

Technical Information

APPLICANT	MANUFACTURER
Name: X10 (USA), Inc.	Name: X-10 Electronics (Shenzhen) Co. Ltd.
Address: 19823 58 th Place South	Address: Together Rich Industrial Park B Sanwei Industrial District, Xixiang Town
City, State, Zip: Kent, WA 98032	City, State, Zip: Baoan County, Shenzhen, China

Test Specifications: FCC Rules and Regulations Part 15, Subpart C, Section 15.249

FCC Rules and Regulations Part 15, Subpart B

Test Procedure: ANSI C63.4:2003

Test Sample Description

Test Sample: 2.4 GHz Wireless Audio/Video Sender with an Integrated 310 MHz
Superregenerative Receiver

Brandname(s): X10 (USA)

Model(s): VT44A

FCC ID: B4SVT44A

Type: Frequency Modulated Transmitter

Power Requirements: 6 VDC, 300 mA derived from external AC Adapter

Frequency Of Operation: 2400-2483.5 MHz

Applicable Rule Section: Part 15, Subpart C, Section 15.249

TESTS PERFORMED

Transmitter:

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

Receiver:

- 15.107(a) Conducted Emissions
- 15.109(a) Radiated Emissions

Test Results

Transmitter:

- 15.203: The intentional radiator is designed to ensure that no antenna other than that furnished by the applicant can be used with the device.
- 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 150 kHz to 30 MHz did not exceed Class B limits as specified in CISPR 22.
- 15.249 (a): The unit operates in 2400 MHz to 2483.5 MHz band.
The field strength of the fundamental did not exceed 50 mV/M avg.
The field strength of the harmonics did not exceed 500 μ V/M avg.
- 15.249 (b): Field strength readings were taken at 3 meters unless otherwise noted.
- 15.249 (c): Emissions radiated outside the specified frequency band were attenuated in accordance with the general radiated emissions limits of 15.209.
- 15.249 (d): The peak field strength of any emission did not exceed the maximum permitted average field strength by more than 20 dB.

Receiver:

- 15.107 (a): The radio frequency voltage that was conducted back on to the AC power line on any frequency/frequencies within the bandwidth of 150 kHz to 30 MHz did not exceed Class B limits as specified in CISPR 22.
- 15.109(a): The field strength of spurious radiated emissions did not exceed Class B limits specified in paragraph 15.109(a).

GENERAL NOTES

1. All user accessible controls were adjusted to produce maximum emissions.
2. The device was tested with the following external accessories:

Panasonic VCR
Tri-RCA Cable; ¼ inch mini dim cable
3. Measurements of Conducted Emissions were performed utilizing a 50 ohm / 50 µhenry Line Impedance Stabilization Network (LISN).
4.

The unit operates at the following frequencies:	Channel A 2414 MHz	Channel B 2431 MHz	Channel C 2450 MHz	Channel D 2467 MHz
The unit was tested at the following frequencies:	2414 MHz	-	2450 MHz	2467 MHz
5. The frequency range was scanned from 30 MHz to 25 GHz. All emissions not reported were more than 20 dB under the specified limit.

Certification and Signatures

We certify that this report is a true representation of the results obtained from the tests of the equipment stated. We further certify that the measurements shown in this report were made in accordance with the procedures indicated and vouch for the qualifications of all Retlif Testing Laboratories personnel taking them.



Donald C. Lerner
EMC Test Engineer



Richard J. Reitz
Laboratory Manager
NARTE Certified Engineer ATL-0036-E

Non-Warranty Provision

The testing services have been performed, findings obtained and reports prepared in accordance with generally accepted laboratory principles and practices. This warranty is in lieu of all others, either expressed or implied.

Non-Endorsement

This test report contains only findings and results arrived at after employing the specific test procedures and standards listed herein. It is not intended to constitute a recommendation, endorsement or certification of the product or material tested. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

EQUIPMENT LIST

Conducted Emissions

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
078	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS24BNC	6/29/2006	6/29/2007
079	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS24BNC	6/29/2006	6/29/2007
091	Shielded Enclosure	Retlif	10 kHz - 1 GHz	Room 6	10/16/2006	10/16/2007
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	10/10/2006	4/10/2007
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	10/9/2006	4/9/2007
456	LISN	Solar Electronics	DC - 60 Hz	9409-50-R-24	10/28/2005	11/30/2006
574	AM/FM Signal Generator	Marconi Instru.	9 kHz - 2.4 GHz	2024	7/25/2006	7/25/2007
831	10 DB Atten. (50 ohm)	Narda	DC - 11 GHz, 20W	768-10	5/10/2006	5/10/2007
896	EMI Test Receiver	Rohde & Schwarz	20 Hz - 40 GHz	ESIB40	9/5/2006	9/5/2007

Occupied Bandwidth

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
091	Shielded Enclosure	Retlif	10 kHz - 1 GHz	Room 6	10/16/2006	10/16/2007
128	Double Ridged Guide	Electro-Mechanics	1 GHz - 18 GHz	3105	3/27/2006	3/27/2007
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	10/10/2006	4/10/2007
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	10/9/2006	4/9/2007
141C	Cable	Retlif	1 GHz ~ 18 GHz	1 METER, BLUE	1/4/2006	1/4/2007
512	Graphics Plotter	Hewlett Packard	N/A	7470A	10/18/2006	10/18/2007
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	9/9/2005	9/9/2007

Radiated Emissions

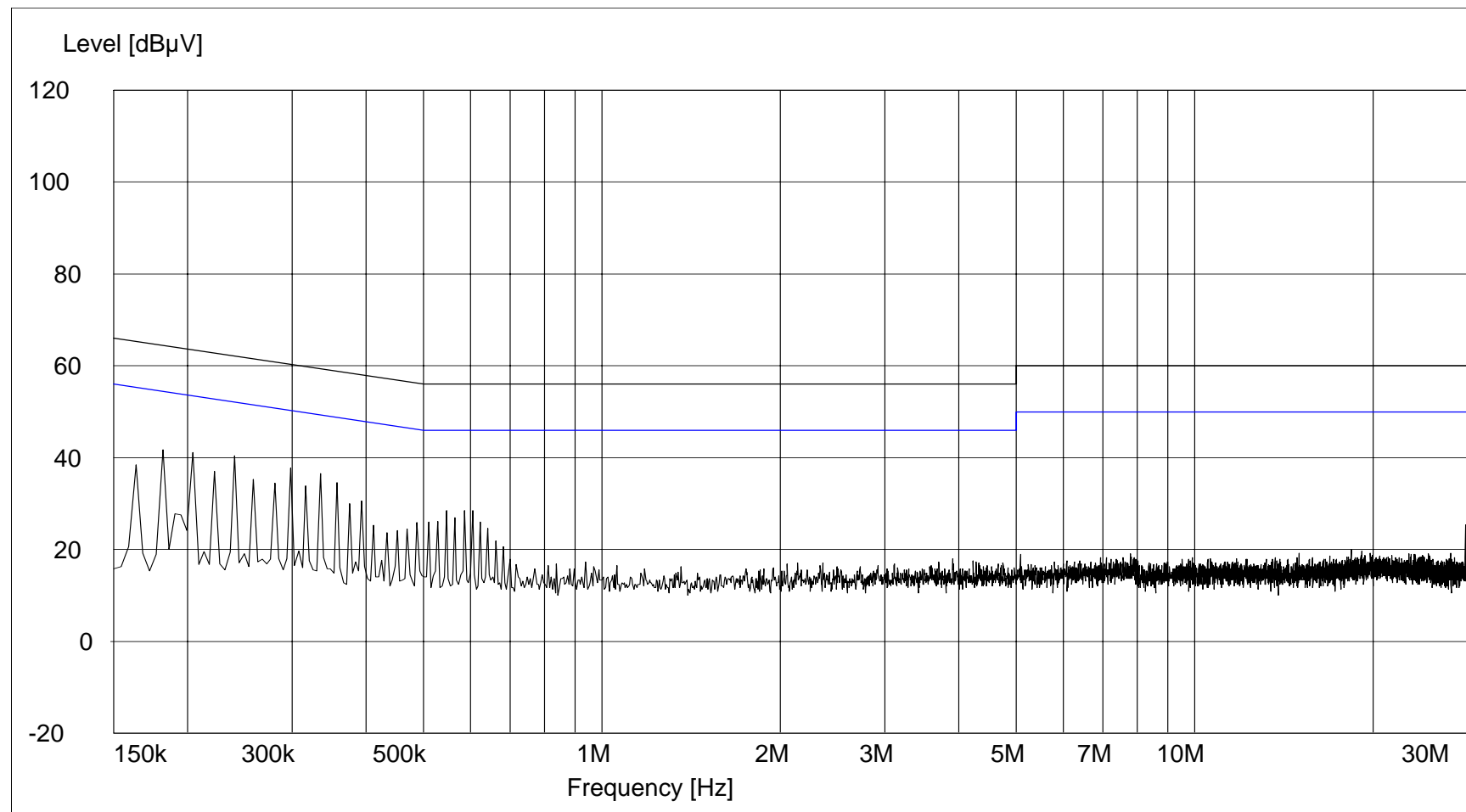
EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3 Meter	RNY	9/12/2006	9/12/2009
091	Shielded Enclosure	Retlif	10 kHz - 1 GHz	Room 6	10/16/2006	10/16/2007
128	Double Ridged Guide	Electro-Mechanics	1 GHz - 18 GHz	3105	3/27/2006	3/27/2007
129E	High Gain Horn Antenna	Microlab/FXR	18 GHz - 26.5 GHz	K638A	9/20/2006	9/20/2007
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/27/2006	6/27/2007
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	10/10/2006	4/10/2007
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	10/9/2006	4/9/2007
141C	Cable	Retlif	1 GHz ~ 18 GHz	1 METER, BLUE	1/4/2006	1/4/2007
141D	Cable	Retlif	1 GHz ~ 18 GHz	10 METER, BLACK	1/4/2006	1/4/2007
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	6/27/2006	6/27/2007
420	Amplifier	Hewlett Packard	2.0 GHz - 18 GHz	11975A	11/14/2006	11/14/2007
421	Harmonic Mixer	Hewlett Packard	18 GHz - 26.5 GHz	11970K	10/3/2006	10/3/2009
512	Graphics Plotter	Hewlett Packard	N/A	7470A	10/18/2006	10/18/2007
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	11/10/2006	11/10/2007
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	9/9/2005	9/9/2007
617	Interference Analyzer	Electro-Metrics	10 kHz - 1 GHz	EMC-30	2/21/2006	2/21/2007
712	EMI Test Receiver	Rohde & Schwarz	20 Hz - 26.5 GHz	ESI26	9/26/2006	9/26/2007
712A	Cable	Retlif	10 kHz - 18 GHz	R&S Analyzer	6/3/2006	6/3/2007
712B	Cable	Retlif	10 kHz - 18 GHz	R&S Analyzer	8/21/2006	8/21/2007
723	H.P. Filter	Mini-Circuits	1 GHz	BHP-1000	8/7/2006	8/7/2007
762	AM/FM Signal Generator	Marconi Instru.	10 kHz - 1.2 GHz	2023	7/25/2006	7/25/2007
767	Biconilog	EMCO	26 - 2000 MHz	3142B	10/12/2006	10/12/2007

