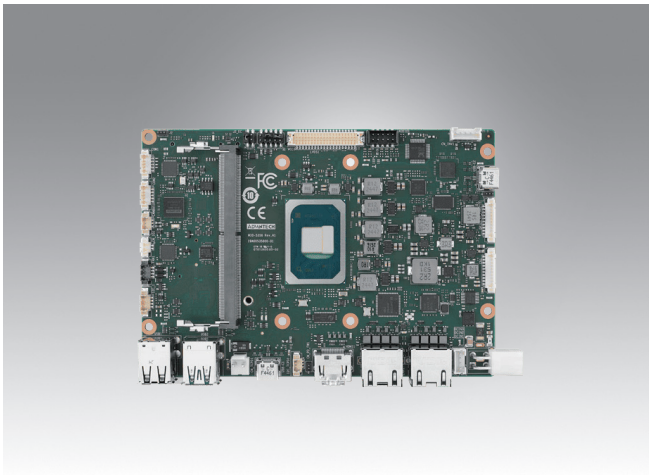
MIO-5356

Intel® Core™ Series 3 Processors



Features

- DDR5-6400 up to 64GB
- Optional MIOe-TCPD module supports USB-C PD 100W
- 3 simultaneous displays: HDMI + USB Type-C + LVDS
- Support EdgeBMC for OOB(Out-of-Band) remote control

