

TEST SAMPLE: WR10A
 FCC ID: B4S-WR10A
 APPLICANT: X-10
 TEST METHOD: Radiated Emissions
 SPECIFICATION: FCC Part 15.231(a)
 PERFORMED BY: D. Cortes
 DATE: November 12, 1998

Field Strength - Peak

Frequency MHz	Antenna Position & Distance H / V	EUT Orientation X / Y	Corrected Meter Reading dBuV	Correction Factor dB	Corrected Reading dBuV/M	Converted Reading uV/M	Peak Limit at 3 Meters uV/M
310.3	H - 1.2	X	46.3	-3.9	42.4	131.8	58330
	V - 1.6	X	56.8	-3.9	52.9	441.6	58330
	H - 1.7	Y	53.2	-3.9	49.3	291.7	58330
	V - 1.8	Y	54.4	-3.9	50.5	335.0	58330
	H - 1.0	Z	58.1	-3.9	54.2	512.9	58330
	V - 1.0	Z	42.7	-3.9	38.8	87.1	58330
620.6	H - 1.4	X	31.3	3.2	34.5	53.1	5833
	V - 1.5	X	33.0	3.2	36.2	64.6	5833
	H - 1.1	Y	33.7	3.2	36.9	70.0	5833
	V - 1.0	Y	29.3	3.2	32.5	42.2	5833
	H - 1.0	Z	32.8	3.2	36.0	63.1	5833
	V - 1.4	Z	31.0	3.2	34.2	51.3	5833
930.9	H - 1.0	X	29.3	7.5	36.8	69.2	5833
	V - 1.0	X	29.3	7.5	36.8	69.2	5833
	H - 1.0	Y	29.3	7.5	36.8	69.2	5833
	V - 1.0	Y	29.3	7.5	36.8	69.2	5833
	H - 1.0	Z	29.3	7.5	36.8	69.2	5833
	V - 1.0	Z	29.3	7.5	36.8	69.2	5833

1241.2	H - 1.3	X	44.2	-5.5	38.7	86.1	5000
	V - 1.4	X	48.6	-5.5	43.1	142.9	5000
	H - 1.2	Y	45.4	-5.5	39.9	98.9	5000
	V - 1.8	Y	44.8	-5.5	39.3	92.3	5000
	H - 1.5	Z	46.0	-5.5	40.5	105.9	5000
	V - 1.0	Z	43.7	-5.5	38.2	81.3	5000
1551.5	H - 1.0	X	41.6	-4.6	37.0	70.8	5000
	V - 1.0	X	41.6	-4.6	37.0	70.8	5000
	H - 1.0	Y	41.6	-4.6	37.0	70.8	5000
	V - 1.0	Y	41.6	-4.6	37.0	70.8	5000
	H - 1.0	Z	41.6	-4.6	37.0	70.8	5000
	V - 1.0	Z	41.6	-4.6	37.0	70.8	5000
1861.8	H - 1.0	X	42.0	-2.4	39.6	95.5	5833
	V - 1.0	X	42.0	-2.4	39.6	95.5	5833
	H - 1.0	Y	42.0	-2.4	39.6	95.5	5833
	V - 1.0	Y	42.0	-2.4	39.6	95.5	5833
	H - 1.0	Z	42.0	-2.4	39.6	95.5	5833
	V - 1.0	Z	42.0	-2.4	39.6	95.5	5833
2172.1	H - 1.0	X	41.5	-1.3	40.2	102.3	5833
	V - 1.0	X	41.5	-1.3	40.2	102.3	5833
	H - 1.0	Y	41.5	-1.3	40.2	102.3	5833
	V - 1.0	Y	41.5	-1.3	40.2	102.3	5833
	H - 1.0	Z	41.5	-1.3	40.2	102.3	5833
	V - 1.0	Z	41.5	-1.3	40.2	102.3	5833
2482.4	H - 1.0	X	41.6	0.1	41.7	121.6	5833
	V - 1.0	X	41.6	0.1	41.7	121.6	5833

