

**FCC Test Report
Application for Certification
(Additional Test Data)**

**On Behalf Of
RF-Link Systems Inc.
WL 3D Mouse for 900MHz (Receiver)
Model # : RF 50202**

#2

TESTED DS

FCC ID : MIBRF50202

RECEIVER

Prepared For:

**RF-Link Systems Inc.
1F, No.9, Chan Yeh Road 1, Science-Based
Industrial Park, HsinChu, Taiwan, R.O.C.**

**Report By : QuieTek Corporation
No.75-1, Wang-Yeh Valley, Yung-Hsing
Tsuen, Chiung-Lin, Hsin-Chu County,
Taiwan, R.O.C.
Tel : (03) 592-8858
Fax : (03) 592-8859**

The test results are traceable to the national or international standards
Test results given in this report only relate to the specimen(s) tested or measured.
This report shall not be reproduced excepted in full, without the written consent of QuieTek.
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

1. Test Report Certification

Applicant : RF-Link Systems Inc.

Manufacturer : RF-Link Systems Inc.

EUT Description

Model Name : WL 3D Mouse for 900MHz (Receiver)

Model No. : RF 50202

Serial Number : N/A

FCC ID. : MIBRF50202

Power : 120V/60Hz AC

MEASUREMENT STANDARD USED :

CFR 47, Part 15 Radio Frequency Device Subpart B Unintentional Radiators Class B :1996

MEASUREMENT PROCEDURE USED :

ANSI C63.4 Methods of Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9kHz to 40GHz. :1992

The device described above was tested by QuieTek Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 Subpart B limits for both radiated and conducted emissions.

The measurement results are contained in this test report and QuieTek Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC Part 15 Subpart B limits.

And there are no deviation from the above measurement process.

Sample Received Date : December 9, 1998

Test Date : December 28, 1998

Documented by : Kathy Lee



Test Engineer:

Approve & Authorized Signer:

Jeff Chen

Gene Chang

2. General Information

2.1 Production Description

Description : WL 3D Mouse for 900MHz (Receiver)
Model Number : RF 50202
Serial Number : N/A
FCC ID. : MIBRF50202
Applicant : RF-Link Systems Inc.
Address : 1F, No.9, Chan Yeh Road 1, Science-Based
Industrial Park, HsinChu, Taiwan, R.O.C.
Manufacturer : RF-Link Systems Inc.
Address : 1F, No.9, Chan Yeh Road 1, Science-Based
Industrial Park, HsinChu, Taiwan, R.O.C.
Industrial Park, HsinChu, Taiwan, R.O.C.
Data Cable : Shielded, Undetachable, 1.5m

Mode Difference:

Mode 1 : Channel 1, Local Frequency :895Mhz , Supplied same frequency by SG
Mode 2 : Channel 4, Local Frequency :902Mhz, Supplied same frequency by SG
Mode 3 : Channel 8, Local Frequency :933Mhz, Supplied same frequency by SG

Note:

1. The data show in this test report reflects the worst-case data for each operation mode.
2. The EUT which is a wireless receiver is used with wireless 3D mouse(transmitter),
FCC ID.: MIBRF50201.

2.2 Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards, which have grants) are:

Host Personal Computer

Model Number : PIIL97
Manufacturer : ASUS
Serial Number : AS10228
FCC ID : DoC
Power Cord : Unshielded, Detachable, 1.8m

Keyboard

Model Number : 6311-TW2C
Serial Number : N/A
FCC ID : DoC
Manufacturer : ACER
Data Cable : Shielded, Non-detachable, 1.8m

Monitor

Model Number : CM752ET-311
Serial Number : T8F006364
FCC ID : DoC
Manufacturer : HITACHI
Data Cable : Shielded, Non-Detachable 1.5m
Power Cord : Shielded, Detachable 1.8m

Printer

Model Number : C2642A
Serial Number : MY75J1D1D0
FCC ID : B94C2642X
Manufacturer : HP
Data Cable : Shielded, Detachable, 1.2m
Power Adapter : NMB, M/N: C2175A
Cable for AC IN: Unshielded, Non-detachable, 0.7m
Cable for AC Out: Unshielded, Non-detachable, 1.5m

