

## 1. Introduction

UG0B is the slim mechanical keyboard with a clever magnetic stand provides the best tablet experience for productivity and protection for HTC

The slim mechanical keyboard provides full QWERTY, Android function keys, shortcut keys and a touchpad.

The smart magnetic cover folds and wraps easily into a stand for multimedia experiences such as typing, reading and watching.

Thin Keyboard is designed to complement tablet with HOGP profile supported.

Thin Keyboard delivers efficient and refined form factors combined with an uncompromised use of premium materials and processes. Thinnest, lightweight and soft felt materials all come together in a precise, cutting edge design statement.

## 2. Applicable documents

### 2.1 DARFON'S DOCUMENTS

1. C001 MRS.
2. C107 Model Number Define

### 2.2 OTHERS DOCUMENTS

N/A

## 3. Mechanical requirement

### Mechanical Specifications

#### 3.1 Materials and Flammability

PART	MATERIAL	UL-GRADE
Upper Case	PCABS	UL 94 V0
Key Caps	ABS	UL 94HB

#### 3.2 Weight and Dimensions

1. Weight:
  - ~350g (for reference only)
2. Dimensions:
  - Length: 321.5 mm
  - Width: ~228.2 mm
  - Height: 5.0 mm on KB cover

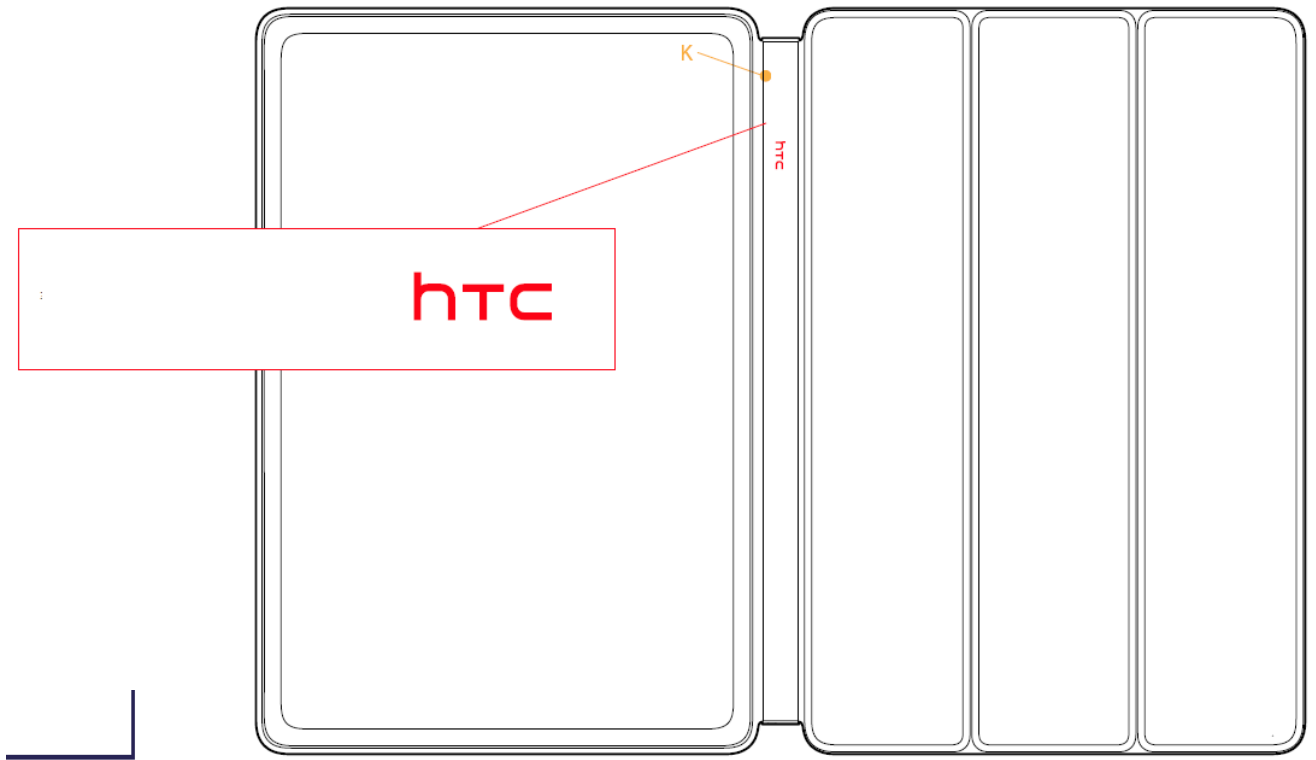
3.0mm on stand cover

### 3.3 Color & Texture

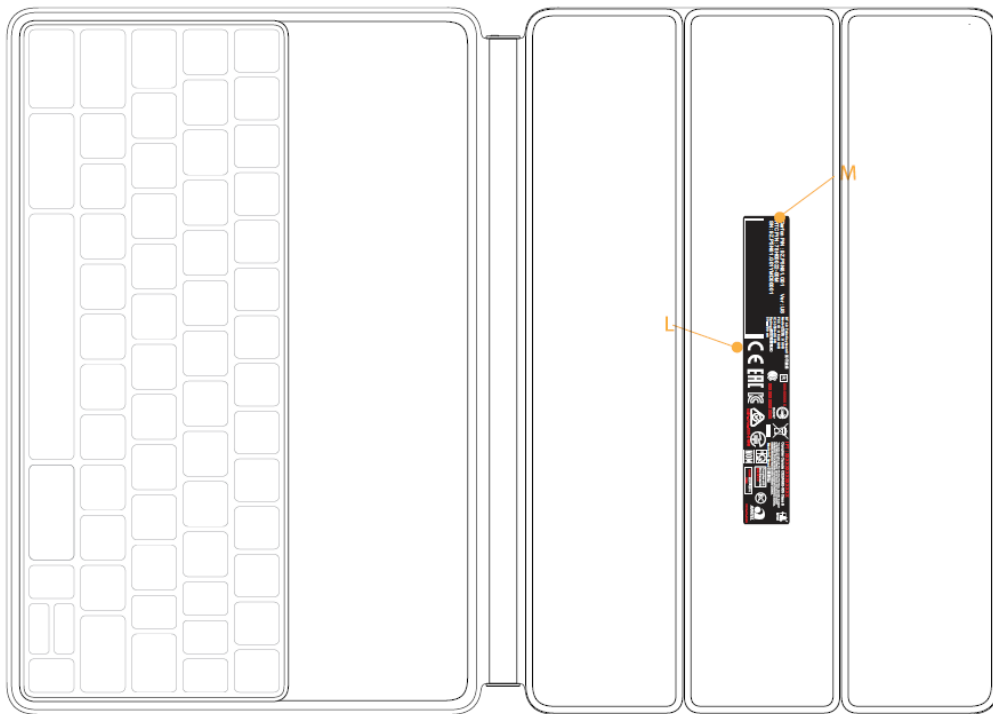
Number:		0-Dark Gray			
Keyboard CMF		<Finish>	<Material>	<Color>	<Darfon Color No.>
1	Exterior Cover(外皮)	N/A	PU(0.4mm)	Indigo Black	MCS-A0E8
2	Interior of Black Cover(内皮)	N/A	PU(0.4mm)	Indigo Black	MCS-A0E8
