EMC & Radio Equipment Testing Lab
Telecommunication Equipment Testing Center
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Date of Issue : Oct. 12, 2001

0280

FCC

TEST REPORT

Client : Flying Technology Co., Ltd

Product : Wireless Headset (Headset)

Model No. : Vivid 6.0

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STATEMENT

Client : Flying Technology Co., Ltd.
8F, No 3, Lane 163, Sin- Yi Road,Pan-Chiao, Taipei Hsien, Taiwan

Manufacturer : Flying Technology Co., Ltd.
8F, No 3, Lane 163, Sin- Yi Road,Pan-Chiao, Taipei Hsien, Taiwan

FCC ID : **PXC-VIVID-60B**

Product : Wireless Headset (Headset)
Model Number : Vivid 6.0
Serial Number : N/A
Brand : Flying Technology
Date of Test Sample Received : Sep.3, 2001
Date of Test : Sep. 8, 2001 – Oct. 12, 2001
Regulation Applied : FCC Part 15 Subpart C
Test Result : **Compliant**

WE HEREBY CERTIFY THAT the test data in this report were made in accordance with the regulation FCC Part 15 Subpart C. We assume full responsibility for the accuracy of these data measured. The results in this report is only related to the test sample.

Test Engineer : Yu-Min Hsieh

Technical Manager : Chi-Chao Chang

Chief : Ho-Yun Lin

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1. General Information

1.1 Description of EUT

The Equipment Under Test(EUT) is a wireless handfree headset, which is designed to work between ears of a person and a mobile phone in a distance of about 3m. The Vivid 6.0 base set, as shown in Appendix, working without a battery can be plugged in most of types of mobile phones such as GSM900, DCS 1800 or PHS 1800 as one end of a voice transceiver. The Vivid 6.0 headset, as shown in Appendix, powered by Ni-Mh 3.6V battery hooks to a person's right ear as the other end of a transceiver. When a mobile phone with Vivid 6.0 base set rings, just press the button one time on the Vivid 6.0 headset to get the call. The Vivid 6.0 headset can be charged by the battery of a mobile phone through a bridge wire for longer use. The pair of transceiver won't radiate after power-on when in charge mode.

1.2 Basic Specification of EUT

RF Transmission Frequency : 2410 MHz

Type of Modulation : FM

Transmission Range : 0 ~ 3 m

Working Duration : 60 minutes

Charge time : 3 ~ 5 Hours

Compatible System : GSM 900 / DCS 1800 / PHS 1800

Dimension :
Headset 82(L) X 33(W) X 11.5(T) mm
Base set 40(L) X 37(W) X 16.2(T) mm

Weight :
Headset : 22g
Base set : 21g

Rechargeable Battery : Ni-Mh 3.6V, 40mA

Operation Mode : On Mode / Off Mode/ Charge Mode

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1.3 Test Applicability Table

Test Item	Applicability	Remark
Antenna requirement – per 15.203	**no**	The antenna is soldered on board and not interchangeable
Radiated Emissions – per 15.209 & 15.249	**yes**	none
Conducted Emissions – per 15.207	**no**	Powered by 3.6V battery

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2. Measurements and Results

2.1 Field Strength Inside of Band

2.1.1 Test procedure

The test sample transceivers(EUT) were switched on and placed on a wooden turntable of 80 cm high in a semi-anechoic chamber.The EUTs were X-axis orinated and turned 360 degree to detect the emission and then Y-axis and Z-axiz orinated to dertermine the max emissions that will be recorded in the report. A microwave receiver system with a receiving horn antenna was set 3m away from the EUT. The maximum emission of the fundamental radiation strength was measured and recorded. The microwave EMI receiver was previously programed to offset the cable factors and antenna factors, and therefore the readings of the spectrum were already the field strength from the EUTs.

2.1.2 Test Faclities Used

Description	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Microwave EMI Receiver System	HP	84125C	36433007	MAY 22,01	1 YEAR
Horn Antenna	EMCO	3115	9012-3608	----	----
RF Preamp	HP	83051A	3332A00392	JUN 12,01	1 YEAR

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2.1.3 Test Results

Model No. : Vivid 6.0 Headset

Frequency MHz	Polarization	Corrected Measurement dBuV/m	Limit dBuV/m
2410.088	H	67.6	94
	V	64.3	
Measurement Uncertainty			3dB
Ambient Temperature : 28 ^{O}C Humidity : 55 % R.H.			

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2.2 Emissions outside of authorized band

2.2.1 Test procedure

The test sample transceivers(EUT) were switched on and placed on a wooden turntable of 80 cm high in a semi-anechoic chamber. The EUTs were X-axis orinated and turned 360 degree to detect the emission and then Y-axis and Z-axiz orinated to dertermine the max emissions that will be recorded in the report. A microwave receiver system with a receiving horn antenna was set 3m away from the EUT. After the maximum emission of the harmonic radiation and other spurious power were recorded, the receiving horn antenna was changed to a bilog antenna to take measurement of spurious emissions at 30 – 1000MHz. A 3.5GHz high pass filter(HPF) was connected to preamplifier to protect it from being operating in satuated condition when 2.6GHz – 26.5GHz was measured.

2.2.2 Test Facilities Used

Description	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
RF Preamp	HP	83051A	3332A00392	JUN 12,01	1 YEAR
Microwave EMI Receiver	HP	84125C	36433007	MAY 22,01	1 YEAR
Bi-Log Antenna	EMCO	3142	1331	MAY 23,01	1 YEAR
Horn Antenna	EMCO	3115	9012-3608	----	----
HPF	HP	84300-80038	007	----	----

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2.2.3 Test Results

Model No. : Vivid 6.0 headset

Frequency MHz	Polarization	Corrected Measurement dBuV/m	Limit dBuV/m
30 - 88	H	< 40	44
	V	< 40	
88 - 216	H	< 40	44
	V	< 40	
216 - 900	H	< 40	46
	V	< 40	
Measurement Uncertainty			3dB
Ambient Temperature : 28 ^{O}C Humidity : 55 % R.H.			

