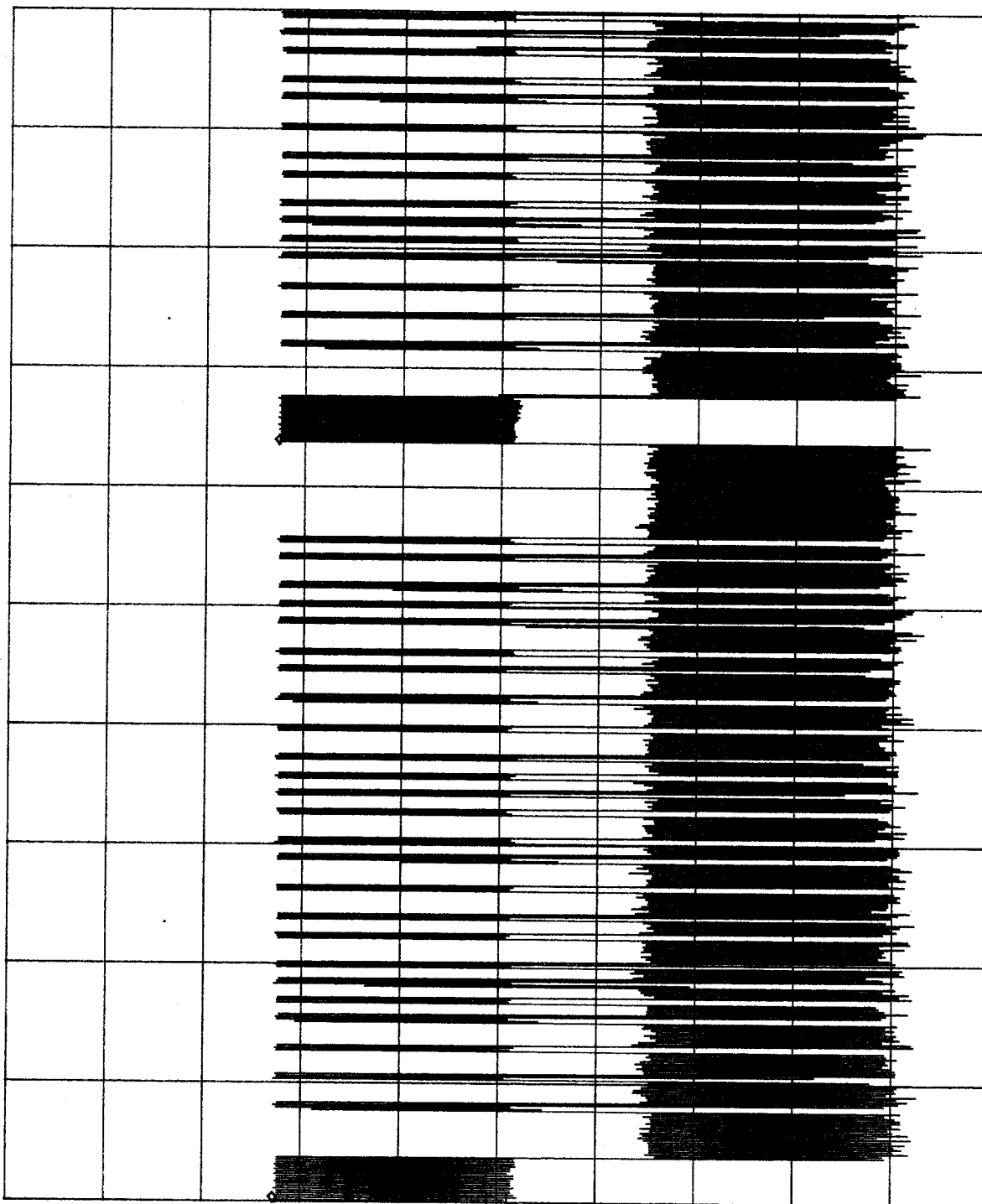


R-9851-3 X-10 RCU1010RF DUTY CYCLE JK
 REF 97.0 dBμV ATTN 0 dB
 MKR Δ 63.80 msec
 -0.20 dB

hp
 0 dB/



CENTER 417.999 996 MHz
 RES BW 3 MHz
 VBW 3 MHz
 SWP 100 msec
 SPAN 0 Hz

Customer:	X-10 Wireless Technology, Inc.		
Test Sample:	X-10 Handheld Pulsed RF Transmitter		
Model No:	RCU1010RF	FCC ID:	B4SRCU1010RF
