REPORT NO:	RF89051701
PRODUCT:	Wireless Mouse
MODEL NO:	Chic 1200-4D
SERIAL NO:	N/A
CLIENT:	Chic Technology Corp.
ADDRESS:	16F, NO.150, Chien-I Road, 235 Chung Ho City, Taipei Hsien, Taiwan, R.O.C.
ISSUED BY:	Advance Data Technology Corporation (ADT Corp.)
OFFICE ADDRESS:	11F, No. 1, Sec. 4, Nan-King East Rd., Taipei, Taiwan, R.O.C.
LABORATORY ADDRESS:	No. 47, 14 Ling, Chia Pao Tsuen, Lin Kou Hsiang, Taipei Hsien, Taiwan, R.O.C.
TEST STANDARD:	47CFR Part 15, Subpart C (15.227)
TEST DATE:	Jul.14, 2000
TEST RESULT:	Pass

Accredited Laboratory

CONTENTS

1. CERTIFICATION

Issue Date: Jul. 14, 2000

PRODUCT:	Wireless Mouse
MODEL NO:	Chic 1200-4D
FCC ID:	IOW1200
CLIENT:	Chic Technology Corp.
TEST STANDARD:	FCC 47CFR Part 15, Subpart C (Section 15.227) ANSI C63.4-1992

We, **ADVANCE DATA TECHNOLOGY CORPORATION,** hereby certify that one sample of the designated sample has been tested in our facility. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate representation of the measurements of the sample's EMI characteristics and the energy emitted under the conditions herein specified.

TESTED BY:	Ellis Wu **Ellis Wu**	**DATE:** July 14, 2000
CHECKED BY:	Delphine Hsu **Delphine Hsu**	**DATE:** July 14, 2000
APPROVED BY:	Alan Lane **Dr. Alan Lane, Manager**	**DATE:** July 14, 2000

2. SUMMARY OF TEST RESULTS & GENERAL STATEMENT OF CERTIFICATION

The EUT has been tested according to the following specifications:

47 CFR Part 15, Subpart C			
PARAGRAPH.	TEST REQUIREMENTS	COMPLIANCE (YES/NO)	TEST RESULT
15.107, 15.109	**AC Power Conducted Emissions Spec.: 48 dBuV**	**N/A**	**N/A**
15.227	**Transmitter Radiated Emissions**	**Yes**	**Minimum passing margin is –5.2 dBuV At 298.06 MHz**

3. GENERAL INFORMATION

3.1 General Description of EUT

Product:	**Wireless Mouse**
Model No:	**Chic 1200-4 D**
Power Supply:	**3V (2x Battery)**
Modulation Type:	**FSK**
Operating Frequency:	**27 MHz**
Number of Channel:	**1**
Associated devices:	**N/A**

Note: The RF Wireless mouse provides maximum flexibility without wiring hassle. Using the supplied software (driver), you can specify your own scroll and zoom function settings as well as configure the additional right and left mouse buttons from a range of predefined functions.

The other detailed information, please refer to user' s manual.

3.2 Description of Test mode

The EUT (wireless mouse) is working at 27 MHz channel frequency. Two models, model 1 and model 2, are designed with 5 and 3 buttons respectively. The regulated test items has been carried out on both of these two models.

3.3 Test Methodology

These tests were conducted on a sample of EUT for the evaluation in compliance with FCC CFR47 Part 15, Subpart C (15.227).

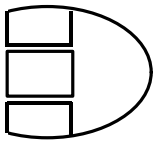
Both conducted and radiated emissions measurements were conducted in accordance with ANSI C63.4:1992.

3.4 Support Units List

N/A

3.5 Configuration of System Under Test

Wireless Mouse Model :Chic 1200-4D



Note: the drawing is only for your reference, please have a look at the attached photo for the actual one.

4. GENERAL INFORMATION OF TEST FACILITY

4.1 Test Lab.:

☑ **Lin Kuo EMC Lab.**
No. 47, 14 Ling, Chia Pau Tsuen, Lin Kuo Hsiang, Taipei, Taiwan, R.O.C.

☐ **Hsin Chu EMC Lab.**
No. 81-1, Lu Liao Keng, 9 Ling, Wu Lung Tsuen, Chiung Lin Hsiang, R.O.C.

4.2 Calibration Interval :

All calibration interval of the test sites and test instruments is 12 months. The calibrations are traceable to NML/ROC and NIST/USA.

5. TEST PROCEDURES AND TEST RESULTS

5.1 Conducted Emission Measurement

This EUT is excused from investigation of conducted emission, for it is powered by battery only. According to paragraph 15.207(a), measurements to demonstrate compliance with the conducted limited are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

5.2 Radiated Emission Measurement

5.2.1 Test instruments

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
HP Spectrum Analyzer	**8590L**	**3544A01176**	**Apr 18, 2001**
HP Preamplifier	**8447D**	**2944A08485**	**Oct. 23, 2000**
HP Preamplifier	**8347A**	**3307A01088**	**Sep. 09, 2000**
ROHDE & SCHWARZ TEST RECEIVER	**ESMI**	**839013/007 839379/002**	**Aug. 27, 2000**
SCHWARZBECK Tunable Dipole Antenna	**VHA 9103 UHA 9105**	**E101051 E101055**	**Nov. 25, 2000**
CHASE BILOG Antenna	**CBL6112A**	**2221**	**Aug. 10, 2000**
SCHWARZBECK Horn Antenna	**BBHA9120-D**	**D130**	**Jul. 09, 2001**
SCHWARZBECK Horn Antenna	**BBHA9170**	**123**	**Jan. 31, 2001**
EMCO Turn Table	**1060**	**1115**	**N/A**
SHOSHIN Tower	**AP-4701**	**A6Y005**	**N/A**
Open Field Test Site	**Site 5**	**ADT-R05**	**Aug. 09, 2000**

The measurement uncertainty is less than +/- 3dB, which is calculated as per NAMAS document NIS81.

5.2.2 Test Procedure

a. The EUT was placed on the top of a turn table 0.8 meter above ground at a 3-meter open field site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna which was mounted on the top of a variable height antenna tower.

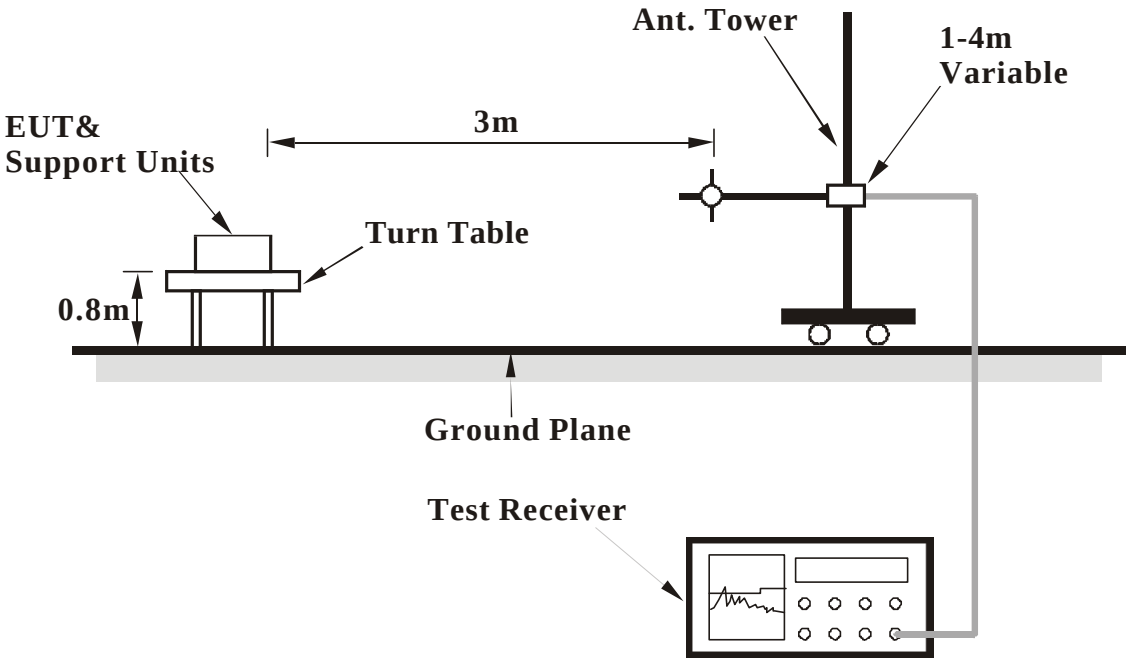
c. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.

d. For each suspected emission, the interference-receiving antenna was moved from 1 meter to 4 meter height above ground and the turn table was rotated from 0 degree to 360 degrees to find the maximum reading.

