

TECHNICAL INFORMATION

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

BRANDNAME(s): X10 (USA)

MODEL(s): PM725T

FCC ID: BS4PM725T

TYPE: Pulsed Transmitter

POWER REQUIREMENTS: 3 VDC derived from two (2) AAA Batteries.

FREQUENCY OF OPERATION: 418 MHz

APPLICABLE RULE SECTION: Part 15, Subpart C, Section 15.231

TESTS PERFORMED

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

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

Para. 15.231(b), Duty Cycle Determination

Para. 15.231(c), Occupied Bandwidth

TEST RESULTS

- 15.231 (a): This device transmits a control signal and is used as a remote control transmitter.
- 15.231 (a)(1) The transmitter is manually operated. Transmission ends within 5 seconds of deactivation.
- 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 10333.3 $\mu\text{V/M}$ (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 1033.3 $\mu\text{V/M}$ (AVERAGE).
- 15.231 (c) The Bandwidth of the emission was no wider than 0.25% of the center frequency (63.8 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 =	<u>418MHz</u>		Lo
F2 =	470	12500 =	L2

The formula below was utilized to determine the limits:

$$\text{Limit} = L1 + [(Fo-F1)(L2-L1)/(F2-F1)]$$

Solving Yields

$$\text{Fundamental Limit} = \underline{10333.3} \text{ } \mu\text{V/M (AVERAGE) @ 3 Meters}$$

$$\text{Harmonic Limit} = \underline{1033.3} \text{ } \mu\text{V/M (AVERAGE) @ 3 Meters}$$

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).

$$\text{Transmitter On Time} = \underline{25.76} \text{ milliseconds (maximum per cycle)}$$

$$\text{Transmitter Cycle Time} = \underline{100.8} \text{ milliseconds (100 ms maximum)}$$

$$\text{Transmitter Duty Cycle} = \underline{26} \%$$

CALCULATION

$$\begin{aligned} & \underline{33} \times \underline{520} \text{ } \mu\text{s (small pulse)} = \underline{17.16} \text{ milliseconds} \\ & \underline{8.6} + \underline{17.16} = \underline{25.76} \text{ milliseconds} \\ & \text{Duty Cycle } (25.76/100) \times 100 = \underline{26.0} \% \\ & \text{Correction Factor} = 20 \log \underline{(0.26)} = \underline{-11.7} \text{ dB} \end{aligned}$$

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: $1/\{\text{minimum pulse width (in seconds)} \times 1.5\} = \text{Hz}$

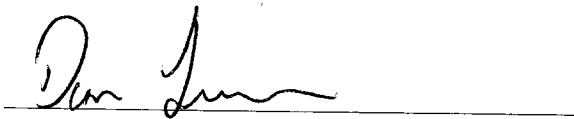
Setting pulse desensitization equal to zero and utilizing the minimum observed pulse width of 520 μs yields a minimum required bandwidth of 900.0 Hz. FCC specified bandwidths of 100 kHz and 1 MHz were utilized below and above 1 GHz, respectively.

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 4.18 GHz. All emissions not reported were more than 20 dB below 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

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, Radiated Emissions, Fundamental & Harmonic Emissions

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3 Meter	RNY	10/1/2003	10/1/2006
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/9/2005	6/9/2006
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	3/23/2006	9/23/2006
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2/9/2006	2/9/2007
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	3/17/2006	9/17/2006
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	6/9/2005	6/9/2006
4003	Double Ridge Guide	Tensor	1 GHz - 18 GHz	4015	3/27/2006	3/27/2007
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	11/10/2005	11/10/2006
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
723	H.P. Filter	Mini-Circuits	1 GHz	BHP-1000	7/20/2005	7/20/2006

EQUIPMENT LIST

FCC Part 15, Subpart C, Spurious Case, Radiated Emissions, Paragraph 15.209 (a)

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3 Meter	RNY	10/1/2003	10/1/2006
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/9/2005	6/9/2006
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	3/23/2006	9/23/2006
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2/9/2006	2/9/2007
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	3/17/2006	9/17/2006
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	6/9/2005	6/9/2006
4003	Double Ridge Guide	Tensor	1 GHz - 18 GHz	4015	3/27/2006	3/27/2007
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	11/10/2005	11/10/2006
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
723	H.P. Filter	Mini-Circuits	1 GHz	BHP-1000	7/20/2005	7/20/2006

EQUIPMENT LIST

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

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	3/23/2006	9/23/2006
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2/9/2006	2/9/2007
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	3/17/2006	9/17/2006

EQUIPMENT LIST

FCC Part 15.35, Duty Cycle Determination

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	3/23/2006	9/23/2006
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2/9/2006	2/9/2007
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	3/17/2006	9/17/2006

