



Product Specification

产品规格书

Product Type (产品型号) : DZ-560PVDJ-G00A-V1.3

Edit Date (日期) : 2021-03-25

File Version (文件版本) : Ver 1.2

Approver (确认者) : 刘辉

Postscript (备注) : 3G DDR、32G EMMC、2.4G-WIFI*1、5G-WIFI*1

Customer Approval (客户承认)	Customer Approval (客户承认)	Customer Approval (客户承认)
签章(Signature):	签章(Signature):	签章(Signature):
日期(Date):	日期(Date):	日期(Date):
客户公司全称(Customer company):		

The final interpretation of all information in this article belongs to GuangZhou Dazzle View Intelligent Technology Co., Ltd. All unauthorized and permitted reproductions are not recognized and should be banned.

【This document may not fully reflect all recent changes to the product, whichever is the actual product.】

本文所有信息最终解释权归广州炫视智能科技有限公司，所有未经授权和允许的复制都是不被认可和应被禁止的

【本份文档上有可能没有完全反映产品的所有最新更改,以实际产品为准】

Content (目录)

1. GENERAL DESCRIPTION (产品概述)	4
2. PRODUCT FEATURES (产品特性)	6
3. PRODUCT OF PCBA (产品图片)	8
4. PORT DESCRIPTION (端口说明)	9
5. DESCRIPTION OF CONNECTOR (板载连接器说明)	11
6. INTERFACE DEFINITION (插座说明)	11
7. PCBA MECHANICAL DIMENSION (尺寸)	14
8. IR& KEY SCHEMATIC DIAGRAM (IR& KEY 原理示意图)	15
9. GENERAL PRECAUTIONS (注意事项)	15
10. OPERATIONAL REQUIREMENTS (操作要求)	15

Revision History (修订记录)

Date (日期)	Version (版本)	Description (描述)	Author (作者)
2020-06-19	Ver 1.0	INITIAL ISSUE	彭秀雯
2020-09-25	Ver 1.1	Update	彭秀雯
2021-03-25	Ver 1.2	Update	陈明芳



1. General Description (产品概述)

DZ-560P product series AD board is an intelligent Android system display motherboard, which is designed based on the quad-core Cortex-A55@1200Mhz CPU and Mali-G52 GPU. It is suitable for educational and commercial market applications such as teaching, training, and conferences. The product has rich hardware ports, and provides many intelligent application functions suitable for the application of the education electronic whiteboard industry, which provides effective support for the design of partner terminal products!

DZ-560P 产品系列主板是一款智能安卓系统显示主板，基于四核 Cortex-A55@1200Mhz CPU，Mali-G52 GPU 设计的，它适用于教学、培训、会议等教育及商用市场应用。产品具有丰富的硬件端口，以及提供了适用于教育电子白板行业应用的诸多智能化应用功能，为合作伙伴终端产品设计提供了有效支撑！

The product is equipped with Android 9.0 embedded operating system, industry customized human-computer interaction UI system, full-featured touch interactive operation, providing friendly human-computer interaction experience!

产品搭载 Android 9.0 嵌入式操作系统，行业定制化人机交互 UI 系统，全功能触摸互动操作，提供友好的人机交互体验！

The product supports VB1 interface and realizes ultra-high definition input and output display with 3840*2160P resolution.

产品支持 VB1 接口，实现 3840*2160P 分辨率的超高清输入输出显示。

It has commonly used ports such as AV, VGA, and headphones, and provides multimedia input and output ports such as HDMI, USB2.0, ;

具有常用的 AV、VGA、耳机等常用端口，同时提供了 HDMI、USB2.0 等多媒体输入输出端口；

Support Intel OPS standard notebook platform OPS computer, desktop OPS-C computer, realize audio, video and data file communication through HDMI, USB and other data connections;

支持 Intel OPS 规范笔记本平台 OPS 电脑、台式机 OPS-C 电脑，通过 HDMI、USB 等数据连接实现音视频及数据文件的通讯；

Support infrared touch screen, capacitive touch screen USB, I2C, serial port and other communication ports to achieve seamless interaction between Android and Windows system;

支持红外触摸屏、电容式触摸屏 USB、I2C、串口等多种通讯端口,实现 Android 与 Windows 系统多系统间的无缝互动;

Support a variety of sensors, ambient light dynamic monitoring, full channel intelligent identification and other functions;

支持多种传感器, 环境光动态监测、全通道智能识别等功能;

Note: Some media formats require a license to be available.