Modem

Model Number : 1414
Serial Number : 980033038
FCC ID : IFAXDM1414
Manufacturer : ACEEX
Data Cable : Shielded, Detachable, 1.5m
Power Adapter : ACCEX, M/N: SCP41-91000A
Cable Output : Shielded, Non-detachable, 1.5m

 Modem

Model Number : 1414
Serial Number : 980033041
FCC ID : IFAXDM1414
Manufacturer : ACEEX
Data Cable : Shielded, Detachable, 1.5m
Power Adapter : ACCEX, M/N: SCP41-91000A
Cable Output : Shielded, Non-detachable, 1.5m

 WL 3D Mouse for 900MHz (Receiver) (EUT)

Model Number : RF 50202
Serial Number : N/A
FCC ID : MIBRF50202
Manufacturer : RF-Link Systems Inc.
Data Cable : Shielded, Undetachable, 1.5m

 Joystick

Model Number : JPD110
Serial Number : 9814A15646
FCC ID : DoC
Manufacturer : Maxxtro
Data Cable : Shielded, Non-detachable, 1.7m

 Mouse

Model Number : M-S34
Serial Number : LZB75078428
FCC ID : DZL211029
Manufacturer : HP
Data Cable : Shielded, Non-detachable, 1.8m

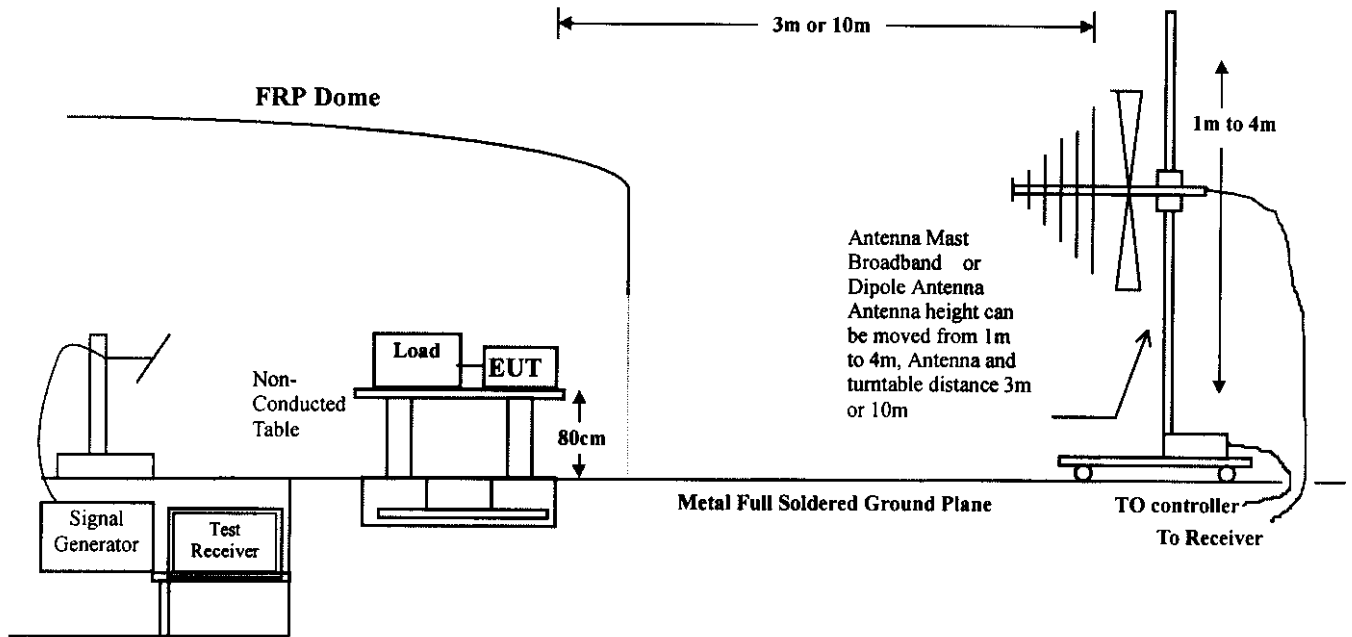
2.3 Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-1992.

