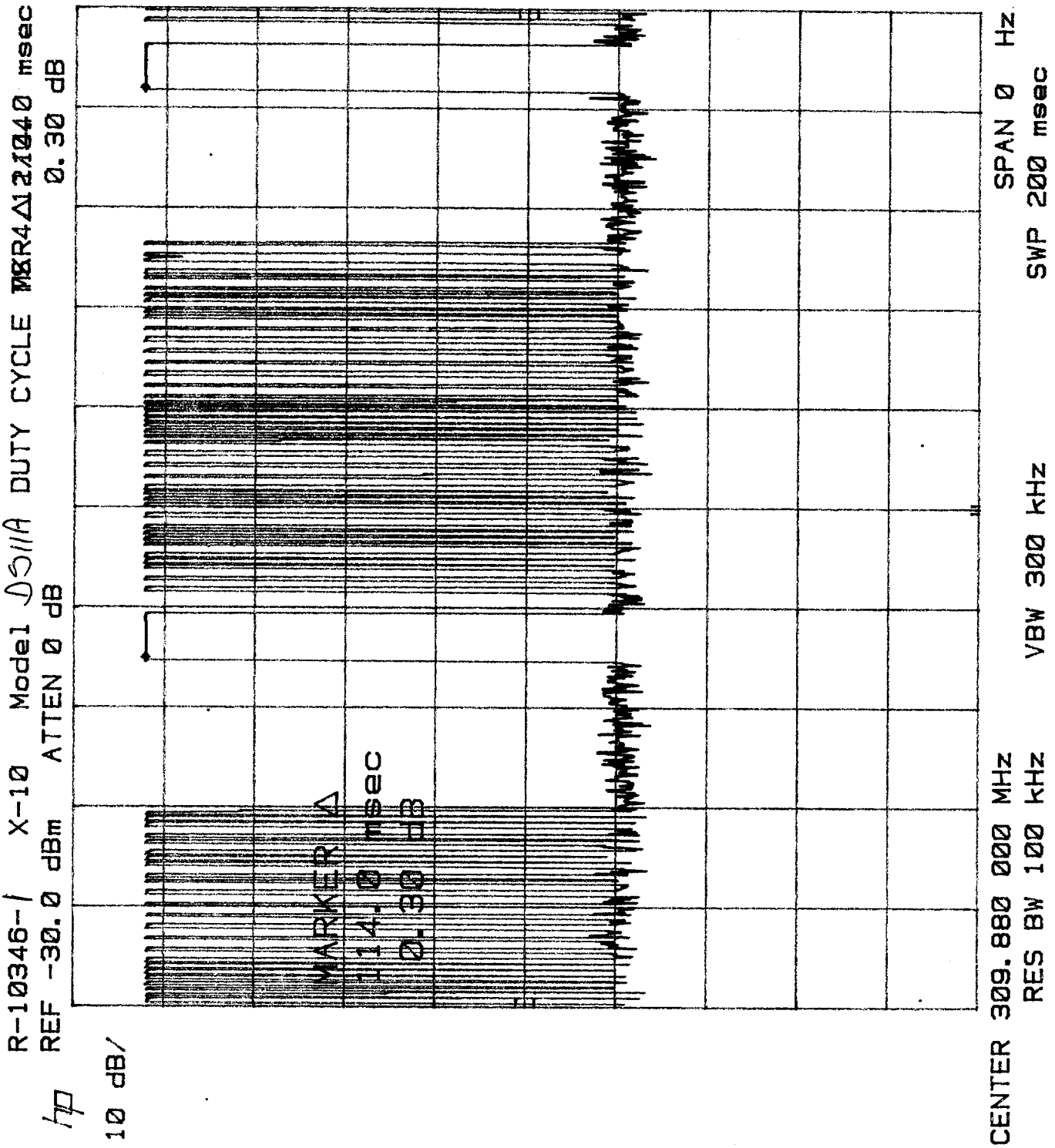