注: 部分媒体格式需要授权许可才可用。



2. Product Features (产品特性)

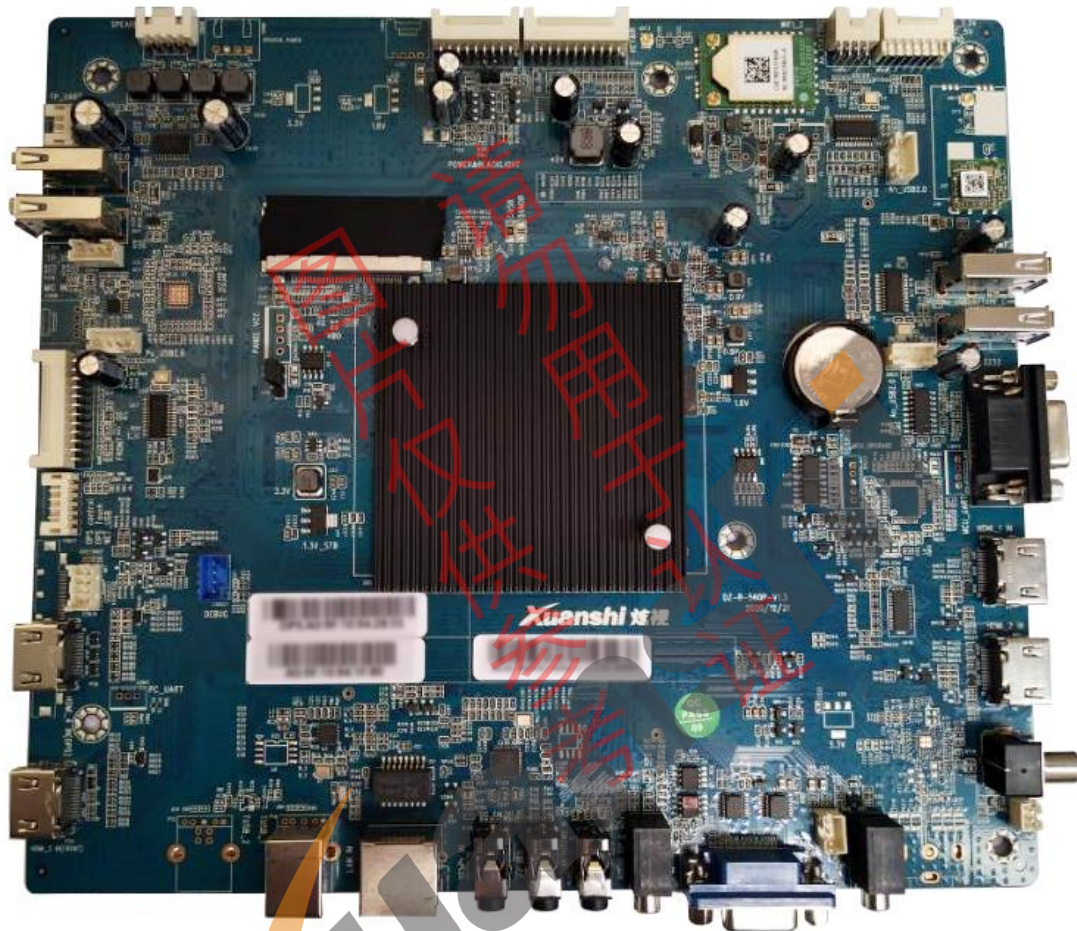
Category (类别)	Items (项目)	Notes (参数)
System parameters (系统参数)	Chip 芯片	HI3751V560
	CPU	Quad-core Cortex-A55@1200Mhz
	GPU	Mali-G52
	RAM	3G DDR
	Flash	32G EMMC
	Android version	9.0
Panel (液晶屏)	Panel Type (屏类型)	LCD/LED
	Panel Interface (驱屏接口)	4K@60Hz V-BY-ONE (4K@120Hz V-BY-ONE)
	Max Resolution (最大分辨率)	3840*2160@60Hz
Multi-Media 多媒体	Video (视频)	MPEG-2/4,AVS,H.264,H.265,TS,Realmedia...
	Audio (音频)	MPEG1/2 layer I/II,AAC-Lc,WMA...
Analog video (模拟视频)	CVBS	1.0Vp-p + / -5%
HD input (高清视频)	HDMI	480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 2160p
Network (网络)	Network support (网络支持)	2.4G/5G wireless network, wired network, Bluetooth
Terminals (端口)	Ethernet*	1x RJ45 standard socket
	VGA IN	1x DB15 type
	YPBPR	1x Mini earphone jack
	AV IN	1x Mini earphone jack
	Earphone	1x earphone standard socket
	AV OUT	1x Mini earphone jack
	SPDIF	1x Coaxial socket
	WIFI	1x 2.4G built-in module,1x 5G built-in module
	HDMI IN	4x HDMI standard socket.

