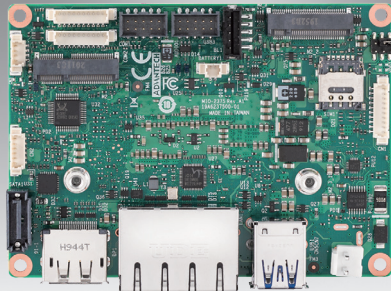


# MIO-2375

## 11th Gen. Intel® Core™ i7/i5/i3 U-series Pico-ITX SBC

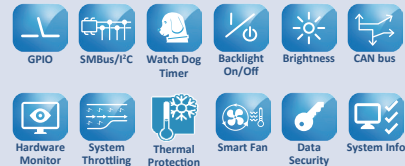
Preliminary



### Features

- 11th Gen. Intel® Core™ Processor with Quad/Dual Cores, TDP 15W
- On-board LPDDR4x-4267 up to 32G with IB ECC for Industrial Sku
- Dual independent display: eDP/MIPI-DSI, DP up to 8K
- 2 GbE, 2 USB 3.2, COM Port, SMBus/I2C
- Expansion: M.2 E-Key, M.2 B-Key/M-Key NVMe x2
- Supports iManager & Software APIs, WISE-DeviceOn

#### Software APIs:

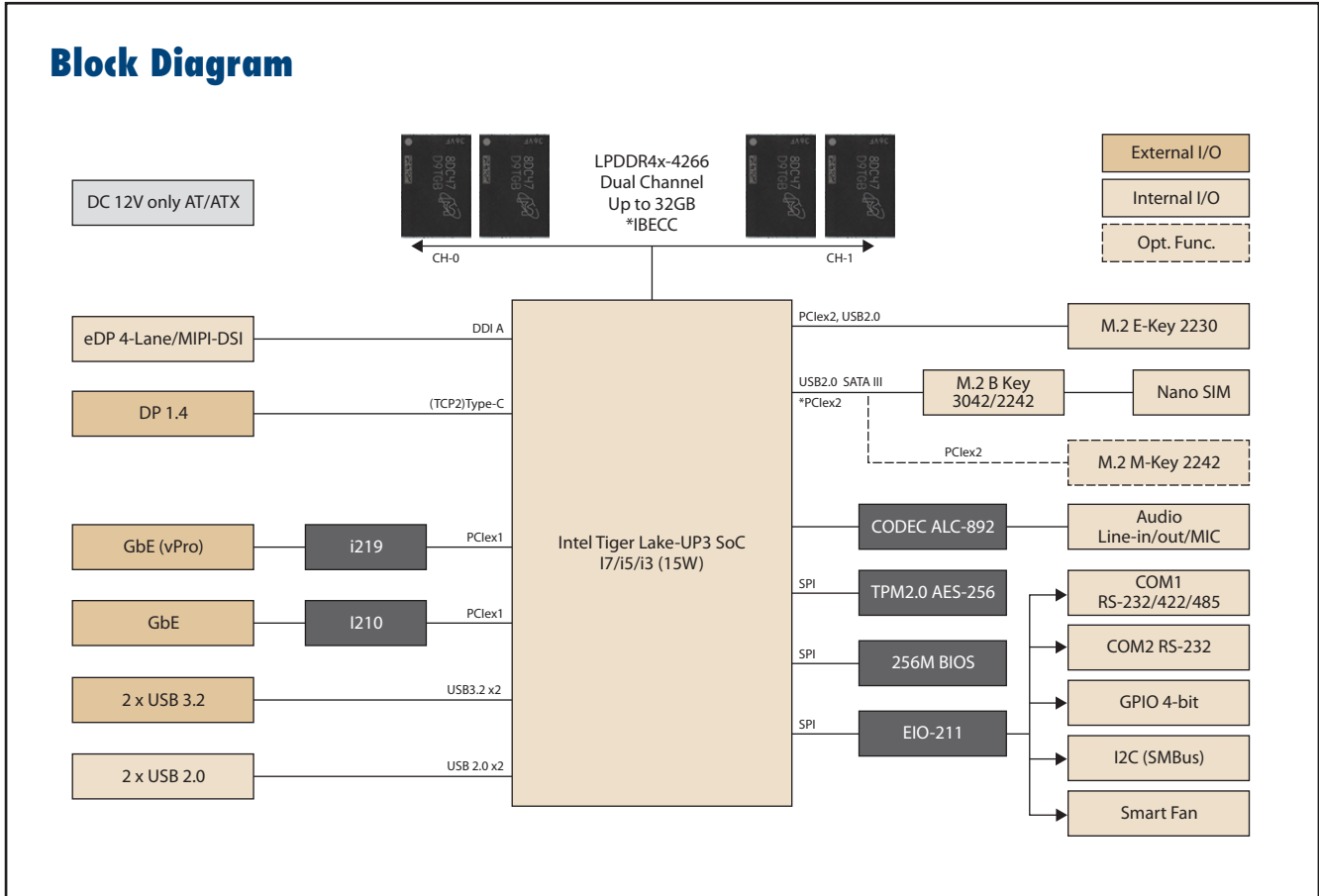


### Specifications

	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 GHz	1.80 GHz	1.50 GHz	2.20 GHz
	Core/Tread	4/8	4/8	4/8	2/4
	LLC	12MB	12MB	8MB	6MB
	CPU TDP	15W	15W	15W	15W
	Chipset	Intel 300 Series Chipset (SoC Integrated)			
	BIOS	AMI EFI 256Mbit			
	Technology	LPDDR4x-4267			
Memory	Max. Capacity	Up to 32GB			
	Channel/Socket	Dual Channels / Onboard			
	ECC Support	No	Yes	No	No
Graphics	Controller	Integrated Intel® Iris® Xe Graphics			
	Max. Frequency	1.35 GHz	1.35 GHz	1.30 GHz	1.25 GHz
	Base Frequency	TBU	TBU	TBU	TBU
	Graphics Memory	TBU	TBU	TBU	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	eDP1.4 HBR3, up to 4096x2304x36bpp@60Hz; with DSC 7680x4320x30bpp@60 Hz Optional MIPI-DSI 2.5GHz, up to 3200x2000x24bpp@60Hz; with DSC 5120x3200x24bpp@60 Hz			
	HDMI/DP	1 x DP1.4 (DP++), up to 4096x2304x36bpp@60Hz; with DSC 7680x4320x30bpp@60 Hz			
	Multiple Display	Dual simultaneous displays by eDP/MIPI-DSI + DP			
Ethernet	Controller	LAN1: Intel 219LM, LAN2: Intel 210AT/IT			
	Speed	10/100/1000 Mbps			
External I/O	Ethernet	2 x RJ-45			
	VGA/HDMI/DP	-/-/1			
	USB3.2/USB2.0	2/-			
	Power DC-Jack	Optional			
Internal I/O	SATA	1 x SATA GenIII 6.0Gbps			
	USB2.0	2			
