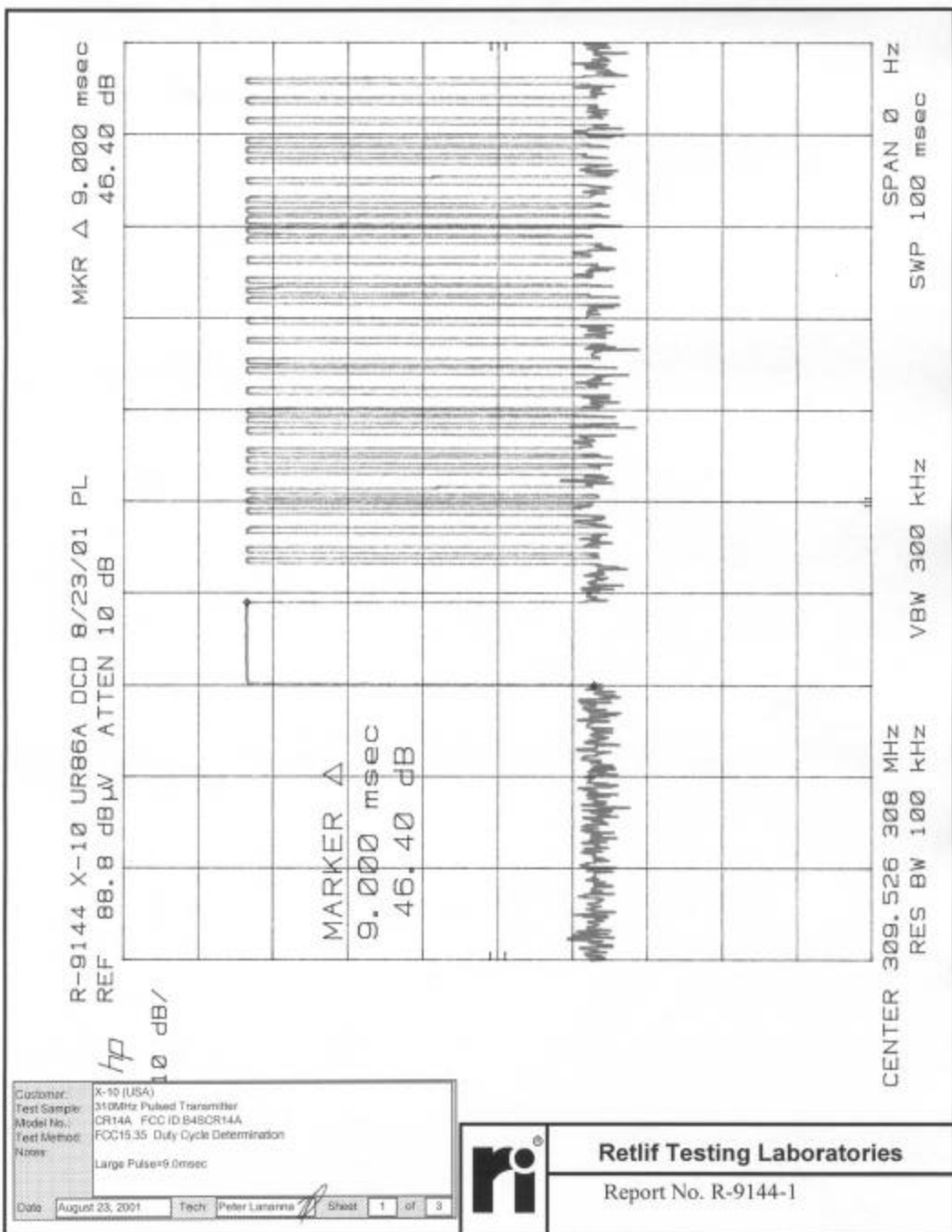




Customer:	X-10 (USA)
Test Sample:	310MHz Pulsed Transmitter
Model No.:	CR14A FCC ID: B45CR14A
Test Method:	FCC15.35 Duty Cycle Determination
Notes:	Small Pulse=500µsec 33*500µsec=16.5msec
Date:	August 23, 2001
Tech:	Peter Lanza
Sheet:	2 of 3



