Technical Information

Applicant		Manufacturer	
Name:	X10 (USA), Inc.	Name:	X-10 Electronics (Shenzhen) Co. Ltd.
Address:	Blackriver Corporate Park 620 Naches Ave SW, Building A	Address:	Together Rich Industrial Park B Sanwei Industrial District, Xixiang Town
City, State, Zip:	Renton, WA 98057	City, State, Zip:	Baoan County, Shenzhen, China

Test Specification: FCC Rules and Regulations Part 15, Subpart C, Para. 15.231

Test Procedure: ANSI C63.4:2003

Test Sample Description

Test Sample: Charger / Finder Base Pulsed Transmitter

Brandname: X-10 (USA), Inc.

Model Number: 1000A

FCC ID: B4S-1000

Type: 434.4 MHz Pulsed Transmitter

Power Requirements: 5 VDC derived from external AC adapter

Frequency of Operation: 434.4 MHz

Applicable Rule Section: Part 15, Subpart C, Section 15.231

Tests Performed

Para. 15.231(b), Radiated Emissions, Fundamental and Harmonics

Para. 15.231(b), Radiated Emissions, Spurious Case

Para. 15.231(b)(3), Duty Cycle Determination

Para. 15.231(c), Occupied Bandwidth

Para. 15.207(a), Conducted Emissions

Test Results

15.231 (a): This device transmits a control signal and is used as an: remote control transmitter.

15.231 (a)(1) The transmitter is manually operated. Transmission ends within 5 seconds of deactivation.

15.231 (a)(2) Transmission ends 5 seconds after activation.

15.231 (a)(3): The transmitter does not perform periodic transmissions or the transmitter performs periodic transmissions at predetermined intervals greater than 1 hour apart and are shorter than 1 second in duration.

15.231 (b): The fundamental field strength did not exceed 11016.0 µV/M (Average) at a test distance of 3 meters. In addition, the requirements of section 15.35 for averaging pulsed emissions and for limiting peak emissions were met. The field strength of harmonic and spurious emissions did not exceed 1101.6 µV/M (AVERAGE).

15.231 (c) The Bandwidth of the emission was no wider than 0.25% of the center frequency 121.0 kHz as measured 20 db down from the modulated carrier.

Determination of Field Strength Limits

The field strength limits shown below are found in Section 15.231:

	Frequency	Limit	
F1 =	260	3750 =	L1
Fo =	434.4 MHz	Lo	
F2 =	470	12500 =	L2

The formula below was utilized to determine the limits:

Limit = L1 + [(Fo-F1)(L2-L1)/(F2-F1)]

Solving Yields

Fundamental Limit = 11016.0 µV/M (AVERAGE) @ 3 Meters

Harmonic Limit = 1101.6 µV/M (AVERAGE) @ 3 Meters

Duty Cycle Determination

The unit's RF output was directly coupled to the input of the spectrum analyzer. The analyzer was set for a frequency span of 0 Hz. The sweep time was then adjusted in order to display one full pulse train. The transmitter on time was then summed and compared to the time for one full cycle in order to obtain the duty cycle. (See plots for additional information.)

Transmitter On Time = 119.5 milliseconds (maximum per cycle)

Transmitter Cycle Time = 100.0 milliseconds (100 ms maximum)

Transmitter Duty Cycle = 35.36 %

Calculation

68 x 0.520 (pulse) = 35.36 milliseconds

Duty Cycle (35.36/100)*100 = 35.36 %

Correction Factor =20 log .03536 = -9.0 dB

Spectrum Analyzer Desensitization Considerations

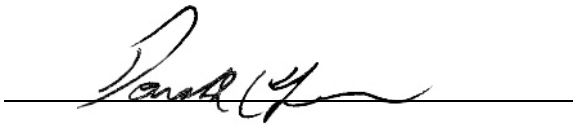
Due to the nature of the emissions being measured, care was taken to ensure that the resolution bandwidth of the spectrum analyzer was adequate to provide accurate measurements. The following formula was utilized: minimum bandwidth = 1/{minimum pulse width (in seconds) x 1.5} = Hz Setting pulse desensitization equal to zero and utilizing the minimum observed pulse width of 500.0 µs yields a minimum required bandwidth of 1190 Hz. FCC specified bandwidths of 100 kHz and 1 MHz were utilized below and above 1 GHz, respectively.

General Notes

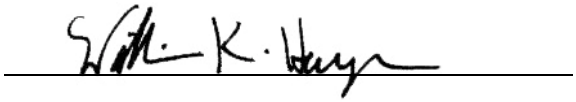
1. All readings were taken utilizing a peak detector function at a test distance of 3 meters.
2. The duty cycle was applied to the peak readings in order to determine the average value of the emissions.
3. The frequency range was scanned from 30 MHz to 4.4 GHz. All emissions not reported were more than 20 dB below the specified limit.
4. The device was tested with an AC/DC adapter, Model Number: SHG0500400PU, manufactured by Helms.Man and a remote control unit, Model Number: VIR141, manufactured by X10 (USA), Inc.
5. The device was tested in two modes of operation:
   A.) Continuous transmit at fundamental frequency of 434.4 MHz.
   B.) Idle mode, no transmit, charging a remote control unit.
6. The USB Port in the device is utilized only for DC Power only. No data transmission occurs.

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



William K. Hayes
Executive Vice President

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

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

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3/10 Meter	RNY	9/12/2006	9/12/2009
1257	10 dB Atten.	Narda	dc - 18GHz	776B-10	6/12/2008	6/12/2009
7016	EMC Analyzer	Hewlett Packard	9kHz - 1.8GHz	8591EM	8/8/2008	8/8/2009

FCC Part 15, Subpart C, Radiated Emissions, Fundamental and Harmonics

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3/10 Meter	RNY	9/12/2006	9/12/2009
128	Double Ridged Guide	Electro-Mechanics	1 GHz - 18 GHz	3105	2/21/2008	2/21/2009
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	4/28/2008	4/28/2009
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	4/30/2008	4/30/2009
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	4/30/2008	4/30/2009
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	4/28/2008	4/28/2009
512	Graphics Plotter	Hewlett Packard	N/A	7470A	9/25/2008	9/25/2009
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	7/17/2008	7/17/2009
617	Interference Analyzer	Electro-Metrics	10 kHz - 1 GHz	EMC-30	10/24/2007	11/24/2008
723	H.P. Filter	Mini-Circuits	1 GHz	BHP-1000	7/14/2008	7/14/2009
767	Biconilog	EMCO	26 - 2000 MHz	3142B	8/8/2008	8/8/2009

FCC Part 15, Subpart C, Radiated Emissions, Spurious Case

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3/10 Meter	RNY	9/12/2006	9/12/2009
128	Double Ridged Guide	Electro-Mechanics	1 GHz - 18 GHz	3105	2/21/2008	2/21/2009
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	4/28/2008	4/28/2009
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	4/30/2008	4/30/2009
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	4/30/2008	4/30/2009
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	4/28/2008	4/28/2009
512	Graphics Plotter	Hewlett Packard	N/A	7470A	9/25/2008	9/25/2009
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	7/17/2008	7/17/2009
617	Interference Analyzer	Electro-Metrics	10 kHz - 1 GHz	EMC-30	10/24/2007	11/24/2008
723	H.P. Filter	Mini-Circuits	1 GHz	BHP-1000	7/14/2008	7/14/2009
767	Biconilog	EMCO	26 - 2000 MHz	3142B	8/8/2008	8/8/2009

FCC Part 15, Subpart C, Duty Cycle Determination

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3/10 Meter	RNY	9/12/2006	9/12/2009
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	4/30/2008	4/30/2009
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	4/30/2008	4/30/2009
512	Graphics Plotter	Hewlett Packard	N/A	7470A	9/25/2008	9/25/2009

