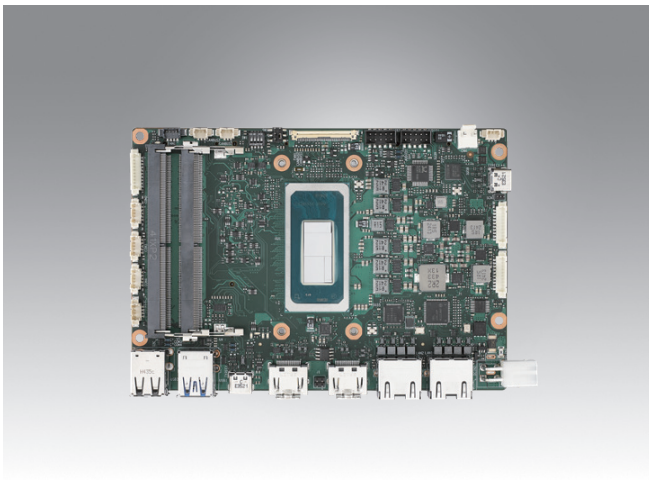
MIO-5379

Intel Core Ultra Processors (Code Name: Arrow Lake/ Meteor Lake)



Ubuntu Windows 11 DeviceOn EdgeBMC CE FC

Features

- Intel® Core™ Ultra 7/5 Processors, up to 14 Cores, TDP 28W/15W
- Dual Channel DDR5-6400 up to 96GB
- Optional MIOe-TCPD module supports USB-C PD 100W
- 4 simultaneous displays: eDP + 2x HDMI + USB-C with DP Alt.
- 2x LAN, 8x USB (incl. 1x USB4), 4x UART, 2x CAN-FD, 8bit GPIO, I2C(*SMBus)
- 4x M.2 Expansions: E-Key 2230, B-Key 3052, 2x M-Key 2280
- Support EdgeBMC for OOB (Out-of-Band) remote control

