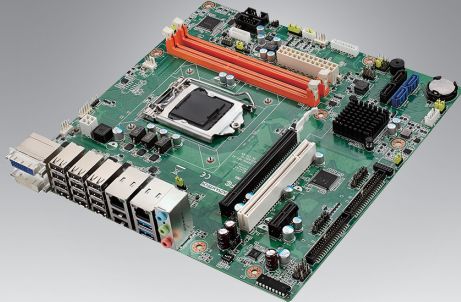


AIMB-503YH

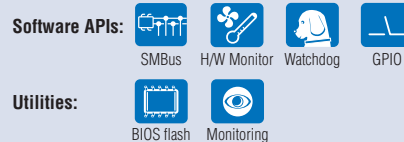
Intel® Core™ i7/i5/i3 LGA1150 MicroATX
with DVI-I/DVI-D, 10 COM, 2 USB 3.0,
14 USB 2.0, Dual LAN

NEW



Features

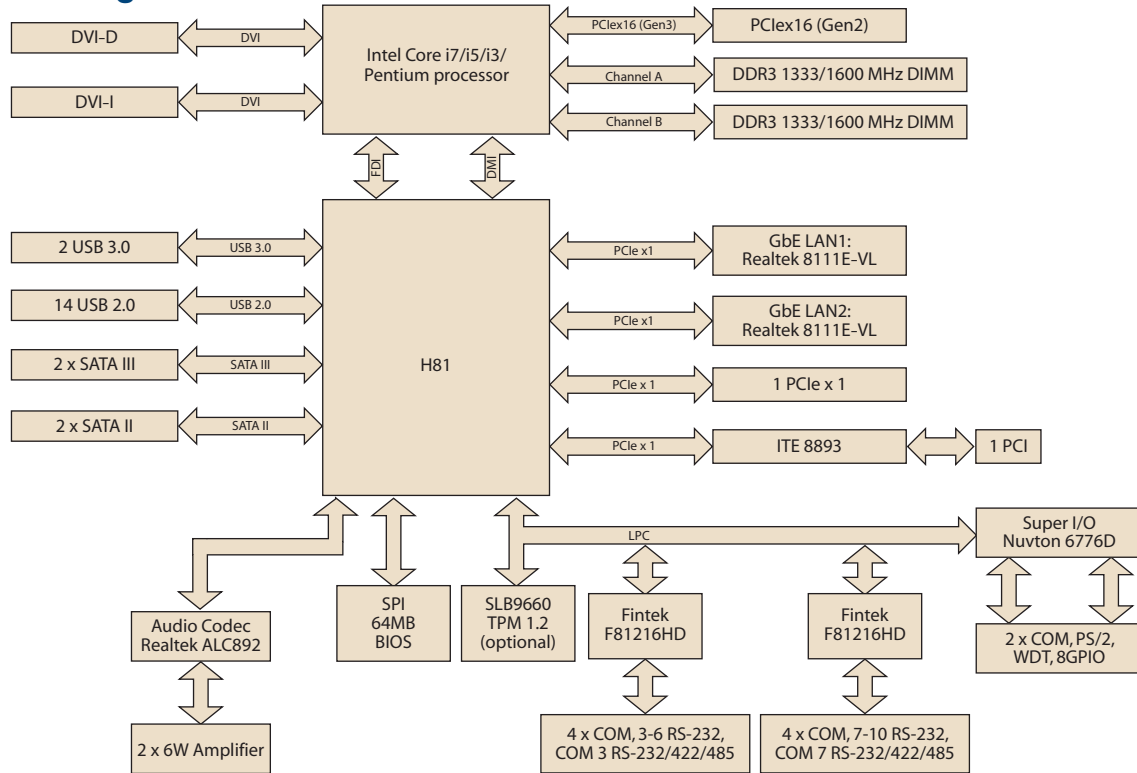
- Supports Intel® Core™ i7/i5/i3 processor with H81 chipset
- Two DIMM sockets support up to 16 GB DDR3 1333/1600 MHz SDRAM
- Supports Dual display of DVI-I, DVI-D and two GbE LAN
- Supports 10 COM, 2 USB 3.0, 14 USB 2.0, TPM 1.2 (optional)
- Supports SUSIAccess, McAfee, Acronis and Embedded Software APIs