	H - 1.0	Y	41.6	0.1	41.7	121.6	5833
	V - 1.0	Y	41.6	0.1	41.7	121.6	5833
	H - 1.0	Z	41.6	0.1	41.7	121.6	5833
	V - 1.0	Z	41.6	0.1	41.7	121.6	5833
2792.7	H - 1.0	X	40.6	1.4	42.0	125.9	5000
	V - 1.0	X	40.6	1.4	42.0	125.9	5000
	H - 1.0	Y	40.6	1.4	42.0	125.9	5000
	V - 1.0	Y	40.6	1.4	42.0	125.9	5000
	H - 1.0	Z	40.6	1.4	42.0	125.9	5000
	V - 1.0	Z	40.6	1.4	42.0	125.9	5000
3103	H - 1.0	X	41.6	3.5	45.1	179.9	5833
	V - 1.0	X	41.6	3.5	45.1	179.9	5833
	H - 1.0	Y	41.6	3.5	45.1	179.9	5833
	V - 1.0	Y	41.6	3.5	45.1	179.9	5833
	H - 1.0	Z	41.6	3.5	45.1	179.9	5833
	V - 1.0	Z	41.6	3.5	45.1	179.9	5833

Field Strength - Average

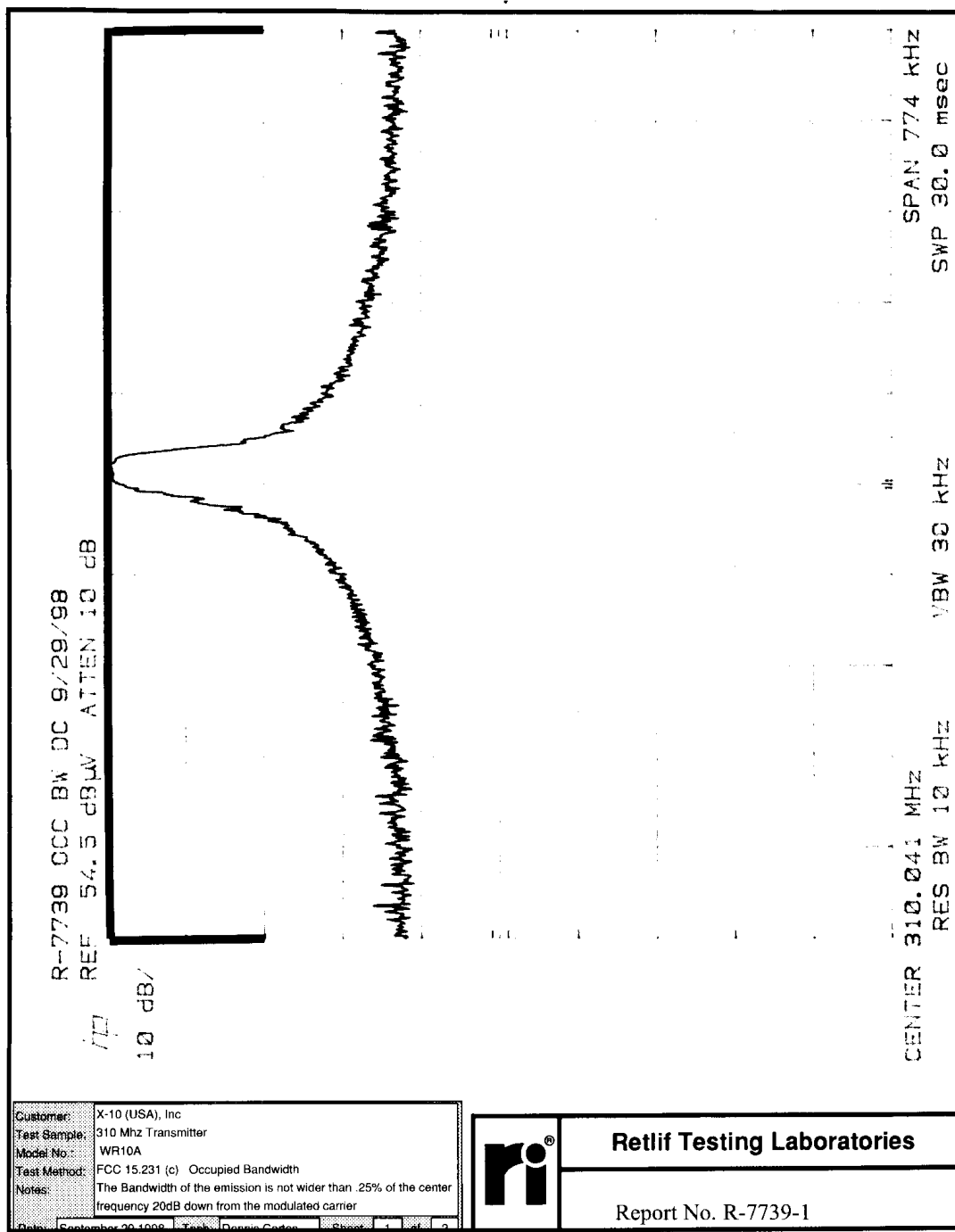
Frequency MHz	Antenna Position & Distance H / V	EUT Orientation X / Y	Peak Corrected Reading dBuV	Duty Cycle Correction Factor dB	Corrected Average Reading dBuV/M	Converted Average Reading uV/M	Peak Limit at 3 Meters uV/M
310.3	H - 1.2	X	42.4	-8.2	34.2	51.3	5833
	V - 1.6	X	52.9	-8.2	44.7	171.8	5833
	H - 1.7	Y	49.3	-8.2	41.1	113.5	5833
	V - 1.8	Y	50.5	-8.2	42.3	130.3	5833
	H - 1.0	Z	54.2	-8.2	46.0	199.5	5833
	V - 1.0	Z	38.8	-8.2	30.6	33.9	5833

