

REPORT OF MEASUREMENTS

Applicant: X-10 (USA), Inc.
Device: 2.4 GHz Transmitter
FCC ID: B4SXC18A
Power Requirements: 12 VDC derived from an AC Adapter, Model XM13A
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) 2.433 GHz
3) 2.453 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 500milliV/M AVERAGE. The field strength of the harmonics did not exceed 5000 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

Para. 15.249(a)

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions						
Customer:	X-10				Job No.	R-9097-1	
Test Sample:	2.4GHz FM Transmitter				Paragraph:	15.249	
Model No.:	XC18A				FCC ID:	B4SXC18A	
Operating Mode:	Continuously Transmitting a 2410 MHz Signal, Channel A						
Technician:	Peter Lananna				Date:	July 19, 2001	
Notes:	Test Distance: 3 Meters Detector: Peak, Unless otherwise specified Channel A						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	AverageLimit
GHz	(V/H)/Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
2.410	H / 1.5	X	85.7	3.5	89.2	28840.3	50000
	H / 2.0	Y	83.4	3.5	86.9	22130.9	
	H / 1.8	Z	82.6	3.5	86.1	20183.7	
	V / 1.0	X	79.8	3.5	83.3	14621.8	
	V / 2.0	Y	80.2	3.5	83.7	15310.9	
2.410	V / 1.3	Z	85.9	3.5	89.4	29512.1	50000
4.820	H / 1.0	X	32.0	-4.1	27.9	24.8*	500
	H / 1.0	Y	32.0	-4.1	27.9	24.8*	
	H / 1.0	Z	32.0	-4.1	27.9	24.8*	
	V / 1.0	X	32.0	-4.1	27.9	24.8*	
	V / 1.0	Y	32.0	-4.1	27.9	24.8*	
4.820	V / 1.0	Z	32.0	-4.1	27.9	24.8*	500
7.230	H / 1.0	X	32.0	-2.0	32.0	39.8*	500
	H / 1.0	Y	32.0	-2.0	30.0	31.6*	
	H / 1.0	Z	32.0	-2.0	30.0	31.6*	
	V / 1.0	X	32.0	-2.0	30.0	31.6*	
	V / 1.0	Y	32.0	-2.0	30.0	31.6*	
7.230	V / 1.0	Z	32.0	-2.0	30.0	31.6*	500
9.640	H / 1.0	X	33.0	-1.9	31.1	35.9*	500
	H / 1.0	Y	33.0	-1.9	31.1	35.9*	
	H / 1.0	Z	33.0	-1.9	31.1	35.9*	
	V / 1.0	X	33.0	-1.9	31.1	35.9*	
	V / 1.0	Y	33.0	-1.9	31.1	35.9*	
9.640	V / 1.0	Z	33.0	-1.9	31.1	35.9*	500
12.05	H / 1.0	X	33.0	3.8	36.8	69.2*	500
	H / 1.0	Y	33.0	3.8	36.8	69.2*	
	H / 1.0	Z	33.0	3.8	36.8	69.2*	
	V / 1.0	X	33.0	3.8	36.8	69.2*	
	V / 1.0	Y	33.0	3.8	36.8	69.2*	
12.05	V / 1.0	Z	33.0	3.8	36.8	69.2*	500
	The frequency range was scanned from 30 MHz to 25GHz. All emissions not recorded were more						
	Than 10 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 Emissions						
Customer:	X-10			Job No.	R-9097-1		
Test Sample:	2.4GHz FM Transmitter			Paragraph:	15.249		
Model No.:	XC18A			FCC ID:	B4SXC18A		
Operating Mode:	Continuously Transmitting a 2410 MHz Signal, Channel A						
Technician:	Peter Lananna			Date:	July 19, 2001		
Notes:	Test Distance: 3 Meters **=Readings taken @ 1 meter, correction factors includes test distance correction. Detector: Peak, Unless otherwise specified Channel A						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	Peak Limit
GHz	(V/H)-Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
14.46	H / 1.0	X	33.0	10.8	43.8	154.9*	500
	H / 1.0	Y	33.0	10.8	43.8	154.9*	
	H / 1.0	Z	33.0	10.8	43.8	154.9*	
	V / 1.0	X	33.0	10.8	43.8	154.9*	
	V / 1.0	Y	33.0	10.8	43.8	154.9*	
14.46	V / 1.0	Z	33.0	10.8	43.8	154.9*	500
16.87	H / 1.0	X	33.0	15.5	48.5	266.1*	500
	H / 1.0	Y	33.0	15.5	48.5	266.1*	
	H / 1.0	Z	33.0	15.5	48.5	266.1*	
	V / 1.0	X	33.0	15.5	48.5	266.1*	
	V / 1.0	Y	33.0	15.5	48.5	266.1*	
16.87	V / 1.0	Z	33.0	15.5	48.5	266.1*	500
19.28	H / 1.0	X	30.0	22.9	52.9	441.6**	500
	H / 1.0	Y	30.0	22.9	52.9	441.6**	
	H / 1.0	Z	30.0	22.9	52.9	441.6**	
	V / 1.0	X	30.0	22.9	52.9	441.6**	
	V / 1.0	Y	30.0	22.9	52.9	441.6**	
19.28	V / 1.0	Z	30.0	22.9	52.9	441.6**	500
21.69	H / 1.0	X	30.0	23.2	53.2	457.1**	500
	H / 1.0	Y	30.0	23.2	53.2	457.1**	
	H / 1.0	Z	30.0	23.2	53.2	457.1**	
	V / 1.0	X	30.0	23.2	53.2	457.1**	
	V / 1.0	Y	30.0	23.2	53.2	457.1**	
21.69	V / 1.0	Z	30.0	23.2	53.2	457.1**	500
24.10	H / 1.0	X	30.0	23.4	53.4	467.7**	500
	H / 1.0	Y	30.0	23.4	53.4	467.7**	
	H / 1.0	Z	30.0	23.4	53.4	467.7**	
	V / 1.0	X	30.0	23.4	53.4	467.7**	
	V / 1.0	Y	30.0	23.4	53.4	467.7**	
24.10	V / 1.0	Z	30.0	23.4	53.4	467.7**	500
	The frequency range was scanned from 30 MHz to 25GHz. All emissions not recorded were more						
	Than 10 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 Emissions						
Customer:	X-10 USA				Job No.	R-9097-1	
Test Sample:	2.4GHz FM Transmitter				Paragraph:	15.249	
Model No.:	XC18A				FCC ID:	B4SXC18A	
Operating Mode:	Continuously Transmitting a 2.452GHz Signal, Channel C						
Technician:	Peter Lananna				Date:	July 19, 2001	
Notes:	Test Distance: 3 Meters Detector: Peak, Unless otherwise specified Channel C						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	AverageLimit
GHz	(V/H)/Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
2.452	H / 1.8	X	81.0	3.5	84.5	16788.0	50000
	H / 1.8	Y	83.9	3.5	87.4	23442.3	
	H / 2.0	Z	87.4	3.5	90.9	35075.2	
	V / 2.0	X	79.9	3.5	83.4	14791.1	
	V / 2.3	Y	78.8	3.5	82.3	13031.7	
2.452	V / 1.8	Z	81.9	3.5	85.4	18620.9	50000
4.904	H / 1.0	X	32.0	-4.1	27.9	24.8*	500
	H / 1.0	Y	32.0	-4.1	27.9	24.8*	
	H / 1.0	Z	32.0	-4.1	27.9	24.8*	
	V / 1.0	X	32.0	-4.1	27.9	24.8*	
	V / 1.0	Y	32.0	-4.1	27.9	24.8*	
4.904	V / 1.0	Z	32.0	-4.1	27.9	24.8*	500
7.356	H / 1.0	X	32.0	-2.0	32.0	39.8*	500
	H / 1.0	Y	32.0	-2.0	30.0	31.6*	
	H / 1.0	Z	32.0	-2.0	30.0	31.6*	
	V / 1.0	X	32.0	-2.0	30.0	31.6*	
	V / 1.0	Y	32.0	-2.0	30.0	31.6*	
7.356	V / 1.0	Z	32.0	-2.0	30.0	31.6*	500
9.808	H / 1.0	X	33.0	-1.9	31.1	35.9*	500
	H / 1.0	Y	33.0	-1.9	31.1	35.9*	
	H / 1.0	Z	33.0	-1.9	31.1	35.9*	
	V / 1.0	X	33.0	-1.9	31.1	35.9*	
	V / 1.0	Y	33.0	-1.9	31.1	35.9*	
9.808	V / 1.0	Z	33.0	-1.9	31.1	35.9*	500
12.26	H / 1.0	X	33.0	3.8	36.8	69.2*	500
	H / 1.0	Y	33.0	3.8	36.8	69.2*	
	H / 1.0	Z	33.0	3.8	36.8	69.2*	