	USB(多媒体)	3x USB 2.0 standard socket
	UART	1x DB9 standard block
	USB(触摸)	1x Standard Type USB2.0 B port ,1x Standard Type USB2.0 A port
Power (电源)	Requirement (电源需求)	12V ,5V ,5VSB,24V(Amplifier power supply)
	Panel Power (驱屏电压)	12V/5V

Note1: RJ45 port support 100M Ethernet and OPS 100M Ethernet connection.

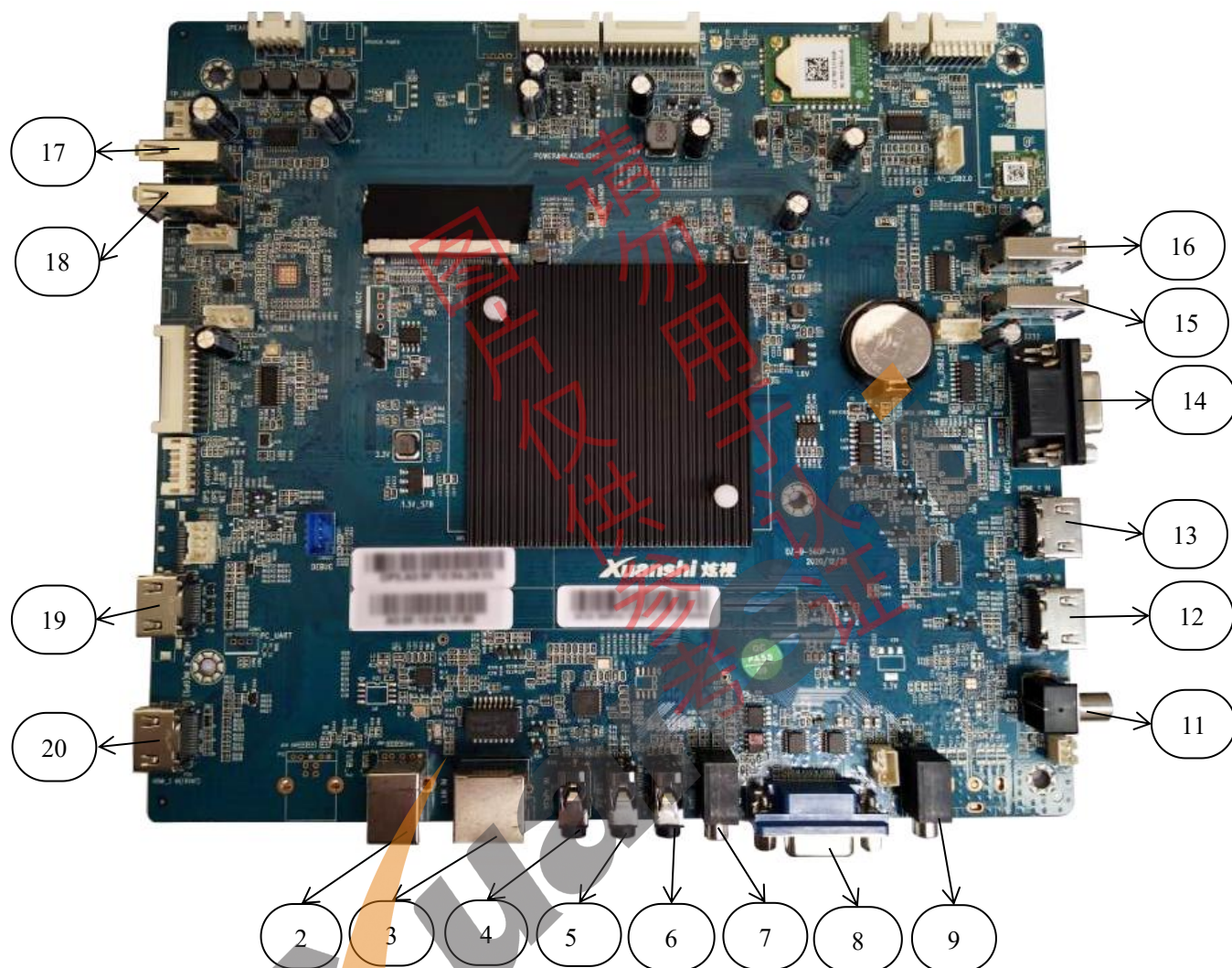
注 1: RJ45 端口支持 100M 以太网及 OPS 100M 以太网连接。

