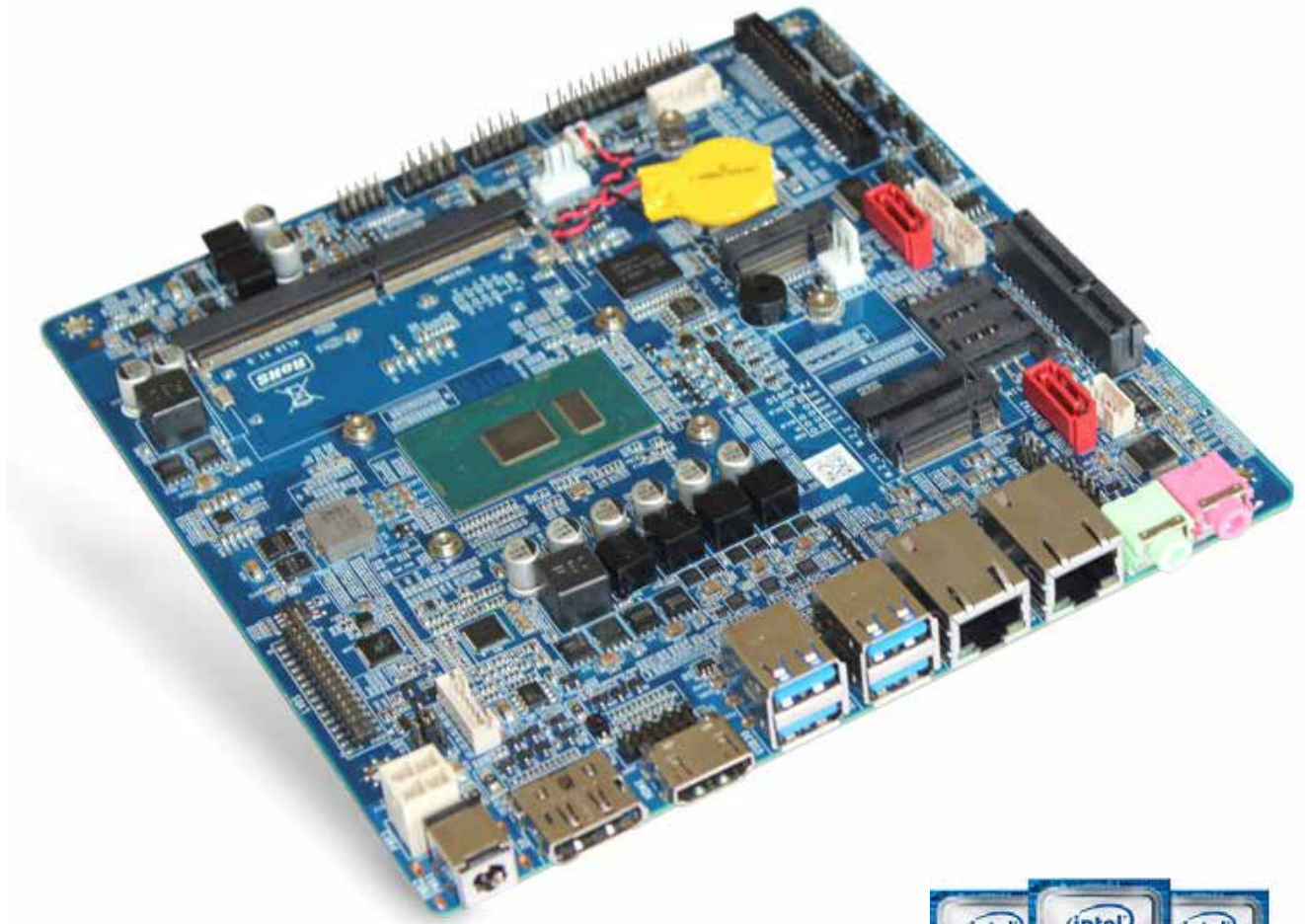


# mITX-KL10

## Mini-ITX Intel® Kabylake-U Embedded Motherboard



### Features

- Intel Skylake-U/Kabylake-U and Celeron BGA 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
- 12V DC input



## Introduction

The MITX-KL10 is an embedded motherboard, supporting Intel® latest 7th Gen. Kabylake-U Core™ i3/i5/i7 Celeron processor (BGA 1356), Celeron® 3865U, Core™ i3-7100U, Core™ i5-7200U, Core™ i7-7500U.

This board features multiple display via 1×Display Port1.2 and 1×HDMI1.4 and 1×eDP or 1×LVDS. It carries 2×DDR4 DIMM 2133MHz slots up to 32GB to add higher bandwidth and lower latencies for processes. It has 2×10M/100M/1000M BASE-T gigabit LAN (Intel i211), 4×USB3.0, 4×USB2.0, 5×RS232, 1×RS485, 1×LPT, 1×PS2\_H, 8×GPIO.