	V / 1.0	X	33.0	3.8	36.8	69.2*	
	V / 1.0	Y	33.0	3.8	36.8	69.2*	
12.26	V / 1.0	Z	33.0	3.8	36.8	69.2*	500
	The frequency range was scanned from 30 MHz to25GHz. All emissions not recorded were more						
	Than 10 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 Emissions						
Customer:	X-10 USA				Job No.	R-9097-1	
Test Sample:	2.4GHz FM Transmitter				Paragraph:	15.249	
Model No.:	XC18A				FCC ID:	B4SXC18A	
Operating Mode:	Continuously Transmitting a 2.452GHz Signal, Channel C						
Technician:	Peter Lananna				Date:	July 19, 2001	
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	Peak Limit
GHz	(V/H)-Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
14.71	H / 1.0	X	33.0	10.8	43.8	154.9*	500
	H / 1.0	Y	33.0	10.8	43.8	154.9*	
	H / 1.0	Z	33.0	10.8	43.8	154.9*	
	V / 1.0	X	33.0	10.8	43.8	154.9*	
	V / 1.0	Y	33.0	10.8	43.8	154.9*	
14.71	V / 1.0	Z	33.0	10.8	43.8	154.9*	500
17.16	H / 1.0	X	33.0	15.5	48.5	266.1*	500
	H / 1.0	Y	33.0	15.5	48.5	266.1*	
	H / 1.0	Z	33.0	15.5	48.5	266.1*	
	V / 1.0	X	33.0	15.5	48.5	266.1*	
	V / 1.0	Y	33.0	15.5	48.5	266.1*	
17.16	V / 1.0	Z	33.0	15.5	48.5	266.1*	500
19.62	H / 1.0	X	30.0	22.9	52.9	441.6**	500
	H / 1.0	Y	30.0	22.9	52.9	441.6**	
	H / 1.0	Z	30.0	22.9	52.9	441.6**	
	V / 1.0	X	30.0	22.9	52.9	441.6**	
	V / 1.0	Y	30.0	22.9	52.9	441.6**	
19.62	V / 1.0	Z	30.0	22.9	52.9	441.6**	500
22.07	H / 1.0	X	30.0	23.2	53.2	457.1**	500
	H / 1.0	Y	30.0	23.2	53.2	457.1**	
	H / 1.0	Z	30.0	23.2	53.2	457.1**	
	V / 1.0	X	30.0	23.2	53.2	457.1**	
	V / 1.0	Y	30.0	23.2	53.2	457.1**	
22.07	V / 1.0	Z	30.0	23.2	53.2	457.1**	500
24.52	H / 1.0	X	30.0	23.4	53.4	467.7**	500
	H / 1.0	Y	30.0	23.4	53.4	467.7**	
	H / 1.0	Z	30.0	23.4	53.4	467.7**	
	V / 1.0	X	30.0	23.4	53.4	467.7**	
	V / 1.0	Y	30.0	23.4	53.4	467.7**	
24.52	V / 1.0	Z	30.0	23.4	53.4	467.7**	500
	The frequency range was scanned from 30 MHz to 25GHz. All emissions not recorded were more Than 10 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 Emissions						
Customer:	X-10 USA				Job No.	R-9097-1	
Test Sample:	2.4GHz FM Transmitter				Paragraph:	15.249	
Model No.:	XC18A				FCC ID:	B4SXC18A	
Operating Mode:	Continuously Transmitting a 2.472GHz Signal, Channel D						
Technician:	Peter Lananna				Date:	July 19, 2001	
Notes:	Test Distance: 3 Meters Detector: Peak, Unless otherwise specified Channel D						
Test Freq.	Antenna Pol./Height	EUT Orientation	Meter Reading	Correction Factor	Corrected Reading	Converted Reading	AverageLimit
GHz	(V/H)/Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
2.472	H / 1.8	X	80.7	3.5	84.2	16218.1	50000
	H / 1.8	Y	83.2	3.5	86.7	21627.2	
	H / 1.8	Z	88.7	3.5	92.2	40738.0	
	V / 1.3	X	85.2	3.5	88.7	27227.0	
	V / 2.0	Y	80.0	3.5	83.5	14962.4	
2.472	V / 2.0	Z	81.2	3.5	84.7	17179.1	50000
4944	H / 1.0	X	32.0	-4.1	27.9	24.8*	500
	H / 1.0	Y	32.0	-4.1	27.9	24.8*	
	H / 1.0	Z	32.0	-4.1	27.9	24.8*	
	V / 1.0	X	32.0	-4.1	27.9	24.8*	
	V / 1.0	Y	32.0	-4.1	27.9	24.8*	
4.944	V / 1.0	Z	32.0	-4.1	27.9	24.8*	500
7.416	H / 1.0	X	32.0	-2.0	32.0	39.8*	500
	H / 1.0	Y	32.0	-2.0	30.0	31.6*	
	H / 1.0	Z	32.0	-2.0	30.0	31.6*	
	V / 1.0	X	32.0	-2.0	30.0	31.6*	
	V / 1.0	Y	32.0	-2.0	30.0	31.6*	
7.416	V / 1.0	Z	32.0	-2.0	30.0	31.6*	500
9.888	H / 1.0	X	33.0	-1.9	31.1	35.9*	500
	H / 1.0	Y	33.0	-1.9	31.1	35.9*	
	H / 1.0	Z	33.0	-1.9	31.1	35.9*	
	V / 1.0	X	33.0	-1.9	31.1	35.9*	
	V / 1.0	Y	33.0	-1.9	31.1	35.9*	
9.888	V / 1.0	Z	33.0	-1.9	31.1	35.9*	500
12.36	H / 1.0	X	33.0	3.8	36.8	69.2*	500
	H / 1.0	Y	33.0	3.8	36.8	69.2*	
	H / 1.0	Z	33.0	3.8	36.8	69.2*	
	V / 1.0	X	33.0	3.8	36.8	69.2*	
	V / 1.0	Y	33.0	3.8	36.8	69.2*	
12.36	V / 1.0	Z	33.0	3.8	36.8	69.2*	500
	The frequency range was scanned from 30 MHz to25GHz. All emissions not recorded were more						
	Than 10 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 Emissions						
Customer:	X-10 USA				Job No.	R-9097-1	
Test Sample:	2.4GHz FM Transmitter				Paragraph:	15.249	
Model No.:	XC18A				FCC ID:	B4SXC18A	
Operating Mode:	Continuously Transmitting a 2.472GHz Signal, Channel D						
Technician:	Peter Lananna				Date:	July 19, 2001	
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	Peak Limit
GHz	(V/H)-Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
14.83	H / 1.0	X	33.0	10.8	43.8	154.9*	500
	H / 1.0	Y	33.0	10.8	43.8	154.9*	
	H / 1.0	Z	33.0	10.8	43.8	154.9*	
	V / 1.0	X	33.0	10.8	43.8	154.9*	
	V / 1.0	Y	33.0	10.8	43.8	154.9*	
14.83	V / 1.0	Z	33.0	10.8	43.8	154.9*	500
17.30	H / 1.0	X	33.0	15.5	48.5	266.1*	500
	H / 1.0	Y	33.0	15.5	48.5	266.1*	
	H / 1.0	Z	33.0	15.5	48.5	266.1*	
	V / 1.0	X	33.0	15.5	48.5	266.1*	
	V / 1.0	Y	33.0	15.5	48.5	266.1*	
17.30	V / 1.0	Z	33.0	15.5	48.5	266.1*	500
19.78	H / 1.0	X	30.0	22.9	52.9	441.6**	500
	H / 1.0	Y	30.0	22.9	52.9	441.6**	
	H / 1.0	Z	30.0	22.9	52.9	441.6**	
	V / 1.0	X	30.0	22.9	52.9	441.6**	
	V / 1.0	Y	30.0	22.9	52.9	441.6**	
19.78	V / 1.0	Z	30.0	22.9	52.9	441.6**	500
22.25	H / 1.0	X	30.0	23.2	53.2	457.1**	500
	H / 1.0	Y	30.0	23.2	53.2	457.1**	
	H / 1.0	Z	30.0	23.2	53.2	457.1**	
	V / 1.0	X	30.0	23.2	53.2	457.1**	
	V / 1.0	Y	30.0	23.2	53.2	457.1**	
22.25	V / 1.0	Z	30.0	23.2	53.2	457.1**	500
24.72	H / 1.0	X	30.0	23.4	53.4	467.7**	500
	H / 1.0	Y	30.0	23.4	53.4	467.7**	
	H / 1.0	Z	30.0	23.4	53.4	467.7**	
	V / 1.0	X	30.0	23.4	53.4	467.7**	
	V / 1.0	Y	30.0	23.4	53.4	467.7**	
24.72	V / 1.0	Z	30.0	23.4	53.4	467.7**	500
	The frequency range was scanned from 30 MHz to 25GHz. All emissions not recorded were more						
	Than 10 dB below the specified limit. Emissions from the EUT do not exceed the specified limits.						
	*=Noise Floor Measurements (Minimum system sensitivity)						