Test Method:	FCC Part 15, Sub. C Paragraph 15.35 (c) Duty Cycle Determination		
Notes:	Marker readout shows cycle time (period) of pulse train T = 63.8msec		
Date:	April 4th, 2003	Tech:	J. Kabacinski
Sheet	1	of	1



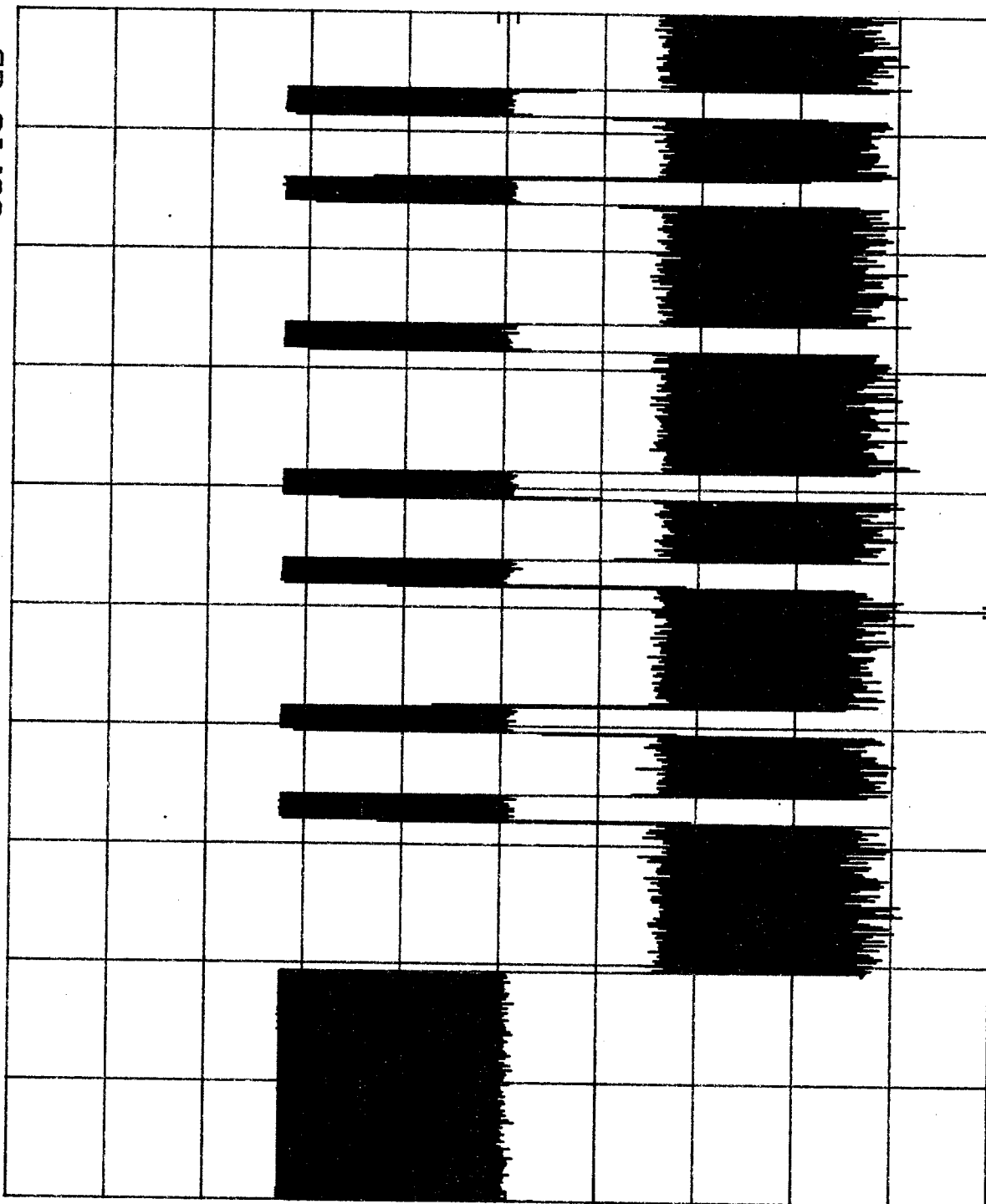
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Report No. R-9851-3