Specifications

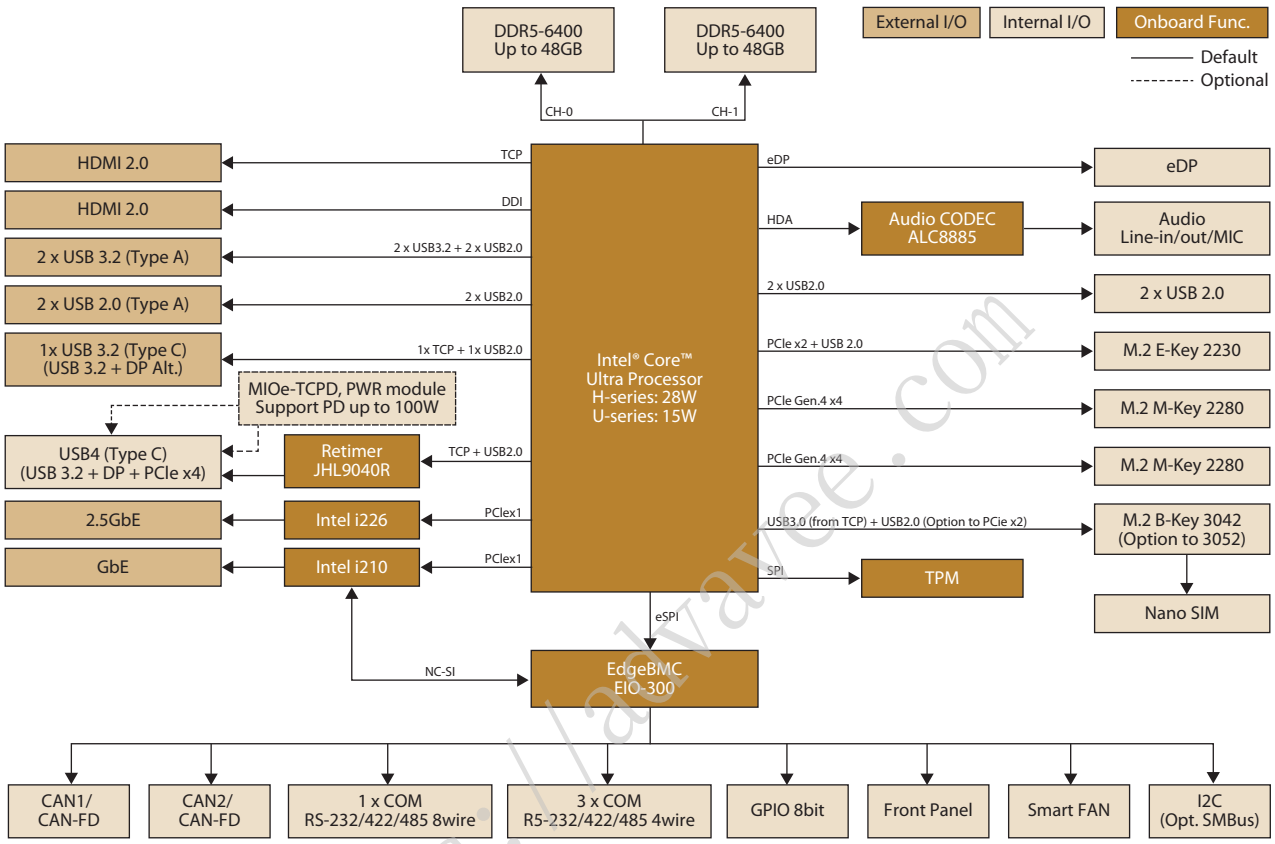
Platform	Processor	Core Ultra 7, 255H	Core Ultra 7, 155H	Core Ultra 7, 155U	Core Ultra 5, 125H	Core Ultra 5, 125U
	Max. Frequency	5.1	4.8	4.5	4.8	4.3
	Base Frequency	2/1.5	1.4/0.9	1.2/0.7	1.7/1.2	1.3/0.8
	Core/Tread	16C/6P+8E	16C/6P+8E	12C/2P+8E	14C/4P+8E	12C/2P+8E
	CPU TDP	28W	28W	15W	28W	15W
	Chipset	Intel® Chipset (SoC Integrated)				
	BIOS	AMI UEFI 256Mbit				
Memory	Technology	DDR5 6400	DDR5 5600	DDR5 5600	DDR5 5600	DDR5 5600
	Max. Capacity	Up to 96GB				
	Channel/Socket	Dual Channels / 2 Sockets				
Graphics	Controller	Intel® Arc™ graphics			Intel® Graphics	
	Max. Frequency	2.25	2.25	2.2	1.95	1.85
	3D/HW Acceleration	Ray Tracing (Full-rate) / Execute Indirect				
	AI Features	Intel® XMX Matrix Engines (4-deep systolic)				
Display I/F	eDP	1 x eDP 1.4				
	HDMI	2 x HDMI 2.1				
	USB	1 x USB 4				
	Multiple Display	4 simultaneous displays: eDP/HDMI/USB				
Ethernet	Controller	LAN1: Intel i210; LAN2: Intel i226				
	Speed	LAN1: 1Gbps; LAN2: 2.5Gbps				
External I/O	Ethernet	2 x RJ-45				
	HDMI/USB-C	2/1				
	USB3.2/2.0	2/2				
	Power DC-Jack	4-pin 90D ATX connector				
Internal I/O	USB	2 x USB-A 2.0, 1 x USB-C 4.0				
	Serial Bus	1 x I2C/SMBus				
	COM Port	1 x RS-232/422/485(8-wire) , 3 x RS-232/422/485 (4-wire)				
	GPIO	8-bit general purpose input output I/O				
	Audio	Realtek ALC888S, Line-in/Line-out/MIC				
	Invertor	12V/5V				
	CAN Bus	2 x CAN-FD				
	Fan	4-wire smart fan				
	Front Panel Control	Power-on, Reset, Buzzer, CaseOpen				
Board Feature	USB-C PD	USB Type-C PD (Power Delivery) 100w*(optional MIOe-TCDP module)				
	EdgeBMC OOB	LAN1: Support EdgeBMC Out-of-Band (OOB) remote control				
	Watchdog Timer	65536 level, 0~65535 sec				
	TPM	TPM2.0				
Expansion	M.2 E-Key	1 x E-Key 2230 (PCIe x2, USB2.0)				
	M.2 B-Key	1 x B-Key 3042/ 3052 (USB2.0 / Opt. PCIe x2) w/ Nano-SIM				
	M.2 M-Key	2 x M-Key 2280 (PCIex4 Gen.4 NVMe)				
Power	Supply Voltage	Vin: DC 12~24V +/- 10%; RTC Battery: Lithium 3V/210mAH				
	Connector	ATX 2x2 pin 90D, optional DC-Jack or ATX 2x2 pin 180D*				
	Power Management	AT, ATX				
Environment	Temperature	Operating: Standard: 0 ~ 60 °C (32 ~ 140 °F) with 0.7m/s airflow 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	CE, FCC Class B				
Mechanical	Dimensions	146 x 102 mm (5.7" x 4")				

