
RK7139H-Technical Specification

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1.Parameter List

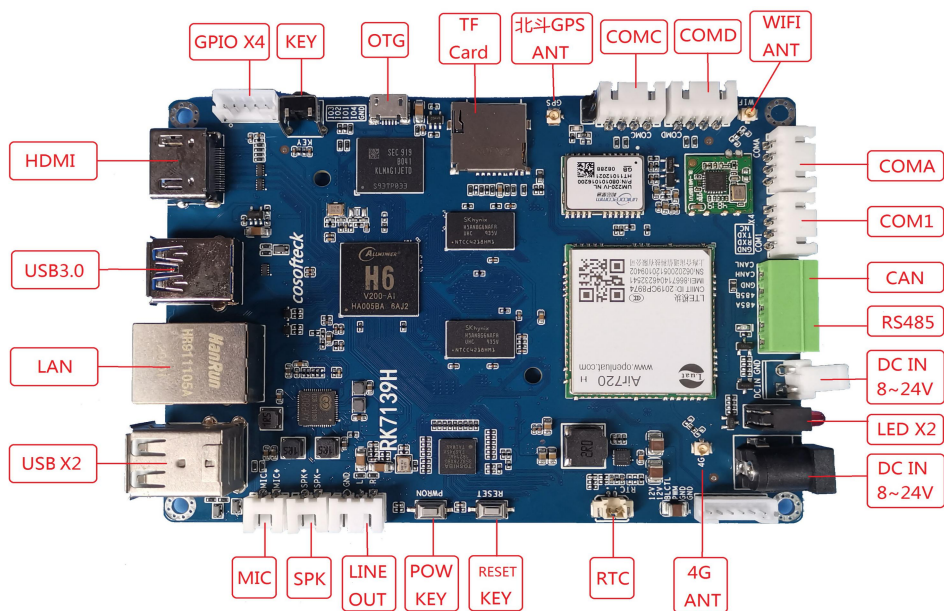
Motherboard Solutions	
Model Description	RK7139H Standard type(DDR2G+EMMC16G) RK7139H-W Standard type and WIFI RK7139H-WB Standard type and WIFI、 Bluetooth RK7139H-C Standard type and CAN2.0 RK7139H-I Standard type and GPIO*4 Note: This product also supports 4G and GPS BeiDou function, such as the need to practice customer service to ask the detailed configuration and the corresponding price
CPU	Quad-core ARM Cortex A53, 64-bit architecture
GPU	High-performance multi-core GPU Mali-T720
Memory	1GB or 2GB DDR4; Standard 2GB
Local Storage	EMMC Flash Standard 8GB
Supported Operating Systems	Android7.1
Multimedia	Support 4K VP9 and 4K 10bits H265/H264 video decoding, up to 60fps 1080P multi-format video decoding (WMV, MPEG-1/2/4, VP8) 1080P video encoding, support H.264
Extended memory	TF Card
Ethernet	Wired 10/100M
WIFI	WIFI 802.11 a/ b/g/n (optional)
Bluetooth	Bluetooth 4.2 (optional)
USB	USB2.0 HOST*2, USB3.0 HOST*1, MICRO USB *1
MIC	x1
LINE OUT	x1
SPEAK	2W 8Ω
HDMI	x1
MIPI LCD	x1
UART	UARTx4 RS232 * 2, RS232 or TTL * 2 (set via jumper caps)
RTC	External battery
EXT GPIO	x4 (optional)

RS485	x1 (optional)
CAN2.0	x1 (optional)
4G	x1 (optional)
Beidou/GPS	x1 (optional)
Power	8~26V ; Max 1A/12V
Operating temperature	-20-70°C
Product Size	89.5x125mm