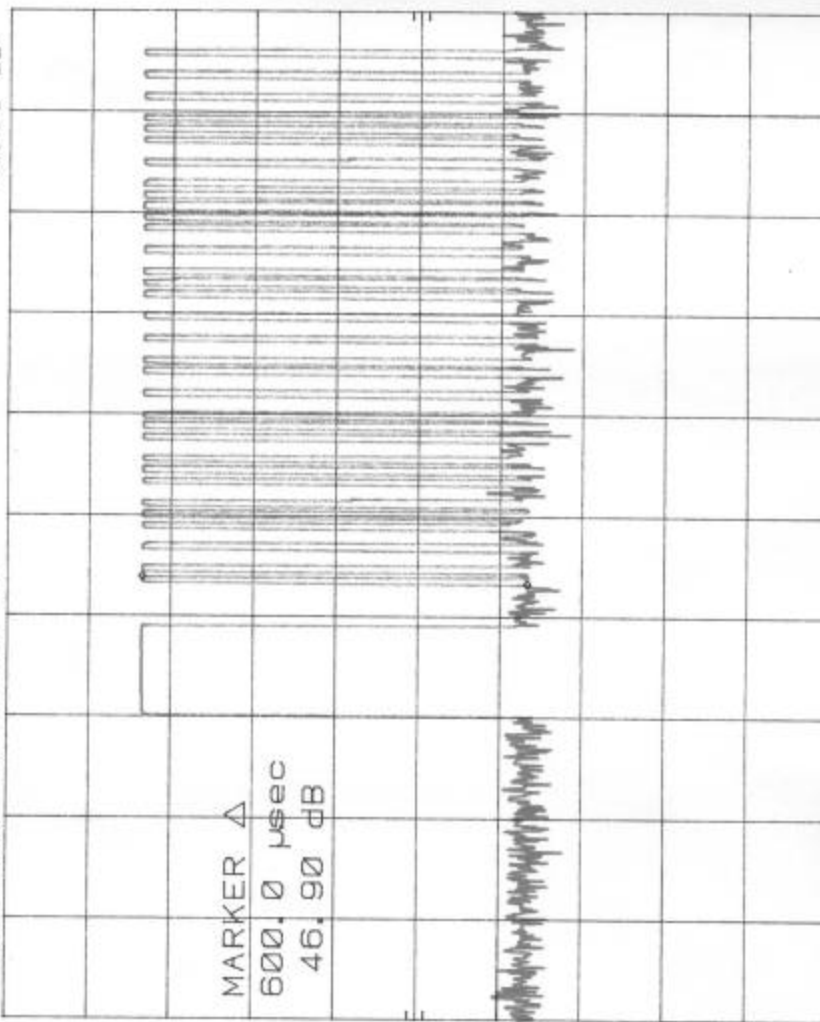
Retlif Testing Laboratories

Report No. R-9144-*PL*

R-9144 X-10 UR86A DCD 8/23/01 PL
 REF 88.8 dBµV ATTEN 10 dB

MKR Δ 600.0 µsec
 46.90 dB

hp
 10 dB/



CENTER 309.526 308 MHz
 RES BW 100 kHz
 SPAN 0 Hz
 SWP 100 msec
 VBW 300 kHz

Customer:	X-10 (USA)
Test Sample:	310MHz Pulsed Transmitter
Model No.:	CR14 CR14A FCC ID: 845CR14A
Test Method:	FCC15.35 Duty Cycle Determination
Notes:	Large Pulse= 9.0msec Small Pulse=19.0msec Cycle time=105.0msec Worst case transmitter on time=25.0msec/100msec=25.0%
Date:	August 23, 2001
Tech:	Peter Lanza
Sheet:	3 of 3