3. Product of PCBA (产品图片)



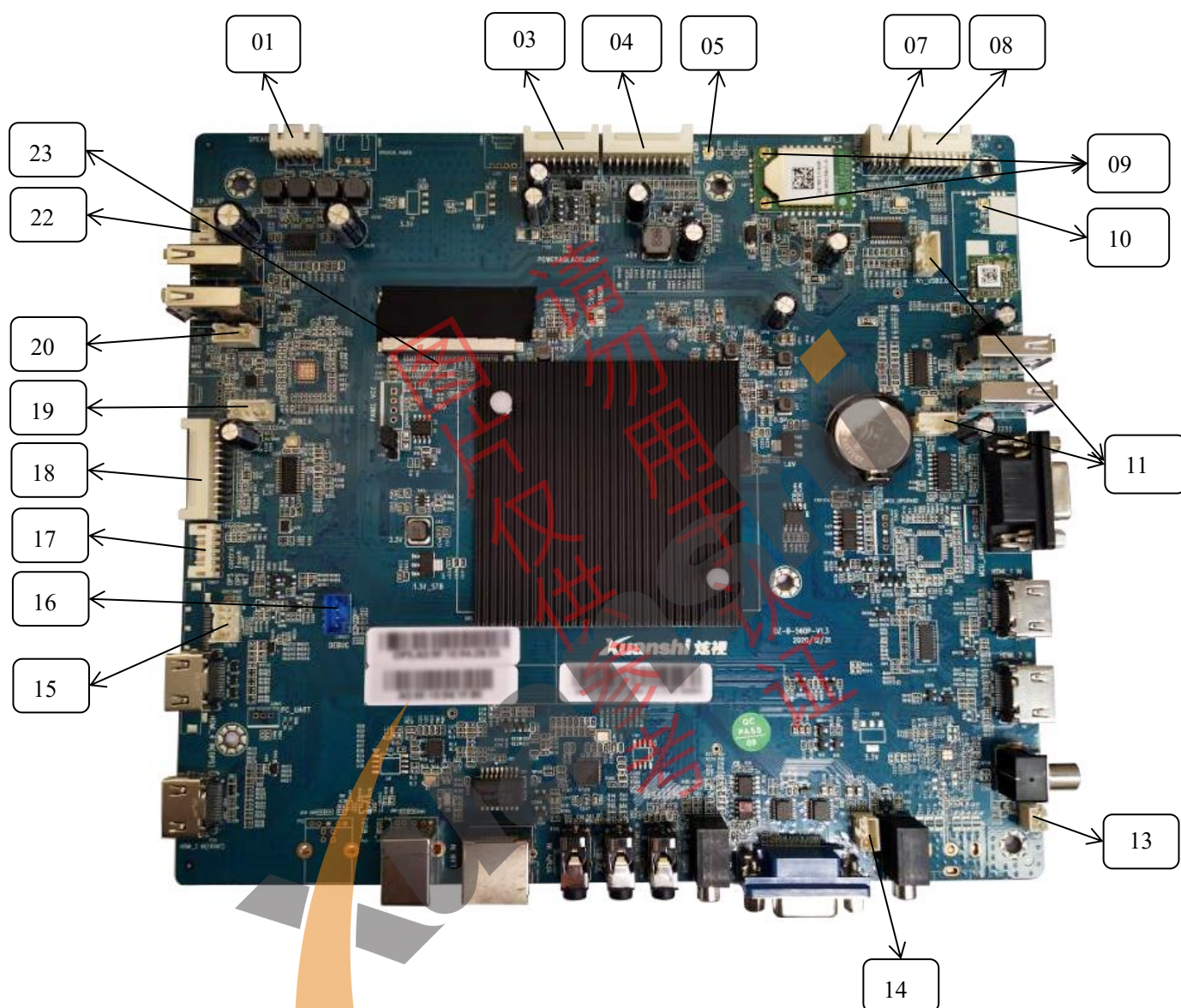
Note: This is a reference picture, which is subject to the actual product.
注:此为参考图片,具体以实物为准。