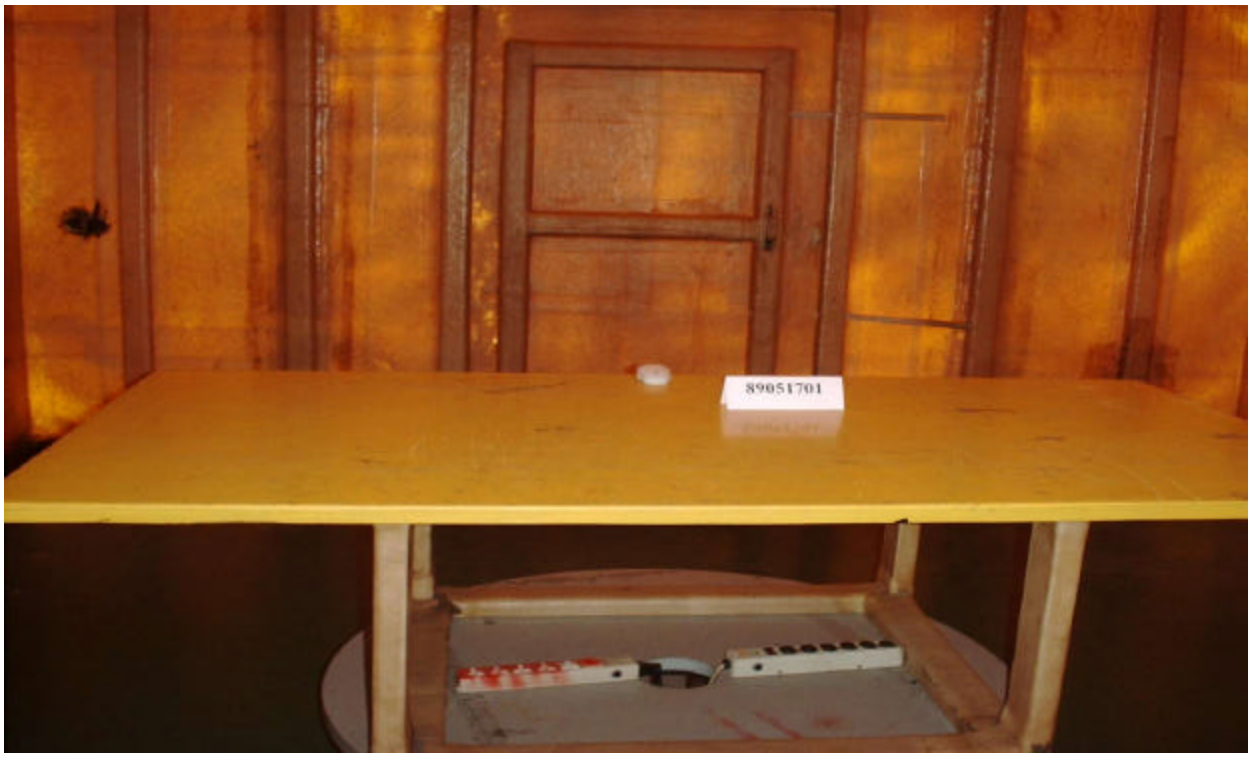
e. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and peak values of EUT will be reported. Otherwise the emissions which do not have 10 dB margin will be re-tested one by one using the quasi- peak method or average method as specified and then reported.

5.2.3 Test Setup



5.2.4 Photograph of Test Setup



5.2.5 EUT Operating condition

A special software has been written into the chip of the mouse for continuous transmitting. Keep pressing two buttons and load the battery, then the mouse is under continuous transmitting mode.

5.2.6 Climate Condition

The temperature and related humidity in test site is 25℃ and 65% respectively.

5.2.7 Test Results

5.2.7.1. Fundamental Frequency

ANTENNA POLARITY: Vertical Mode 1		**Detector Function :**				**6dB Bandwidth : 120 kHz.**				**Distance : 3 M Frequency Range : 30 – 1000 MHz.**	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
*27.10	8.4	55.9	30.1	64.3	38.5	100	80	-35.7	-41.5	106	201

ANTENNA POLARITY: Horizontal Mode 1		**Detector Function :**				**6dB Bandwidth : 120 kHz.**				**Distance : 3 M Frequency Range : 30 – 1000 MHz.**	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
*27.10	8.4	63.4	40.3	71.8	48.7	100	80	-28.2	-31.3	216	178

Remarks: 1. Emission level (dBuV/m) = Correction Factor (dB) + Reading value (dBuV).

2. Correction Factor (dB) = Ant. Factor (dB)+Cable loss (dB)

3. The other emission levels were very low against the limit.

4. Margin value = Emission level - Limit value

5. The limit value is defined as per 15.227

ANTENNA POLARITY: Vertical Mode 2		Detector Function :				6dB Bandwidth : 120 kHz.				Distance : 3 M Frequency Range : 30 – 1000 MHz.	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
*27.10	8.2	56.3	30.2	64.5	38.4	100	80	-35.5	-41.6	102	175

ANTENNA POLARITY: Horizontal Mode 2		Detector Function :				6dB Bandwidth : 120 kHz.				Distance : 3 M Frequency Range : 30 – 1000 MHz.	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
*27.10	8.2	63.9	40.5	74.1	48.7	100	80	-27.9	-31.3	237	184

Remarks: 1. Emission level (dBuV/m) = Correction Factor (dB) + Reading value (dBuV).

2. Correction Factor (dB) = Ant. Factor (dB)+Cable loss (dB)

3. The other emission levels were very low against the limit.

4. Margin value = Emission level - Limit value

5. The limit value is defined as per 15.227

5.2.7.2. Harmonics and Spurious

ANTENNA POLARITY: Vertical Mode 1		Detector Function : Quasi-Peak		6dB Bandwidth : 120 kHz.		Distance : 3 M Frequency Range : 30 – 1000 MHz.	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
54.20	7.5	22.4	29.9	40.0	-10.1	106	13
81.32	9.0	13.1	22.1	40.0	-17.9	100	221
162.60	11.5	12.3	23.8	43.5	-19.7	252	361
189.70	10.5	12.6	23.1	43.5	-20.4	147	128
216.79	11.4	13.8	25.2	46.0	-20.8	100	233
243.89	13.3	12.5	25.8	46.0	-20.2	190	139
270.99	14.6	12.1	26.7	46.0	-19.3	157	362
298.09	14.9	15.4	30.3	46.0	-15.7	100	154
325.19	15.6	14.7	30.3	46.0	-15.7	108	193
325.29	16.4	7.4	23.8	46.0	-22.2	100	320

Remarks: 1. Emission level (dBuV/m) = Correction Factor (dB) + Reading value (dBuV).