3	Keycap (鍵帽)	Injection 射出 Texture MT-11500 Printing 印刷 Coating	ABS	Indigo Black Key caps printing color: Pantone Cool grey 6U	MCS-A0E8
4	Upper case	Soft touch painting	PC+ABS	Indigo Black	MCS-A0E8
5	Hinge cover	Injection Texture MT-11500	PC+ABS	Indigo Black	MCS-A0E8
6	Hinge sides	Texture MT-11500	PC+ABS	Indigo Black	MCS-A0E8
7	Lover case	Anoded	AL	Indigo Black	MCS-A0E8

### 3.4 Identification & Marketing

1. Logo



2. Label



### 3.5 Key Switch of Keyboard

#### 3.5.1 Overall dimensions and weight

(1). Dimensions:

Length: 217.58 ± 0.2 mm

Depth : 84.61± 0.2 mm

Height: 3.6 mm +0.25/-0.3mm

(2). Weight :

UG0B-G01 : 110 gram Max.

UG0B-G11 : 110 gram Max.

(3). Keyboard layouts: (refer to Key Module page)

#### 3.5.2 Key Pitch

UG0B-G01 : 15.40 mm for normal key.

UG0B-G11 : 18.19 mm for normal key.

#### 3.5.3 Keycap Legend

UG0B-G01 : All legends are mad by printing and over coating on the keycaps.

UG0B-G11 : All legends are mad by printing and over coating on the keycaps.

#### 3.5.4 Color and Texture

(1) Color of Keycaps :

UG0B-G01 color of keycaps : MCS-A0E8

UG0B-G11 color of keycaps : MCS-A0E8

(3) Color of Legend :

PMS 420C(White)

(2) Keycap Texture:

UG0B-G01 keycap Texture is MT11500

UG0B-G11 keycap Texture is MT11500

#### 3.5 Flammability of materials :

(1). Scissors: POM UL 94 HB & Nylon +GF or equivalent.

(2). Keycaps: ABS 94 HB or equivalent.

(3). Membrane, Mylar: PET UL 94 VTM-2 or equivalent.

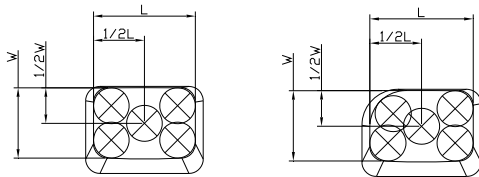
(4). Rubber Dome: Silicone UL94 HB

(5). Metal Plate: SUS 304 1/2H, t=0.2mm.

