The Next Generation of Industrial Motherboards

Easily Integrated, Flexible Development

- UTX & UTX System
- Mini-ITX & Enclosures
- MicroATX
- ATX
- Vertical Focused Platforms
- One-Stop Integrated Solutions

ADVANTECH

Enabling an Intelligent Planet

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Advantech Industrial Motherboards

Easily Integrated, Flexible Development for Your Applications

Industrial motherboards are a mature form factor that have been used in the IPC field for many years because they offer greater reliability, longer lifetime support and strict revision control which ensures a high ROI. Embedded developers are presented with many similar product choices in the market, so we at Advantech keep thinking of how to offer more valuable embedded features that really help customers achieve their specific embedded application goals.

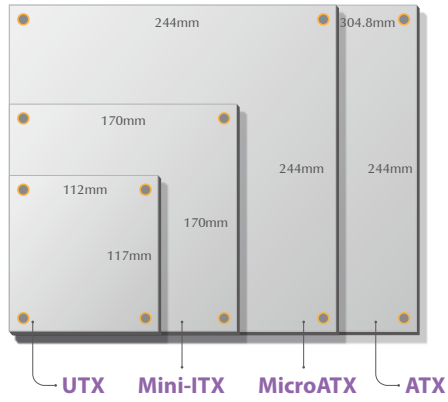
Advantech is committed to supplying a faster, more intelligent industrial motherboard, so we've introduced three key features for our next generation industrial motherboard to serve multiple specific applications, and to provide a higher quality of service and system integration.

Features of The Next Generation of Industrial Motherboards

- Innovation & evolution of intelligent designs
- Focused design for specific vertical applications
- Comprehensive services for one-stop shop integration

Full Spectrum Form Factor and Innovative Hardware Design

With a complete range of industrial motherboards to offer, Advantech Industrial motherboards are highly integrated and deliver advanced features. Besides the existing standard form factor offering, Advantech introduces a new innovative form factor to fulfill market requirements. All products include 5 to 7 years longevity support with strict revision control, and Windows/Linux/QNX embedded operating systems.



UTX and Systems

- 4.4" x 4.6" with max. connectivity, low power consumption with wide temp. and fanless design in a palm size motherboard.
- For POS, digital signage, transportation, portable medical devices and industrial automation.

THIN Mini-ITX and Enclosures

- Only 25mm in height, includes a variety of I/O and low power features.
- Compact and thin design, ideal for universal application as slim panel PC, signage box, vending machines, small POS systems, and portable medical devices.

Mini-ITX and Enclosures

- Designed with rich functionality and high performance in a small footprint with industrial features and DC input design.
- For POS, KIOSK, ATM, digital signage, gaming, medical devices, automation equipment etc.

MicroATX

- Equipped with LVDS interface, with longevity and revision control services.
- For surveillance, medical devices and instrumentation.

ATX

- Offers a wide range of computing capacities from lowest to the latest multi-core processors.
- For industrial automation, AOI and more.

Design Features & Services

To provide ultra reliable high quality products, Advantech develop Industrial Motherboards with advanced technologies and design processes.

- Slim & low profile
- Board blending-proof design
- Fanless, smart fan, & quiet system design
- EMI/ESD protection
- USB signal enhanced design
- OCP (over current protection) design

Remote Management & Hardware Monitoring Software Integration

Cloud-based computing applications need high processing power and management, stable connectivity, and reliable data backup and storage to fulfill 365/24/7 non-stop operations. To meet these requirements, Advantech's new generation of industrial motherboard products come embedded with iManager, an intelligent self-management firmware agent, which gives applications smart self-control, resource management, and auto-protection features to enhance security and system reliability, and simplify integration and configuration.

Features

- iManager 2.1 for operating system independent hardware control/monitoring
- SUSIAccess for remote management
- Multiple OS & customized SW API integration
- McAfee embedded security
- Acronis device recovery

Vertical Focused Platforms

Standard motherboards can not fully satisfy all the functions required from the industrial computer market. Normally, vertical market developers will need to look for customization services in order design their key application features, which might make development periods long and their BOM greater than they expected. By clearly understanding the demand and long-term trends in the industry, Advantech can better develop and engineer products for your application success. Advantech, in alignment with vertical market demands, has developed a series of off-the-shelf vertical industrial motherboards embedded with SUSIAccess 2.0, and iManager 2.1, as a quick turnkey solution without the fuss.

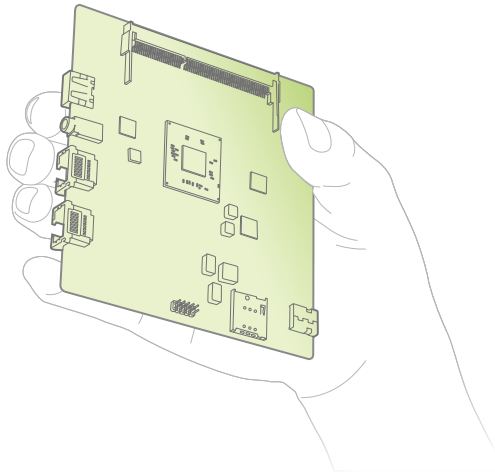
KIOSK/ POS/ ATM	Digital Signage	Medical	Surveillance
Hardware Features			
• Rich I/O for effortless connection	• Multi-HDMIs with CEC • Ultra-slim signage box	• Highest computing power & enhanced graphics • Robust design for medical regulations	• Designed for massive video storage devices • Linux RAID with Hot Plug support
Software Features			
• Extra system protection • Advanced watchdog • Security storage • Aconis recovery • Remote monitoring • EWF manager	• Scheduling power on/off • SmartFan • Display brightness control • Content delivery • Remote monitoring • System recovery (Acronis)	• H/W monitoring • Sync with kiosk • Health status • Smart self hardware control • Real-time monitoring and reaction	• Simple backup and recovery • Efficient cost saving data maintenance • H/W monitoring • Logs of critical events • Instant alarm notification • Remote monitoring • Remote KVM
Suggested Model			
• Mini-ITX: AIMB-203, AIMB-267, AIMB-281 • MicroATX: AIMB-501, AIMB-503	• UTX: AIMB-115 • Mini-ITX: AIMB-201, AIMB-215, AIMB-230	• Mini-ITX: AIMB-274, AIMB-230 • MicroATX: AIMB-582, AIMB-584	• MicroATX: AIMB-502, AIMB-581

Innovative Hardware Design

Industrial Motherboards are favored and widely used by System Integrators in many embedded applications. However, traditional Industrial Motherboards have limitations such as fitting into low-profile enclosures or space-critical applications. But Advantech has managed to optimize Industrial Motherboard design with tailor-made component placement and connectivity while keeping traditional industrial motherboard functionality, thereby providing the most flexibility for enclosure designers to make their embedded system small and attractive. What's more, Advantech continues to revolutionize this mature form factor and your state-of-the-art embedded device with new design concepts.

Ultra Compact Design

UTX



Design Concept

To satisfy the trend for miniature embedded devices. Features the most wanted embedded features in a tiny motherboard.