EXHIBIT 4

Spurious Emissions

Para. 15.249(c)

Test Method:	FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a)						
Customer:	X-10				Job No.	R-9097-1	
Test Sample:	2.4GHz FM Transmitter						
Model No.:	XC18A				Serial No.	N/A	
Operating Mode:	Continuously Transmitting a 2.41GHz Signal , Channel A						
Technician:	Peter Lananna				Date:	July 19, 2001	
Notes:	Test Distance: 3 Meters Temp:30C Humidity:40% Detector: Quasi-Peak Below 30 MHz to 1 GHz, Peak above 1 GHz						
Test Freq.	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	<u>LIMIT</u>
MHz	(V/H) / Meters	Degrees	dBuV	dB	dBuV/m	uV/m	uV/m
30.00							100
88.00							100
88.00							150
216.00							150
216.00							200
960.00							200
960.00							500
1							
2326.7	V/1.3	270	43.4	3.5	46.9	221.3	
1							
25000.0							500
	The EUT 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 10dB under the specified limit						

Test Method:	FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a)						
Customer:	X-10				Job No.	R-9097-1	
Test Sample:	2.4GHz FM Transmitter						
Model No.:	XC18A				Serial No.	N/A	
Operating Mode:	Continuously Transmitting a 2.452GHz Signal , Channel C						
Technician:	Peter Lananna				Date:	July 19, 2001	
Notes:	Test Distance: 3 Meters Temp:30C Humidity:40% Detector: Quasi-Peak Below 30 MHz to 1 GHz, Peak above 1 GHz						
Test Freq.	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	<u>LIMIT</u>
MHz	(V/H) / Meters	Degrees	dBuV	dB	dBuV/m	uV/m	uV/m
30.00							100
88.00							100
88.00							150
No Spurious Emissions Detected From Specified Test Distance							
216.00							150
216.00							200
960.00							200
960.00							500
1							
1							
25000.0							500
The EUT 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 10dB under the specified limit							

Test Method:	FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a)						
Customer:	X-10				Job No.	R-9097-1	
Test Sample:	2.4GHz FM Transmitter						
Model No.:	XC18A				Serial No.	N/A	
Operating Mode:	Continuously Transmitting a 2.472GHz Signal , Channel D						
Technician:	Peter Lananna				Date:	July 19, 2001	
Notes:	Test Distance: 3 Meters Temp:30C Humidity:40% Detector: Quasi-Peak Below 30 MHz to 1 GHz, Peak above 1 GHz						
Test Freq.	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	<u>LIMIT</u>
MHz	(V/H) / Meters	Degrees	dBuV	dB	dBuV/m	uV/m	uV/m
30.00							100
88.00							100
88.00							150
216.00							150
216.00							200
960.00							200
960.00							500
1							
2488.0	H/1.3	270	42.6	3.5	46.1	201.8	
1							
25000.0							500
The EUT 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 10dB under the specified limit							

EXHIBIT 4

Occupied Bandwidth

Para. 15.249(c)

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

EXHIBIT 4

Conducted Emissions

Para. 15.207(a)

