

mITX-WL10

Mini-ITX Intel® Whiskey Lake-U Embedded Motherboard



WL10 V1.1



Features

- Intel Whiskey Lake-U Celeron and Core processor
- Dual channel DDR4 up to 64GB memory
- Multiple display: HDMI, DP, eDP/LVDS
- Support 10/100/1000Mbit ethernet card
- Support 3G/4G network
- SATA3.0, M.2, PCIe X4
- 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, and i7-8665U.

This board features multiple display via 1x DP1.2 and 1x HDMI1.4 and 1x eDP/LVDS. It carries 2x DDR4 SO-DIMM 2400MHz slots up to 64GB to add higher bandwidth and lower latencies for processes. It has 2x 10M/100M/1000M BASE-T gigabit LAN (Intel i211), 3x USB3.0, 5x USB2.0, 5x RS232, 1x RS485, 1x LPT, 1x JHDMI, 1x PS2_H, 8x GPIO.



H/W Monitor



Watchdog

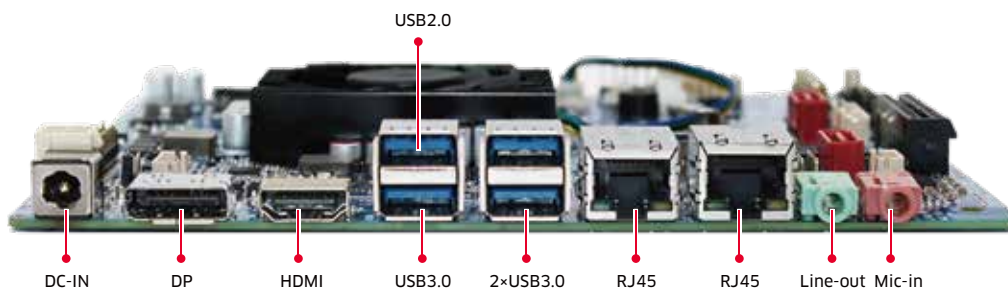
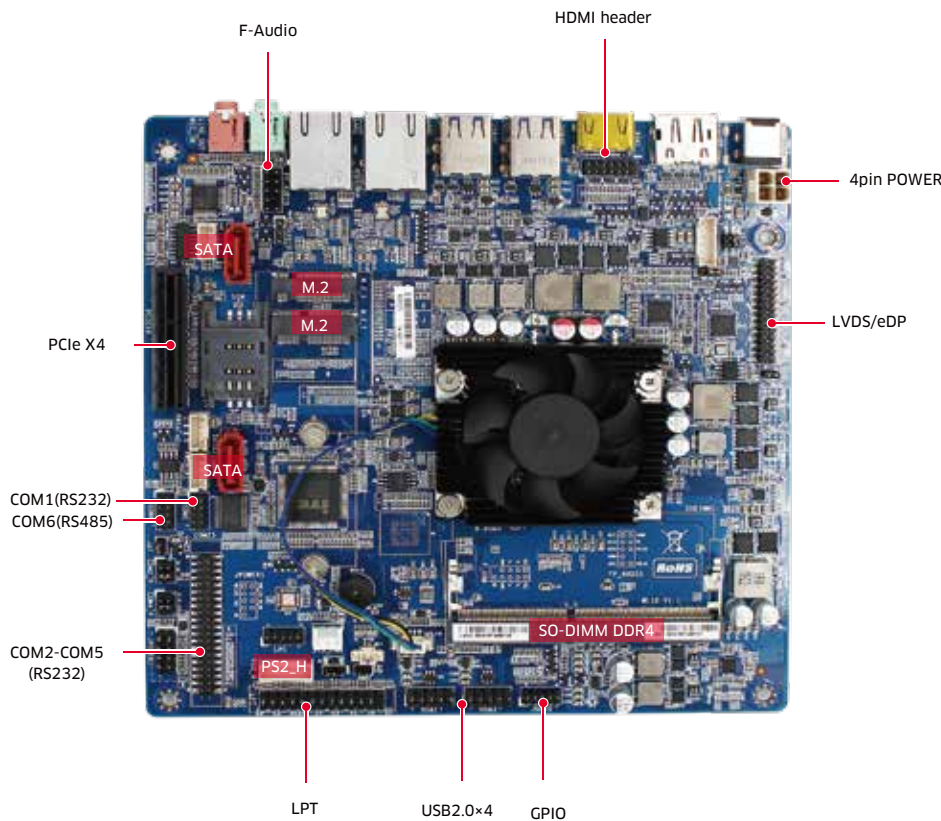


