PCBA 样品承认书

SPECIFICATION FOR APPROVAL

Supplier name	中利冠达 (智能) 科技有限公司
Product model	IW20
Product code	
Material name	
Hardware version	IW20-9516-V1.1
Software version	
Delivery date	
承認印 **APPROVED BY**	

供方签核	工程部	业务	品质	批准
客户签核	结构/电子 包装**/ID**	采购	品质	PM/业务

地址：

电话：

网址：

制/修订变更履历表

版本	修订页面	变更时间	变更人	变更原因及内容	备注
A0		2023/7/21		版本首次发布	
A1					
A2					
A3					
A4					
A5					
A6					

1、 PCBA specifications

Content	Parameter
Input interface	TYPE-C
Supports fast charge protocol	PD、QC2.0、QC3.0、AFC
Support input voltage	9V/2A, 12V/1.5A
Mobile phone wireless charging power output	5W/7.5W/10W/15W(Max)
Earphone wireless charge output power	5W
iPhone watch output power	3W
Mobile phone inductive charging distance	1 ～ 6 mm
Operating frequency	Coil1: For Phone: 113kHz-205kHz Coil2: For Earphone: 113kHz-205kHz Coil3: Watch: 300kHz-350kHz
Antenna gain	Coil1/Coil2/Coil3: 0dBi

2、Light description

1. Power-on prompt: After the ice blue light is on for 3S, it is turned off and enters the standby state.
2. Standby prompt: Keep the light off.
3. Charging tip: The ice blue light is on for 10S and then extinguished.
4, Full of hints: Keep the light off.
5. Metal foreign body detection prompt: ice blue light blinks 1Hz until the foreign body is removed

3、Product electrical parameters

	Test condition	Least value	Rated value	Maximum	Unit
Standby current	VCC=9V	20		60	mA
Standby power consumption	VCC=9V	0.2	-	0.6	W
Operating voltage	VCC=9V	5	9	9	V
Motherboard protection temperature		60	65	70	℃

4、Absolute rating

Parameter	Symbols	Least value	Maximum	Unit
Operating ambient temperature	Ta	-20	+35	℃
Storage temperature	Tstg	-20	+80	℃
Storage humidity	Tstr	0	95%	RH
Operating protection voltage	Vcc	4.4	10.4	V
Supply current	Imax	0	3	A

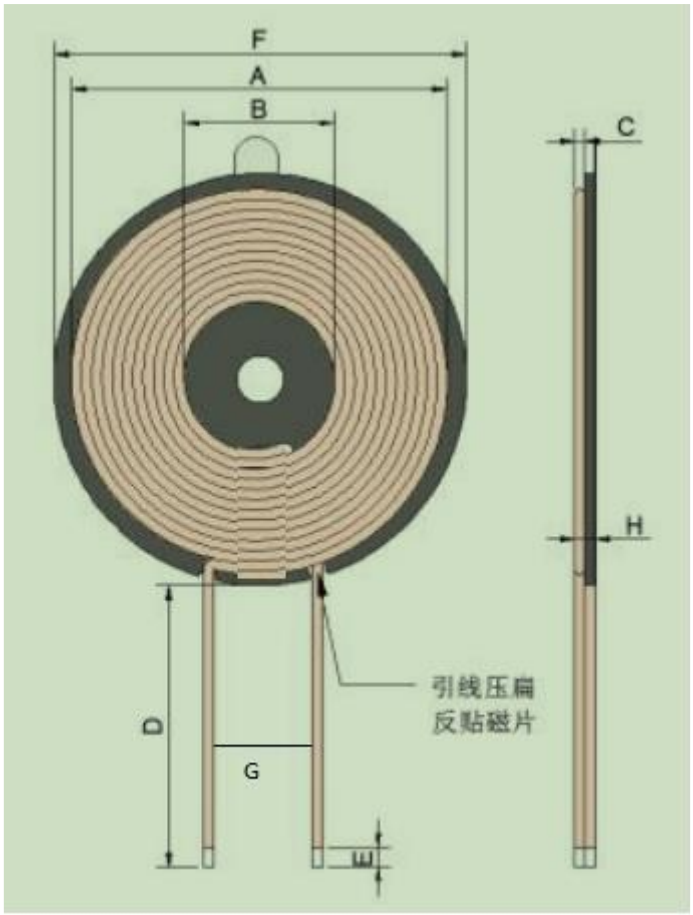
5、Mobile phone wireless charging conversion efficiency