Receiver Test Data

FCC Part 15, Subpart B, Section 15.107(a), Conducted Emissions, Power Leads,
150 kHz to 30 MHz
Receiver Test Data

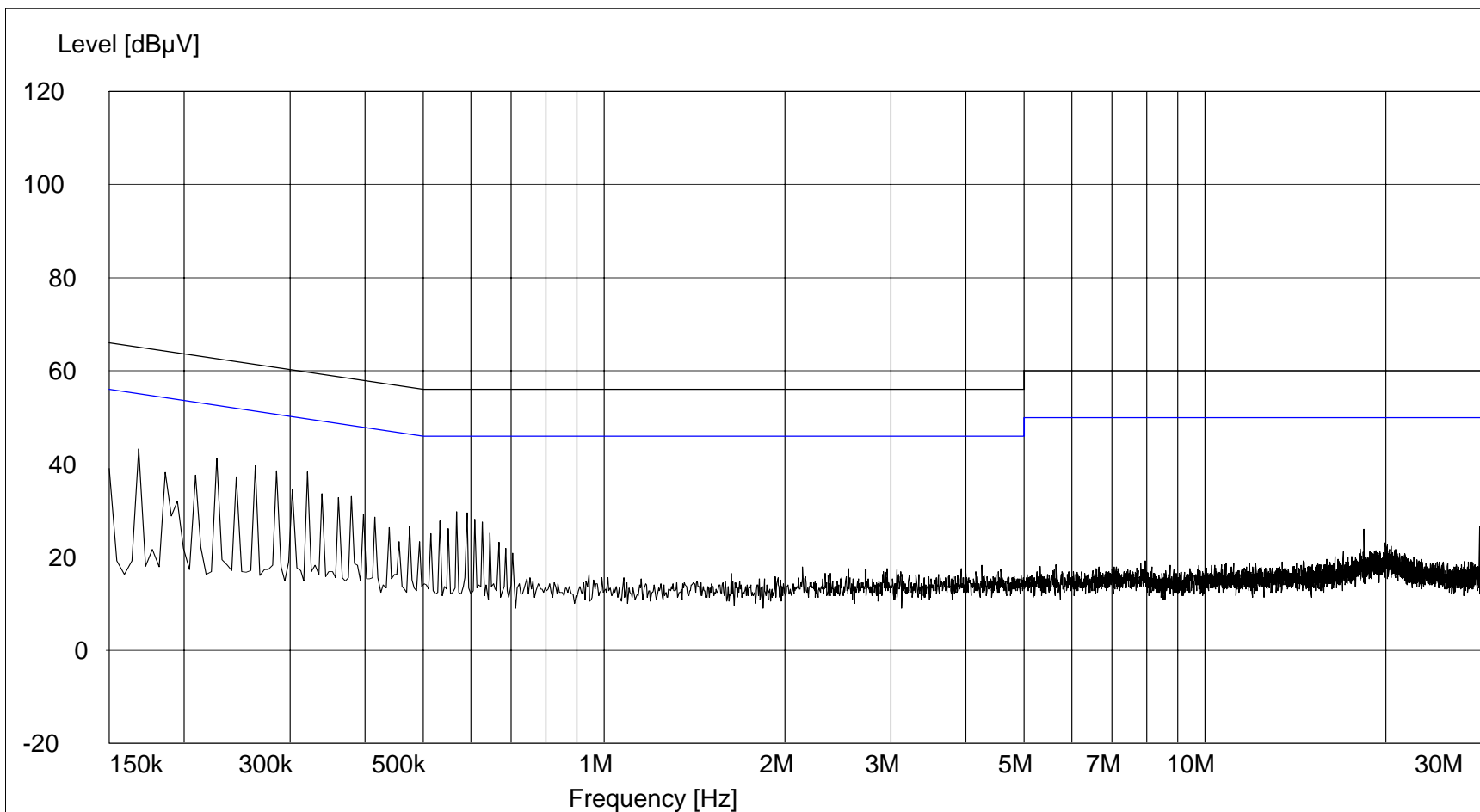
FCC Part 15 Subpart B, Conducted Emissions, 150 kHz to 30 MHz.

Customer: X-10 (USA), Inc.
Test Sample: 2.4 GHz Wireless Audio / Video Sender with an integrated 310MHz superregenerative receiver.
Model Number: VT44A ; Serial No.: N/A
Test Specification: FCC Part 15 Subpart B, 15.107(a) Class B.
Mode of Operation: Continuously receiving a 310 MHz CW signal, Receiver coherent.
Lead Tested: Hot input to AC adapter.
Technician / Date: R. S / November 14, 2006.
Detector / Note: Peak / Peak passed average limit.
FCCID Number: B4SVT44A



FCC Part 15 Subpart B, Conducted Emissions, 150 kHz to 30 MHz.

Customer: X-10 (USA), Inc.
Test Sample: 2.4 GHz Wireless Audio / Video Sender with an integrated 310MHz superregenerative receiver.
Model Number: VT44A ; Serial No.: N/A
Test Specification: FCC Part 15 Subpart B, 15.107(a), Class B.
Mode of Operation: Continuously receiving a 310 MHz CW signal, Receiver coherent.
Lead Tested: Neutral input to AC adapter.
Technician / Date: R. S / November 14, 2006.
Detector / Note: Peak / Peak passed average limit.
FCCID Number: B4SVT44A



FCC Part 15, Subpart B, Class B, Radiated Emissions, 30 MHz to 2 GHz,
Paragraph 15.109(a)
Receiver Test Data

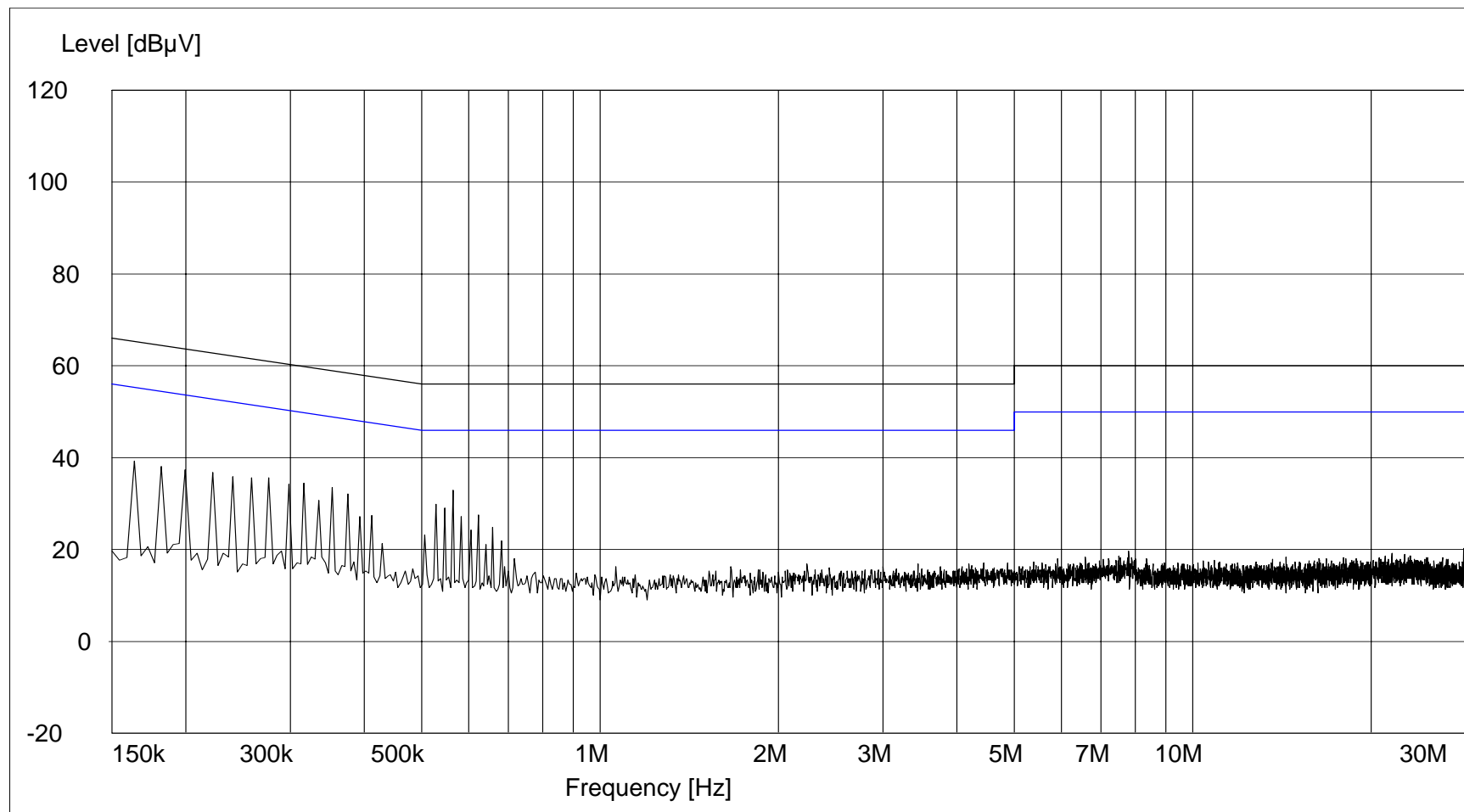
Test Method:	FCC Part 15, Subpart B, Class B, Radiated Emissions, 30 MHz to 2 GHz, Paragraph 15.109(a)						
Customer:	X-10 (USA), Inc.				Job No.	R-11708-1	
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A				FCC ID:	B4SVT44A	
Operating Mode:	Continuously receiving a 310 MHz CW signal, Receiver coherent.						
Technician:	R. Soodoo				Date:	November 18, 2006.	
Notes:	Test Distance: 3 Meters Detector: Quasi-Peak Below 1 GHz, Peak above 1 GHz Temp: 11°C Humidity: 15%						
Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	Limit
MHz	(V/H) / Meters	Degrees	dBuV	dB	dBuV/m	uV/m	uV/m
30.00							100
88.00							100
88.00							150
150.0	V / 1.0	45.0	10.0	10.7	20.7	10.8	
157.5	V / 1.0	68.0	10.0	11.1	21.1	11.4	
216							150
216							200
295.0	V / 1.0	0.0	22.0	16.3	38.3	82.2	
308.8	V / 1.5	225.0	20.0	16.3	36.3	65.3	
311.2	H / 1.0	180.0	27.0	16.6	43.6	151.4	
960.00							200
960.00							500
2000.0							500
	The frequency range was scanned from 30 MHz to 2.0 GHz.						
	The emissions observed from the EUT do not exceed the specified limits.						
	Emissions not recorded were more than 20dB under the specified limit.						

