



*EXHIBIT D*

CKC TEST REPORT



**CERTIFICATION TEST REPORT  
FOR THE  
HOME ALARM SYSTEM, BHS-FOB TRANSMITTER  
FCC PART 15 SUBPART C  
COMPLIANCE**

**DATE OF ISSUE: JUNE 16, 1998**

**PREPARED FOR:**

Sentrol  
12345 SW Leveton Drive  
Tualatin, OR 97062

P.O. No: 90210

W.O. No: 68,584

**Report No: FC98-017**

Date of test: April 20, 1998

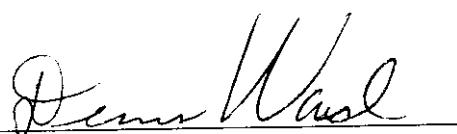
**DOCUMENTATION CONTROL:**

Tracy Phillips  
Tracy Phillips

**PREPARED BY:**

Monika Lopez  
CKC Laboratories, Inc.  
5473A Clouds Rest  
Mariposa, CA 95338

**APPROVED BY:**

  
Dennis Ward  
Director of Laboratories  
CKC Laboratories

This report contains a total of 25 pages and may be reproduced in full only. Partial reproduction may only be done with the written consent of CKC Laboratories, Inc.

## TABLE OF CONTENTS

Administrative Information .....	3
Summary Of Results.....	4
Equipment Under Test (EUT) Description .....	4
Measurement Uncertainty .....	4
EUT Operating Frequency .....	4
Peripheral Devices .....	4
Report Of Measurements .....	5
Table 1: Six Highest Radiated Emission Levels 30 MHz – 1000 MHz .....	5
Table 2: Six Highest Radiated Emission Levels 1000 MHz – 5000 MHz .....	6
Table A : List Of Test Equipment.....	7
EUT Setup.....	8
Test Instrumentation And Analyzer Settings.....	8
Table B : Analyzer Bandwidth Settings Per Frequency Range .....	8
Spectrum Analyzer Detector Functions .....	9
Peak.....	9
Quasi-Peak .....	9
Average .....	9
Test Methods.....	10
Radiated Emissions Testing.....	10
Sample Calculations.....	11
Transmitter Characteristics .....	12
Appendix A : Information About The Equipment Under Test.....	13
I/O Ports .....	14
Crystal Oscillators.....	14
Printed Circuit Boards.....	14
Required EUT Changes To Comply .....	14
Photograph Showing Radiated Emissions .....	15
Appendix B : Measurement Data Sheets .....	16
Pulse Train Plot Part 15.35(c).....	23
Pulse Train Plot Part 15.35(c).....	24
Pulse Train Plot Part 15.35(c).....	25

## ADMINISTRATIVE INFORMATION

**DATE OF TEST:** April 20, 1998

**PURPOSE OF TEST:** To demonstrate the compliance of the Home Alarm System, BHS-FOB Transmitter, with the requirements for FCC Part 15, Subpart C devices.

**MANUFACTURER:** Sentrol  
12345 SW Leveton Drive  
Tualatin, OR 97062

**REPRESENTATIVE:** Mr. Ron Baugh

**TEST LOCATION:** CKC Laboratories, Inc.  
5473A Clouds Rest  
Mariposa, CA 95338

**TEST PERSONNEL:** Craig Mullis

**TEST METHOD:** ANSI C63.4 1992

**FREQUENCY RANGE TESTED:** 30 MHz - 5000 MHz

**EQUIPMENT UNDER TEST:**

<u>Transmitter</u>	
Manuf:	Sentrol
Model:	BHS-FOB/XMTR
Serial:	
FCC ID:	Pending

## **SUMMARY OF RESULTS**

The Sentrol Home Alarm System, BHS-FOB Transmitter, was tested in accordance with ANSI C63.4 1992 for compliance with FCC Part 15 Subpart C.

As received, the above equipment was found to be fully compliant with the limits of FCC Part 15 Subpart C. The results in this report apply only to the items tested, as identified herein.

## **EQUIPMENT UNDER TEST (EUT) DESCRIPTION**

RF receiver and key FOB transmitter for use in security alarm system.

## **MEASUREMENT UNCERTAINTY**

Associated with data in this report is a  $\pm 4$ dB measurement uncertainty.

## **EUT OPERATING FREQUENCY**

The EUT was operating at 315 MHz.

## **TEMPERATURE AND HUMIDITY DURING TESTING**

The temperature during testing was within +15°C and + 35°C. The relative humidity was between 20% and 75%.

## **PERIPHERAL DEVICES**

The EUT was not tested with peripheral devices.

## REPORT OF MEASUREMENTS

The following Tables 1 and 2 report the highest emissions levels recorded during the tests performed on the Home Alarm System, BHS-FOB Transmitter. The data sheets from which these tables were compiled are contained in Appendix B.

