

## The Specification of Smart Advertising Machine Main Board

# 智能广告机主板规格书

**Customer(客户):**

\_\_\_\_\_

**Product Type(产品型号):**

**XCY.3288.V32**

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### Approved By Customer(客户确认)

Approved By Customer(客户确认)		
Confirmed/确认	Approved/批准	Signature /签章

**Electrical Specification****History**

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## 1.General Description(概述)

**XCY.3288.V32** uses quad-core Rockchip RK3288 chip supported Android 5.1 system. RK3288 is the world's first quad-core ARM and new Cortex-A17 core chip. Besides, it is the first chip supporting the latest super Mali-T76x, 600MHz GPU and 4K\*2K hardware solution H.265 all over the world. RK3288 supports the decoding of mainstream audio and video formats and pictures.

**XCY.3288.V32** 采用瑞芯微 RK3288 四核芯片方案，支持 Android 5.1 系统。RK3288 是全球第一个四核 ARM 全新 Cortex-A17 内核芯片、全球第一个支持最新超强 Mali-T76x 系列、600MHz GPU 的芯片以及全球第一个 4Kx2K 硬解 H.265 的芯片，支持主流音视频格式和图片的解码。

**XCY.3288.V32** is used in the commercial advertising machine market, with the following functions.

**XCY.3288.V32** 用于商显广告机市场，有以下功能：

1. Support two screens that display different content, dual 8bit LVDS interface;

支持双屏异显功能，双 8 位 LVDS 接口；

2. Support 2K LVDS output, drive 7 inch to 110 inch 2K display;

支持 2K LVDS 输出，能驱动 7 寸至 110 寸 2K 显示屏；

3. Support eDP display interface output;

支持 eDP 显示接口输出；

4. HDMI can support 4K level video playback;

HDMI 支持 4K 级的视频播放；

5. Support infrared remote control, 3G / 4G module;

支持红外遥控器、3G/4G 模块；

6. Support OTG debugging and other functions;

支持 OTG 调试等功能；

7. In the human-computer interaction and network equipment interaction, its hardware platform and Android intelligent features can be used in the intelligent terminal motherboard.

其硬件平台化、Android 智能化的特点，在需要进行人机交互，网络设备交互时，都可以在智能终端主板上进行使用。

## 2. Hardware Context (硬件配置)

硬件配置	
板卡配置	CPU: 四核 Cortex-A17, 主频最高达 1.8GHz
	GPU: Mali-T 764
工作电压	12V
LVDS 驱屏电压	3.3V、5V、12V 跳冒
eDP 驱屏电压	3.3V、5V、12V 跳冒
TF 卡	TF*1
SIM	SIM*1
RJ45	RJ45 端子*1
DDR3	2GB 和 4GB 可选
eMMC	4GB、8GB、16GB 可选
移动网络	可支持 3G/4G 模块
WIFI	2.4GHz、2.4GHz+5GHz+BT4.0 可选

### 3. Product Function(产品功能)

#### 3.1 Local Operating Function(本地操作功能)

本地操作功能	
网络设置	支持有线网络连接和无线网络连接
分时设置	支持分时设置广告机开关机时间段、广告机音量
语言切换	支持简体中文和英文切换
看门狗复位	支持异常自动复位
屏幕转换	支持 0°、90°、180°、270° 屏幕切换
系统升级	支持系统后台升级和本地升级
服务器设置	支持手动输入 IP，连接相应的服务器
USB	支持 USB 插入更新节目，节目需保存在 U 盘的“LProgram”文件夹中
鼠标	支持鼠标操作页面
TF 卡	支持插入 TF 卡，增大存储空间
页面自动跳转	当处于主页面时，10s 不进行操作画面会自动跳转到节目播放页面；当处于子页面时 60s 不进行操作画面会自动跳转到主页面

#### 3.2 Background release system function(后台发布系统功能)

后台发布系统功能	
节目管理	支持设置节目列表，可对节目进行删除、预览、发布和编辑
	支持设置节目的播放日程
	支持设置消息列表，可对消息进行删除、预览、编辑
终端管理	支持对选择的终端进行终端监控和终端设置
消息制作	支持同步设置消息内容、消息播放时长、消息播放时间
节目制作	支持同步设置节目名称、节目内容、节目时长、播放类型、播放时间


