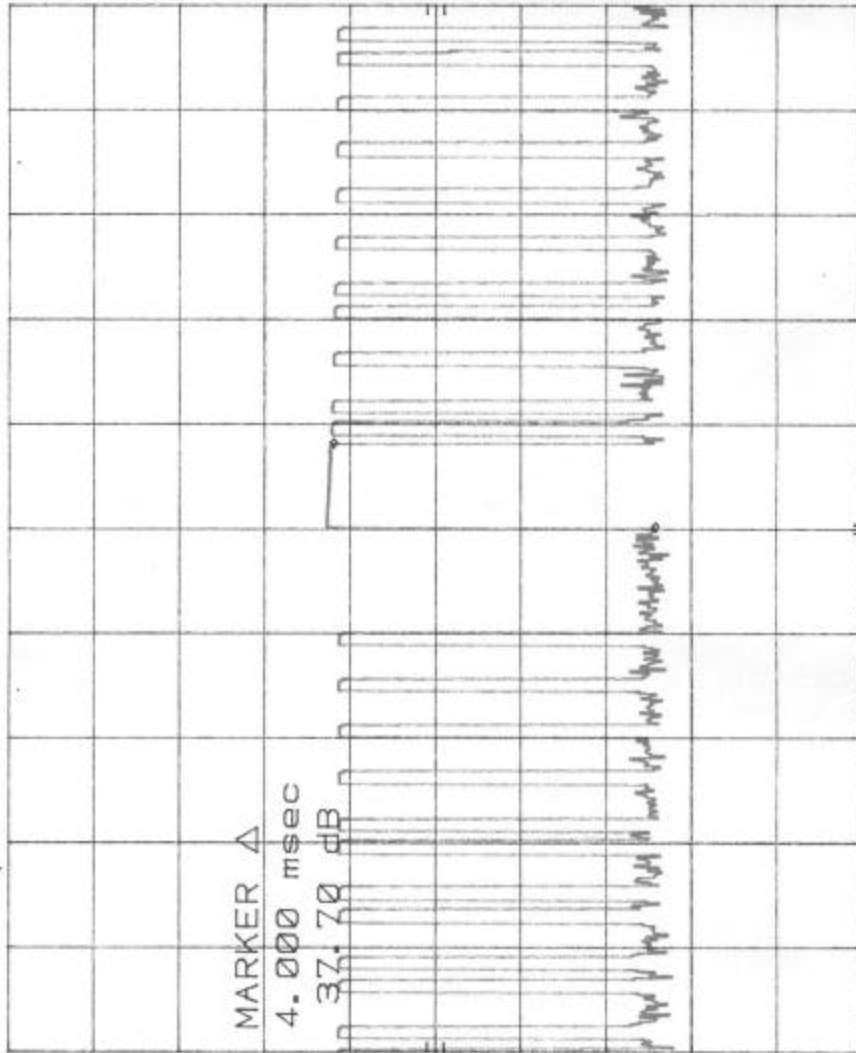


Customer:	X-10 (USA)
Test Sample:	310MHz Pulsed Transmitter
Model No.:	UR85A FCC ID: B4SUR85A
Test Method:	FCC15.35 Duty Cycle Determination
Notes:	Large pulse=4.0msec
Date:	August 23, 2001
Tech:	Peter Lannanna
Sheet:	1 of 3

R- X-10 UR85A DCD 8/23/01 PL
 REF 97.0 dBμV ATTN 0 dB
 MKR Δ 4.000 msec
 37.70 dB

HP
 10 dB/



CENTER 309.242 984 MHz
 RES BW 300 kHz
 SPAN 0 Hz
 SWP 50.0 msec
 VBW 1 MHz



Retlif Testing Laboratories

Report No. R-9150-1

Customer:	X-10 (USA)
Test Sample:	310MHz Pulsed Transmitter
Model No.:	UR85A FCC ID: B4SUR85A
Test Method:	FCC 15.95 Duty Cycle Determination
Notes:	Small pulse=600µsec 21*600µsec=12.6msec
Date:	August 23, 2001
Tech:	Peter Lanianna
Sheet:	2 of 3



