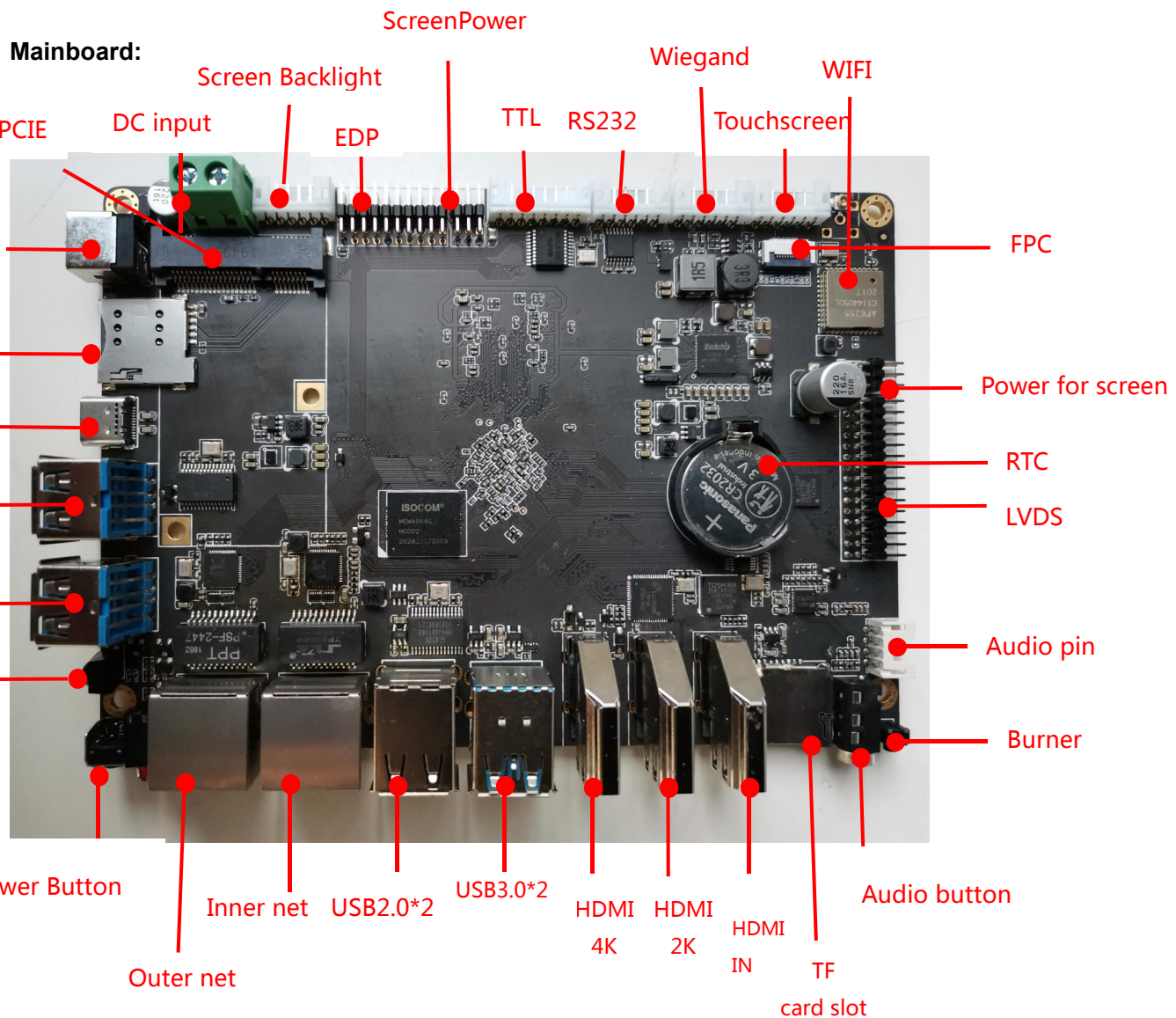


H3399 Industrial Embedded Motherboard Specification



Hardware Specification

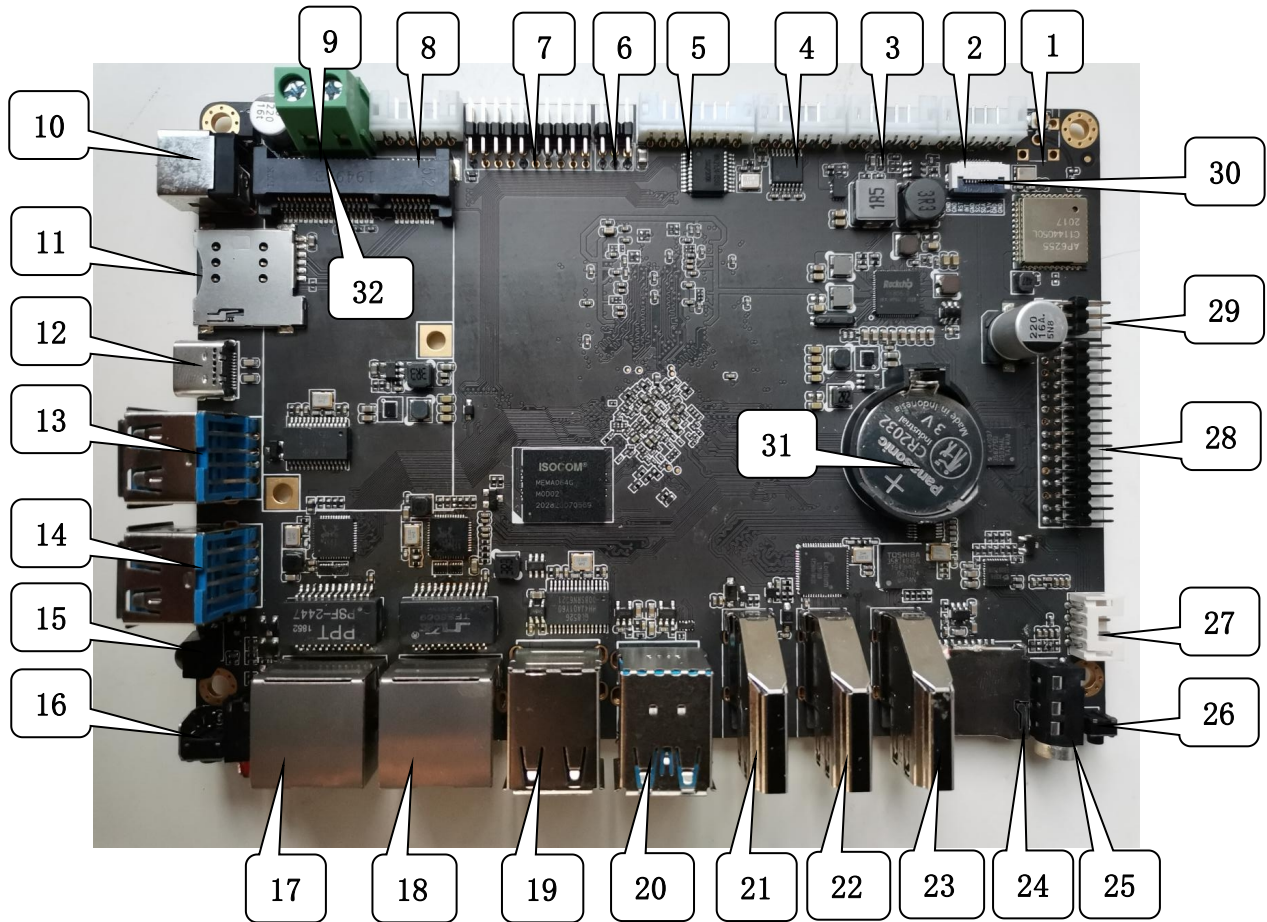
CPU	RK3399 (28 NM HKMG procedure) ARM 6 cores 64 bit,main frequency 2.0GHz at max Base one big.LITTLE framework,dual-core Cortex-A72(big core)+ Dual-core Cortex-A53(small core)
GPU	Mail-T860 MP4 Quad-core GPU Support OpenGL ES1.1/2.0/3.0/3.1,OpenVG1.1,OpenCL,DX11,

