



# **Product Specifications**

Portable Slim Type Touchpad Keyboard

Model: C201

Shenzhen Dezhongheng Industry Co., Ltd

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## 目 錄

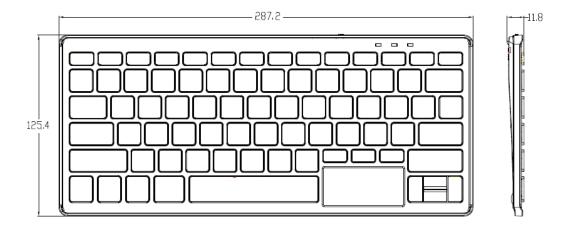
1	<ul><li>Scope</li></ul>	
	1.1 Summary	3
	1.2 Bluetooth Device · · · · · · · · · · · · · · · · · · ·	3
	1.3 Color of Appearance	
	1.4 USB Charge Cable	3
	1.5 System Requirement	4
2	Nechanism	4
	2.1 Key Structure ·····	4
	2.2 Materials ·····	4
	2.3 Lifetime of Key	4
	2.4 Pressure Curve of Key Strike	5
3	· Functions and Electronic Specifications ······	5
	3.1 Functions	5
	3.2 Sleep State	. 5
	3.3 LED Indicator	6
	3.4 Temperature Conditions	. 6
4	· Environment Test	7
	4.1 Non-operating Low Temperature and Humidity Test	7
	4.2 Non-operating High Temperature and High Humidity Test	7
	4.3 Non-operation High / Low Temperature with Humidity Loop Test	7
5	Vibration Test ······	8
6	Nutward Appearance	q



#### 1 · Scope

#### 1.1 Summary

This specification defines the product: a Bluetooth device using the HID Protocol, with keyboard and touchpad features of an input device can do for personal computer, tablet computer, notebook computer and smart phone.



Language : US Key Number : 76 Keys

Dimensions: 287.2 x 125.4 x 11.8 mm Touchpad Dimensions: 55.3 x 26.1 mm

Net Weight: 223±5 gm

#### 1.2 Bluetooth Device

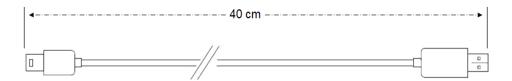
Bluetooth devices using the HID Protocol, version: 3

#### 1.3 Color of Appearance

Black, white or customized

#### 1.4 USB Charge Cable

Length: 40 cm ±10%



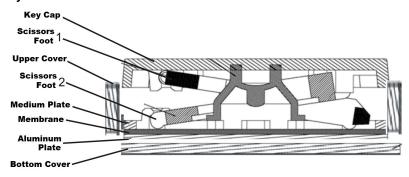


#### 1.5 System Requirement

- iOS 4.0 or later
- iMac 10.6 or later
- . Android® 3.0or later
- . Windows® XP、Windows® 7、Windows® 8 or later

#### 2 · Mechanism

#### 2.1 Key Structure



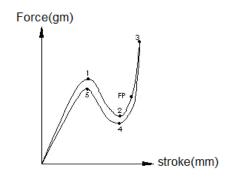
#### 2.2 Materials

Component Name	Material	UL Authentication
Upper Cover	ABS	94HB
Key Cap	ABS	94HB
Medium Plate	ABS	94HB
Membrane	PET	94VTM-2
Silicone	Silicone	94HB
Scissors Foot	POM	94HB
Metal Plate	AL / Secc	
Bottom Cover	ABS	94HB

#### 2.3 Lifetime of Key

5,000,000 Times or above

#### 2.4 Pressure Curve of Key Strike



Point	Position(mm) Initial	Position (mm) After 10 millions (normal) After 3 millions (fn)	Force (Mark)	Force (g) Initial	Force (g) After 10 millions (normal) After 3 millions (fn)
1	<b>S1</b> = $0.9 \pm 0.40$	<b>S1</b> =0.9 ± 0.60	PF	65 ± 20 g	(PF) 65 +20/-30 g
2	<b>S2</b> = $1.7 \pm 0.40$	<b>S2</b> =1.7 ± 0.60	CL	<b>P1</b> (F)- <b>P2</b> (F) ≥ 20 g	N/A
3	<b>S6</b> =2.25± 0.30	<b>S6</b> =2.25 ± 0.60	TM	Max 150 g	N/A
4	$S3 = P2 \pm 0.40$	<b>S3</b> = <b>P2</b> ± 0.60	RF	Min 15 g	(RF) Min 10 g (normal key) Min 5 g (fn key)
5	S4 = (N/A)	<b>S4</b> (N/A)	RP	RP/PF ≥ 0.75	N/A
Fire point	<b>S5</b> =P2+0.35/0.0	\$5 (N/A)	FP	F2~F2+15g	N/A

#### Mark statement:

PF=Peak forceCL=Click feeling, 點擊力TM=Travel to makeRF=Return force, 返回力RP= Return point (hysteresis)FP= Fire point 擊發點

#### 3 · Function and Electronic Specifications

#### 3.1 Function Specifications

Bluetooth Air-Link: 9 Meters (Straight Line without Obstacles)

Pairing Memory Switch: 3 Locations

Pairing Change Steps: After the power is off, select the Location of the Pairing Memory

Switch, and then back on.

Touchpad Resolution: 512 DPI

Rechargeable Battery Capacity: 370 mA/H

Battery Recharging Cycle Life : 500 Cycles @ 25°C

Battery Charge-Speed: 0.3C

Battery Operating Time: After charging is completed, more than 40 hours of continuous use.