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Model No. : Vivid 6.0 headset

Frequency MHz	Polarization	Corrected Measurement dBuV/m	Limit dBuV/m
4820.18	H	37.8	54
	V	43.5	
7230.26	H	47.3	54
	V	46.8	
9640.35	H	51.8	54
	V	45.2	
12050.44	H	< 44	54
	V	< 44	
14460.53	H	< 44	54
	V	< 44	
16870.62	H	< 44	54
	V	< 44	
19280.70	H	< 44	54
	V	< 44	
21690.79	H	< 44	54
	V	< 44	
24100.88	H	< 44	54
	V	< 44	
Measurement Uncertainty			3dB
Ambient Temperature : 28 ^{O}C Humidity : 55 % R.H.			

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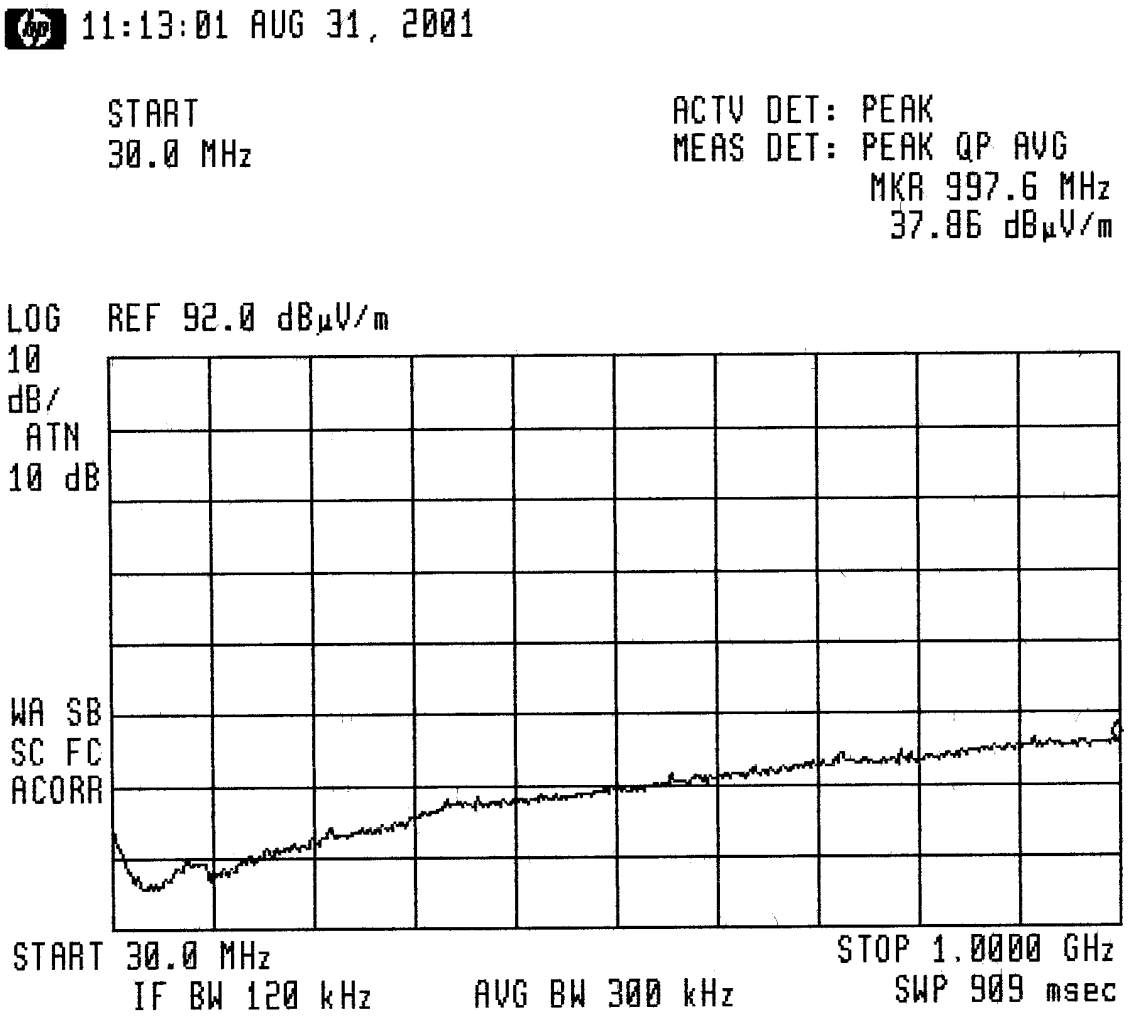
Appendix



Headset – H Polarization

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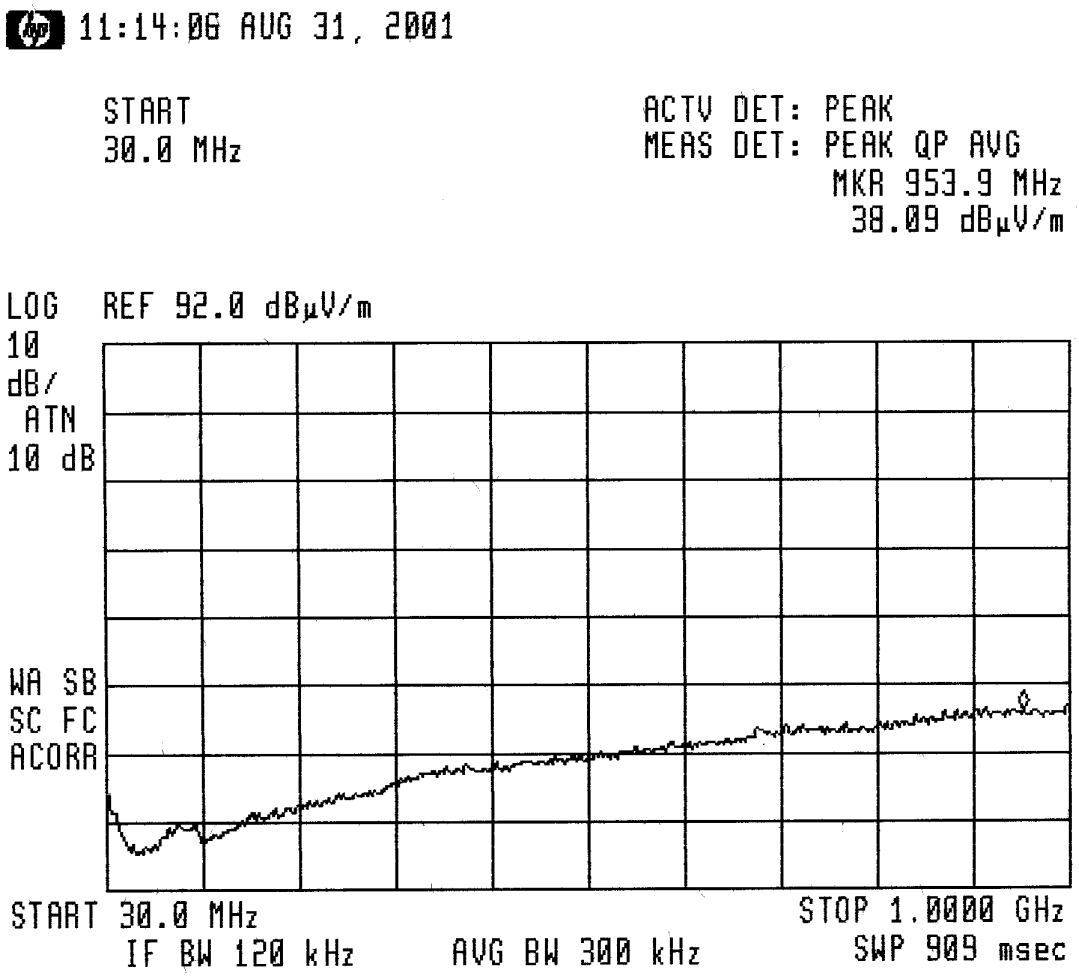