Radiated Emissions, Fundamental and Harmonics
Test Data

Test Method:	FCC Part 15, Subpart C, Radiated Emissions, Fundamental & Harmonic Emissions.						
Customer:	X-10 (USA) Inc.				Job No.	R-11452-1	
Test Sample:	Wireless Remote.				Paragraph:	15.231	
Model No.:	PM725T				FCC ID:	BS4PM725T	
Operating Mode:	Continuously Transmitting a pulsed 418 MHz signal.						
Technician:	R. Soodoo			Date:	May 8, 2006.		
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	dBuV	dB	dBuV/m	uV/m	uV/m
418.0	H / 2.0	X	76.1	-1.0	75.1	5688.5	103333.0
	H / 2.0	Y	77.1	-1.0	76.1	6382.6	
	H / 1.0	Z	67.2	-1.0	66.2	2041.7	
	V / 2.0	X	69.1	-1.0	68.1	2541.0	
	V / 1.0	Y	75.8	-1.0	74.8	5495.4	
418.0	V / 1.0	Z	79.5	-1.0	78.5	8414.0	103333.0
836.0	H / 1.0	X	45.8	7.5	53.3	462.4	10333.3
	H / 1.0	Y	45.6	7.5	53.1	451.9	
	H / 2.0	Z	41.5	7.5	49.0	281.8	
	V / 1.0	X	36.6	7.5	44.1	160.3	
	V / 2.0	Y	42.1	7.5	49.6	302.0	
836.0	V / 1.0	Z	38.3	7.5	45.8	195.0	10333.3
1254.0	H / 1.25	X	51.1	-4.0	47.1	226.5	10333.3
	H / 1.25	Y	53.0	-4.0	49.0	281.8	
	V / 1.25	Z	48.6	-4.0	44.6	169.8	
	V / 1.0	X	58.1	-4.0	54.1	507.0	
	V / 1.0	Y	51.0	-4.0	47.0	223.9	
1254.0	H / 1.5	Z	54.3	-4.0	50.3	327.3	10333.3
1672.0	H / 1.25	X	55.3	-3.7	51.6	380.2	5000
	V / 1.5	Y	54.7	-3.7	51.0	354.8	
	V / 1.25	Z	58.4	-3.7	54.7	543.3	
	V / 1.5	X	59.3	-3.7	55.6	602.6	
	H / 1.0	Y	59.8	-3.7	56.1	638.3	
1672.0	H / 1.0	Z	54.5	-3.7	50.8	346.7	5000
2090.0	V / 2.0	X	47.6	0.6	48.2	257.0	10333.3
	V / 1.0	Y	46.5	0.6	47.1	226.5	
	V / 1.5	Z	50.8	0.6	51.4	371.5	
	H / 1.0	X	43.1	0.6	43.7	*153.1	
	H / 1.0	Y	47.9	0.6	48.5	266.1	
2090.0	H / 1.0	Z	46.1	0.6	46.7	216.3	10333.3
	The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 20 dB below the specified limit. The EUT complies with the applicable limit.						
	*=Noise Floor Measurements (Minimum system sensitivity)						

Test Method:		FCC Part 15, Subpart C, Radiated Emissions, Fundamental & Harmonic Emissions.					
Customer:		X-10 (USA) Inc.			Job No.	R-11452-1	
Test Sample:		Wireless Remote.			Paragraph	15.231	
Model No.:		PM725T			FCC ID:	BS4PM725T	
Operating Mode:		Continuously Transmitting a pulsed 418 MHz signal.					
Technician:		R. Soodoo		Date:	May 8, 2006.		
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	dBuV	dB	dBuV/m	uV/m	uV/m
2508.0	H / 1.25	X	49.5	-1.8	47.7	242.7	10333.3
	H / 1.0	Y	42.6	-1.8	40.8	*109.6	
	H / 1.5	Z	52.6	-1.8	50.8	346.7	
	V / 1.0	X	47.1	-1.8	45.3	184.1	
	V / 1.5	Y	47.7	-1.8	45.9	197.2	
2508.0	V / 1.0	Z	44.2	-1.8	42.4	131.8	10333.3
2926.0	H / 1.5	X	50.4	-0.2	50.2	323.6	10333.3
	H / 1.0	Y	47.5	-0.2	47.3	231.7	
	H / 1.0	Z	53.2	-0.2	53.0	446.7	
	V / 1.0	X	45.7	-0.2	45.5	188.4	
	V / 1.0	Y	51.3	-0.2	51.1	358.9	
2926.0	V / 1.0	Z	49.5	-0.2	49.3	291.7	10333.3
3344.0	H / 1.0	X	44.0	1.0	45.0	*177.8	10333.3
	H / 1.5	Y	43.4	1.0	44.4	166.0	
	V / 1.0	Z	47.9	1.0	48.9	278.6	
	V / 1.0	X	43.1	1.0	44.1	*160.3	
	V / 1.0	Y	43.1	1.0	44.1	*160.3	
3344.0	H / 1.0	Z	47.0	1.0	48.0	251.2	10333.3
3762.0	H / 1.0	X	44.4	2.4	46.8	*218.8	5000
	V / 1.0	Y	44.0	2.4	46.4	*208.9	
	V / 1.0	Z	44.0	2.4	46.4	*208.9	
	V / 1.0	X	43.1	2.4	45.5	*188.4	
	H / 1.0	Y	43.1	2.4	45.5	*188.4	
3762.0	H / 1.0	Z	43.1	2.4	45.5	*188.4	5000
4180.0	V / 1.0	X	44.0	3.5	47.5	*237.1	5000
	V / 1.0	Y	44.0	3.5	47.5	*237.1	
	V / 1.0	Z	44.0	3.5	47.5	*237.1	
	H / 1.0	X	43.1	3.5	46.6	*213.8	
	H / 1.0	Y	43.1	3.5	46.6	*213.8	
4180.0	H / 1.0	Z	43.1	3.5	46.6	*213.8	5000
The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 20 dB below the specified limit. The EUT complies with the applicable limit.							
*=Noise Floor Measurements (Minimum system sensitivity)							