2. Correction Factor (dB) = Ant. Factor (dB)+Cable loss (dB)

3. The other emission levels were very low against the limit.

4. Margin value = Emission level - Limit value

5. The limit value is defined as per 15.227

ANTENNA POLARITY: Horizontal Mode 1		Detector Function : Quasi-Peak		6dB Bandwidth : 120 kHz.		Distance : 3 M Frequency Range : 30 – 1000 MHz.	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
54.20	7.5	22.9	22.9	31.3	-8.7	226	-2
81.30	9.0	22.9	22.9	31.9	-8.1	210	316
108.40	12.2	16.9	16.9	29.1	-14.4	197	252
135.50	12.7	15.2	15.2	27.9	-15.6	219	288
162.60	11.5	20.5	20.5	32.0	-11.5	200	264
189.70	10.5	23.0	23.0	33.5	-10.0	189	261
216.80	11.4	24.8	24.8	36.2	-9.8	168	67
243.90	13.3	22.8	22.8	36.1	-9.9	114	276
271.00	14.6	21.8	21.8	36.4	-9.6	100	257
298.10	14.9	25.2	25.2	40.1	-5.9	100	263
325.20	15.6	25.2	25.2	40.8	-5.2	176	284
352.30	16.4	17.9	17.9	34.3	-11.7	100	283
379.50	17.3	15.2	15.2	32.5	-13.5	100	277
406..50	18.1	14.2	14.2	32.3	13.7	100	293

Remarks: 1. Emission level (dBuV/m) = Correction Factor (dB) + Reading value (dBuV).

2. Correction Factor (dB) = Ant. Factor (dB)+Cable loss (dB)

3. The other emission levels were very low against the limit.

4. Margin value = Emission level - Limit value

5. The limit value is defined as per 15.227

ANTENNA POLARITY: Vertical Mode 2		Detector Function : Quasi-Peak		6dB Bandwidth : 120 kHz.		Distance : 3 M Frequency Range : 30 – 1000 MHz.	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
81.30	9.0	13.0	22.0	40.0	-18.0	100	255
108.43	12.2	11.3	23.5	43.5	-20.0	100	248
162.60	11.5	12.7	24.2	43.5	-19.3	100	190
189.70	10.5	15.6	26.1	43.5	-17.4	100	272
216.80	11.4	14.4	25.8	46.0	-20.0	116	63
243.90	13.3	12.6	25.9	46.0	-20.1	166	326
271.00	14.6	12.8	27.4	46.0	-18.6	122	10
298.07	14.9	15.9	30.8	46.0	-15.2	103	21
325.17	15.6	12.8	28.4	46.0	-17.6	148	36
352.27	16.4	9.1	25.5	46.0	-20.5	135	30

Remarks: 1. Emission level (dBuV/m) = Correction Factor (dB) + Reading value (dBuV).

2. Correction Factor (dB) = Ant. Factor (dB)+Cable loss (dB)

3. The other emission levels were very low against the limit.

4. Margin value = Emission level - Limit value

5. The limit value is defined as per 15.227

6. " * " : Fundamental Frequency

ANTENNA POLARITY: Horizontal Mode 2		Detector Function : Quasi-Peak		6dB Bandwidth : 120 kHz.		Distance : 3 M Frequency Range : 30 – 1000 MHz.	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
81.30	9.0	22.0	31.0	40.0	-9.0	225	134
162.58	11.5	22.9	34.4	43.5	-9.1	224	115
189.68	10.5	23.9	34.4	43.5	-9.1	183	117
189.70	10.5	22.4	32.9	43.5	-10.6	179	242
216.80	11.4	23.8	35.2	46.0	-10.8	184	93
243.90	13.3	22.3	35.6	46.0	-10.4	184	106
270.96	14.6	22.5	37.1	46.0	-8.9	100	88
298.06	14.9	25.9	40.8	46.0	-5.2	100	132
325.16	15.6	23.1	38.7	46.0	-7.3	111	79
352.26	16.4	18.5	34.9	46.0	-11.1	100	113
379.35	17.3	15.6	32.9	46.0	-13.1	100	96
406.50	18.1	9.6	27.7	46.0	-18.3	269	277

Remarks: 1. Emission level (dBuV/m) = Correction Factor (dB) + Reading value (dBuV).

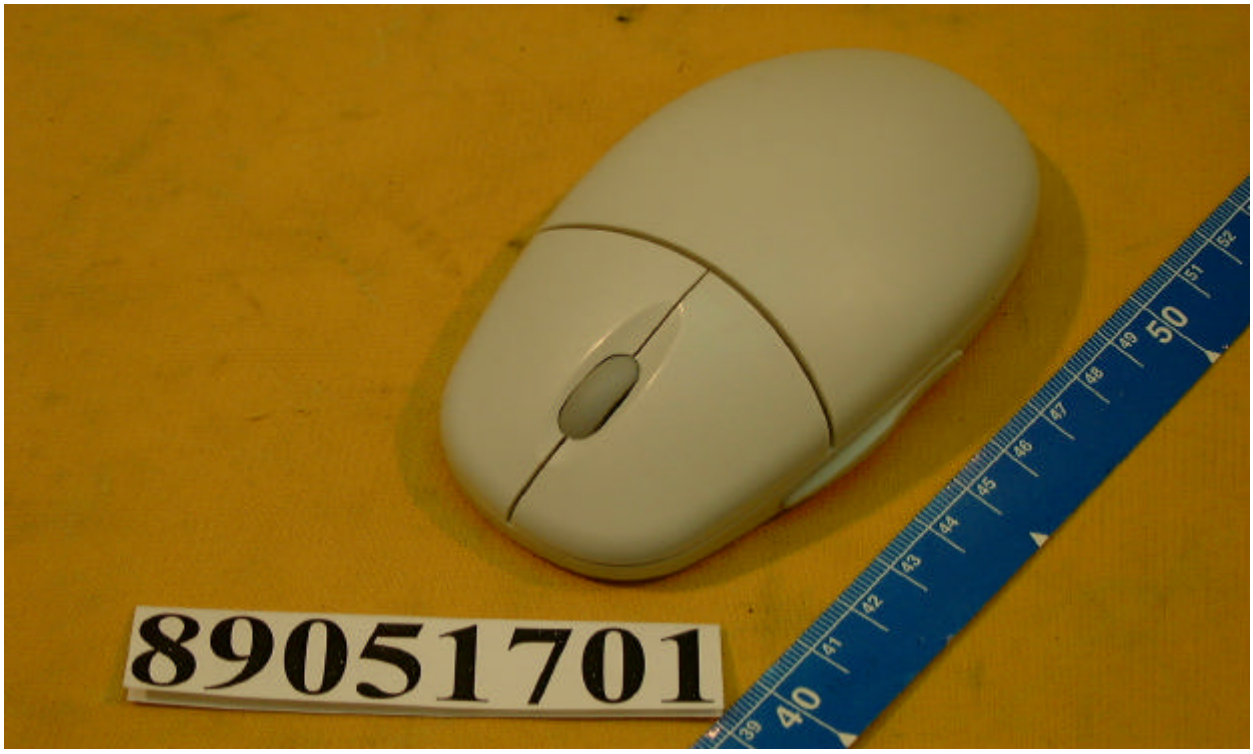
2. Correction Factor (dB) = Ant. Factor (dB)+Cable loss (dB)

