

Mini-ITX Motherboard Features New Ultra Low Power Intel Atom Processors



Advantech introduced its first ultra low power industrial mini-ITX motherboard featuring the latest Intel Atom N2600, N2800 and D2700 dual core processors with integrated graphics (GMA 640/400 MHz) and Memory Controller Hub (GMCH) on a single chip. These processors have the same performance and functionality as bigger desktop computer systems, but are integrated into the small Mini-ITX form factor targeted at compact applications, according to the company. AIMB-214 comes with desirable I/O connectivity with up to six USB 2.0 ports and six COM ports integrated into a standard 170 x 170 mm form factor. These boards also support dual display output for LVDS, embedded display port and VGA. The thermal design power rating of the Intel N2600 dual core architecture is 3.5 W, while with the dual core 1.8 GHz processor is 8 W. The motherboard uses the Intel NM10 chipset, and it provides both DC12V and ATX12V support. It can accommodate system memory up to either 2 GB or 4 GB of DDR3 1066 SDRAM, depending on the processor.

Rich I/O Connectivity with Minimum Resources

The AIMB-214 comes with plenty of connectivity and expansion options. CompactFlash, PCI bus, six COM ports, six USB ports, 8-bit GPIO, two SATA III, optional TPM security feature, mini SATA and Mini-PCIe expansion slots enable easy integration, while a dual Intel chipset, 10/100/1000 Mbps Ethernet port is also available to deliver high speed networking.

Multi Display Output

With integrated, embedded Intel Gen3.5+ graphics core and 400/640-MHz render clock frequencies for the N2600/N2800/D2700, AIMB-214 offers exciting integrated 3D graphics and video capabilities with up to 224 MB of shared graphics memory. AIMB-214 supports dual display with multiple configurations such as VGA + LVDS or VGA + eDP, and LVDS 24-bit dual channel for large size panels. Video output is complemented by HDMI audio for a complete audio and visual solution.

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Operating Systems & Software API

AIMB-214 supported operating systems include Windows 7, Windows 7 Embedded, and Meego Linux-based open source mobile operating system—hardware drivers for all these are readily available. Advantech further provides drivers and APIs for: GPIO, SMBus, watchdog timer, hardware monitor, panel backlight on/off, and brightness control. AIMB-214 is a mainstream form factor, combined with the latest ultra low power Intel® Atom™ processor it produces a balanced combination of cost, connectivity, size, and thermal performance; and makes the AIMB-214 motherboard the ideal foundation for gaming, education, POS, and kiosk applications. AIMB-214 is ready to order now; please contact your local salesperson or visit the Advantech website.

Features:

- Supports Intel® Atom™ processor N2600, N2800 and D2700 dual core
- One 204-pin SODIMM up to 4 GB DDR3 1066 MHz SDRAM
- Supports 1 x PCI and 1 x Mini-PCIe expansion, 6 x serial ports, 6 x USB, and Cfast
- Lower TCO with DC12V support and 18/24-bit dual channel LVDS
- Onboard TPM 1.2 support (optional)
- Supports embedded software APIs and Utilities

Advantech

877-294-8989, www.advantech.com [1]

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