**Table 1: Six Highest Radiated Emission Levels 30 MHz – 1000 MHz**

FREQUENCY MHz	METER READING dB $\mu$ V	CORRECTION FACTORS				CORRECTED READING dB $\mu$ V/m	SPEC LIMIT dB $\mu$ V/m	MARGIN dB	NOTES
		Ant dB	Amp dB	Cable dB	Avg F dB				
315.056	75.6	21.6	-26.9	3.5	-8.8	65.0	74.9	-9.9	V (End)
630.028	65.5	20.3	-28.2	5.2	-8.8	54.0	61.9	-7.9	H (Flat)
945.013	61.9	23.9	-27.2	6.5	-8.8	56.3	61.9	-5.6	H (Flat)
315.056	75.6	21.6	-26.9	3.5	-8.8	65.0	74.9	-9.9	V (End)
945.017	57.2	23.9	-27.2	6.5	-8.8	51.6	61.9	-10.3	V (End)
630.039	62.1	20.3	-28.2	5.2	-8.8	50.6	61.9	-11.3	V (End)

Test Method: ANSI C63.4 1992

NOTES: H = Horizontal Polarization

Spec Limit : FCC Part 15.231

V = Vertical Polarization

Test Distance: 3 Meters

N = No Polarization

D = Dipole Reading

Q = Quasi Peak Reading

A = Average Reading

COMMENTS: Transmitter located on turntable. Operating in TRANSMIT mode.

*Avg F – The duty cycle was determined to be .3642 (33 pulses @300usec and 39 pulses @ 680usec in the 100ms pulse train) = -8.77dB.*

**Table 2: Six Highest Radiated Emission Levels 1000 MHz – 5000 MHz**

FREQUENCY MHz	METER READING dB $\mu$ V	CORRECTION FACTORS				CORRECTED READING dB $\mu$ V/m	SPEC LIMIT dB $\mu$ V/m	MARGIN dB	NOTES
		Ant dB	Amp dB	Cable dB	Avg F dB				
1259.903	73.2	24.8	-36.0	5.9	-8.8	59.1	61.9	-2.8	H (Flat)
1889.843	71.1	27.0	-35.7	7.0	-8.8	60.6	61.9	-1.3	H (Side)
2204.934	67.5	29.2	-35.6	8.9	-8.8	61.2	61.9	-0.7	H (Side)
2519.932	61.3	31.2	-35.4	11.3	-8.8	59.6	61.9	-2.3	V (End)
2834.898	54.5	31.6	-35.3	12.7	-8.8	54.7	61.9	-7.2	V (Side)
3149.800	56.0	32.1	-34.9	13.2	-8.8	57.6	61.9	-4.3	H (Flat)

Test Method: ANSI C63.4 1992  
 Spec Limit : FCC Part 15.231  
 Test Distance: 3 Meters

NOTES: H = Horizontal Polarization  
 V = Vertical Polarization  
 N = No Polarization  
 D = Dipole Reading  
 Q = Quasi Peak Reading  
 A = Average Reading

COMMENTS: Transmitter located on turntable. Operating in TRANSMIT mode.

*Avg F – The duty cycle was determined to be .3642 (33 pulses @300usec and 39 pulses @ 680usec in the 100ms pulse train) = -8.77dB.*

<b>TABLE A</b>	
<b>LIST OF TEST EQUIPMENT</b>	
<b>VCCI Acceptance No. R-565 &amp; C-580</b>	
1. Spectrum Analyzer, Hewlett Packard, Model No. 85662A, S/N 2403A08241.	
2. Preamp, Hewlett Packard, Model No. 8447D, S/N -1937A02604.	
3. Quasi-Peak Adapter, Hewlett Packard, Model No. 85650A, S/N 2811A01267.	
4. Biconical Antenna, A & H Systems, Model No. SAS-200/542, S/N 156.	
5. Log Periodic Antenna, A & H Systems, Model No. SAS-200/512, S/N 154.	
6. Magnetic Loop Antenna, EMCO, Model No. 6502, S/N 1074.	
7. Horn Antenna, EMCO, Model No. 3115, S/N 4683.	
8. LISN (FCC), Solar Electronics, S/N 855996, 992.	
9. LISN, Solar Electronics, S/N 8144793, 474.	
10. Test software, EMI Test 2.86.	

## EUT SETUP

The equipment under test (EUT) listed was setup in a manner that represented its normal use. Any special conditions required for the EUT to operate normally are identified in the comments that accompany Tables 1 and 2 for radiated emissions.

During radiated emissions testing, the EUT was mounted on a nonconductive, rotating table 80 cm above the conductive grid. The nonconductive table dimensions were 1 meter by 1.5 meters. This configuration is typical for radiated emissions testing of table top devices.

## TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed in Table A were used to collect the radiated emissions data for the Home Alarm System, BHS-FOB Transmitter. For radiated measurements below 300 MHz, the biconical antenna was used. For frequencies from 300 to 1000 MHz, the log periodic antenna was used. For frequencies above 1000 MHz, the horn antenna was used. All antennas were located at a distance of 3 meters from the edge of the EUT.