3. The other emission levels were very low against the limit.

4. Margin value = Emission level - Limit value

5. The limit value is defined as per 15.227

6. Photograph of the EUT

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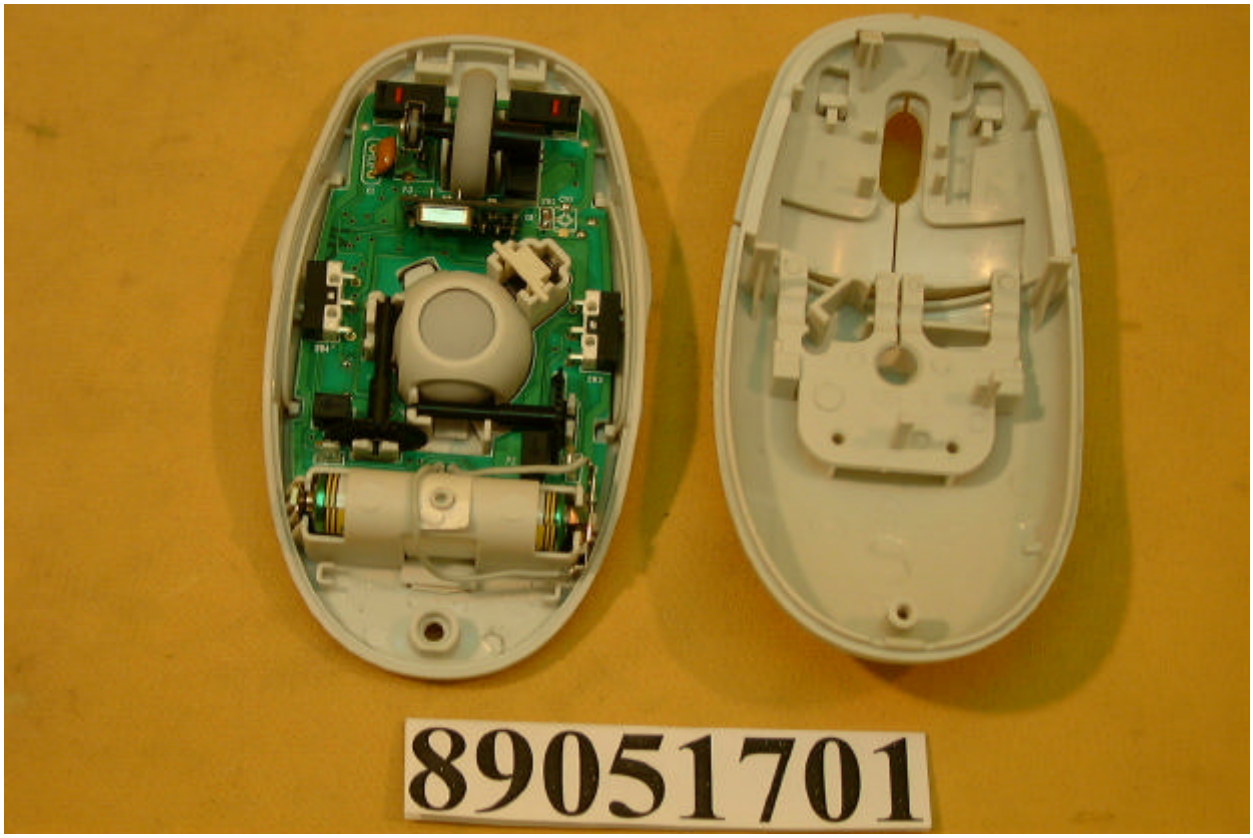