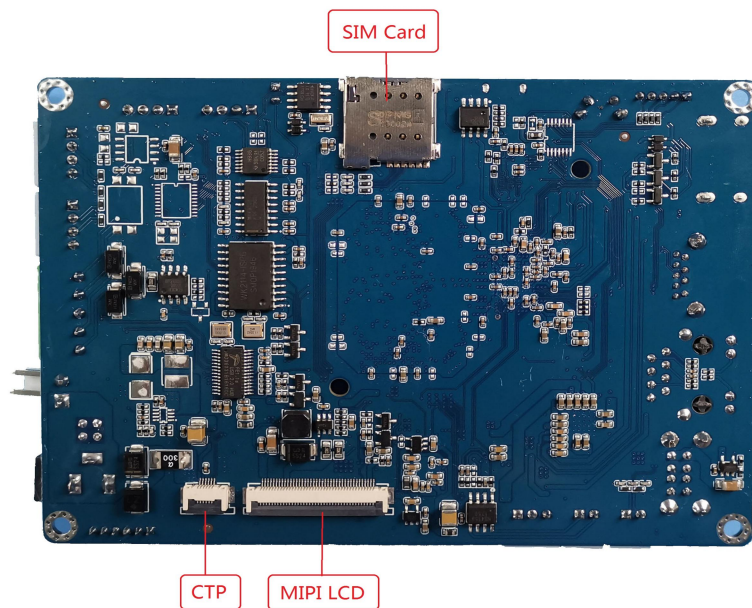
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2 .Hardware interface

2.1 Appearance



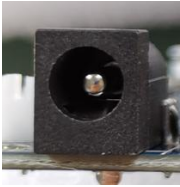
Front view



Back view

2.2 Power connector

2 types of power connectors are provided. One type of DC holder with 5.5mm outer diameter and 2.5mm inner diameter, and one type of VH3.96-2P holder.



DC8~24V, internal positive and external negative.



Pin	Description	Pin	Description
1	DCIN 8~24V	2	GND

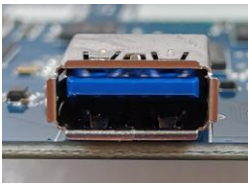
2.3 OTG

There are 4 USB channels, 1 of which is OTG, connected via MICRO USB cradle.

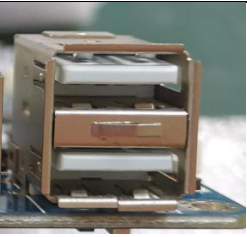


2.4 USB HOST

- 1 way is USB 3.0 HOST, connected via horizontal USB holder.



- The other 2 channels are USB 2.0 HOST, connected via dual horizontal USB holders.



2.5 UART

Four UARTs are provided, two of which are RS232 interfaces and the other two are RS232 or TTL configurable interfaces.



COM1 and COMA are fixed as RS232 interfaces with XH2.54-4P holders.

Pin	Description	Pin	Description
1	GND	2	RXD
3	TXD	4	NC



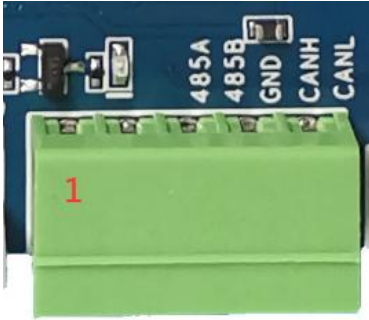
COMC and COMD are RS232 or TTL configurable interfaces, using the XH2.54-4P chassis. The jumper cap in the red box is not connected for RS232 level by default, and the jumper cap is connected for TTL level.

Pin	Description	Pin	Description
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1	GND	2	RXD
3	TXD	4	NC

2.6 RS485/CAN

Provide 1 way RS485 and 1 way CAN, using 3.5-5P horizontal terminals.



Pin	Description	Pin	Description
1	RS485-A	2	RS485-B
3	GND	4	CAN-H
5	CAN-L		

2.7 Extended GPIO (Optional)

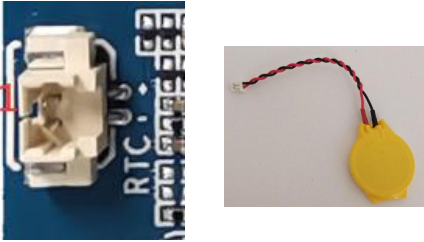
Provide 4 GPIO interfaces, optional, with PH2.0-5P holders.



Pin	Description	Pin	Description
1	GND	2	GPIO4
3	GPIO1	4	GPIO2
5	GPIO3		

2.8 RTC

The RTC interface is connected with a 2PIN 1.25mm pitch vertical chip socket. External CR2032 battery can be connected.



Pin	Description
1	RTC+
2	RTC-

2.9 MIC /LINE OUT /SPEAK

The MIC interface uses the XH2.54-2P holder.