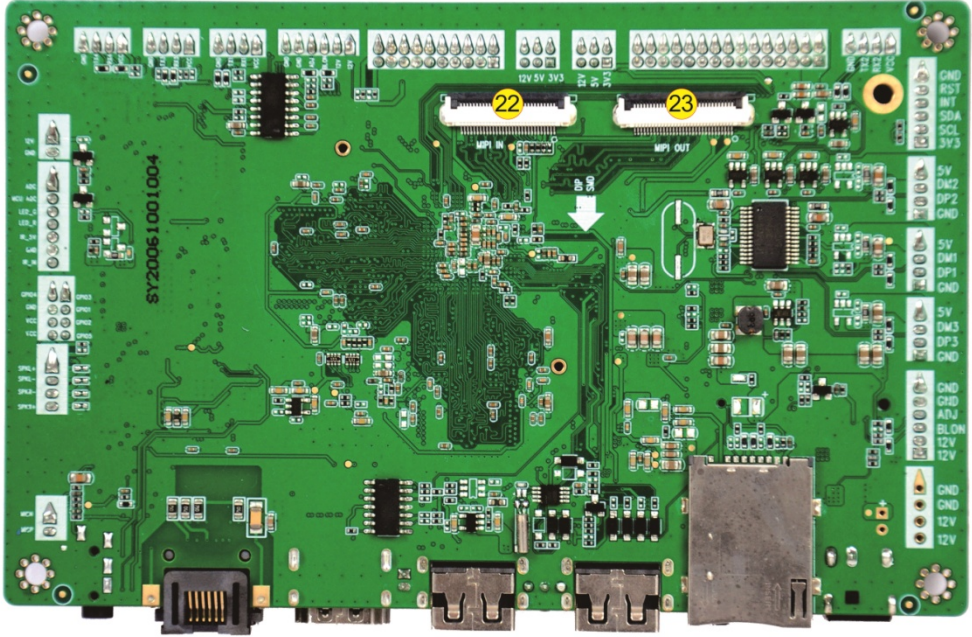
## 2. Product Photograph(产品外观图)

The pictures are for reference only, please in kind prevail.

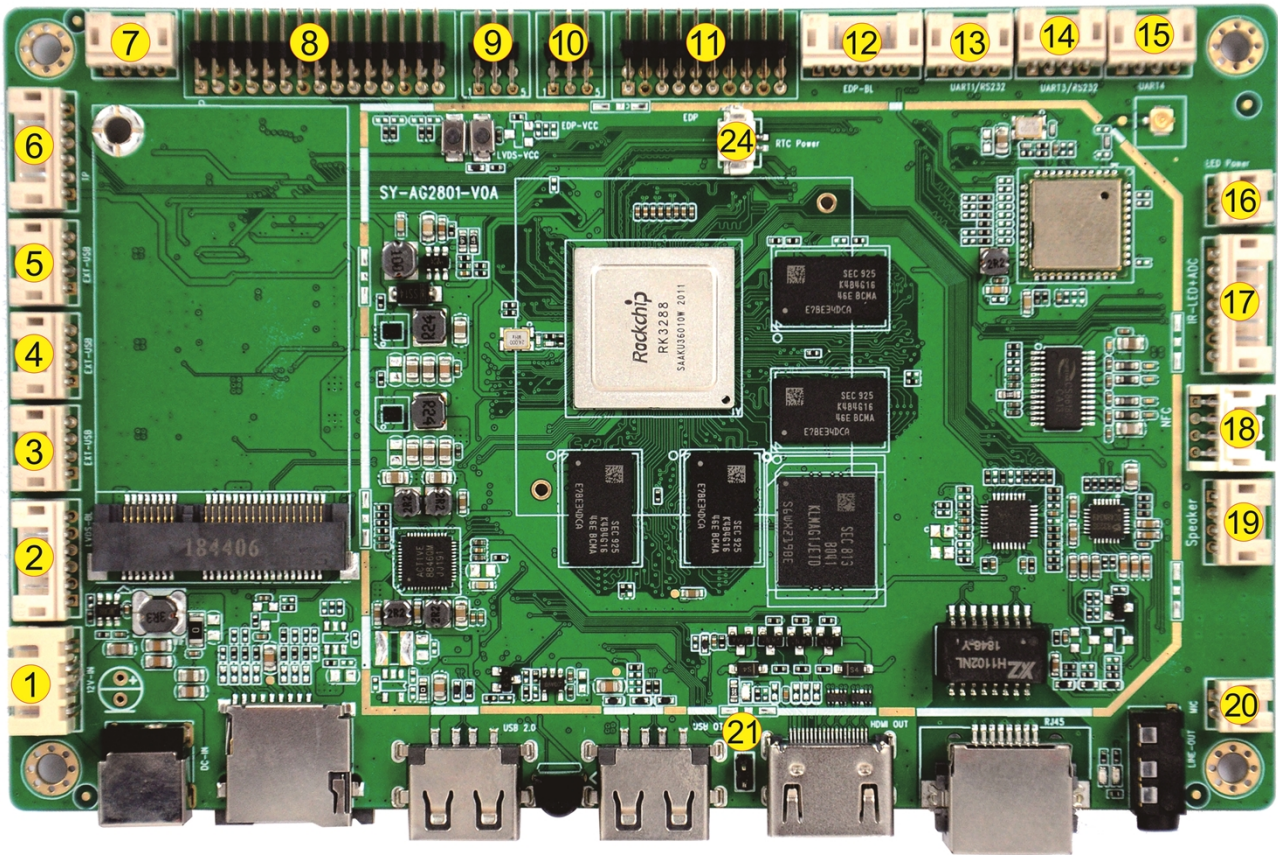
图片仅供参考,请以实物为准。

**Note: the terminal function from left to right according to the order of the corresponding.**

**注意：端子功能从左往右按顺序依次对应。**

配置	Mainboard terminal functional (主板端子功能)							
<p><b>FRONT VIEW</b> (正视图)</p>	 <table border="1" data-bbox="467 887 1430 1023"> <tr> <td data-bbox="467 887 584 1023">DC IN</td> <td data-bbox="587 887 746 1023">TF Card SIM Card</td> <td data-bbox="750 887 866 1023">USB</td> <td data-bbox="869 887 986 1023">USB</td> <td data-bbox="989 887 1126 1023">HDMI OUT</td> <td data-bbox="1129 887 1246 1023">RJ45</td> <td data-bbox="1249 887 1430 1023">LINE OUT</td> </tr> </table>	DC IN	TF Card SIM Card	USB	USB	HDMI OUT	RJ45	LINE OUT
DC IN	TF Card SIM Card	USB	USB	HDMI OUT	RJ45	LINE OUT		
<p><b>BACK VIEW</b> (背面图)</p>								