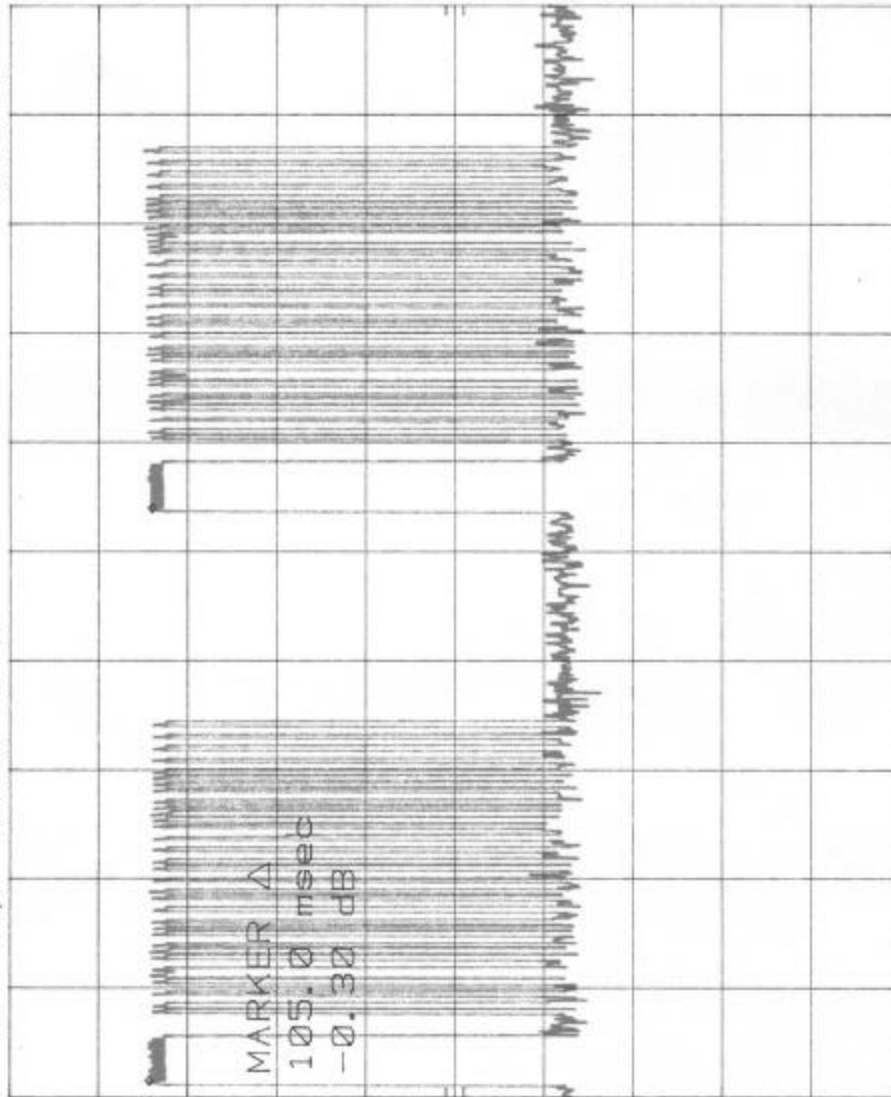
Retlif Testing Laboratories

Report No. R-9144-1

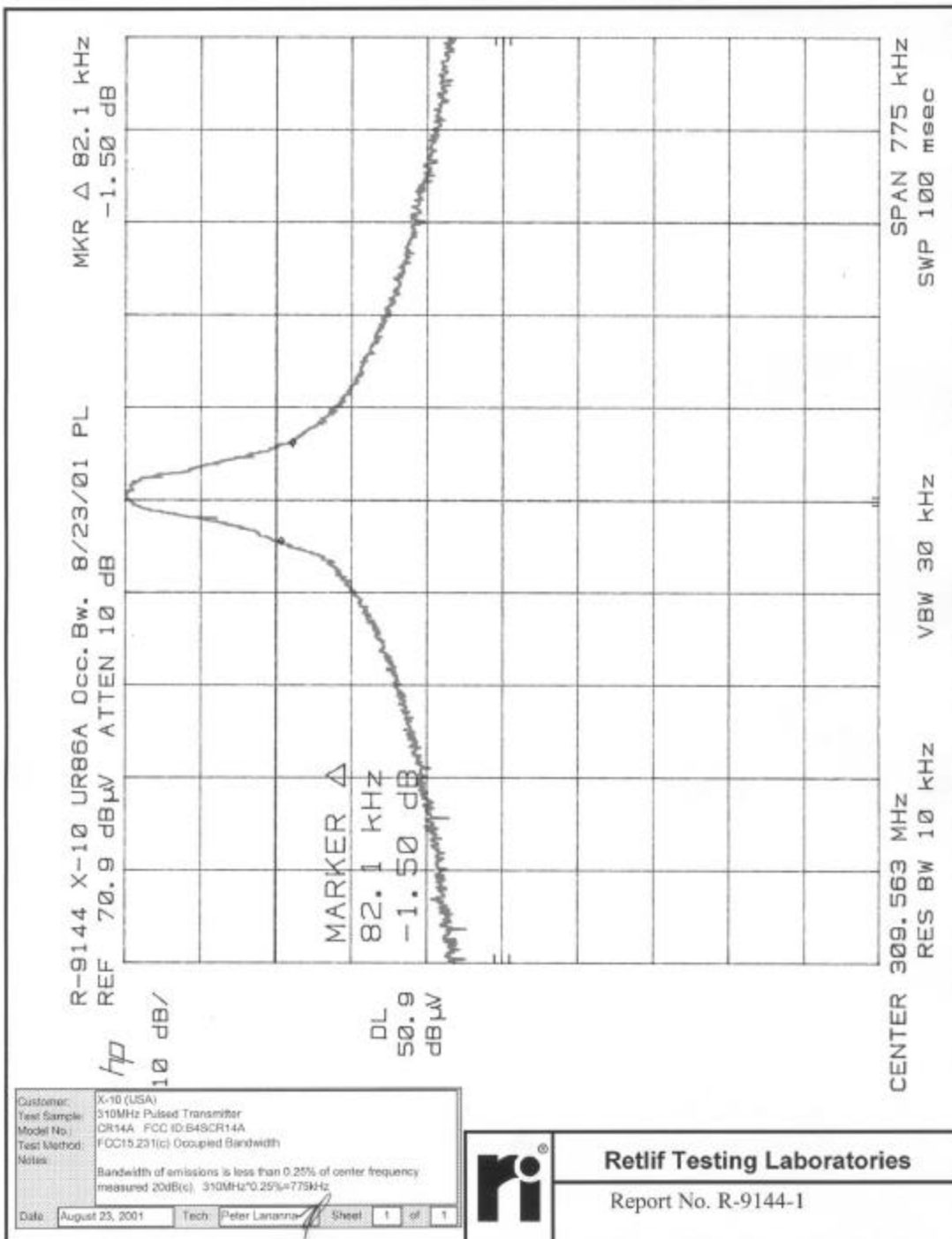
R-9144 X-10 UR86A DCD 8/23/01 PL
REF 88.8 dBμV ATTEN 10 dB