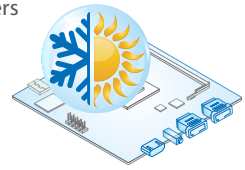
Advantech Development

Advantech developed UTX motherboards to satisfy the trend for miniature embedded devices. Using the most wanted embedded features in a small motherboard, the first UTX motherboard is co-developed between Advantech and Intel.

Design Features

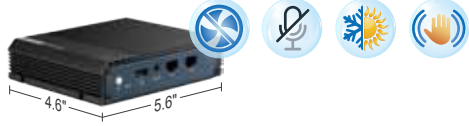
UTX Motherboard

- A motherboard with dimensions of 4.4" x 4.6"
- Rich I/O for max. connectivity in a palm size MB
- Non-stacking & Wide-temp -20 ~ 70°C board design
- Low power consumption design that offers ample storage and expansion capability



UTX System Solution

- An industrial-grade system in a 4.6"(L) x 5.6"(W) x 1.4"(H) box
- Cableless design for fast integration & shock resistance
- A passive-cooling "Noise-free System"
- -20 ~ 60°C operating ambient temp. in severe environments
- Lock type HDMI and screw type DC-input connectors to stable the plug-in-out usage reliability
- Easy implementation as embedded computers



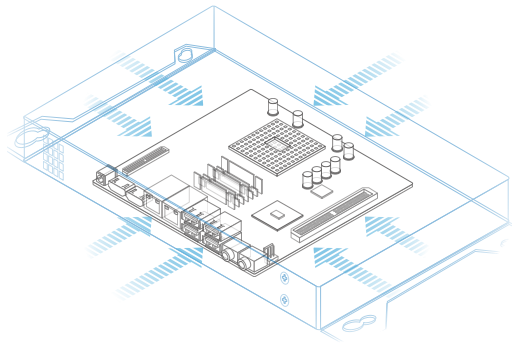
Target Applications

POS, digital signage, transportation, portable medical devices, industrial automation

• AIMB-115

• UTX-3000

Thin Mini-ITX Design



• AIMB-115 • AIMB-215 • AIMB-230

• AIMB-201DS • AIMB-B1000

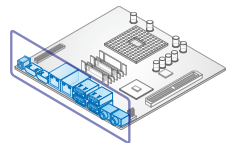
Design Concept

Thin and low profile Mini-ITX design to fulfill space-limited applications without sacrificing Mini-ITX's expansion capability and thermal reliability.

Design Features

Optimized Placement and Connectivity

- One-deck I/O for sufficient expansion possibilities
- Independent displays supported with Intel HD Graphics
- 15W low power design up to C10 C-state with 0V reduced voltaged for energy saving and power efficiency support



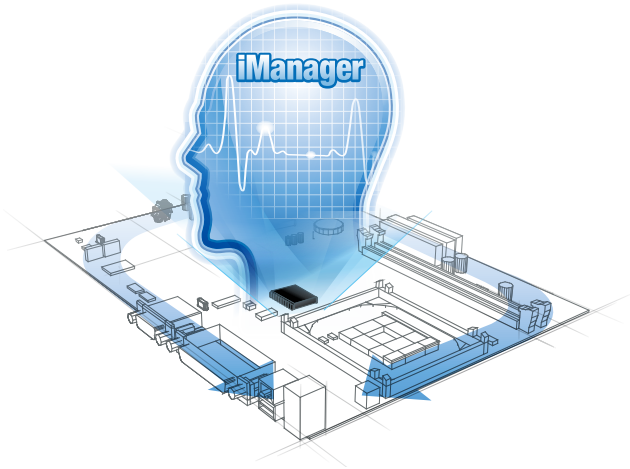
Fits into Low-profile Enclosure

- Slim heatpipe fan-cooler design
- Slim I/O designed with max height less than 25mm above board surface

Target Applications

Slim panel PC, slim signage box, vending machines, small POS systems, and portable medical devices.

Intelligence Built-in



• AIMB-273 • AIMB-274 • AIMB-201DS • AIMB-230

Design Concept

To enhance the value and embedded features from hardware focused traditional industrial motherboard, Advantech integrated unique intelligent chip in motherboards.

Design Features

Power Saving Over 20%

- 10 times less power consumption in standby mode (100mA to 10mA)
- Programmable smart fan with dynamic fan speed self-control
- Power management with integrated flat panel displays for brightness and backlight frequency control

Enhanced System Reliability

- Advanced OS independent HW monitoring and control
- Smart fan for thermal and system protection
- Advance Watchdog for multi-level protection

Advanced Device Management

- Brightness control via hot-keys
- Remote control ability from SUSIAccess
- Cross-Platform & OS Independent Management

Target Applications

Medical device management, ATM/KIOSK/POS management, digital signage management, automation equipment management, and fleet management

Application Story

Compact Mini-ITX System Integration for Video Wall Display Signage

Mini-ITX AIMB-273

- Intel® Core™ i7/i5/i3 processor+ QM77
- CRT, LVDS, HDMI, dual DP. triple display
- 8 x USB, 2 x serial ports, 8-bit GPIO

AIMB-B2000 Mini-ITX Chassis

- 9.84" (W) x 3.86" (H) x 10.04" (D)
- Built-in 150 W ATX power supply
- Easy install miniPCIe, mSATA, 2 x 2.5" HDD or 1 x HDD + 1 x ODD

Introduction

Digital signage relies on a variety of hardware devices to deliver content, but a stand-alone digital signage devices combines multi-display screen, a media player, and a content management server in one device.

Requirements and Solution

One of our customers in Germany was looking for small, simple to maintain, reliable digital signage application for a Video Wall application. One content management server may support multiple media players and one media player may support multiple screens. But Advantech's AIMB-273+AIMB-B2000 was chosen as their stand-alone digital signage devices because it combines all three functions in one device and no network connection is needed.

Benefits

- One-Stop Integrated Solution: Integrated Mini-ITX, chassis, peripherals and software
- Remote device management- SUSIAccess inside
- Auto-recovery and auto-backup technology from Acronis
- Independent displays supported (CRT, HDMI, DP, LVDS)

ATM Focused MicroATX with SUSIAccess Pro 2.0 for Intelligent Banking Security

MicroATX AIMB-501KS

- Intel® Core™ i7/i5/i3 processor + H61
- Dual channel DDR3 1333/1600 MHz SDRAM, up to 16GB
- Dual CRT/LVDS/DVI
- 10 x COM, 10 x USB 2.0, dual GbE LAN

Introduction

Most ATMs are open 24 hours a day; therefore on-site support needs to be performed as quickly as possible, and system operators have to employ (or outsource) several engineers and pay costly overtime which adds to the total cost of ownership. Furthermore, a critical task of ATMs is to secure customer's personal information, so systems need to be installed with security software firewalls to avoid virus attacks, and data theft by hackers.

Requirements and Solution

An ATM manufacturer in China was looking for an Industrial motherboard with rich I/O features for their new security-sensitive ATM banking application. They needed it to have enhanced security functions for personal data protection and financial transactions. They discovered that Advantech's ATM/KIOSK focused MicroATX AIMB-501 industrial motherboard pre-loaded with SUSIAccess Pro 2.0 provided them with intelligent remote device management and monitoring, system recovery and banking-level system security features.