4.3 FRONT VIEW OF XCY.3288.V32\* (正面图)



NO.	Position	Description	NO.	Position	Description
1	J13	12V 电源	13	J12	串口 1/RS232
2	J18	LVDS 背光插座	14	J6	串口 3/RS232
3	J66	USB1	15	J5	串口 4
4	J64	USB2	16	J16	补光灯电源
5	J65	USB3	17	J67	遥控插座
6	J17	TP	18	J31	NFC/GPIO
7	J3	调试串口	19	J7	喇叭插座
8	J32	LVDS 金针	20	J14	麦克风插座
9	J29	LVDS 驱屏跳冒	21	J9	OTG 切换
10	J30	eDP 驱屏跳冒	22	J23	MIPI 输入
11	J33	eDP 金针	23	J24	MIPI 输出
12	J19	eDP 背光	24	J8	BAT



## 5.Configuration & General Precautions(使用注意事项)

- For safety issue, please keep the board at least 8.0mm away from metal parts of the advertising machine .  
基于安全考虑，请在安装时确保板卡与其他金属材料保持 8.0mm 以上的距离。
- A ESD shield bag is offered to protect the board from electrostatic or magnetic shock , please take care of ESD at anytime.  
本产品采用防静电包装，请在任何时候注意静电防护。
- The brightness of panel is influenced greatly by temperature, you should measure it after power on 10~30 minutes.  
因屏的亮度易受温度影响，请在开机 10~30 分钟后再测量。
- Keep the board surface clean. Check the appearance of the board if there is any defective parts, such as dilapidated, weighty nick, etc.  
保持产品表面整洁。检查产品外观是否有明显品质不良存在，如：破损，严重划痕等。
- Keep the board away from conductor when it is working.  
请确保板卡工作时远离导体。
- Don't press, distort or disassemble the board.  
请勿强压、扭曲或拆解板卡。
- Clean the board with soft dry cloth when it's dirty.  
如果板卡脏了，请用干布擦拭。
- Don't switch on the power supply before panel is correctly connected.  
通电前请确保屏线连接正确。

## 6.Feature(特性)

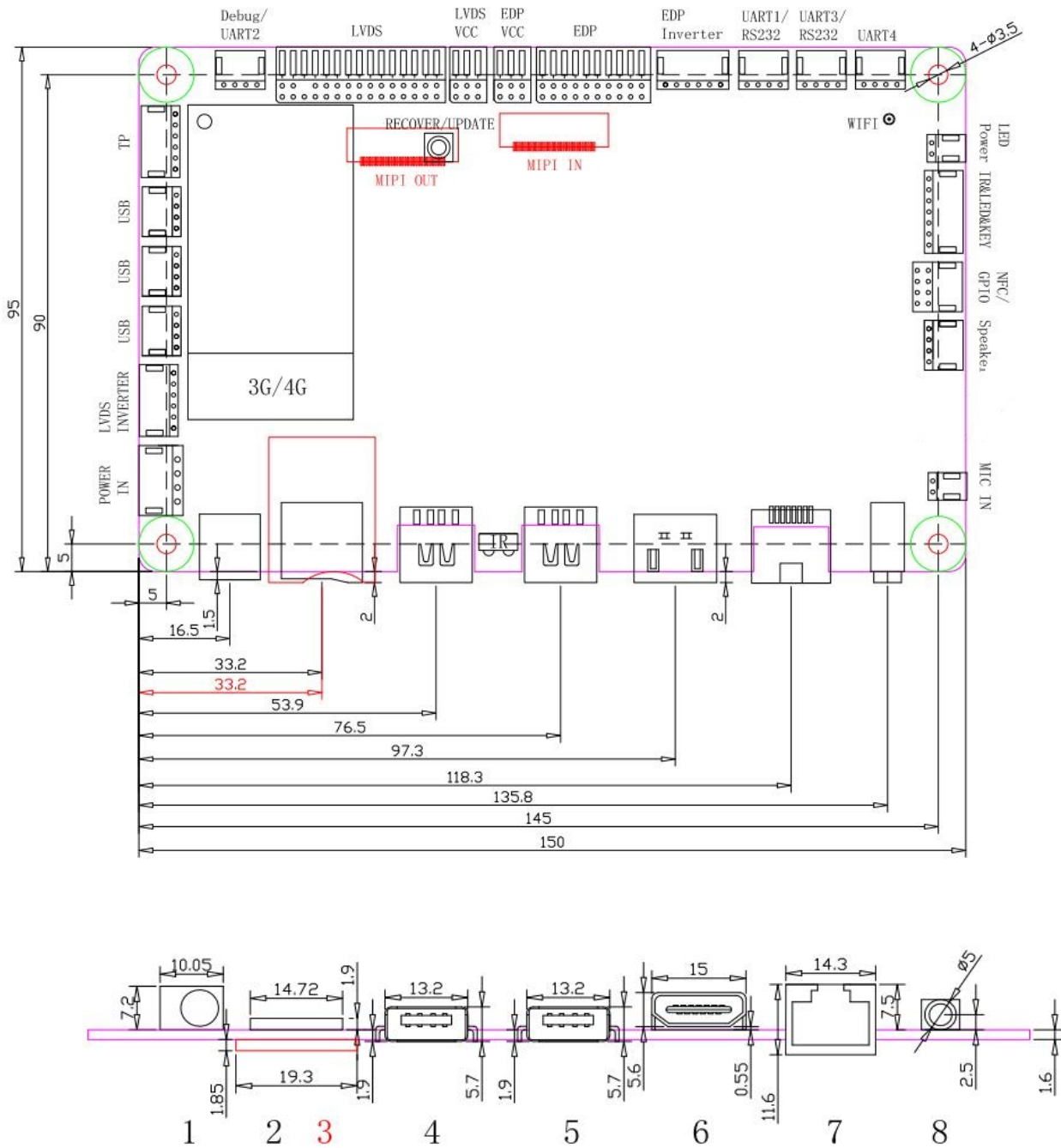
<b>Chipset</b> (主芯片)	RK3288		
<b>Target Market</b> (目标市场)	China and overseas area (中国及海外区域)		
<b>OSD Language</b> (OSD 语言)	Multilingual (多国语言)		
<b>Panel</b> (屏)	Panel Type (屏类型)	LCD/LED	
	Panel Interface (驱屏接口)	Dual 8bit LVDS, eDP	
	Max Resolution (最大分辨率)	LVDS/eDP	1920*1080@60Hz
<b>Audio Output</b> (音频输出)	Frequency Response (频率响应)	100Hz~15K Hz @±12dB(1KHz, -12dB reference signal)	
	Max Output Power (最大输出功率)	2×8W(8Ω)THD+N<10%@1KHz (Supply Voltage: 12V, Audio input: 0.5 Vrms) (供电电压: 12V, 音频输入: 0.5Vrms)	
<b>Power</b> (电源)	Requirement (工作电压)	12V	