The HP spectrum analyzer was used for all measurements. Table B shows the analyzer bandwidth settings that were used in designated frequency bands. During radiated testing, the measurements were made with 0 dB of attenuation, a reference level of 97 dB $\mu$ V, and a vertical scale of 10 dB per division.

**TABLE B : ANALYZER BANDWIDTH SETTINGS PER FREQUENCY RANGE**

TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	5000 MHz	1 MHz

## SPECTRUM ANALYZER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in Tables 1 and 2 indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "Peak" mode. Whenever a "Quasi-Peak" or "Average" reading is listed as one of the six highest readings, this is indicated as a "Q" or an "A" in Table 1 or Table 2. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data for the Home Alarm System, BHS-FOB Transmitter.

### **Peak**

In this mode, the Spectrum Analyzer or test engineer recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the analyzer called "peak hold," the analyzer had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the analyzer made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

### **Quasi-Peak**

When the true peak values exceeded or were within 2 dB of the specification limit, quasi-peak measurements were taken using the HP 85650A Quasi-Peak Adapter for the HP 8568B Spectrum Analyzer. The detailed procedure for making quasi peak measurements contained in the HP Quasi-Peak Adapter manual were followed.

### **Average**

When the frequencies exceed 1 GHz, average measurements may be made using the spectrum analyzer. To make these measurements, the test engineer reduces the video bandwidth on the analyzer until the modulation of the signal is filtered out. At this point the analyzer is set into the linear mode and the scan time is reduced.

## TEST METHODS

The radiated emissions data of the Home Alarm System, BHS-FOB Transmitter, was taken with the HP Spectrum Analyzer. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the "Sample Calculations". The corrected data was then compared to the FCC Part 15, Subpart C emissions limits to determine compliance.

Preliminary and final measurements were taken in order to better ensure that all emissions from the EUT were found and maximized.

### Radiated Emissions Testing

During the preliminary radiated scan, the EUT was powered up and operating in its defined FCC test mode facing the antenna. The frequency range of 30 MHz - 88 MHz was then scanned with the biconical antenna located about 1.5 meter above the ground plane in the vertical configuration. During this scan, the turntable was rotated and all peaks which were at or near the limit were recorded. The frequency range of 100 - 300 MHz was scanned with the biconical antenna in the same manner, and the peaks recorded. Lastly, a scan of the FM band from 88 - 110 MHz was made, using a reduced resolution bandwidth and a reduced frequency span. The biconical antenna was changed to the horizontal polarity and the above steps were repeated. After changing to the log periodic antenna in the horizontal configuration, the frequency range of 300 - 1000 MHz was scanned. The log periodic antenna was changed to the vertical polarity and the frequency range of 300 - 1000 MHz was again scanned. The horn antenna was used to scan for frequencies above 1000 MHz. Care was taken to ensure that no frequencies were missed within the FM and TV bands. An analysis was performed to determine if the signals that were at or near the limit were caused by an ambient transmission. If unable to determine by analysis, the equipment was powered down to make the final determination if the EUT was the source of the emission.

For the final radiated scan, the equipment was again positioned facing the antenna. A thorough scan of all frequencies was manually made using a small frequency span, rotating the turntable as needed. Comparison with the previously recorded measurements was then made.

Using the peak readings from both scans as a guide, the test engineer then maximized the readings with respect to the table rotation and antenna height. Maximizing of the EUT was achieved by monitoring the spectrum analyzer on a closed circuit television monitor while the EUT was being moved and rearranged on the EUT table for maximum emissions. Photographs showing the final worst case configuration of the EUT are contained in Appendix A.

## SAMPLE CALCULATIONS

The basic spectrum analyzer reading was converted using correction factors as shown in the six highest emissions readings in Tables 1 and 2. For radiated emissions in dB $\mu$ V/m, the spectrum analyzer reading in dB $\mu$ V was corrected by using the following formula:

Meter reading (dB $\mu$ V)  
 + Antenna Factor (dB)  
 + Cable Loss (dB)  
 - Distance Correction (dB)  
 - Pre-amplifier Gain (dB)  
 = Corrected Reading(dB $\mu$ V/m)

This reading was then compared to the applicable specification limit to determine compliance.

A typical data sheet will display the following in column format:

#	Freq MHz	Rdng dB $\mu$ V	Cable	Amp.	Bicon	Horn	Log	Avg F	Dist	Corr dB $\mu$ V/m	Spec	Margin	Polar
---	-------------	--------------------	-------	------	-------	------	-----	-------	------	----------------------	------	--------	-------

# means reading number

**Freq MHz** is the frequency in MHz of the obtained reading.

**Rdng dB $\mu$ V** is the reading obtained on the spectrum analyzer in dB $\mu$ V.

**Amp.** is short for the preamplifier factor or gain in dB.

**Bicon** is the biconical antenna factor in dB.

**Log** is the log periodic antenna factor in dB.

**Horn** is the horn antenna factor in dB.

**Cable** is the cable loss in dB of the coaxial cable on the OATS.

**Avg F** is the duty cycle factor.

**Dist** is the distance factor (in dB). It is used when testing at a different test distance than the one stated in the spec.

