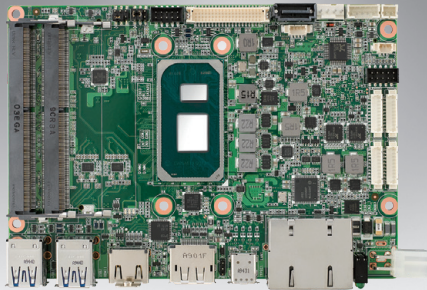


MIO-5375

11th Gen. Intel® Core™ i7/i5/i3/Celeron U-Series 3.5" SBC w/ MIOe

NEW



Features

- 11th Gen. Intel® Core™ Processor with Quad/Dual Cores, TDP 15W/ 28W
- Dual Channel DDR4-3200 up to 64GB
- 4 simultaneous displays: LVDS/HDMI/DP/USB Type-C, eDP (optional)
- 2 GbE, 4 USB3.2, CAN Bus, DC-in 12-24V
- Expansion: M.2 E-Key/B-Key/M-Key (supports NVMe), MIOe
- Supports iManager, WISE-PaaS/RMM, SW API, and Edge AI Suite

Software APIs:

- GPIO
- SMBus/I²C
- Watch Dog Timer
- Backlight On/Off
- Brightness
- CAN bus
- Hardware Monitor
- System Throttling
- Thermal Protection
- Smart Fan
- Data Security
- System Info