MKR Δ 105.0 msec
-0.30 dB

h/p
0 dB/



CENTER 309.526 308 MHz
RES BW 100 kHz
SPAN 0 Hz
SWP 200 msec
VBW 300 kHz



Test Method:		FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions					
Customer:		X-10 (USA)			Job No.		R-9144-1
Test Sample:		RF remote			Paragraph:		15.231
Model No.:		CR14A			FCC ID:		B4SCR14A
Operating Mode:		Continuously Transmitting a 310 MHz Signal					
Technician:		Peter Lananna			Date:		August 23, 2001
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
310	H / 2.3	X	69.6	-4.0	65.6	1905.5	58300
	H / 1.0	Y	77.3	-4.0	73.3	4623.8	
	H / 1.8	Z	72.0	-4.0	68.0	2511.9	
	V / 2.0	X	75.0	-4.0	71.0	3548.1	
	V / 1.0	Y	63.7	-4.0	59.7	966.1	
310	V / 1.5	Z	74.1	-4.0	70.1	3198.9	58300
620	H / 1.0	X	48.2	3.9	52.1	402.7	5830
	H / 1.0	Y	50.0	3.9	53.9	495.5	
	H / 1.5	Z	48.4	3.9	52.3	412.1	
	V / 2.3	X	47.3	3.9	51.2	363.1	
	V / 2.3	Y	45.6	3.9	49.5	298.5	
620	V / 2.3	Z	46.6	3.9	50.5	335.0	5830
930	H / 2.0	X	35.6	8.8	44.4	166.0	5830
	H / 1.3	Y	39.7	8.8	48.5	266.1	
	H / 1.5	Z	37.7	8.8	46.5	211.3	
	V / 1.0	X	46.6	8.8	55.4	588.8	
	V / 1.5	Y	38.0	8.8	46.8	218.8	
930	V / 1.5	Z	41.9	8.8	50.7	342.8	5830
1240	H / 1.0	X	41.7	-2.8	38.9	88.1*	5000
	H / 1.0	Y	41.7	-2.8	38.9	88.1*	
	H / 1.0	Z	41.7	-2.8	38.9	88.1*	
	V /1.0	X	41.7	-2.8	38.9	88.1*	
	V / 1.0	Y	41.7	-2.8	38.9	88.1*	
1240	V / 1.0	Z	41.7	-2.8	38.9	88.1*	5000
1550	H / 1.0	X	39.7	0.9	40.6	107.2*	5000
	H / 1.0	Y	39.7	0.9	40.6	107.2*	
	H / 1.0	Z	39.7	0.9	40.6	107.2*	
	V /1.0	X	39.7	0.9	40.6	107.2*	
	V / 1.0	Y	39.7	0.9	40.6	107.2*	
1550	V / 1.0	Z	39.7	0.9	40.6	107.2*	5000
	The frequency range was scanned from 30 MHz to 3.1 GHz. 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)						