FCC Part 15,Subpart C, Occupied Bandwidth

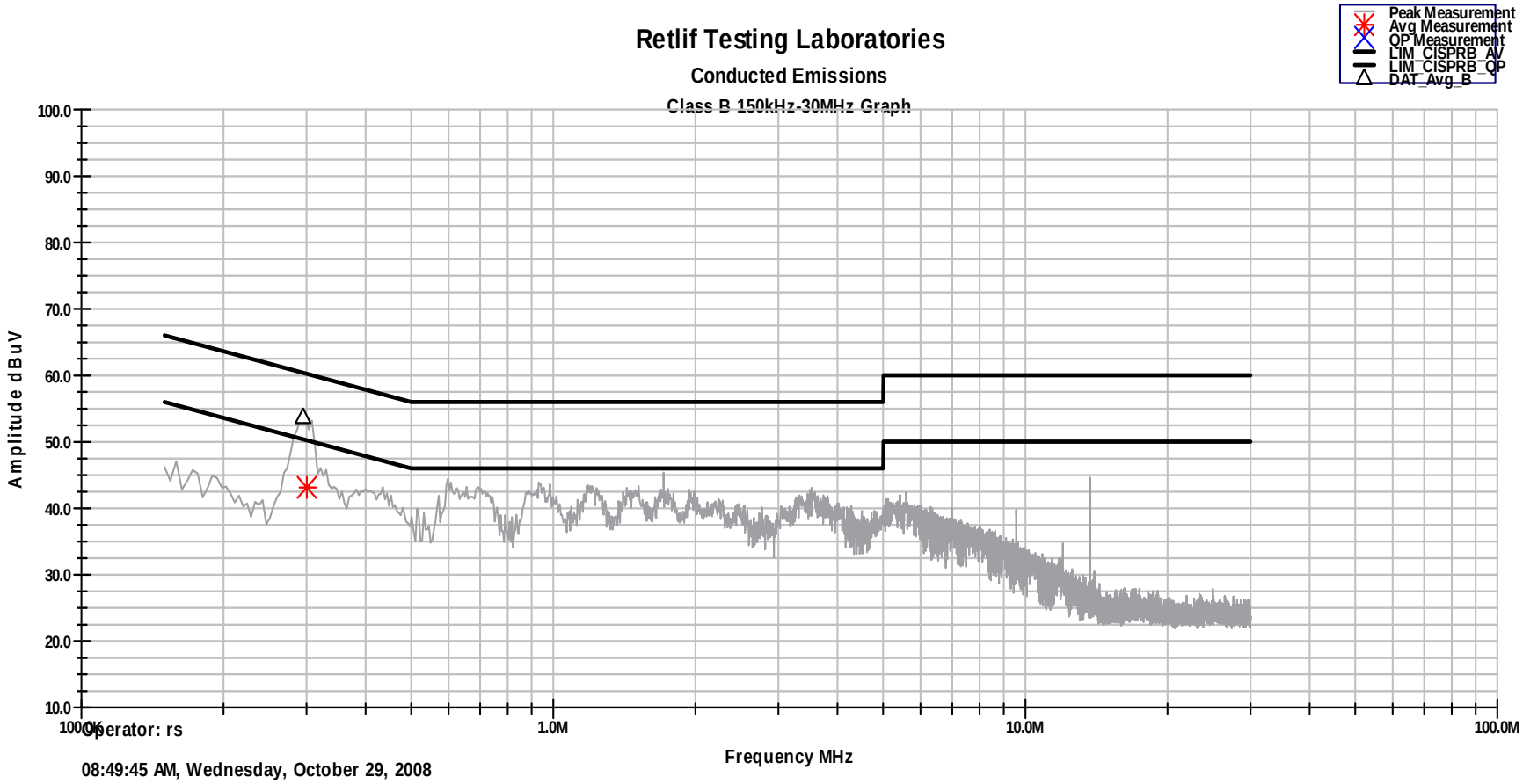
EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3/10 Meter	RNY	9/12/2006	9/12/2009
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	4/30/2008	4/30/2009
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	4/30/2008	4/30/2009
512	Graphics Plotter	Hewlett Packard	N/A	7470A	9/25/2008	9/25/2009

FCC Part 15, Subpart C, Conducted Emissions, Power Leads,
150 kHz to 30 MHz
EUT in transmit mode
Test Data

Retlif Testing Laboratories, Job Number R-12685-1.

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

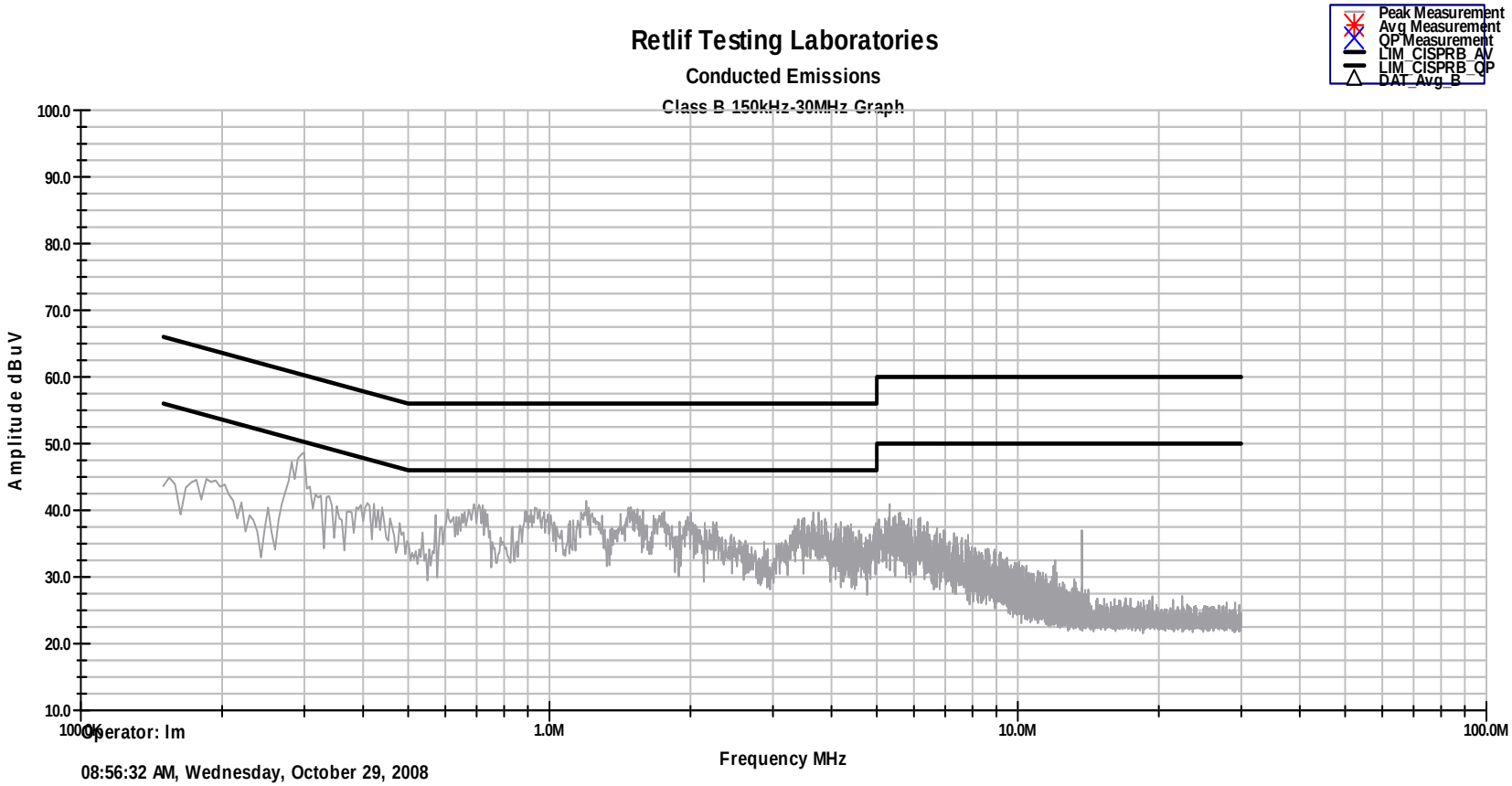
Customer: X-10(USA),Inc.
Test Sample: Charger / Finder base transmitter
Model No.: 1000A
Serial No.: N/A
FCC ID No.: B4S-1000
Test Specification: FCC Part 15, Subpart C, Section 15.207(a). Class B
Mode of Operation: Continuously transmitting a pulse 434.4 MHz signal.
Lead Tested: 115 VAC, 60Hz hot input to EUT AC adapter.
Technician / Date: R. Soodoo / October 29, 2008
Detector / Note: Peak / Peak emissions pass Quasi-peak limit.
Detector / Note: Average / Average emissions pass average limit.