Benefits

- Dedicated ATM focused MicroATX motherboard lowers customization effort
- Remote device management- SUSIAccess Pro 2.0 inside
- Rich I/O and expansion options for effortless connection
- Dual display with excellent graphics performance

Smart & Slim Mini-ITX for Digital Signage

Mini-ITX AIMB-201DS

- Intel® Core™ i7/i5/i3 processor + QM77
- 3 x HDMI with CEC (Rear I/O)
- DDR3 SODIMM dual channel
- 1 USB 3.0, 2 USB 2.0, 1 COM, Single LAN, 1 SATA 3.0, 1 Mini PCIe, 1 cFast

AIMB-B1000 Slim Mini-ITX Chassis

- Slim height under 1U (3.5cm)
- Support thermal solution up to 45W mobile CPU
- Easy install mini-PCIe, mSATA, 1 x 2.5" SSD HDD

SUSIAccess Remote Device Management

iManager Intelligent Self-Management

Introduction

Total system solutions with dynamic interactive content using open source platforms have replaced traditional signage consisting of simple passive content delivered on non-interactive displays. System integrators now have to support the demand for hardware and software compatiblity, multi-channel sources, interactive user interfaces and live feeds, all backed up with real-time repairs and upgrades.

Requirements and Solution

A US based client wanted a digital signage system that allowed their leisure and sports centers to cross-promote products and services across their centers to encourage players to participate, thereby increasing incremental revenue. The system needed to be stable and run 24-hours per day. AIMB-B1000 embedded slim box with AIMB-201DS industrial Mini ITX motherboard inside provided full signage functionality for the high graphic content delivery system they needed.

Benefits

- Dedicated Digital Signage focused Mini-ITX motherboard lowers customization effort
- Remote device management-SUSIAccess inside
- High Performance 3rd generation Intel® Mobile Core™ i7 processor-based platform
- Triple independent display support with high resolution HDMI ports

Massive Storage Capacity MicroATX for NVR Surveillance Solution

MicroATX AIMB-502

- Intel® Xeon®/ Core™ i7/i5/i3 processor + Q77/C216
- DDR3 1333/1600 MHz SDRAM, up to 32GB
- 3 x independent display: CRT, DVI, HDMI
- 2x SATA 3.0, 6x SATA 2.0, 1x mSATA and 1x eSATA with software RAID 0,1,5,10 support
- 4 x USB 3.0, 2 x USB 2.0, and dual GbE LAN

SUSIAccess Remote Device Management

Acronis

Introduction

As security concerns escalate, digital video surveillance solutions are increasingly deployed in applications within public security services, law enforcement and transportation. The spread of the Internet means megapixel IP CAMs are becoming more common, and the NVR architecture has become the favored solution in surveillance applications.

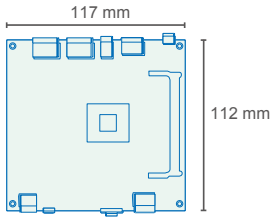
Requirements and Solution

A major system integrator of NVR solutions in China needed to upgrade their hardware to fulfill more advanced specification requirements. These demands include advanced processing for intelligent facial identification, and support for multi-displays and IP Cameras. AIMB-502 MicroATX industrial motherboard is specifically designed for NVR surveillance solutions. It provides two GbE LANs, as well as software RAID0, 1 support for data reliability and recovery, plus expansion slots for graphic cards or HW RAID cards.

Benefits

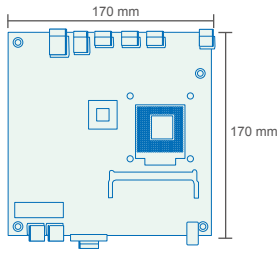
- Dedicated surveillance focused MicroATX motherboard lowers customization effort
- Remote device management- SUSIAccess inside
- Auto recovery and auto backup technology- from Acronis
- 3 independent display support (CRT, HDMI, DVI-D)

UTX



UTX is a new form factor that was co-developed with Intel in 2013. The UTX form factor is 117 mm wide by 112mm deep with max. connectivity, low power consumption with wide temp. and fanless design in a palm size motherboard.

Mini-ITX



Designed with rich functionality and solid performance in a small footprint, the highly integrated Mini-ITX motherboard platform features low power consumption of less than 100 Watts and a single basic expansion slot. The Thin Mini-ITX series is only 25 mm in height with low power features that are ideal for universal applications.

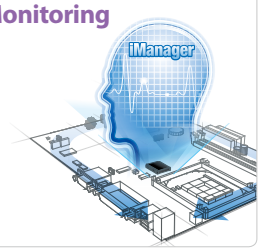
iManager
Intelligent Self-Management

Model Name		AIMB-115	AIMB-201DS	AIMB-203	AIMB-212	AIMB-213
Form Factor		UTX	Thin Mini-ITX	Mini-ITX	Mini-ITX	Mini-ITX
Processor System	CPU	Intel E3826	Intel Core i7/ i5/ i3/ Celeron / Pentium	Intel Core i7/ i5/ i3/ Pentium/ Celeron	Intel Atom D510/N450	Intel Atom D525/N455
	Socket	FCBGA	µFC-PGA 988 Socket	LGA 1150	FCBGA	FCBGA
	Max. Speed	DC 1.46 GHz	2.3 / 2.1 / 2.5 / 2.2 / 1.6 GHz	3.1 / 2.9 / 2.4 GHz	DC 1.66 / SC 1.6 GHz	DC 1.8 / SC 1.66 GHz
	TDP	7 W	45 W / 35 W	95 W / 65 W / 54 W / 45 W / 35 W	12 W/6 W	12 W/6 W
	Front Side Bus	533 MHz	-	-	-	-
	L2 Cache	1 MB	-	-	1 MB /512 KB	1 MB /512 KB
	L3 Cache	-	6 MB / 6 MB / 3 MB / 3 MB / 2 MB / 2 MB	8 MB / 6 MB / 4 MB / 3 MB	-	-
	Chipset	-	Intel QM77	Intel H81	Intel ICH8M	Intel ICH8M
	BIOS	AMI EFI 16 Mbit, SPI	AMI EFI 64 Mbit, SPI	AMI EFI 64 Mbit, SPI	AMI 16 Mbit, SPI	AMI 16 Mbit, SPI
Expansion Slot	PCI	-	-	-	1	1
	Mini PCIe	2	1	2	1	1
	PCIe	-	-	PCIe x16, 1 slot	-	-
Memory	Technology	Dual channel DDR3L 1333 MHz SDRAM	Dual channel DDR3 1333/1600 MHz SDRAM	Dual channel DDR3L 1333/1600 MHz SDRAM	Single channel DDR2 667 MHz SDRAM	Single channel DDR3 800 MHz SDRAM
	Max. Capacity	8 GB	16 GB	16 GB	2 GB	4 GB
	Socket	2 x 204-pin SODIMM	2 x 204-pin SODIMM	2 x 204-pin SODIMM	1 x 200-pin SODIMM	2 x 204-pin SODIMM
Graphics	Controller	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics	Embedded Gen3.5+ GFX Core, 200/400-MHz render clock frequency for N450/D510	Embedded Gen3.5+ GFX Core, 200/400-MHz render clock frequency for N455/D525
	LCD	Dual channel 48-bit LVDS	-	Dual channel 48-bit LVDS	Single channel 18-bit LVDS	Single channel 18-bit LVDS
	HDMI	2	3	-	-	-
	DVI	-	-	1	-	1
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Intel i210AT LAN2: Realtek RTL8111G	LAN1: Intel 82579LM	LAN1:Realtek RTL8111E LAN2: Realtek RTL8111E	LAN1: Intel 82567V LAN2: Intel 82583V	LAN1: Intel 82567V LAN2: Intel 82583V
	Connector	RJ-45 x2	RJ-45 x 1	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2
TPM		-	-	Optional	-	Optional
SATA	Max Data Transfer Rate	300 MB/s	600 MB/s	600 MB/s, 300MB/s	300 MB/s	300 MB/s
	Channel	1	1	2, 1	2	3
	eSATA/mSATA	1	-	-/1	-	-
Rear I/O	VGA/DVI/HDMI/DP	-/-/2/-	-/-/3/-	1/1/-/1	1/-/-/-	1/-/-/-
	Ethernet	2	1	2	2	2
	USB	3 (1 USB 3.0; 2 USB 2.0)	3 (Rear 1 x USB 3.0; Front 2 x USB 2.0)	4 (2 x USB 3.0; 2 x USB 2.0)	4 (USB 2.0)	4 (USB 2.0)
	Audio	Line-out	Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out
	Serial	-	1 (RS-232)	1 (RS-232)	3 (2 x RS-232; 1 x RS-232/422/485)	2 (1 x RS-232; 1 x RS-232/422/485)
	PS/2	-	-	2	-	-
	DC Jack	1	1	-	1	1
Internal Connector	LVDS & Inverter	1	-	1	1	1
	DVI	-	-	-	-	1
	USB	-	-	4 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)
	Serial	2 (1 x RS-232; 1 x RS-232/422/485)	-	8 (7 x RS-232; 1 x RS-232/422/485)	3 (RS-232)	4 (4 x RS-232)
	Parallel	-	-	1	-	-
	SATA	1	1	3	2	3
	CompactFlash	-	CFast x 1	-	CF x 1	CF x 1
	GPIO	-	-	8-bit GPIO	8-bit GPIO	8-bit GPIO