**Corr dB $\mu$ V/m** is the corrected reading which is now in dB $\mu$ V/m (field strength).

**Spec** is the specification limit (dB) stated in the agency's regulations.

**Margin** is the closeness to the specified limit in dB; + is over and - is under the limit.

**Polar** is the Polarity of the antenna with respect to earth.

## TRANSMITTER CHARACTERISTICS

### **Frequency Range of Transmitter: 315 MHz**

In accordance with Part 15.231(b), the field strength of the emissions for periodic operation in the band above 70 MHz did not exceed the limits specified in 15.231(b) at 3 meters. For average emission measurements the provisions in 15.35 for averaging pulsed emissions and for limiting peak emissions were applied.

**APPENDIX A**  
**INFORMATION ABOUT THE EQUIPMENT UNDER TEST**

**INFORMATION ABOUT THE EQUIPMENT UNDER TEST**

Test Software/Firmware:	
CRT was displaying:	
Power Supply Manufacturer:	
Power Supply Part Number:	
AC Line Filter Manufacturer:	
AC Line Filter Part Number:	
The EUT has no power cord.	

<b>I/O PORTS</b>	
Type	#

<b>CRYSTAL OSCILLATORS</b>	
Type	Freq. In MHz

<b>PRINTED CIRCUIT BOARDS</b>				
Function	Model & Rev	Clocks, MHz	Layers	Location
RF Transmitter	BHS-FOB Transmitter Rev. A		1	

<b>REQUIRED EUT CHANGES TO COMPLY:</b>	
None.	

**APPENDIX B**  
**MEASUREMENT DATA SHEETS**

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest Rd, Barn • Mariposa, CA 95338 • (800)-500-4EMC

Customer: **Sentrol/Scantronics** Date: **Apr-20-98**  
 Specification: **FCC 15.231 Spurious Emission** Time: **12:28**  
 Test Type: **Maximized Emissions** Sequence#: **3**  
 Equipment: **Home Alarm System**  
 Manufacturer: Sentrol/Scantronics Tested By: Craig Mullis  
 Model: BHS-FOB TRANSMITTER  
 S/N: See below

***Equipment Under Test (\* = EUT):***

Function	Manufacturer	Model #	S/N
Transmitter	Sentrol	BHS-FOB/XMTR	

***Support Devices:***

Function	Manufacturer	Model #	S/N
None			

***Test Conditions / Notes:***

Transmitter located on turntable. Operating in TRANSMIT mode.

***Measurement Data:***

Sorted by Margin

Test Distance: 3 Meters

#	Freq MHz	Rdng dB $\mu$ V	Avg F dB	Log S dB	Pream dB	Barn dB	Dist dB	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar
1	945.013	61.9		+23.9	-27.2	+6.5	+0.0	56.3	61.9	-5.6	Horiz
			-8.8								
	Flat										
2	630.028	65.5		+20.3	-28.2	+5.2	+0.0	54.0	61.9	-7.9	Horiz
			-8.8								
	Flat										
3	945.014	59.1		+23.9	-27.2	+6.5	+0.0	53.5	61.9	-8.4	Horiz
			-8.8								
	Side										
4	315.056	75.6		+21.6	-26.9	+3.5	+0.0	65.0	74.9	-9.9	Vert
			-8.8								
	End										
5	945.017	57.2		+23.9	-27.2	+6.5	+0.0	51.6	61.9	-10.3	Vert
			-8.8								
	End										
6	315.053	74.3		+21.6	-26.9	+3.5	+0.0	63.7	74.9	-11.2	Horiz
			-8.8								
	Flat										
7	630.039	62.1		+20.3	-28.2	+5.2	+0.0	50.6	61.9	-11.3	Vert
			-8.8								
	End										

8	315.054	74.0	+21.6	-26.9	+3.5	+0.0	63.4	74.9	-11.5	Vert
			-8.8							
Side										
9	630.038	60.2	+20.3	-28.2	+5.2	+0.0	48.7	61.9	-13.2	Horiz
			-8.8							
Side										
10	315.054	72.0	+21.6	-26.9	+3.5	+0.0	61.4	74.9	-13.5	Horiz
			-8.8							
Side										
11	945.018	53.2	+23.9	-27.2	+6.5	+0.0	47.6	61.9	-14.3	Vert
			-8.8							
Side										
12	315.053	69.5	+21.6	-26.9	+3.5	+0.0	58.9	74.9	-16.0	Horiz
			-8.8							
End										
13	945.024	50.9	+23.9	-27.2	+6.5	+0.0	45.3	61.9	-16.6	Horiz
			-8.8							
End										
14	630.038	56.8	+20.3	-28.2	+5.2	+0.0	45.3	61.9	-16.6	Vert
			-8.8							
Side										
15	630.041	56.5	+20.3	-28.2	+5.2	+0.0	45.0	61.9	-16.9	Horiz
			-8.8							
End										
16	945.015	48.6	+23.9	-27.2	+6.5	+0.0	43.0	61.9	-18.9	Vert
			-8.8							
Flat										
17	630.032	54.1	+20.3	-28.2	+5.2	+0.0	42.6	61.9	-19.3	Vert
			-8.8							
Flat										
18	315.045	62.2	+21.6	-26.9	+3.5	+0.0	51.6	74.9	-23.3	Vert
			-8.8							
Flat										