Transmitter Test Data

FCC Part 15, Subpart B, Section 15.207(a), Conducted Emissions, Power Leads,
150 kHz to 30 MHz
Transmitter Test Data

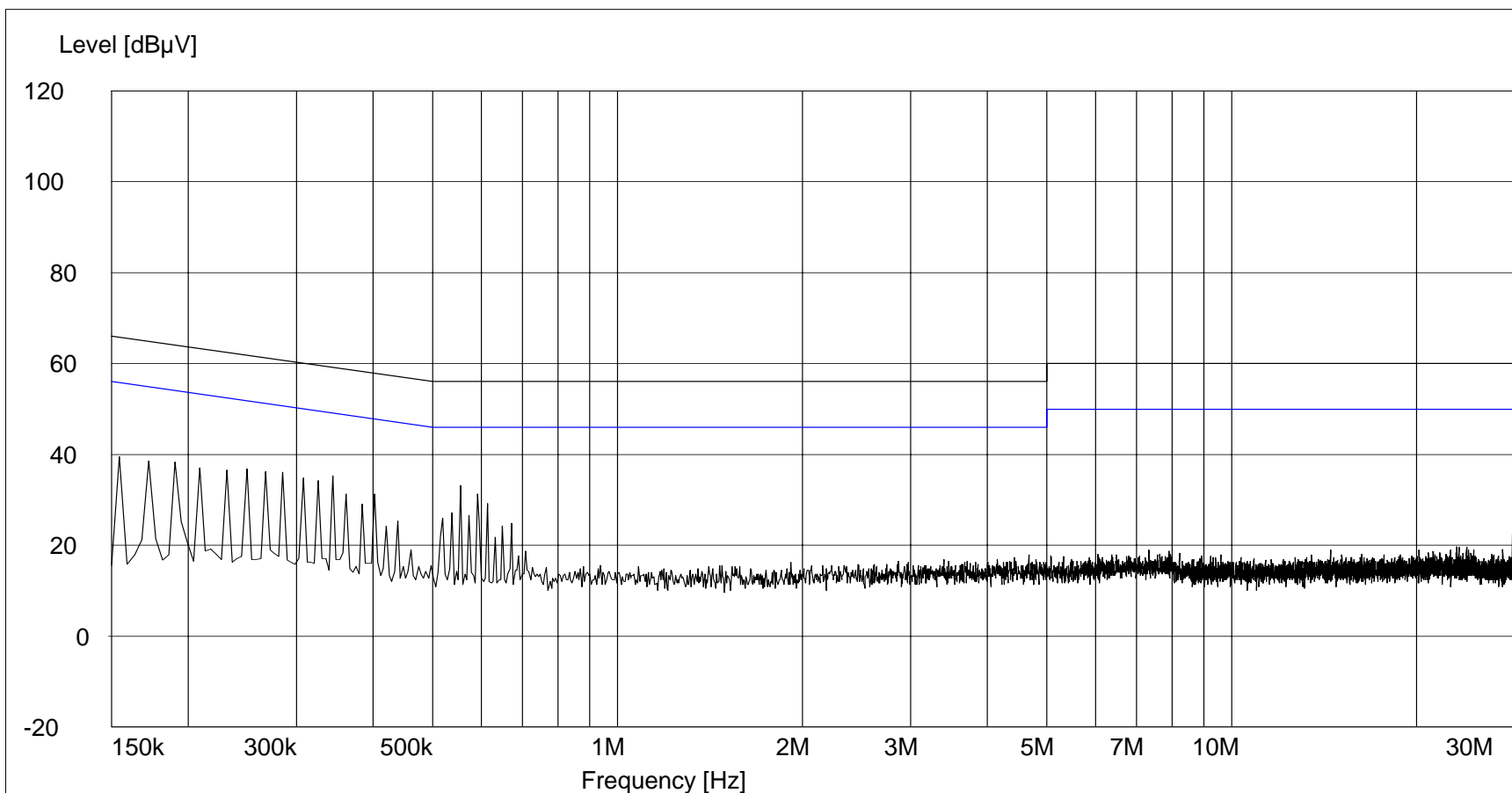
FCC Part 15 Subpart C, Conducted Emissions, 150 kHz to 30 MHz.

Customer: X-10 (USA), Inc.
Test Sample: 2.4 GHz Wireless Audio / Video Sender with an integrated 310MHz superregenerative receiver.
Model Number: VT44A ; Serial No.: N/A
Test Specification: FCC Part 15 Subpart B, 15.207(a)
Mode of Operation: Continuously transmitting a 2.414 GHz FM signal, Channel A.
Lead Tested: Hot input to AC adapter.
Technician / Date: R. S / November 14, 2006.
Detector / Note: Peak / Peak passed average limit.
FCCID Number: B4SVT44A



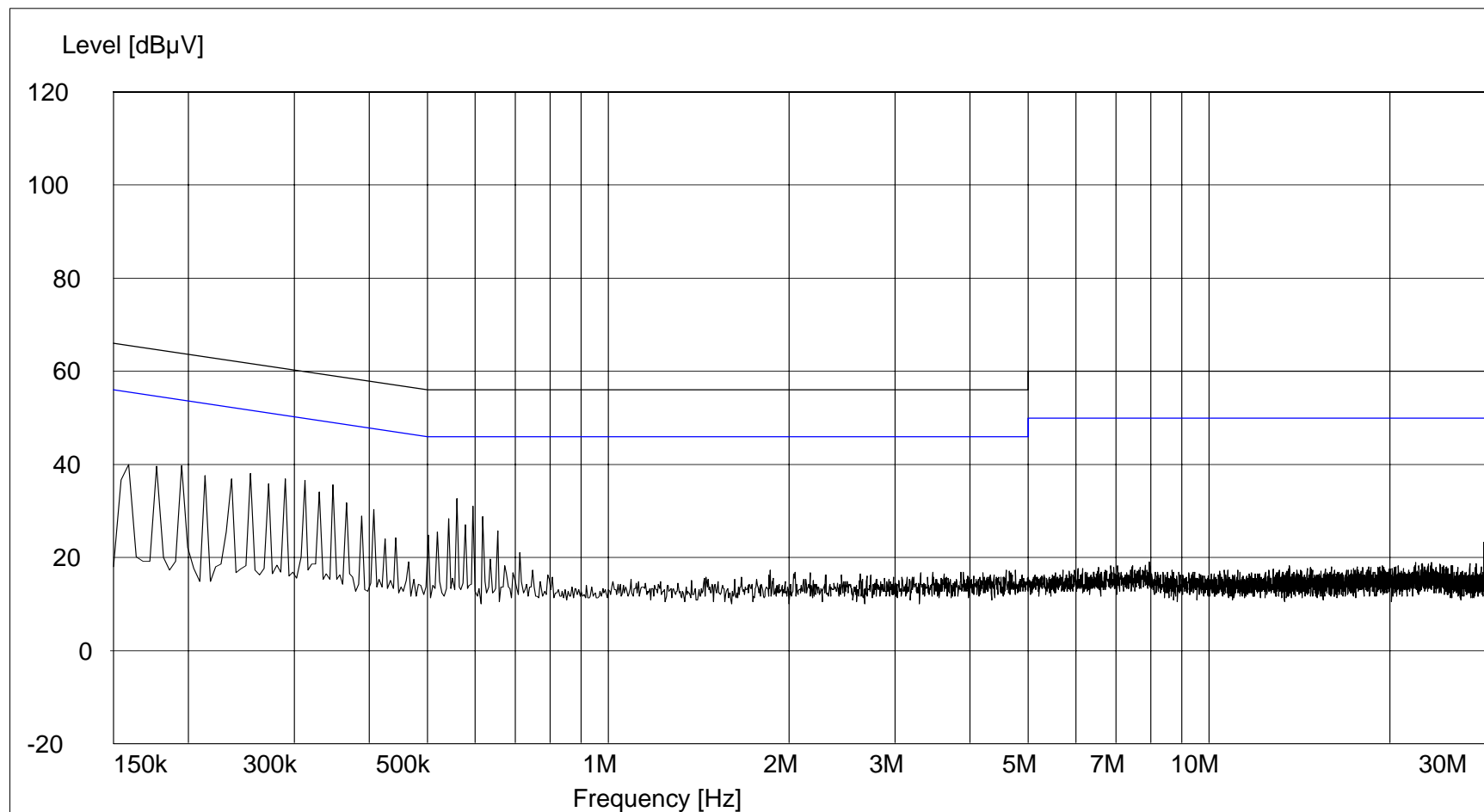
FCC Part 15 Subpart C, Conducted Emissions, 150 kHz to 30 MHz.

