

Motherboard Specification

Motherboard size	170mm*170mm*18mm	
CPU	Support 8 th gen Whiskey Lake CPU: i3-8145U, i5-8265U, i7-8665U etc. Support 10 th gen Comet Lake CPU: i3-10110U, i5-10210U, i7-10510U etc.	
Memory	QMBU	2*NB-DDR4 memory channel , support 2133/2400MHz memory, max support 64GB
	QM10U	2*NB-DDR4 memory channel, support 2133/2400/2666MHz memory, max support 64GB
Power supply	1*DC_IN	Support 12V power, DC head diameter 2.5MM
	1*DC_ATX	Motherboard full consumption power is about 85W.Suggest use 12V7A or above power
Display function	Integrated Intel UHD Graphics super core graphics controller, Support single display, double display/three display copy, double display/three display extension, DOS single display	
	1*VGA_OUT pin	Support resolution 1920*1080@60HZ (12Pin, 1*12Pin, 2.0mm)
	1*VGA DB15 port	Support resolution 1920*1080@60HZ
	1*DP port	Support 4K resolution 4096/3840*2160@60HZ
	VGA port and DP port two for one choice	
	1*HDMI 1.4 port	Support 4K resolution 4096/3840*2160@30HZ
	1*HDMI_CON pin	Support 4K resolution 4096/3840*2160@30HZ (16Pin, 2*8Pin, 2.0mm)
	1*EDP pin	Support 4K resolution 4096/3840*2160@60HZ (30Pin, 2*15Pin, 2.0mm)
	1*EDP_PWR pin	EDP working voltage control Pin (6Pin, 2*3Pin, 2.0mm)
	1*LVDS pin	Support resolution 1920*1080@60HZ (30Pin, 2*15Pin, 2.0mm)
	1*LVDS_PWR pin	LVDS working voltage control pin (6Pin, 2*3Pin, 2.0mm)
	1*INVERT pin	LVDS Backlight switch backlight brightness control (6Pin, 1*6Pin, 2.0mm)
	1*BKLT_PWR1	LVDS backlight voltage control pin
	LVDS pin and EDP pin two for one choice	
	1*LAN port	Realtek 8111H Gigabit network card chip, Support Network wake-up and PXE No disk startup function
	1*Mini-PCI-E port	Support WiFi/3G/4G/GPS/bluetooth module, can choose support MSATA
	1*M.2 port	By default support M.2 2280, can choose 2242; By default NVME (PCI-E) Agreement, can change support SATA Agreement
Hard disk function	1*SATA1 port	标准 SATA3.0 硬盘 port, 最大传输速度 6.0 Gbps
	SATA1 signal and MSATA signal two for one choice, by default support SATA1	
	1*SATA2 port	Standard SATA3.0 hard disk port, Maximum transmission speed 6.0 Gbps
	1*SATA_PWR1 pin	It is hard disk power supply pin and can take the 5V/12V electricity, (4Pin, 1*4Pin, 2.54mm)
	1*SATA_PWR2 pin	It is hard disk power supply pin and can take the 5V/12V electricity, (4Pin, 1*4Pin, 2.54mm)
Audio Function	Integrated Realtek ALC662 HD Digital audio decoder, 6-channel high fidelity audio controller	
	1*LINE_OUT port	Support Audio output (green)
	1*MIC_IN port	Support Microphone input (red)
	1*INT_SPK pin	power amplifier Support 80mSW Speaker output (4Pin, 1*4Pin, 2.0mm)
	1*F_AUDIO pin	Standard Audio Pin (9Pin, 2*5Pin, 2.54mm)
	1*SPDIF pin	Digital audio pin pin (3Pin, 1*3Pin, 2.54mm)
USB Function	2*USB3.1 port	Rear standard USB3.1 Gen2 port, Maximum transmission speed 10.0Gbps
	2*USB2.0 port	Rear standard USB2.0 port, Maximum transmission speed 480Mbps (60MB/s)
	1*F_USB1 pin	Front USB2.0 pin, one group have 2*USB2.0 (9Pin, 2*5Pin, 2.54mm)
	1*F_USB2 pin	Front USB2.0 pin, one group have 2*USB2.0 (9Pin, 2*5Pin, 2.54mm)
	1*F_USB3_A pin	Front USB3.1 Gen2 pin, one group have 2*USB3.1 (19Pin, 2*10Pin, 2.0mm)
Switch Function	1*F_PANEL pin	switch, power LED, Hard disk LED, restart pin (9Pin, 2*5Pin, 2.54mm)
	1*AUTO_SW pin	hardware control power on pin (3Pin, 1*3Pin, 2.0mm)
Other I/O		2.0mm)
	COM1/COM2 pin	Serial port, COM1 support RS232, RS422/RS485 optional (9Pin, 2*5Pin, 2.54mm)
	COM3-COM6 pin	Serial port, support standard RS232; (39Pin, 2*20Pin, 2.0mm)
	1*JCOM1 pin	Control COM1 5th voltage 0V/5V/12V optional (6Pin, 2*3Pin, 2.0mm)
	1*JCOM2 pin	Control COM2 9th voltage 0V/5V/12V optional (6Pin, 2*3Pin, 2.0mm)
	1*SIM_CARD card slot	Support SIM card, when use 3G/4G need SIM card
	1*FAN2 pin	CPU fan pin, support temperature control (3Pin, 1*3Pin, 2.54mm)
	1*FAN3 pin	System fan pin, full speed, not support temperature control (3Pin, 1*3Pin, 2.54mm)
	1*CLR_CMOS pin	CLR_CMOS Motherboard zero clearing, discharge pin (3Pin, 1*3Pin, 2.0mm)
	1*J_GPIO pin	GPIO control pin (10Pin, 2*5Pin, 2.0mm)
Working environment	working temperature: -20℃~60℃; Working humidity: 5%~95% relative humidity, No condensation	
BIOS	AMI BIOS, Support Power up, RTC, Intelligent identification of remote switching equipment	
Watch Dog	Watchdog programming, Support Hardware reset function (256s/1s, 0~255second)	
Operating system	Support Windows 10 64, Linux etc.	