Test Location: CKC Laboratories, Inc. • 5473A Clouds Rest Rd, Barn • Mariposa, CA 95338 • (800)-500-4EMC

Customer: **Sentrol/Scantronics** Date: Apr-20-98  
 Specification: **FCC 15.231 Spurious Emission** Time: 12:14  
 Test Type: **Maximized Emissions** Sequence#: 4  
 Equipment: **Home Alarm System**  
 Manufacturer: Sentrol/Scantronics Tested By: Craig Mullis  
 Model: BHS-FOB TRANSMITTER  
 S/N: See below

***Equipment Under Test (\* = EUT):***

Function	Manufacturer	Model #	S/N
Transmitter	Sentrol	BHS-FOB/XMTR	

***Support Devices:***

Function	Manufacturer	Model #	S/N
None			

***Test Conditions / Notes:***

Transmitter located on turntable. Operating in TRANSMIT mode.

Measurement Data: Sorted by Margin				Test Distance: 3 Meters							
#	Freq MHz	Rdng dB $\mu$ V	PreAm dB	Barn dB	Horn dB	Avg F dB	Dist dB	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar
1	2204.934	67.5	-35.6	+8.9	+29.2	-8.8	+0.0	61.2	61.9	-0.7	Horiz
Side											
2	2204.870	67.1	-35.6	+8.9	+29.2	-8.8	+0.0	60.8	61.9	-1.1	Horiz
Flat											
3	2204.898	67.1	-35.6	+8.9	+29.2	-8.8	+0.0	60.8	61.9	-1.1	Vert
End											
4	1889.843	71.1	-35.7	+7.0	+27.0	-8.8	+0.0	60.6	61.9	-1.3	Horiz
Side											
5	2519.932	61.3	-35.4	+11.3	+31.2	-8.8	+0.0	59.6	61.9	-2.3	Vert
End											
6	1889.828	69.7	-35.7	+7.0	+27.0	-8.8	+0.0	59.2	61.9	-2.7	Horiz
Flat											
7	1259.903	73.2	-36.0	+5.9	+24.8	-8.8	+0.0	59.1	61.9	-2.8	Horiz
Flat											