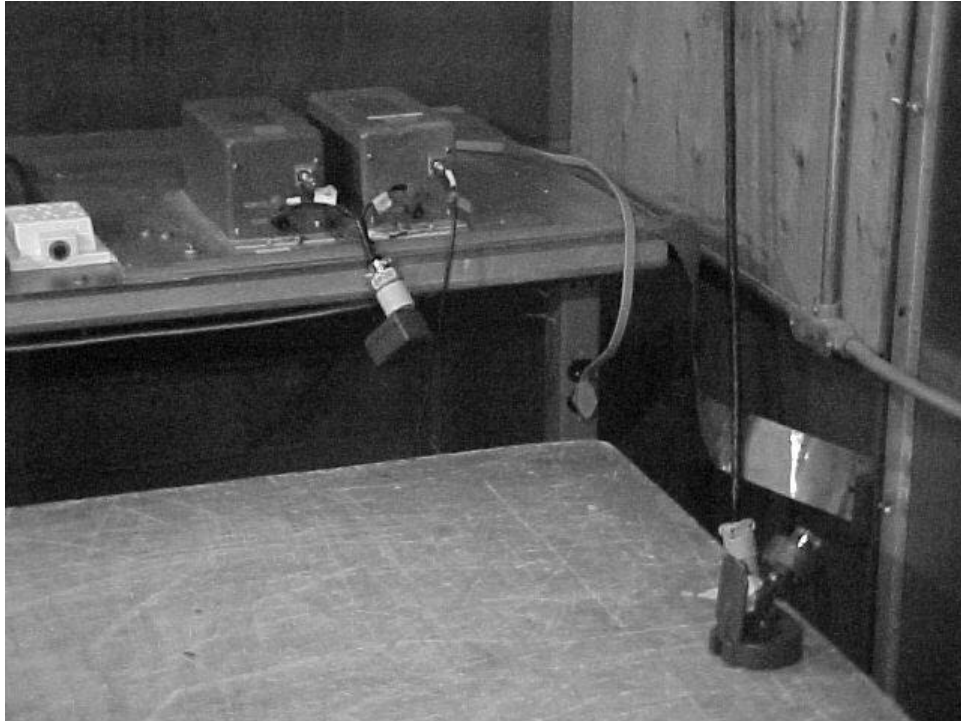
(See separate e-file attachment named CEdata.pdf)

EQUIPMENT LIST

FCC 15.249 Compliance Testing

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3 Meter	RNY	9/20/00	9/20/03
078	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS24BNC	5/2/01	5/2/02
128C	Double Ridge Guide	Eaton Corporation	1 GHz - 18 GHz	96001	9/18/00	9/18/01
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/26/01	6/26/02
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	3/5/01	3/5/02
202	Transient Limiter	Hewlett Packard	.009 MHz - 200 MHz	11947A	7/19/01	7/19/02
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	6/26/01	6/26/02
513	LISN	Solar Electronics	10 kHz - 30 MHz	8028-50-TS24BNC	5/1/01	5/1/02
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	6/8/00	8/8/01
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	6/27/01	6/27/02
617	Interference Analyzer	Electro-Metrics	10 kHz - 1 GHz	EMC-30	2/27/01	2/27/02
R105	Spectrum Analyzer	Agilent	9 kHz - 26.5 GHz	E4407B	2/17/01	2/17/02

Test Setup Photograph



Customer:	X-10 (USA)
Test Sample:	2.4GHz Transmitter
Model No.:	XC18A FCC ID: B45XC18A
Test Method:	FCC15.207(a) Conducted Emissions, 450kHz to 30MHz
Notes:	Lead-HOT Channel=A Detector=Peak
Date:	July 19, 2001
Tech:	Peter Lianina
Sheet:	1 of 6