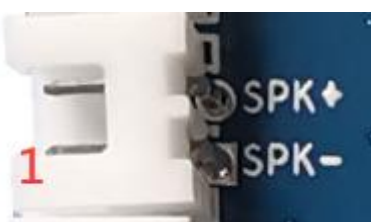
Pin	Description
1	MIC+
2	MIC-

The LINE OUT connector uses the XH2.54-3P holder.



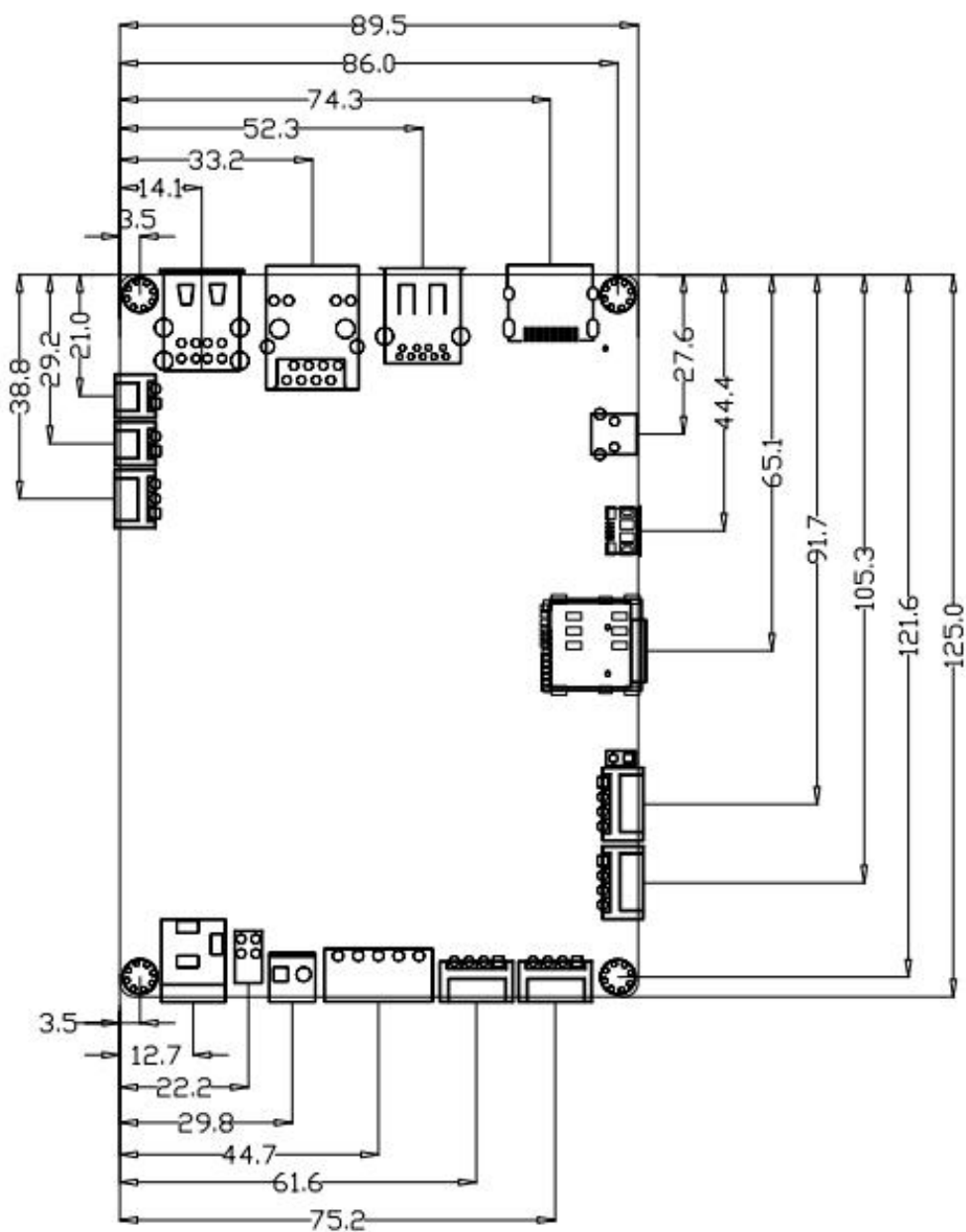
Pin	Description
1	R
2	L
3	GND

The SPEAK interface uses XH2.54-2P holders.



Pin	Description
1	SPK-
2	SPK+

3.Dimension drawing



注：未标注公差为±0.3mm。