Input voltage/current	Output power	Efficiency	Notes
9V/685mA±50mA	5W	80%	5W fixture
9V/1050mA±50mA	7.5W	79%	7.5W fixture
9V/1350mA±50mA	10W	82%	10W fixture
12V/1580mA±50mA	15W	83%	15W fixture

6、After welding material size description

Mobile phone coil：

一、尺寸DIMENSION:(mm)

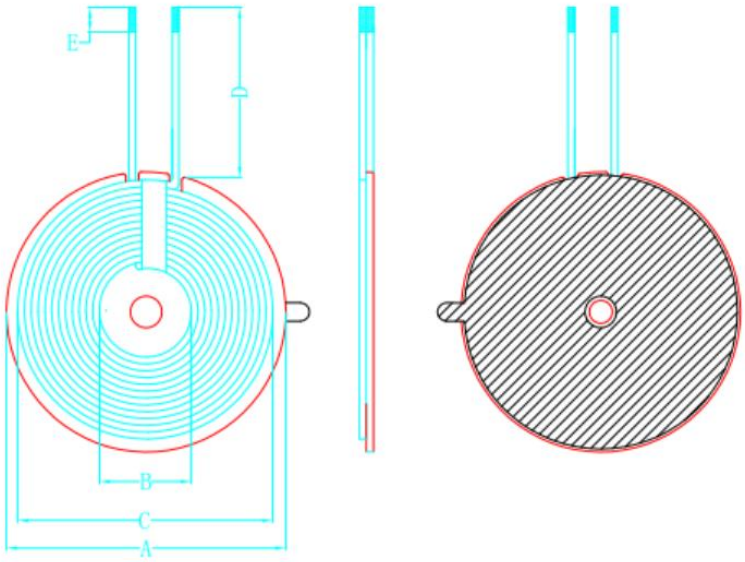


A	B	C	D	E	F	H	G
38±1.5	14±1.0	0.7±0.15	130±2	3.5±1.5	44±1.0	2.6Max	

NO	绕线方式疏/密 Wdg. Type Spred/Close	线径 Wire Dia	圈数 Turns	绕线方向 Wdg.Direction	备注 Note
1	密绕（Close）	silk-covered wire 0.08*100P	12TS	CCW	

Earphone coil：

一、尺寸DIMENSION:(mm)



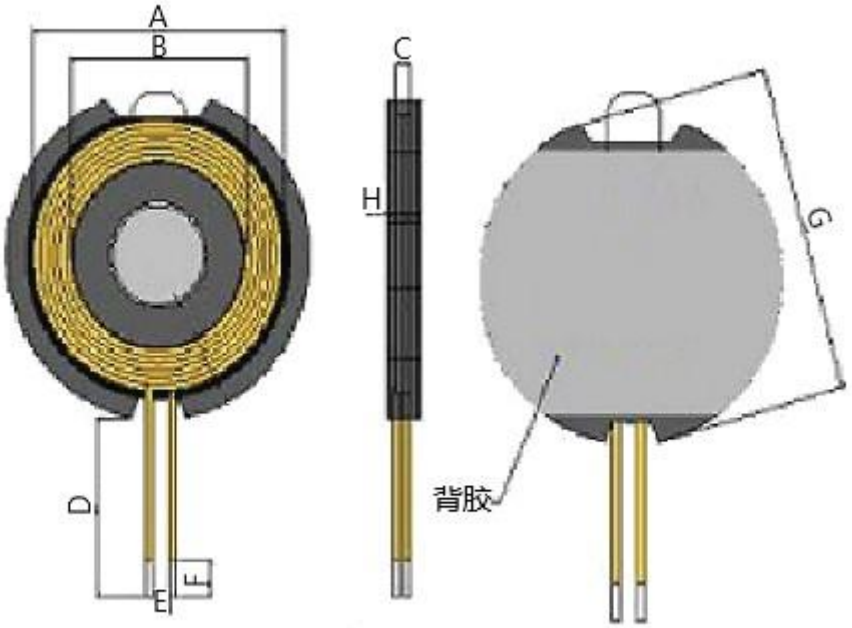
A	44.0±1.0
B	14.0±1.0
C	38.0±1.5
D	20.0±2.0
E	3.5±1.5
F	
G	
H	
I	
J	
K	
L	