Software APIs: GPIO, SMBus/I²C, Watch Dog Timer, Backlight On/Off, Brightness

Ubuntu Windows 11 DeviceOn EdgeBMC CE FC

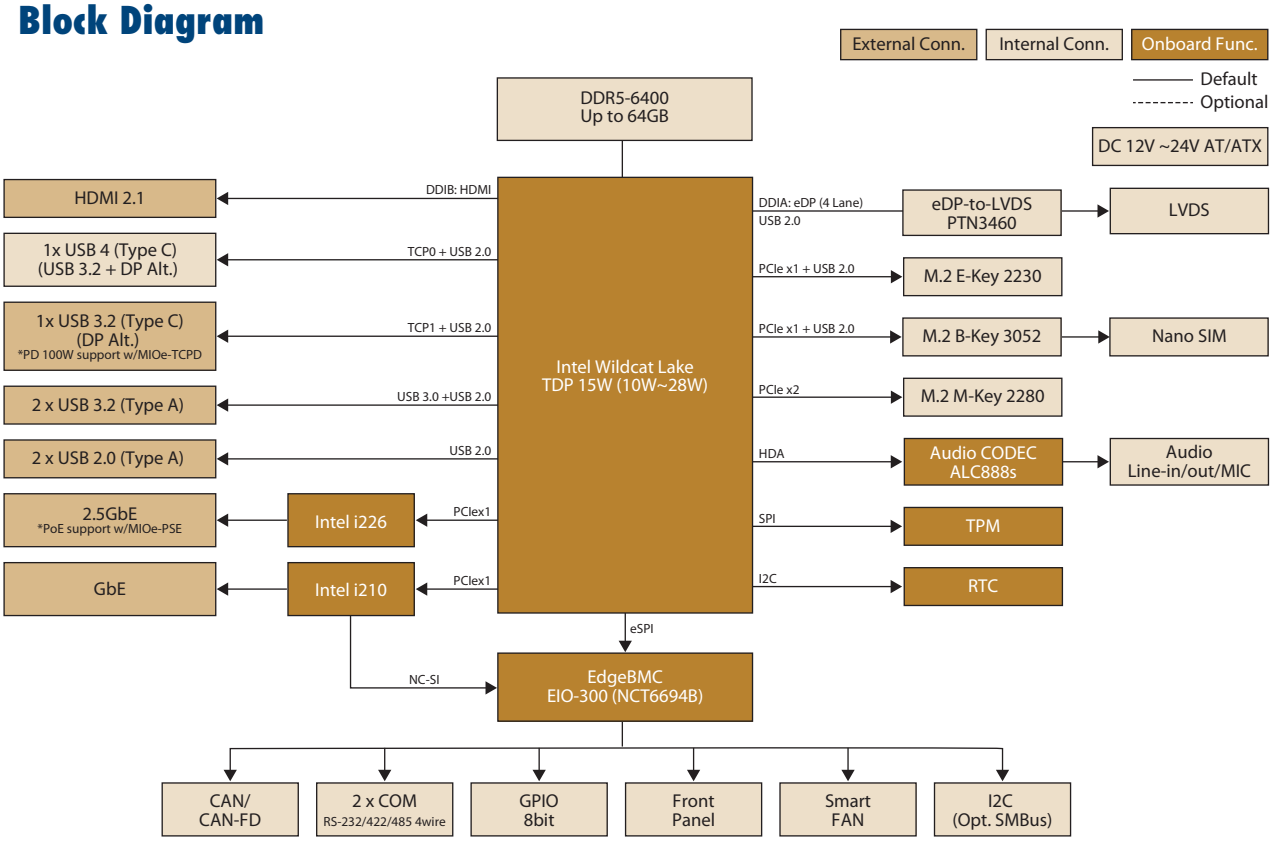
Specifications

Platform	Processor	Core 7, 350	Core 5, 320	Core 3, 304
	Max. Frequency	4.8 GHz	4.6 GHz	4.3 GHz
	Base Frequency	1.5 GHz	1.5 GHz	1.5 GHz
	Core	2P+0E+4LPE	2P+0E+4LPE	1P+0E+4LPE
	CPU TDP	15W	15W	15W
Memory	Technology	DDR5-6400 SDRAM		
	Max. Capacity	Up to 64GB		
Graphics	Controller	Intel® Graphics	Intel® Graphics	Intel® Graphics
	Max. Frequency	2.6 GHz	2.5 GHz	2.3 GHz
	Number of Execution Units	32	32	16
Display I/F	DP	1 x DP 1.4a, 1 x DP2.1		
	HDMI	HDMI 2.1		
	LVDS	LVDS		
	Multiple Display	3 simultaneous displays: HDMI + USB Type-C + LVDS		
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	1/2		
	USB3.2/2.0	2/2		
	Power DC-Jack	4-pin 90D ATX connector		
Internal I/O	USB	1 x USB-C 4.0		
	Serial Bus	1 x I2C (Optional SMBus)		
	COM Port	2 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	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 remote control, remote BIOS update support by request		
	Watchdog Timer	65536 level, 0~65535 sec		
	TPM	TPM2.0		
Expansion	M.2 E-Key	1 x E-Key 2230 (PCIe x 1, USB2.0)		
	M.2 B-Key	1 x B-Key 3052 (PCIe x 1, USB2.0) w/ Nano-SIM		
	M.2 M-Key	1 x M-Key 2280 (PCIe x 2)		
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	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")		

All product specifications are subject to change without notice.

Last updated: 25-Nov-2026

Block Diagram



Ordering Information

Part No.	CPU	NPU TOPS	GPU TOPS	Thermal Solution	Operating Temperature
MIO-5356C7-Q8A1	Core 7, 350	17	21	Passive Heatsink	0~60° C
MIO-5356C5-Q6A1	Core 5, 320	16	20	Passive Heatsink	0~60° C
MIO-5356C3-Q3A1	Core 3, 304	15	9	Passive Heatsink	0~60° C
MIO-5356C7X-Q8A1	Core 7, 350	17	21	Active Cooler	-40~85° C
MIO-5356C5X-Q6A1	Core 5, 320	16	20	Active Cooler	-40~85° C
MIO-5356C3X-Q3A1	Core 3, 304	15	9	Active Cooler	-40~85° C

Packing List

Part No.	Description	Quantity
	MIO-5356 SBC	
1970006452T001	Passive Heatsink (for 0~60° C)	1
1970006551T001	Active Cooler (for -40~85° C)	1

Optional Accessories

Part No.	Description
1970006535T001	Heat spreader
MIOE-TCPD	MIOe-TCPD Module
1700031582-01	COM RS-232/422/485 Cable 20cm

Rear I/O View



Embedded OS/API

OS	Part No.	Description
Window 11	20706WLV1S0151	IoT Enterprise LTSC 2024
Ubuntu	TBD	Ubuntu Desktop 24.04 LTS