
Datasheet

ADVANTECH

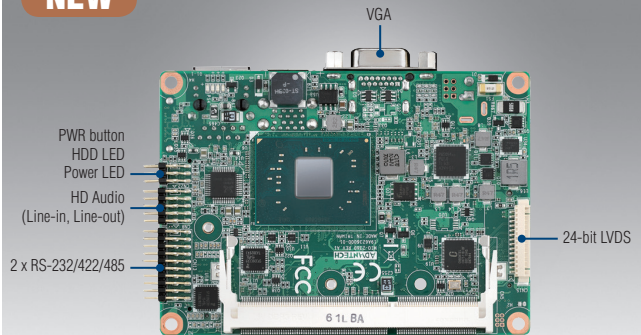
MIO-2360

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MIO-2360

Intel® Pentium N4200/Celeron N3350/Atom™ E3940/ Atom™ E3930 Pico-ITX SBC, DDR3L, 24-bit LVDS, VGA/HDMI, 1 GbE, Half-size Mini PCIe, 4 USB, 2 COM, SMBus, mSATA & MIOe

NEW



Features

- Embedded Intel® Pentium N4200/Celeron N3350/Atom™ E3940/ Atom™ E3930, DDR3L 1866MHz support up to 8GB
- Intel Gen 7 DirectX®11.1 support
- Dual independent display by 24-bit LVDS+VGA/HDMI
- Flexible design using integrated multiple I/O: MIOe to approach vertical applications & keep domain knowhow
- Rich I/O interface with 2 COM, 1 SATA, USB3.0, PCIe Mini Card and mSATA
- Supports WISE-PaaS/RMM and Embedded Software APIs

Software APIs:



Utilities:

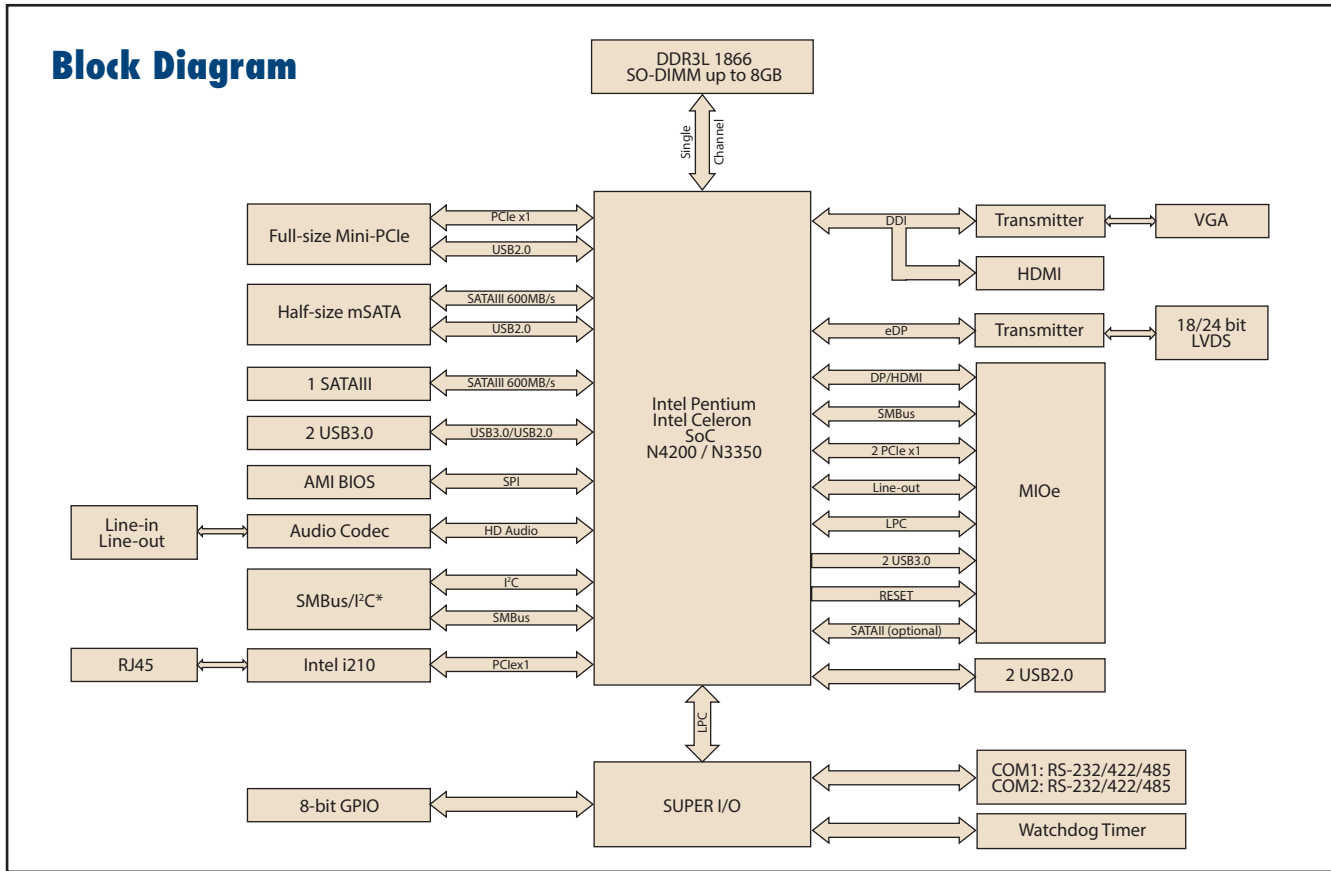


Specifications

	CPU	Pentium N4200	Intel Celeron N3350	Intel Atom E3940	Intel Atom E3930
Processor System	Frequency	1.10 GHz (Quad-Core)	1.10 GHz (Dual-Core)	1.60 GHz (Quad-Core)	1.30 GHz (Dual-Core)
	L2 Cache	2 MB			
	Max Turbo Frequency	2.50 GHz	2.40 GHz	1.80 GHz	1.80 GHz
	System Chipset	Intel Celeron / Atom SoC processor integrated			
	BIOS	AMI EFI 64 Mbit			
Memory	Technology	DDR3L 1866 MHz			
	Max. Capacity	8 GB			
Display	Socket	1 x 204-pin SODIMM (Support 1.35V DDR3L)			
	Chipset	Intel® Celeron/Atom SoC integrated			
	Graphic Engine	TBD			
	LVDS	Supports single channel 24-bit LVDS Resolution: 1440 x 900 at 60Hz			
Ethernet	VGA	Up to 1920 x 1200 at 60Hz			
	HDMI	Up to 3840 x 2160 at 30Hz			
	Dual Display	Yes (VGA+LVDS+MIOe or HDMI+LVDS+MIOe)			
Audio	Speed	10/100/1000 Mbps			
	Controller	Intel i210			
	Connector	RJ45 on rear I/O			
Watchdog Timer	Chipset	Realtek ALC888S, High Definition Audio (HD), Line-in, Line-out			
		Output system reset, programmable counter from 1-255 minutes/ seconds			
Storage	mSATA	1 x half size mini PCIe slot			
	SATA	1, up to 6Gb/s (600MB/s)			
Rear I/O	Ethernet	1			
	VGA	1			
	USB	2 x USB 3.0			
	DC Power Jack*	1			
Internal I/O	USB	2 x USB 2.0			
	Serial	2 x RS-232/422/485 from COM1 & COM2 with auto-flow control (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV)			
	SMBus	1			
	GPIO	8-bit general purpose input/ output			
Expansion	Mini PCI Express	1 x Full-size			
	MIOe	SMBus, 2 x USB3.0, LPC, 2 x PCIe x1, line out, DisplayPort/HDMI*, +5 Vsb/+12 Vsb power, Power On, Reset, SATA*			
Power	Power Type	Single 12V DC power input (Supports DC power hot plug)			
	Power supply voltage	Supports single 12V input, ±10%			
	Total peripheral power supply output	5V @ 3A for CPU board and MIOe module totally, 12V @ 2A for MIOe module			
	Power Consumption (Typical)	N3350:	0.41 @ 12V (4.89 W)		
		E3940:	TBD		
		E3930:	TBD		
Power Consumption (Max, test in HCT)	N3350:	1.09 A @ 12 V (12.90 W)			
	E3940:	TBD			
	E3930:	TBD			
Power Management	ACPI				
Battery	Lithium 3V/ 210mAh				
Environment	Operation	0 - 60° C with air flow 0.7m/s (32 - 140° F) (Operational humidity: 40° C @ 95% RH Non-Condensing)			
	Non-Operation	-40° C - 85° C and 60° C @ 95% RH non-condensing			
Physical Characteristics	Dimensions (L x W)	100 x 72 mm (3.9" x 2.8")			
	Weight	0.47 kg (1.04 lb), weight of total package			
	Total Height	34.10 mm			

* Support by request

Block Diagram



Ordering Information

Part Number	CPU	L2 Cache	Memory	LVDS	VGA	HDMI	Audio	RS-232	RS-232/422/485	USB 3.0	USB 2.0	mSATA	SATA III	MIOe	Mini PCIe	Thermal solution	Operating Temp
MIO-2360N-S2A1E	N4200, 2.50 GHz	2M	SO-DIMM	24-bit	Yes	-	Yes	1	1	2	2	Yes	1	Yes	Full-size	Passive	0 ~ 60° C
MIO-2360N-S1A1E	N3350, 2.40 GHz	2M	SO-DIMM	24-bit	Yes	-	Yes	1	1	2	2	Yes	1	Yes	Full-size	Passive	0 ~ 60° C
TBD	Intel Atom E3940 1.80 GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TBD	Intel Atom E3930 1.80 GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Default BIOS supports 64 bits OS installation, BIOS for 32 bits OS installation is supported by project.

Packing List

Part No.	Description	Quantity
	MIO-2360 SBC	1
	Startup Manual	1
1700006291	SATA cable 30cm	1
1700027546-01	A cable 1*5P-2.0/1*5P-2.0+SATA 15P 15cm MIO-2360	1
1701200220	RS-232 x 2 ports 2.0mm pitch 22cm	1
1700022444-01	Audio cable 2.0 mm pitch 20 cm (line-in & line-out)	1
1700002172	USB cable 2.0 mm pitch USB-A(F) 17 cm	1
1700019705	AT power cable 12 cm	1
9666226300E	Screw and stud pack (2 screw for Mini PCIe, 4 x M3 studs and screws for heatsink)	1
1960078695T001	CPU heatsink for MIO-2360	1

Optional Accessories

Part No.	Description
TBD	MIO-2360 Heat spreader

Embedded OS/API

Embedded OS/API	Part No.	Description
WIN10	TBD	64-bit (ENG)
VxWorks	TBD	
Linux	TBD	
Software API	TBD	SUSI V4.0

Rear I/O View



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