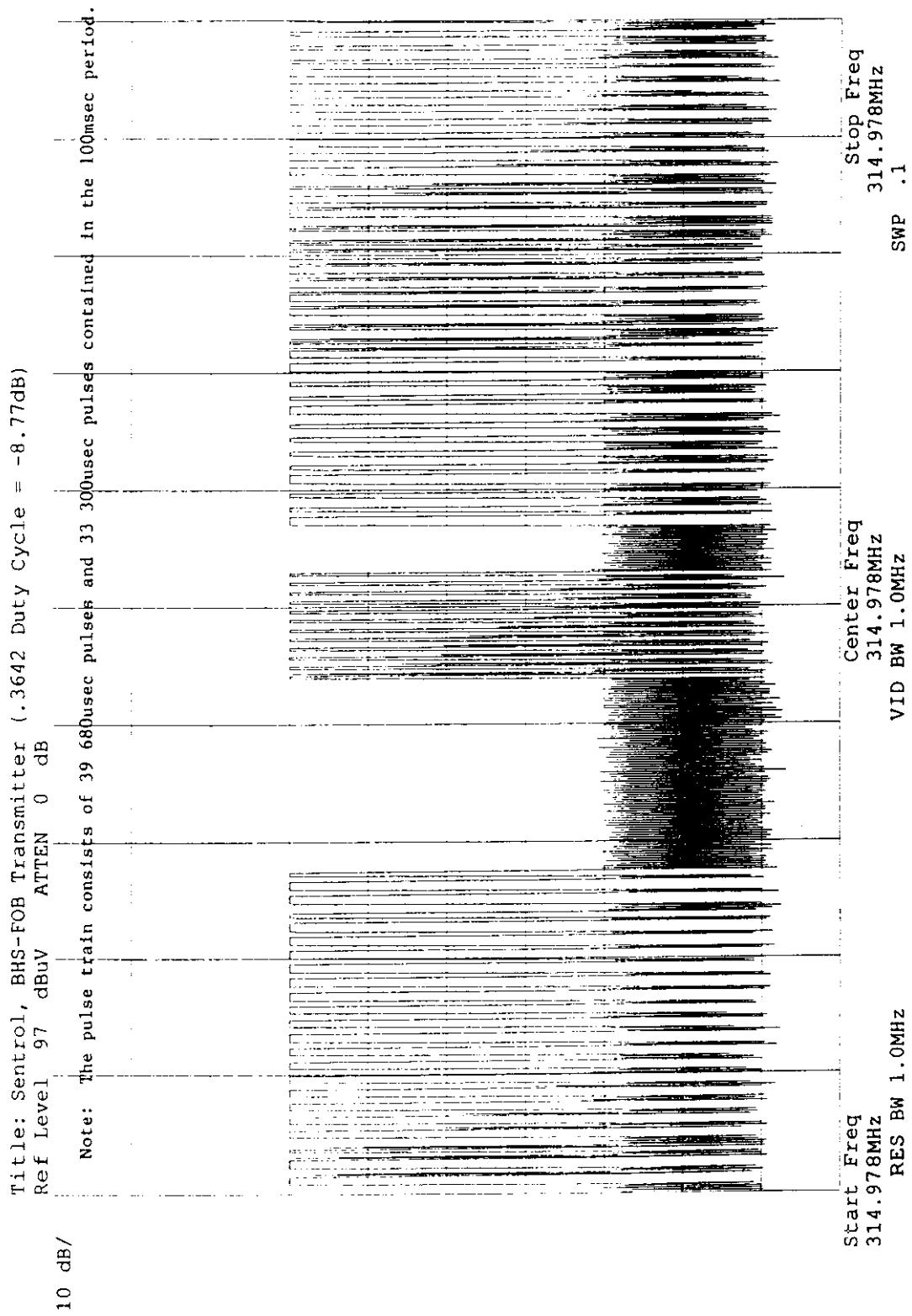


8	2519.832	60.3	-35.4	+11.3	+31.2	-8.8	+0.0	58.6	61.9	-3.3	Horiz
Flat											
9	1889.943	68.6	-35.7	+7.0	+27.0	-8.8	+0.0	58.1	61.9	-3.8	Vert
End											
10	3149.800	56.0	-34.9	+13.2	+32.1	-8.8	+0.0	57.6	61.9	-4.3	Horiz
Flat											
11	1259.888	69.8	-36.0	+5.9	+24.8	-8.8	+0.0	55.7	61.9	-6.2	Horiz
Side											
12	1259.888	69.6	-36.0	+5.9	+24.8	-8.8	+0.0	55.5	61.9	-6.4	Vert
End											
13	2519.982	56.8	-35.4	+11.3	+31.2	-8.8	+0.0	55.1	61.9	-6.8	Vert
Side											
14	2834.898	54.5	-35.3	+12.7	+31.6	-8.8	+0.0	54.7	61.9	-7.2	Vert
Side											
15	2834.932	54.4	-35.3	+12.7	+31.6	-8.8	+0.0	54.6	61.9	-7.3	Horiz
End											
16	3149.820	52.1	-34.9	+13.2	+32.1	-8.8	+0.0	53.7	61.9	-8.2	Vert
End											
17	3149.988	52.0	-34.9	+13.2	+32.1	-8.8	+0.0	53.6	61.9	-8.3	Vert
Side											
18	3149.888	51.9	-34.9	+13.2	+32.1	-8.8	+0.0	53.5	61.9	-8.4	Vert
Flat											
19	1259.853	67.0	-36.0	+5.9	+24.8	-8.8	+0.0	52.9	61.9	-9.0	Vert
Side											
20	1574.918	65.2	-35.8	+6.5	+25.3	-8.8	+0.0	52.4	61.9	-9.5	Horiz
Side											
21	1574.928	65.0	-35.8	+6.5	+25.3	-8.8	+0.0	52.2	61.9	-9.7	Horiz
Flat											
22	2204.900	58.1	-35.6	+8.9	+29.2	-8.8	+0.0	51.8	61.9	-10.1	Horiz
End											
23	3149.776	50.1	-34.9	+13.2	+32.1	-8.8	+0.0	51.7	61.9	-10.2	Horiz
End											
24	2834.836	51.3	-35.3	+12.7	+31.6	-8.8	+0.0	51.5	61.9	-10.4	Horiz
Flat											