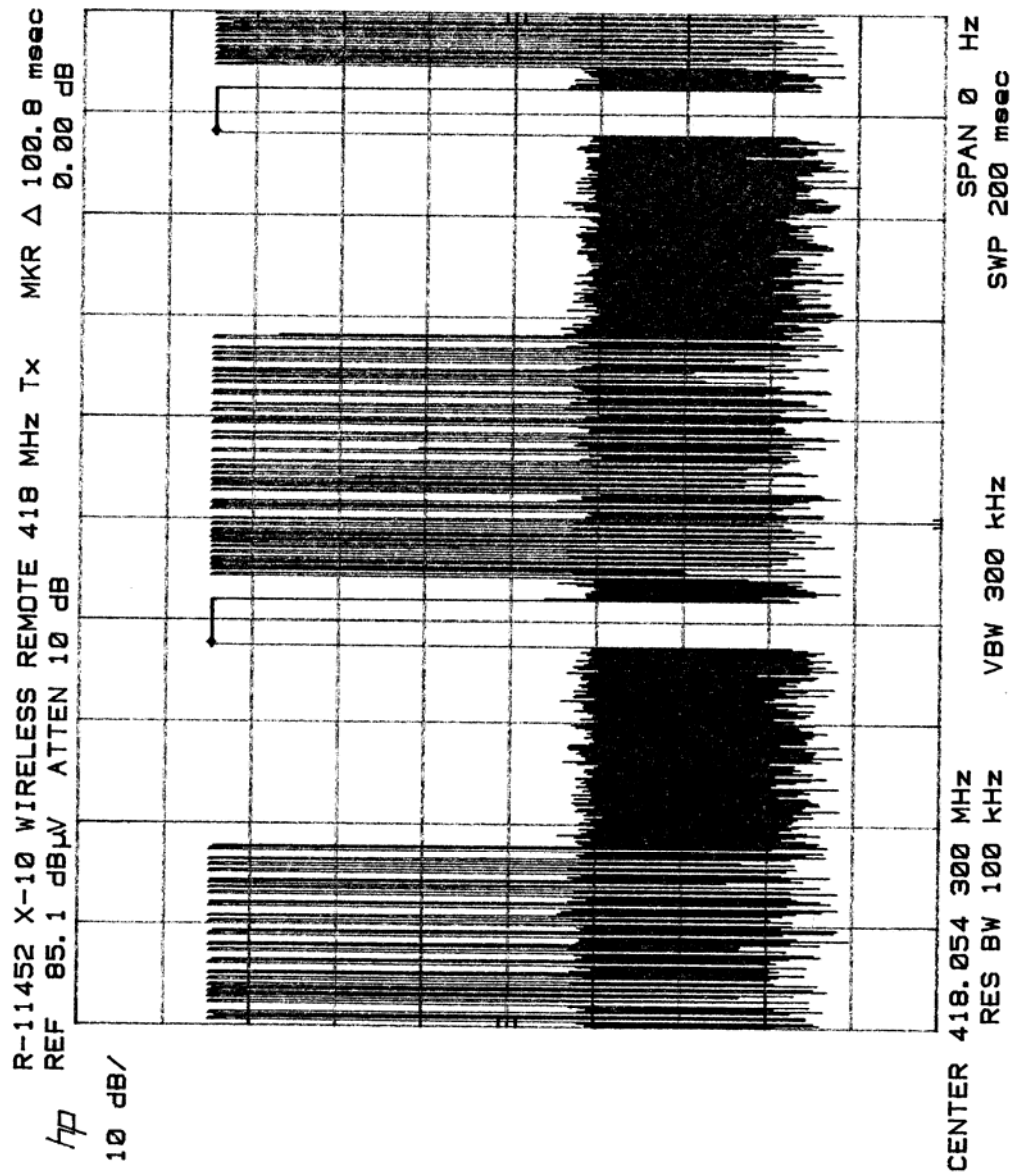
Test Method:	FCC Part 15, Subpart C, Radiated Emissions, Fundamental & Harmonic Emissions.						
Customer:	X-10 (USA) Inc.				Job No.	R-11452-1	
Test Sample:	Wireless Remote.				Paragraph:	15.231	
Model No.:	PM725T				FCC ID:	BS4PM725T	
Operating Mode:	Continuously Transmitting a pulsed 418 MHz signal.						
Technician:	R. Soodoo			Date:	May 8, 2006.		
Notes:	Test Distance: 3 Meters				Duty Cycle: 26%		
	Detector: Peak, unless otherwise specified				Duty Cycle Correction: -11.7dB		
Test Freq.	Antenna Pol./Height	EUT Orientation	Peak Reading	Correction Factor	Corrected Reading	Converted Reading	Avg. Limit
MHz	(V/H)-Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
418.0	H / 2.0	X	75.1	-11.7	63.4	1479.1	10333.3
	H / 2.0	Y	76.1	-11.7	64.4	1659.6	
	H / 1.0	Z	66.2	-11.7	54.5	530.9	
	V / 2.0	X	68.1	-11.7	56.4	660.7	
	V / 1.0	Y	74.8	-11.7	63.1	1428.9	
418.0	V / 1.0	Z	78.5	-11.7	66.8	2187.8	10333.3
836.0	H / 1.0	X	53.3	-11.7	41.6	120.2	1033.3
	H / 1.0	Y	53.1	-11.7	41.4	117.5	
	H / 2.0	Z	49.0	-11.7	37.3	73.3	
	V / 1.0	X	44.1	-11.7	32.4	41.7	
	V / 2.0	Y	49.6	-11.7	37.9	78.5	
836.0	V / 1.0	Z	45.8	-11.7	34.1	50.7	1033.3
1254.0	H / 1.25	X	47.1	-11.7	35.4	58.9	1033.3
	H / 1.25	Y	49.0	-11.7	37.3	73.3	
	V / 1.25	Z	44.6	-11.7	32.9	44.2	
	V / 1.0	X	54.1	-11.7	42.4	131.8	
	V / 1.0	Y	47.0	-11.7	35.3	58.2	
1254.0	H / 1.5	Z	50.3	-11.7	38.6	85.1	1033.3
1672.0	H / 1.25	X	51.6	-11.7	39.9	98.9	1033.3
	V / 1.5	Y	51.0	-11.7	39.3	92.3	
	V / 1.25	Z	54.7	-11.7	43.0	141.3	
	V / 1.5	X	55.6	-11.7	43.9	156.7	
	H / 1.0	Y	56.1	-11.7	44.4	166.0	
1672.0	H / 1.0	Z	50.8	-11.7	39.1	90.2	1033.3
2090.0	V / 2.0	X	48.2	-11.7	36.5	66.8	500
	V / 1.0	Y	47.1	-11.7	35.4	58.9	
	V / 1.5	Z	51.4	-11.7	39.7	96.6	
	H / 1.0	X	43.7	-11.7	32.0	*39.8	
	H / 1.0	Y	48.5	-11.7	36.8	69.2	
2090.0	H / 1.0	Z	46.7	-11.7	35.0	56.2	500
	The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 20 dB below the specified limit. The EUT complies with the applicable limit.						
	*=Noise Floor Measurements (Minimum system sensitivity)						

