

# SWAGTEK

## Product instruction Manual

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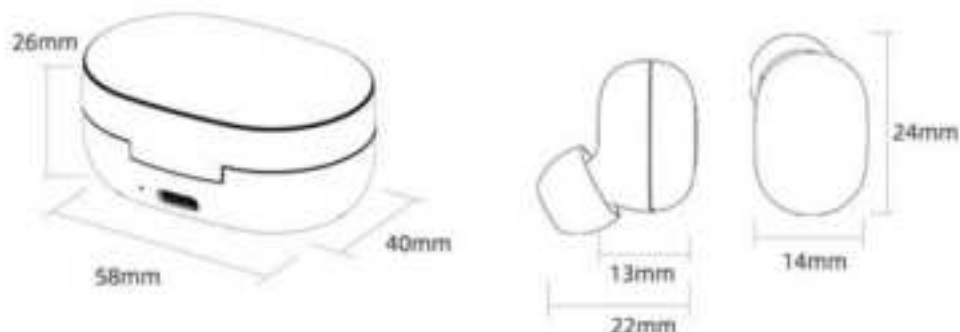
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## 1、Product summary

1.1 Model name: TW5

1.2 weight and dimension: earphone dimension (dimension: 24\*14\*13mm) charging case



手工测量，有误差。

1.2.1 gross weight: earphone (single 3.1±1 g) +charging case:43.5±1 g+giftbox g= g

1.2.2 net weight: earphone (single 3.1±1 g) +charging case43.5±1 g=50g±1 g

## 2、Cosmetic Drawing :

2.1 cosmetic



2.2 产品清单图

耳机物料表:

序号	品名	规格	封装	用量	元件位置
1	Earphone PCB	11.6mm*18.1mm*0.8mm*	PCB	2	
2	CHIPSET	AB5617H2	SOP-16L	2	U1
3	瞬态抑制管	WEP060RF0402 连续电压6.5V，击穿电压8.3V	0402	0	C8

4	贴片晶振	2520 26M无源晶振 9PF 10PPM	2520	2	Y1
5	贴片电容	C.cap 105 10V X7R ±10%	0402	2	C4
6	贴片电阻		0402	2	L1(待确认)
7	贴片电阻		0402	2	L2(待确认)
8	贴片电阻		0402	2	L3(待确认)
9	贴片发光二极管	红光	0603	2	R
10	贴片发光二极管	蓝光	0603	2	B
11	贴片电容麦克风			2	MIC
12	按键开关		1PIN	2	CN1
13	充电铜柱	Φ1.5mm*7.5mm(JRMD B0120106A)	1PIN	2	
14	喇叭	Φ8* ?mm 32欧姆	2PIN	2	
15	充电锂电池	充电锂电池 3.7V 25mA	2PIN	2	
16	贴片费用			1	
17	贴片钢网	L/R各一张		2	
18	测试治具	L/R各一具		2	
19	塑胶		0.011kg	1	
20	五金			2	
21	硅胶耳套			2	
22	硅胶充电针套			2	
23	硅胶脚垫			0	
24	防尘网			2	
25	防尘网			2	
26	磁铁			2	
27	胶水			1	