Retlif Testing Laboratories, Job Number R-12685-1.

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

Customer: X-10(USA),Inc.
Test Sample: Charger / Finder base transmitter
Model No.: 1000A
Serial No.: N/A
FCC ID No.: B4S-1000
Test Specification: FCC Part 15, Subpart C, Section 15.207(a). Class B
Mode of Operation: Continuously transmitting a pulse 434.4 MHz signal.
Lead Tested: 115 VAC, 60Hz neutral input to EUT AC adapter.
Technician / Date: R. Soodoo / October 29, 2008
Detector / Note: Peak / Peak emissions pass average limit.

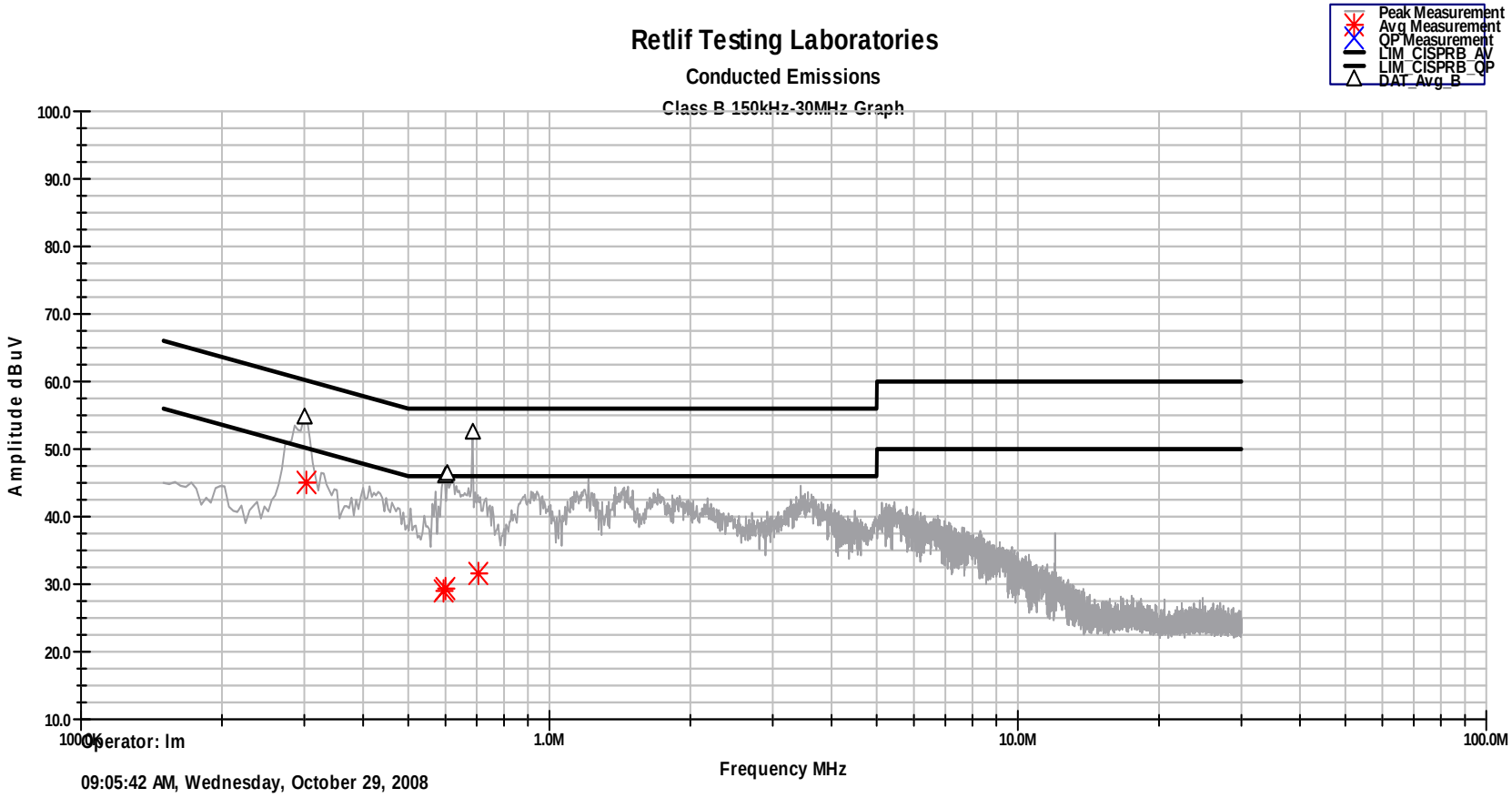


FCC Part 15, Subpart C, Conducted Emissions, Power Leads,
150 kHz to 30 MHz
EUT in charging mode
Test Data

Retlif Testing Laboratories, Job Number R-12685-1.