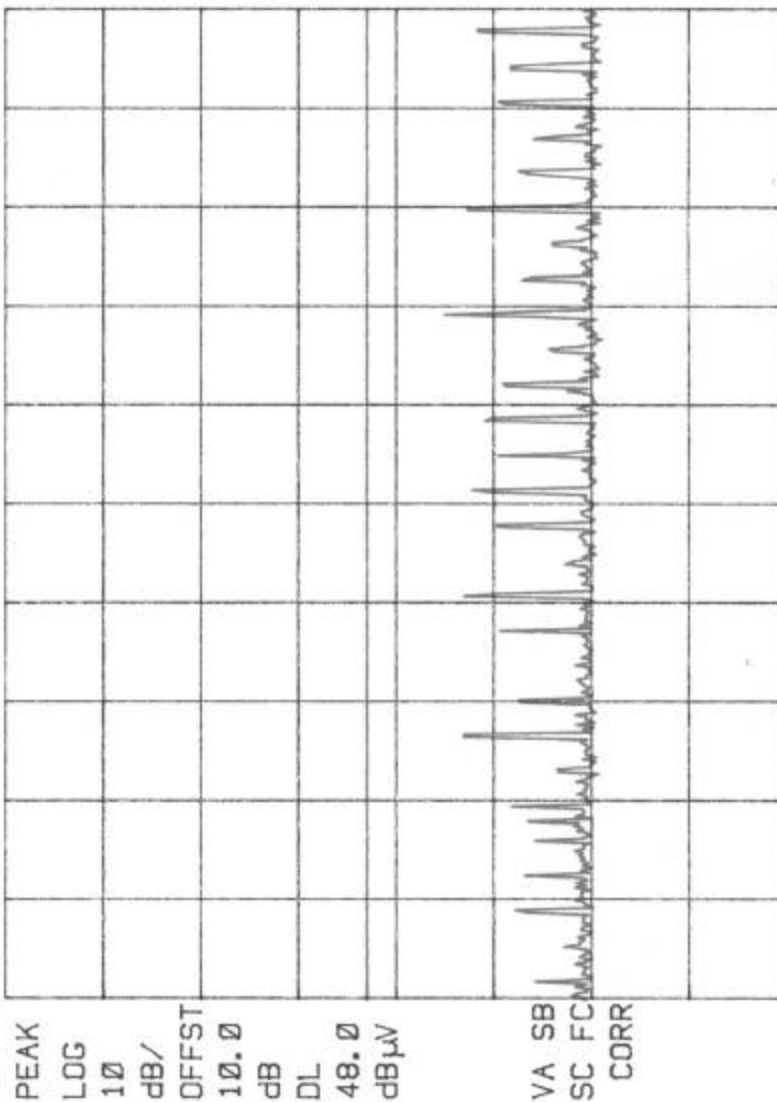


Retlif Testing Laboratories

Report No. R-9097-1

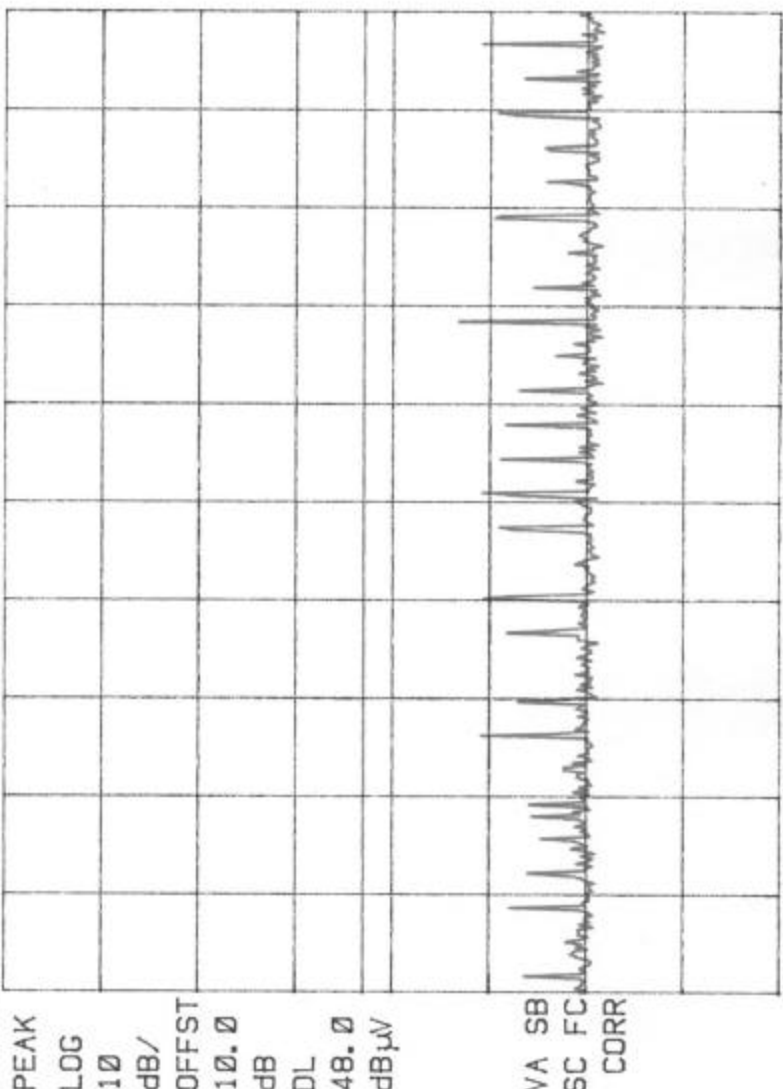
19:22:23 JUL 19, 2001
 R9 X-10 XC18A CE LEAD-HOT CH.A

REF 85.0 dBμV AT 10 dB



START 450 kHz STOP 30.00 MHz
 #RES BW 10 kHz #SWP 20.0 sec
 VBW 30 kHz

19:26:24 JUL 19, 2001
 R9 X-10 XC18A CE LEAD-Neutral CH. A
 REF 85.0 dBμV AT 10 dB



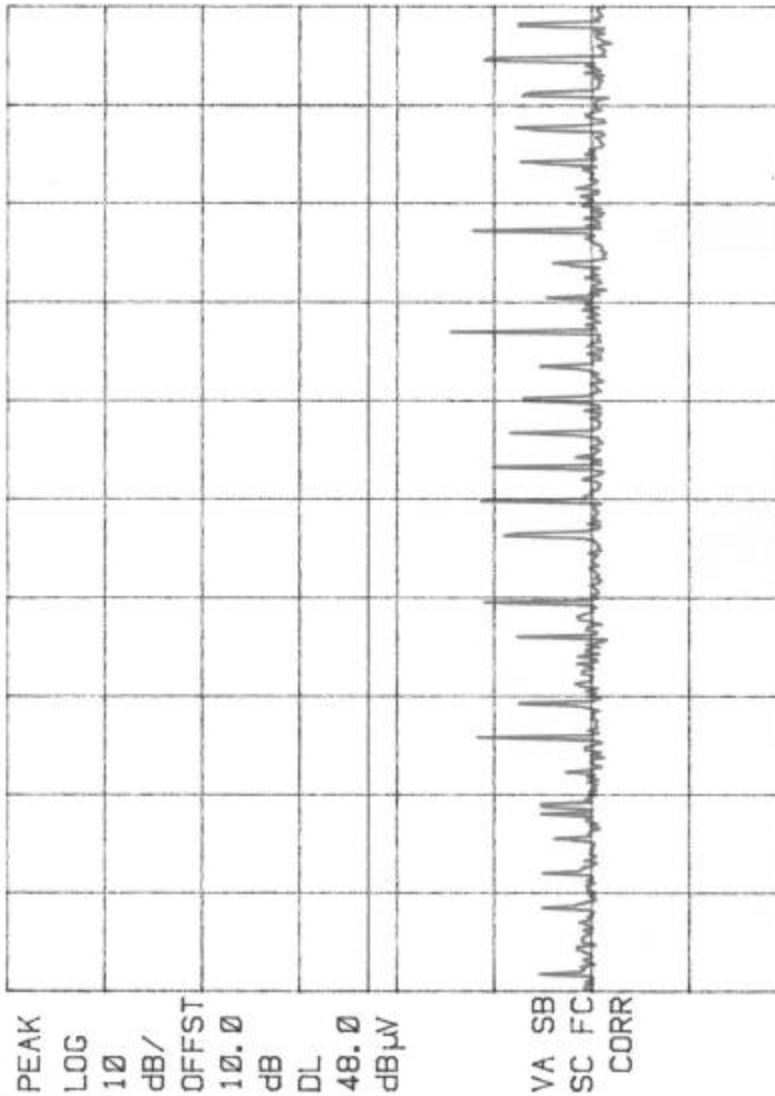
START 450 kHz
 #RES BW 10 kHz
 STOP 30.00 MHz
 #SWP 20.0 sec
 VBW 30 kHz

Customer:	X-10 (USA)
Test Sample:	2.4GHz Transmitter
Model No.:	XC18A FCC ID:B45XC18A
Test Method:	FCC15.207(a) Conducted Emissions, 450kHz to 30MHz
Notes:	Lead-NEUTRAL Channel=A Detector=Peak
Date:	July 19, 2001
Tech:	Peter Lananna
Sheet:	2 of 6



Retlif Testing Laboratories
 Report No. R-9097-1

19:41:10 JUL 19, 2001
 17 R9 X-10 XC18A CE LEAD-11+ CH. 3C
 REF 85.0 dBμV AT 10 dB



START 450 kHz
 #RES BW 10 kHz
 STOP 30.00 MHz
 #SWP 20.0 sec
 VBW 30 kHz

Customer: X-10 (USA)
 Test Sample: 2.4GHz Transmitter
 Model No.: XC18A FCC ID-B45XC18A
 Test Method: FCC15.207(a) Conducted Emissions, 450kHz to 30MHz
 Notes: Lead-HOT
 Channel=C
 Detector=Peak