	● Support AFBC
Memory	DDR3 4G LPDDR4
Storage	32GB(16GB/64GB/128GB)EMMC TF Card Extendable
Network	● Support Ethernet 10/100/1000Mbps ● Support Ethernet outer net*1,inner net*1
	● Support 2.4GHz/5GHz dual-band WiFi ● Support Wi-Fi 802.11b/g/n/ac protocol
	Support bluetooth,V2.1+EDR/Bluetooth 3.0/3.0+HS/4.1/BLE
Display	● HDMI OUT (4K) *1 ● HDMI OUT (2K) *1 ● HDMI IN(Customizable) ● 1*eDP.Support 3.3V/5V/12V Power Supply ● 1*LVDS(single output,dual 6bit,8bit,dual 10bit),Support 7" screen and above,support 1080P 60Hz output,support 3.3V/5V/12V power supply ● Support different display in dual screen ● Support only 2 outputs at the same time:HDMI 4K+HDMI 2K or HDMI 4K+LVDS or HDMI 4K+EDP
Audio	Spk&Mic 2 in 1
RTC	COMS for RTC Support Automatic Power Up
USB	2*USB-2.0 , 6*USB-3.0
Button	Power*1,Burner*1
Power Supply	Input:AC100-240V.50-60HZ Output:DC12V/5.5mm,internal diameter 2.1 mm,DC plug 3A . Support Power on or Start with Power button
Dimension	146*102mm

Software Specification

OS	Android7.1/Ubuntu18.04 /Android10.0/KYLIN
Video	Support video format: H.265/H.264/VP9/MAV/ WMV/AVS/H.263/MPEG4 1080P/2160P Support multi-view video decoding
Picture	Support JPG/PNG
Default Application Software	Calculator, Browser, Calendar, Settings, Clock, Video Player, Search, Explorer

Interface Definition



- 1) Antenna Connector
- 2) Touch Screen Interface

No.	Definition	Attribute	Description
1	GND	Grounding	Grounding
2	SDA	Input/output	I2C Datas
3	SCL	Input/output	I2Cclock
4	RST	Input/output	Reset
5	INT	Input/output	PAUSE
6	3.3V	Power	3.3V

2) Wiegand

No.	Definition	Attribute	Description
1	VCC	Output	5V Voltage Output
2	DAT0	data output	data 0
3	DAT1	data output	data 1
4	DAT2	data output	data 2

5	DAT3	data output	data 3
6	GND	GND	Ground lead

3) RS232

No.	Definition	Attribute	Description
1	5 V	Output	5V Voltage Output
2	TX3	Output	Send (TX3)
3	RX3	Output	Receive (RX3)
4	TX4	Output	Send (TX4)
5	RX4	Input	Receive (RX4)
6	GND	GND	Ground lead

5) TTL

No.	Definition	Attribute	Description
1	3.3V	Output	3.3V Voltage Output
2	TX0	Output	Send (TX0)
3	RX0	Input	Receive (RX0)
4	TX1	Output	Send (TX1)
5	RX1	Input	Receive (RX1)
6	TX2	Output	Send (TX2)
7	RX2	Input	Receive (RX2)
8	GND	GND	Ground lead

6) EDP Screen Voltage jumper(EDP LCD JP JACK)

Pay Attention to the working voltage of the screen!

