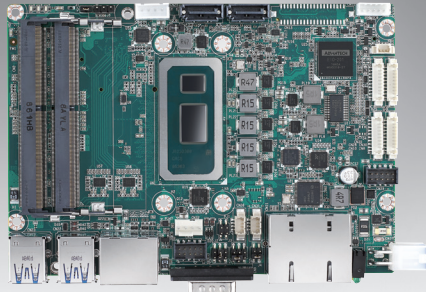


MIO-5373

8th Gen. Intel® Core i7/i5/i3/Celeron
3.5" SBC w/ MIOe

Preliminary



WISE-PaaS/ DeviceOn iManager CE FC

Features

- 8th Gen. Intel Core Processor with Quad/Dual Cores, TDP 15W
- Dual Channel DDR4-2400 up to 32GB, onboard eMMC up to 64GB
- Triple simultaneous displays by 48-bit LVDS/eDP+HDMI+DP
- 2 GbE, 4 USB3.1, CAN Bus, M.2 M-Key 2280 supports NVMe, DC-in 12-24V
- iManager & SW APIs, WISE-PaaS/DeviceOn

Software APIs:

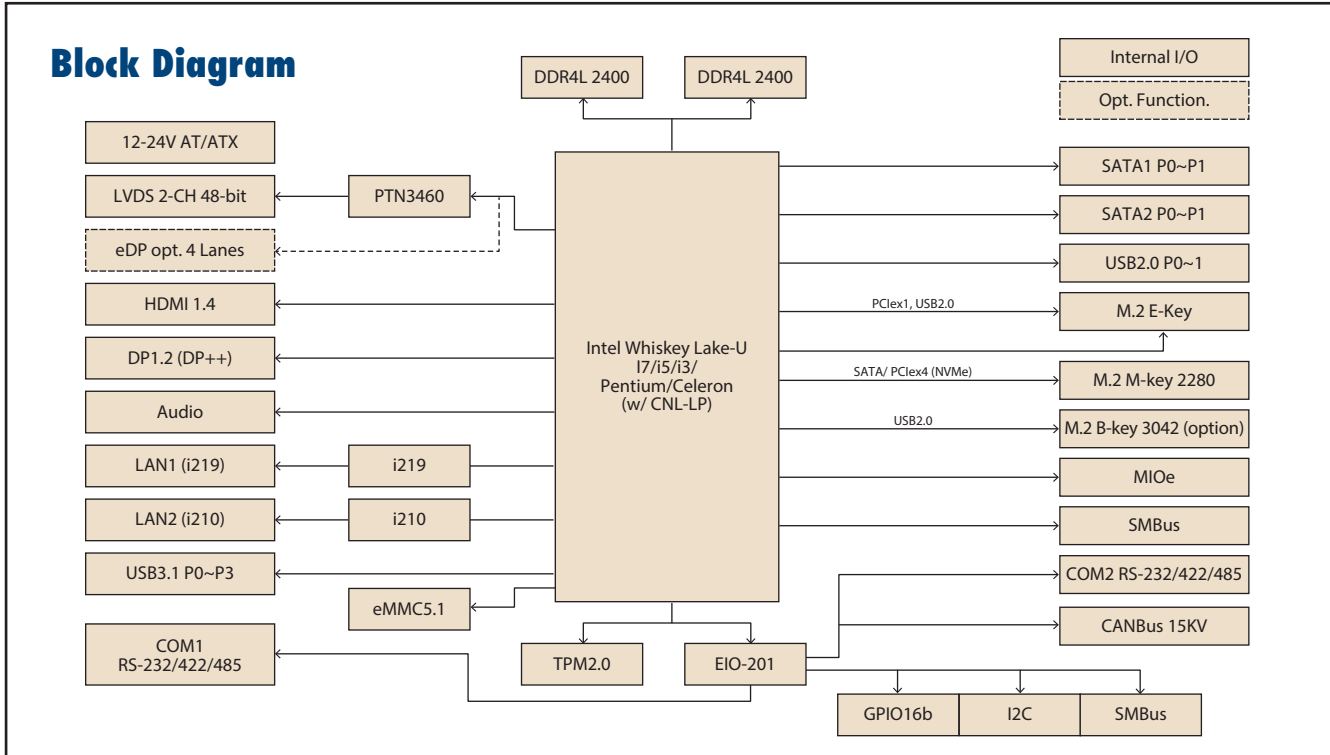


Specifications

	Processor	i7-8665UE	i5-8365UE	i3-8145UE	4305U	
Platform	Max. Frequency	4.40 GHz	4.10 GHz	3.90 GHz	-	
	Base Frequency	1.70 GHz	1.60 GHz	2.20 GHz	2.20 GHz	
	Core/Tread	Quad-Core	Quad-Core	Dual-Core	Dual-Core	
	LLC	2 MB	2 MB	2 MB	2 MB	
	CPU TDP	15W	15W	15W	15W	
	Chipset	Intel® WHL-U SoC integrated				
	BIOS	AMI EFI 256Mbit				
	Memory	Technology	DDR4-2400MT/s			
Max. Capacity		32GB				
Channel/Socket		Dual Channel/Dual Socket DDR4 (5.2mm) Dual Channel/Dual Socket DDR4 (9.2mm)				
ECC Support		N/A				
Graphics	Controller	Intel® WHL-U SoC integrated				
	Max. Frequency	400 MHz	400 MHz	500 MHz	-	
	Base Frequency	550 MHz	600 MHz	650 MHz	-	
	Graphics Memory	TBD				
	3D/HW Acceleration	DX12, OGL4.4 HW Encode: H.264, MPEG2 HW Decode: H.264, MPEG2				
Display I/F	VGA	N/A				
	LCD	LVDS Dual Channel 48-bit up to 1920 x 1200 Option eDP1.4 up to 4096x2304@60Hz				
	HDMI/DP	1 Port HDMI1.4 up to 4096x2160@30/24Hz 1 Port DP1.2 up to 4096x2306@60Hz				
	Multiple Display	Triple simultaneous displays by 48-bit LVDS/eDP+HDMI+DP				
Ethernet	Controller	LAN1: Intel i219, LAN2: Intel i210-AT				
	Speed	10/100/1000 Mbps				
External I/O	Ethernet	2 x RJ-45				
	VGA/HDMI/DP	0/1/1				
	USB3.1	4				
	COM Port	1 x RS-232/422/485				
	LED	Power status, HDD R/W				
Internal I/O	Power DC-Jack	1*(Optional)				
	SATA	2, up to 6Gb/s (600MB/s)				
	USB2.0	2				
	Serial Bus	SMBus (default), I2C* (optional)				
	COM Port	1 x RS-232/422/485 2 x GPIO 8b (default) or 2 x RS-232 (*by request)				
	GPIO	16-bit general purpose input output I/O				
	Audio	Realtek ALC-888S, Line-in/Line-out/MIC				
	Inverter	Yes, 12V/5V/3.3V selectable				
	LPC/SPI Bus	LPC				
	CAN Bus	Yes				