**6.1 USB MULTIMEDIA PLAYBACK FORMAT (USB 多媒体播放支持格式列表)**

Media (媒体)	File Ext. (扩展名)	Codec(编解码器)	Remark(备注)
Video	/	MPEG-1/2	(1) Image Size:48X48pixels to 1920X1088pixels; (2) Max Frame Rate: 30fps; (3) Maximum Bit Rate:80Mbps; (4) Support Field Coding.
	/	MPEG-4	(1) Image Size:48X48pixels to 1920X1088pixels; (2) Max Frame Rate: 30fps; (3) Maximum Bit Rate:38.4Mbps; (4) Not Support MS MPEG4 v1/v2/v3 and GMC.
	/	DivX3/4/5/6	(1) Image Size:48X48pixels to 1920X1088pixels; (2) Max Frame Rate: 30fps; (3) Maximum Bit Rate:38.4Mbps; (4) Not Support Data Partitioning and GMC.
	/	H.264	(1) Image Size:48X48pixels to 4096X2304pixels; (2) Max Frame Rate: 30fps; (3) Maximum Bit Rate:100Mbps; (4) Support Field Coding,MBAFF and CABAC coding 4K video only.
	/	H.264 MVC	(1) Image Size:48X48pixels to 1920X1088pixels; (2) Max Frame Rate: 60fps; (3) Maximum Bit Rate:38.4Mbps; (4) Support Stereo High Profile only.
	/	H.265/HEVC	(1) Image Size:64x64pixels to 4096x2304pixels; (2) Max Frame Rate: 60fps; (3) Maximum Bit Rate:100Mbps; (4) Support Main Profile & Main10 Profile, 10-bit color decoding, Tile & Slice;
	/	VP8	(1) Image Size:48X48pixels to 1920X1088pixels; (2) Max Frame Rate: 30fps; (3) Maximum Bit Rate:38.4Mbps.
	/	VC-1	(1) Image Size:48X48pixels to 1920X1088pixels; (2) Max Frame Rate: 30fps; (3) Maximum Bit Rate:45Mbps.
	/	H.263	(1) Image Size:SQCIF(128x96), QCIF(176x144), CIF(352x288), 4CIF(704x576); (2) Max Frame Rate: 30fps; (3) Maximum Bit Rate:38.4Mbps; (4) Not support H.263+.
	/	SORENSEN SPARK	(1) Image Size:48X48pixels to 1920X1088pixels; (2) Max Frame Rate: 30fps; (3) Maximum Bit Rate:38.4Mbps.
	/	VP6	(1) Image Size:48X48pixels to 1920X1088pixels; (2) Max Frame Rate: 30fps; (3) Maximum Bit Rate:38.4Mbps.
	/	MOTION JPEG	(1) Image Size:48X48pixels to 1920X1088pixels; (2) Max Frame Rate: 30fps;