注：

1. 线圈反贴硬磁，磁片有孔带双槽且磁片厚度在0.8-0.89之间，线圈位置居中
2. 磁片背面贴带耳朵白色双面背胶
3. 线圈出线位置缠5mm高温胶带
4. 线圈不可松线

NO	绕线方式疏/密 Wdg. Type Spred/Close	线径 Wire Dia	圈数 Turns	绕线方向 Wdg.Direction	备注 Note
1	密绕（Close）	0.08*24P热风绞线 (Hot Air stranded Wire)	10TS	CCW	

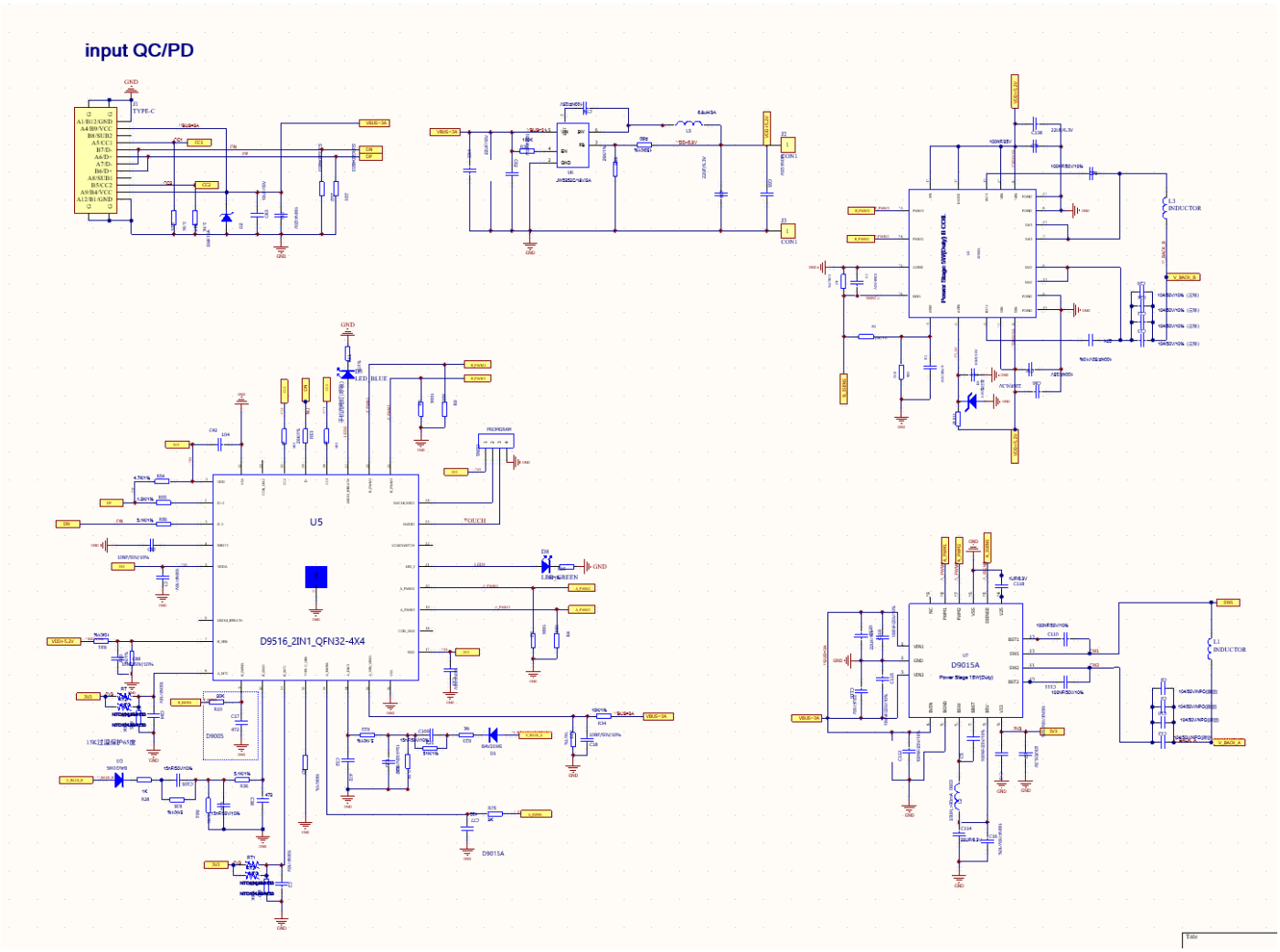
Watch coil：