Intelligence Built-in

iManager 2.1 for Operating System Independent Hardware Control/Monitoring

- Simplified integration
- Enhanced system reliability
- Secure system
- Easy configuration



iManager
Intelligent Self-Management

Intelligence Built-in

SUSIAccess for Remote Management/Control/Monitoring

- Active control
- Complete protection
- Remote monitoring
- Multi-platform support (Microsoft and Linux)

Designed for all industrial motherboards

SUSIAccess
Remote Device Management

AIMB-214	AIMB-215	AIMB-223	AIMB-224	AIMB-230	AIMB-267
Mini-ITX	Thin Mini-ITX	Mini-ITX	Mini-ITX	Thin Mini-ITX	Mini-ITX
Intel Atom D2550/N2600	Intel Atom J1900/N2920	AMD Mobile G-series	AMD R-series processor	Intel Core i5-4300U/ Celeron 2980U	Intel Core 2 Quad/ Core 2 Duo/Pentium/Celeron
FCBGA	FCBGA	FCBGA	FS1r2	MCPBGA	LGA775
DC 1.86 / 1.6 GHz	QC 2.0 / 1.86 GHz	DC 1.56 GHz / 1.0 GHz	2.3 / 1.9 / 2.7 / 1.5 GHz	1.9 GHz / 1.6 GHz	3.0 / 3.16 / 2.6 / 2.2 GHz
10 W/3.5 W	12 W/4 W	17 W/6.5 W	35 W	15 W / 15 W	95 W / 65 W / 35 W
-	-	-	-	-	1333 / 1066 / 800 MHz
1 MB	2 MB	1 MB /512 KB	2 MB/1MB	256 KB	12 M/6 M/2 M/512 KB
-	-	-	-	3 M/2 M	-
Intel NM10	-	AMD A55E	AMD A75M	Lynx Point	Intel G41+ICH7
AMI EFI 16 Mbit, SPI	AMI EFI 16 Mbit, SPI	AMI EFI 16 Mbit, SPI	AMI EFI 16 Mbit, SPI	AMI EFI 16 Mbits, SPI	AMI EFI 16 Mbit, SPI
1	-	1	-	-	-
1	2	1	2	2	-
-	PCIE x1, 1 slot	PCIe x1, 1 slot	PCIe x8, 1 slot	-	PCIe x1, 1 slot
Single channel DDR3 1066 MHz SDRAM	Dual channel DDR3L 1066/1333 MHz SDRAM	Single channel DDR3 1066/1333 MHz SDRAM	Dual channel DDR3 1066/1333/1600 MHz SDRAM	Dual channel DDR3L 1600 MHz SDRAM	Singel Channel DDR3 1333/1066/800 MHz SDRAM
4 GB	8 GB	4 GB	16 GB	16 GB	4 GB
1 x 204-pin SODIMM	2 x 204-pin SODIMM	1 x 204-pin SODIMM	2 x 204-pin SODIMM	2 x 204-pin SODIMM	1 x 240-pin DIMM
Embedded Gen3.5+ GFX Core, 400/640-MHz render clock frequency for N2600/D2550	Intel HD Graphics	Integrated ATI Radeon RV7x0	Integrated Radeon HD7000 series	Intel HD Graphics	Intel GMA X4500
Dual channel 48-bit LVDS; Single Channel 18/24-bit LVDS	Dual channel 48-bit LVDS	Dual channel 36/48-bit LVDS	Dual channel 36/48-bit LVDS	Dual channel 48-bit LVDS	Dual channel 48-bit LVDS
1	-	1	-	1	-
-	-	-	-	-	-
10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
LAN1: Intel 82574L LAN2: Intel 82583V	LAN1:Realtek RTL8111E LAN2:Realtek RTL8111E	LAN1:Realtek RTL8111DL LAN2: Realtek RTL8111DL	LAN1:Realtek RTL8111E LAN2:Realtek RTL8111E	LAN1:Realtek RTL8111E LAN2:Realtek RTL8111E	LAN1:Realtek RTL8111E LAN2: Realtek RTL8111E
RJ-45 x 2	RJ-45 x2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2
optional	optional	optional	optional	Optional	-
300 MB/s	300 MB/s	600 MB/s	600 MB/s	600 MB/s	300 MB/s
2	2	4	3	3	2
-/1	-/1	-	-/1	-	-
1/-/1/-	1/-/-/1	1/-/1/-	1/-/-/2	-/-/1/1	1/-/-/-
2	2	2	2	2	2
4 (USB 2.0)	4 (1 x USB 3.0, 3 x USB 2.0)	4 (USB 2.0)	4 (2 x USB 3.0, 2 x USB 2.0)	4 (USB 3.0)	4 (USB 2.0)
Mic-in, Line-in, Line-out	Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-out	Mic-in, Line-in, Line-out
2 (1 x RS-232; 1 x RS-232/422/485)	-	2 (RS-232)	1 (RS-232)	-	3 (2 x RS-232; 1 x RS-232/422/485)
1	-	1	1	-	2
1	1	1	1	1	-
2	1	1	1	1	1
-	-	-	-	-	-
2 (USB 2.0)	6 (USB 2.0)	4 (USB 2.0)	6 (USB 2.0)	2 (USB 2.0)	4 (USB 2.0)
4(RS-232)	6 (5 x RS-232; 1 x RS-232/422/485)	4 (RS-232)	5 (4 x RS-232; 1 x RS-232/422/485)	2 (1 x RS-232; 1 x RS-232/422/485)	5 (RS-232)
-	-	-	-	-	1
2	2	4	3	3	2
Cfast x 1	-	Cfast x 1	-	-	CF x 1
8-bit GPIO	8-bit GPIO	8-bit GPIO	8-bit GPIO	8-bit GPIO	8-bit GPIO