Customer: X-10 (USA), Inc.
Test Sample: 2.4 GHz Wireless Audio / Video Sender with an integrated 310MHz superregenerative receiver.
Model Number: VT44A ; Serial No.: N/A
Test Specification: FCC Part 15 Subpart B, 15.207(a)
Mode of Operation: Continuously transmitting a 2.414 GHz FM signal, Channel A.
Lead Tested: Neutral input to AC adapter.
Technician / Date: R. S / November 14, 2006.
Detector / Note: Peak / Peak passed average limit.
FCCID Number: B4SVT44A



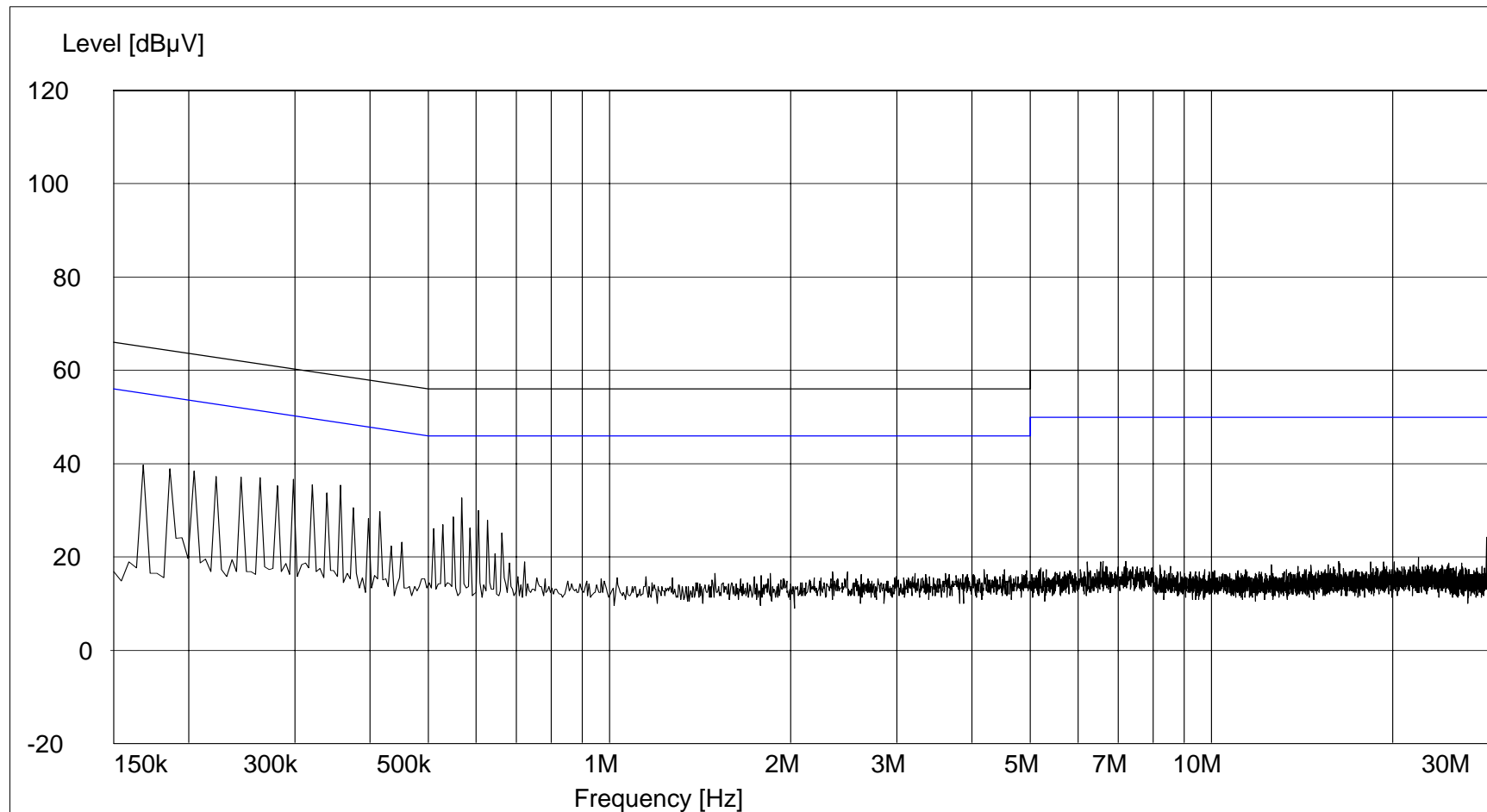
FCC Part 15 Subpart C, Conducted Emissions, 150 kHz to 30 MHz.

Customer: X-10 (USA), Inc.
Test Sample: 2.4 GHz Wireless Audio / Video Sender with an integrated 310MHz superregenerative receiver.
Model Number: VT44A ; Serial No.: N/A
Test Specification: FCC Part 15 Subpart B, 15.207(a)
Mode of Operation: Continuously transmitting a 2.450 GHz FM signal, Channel C.
Lead Tested: Hot input to AC adapter.
Technician / Date: R. S / November 14, 2006.
Detector / Note: Peak / Peak passed average limit.
FCCID Number: B4SVT44A



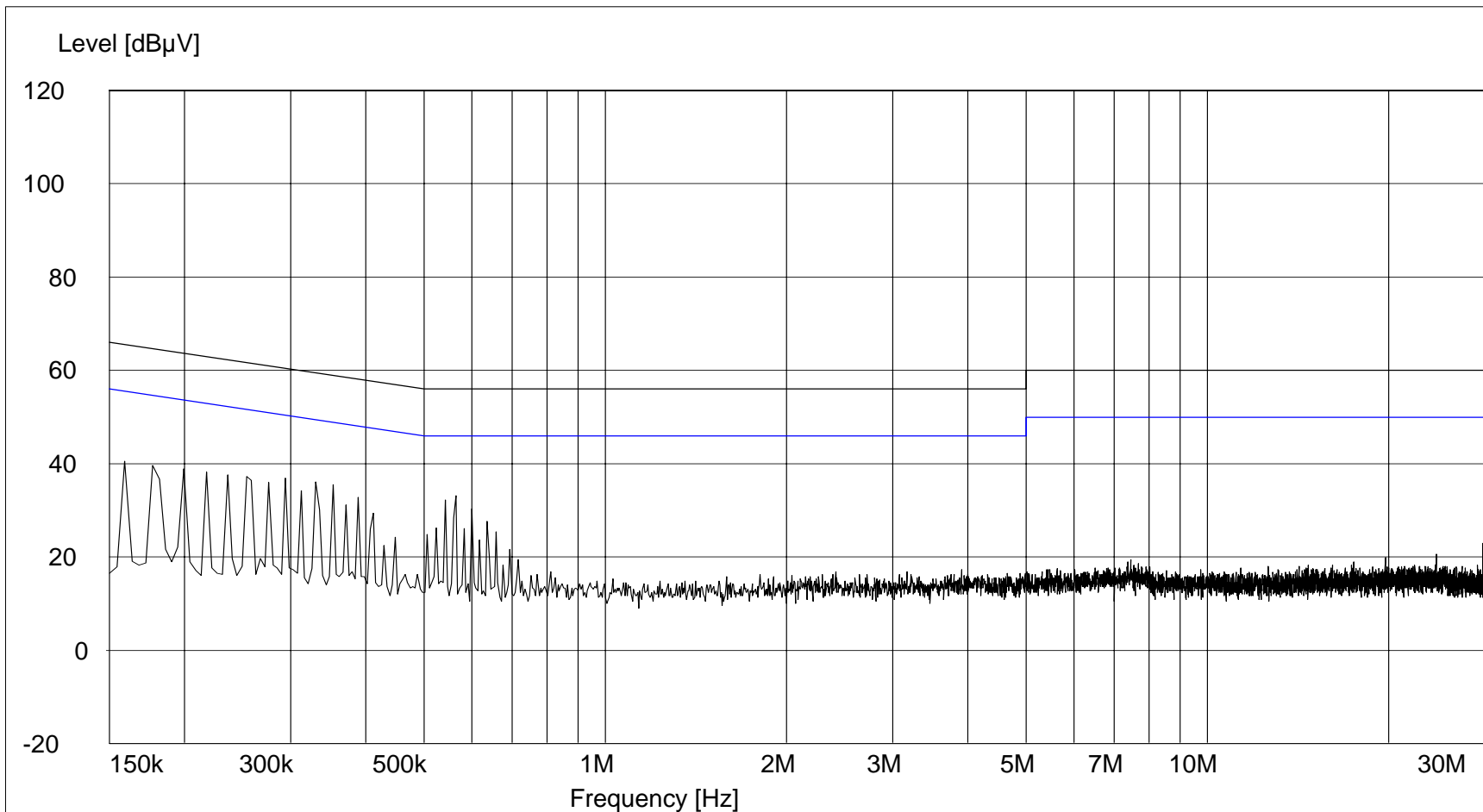
FCC Part 15 Subpart C, Conducted Emissions, 150 kHz to 30 MHz.

