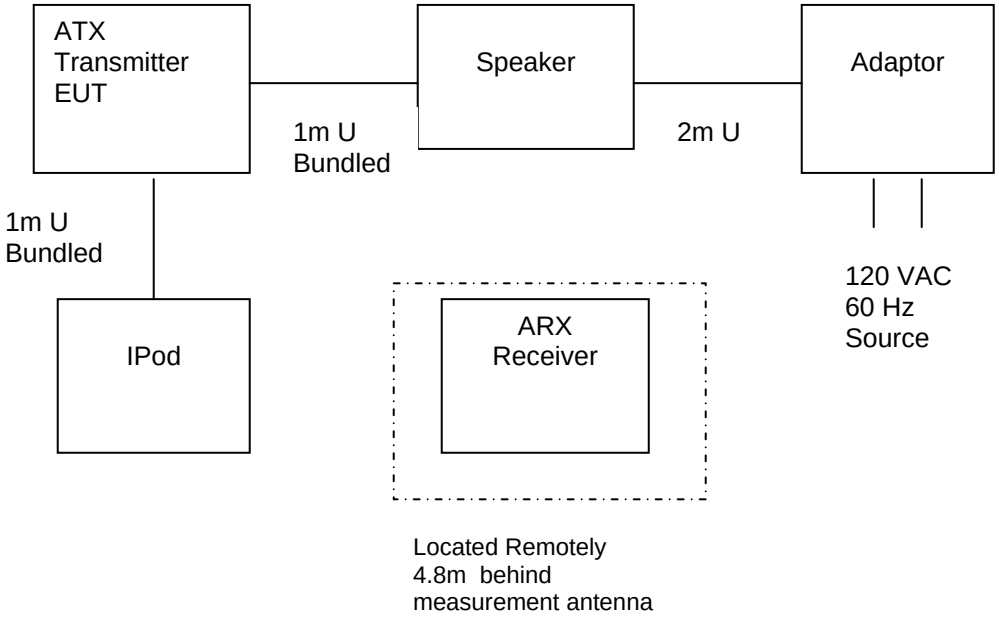


Figure 3. Test Configuration

Table 4. EUT and Peripherals

Test Date: **June 27 through July 22, 2008**
UST Project: **08-0119**
Customer: **Lecat's Ventriloscope LLC**
Model: **Ventriloscope ATX Unit**

PERIPHERAL MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID:	CABLES P/D
ATX Transmitter Lecat's Ventriloscope LLC	Ventriloscope ATX Unit (EUT)	None	WNT-VENTRILOSCOPE	None
ARX Receiver Lecat's Ventriloscope LLC	Ventriloscope ARX Unit (Load)	None	WNT-VENT-R	None
AC Adapter ALTEC Lansing	AL664	None	None	2m U P 120 VAC/ 60 Hz Direct Plug-in
Speaker ALTEC Lansing	None	None	None	1m bundled U
IPod Apple	A1199	YU7063WUVQ5	None	1m bundled U
AC Power Supply Motorola	FMP5202A	None	None	1 m U P 120 VAC, 60 Hz

U = Unshielded; P = Power Leads

Table 5. Test Instruments**.**

EQUIPMENT	MODEL NUMBER	MANUFACTURER	SERIAL NUMBER	DATE OF LAST CALIBRATION
SPECTRUM ANALYZER	8593E	HEWLETT-PACKARD	3205A00124	1/15/08
SIGNAL GENERATOR	8648B	HEWLETT-PACKARD	3642U01679	10/30/07
RF PREAMP	8447D	HEWLETT-PACKARD	2944A06291	10/30/07
BICONICAL ANTENNA	3110B	EMCO	9307-1431	11/15/07
LOG PERIODIC	3146	EMCO	9110-3236	11/21/07
LISN (x 2) 9247-50-TS-50-N	9247	SOLAR ELE.	955824 & 955825	4/2/08
HORN ANTENNA	3115	EMCO	9107-3723	10/16/06 2 Yr.
MICROWAVE PREAMP	8449B	HEWLETT PACKARD	3008A00480	8/21/07
CALCULATION PROGRAM	N/A	N/A	Ver. 6.0	N/A

Note: The calibration interval of the above test instruments is 12 months unless stated otherwise, and all calibrations are traceable to NIST/USA.

2.13 Unintentional Radiator Radiated Emissions (CFR 15.109)

Receiver and digital device Radiated emissions within the band 30 MHz to 25 GHz were measured with a spectrum analyzer via a pre-amplifier by connecting the spectrum analyzer to a receiving antenna spaced at three (3) meters from the EUT. The spectrum analyzer was set for a 50 Ω input impedance with the VBW set to ≥ the RBW bandwidth. The antenna was raised and lowered over a span of 4 meters in order to maximize the signal coming from the EUT. Similarly, the turntable was rotated through 360 degrees in the same maximizing effort. EUT was placed in the X-Y plane along the X-axis which was the worst case for all three mutually exclusive planes. The worst case results of the measurements are given in Tables 6 and 7 and Figures 3 and 6 through 9.