	Serial Bus	I2C (default), SMBus* (optional)			
	COM Port	1 x RS-232/422/485, 1 x RS-232			
	GPIO	4-bit general purpose input output I/O			
	Audio	Realtek ALC892, Line-in/Line-out/MIC			
	Inverter	12V			
	Fan	12V, 1A (4-wire)			
	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)			
	M.2 B-Key/ M.2 M-Key	1 x B-Key 3042/2242 (SATA x1, USB2.0 x1) w/ Nano-SIM *Optional 1 x M-Key 2242 (PCIe x2 NVMe)			
Power	Supply Voltage	Vin: DC 12V ± 10%; RTC Battery: Lithium 3V/210mAh			
	Connector	ATX 2pin 180D, optional DC-Jack			
	Power Management	AT, ATX			
	Max. Consumption	TBU			
Environment	Idle Consumption	TBU			
	Temperature	Operating: Standard: 0 ~ 60 °C (32 ~ 140 °F) Operating: Extend: -40 ~ 85 °C (-40 ~ 185 °F) for Industrial Sku 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	100 x 72 mm (3.9" x 2.8")			
	Net Weight	80g			

\*Note: Support by request

## Block Diagram



## Ordering Information

Part No.	CPU	Max. Frequency	Core	Memory	Sim Holder	TPM	Thermal Solution	Operating Temperature
TBD	i7-1185G7E	TBC	4	16GB	Yes	Yes	Active	0 ~ 60 °C
TBD	i7-1185GRE	TBC	4	16GB	Yes	Yes	Active	-40 ~ 85° C
TBD	i5-1145G7E	TBC	4	16GB	Yes	Yes	Active	0 ~ 60 °C
TBD	i3-1115G4E	TBC	2	16GB	Yes	Yes	Active	0 ~ 60 °C

## Packing List

Part No.	Description	Quantity
	MIO-2375 SBC	
	Startup Manual	
1700006291	SATA cable 30cm	1
1700027546-01	A CABLE SATA 15P/1*4P-2.5 35cm	1
1700030406-01	M Cable 2*5P-2.0/USB-A 4P(F)*2 20cm	1
1700030404-01	RS-232 9P(M)/1*10P-1.25 20cm	2
1700019584	A Cable 2*5P-2.0/Audio JACK*3 20cm	1
	AT power cable 12 cm	1

## Optional Accessories

Part No.	Description

## Embedded OS/API

OS	Part No.	Description
WIN10	TBD	64-bit (UEFI mode only)
Ubuntu 20.04 LTS	TBD	
Software API	Download by website	
Yocto BSP		

## Rear I/O View