Retlif Testing Laboratories

Retlif Job Number R-9144-1

Test Method:		FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions						
Customer:		X-10 (USA)			Job No.		R-9144-1	
Test Sample:		RF remote			Paragraph:		15.231	
Model No.:		CR14A			FCC ID:		B4SCR14A	
Operating Mode:		Continuously Transmitting a 310 MHz Signal						
Technician:		Peter Lananna			Date:		August 23, 2001	
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	
1860	H / 1.0	X	38.7	3.0	41.7	121.6*	5830	
	H / 1.0	Y	38.7	3.0	41.7	121.6*		
	H / 1.0	Z	38.7	3.0	41.7	121.6*		
	V / 1.0	X	38.7	3.0	41.7	121.6*		
	V / 1.0	Y	38.7	3.0	41.7	121.6*		
1860	V / 1.0	Z	38.7	3.0	41.7	121.6*	5830	
2170	H / 1.0	X	39.2	0.4	39.6	95.5*	5830	
	H / 1.0	Y	39.2	0.4	39.6	95.5*		
	H / 1.0	Z	39.2	0.4	39.6	95.5*		
	V / 1.0	X	39.2	0.4	39.6	95.5*		
	V / 1.0	Y	39.2	0.4	39.6	95.5*		
2170	V / 1.0	Z	39.2	0.4	39.6	95.5*	5830	
2480	H / 1.0	X	39.7	3.8	43.5	149.6*	5830	
	H / 1.0	Y	39.7	3.8	43.5	149.6*		
	H / 1.0	Z	39.7	3.8	43.5	149.6*		
	V / 1.0	X	39.7	3.8	43.5	149.6*		
	V / 1.0	Y	39.7	3.8	43.5	149.6*		
2480	V / 1.0	Z	39.7	3.8	43.5	149.6*	5830	
2790	H / 1.0	X	38.2	5.8	44.0	158.5*	5000	
	H / 1.0	Y	38.2	5.8	44.0	158.5*		
	H / 1.0	Z	38.2	5.8	44.0	158.5*		
	V / 1.0	X	38.2	5.8	44.0	158.5*		
	V / 1.0	Y	38.2	5.8	44.0	158.5*		
2790	V / 1.0	Z	38.2	5.8	44.0	158.5*	5000	
3100	H / 1.0	X	40.0	6.4	46.4	208.9*	5830	
	H / 1.0	Y	40.0	6.4	46.4	208.9*		
	H / 1.0	Z	40.0	6.4	46.4	208.9*		
	V / 1.0	X	40.0	6.4	46.4	208.9*		
	V / 1.0	Y	40.0	6.4	46.4	208.9*		
3100	V / 1.0	Z	40.0	6.4	46.4	208.9*	5830	
	The frequency range was scanned from 30 MHz to 3.1 GHz. 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)							



Retlif Testing Laboratories

Retlif Job Number R-9144-1

Test Method:		FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions						
Customer:		X-10 (USA)			Job No.		R-9144-1	
Test Sample:		RF remote			Paragraph:		15.231	
Model No.:		CR14A			FCC ID:		B4SCR14A	
Operating Mode:		Continuously Transmitting a 310 MHz Signal						
Technician:		Peter Lananna			Date:		August 23, 2001	
Notes:		Test Distance: 3 Meters			Duty Cycle: 22.8 %			
		Detector: Peak, unless otherwise specified			Duty Cycle Correction: -10.8dB			
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	
310	H / 2.3	X	65.6	-10.8	54.8	549.5	5830	
	H / 1.0	Y	73.3	-10.8	62.5	1333.5		
	H / 1.8	Z	68.0	-10.8	57.2	724.4		
	V / 2.0	X	71.0	-10.8	60.2	1023.3		
	V / 1.0	Y	59.7	-10.8	48.9	278.6		
310	V / 1.5	Z	70.1	-10.8	59.3	922.6	5830	
620	H / 1.0	X	52.1	-10.8	41.3	116.1	583	
	H / 1.0	Y	53.9	-10.8	43.1	142.9		
	H / 1.5	Z	52.3	-10.8	41.5	118.9		
	V / 2.3	X	51.2	-10.8	40.4	104.7		
	V / 2.3	Y	49.5	-10.8	38.7	86.1		
620	V / 2.3	Z	50.5	-10.8	39.7	96.6	583	
930	H / 2.0	X	44.4	-10.8	33.6	47.9	583	
	H / 1.3	Y	48.5	-10.8	37.7	76.7		
	H / 1.5	Z	46.5	-10.8	35.7	61.0		
	V / 1.0	X	55.4	-10.8	44.6	169.8		
	V / 1.5	Y	46.8	-10.8	36.0	63.1		
930	V / 1.5	Z	50.7	-10.8	39.9	98.9	583	
1240	H / 1.0	X	38.9	-10.8	28.1	25.4*	500	
	H / 1.0	Y	38.9	-10.8	28.1	25.4*		
	H / 1.0	Z	38.9	-10.8	28.1	25.4*		
	V / 1.0	X	38.9	-10.8	28.1	25.4*		
	V / 1.0	Y	38.9	-10.8	28.1	25.4*		
1240	V / 1.0	Z	38.9	-10.8	28.1	25.4*	500	
1550	H / 1.0	X	40.6	-10.8	29.8	30.9*	500	
	H / 1.0	Y	40.6	-10.8	29.8	30.9*		
	H / 1.0	Z	40.6	-10.8	29.8	30.9*		
	V / 1.0	X	40.6	-10.8	29.8	30.9*		
	V / 1.0	Y	40.6	-10.8	29.8	30.9*		
1550	V / 1.0	Z	40.6	-10.8	29.8	30.9*	500	
	The frequency range was scanned from 30 MHz to 3.1 GHz. 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)							