Customer: X-10 (USA), Inc.
Test Sample: 2.4 GHz Wireless Audio / Video Sender with an integrated 310MHz superregenerative receiver.
Model Number: VT44A ; Serial No.: N/A
Test Specification: FCC Part 15 Subpart B, 15.207(a)
Mode of Operation: Continuously transmitting a 2.450 GHz FM signal, Channel C.
Lead Tested: Neutral input to AC adapter.
Technician / Date: R. S / November 14, 2006.
Detector / Note: Peak / Peak passed average limit.
FCCID Number: B4SVT44A



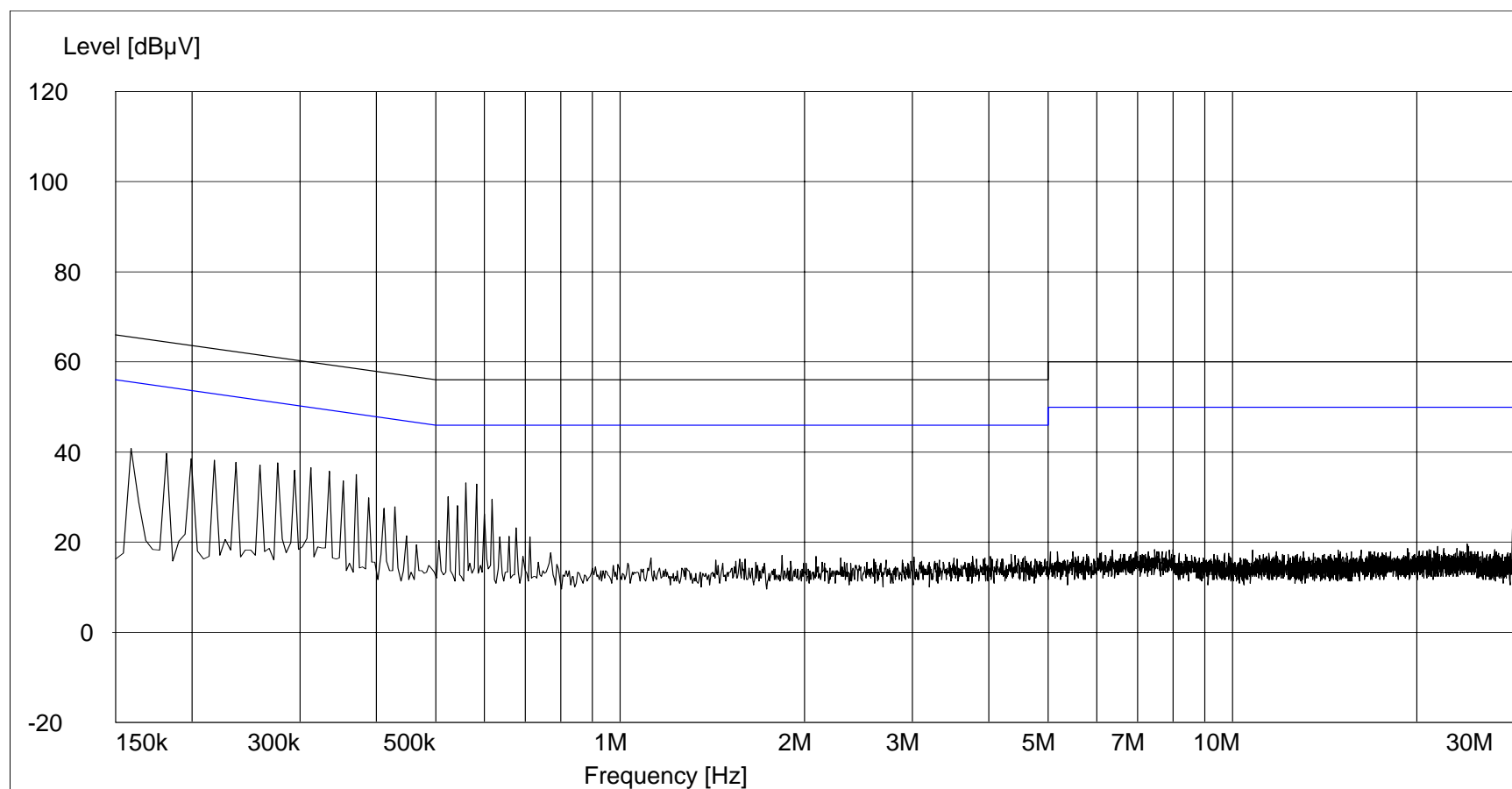
FCC Part 15 Subpart C, Conducted Emissions, 150 kHz to 30 MHz.

Customer: X-10 (USA), Inc.
Test Sample: 2.4 GHz Wireless Audio / Video Sender with an integrated 310MHz superregenerative receiver.
Model Number: VT44A ; Serial No.: N/A
Test Specification: FCC Part 15 Subpart B, 15.207(a)
Mode of Operation: Continuously transmitting a 2.468 GHz FM signal, Channel D.
Lead Tested: Hot input to AC adapter.
Technician / Date: R. S / November 14, 2006.
Detector / Note: Peak / Peak passed average limit.
FCCID Number: B4SVT44A



FCC Part 15 Subpart C, Conducted Emissions, 150 kHz to 30 MHz.

Customer: X-10 (USA), Inc.
Test Sample: 2.4 GHz Wireless Audio / Video Sender with an integrated 310MHz superregenerative receiver.
Model Number: VT44A ; Serial No.: N/A
Test Specification: FCC Part 15 Subpart B, 15.207(a)
Mode of Operation: Continuously transmitting a 2.450 GHz FM signal, Channel D.
Lead Tested: Neutral input to AC adapter.
Technician / Date: R. S / November 14, 2006.
Detector / Note: Peak / Peak passed average limit.
FCCID Number: B4SVT44A



Radiated Emissions, Fundamental and Harmonics
Test Data

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions Paragraph 15.249						
Customer:	X-10 (USA), Inc.			Job No.	R-11708-1		
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A			FCC ID:	B4SVT44A		
Operating Mode:	Continuously transmitting a 2.414 GHz FM signal, channel A						
Technician:	R. Soodoo			Date:	November 18, 2006.		
Notes:	Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction. Detector: Peak, Unless otherwise specified						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Average Limit
GHz	(V/H)/Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
2.414	V / 1.0	X	91.3	-1.5	89.8	30903.0	50000.0
	V / 1.0	Y	87.2	-1.5	85.7	19275.2	
	V / 1.0	Z	92.1	-1.5	90.6	33884.4	
	H / 1.0	X	91.6	-1.5	90.1	31989.0	
	H / 1.0	Y	93.2	-1.5	91.7	38459.2	
2.414	H / 1.0	Z	92.7	-1.5	91.2	36307.8	50000.0
4.828	V / 2.0	X	49.0	4.0	53.0	446.7	500.0
	V / 2.0	Y	48.5	4.0	52.5	421.7	
	V / 2.0	Z	47.2	4.0	51.2	363.1	
	H / 1.0	X	45.6	4.0	49.6	302.0	
	H / 1.0	Y	44.1	4.0	48.1	254.1	
4.828	H / 1.0	Z	48.1	4.0	52.1	402.7	500.0
7.242	V / 1.0	X	31.9	7.7	39.6	*95.5	500.0
	V / 1.0	Y	31.9	7.7	39.6	*95.5	
	V / 1.0	Z	31.9	7.7	39.6	*95.5	
	H / 1.0	X	31.9	7.7	39.6	*95.5	
	H / 1.0	Y	31.9	7.7	39.6	*95.5	
7.242	H / 1.0	Z	31.9	7.7	39.6	*95.5	500.0
9.656	V / 1.0	X	31.9	12.3	44.2	*162.2	500.0
	V / 1.0	Y	31.9	12.3	44.2	*162.2	
	V / 1.0	Z	31.9	12.3	44.2	*162.2	
	H / 1.0	X	31.9	12.3	44.2	*162.2	
	H / 1.0	Y	31.9	12.3	44.2	*162.2	
9.656	H / 1.0	Z	31.9	12.3	44.2	*162.2	500.0
12.070	V / 1.0	X	31.4	14.2	45.6	*190.5	500.0
	V / 1.0	Y	31.4	14.2	45.6	*190.5	
	V / 1.0	Z	31.4	14.2	45.6	*190.5	
	H / 1.0	X	31.4	14.2	45.6	*190.5	
	H / 1.0	Y	31.4	14.2	45.6	*190.5	
12.070	H / 1.0	Z	31.4	14.2	45.6	*190.5	500.0
	The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more						
	than 20 dB below the specified limit. Emissions from the EUT do not exceed the specified limits.						
	*=Noise Floor Measurements (Minimum system sensitivity), RBW=100 kHz						