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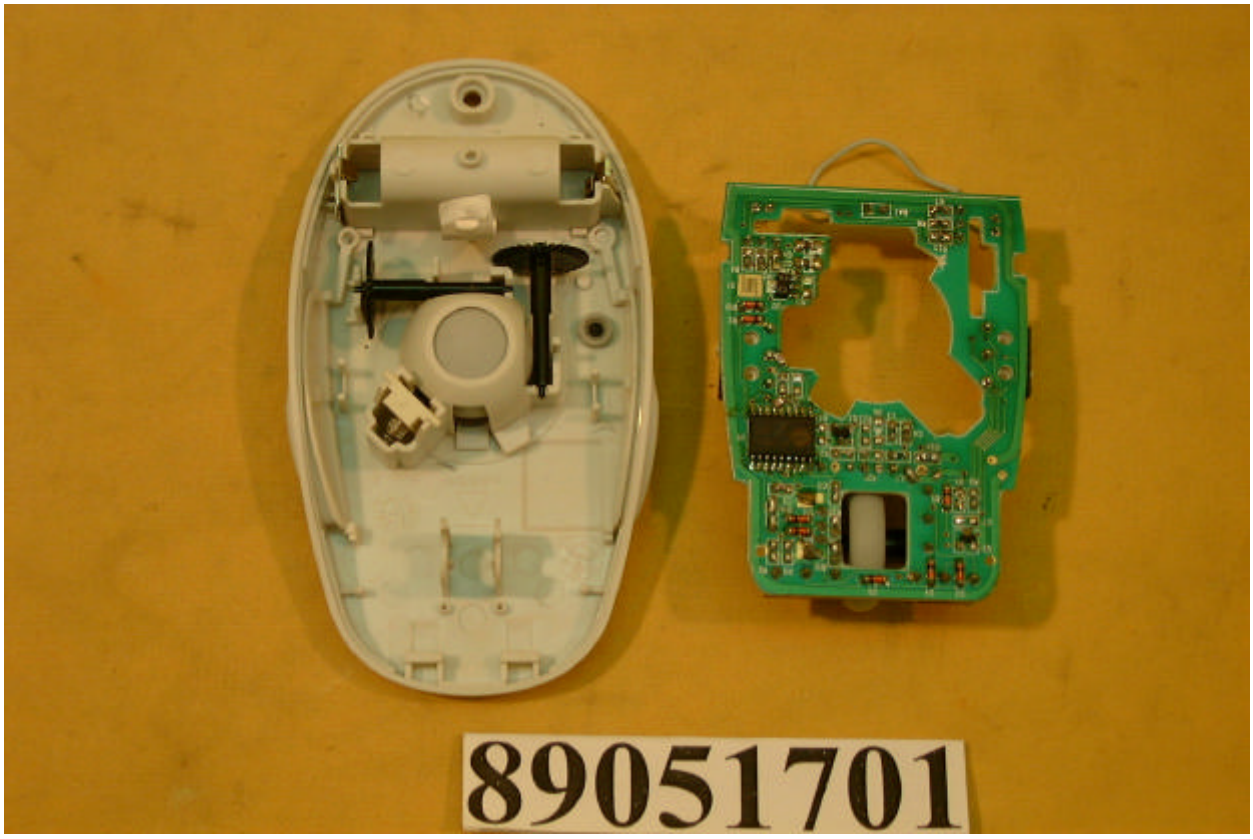
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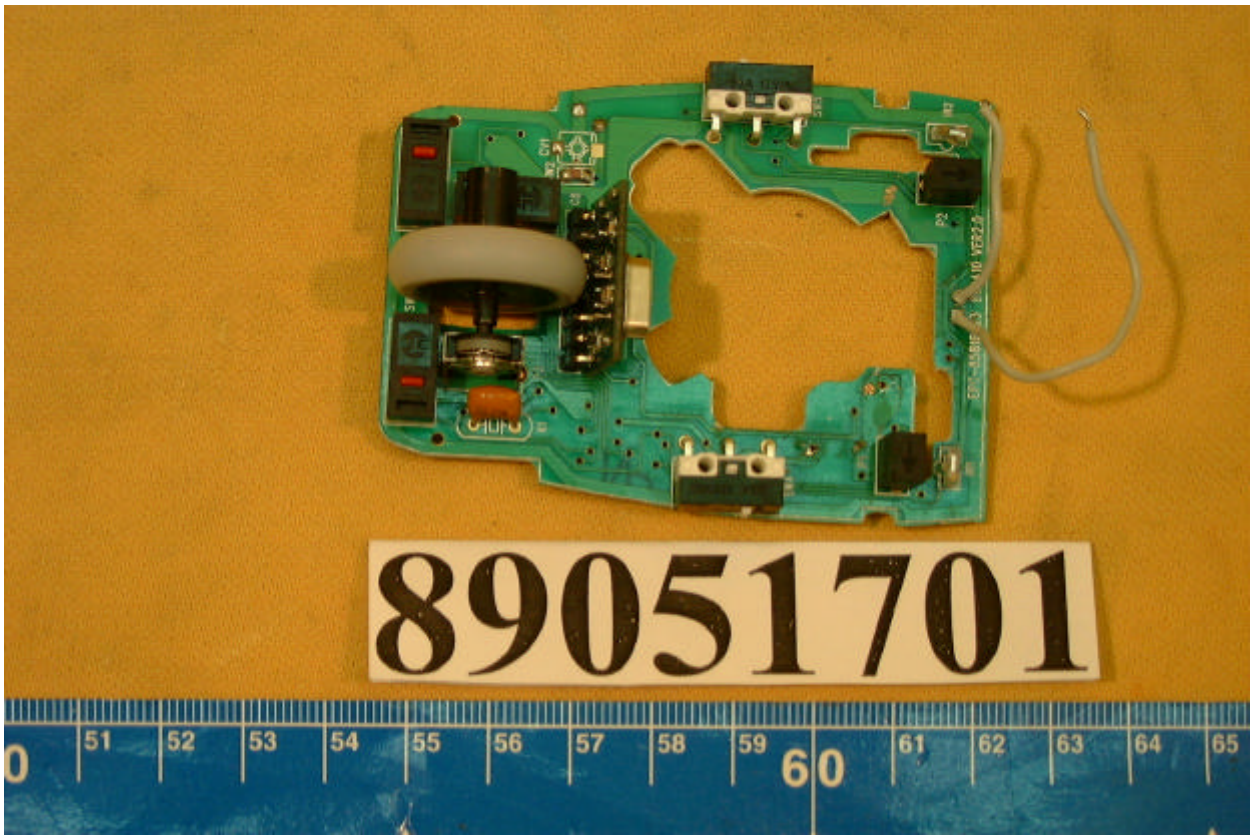
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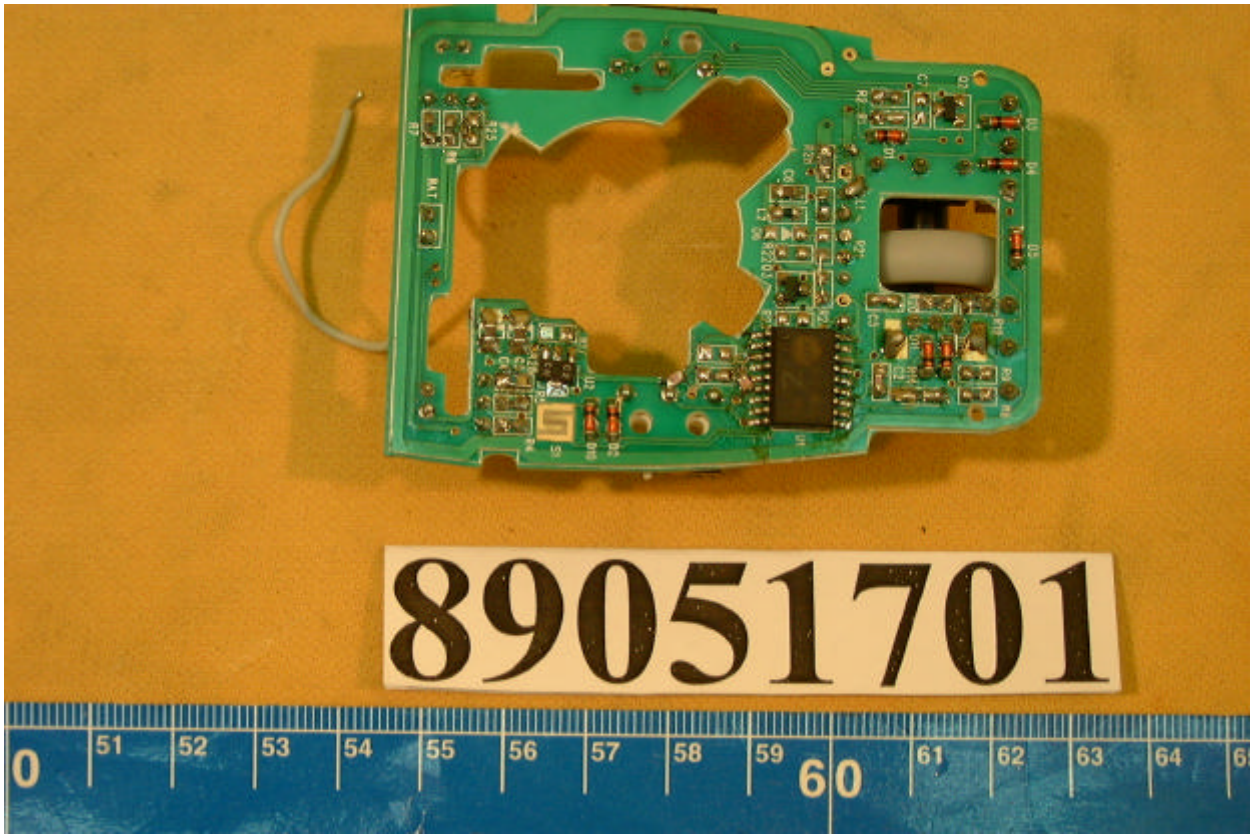