			(3) Maximum Bit Rate:38.4Mbps.
Audio	.mp1 .mp2 .mp3	MPEG1/2/2.5 Audio Layer1/2/3	(1) Sample Rate:8K~48KHz; (2) Bit Rate: 8K~320Kbps,CBR AND VBR; (3) Channel: 2.
	.wma	WMA Version 4,4.1,7,8,9, wma pro	(1) Bit Rate: 8K~48Kbps; (2) Sample Rate:8K~320Kbps; (3) Channel:2; (4) Remark: Non-support WMA Pro,lossless and MBR.
	.wav	MS-ADPCM, IMA-ADPCM, PCM	(1) Sample Rate: 8K~48KHz; (2) Bit Rate: n.a; (3) Channel: 2; (4) Remark: Support 4bit MS-ADPCM, IMA-ADPCM.
	.ape	APE Ver. 3.95, 3.97, 3.98, 3.99 normal and fast	(1) Sample Rate: 8K~48KHz (2) Bit Rate: n.a (3) Channel: 2
	.ogg .oga	Q1~Q10	(1) Sample Rate: 8K~48KHz (2) Bit Rate: n.a (3) Channel: 2
	.flac	Compress Level 0~8	(1) Sample Rate: 8K~48KHz (2) Bit Rate: n.a (3) Channel: 2
	.m4a .aac	MAIN, ADIF ,ATDS Header AAC-LC and AAC-HE	(1) Sample Rate: 8K~48KHz (2) Bit Rate: n.a (3) Channel: 5.1
Photo	.jpg/ .jpeg	JPEG	(1) Image Size:48X48pixels to 8176 X8176pixels; (2) Not support Non-interleaced Scan; (3) Software support SRGB JPEG; (4) Software support Adobe RGB JPEG.
	.bmp	BMP	No Restriction
	.gif	GIF	No Restriction
	.png	PNG	No Restriction
<b>Note:</b> 1.Licenses involved in specifications above are supposed to be obtained by customers themselves, eg:AC3 、AAC、DTSand DivX. 以上规格涉及 License 部分需要客户自己获取, 比如: AC3、AAC、DTS 及 DIVX。 2.MP4 can't support GMC. MP4 不支持 GMC。			

## 7. PCB Dimension(结构尺寸图)



1	2	3	4	5	6	7	8
PWR IN	TF CARD	<b>SIM CARD</b>	USB IN	USB IN	HDMI OUT	RJ45 IN	LINE OUT

## 8. Interface Definition(接口定义)

注：方形焊盘定义为 NO.1，通用性板卡的插座定义按照插座开口向内，从左向右开始计数(客户订制型板卡除外)

### 8.1 J13:12V IN CONNECTOR(4PIN/2.5)(12V 供电插座)

NO.(引脚)	Symbol(定义)	Description(描述)
1	12V	12V Power Supply(12V 电源供电)
2	12V	12V Power Supply(12V 电源供电)
3	GND	Ground(地)
4	GND	Ground(地)

### 8.2 J18:LVDS\_INVERTER CONNECTOR(6PIN/2.0) (背光 ADJ 插座)

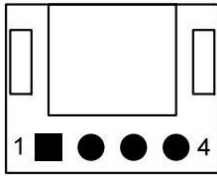
NO.(引脚)	Symbol(定义)	Description(描述)
1	+12V	+12V Power Supply(+12V 供电)
2	+12V	+12V Power Supply(+12V 供电)
3	BLON	Backlight On/Off Control(背光开关控制)
4	ADJ	Brightness Adjust(亮度调节)
5	GND	Ground(地)
6	GND	Ground(地)

### 8.3 J66:EXT-USB CONNECTOR(4PIN/2.0)(USB 插座)

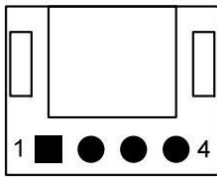
NO.(引脚)	Symbol(定义)	Description(描述)
1	GND	Ground(地)
2	DP3	USB Data+( USB 数据+)
3	DM3	USB Data-( USB 数据-)

4	5V	+5V Power Supply(+5V 供电)
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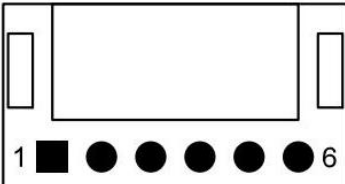
**8.4 J64:EXT-USB CONNECTOR(4PIN/2.0)(USB 插座)**

		
NO.(引脚)	Symbol(定义)	Description(描述)
1	GND	Ground(地)
2	DP1	USB Data+( USB 数据+)
3	DM1	USB Data-( USB 数据-)
4	5V	+5V Power Supply(+5V 供电)

**8.5 J65:EXT-USB CONNECTOR(4PIN/2.0)(USB 插座)**

		
NO.(引脚)	Symbol(定义)	Description(描述)
1	GND	Ground(地)
2	DP2	USB Data+( USB 数据+)
3	DM2	USB Data-( USB 数据-)
4	5V	+5V Power Supply(+5V 供电)

**8.6 J17:TP CONNECTOR(6PIN/2.0) (TP 插座)**

		
NO.(引脚)	Symbol(定义)	Description(描述)
1	3V3	3.3V Power Supply(3.3V 供电)
2	SCL	SCL(时钟数据)
3	SDA	SDA(数据传输)
4	INT	Interrupt Output(中断输出)
5	RST	Reset(复位)
6	GND	Ground(地)