ubuntu® WISE-DeviceOn iManager YOCTO PROJECT CE FC

Specifications

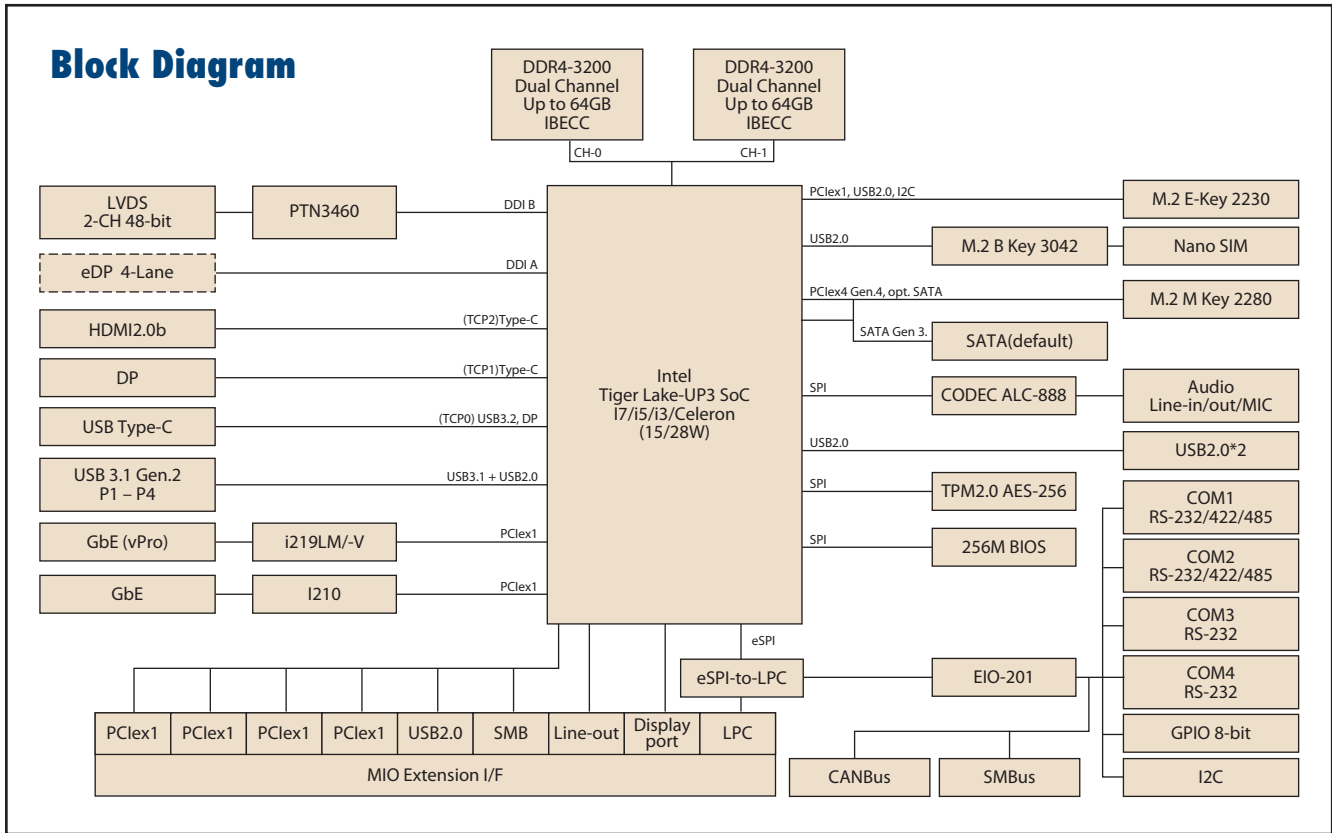
	Processor	i7-1185G7E	i7-1185GRE	i5-1145G7E	i3-1115G4E	Celeron® 6305E
Platform	Max. Frequency	4.40 GHz	4.40 GHz	4.10 GHz	3.90 GHz	-
	Base Frequency	1.80/ 2.8 GHz	1.80/ 2.8 GHz	1.50/ 2.6 GHz	2.20/ 3.0 GHz	1.80GHz
	Core/Tread	4/8	4/8	4/8	2/4	2/2
	LLC	12MB	12MB	8MB	6MB	4MB
	CPU cTDP-down/ Up/ Nominal	12W/ 15W/ 28W	12W/ 15W/ 28W	12W/ 15W/ 28W	12W/ 15W/ 28W	12W/15W/28W
	Chipset	Intel® 300 Series Chipset (SoC Integrated)				
	BIOS	AMI EFI 256Mbit				
Memory	Technology	DDR4-3200				
	Max. Capacity	Up to 64GB				
	Channel/Socket	Dual Channels / 2 Sockets				
Graphics	ECC Support	No	Yes	No	No	No
	Controller	Intel® Iris® Xe graphics, up to 96 graphics execution units (EU)				
Display I/F	Max. Frequency	3200MT/s	3200MT/s	3200MT/s	3200MT/s	
	LCD	1 x LVDS: Dual Channel 18/24-bit, up to 1920 x 1200 Optional eDP1.4 HBR3, up to 4096x2304x36bpp@60Hz or 5120x3200x24bpp@24Hz				
	HDMI/DP	1 x HDMI 2.0b, up to 4Kx2Kx24bpp@60Hz 1 x DP1.4a, up to 4096x2304x36bpp@60Hz or 5120x3200x24bpp@60Hz				
External I/O	Multiple Display	4 simultaneous displays with each display interface combinations				
	Ethernet	2 x GbE, LAN1: Intel i219LM, LAN2: Intel i210AT/IT (for industrial grade)				
	HDMI/DP	1/1				
	USB Type-C	1 x USB3.2 Gen. 2x2 20Gbps, support DP1.4a via Alt. Mode				
	USB3.2	4 x USB3.2 Gen. 2x1 10Gbps				
	LED	Power status, SATA R/W				
	Power DC-Jack	Optional				
Internal I/O	SATA	1 x SATA GenIII 6.0 Gbps				
	USB2.0	2				
	Serial Bus	I2C, SMBus				
	COM Port	2 x RS-232/422/485, 2 x RS-232 (4-wire)				
	GPIO	8-bit general purpose input output I/O				
	Audio	Realtek ALC888, Line-in/Line-out/MIC				
	Inverter	12V/5V/3.3V selectable				
	LPC/SPI Bus	LPC				
	CAN Bus	1 x CANBus 2.0				
	Fan	4-wire smart fan				
	Front Panel Control	Power-on, Reset, Buzzer, SATA LED, CaseOpen				
Board Feature	Watchdog Timer	65536 level, 0-65535 sec				
	TPM	TPM2.0, Infineon SLB9670				
Expansion	iManager 3.0	SW API for Hardware Monitor, Smart Fan Control, Brightness Control, I2C, GPIO, WDT				
	M.2 E-Key	1 x E-Key 2230 (PCIe x1, USB2.0, I2C)				
	M.2 B-Key	1 x B-Key 3042 (USB2.0) w/ Nano-SIM				
	M.2 M-Key	1 x M-Key 2280 (PCIe x4 Gen.4 for PCIe SSD), optional SATA				
Power	M/I/O Extension	4 PCIe x1 (Gen 3), 1 x USB2.0, LPC, SMBus, Line-out, Optional DP, Power-on, Reset				
	Supply Voltage	Vin: DC 12V-24V ± 5%; RTC Battery: Lithium 3V/210mAH				
	Connector	ATX 2x2 pin 90D, optional DC-Jack or ATX 2x2 pin 180D				
	Power Management	AT, ATX				
Environment	Max. Consumption	43.3W (12V) / 46.8W (24V)	TBU	TBU	TBU	TBU
	Idle Consumption	16.6W (12V) / 19.2W (24V)	TBU	TBU	TBU	TBU
	Temperature	Operating, Standard: 0 - 60 °C (32 - 140 °F), Extend: -40 - 85 °C (-40 - 185 °F) Storage: -40 - 85 °C (-40 - 185 °F)				
	Humidity	Operating: 40 °C @ 95% relative humidity, non-condensing Storage: 60 °C @ 95%relative humidity, non-condensing				
Certification	Vibration Resistance	3.5 Grms				
	EMC	CE, FCC Class B				
Mechanical	Dimensions	146 x 102 mm (5.7" x 4")				

