Accredited Since 1993

QUALIFICATION TEST REPORT

EMISSIONS -FCC Part 15

Test Report Number: FPT9905 2401 Date of Issue: 3 June 1999
Model No: 71577 Infant to Toddler Monitor Date of Test Article Receipt: 25 May 1999
Type of product: Part 15.249 Intentional Radiator, Part 15 Subpart B Unintentional Radiator

Manufacturer: Fisher Price

Address: 636 Girard Avenue

East Aurora, New York 14052

Test Results: [**X**] Complies [ ] Does Not Comply

R. Barry Wallen Lab Director
(NVLAP Signatory)

Michael Mussler Compliance Engineer

Accredited by NIST NVLAP for FCC Part 15

Disclaimers:

This report is the confidential property of the client. For the protection of our clients and ourselves, extracts from this test report cannot be produced without prior written approval from Criterion Technology. Reproduction of the complete report can be performed at the client's discretion.

The client is aware that Criterion Technology has performed testing in accordance with the applicable standard(s). Test data is accurate within ANSI parameters for Emissions testing, unless a specific level of accuracy has been defined in writing prior to testing, by Criterion Technology and the client.

Criterion Technology reports apply only to the specific Equipment Under Test (EUT) sample(s) tested under the test conditions described in this report. If the manufacturer intends to use this report as a document demonstrating compliance of this model, additional models of this product must have electrical and mechanical characteristics identical to the device tested for this report. Criterion Technology shall have no liability for any deductions, inferences, or generalizations drawn by the client or others from Criterion Technology issued reports.

Total liability is limited to the amount invoiced for the testing of this EUT and the contents of this report are not warranted.

Compliance with the appropriate governmental standards is the responsibility of the manufacturer.
Any questions regarding this report should be directed to:

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Criterion Technology
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Phone: 1-303-682-6600
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email: Laboratory_Director@criteriontech.com

NVLAP Notes:

The **NVLAP Logo** on the front cover of this report applies only to the **47 CFR part 15 and CISPR 22:1993** data contained herein.

This report contains data which are not covered by the NVLAP accreditation.

This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

Criterion Technology has been accredited by the following groups: NVLAP, VCCI, BCIQ, NMi (EU Competent Body Accreditation) and Industry Canada.

All Criterion Technology instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 9001, ISO Guide 25, ANSI/NCSL Z540-I-1994 and are traceable to national standards.

Table of Contents

Section 1 Executive Summary

The test article was in compliance with all the test standards listed below.

FCC Part 15 Subpart A	
FCC Part 15 Subpart B	**Conducted Emissions**
FCC Part 15 Subpart B	**Radiated Emissions**
FCC Part 15 Subpart C	**Intentional Radiators**

All test methods were performed in accordance with the standards listed above.

Section 2 Emissions Test Standards

The emissions tests were performed according to following standards:

FCC Part 15, Subpart B	[ ] Class A	[X] Class B
FCC Part 15, Subpart C	Paragraph 15.247	

Other:

Part 2.1 FCC Part 15 Subpart B - Conducted Emissions

Measurement of *conducted emissions* was performed as indicated below:

Environmental conditions in the lab:

Date(s) of Test:	mm/dd/yy	5/26/99
Temperature:	75°F	
Rel. Humidity	32%	
Test Voltage	[X]120 V, 60Hz [ ] ____V,	Hz

Test location:
[ ] Criterion OATS Test Area
[X] Criterion Shield Room
[ ] Not applicable

Test instruments:		**Calibration Due Date**
[X]	Hewlett Packard Spectrum Analyzer, Model 8566B	7/12/99
[ ]	Hewlett Packard Quasi Peak Adapter, Model 85650A	12/17/99
[X]	Rohde and Schwarz Receiver, Model, ESHS-30	8/26/99
[ ]	Rohde and Schwarz Model Receiver, ESVS-30	9/1/99
[X]	Rohde and Schwarz Model LISN, ESH2-Z5	7/24/99
[ ]	Not applicable	

Test results:

Conducted Emission: 450 kHz - 30 MHz

The requirements are [X] PASS [ ] FAIL [ ] N/A

Min. limit margin, Transmitter 24.3 dB at 14.1550 MHz

Min. limit margin, Receiver 25.0 dB at 0.550 MHz

Max. limit exceeding __ dB at __ MHz

Remarks: Reference Section 4 for data sheets.

Part 2.2 FCC Part 15 Subpart B –Radiated Emissions

Measurement of *radiated emissions (electric* field) in the frequency range of 1 MHz-1000 MHz were tested in a horizontal and vertical polarization as indicated below:

Environmental conditions in the lab:

Date(s) of Test:	mm/dd/yy	5/26/99 6/2/99
Temperature:	72°F	
Rel. Humidity	31%	
Test Voltage	[X]120 V, 60Hz [ ]	____V, Hz

Test location:
[X] Criterion Technology Open Area Test Site
[ ] Pre-Scan In Semi-Anechoic Chamber
[ ] Not applicable

Test distance (antenna - EUT):

[ ]1 meter	[ ]Preliminary Measurement	[ ]Final Measurement
[X]3 meters	[ ]Preliminary Measurement	[X]Final Measurement
[X]10 meters	[X]Preliminary Measurement	[ ]Final Measurement
[ ]30 meters	[ ]Preliminary Measurement	[ ]Final Measurement

[ ]Not applicable

Test instruments:		**Calibration Due Date**
[X]	Hewlett Packard Spectrum Analyzer, Model 8566B	7/12/99
[X]	Hewlett Packard Quasi Peak Adapter, Model 85650A	12/17/99
[ ]	Hewlett Packard Tracking Generator, Model 85645A	5/28/00
[ ]	Rohde and Schwarz Receiver, Model, ESHS-30	8/26/99
[ ]	Rohde and Schwarz Model Receiver, ESVS-30	9/1/99
[ ]	EMCO, BiConnical Antenna, Model 3108	6/1/00
[ ]	EMCO, Log Periodic Antenna, Model 3146	6/1/00
[X]	Chase, BiLog Antenna, Model 1121	6/2/99
[X]	Mini Circuits Pre-Amp	6/1/00
[ ]	Not Applicable	

Test accessories:

[X]	Other	
	Emco Loop Antenna, Model 6502	10/2/99
	Emco Tuned Dipole, Model 3121C Serial 722 (Cal. range 900 - 910 MHz)	6/1/00
[ ]	Not applicable	

Results

Radiated Emissions (Electric Field) 1 MHz - 1000 MHz

The requirements are	[X] PASS	[ ] FAIL	[ ] N/A	
Min. limit margin	6.92 dB	at	892.4740 MHz	
Max. limit exceeding	__ dB	at	__ MHz	

Remarks: Reference Section 4 for Data Sheets

Prescans were performed with the EUT operated on battery and external AC power supply. It was determined that the worse case emissions occurred when the EUT was operated on the AC supply. Likewise the EUT was configured in Channel A and Channel B during the prescan test. It was determined that the worse case levels occurred with the EUT tuned to channel B. The test data shown in this report are for the AC powered EUT operating on Channel B.

Part 2.3 FCC Part 15 Subpart C –Intentional Radiated Fields

Measurement of *radiated emissions (electric* field) in the frequency range of 30 MHz-1000 MHz were tested in a horizontal and vertical polarization as indicated below:

Environmental conditions in the lab:

Date(s) of Test:	mm/dd/yy	5/26/99 6/2/99
Temperature:	72°F	
Rel. Humidity	31%	
Test Voltage	[X]120 V, 60Hz [ ] ____V,	Hz

Test location:
[X] Criterion Technology Open Area Test Site
[ ] Pre-Scan In Semi-Anechoic Chamber
[ ] Not applicable

Test distance (antenna - EUT):

[ ]1 meter	[ ]Preliminary Measurement	[ ]Final Measurement
[X]3 meters	[ ]Preliminary Measurement	[X]Final Measurement
[X]10 meters	[X]Preliminary Measurement	[ ]Final Measurement
[ ]30 meters	[ ]Preliminary Measurement	[ ]Final Measurement

[ ]Not applicable

Test instruments:		**Calibration Due Date**
[X]	Hewlett Packard Spectrum Analyzer, Model 8566B	7/12/99
[X]	Hewlett Packard Quasi Peak Adapter, Model 85650A	12/17/99
[ ]	Hewlett Packard Tracking Generator, Model 85645A	5/28/00
[ ]	Rohde and Schwarz Receiver, Model, ESHS-30	8/26/99
[ ]	Rohde and Schwarz Model Receiver, ESVS-30	9/1//99
[X]	Chase, BiLog Antenna, Model 1121	6/1/00
[X]	Antenna Research, Model 1181A (sn: 1057)	4/8/00
[X]	Amp3 and High Freq. Cable Set	9/30/99
[X]	Mini Circuits Pre-Amp, Amp 2	6/2/99
[X]	EMCO Loop Antenna, Model 6502	10/7/99
[ ]	Not Applicable	

Test accessories:
[X] Other
Emco Tuned Dipole, Model 3121C, Serial 722 (Cal. range 900 - 910 MHz) 6/1/00

[ ] Not applicable

Results

Radiated Emissions (Electric Field) 30 MHz - 1000 MHz

The requirements are [X] PASS [ ] FAIL [ ] N/A

Min. limit margin 0.96 dB at 906.65 MHz

Max. limit exceeding __ dB at __ MHz

Remarks: Reference Section 4 for Data Sheets

Prescans were performed with the EUT operated on battery and external AC power supply. It was determined that the worse case emissions occurred when the EUT was operated on the AC supply.