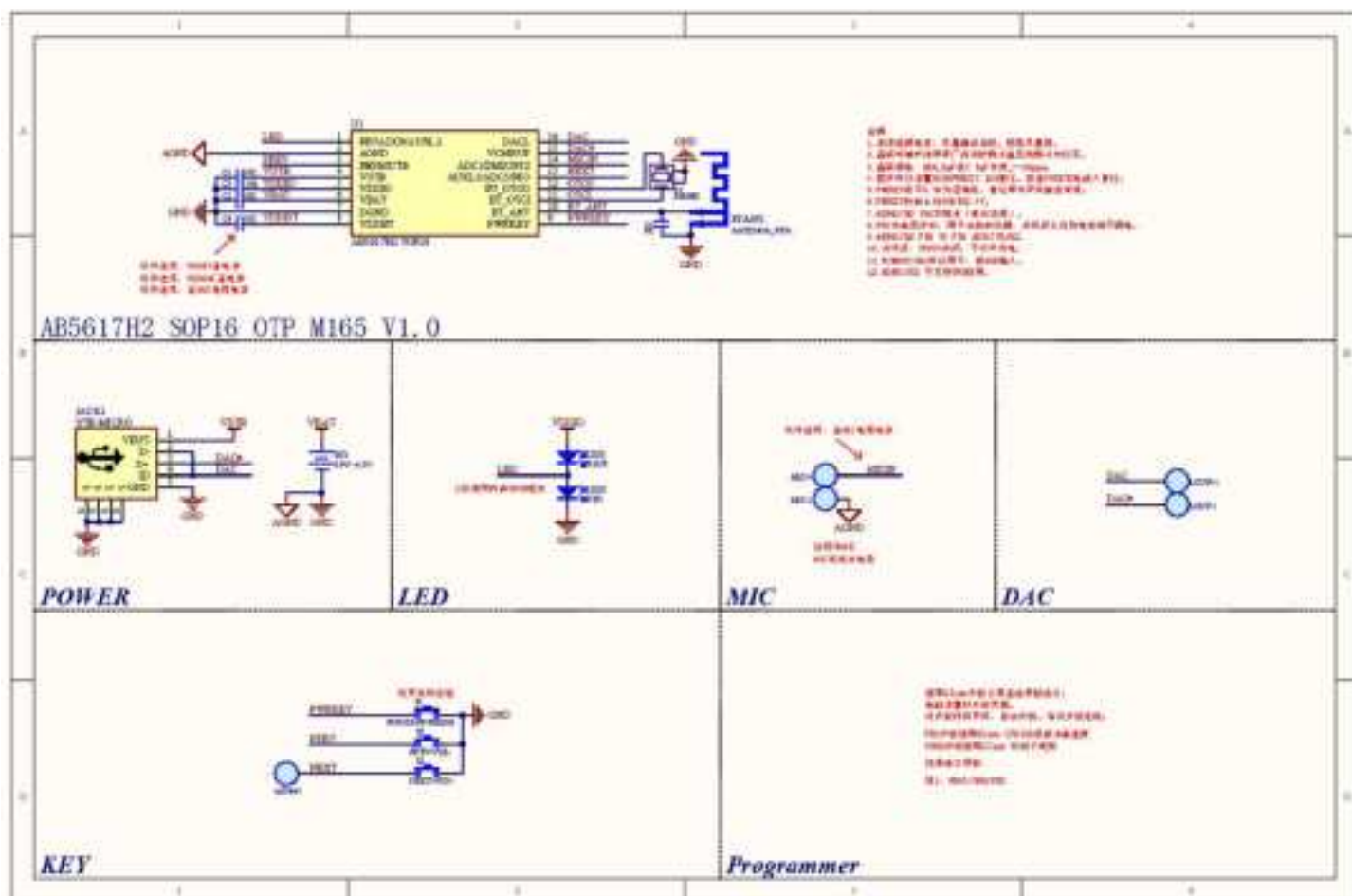
#### 充电仓物料表:

序号	品名	规格	封装	用量	元件位置
1	充电盒主板PCB	36.1mm*31.9mm*1.0mm	PCB	1	
2	主控IC	IP5513_LR188_NTC_GWS_UCCPI	SOP-16A	1	U1
3	贴片电容	C.cap 225 16V X7R +80/-20%	0603	1	C3
4	贴片电容	C.cap 475 16V X7R +80/-20%	0603	3	C1 C2 C4
5	贴片电阻	100Ω ±5%	0603	0	R3 R4 R5 R6 R10
6	贴片电阻	33KΩ ±5%	0402	2	R1 R2
7	贴片电阻	51KΩ ±5%	0402	1	R1
8	贴片电感	CD32-2.2uH (电感量质量稳定点的)	CD32	1	L1
9	数码管	2256 188 / YFTD2256SW-5	5PIN	1	
10	MICRO_USB	micro5p 5.9母座 有柱 直边平口 US01-664	6PIN	1	CN2
11	贴片充电铜柱	Φ2.0mm*6.2mm板上5.5mm(JRMD B1121107A)	1PIN	4	CN1
12	充电锂电池	300mAH (601535) 带保护板	2PIN	1	
13	贴片钢网			1	
14	SMT贴片费			1	
15	测试治具			1	
16	磁铁				
17	磁铁				
18	贴纸				

