

mITX-WL10

Mini-ITX Intel® Whiskey Lake-U Embedded Motherboard



Features

- Intel Whiskey Lake-U processor
- Dual channel DDR4 up to 32GB memory
- Multiple display: HDMI, DP, eDP/LVDS
- Support 10/100/1000Mbit ethernet card
- Support 3G/4G network
- SATA3.0, M.2, PCIe 4x
- TPM2.0 supported (optional)



Introduction

The mITX-WL10 is an embedded motherboard, supporting Intel® latest 8th Whiskey Lake-U Core™ i3/i5/i7 and Celeron processor, Celeron® 4205U, Core™ i3-8145U, Core™ i5-8265U, Core™ i7-8565U.

This board features multiple display via 1×Display Port1.2 and 1×HDMI1.4 and 1×eDP or 1×LVDS. It carries 2×DDR4 SO-DIMM 2400MHz slots up to 64GB to add higher bandwidth and lower latencies for processes. It has 2×10M/100M/1000M BASE-T gigabit LAN (Intel i211), 3×USB3.0, 5×USB2.0, 5×RS232, 1×RS485, 1×LPT, 1×JHDMI, 1×PS2_H, 8×GPIO.



H/W Monitor



Watchdog

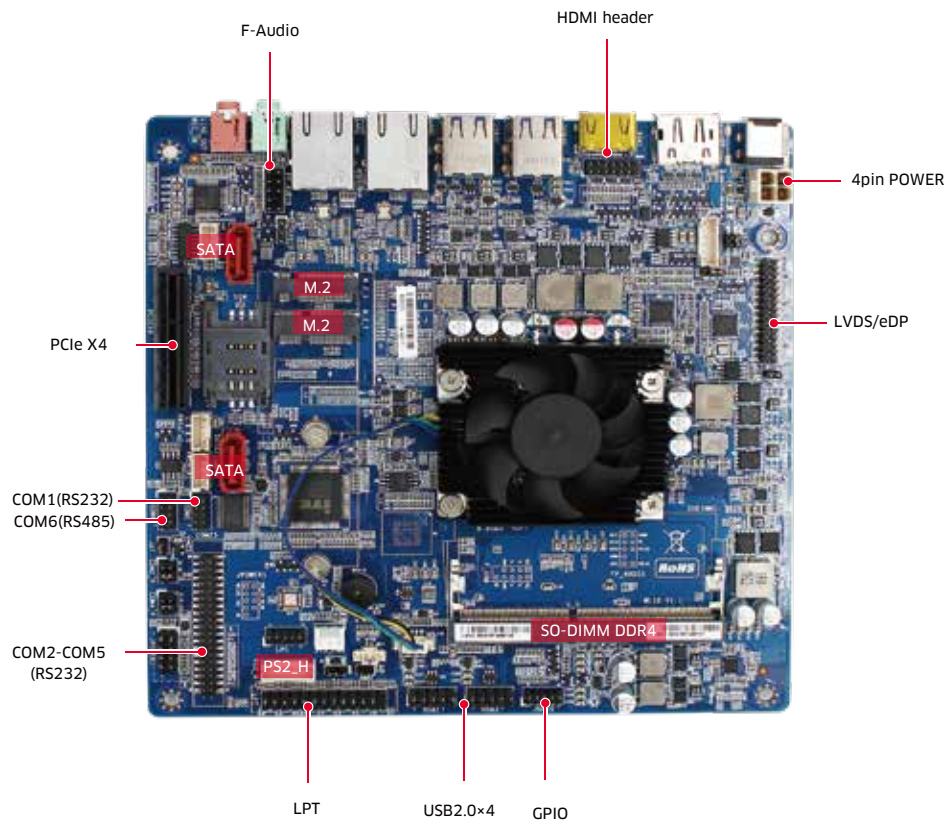


GPIO

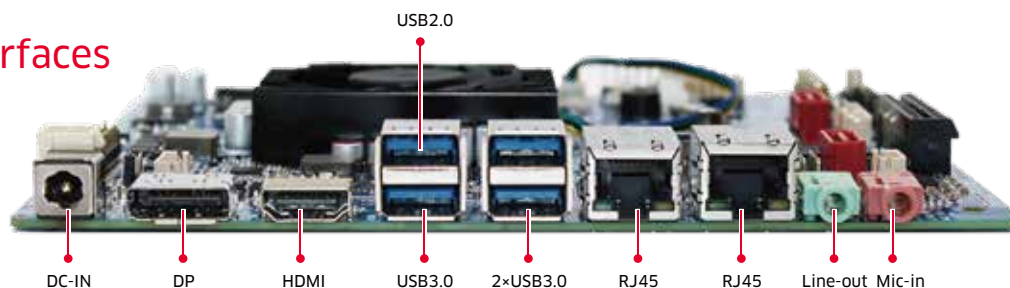


Brightness

Internal I/O