4. Port Description (端口说明)



Connector 端子	Number 编号	Type 类型	Input/output
Touch USB	2	USB 2.0 B type	Input/output
RJ45	3	Standard type	input
Ypbpr IN	4	Mini earphone jack	Input
AV IN	5	Mini earphone jack	Input
AV OUT	6	Mini earphone jack	output
VGA Audio IN	7	Standard type	Input
VGA IN	8	DB15 type	Input
Earphone	9	Standard type	output
SPDIF OUT	11	Standard type	output
HDMI IN	12,13,19,20	HDMI type	Input
RS232 Uart	14	DB9 type	Input/output
Android USB 2.0	15,16	USB 2.0 A type	Input/output
Full Source Sharing USB2.0	17	USB 2.0 A type	Input/output
Touch USB	18	USB 2.0 A type	Input/output

5. Description of Connector (板载连接器说明)



Number 编号	Location 连接器	Functional description 功能描述
01	CON10	Speaker
03	CON1	Power&Backlight (电源及背光接口)
04	CON19	Key&IR
05	/	Bluetooth Antenna Port(蓝牙天线接口)
07	CON15	Android USB 2.0*2
08	CON20	I2C&GPIO
09	/	Screening Antenna Port (投屏天线接口)
10	/	Internet Antenna Port (上网天线接口)
11	CON16/CON22	Android USB 2.0
13	CON7	Spdif OUT

14	CON25	Earphone
15	CON36	OPS Touch&Reserved OPS NET
16	CON23	Debug
17	CON33	OPS Control
18	CON17	Front port
19	CON21	Full Source Sharing USB2.0 (全通道 USB2.0)
20	CON14	Touch USB
22	CON18	Touch Uart
23	VB0	51 pin V-BY-ONE (8 Pairs 显示接口)

6. Interface Definition (插座说明)

CON19 (2*11PIN/2.0mm) IR&Key

No.	Function	No.	Function
1	GND	2	GND
3	K7	4	LED_R
5	K6	6	LED_G
7	K5	8	IR_IN
9	K4	10	IR_VCC
11	K3	12	ADC
13	K2	14	SDA
15	K1	16	SCL
17	K0	18	+3.3V
19	GND	20	GND
21	LED+	22	LED-

VB0 (51pin/for 60Hz VB1) 51 Pin V-BY-ONE

No.	Function	NO.	Function
1	GND	2	BY7P
3	VB7N	4	GND
5	VB6P	6	VB6N
7	GND	8	VB5P
9	VB5N	10	GND
11	VB4P	12	VB4N
13	GND	14	VB3P

15	VBY3N	16	GND
17	VBY2P	18	VBY2N
19	GND	20	VBY1P
21	VBY1N	22	GND
23	VBYOP	24	VBYON
25	GND	26	VBYLOCKN
27	VBYHTPDN	28	NC
29	AGP	30	LD_EN
31	NC	32	NC
33	V_SCL	34	V_SDA
35	NC	36	DATA_FORMAT_1
37	DATA_FORMAT_0	38	NC
39	GND	40	GND
41	GND	42	GND
43	NC	44	NC
45	VCC_PANEL	46	VCC_PANEL
47	VCC_PANEL	48	VCC_PANEL
49	VCC_PANEL	50	VCC_PANEL
51	VCC_PANEL		

CON10 (4PIN/2.54mm) Speaker

No.	Function
1	LOUT+ 左声道
2	LOUT- 左声道
3	ROUT- 右声道
4	ROUT+ 右声道

CON1 (2*9PIN/2.0mm) Power&Backlight (电源及背光接口)

No.	Function	No.	Function
1	Standby	2	5V_S
3	GND	4	GND
5	ADJ	6	ON/OFF
7	GND	8	GND
9	5V	10	5V
11	GND	12	GND
13	12V	14	12V
15	GND	16	GND
17	AMP_VCC	18	AMP_VCC