Test Method:	FCC Part 15, Subpart C, Radiated Emissions, Fundamental & Harmonic Emissions.						
Customer:	X-10 (USA) Inc.				Job No.	R-11452-1	
Test Sample:	Wireless Remote.				Paragraph:	15.231	
Model No.:	PM725T				FCC ID:	BS4PM725T	
Operating Mode:	Continuously Transmitting a pulsed 418 MHz signal.						
Technician:	R. Soodoo			Date:	May 8, 2006.		
Notes:	Test Distance: 3 Meters				Duty Cycle: 26%		
	Detector: Peak, unless otherwise specified				Duty Cycle Correction: -11.7 dB		
Test Freq.	Antenna Pol./Height	EUT Orientation	Peak Reading	Correction Factor	Corrected Reading	Converted Reading	Avg. Limit
MHz	(V/H)-Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
2508.0	H / 1.25	X	47.7	-11.7	36.0	63.1	1033.3
	H / 1.0	Y	40.8	-11.7	29.1	*28.5	
	H / 1.5	Z	50.8	-11.7	39.1	90.2	
	V / 1.0	X	45.3	-11.7	33.6	47.9	
	V / 1.5	Y	45.9	-11.7	34.2	51.3	
2508.0	V / 1.0	Z	42.4	-11.7	30.7	34.3	1033.3
2926.0	H / 1.5	X	50.2	-11.7	38.5	84.1	1033.3
	H / 1.0	Y	47.3	-11.7	35.6	60.3	
	H / 1.0	Z	53.0	-11.7	41.3	116.1	
	V / 1.0	X	45.5	-11.7	33.8	49.0	
	V / 1.0	Y	51.1	-11.7	39.4	93.3	
2926.0	V / 1.0	Z	49.3	-11.7	37.6	75.9	1033.3
3344.0	H / 1.0	X	45.0	-11.7	33.3	*46.2	1033.3
	H / 1.5	Y	44.4	-11.7	32.7	43.2	
	V / 1.0	Z	48.9	-11.7	37.2	72.4	
	V / 1.0	X	44.1	-11.7	32.4	*41.7	
	V / 1.0	Y	44.1	-11.7	32.4	*41.7	
3344.0	H / 1.0	Z	48.0	-11.7	36.3	65.3	1033.3
3762.0	H / 1.0	X	46.8	-11.7	35.1	*56.9	500
	V / 1.0	Y	46.4	-11.7	34.7	*54.3	
	V / 1.0	Z	46.4	-11.7	34.7	*54.3	
	V / 1.0	X	45.5	-11.7	33.8	*49.0	
	H / 1.0	Y	45.5	-11.7	33.8	*49.0	
3762.0	H / 1.0	Z	45.5	-11.7	33.8	*49.0	500
4180.0	V / 1.0	X	47.5	-11.7	35.8	*61.7	500
	V / 1.0	Y	47.5	-11.7	35.8	*61.7	
	V / 1.0	Z	47.5	-11.7	35.8	*61.7	
	H / 1.0	X	46.6	-11.7	34.9	*55.6	
	H / 1.0	Y	46.6	-11.7	34.9	*55.6	
4180.0	H / 1.0	Z	46.6	-11.7	34.9	*55.6	500
	The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 20 dB below the specified limit. The EUT complies with the applicable limit.						
	*=Noise Floor Measurements (Minimum system sensitivity)						

Radiated Emissions, Spurious
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-11452-1	
Test Sample:	Wireless Remote				FCC ID:	B4SPM725T	
Model No.:	PM725T						
Operating Mode:	Continuously Transmitting a pulsed 418 MHz signal.						
Technician:	R. Soodoo				Date:	May 8, 2006.	
Notes:	Test Distance: 3 Meters Temp: 21°C Humidity: 14% 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
88							100
88	No Emissions Observed at specified test distance.						150
216							150
216							200
960							200
960							500
4180							500
The frequency range was scanned from 30 MHz to 4.18 GHz.							
The emissions observed from the EUT do not exceed the specified limits.							
Emissions not recorded were more than 20dB under the specified limit.							

