

V1.0

***FHD ANDROID MEDIA PLAYER BOARD
SPECIFICATION***

MODEL: YS-M8-V9

Issue date: 2017.10.15

The information in this specification is subject to change without notice.

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REVISION HISTORY

VER.	DATE	BOARD ID	PAGE	DESCRIPTION	AUTHOR
V1.0	2017.10.15	M8-V9	ALL	First issue	Linda

1. GENERAL DESCRIPTION

The PCBA's firmware is base on Android OS 4.4.4, with Rockchip RK3128 CPU which is Ouad-Core and 1.2GHz, with smooth and fast speed ,FHD decoding ,with small size, high effective, low consumption,low price cost. Platform Support LVDS output for FHD LCD panel, support HDMI output for FHD monitor support infrared remote control, support touch screen, keyboard, mouse ,camera,bar-code scanner printer,etc. It is convenient to use it for digital signage , All-in-one field application.

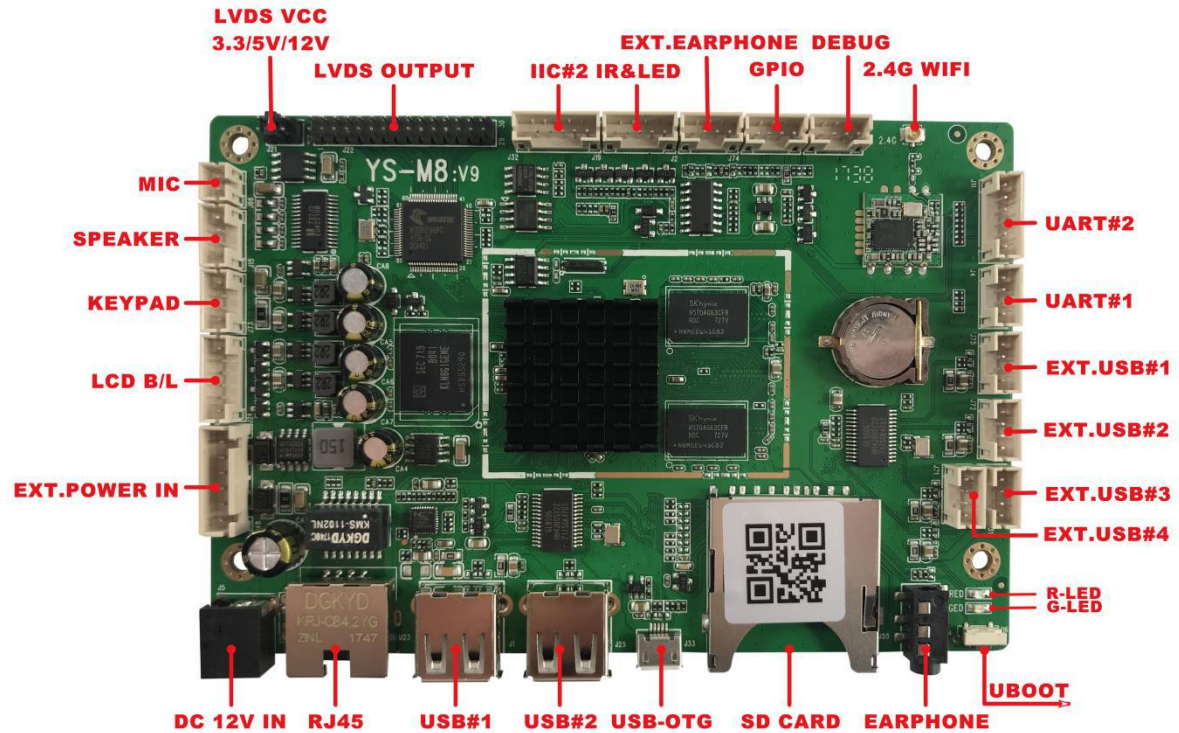
2. FEATURES

CPU	RockchipRK3128 Cortex-A7 , Ouad-Core, 1.2GHz	
RAM	1GB DDR3	
Internal Storage	8GB EMMC Flash (Extensible)	
Decoding Ability	MAX. 1080P(1920X1080@60HZ)	
OS	Android 4.4.4	
Network	Support RJ45 Ethernet, 2.4GHz WIFI	
Video Format	RM/RMVB,MKV,TS,FLV,AVI,VOB,MOV,WMV,MP4, etc	
Audio Format	MP3,WMA,APE,FLAC, etc	
Image Format	BMP/JPEG/PNG/GIF, etc	
USB2.0 Port	6 USB HOST,1 USB OTG/HOST	
Ethernet	10M/100M self-adaption Ethernet	