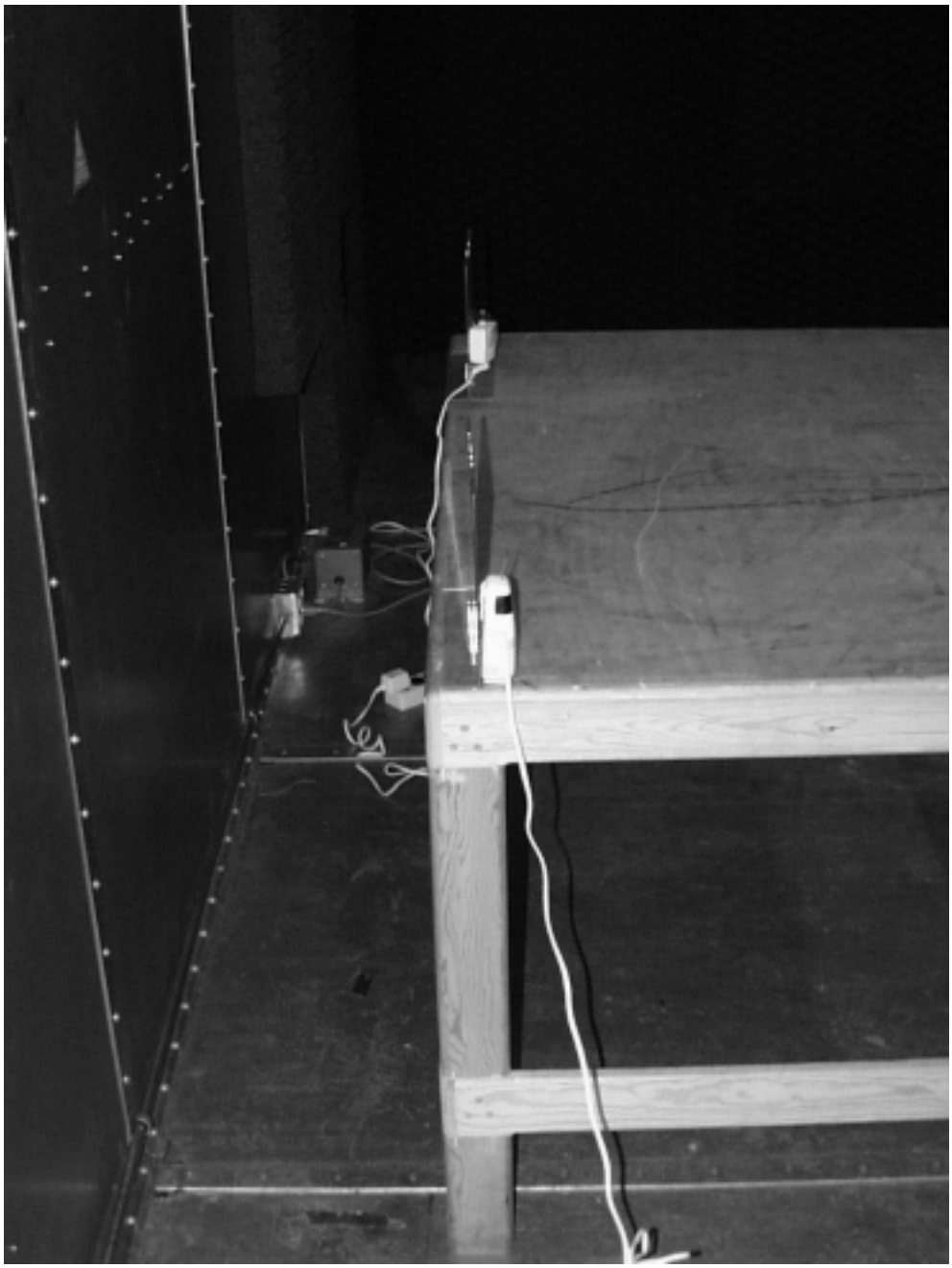
Likewise the EUT was configured in Channel A and Channel B during the prescan test. It was determined that the worse case levels occurred with the EUT tuned to channel B. The test data shown in this report are for the AC powered EUT operating on Channel B.

The EUT passed radiated emission limits at the fundamental frequency (906.65 MHz) following the addition of a ferrite bead on the external cable supplying DC current to the transmitter. The bead was located adjacent to the power plug. The bead used was Steward Magnetics part number 25A2025-0A0. The bead was used to reduce radiated common mode currents on the power cable.

Section 3 Test Setup Photographs

Part 3.1 Conducted Emissions Setup - Front View

Part 3.2 Conducted Emissions Setup - Side View



Part 3.3 Radiated Emissions Setup - 30 Mhz to 10 GHz, Front View

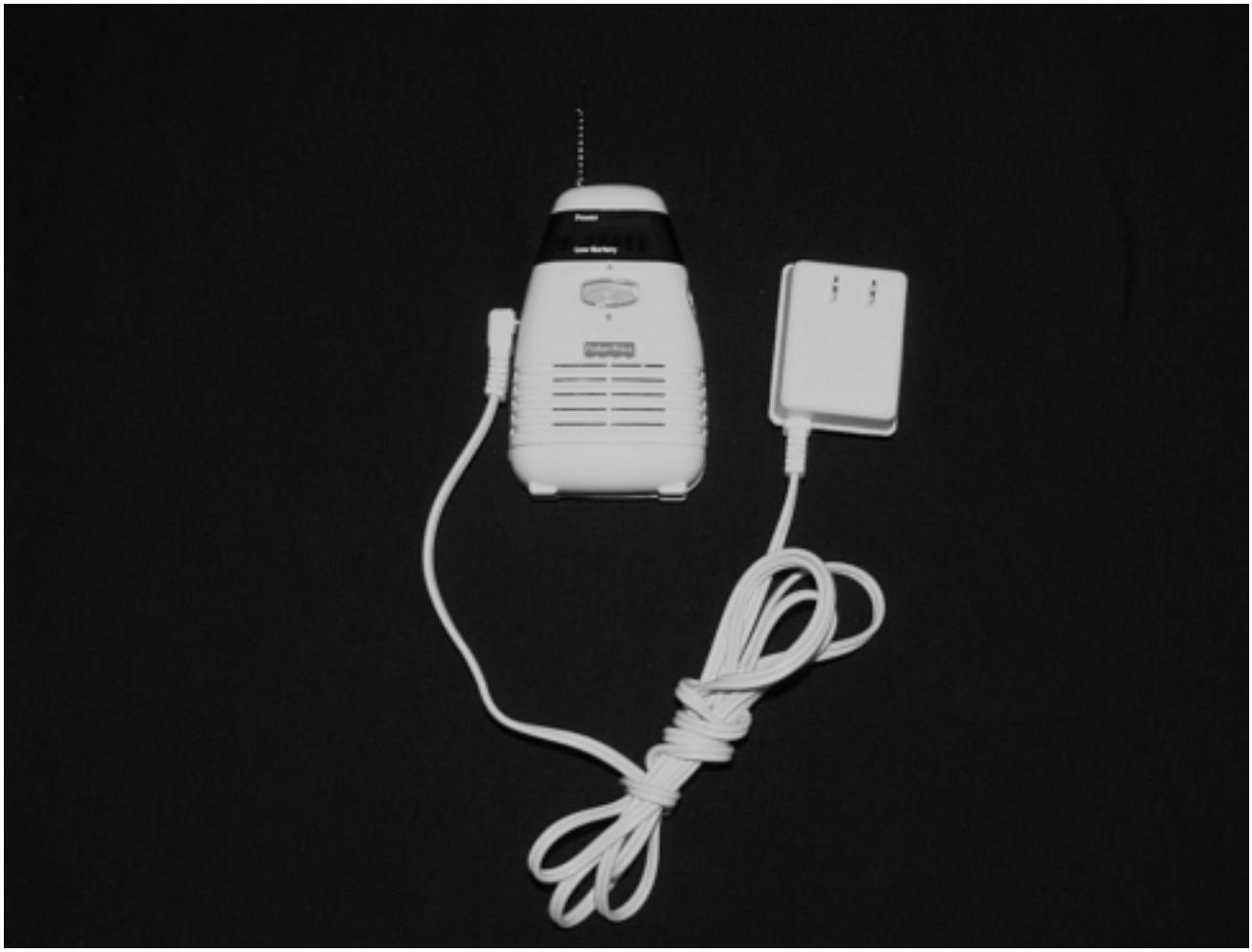
Part 3.4 Radiated Emissions Setup - 30 MHz to 10 GHz, Rear View