Retlif Testing Laboratories

Retlif Job Number R-9144-1

Test Method:		FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions						
Customer:		X-10 (USA)			Job No.		R-9144-1	
Test Sample:		RF remote			Paragraph:		15.231	
Model No.:		CR14A			FCC ID:		B4SCR14A	
Operating Mode:		Continuously Transmitting a 310 MHz Signal						
Technician:		Peter Lananna			Date:		August 23, 2001	
Notes:		Test Distance: 3 Meters			Duty Cycle: 28.8%			
		Detector: Peak, unless otherwise specified			Duty Cycle Correction: -10.8dB			
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	
1860	H / 1.0	X	41.7	-10.8	30.9	35.1*	583	
	H / 1.0	Y	41.7	-10.8	30.9	35.1*		
	H / 1.0	Z	41.7	-10.8	30.9	35.1*		
	V / 1.0	X	41.7	-10.8	30.9	35.1*		
	V / 1.0	Y	41.7	-10.8	30.9	35.1*		
1860	V / 1.0	Z	41.7	-10.8	30.9	35.1*	583	
2170	H / 1.0	X	39.6	-10.8	28.8	27.5*	583	
	H / 1.0	Y	39.6	-10.8	28.8	27.5*		
	H / 1.0	Z	39.6	-10.8	28.8	27.5*		
	V / 1.0	X	39.6	-10.8	28.8	27.5*		
	V / 1.0	Y	39.6	-10.8	28.8	27.5*		
2170	V / 1.0	Z	39.6	-10.8	28.8	27.5*	583	
2480	H / 1.0	X	43.5	-10.8	32.7	43.2*	583	
	H / 1.0	Y	43.5	-10.8	32.7	43.2*		
	H / 1.0	Z	43.5	-10.8	32.7	43.2*		
	V / 1.0	X	43.5	-10.8	32.7	43.2*		
	V / 1.0	Y	43.5	-10.8	32.7	43.2*		
2480	V / 1.0	Z	43.5	-10.8	32.7	43.2*	583	
2790	H / 1.0	X	44.0	-10.8	33.2	45.7*	500	
	H / 1.0	Y	44.0	-10.8	33.2	45.7*		
	H / 1.0	Z	44.0	-10.8	33.2	45.7*		
	V / 1.0	X	44.0	-10.8	33.2	45.7*		
	V / 1.0	Y	44.0	-10.8	33.2	45.7*		
2790	V / 1.0	Z	44.0	-10.8	33.2	45.7*	500	
3100	H / 1.0	X	46.4	-10.8	35.6	60.3*	583	
	H / 1.0	Y	46.4	-10.8	35.6	60.3*		
	H / 1.0	Z	46.4	-10.8	35.6	60.3*		
	V / 1.0	X	46.4	-10.8	35.6	60.3*		
	V / 1.0	Y	46.4	-10.8	35.6	60.3*		
3100	V / 1.0	Z	46.4	-10.8	35.6	60.3*	583	
	The frequency range was scanned from 30 MHz to 3.1 GHz. 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)							



Retlif Testing Laboratories

Retlif Job Number R-9144-1