Mini-ITX

Thin Mini-ITX Industrial Motherboard for Smart, Slim Digital Signage Players

Hardware Features

- Multi-HDMI with CEC
- Ultra-slim signage box

Software Features

- Scheduling power on/off
- Smart fan
- Display brightness control
- Content delivery
- Remote monitoring
- System recovery (Acronis)

Suggested Models

- AIMB-215
- AIMB-201
- AIMB-230

Suggested Mini-ITX Chassis

- AIMB-B12010
- AIMB-B12300

TAIWAN EXCELLENCE 2013

iManager Intelligent Self-Management

iManager Intelligent Self-Management

Model Name		AIMB-270	AIMB-272	AIMB-273	AIMB-274	AIMB-281	SIMB-M02
Form Factor		Mini-ITX	Mini-ITX	Mini-ITX	Mini-ITX	Mini-ITX	Mini-ITX
Processor System	CPU	Intel Core i7/i5/i3/Pentium	Intel 2nd gen. Core i7/i5/ i3/Celeron	Intel 3rd gen. Core i7/i5/ i3/Celeron	Intel Xeon/ Core i7/ i5/ i3/ Pentium/ Celeron	Intel Xeon/ Core i7/ i5/ i3/ Pentium/ Celeron	Intel Atom D2550/N2600
	Socket	µFC-PGA 989 Socket	µFC-PGA 988 Socket	µFC-PGA 988 Socket	LGA 1150	LGA 1155	FCBGA
	Max. Speed	2.66 / 2.4 / 1.86 GHz	2.1 / 2.5 / 2.2 / 1.6 GHz	2.3 / 2.1 / 2.5 / 2.2 / 1.6 GHz	2.3 / 3.1 / 2.9 / 2.4 GHz	3.5 / 3.0 / 3.1 / 2.7 GHz	DC 1.86 / 1.6 GHz
	TDP	45 W/35 W	45 W/35 W	45 W/35 W	95W / 65W /54W / 45W / 35W	95W/ 45W/ 65W/ 55W	10 W/3.5 W
	Front Side Bus	-	-	-	-	-	-
	L2 Cache	4 MB/3 MB/2 MB	-	-	-	-	1 MB
	L3 Cache	-	6 MB/3 MB/2 MB	6 MB/3 MB/2 MB	8 MB/6 MB/4 MB/3 MB	8 MB/6 MB/3 MB/2 MB	-
	Chipset	Intel QM57	Intel QM67/HM65	Intel QM77	Intel Q87	Intel H61	NM10
	BIOS	AMI EFI 64 Mbit, SPI	AMI EFI 64 Mbit, SPI	AMI EFI 64 Mbit, SPI	AMI EFI 128 Mbit, SPI	AMI EFI 32 Mbit, SPI	AMI 16 Mbit, SPI
Expansion Slot	PCI	-	-	-	-	-	-
	Mini PCIe	1	1	1	2	1	1
	PCIe	PCIe x16, 1 slot	PCIe x16, 1 slot	PCIe x16, 1 slot	PCIe x16, 1 slot	PCIe x4, 1 slot	PCIe x1, 1 slot
Memory	Technology	Dual Channel DDR3 800/1066/1333 MHz SDRAM	Dual Channel DDR3 1066/1333 MHz SDRAM	Dual Channel DDR3 1333/1600 MHz SDRAM	Dual channel DDR3/DDR3L 1333/1600 MHz SDRAM	Dual channel DDR3 1066/1333/1600 MHz SDRAM	Single channel DDR3 1066 MHz SDARM
	Max. Capacity	8 GB	8 GB	16 GB	16 GB	8 GB	4 GB/ 2 GB
	Socket	2x 204-pin SODIMM	2x 204-pin SODIMM	2x 204-pin SODIMM	2 x 204-pin SODIMM	2 x 204-pin SODIMM	1x 204-pin SODIMM
Graphics	Controller	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics	Embedded Gen3.5+ GFX Core, 400/640-MHz render clock frequency for N2600/ D2550
	LCD	Dual channel 48-bit LVDS	Dual channel 48-bit LVDS	Dual channel 48-bit LVDS	Dual channel 48-bit LVDS	Dual channel 48-bit LVDS; Single Channel 24-bit LVDS	Single channel 18-bit LVDS
	HDMI	-	1	1	1	-	1
	DVI	1	1	-	-	1	-
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Intel 82577LM, LAN2: Intel 82583V	LAN1: Intel 82579LM, LAN2: Intel 82583V	LAN1: Intel 82579LM, LAN2: Intel 82583V	LAN1: Intel I217LM, LAN2: Intel I211AT	LAN1:Realtek RTL8111E LAN2: Realtek RTL8111E	LAN1:Realtek RTL8111E
	Connector	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 2	RJ-45 x 1
TPM		-	Optional	Optional	Optional	-	Optional
SATA	Max Data Transfer Rate	300 MB/s	600 MB/s, 300 MB/s	600 MB/s, 300 MB/s	600 MB/s	300 MB/s	300 MB/s
	Channel	4	2, 2	2, 2	4	3	2
	eSATA/mSATA	-	-	-/1	1/1	-/1	
Rear I/O	VGA/DVI/HDMI/DP	1/1/-/-	1/1/1/-	1/-/1/2	1/-/1/1	1/1/-/-	1/-/1/-
	Ethernet	2	2	2	2	2	1
	USB	4 (USB 2.0)	4 (USB 2.0)	4 (USB 3.0)	4 (USB 3.0)	6 (USB 2.0)	4 (USB 2.0)
	Audio	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-out	Mic-in, Line-in, Line-out
	Serial	2 (RS-232)	2 (RS-232)	-	1 (RS-232)	2 (RS-232)	2 (RS-232)
	PS/2	2	2	2	-	1	1
	DC Jack	-	-	-	-	-	1
Internal Connector	LVDS & Inverter	1	1	1	1	1	1
	DVI	1	1	1	-	-	-
	USB	4 (USB 2.0)	4 (USB 2.0)	4 (USB 2.0)	6 (USB 2.0)	2 (USB 2.0)	3 (USB 2.0)
	Serial	4 (RS-232)	4 (RS-232)	2 (RS-232)	1 (RS-232/422/485)	4 (RS-232)	4 (RS-232)
	Parallel	-	-	-	-	-	-
	SATA	4	4	4	4	3	2
	CompactFlash	-	Cfast x 1	Cfast x 1	-	-	Cfast x 1
	GPIO	8-bit GPIO	8-bit GPIO	8-bit GPIO	8-bit GPIO	8-bit GPIO	8-bit GPIO