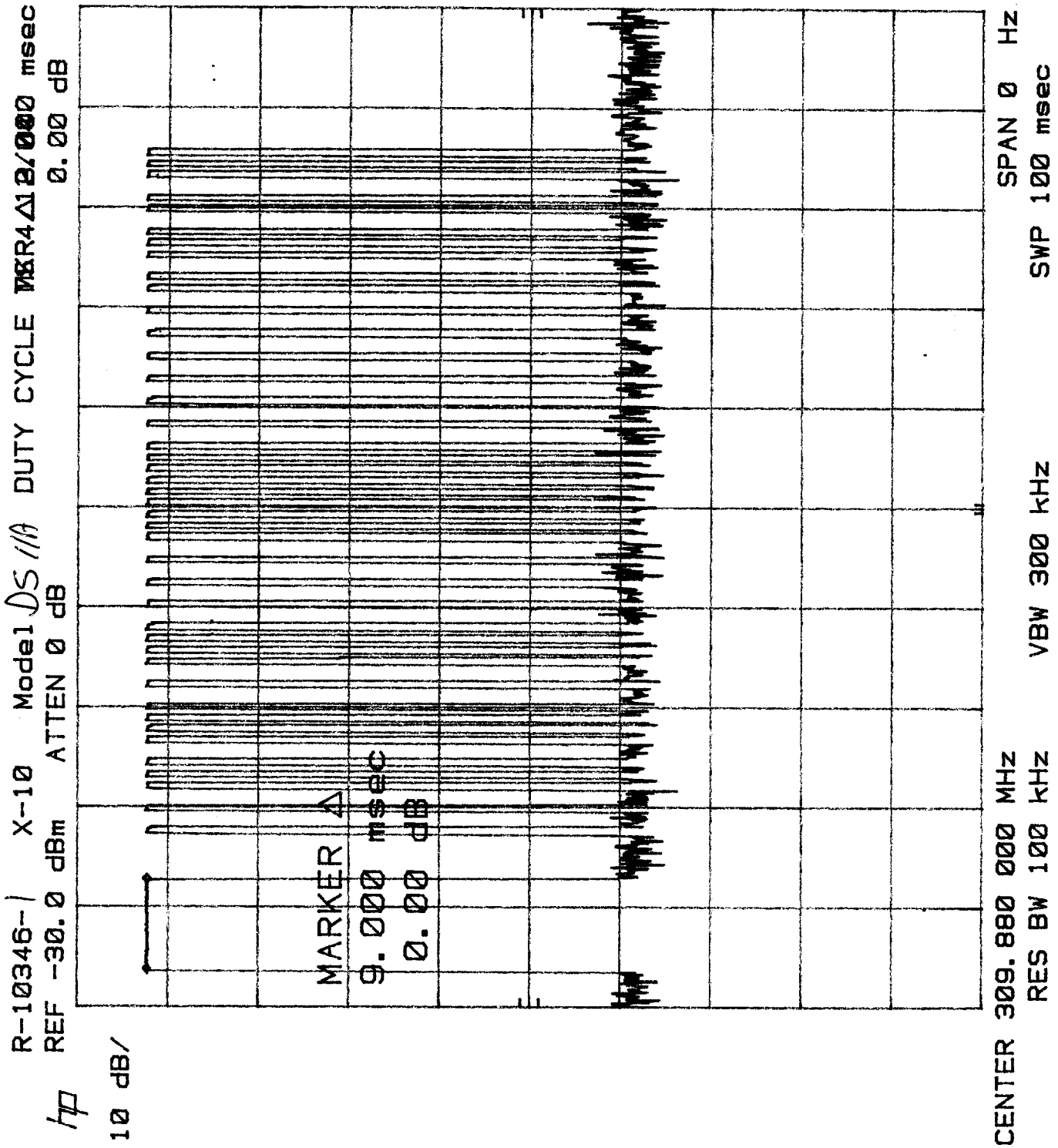