CON18 (4PIN/2.0mm) Touch Uart

No.	Function
1	NC
2	GND

3	RX
4	TX

CON14 (4PIN/2.0mm) Touch USB

No.	Function
1	T5V
2	DM
3	DP
4	GND

CON23 (4PIN/2.0mm) Debug

No.	Function
1	3.3V
2	RXD
3	TXD
4	GND

CON17 (2X12PIN/2.0mm) Front Port (前置板端口)

No.	Function	NO.	Function
1	ADC	2	3V3
3	+5V	4	+5V
5	GND	6	+5V
7	TD+	8	TD-
9	GND	10	GND
11	D-	12	DP+
13	MIC IN	14	GND
15	MIC_DET	16	GND
17	DP	18	DM
19	RXP	20	RXN
21	GND	22	TXP
23	TXN	24	GND

7. PCBA Mechanical Dimension (尺寸)

Number of layers: two layers

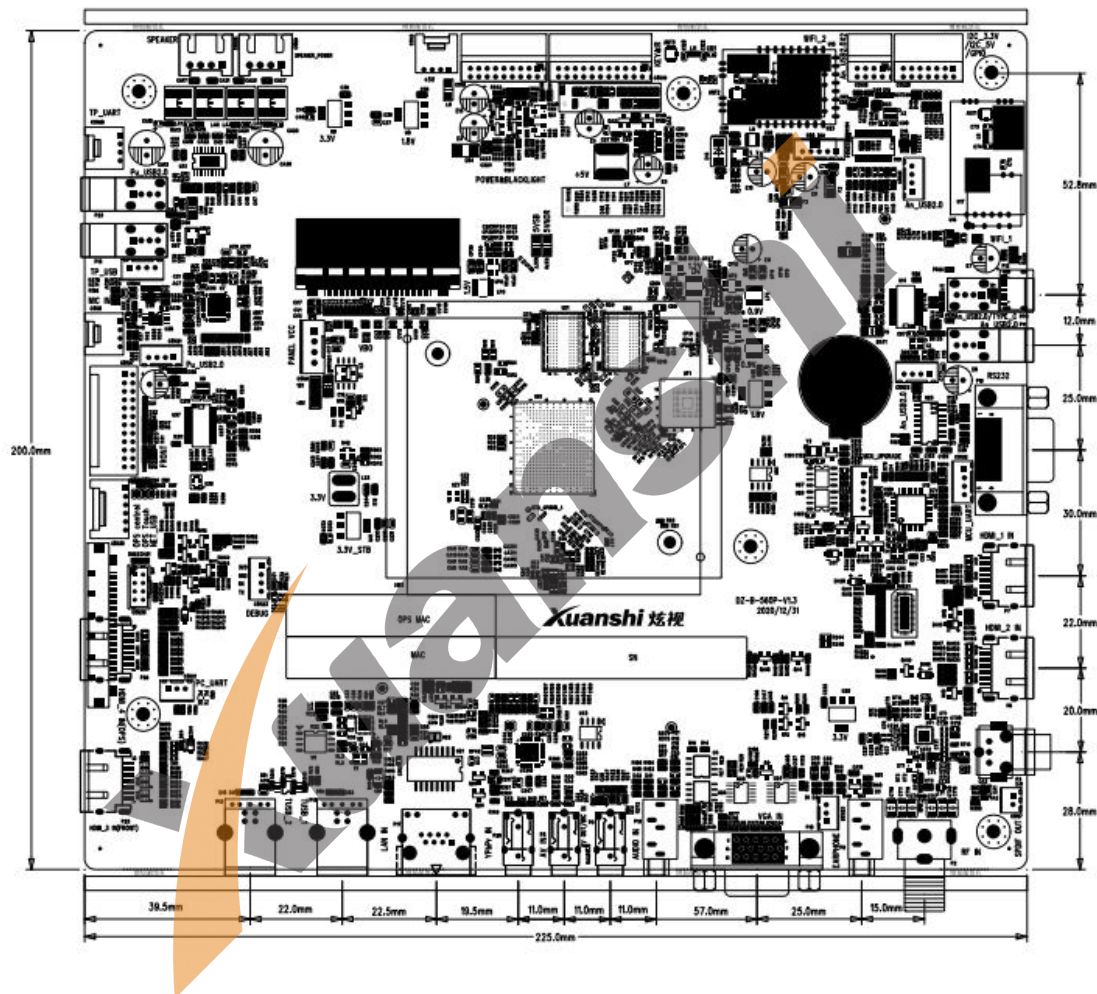
板层数: 二层板

Board size: 225 X 200 mm

板卡尺寸: 225 X 200 mm

Maximum height of components Top layer $\leq 15\text{mm}$, bottom layer $\leq 2.5\text{mm}$