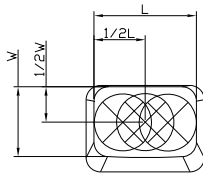
### 3.5.5 Key Switch Function

The keyboard should have well switch function by following definition. Put the 80g weight with diameter 8.0mm contact head on 4 corners and center of keycap, the weight align the strike surface outline of the key which the finger contacts during key actuation. No functional defect and all keys can work.

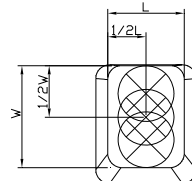
(1). Small Keys :



(W > 10.0mm, 5 points)

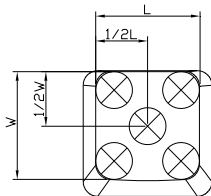


(W ≤ 10.0mm, 3 points)

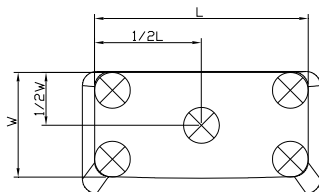


(L ≤ 10.0mm, 3 points)

(2). Normal Keys :



(3). Multiple keys :



3.5.6 Initial Switch Operating Characteristics (silent tactile) for Keycap Center only :

(1). Total Travel (Te) :

Total travel is defined as the vertical displacement of the key measured from rest to the point when the force is 150 grams. Total travel shall be  $1.4 \pm 0.25$  mm.

(2). Drop Force (Fd) :

30%~65% of peak force (Fp) for small keys

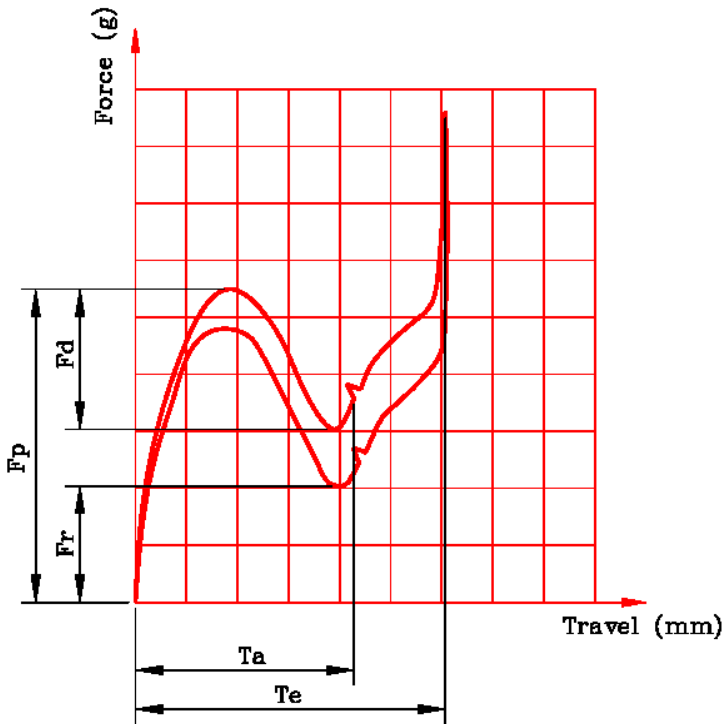
35%~65% of peak force (Fp) for other keys

(3). Peak Force (Fp) :  $60 \pm 15$  grams.

(4). Return Force (Fr) :

After key switch is released, the minimum return force shall be 10 grams. After life test, the key shall have to be lifted up with enough return force successfully

(5). No functional defect and all key can be lifted up successfully after switch life test.



3.5.7 Operation Life

OPERATION LIFE		
	Normal Key	Small Key (Smaller than 1.0X)
LOADING FORCE	150g	150g
LIFE CYCLE	10M	5M



Model Name: UG0B

Product Name : Keyboard

CYCLES/SEC	4	4
JUDGMENT	After life test: 1. No functional defect. 2. Key shall have to be lifted up successfully.	
NOTE	1. 18 keys per keyboard shall be tested with probe placed in the center of keys except for Spacebar  Main keyboard area - 10M cycle - Spacebar (probe at right edge)      - Alt Right      - Shift Right      - Search - backspace      - Ctrl Left      - a      - 4 - t      - j      - /      - Enter - ^  FLW row- 5M total cycle - ESC (#1)    - Back (#2)    - Forward (#3)    - Power (#12)    - Left Arrow  2. 4pc keyboards test life cycle.  3. Keys shall be tested at a rate of 4 cycles/second and force displacement data recorded at 0, 500k, 1M, 3M, 5M, 7M, 10M cycles for main keyboard area; data recorded at 0, 500k, 1M, 3M, 5M cycles for the FLW area	

**3.5.8 Keycap Pull Out Force:**

(1) Normal keys : 800 g min. pulling force applied opposite to the direction of keyboard operation.

(2) Small keys : 700 g min. pulling force applied opposite to the direction of keyboard operation.

## **4. Electrical specifications**

### **4.1 Interface**

The Thin Keyboard will support Bluetooth 4.0. Hinge with micro USB port for charge, pairing button for Bluetooth pairing. Build-in NFC chip for easy and fast Bluetooth pairing experience.