Customer:	X-10 Wireless Technology, Inc.
Test Sample:	310 MHz Pulsed Transmitter (Motion Sensor)
Model No.:	DS11A, FCC ID: B4S-DS11A *
Test Method:	FCC, 15.35 Duty Cycle Determination
Notes:	Measurement of on time; Cycle time measurement Duty cycle= (9 + 21)/100= 30.0%Duty Cycle correction= -10.4 dB
Date: April 12, 2004	Tech: T. Schneider Sheet 1 of 3

Retlif Testing Laboratories

Report No. R-10346-1

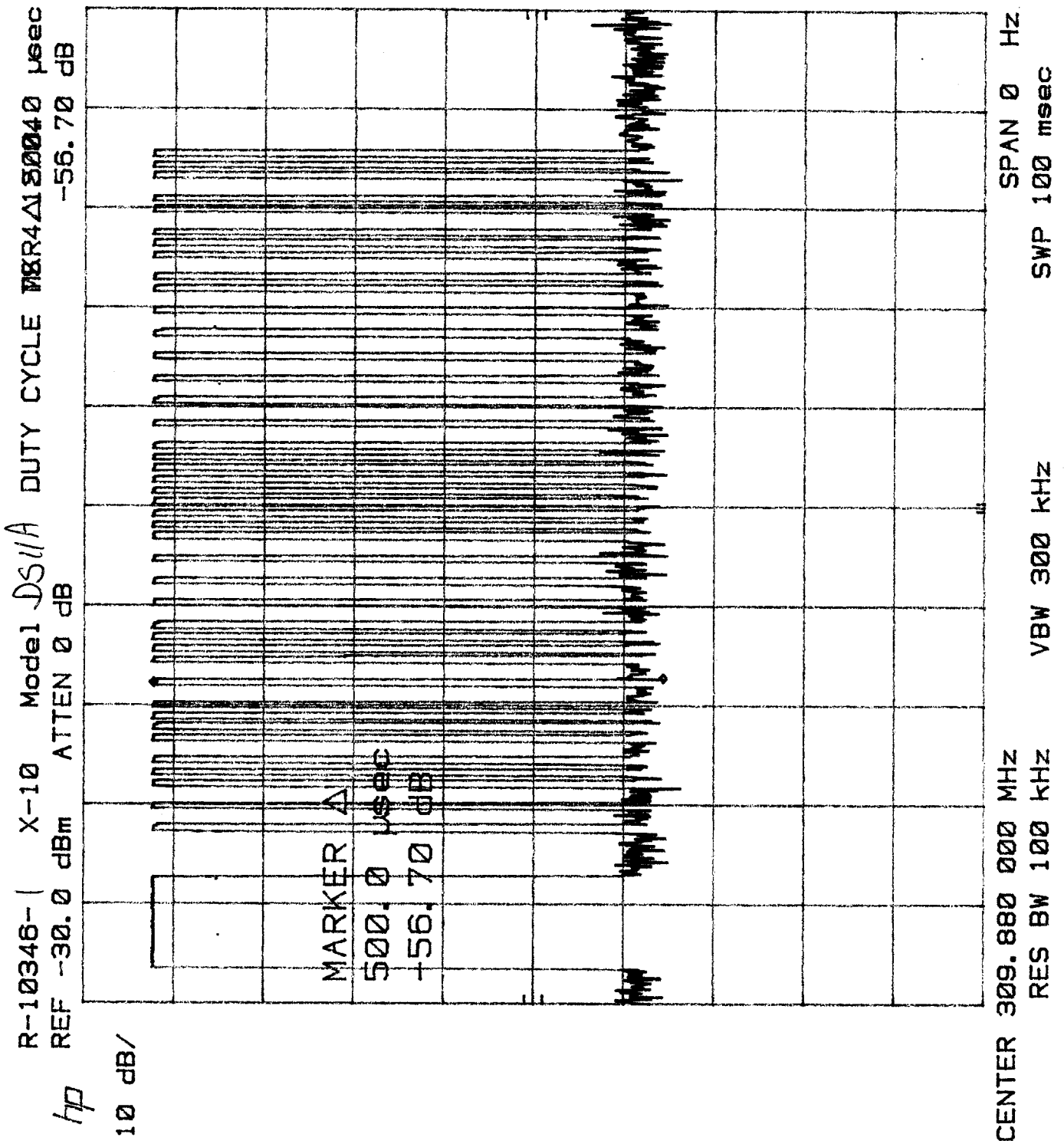


Customer:	X-10 Wireless Technology, Inc.
Test Sample:	310 MHz Pulsed Transmitter (Motion Sensor)
Model No.:	DS11A, FCC ID: B4S-DS11A
Test Method:	FCC, 15.35 Duty Cycle Determination
Notes:	Measurement of on time; Large pulse measurement Duty cycle= (9 + 21)/100= 30.0%Duty Cycle correction= -10.4 dB

Date: April 12, 2004 | Tech: T. Schneider | Sheet 2 of 3

Retlif Testing Laboratories

Report No. R-10346-1



Customer:	X-10 Wireless Technology, Inc.
Test Sample:	310 MHz Pulsed Transmitter (Motion Sensor)
Model No.:	DS11A, FCC ID: B4S-DS11A
Test Method:	FCC, 15.35 Duty Cycle Determination
Notes:	Measurement of on time; 42 small pulse measurement @ 500 uSec each Duty cycle= (9 + 21)/100= 30.0%Duty Cycle correction= -10.4 dB
Date: April 12, 2004	Tech: T. Schneider Sheet 3 of 3

Retlif Testing Laboratories