Headset – V Polarization

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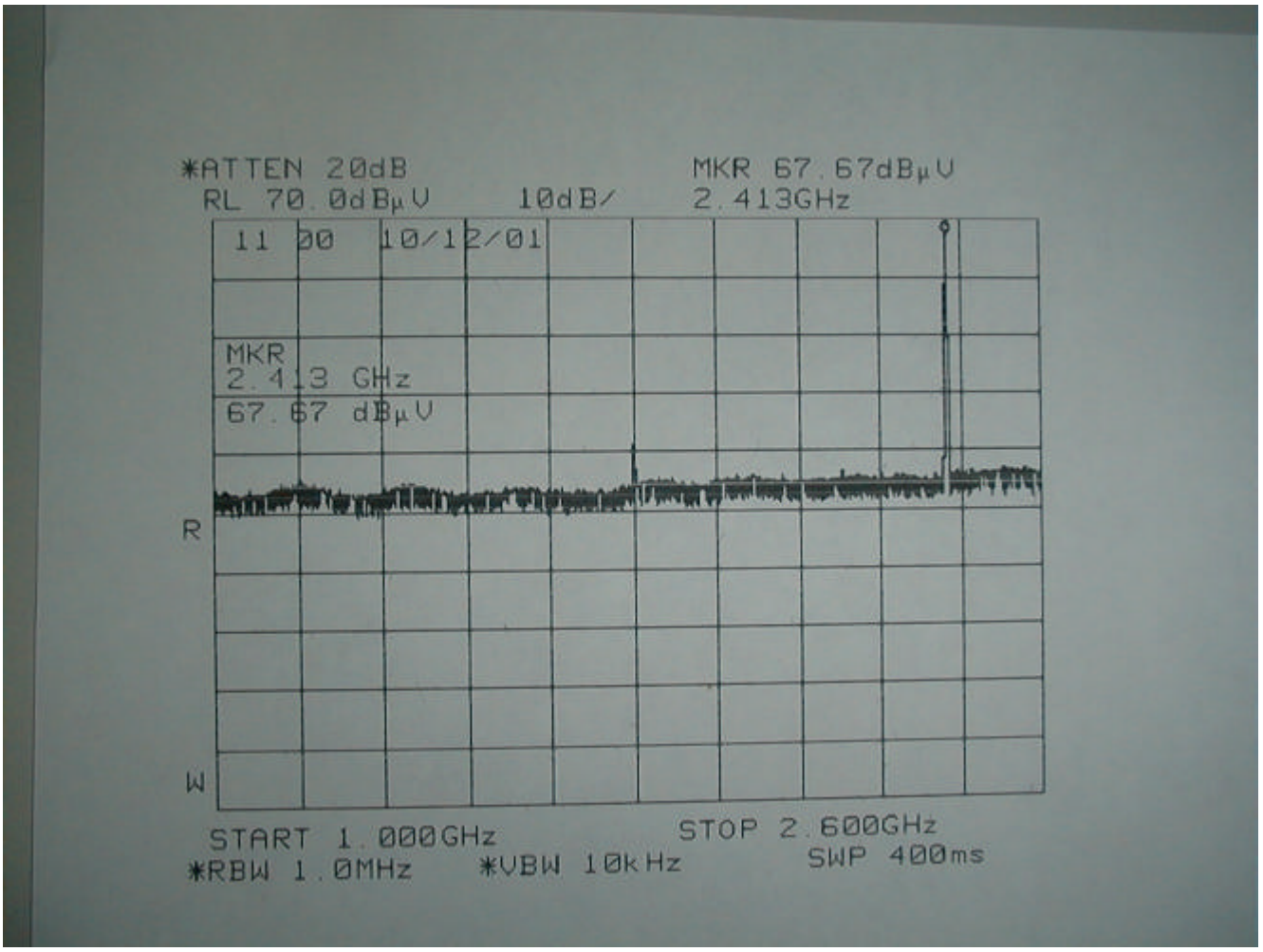