Part 3.5 Radiated Emissions, 1 MHz to 30 MHz Setup

Section 4 External and Internal Photos of the EUT

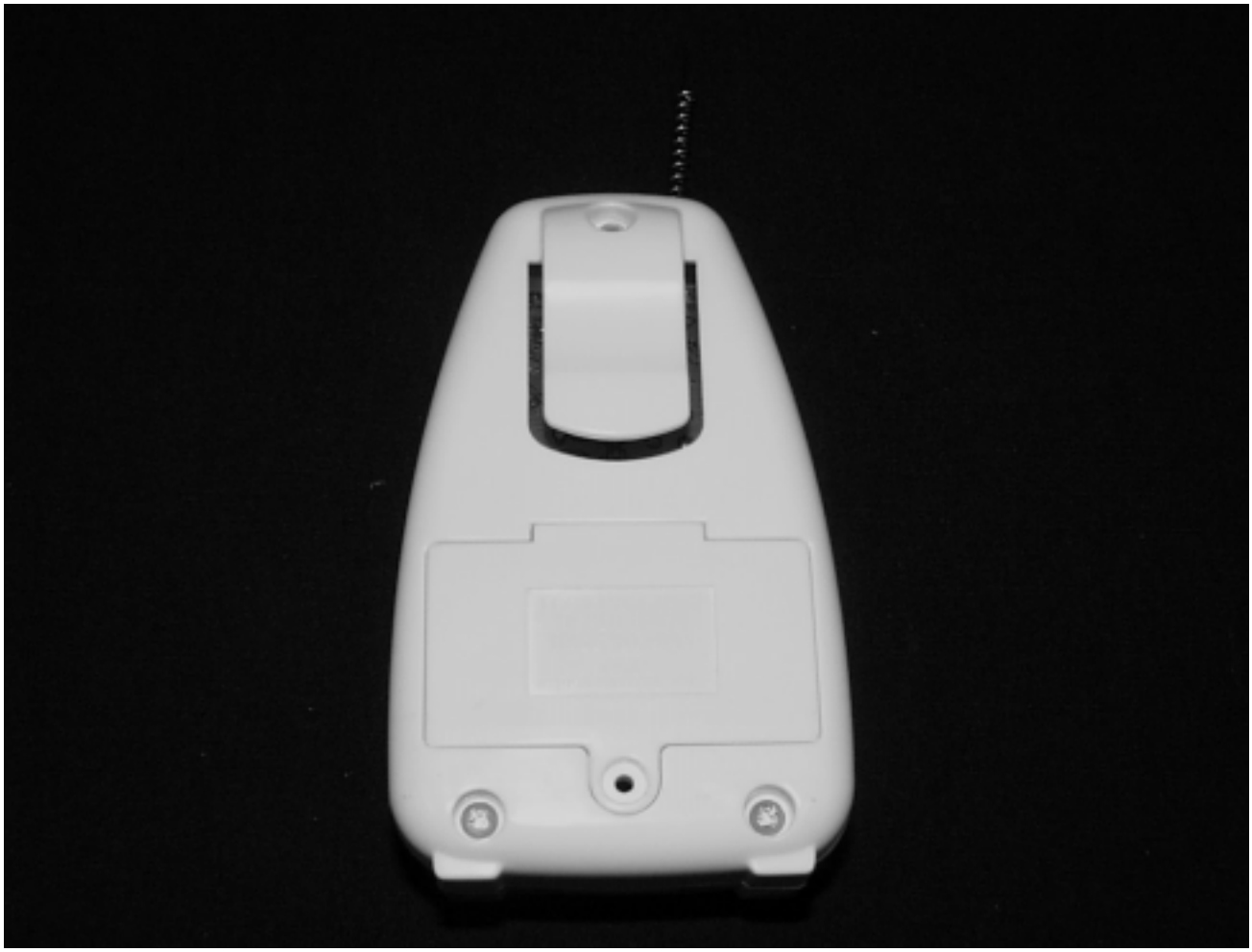
The following sections contain external and internal views of the Model 71577 Monitor system.