Report No. R-10346-1

Test Method:	FCC Part 15 Subpart C, Spurious Case Radiated Emissions, Paragraph 15.209(a)		
Customer:	X-10 Wireless Technology, Inc	**Job No.**	R-10346-1
Test Sample:	310 MHz RF Transmitter		
Model No.:	DS11A	**FCC ID:**	B4S-DS11A
Operating Mode:	Continuously Transmitting a pulsed 310 MHz Signal		
Technician:	T. Schneider	**Date:**	April 14, 2004

Notes: Test Distance: 3 Meters Temp: 12°C Humidity: 98%
Detector: Quasi-Peak Below 1 GHz, Peak above 1 GHz

Test Freq.	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
216.00							150
216.00							200
960.00							200
960.00							500
3100.0							500

NO EMMISSIONS OBSERVED AT 3 METERS

The EUT was scanned from 30 MHz to 3.10 GHz
The emissions observed from the EUT do not exceed the specified limits.
Emissions not recorded were more than 20dB under the specified limit.

Retlif Testing Laboratories

Retlif Job Number R-10346-1

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions		
Customer:	X-10 Wireless Technology, Inc.	**Job No.**	R-10346-1
Test Sample:	Pulsed 310MHz Transmitter	**Paragraph:**	15.231
Model No.:	DS11A	**FCC ID:**	B4S-DS11A
Operating Mode:	Continuously Transmitting a pulsed 310 MHz signal		
Technician:	T. Schneider	**Date:**	April 12-14, 2004