Headset – H Polarization

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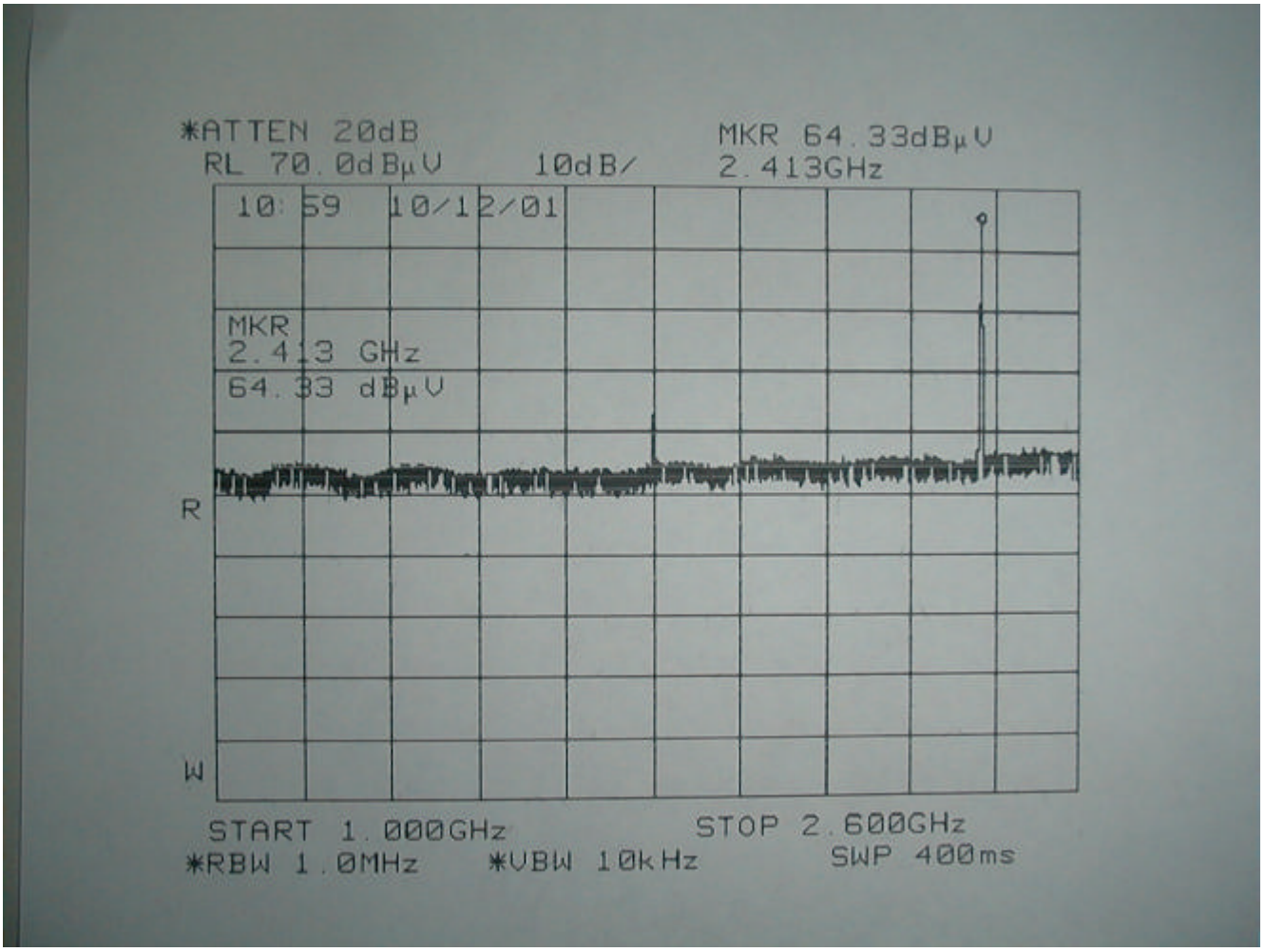

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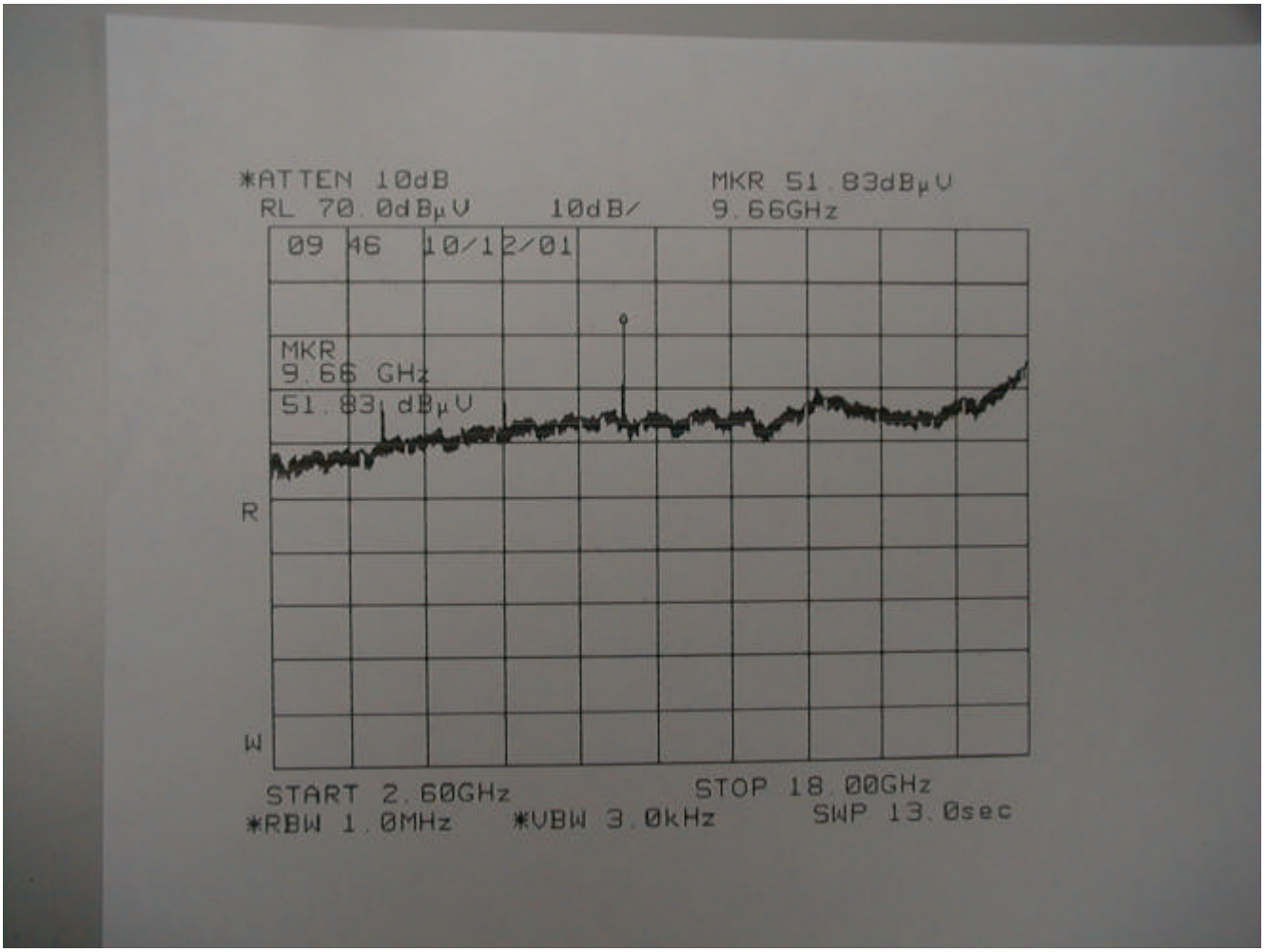