No.	Definition	Attribute	Description
1	3.3V	Output	3.3V Output
2	5V	Output	5V Output
3	12V	Output	12V Output

7) EDP output

No.	Definition	Attribute	Description
1	VCC	Power	3V.5V.12V optional
2	VCC	Power	3V.5V.12V optional
3	GND	GND	GND
4	GND	GND	GND
5	TX0N	Input/output	Edp data channel 0 负
6	TX0P	Input/output	Edp data channel 0 正
7	TX1N	Input/output	Edp data channel 1 负
8	TX1P	Input/output	Edp data channel 1 positive
9	TX2N	Input/output	Edp data channel 2 negative

10	TX2P	Input/output	Edp data channel2 positive
11	TX3N	Input/output	Edp data channel3 negative
12	TX3P	Input/output	Edp data channel3 positive
13	GND	GND	GND
14	GND	GND	GND
15	AUXN	Input/output	Edp Clock Channel negative
16	AUXP	Input/output	Edp Clock Channel positive
17	GND	GND	GND
18	GND	GND	GND
19	VDD	Output	Can be grounded
20	HPD	Output	Screen hot swap

8)Screen backlight interface

No.	Definition	Attribute	Description
1	12V	Output	12VOutput
2	12V	Output	12VOutput
3	EDP-BLON	Output	Backlight Control
4	EDP-ADJ	Output	Backlight adjustment
5	GND	GND	GND
6	GND	GND	GND

9)Power Socket

10)DC Power connector (12V IN)

11)SIM card slot

12)Type-C

13)14)USB3.0*4

15) IR connector

16) Power Button

17)18) GigE Vision

19)USB2.0*2

20)USB3.0*2

21)22) HDMI_OUT

23)HDMI IN

24)TFcard slot

25)Audio 2 in 1

26)Burner Button

27)Audio Connector

No.	Definition	Attribute	Description
1	SP1+	Output	Audio Output Left+
2	SP1-	Output	Audio Output Left-
3	SP2+	Output	Audio Output Right+
4	SP2-	Output	Audio Output Right-

28)LVDS Connector

No.	Definition	Attribute	Description
1	VCC	Output	3V/5V/12V PowerOutput
2	VCC		
3	VCC		
4	GND	GND	GND
5	GND	GND	GND
6	GND	GND	GND
7	D0N	Output	Pixel 0 Negative Data (odd)
8	D0P	Output	Pixel 0 positive Data (odd)
9	D1N	Output	Pixel 1 Negative Data (odd)
1 0	D1P	Output	Pixel 1 positive Data (odd)
1 1	D2N	Output	Pixel 2 Negative Data (odd)
1 2	D2P	Output	Pixel 2 positive Data (odd)
1 3	GND	Grounding wire	GND
1 4	GND	Grounding wire	GND
1 5	CLKN	Output	Clock
1 6	CLKP	Output	Clock
1 7	D3N	Output	Pixel 3 Negative Data (odd)
1 8	D3P	Output	Pixel 3 positive Data (odd)
1 9	D0N	Output	Pixel 0 Negative Data (Even)
2 0	D0P	Output	Pixel 0 positive Data (Even)
2 1	D1N	Output	Pixel 1 positive Data (Even)
2 2	D1P	Output	Pixel 1 positive Data (Even)
2 3	D2N	Output	Pixel 2 positive Data (Even)
2 4	D2P	Output	Pixel 2 positive Data (Even)
2 5	GND	Grounding wire	GND
2 6	GND	Grounding wire	GND
2 7	CLKN	Output	Clock
2 8	CLKP	Output	Clock
2 9	D3N	Output	Pixel 3 positive Data (Even)
3 0	D3P	Output	Pixel 3 positive Data (Even)

29)LVDS Screen Voltage jumper(LVDS LCD JP JACK)

Pay Attention to the working voltage of the screen!

No.	Definition	Attribute	Description
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1	3.3V	Output	3.3VOutput
2	5V	Output	5VOutput
3	12V	Output	12VOutput

30)FPC Touch Screen Interface(FPC TOUCH SCREEN JACK)

No.	Definition	Attribute	Description
1	GND	Grounding wire	GND
2	GND	Grounding wire	GND
3	3.3 V	Voltage Output	3.3V
4	SDA	Output	Data
5	SCL	Output	Clock
6	GND	Grounding wire	GND
7	INT	Input	Pause
8	RST	Output	Reset
9	GND	Grounding wire	GND
10	GND	Grounding wire	GND

31)RTC

32)PCIE