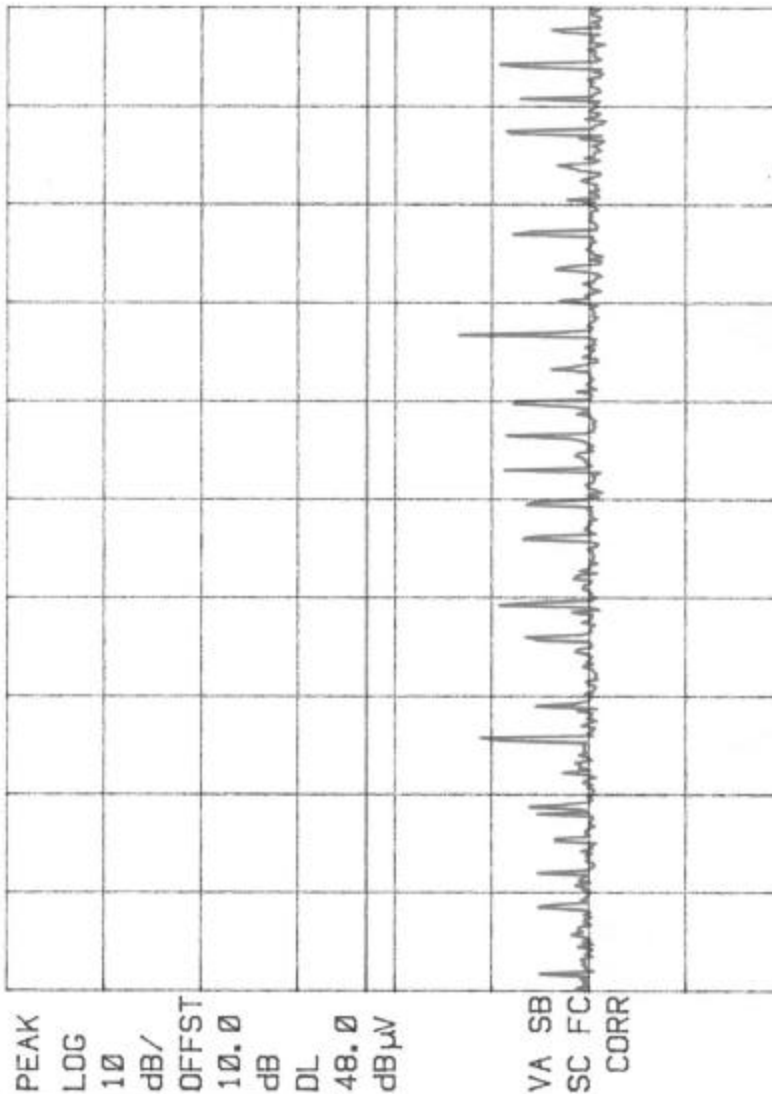
Date: July19, 2001 Tech: Peter Lananna Sheet 3 of 6



Retlif Testing Laboratories

Report No. R-9097-1

19:48:28 JUL 19, 2001
 R9 X-10 XC18A CE LEAD-Neutral CH. *XC*
 REF 85.0 dBμV AT 10 dB



START 450 kHz
 #RES BW 10 kHz
 STOP 30.00 MHz
 #SWP 20.0 sec
 VBW 30 kHz

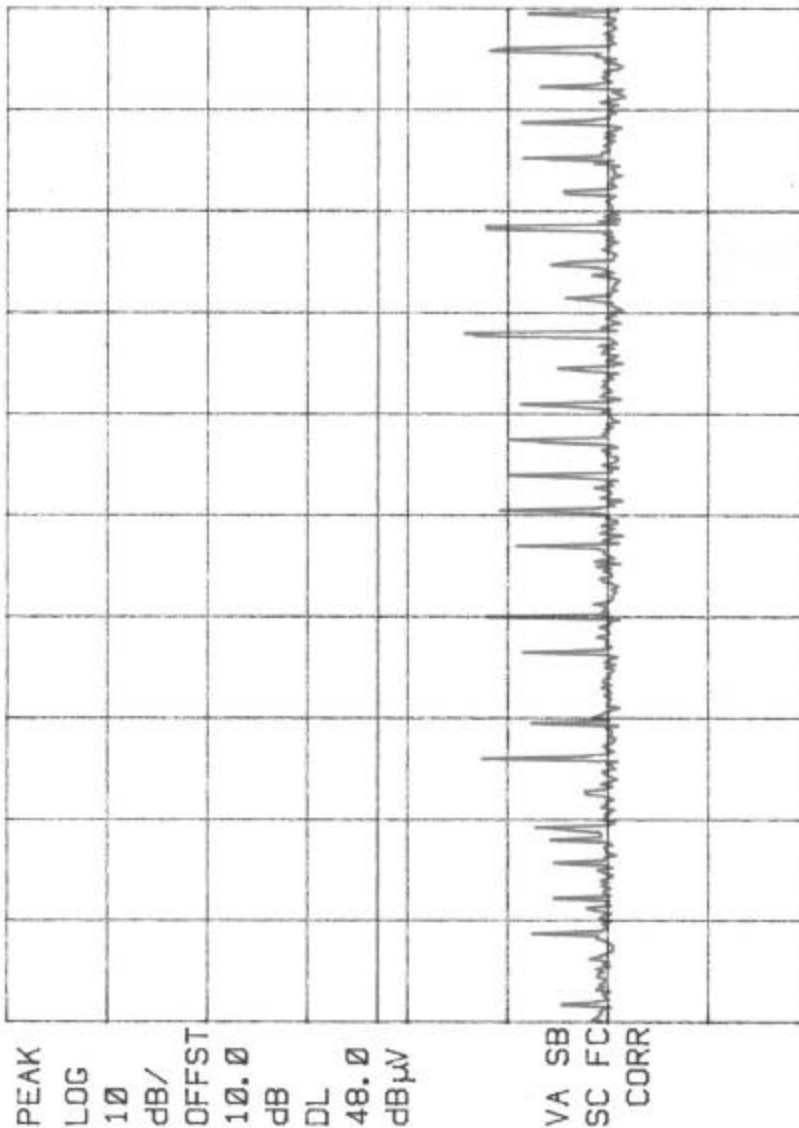
Customer:	X-10 (USA)
Test Sample:	2.4GHz Transmitter
Model No.:	XC18A - FCC ID: B4SXC18A
Test Method:	FCC15.207(a) Conducted Emissions, 450kHz to 30MHz
Notes:	Lead-NEUTRAL Channel=C Detector=Peak
Date:	July 19, 2001
Tech:	Peter Liananna
Sheet:	4 of 6



Retlif Testing Laboratories

Report No. R-9097-1

19:33:15 JUL 19, 2001
 /P R9 X-10 XC18A CE LEAD-H.f CH.D
 REF 85.0 dBμV AT 10 dB



START 450 kHz
 #RES BW 10 kHz
 STOP 30.00 MHz
 #SWP 20.0 sec
 VBW 30 kHz

Customer:	X-10 (USA)
Test Sample:	2.4GHz Transmitter
Model No.:	XC18A FCC ID:B45XC18A
Test Method:	FCC15.207(a) Conducted Emissions, 450kHz to 30MHz
Notes:	Lead-HOT
	Channel=D
	Detector=Peak
Date:	July 19, 2001
Tech:	Peter Lannina
Sheet:	5 of 8