### **4.2 Power rating**

The power rating of this device is 5v / 500 mA.

### **4.3 Battery Specifications**

Li-ion battery capacity is 450 mAH (98.5 \* 42.5 \* 1.98 mm).

The keyboard is powered from Li-Polymer battery. Micro USB can be connected to the unit and can be charged for the Li-Polymer battery.

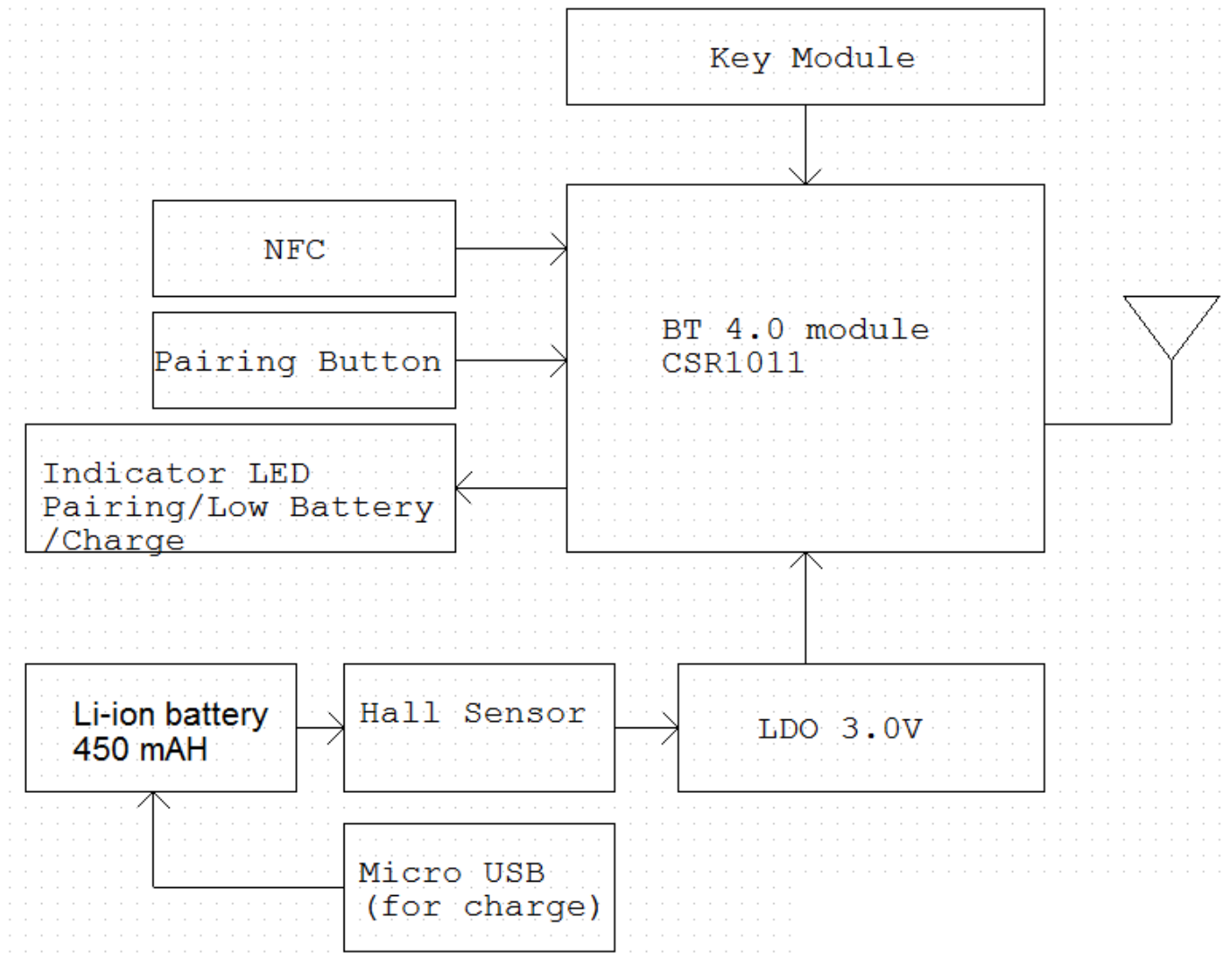
### **4.4 OS Support**

Android 4.4

### **4.5 Block diagram**

4.6.1 Schematic block diagram

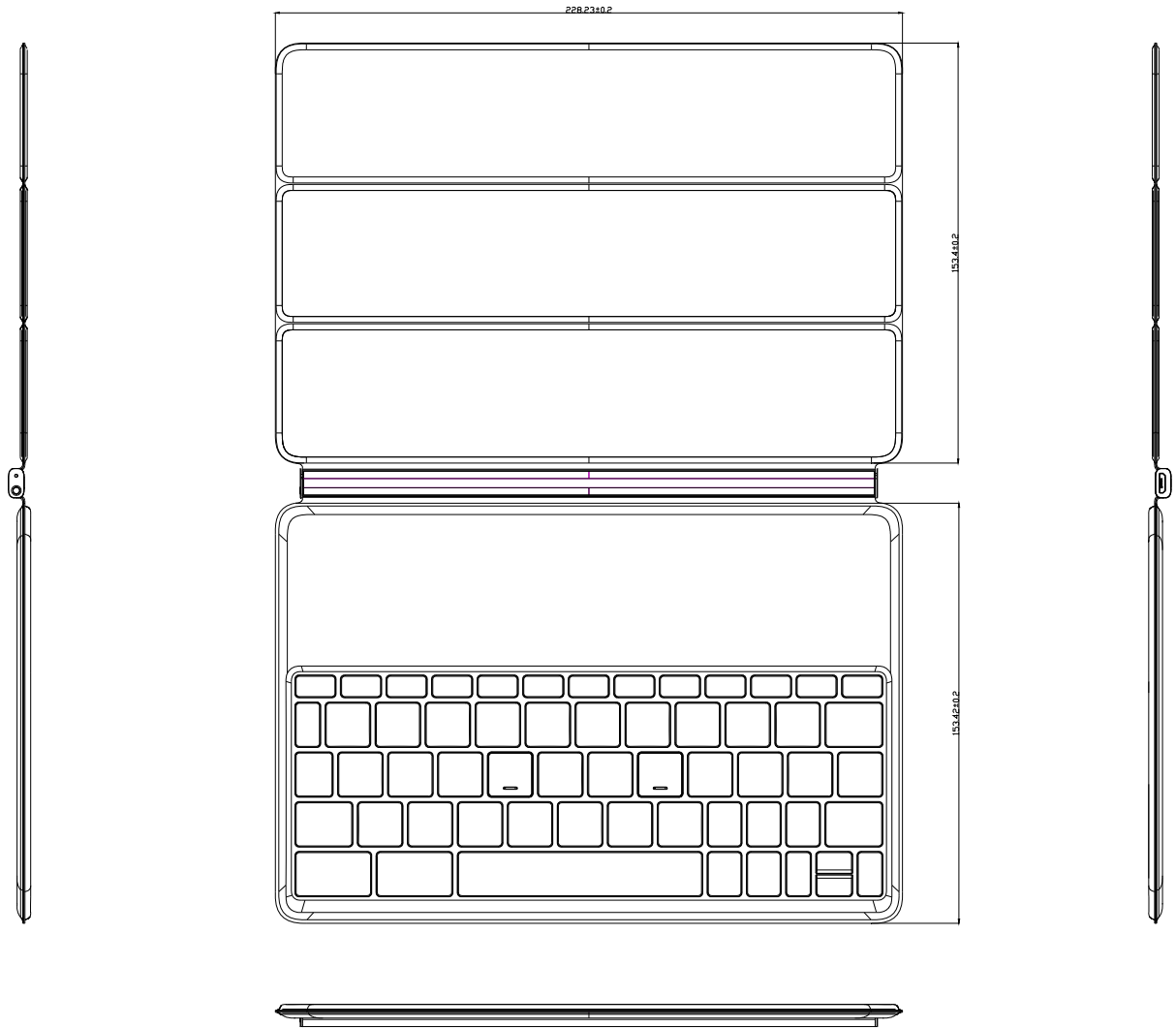




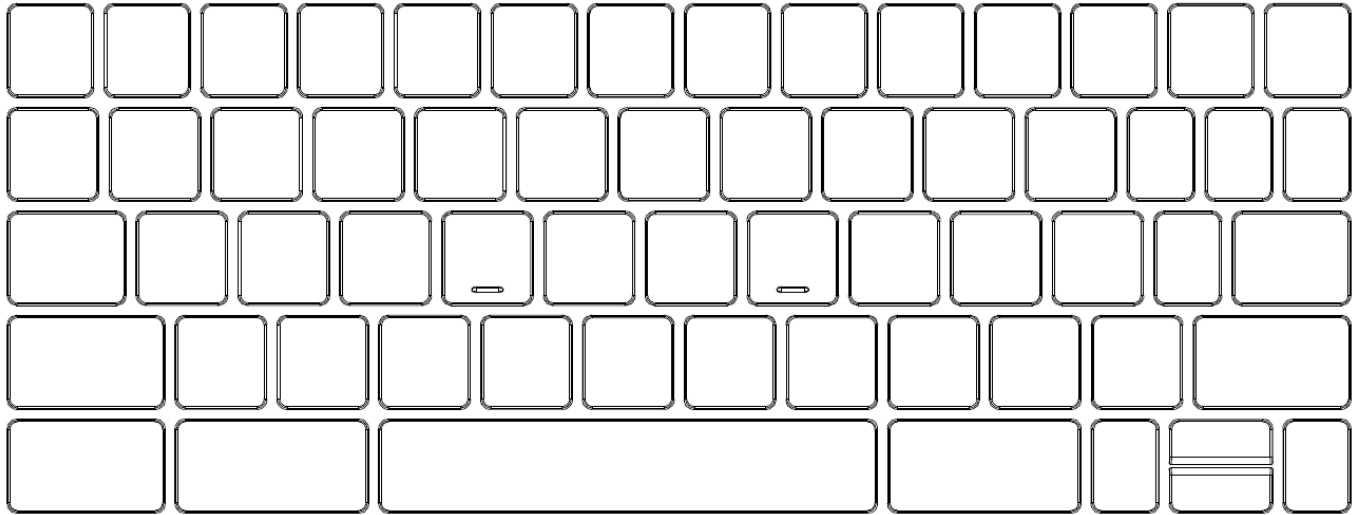
#### 4.6 EMI Test (conduction and radiation)

