

# SPECIFICATION

## OF

### CREATIVE FREEPOINT 3500

### (MODEL NO: WMU95S)

Note:

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Caution:

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

Prepared by MLK Industries (ShenZhen) Limited

REV:1.2

27.Oct. 2004

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DR: Sam

CHECK:

APPD:

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## Revision History

Revision	Descriptions	Prepared by	Date
1.1	Low battery blue LED at receiver	MLK	10/05/04
1.2	Text format put up modify	MLK	10/27/04

## Part 1.0: General features and description

- Prevent Repetitive Strain Injury on your wrists and arms.
- Radio frequency : 27.045 MHz、27.195MHz, two channels with 256 IDs per channel, no more problems with radio frequency interference .
- Battery type: 2 AA alkaline batteries for mouse
- Mouse resolution : 800dpi
- Sensor detects movement on all kinds of surface, a\* including wood, plastics, pants, etc... ( Highly reflective surfaces like mirror or deep dark color may not work properly).
- The ergonomically designed shaped provides easy control for both right hand and left hand
- Works under Windows 98/98SE/Me/2000/XP
- The left, right and scroll wheel buttons can be programmed to perform a variety of functions to speed up daily tasks.

## Part 2.0: System Requirements

- . IBM PC or compatible system

## Part 3.0: Preface

The functionality and performance requirements related to the mouse are defined in this specification.

## Part 4.0: Version

- USB (1.1version) and PS/2 interface

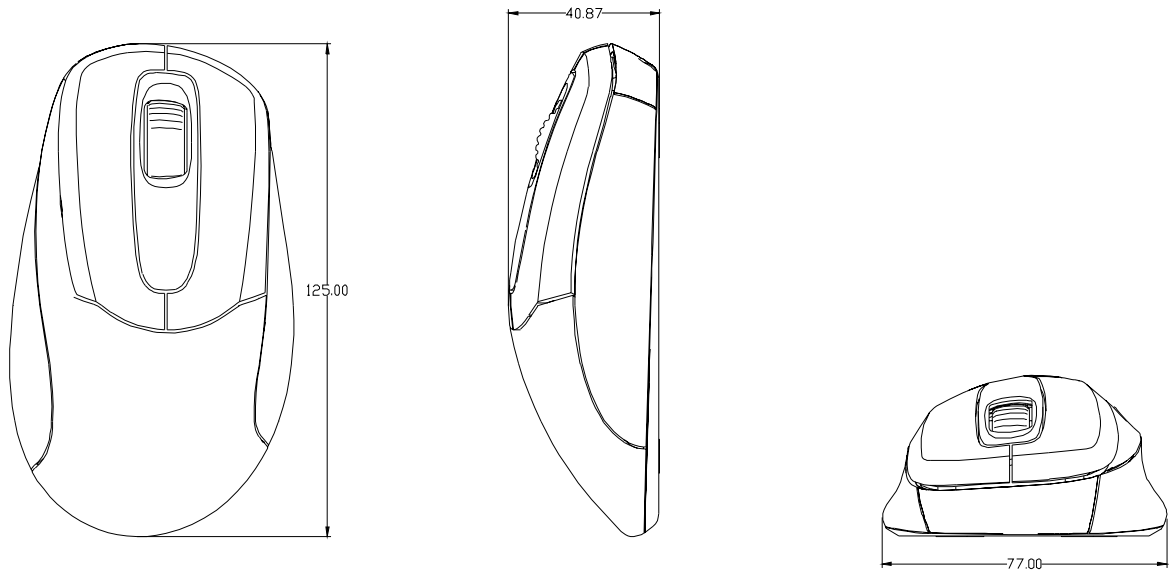
## Part 5.0: Physical characteristics and configuration