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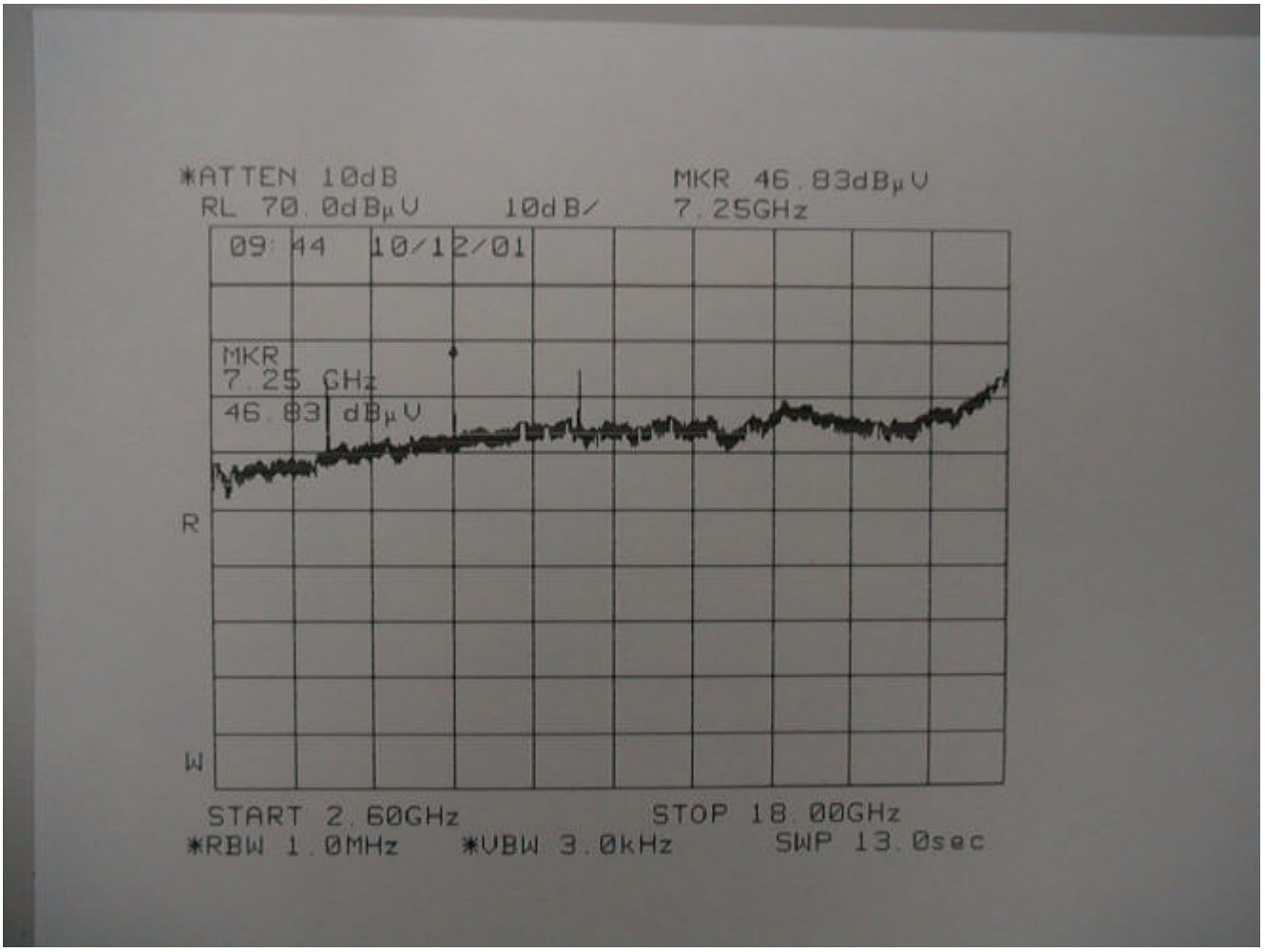