**8.7 J3:Debug/UART2 CONNECTOR(4PIN/2.0)(升级/串口插座)**

NO.(引脚)	Symbol(定义)	Description(描述)
1	3V3	+3.3V Power Supply(+3.3V 电源供电)
2	RX2	Serial Data Receiver(数据接收)
3	TX2	Serial Data Transmitter(数据传输)
4	GND	Ground(地)

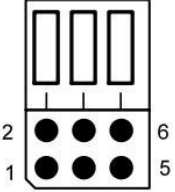
**8.8 J32: LVDS INTERFACE CONNECTOR(2\*15PIN/2.0)(LVDS 金针接口)**

NO.(引脚)	Symbol(定义)	Description(描述)
1	VCC	Power Supply for Panel
2	VCC	
3	VCC	
4	GND	Ground
5	GND	Ground
6	NC	NC
7	RX00-	LVDS ODD 0- Signal
8	RX00+	LVDS ODD 0+ Signal
9	RX01-	LVDS ODD 1- Signal
10	RX01+	LVDS ODD 1+ Signal
11	RX02-	LVDS ODD 2- Signal
12	RX02+	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	
15	RXOC -	LVDS ODD Clock- Signal
16	RXOC+	LVDS ODD Clock+ Signal
17	RX03-	LVDS ODD 3- Signal
18	RX03+	LVDS ODD 3+ Signal
19	RXE0-	LVDS EVEN 0- Signal
20	RXE0+	LVDS EVEN 0+ Signal
21	RXE1-	LVDS EVEN 1- Signal
22	RXE1+	LVDS EVEN 1+ Signal
23	RXE2-	LVDS EVEN 2- Signal
24	RXE2+	LVDS EVEN 2+ Signal
25	GND	Ground



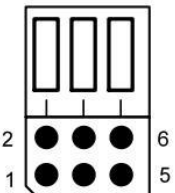
26	GND	Ground
27	RXOC -	LVDS ODD Clock- Signal
28	RXOC+	LVDS ODD Clock+ Signal
29	RXE3-	LVDS EVEN 3- Signal
30	RXE3+	LVDS EVEN 3+ Signal

**8.9 J29:Power for LVDS CONNECTOR(2\*3PIN/2.0 LVDS 驱屏电压)**



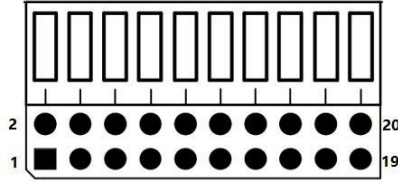
NO.(引脚)	Symbol(定义)	Description(描述)
1	3V3	+3.3V Power Supply(+3.3V 电源供电)
2	VCC	VCC Panel LVDS(LVDS 驱屏供电)
3	5V	5V Power Supply(5V 电源供电)
4	VCC	VCC Panel LVDS(LVDS 驱屏供电)
5	12V	12V Power Supply(12V 电源供电)
6	VCC	VCC Panel LVDS(LVDS 驱屏供电)

**8.10 J30:Power for EDP CONNECTOR((2\*3PIN/2.0 eDP 驱屏电压)**

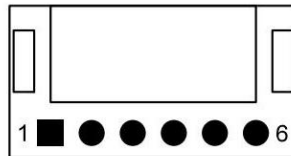


NO.(引脚)	Symbol(定义)	Description(描述)
1	3V3	+3.3V Power Supply(+3.3V 电源供电)
2	VCC	VCC Panel eDP(eDP 驱屏供电)
3	5V	5V Power Supply(5V 电源供电)
4	VCC	VCC Panel eDP(eDP 驱屏供电)
5	12V	12V Power Supply(12V 电源供电)
6	VCC	VCC Panel eDP(eDP 驱屏供电)

**8.11 J33:eDP INTERFACE CONNECTOR(2\*10PIN/2.0)(eDP 接口)**

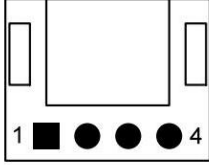


NO.(引脚)	Symbol(定义)	Description(描述)
1	VCC	Power Supply for Panel
2	VCC	Power Supply for Panel
3	GND	Ground
4	GND	Ground
5	eDP_TX0N	eDP 0- Transmit(eDP 数据发送负极信号接口)
6	eDP_TX0P	eDP 0+Transmit(eDP 数据发送正极信号接口)
7	eDP_TX1N	eDP 1- Transmit(eDP 数据发送负极信号接口)
8	eDP_TX1P	eDP 1+Transmit(eDP 数据发送正极信号接口)
9	eDP_TX2N	eDP 2- Transmit(eDP 数据发送负极信号接口)
10	eDP_TX2P	eDP 2+Transmit(eDP 数据发送正极信号接口)
11	eDP_TX3N	eDP 3- Transmit(eDP 数据发送负极信号接口)
12	eDP_TX3P	eDP 3+Transmit(eDP 数据发送正极信号接口)
13	GND	Ground
14	GND	Ground
15	eDP_AUXN	eDP_AUXN
16	eDP_AUXP	eDP_AUXP
17	GND	Ground
18	GND	Ground
19	GND	Ground
20	EDP_HPDP	eDP HPD Check