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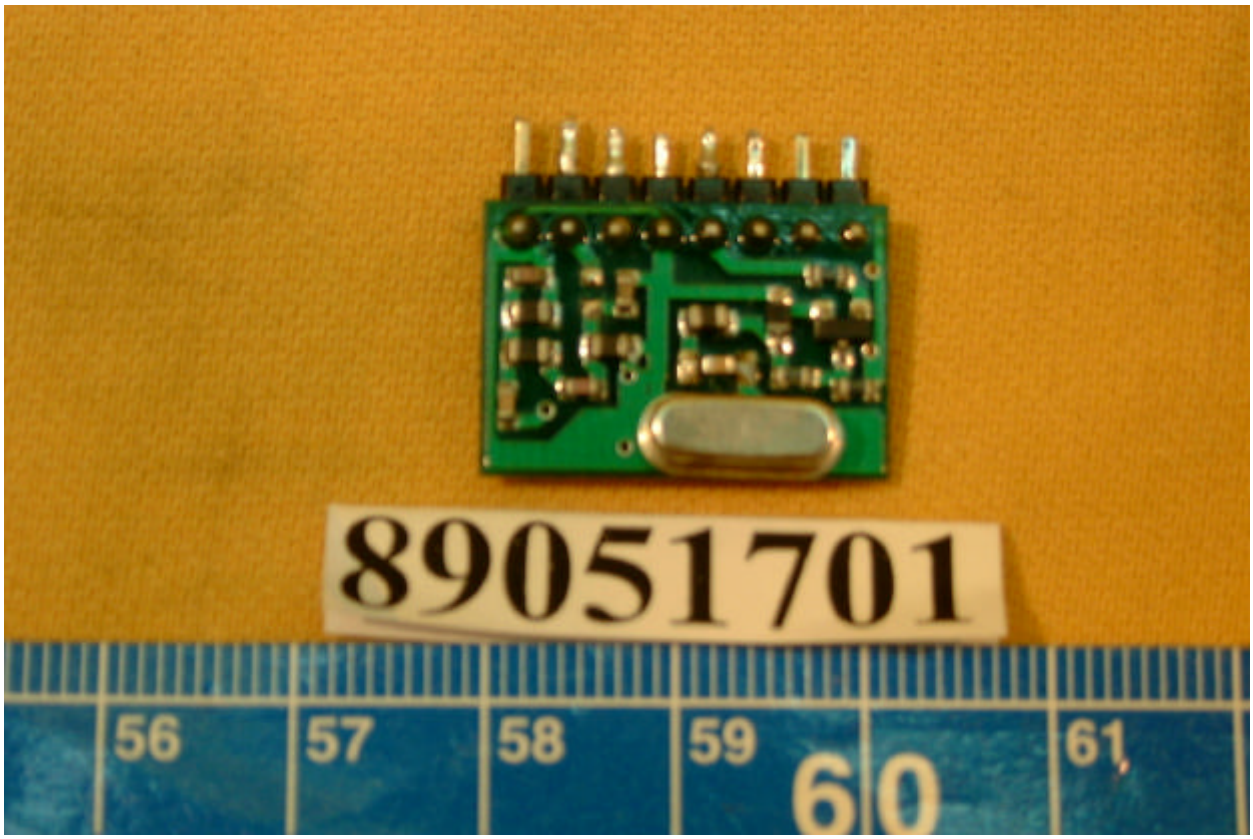
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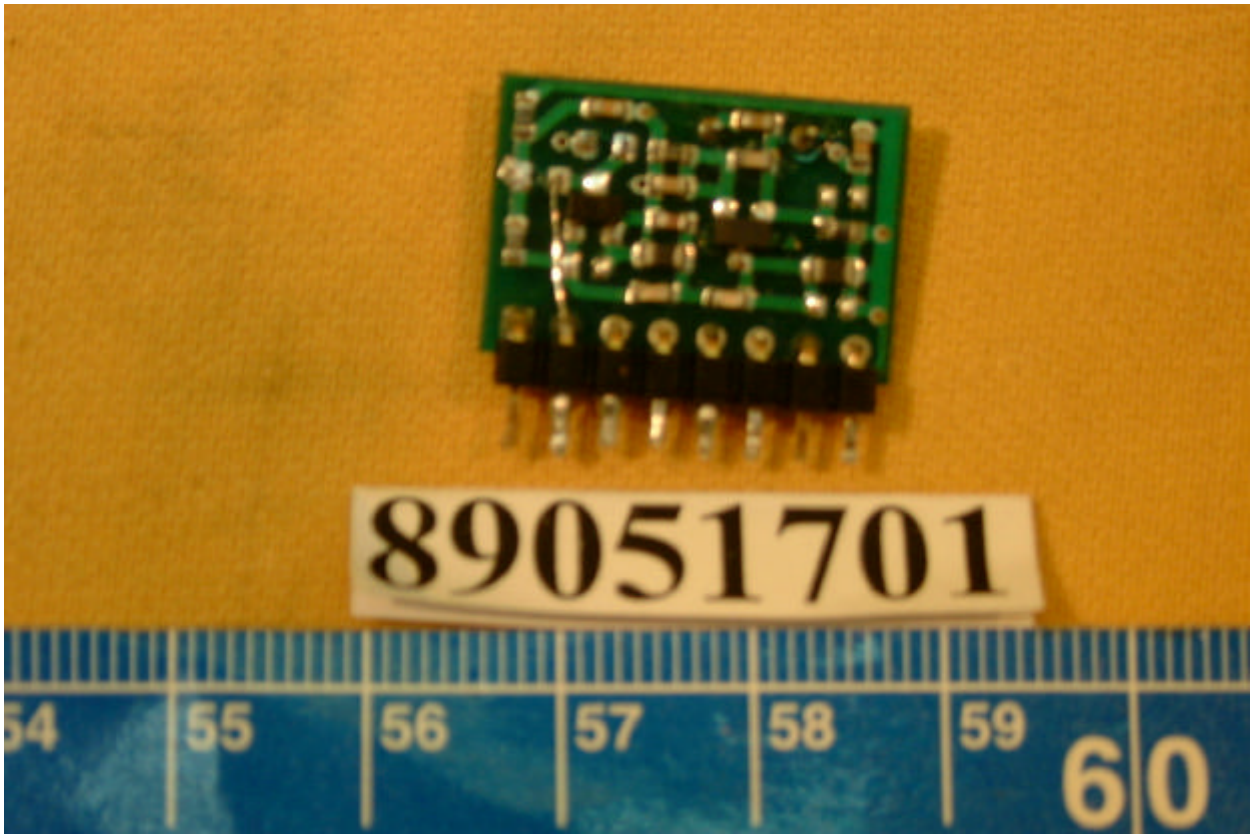
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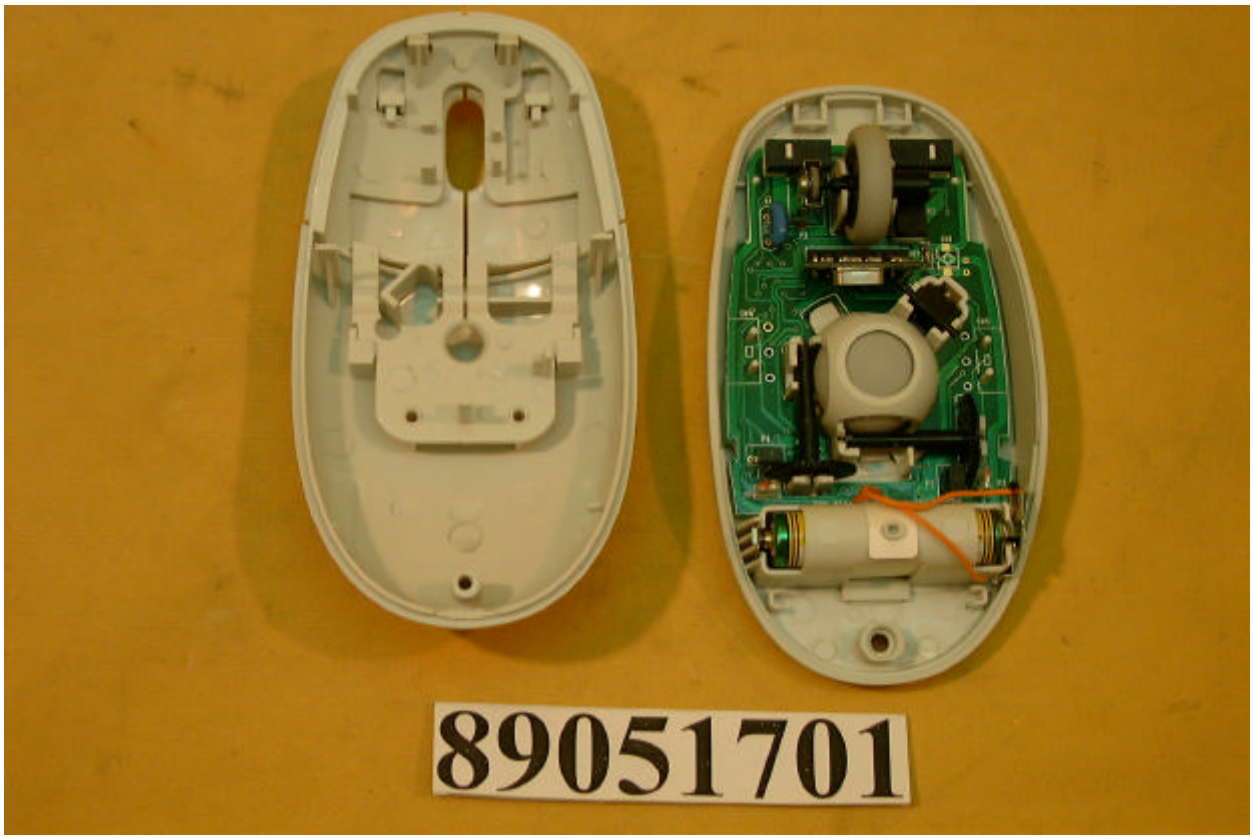