- European Standard EN 55022: 2010/:2011
- Frequency Range of Test: From 30MHz to 1000 MHz
- Test Distance: 10 M
- Temperature: 15~50°C
- Relative Humidity: 30~60 % RH
- Emission level (dBuV/m) = 20 log Emission level (Uv/m)

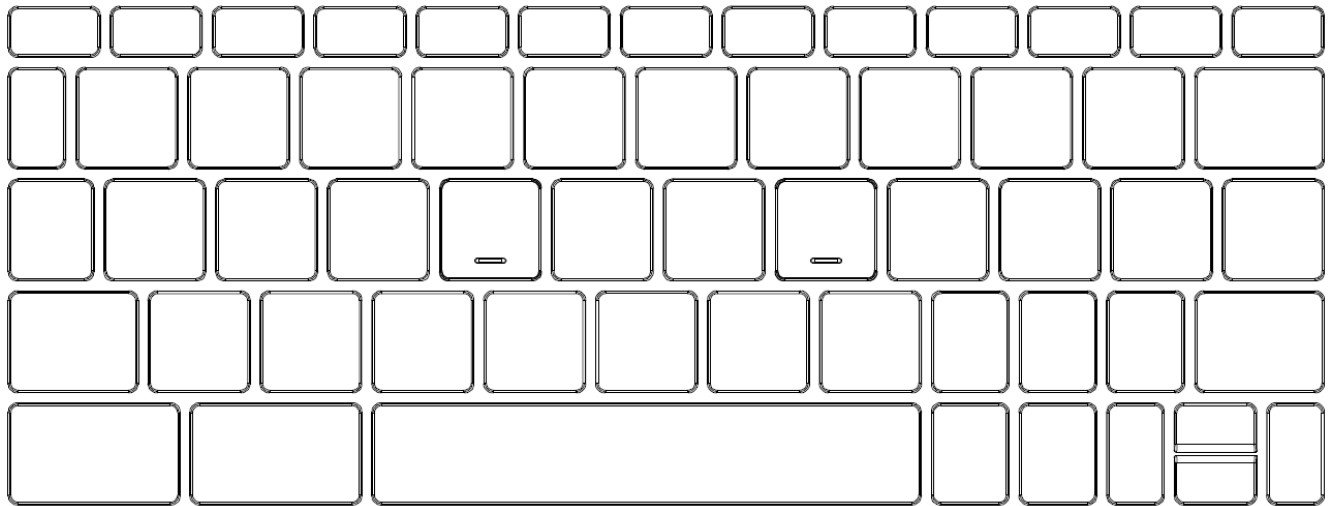
APPENDIX-A\_OUTLINE DIMENSIONS



**APPENDIX-B\_KEY LAYOUTS OF KEYBOARD**

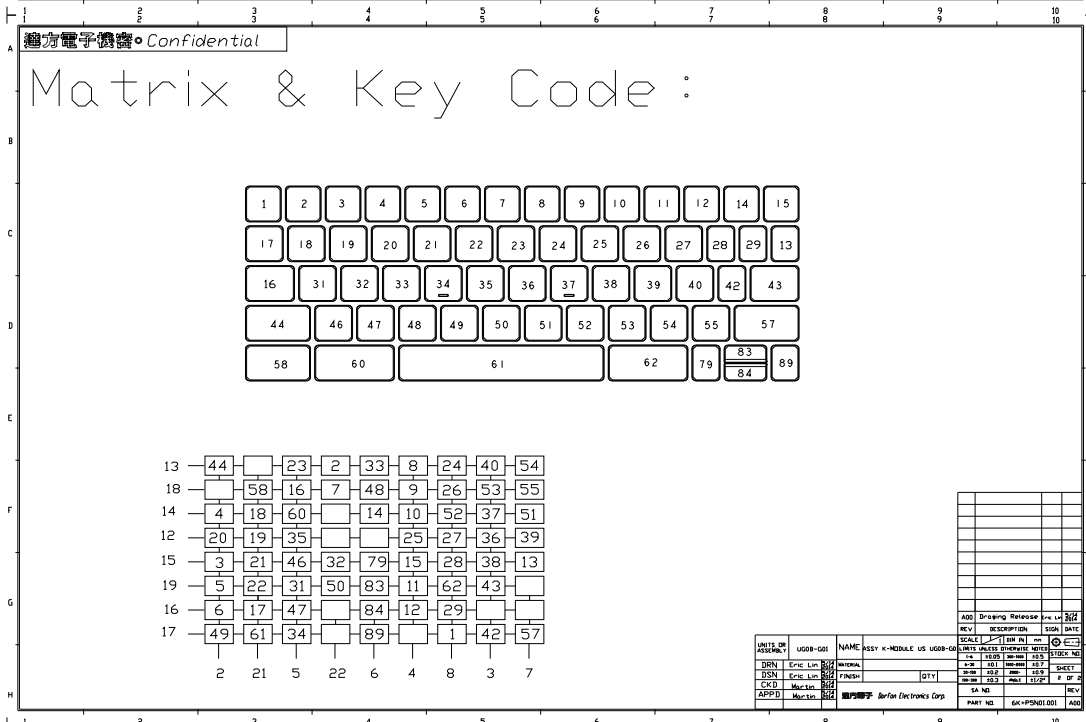
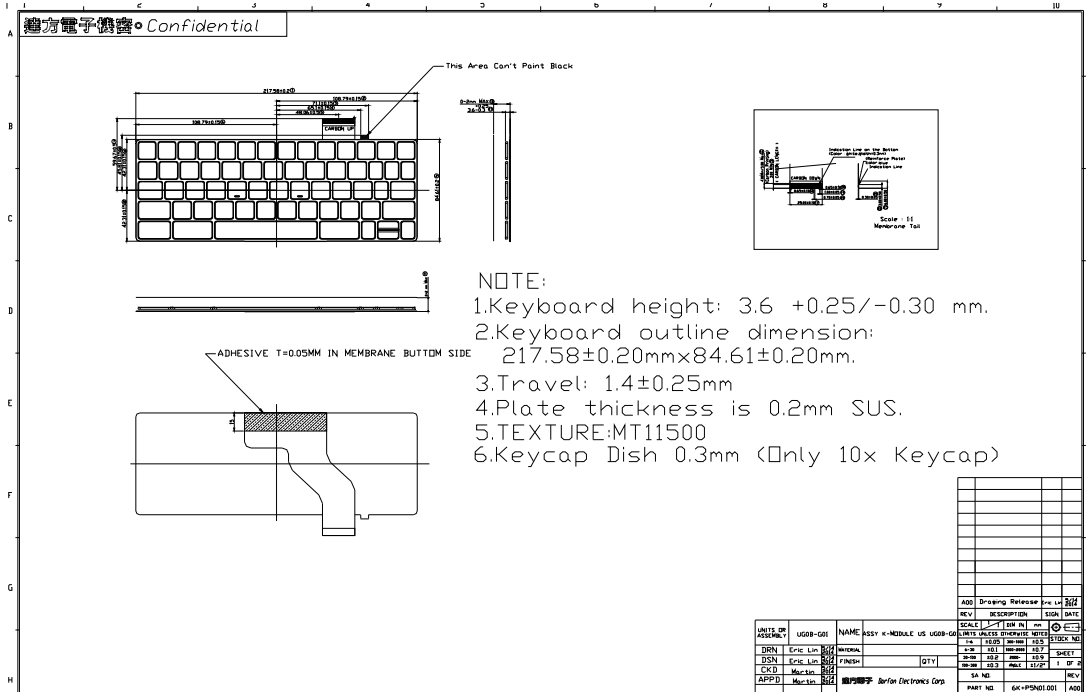


UG0B-G01 Layout



UG0B-G11 Layout

KEY MATRIX



擴充電子機密 • Confidential

# Matrix & Key Code :

1	2	3	4	5	6	7	8	9	10	11	12	13	
14	15	16	17	18	19	20	21	22	23	24	25		
26	27	28	29	30	31	32	33	34	35	36	37		
38	39	40	41	42	43	44	45	46	47	48	49		
50	51	52					53	54	55	56	57	58	

13	KS10	38		20	2	29	8	21	36	47	
16	KS11		50	26	7	41	5	23	43	48	
14	KS12	4	15	51		13	16	25	33	44	
12	KS13	17	16	31		25	20	24	32	35	
15	KS14	3	18	39	28	35			34		
19	KS15	5	19	27	43	56	11	53	37		
16	KS16	6	14	40		57	12		54		
17	KS17	42	52	30		58		1		49	
		KS10	KS11	KS12	KS13	KS14	KS15	KS16	KS17	KS18	
Mem-PA		2	21	5	22	6	4	8	3	7	

