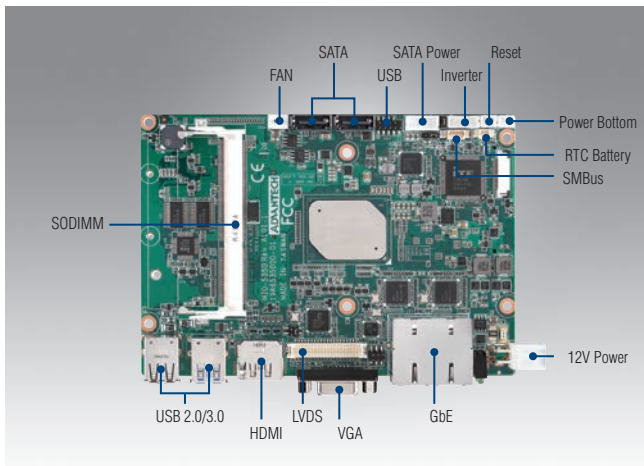


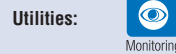
# MIO-5350

## Intel® Pentium N4200 Celeron N3350 & Atom™ E3950/E3940/E3930, 3.5" SBC w/ MIOe



### Features

- Intel® Pentium N4200 & Celeron N3350, Atom™E3950, E3940, E3930, DDR3L 1866MHz, up to 8GB
- Triple display: VGA+LVDS/eDP\*+ HDMI/DP\*
- 2 Intel i210 GbE, rich I/O: 4COM, 2 SATA, 2 USB 3.0, SMBus/I<sup>2</sup>C, GPIO
- 3 Expansions: M.2 E-Key, full-size mSATA, MIOe
- Supports iManager & Software APIs, WISE-DeviceOn