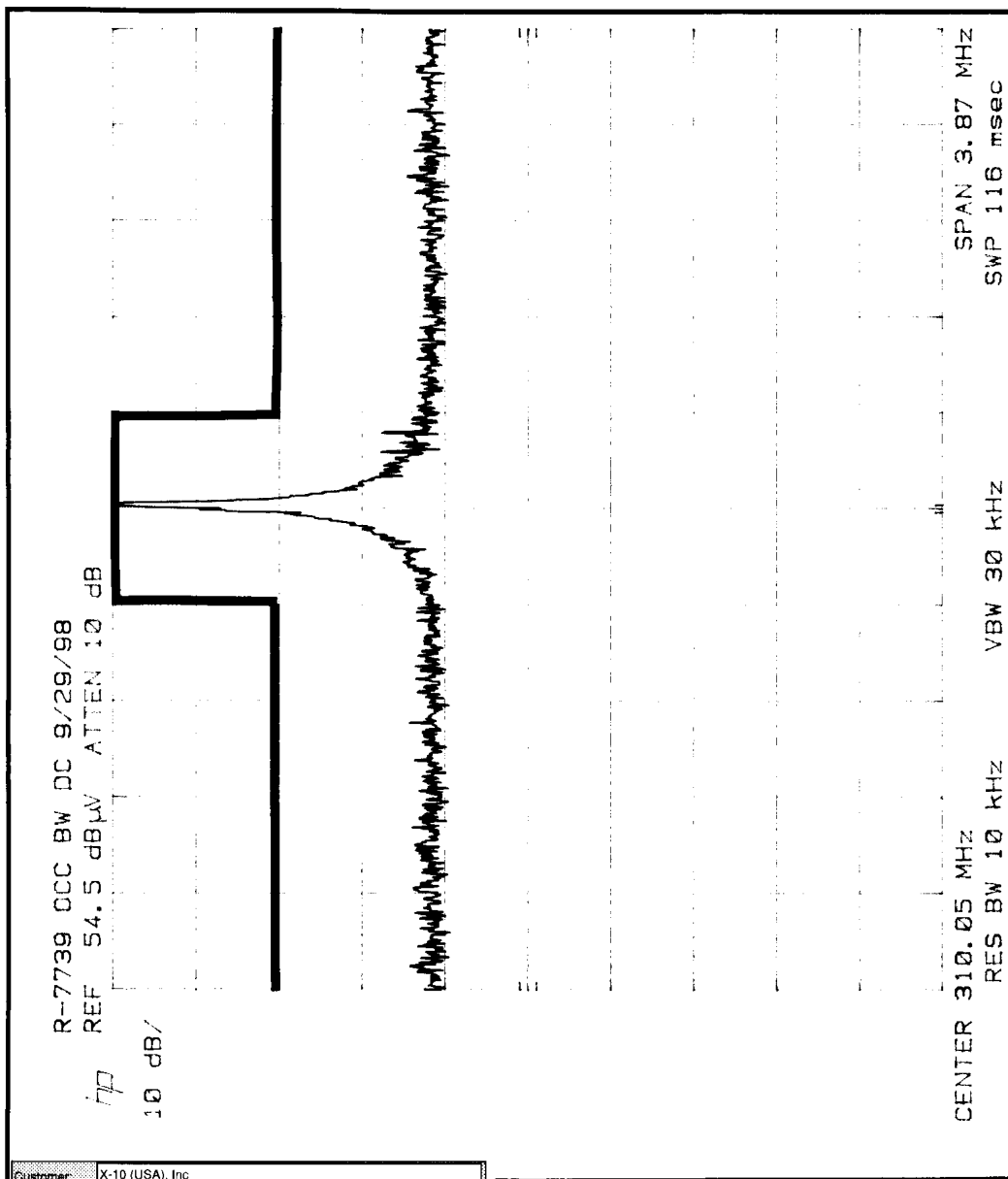
620.6	H - 1.4	X	34.5	-8.2	26.3	20.7	583
	V - 1.5	X	36.2	-8.2	28.0	25.1	583
	H - 1.1	Y	36.9	-8.2	28.7	27.2	583
	V - 1.0	Y	32.5	-8.2	24.3	16.4	583
	H - 1.0	Z	36.0	-8.2	27.8	24.5	583
	V - 1.4	Z	34.2	-8.2	26.0	20.0	583
930.9	H - 1.0	X	36.8	-8.2	28.6	26.9	583
	V - 1.0	X	36.8	-8.2	28.6	26.9	583
	H - 1.0	Y	36.8	-8.2	28.6	26.9	583
	V - 1.0	Y	36.8	-8.2	28.6	26.9	583
	H - 1.0	Z	36.8	-8.2	28.6	26.9	583
	V - 1.0	Z	36.8	-8.2	28.6	26.9	583
1241.2	H - 1.3	X	38.7	-8.2	30.5	33.5	500
	V - 1.4	X	43.1	-8.2	34.9	55.6	500
	H - 1.2	Y	39.9	-8.2	31.7	38.5	500
	V - 1.8	Y	39.3	-8.2	31.1	35.9	500
	H - 1.5	Z	40.5	-8.2	32.3	41.2	500
	V - 1.0	Z	38.2	-8.2	30.0	31.6	500
1551.5	H - 1.0	X	37.0	-8.2	28.8	27.5	500
	V - 1.0	X	37.0	-8.2	28.8	27.5	500
	H - 1.0	Y	37.0	-8.2	28.8	27.5	500
	V - 1.0	Y	37.0	-8.2	28.8	27.5	500
	H - 1.0	Z	37.0	-8.2	28.8	27.5	500
	V - 1.0	Z	37.0	-8.2	28.8	27.5	500
1861.8	H - 1.0	X	39.6	-8.2	31.4	37.2	583
	V - 1.0	X	39.6	-8.2	31.4	37.2	583
	H - 1.0	Y	39.6	-8.2	31.4	37.2	583