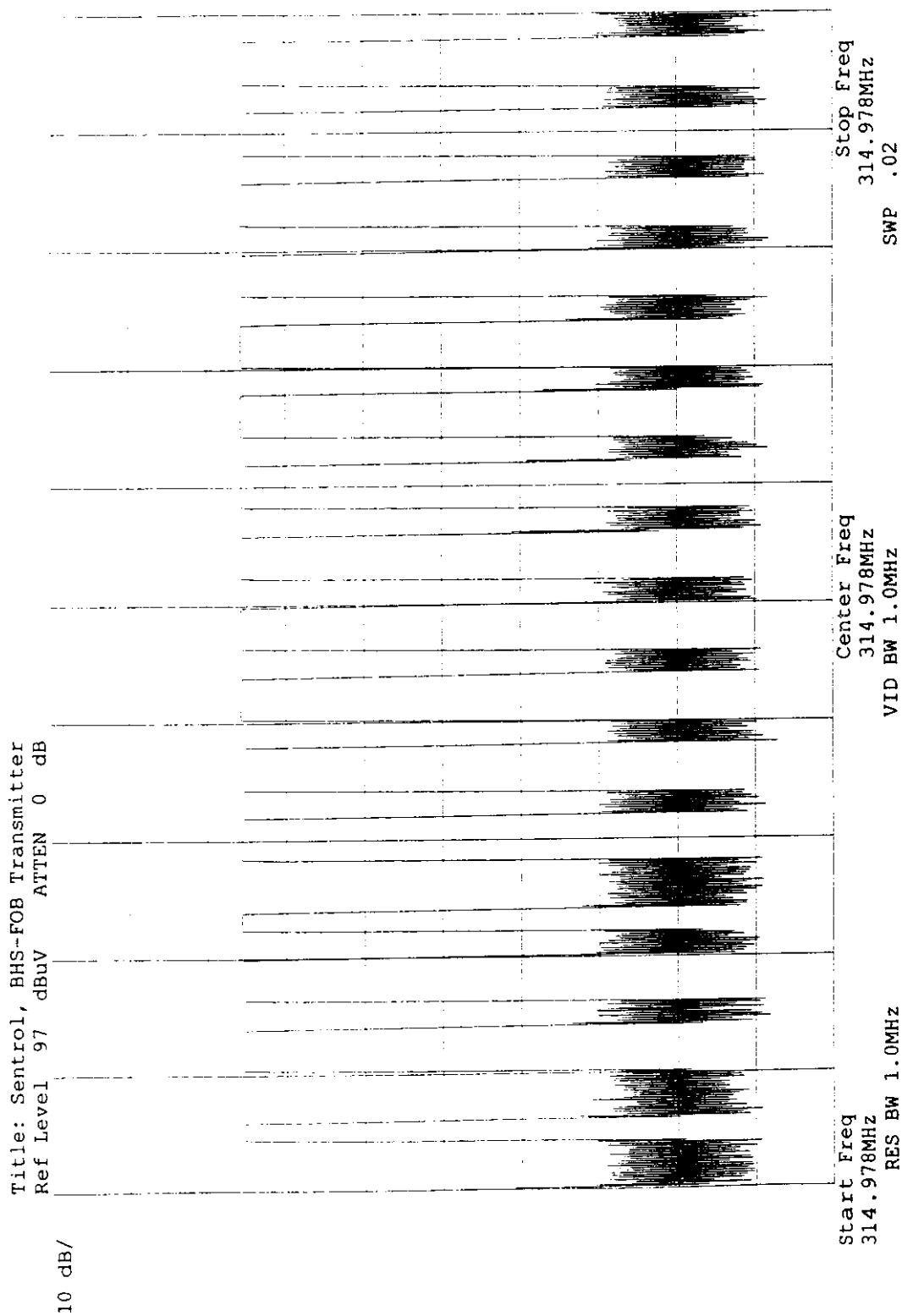
25	2519.928	53.1	-35.4	+11.3	+31.2	-8.8	+0.0	51.4	61.9	-10.5	Horiz
Side											
26	2519.828	52.2	-35.4	+11.3	+31.2	-8.8	+0.0	50.5	61.9	-11.4	Horiz
End											
27	2834.780	50.3	-35.3	+12.7	+31.6	-8.8	+0.0	50.5	61.9	-11.4	Vert
End											
28	1574.908	63.2	-35.8	+6.5	+25.3	-8.8	+0.0	50.4	61.9	-11.5	Vert
End											
29	2834.700	50.0	-35.3	+12.7	+31.6	-8.8	+0.0	50.2	61.9	-11.7	Vert
Flat											
30	2519.836	51.8	-35.4	+11.3	+31.2	-8.8	+0.0	50.1	61.9	-11.8	Vert
Flat											
31	2204.898	56.1	-35.6	+8.9	+29.2	-8.8	+0.0	49.8	61.9	-12.1	Vert
Flat											
32	1574.933	62.3	-35.8	+6.5	+25.3	-8.8	+0.0	49.5	61.9	-12.4	Vert
Side											
33	1889.928	59.9	-35.7	+7.0	+27.0	-8.8	+0.0	49.4	61.9	-12.5	Vert
Side											
34	2834.808	49.1	-35.3	+12.7	+31.6	-8.8	+0.0	49.3	61.9	-12.6	Horiz
Side											
35	3149.868	47.1	-34.9	+13.2	+32.1	-8.8	+0.0	48.7	61.9	-13.2	Horiz
Side											
36	1259.853	62.8	-36.0	+5.9	+24.8	-8.8	+0.0	48.7	61.9	-13.2	Vert
Flat											
37	1889.793	58.4	-35.7	+7.0	+27.0	-8.8	+0.0	47.9	61.9	-14.0	Vert
Flat											
38	2204.898	51.6	-35.6	+8.9	+29.2	-8.8	+0.0	45.3	61.9	-16.6	Vert
Side											
39	1889.658	55.4	-35.7	+7.0	+27.0	-8.8	+0.0	44.9	61.9	-17.0	Horiz
End											
40	1574.998	57.5	-35.8	+6.5	+25.3	-8.8	+0.0	44.7	61.9	-17.2	Horiz
End											
41	2205.000	50.3	-35.6	+8.9	+29.2	-8.8	+0.0	44.0	61.9	-17.9	Horiz