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
|	H / 1.0	Y	82.4	-2.1	80.3	10351.4	|
|	H / 1.0	Z	65.6	-2.1	63.5	1496.2	|
|	V / 1.0	X	67.9	-2.4	65.5	1883.6	|
|	V /1.0	Y	63.3	-2.4	60.9	1109.2	|
310	V / 2.0	Z	78.2	-2.4	75.8	6166.0	58330
620	H / 1.0	X	38.6	5.8	44.4	166.0	5833
|	H / 1.0	Y	42.8	5.8	48.6	269.2	|
|	H / 1.0	Z	35.6	5.8	41.4	117.5	|
|	V /1.0	X	34.6	0.5	35.1	56.9	|
|	V / 2.0	Y	37.2	0.5	37.7	76.7	|
620	V / 1.0	Z	35.3	0.5	35.8	61.7	5833
930	H / 1.0	X	35.0	10.0	45	177.8	5833
|	H / 1.0	Y	25.8	10.0	35.8	61.7	|
|	H / 1.0	Z	30.1	10.0	40.1	101.2	|
|	V / 1.0	X	28.6	9.7	38.3	82.2	|
|	V / 1.0	Y	35.3	9.7	45	177.8	|
930	V / 1.0	Z	36.4	9.7	46.1	201.8	5833
1240	H / 1.0	X	40.1	2.7	42.8	138.0	5000
|	H / 1.0	Y	40.1	2.7	42.8	138.0	|
|	H / 1.0	Z	40.1	2.7	42.8	138.0	|
|	V / 1.4	X	46.7	2.7	49.4	295.1	|
|	V / 1.0	Y	44.7	2.7	47.4	234.4	|
1240	V / 1.0	Z	46.7	2.7	49.4	295.1	5000
1550	H / 1.0	X	41.0	0.9	41.9	124.5	5000
|	H / 1.0	Y	41.0	0.9	41.9	124.5	|
|	H /1.0	Z	41.0	0.9	41.9	124.5	|
|	V /1.3	X	46.5	0.9	47.4	234.4	|
|	V /1.7	Y	46.2	0.9	47.1	226.5	|
1550	V /1.3	Z	48.6	0.9	49.5	298.5	5000

The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 10 dB below the specified limit. The EUT complies with the applicable limit.

*=Noise Floor Measurements (Minimum system sensitivity)

Retlif Testing Laboratories

Retlif Job Number R-10346-1

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions		
Customer:	X-10 Wireless Technology, Inc.	**Job No.**	R-10346-1
Test Sample:	Pulsed 310MHz Transmitter	**Paragraph:**	15.231
Model No.:	DS11A	**FCC ID:**	B4S-DS11A
Operating Mode:	Continuously Transmitting a pulsed 310 MHz signal		
Technician:	T. Schneider	**Date:**	April 12-14, 2004

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
|	H / 1.0	Y	38.5	2.2	40.7	108.4	|
|	H / 1.0	Z	38.5	2.2	40.7	108.4	|
|	V / 1.0	X	45.6	2.2	47.8	245.5	|
|	V / 1.0	Y	38.5	2.2	40.7	108.4	|
1860	V / 1.0	Z	45.8	2.2	48	251.2	5833
2170	H / 1.0	X	39.1	-3.2	35.9	62.4	5833
|	H / 1.0	Y	39.1	-3.2	35.9	62.4	|
|	H / 1.0	Z	39.1	-3.2	35.9	62.4	|
|	V / 1.0	X	39.1	-3.2	35.9	62.4	|
|	V / 1.0	Y	39.1	-3.2	35.9	62.4	|
2170	V / 1.0	Z	39.1	-3.2	35.9	62.4	5833
2480	H / 1.0	X	38.2	-5.1	33.1	45.2	5833
|	H / 1.0	Y	38.2	-5.1	33.1	45.2	|
|	H / 1.0	Z	38.2	-5.1	33.1	45.2	|
|	V / 1.0	X	38.2	-5.1	33.1	45.2	|
|	V / 1.0	Y	38.2	-5.1	33.1	45.2	|
2480	V / 1.0	Z	38.2	-5.1	33.1	45.2	5833
2790	H / 1.0	X	40.5	-6.3	34.2	51.3	5000
|	H / 1.0	Y	40.5	-6.3	34.2	51.3	|
|	H / 1.0	Z	40.5	-6.3	34.2	51.3	|
|	V / 1.0	X	40.5	-6.3	34.2	51.3	|
|	V / 1.0	Y	40.5	-6.3	34.2	51.3	|
2790	V / 1.0	Z	40.5	-6.3	34.2	51.3	5000
3100	H / 1.0	X	37.6	-8.1	29.5	29.9	5833
|	H / 1.0	Y	37.6	-8.1	29.5	29.9	|
|	H / 1.0	Z	37.6	-8.1	29.5	29.9	|
|	V / 1.0	X	37.6	-8.1	29.5	29.9	|
|	V / 1.0	Y	37.6	-8.1	29.5	29.9	|
3100	V / 1.0	Z	37.6	-8.1	29.5	29.9	5833

