

<u>APPLICANT</u>	<u>MANUFACTURER</u>
X-10 USA, Inc. 91 Ruckman Road Closter, NJ 07624	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 C63.4:1992

TEST SAMPLE DESCRIPTION

BRANDNAME: X-10

MODEL: VT32A FCC ID: B4SVT32A

TYPE: Audio / Video Extreme Sender

FREQUENCY RANGE: 2413 MHz to 2476 MHz

POWER REQUIREMENTS: 12 VDC derived from AC Adapter, Model: PT30A

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: B4SVT32A
Power Requirements: 12 VDC derived from AC Adapter, Model PT30A
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 2400-2483.5MHz band at 4 frequencies as follows:
1) 2413 MHz 2) 2437.6 MHz
3) 2455 MHz 4) 2476 MHz
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 50mV/M AVERAGE. The field strength of the harmonics did not exceed 500 V/M AVERAGE.
- 15.249(b): Field strength readings were taken at three meters unless otherwise noted.
- 15.249(c): Emissions radiated outside band edges are greater than 50 dB below the specified the level of the fundamental.
- 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

Para. 15.249(a)

(See separate e-file attachments named RE Fund Harm.doc)

EXHIBIT 4

Spurious Emissions

Para. 15.249(c)
(See separate e-file attachment RE Spur.doc)

EXHIBIT 4

Occupied Bandwidth

Para. 15.249(c)

(See separate e-file attachment named Occbw.pdf)

EXHIBIT 4

Conducted Emissions

Para. 15.207(a)

(See separate e-file attachment named CEdata.pdf)

EQUIPMENT LIST

Conducted Emissions, Tx & Rx, 450kHz to 30MHz

EN	Type	Manufacturer	Description.	Model No.	Cal Date	Due Date
078	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS24BNC	05/11/1999	05/11/2000
088A	Conical Log Spiral	Electro-Mechanics	200 MHz - 1 GHz	3101	01/04/2000	01/04/2001
338	Signal Generator	Hewlett Packard	500 kHz - 1 GHz	8640B	03/09/2000	03/09/2001
513	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS24BNC	11/02/1999	11/02/2000
575	Graphics Plotter	Hewlett Packard	N/A	7470A	04/22/1999	04/22/2000
7016	EMC Analyzer	Hewlett Packard	9kHz - 1.8GHz	8591EM	02/18/2000	02/18/2001
7017	Transient Limiter	Hewlett Packard	9kHz - 200MHz	11947A	04/22/1999	04/22/2000

Occupied Bandwidth, 2.4GHz to 2.4835GHz

EN	Type	Manufacturer	Description.	Model No.	Cal Date	Due Date
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	03/20/2000	09/20/2000
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	03/08/2000	03/08/2001
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	03/20/2000	09/20/2000

Fundamental, Harmonics, and Spurious Emissions, Radiated, 30MHz to 25GHz

EN	Type	Manufacturer	Description.	Model No.	Cal Date	Due Date
062	High Gain Horn Antenna	Microlab/FXR	1.7 GHz - 2.6 GHz	R638A	01/25/2000	01/25/2001
064	High Gain Horn Antenna	Microlab/FXR	3.95 GHz - 5.85 GHz	H638A	01/26/2000	01/26/2001
065	High Gain Horn Antenna	Microlab/FXR	5.85 GHz - 8.2 GHz	C638A	01/26/2000	01/26/2001
066	High Gain Horn Antenna	Microlab/FXR	8.2 GHz - 12.4 GHz	X638A	01/26/2000	01/26/2001
067	Open Area Test Site	Retlif	3 Meter	RNY	10/15/1997	10/15/2000
129D	High Gain Horn Antenna	Microlab/FXR	12.4 GHz - 18 GHz	Y638A	01/26/2000	01/26/2001
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	06/22/1999	06/22/2000
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	03/20/2000	09/20/2000
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	03/08/2000	03/08/2001
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	03/20/2000	09/20/2000
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	06/22/1999	06/22/2000
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	10/22/1998	04/22/2000
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	06/16/1999	06/16/2001
617	Interference Analyzer	Electro-Metrics	10 kHz - 1 GHz	EMC-30	01/17/2000	01/17/2001