Radiated testing was performed at an antenna to EUT distance of 3 meters.

The frequency range up to Second Harmonics is checked.

2.4 Open Test Site Setup Diagram



Radiated Emission Data

Date of Test	December 28, 1998	Temperature	23 °C
EUT	WL 3D Mouse for 900MHz	Humidity	65 %
Test Mode		Display Pattern	

Frequency	Cable	Ant	Reading Level	Emission Level	Limits
MHz	Loss Factor	dB/m	Horizontal	Horizontal	dBuV/m
	dB		dBuV	dBuV/m	

Model : Channel 1

*	894.914	6.85	20.91	15.38	43.14	46.00
	1790.124	10.56	26.77	1.70	39.03	54.00

Model : Channel 4

	902.114	6.90	20.87	13.73	41.50	46.00
	1804.735	10.63	26.82	2.90	40.35	54.00

Model : Channel 8

	933.114	7.05	21.13	13.15	41.33	46.00
	1866.586	10.88	27.00	2.40	40.28	54.00

Remarks:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " * ", means this data is the worse emission level.
3. Emission Level = Reading Level + Antenna Factor + Cable loss

Radiated Emission Data

Date of Test	December 28, 1998	Temperature	23 °C
EUT	WL 3D Mouse for 900MHz	Humidity	65 %
Test Mode		Display Pattern	

Frequency	Cable	Ant	Reading Level	Emission Level	Limits
MHz	Loss	Factor	Vertical	Vertical	dBuV/m
MHz	dB	dB/m	dBuV	dBuV/m	dBuV/m

Model : Channel 1

894.914	6.85	20.91	11.50	39.26	46.00
1790.124	10.56	26.77	0.3	37.63	54.00

Model : Channel 4

* 902.114	6.90	20.87	10.42	38.19	46.00
1804.735	10.63	26.82	-0.80	36.65	54.00

Model : Channel 8

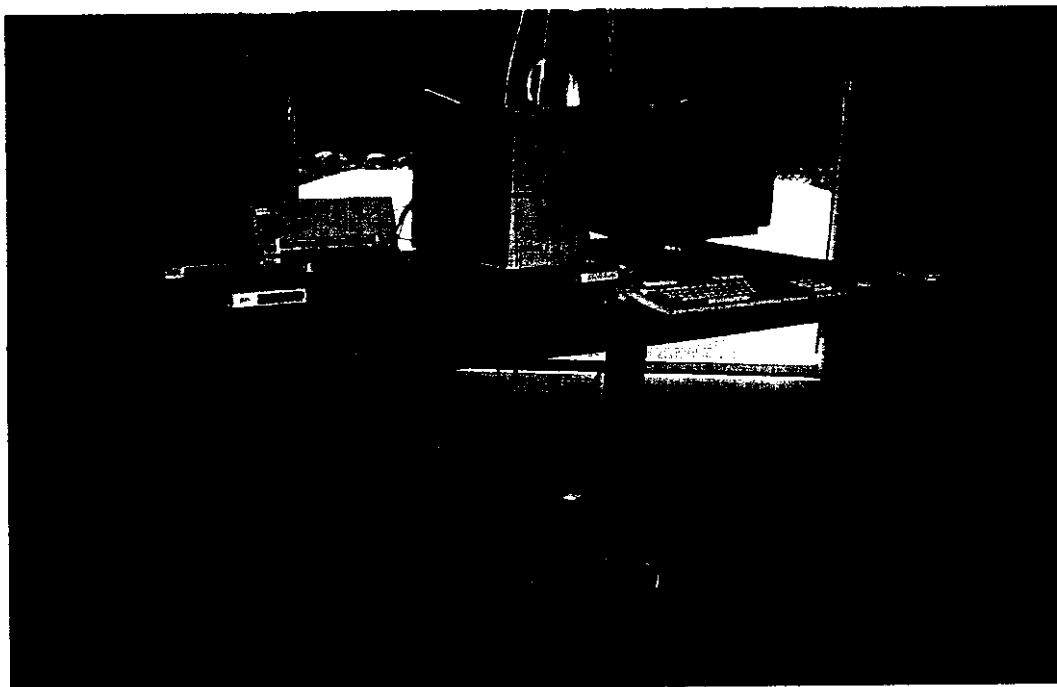
933.114	7.05	21.13	10.12	38.30	46.00
1866.586	10.88	27.00	-1.2	36.68	54.00