2.14 Intentional Radiator Radiated Emissions (CFR 15.249(a), (e))

The EUT frequency hopping was stopped and it was placed into a continuous transmit mode of operation. A preliminary scan was performed on the EUT to find signal frequencies that were caused by the ATX transmitter part of the product. Radiated measurements below 1 GHz were tested with a RBW = 120 kHz. Radiated measurements above 1 GHz were measured using a RBW = VBW = 1 MHz. Test data are found in Tables 8 and 9. EUT was placed in the X-Y plane along the X-axis which was the worst case for all three mutually exclusive planes. The worst case results of the measurements are given in Tables 8 and 9.

For average values, the measured Duty Cycle factor was used keeping in mind that the worst case DC factor is only 0.4 dB worse. The worst case margin is 13.7 dB, so the 0.4 dB increase is minimal.

.

Table 6. Unintentional Radiator Peak Radiated Emissions (CFR 15.109).

Peak ATX Radiated Emissions, Digital Device and Receiver							
Test By: KM	**Test:** Radiated Emissions- 30 MHz to 25 GHz			**Client:** Lecat's Ventriloscope LLC			
	Project: 08-0119	**15.109, Class: B**		**Model:** Ventriloscope ATX Unit Non modulated transmit mode			
Frequency (MHz)	**Test Data (dBuV)**	**AF+CL-PA (dB)**	**Results (dBuV/m)**	**Peak Limits (dBuV/m)**	**Distance / Polarity (meters)**	**Margin (dB)**	**Detector PK / QP**
240	17	15.2	32.2	46	3/Horiz	**13.8**	**PK**
293	11.0	17.7	28.7	46	3/Vert	**17.3**	**PK**
300	9.0	18.5	27.5	46	3/Vert	**18.5**	**PK**
316	11.8	18.1	29.9	46	3/Vert	**16.1**	**PK**
338	9.0	17.8	26.8	46	3/Vert	**19.2**	**PK**
2895	55.2	-2.4	52.8	74	3/Vert	**21.2**	**PK**

Tested from 30 MHz to 25 GHz.
Data corrected by 1.0 dB for loss of high pass filter.

SAMPLE CALCULATION:
RESULTS (dBuV/m @ 3m) = 55.2 dBuV + (-2.4) dB/m = 52.8 dBuV/m

CONVERSION FROM dBm TO dBuV = 107 dB

Test Date: July 8, 2008

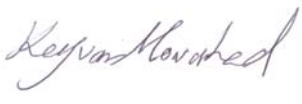
Tester Signature:  **Name: Keyvan Muvahhed**

Table 7. Unintentional Radiator Average Radiated Emissions (CFR 15.109)

Average ATX Radiated Emissions, Digital Device and Receiver							
Test By: KM	**Test:** Radiated Emissions- 30 MHz to 25 GHz			**Client:** Lecat's Ventriloscope LLC			
	Project: 08-0119	Requirement CFR 15.109		**Model:** Ventriloscope ATX Unit Non modulated transmit mode			
Frequency (MHz)	**Test Data (dBuV)**	**AF+CL-PA (dB)**	**Results (dBuV/m)**	**Limits AVG (dBuV/m)**	**Distance / Polarity (meters)**	**Margin (dB)**	**Detector PK / QP**
2895	55.2	-2.4	52.8	54	3/Vert	1.2	PK

Tested from 30 MHz to 25 GHz
Data corrected by 1.0 dB for loss of high pass filter.

SAMPLE CALCULATION:
RESULTS = 55.2 dBuV – 2.4 dB/m = 52.8 dBuV/m @ 3m

Test Date: July 8, 2008

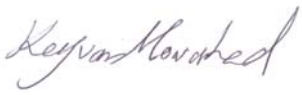
Tester Signature:  **Name: Keyvan Muvahhed**

Table 8. Peak Fundamental and Harmonics, ATX (CFR15.249(a))

ATX Radiated Fundamental and Harmonics Emissions							
Test By: DA	**Test:** Fundamental and Harmonics- above 1 GHz CFR 15.249 (a)			**Client:** Lecat's Ventriloscope LLC			
	Project: 08-0119	**Class:**		**Model:** Ventriloscope ATX Unit			
Frequency (MHz)	**Test Data (dBuV)**	**AF+CL-PA (dB/m)**	**Corrected Results (dBuV/m)**	**Peak Limits (dBuV/m)**	**Distance / Polarity (Meters)**	**Margin (dB)**	**Det PK / QP**
LOW BAND							
2404.0	98.5	-4.0	94.5	114.0	3m./HORZ	19.5	PK
4806.83	60.5	3.9	64.4	74.0	3m./HORZ	9.6	PK
7210.33	47.6	8.7	46.8**	74.0	1m./HORZ	27.2	PK
9616.25	47.0	12.5	50.0**	74.0	1m./HORZ	24.0	PK
12017.23	45.8	17.6	53.9**	74.0	1m./HORZ	20.1	PK
MID BAND							
2440.33	94.5	-4.0	90.5	114	3m./HORZ	23.5	PK
4881.95	61.1	4.3	65.4	74.0	3m./VERT	8.6	PK
7325.05	48.0	9.1	47.6**	74.0	1m./HORZ	26.4	PK
9764.35	46.8	12.8	50.1**	74.0	1m./VERT	23.9	PK
HIGH BAND							
2478.0	95.0	-4.2	90.8	114	3m./VERT	23.2	PK
4956.13	58.1	4.5	62.6	74.0	3m./HORZ	11.4	PK
7434.18	50.2	9.5	50.2**	74.0	1m./HORZ	23.8	PK
9909.62	48.4	13.0	51.9**	74.0	1m./HORZ	22.1	PK