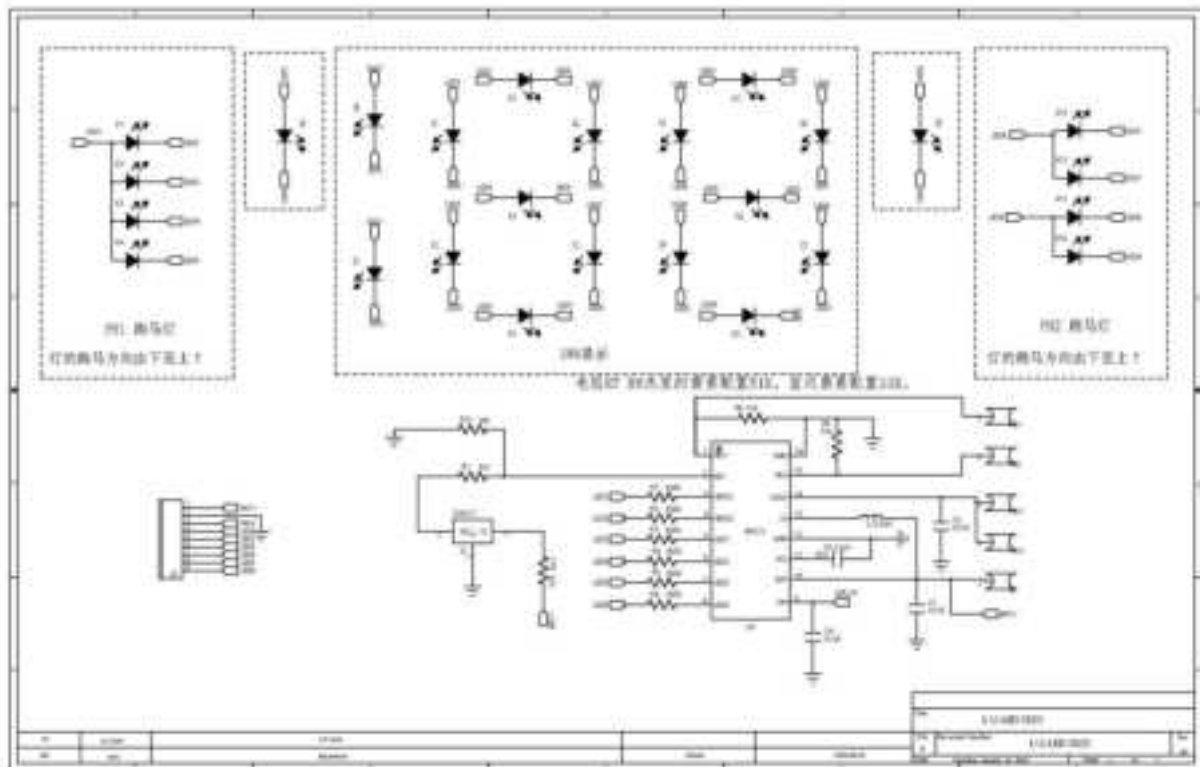
19	吸塑				
20	彩盒+PET				
21	说明书				
22	PE袋				
23	双面EVA				
24	胶水				
25	丝印+喷油				
26	数据线	Φ 2.8mm*2C*20cm			

### 3、The circuit schematic diagram :

#### 3.1 earphone schematic



### 3.2 charging case schematic circuit



## 4、hardware parameter

### 4.1 Bluetooth chipset

序号	名称	规格
1	Chipset name	AB5617H2
2	Bluetooth version	5.0
3	Bluetooth protocol	Hfp, a2dp, hid, avcp, pmp
4	Working frequency	2402~2480MHz
5	Effective range	360° ≥10米