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

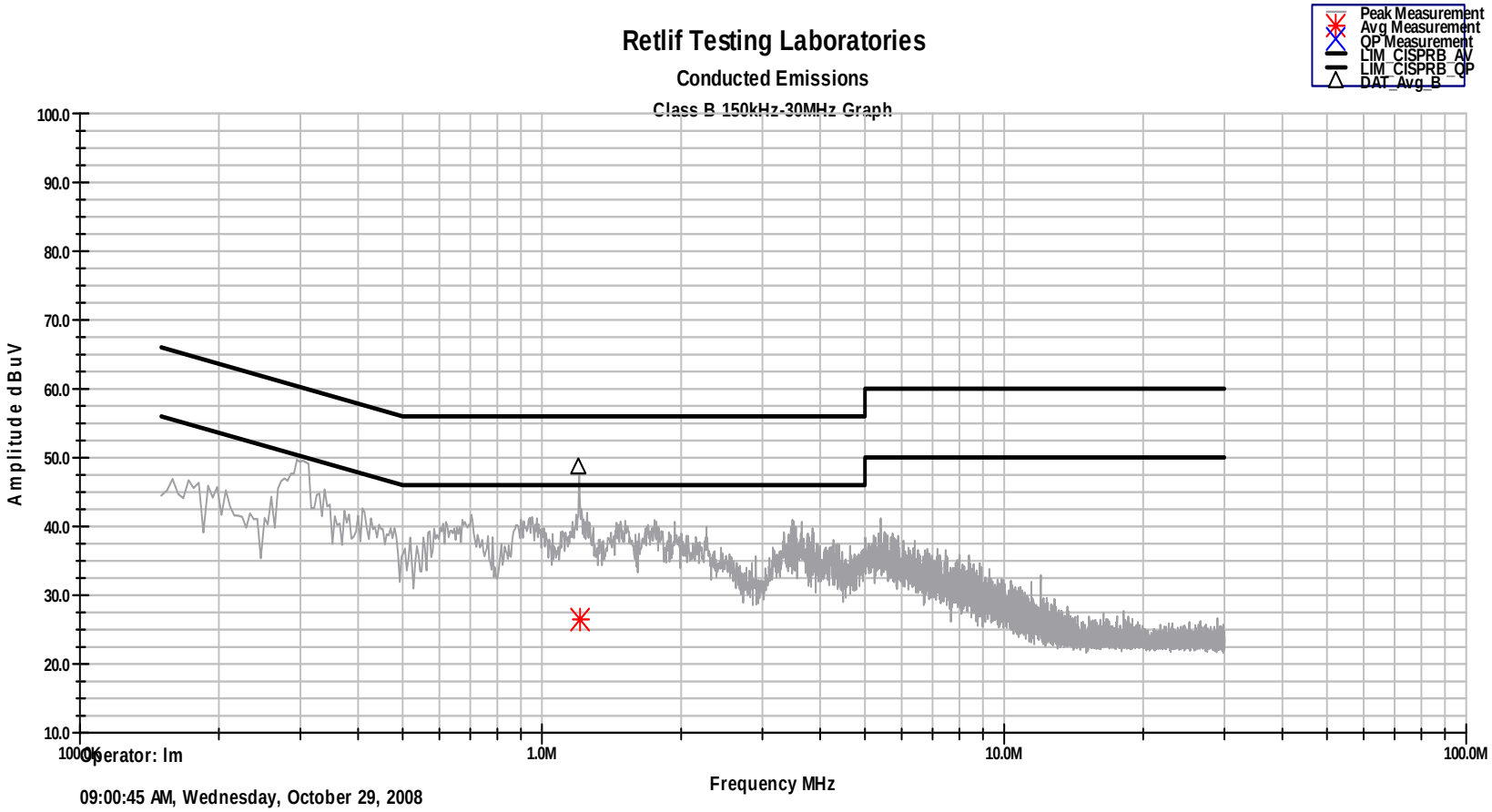
Customer: X-10(USA),Inc.
Test Sample: Charger / Finder base transmitter
Model No.: 1000A
Serial No.: N/A
FCC ID No.: B4S-1000
Test Specification: FCC Part 15, Subpart C, Section 15.207(a). Class B
Mode of Operation: EUT in standby mode charging remote.
Lead Tested: 115 VAC, 60Hz hot input to EUT AC adapter.
Technician / Date: R. Soodoo / October 29, 2008
Detector / Note: Peak / Peak emissions pass Quasi-peak limit.
Detector / Note: Average / Average emissions pass average limit.



Retlif Testing Laboratories, Job Number R-12685-1.

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

Customer: X-10(USA),Inc.
Test Sample: Charger / Finder base transmitter
Model No.: 1000A
Serial No.: N/A
FCC ID No.: B4S-1000
Test Specification: FCC Part 15, Subpart C, Section 15.207(a). Class B
Mode of Operation: Continuously transmitting a pulse 434.4 MHz signal.
Lead Tested: 115 VAC, 60Hz neutral input to EUT AC adapter.
Technician / Date: R. Soodoo / October 29, 2008
Detector / Note: Peak / Peak emissions pass Quasi-peak limit.
Detector / Note: Average / Average emissions pass average limit.



FCC Part 15, Subpart C, Radiated Emissions, Fundamental and Harmonics
Test Data

Test Method:	FCC Part 15 Subpart C, Radiated Emissions, Fundamental & Harmonic		
Customer:	X-10 (USA), Inc.	**Job No.**	R-12685-1
Test Sample:	Charger / Finder base transmitter		
Model No.:	1000A	**FCC ID:**	B4S-1000
Operating	Continuously transmitting a Pulsed 434.4 MHz signal.		
Technician:	R. Soodoo	**Date:**	October 28, 2008.

Notes: Test Distance: 3 Meters
Detector: Peak, Unless otherwise specified

Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Peak Limit
MHz	(V/H)/Meters	X / Y / Z	dBµV	dB	dBµV/m	uV/m	uV/m
434.4	V / 1.4	X	68.8	-0.6	68.2	2570.4	110160.7
|	V / 1.0	Y	69.6	-0.6	69.0	2818.4	|
|	V / 1.5	Z	74.2	-0.6	73.6	4786.3	|
|	H / 1.5	X	74.3	-0.6	73.7	4841.7	|
|	H / 1.6	Y	71.8	-0.6	71.2	3630.8	|
434.4	H / 1.0	Z	62.0	-0.6	61.4	1174.9	110160.7
868.8	V / 2.0	X	51.2	8.4	59.6	955.0	11016.0
|	V / 2.0	Y	44.2	8.4	52.6	426.6	|
|	V / 1.0	Z	52.6	8.4	61.0	1122.0	|
|	H / 1.0	X	49.6	8.4	58.0	794.3	|
|	H / 4.0	Y	53.3	8.4	61.7	1216.2	|
868.8	H / 1.0	Z	49.6	8.4	58.0	794.3	11016.0
1303.2	V / 1.0	X	54.0	1.5	55.5	595.7	5000.0
|	V / 1.0	Y	58.1	1.5	59.6	955.0	|
|	V / 1.8	Z	57.6	1.5	59.1	901.6	|
|	H / 1.7	X	56.5	1.5	58.0	794.3	|
|	H / 1.0	Y	50.3	1.5	51.8	389.0	|
1303.2	H / 1.0	Z	54.2	1.5	55.7	609.5	5000.0
1736.6	V / 1.0	X	41.7	2.1	43.8	*154.9	11016.0
|	V / 1.0	Y	41.7	2.1	43.8	*154.9	|
|	V / 1.0	Z	41.7	2.1	43.8	*154.9	|
|	H / 1.0	X	41.7	2.1	43.8	*154.9	|
|	H / 1.0	Y	41.7	2.1	43.8	*154.9	|
1736.6	H / 1.0	Z	41.7	2.1	43.8	*154.9	11016.0
2172.0	V / 1.0	X	43.0	3.5	46.5	*211.3	11016.0
|	V / 1.0	Y	43.0	3.5	46.5	*211.3	|
|	V / 1.0	Z	43.0	3.5	46.5	*211.3	|
|	H / 1.0	X	43.0	3.5	46.5	*211.3	|
|	H / 1.0	Y	43.0	3.5	46.5	*211.3	|
2172.0	H / 1.0	Z	43.0	3.5	46.5	*211.3	11016.0
	The frequency range was scanned from 30 MHz to 4.4 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 sensitivity).						

Test Method:	FCC Part 15 Subpart C, Radiated Emissions, Fundamental & Harmonic		
Customer:	X-10 (USA), Inc.	**Job No.**	R-12685-1
Test Sample:	Charger / Finder base transmitter		
Model No.:	1000A	**FCC ID:**	B4S-1000
Operating	Continuously transmitting a Pulsed 434.4 MHz signal.		
Technician:	R. Soodoo	**Date:**	October 28, 2008.

