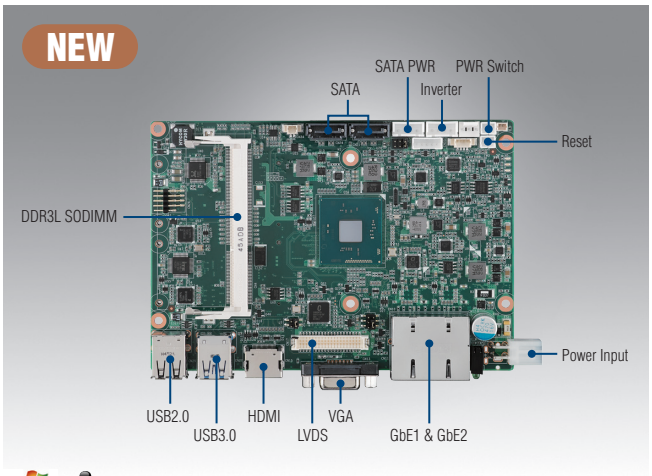
PCM-9310

Intel® Celeron N3160/N3060 SoC, Intel® Atom E8000 SoC, 3.5" SBC



Windows Embedded

iManager WISE-PaaS/RMM CE FCC

Features

- Intel® Celeron QC/DC SoC, Intel® Atom QC
- DDR3L-1600MHz SODIMM up to 8GB
- DirectX11.1, OpenGL4.2, OpenCL1.2, 3 independent display: VGA + HDMI + LVDS/eDP*
- Rich I/O: 4 x COM, 2 x SATA, 2 x USB3.0, 4 x USB2.0, TPM2.0, SMBus/I²C, GPIO, full-size Mini PCIe w/ SIM holder, full-size mSATA
- Supports SUSI API

Software APIs: GPIO, H/W Monitor, Brightness, Watchdog, Backlight On/Off, I²C, CPU Speed, System Throttling

Utilities: Monitoring

Specifications

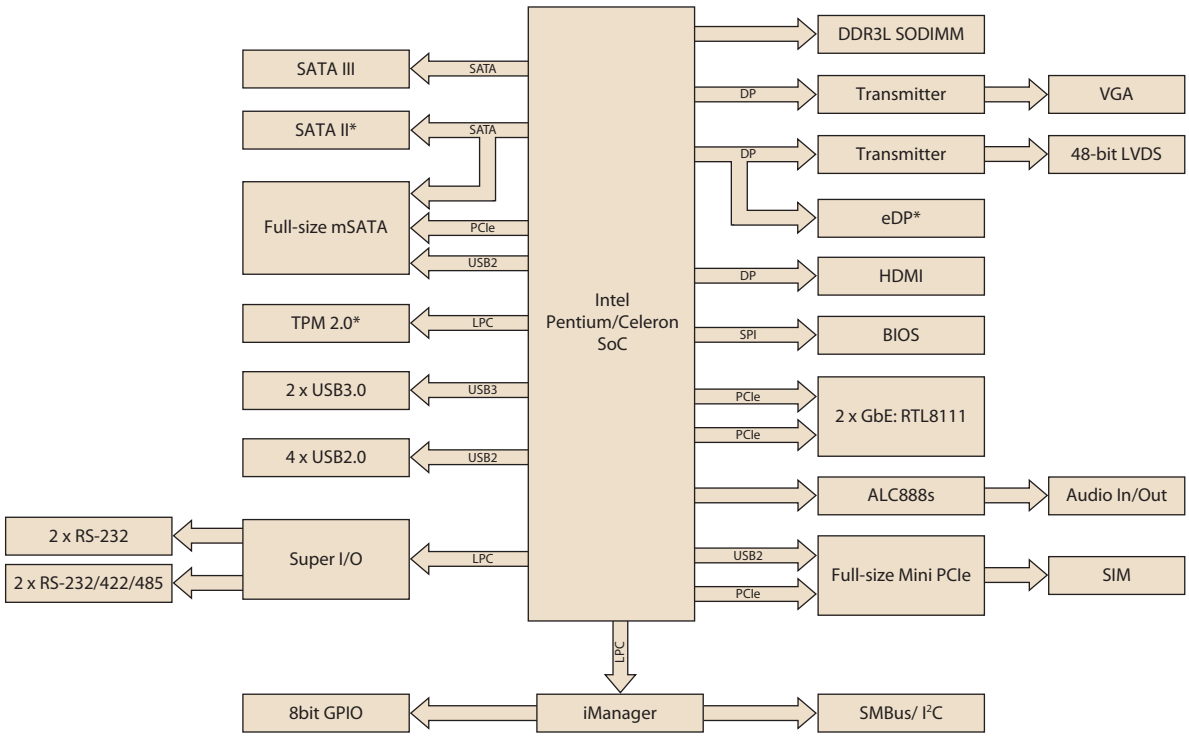
Processor System	CPU	Intel Celeron N3160	Intel Celeron N3060	Intel Atom E8000
	Base Frequency	1.6 GHz (Quad-Core)	1.6 GHz (Dual-Core)	1.04 GHz (Quad-Core)
	Burst Frequency	2.24 GHz	2.48 GHz	2.00 GHz
	L2 Cache	2MB		
	BIOS	AMI UEFI BIOS at 64 Mb		
Memory	Technology	DDR3L-1600MHz		
	Max. Capacity	8 GB		
	Socket	1 x 204-pin SODIMM		
Display	Controller	Intel® HD Graphics 400		
	Graphic Features	DirectX11.1, OpenGL4.2, OpenCL1.2 (OpenCL not for Win7) HW Decode: H.265/HEVC @ level 5, H.264 @ Level 5.2, MPEG2, MVC, VC-1, WMV9, JPEG, VP8. HW Encode: H.264 @ Level 5.1, MVC, JPEG		
	VGA	1920 x 1200 at 60Hz		
	LVDS	Single/dual-ch 18/24bit up to 1920 x 1200 at 60Hz 3.3/ 5/ 12V for VDD power, 5/12V for inverter		
	eDP*	eDP 1.3 up to 2560x1440 (Optional)		
	HDMI	HDMI 1.4b up to 2560x1600 at 60Hz		
	3 Independent Display	VGA + HDMI + LVDS/eDP*		
Ethernet	Speed	10/100/1000Mbps		
	Controller	RTL8111E		
	Connector	2 RJ45		
Audio	Codec	ALC888s, High Definition Audio (HD), Line-in, Line out, Mic-in		
WatchDog Timer		Output System reset, Programmable counter from 1 ~ 255 minutes/ seconds		
Storage	SATA	1 x SATA III up to 600 MB/s 1 x optional SATA II up to 300 MB/s		
	mSATA	1 x Full-size (support Mini PCIe by request)		
Rear I/O	Ethernet	2 (10/100/1000Mbps)		
	VGA	1		
	HDMI	1		
	USB 2.0	2		
	USB 3.0	2		
	LED	Power, HDD		
	DC Jack*	1 (Optional)		
Internal I/O	Serial	2 x RS-232, 2 x RS-232/422/485 with auto flow control (ESD protection: air gap ±15kV, contact ±8kV)		
	USB2.0	2		
	I²C	1 (Shared with SMBus pin)		
	SMBus	1 (Shared with I²C pin)		
	GPIO	8-bit (5V tolerance)		
Expansion	Mini PCIe	1 x full-size with SIM holder 1 x full-size (default support mSATA)		
Power	Power Type	Single 12V DC power input		
	Power Supply Voltage	12V ± 10%		
	Power Consumption (Typical)	0.58 A @ 12 V (7.05 W)	0.38 A @ 12 V (4.55 W)	0.58A @ 12V (6.95W)
	Power Consumption (Max)	1.03A @ 12 V (12.27 W)	0.85A @12 V (10.20 W)	0.85A @ 12 V (10.20W)
	Power Management	ACPI		
	Battery	Lithium 3 V / 210 mAH		
Environment	Operational	0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 95% RH Non-Condensing)		
	Non-Operational	-40° C ~ 85° C and 60° C @ 95% RH Non-Condensing		
Physical Characteristics	Dimensions (L x W)	146 x 102 mm (5.7" x 4")		
	Weight	0.6 kg (1.2 lb)		
	Height			