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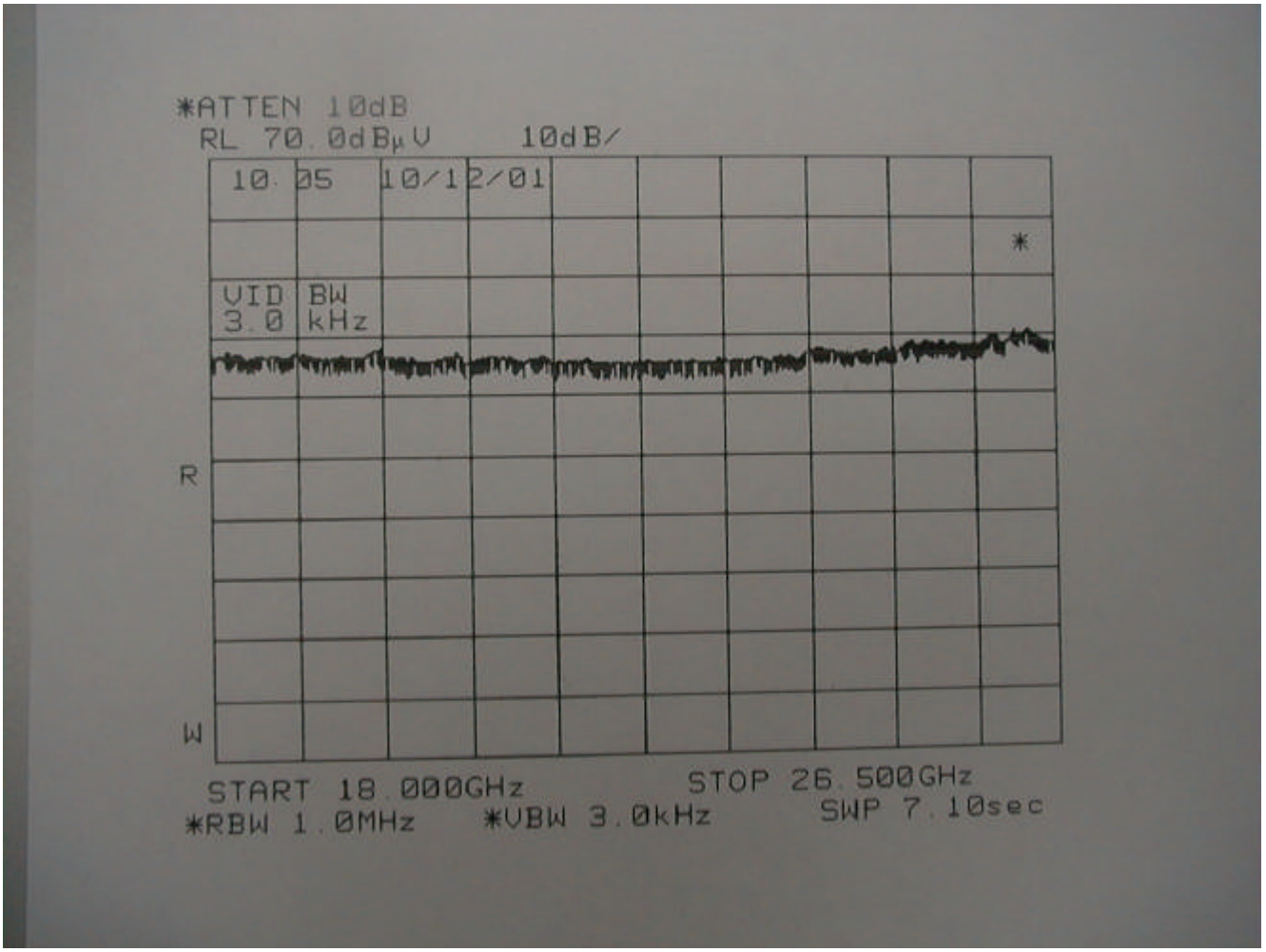

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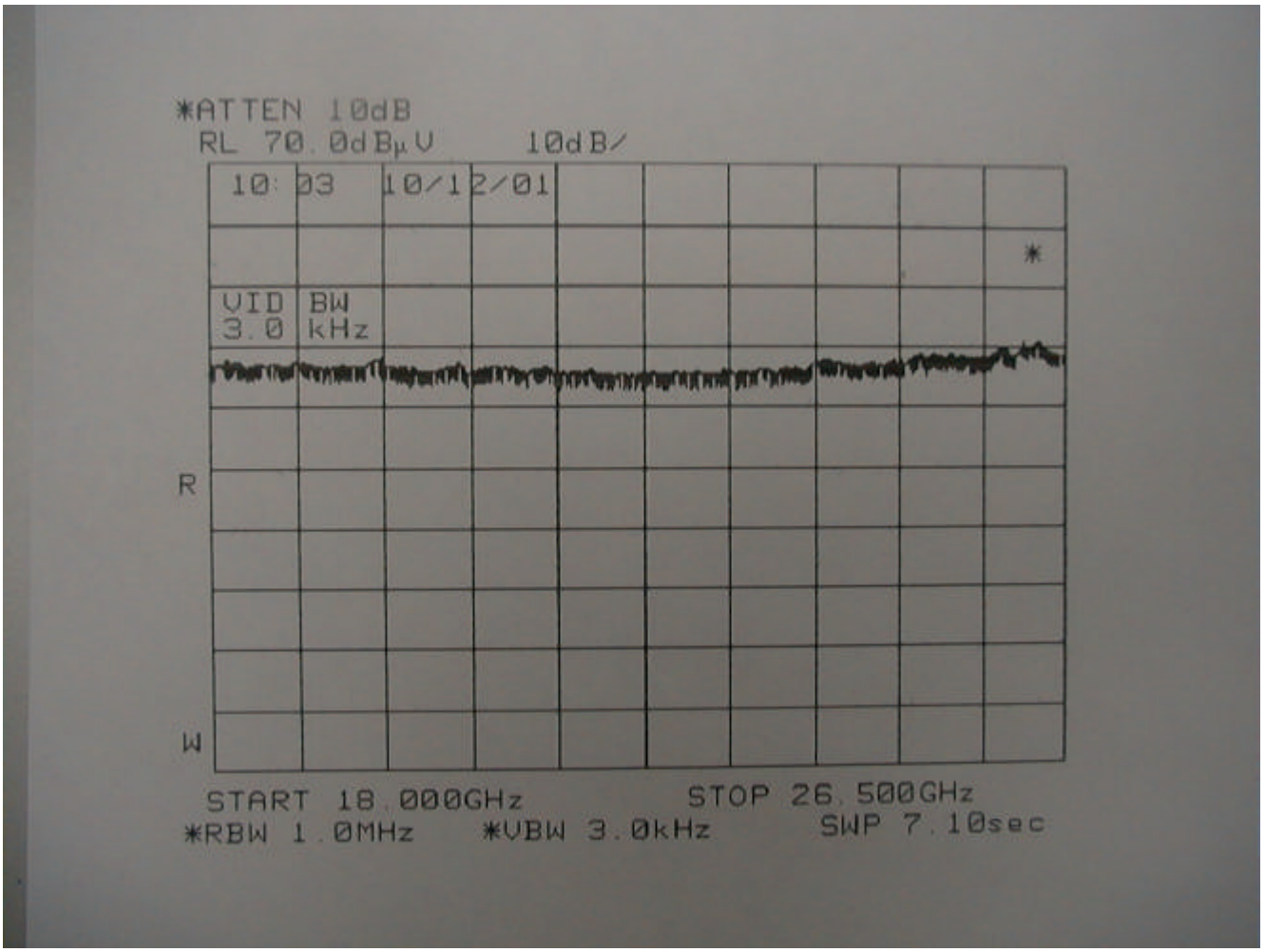