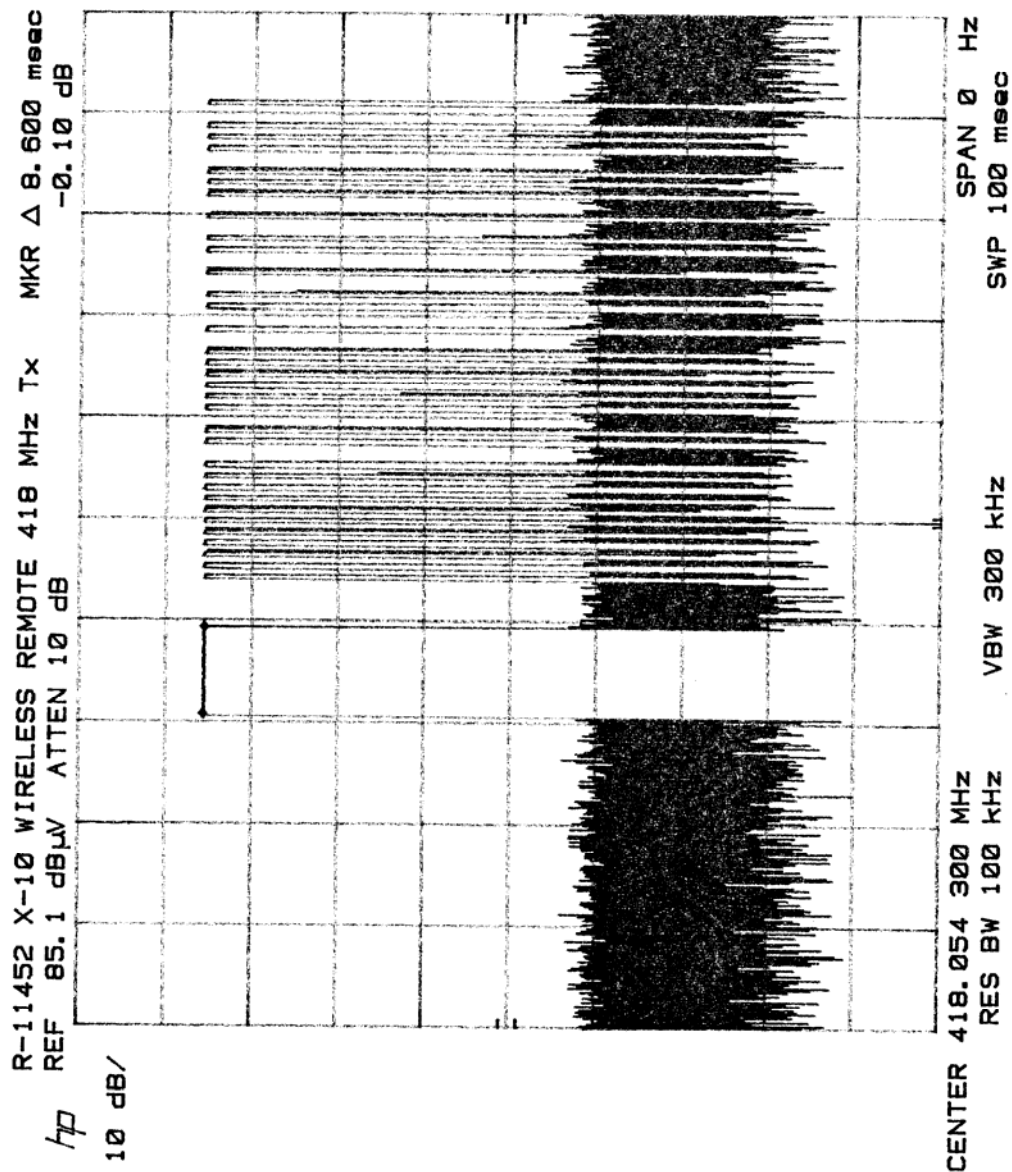
Duty Cycle
Test Data



Test Method: FCC Part 15.35, Duty Cycle Determination.

Notes: Measurement of cycle time = 100.8 mSec.