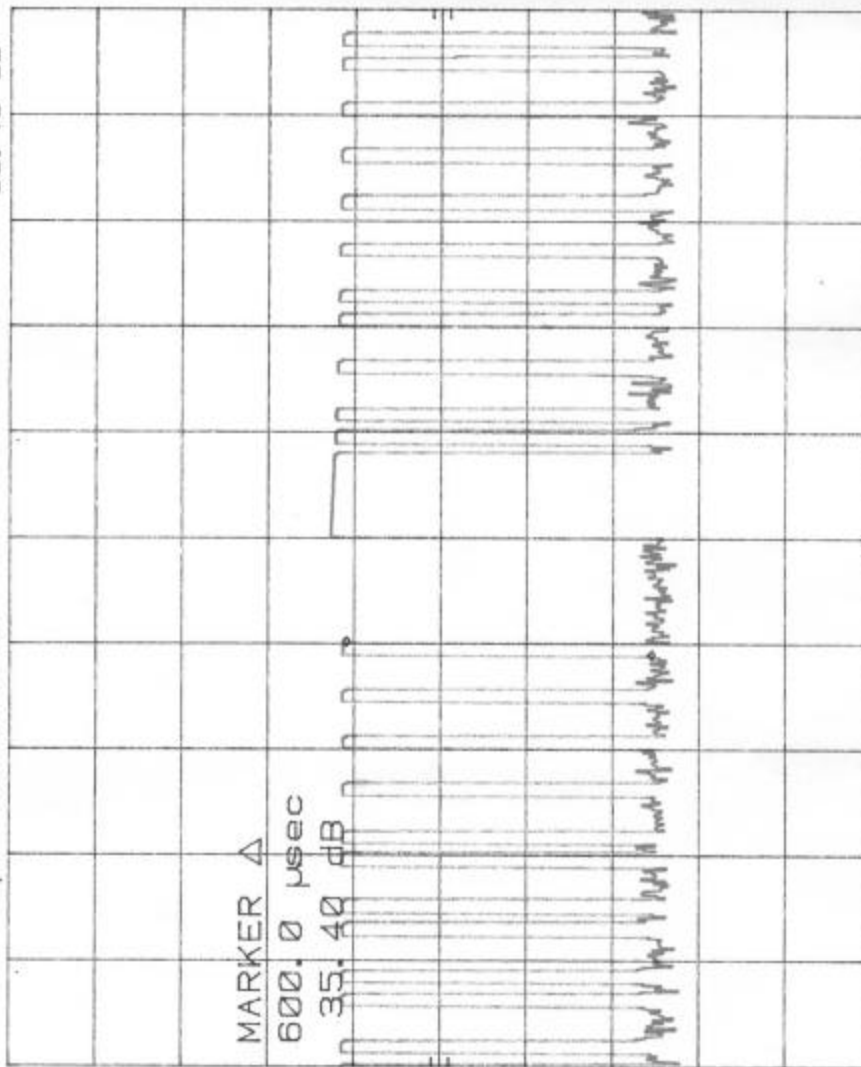
Retlif Testing Laboratories

Report No. R-9150-1

R- X-10 UR85A DCD 8/23/01 PL
 REF 97.0 dBµV ATTN 0 dB

MR Δ 600.0 µsec
 35.40 dB

10 dB/



CENTER 309.242 984 MHz
 RES BW 300 kHz
 SPAN 0 Hz
 SWP 50.0 msec
 VBW 1 MHz

Customer:	X-10 (USA)
Test Sample:	310MHz Pulsed Transmitter
Model No.:	UR85A FCC ID: B4SUR85A
Test Method:	FCC15.35 Duty Cycle Determination
Notes:	Cycle time=47.7msec 12.6msec+4.0msec=16.6msec 16.6m/47.7m=0.348=34.8% on time, =9.2dB Duty Cycle Factor.
Date:	August 23, 2001
Tech:	Peter Lananna
Sheet:	3 of 3