	V - 1.0	Y	39.6	-8.2	31.4	37.2	583
	H - 1.0	Z	39.6	-8.2	31.4	37.2	583
	V - 1.0	Z	39.6	-8.2	31.4	37.2	583
2172.1	H - 1.0	X	40.2	-8.2	32.0	39.8	583
	V - 1.0	X	40.2	-8.2	32.0	39.8	583
	H - 1.0	Y	40.2	-8.2	32.0	39.8	583
	V - 1.0	Y	40.2	-8.2	32.0	39.8	583
	H - 1.0	Z	40.2	-8.2	32.0	39.8	583
	V - 1.0	Z	40.2	-8.2	32.0	39.8	583
2482.4	H - 1.0	X	41.7	-8.2	33.5	47.3	583
	V - 1.0	X	41.7	-8.2	33.5	47.3	583
	H - 1.0	Y	41.7	-8.2	33.5	47.3	583
	V - 1.0	Y	41.7	-8.2	33.5	47.3	583
	H - 1.0	Z	41.7	-8.2	33.5	47.3	583
	V - 1.0	Z	41.7	-8.2	33.5	47.3	583
2792.7	H - 1.0	X	42.0	-8.2	33.8	49.0	500
	V - 1.0	X	42.0	-8.2	33.8	49.0	500
	H - 1.0	Y	42.0	-8.2	33.8	49.0	500
	V - 1.0	Y	42.0	-8.2	33.8	49.0	500
	H - 1.0	Z	42.0	-8.2	33.8	49.0	500
	V - 1.0	Z	42.0	-8.2	33.8	49.0	500
3103	H - 1.0	X	45.1	-8.2	36.9	70.0	583
	V - 1.0	X	45.1	-8.2	36.9	70.0	583
	H - 1.0	Y	45.1	-8.2	36.9	70.0	583
	V - 1.0	Y	45.1	-8.2	36.9	70.0	583
	H - 1.0	Z	45.1	-8.2	36.9	70.0	583
	V - 1.0	Z	45.1	-8.2	36.9	70.0	583