The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 10 dB below the specified limit. The EUT complies with the applicable limit.

*=Noise Floor Measurements (Minimum system sensitivity)

Retlif Testing Laboratories

Retlif Job Number R-10346-1

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions		
Customer:	X-10 Wireless Technology, Inc.	**Job No.**	R-10346-1
Test Sample:	Pulsed 310MHz Transmitter	**Paragraph:**	15.231
Model No.:	DS11A	**FCC ID:**	B4S-DS11A
Operating Mode:	Continuously Transmitting a pulsed 310 MHz signal		
Technician:	T. Schneider	**Date:**	April 12-14, 2004

Notes: Test Distance: 3 Meters — Duty Cycle: 30.0%

Detector: Peak, unless otherwise specified — Duty Cycle Correction:-10.4 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
|	H / 1.0	Y	80.3	-10.4	69.9	3126.1	|
|	H / 1.0	Z	63.5	-10.4	53.1	451.9	|
|	V / 1.0	X	65.5	-10.4	55.1	568.9	|
|	V /1.0	Y	60.9	-10.4	50.5	335.0	|
310	V / 2.0	Z	75.8	-10.4	65.4	1862.1	5833
620	H / 1.0	X	44.4	-10.4	34.0	50.1	583
|	H / 1.0	Y	48.6	-10.4	38.2	81.3	|
|	H / 1.0	Z	41.4	-10.4	31.0	35.5	|
|	V /1.0	X	35.1	-10.4	24.7	17.2	|
|	V / 2.0	Y	37.7	-10.4	27.3	23.2	|
620	V / 1.0	Z	35.8	-10.4	25.4	18.6	583
930	H / 1.0	X	45	-10.4	34.6	53.7	583
|	H / 1.0	Y	35.8	-10.4	25.4	18.6	|
|	H / 1.0	Z	40.1	-10.4	29.7	30.5	|
|	V / 1.0	X	38.3	-10.4	27.9	24.8	|
|	V / 1.0	Y	45	-10.4	34.6	53.7	|
930	V / 1.0	Z	46.1	-10.4	35.7	61.0	583
1240	H / 1.0	X	42.8	-10.4	32.4	41.7	500
|	H / 1.0	Y	42.8	-10.4	32.4	41.7	|
|	H / 1.0	Z	42.8	-10.4	32.4	41.7	|
|	V / 1.4	X	49.4	-10.4	39.0	89.1	|
|	V / 1.0	Y	47.4	-10.4	37.0	70.8	|
1240	V / 1.0	Z	49.4	-10.4	39.0	89.1	500
1550	H / 1.0	X	41.9	-10.4	31.5	37.6	500
|	H / 1.0	Y	41.9	-10.4	31.5	37.6	|
|	H /1.0	Z	41.9	-10.4	31.5	37.6	|
|	V /1.3	X	47.4	-10.4	37.0	70.8	|
|	V /1.7	Y	47.1	-10.4	36.7	68.4	|
1550	V /1.3	Z	49.5	-10.4	39.1	90.2	500

The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 10 dB below the specified limit. The EUT complies with the applicable limit.