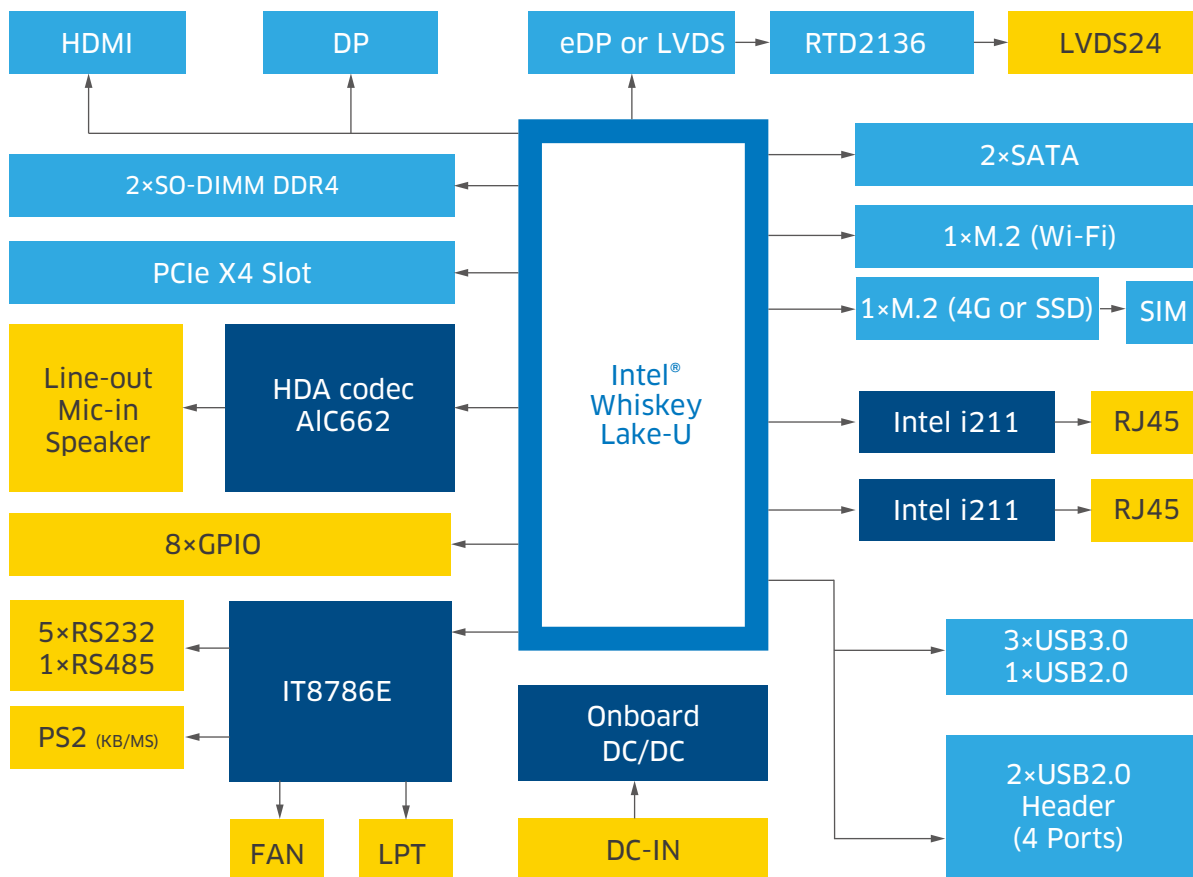
I/O Interfaces



Technical Specifications

Processor	CPU	4205U	i3-8145U	i5-8265U	i7-8565U
	Chipset	1.8GHz	2.1GHz	1.6GHz	1.8GHz
	Turbo frequency		3.9GHz	3.9GHz	4.6GHz
	Cache	2MB	4MB	6MB	8MB
	BIOS	AMI 16MB UEFI BIOS			
Memory	Type	Dual Channel 2×DDR4-2400MHz			
	Max.	64GB			
Display	GPU	Intel UHD Graphics 610/620 (Based on CPU)			
	HDMI	HDMI 1.4			
	DP	DP 1.2			
	LVDS	Yes (optional with eDP)			
	eDP	Optional with LVDS			
	Multiple display	HDMI+DP+eDP or LVDS			
Ethernet	Speed	10/100/1000Mbps			
	Controller	Intel i211			
	Interface	2×RJ45			
	Wake on LAN	Yes			
Audio	Audio codec	Realtek HD ALC662			
	Interface	Line-out, Mic-in, audio header, amplifier header			
Hardware		CPU system temperature, onboard voltage, watchdog, Auto power on			
Wireless connectivity	M.2	1×M.2 for Wi-Fi			
Storage	M.2	1×M.2 for 4G/2280 SSD			
	SATA3.0	2×SATA3.0 / (only 1 if Celeron onboard)			
Expansion	PCIeX4	1			
Rear Panel I/O	Audio	1×Line-out, 1×Mic-in			
	LAN	2(10/100/1000Mbps)			
	USB3.0	3			