Mini-ITX Chassis

Mini-ITX Industrial Motherboard for KIOSK/POS/ATM

Hardware Features

- Rich I/O for effortless connection

Software Features

- Advanced watchdog
- Security storage
- Aconis recovery
- Remote monitoring
- EWF manager

Suggested Models

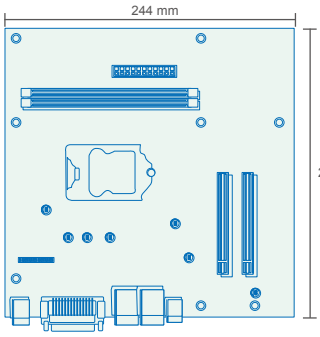
- AIMB-267
- AIMB-281
- AIMB-501
- AIMB-503
- AIMB-203

UL/FCC/CE Certified Industrial Compact System

Advantech provides a full series of FCC/UL/CE certificated Industrial level compact systems with Mini-ITX motherboards and AIMB-B2000 chassis with either AC or DC input. The series range from low power Intel Atom to the most advanced Intel Core i solutions.

Model Name		AIMB-B1000	AIMB-B2000
Processor Chassis / System	Cooling	Heat Pipe up to 45 W	2 x fan / 1x fan (7cm/39.45CFM each)
	CPU	Based on low profile Mini-ITX board	Base on Mini-ITX board
	Chipset		
	Memory		
Driver Bay	2.5" HDD and Slim ODD	1 x 2.5" HDD	2 x 2.5" HDD or 1 x 2.5" HDD + 1 x Slim ODD
Expansion slot	Slot	1 x Mini-PCIe	Base on Mini-ITX board
Front Panel	I/O ports	1 x CFAST, 2 x USB 2.0 ,1 x COM/ 2 x USB 2.0, 2 x COM, Reserved 1 x WLAN Antenna	Reserved 4 x USB 2.0, 4 x COM 2 x WLAN Antenna
	Power Switch, Indicators	1 x Power Button 1 x Power LED 1 x HDD LED	1 x Power Switch 1 x Reset Button 1 x Power LED Indicator 1 x HDD LED Indicator
Rear Panel	I/O ports	Based on low profile Mini-ITX board Reserved 2 x WLAN Antenna	Base on Mini-ITX board Reserved 1 x Expansion slot (low profile)
	Power Input	DC-in Jack	AC Inlet / DC-in Jack
Power Requirements	Voltage	19V/ 12V DC power input	AC input with 150 W ATX power supply / DC input with 60 W or 84 W power adaptor
Environment	Operating Temperature	0 ~ 40°C (32 ~ 104°F)	0 ~ 40°C (32 ~ 104°F)
	Non-operating Temperature	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)
	Humidity	10~85% @ 40°C, non-condensing	10~85% @ 40°C, non-condensing
	Vibration (5 ~500 Hz)	1 G (1 x 2.5" SSD HDD) 0.2 G (1 x 2.5" HDD)	1 G (1 x HDD + 1 x ODD); 0.5 G (2xHDD)
Dimensions (W x H x D)	Dimensions (W x H x D)	250 x 35 x 190 mm (9.84" x 1.38" x 7.48")	250 x 98 x 255 mm (9.84" x 3.86" x 10.04")
Weight	Weight	1.5 kg	3.8 / 3.1 kg

MicroATX



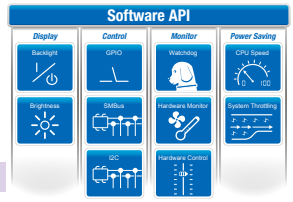
Industrial MicroATX enables the same high integration of ATX but with a smaller footprint that fills the gap between Mini-ITX and full size ATX, balancing performance and expansibility. Equipped with LVDS interface, longevity and revision control, MicroATX is ideally suited for medical and instrumentation applications.

Value-Added Services

SUSI API & Utilities for Easier and Simpler Integration

Directly monitor and control digital I/O, I2C, CPU stepping speed, watchdog timers, smart fans and access hardware monitoring sensors.

Designed for all industrial motherboards



Model Name		AIMB-501	AIMB-502	AIMB-503
Form Factor		MicroATX	MicroATX	MicroATX
Processor System	CPU	Intel Core i7/ i5/ i3/ Pentium/ Celeron	Intel Xeon/ Core i7/ i5/ i3/ Pentium/ Celeron	Intel Core i7/ i5/ i3/ Pentium/ Celeron
	Socket	LGA 1155	LGA 1155	LGA 1150
	Max. Speed	3.4 / 3.1 / 3.3 / 2.9 / 2.5 GHz	3.5 / 3.4 / 3.0 / 3.3 / 2.9 / 2.5 GHz	3.5 / 3.1 / 2.9 / 2.4 GHz
	TDP	95 W/ 65 W	95 W/ 77 W/ 65 W/ 55 W	65 W / 54 W / 45 W / 35 W
	L2 Cache	-	-	-
	L3 Cache	8 MB / 6 MB / 3 MB / 2 MB	8 MB / 6 MB / 3 MB / 2 MB	8 MB / 6 MB / 4 MB / 3 MB
	Chipset	Intel H61	Intel Q77/C216	Intel B85/H81
	BIOS	AMI EFI 64 Mbit, SPI	AMI EFI 64 Mbit, SPI	AMI EFI 128 Mbit, SPI
Expansion Slot	PCI	2	1	1 (G2)
	PCIe x16	1	1 (QG2) 2 (WG2)	1
	PCIe x4	-	-	1 (F)
	PCIe x1	1	1	1 (F); 2 (G2/L)
Memory	Technology	Dual channel DDR3 1333/1600 MHz SDRAM	Dual channel DDR3 1333/1600 MHz SDRAM	Dual channel DDR3/L 1333/1600 MHz SDRAM
	Max. Capacity	16 GB	32 GB	16 GB
	Socket	2 x 240-pin DIMM	4 x 240-pin DIMM	2 x 240-pin DIMM
Graphics	Controller	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics
	VRAM	Shared system memory up to 1 GB	Shared system memory up to 1 GB	Shared system memory up to 1 GB
	LCD	Dual channel 48-bit LVDS	-	Dual channel 48-bit LVDS
	DVI-D	1	1	1
	HDMI	-	1	-
	DP/eDP	-	-	1
	Dual Display	CRT1+LVDS, CRT1+DVI, CRT1+CRT2	CRT+HDMI, CRT+DVI, HDMI+DVI	DP+DVI, VGA+DP,VGA+DVI
	Triple Display	-	CRT + HDMI + DVI	CRT+DP+DVI, CRT+DP+LVDS, CRT+DVI+LVDS, DP+DVI+LVDS (F)
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Realtek RTL8111E LAN2: Realtek RTL8111E	LAN1: Intel 82579LM LAN2: Intel 82574L	LAN1: Realtek RTL8111E LAN2: Realtek RTL8111E
	Connector	RJ-45 x2	RJ-45 x2	RJ-45 x2
TPM		Optional	Optional	Optional
SATA	Max Data Transfer Rate	300 MB/s	300 MB/s 600 MB/s	300 MB/s 600 MB/s
	Channel	4	6 / 2	1 / 2
	eSATA / mSATA	-	1 / 1	0 / 1
EIDE	Mode	-	-	-
	Channel	-	-	-
I/O Interface	VGA	2 (G2) / 1 (L)	1	1
	USB	10 (USB2.0)/ 8 (USB2.0), 2 (USB 3.0)	4 (USB 3.0), 2 (USB 2.0)	4 / 2 (USB 3.0), 7 (USB 2.0)
	Serial	10 (8 x RS-232; 2 x RS-232/422/485)	6 (5 x RS-232, 1 x RS-485)	10 (8 x RS-232; 2 x RS-232/422/485)
	Parallel	1	-	1
	SIM Card Holder	-	-	1 (F/G2)
	FDD	-	-	-
	PS/2	2	-	2
	Ethernet (GbE)	2	2	2
	IEEE 1394	-	-	-
	Audio	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
	GPIO	8-bit GPIO	14-bit GPIO (6-bit non-programmable, 8-bit programmable)	8-bit GPIO