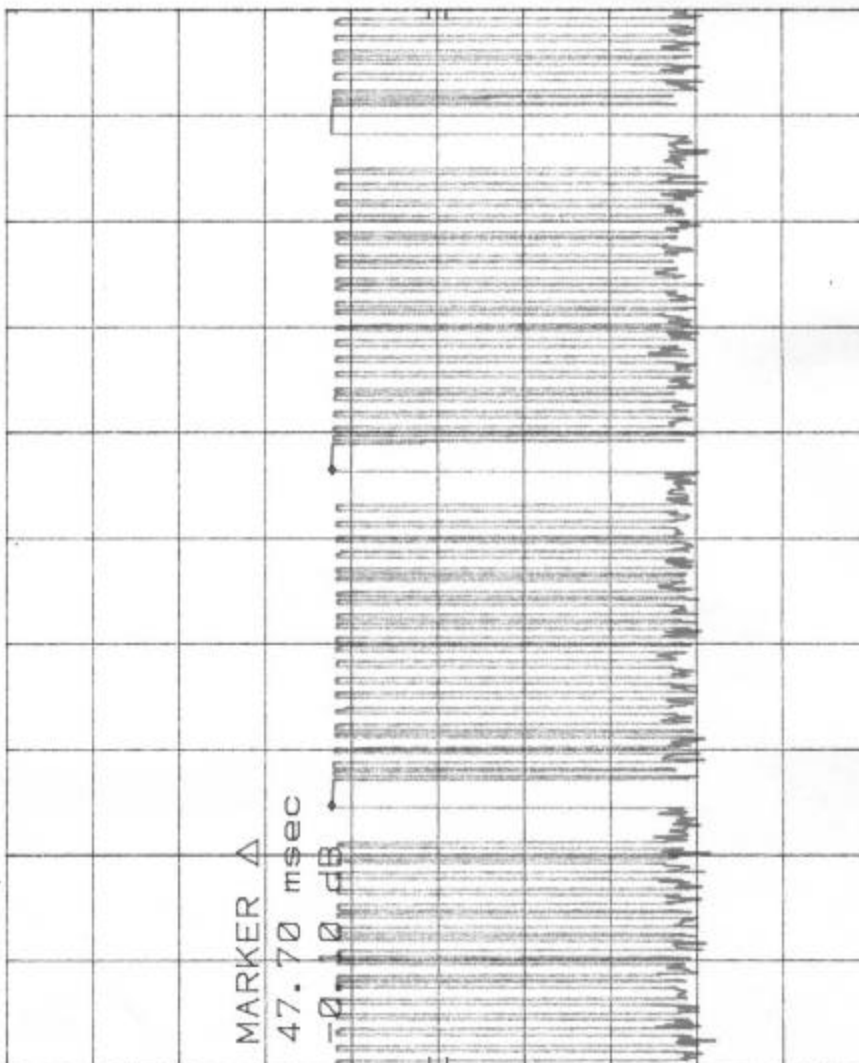


Retlif Testing Laboratories

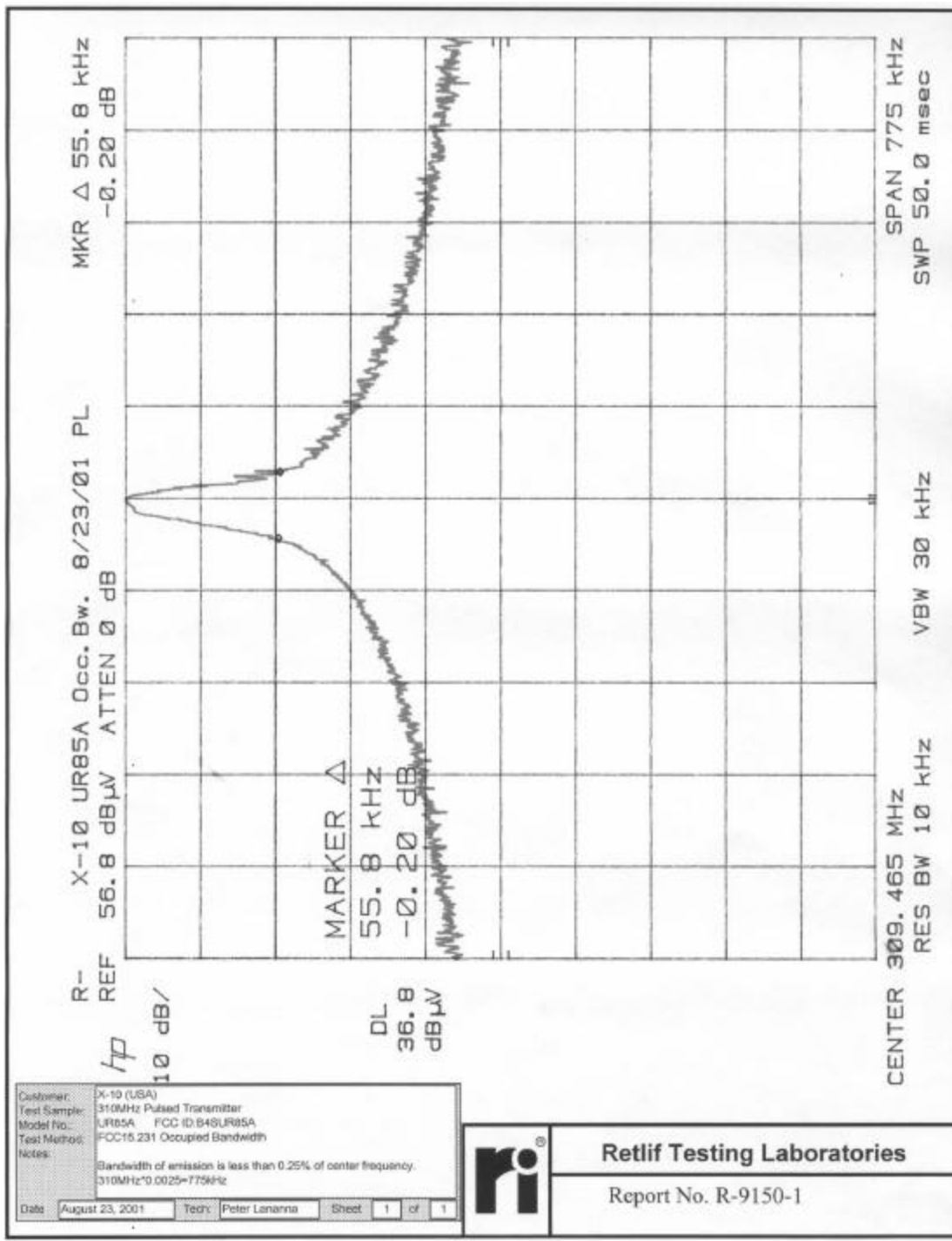
Report No. R-9150-1

R- X-10 UR85A DCD 8/23/01 PL
REF 97.0 dBμV ATTN 0 dB

MARKER Δ 47.70 msec
-0.10 dB



CENTER 309.242 984 MHz
RES BW 100 kHz
SPAN 0 Hz
SWP 150 msec
VBW 300 kHz



Customer: X-10 (USA)
Test Sample: 310MHz Pulsed Transmitter
Model No.: UR85A FCC ID: B46UR85A
Test Method: FCC15.231 Occupied Bandwidth
Notes: Bandwidth of emission is less than 0.25% of center frequency.
310MHz*0.0025=775kHz