* The specification is supported by request

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All product specifications are subject to change without notice.

Block Diagram



Ordering Information

Part No.	CPU	L2 Cache	Memory	LVDS	VGA	HDMI	GbE	Audio	RS-232/ 422/485	RS-232	USB 3.0	USB 2.0	SATA III	Mini PCIe	mSATA	Power connector	Thermal Solution*	Operation Temp.
PCM-9310CQ-S6A1E	Intel N3160 2.24 GHz 6W	2MB	SODIMM	48-bit	Yes	1	2	Yes	2	2	2	4	1	Full-size	Full-size	2 x 2pin	Passive	0 ~ 60° C
PCM-9310CQ-S6A1N	Intel N3160 2.24GHz 6W	2MB	SODIMM	48-bit	Yes	1	2	No	2	2	2	4	1	Full-size	Full-size	2 x 2pin	Passive	0 ~ 60° C
PCM-9310CD-S6A1E	Intel N3060 2.48 GHz 6W	1MB	SODIMM	48-bit	Yes	1	2	Yes	2	2	2	4	1	Full-size	Full-size	2 x 2pin	Passive	0 ~ 60° C
PCM-9310AQ-S6A1E	Intel E8000 2.00GHz 5W	2MB	SODIMM	48-bit	Yes	1	2	Yes	2	2	2	4	1	Full-size	Full-size	2 x 2pin	Passive	0 ~ 60° C

Note1: passive=fanless

Packing List

Part No.	Description	Quantity
	PCM-9310 SBC	1
	Startup Manual	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	1
9689000002	mini Jumper pack	1
1960071176T001	Heatsink	1

Optional Accessories

Part No.	Description
1960075286T001	Heat spreader
1703100260	Internal USB cable

Embedded OS/API

Embedded OS/API	Part No.	Description
Win10	2070015309	64bit
Win8.1		64bit
WES7	2070014560	64bit
VxWorks		(TBD)
Software API		SUSI API

Rear I/O View



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