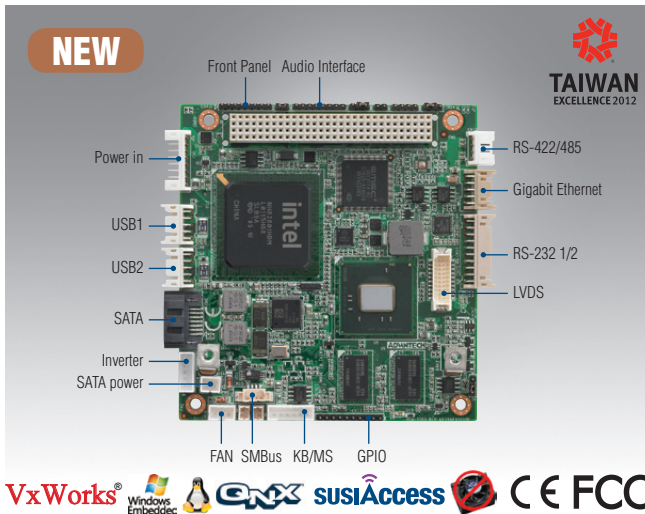


PCM-3363

Intel® Atom™ N455/D525 PCI-104 SBC, VGA, LVDS, Ethernet, USB, COM, SATA, Onboard Memory



Features

- Intel® Atom N455 1.66 GHz Single Core/D525 Dual Core 1.8 GHz Processor
- Supports extended temperature -40 ~ 85° C
- 24-bit LVDS support and onboard 1 GB DDR3 800 MHz memory
- HALT tested and 100% locked connector
- Supports Lite iManager, SUSIAccess and Embedded Software APIs

Software APIs:

- Watchdog
- SMBus
- I²C
- Brightness
- H/W Monitor
- GPIO
- Backlight On/Off
- CPU Speed
- System Throttling

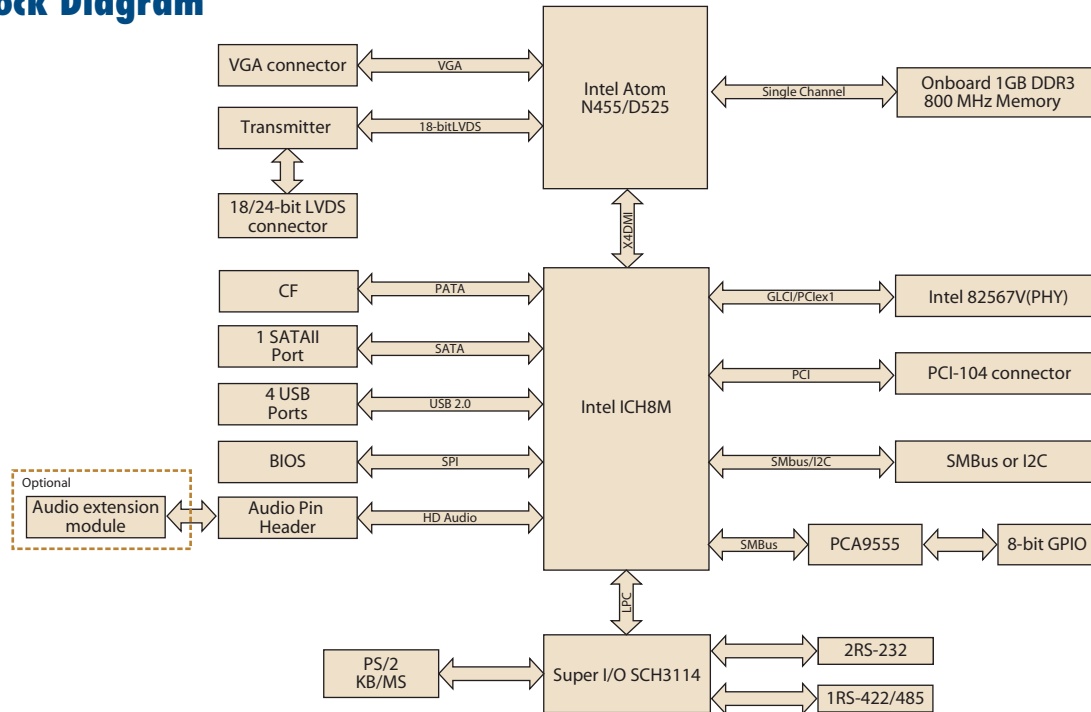
Utilities:

- Monitoring
- Embedded Security ID

Specifications

| | | | |
|--------------------------|--------------------------------------|---|---|
| Processor System | CPU | Intel Atom N455 Single Core 1.66 GHz Intel Atom D525 Dual Core 1.8 GHz | |
| | Frequency | 1.66 GHz/1.8 GHz | |
| | L2 Cache | 512 KB/1 MB | |
| | System Chipset | Intel Atom N455/D525 + ICH8M | |
| | BIOS | AMI 16 Mbit | |
| Memory | Technology | DDR3 800 MHz | |
| | Max. Capacity | 1 GB | |
| | On board memory | 1GB DDR3 800 MHz Memory | |
| Display | Chipset | Intel Atom N455/D525 | |
| | VRAM | Shared system memory up to 224 MB | |
| | Graphics Engine | Intel Atom N455 Single Core: | Gen 3.5 graphic core, DX9 compliant, MPEG2 Hardware Acceleration, 200 MHz |
| | | Intel Atom D525 Dual Core: | Gen 3.5 graphic core, DX9 compliant, MPEG2 Hardware Acceleration, 400 MHz |
| | LVDS | Single channel 18/24-bit single channel LVDS up to 1366 x 768 (WXGA) | |
| | VGA | Intel Atom N455 Single Core up to 1400 x 1050(SXGA) Intel Atom D525 Dual Core up to 2048 x 1536 | |
| Dual Display | VGA+LVDS | | |
| Ethernet | Interface | 10/100/1000 Mbps | |
| | Controller | ICH8M + Intel 82567V (PHY), support Wake-on-LAN | |
| | Connector | Locked Box Header | |
| WatchDog Timer | | Output System Reset, Programmable counter from 1 ~ 255 minutes/ seconds | |
| Storage | CompactFlash | 1 CompactFlash socket (Type I/II) | |
| | SATA | SATAII, up to 3.0 GB/s (300 MB/s) | |
| Internal I/O | USB | 4 x USB 2.0 | |
| | Serial | 2 RS-232 from COM1/2, 1 RS-422/485 from COM3 (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV) | |
| | SMBus | 1 (configurable to I ² C by customer's request) | |
| | Keyboard/Mouse | 1 | |
| | GPIO | 8-bit general purpose input/output | |
| | Audio | Intel High Definition audio interface (requires an audio extension module P/N: PCA-AUDIO-HDA1E) | |
| Expansion | PCI-104 slot | 1 | |
| Power | Power Type | ATX/AT | |
| | Power Supply Voltage | 5 V ± 5% only to boot up (12 V is optional for LCD inverter and add on card) | |
| | Power Management | ACPI | |
| | Power Consumption (Typical) | N455: 1.404A @ +5 V (7.02 Watt); D525: 1.85 A @ +5 V (9.25 Watt) | |
| | Power Consumption (Max, test in HCT) | N455: 2.365A @ +5 V (11.825 Watt); D525: 2.695 A @ +5 V (13.475 Watt) | |
| 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) | 96 x 90 mm (3.8" x 3.5") | |
| | Weight | 0.664 kg (1.46 lb) (with heat-sink) | |
| | Height | Top Side: 14.4 mm, 19.4 mm (D, Z & Z2); Bottom Side: 10.6 mm | |