Date: August 23, 2001 Tech: Peter Lananna Sheet 1 of 1



Retlif Testing Laboratories
Report No. R-9150-1

Test Method:		FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions					
Customer:		X-10 (USA)			Job No.		R-9150-1
Test Sample:		RF remote			Paragraph:		15.231
Model No.:		UR85A			FCC ID:		B4SUR85A
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 / 1.0	X	62.7	-4.0	58.7	861.0	58300
	H / 1.0	Y	64.2	-4.0	60.2	1023.3	
	H / 2.3	Z	60.2	-4.0	56.2	645.7	
	V / 1.3	X	62.0	-4.0	58.0	794.3	
	V / 3.0	Y	55.0	-4.0	51.0	354.8	
310	V / 1.8	Z	61.0	-4.0	57.0	707.9	58300
620	H /	X	36.5	3.9	40.4	104.7*	5830
	H /	Y	36.5	3.9	40.4	104.7*	
	H /	Z	36.5	3.9	40.4	104.7*	
	V /	X	36.5	3.9	40.4	104.7*	
	V /	Y	36.5	3.9	40.4	104.7*	
620	V /	Z	36.5	3.9	40.4	104.7*	5830
930	H /	X	29.9	8.8	38.7	86.1*	5830
	H /	Y	29.9	8.8	38.7	86.1*	
	H /	Z	29.9	8.8	38.7	86.1*	
	V /	X	29.9	8.8	38.7	86.1*	
	V /	Y	29.9	8.8	38.7	86.1*	
930	V /	Z	29.9	8.8	38.7	86.1*	5830
1240	H /	X	41.7	-2.8	38.9	88.1*	5000
	H /	Y	41.7	-2.8	38.9	88.1*	
	H /	Z	41.7	-2.8	38.9	88.1*	
	V /	X	41.7	-2.8	38.9	88.1*	
	V /	Y	41.7	-2.8	38.9	88.1*	
1240	V /	Z	41.7	-2.8	38.9	88.1*	5000
1550	H /	X	39.7	0.9	40.6	107.2*	5000
	H /	Y	39.7	0.9	40.6	107.2*	
	H /	Z	39.7	0.9	40.6	107.2*	
	V /	X	39.7	0.9	40.6	107.2*	
	V /	Y	39.7	0.9	40.6	107.2*	
1550	V /	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-9150-1

Test Method:		FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions						
Customer:		X-10 (USA)			Job No.		R-9150-1	
Test Sample:		RF remote			Paragraph:		15.231	
Model No.:		UR85A			FCC ID:		B4SUR85A	
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-9150-1

Test Method:		FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions						
Customer:		X-10 (USA)			Job No.		R-9150-1	
Test Sample:		RF remote			Paragraph:		15.231	
Model No.:		UR85A			FCC ID:		B4SUR85A	
Operating Mode:		Continuously Transmitting a 310 MHz Signal						
Technician:		Peter Lananna			Date:		August 23, 2001	
Notes:		Test Distance: 3 Meters			Duty Cycle:37.2 %			
		Detector: Peak, unless otherwise specified			Duty Cycle Correction: -9.2dB			
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	58.7	-9.2	49.5	298.5	5830	
	H / 1.0	Y	60.2	-9.2	51.0	354.8		
	H / 1.8	Z	56.2	-9.2	47.0	223.9		
	V / 2.0	X	58.0	-9.2	48.8	275.4		
	V / 1.0	Y	51.0	-9.2	41.8	123.0		
310	V / 1.5	Z	57.0	-9.2	47.8	245.5	5830	
620	H / 1.0	X	40.4	-9.2	31.2	36.3*	583	
	H / 1.0	Y	40.4	-9.2	31.2	36.3*		
	H / 1.5	Z	40.4	-9.2	31.2	36.3*		
	V / 2.3	X	40.4	-9.2	31.2	36.3*		
	V / 2.3	Y	40.4	-9.2	31.2	36.3*		
620	V / 2.3	Z	40.4	-9.2	31.2	36.3*	583	
930	H / 2.0	X	38.7	-9.2	29.5	29.9*	583	
	H / 1.3	Y	38.7	-9.2	29.5	29.9*		
	H / 1.5	Z	38.7	-9.2	29.5	29.9*		
	V / 1.0	X	38.7	-9.2	29.5	29.9*		
	V / 1.5	Y	38.7	-9.2	29.5	29.9*		
930	V / 1.5	Z	38.7	-9.2	29.5	29.9*	583	
1240	H / 1.0	X	38.9	-9.2	29.7	30.5*	500	
	H / 1.0	Y	38.9	-9.2	29.7	30.5*		
	H / 1.0	Z	38.9	-9.2	29.7	30.5*		
	V /1.0	X	38.9	-9.2	29.7	30.5*		
	V / 1.0	Y	38.9	-9.2	29.7	30.5*		
1240	V / 1.0	Z	38.9	-9.2	29.7	30.5*	500	
1550	H / 1.0	X	40.6	-9.2	31.4	37.2*	500	
	H / 1.0	Y	40.6	-9.2	31.4	37.2*		
	H / 1.0	Z	40.6	-9.2	31.4	37.2*		
	V /1.0	X	40.6	-9.2	31.4	37.2*		
	V / 1.0	Y	40.6	-9.2	31.4	37.2*		
1550	V / 1.0	Z	40.6	-9.2	31.4	37.2*	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-9150-1