Remarks:

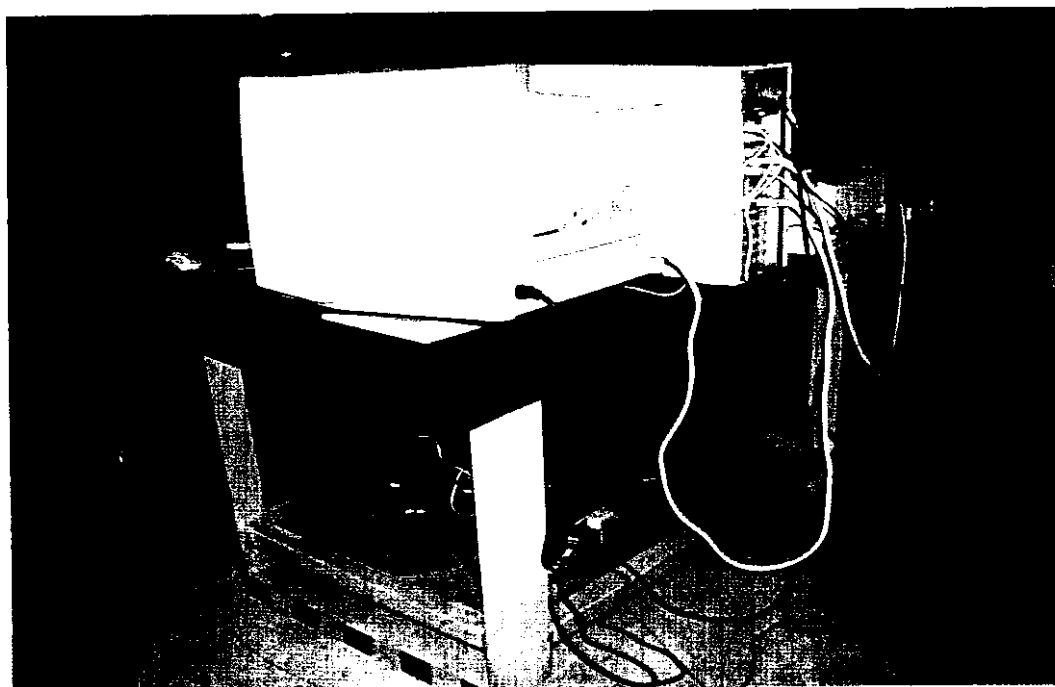
1. All Readings below 1GHz are Quasi-Peak, above are average value.
4. " * ", means this data is the worse emission level.
5. Emission Level = Reading Level + Antenna Factor + Cable loss

3. Test Photographs

Front View of Radiated Test (Maximum Testing Configuration)



Back View of Radiated Test (Maximum Testing Configuration)



**FCC Test Report
Application for Certification
On Behalf Of
RF-Link Systems Inc.
WL 3D Mouse for 900MHz (Receiver)
Model # : RF 50202**

FCC ID : MIBRF50202

(#1)

TESTED AS COMPUTER PERIPHERAL DEVICE

**Prepared For:
RF-Link Systems Inc.
1F, No.9, Chan Yeh Road 1, Science-Based
Industrial Park, HsinChu, Taiwan, R.O.C.**

**Report By : QuieTek Corporation
No.75-1, Wang-Yeh Valley, Yung-Hsing
Tsuen, Chiung-Lin, Hsin-Chu County,
Taiwan, R.O.C.
Tel : (03) 592-8858
Fax : (03) 592-8859**

The test results are traceable to the national or international standards
Test results given in this report only relate to the specimen(s) tested or measured.
This report shall not be reproduced excepted in full, without the written consent of QuieTek.
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government