Notes: Test Distance: 3 Meters
Detector: Peak, unless otherwise specified

Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Peak Limit
MHz	(V/H)-Meters	X / Y / Z	dBµV	dB	dBµV/m	uV/m	uV/m
2606.4	V / 1.0	X	44.3	5.0	49.3	*291.7	11016.0
|	V / 1.0	Y	44.3	5.0	49.3	*291.7	|
|	V / 1.0	Z	44.3	5.0	49.3	*291.7	|
|	H / 1.0	X	44.3	5.0	49.3	*291.7	|
|	H / 1.0	Y	44.3	5.0	49.3	*291.7	|
2606.4	H / 1.0	Z	44.3	5.0	49.3	*291.7	11016.0
3040.8	V / 1.0	X	44.3	7.1	51.4	*371.5	11016.0
|	V / 1.0	Y	44.3	7.1	51.4	*371.5	|
|	V / 1.0	Z	44.3	7.1	51.4	*371.5	|
|	H / 1.0	X	44.3	7.1	51.4	*371.5	|
|	H / 1.0	Y	44.3	7.1	51.4	*371.5	|
3040.8	H / 1.0	Z	44.3	7.1	51.4	*371.5	11016.0
3475.2	V / 1.0	X	44.3	9.6	53.9	*495.5	11016.0
|	V / 1.0	Y	44.3	9.6	53.9	*495.5	|
|	V / 1.0	Z	44.3	9.6	53.9	*495.5	|
|	H / 1.0	X	44.3	9.6	53.9	*495.5	|
|	H / 1.0	Y	44.3	9.6	53.9	*495.5	|
3475.2	H / 1.0	Z	44.3	9.6	53.9	*495.5	11016.0
3909.6	V / 1.0	X	34.1	12.8	46.9	**221.3	5000.0
|	V / 1.0	Y	34.1	12.8	46.9	**221.3	|
|	V / 1.0	Z	34.1	12.8	46.9	**221.3	|
|	H / 1.0	X	34.1	12.8	46.9	**221.3	|
|	H / 1.0	Y	34.1	12.8	46.9	**221.3	|
3909.6	H / 1.0	Z	34.1	12.8	46.9	**221.3	5000.0
4344.0	V / 1.0	X	35.3	13.2	48.5	**266.1	5000.0
|	V / 1.0	Y	35.3	13.2	48.5	**266.1	|
|	V / 1.0	Z	35.3	13.2	48.5	**266.1	|
|	H / 1.0	X	35.3	13.2	48.5	**266.1	|
|	H / 1.0	Y	35.3	13.2	48.5	**266.1	|
4344.0	H / 1.0	Z	35.3	13.2	48.5	**266.1	5000.0
	The frequency range was scanned from 30 MHz to 4.4 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		
Customer:	X-10 (USA), Inc.	**Job No.**	R-12685-1
Test Sample:	Charger / Finder base transmitter		
Model No.:	1000A	**FCC ID:**	B4S-1000
Operating	Continuously transmitting a Pulsed 434.4 MHz signal.		
Technician:	R. Soodoo	**Date:**	October 28, 2008.

Notes: Test Distance: 3 Meters — Duty Cycle: 35.36%
Detector: Peak, unless otherwise specified — Duty Cycle Correction: -9.0dB

Test Freq.	Antenna Pol./Height	EUT Orientation	Peak Reading	Correction Factor	Corrected Reading	Converted Reading	Avg. Limit
MHz	(V/H)-Meters	X / Y / Z	dBµV	dB	dBµV/m	uV/m	uV/m
434.4	V / 1.4	X	68.2	-9.0	59.2	912.0	11016.0
|	V / 1.0	Y	69.0	-9.0	60.0	1000.0	|
|	V / 1.5	Z	73.6	-9.0	64.6	1698.2	|
|	H / 1.5	X	73.7	-9.0	64.7	1717.9	|
|	H / 1.6	Y	71.2	-9.0	62.2	1288.2	|
434.4	H / 1.0	Z	61.4	-9.0	52.4	416.9	11016.0
868.8	V / 2.0	X	59.6	-9.0	50.6	338.8	1101.6
|	V / 2.0	Y	52.6	-9.0	43.6	151.4	|
|	V / 1.0	Z	61.0	-9.0	52.0	398.1	|
|	H / 1.0	X	58.0	-9.0	49.0	281.8	|
|	H / 4.0	Y	61.7	-9.0	52.7	431.5	|
868.8	H / 1.0	Z	58.0	-9.0	49.0	281.8	1101.6
1303.2	V / 1.0	X	55.5	-9.0	46.5	211.3	500.0
|	V / 1.0	Y	59.6	-9.0	50.6	338.8	|
|	V / 1.8	Z	59.1	-9.0	50.1	319.9	|
|	H / 1.7	X	58.0	-9.0	49.0	281.8	|
|	H / 1.0	Y	51.8	-9.0	42.8	138.0	|
1303.2	H / 1.0	Z	55.7	-9.0	46.7	216.3	500.0
1736.6	V / 1.0	X	43.8	-9.0	34.8	*55.0	1101.6
|	V / 1.0	Y	43.8	-9.0	34.8	*55.0	|
|	V / 1.0	Z	43.8	-9.0	34.8	*55.0	|
|	H / 1.0	X	43.8	-9.0	34.8	*55.0	|
|	H / 1.0	Y	43.8	-9.0	34.8	*55.0	|
1736.6	H / 1.0	Z	43.8	-9.0	34.8	*55.0	1101.6
2172.0	V / 1.0	X	46.5	-9.0	37.5	*75.0	1101.6
|	V / 1.0	Y	46.5	-9.0	37.5	*75.0	|
|	V / 1.0	Z	46.5	-9.0	37.5	*75.0	|
|	H / 1.0	X	46.5	-9.0	37.5	*75.0	|
|	H / 1.0	Y	46.5	-9.0	37.5	*75.0	|
2172.0	H / 1.0	Z	46.5	-9.0	37.5	*75.0	1101.6
	The frequency range was scanned from 30 MHz to 4.4 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)						

Test Method:	FCC Part 15 Subpart C, Radiated Emissions, Fundamental & Harmonic		
Customer:	X-10 (USA), Inc.	**Job No.**	R-12685-1
Test Sample:	Charger / Finder base transmitter		
Model No.:	1000A	**FCC ID:**	B4S-1000
Operating	Continuously transmitting a Pulsed 434.4 MHz signal.		
Technician:	R. Soodoo	**Date:**	October 28, 2008.

Notes: Test Distance: 3 Meters — Duty Cycle: 35.36%
Detector: Peak, unless otherwise specified — Duty Cycle Correction: -9.0dB

Test Freq.	Antenna Pol./Height	EUT Orientation	Peak Reading	Correction Factor	Corrected Reading	Converted Reading	Avg. Limit
MHz	(V/H)-Meters	X / Y / Z	dBµV	dB	dBµV/m	uV/m	uV/m
2602.8	V / 1.0	X	49.3	-9.0	40.3	*103.5	1101.6
|	V / 1.0	Y	49.3	-9.0	40.3	*103.5	|
|	V / 1.0	Z	49.3	-9.0	40.3	*103.5	|
|	H / 1.0	X	49.3	-9.0	40.3	*103.5	|
|	H / 1.0	Y	49.3	-9.0	40.3	*103.5	|
2602.8	H / 1.0	Z	49.3	-9.0	40.3	*103.5	1101.6
3036.6	V / 1.0	X	51.4	-9.0	42.4	*131.8	1101.6
|	V / 1.0	Y	51.4	-9.0	42.4	*131.8	|
|	V / 1.0	Z	51.4	-9.0	42.4	*131.8	|
|	H / 1.0	X	51.4	-9.0	42.4	*131.8	|
|	H / 1.0	Y	51.4	-9.0	42.4	*131.8	|
3036.6	H / 1.0	Z	51.4	-9.0	42.4	*131.8	1101.6
3470.4	V / 1.0	X	53.9	-9.0	44.9	*175.8	1101.6
|	V / 1.0	Y	53.9	-9.0	44.9	*175.8	|
|	V / 1.0	Z	53.9	-9.0	44.9	*175.8	|
|	H / 1.0	X	53.9	-9.0	44.9	*175.8	|
|	H / 1.0	Y	53.9	-9.0	44.9	*175.8	|
3470.4	H / 1.0	Z	53.9	-9.0	44.9	*175.8	1101.6
3904.2	V / 1.0	X	46.9	-9.0	37.9	**78.5	500.0
|	V / 1.0	Y	46.9	-9.0	37.9	**78.5	|
|	V / 1.0	Z	46.9	-9.0	37.9	**78.5	|
|	H / 1.0	X	46.9	-9.0	37.9	**78.5	|
|	H / 1.0	Y	46.9	-9.0	37.9	**78.5	|
3904.2	H / 1.0	Z	46.9	-9.0	37.9	**78.5	500.0
4338.0	V / 1.0	X	48.5	-9.0	39.5	**94.4	500.0
|	V / 1.0	Y	48.5	-9.0	39.5	**94.4	|
|	V / 1.0	Z	48.5	-9.0	39.5	**94.4	|
|	H / 1.0	X	48.5	-9.0	39.5	**94.4	|
|	H / 1.0	Y	48.5	-9.0	39.5	**94.4	|
4338.0	H / 1.0	Z	48.5	-9.0	39.5	**94.4	500.0