TEST SAMPLE: WR10A
FCC ID: B4S-WR10A
APPLICANT: X-10
TEST METHOD: Radiated Emissions
SPECIFICATION: FCC Part 15.231(a)
PERFORMED BY: D. Cortes
DATE: November 12, 1998

Occupied Bandwidth





Customer: X-10 (USA), Inc
 Test Sample: 310 Mhz Transmitter
 Model No: WR10A
 Test Method: FCC 15.231 (c) Occupied Bandwidth
 Notes: The Bandwidth of the emission is not wider than .25% of the center frequency 20dB down from the modulated carrier
 Date: September 29, 1998 Tech: Dennis Cordes Sheet: 2 of 2

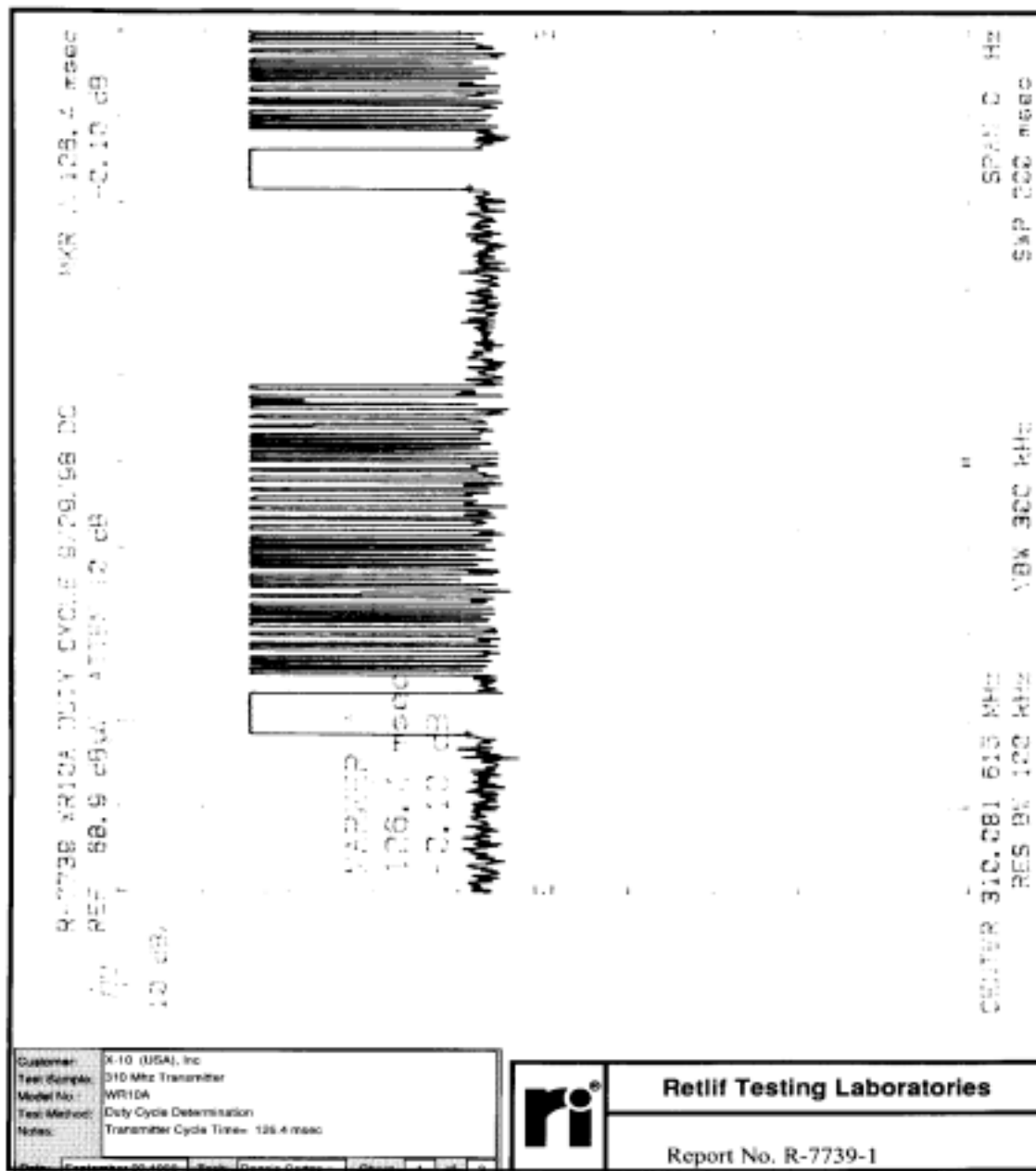


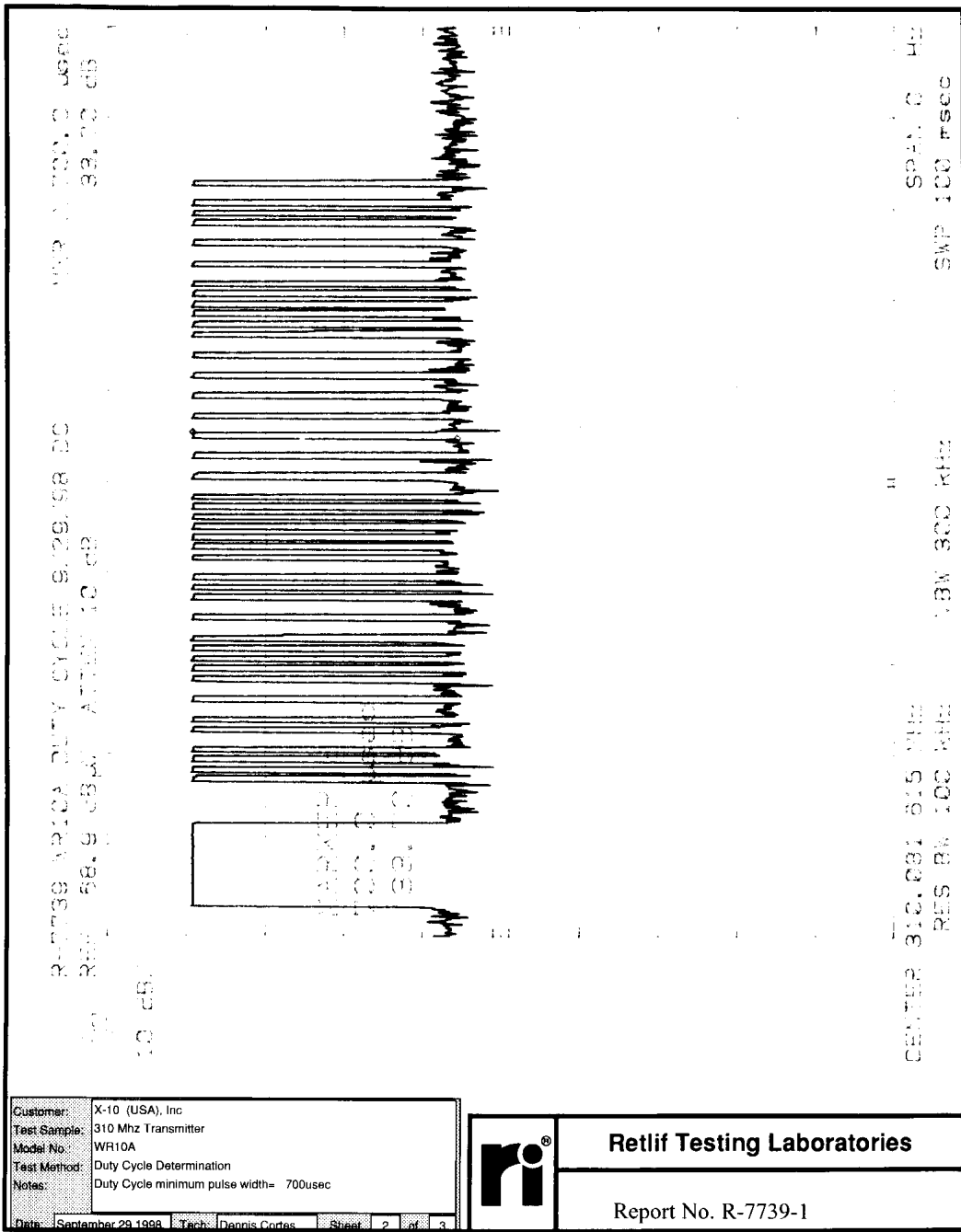
Retlif Testing Laboratories

Report No. R-7739-1

TEST SAMPLE: WR10A
FCC ID: B4S-WR10A
APPLICANT: X-10
TEST METHOD: Radiated Emissions
SPECIFICATION: FCC Part 15.231(a)
PERFORMED BY: D. Cortes
DATE: November 12, 1998