GPIO



Brightness

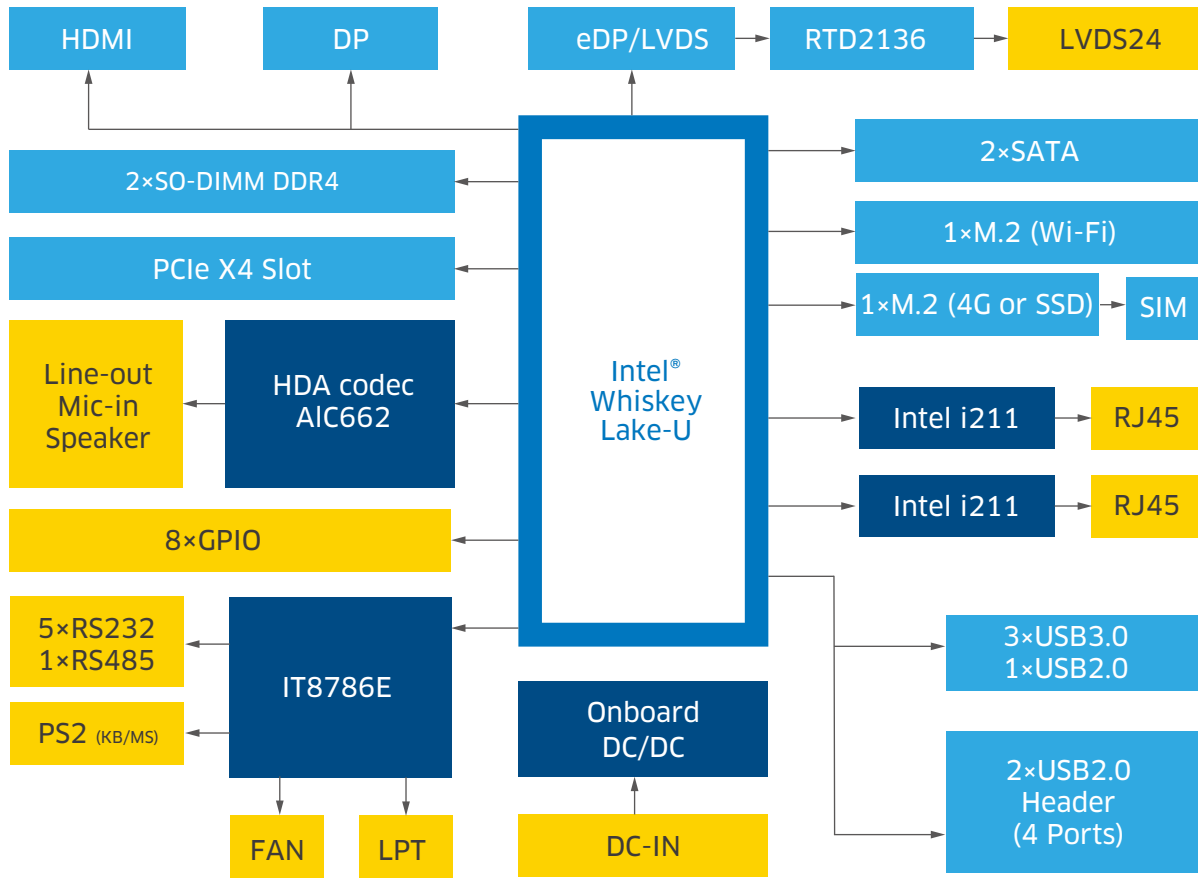
I/O Interfaces



Technical Specifications

Processor	CPU	4205U	i3-8145U	i5-8265U	i7-8565U/8665U
	Base frequency	1.8GHz	2.1GHz	1.6GHz	1.8GHz/1.9GHz
	Turbo frequency		3.9GHz	3.9GHz	4.6GHz/4.8GHz
	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			
	eDP/LVDS	Yes			
	Multiple display	HDMI+DP+eDP/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 C ~60 C			
	Storage Temp.	-40 C ~80 C			
Operating System	Win10 64 bit, Linux 64 bit				

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
DT8665U-A	i7-8665U	2xSO-DIMM DDR4	1	1	1	2	Yes	5	1	3	5	2	2	DC-IN	Active

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