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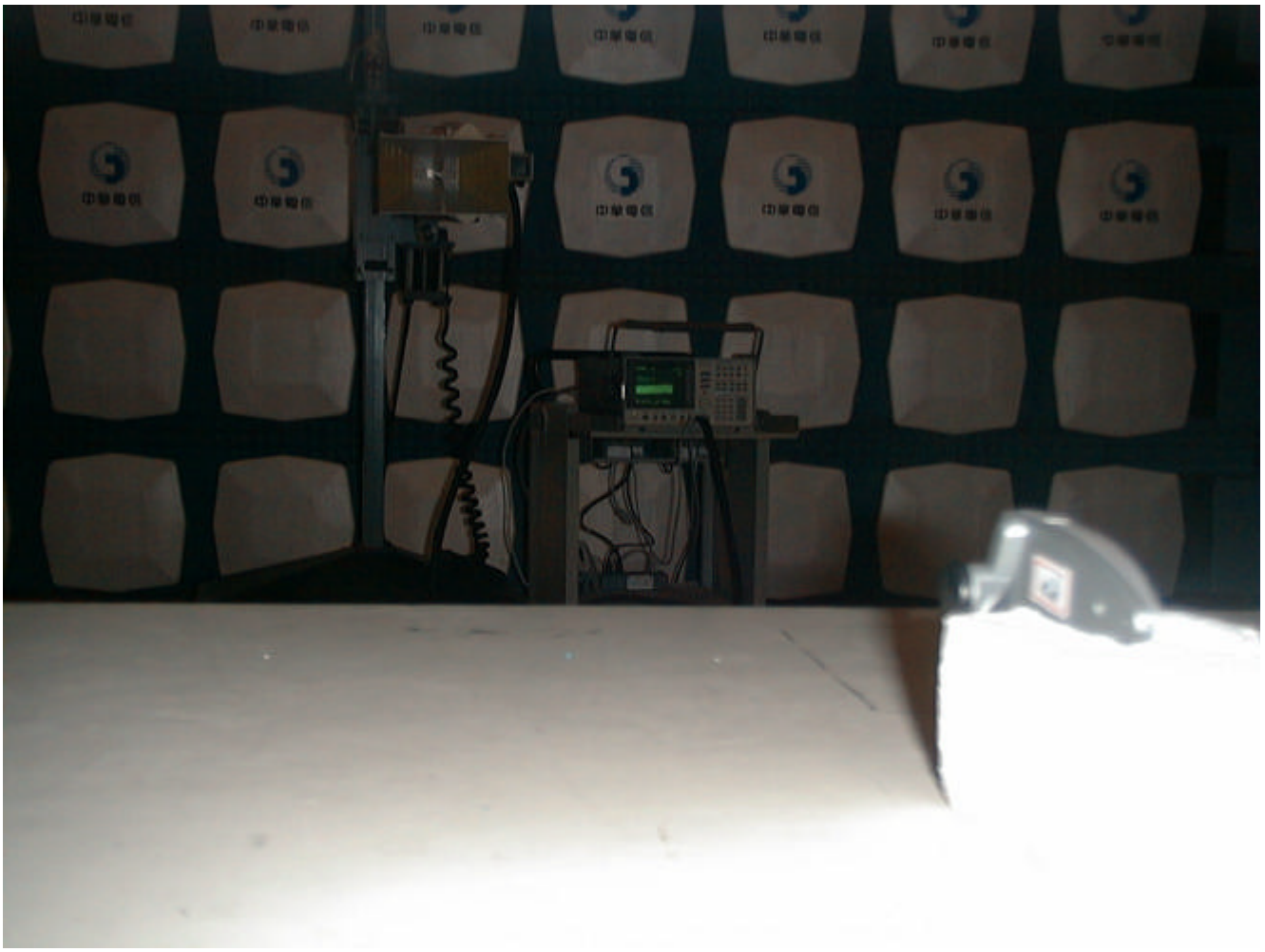