Item 5.1: Dimension

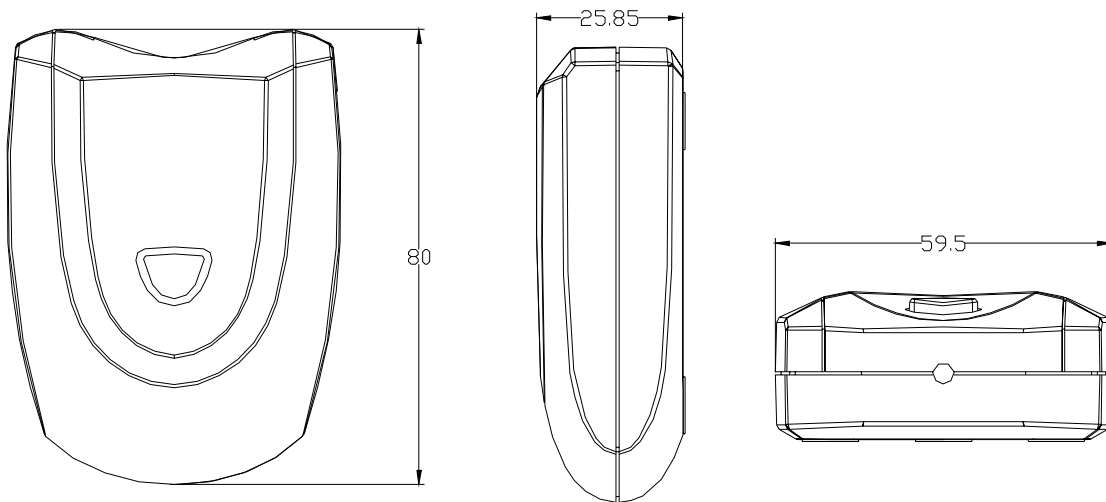
Mouse: 125mm(L) x 77mm(W) x 40.87mm(H)

Receiver: 80mm(L) x 59.5mm(W) x 25.85mm(H)

**Mouse:**



**Receiver:**



**Item 5.2: Material**

Mouse	Body	ABS
	Beside face(3)	Rubber paint
	Wheel	Rubber

**Item 5.3: Finish:** Texture

DR: Sam

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**Item 5.4: Color:** To be defined by ID

**Item 5.5: Button**

Mouse: 3 Buttons with scrolling wheel, 1 CONNECT button.

**Item 5.6: Mechanical Performance**

5.6.1 Operating force of mouse buttons: 70 ± 15gf

5.6.2 Operating force of browser switches: 170 ± 25gf

5.6.3 Operating force of wheel scrolling: 20 ± 10gf

5.6.4 Operating force of moving mouse: 80 ± 10gf

5.6.5 Mouse weight(include batteries): 130 ± 5g

5.6.6 Receiver weight: 71 ± 5g

**Part 6.0: Electrical specification**

**Item 6.1: Compatibility**

The USB mode uses the low speed interface as defined in the USB specification. It is compliant to the USB specification and HID class specification.

- The USB mode shall be compatible with IBM PC/PENTIUM and works with operating system such as Windows 98/98SE /2000/ME/XP as well as the most software applications.

**Item 6.2: Technicalities of Mouse**

The mouse's optical sensor works for X and Y axis. The accurate sensor detects movement on hundred of surfaces\*, including wood, plastic and even the surface of your pants. The wheel button uses a mechanical encode to work.

\* Not including reflective surfaces such as mirrors or glass.

**Item 6.3: Sensor Report Rate on Mouse**

2300 times per second

**Item 6.4: Sensor Light on mouse**

Red LED

**Item 6.5: Power Requirement (Receiver)**

5V/ DC 50mA directly from computer's USB port

**Item 6.6: Operating Angle**

The mouse operating angle is 360 degrees.

**Item 6.7: Operating Distance**

The operation distance from mouse to the receiver is up to 1.8meters, under typical office environment.

**Item 6.8: To change Channel and ID**

The ID and channel are changed by the CONNECT button.

Press the Connect button and the RF Receiver followed by the Connect button on the mouse. Repeat this step when experiencing interference while using this product, changing the batteries or using this product for the first time.

Make sure you press the Connect button on the mouse within 10 sec after you press the Connect

button on the RF Receiver.