Value-Added Services

Intelligent Display Integration

- 100% Compatible with Advantech Industrial Motherboards
- 5.7" - 55" LCD Panels and Open Frame Monitors

Designed for all industrial motherboards

Value-Added Services

Fast Design with Module Integration Services

- Industrial Flash/Memory/Wireless Modules
- Compatibility Examination
- Software API/AP Support
- Wide-temp Design

Designed for all industrial motherboards

AIMB-562 KIOSK	AIMB-564	AIMB-567	AIMB-580
MicroATX	MicroATX	MicroATX	MicroATX
Intel Core 2 Duo/Pentium 4/ Pentium Dual-Core/Celeron	Intel Core 2 Quad/Core 2 Duo/ Pentium Dual-Core/Celeron	Intel Core 2 Quad/Core 2Duo/ Pentium Dual-Core/Celeron	Intel Xeon/ Core i7/ i5/ i3/ Pentium/ Celeron
LGA775	LGA775	LGA775	LGA 1156
2.8 / 2.2 / 3.4 / 2.0 GHz	2.66 / 2.8 / 2.2 / 3.8 / 3.2 GHz	2.66 / 3.16 / 2.6 / 2.2 GHz	2.93 / 2.66 / 3.3 / 3.06 / 2.8 GHz
86 W / 65 W / 35 W	115 W / 95 W / 86 W / 65 W	95 W / 65 W	95 W / 73 W/ 65 W
4 MB/2 MB/1 MB/512 KB	8 MB/3 MB/1 MB/512 KB	6 MB/512 KB	8 MB/4 MB/3 MB
-	-	-	-
Intel 945G/GC + ICH7	Intel Q965 + ICH8 DO	Intel G41 + ICH7R/ICH7	Intel Q57/3450
Award 16 Mbit, SPI	AMI 16 Mbit, SPI	AMI 16 Mbit, SPI	AMI 64 Mbit, SPI
2	2	2	2
-	1	1	1
-	1	1 (G2)	1
1	-	1 (VG)	-
Dual channel DDR2 533/667 MHz SDRAM	Dual channel DDR2 533/667/800 MHz SDRAM	Dual channel DDR3 800/1066/1333 MHz SDRAM	Dual channel DDR3 800/1066/1333 MHz SDRAM
4 GB	8 GB	8 GB	16 GB
2 x 240-pin DIMM	4 x 240-pin DIMM	2 x 240-pin DIMM	4 x 240-pin DIMM
Intel GMA 950	Intel GMA 3000	Intel GMA X4500	Intel HD Graphics
Share with system memory up to 224 MB	Share with system memory up to 256 MB	Share with system memory up to 352MB	Shared system memory up to 1 GB
Dual channel 48-bit LVDS	-	-	-
-	-	1	1
-	-	-	-
-	-	-	-
CRT+LVDS, CRT+CRT	-	CRT+DVI (G2)	CRT+DVI
-	-	-	-
10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
LAN1: Realtek RTL8111C	LAN1: Intel 82566DM	LAN1: Intel 82583V LAN2: Intel 82583V	LAN1: Intel 82578DM LAN2: Intel 82583V
RJ-45 x 1	RJ-45 x 1	RJ-45 x (G2)	RJ-45 x2
-	-	-	Optional
300 MB/s	300 MB/s	300 MB/s	300 MB/s
2	7 (SW RAID)	4 (SW RAID - G2)	6 (SW RAID)
-	1 / 0	-	-
ATA 100/66/33	ATA 100/66/33	ATA 100/66/33	-
1	1	1	-
2	1	1	1
8 (USB 2.0)	10 (USB 2.0)	8 (USB 2.0)	10 (USB 2.0)
10 (8 x RS-232; 2 x RS-232/422/485)	1 (RS-232)	4 (3 x RS-232; 1 x RS-232/422/485)	4 (3 x RS-232; 1 x RS-232/422/485)
1	1	1	1
-	-	-	-
-	1	-	1
2	2	2	2
1	1	2	2
-	2 (1 x external & 1 x onboard)	-	-
Mic-in, Line-out	Line-in, Line-out, Mic-in, CD-in, 6 jacks	Mic-in, Line-out	Mic-in, Line-out
16-bit GPIO	-	8-bit GPIO	-

MicroATX

Massive Storage Capacity MicroATX Industrial Motherboard for NVR Surveillance Solution

Hardware Features

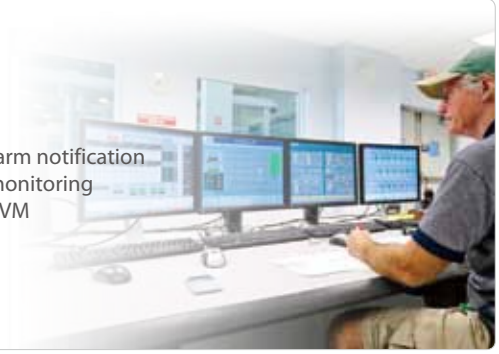
- Designed for massive video storage devices
- Linux RAID with hot plug support

Software Features

- Auto backup and recovery
- Efficient cost saving
- Data maintenance
- H/W monitoring
- Logs of critical events
- Instant alarm notification
- Remote monitoring
- Remote KVM