The frequency range was scanned from 30 MHz to 4.34 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

FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.231(b)
Continuous Transmit Test Data

Test Method:	**FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.231(b).**		
Customer:	X-10 (USA), Inc.	**Job No.:**	R-12685-1
Test Sample:	Charger / Finder base transmitter		
Model No.:	1000A	**FCC ID No.:**	B4S-1000
Operating Mode:	Continuously transmitting a pulse 434.4 MHz signal.		
Technician:	R.Soodoo	**Date:**	October 28, 2008.

Notes: Test Distance: 3 Meters Temp: 11.7°C Humidity: 87%
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	dBuV	dB	dBuV/m	uV/m	uV/m
30							100
|							|
|							|
48.6	V / 1.0	198.0	26.0	12.0	38.0	79.4	|
							|
|							|
|							|
88							100
88							150
|							|
|							|
120.0	V / 1.0	125.0	9.0	9.8	18.8	8.7	|
168.0	H / 1.8	82.0	22.0	11.7	33.7	48.4	|
|							|
216.0							150
216.0							200
|							|
240.0	H / 1.0	80.0	15.0	14.5	29.5	29.9	|
264.1	H / 1.0	54.0	13.0	15.3	28.3	26.0	|
288.1	H / 1.0	58.0	10.0	15.7	25.7	19.3	|
300.0	V / 1.0	8.0	3.0	16.6	19.6	9.5	|
336.0	H / 1.0	125.0	14.0	18.3	32.3	41.2	|
360.0	H / 1.0	122.0	12.0	18.9	30.9	35.1	|
384.2	H / 1.0	196.0	11.0	19.3	30.3	32.7	|
695.8	V / 2.1	177.0	29.8	6.2	36.0	63.1	|
|							|
960							200
960							500
|							|
|							|
4400.0							500
	The frequency range was scanned from 30 MHz to 4.4 GHz.						
	The emissions observed from the EUT do not exceed the specified limits.						

Page 1 of 1

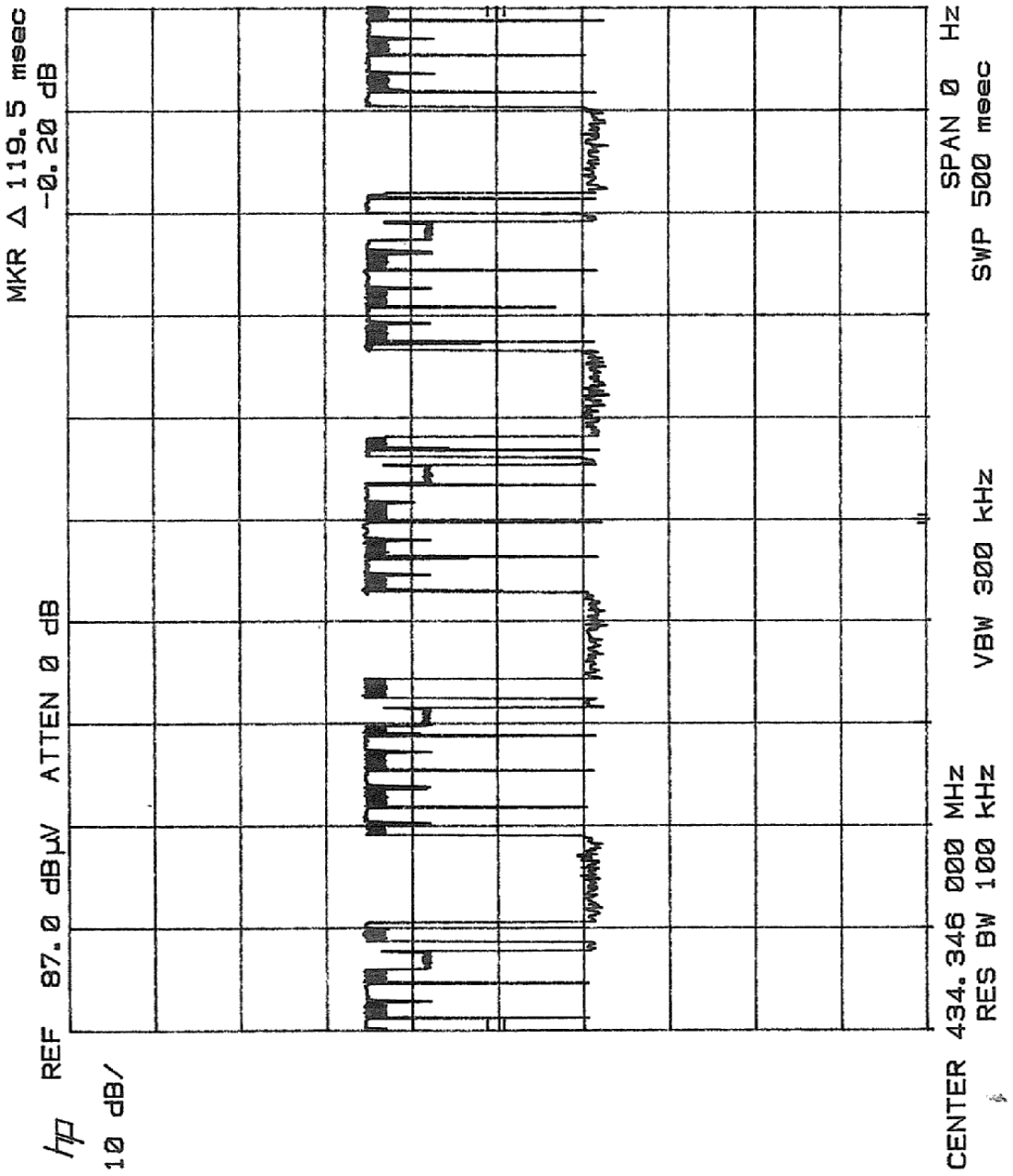
FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.231(b)
Standby mode, charging remote Test Data

Test Method:	**FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.231(b).**		
Customer:	X-10 (USA), Inc.	**Job No.:**	R-12685-1
Test Sample:	Charger / Finder base transmitter		
Model No.:	1000A	**FCC ID No.:**	B4S-1000
Operating Mode:	EUT in standby mode charging remote.		
Technician:	R.Soodoo	**Date:**	October 27, 2008

Notes: Test Distance: 3 Meters Temp: 6.0°C Humidity: 86.0%
Detector: Quasi-Peak from 30 MHz to 1 GHz, Peak above 1 GHz