42	1260.013	58.0	-36.0	+5.9	+24.8	-8.8	+0.0	43.9	61.9	-18.0	Horiz
End											
43	1575.003	53.6	-35.8	+6.5	+25.3	-8.8	+0.0	40.8	61.9	-21.1	Vert
Flat											

**Pulse Train Plot Part 15.35(c)**

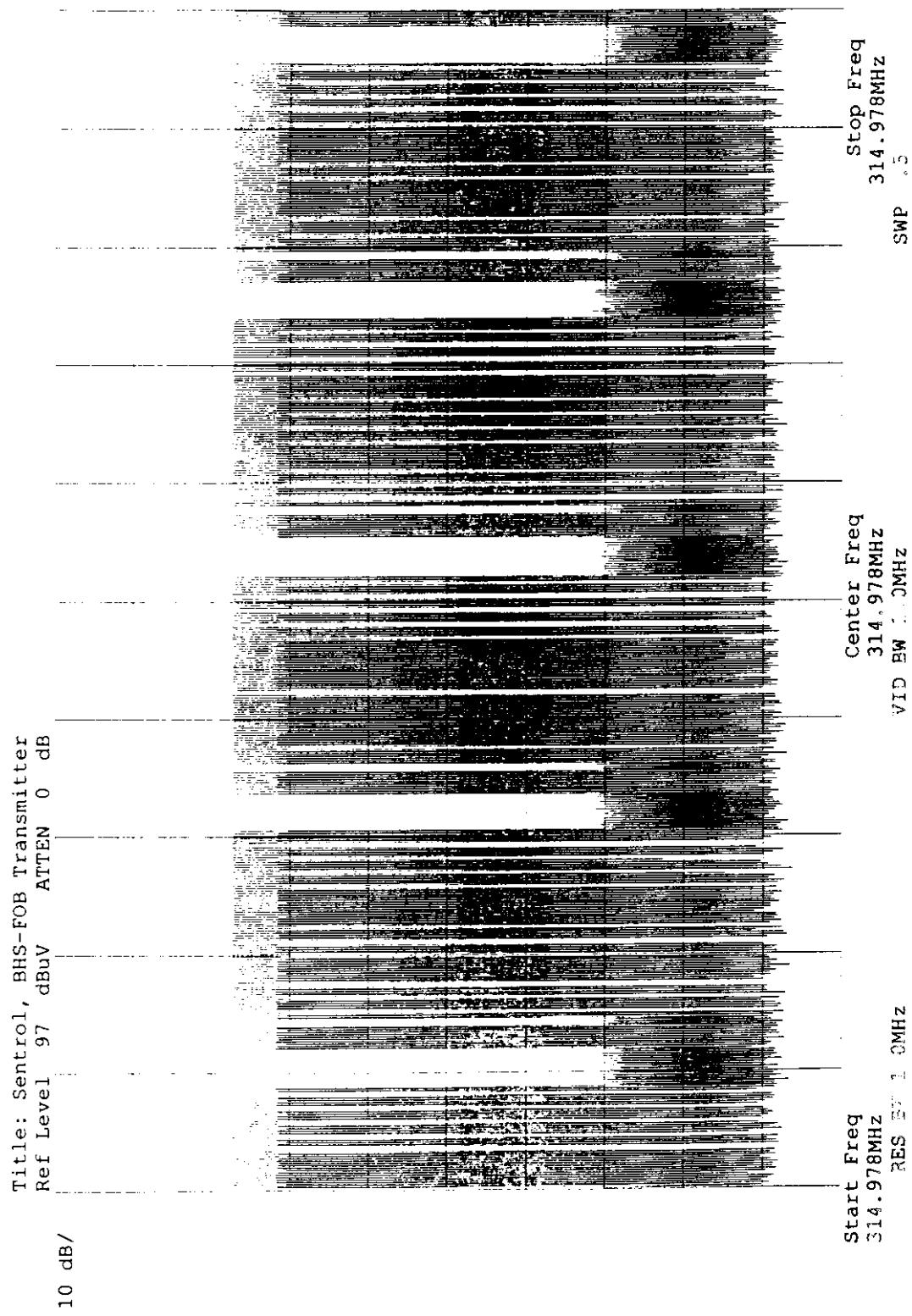


Pulse Train Plot Part 15.35(c)





## Pulse Train Plot Part 15.35(c)



Page 2 of 2  
Report No.