## **Item 6.9: Battery**

### 6.9.1 Battery Type

The mouse use two AA alkaline batteries.

### 6.9.2 Battery Consumption

Operating mode: <40 mA @ 3.0V (white paper)

Sleep Mode 1: <4.0mA @ 3.0V (white paper) If the mouse is not used for approximately 3 seconds.

Sleep mode 2: <0.5mA @ 3.0V (white paper) when not in use for approximately 8 minutes.

6.9.3: Battery saving mode : longer battery life

6.9.4: LED Indicator Function.

6.9.51: Low Battery indication

If the blue LED on the receiver is flashing while working, this indicate that the battery is low in voltage, you will need to change the batteries.

6.9.52: Indication of mouse function:

- 1)Receiver LED does not light up when it is connected to the PC
- 2) LED will flash for about 10 seconds when connected.
- 3) LED will light up when the mouse is being used.
- 4) LED will not light up when there is no mouse movement or when the buttons are not clicked.

## **Item 6.10: Tracking Speed**

The unit shall be capable of tracking between 50mm/s and 350mm/s of hand movement on the matt white paper without loss of data.

## **Item 6.11: Mouse Sensor Features**

- Optical motion estimation technology
- Complete 2D motion sensor
- No mechanical moving parts
- Accurate motion estimation over a wide range of surfaces
- High speed motion detection up to 14 inches/sec
- High resolution up to 800dpi

## **Part 7.0: Reliability and environmental specification**

### **Item 7.1: Button Switch Activation**

Condition: 3 cycles per second.

Testing method: a small DC motor fixed with cam automatically presses the button for three times per second. The switch is connected to a calculator. The number displayed on the calculator shows the pressed cycle of the button.

Result: button tested have a lift cycle of more than 1,000,000.00.

### **Item 7.2 : Cable Bending Strength**

Condition: Cable load at 100gram,

Testing method: bend 60 degrees in any direction from its centerline at a speed of 30 cycles/min. 1000 cycles.

Result: No visible damage and no breakage in each wire.

### **Item 7.3: Drop Shock with Bare Unit**

Condition: Drop the unit from a height of 76cm from the floor

Testing method: drop the unit on top, bottom and 4 side of the unit ( 1 time for each side).

Result: The unit function properly without any mechanical failure.

### **Item 7.4: Drop Shock in Gift box**

Condition: Unit have been packed with gift box

Testing method: Drop the unit from a height of 91cm onto floor, from the angles of the 4 corners and the 6 sides of the box (1 time for each side)

Result: no content escape from packaging.

### **Item 7.5: Temperature / Humidity Test**

7.4.1 Non-operating temperature/humidity cycle test

Storage at the following conditions:

- 1) 65 degrees Celsius / 95% RH (24hrs)
- 2) 65 degrees Celsius / 10% RH (24hrs)
- 3) -20 degrees Celsius (24hrs)

7.4.2 Operating temperature / humidity test

Performed dynamic burn-in at the following conditions:

- 1) 45 degrees Celsius / 80%RH (8hrs)
- 2) 45 degrees Celsius / 10%RH (8hrs)
- 3) 0 degrees Celsius (8hrs)

### **Item 7.6: Heat Cycle Test for Shipment Pattern**

Condition: N/A

Testing method: -40 degrees Celsius to 65 degrees Celsius under 0% to 90% relative humidity with total time of 40 hours, and then left under room temperature for 2 hours.

Result: The unit work properly

### **Item 7.7: Vibration Test**

Unit shall survive a vibration within a frequency range of 10 to 200Hz at 0.015 square of g/Hz and 200 to 500 Hz at -6dB/oct for X,Y, and Z axis and 0.5 hour per axis.

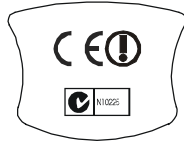
## **Part 8.0: Product Compliance**

### **Item8.1: Actual Compliance Label**

Mouse :



Size: 34X41.2mm



Size: 19.5X25mm



Size: 35.5X8mm

Receiver:



Size: 21.5x32.5mm