Part 4.1 Receiver with External Power Supply

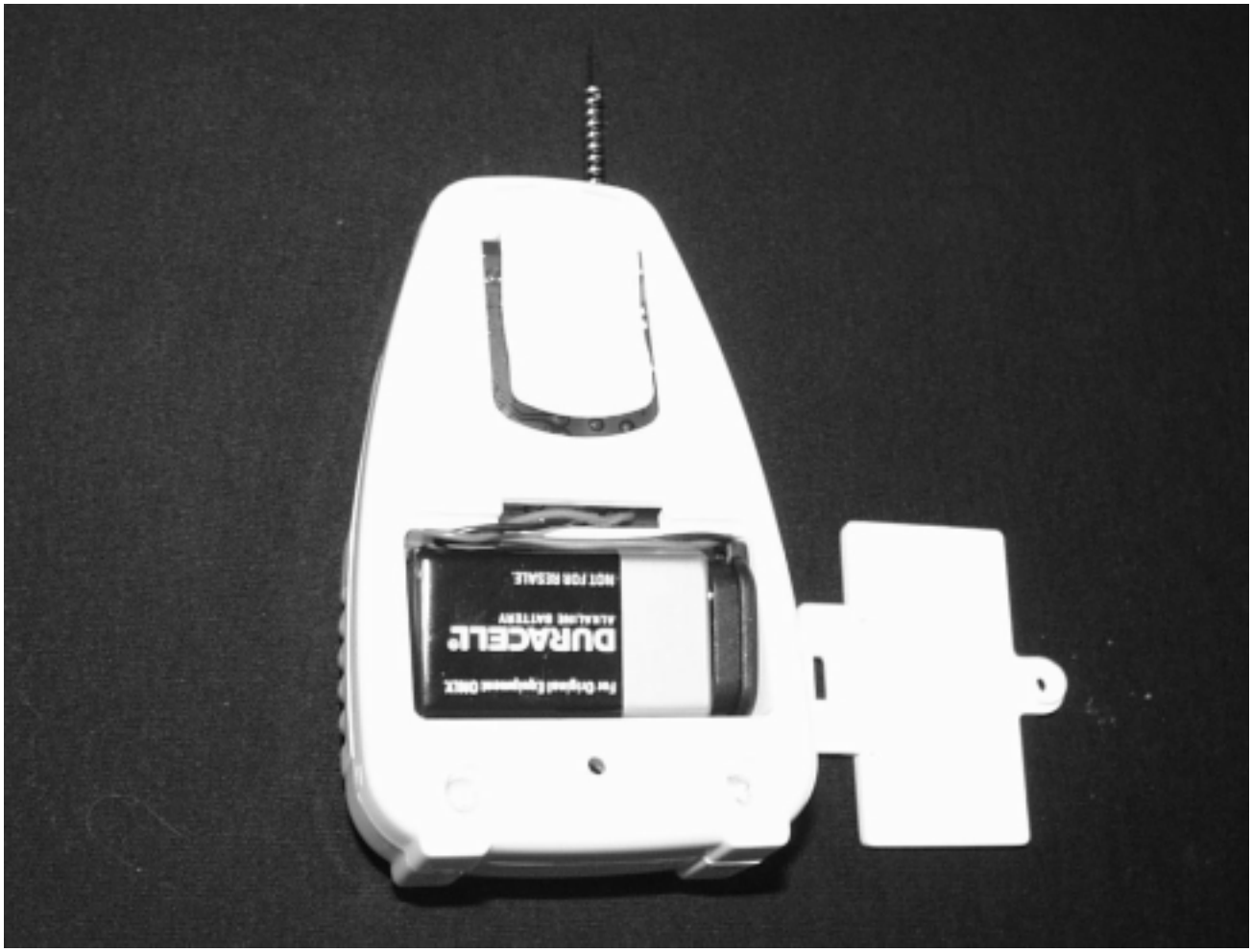


Part 4.2 Receiver, External Front View

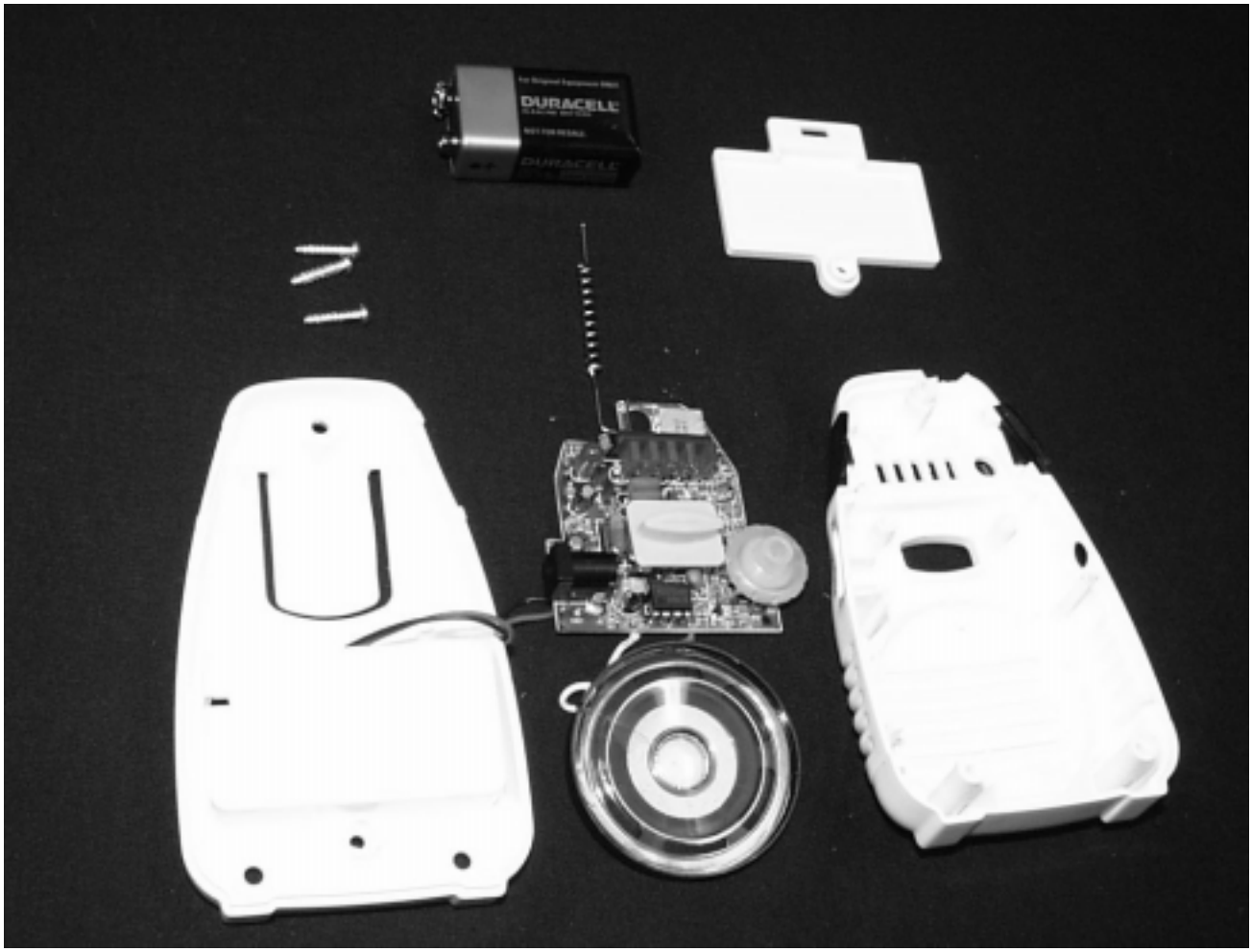
Part 4.3 Receiver, External Rear View



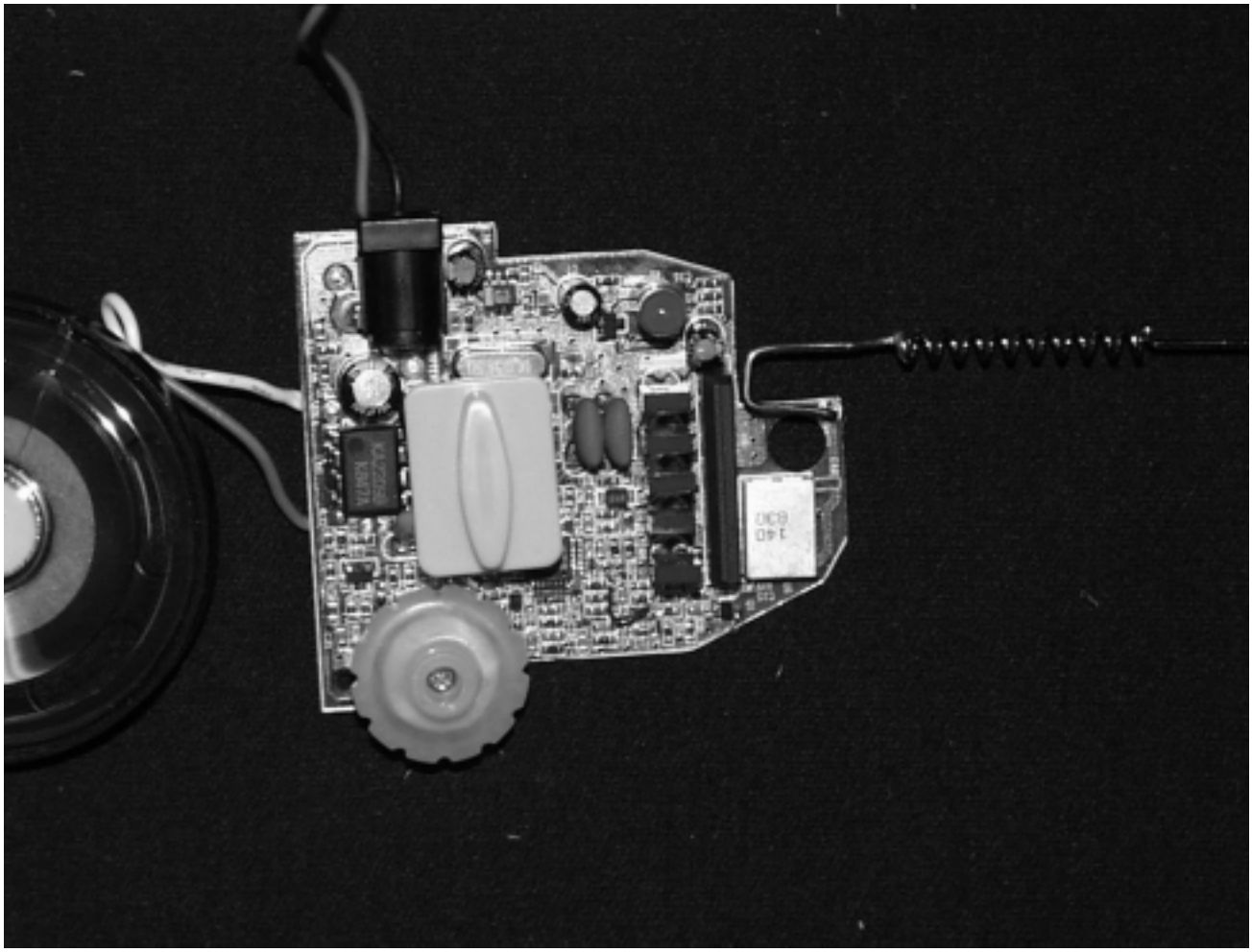
Part 4.4 Receiver, Battery Compartment



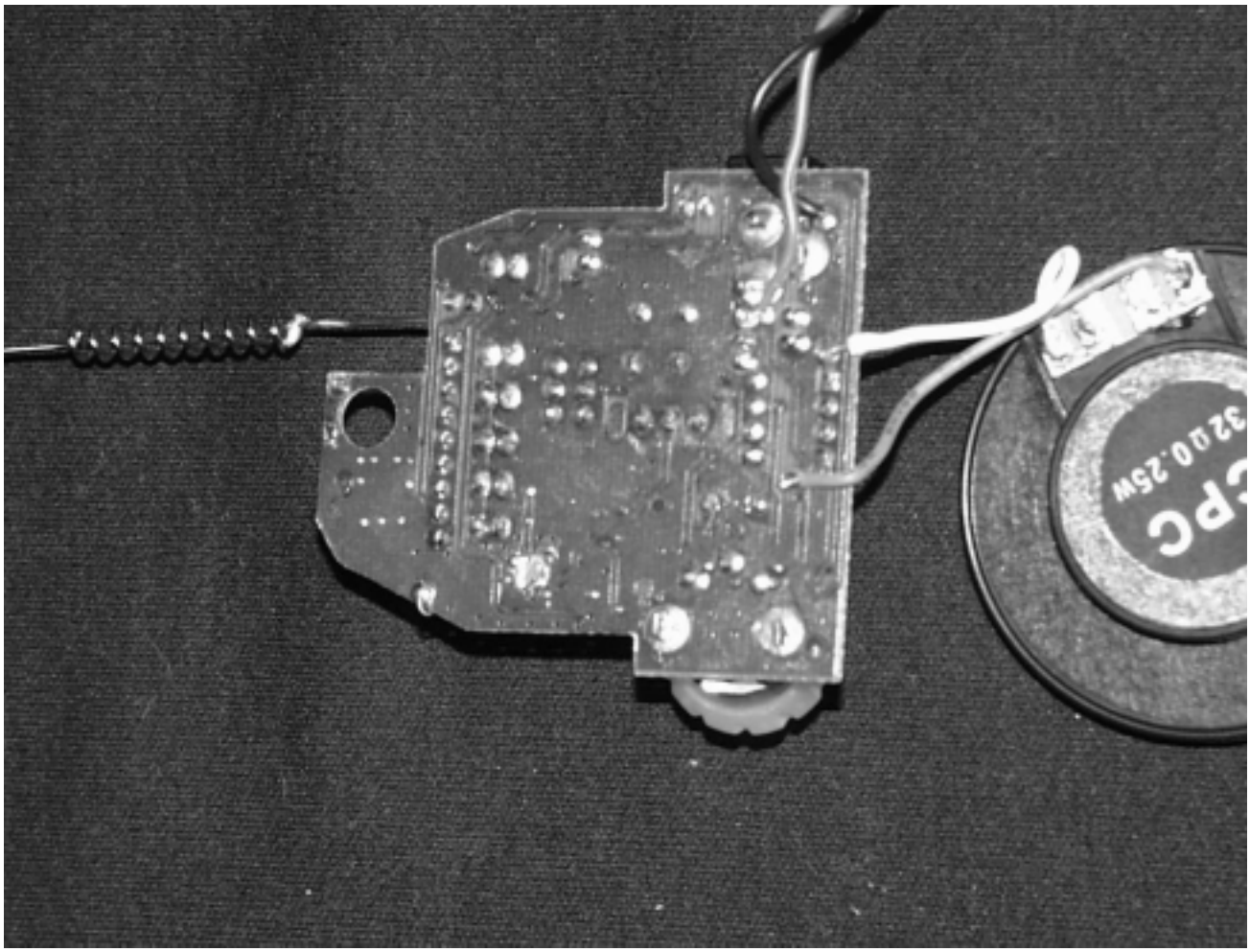
Part 4.5 Receiver, Partially Disassembled