Test Setup - Rear View

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Test Setup - Front View

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Headset Facade

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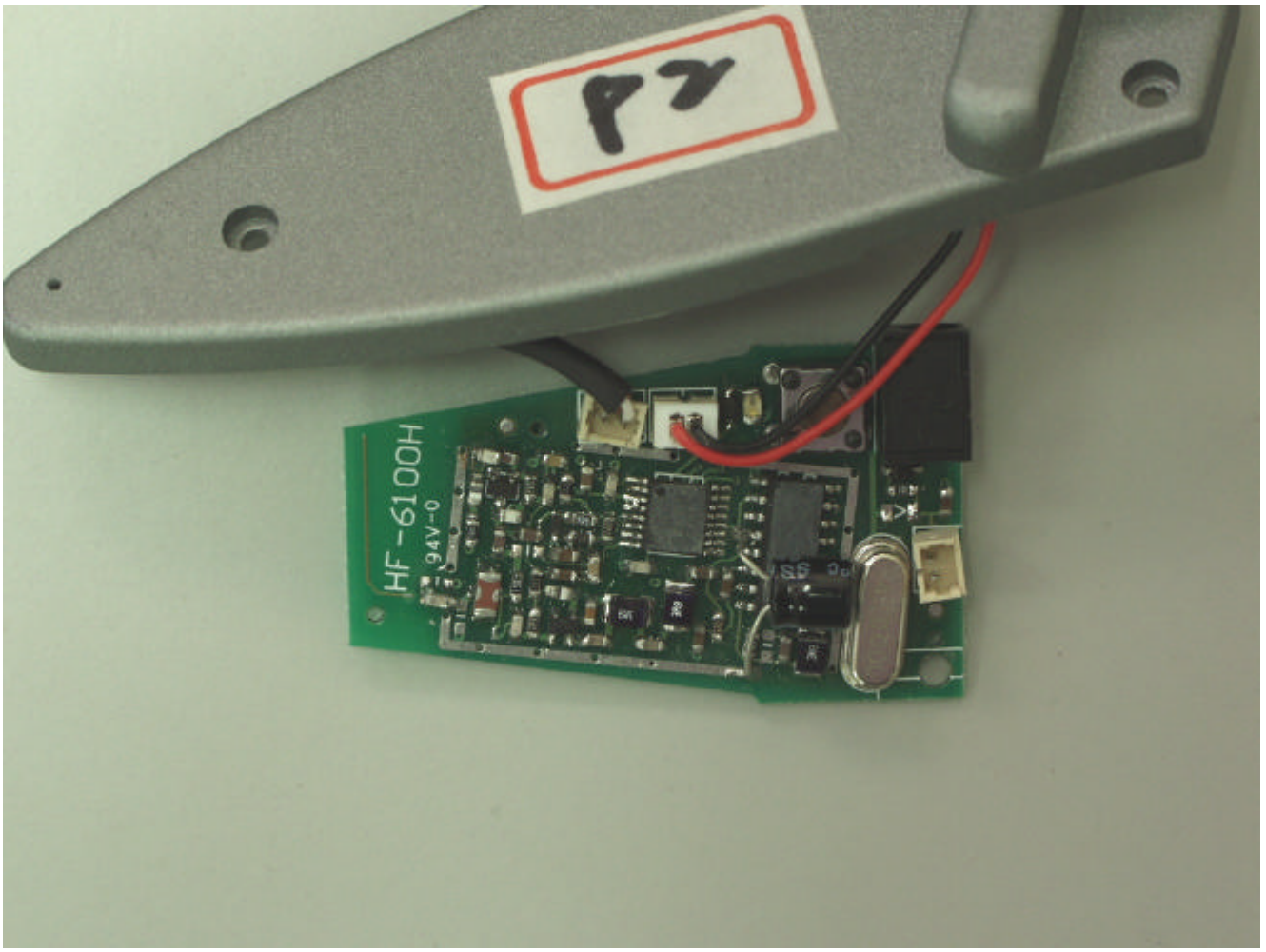

Component Side of PCB

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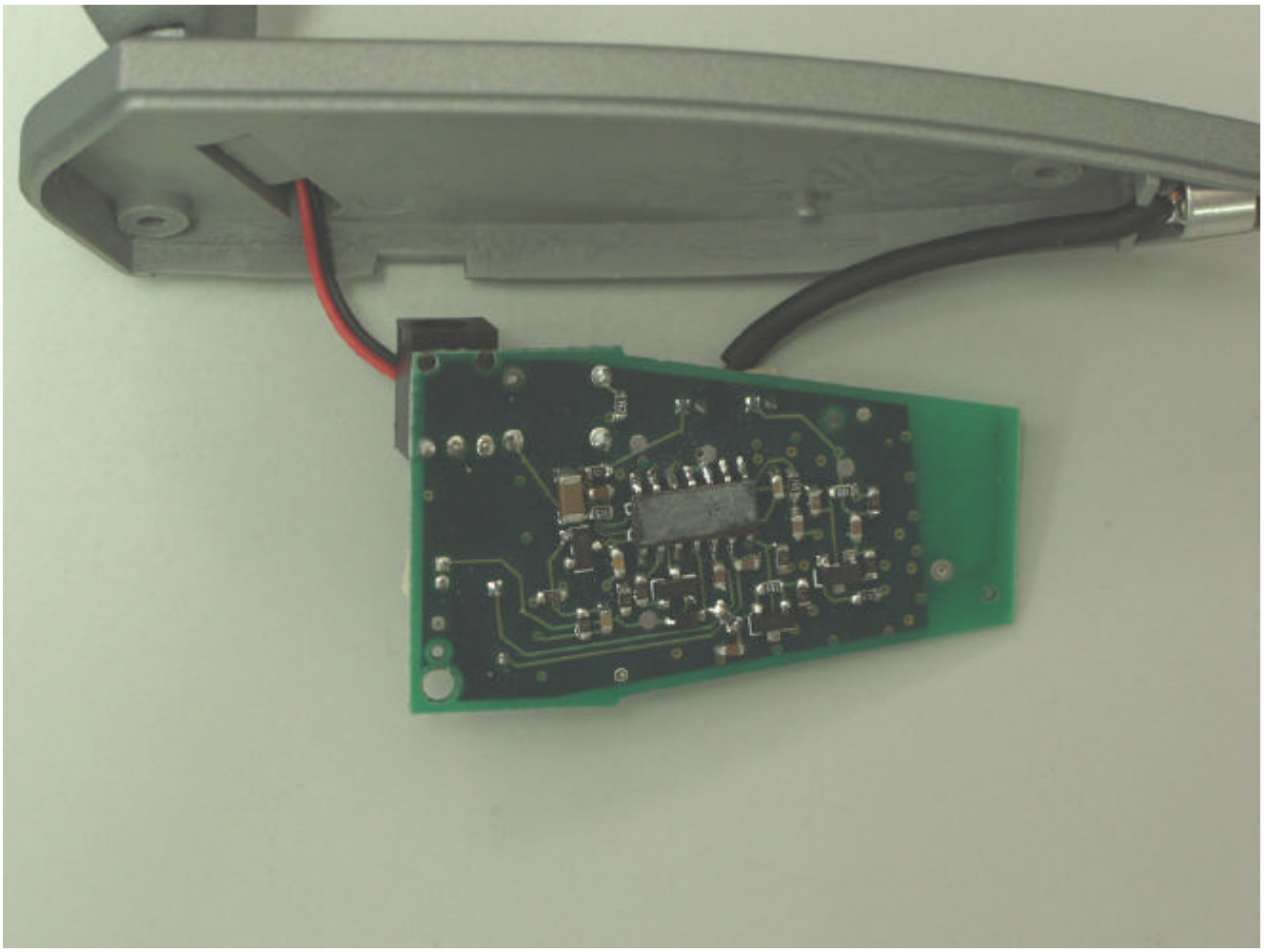

Solder Side of PCB