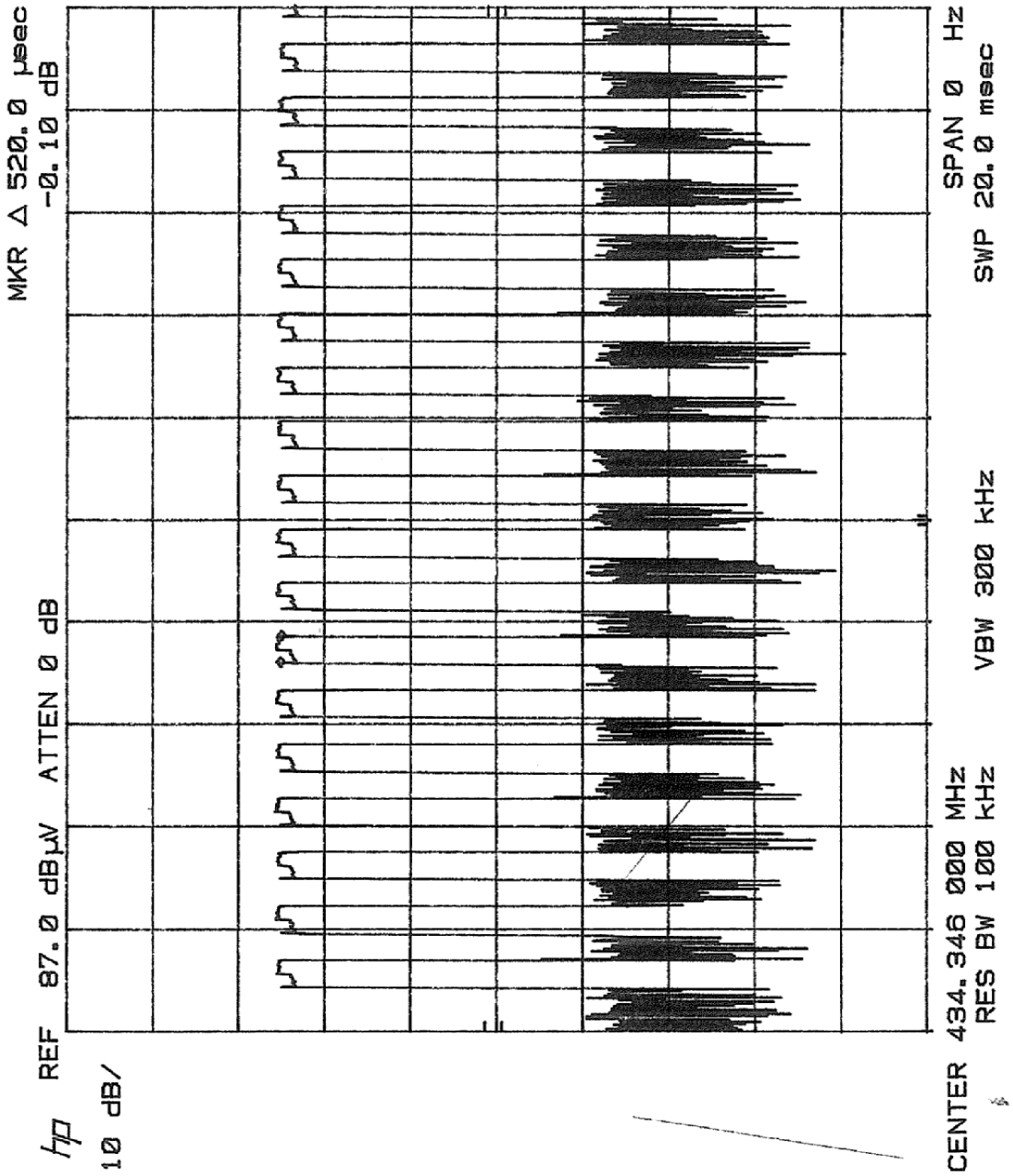
Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	Limit
MHz	(V/H) / Meters	Degrees	dBuV	dB	dBuV/m	uV/m	uV/m
30.0							100
|							|
49.7	V / 1.0	198.0	27.0	8.8	35.8	61.7	|
65.1	V / 1.0	198.0	26.0	8.8	34.8	55.0	|
|							|
88.0							100
88.0							150
|							|
144.0	H / 1.3	119.0	24.0	10.5	34.5	53.1	|
150.0	V / 1.0	200.0	7.0	11.3	18.3	8.2	|
168.0	H / 2.1	76.0	27.0	11.7	38.7	86.1	|
|							|
216.0							150
216.0							200
|							|
216.1	V / 1.0	200.0	19.0	13.3	32.3	41.2	|
240.2	H / 1.0	197.0	27.0	14.5	41.5	118.9	|
252.1	H / 1.0	197.0	19.0	15.0	34.0	50.1	|
263.	H /1.0	128.0	29.0	16.0	45.0	177.8	|
264.2	V / 2.5	10.0	24.0	16.0	40.0	100.0	|
288.4	V / 1.0	128.0	24.0	16.0	40.0	100.0	|
312.1	H / 1.0	142.0	26.0	17.2	43.2	144.5	|
336.1	H / 1.0	142.0	23.0	18.9	41.9	124.5	|
360.1	H / 1.0	197.0	22.0	18.9	40.9	110.9	|
384.1	H / 2.0	197.0	17.0	19.5	36.5	66.8	|
434.0	V / 2.6	108.0	8.0	20.0	28.0	25.1	|
|							|
960.0							200
960.0							500
|							|
4400.0							500
	The frequency range was scanned from 30 MHz to 4.4 GHz.						
	The emissions observed from the EUT do not exceed the specified limits.						