Part 4.6 Receiver, Component Side of PWB



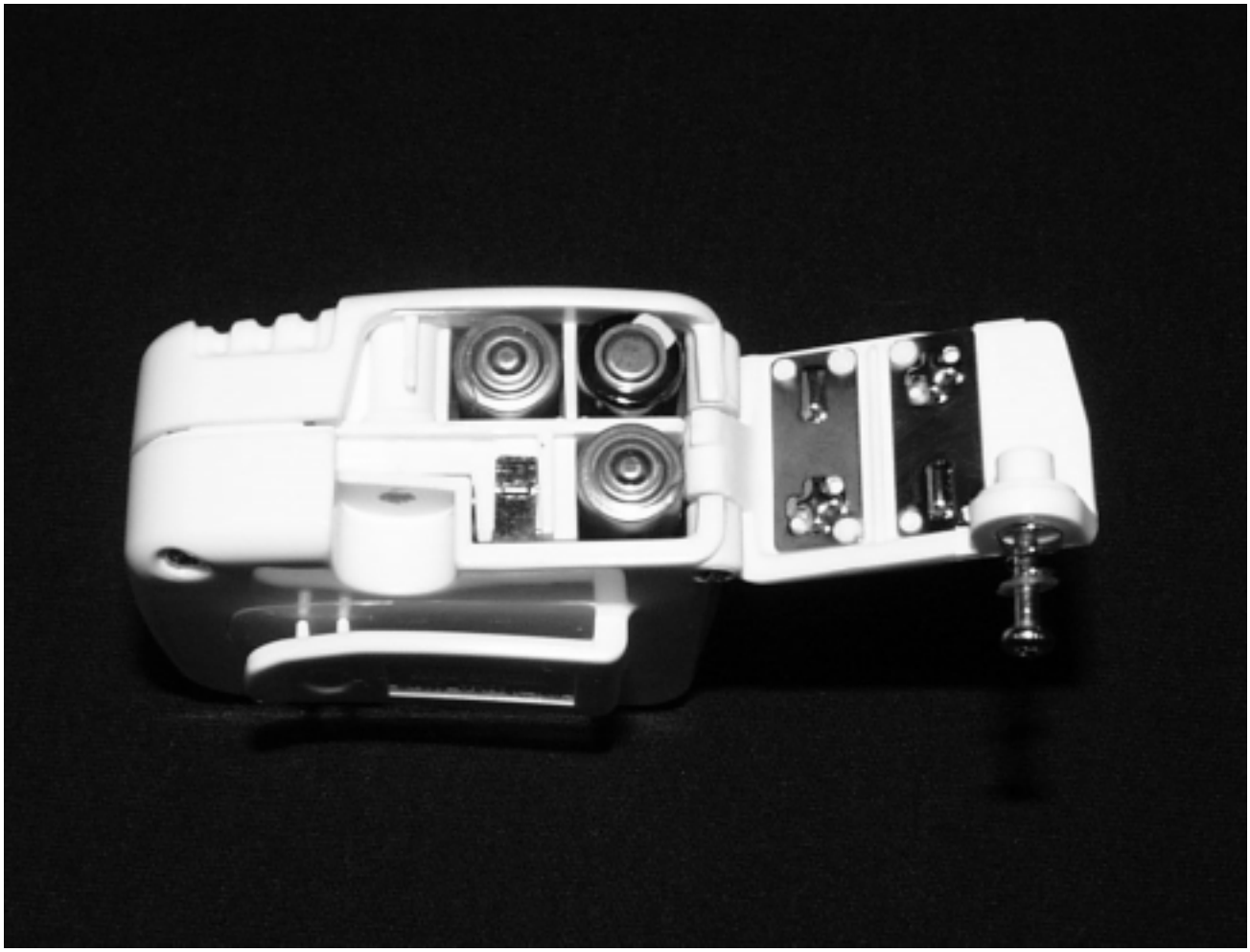
Part 4.7 Receiver, Foil Side of PWB



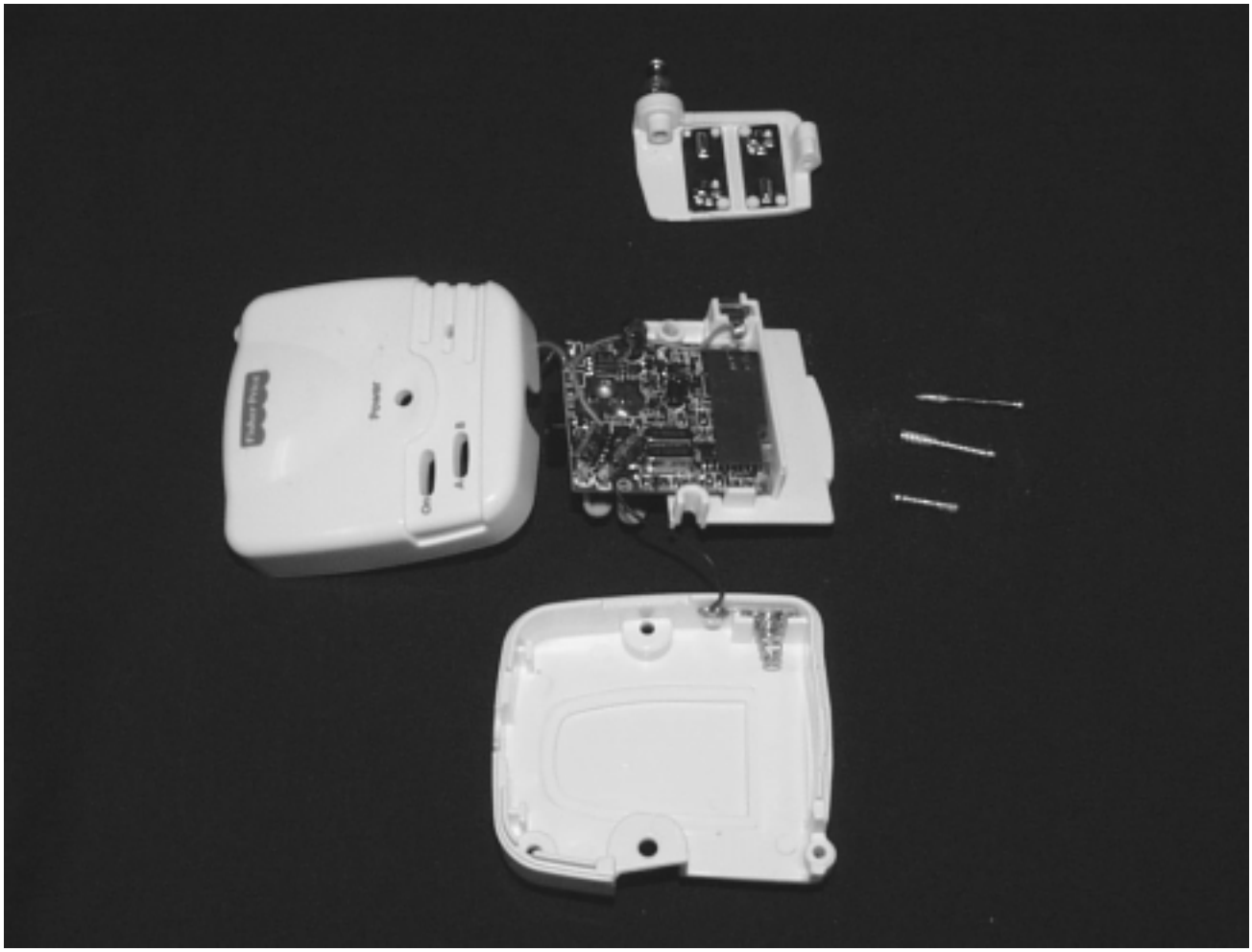
Part 4.8 Transmitter, External Front View

Part 4.9 Transmitter, External Rear View

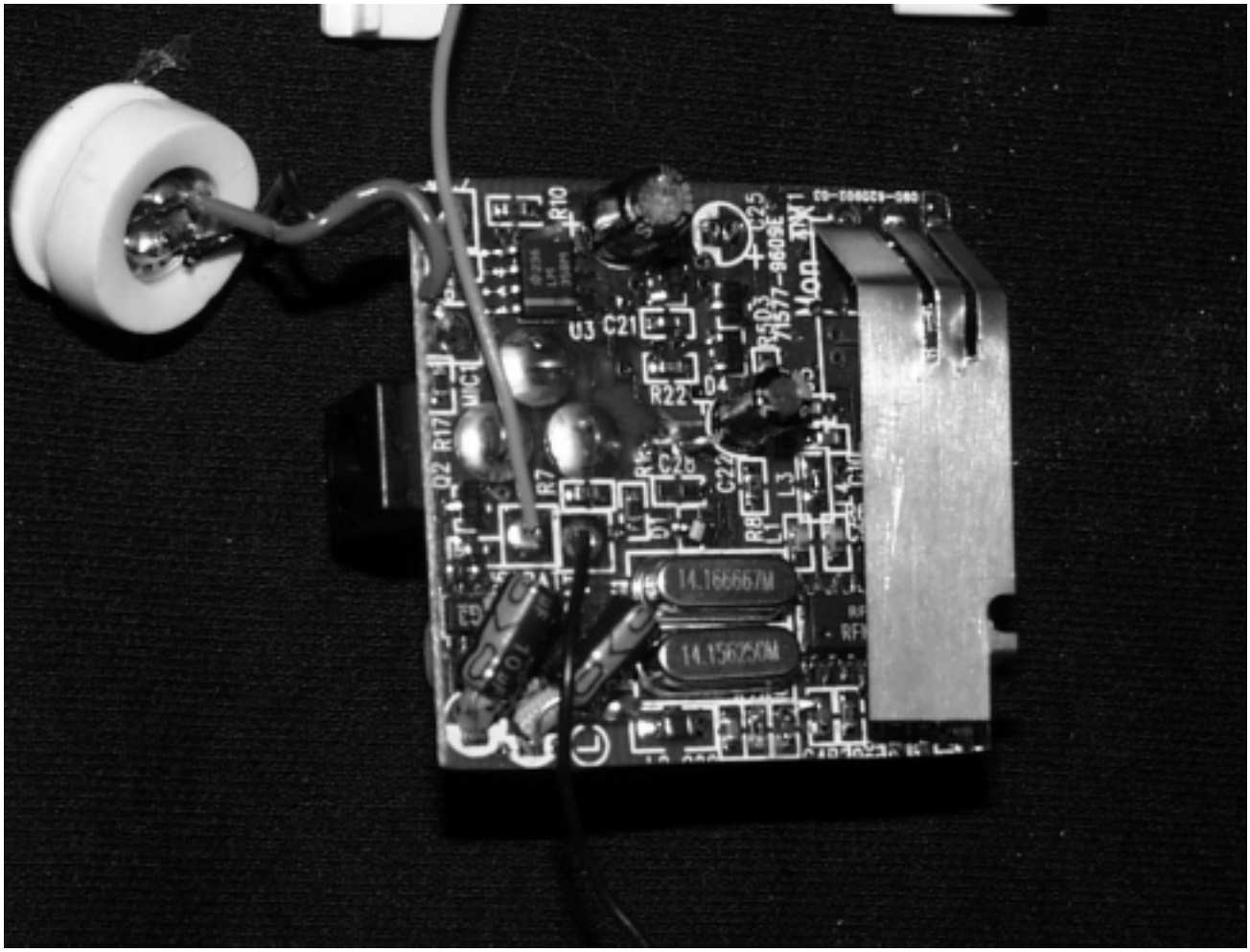
Part 4.10 Transmitter, Battery Compartment