LVDS Output	Support 60Hz 6Bit/8Bit Single or Dual Channel LVDS Max Resolution :1920X1080@60Hz	
Power	For Board	12V or 12V/5VSB
	To LCD panel	3.3V/5V/12V
MIC Input	Available	
Audio Output	L&R audio-out (2X8Ω/10W speaker)	
RTC	Real-Time Clock Available	
Timer	Available	
System Update	Support USB/SD update	

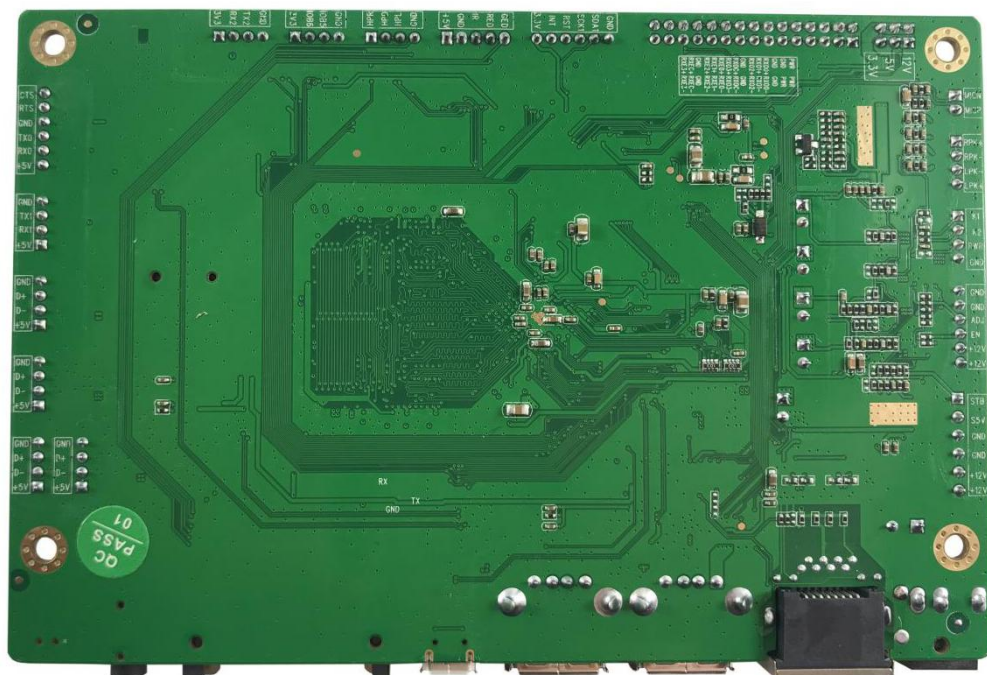
3. FUNCTION LAYOUT

The picture is for a reference only, the actual item is the standard.

Top View :



Rear View :



4. INTERFACE PINOUT DEFINITION

➤ J48(6PIN/2.54mm): External Power Input(+12V/5VSB) Connector

PIN NO.	SYMBOL	DESCRIPTION
1	12V	+12V Working power supply for board
2	12V	+12V Working power supply for board
3	GND	Ground
4	GND	Ground
5	S5V	Standby 5V Power Supply
6	STB	Power Supply ON/OFF control signal(0N:5V, OFF:0V)

➤ J24(6PIN/2.0mm): LCD Backlight Control Connector

PIN NO.	SYMBOL	DESCRIPTION
1	12V	+12V DC Power Supply for LCD Inverter or LED driver board
2	12V	
3	EN	LCD Back-Light ON/OFF Control(0V:OFF , 5V: ON)
4	ADJ	Brightness Dimming(Optional)
5	GND	Ground
6	GND	

➤ J73(4PIN/2.0mm): Keypad Connector

PIN NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	PWR	ON/OFF Control
3	K2	Default no function, Support customized
4	K1	

***Note: When you use <PWR> to control ON/OFF for the board , you should do like this :**

Turn ON : Press about 3 sec. Without loose

Turn OFF: Just press and you can loose immediately.