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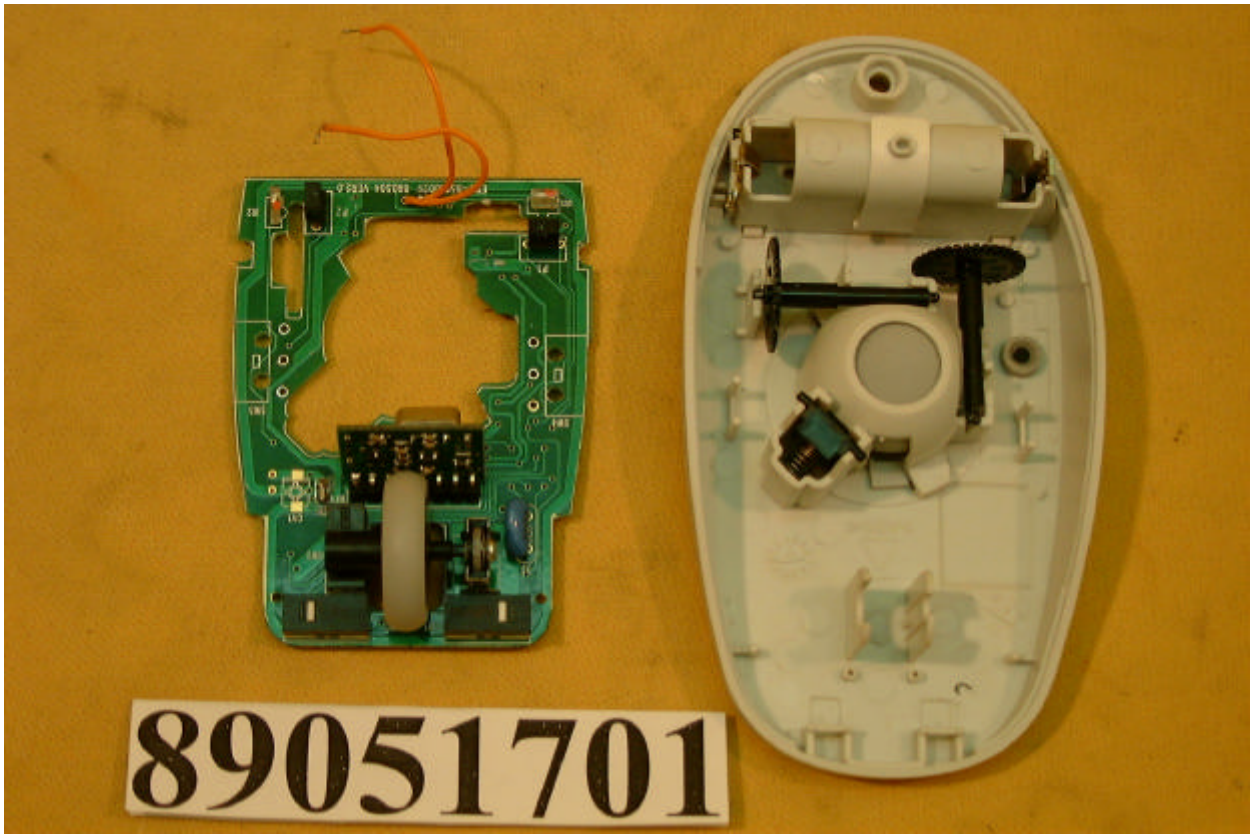
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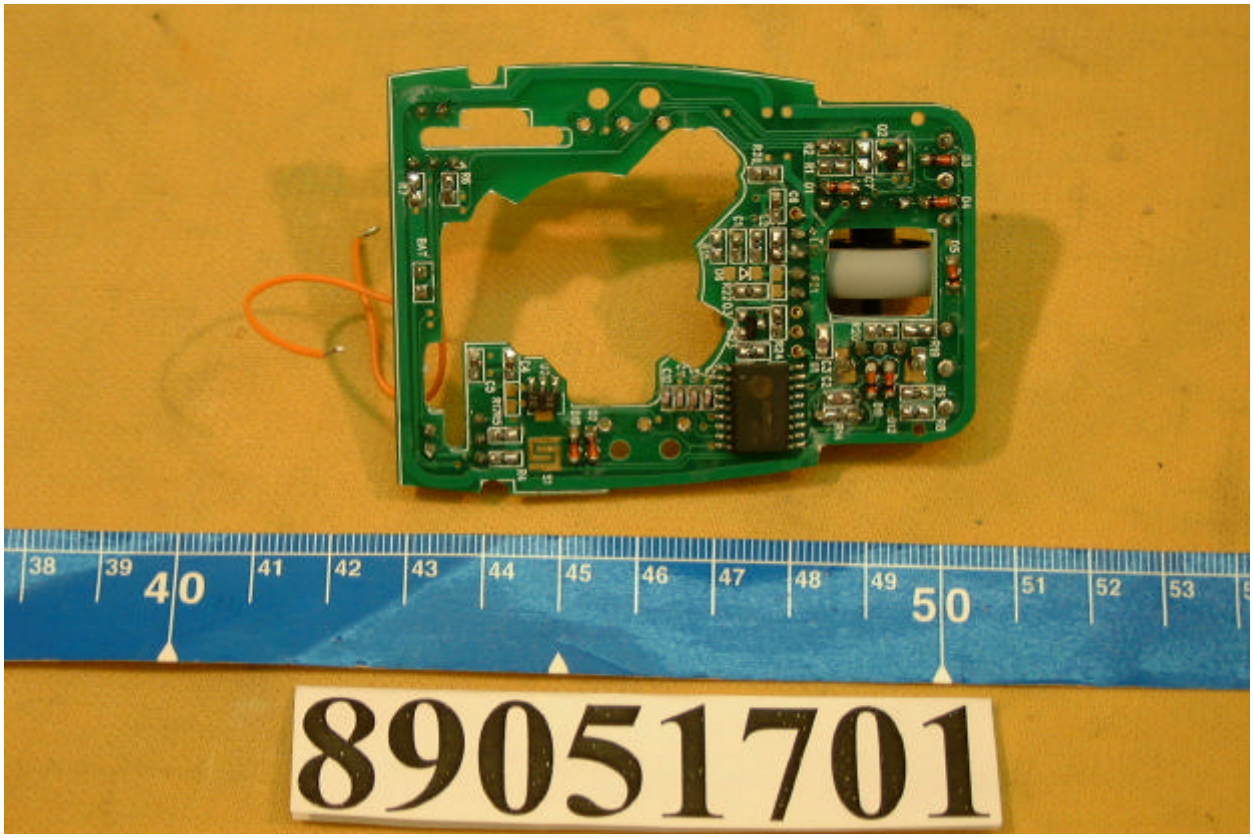
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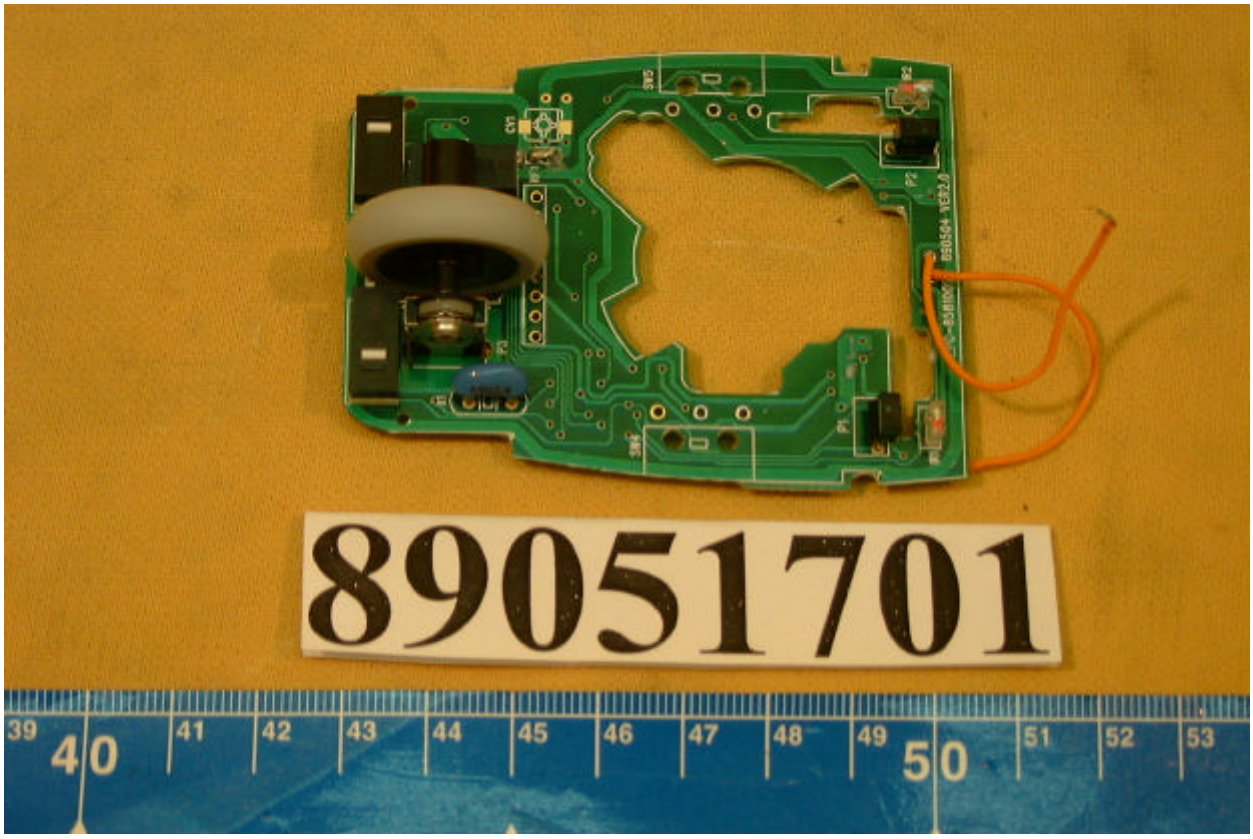