R-9851-3 X-10 RCU1010RF DUTY CYCLE JK
 REF 97.0 dBμV ATTN 0 dB
 MKR Δ 3.900 msec
 -58.10 dB

hp

10 dB/



CENTER 417.999 996 MHz
 RES BW 3 MHz
 VBW 3 MHz
 SWP 20.0 msec
 SPAN 0 Hz

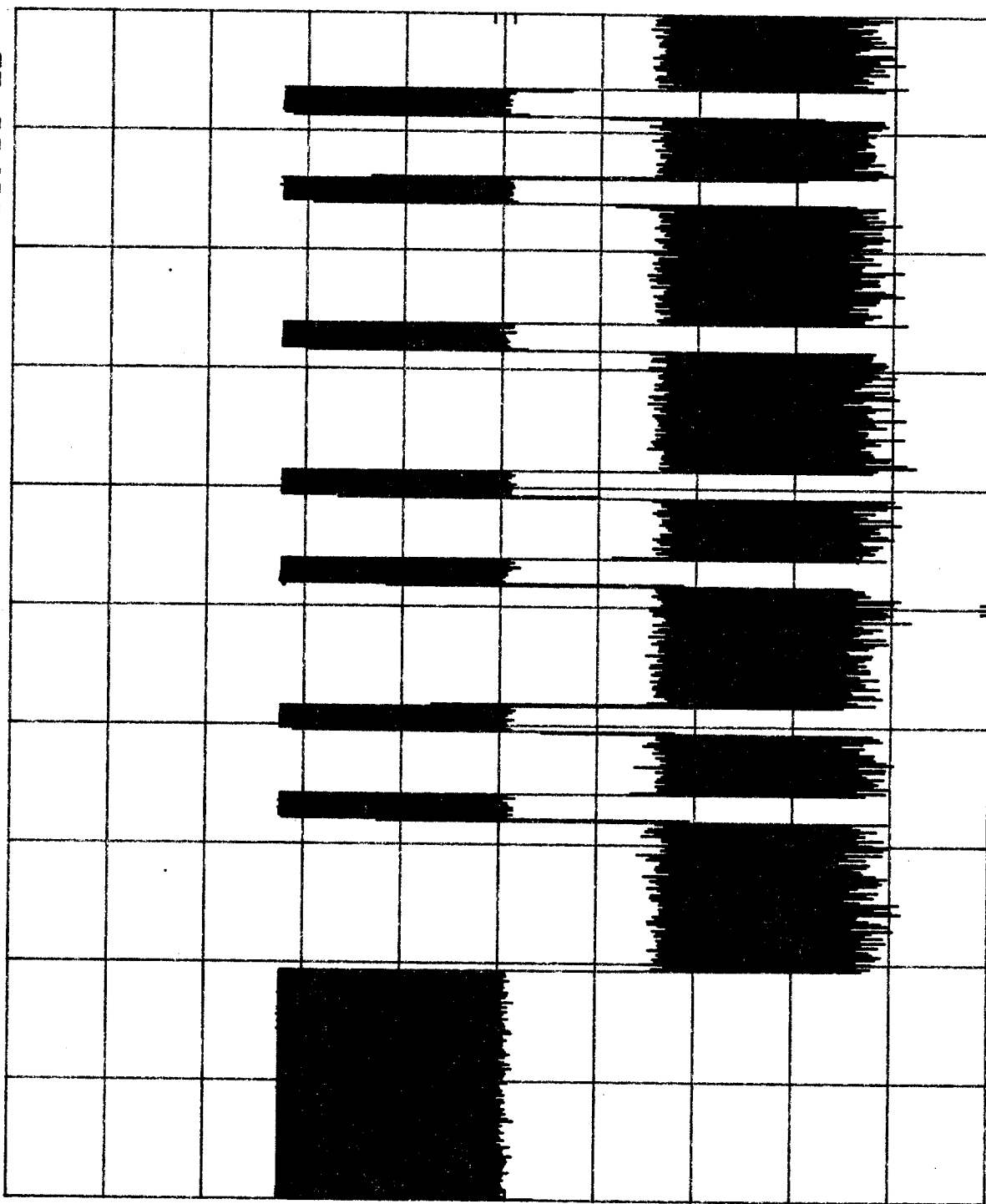
Customer:	X-10 Wireless Technology, Inc.		
Test Sample:	X-10 Handheld Pulsed RF Transmitter		
Model No:	RCU1010RF	FCC ID:	B4SRCU1010RF
Test Method:	FCC Part 15, Sub. C Paragraph 15.35 (c) Duty Cycle Determination		
Notes:	Marker readout shows period of large pulse inside pulse train T = 3.9msec		
Date:	April 4th, 2003	Tech:	J. kabacinski
Sheet	2	of	2