Duty Cycle



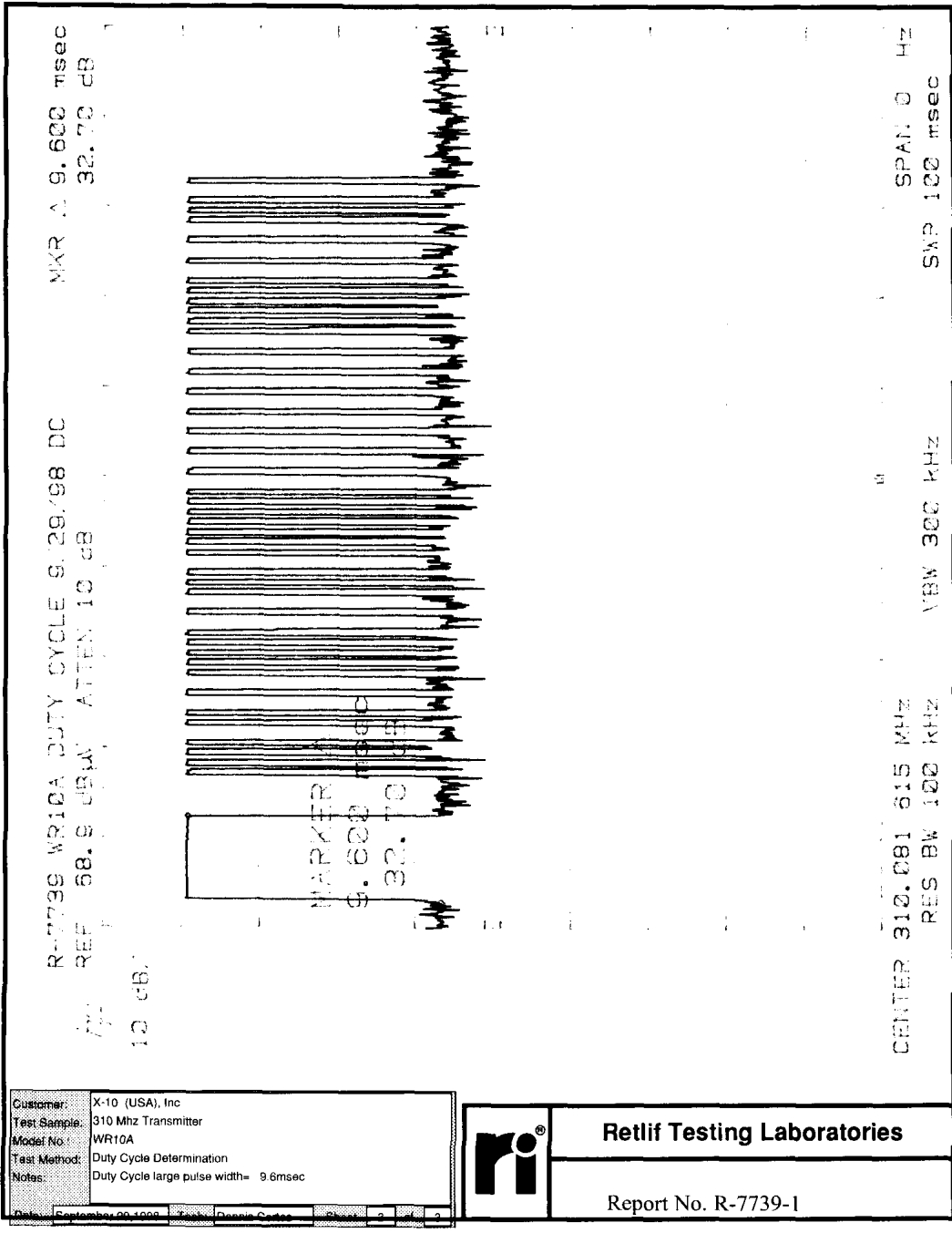


Customer:	X-10 (USA), Inc
Test Sample:	310 Mhz Transmitter
Model No:	WR10A
Test Method:	Duty Cycle Determination
Notes:	Duty Cycle minimum pulse width= 700usec
Date:	September 29 1998
Tech:	Dennis Cordes
Sheet:	2 of 3



Retlif Testing Laboratories

Report No. R-7739-1



Customer:	X-10 (USA), Inc
Test Sample:	310 Mhz Transmitter
Model No:	WR10A
Test Method:	Duty Cycle Determination
Notes:	Duty Cycle large pulse width= 9.6msec
Date:	September 20, 1999
Technician:	Dennis Carter
Phone:	214-343-1111
Fax:	214-343-1111

	Retlif Testing Laboratories
	Report No. R-7739-1