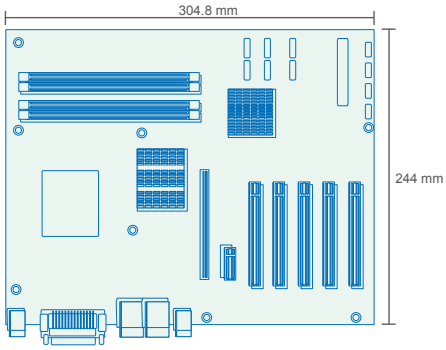
Suggested Model

AIMB-502



Model Name		AIMB-581	AIMB-582	AIMB-584
Form Factor		MicroATX	MicroATX	MicroATX
Processor System	CPU	Intel Xeon/ Core i7/ i5/ i3/ Pentium/ Celeron	Intel Xeon/ Core i7/ i5/ i3/ Pentium/ Celeron	Intel Xeon/ Core i7/ i5/ i3/ Pentium/ Celeron
	Socket	LGA 1155	LGA 1155	LGA 1150
	Max. Speed	3.4 /3.1 /3.3 /2.9 /2.5 GHz	3.5 /3.4 /3.0 /3.3 /2.9 /2.5 GHz	3.5/3.2/3.1/2.9/2.7/2.4/2.3 GHz
	TDP	95 W / 65 W	95 W / 77 W / 65 W / 55 W	95 W / 65 W / 54 W / 45 W / 35 W
	L2 Cache	-	-	-
	L3 Cache	8 MB / 6 MB / 3 MB / 2 MB	8 MB / 6 MB / 3 MB / 2 MB	8 MB / 6 MB / 4 MB / 3 MB
	Chipset	Intel Q67/C206	Intel Q77/C216	Intel Q87/C226
	BIOS	AMI EFI 64 Mbit, SPI	AMI EFI 64 Mbit, SPI	AMI EFI 128 Mbit, SPI
Expansion Slot	PCI	2	2	2
	PCIe x16	1	1	1
	PCIe x4	1	1	1
	PCIe x1	-	-	-
Memory	Technology	Dual channel DDR3 1066/1333 MHz SDRAM	Dual channel DDR3 1333/1600 MHz SDRAM	Dual channel DDR3 1333/1600 MHz SDRAM
	Max. Capacity	32 GB	32 GB	32 GB
	Socket	4 x 240-pin DIMM	4 x 240-pin DIMM	4 x 240-pin DIMM
Graphics	Controller	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics
	VRAM	Shared system memory up to 1 GB	Shared system memory up to 1 GB	Shared system memory up to 1 GB
	LCD	Dual channel 48-bit LVDS	Dual channel 48-bit LVDS	Dual channel 48-bit LVDS
	DVI-D	2	1	1
	HDMI	-	-	-
	DP/eDP	-	1 / 1 (Option)	1 / 1 (Option)
	Dual Display	CRT+LVDS, CRT+DVI, LVDS+DVI	CRT+DP, CRT+DVI, DVI+DP, CRT+LVDS (or eDP), DVI+LVDS (or eDP), DP+LVDS (or eDP)	CRT+DP, CRT+DVI, DVI+DP, CRT+LVDS (or eDP), DVI+LVDS (or eDP), DP+LVDS (or eDP)
	Triple Display	-	CRT+DVI+DP, CRT+LVDS (or eDP)+DP, CRT+LVDS (or eDP)+ DVI, DVI+DP+LVDS (or eDP)	CRT+DVI+DP, CRT+LVDS (or eDP)+DP, CRT+LVDS (or eDP)+ DVI, DVI+DP+LVDS (or eDP)
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1: Intel 82579LM LAN2: Intel 82583V	LAN1: Intel 82579LM LAN2: Intel 82583V	LAN1: Intel I217LM LAN2: Intel I211AT
	Connector	RJ-45 x2	RJ-45 x2	RJ-45 x2
TPM		Optional	Optional	Optional
SATA	Max Data Transfer Rate	300 MB/s 600 MB/s	300 MB/s 600 MB/s	600 MB/s
	Channel	4 (SW RAID) / 2 (SW RAID)	4 (SW RAID) / 2 (SW RAID)	6 (SW RAID)
	eSATA / mSATA	-	-	-
EIDE	Mode	-	-	-
	Channel	-	-	-
I/O Interface	VGA	1	1	1
	USB	10 (USB 2.0), 2 (USB 3.0)	8 (USB 2.0), 4 (USB 3.0)	8 (USB 2.0), 4 (USB 3.0)
	Serial	6 (5 x RS-232; 1 x RS-232/422/485)	6 (5 x RS-232; 1 x RS-232/422/485)	6 (5 x RS-232; 1 x RS-232/422/485)
	Parallel	1	1	1
	SIM Card Holder	-	-	-
	FDD	-	-	-
	PS/2	2	2	2
	Ethernet (GbE)	2	2	2
	IEEE 1394	-	-	-
	Audio	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-out
	GPIO	8-bit GPIO	8-bit GPIO	8-bit GPIO

ATX



ATX motherboards support up to 7 expansion slots. Advantech's ATX motherboards offer a wide range of computing capacities from low power Intel Pentium M based solutions to the latest multi-core processors.

Value-Added Services

McAfee and Acronis Built-in

- McAfee system protection
- Acronis device recovery

Designed for all industrial motherboards

Model Name		SIMB-A01	SIMB-A21
Form Factor		ATX	ATX
Processor System	CPU	Intel Core 2 Quad/Core 2 Duo/Pentium Dual-Core/ Celeron	Intel Core i7/ i5/ i3/ Celeron
	Socket	LGA775	LGA 1155
	Max. Speed	2 GHz ~ 2.66 GHz	2.5 GHz ~ 3.1 GHz
	Front Side Bus	-	-
	L2 Cache	6 MB / 2 MB / 512 KB	8 MB / 6 MB / 3 MB / 2 MB
	TDP	105 W / 95 W / 65 W / 35 W	95 W ~ 35 W
	Chipset	Intel Q35 + ICH9R	Intel H61
	BIOS	AMI 32 Mbit, SPI	AMI 32 Mbit, SPI
Expansion Slot	PCI	5	4
	MINI PCI	-	-
	PCIe	PCIe x16, 1 slot PCIe x1, 1 slot	PCIe x16, 1 slot PCIe x1, 1 slot
Memory	Technology	Dual channel DDR2 667/800 MHz SDRAM	Dual channel DDR3 1066/1333 MHz SDRAM
	Max. Capacity	8 GB	16 GB
	Socket	4 x 240-pin DIMM	2 x 240-pin DIMM
Graphics	Controller	Intel GMA 3100	Intel HD Graphics 2000/3000
	DVI	-	1
Ethernet	Interface	10/100/1000 Mbps	10/100/1000 Mbps
	Controller	LAN1:Realtek RTL8111C LAN2:Realtek RTL8111C	LAN1:Realtek RTL8111E LAN2:Realtek RTL8111E
	Connector	RJ-45 x 2	RJ-45 x 2
TPM		Infineon® 9635 TT 1.2 on board	-
SATA	Max Data Transfer Rate	300 MB/s	300 MB/s
	Channel	6	4
EIDE	Mode	1	-
	Channel	ATA 100/66/33	-
Rear I/O	VGA/DVI/HDMI	1/-/-	1/1/-
	Ethernet	2	2
	USB	4 (USB 2.0)	4 (USB 2.0)
	Audio	Mic-in, Line-in, Line-out	Mic-in, Line-in, Line-out
	Parallel	1	-
	Serial	1 (RS-232)	1 (RS-232, supplies 5 V/ 12 V)
	PS/2	2	2
	USB	8 (USB 2.0)	6 (USB 2.0)
	Serial	1 (RS-232/422/485); 2 (RS-232)	1 (RS-232/422/485); 4 (RS-232)
	Parallel	-	1
	IDE	1	-
	SATA	6 (SATA II)	4 (SATA II)
	CompactFlash	-	-
	GPIO	16-bit GPIO	8-bit GPIO

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