ADD	DESCRIPTION	ISSN	DATE
REV			

SCALE	UNIT	REV	DATE
1:1	mm	001	2008-08-20
1:1	mm	002	2008-08-20
1:1	mm	003	2008-08-20
1:1	mm	004	2008-08-20
1:1	mm	005	2008-08-20
1:1	mm	006	2008-08-20
1:1	mm	007	2008-08-20
1:1	mm	008	2008-08-20
1:1	mm	009	2008-08-20
1:1	mm	010	2008-08-20
1:1	mm	011	2008-08-20
1:1	mm	012	2008-08-20
1:1	mm	013	2008-08-20
1:1	mm	014	2008-08-20
1:1	mm	015	2008-08-20
1:1	mm	016	2008-08-20
1:1	mm	017	2008-08-20
1:1	mm	018	2008-08-20
1:1	mm	019	2008-08-20
1:1	mm	020	2008-08-20
1:1	mm	021	2008-08-20
1:1	mm	022	2008-08-20
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1:1	mm	027	2008-08-20
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1:1	mm	030	2008-08-20
1:1	mm	031	2008-08-20
1:1	mm	032	2008-08-20
1:1	mm	033	2008-08-20
1:1	mm	034	2008-08-20
1:1	mm	035	2008-08-20
1:1	mm	036	2008-08-20
1:1	mm	037	2008-08-20
1:1	mm	038	2008-08-20
1:1	mm	039	2008-08-20
1:1	mm	040	2008-08-20
1:1	mm	041	2008-08-20
1:1	mm	042	2008-08-20
1:1	mm	043	2008-08-20
1:1	mm	044	2008-08-20
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1:1	mm	046	2008-08-20
1:1	mm	047	2008-08-20
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1:1	mm	055	2008-08-20
1:1	mm	056	2008-08-20
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1:1	mm	058	2008-08-20
1:1	mm	059	2008-08-20
1:1	mm	060	2008-08-20
1:1	mm	061	2008-08-20
1:1	mm	062	2008-08-20
1:1	mm	063	2008-08-20
1:1	mm	064	2008-08-20
1:1	mm	065	2008-08-20
1:1	mm	066	2008-08-20
1:1	mm	067	2008-08-20
1:1	mm	068	2008-08-20
1:1	mm	069	2008-08-20
1:1	mm	070	2008-08-20
1:1	mm	071	2008-08-20
1:1	mm	072	2008-08-20
1:1	mm	073	2008-08-20
1:1	mm	074	2008-08-20
1:1	mm	075	2008-08-20
1:1	mm	076	2008-08-20
1:1	mm	077	2008-08-20
1:1	mm	078	2008-08-20
1:1	mm	079	2008-08-20
1:1	mm	080	2008-08-20
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1:1	mm	082	2008-08-20
1:1	mm	083	2008-08-20
1:1	mm	084	2008-08-20
1:1	mm	085	2008-08-20
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1:1	mm	087	2008-08-20
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1:1	mm	090	2008-08-20
1:1	mm	091	2008-08-20
1:1	mm	092	2008-08-20
1:1	mm	093	2008-08-20
1:1	mm	094	2008-08-20
1:1	mm	095	2008-08-20
1:1	mm	096	2008-08-20
1:1	mm	097	2008-08-20
1:1	mm	098	2008-08-20
1:1	mm	099	2008-08-20
1:1	mm	100	2008-08-20

UG0B-G11



Model Name: UG0B

Product Name : Keyboard

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## **FCC Statement :**

### **Federal Communications Commission (FCC) Statement**

**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 of the device.

### **FCC RF Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



Model Name: UG0B

Product Name : Keyboard

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## Industry Canada (IC) Statement

### Canada, Industry Canada (IC)

This Class B digital apparatus complies with Canadian ICES-003 and RSS-210.

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

### Canada, avis d'Industry Canada (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-210.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

### Canadian Notice (RF Exposure)

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. To comply with the Canadian RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

### Avis Canadien

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. Pour se conformer aux exigences de conformité RF canadienne l'exposition, cet appareil et son antenne ne doivent pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.

**BSMI and NCC Caution**

<b>根據 NCC 低功率電波輻射性電機管理辦法 規定:</b>	
第十二條	經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十四條	低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

**警告**

**如果更換不正確之電池型式會有爆炸的風險  
請依製造商說明書處理用過之電池**

**RISK OF EXPLOSION IF BATTERY IS REPLACED  
BY AN INCORRECT TYPE.  
DISPOSE OF USED BATTERIES ACCORDING  
TO THE INSTRUCTIONS**





Model Name: UG0B

Product Name : Keyboard

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## Mexico

**“La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.”**

## 商品名稱及型號及額定電壓電流:

商品名稱: Nexus Keyboard / 藍牙鍵盤

Model (型號): UG0B

Rating(額定電壓電流) : 5Vdc , 500mA

**製造商資訊:**

**公司名** : HTC Corporation

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**公司住址** : No. 23, Xinghua Road, Taoyuan City, Taoyuan County 330,  
Taiwan

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**聯絡人:** : Patrick Liu / Product Safety & Environmental

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**電話:** : +886 (0)3 375 3252 ext.(4710)36328

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Indicates that the body monitor is classified as electrical or electronic equipment requiring proper disposal (WEEE Directive)



Indicates the product complied with battery charger system appliance efficiency regulations of California Energy Commission