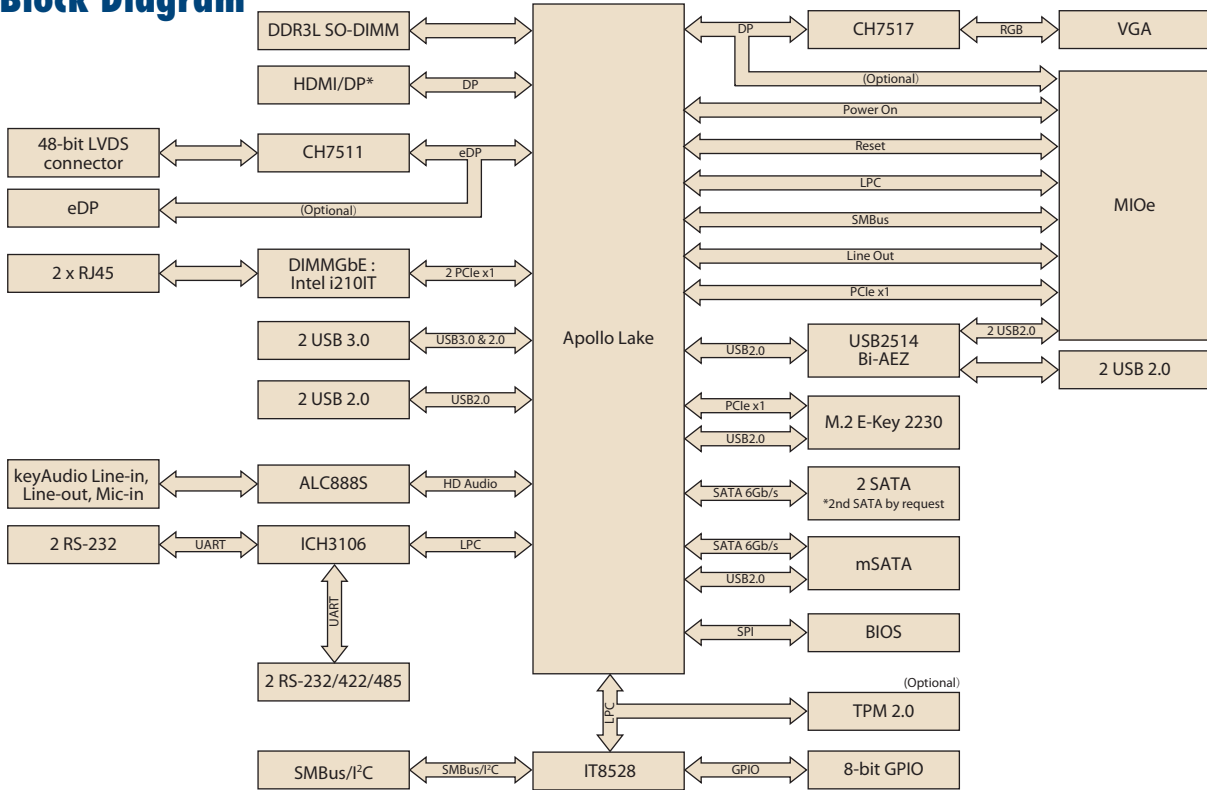
iManager WISE-PaaS/RMM CE FCC

### Specifications

Processor System	CPU	Intel Pentium 4200	Intel Celeron N3350	Intel Atom E3950	Intel Atom E3940	Intel Atom E3930
	Base Frequency	1.1 (Quad-Core)	1.1 (Dual-Core)	1.6 (Quad-Core)	1.6 (Quad-Core)	1.3 (Dual-Core)
	Burst Frequency	2.5	2.4	2	1.8	1.8
	L2 Cache	2	2	2	2	2
	BIOS	AMI UEFI BIOS at 64 Mb				
Memory	Technology	DDR3L 1866MHz				
	Max. Capacity	8 GB				
	Socket	1 x 204-pin SODIMM				
Display	Controller	Intel Gen9 Graphic engine				
	Graphic Features	DirectX 12.0, OpenGL 4.3, OpenCL 2.0				
	VGA	HW Decode: H.264, MPEG2, VC-1, WMV9, H.265/HEVC, VP8, JPEG/MJPEG				
	LVDS	Maximum Resolution up to 1920 x 1200				
	eDP*	48 bit LVDS up to 1.4b (3840 x 2160 @ 30Hz)				
	HDMI / DP*	Supports 3.3/5/12V for VDD power, 5/12V for inverter				
	Mult-Display	v1.4 4096 x 2160 @ 60Hz				
Ethernet	Speed	10/100/1000Mbps				
	Controller	Intel i210				
	Connector	2 RJ45				
	Audio	Codec	Realtek ALC888S, High Definition Audio (HD), Line-in, Line out, Mic-in			
WatchDog Timer	Amplifier*	Optional via MIOe				
Storage	Output	System reset, Programmable counter from 1 ~ 255 minutes/ seconds				
	Storage	SATA	2 (2nd SATA is by request), up to 6 Gb/s			mSATA
Rear I/O	Ethernet	2 (10/100/1000Mbps)				
	VGA	1				
	HDMI / DisplayPort*	1				
	USB 2.0	2				
	USB 3.0	2				
	LED	Power, HDD				
	DC Jack*	1				
Internal I/O	Serial	2 x RS-232 from COM1/2, 2 x RS-232/422/485 from COM3/4 with auto flow control (ESD protection: air gap ±15kV, contact ±8kV)				
	USB 2.0	2				
	I <sup>2</sup> C	1 (Shared with SMBus pin)				
	SMBus	1				
Security	GPIO	8-bit (5V tolerance)				
	TPM2.0*	Support by request				
Expansion	mSATA	Full size mSATA (SATA Gen.3, USB2.0)				
	M.2 E-Key	1x E-Key 2230 (PCIe x1, USB2.0)				
	MIOe	SMBus, 3 x USB2.0, LPC, 1 x PCIe x1, line out, DisplayPort*, +5 Vsb/+12 Vsb power, Power On, Rest				
Power	Power Type	Single 12V DC power input				
	Power Supply Voltage	12V ± 10%				
	Power Consumption (Typical)	N4200: 0.4A @ 12V (4.80W) N3350: 0.4A @ 12V (4.80W)				
	Power Consumption (Max, test in HCT)	N4200: 1.26A @ 12V (15.12W) N3350: 1.29 @ 12V (15.48W)				
	Power Management	ACPI				
	Battery	Lithium 3 V / 210 mAH				
Environment	Operating: Standard	0 ~ 60 °C (32 ~ 140 °F), Extend: -40 ~ 85 °C (-40 ~ 185 °F)				
	Operating humidity	40 °C @ 95% RH Non-Condensing				
Physical Characteristics	Dimensions (L x W)	146 x 102 mm (5.7" x 4"), same as 3.5"				
	Weight	0.5kg (1.1lb), weight of total package				
	Height	Top Side: 19 mm; Bottom Side: 6.8 mm; PCB: 1.6 mm				

\* This specification is supported by request

## Block Diagram



## Ordering Information

Part No.	CPU	L2 Cache	Memory	LVDS/eDP*	VGA	HDMI/DP*	GbE	Audio	RS-232/422/485	RS-232	USB 3.0	USB 2.0	SATA III	Msata	MIOe	Power Connector	Thermal solution	Operating Temp
MIO-5350N-S2A2	Intel Pentium N4200	2MB	SODIMM	48-bit	1	1/0	2	Yes	2	2	2	4	1	Full-size	Yes	2x2pin	Passive	0-60°C
MIO-5350N-S1A2	Intel Celeron N3350	2MB	SODIMM	48bit	1	1/0	2	Yes	2	2	2	4	1	Full-size	Yes	2x2pin	Passive	0-60°C
MIO-5350EW-S7A2	Intel Atom E3950	2MB	SODIMM	48-bit	1	1/0	2	Yes	2	2	2	4	1	Full-size	Yes	2x2pin	Passive	-40-85°C
MIO-5350EW-S6A2	Intel Atom E3940	2MB	SODIMM	48-bit	1	1/0	2	Yes	2	2	2	4	1	Full-size	Yes	2x2pin	Passive	-40-85°C
MIO-5350EW-S3A2	Intel Atom E3930	2MB	SODIMM	48-bit	1	1/0	2	Yes	2	2	2	4	1	Full-size	Yes	2x2pin	Passive	-40-85°C

Note: passive=fanless

## Packing List

Part No.	Description	Quantity
	MIO-5350 SBC	1
2006535000	Startup Manual	1
1960078474T021	MIO-5350 Heatsink for N3350/ N4200	1
1970004560T011	MIO-5350 Heatsink for E39XX series	1
1700006291	M Cable SATA 7P/SATA 7P 30cm C=R 180/90	1
1700018785	SATA 35cm power cable	1
1701200220	COM RS-232 Cable 2*10P-2.0/D-SUB 9P (M)*2 22CM	2
1700019584	Audio Cable 2*5P-2.0/JACK*3 20cm mini Jumper pack	1

## Optional Accessories

Part No.	Description
96PSA-A60W12R1-3	ADP A/D 100-240V 60W 12V C14 DC PLUG 90°
1700021335-41	Adapter cable 20cm (DC Jack to ATX)
1703100264	Internal 1 port USB cable 22.5cm
1960084261N031	MIO-5350 Heatspreader for N3350/ N4200
1960084261N021	MIO-5350 Heatspreader for E39XX

## Embedded OS/API

Embedded OS/API	Part No.	Description
Win10	2070015276	64bit (ENG)
Linux		Ubuntu 14.04
VxWorks		6.9.3.3
Android		Kit Kat 4.4
Software API		iManager 2.0

## Rear I/O View

