

<u>APPLICANT</u>	<u>MANUFACTURER</u>
X-10 USA, Inc. 19823, 58 <sup>th</sup> Place S. Kent, WA 98032	X-10 Electronics Shenzhen Co. Ltd. X-10 Building Labour Industrial District Shenzhen, Xixiang, Bao An Guang Dong, China, 518102

TEST SPECIFICATION: FCC Rules and Regulations Part 15, Subpart C

TEST PROCEDURE: ANSI C63.4:2000

#### TEST SAMPLE DESCRIPTION

BRANDNAME: X-10

MODEL: VT40A FCC ID: B4SVT40A

TYPE: 2.4 GHz FM Transmitter

FREQUENCY RANGE: 2400 to 2483.5 MHz

POWER REQUIREMENTS: 9 VDC, 200 mA derived from an AC Adapter, model D9200

#### TESTS PERFORMED

- 15.249(a) Radiated Emissions, Fundamental and Harmonics
- 15.294(c) Occupied Bandwidth
- 15.249(c)/15.209 Radiated Emissions, Spurious Case
- 15.207(a) Conducted Emissions

## REPORT OF MEASUREMENTS

Applicant: X-10 (USA), Inc.  
Device: 2.4 GHz Transmitter  
FCC ID: B4SVT40A  
Power Requirements: 9 VDC, 200 mA derived from an AC Adapter, model D9200  
Applicable Rule Section: Part 15, Subpart C, Section 15.249

## TEST RESULTS

- 15.207(a): The radio frequency voltage that was conducted back on to the AC power line on any frequency/frequencies within the bandwidth of 450kHz to 30MHz did not exceed 250 microvolts.
- 15.249(a): The unit operates in the 2.4 to 2.4835 GHz band at 4 frequencies as follows:  
1) 2.410 GHz 2) 2.435 GHz  
3) 2.455 GHz 4) 2.472 GHz  
Field strength readings were taken at 3 frequencies (low, middle and high) because the device operates over a range greater than 10 MHz.  
The field strength of the fundamental did not exceed 50 milliV/M AVERAGE. The field strength of the harmonics did not exceed 500 microV/M AVERAGE.
- 15.249(b): Field strength readings were taken at three meters unless otherwise noted.
- 15.249(c): Emissions radiated outside band edges were greater than 50 dB below the specified the level of the fundamental or met the general radiated emission requirements of 15.209(a), whichever provided the lesser attenuation.
- 15.249(d): The peak field strength of any emission did not exceed the maximum permitted average field strength by more than 20dB under any condition of modulation.

## EXHIBIT 4

Radiated Emissions, Fundamental & Harmonics, Spurious Case

Para. 15.249(a)

EXHIBIT 4

Spurious Emissions

Para. 15.249(c)

EXHIBIT 4

Occupied Bandwidth

Para. 15.249(c)

EXHIBIT 4

Conducted Emissions

Para. 15.207(a)

# EQUIPMENT LIST

## FCC15.249 Compliance Testing

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
066	High Gain Horn Antenna	Microlab/FXR	8.2 GHz - 12.4 GHz	X638A	09/25/2002	09/25/2003
067	Open Area Test Site	Retlif	3 Meter	RNY	09/20/2000	09/20/2003
078	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS24BNC	05/16/2002	05/16/2003
128	Double Ridged Guide	Electro-Mechanics	1 GHz - 18 GHz	3105	06/07/2002	06/07/2003
129F	High Gain Horn Antenna	Microlab/FXR	18 GHz - 26.5 GHz	K638A	09/11/2002	09/11/2003
129G	High Gain Horn Antenna	Microlab/FXR	26.5 GHz - 40 GHz	U638A	09/11/2002	09/11/2003
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	06/11/2002	06/11/2003
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	07/17/2002	01/17/2003
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	03/05/2002	03/05/2003
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	07/16/2002	01/16/2003
202	Transient Limiter	Hewlett Packard	.009 MHz - 200 MHz	11947A	07/22/2002	07/22/2003
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	06/11/2002	06/11/2003
420	Amplifier	Hewlett Packard	2.0 GHz - 18 GHz	11975A	09/09/2002	09/09/2003
421	Harmonic Mixer	Hewlett Packard	18 GHz - 26.5 GHz	11970K	09/29/2000	09/29/2003
512	Graphics Plotter	Hewlett Packard	N/A	7470A	11/21/2001	11/21/2002
513	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS24BNC	05/16/2002	05/16/2003
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	07/11/2002	07/11/2003
544	EMC Analyzer	Hewlett Packard	9.0 kHz - 1.8 GHz	8591EM	12/19/2001	12/19/2002
617	Interference Analyzer	Electro-Metrics	10 kHz - 1 GHz	EMC-30	08/23/2002	08/23/2003
767	Biconilog	EMCO	26 - 2000 MHz	3142B	09/03/2002	09/03/2003

## Test Setup Photographs