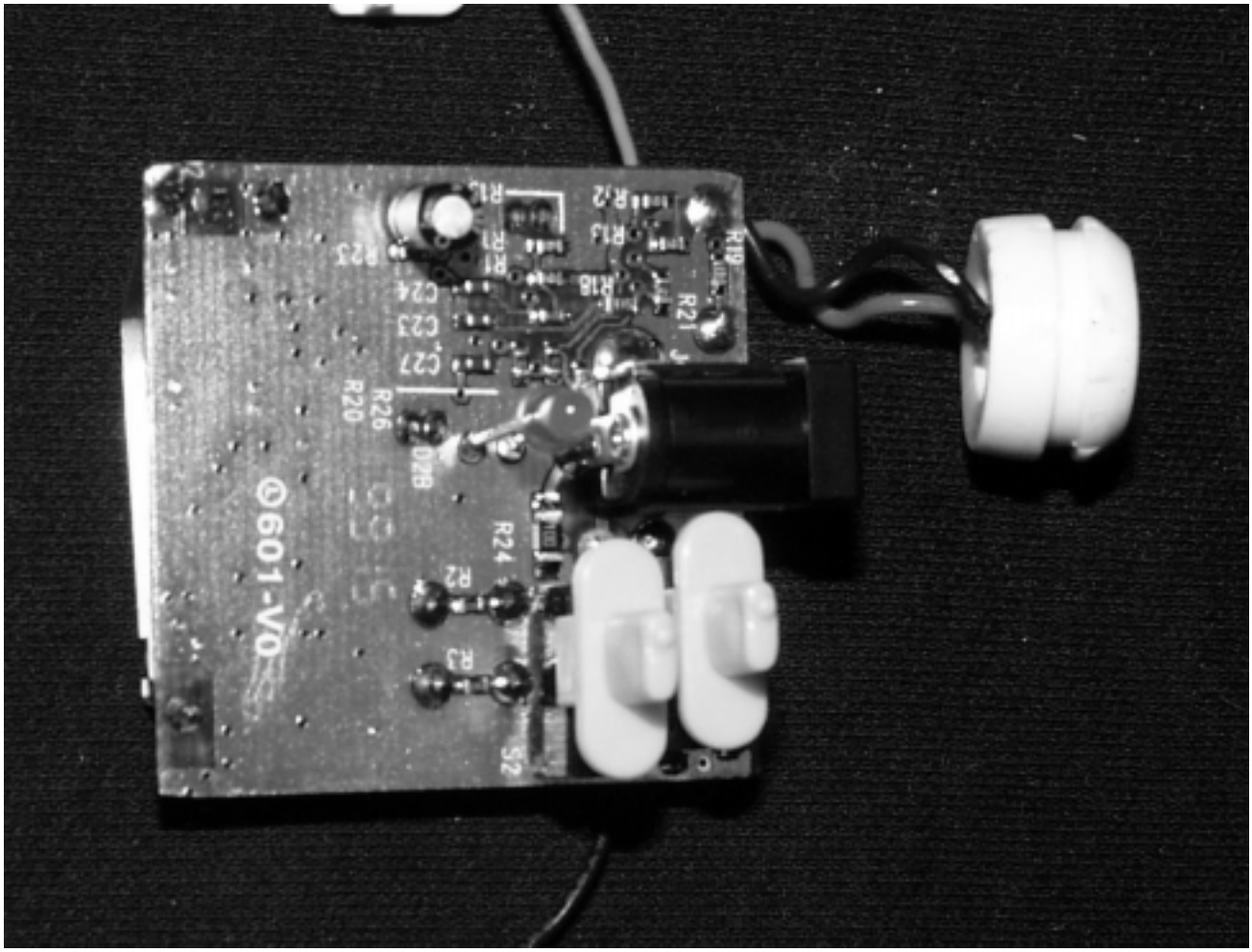
Part 4.11 Transmitter, Partially Disassembled



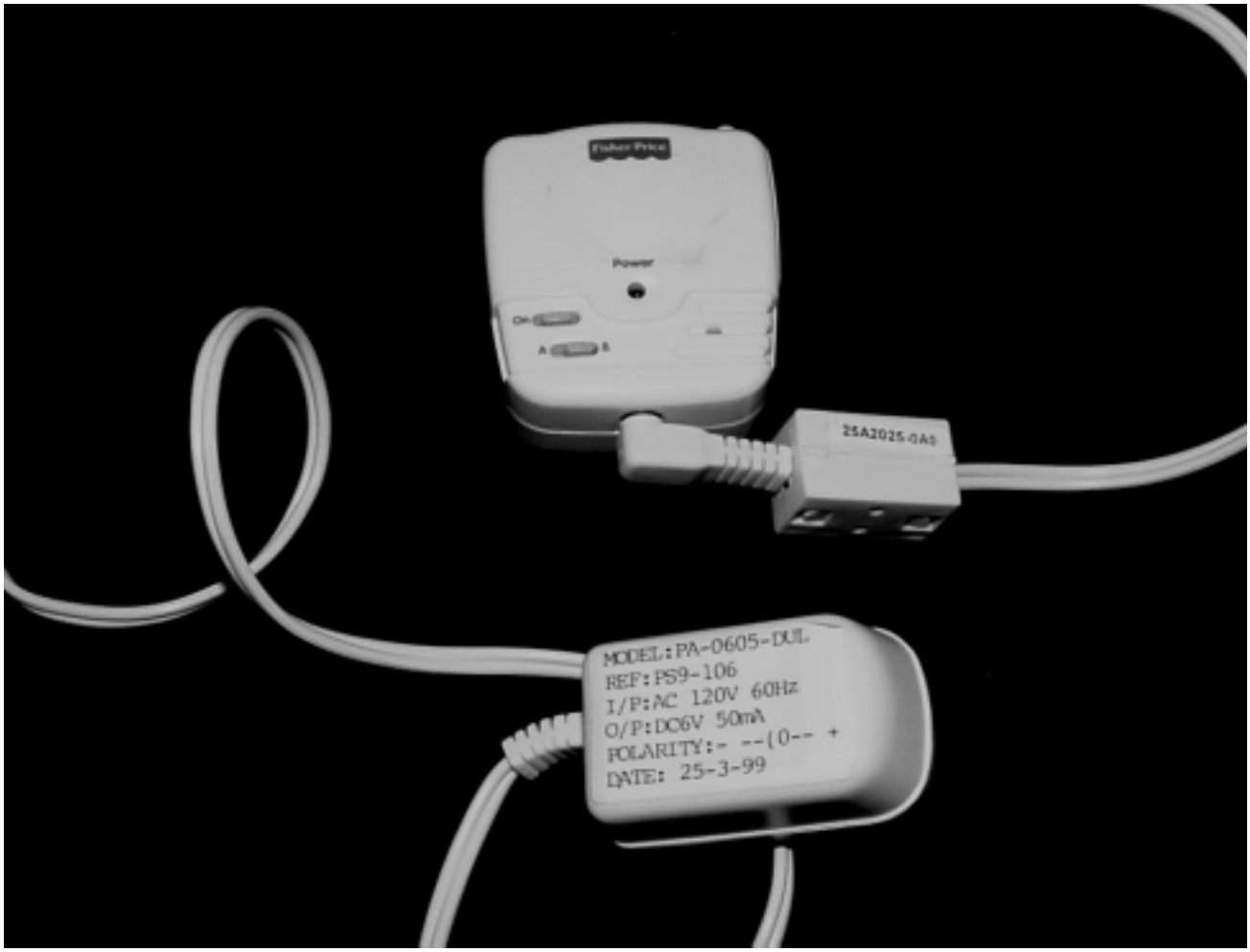
Part 4.12 Transmitter, Component Side of PWB



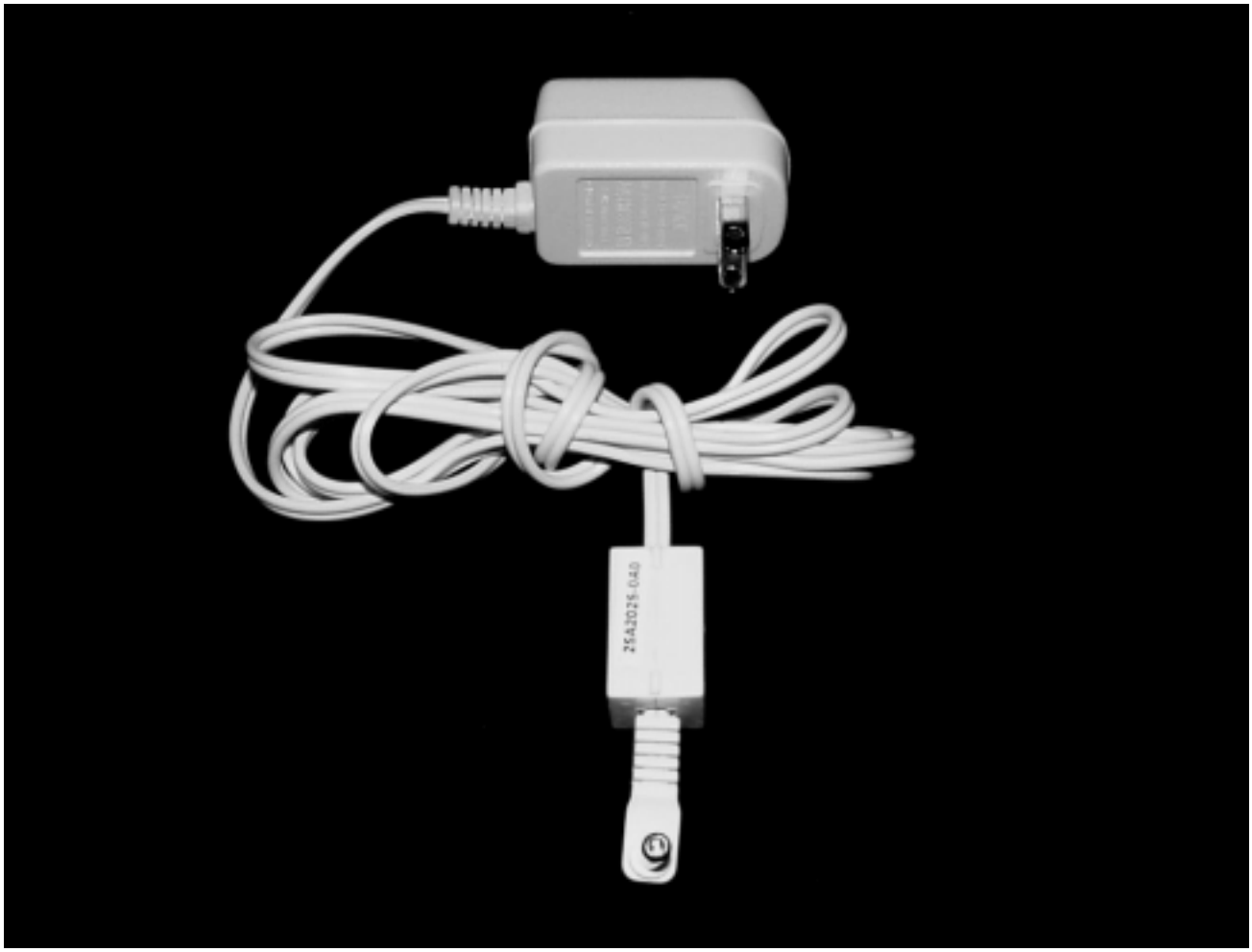
Part 4.13 Transmitter, Foil Side of PWB



Part 4.14 Transmitter with External Power Supply



Part 4.15 Transmitter External Power Supply



Section 5 Original Test Data / Plots

Conducted Emissions
Radiated Emissions

Part 5.1 FCC Conducted Emissions Plot- Receiver

Criterion TechnologyOATS Shield Room 26. May 99 17:18
Conducted Emissions through ESH2-Z5