Battery Standby Time: After charging is completed, standby time of up to 6 months or more

#### 3.2 Sleep State

Keyboard after about 30 minutes in idle state into Sleep-State, press any key of the keyboard can wake up the keyboard.

#### 3.3 LED Indicator

#### Caps Lock LED:

- LED illuminated indicates Keyboard lock the key in capital letters.
- Keyboard in Sleep-Mode, The Caps Lock LED turns off.

#### **Bluetooth Status LED:**

- Bluetooth device in pairing mode, LED flashes.
- After the Bluetooth device in the link is complete, LED is off.
- When Bluetooth device in the link-back status, the LED flashes quickly.

#### **Battery status indicator:**

- When battery power is low, the red LED is flashed.
- During charging, the Green LED is lit.
- When charging is complete, the Green LED goes out.

#### 3.4 Temperature Conditions

Operating Temperature : 0°C ~ 40°C (max.)

Storage Temperature : -20°C ~ 25°C



#### 4 · Environment Test

The product via the following environment test requirements.

#### 4.1 Non-operating Low Temperature and Humidity Test

Test Conditions : At the temperature of  $-25^{\circ}$ C  $\sim$ 25°C , sample initially at 25 °C test environment (humidity is about 25%).

- 1) Temperature gradually drop to -25°C, the time interval is 3 hours.
- 2) Under the condition of  $-25^{\circ}$ C, the time interval is 10 hours.
- 3) Temperature gradually rises to  $25^{\circ}$ C, the time interval is 3 hours.
- 4) Remain under the conditions of 25 °C, the time interval is 10 hours
- 5) Repeat step 1) ~ step 4), the time interval of 156 hours.

#### 4.2 Non-operating High Temperature and High Humidity Test

Test conditions: At 40°C - 95% humidity (non-condensing) and climate change rate of about 20% per hour in test environment

- 1) At the beginning, sample under low temperature of 25°C with lower humidity (about 20%) environment.
- 2) Set the temperature gradually rose to 40 °C, time interval of 2 hours.
- 3) Humidity gradually rose to 95%, the interval is 3.5 hours.
- 4) Under 40 °C and 95% humidity conditions, sample placed for 24 hours
- 5) Humidity gradually lowered (25% rate of change per hour), the time interval is 3.5 hours.
- 6) Gradually reducing the temperature to 25 °C, the time interval is 2 hours
- 7) Repeat the above steps to test the sample

#### 4.3 Non-operation High / Low Temperature with Humidity Loop Test

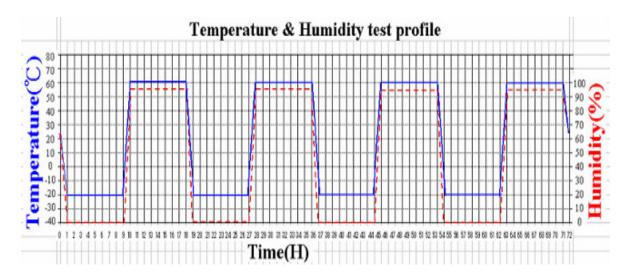
The purpose of this test is used to detect the impact of temperature and humidity for plastic covers and the printing on Keys, and then provide the right solution.

Test method: the samples placed in low humidity environment in turn the cooled-compartment (-20°C) and the heat-compartment (60°C) for 2 hours each, and repeat the cycle lasts 48 hours test time.

- 1) The samples were placed in the first compartment.
- 2) The temperature of the second compartment were set to -20°C.
- 3) After the cold-compartment temperature stability, the samples placed into for 2 hours.
- 4) Set the temperature of a compartment as a hot cabin (60°C)



5) Test sample placed in the cold-compartment for 2 hours, then placed the samples into a heat-compartment for 2 hours; repeated in turn the sample placed in the cold-compartment and the heat-compartment for 2 hours each. After test time-up to 48 hours, the test sample has been relocated in a room temperature environment.



After all the end of the test, test samples must pass the following test.

- 1. Trip switch position measurement and function measurement.
- 2. Keys measure pressing a key with your finger on the middle and edges, check keys.
- 3. Plastic deformation of the keyboard check.
- 4. The contact-resistance of keys must less than  $500\Omega$ .
- 5. Check the key letter printing.

#### 5 · Vibration Test

Test Environments 22°C 75% (RH)

Package 20pcs/carton

Sweep Frequency 10-55-10Hz/minutes

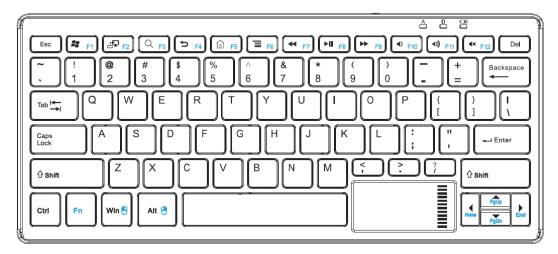
Amplitude of vibration 76 cm

Orientation Vibration
 Each of X, Y, Z direction vibration tests for 1 hour

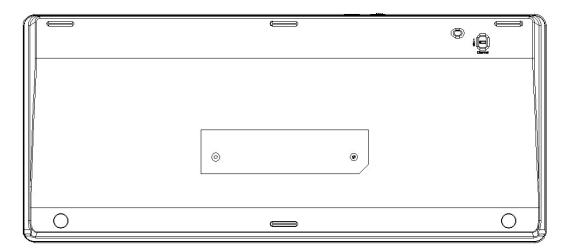


### **6 · Outward Appearance**

### Front Side (US)



#### Back Side



#### **Federal Communication Commission Interference Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### **FCC Caution:**

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.

#### Non-modification Statement:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.