M/I/O Extension SBCs, Modules and Chassis

All product specifications are subject to change without notice.

Last updated: 10-Jun-2022

Block Diagram



Ordering Information

Part Number	CPU	cTDP	Max. Frequency	Core	Gbe	USB	RS232/422/485	RS-232	MIOe	TPM2.0	Thermal solution	Operating Temp
MIO-5375C7P-Q4A1	i7-1185G7E	28W	4.4 GHZ	4	2	USB3.0*4 USB Type-C*1	2	2	1	Y	Active	0 ~ 60 °C
MIO-5375C7-Q4A1	i7-1185G7E	15W	4.4 GHZ	4	2	USB3.0*4 USB Type-C*1	2	2	1	Y	Passive	0 ~ 60 °C
MIO-5375C5-Q1A1	i5-1145G7E	15W	4.1 GHZ	4	2	USB3.0*4 USB Type-C*1	2	2	1	Y	Passive	0 ~ 60 °C
MIO-5375C3-P9A1	i3-1115G4E	15W	3.9 GHZ	2	2	USB3.0*4 USB Type-C*1	2	2	1	Y	Passive	0 ~ 60 °C
MIO-5375C7X-Q4A1	i7-1185GRE	15W	4.4 GHZ	4	2	USB3.0*4 USB Type-C*1	2	2	1	Y	Passive	-40~ 85 °C
MIO-5375CR-S8A1	Celeron® 6305E	15W	-	2	2	USB3.0*4 USB Type-C*1	2	2	1	Y	Passive	0 ~ 60 °C

Note: Standard product has two different cTDP setting (28/15W), and it has different BIOS setting. Please choose the correspond cTDP sku for your application.

Optional Accessories

Part No.	Description
1970004833N001	Heat spreader

Embedded OS/API

OS	Part No.	Description
WIN10	20706WX9HM0017	64-bit (UEFI mode only)
Software API	Download by website	
Ubuntu 20.04	20706U20DS0003	Desktop 20.04 LTS 64-bit

Packing List

Part No.	Description	Quantity
	MIO-5375 SBC	1
	Startup Manual	1
1700006291	SATA cable, 7P 30cm	1
1700031583-01	SATA Power cable, 15P/1*2P-2.0 35cm	1
1700030406-01	USB2.0 cable, 2*5P-2.0/USB-A 4P(F)*2 20cm	1
1700030404-01	COM1/2 Cable, D-SUB 9P(M)/1*10P-1.25 20cm	2
1700031582-01	COM3/4 Cable, D-SUB 9P(M)/1*5P-1.25 20cm	2
1700019584-01	Audio cable, 2*5P-2.0/Audio JACK*3 20cm	1
1970004794T001	MIO-5375 heatsink	1
1970004884T001	MIO-5375 QFCS Cooler	1
96665375000	Screws kit	1
	mini Jumper pack	1

Rear I/O View