	Fan	1 4-wire smart fan				
	Front Panel Control	Power-on				
	Board Feature	Watchdog Timer	65536 level, 0-65535 sec			
		TPM	2.0			
iManager 3.0		Yes				
Storage	SSD	N/A				
	eMMC	Default 32GB, up to 64GB				
Expansion	M.2	1 x M.2 E-key 2230 1 x M.2 M-key 2280 support SATA or NVMe, optional B-key 3042				
	mPCIe/mSATA	0/1				
	MIO Extension	4 PCIe x1, 1 PCIe x4, USB2.0, LPC, SMBus, Line-out, 12V/5V Power supply				

*Note: Support by request

Block Diagram



Specifications (Cont.)

Power	Supply Voltage	Vin: 12V-24V +/- 10%; RTC Battery: Lithium 3V/ 210mAH		
	Connector	ATX 2x2-pin, optional: DC-Jack*		
Power	Power Management	AT, ATX		
	Max. Consumption	i7-8665UE: TBD	i5-8365UE: TBD	i3-8145UE: TBD 4305U: TBD
Power	Idle Consumption	i7-8665UE: TBD	i5-8365UE: TBD	i3-8145UE: TBD 4305U: TBD
	Temperature	Operating: Standard: 0 ~ 60 °C (32 ~ 140 °F), Extend: -40 ~ 85 °C (-40 ~ 185 °F) Storage: -40 ~ 85 °C (-40 ~ 185 °F)		
Environment	Humidity	Operating: 40 °C @ 95% relative humidity, non-condensing Storage: 60 °C @ 95% relative humidity, non-condensing		
	Vibration Resistance	3.5Grms		
Certification	EMC	CE, FCC Class B		
Mechanical	Dimensions	146 x 102 mm (5.7" x 4")		

Ordering Information

Part Number	CPU	Max. Frequency	Core	Memory	eMMC	TPM2.0	Thermal solution	Operating Temp
TBD	i7-8665UE	4.40 GHz	4	8G	32G	Y	Passive	0 ~ 60° C
TBD	i5-8365UE	4.10 GHz	4	8G	32G	Y	Passive	0 ~ 60° C
TBD	i3-8145UE	3.90 GHz	2	8G	32G	Y	Passive	0 ~ 60° C
TBD	i7-8665UE	4.40 GHz	4	8G	32G	Y	Passive	-40 ~ 85° C
TBD	i5-8365UE	4.10 GHz	4	8G	32G	Y	Passive	-40 ~ 85° C

*Default BIOS supports 64 bits OS installation, BIOS for 32 bits OS installation is supported by project.

Packing List

Part No.	Description	Quantity
	MIO-5373 SBC	1
	Startup Manual	1
1700006291	SATA cable 30cm	1
1700018785	A CABLE SATA 15P/1*4P-2.5 35cm	1
1700019584	A Cable 2*5P-2.0/Audio JACK*3 20cm	1
1700030404-01	RS-232 9P(M)/1*10P-1.25 20cm MIO-5373	1
1960091427N001	MIO-5373 heatsink for 0 ~ 60° C	1
9689000002	mini Jumper pack	1

Optional Accessories

Part No.	Description
TBD	Heat spreader

Embedded OS/API

Embedded OS/API	Part No.	Description
WIN10	TBD	64-bit (UEFI mode only)
Software API	Download by website	SUSI V4.0

Rear I/O View