Tested from 2 GHz to 25 GHz.
Data corrected by 1.0 dB for loss of high pass filter, except for fundamental
.
** Conversion from 1 meter distance to 3 meters = - 9.5 dB

SAMPLE CALCULATION:
RESULTS: At 7210.33 MHz, = 47.6 dBuV+8.7 dB/m -9.5 dB = 46.8 dBuV/m @ 3m

Test Date: July 8, 2008

Tester Signature:  **Name: Daniel Aparaschivei**

Table 9. Average Radiated Spurious Emissions, ATX, (CFR 15.35(b), 15.249(a))

Average ATX Radiated Fundamental and Harmonics Emissions							
Test By: D.A.	**Test:** Fundamental and Harmonics- Above 1 GHz to 25 GHz			**Client:** Lecat's Ventriloscope LLC			
	Project: 08-0119	**Average**		**Model:** Ventriloscope ATX Unit			
Frequency MHz	**Test Data dBuV**	**AF+CL-PA-DC dB/m**	**Corrected Results dBuV/m**	**AVG Limits dBuV/m**	**Distance/ Polarization**	**Margin dB**	**PK / QP /AVG**
LOW BAND							
2404.0	98.5	-29.1	69.4	94	3m./HORZ	24.6	**PK**
4806.83	60.5	-21.2	39.3	54	3m./HORZ	14.7	**PK**
7210.33	47.6	-16.4	31.2	54	3m./HORZ	22.8	**PK**
9616.25	47.0	-13.1	33.9	54	3m./HORZ	20.1	**PK**
12017.23	45.8	-7.5	38.3	54	3m./HORZ	15.7	**PK**
MID BAND							
2440.33	94.5	-29.1	69.6	94	3m./HORZ	24.6	**PK**
4881.95	61.1	-20.8	40.3	54	3m./VERT	13.7	**PK**
7325.05	48.0	-16.0	32.0	54	3m./HORZ	22.0	**PK**
9764.35	46.8	-12.3	34.5	54	3m./VERT	19.5	**PK**
HIGH BAND							
2478.0	95.0	-29.2	65.8	94	3m./VERT	28.2	**PK**
4956.13	58.1	-20.6	37.4	54	3m./HORZ	16.6	**PK**
7434.18	50.2	-15.6	34.6	54	3m./HORZ	19.4	**PK**
9909.62	48.4	-12.1	36.3	54	3m./HORZ	17.7	**PK**

Data corrected by 1.0 dB for loss of high pass filter, except for fundamental

Duty Cycle, DC = -25.1 dB

SAMPLE CALCULATION: at 2403.86 MHz, = 98.5 dBuV – 29.1 dB/m = 69.4 dBuV/m @ 3m

Tester Signature: 

Name: Daniel Aparaschive

2.15 Band Edge Measurements (CFR15.249(d))

Band Edge measurements were made at a Low Channel and High Channel peak at highest EUT related emission outside the upper and lower occupied bandwidth. A measurement was made of the fundamental and the emission was measured using a peak setting. A Resolution Bandwidth of > 1% of the emission bandwidth was used. This procedure was repeated for the high channel.

The limits were derived as follows:

2.15.1 High Band Edge

Above 2478 MHz the limit per section 15.249(d) is 50 db below the fundamental or the value expressed by CFR 15.209 (54 dBuV/m) whichever is the lesser attenuation.

The High Channel fundamental recorded in Table 9 is 65.8 dBuV/m.

65.8 dBuV/m – 50 dB = 15.8 dBuV/m which is lower than the 54 dBuV/m limit of CFR 15.209, therefore the limit of 15.209 prevails.

2.15.2 Low Band Edge

The low channel fundamental recorded in Table 9 is 69.4 dBuV/m

69.4 dBuV/m – 50 dB = 19.4 dBuV/m which is lower than the 54 dBuV/m limit of CFR 15.209, therefore the limit of 15.209 prevails.

There are no non-harmonic ATX transmitter emissions outside of the specified frequency band up to 24,835 MHz or down to 30 MHz that are within 20 dB of the 15.209 limit.