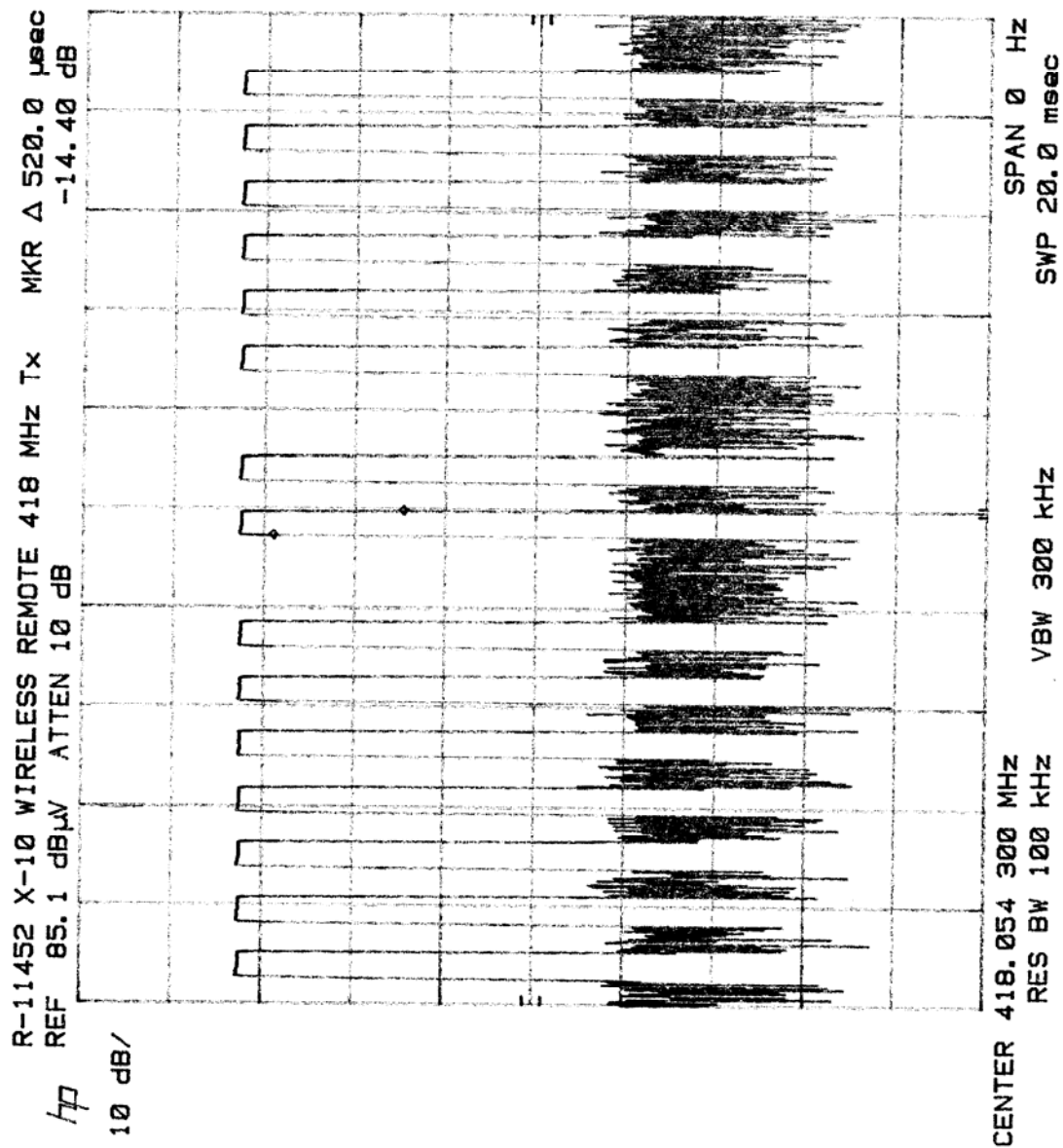
Customer	X-10 (USA), Inc.	
Test Sample	Wireless Remote.	
Model Number	PM725T	
Date: May 8, 2006.	Tech: R. Soodoo	Sheet 1 of 4



Test Method: FCC Part 15.35, Duty Cycle Determination.

Notes: Measurement of 1 large pulse = 8.6mSec.

Customer	X-10 (USA), Inc.	
Test Sample	Wireless Remote.	
Model Number	PM725T	
Date: May 8, 2006.	Tech: R. Soodoo	Sheet 2 of 4