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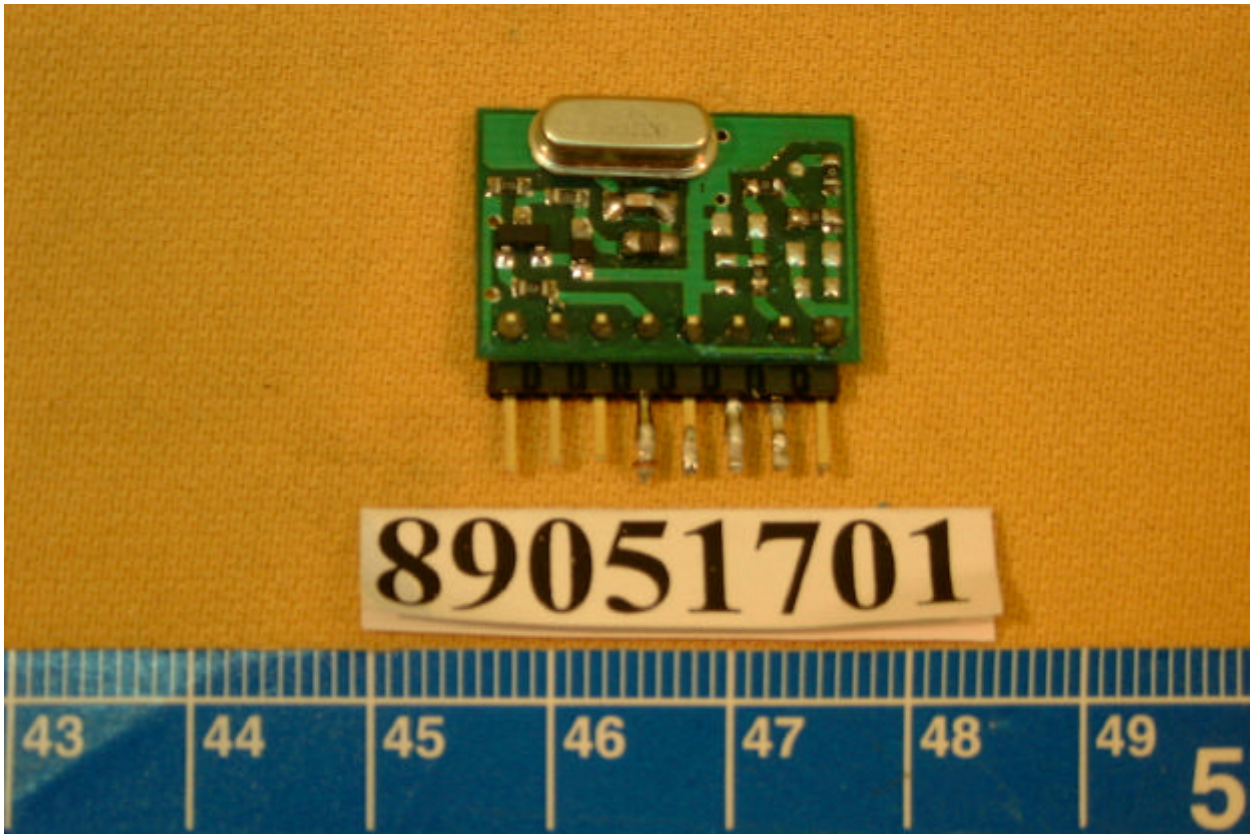
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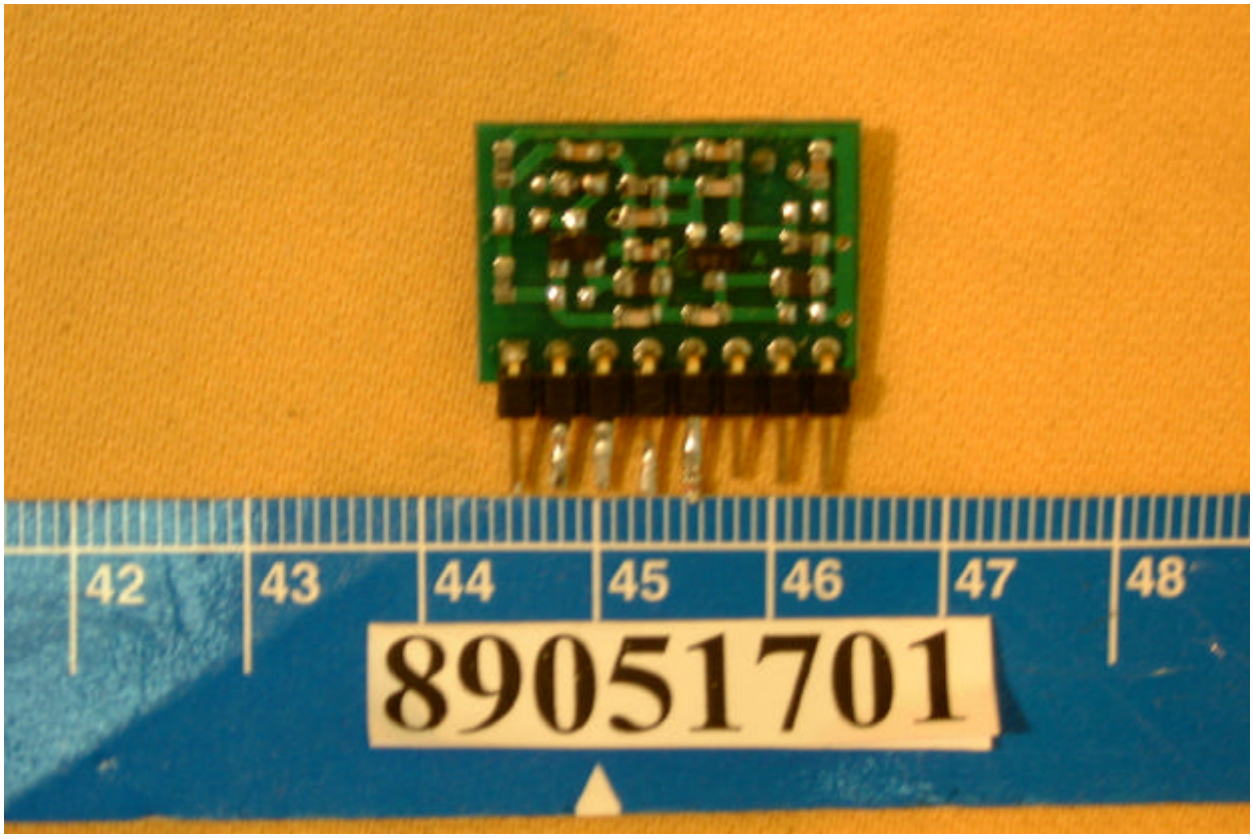
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SUPER ALKALINE
LR03 SIZE AAA 1.5V
UNIVERSE
LR03 SIZE AAA 1.5V
UNIVERSE
89051701