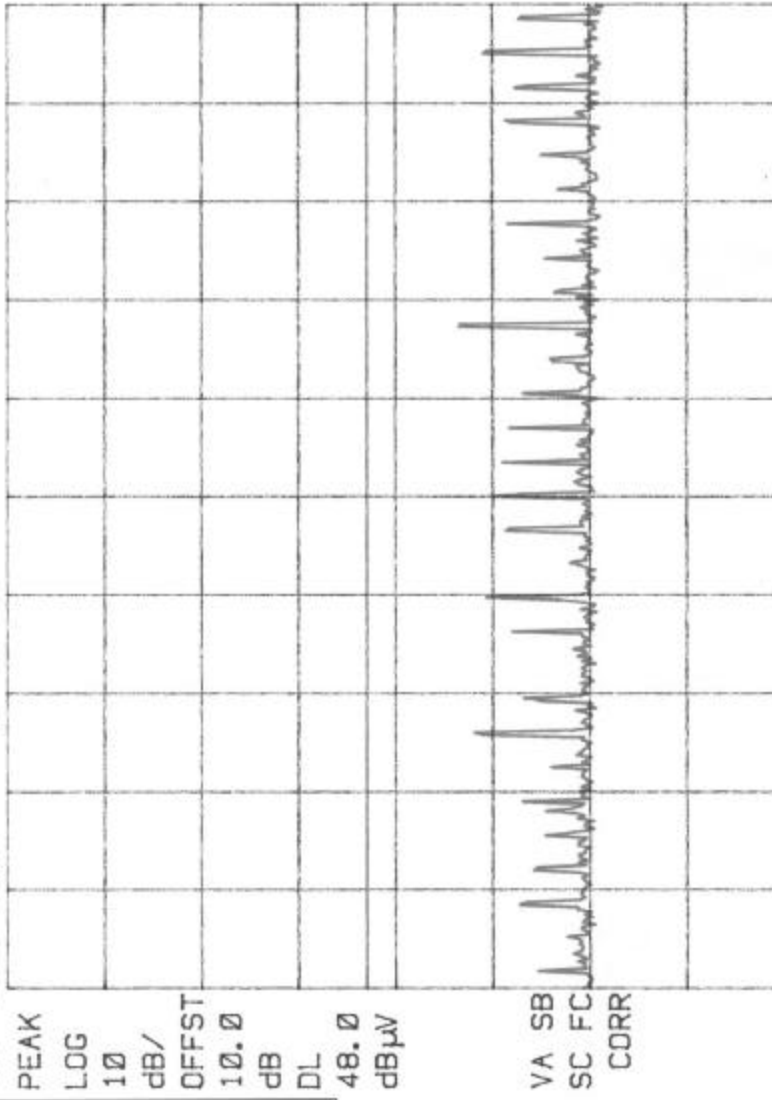


Retlif Testing Laboratories

Report No. R-9097-1

Customer:	X-10 (USA)
Test Sample:	2.4GHz Transmitter
Model No.:	XC18A FCC ID: B45XC18A
Test Method:	FCC15.207(a) Conducted Emissions, 450kHz to 30MHz
Notes:	Lead-NEUTRAL Channel=D Detector=Peak
Date:	July 19, 2001
Tech:	Peter Lananna
Sheet:	6 of 6

19:36:48 JUL 19, 2001
 R9 X-10 XC18A CE LEAD-Neutral CH.D
 REF 85.0 dBμV AT 10 dB

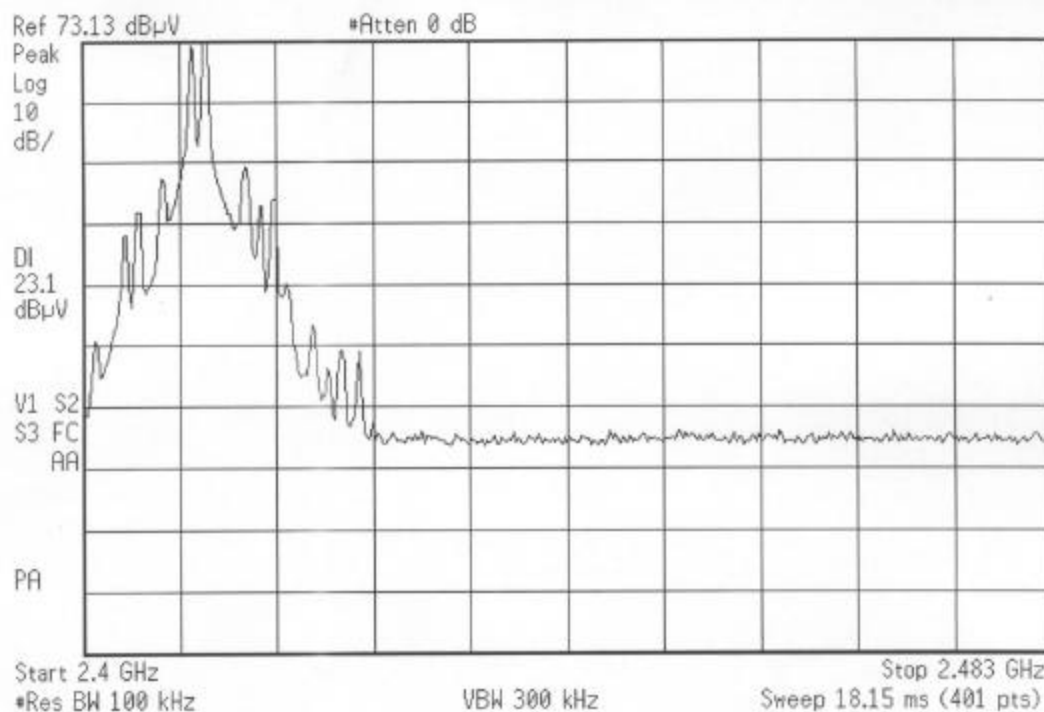


START 450 kHz
 #RES BW 10 kHz
 STOP 30.00 MHz
 #SWP 20.0 sec
 VBW 30 kHz



Retlif Testing Laboratories

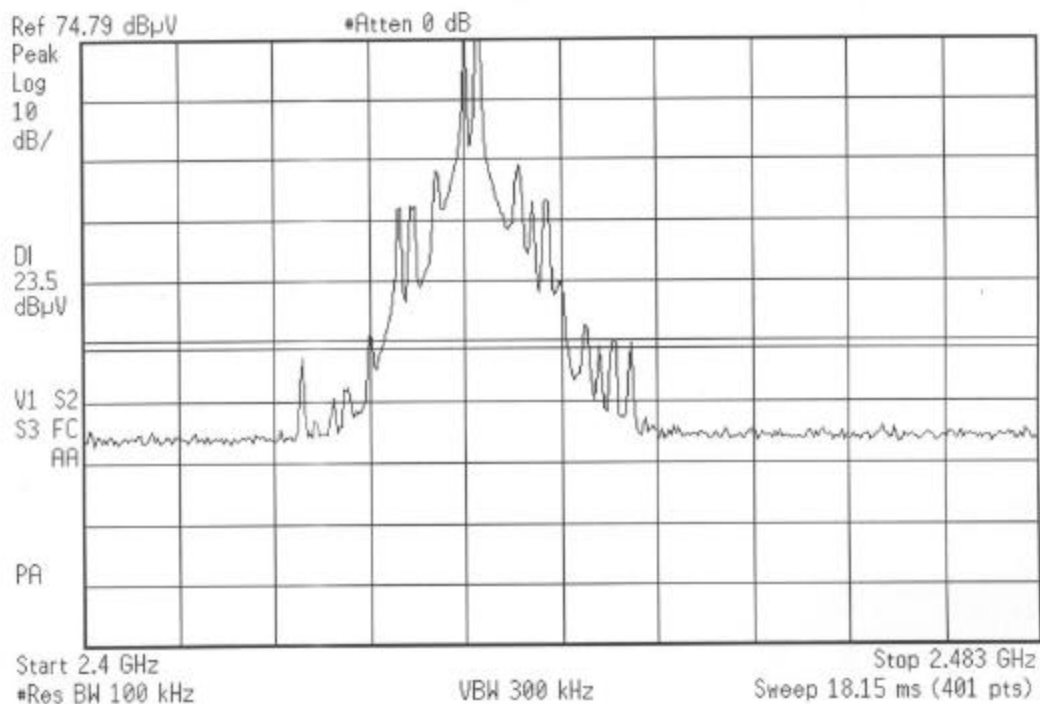
Report No. R-9097-1



Report No. R9097-1

Customer:	X-10 (USA)	Model No.:	XC18A FCC ID: B4SXC18A
Test Sample:	2.4GHz Transmitter	Notes:	Emissions radiating outside the band are not attenuated by 50dB(c).
Test Method:	FCC15.249(c) Occupied Bandwidth 2.4 to 2.4835GHz	Tech.:	Peter Lananna
Date:	July 19, 2001		Sheet 1 of 4
	Channel-A		