FCC Part 15.231(b)(3), Duty Cycle Determination
Test Data



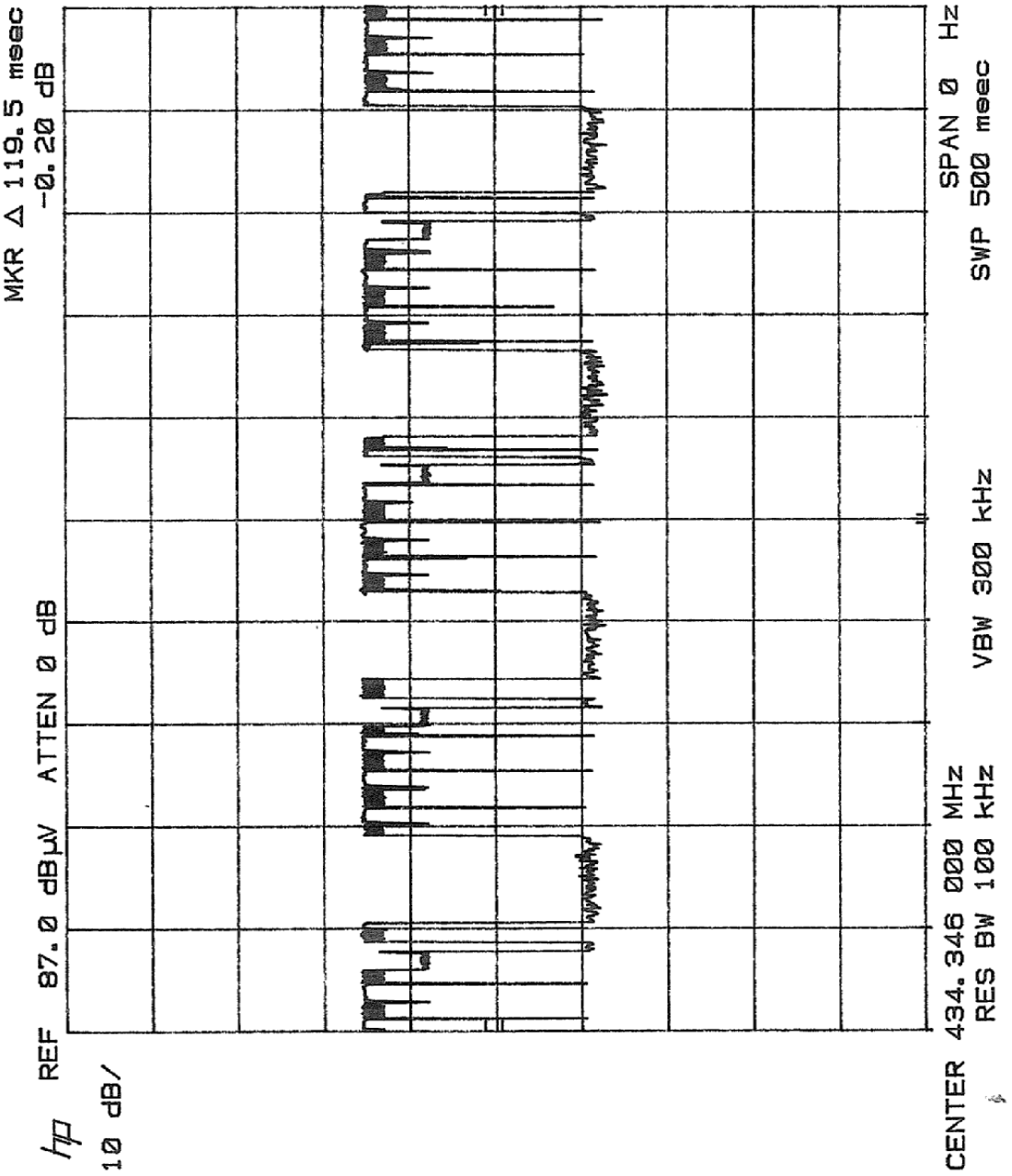
Test Method: **FCC Part 15.35, Duty Cycle Determination**.
Notes: Measurement of cycle time = 119.5mSec.
FCC ID.: B4S-1000

Customer	X-10 (USA), Inc.	
Test Sample	Charger / Finder base transmitter	
Model No.:	1000A	
Date: October 27, 2008	Tech: R.Soodoo	Sheet 1 of 3



Test Method: FCC Part 15.35, Duty Cycle Determination.
Notes: Measurement of 1 small pulse = 520 µSec.
Measurements of 68 small pulses = 68(520µSec) = 35.36mSec.
FCC ID.: B4S-1000

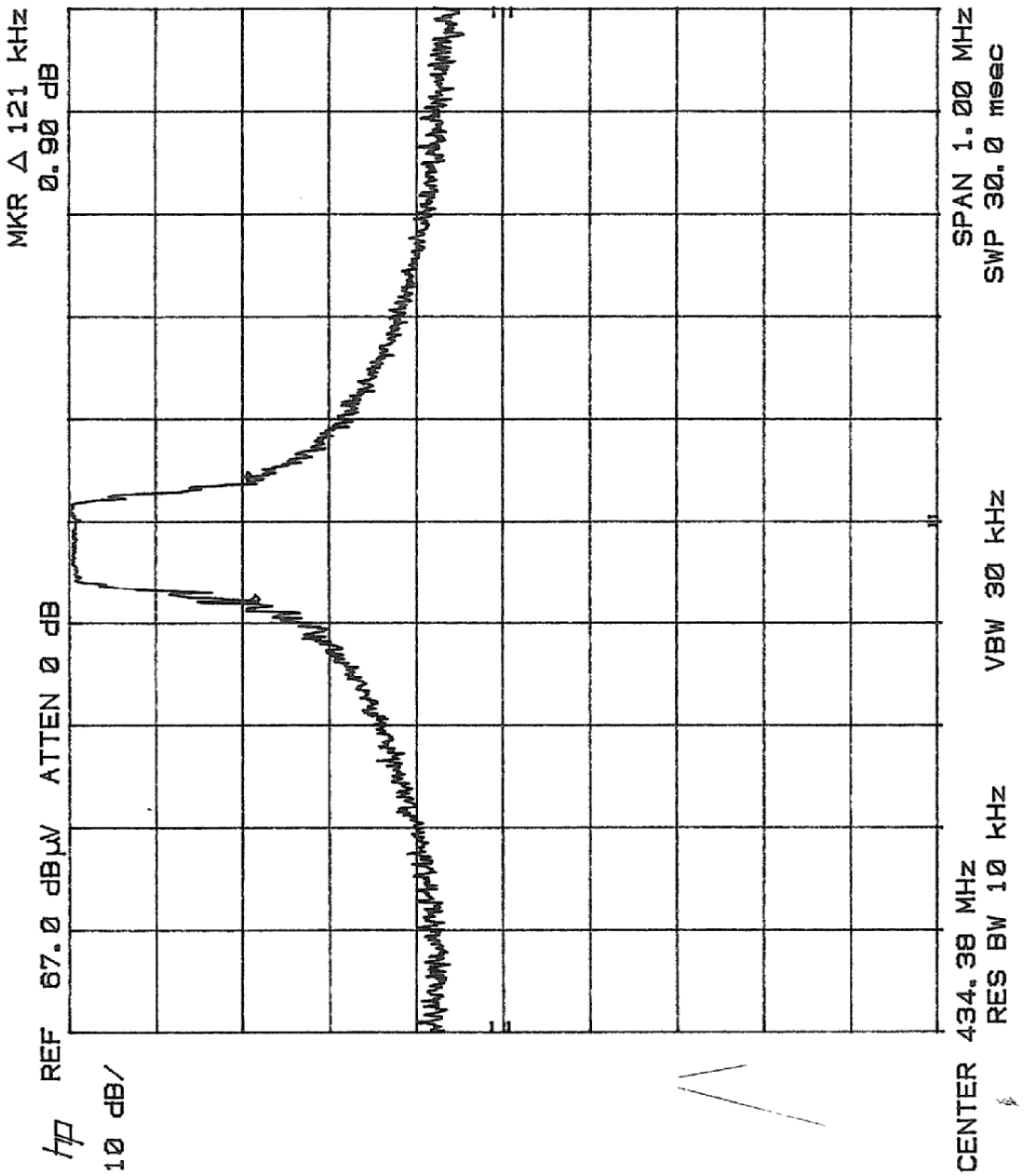
Customer	X-10 (USA), Inc.	
Test Sample	Charger / Finder base transmitter	
Model No.:	1000A	
Date: October 27, 2008	Tech: R.Soodoo	Sheet 2 of 3



Test Method: FCC Part 15.35, Duty Cycle Determination.
Notes: Duty cycle = 68(520µSec) = 35.36mSec.
Duty cycle = (35.36 mSec / 100 = 0.3536) 20 log 0.3536= -9.0 dB
FCC ID.: B4S-1000

Customer	X-10 (USA), Inc.	
Test Sample	Charger / Finder base transmitter	
Model No.:	1000A	
Date: October278, 2008	Tech: R.Soodoo	Sheet 3 of 3

FCC Part 15, Subpart C, 15.231(c), Occupied Bandwidth
Test Data



Test Method: **FCC Part 15, Subpart C, 15.231(c), Occupied Bandwidth**.
Notes: Occupied Bandwidth measured 121.0 kHz, does not exceed 0.25% of center frequency at the 20 dBc points (1.086 MHz)
FCC ID.: B4S-1000

Customer	X-10 (USA), Inc.	
Test Sample	Charger / Finder base transmitter	
Model No.:	1000A	
Date: October 27, 2008	Tech: R.Soodoo	Sheet 1 of 1