*=Noise Floor Measurements (Minimum system sensitivity)

Retlif Testing Laboratories

Retlif Job Number R-10346-1

Test Method:	FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions		
Customer:	X-10 Wireless Technology, Inc.	**Job No.**	R-10346-1
Test Sample:	Pulsed 310MHz Transmitter	**Paragraph:**	15.231
Model No.:	DS11A	**FCC ID:**	B4S-DS11A
Operating Mode:	Continuously Transmitting a pulsed 310 MHz signal		
Technician:	T. Schneider	**Date:**	April 12-14, 2004

Notes: Test Distance: 3 Meters — Duty Cycle:30.0%

Detector: Peak, unless otherwise specified — Duty Cycle Correction: -10.4 dB

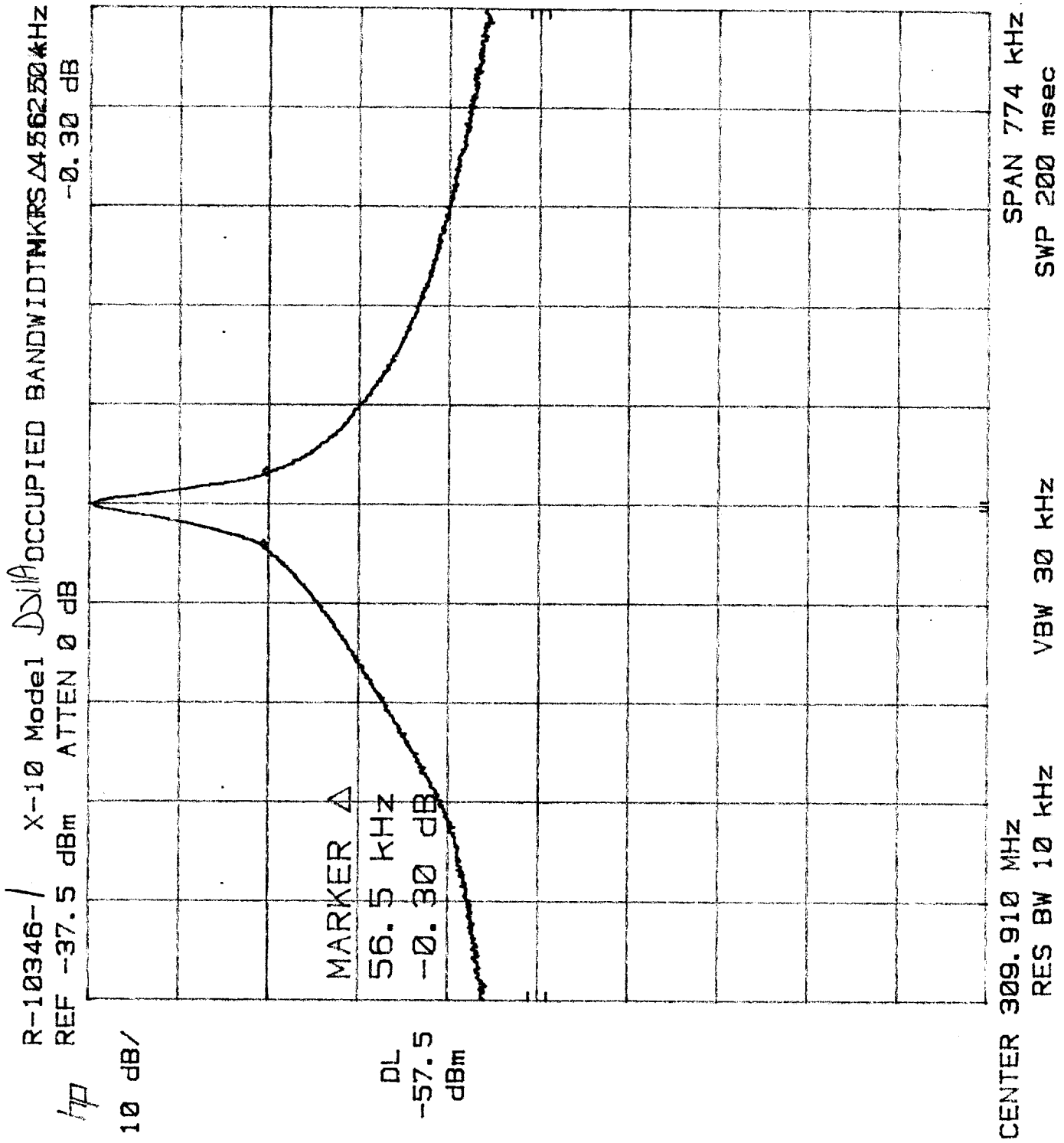
Test Freq.	Antenna Pol./Height	EUT Orientation	Peak Reading	Correction Factor	Corrected Reading	Converted Reading	Avg. Limit
MHz	(V/H)-Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
|	H / 1.0	Y	40.7	-10.4	30.3	32.7	|
|	H / 1.0	Z	40.7	-10.4	30.3	32.7	|
|	V / 1.0	X	47.8	-10.4	37.4	74.1	|
|	V / 1.0	Y	40.7	-10.4	30.3	32.7	|
1860	V / 1.0	Z	48	-10.4	37.6	75.9	583
2170	H / 1.0	X	35.9	-10.4	25.5	18.8	583
|	H / 1.0	Y	35.9	-10.4	25.5	18.8	|
|	H / 1.0	Z	35.9	-10.4	25.5	18.8	|
|	V / 1.0	X	35.9	-10.4	25.5	18.8	|
|	V / 1.0	Y	35.9	-10.4	25.5	18.8	|
2170	V / 1.0	Z	35.9	-10.4	25.5	18.8	583
2480	H / 1.0	X	33.1	-10.4	22.7	13.6	583