元件最大高度 顶层 $\leq 15\text{mm}$, 底层 $\leq 2.5\text{mm}$



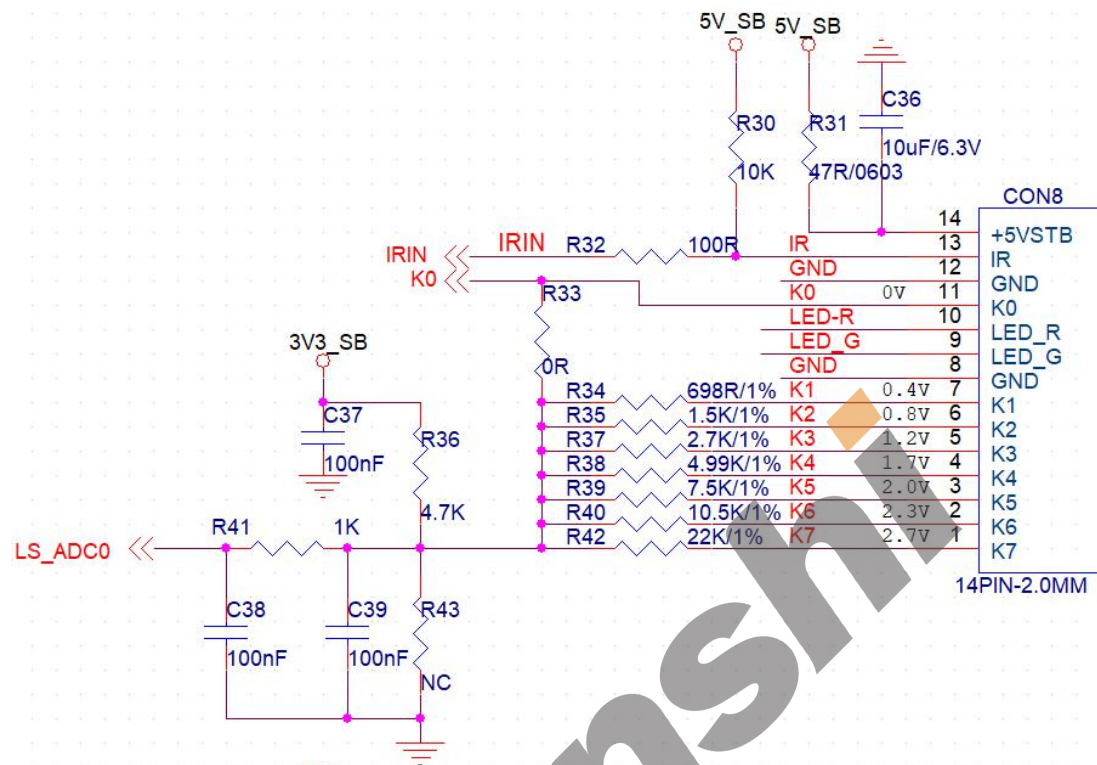
Note 1: The welding tolerance of each component is $\pm 0.5\text{mm}$

注 1: 各元器件的焊接公差为 $\pm 0.5\text{mm}$

Note 2: For reference, if you need detailed size parameters, please contact our business to request 3D drawings.

注 2: 供参考, 如需要详细尺寸参数, 请联系我司业务索要 3D 图档。

8. IR& Key Schematic Diagram (IR& Key 原理示意图)



9. General Precautions (注意事项)

- ◆ Keep away from strong static plates.
保持远离强静电板。
- ◆ When the main board is working properly, avoid metal material falling on the board.
主板正常工作时避免金属物质掉落在板卡上。
- ◆ Do not disassemble the module.
请勿拆卸模块。
- ◆ If the surface of the motherboard is dirty, use a soft (not wet) cloth.
如果主板表面很脏，请用软（不湿）布。

10. Operational requirements (操作要求)

- ◆ Relative humidity: $\leq 80\%$. 相对湿度: $\leq 80\%$.
- ◆ Storage temperature: $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$. 存储温度: $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$.
- ◆ Working temperature: $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$. 工作温度: $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$.