### 4.2 Audio feature

speaker		
items	name	parameter
1	Speaker dimension	Ø 13mm
2	Speaker frequency response	20Hz~20KHz
3	Speaker sensitivity	104±3dB(1千KHZ 1MW ) (INPUT VOLTAGE=126mV)
4	Copper collar speaker	Real copper collar
5	Speaker impedance	32 Ω ±15%
6	Rated power input	2mw
microphone		
items	name	parameter
1	Microphone directivity	Omnidirectionality
2	Microphone	-42±1dBV/Pa /1kHz
3	Microphone frequency range	10kHz-20kHz
4	Microphone impedance	200 Ω



## 5、 Earphone function diagram

### 5.1 function indication diagram



### 5.2 function list

#### 5.2.1 earphone

NO.	Status	Actions
1	Power on	Earphone will power up by automatic fater open charging case
2	dual ear mode	earphone will power on by automatic after open the charging case,R/L , L/R earphone will finish pair by automatic, , waiting serial second, TWS 。 after paired,the main earphone indicator will flash alternately,then open bluetooth function in mobile menu to search, then klik “TW5”
3	Single ear mode	take out any of L/R earphone and close he charging case,the earphone will power on automatic and automatic pair the another one earphone, after 30s,this earphone will get into single mode,res/blue led will flash alternately,open blue function in mobile menu to search bluetooth, click TW5 to connect
4	Pick up call	When call is coming, click button of any L or R earphone to pick up call
5	Hang up call	in call talking, click any button of L/R earphone to end the call

6	Reject	when call is coming, pressing button 2s of any L/R earphone to reject the incoming call
7	Vol +	NA
	Vol -	NA
8	Disconnect	if disconnect, there is warning voice "disconnected"
9	Play/Pause	in playing, click button of any L/R earphone to play or pause play music
10	Battery capacity display	support IOS and Android battery capacity display
11	Auto connect after power on	after power on, the earphone will connect to the last time connected mobile automatic
12	Previous track	in playing, click 3times L/R button to back to previous track
13	Next track	click 2times of button of L/R earphone to go next track

### 5.2.2 charging case

1	Charging port	Power supply: DC4.5~6.0V, via Micro USB port to charge the charging case.
2	Indicator light	when charge the charging case, LED will flash in charging when charging case charge to earphone, red LED will light, after earphone battery being 100% charged, low battery power. If flashes per 5s
3	Headset Charging	place earphone into charging case, red indicate the earphone is charging
4	Length of charging cable	20cm

NO.	Status	LED indicator
1	Power on	blue led fast flash 3 times
2	Pairing mode	红蓝灯交替闪烁 red/blue flash alternately
3	Connection succeeded	flash 1time per 3s
4	Music playing	flash 1time per 3s
5	Calls coming	blue led fast flash
6	During talking	flash 1time per 3s

7	Power off	红灯快闪3次red led fast flash 3 times
8	Low battery	Battery power low, red led flash and there is warning tone

NO.	Status	Warning tone
1	Power on	Power On
2	Pairing mode	Pairing
3	Connection succeeded	Connected
4	Power off	Power off
5	Low battery	Low battery

### 5.3 others test

earphone capacity	30mah
Charging case	250mah
Charging case charge current	300mA
Charging case power off	35uA
Rated voltage	DC 3.0-4.2V
Charing time (0-100)	1-2hrs
Play time (single) 50% volume	4H(from earphone power 100%)
play time(dual mode)	4H(from earphone power 100%)
Fully play time (dual mode) 50% volume	12H(from charging case and earphone both 100% power)
Standby time	>200hrs
working temperature	-10℃ — +45℃
Storage temperature	-20℃ — +60℃
Button control	1 key: Multi-function button

#### FCC Statement

1. 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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

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

#### NOTE:

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.