|	H / 1.0	Y	33.1	-10.4	22.7	13.6	|
|	H / 1.0	Z	33.1	-10.4	22.7	13.6	|
|	V / 1.0	X	33.1	-10.4	22.7	13.6	|
|	V / 1.0	Y	33.1	-10.4	22.7	13.6	|
2480	V / 1.0	Z	33.1	-10.4	22.7	13.6	583
2790	H / 1.0	X	34.2	-10.4	23.8	15.5	500
|	H / 1.0	Y	34.2	-10.4	23.8	15.5	|
|	H / 1.0	Z	34.2	-10.4	23.8	15.5	|
|	V / 1.0	X	34.2	-10.4	23.8	15.5	|
|	V / 1.0	Y	34.2	-10.4	23.8	15.5	|
2790	V / 1.0	Z	34.2	-10.4	23.8	15.5	500
3100	H / 1.0	X	29.5	-10.4	19.1	9.0	583
|	H / 1.0	Y	29.5	-10.4	19.1	9.0	|
|	H / 1.0	Z	29.5	-10.4	19.1	9.0	|
|	V / 1.0	X	29.5	-10.4	19.1	9.0	|
|	V / 1.0	Y	29.5	-10.4	19.1	9.0	|
3100	V / 1.0	Z	29.5	-10.4	19.1	9.0	583

The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 10 dB below the specified limit. The EUT complies with the applicable limit.

*=Noise Floor Measurements (Minimum system sensitivity)

Retlif Testing Laboratories

Retlif Job Number R-10346-1



Customer:	X-10Wirelees Technology, Inc.
Test Sample:	310 MHz Pulsed Transmitter (Door/Window Sensor)
Model No.:	DS11A, FCC ID: B4S-DS11A
Test Method:	FCC 15.231(c) Occupied Bandwidth
Notes:	Bandwidth does not exceed 0.25% of Center Frequency (775 kHz) at the 20 dBc points

Date: April 12, 2004 Tech: T. Schneider Sheet 1 of 1

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Report No. R-10346-1