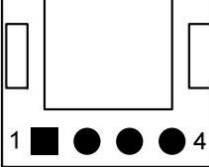
**8.12J19:eDP\_INVERTER CONNECTOR(6PIN/2.0) (eDP 背光插座)**


NO.(引脚)	Symbol(定义)	Description(描述)
1	+12V	+12V Power Supply(+12V 供电)
2	+12V	+12V Power Supply(+12V 供电)
3	BLON	Backlight On/Off Control(背光开关控制)
4	ADJ	Brightness Adjust(亮度调节)
5	GND	Ground(地)
6	GND	Ground(地)

**8.13 J12:UART1/RS232 CONNECTION(4PIN/2.0)(调试/串口插座)**

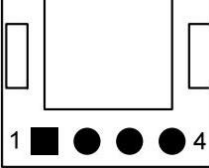
		
NO.(引脚)	Symbol(定义)	Description(描述)
1	3V3/5V	+3.3V/+5V Power Supply(+3.3V/+5V 电源供电)
2	RX1	Serial Data Receiver(数据接收)
3	TX1	Serial Data Transmitter(数据传输)
4	GND	Ground(地)

**8.14 J6:UART3/RS232 CONNECTION(4PIN/2.0)(调试/串口插座)**

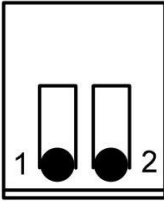
		
NO.(引脚)	Symbol(定义)	Description(描述)
1	3V3/5V	+3.3V/+5V Power Supply(+3.3V/+5V 电源供电)
2	RX3	Serial Data Receiver(数据接收)
3	TX3	Serial Data Transmitter(数据传输)
4	GND	Ground(地)

备注：J12 插座和 J6 为 UART 和 RS232 状态可选，当选择 UART 时，VCC 为 3.3V 和 5V 可选；当选择 RS232 时，VCC 为 5V

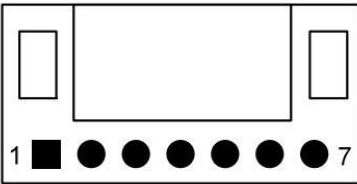
**8.15 J5:UART4 CONNECTION(4PIN/2.0)(串口插座)**

		
NO.(引脚)	Symbol(定义)	Description(描述)
1	3V3/5V	+3.3V/+5V Power Supply(+3.3V/+5V 电源供电)
2	RX4	Serial Data Receiver(数据接收)
3	TX4	Serial Data Transmitter(数据传输)
4	GND	Ground(地)

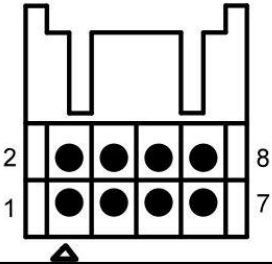
**8.16 J16:LED Power CONNECTOR(2PIN/2.0)(LED 供电插座)**

		
NO.(引脚)	Symbol(定义)	Description(描述)
1	12V	12V Power Supply(12V 电源供电)
2	GND	Ground(地)

**8.17 J52:IR&LED&KEY BOARD CONNECTOR (7PIN/2.0) (遥控和按键控制接口)**

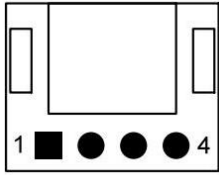
		
NO.(引脚)	Symbol(定义)	Description(描述)
1	ADC	ADC 接口(1.8V 电平)
2	KEY0	MCU ADC 接口(5V 电平, 默认使用)
3	LED_G	LED_GREEN CONTROL(绿色 LED 灯控制)
4	LED_R	LED_RED CONTROL(红色 LED 灯控制)
5	IR_5V	+5V Power supply for IR(+5V 遥控器供电)
6	GND	Ground(地)
7	IR	IR INPUT(遥控信号输入)

**8.18 J31:NFC CONNECTION(2\*4PIN/2.0)(NFC 插座)**

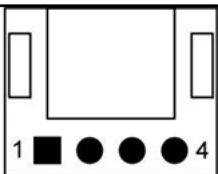
		
NO.(引脚)	Symbol(定义)	Description(描述)
1	IO3	GPIO3
2	IO4	GPIO4
3	IO1	GPIO1
4	GND	Ground(地)
5	IO2	GPIO2
6	VCC	+3.3V/+5V Power Supply(+3.3V/+5V 电源供电)

7	IO5	GPIO5
8	VCC	Power Supply(电源供电)

**8.19 J7:SPEAKER CONNECTOR(4PIN/2.0)(喇叭插座)**

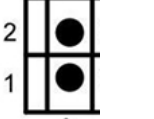
		
NO.(引脚)	Symbol(定义)	Description(描述)
1	LOUT+	Left Channel Output+ (左声道输出+)
2	LOUT-	Left Channel Output- (左声道输出-)
3	ROUT-	Right Channel Output- (右声道输出-)
4	ROUT+	Right Channel Output+ (右声道输出+)