➤ J15 (4PIN/2.0mm): Speaker Output Connector

PIN NO.	SYMBOL	DESCRIPTION
1	L+	Audio Left Channel Output
2	L-	Ground
3	R-	
4	R+	Audio Right Channel Output

➤ J66(2PIN/2.00mm): MIC Input Connect

PIN NO.	SYMBOL	DESCRIPTION
1	MICP	MIC Positive PIN
2	MICN	MIC Negative PIN

➤ J21(6P /2.0 mm) LVDS Voltage Selection Header (3.3V/5V/12V)

PIN NO.	SYMBOL	DESCRIPTION
1	+12V	12V voltage for LCD panel
2	LCD_VCC	Send PIN#1 Voltage to LCD panel
3	+5V	5V voltage for LCD panel
4	LCD_VCC	Send PIN#3 Voltage to LCD panel
5	+3.3V	3.3V voltage for LCD panel
6	LCD_VCC	Send PIN#5 Voltage to LCD panel

***Note:** Before power on the board , please double check and confirm the jumper for J21 have been set in correct position . Otherwise , it may damaged your LCD panel .

➤ J32 (6P /2.0 mm) IIC Data Connector(**Customized**)

PIN NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	SDA	Data Signal
3	SCL	Clock Signal
4	RST	Reset Data Signal
5	INT	Interrupt Signal
6	3.3V	3.3V Power Supply

➤ J19 (5P /2.0 mm) IR RECEIVER & LED INDICATOR

PIN NO.	SYMBOL	DESCRIPTION
1	GED	Green -Color LED Indicator
2	RED	Red -Color LED Indicator
3	IR	IR remote control signal
4	GND	Ground
5	+5V	+5V Power supply for IR receiver

➤ J2(4PIN/2.00mm): EXT.EARPHONE CONNECTOR

PIN NO.	SYMBOL	DESCRIPTION
1	HGND	Ground
2	HPL	Headset Left Channel
3	HPD	Headset Insert detected
4	HPR	Headset Right Channel

➤ J74(4PIN/2.00mm): GPIO Connector (**Customized**)

PIN NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	IOB5	Reserved IO port
3	IOB6	Reserved IO port
4	3.3V	3.3V Power Supply

➤ JXX(4PIN/2.00mm): Debug Connector(**Internal Use Only**)

PIN NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	TXD	Transmit Data
3	RXD	Receive Data
4	3.3V	3.3V Power Supply for debug tool

➤ J4(4PIN/2.00mm): UART Connector(**Customized**)

PIN NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	TXD	Transmit Data
3	RXD	Receive Data
4	5V	3.3V Power Supply

➤ J11 (6P /2.0 mm) UART Connector(**Customized**)

PIN NO.	SYMBOL	DESCRIPTION
1	CTS	Clear To Send
2	RTS	Request To Send
3	GND	Ground
4	TXD	Transmit Data
5	RXD	Receive Data
6	5V	5V Power Supply

➤ J31&J71&J72&J75(4PIN/2.00mm): External USB Connector

PIN NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	D+	USB Data +
3	D-	USB Data -
4	+5V	+5V Power Supply for USB device