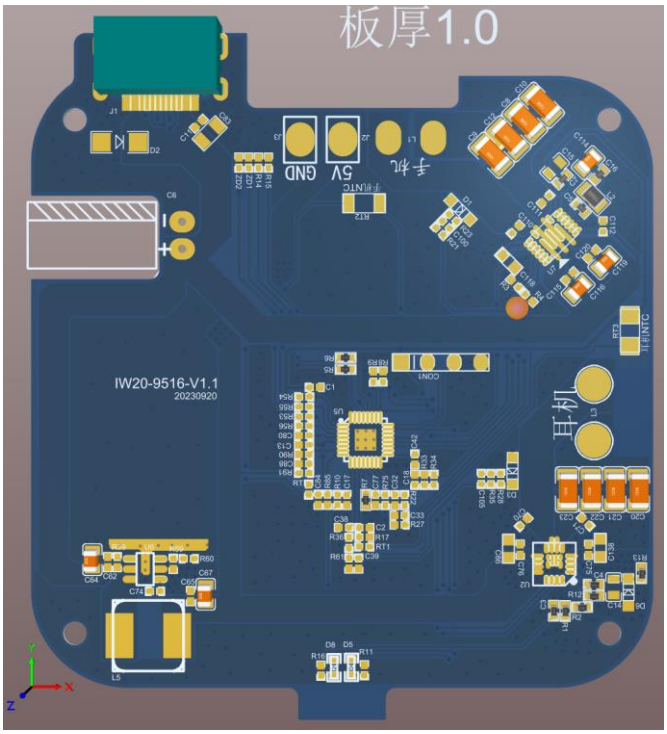
A	B	C	D	E	F	G	H
20.9± 1.0mm	14.9± 0.5mm	1.1± 0.2mm	12.0± 1.5mm	3.0ref	2～4mm	24.5± 1.0mm	2.8MAX

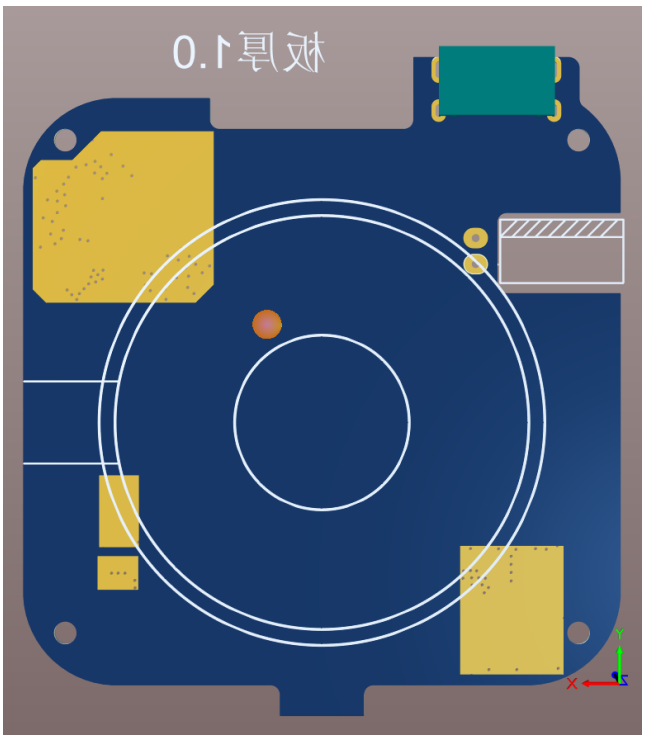
NO	绕线方式疏/密 Wdg. Type Spred/Close	线径 Wire Dia	圈数 Turns	绕线方向 Wdg.Direction	备注 Note
1	密绕（Close）	0.08*24P热风绞线 (Hot Air stranded Wire)	6TS	CCW	