*Optional function support by request
**Coinless support by customized BIOS

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All product specifications are subject to change without notice.

Block Diagram



Ordering Information

Part No.	CPU	Core	TDP	Thermal Solution	Operating Temperature
MIO-5379C7P-R1A1	Core Ultra 7, 255H	16C/6P+8E	28W	Active Cooler	0~60° C
MIO-5379C7P-Q8A1	Core Ultra 7, 155H	16C/6P+8E	28W	Active Cooler	0~60° C
MIO-5379C7-R2A1	Core Ultra 7, 155U	12C/2P+8E	15W	Passive Heatsink	0~60° C
MIO-5379C5P-Q5A1	Core Ultra 5, 125H	14C/4P+8E	28W	Active Cooler	0~60° C
MIO-5379C5-Q8A1	Core Ultra 5, 125U	12C/2P+8E	15W	Passive Heatsink	0~60° C

Packing List

Part No.	Description	Quantity
	MIO-5379 SBC	
1700030406-01	USB 2.0 Cable 20cm	1
1700031582-01	COM2~4, COM RS-232 4-Wire Cable, D-SUB 9P(M) 20cm	3
1700030404-01	COM1 RS-232/422/485 Cable 20cm	1
1970005512T001	Active cooler for TDP 28W CPU	1
1970005973T001	Passive heatsink for TDP 15W CPU	1

Optional Accessories

Part No.	Description
1970005998T001	Heat spreader
MIOE-TCPD-P1A1	MIOe-TCPD Module
1700035016-01	4 wires COM RS-422/485 cables
1960103315N020	M.2 3042/3052 Extension Bracket

Rear I/O View



Embedded OS/API

OS	Part No.	Description
WIN11	20706WLH1S0106	Windows 11 IoT Enterprise 2024 LTSC High-End for Core Ultra 7
WIN11	20706WLV1S0106	Windows 11 IoT Enterprise 2024 LTSC Value for Core Ultra 5
Ubuntu	20706U24DS0023	Ubuntu 24.04 LTS Desktop
Software API	Download by website	SUSI v4.0

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Compatible Expansion Boards

MIOe-TCPD



Specifications

Power	Output Power Voltage	20V 5A
	USB Power Delivery Standard	PD 2.0
	Max. Power	100watt
	Input DC Voltage	12-24V
Environment	Temperature	Operating: -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	CE, FCC Class B
Compatibility	Compatible SBC	MIO-5379 series
Mechanical	Dimensions	70 x 40 x 1.6 mm

Ordering Information

Part No.	Description
MIOE-TCPD-P1A1	MIOe-TCPD 100W PD module

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