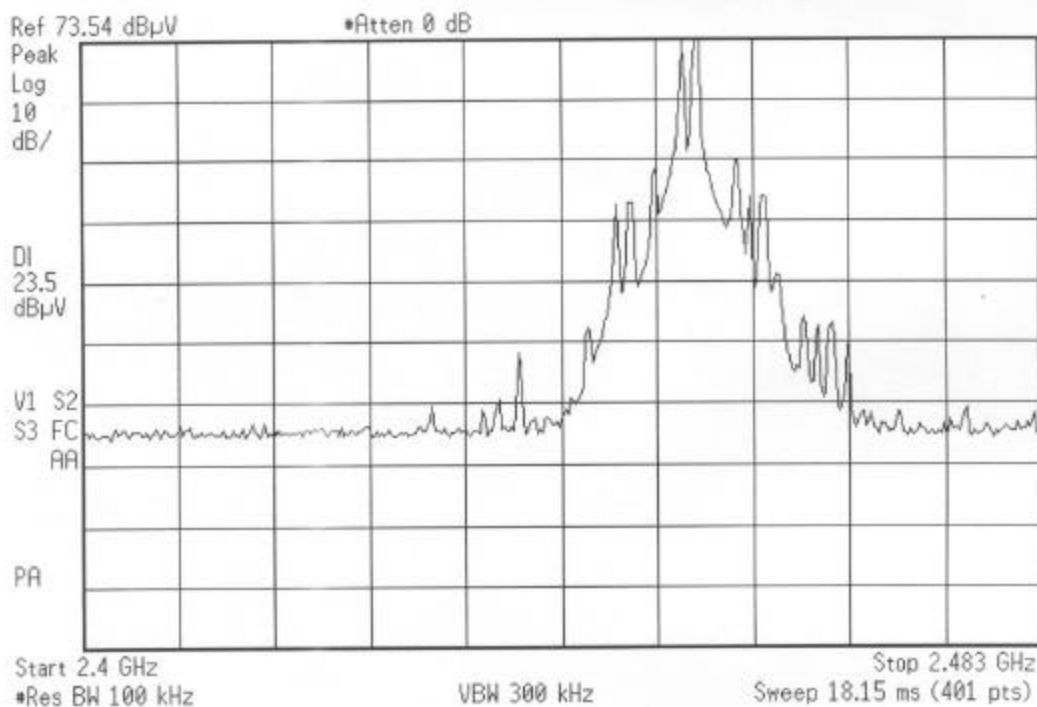
* Agilent 20:21:58 Jul 19, 2001



Report No. R9097-1

Customer:	X-10 (USA)	Model No.:	XC18A FCC ID: B4SXC18A
Test Sample:	2.4GHz Transmitter	Notes:	Emissions radiating outside the band are attenuated by 50dB(c).
Test Method:	FCC15.249(c) Occupied Bandwidth 2.4 to 2.4835GHz	Tech.:	Peter Lananna Sheet 2 of 4
Date:	July 19, 2001		
	Channel=B		

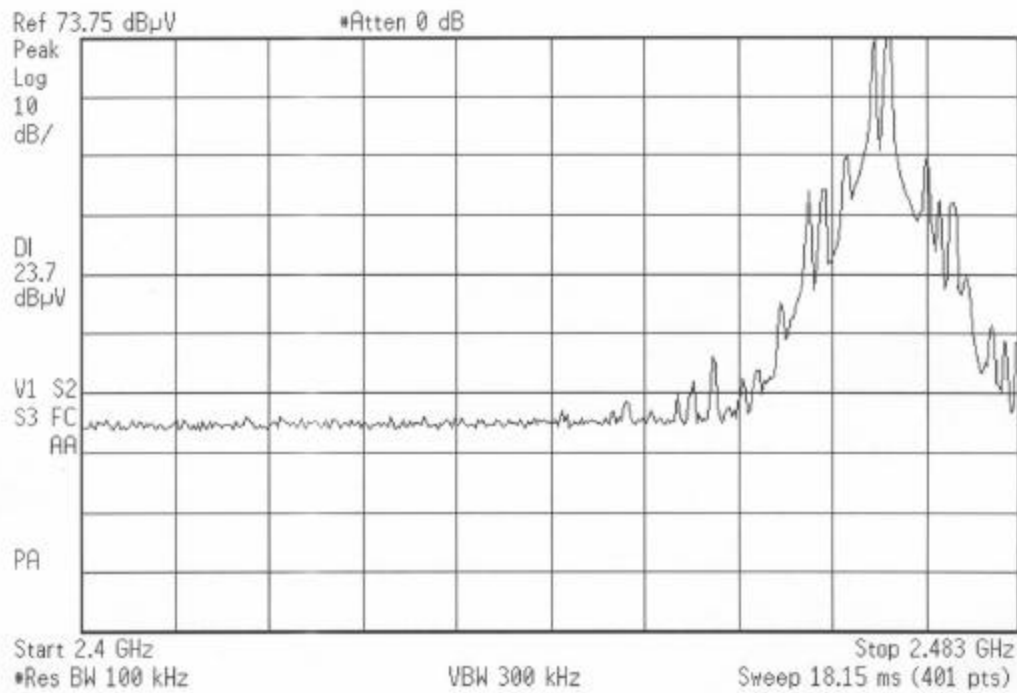
✱ Agilent 20:20:13 Jul 19, 2001



Report No. R9097-1

Customer:	X-10 (USA)	Model No.:	XC18A FCC ID: B4SXC18A
Test Sample:	2.4GHz Transmitter	Notes:	Emissions radiating outside the band are not attenuated by 50dB(c).
Test Method:	FCC15.249(c) Occupied Bandwidth 2.4 to 2.4835GHz	Tech.:	Peter Lananna Sheet 3 of 4
Date:	July 19, 2001		
	Channel=C		

✱ Agilent 20:18:16 Jul 19, 2001



Report No. R9097-1

Customer:	X-10 (USA)	Model No.:	XC18A FCC ID: B4SXC18A
Test Sample:	2.4GHz Transmitter	Notes:	Emissions radiating outside the band are not attenuated by 50dB(c).
Test Method:	FCC15.249(c) Occupied Bandwidth 2.4 to 2.4835GHz	Tech:	Peter Lananna Sheet 4 of 4
Date:	July 19, 2001		
	Channel=D		