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions Paragraph 15.249						
Customer:	X-10 (USA), Inc.			Job No.	R-11708-1		
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A			FCC ID:	B4SVT44A		
Operating Mode:	Continuously transmitting a 2.414 GHz FM signal, channel A						
Technician:	R. Soodoo			Date:	November 18, 2006		
Notes:	Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction. Detector: Peak, Unless otherwise specified						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Average Limit
GHz	(V/H)/Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
14.484	V / 1.0	X	31.1	16.4	47.5	*237.1	500.0
	V / 1.0	Y	31.1	16.4	47.5	*237.1	
	V / 1.0	Z	31.1	16.4	47.5	*237.1	
	H / 1.0	X	31.1	16.4	47.5	*237.1	
	H / 1.0	Y	31.1	16.4	47.5	*237.1	
14.484	H / 1.0	Z	31.1	16.4	47.5	*237.1	500.0
16.898	V / 1.0	X	31.0	17.0	48.0	*251.2	500.0
	V / 1.0	Y	31.0	17.0	48.0	*251.2	
	V / 1.0	Z	31.0	17.0	48.0	*251.2	
	H / 1.0	X	31.0	17.0	48.0	*251.2	
	H / 1.0	Y	31.0	17.0	48.0	*251.2	
16.898	H / 1.0	Z	31.0	17.0	48.0	*251.2	500.0
19.312	V / 1.0	X	30.8	22.9	53.7	**484.2	500.0
	V / 1.0	Y	30.8	22.9	53.7	**484.2	
	V / 1.0	Z	30.8	22.9	53.7	**484.2	
	H / 1.0	X	30.8	22.9	53.7	**484.2	
	H / 1.0	Y	30.8	22.9	53.7	**484.2	
19.312	H / 1.0	Z	30.8	22.9	53.7	**484.2	500.0
21.726	V / 1.0	X	30.0	23.2	53.2	**457.1	500.0
	V / 1.0	Y	30.8	23.2	53.2	**457.1	
	V / 1.0	Z	30.0	23.2	53.2	**457.1	
	H / 1.0	X	30.0	23.2	53.2	**457.1	
	H / 1.0	Y	30.0	23.2	53.2	**457.1	
21.726	H / 1.0	Z	30.0	23.2	53.2	**457.1	500.0
24.140	V / 1.0	X	29.3	23.4	52.7	**431.5	500.0
	V / 1.0	Y	29.3	23.4	52.7	**431.5	
	V / 1.0	Z	29.3	23.4	52.7	**431.5	
	H / 1.0	X	29.3	23.4	52.7	**431.5	
	H / 1.0	Y	29.3	23.4	52.7	**431.5	
24.140	H / 1.0	Z	29.3	23.4	52.7	**431.5	500.0
	The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more						
	than 20 dB below the specified limit. Emissions from the EUT do not exceed the specified limits.						
	*=Noise Floor Measurements (Minimum system sensitivity), RBW=100 kHz						

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions Paragraph 15.249						
Customer:	X-10 (USA), Inc.				Job No.	R-11708-1	
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A				FCC ID:	B4SVT44A	
Operating Mode:	Continuously transmitting a 2.450 GHz FM signal, channel C						
Technician:	R. Soodoo				Date:	November 18, 2006.	
Notes:	Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction. Detector: Peak, Unless otherwise specified						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Average Limit
GHz	(V/H)/Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
2.450	V / 1.0	X	87.6	-1.5	86.1	20183.7	50000.0
	V / 1.0	Y	84.3	-1.5	82.8	13803.8	
	V / 1.0	Z	87.5	-1.5	86.0	19952.6	
	H / 1.0	X	88.1	-1.5	86.6	21379.6	
	H / 1.0	Y	90.3	-1.5	88.8	27542.3	
2.450	H / 1.0	Z	90.6	-1.5	89.1	28510.2	50000.0
4.900	V / 2.0	X	47.9	4.0	51.9	393.6	500.0
	V / 2.0	Y	45.6	4.0	49.6	302.0	
	V / 2.0	Z	44.6	4.0	48.6	269.2	
	H / 1.0	X	45.9	4.0	49.9	312.6	
	H / 1.0	Y	45.9	4.0	49.9	312.6	
4.900	H / 1.0	Z	46.2	4.0	50.2	323.6	500.0
7.350	V / 1.0	X	31.9	7.7	39.6	*95.5	500.0
	V / 1.0	Y	31.9	7.7	39.6	*95.5	
	V / 1.0	Z	31.9	7.7	39.6	*95.5	
	H / 1.0	X	31.9	7.7	39.6	*95.5	
	H / 1.0	Y	31.9	7.7	39.6	*95.5	
7.350	H / 1.0	Z	31.9	7.7	39.6	*95.5	500.0
9.800	V / 1.0	X	31.9	12.3	44.2	*162.2	500.0
	V / 1.0	Y	31.9	12.3	44.2	*162.2	
	V / 1.0	Z	31.9	12.3	44.2	*162.2	
	H / 1.0	X	31.9	12.3	44.2	*162.2	
	H / 1.0	Y	31.9	12.3	44.2	*162.2	
9.800	H / 1.0	Z	31.9	12.3	44.2	*162.2	500.0
12.250	V / 1.0	X	31.4	14.2	45.6	*190.5	500.0
	V / 1.0	Y	31.4	14.2	45.6	*190.5	
	V / 1.0	Z	31.4	14.2	45.6	*190.5	
	H / 1.0	X	31.4	14.2	45.6	*190.5	
	H / 1.0	Y	31.4	14.2	45.6	*190.5	
12.250	H / 1.0	Z	31.4	14.2	45.6	*190.5	500.0
	The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more						
	than 20 dB below the specified limit. Emissions from the EUT do not exceed the specified limits.						
	*=Noise Floor Measurements (Minimum system sensitivity), RBW=100 kHz						

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions Paragraph 15.249						
Customer:	X-10 (USA), Inc.				Job No.	R-11708-1	
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A				FCC ID:	B4SVT44A	
Operating Mode:	Continuously transmitting a 2.450 GHz FM signal, channel C						
Technician:	R. Soodoo				Date:	November 18, 2006.	
Notes:	Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction. Detector: Peak, Unless otherwise specified						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Average Limit
GHz	(V/H)/Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
14.700	V / 1.0	X	31.1	16.4	47.5	*237.1	500.0
	V / 1.0	Y	31.1	16.4	47.5	*237.1	
	V / 1.0	Z	31.1	16.4	47.5	*237.1	
	H / 1.0	X	31.1	16.4	47.5	*237.1	
	H / 1.0	Y	31.1	16.4	47.5	*237.1	
14.700	H / 1.0	Z	31.1	16.4	47.5	*237.1	500.0
17.150	V / 1.0	X	31.0	17.0	48.0	*251.2	500.0
	V / 1.0	Y	31.0	17.0	48.0	*251.2	
	V / 1.0	Z	31.0	17.0	48.0	*251.2	
	H / 1.0	X	31.0	17.0	48.0	*251.2	
	H / 1.0	Y	31.0	17.0	48.0	*251.2	
17.150	H / 1.0	Z	31.0	17.0	48.0	*251.2	500.0
19.600	V / 1.0	X	30.8	22.9	53.7	**484.2	500.0
	V / 1.0	Y	30.8	22.9	53.7	**484.2	
	V / 1.0	Z	30.8	22.9	53.7	**484.2	
	H / 1.0	X	30.8	22.9	53.7	**484.2	
	H / 1.0	Y	30.8	22.9	53.7	**484.2	
19.600	H / 1.0	Z	30.8	22.9	53.7	**484.2	500.0
22.050	V / 1.0	X	30.0	23.2	53.2	**457.1	500.0
	V / 1.0	Y	30.8	23.2	53.2	**457.1	
	V / 1.0	Z	30.0	23.2	53.2	**457.1	
	H / 1.0	X	30.0	23.2	53.2	**457.1	
	H / 1.0	Y	30.0	23.2	53.2	**457.1	
22.050	H / 1.0	Z	30.0	23.2	53.2	**457.1	500.0
24.500	V / 1.0	X	29.3	23.4	52.7	**431.5	500.0
	V / 1.0	Y	29.3	23.4	52.7	**431.5	
	V / 1.0	Z	29.3	23.4	52.7	**431.5	
	H / 1.0	X	29.3	23.4	52.7	**431.5	
	H / 1.0	Y	29.3	23.4	52.7	**431.5	
24.500	H / 1.0	Z	29.3	23.4	52.7	**431.5	500.0
	The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more						
	than 20 dB below the specified limit. Emissions from the EUT do not exceed the specified limits.						
	*=Noise Floor Measurements (Minimum system sensitivity), RBW=100 kHz						

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions Para.15.249						
Customer:	X-10 (USA), Inc.			Job No.	R-11708-1		
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A			FCC ID:	B4SVT44A		
Operating Mode:	Continuously transmitting a 2.468 GHz FM signal, channel D						
Technician:	R. Soodoo			Date:	November 18, 2006.		
Notes:	Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction. Detector: Peak, Unless otherwise specified						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Average Limit
GHz	(V/H)/Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
2.468	V / 1.0	X	88.1	-1.5	86.6	21379.6	50000.0
	V / 1.0	Y	84.8	-1.5	83.3	14621.8	
	V / 1.0	Z	85.9	-1.5	84.4	16595.9	
	H / 1.0	X	88.8	-1.5	87.3	23173.9	
	H / 1.0	Y	91.7	-1.5	90.2	32359.4	
2.468	H / 1.0	Z	89.7	-1.5	88.2	25704.0	50000.0
4.936	V / 2.0	X	46.1	4.0	50.1	319.9	500.0
	V / 2.0	Y	47.7	4.0	51.7	384.6	
	V / 2.0	Z	44.5	4.0	48.5	266.1	
	H / 1.0	X	46.6	4.0	50.6	338.8	
	H / 1.0	Y	45.7	4.0	49.7	305.5	
4.936	H / 1.0	Z	46.3	4.0	50.3	327.3	500.0
7.404	V / 1.0	X	31.9	7.7	39.6	*95.5	500.0
	V / 1.0	Y	31.9	7.7	39.6	*95.5	
	V / 1.0	Z	31.9	7.7	39.6	*95.5	
	H / 1.0	X	31.9	7.7	39.6	*95.5	
	H / 1.0	Y	31.9	7.7	39.6	*95.5	
7.404	H / 1.0	Z	31.9	7.7	39.6	*95.5	500.0
9.872	V / 1.0	X	31.9	12.3	44.2	*162.2	500.0
	V / 1.0	Y	31.9	12.3	44.2	*162.2	
	V / 1.0	Z	31.9	12.3	44.2	*162.2	
	H / 1.0	X	31.9	12.3	44.2	*162.2	
	H / 1.0	Y	31.9	12.3	44.2	*162.2	
9.872	H / 1.0	Z	31.9	12.3	44.2	*162.2	500.0
12.340	V / 1.0	X	31.4	14.2	45.6	*190.5	500.0
	V / 1.0	Y	31.4	14.2	45.6	*190.5	
	V / 1.0	Z	31.4	14.2	45.6	*190.5	
	H / 1.0	X	31.4	14.2	45.6	*190.5	
	H / 1.0	Y	31.4	14.2	45.6	*190.5	
12.340	H / 1.0	Z	31.4	14.2	45.6	*190.5	500.0
	The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more than 20 dB below the specified limit. Emissions from the EUT do not exceed the specified limits.						
	*=Noise Floor Measurements (Minimum system sensitivity), RBW=100 kHz						