Test Method:		FCC Part 15 Subpart C Radiated Emissions, Fundamental & Harmonic Emissions					
Customer:		X-10 (USA)			Job No.		R-9150-1
Test Sample:		RF remote			Paragraph:		15.231
Model No.:		UR85A			FCC ID:		B4SUR85A
Operating Mode:		Continuously Transmitting a 310 MHz Signal					
Technician:		Peter Lananna			Date:		August 23, 2001
Notes:		Test Distance: 3 Meters			Duty Cycle: 34.8%		
		Detector: Peak, unless otherwise specified			Duty Cycle Correction: -9.2dB		
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	-9.2	32.5	42.2*	583
	H / 1.0	Y	41.7	-9.2	32.5	42.2*	
	H / 1.0	Z	41.7	-9.2	32.5	42.2*	
	V / 1.0	X	41.7	-9.2	32.5	42.2*	
	V / 1.0	Y	41.7	-9.2	32.5	42.2*	
1860	V / 1.0	Z	41.7	-9.2	32.5	42.2*	583
2170	H / 1.0	X	39.6	-9.2	30.4	33.1*	583
	H / 1.0	Y	39.6	-9.2	30.4	33.1*	
	H / 1.0	Z	39.6	-9.2	30.4	33.1*	
	V / 1.0	X	39.6	-9.2	30.4	33.1*	
	V / 1.0	Y	39.6	-9.2	30.4	33.1*	
2170	V / 1.0	Z	39.6	-9.2	30.4	33.1*	583
2480	H / 1.0	X	43.5	-9.2	34.3	51.9*	583
	H / 1.0	Y	43.5	-9.2	34.3	51.9*	
	H / 1.0	Z	43.5	-9.2	34.3	51.9*	
	V / 1.0	X	43.5	-9.2	34.3	51.9*	
	V / 1.0	Y	43.5	-9.2	34.3	51.9*	
2480	V / 1.0	Z	43.5	-9.2	34.3	51.9*	583
2790	H / 1.0	X	44.0	-9.2	34.8	55.0*	500
	H / 1.0	Y	44.0	-9.2	34.8	55.0*	
	H / 1.0	Z	44.0	-9.2	34.8	55.0*	
	V / 1.0	X	44.0	-9.2	34.8	55.0*	
	V / 1.0	Y	44.0	-9.2	34.8	55.0*	
2790	V / 1.0	Z	44.0	-9.2	34.8	55.0*	500
3100	H / 1.0	X	46.4	-9.2	37.2	72.4*	583
	H / 1.0	Y	46.4	-9.2	37.2	72.4*	
	H / 1.0	Z	46.4	-9.2	37.2	72.4*	
	V / 1.0	X	46.4	-9.2	37.2	72.4*	
	V / 1.0	Y	46.4	-9.2	37.2	72.4*	
3100	V / 1.0	Z	46.4	-9.2	37.2	72.4*	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-9150-1