**8.20 J14:MIC CONNECTOR(2PIN/2.0)(MIC 插座)**

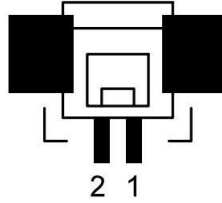
		
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NO.(引脚)	Symbol(定义)	Description(描述)
1	MIC_N	MIC-
2	MIC_P	MIC+

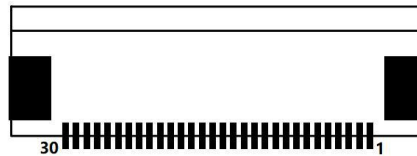
#### 8.21 J9:MIC CONNECTOR(2PIN/2.0)(OTG 切换 插座)

		
NO.(引脚)	Symbol(定义)	Description(描述)
1	OTG-ID	OTG 检测脚
2	GND	Ground(地)

#### 8.22 J8:BAT CONNECTOR(2PIN/2.0)(BAT 插座)



NO.(引脚)	Symbol(定义)	Description(描述)
1	BAT_P	BAT+
2	BAT_N	BAT-

**8.23 J23:MIPI IN CONNECTOR(30PIN/0.5)(MIPI 输入接口)**


NO.(引脚)	Symbol(定义)	Description(描述)
1	GND	Ground
2	MIPI_D0N	Data-(数据-)
3	MIPI_D0P	Data+(数据+)
4	GND	Ground
5	MIPI_CLKN	MIPI_CLKN
6	MIPI_CLKP	MIPI_CLKP
7	GND	Ground
8	MIPI_D1N	Data-(数据-)
9	MIPI_D1P	Data+(数据+)
10	GND	Ground
11	MIPI_D2N	Data-(数据-)
12	MIPI_D2P	Data+(数据+)
13	GND	Ground
14	MIPI_D3N	Data-(数据-)
15	MIPI_D3P	Data+(数据+)
16	GND	Ground
17	CIF_CLK OUT	CIF_CLK OUT
18	GND	Ground
19	CIF_PDNO	CIF_PDNO
20	RST	Reset(复位)
21	IIC_SCL	SCL(时钟数据)
22	IIC_SDA	SDA(数据传输)
23	GND	Ground
24	VCC28-DVP	2.8V Power Supply (2.8V 供电)
25	GND	Ground

26	NC	NC
27	VCC18-DVP	1.8V Power Supply (1.8V 供电)
28	DVDD_1V2	1.2V Power Supply (1.2V 供电)
29	AF_28	2.8V Power Supply (2.8V 供电)
30	NC	NC

**8.24 J24:MIPI OUT CONNECTOR(31PIN/0.5)(MIPI 输出接口)**

NO.(引脚)	Symbol(定义)	Description(描述)
		
1	MIPI LED+	LED+ Power Supply
2	MIPI LED+	LED+ Power Supply
3	MIPI LED+	LED+ Power Supply
4	NC	NC
5	MIPI_LED-	LED- Power Return
6	MIPI_LED-	LED- Power Return
7	MIPI_LED-	LED- Power Return
8	MIPI_LED-	LED- Power Return
9	GND	Ground(地)
10	GND	Ground(地)
11	MIPI_D2P	Data+(数据+)
12	MIPI_D2N	Data-(数据-)
13	GND	Ground(地)
14	MIPI_D1P	Data+(数据+)
15	MIPI_D1N	Data-(数据-)
16	GND	Ground(地)
17	MIPI_CLKP	MIPI_CLKP(时钟+)
18	MIPI_CLKN	MIPI_CLKN(时钟-)
19	GND	Ground(地)
20	MIPI_D0P	Data+(数据+)
21	MIPI_D0N	Data-(数据-)
22	GND	Ground(地)
23	MIPI_D3P	Data+
24	MIPI_D3N	Data-
25	GND	Ground(地)
26	VCC18-DVP	+1.8V Power Supply(+1.8V 供电)
27	MIPI_RST	Reset(复位)
28	GND	Ground(地)
29	VCC18-DVP	+1.8V Power Supply(+1.8V 供电)
30	VCC_MIPI	+3.3V Power Supply(+3.3V 供电)



31	VCC_MIPI	+3.3V Power Supply(+3.3V 供电)
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## 9.Environmental Characteristics(环境特性要求)

### 9.1 Temperature(环境温度)

Operating: 0°C to +40°C

Store: -20°C to +70°C

### 9.2 Humidity(环境湿度)

Operating: 10% to 90% (non-condensing)

Store: 5% to 95% (non-condensing)

### 9.3 Altitude(海拔高度)

Operating: 10,000 ft.(max)

Store: 20,000ft.(max)

### 9.4 High Temperature & Storage(高温负荷与存储)

Test method & condition please refer to the description of GB2423.2 "Test Bd & Bb" 测试方法和测试条件参见 GB2423.2 "试验 Bd & Bb"之说明

### 9.5 Low Temperature & Storage(低温负荷与存储)

Test method & condition please refer to the description of GB2423.1 "Test Ad & Ab" 测试方法和测试条件参见 GB2423.1 "试验 Ad & Ab"之说明

### 9.6 Humidity & Temperature Test(潮热试验)

Test method & condition please refer to the description of GB2423.3 "Test Ca" & GB2423.22 "Test Nb" 测试方法和测试条件参见 GB2423.3 "试验 Ca" 和 GB2423.22 "试验 Nb"之说明