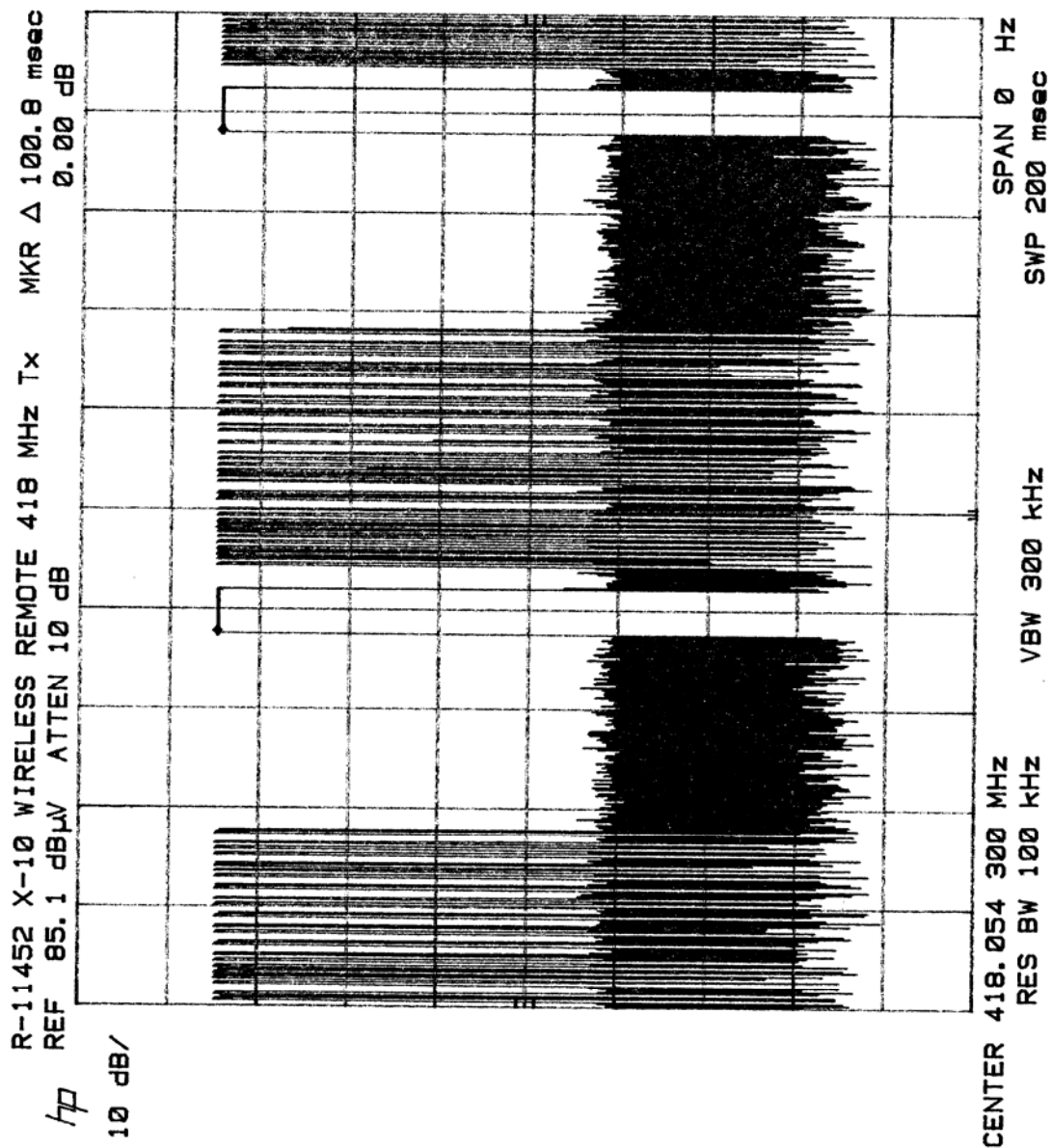


Test Method: FCC Part 15.35, Duty Cycle Determination.

Notes: Measurement of 1 small pulse = 520μSec.

Measurements of 33 small pulses = 33(520μSec) = 25.76mSec.

Customer	X-10 (USA), Inc.		
Test Sample	Wireless Remote.		
Model Number	PM725T		
Date: May 8, 2006.	Tech: R. Soodoo	Sheet 3 of 4	

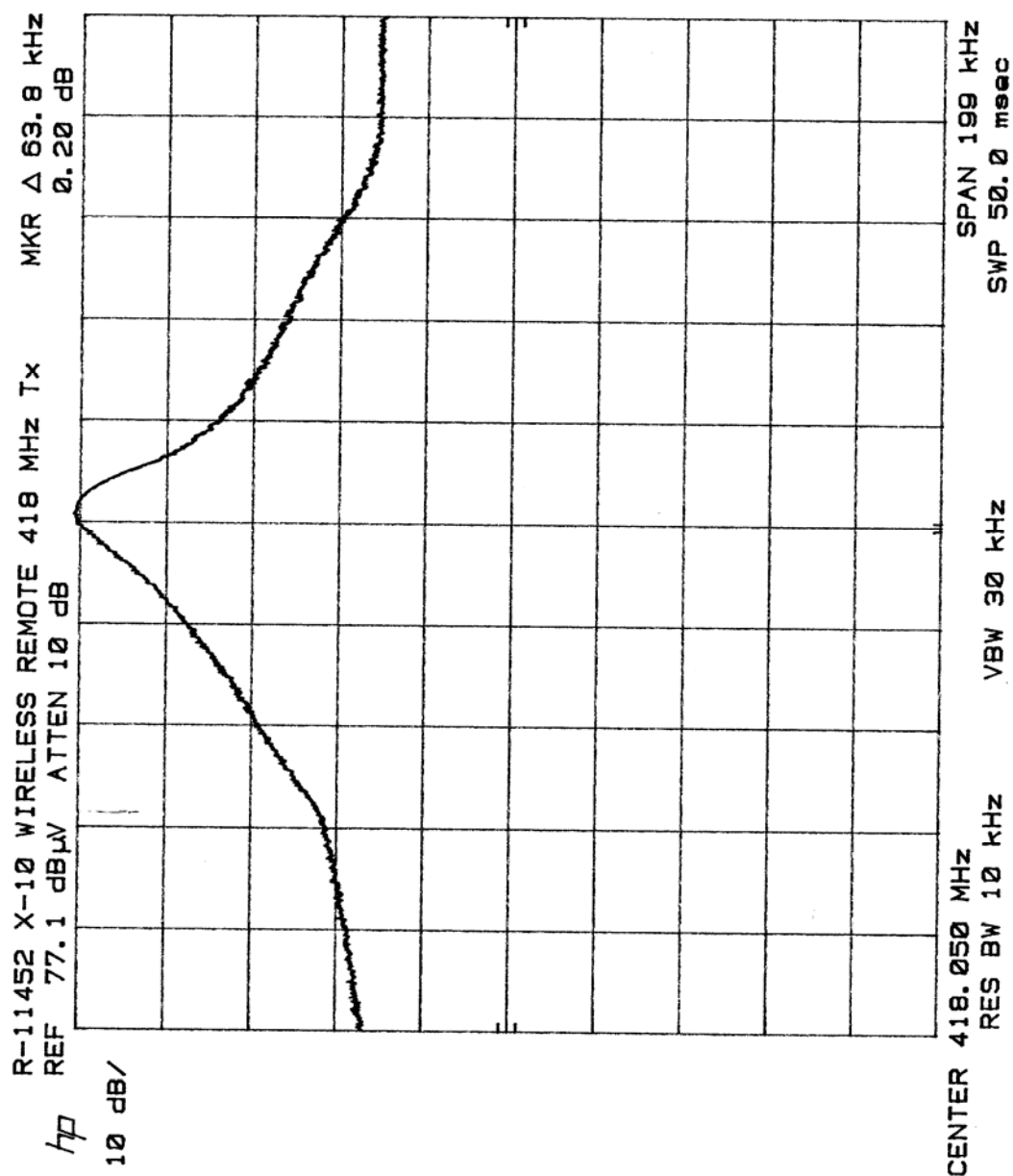


Test Method: FCC Part 15.35, Duty Cycle Determination.