Block Diagram



Ordering Information

| Part Number | CPU | L2 Cache | Memory | VGA | LVDS | GbE | USB 2.0 | RS-232 | RS-485 | Expansion | Thermal Solution | Operating Temp |
|--------------------|----------------------|----------|-------------------|-----|-----------|-----|---------|--------|--------|-----------|------------------|----------------|
| PCM-3363N-1GS6A1E | Atom N455 (1.66 GHz) | 512 KB | Onboard 1 GB DDR3 | 1 | 18/24-bit | 1 | 4 | 2 | 1 | PCI-104 | Passive | 0 ~ 60° C |
| PCM-3363D-1GS8A1E | Atom D525 (1.8 GHz) | 1 MB | Onboard 1 GB DDR3 | 1 | 18/24-bit | 1 | 4 | 2 | 1 | PCI-104 | Active | 0 ~ 60° C |
| PCM-3363Z-1GS6A1E | Atom N455 (1.66 GHz) | 512 KB | Onboard 1 GB DDR3 | 1 | 18/24-bit | 1 | 4 | 2 | 1 | PCI-104 | Passive | -20 ~ 80° C |
| PCM-3363Z2-1GS6A1E | Atom N455 (1.66 GHz) | 512 KB | Onboard 1 GB DDR3 | 1 | 18/24-bit | 1 | 4 | 2 | 1 | PCI-104 | Passive | -40 ~ 85° C |

Note: Passive = fanless; Active = with fan

Packing List

| Part No. | Description | Quantity |
|----------------|--|----------|
| | PCM-3363 SBC | |
| | Startup Manual | |
| | Utility CD | |
| 1700000898 | VGA cable D-SUB 15P(F)/12P-1.25 MM 15 cm | 1 |
| 1700003491 | ATX/AT power cable 1*8P-2.0/B4P-5.08*2 15 cm | 1 |
| 1700060202 | Cable 6P-6P-6P PS/2 KB & Mouse 20cm | 1 |
| 1703040157 | RS-422/485 W/D-SUB COM 4P 15 cm | 1 |
| 1703060053 | PS2 cable 6P (MINI-DIN)-6P (Wafer 2.0 mm) 6 cm | 1 |
| 1700019000 | USB cable 2-port 2.0 mm pitch w/ bracket 26 cm (w/ locked) | 1 |
| 1700008941 | SATA data cable 7p 32 cm (w/ locked) | 1 |
| 1703150102 | SATA power cable B4P-5.08/SATA 15P 10 cm | 1 |
| 1700018999 | RS-232 x2 ports 2.0 mm 22 cm (w/ locked) | 1 |
| 1700019001 | LAN cable RJ-45/2*5P-2.0 15 cm (w/ locked) | 1 |
| 9660104000 | PC/104 screw and copper post package | 1 |
| 1960051405N001 | Heatsink with FAN for PCM-3363D only (79.66 x 77.97 x 17.22 mm) | 1 |
| 1960051403N001 | Heatsink for PCM-3363N only (79.66 x 77.97 x 12.22 mm) | 1 |
| 1960051404N001 | Heatsink for PCM-3363Z&Z2 series only (79.66 x 77.97 x 17.22 mm) | 1 |

Optional Accessories

| Part No. | Description |
|-----------------|---|
| 1960051701N001 | Heat spreader (79.66 x 77.98 x 10.32 mm) for PCM-3363 |
| 1653130421 | PCI-104 connector 120-pin (Long pin) |
| PCA-AUDIO-HDA1E | Audio Extension module with bracket |
| 1700018427 | Audio cable connecting PCM-3363 and PCA-AUDIO-HDA1E |
| 1700018259 | SATA power cable for onboard connector (5V only) |

Embedded OS/API

| Embedded OS/API | Part No. | Description |
|-----------------|------------|---------------------------------|
| WES7 | 2070011094 | WES7E PCM-3363 V5.1 ENG |
| WinCE | 2070010619 | WinCE 6.0 Pro PCM-3363 V1.2 ENG |
| | 2070011056 | WinCE 7.0 Pro PCM-3363 V1.0 ENG |
| | 2070010324 | XPE WES2009 PCM-3363 V4.0 ENG |
| Win XPE | 2070010323 | XPE WES2009 PCM-3363 V4.0 MUI24 |
| | | 6.5 |
| QNX | | 6.5 |
| Linux | | Ubuntu 10.04 |
| VxWorks | | 6.8 |
| Software API | | SUSI V3.0 |