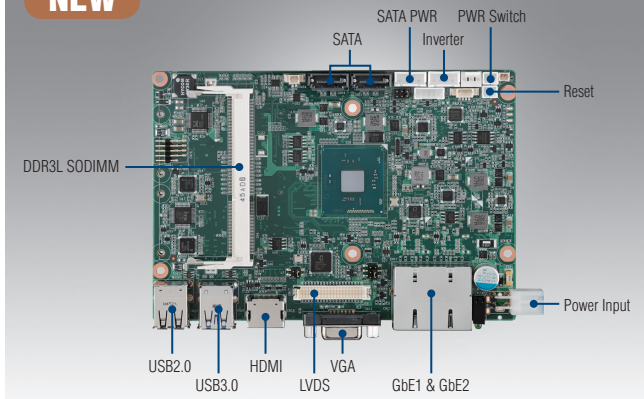


PCM-9310

**Intel® Celeron N3160/N3060 SoC,
Intel® Atom E8000 SoC, 3.5" SBC,
DDR3L, VGA, HDMI, 48-bit LVDS, 2GbE,
Mini PCIe, mSATA, SUSI API**

NEW



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:



Utilities:

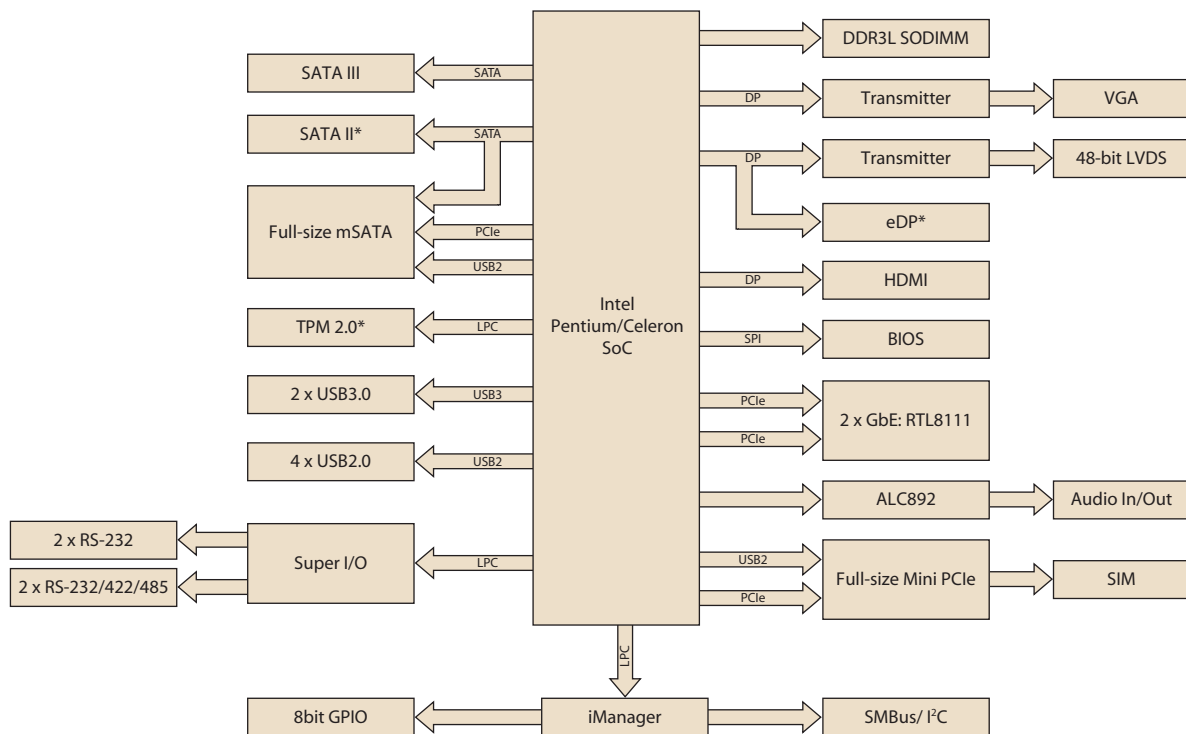


Specifications

| | | Intel Celeron N3160 | Intel Celeron N3060 | Intel Atom E8000 |
|--------------------------|-----------------------------|--|------------------------|-----------------------|
| 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 | | |
| Memory | BIOS | AMI UEFI BIOS at 64 Mb | | |
| | Technology | DDR3L-1600MHz | | |
| Memory | 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 | | |
| Ethernet | 3 Independent Display | VGA + HDMI + LVDS/eDP* | | |
| | Speed | 10/100/1000Mbps | | |
| Ethernet | Controller | RTL8111E | | |
| | Connector | 2 RJ45 | | |
| Audio | Codec | ALC892, 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 | | |
| Internal I/O | DC Jack* | 1 (Optional) | | |
| | 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 | | |
| | I ² C | 1 (Shared with SMBus pin) | | |
| Expansion | SMBus | 1 (Shared with I ² C pin) | | |
| | GPIO | 8-bit (5V tolerance) | | |
| | 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 | | |
| Environment | Battery | Lithium 3 V / 210 mAh | | |
| | Operational | 0 – 60° C (32 – 140° F) (Operational humidity: 40° C @ 95% RH Non-Condensing) | | |
| Physical Characteristics | Non-Operational | -40° C – 85° C and 60° C @ 95% RH Non-Condensing | | |
| | 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

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-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