	USB2.0	1			
	DP	1			
	HDMI	1			
	DC-IN	1			
I/O header	COM	5×RS232 / 1×RS485			
	USB2.0	4×USB2.0 header			
	I/O	8×GPIO			
	HDMI	HDMI header			
	LPT	1×JLPT			
	PS/2	1×PS2_H			
TPM	TPM2.0	Onboard, optional			
Power	Standard port	1×12V DC-IN/4 PIN Power			
	Peripheral	For fan and SATA			
Mechanical & Environmental	Type	Mini-ITX			
	Size	170mm×170mm (L×W)			
	Operating Temp.	-20℃ ~60℃			
	Storage Temp.	-40℃ ~80℃			
Operating System		Win10 64 bit, Linux 64 bit			

mITX-WL10 Functional Block Diagram



Ordering Information

Model	CPU	Memory	HDMI	DP	LVDS or eDP	LAN	Audio	RS232	RS485	USB3.0	USB2.0	SATA3.0	M.2	Power	Cooling
DT4205U-A	Celeron 4205U	2xSO-DIMM DDR4	1	1	1	2	Yes	5	1	3	5	1	2	DC-IN	Active
DT8145U-A	i3-8145U	2xSO-DIMM DDR4	1	1	1	2	Yes	5	1	3	5	2	2	DC-IN	Active
DT8265U-A	i5-8265U	2xSO-DIMM DDR4	1	1	1	2	Yes	5	1	3	5	2	2	DC-IN	Active
DT8565U-A	i7-8565U	2xSO-DIMM DDR4	1	1	1	2	Yes	5	1	3	5	2	2	DC-IN	Active
Customized	ODM/OEM is available.														

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