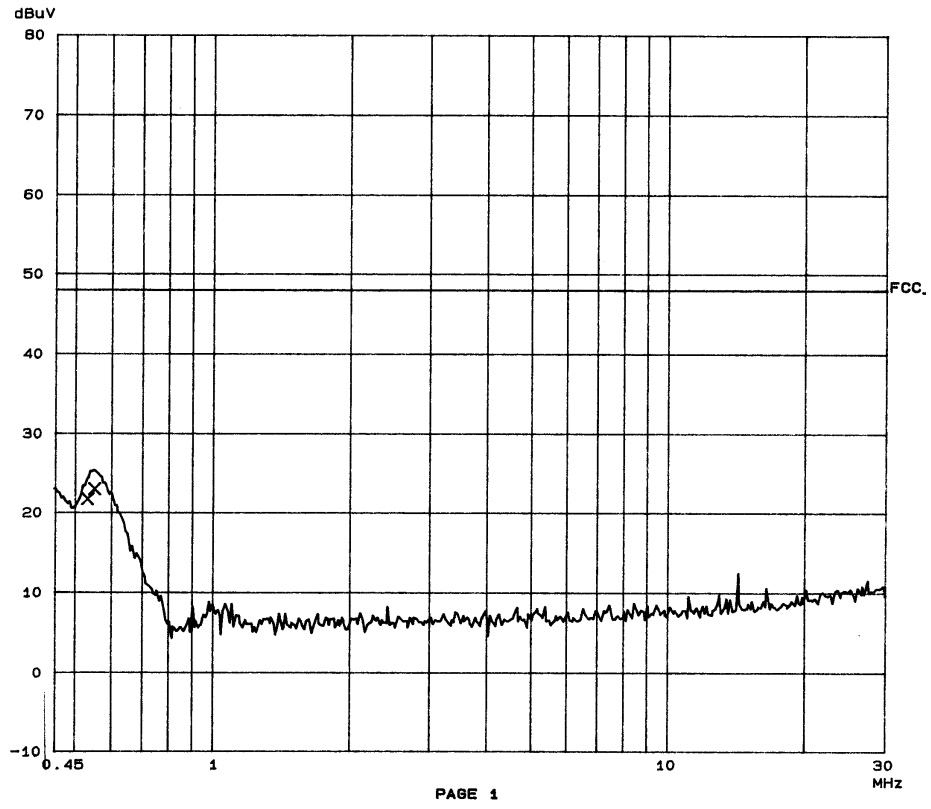
EUT: Infant To Toddler Monitor Mod 71577 RX
Manuf: Fisher-Price, Inc.
Op Cond: Normal Mode w/ Model PB0920-DUL
Operator: RBW per FPT Q781
Test Spec: FCC Class B per ANSI C63.4
Comment: 120v 60 Hz, L1 Prescan, L1 & N scanned on Final
All other devices on second LISN

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Final Measurement: x QP
Meas Time: 5 s
Subranges: 25
Acc Margin: 25dB

Transducer	No.	Start	Stop	Name
3	2	10k	30M	oa_w3dB
	6	10k	30M	LISN



Part 5.2 FCC Conducted Emissions Table- Receiver

Criterion TechnologyOATS Shield Room 26. May 99 17:18
Conducted Emissions through ESH2-Z5

EUT: Infant To Toddler Monitor Mod 71577 RX
Manuf: Fisher-Price, Inc.
Op Cond: Normal Mode w/ Model PB0920-DUL
Operator: RBW per FPT Q781
Test Spec: FCC Class B per ANSI C63.4
Comment: 120v 60 Hz, L1 Prescan, L1 & N scanned on Final
All other devices on second LISN

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Final Measurement Results:

Indicated Phase/PE shows Configuration of max. Emission

Frequency MHz	QP Level dB	QP Limit dB	Phase -	PE -
0.53000	21.7	48.0	N	gnd
0.55000	23.0	48.0	N	gnd

* limit exceeded

Part 5.3 FCC Conducted Emissions Plot- Transmitter

Criterion TechnologyOATS Shield Room 26. May 99 17:52
Conducted Emissions through ESH2-Z5

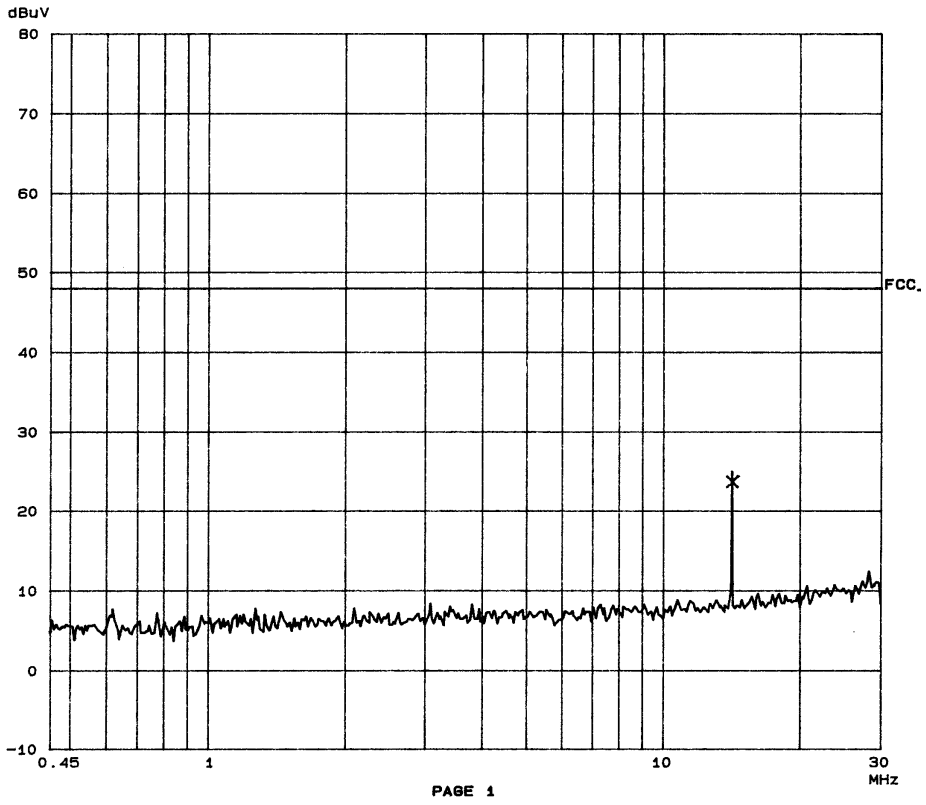
EUT: Infant To Toddler Monitor Mod 71577 TX
Manuf: Fisher-Price, Inc.
Op Cond: Normal Mode w/ Model PB0920-DUL
Operator: RBW per FPT Q781
Test Spec: FCC Class B per ANSI C63.4
Comment: 120v 60 Hz, L1 Prescan, L1 & N scanned on Final
All other devices on second LISN

Scan Settings (1 Range)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Final Measurement: x QP
Meas Time: 5 s
Subranges: 25
Acc Margin: 25dB

Transducer No.	Start	Stop	Name
3	2 10k	30M	oa_w3dB
	6 10k	30M	LISN



Part 5.4 FCC Conducted Emissions Table- Transmitter

Criterion TechnologyOATS Shield Room 26. May 99 17:52
Conducted Emissions through ESH2-Z5

EUT: Infant To Toddler Monitor Mod 71577 TX
Manuf: Fisher-Price, Inc.
Op Cond: Normal Mode w/ Model PB0920-DUL
Operator: RBW per FPT Q781
Test Spec: FCC Class B per ANSI C63.4
Comment: 120v 60 Hz, L1 Prescan, L1 & N scanned on Final
All other devices on second LISN

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
450k	30M	5k	10k	PK	20ms	AUTO	LN OFF	60dB

Final Measurement Results:

Indicated Phase/PE shows Configuration of max. Emission

Frequency MHz	GP Level dB	GP Limit dB	Phase -	PE -
14.15500	23.7	48.0	L1	gnd

* limit exceeded

Part 5.5 Radiated Emissions Data

Notes:

The third column below contains alpha characters which pertain to the type of measurements made. The following are the definitions for those characters: q = Quasi Peak, m = Maximized (cable, rotation and antenna height), s = scanned but no data taken, and a = average. For the first character in column four, a '-' indicates that value is below the limit while an '*' indicates that value is above the limit

If the list is sorted using "I-sort", then quasi-peak and average levels are weighted higher than peak levels and are moved to the front of the scan list.