Retlif Testing Laboratories

Report No. R-9851-3

R-9851-3 X-10 RCU1010RF DUTY CYCLE JK MKR Δ 460.0 μ sec
 REF 97.0 dB μ V ATTEN 0 dB -58.60 dB



SPAN 0 Hz
 SWP 20.0 msec

VBW 3 MHz

CENTER 417.999 996 MHz
 RES BW 3 MHz

Customer:	X-10 Wireless Technology, Inc.		
Test Sample:	X-10 Handheld Pulsed RF Transmitter		
Model No:	RCU1010RF	FCC ID:	B4SRCU1010RF
Test Method:	FCC Part 15, Sub. C Paragraph 15.35 (c) Duty Cycle Determination		
Notes:	Marker readout shows period of small pulse inside pulse train T = 460usec		
Date:	April 4th, 2003	Tech:	J. Kabacinski
Sheet	3	of	3



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Report No. R-9851-3

Test Method:	FCC Part 15 Subpart C, Duty Cycle Determination, Paragraph 15.35 (c)		
Customer:	X-10 Wireless Technology, Inc.	Job No.	R-9851-3
Test Sample:	X-10 Handheld Pulsed RF Transmitter		
Model No.:	RCU1010RF	FCC ID	B4SRCU1010RF
Operating Mode:	Continuously Transmitting a 418 MHz Signal		
Technician:	J. Kabacinski	Date:	April 4th, 2003

Steps:

Adjusted on-times were calculated for both the long and short pulse trains within the pulse transmission, which were based on the duration of the pulses and the amount of times they occurred inside each long and short pulse trains. The adjusted on-time was then used to calculate the duty cycle of the pulse transmission. The duty cycle correction factor is highlighted in bold type. Formulas are given with numbered parameters referenced to show calculations.

1 Duration Of Pulses	2 Pulse Count Inside Long Pulse Trains	3 Long Pulse Train Count	4 Adjusted on- time of Large Pulse train	5 Pulse Count Inside Short Pulse Trains	6 Short Pulse Train Count	7 Adjusted on- time of Short Pulse trains
usec	#	#	msec	#		msec
			$(0.0061 \times 165) \times 1 =$			$(0.0061 \times 26) \times 25 =$
6.1	165	1	1.01	26	25	3.97

8 Adjusted On- Time of Pulse Transmission	9 Period of Pulse Train (Cycle Time)	10 Final Duty Cycle of Pulse Transmission	11 Duty Cycle Correction Factor			
$1.01 + 3.97 =$		$4.98 / 3.97 =$	$= 20 \log 0.078$			
4.98	63.8	7.8	-22.16			



Retlif Testing Laboratories

Retlif Job Number R-9851-3