H/W Monitor



Watchdog

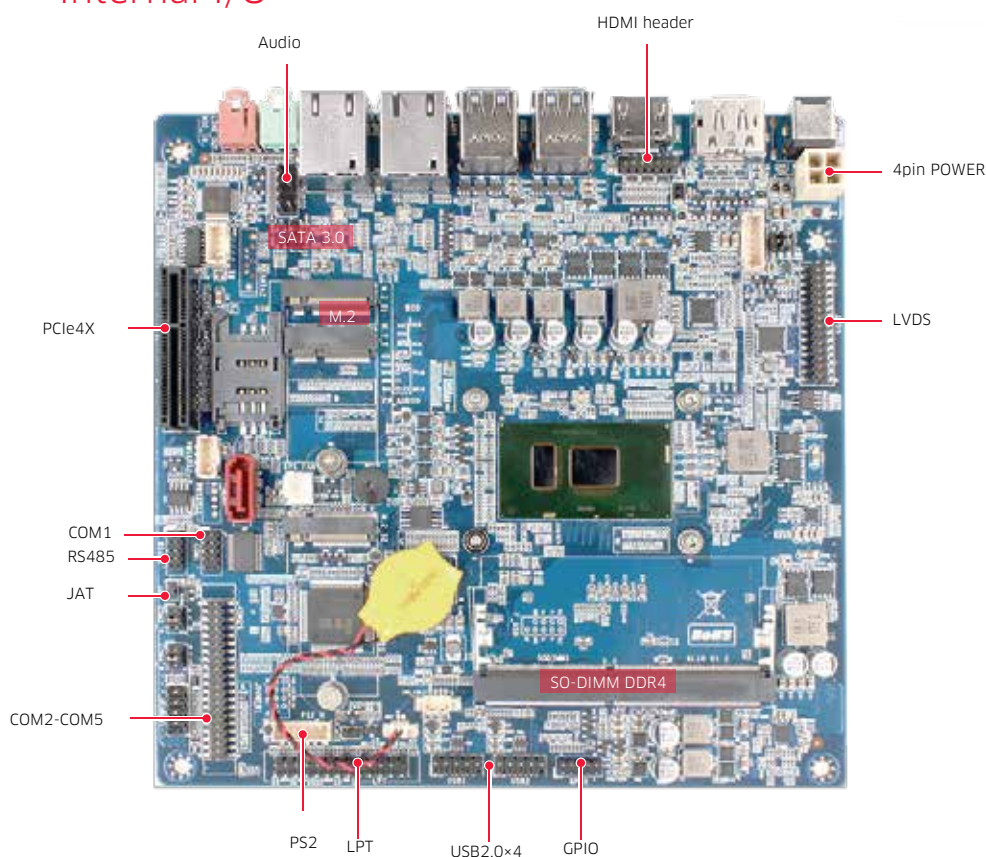


GPIO



Brightness

## Internal I/O



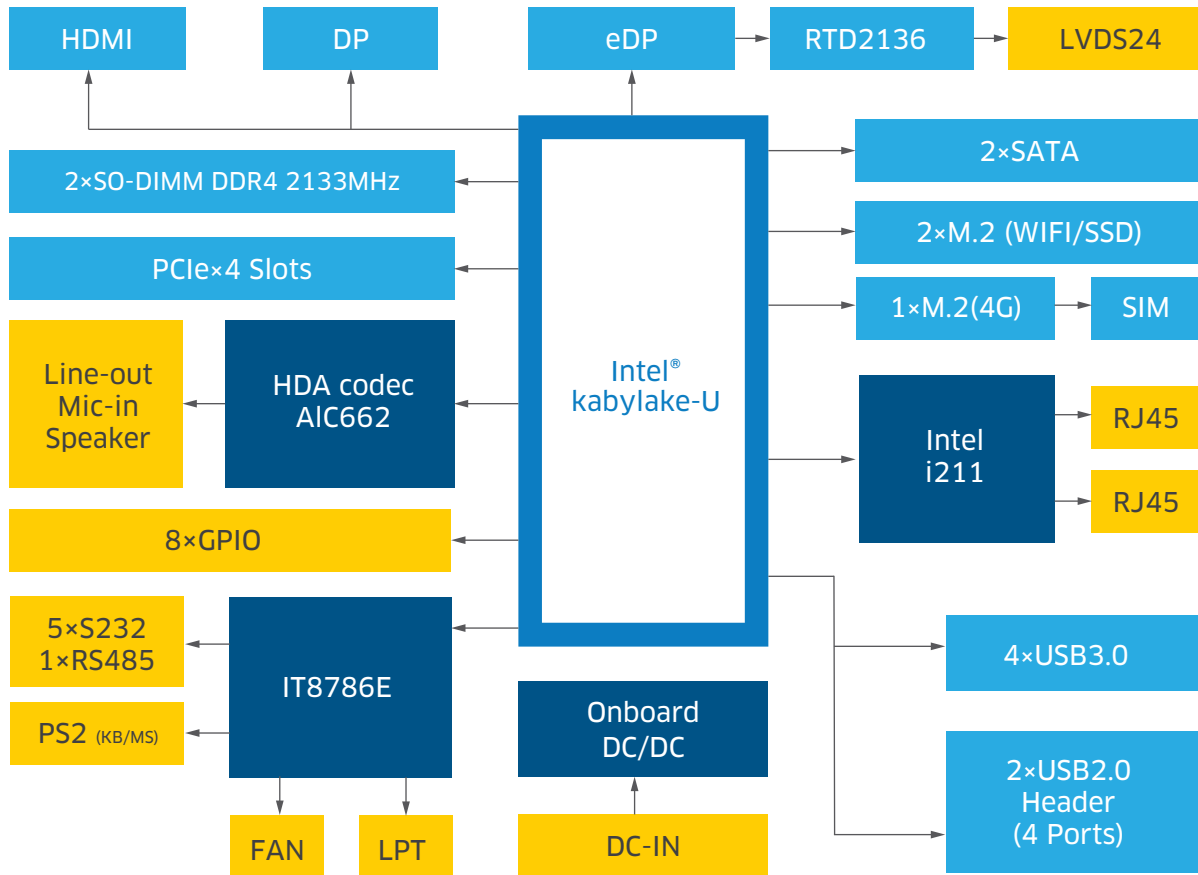
## I/O Interfaces



## Technical Specifications

<b>Processor</b>	CPU	<b>3865U</b>	<b>i3-7100U</b>	<b>i5-7200U</b>	<b>i7-7500U</b>
	Chipset	1.8GHz	2.4GHz	2.5GHz	2.7GHz
	Turbo frequency			3.1GHz	3.5GHz
	Cache	2MB	3MB	3MB	4MB
	BIOS	AMI 8MB UEFI BIOS			
<b>Memory</b>	Type	Dual channel 2×DDR4-2133MHz			
	Max.	32GB			
<b>Display</b>	GPU	Intel HD 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			
<b>Ethernet</b>	Speed	10/100/1000Mbps			
	Controller	Intel i211			
	Interface	2×RJ45			
	Wake on LAN	Yes			
<b>Audio</b>	Audio codec	Realtek HD ALC662			
	Interface	Line-out, Mic-in, audio header, amplifier header			
<b>Hardware</b>	CPU system temperature, onboard voltage, watchdog, Auto power on				
<b>Storage</b>	M.2	1×M.2 for wifi			
		1×M.2 for 4G or 2242 SSD			
		1×M.2 for 2242 SSD			
	SATA3.0	2×SATA3.0 / (only 1 if Celeron onboard)			
	eMMC	Yes (optional)			
<b>Expansion</b>	PCIe4x	1			