The following keys help to better understand the data:

TT: Turntable position in degrees

Hght: Height of antenna in centimeters

Az: Azimuth, V = Vertical, H= Horizontal

Criterion Technology Wed Jun 02 16:55:04 1999
EUT: Model 71577 Infant To Toddler Monitor, RX sn: FCC unit A, TX sn: FCC unit B
Manufacturer: Fisher Price, Inc.
Tester: rbw Special ID: FPT 71577 Q771_b
EUT Level: Preproduction unit TX and RX , w/ 25A2025-0A0 on DC pwr
EUT Information: TX and RX on Table Top 1m apart, AC Powered, Ch-B, Units Vert
Test information: FCC Class B, 120Vac, 60 Hz, 10m test dist

Table 1: Scan List, sorted by margin to limit FCC-B, -20.0dB filter

Freq, MHz	Value	Sts	FCC-B	TT	Hght	Az	Comment
906.6500	93.04	m	47.02	326	111	V	FO
908.3876	50.61	m	4.59	340	121	V	.
1813.2580	48.27	a	-5.71	193	117	V	TX F2
1834.7294	47.89	a	-6.09	310	152	V	RX LO
3626.5180	47.49	a	-6.49	324	119	V	TX F4
892.4740	39.10	m	-6.92	349	111	V	.
920.8279	37.05	m	-8.97	329	100	V	.
453.3323	36.07	p	-9.95	198	115	V	FO/2
1824.0003	40.16	a	-13.82	311	121	V	RX LO
2719.8890	38.81	a	-15.17	90	146	V	TX F3
5439.6860	36.47	a	-17.51	233	111	H	TX F6
3669.4655	36.09	a	-17.89	233	111	H	RX LO

Table 2: Scan List, sorted by margin to limit SPCL, -20.0dB filter

Freq, MHz	Value	Sts	SPCL	TT	Hght	Az	Comment
906.6500	93.04	m	-0.96	326	111	V	FO

Table 2: Scan List, sorted by margin to limit SPCL, -20.0dB filter

Freq, MHz	Value	Sts	SPCL	TT	Hght	Az	Comment
892.4740	39.10	m	-6.90	349	111	V	.
453.3323	36.07	p	-9.93	198	115	V	FO/2

Table 3: Scan List for FCC-B, sorted by Frequency, -20.0dB filter

Freq, MHz	Value	Sts	FCC-B	TT	Hght	Az	Comment
453.3323	36.07	p	-9.95	198	115	V	FO/2
892.4740	39.10	m	-6.92	349	111	V	.
906.6500	93.04	m	47.02	326	111	V	FO
908.3876	50.61	m	4.59	340	121	V	.
920.8279	37.05	m	-8.97	329	100	V	.
1813.2580	48.27	a	-5.71	193	117	V	TX F2
1824.0003	40.16	a	-13.82	311	121	V	RX LO
1834.7294	47.89	a	-6.09	310	152	V	RX LO
2719.8890	38.81	a	-15.17	90	146	V	TX F3
3626.5180	47.49	a	-6.49	324	119	V	TX F4
3669.4655	36.09	a	-17.89	233	111	H	RX LO
5439.6860	36.47	a	-17.51	233	111	H	TX F6

Table 4: Scan List for SPCL, sorted by Frequency, -20.0dB filter

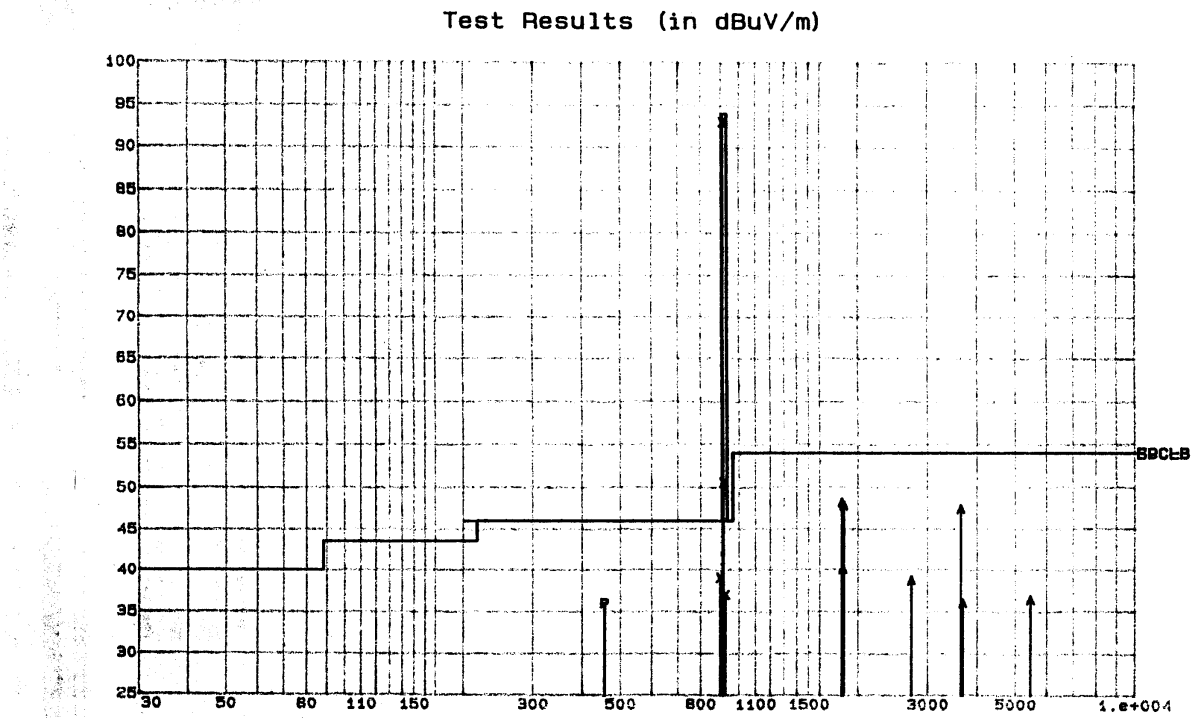
Freq, MHz	Value	Sts	SPCL	TT	Hght	Az	Comment
453.3323	36.07	p	-9.93	198	115	V	FO/2
892.4740	39.10	m	-6.90	349	111	V	.
906.6500	93.04	m	-0.96	326	111	V	FO

Table 5: Complete Scan List Sorted by Frequency

Freq, MHz	I-val	Final	Sts	TT	Hght	Az	Time	Comment
453.3323	40.69	36.07	p	198	115	V	Wed Jun 02 11:27:52 1999	FO/2
892.4740	37.67	39.10	m	349	111	V	Wed Jun 02 11:39:41 1999	.
906.6500	85.55	93.04	m	326	111	V	Wed Jun 02 11:11:10 1999	FO
908.3876	49.28	50.61	m	340	121	V	Wed Jun 02 11:45:21 1999	.
920.8279	35.63	37.05	m	329	100	V	Wed Jun 02 13:16:58 1999	.
1813.2580	52.21	48.27	a	193	117	V	Wed Jun 02 15:05:48 1999	TX F2
1824.0003	44.05	40.16	a	311	121	V	Wed Jun 02 15:06:44 1999	RX LO
1834.7294	51.72	47.89	a	310	152	V	Wed Jun 02 15:07:21 1999	RX LO
2719.8890	39.21	38.81	a	90	146	V	Wed Jun 02 15:08:33 1999	TX F3
3626.5180	46.15	47.49	a	324	119	V	Wed Jun 02 15:10:19 1999	TX F4
3669.4655	34.70	36.09	a	233	111	H	Wed Jun 02 16:44:59 1999	RX LO
5439.6860	29.16	36.47	a	233	111	H	Wed Jun 02 16:41:50 1999	TX F6

Part 5.6 Radiated Emissions Plot

Intellistor OATS Date: Wed Jun 02 16:54:29 1999
EUT: Model 71577 Infant To Toddler Monitor sn: FCC unit
Manufacturer: Fisher Price, Inc.
Tester: rbw SPiD: FPT 71577 Q771_b
EUT Level: Preproduction unit TX and RX w/ 25A2025-0A0 on DC pwr
EUT Information: TX and RX on Table Top 1m apart, AC Powered, Ch-B, Units Vert
Test information: FCC Class B, 120Vac, 60 Hz, 10m test dist



Section 6 Product Information Forms

Date: 26 May 1999

General Information

Company Name: Fisher Price
Company Address: 636 Girard Ave.
Company Address: East Aurora, NY 14052
Customer Contacts (and phone numbers):
Compliance Eng. Karen Fitzgerald
Design Engineer: Steve Ernst

General Instrument Information

Model/s: 71577
Serial Number: RX: FCC Unit A , TX: FCC Unit C

Test Facility

Name: Criterion Technology
Location: Rollinsville, Colorado 80474

TEST DESCRIPTION: ____ Development X Initial Design Verification
____ Design Change ____ Production Model
Applicable Standards (FCC 15, 24, ETSI, etc) FCC Part 15 Subpart B and Part 15.247

CIRCUIT BOARD

Oscillator Frequency: TX: 14.15625 MHz, 14.166667 MHz RX: 14.323438 MHz, 14.333854 MHz
Oscillator Manufacturer/s:
Clock Frequency:
Other:

POWER

Power Supply Topology: Linear
Switching Frequency: NA
Power supply Primary Frequency and Voltage: 60 Hz, 120 V
Number of Input Phases: One
Current Draw: RX: 9 VDC 200 mA, TX: 6 VDC 50 mA
Manufacturer: Unknown
Model Number: RX: Model PB0920-DVL, TX: Model PA-0605-DVL

INTENTIONAL RADIATOR PRODUCTS

Fundemental Frequency(ies) : Channel A: 906.0 MHz, Channel B: 906.6667 MHz
Output Power Levels: Unknown, set to meet 15.247 limit with internal antenna
Modulation Techniques (AM, FM, Pulsed, Spread Specturm, etc): FM
Frequency Band: 902 to 928 MHz
Frequency Range: Two frequencies noted above
Support Equipment Required: None

RECEIVER PRODUCTS

Receiver Type (Superregen., Superheterodyne, etc): Superheterodyne
Source Type (battery or AC PS): Internal Battery or AC with external power supply
Detector Techniques (AM, FM, Pulsed, Spread Specturm, etc): FM
Frequency Band: Channel A: 906.0 MHz, Channel B: 906.6667 MHz
Additional Interfaces: None
Support Equipment Required: None

SETUP AND OPERATIONAL MODES FOR EMISSIONS TESTING

Compliance Directive/Standard/s: FCC Part 15 Subparts B and C (15.247) Criteria: _____
Test Level/s: Class B Equipment

Conducted And Radiated Emissions Testing:
Test Setup:

1). For the purpose of test, the Test Article shall be configured as indicated in the block diagran

2). The Test Article shall be powered with 60 Hz and 120 volts rms or with supplied batteries.