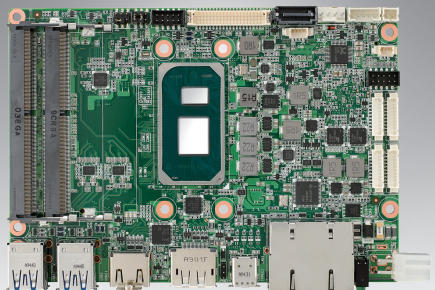


MIO-5375

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

Preliminary



Features

- 11th Gen. Intel® Core™ Processor with Quad/Dual Cores, TDP 15W/ 28W
- Dual Channel DDR4-3200 up to 64GB
- 4 simultaneous displays: LVDS/eDP/HDMI/DP/USB Type-C
- 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 & Software APIs, WISE-DeviceOn

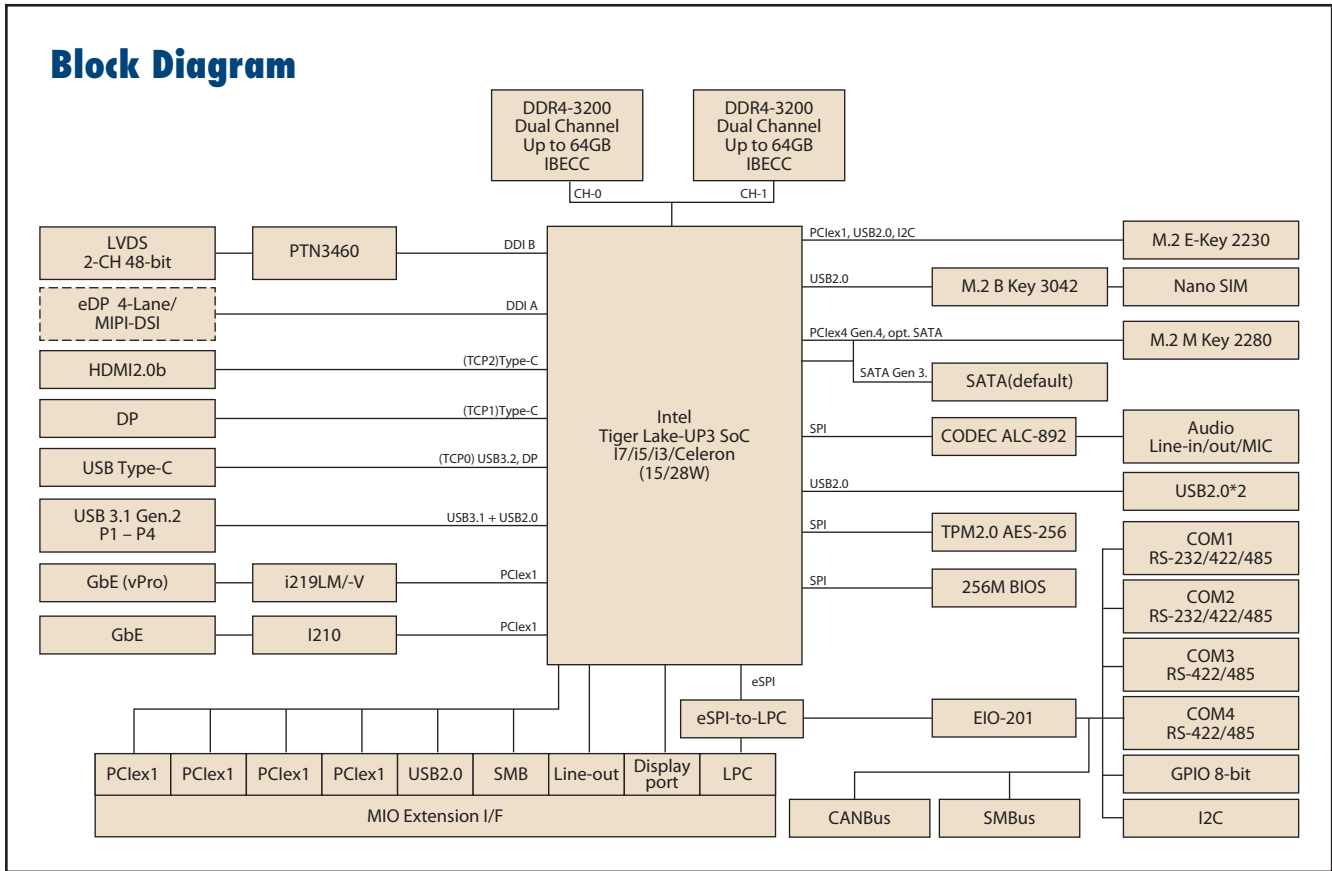
Software APIs:



Specifications

	Processor	i7-1185G7E	i7-1185GRE	i5-1145G7E	i3-1115G4E	
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	
	Core/Tread	4/8	4/8	4/8	2/4	
	LLC	12MB	12MB	8MB	6MB	
	CPU cTDP/ TDP	15W/ 28W	15W/ 28W	15W/ 28W	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				
	ECC Support	No	Yes	No	No	
Graphics	Controller	Integrated GFX Intel® UHD Graphics 630				
	Max. Frequency	3200MT/s	3200MT/s	3200MT/s	3200MT/s	
	Graphics Memory	TBU				
	3D/HW Acceleration	DX12, OGL4.0, OCL1.2, HW Encode: H.265/HEVC, H.264, MPEG2, HW Decode: H.264				
Display I/F	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				
	Multiple Display	4 simultaneous displays with each display interface combinations				
External I/O	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				
	SATA	1 x SATA GenIII 6.0 Gbps				
Internal I/O	USB2.0	2				
	Serial Bus	I2C, SMBus				
	COM Port	2 x RS-232/422/485, 2 x RS-422/485 (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			
iManager 3.0		SW API for Hardware Monitor, Smart Fan Control, Brightness Control, I2C, GPIO, WDT				
Expansion	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				
	MIO Extension	4 PCIe x1 (Gen 3), 3 x USB2.0, LPC, SMBus, Line-out, Optional DP, Power-on, Reset				
	Supply Voltage	Vin: DC 12V-24V +/- 10%; RTC Battery: Lithium 3V/210mAH				
Power	Connector	ATX 2x2 pin 90D, optional DC-Jack or ATX 2x2 pin 180D				
	Power Management	AT, ATX				
	Max. Consumption	TBU	TBU	TBU	TBU	
	Idle Consumption	TBU	TBU	TBU	TBU	
Environment	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				
	Vibration Resistance	3.5 Grms				
Certification	EMC, FCC Class B					
Mechanical	Dimensions	146 x 102 mm (5.7" x 4")				

Block Diagram



Ordering Information

Part Number	CPU	TDP/PL1	Max. Frequency	Core	Gbe	USB	RS232/422/485	RS422/485	MIOe	TPM2.0	Thermal solution	Operating Temp.
MIO-5375C7P-Q4A1	i7-1185G7E	28W/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	28W/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	28W/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	28W/15W	3.9 GHZ	2	2	USB3.0*4 USB Type-C*1	2	2	1	Y	Passive	0 ~ 60° C
MIO-5375C7-Q4A1	i7-1185GRE	28W/15W	4.4 GHZ	4	2	USB3.0*4 USB Type-C*1	2	2	1	Y	Passive	-40~ 85° C

Packing List

Part No.	Description	Quantity
	MIO-5375 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
1701200220	RS-232 x 2 ports 2.0mm pitch 22cm	1
1960091427N001	MIO-5375 heatsink for 0 ~ 60 °C	1
	mini Jumper pack	1

Optional Accessories

Part No.	Description
TBD	Heat spreader

Embedded OS/API

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

Rear I/O View