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions Para.15.249						
Customer:	X-10 (USA), Inc.				Job No.	R-11708-1	
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A				FCC ID:	B4SVT44A	
Operating Mode:	Continuously transmitting a 2.468 GHz FM signal, channel D						
Technician:	R. Soodoo				Date:	November 18, 2006.	
Notes:	Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction. Detector: Peak, Unless otherwise specified						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Average Limit
GHz	(V/H)/Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
14.808	V / 1.0	X	31.1	16.4	47.5	*237.1	500.0
	V / 1.0	Y	31.1	16.4	47.5	*237.1	
	V / 1.0	Z	31.1	16.4	47.5	*237.1	
	H / 1.0	X	31.1	16.4	47.5	*237.1	
	H / 1.0	Y	31.1	16.4	47.5	*237.1	
14.808	H / 1.0	Z	31.1	16.4	47.5	*237.1	500.0
17.276	V / 1.0	X	31.0	17.0	48.0	*251.2	500.0
	V / 1.0	Y	31.0	17.0	48.0	*251.2	
	V / 1.0	Z	31.0	17.0	48.0	*251.2	
	H / 1.0	X	31.0	17.0	48.0	*251.2	
	H / 1.0	Y	31.0	17.0	48.0	*251.2	
17.276	H / 1.0	Z	31.0	17.0	48.0	*251.2	500.0
19.744	V / 1.0	X	30.8	22.9	53.7	**484.2	500.0
	V / 1.0	Y	30.8	22.9	53.7	**484.2	
	V / 1.0	Z	30.8	22.9	53.7	**484.2	
	H / 1.0	X	30.8	22.9	53.7	**484.2	
	H / 1.0	Y	30.8	22.9	53.7	**484.2	
19.744	H / 1.0	Z	30.8	22.9	53.7	**484.2	500.0
22.212	V / 1.0	X	30.0	23.2	53.2	**457.1	500.0
	V / 1.0	Y	30.8	23.2	53.2	**457.1	
	V / 1.0	Z	30.0	23.2	53.2	**457.1	
	H / 1.0	X	30.0	23.2	53.2	**457.1	
	H / 1.0	Y	30.0	23.2	53.2	**457.1	
22.212	H / 1.0	Z	30.0	23.2	53.2	**457.1	500.0
24.680	V / 1.0	X	29.3	23.4	52.7	**431.5	500.0
	V / 1.0	Y	29.3	23.4	52.7	**431.5	
	V / 1.0	Z	29.3	23.4	52.7	**431.5	
	H / 1.0	X	29.3	23.4	52.7	**431.5	
	H / 1.0	Y	29.3	23.4	52.7	**431.5	
24.680	H / 1.0	Z	29.3	23.4	52.7	**431.5	500.0
	The frequency range was scanned from 30 MHz to 25 GHz. All emissions not recorded were more						
	than 20 dB below the specified limit. Emissions from the EUT do not exceed the specified limits.						
	*=Noise Floor Measurements (Minimum system sensitivity), RBW=100 kHz						

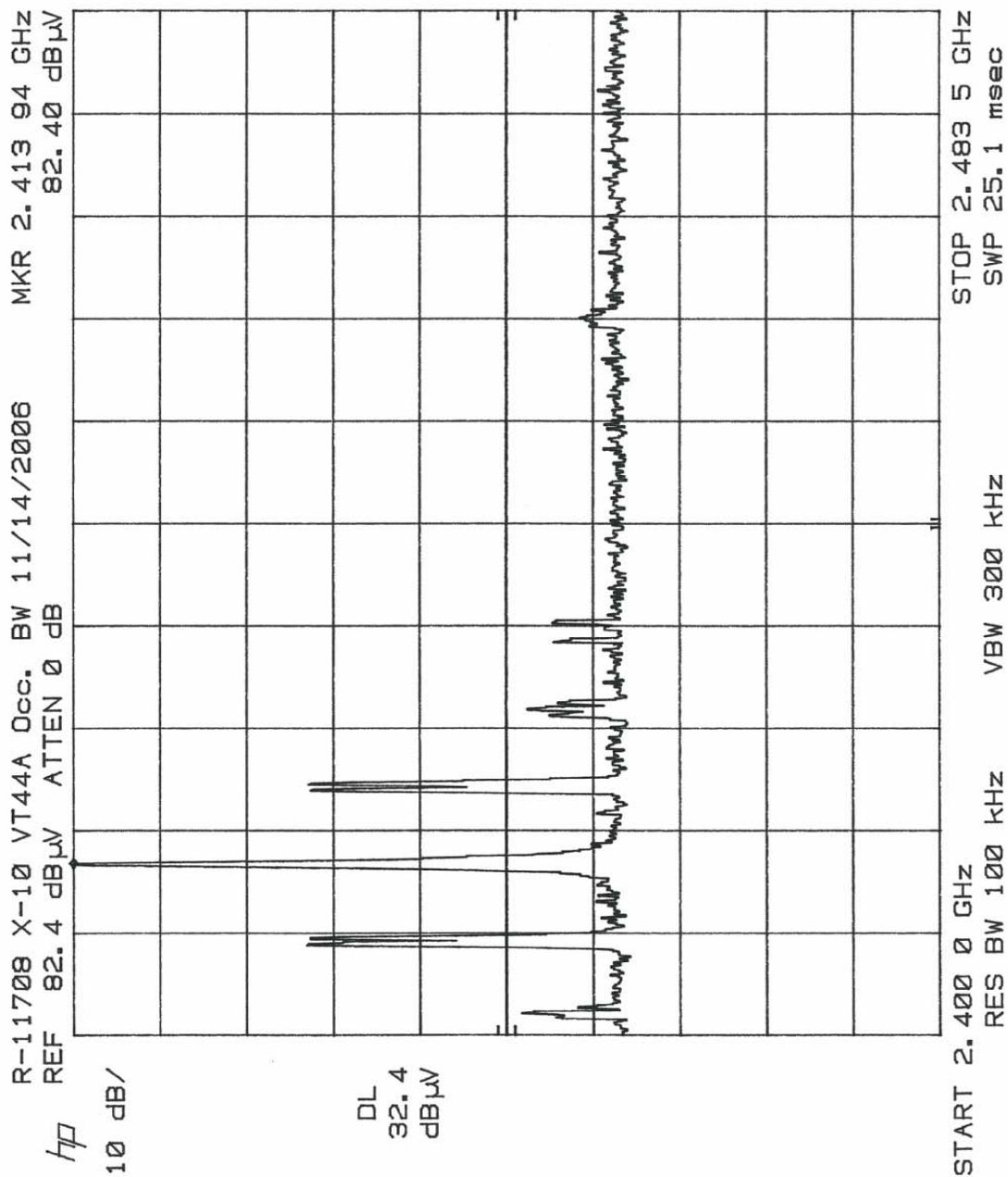
Radiated Emissions, Spurious Case
Test Data

Test Method:	FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a).						
Customer:	X-10 (USA), Inc.				Job No.	R-11708-1	
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A				FCC ID:	B4SVT44A	
Operating Mode:	Continuously transmitting a 2.414 GHz FM signal, channel A						
Technician:	R. Soodoo				Date:	November 18, 2006.	
Notes:	Test Distance: 3 Meters Temp: 11°C Humidity: 15% Detector: Quasi-Peak from 30 MHz to 1 GHz, Peak above 1 GHz						
Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	Limit
MHz	(V/H) / Meters	Degrees	dBμV	dB	dBμV/m	μV /m	μV /m
30							100
88							100
88							150
216							150
216							200
310.0	H / 1.0	180.0	21.0	16.7	37.7	76.7	
960							200
960							500
25000							500
The frequency range was scanned from 30 MHz to 25 GHz.							
The emissions observed from the EUT do not exceed the specified limits.							
Emissions not recorded were more than 20dB under the specified limit.							

Test Method:	FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a).						
Customer:	X-10 (USA), Inc.	Job No.		R-11708-1			
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A	FCC ID:		B4SVT44A			
Operating Mode:	Continuously transmitting a 2.450 GHz FM signal, channel C						
Technician:	R. Soodoo	Date:		November 18, 2006.			
Notes:	Test Distance: 3 Meters		Temp: 11°C		Humidity: 15%		
	Detector: Quasi-Peak from 30 MHz to 1 GHz, Peak above 1 GHz						
Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	Limit
MHz	(V/H) / Meters	Degrees	dBµV	dB	dBµV/m	µV /m	µV /m
30							100
88							100
88							150
216							150
216							200
310.0	H / 1.0	180.0	21.0	16.7	37.7	76.7	
960							200
960							500
25000							500
The frequency range was scanned from 30 MHz to 25 GHz.							
The emissions observed from the EUT do not exceed the specified limits.							
Emissions not recorded were more than 20dB under the specified limit.							