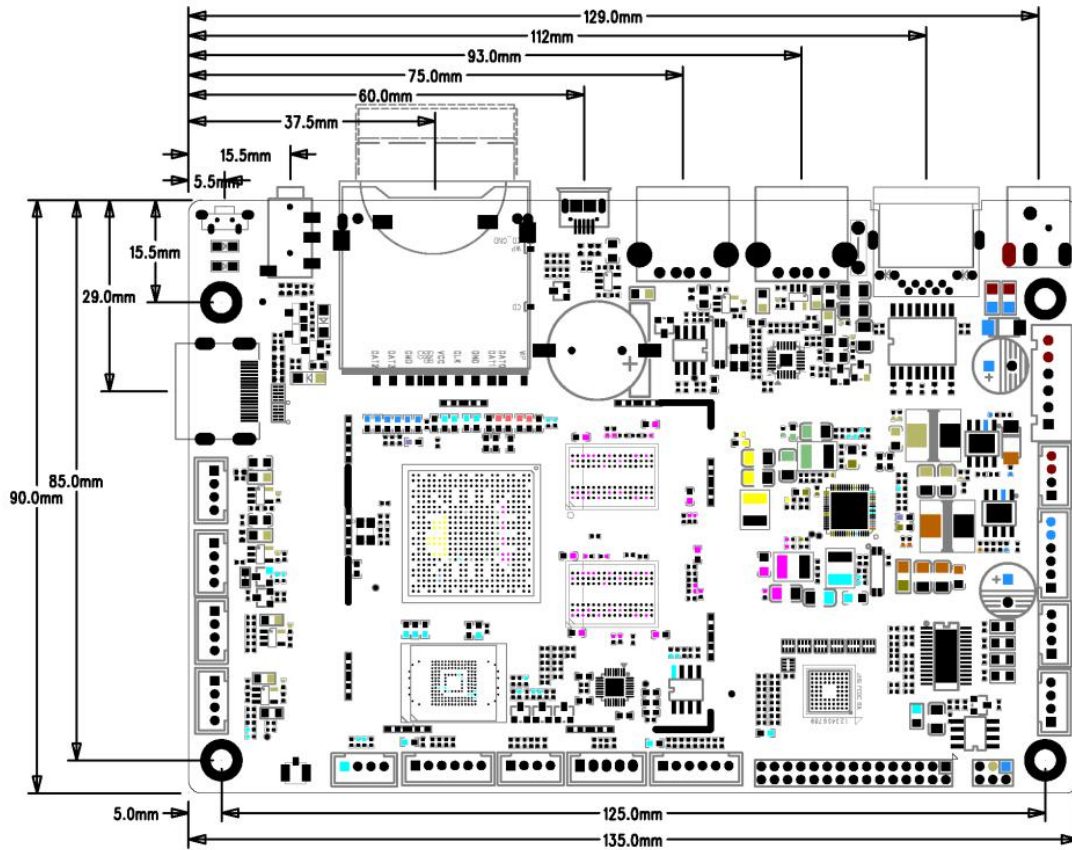
➤ J22 (2 × 15PIN/2.0mm): LVDS Output Connector

PIN NO.	SYMBOL	DESCRIPTION
1	PWR	Power Supply for Panel
2	PWR	
3	PWR	
4	GND	Ground
5	GND	
6	GND	
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	
27	RXEC-	LVDS EVEN Clock- Signal
28	RXEC+	LVDS EVEN Clock+ Signal
29	RXE3-	LVDS EVEN 3- Signal
30	RXE3+	LVDS EVEN 3+ Signal

***Note:** Due to J22 connector not have anti-reverse feature , Before connect the LVDS cable to this connector , you have to make clear the pin number of it . The White triangular on the PCB is PIN#1 of J22 .

5. PCB MECHANICAL DIMENSION

- Dimension : 129mm(L)*90mm(W)*11mm(H)
- Screw Holes Size: $\Phi 3.2\text{mm}$ *4PCS



6. CONFIGURATION & GENERAL PRECAUTIONS

- . Relative humidity: $\leq 80\%$.
- . Storage temperature: $-10\sim 60^{\circ}\text{C}$.
- . Operation temperature: $0\sim 60^{\circ}\text{C}$.
- . Protect the board from static electricity in case of damage to the IC.
- . Keep the board away from conductor when it is working.
- . Don't push or pull the connectors when the board is working.
- . Don't press, distort or disassemble the board.
- . Clean the board with soft dry cloth when it's dirty.
- . Don't wire in the board to power supply before panel is correctly connected