7、Schematic diagram



8、PCB dimensions, motherboard：61*58*1.0mm





9、Core material

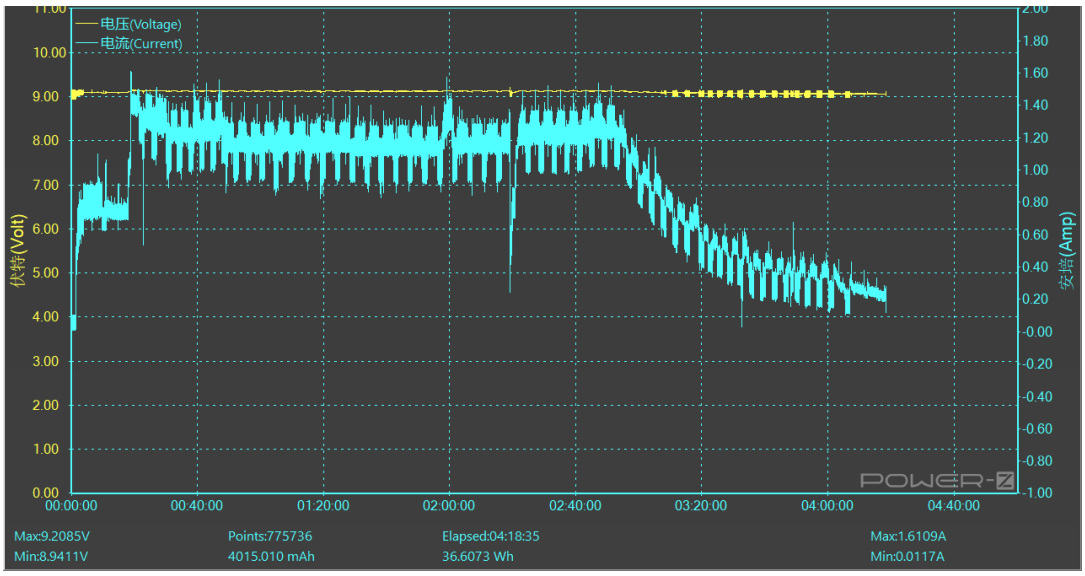
Master chip	D9516
Full-bridge MOS	D9015+D9005 (Phone headset)
Switching MOS	There is no
Resonant capacitance	Mobile phone: 104/50V/ Micro capacity NPO*4
Resistance brand	Guoju/Thick sound/Lizhi
Capacitor brand	Samsung/Murata/Huake/Micro Rong
Buck chip	JW5352C