Test Method:	FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a).						
Customer:	X-10 (USA), Inc.	Job No.		R-11708-1			
Test Sample:	2.4GHz Wireless Audio / Video Sender with an Integrated 310 MHz Superregenerative receiver.						
Model No.:	VT44A	FCC ID:		B4SVT44A			
Operating Mode:	Continuously transmitting a 2.468 GHz FM signal, channel D						
Technician:	R. Soodoo	Date:		November 18, 2006.			
Notes:	Test Distance: 3 Meters Temp: 11°C Humidity: 15% Detector: Quasi-Peak from 30 MHz to 1 GHz, Peak above 1 GHz						
Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	Limit
MHz	(V/H) / Meters	Degrees	dBµV	dB	dBµV/m	µV /m	µV /m
30							100
88							100
88							150
216							150
216							200
310.0	H / 1.0	180.0	21.0	16.7	37.7	76.7	
960							200
960							500
25000							500
The frequency range was scanned from 30 MHz to 25 GHz.							
The emissions observed from the EUT do not exceed the specified limits.							
Emissions not recorded were more than 20dB under the specified limit.							

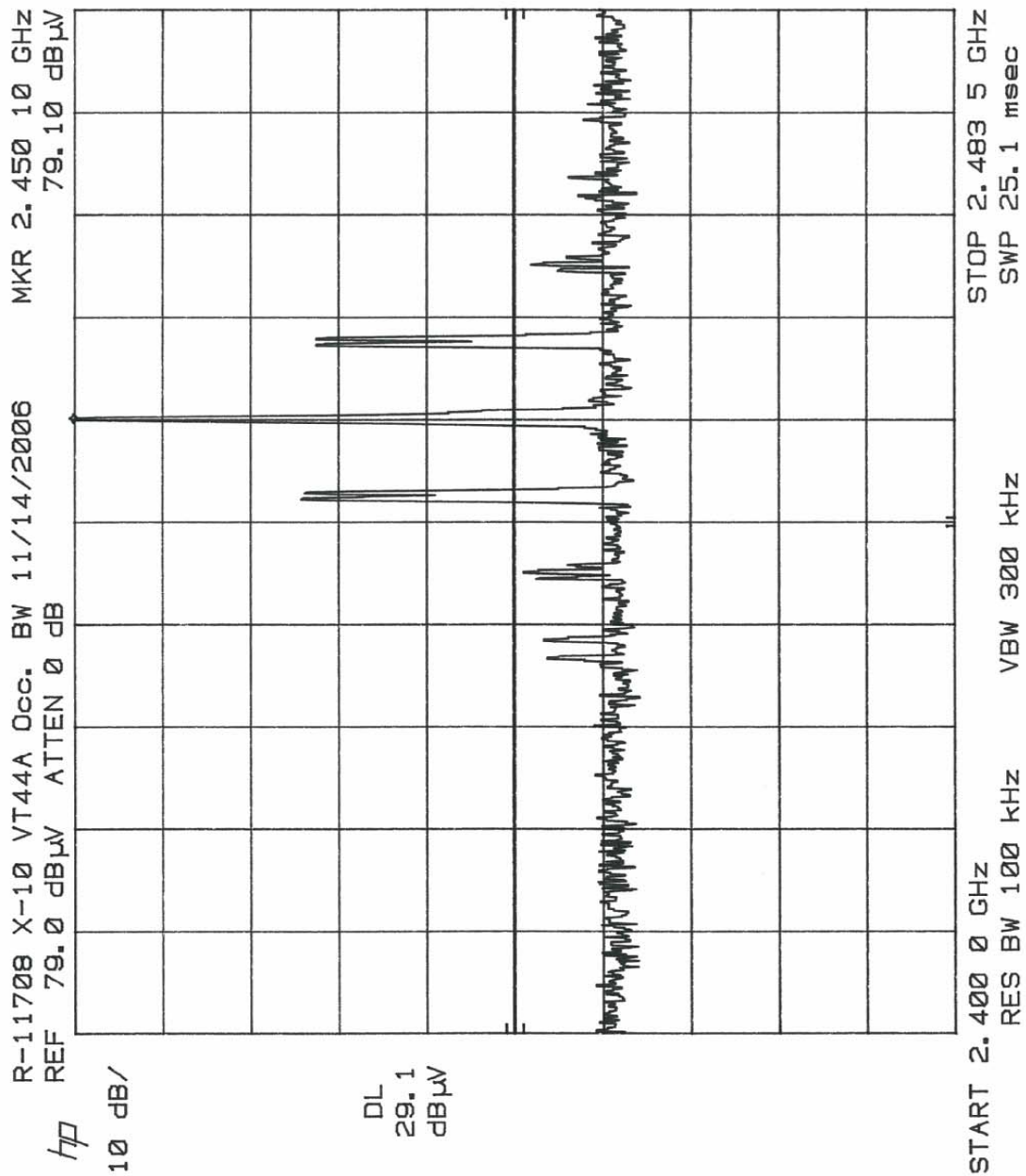
Occupied Bandwidth
Test Data



Test Method: FCC Part 15, Subpart C, 15.249 (c), Occupied Bandwidth.

Notes: Channel A 2.414 GHz. Emissions of center frequency attenuated by 50 dBc at the band edges

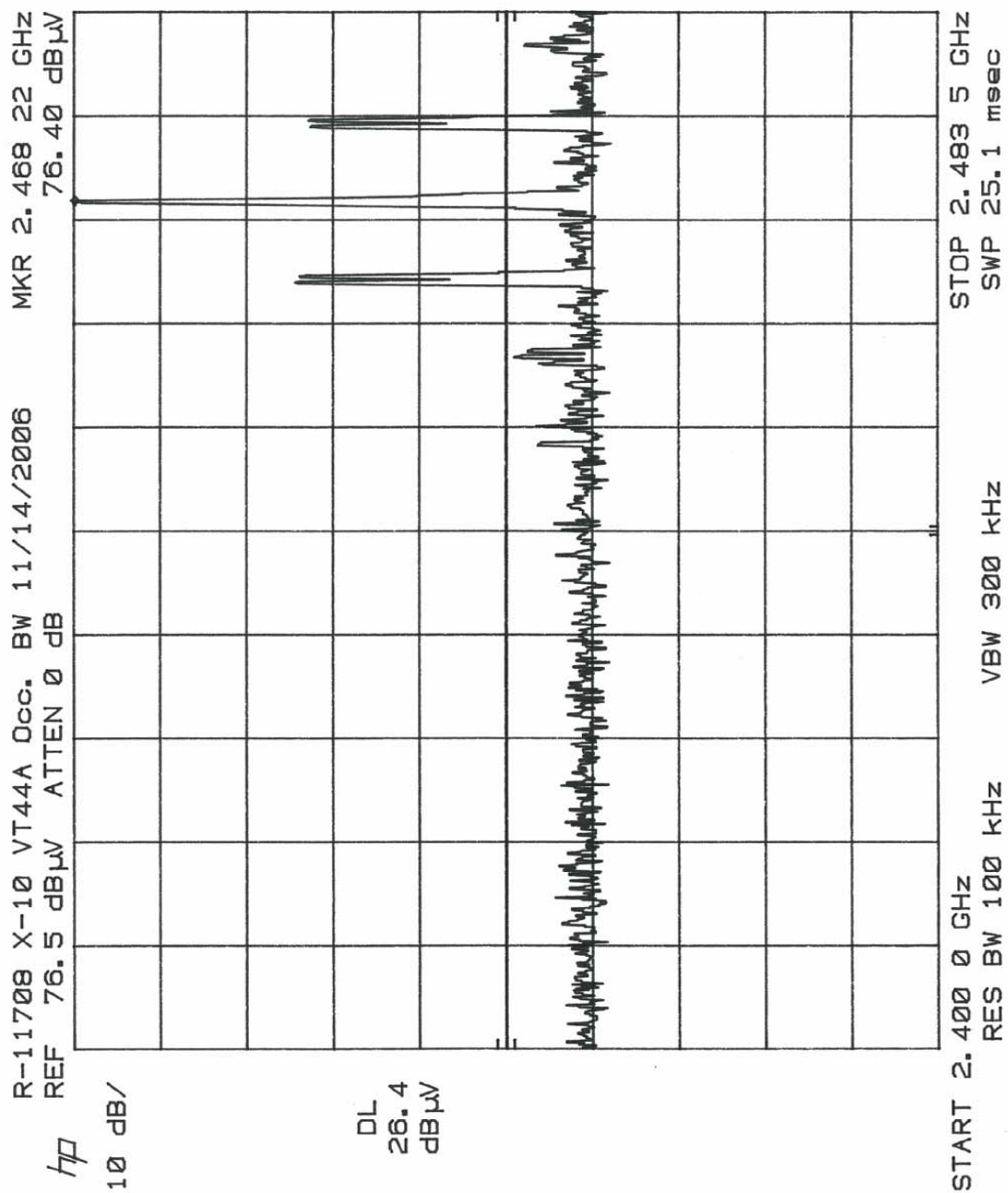
Customer	X-10 (USA), Inc.		
Test Sample	2.4 GHz Wireless Audio/ Video Sender		
Model Number	VT44A		
Date: 11-14-2006	Tech: R. Soodoo	Sheet 1 of 3	



Test Method: FCC Part 15, Subpart C, 15.249 (c), Occupied Bandwidth.

Notes: Channel C 2.450 GHz. Emissions of center frequency attenuated by 50 dBc at the band edges

Customer	X-10 (USA), Inc.	
Test Sample	2.4 GHz Wireless Audio / Video Sender	
Part Number	VT44A	
Date: 11-14-2006	Tech: R. Soodoo	Sheet 2 of 3



Test Method: FCC Part 15, Subpart C, 15.249 (c), Occupied Bandwidth.

Notes: Channel D 2.468 GHz. Emissions of center frequency attenuated by 50 dBc at the band edges

Customer	X-10 (USA), Inc.	
Test Sample	2.4 GHz Wireless Audio / Video Sender	
Part Number	VT44A	
Date: 11-14-2006	Tech: R. Soodoo	Sheet 3 of 3