<b>Rear Panel I/O</b>	Audio	1×Line-out, 1×Mic-in			
	LAN	2(10/100/1000Mbps)			
	USB3.0	4			
	DP	1			
	HDMI	1			
<b>I/O header</b>	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			
<b>Power</b>	Standard port	1×12V DC-IN/4 PIN Power			
	Peripheral	For fan and SATA			
<b>Mechanical &amp; Environmental</b>	Type	Mini-ITX			
	Size	170mm×170mm (L×W)			
	Operating Temp.	-40°C ~60°C			
	Storage Temp.	-40°C ~80°C			
<b>Operating System</b>	Win10 64 bit, Linux 32/64 bit				

## KL10 Functional Block Diagram



## Ordering Information

Model	CPU	Memory	HDMI	DP	LVDS	LAN	Audio	RS232	RS485	USB3.0	USB2.0	SATA3.0	M2	Power	Cooling
DT3865U-A	Celeron 3865U 15W	2xSO-DIMM DDR4	1	1	1	2	Yes	5	1	4	4	1	3	DC-IN	Passive
DT7100U-A	i3-7100U 15W	2xSO-DIMM DDR4	1	1	1	2	Yes	5	1	4	4	2	3	DC-IN	Passive
DT7200U-A	i5-7200U 15W	2xO-DIMM DDR4	1	1	1	2	Yes	5	1	4	4	2	3	DC-IN	Passive
DT7500U-A	i7-7500U 15W	2xSO-DIMM DDR4	1	1	1	2	Yes	5	1	4	4	2	3	DC-IN	Passive
Customized	ODM/OEM is available.														

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