10、Wireless mobile phone charging test summary

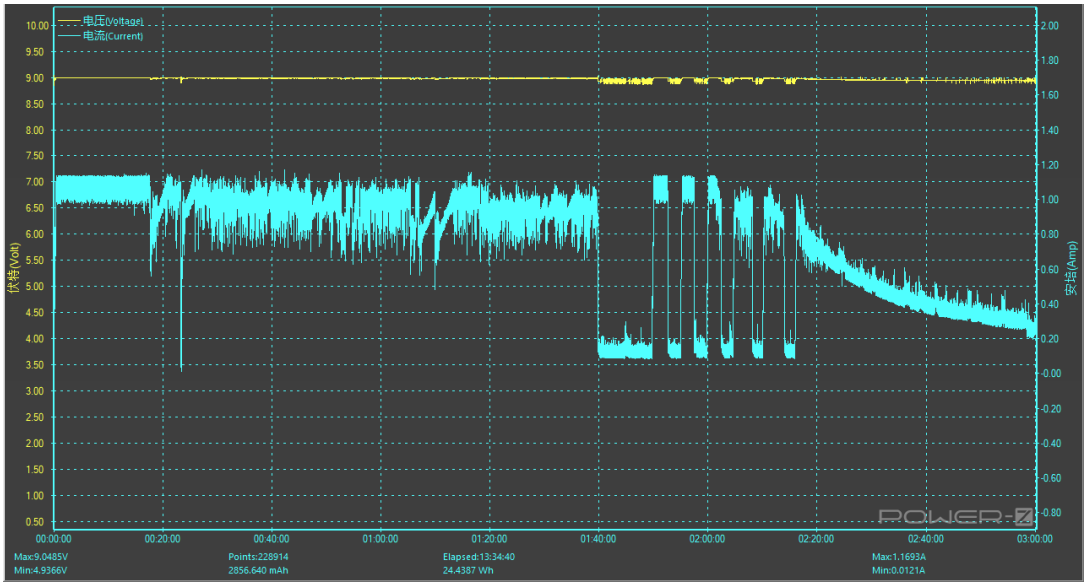
Phone model	Ambient temperaturete	Charging time (0-100%)
Iphone13MAX+AIRPODPRO	27	4h20min
iphone12MAX	27	3h
Iphone14pro+AIRPODPRODPRO	27	4h20min
Iphone13pro+AIRPODPROD2	27	3h40min

Note: The charging time of wireless charging mobile phone is highly affected by the environment. When the surface temperature of the mobile phone is high, the mobile phone will automatically send a command to limit the power receiving to limit the transmitter board to send too much power. It is hereby explained that the above test data are for reference only, and the charging time shall be subject to the actual test.

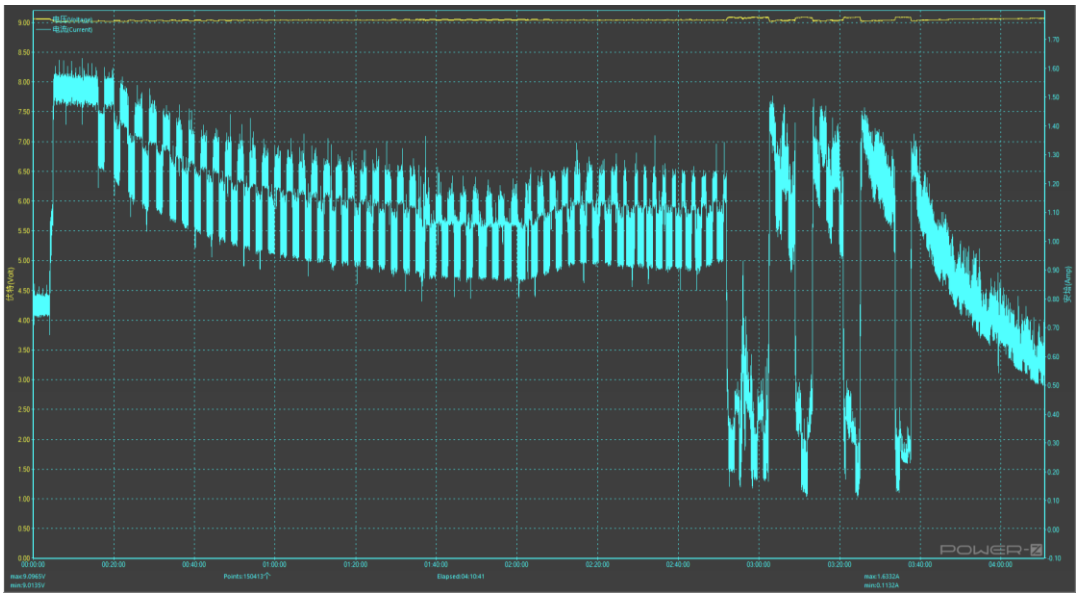
- Charging curve of iphone13MAX+AIRPODPRO, full time: 4h20min, ring temperature 27℃



- Charging curve of iphone12MAX, full time: 3H ring temperature 27℃



- Charging curve of iphone14pro+AIRPODPRO, full time: 4h20min, ring temperature 27℃



- Charging curve of iphone13pro+AIRPOD2, full time: 3h40min, ring temperature 27℃