Notes: Duty cycle = (1)(8.6mSec) + (33) (520μSec) = 25.76mSec.
 = 25.76mSec / 100mSec = 26% = 0.26
 = 20 log 0.26 = -11.7 dB

Customer	X-10 (USA), Inc.		
Test Sample	Wireless Remote.		
Model Number	PM725T		
Date: May 8, 2006.	Tech: R. Soodoo	Sheet 4 of 4	

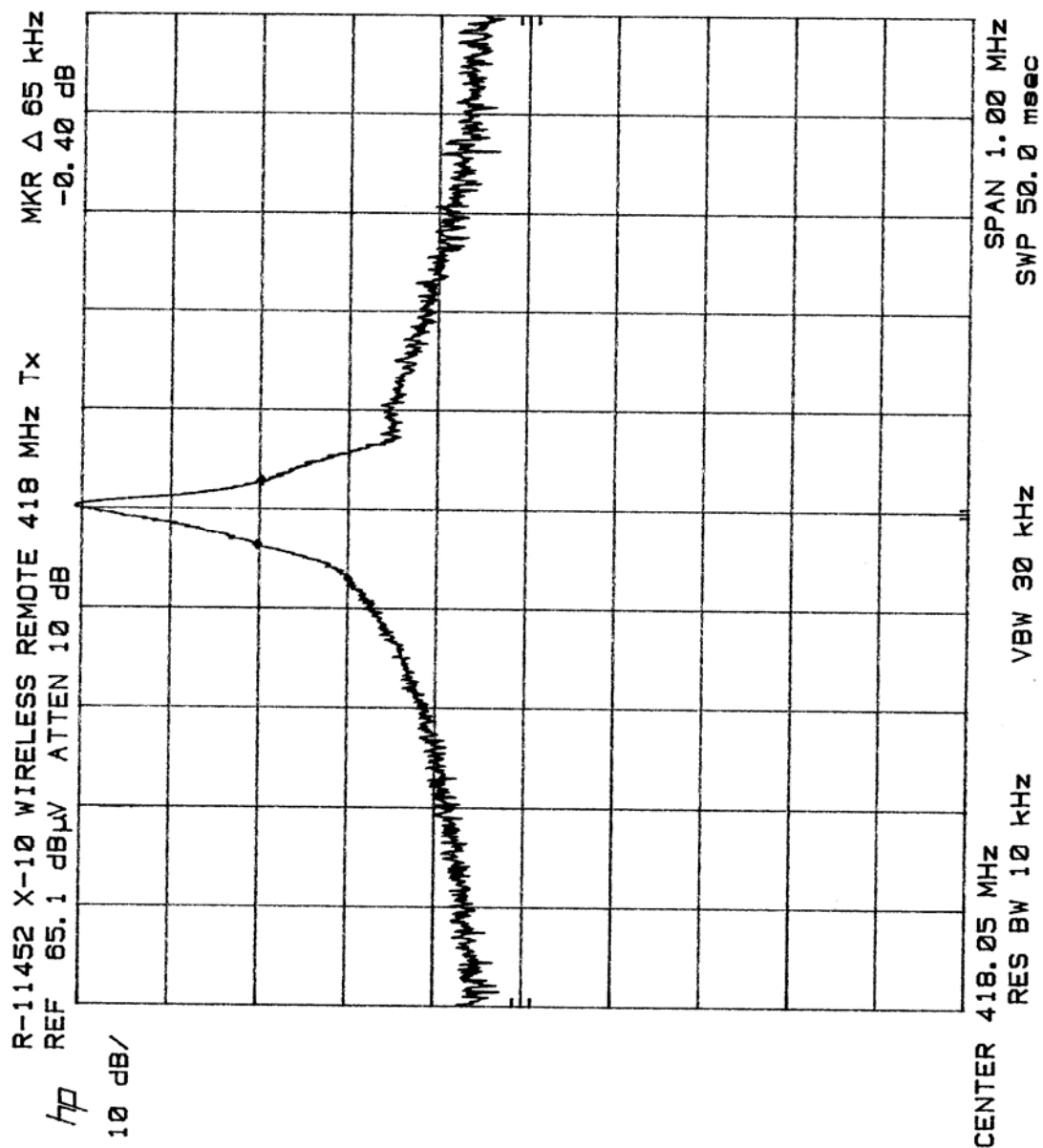
Occupied Bandwidth
Test Data



Test Method: FCC Part 15, Subpart C, 15.231(c), Occupied Bandwidth.

Notes: Bandwidth of 63.8 kHz does not exceed 0.25% of center frequency at the 20 dBc points (1045 kHz)

Customer	X-10 (USA), Inc.	
Test Sample	Wireless Remote.	
Model Number	PM725T	
Date: May 8, 2006.	Tech: R. Soodoo	Sheet 1 of 2



Test Method: FCC Part 15, Subpart C, 15.231(c), Occupied Bandwidth.

Notes: Bandwidth does not exceed 0.25% of center frequency at the 20 dBc points (1045 kHz)

Customer	X-10 (USA), Inc.	
Test Sample	Wireless Remote.	
Model Number	PM725T	
Date: May 8, 2006.	Tech: R. Soodoo	Sheet 2 of 2