Specifications

| | | | | | | | | | | | | | |
|--------------------------|------------------------|---|--|-----------|-----------------------|----------|-----------|------------------------------------|---------|----------------------------|--------------------|------------------|--|
| Processor System | CPU | i7-4790S | i7-4770S | i7-4770TE | i5-4590S/ i5-4590T | i5-4570S | i5-4570TE | i3-4360/ i3-4350T/ i3-4340TE | i3-4330 | i3-4330TE | Pentium G3320TE | Pentium G3420 | |
| | Core Number | 4 | 4 | 4 | 4/4 | 4 | 2 | 2/2/2 | 2 | 2 | 2 | 2 | |
| | Max. Speed | 3.2 GHz | 3.1 GHz | 2.3 GHz | 3.0G/2.0 GHz | 2.9 GHz | 2.7 GHz | 3.7G/ 3.1G/2.6 GHz | 3.5 GHz | 2.4 GHz | 2.3 GHz | 3.2GHz | |
| | L3 Cache | 8M | 8M | 8M | 6M/6M | 6M | 4M | 4M/4M/ 4M | 4M | 4M | 3M | 3M | |
| | TDP (W) | 65W | 65W | 45W | 65W/35W | 65W | 35W | 54W/35W/ 35W | 54W | 35W | 35W | 54W | |
| | Chipset | H81 | | | | | | | | | | | |
| | BIOS | AMI EFI 64 Mbit SPI | | | | | | | | | | | |
| Expansion Slot | PCI | 32-bit/33 MHz, 1 slot | | | | | | | | | | | |
| | PCIe x1 (Gen2) | 500 MB/s per direction, 1 slot | | | | | | | | | | | |
| | PCIe x16 (Gen2) | 16 GB/s per direction, 1 slot | | | | | | | | | | | |
| Memory | Technology | Dual Channel DDR3 @1.5V 1333/1600 MHz SDRAM | | | | | | | | | | | |
| | Max. Capacity | 16 GB/8 GB per DIMM | | | | | | | | | | | |
| | Socket | 2 x 240-pin DIMM (Non-ECC) | | | | | | | | | | | |
| Graphics | Controller | Intel HD Graphics | | | | | | | | | | | |
| | DVI-I/DVI-D | Up to 1920 x 1200 @ 60Hz refresh rate | | | | | | | | | | | |
| | Dual Display | DVI-I+DVI-D | | | | | | | | | | | |
| Ethernet | Interface | 10/100/1000 Mbps | | | | | | | | | | | |
| | Controller | GbE LAN1:Realtek RTL8111E GbE LAN2:Realtek RTL8111E | | | | | | | | | | | |
| | Connector | RJ-45 x 2 | | | | | | | | | | | |
| SATA | Max Data Transfer Rate | 600 / 300 MB/s (SATA 3.0 / SATA 2.0) | | | | | | | | | | | |
| Rear I/O | DVI-D/DVI-I | 1 / 1 | | | | | | | | | | | |
| | Ethernet | 2 | | | | | | | | | | | |
| | USB | 16 (USB 3.0 x 2, USB 2.0 x 14) with separately power switch on all USB 2.0, so USB2.0 can be controlled by GPIO | | | | | | | | | | | |
| | Audio | 3 (Mic-In, Line-out, Line-in) | | | | | | | | | | | |
| | Serial | 0 | | | | | | | | | | | |
| | Internal Connector | Serial | 10 (10 x RS-232; COM1, 2 support 5V/12V by jumper selection, COM3, 7 support RS-232/422/485 auto flow control) | | | | | | | | | | |
| Watchdog Timer | SATA | 2 x 600 MB/s (SATA 3.0), 2 x 300 MB/s (SATA 2.0) | | | | | | | | | | | |
| | DVI | - | | | | | | | | | | | |
| | GPIO | 8-bit GPIO | | | | | | | | | | | |
| | Output | System reset | | | | | | | | | | | |
| Power Requirements | Interval | Programmable 1 ~ 255 sec/min | | | | | | | | | | | |
| | Power On | Intel® Core™ i7-4770S CPU @ 3.10GHz + DDR3 8G X2 1600 + SATA H.D.D | | | | | | | | | | | |
| Environment | Temperature | Operating | | | | | | | | Non-Operating | | | |
| | Dimensions | 0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution | | | | | | | | -40 ~ 85° C (-40 ~ 185° F) | | | |
| Physical Characteristics | Dimensions | 244 mm x 244 mm (9.6" x 9.6") | | | | | | | | | | | |

Block Diagram



Ordering Information

| Part Number | PCH | Memory | DVI-I/DVI-D | USB 3.0/2.0 | COM | SATA III/ SATA II | LAN | PCIe x 16 | PCIe x 1 | PCI slot | AMP |
|------------------|-----|---------|-------------|-------------|-----|----------------------|-----|-----------|----------|----------|-----|
| AIMB-503G2-YHA1E | H81 | Non ECC | 1/1 | 2/14 | 10 | 2/2 | 2 | 1 | 1 | 1 | 1 |

*) BOM options available on MP version.

Riser Card

| Part Number | Description |
|-------------------|---|
| AIMB-RR4101-01A1E | 1U riser card with 1 PCIe x 4 expansion |
| AIMB-R430P-03A2E | 2U riser card with 3 PCI expansion |
| AIMB-R4301-03A1E | 2U riser card for 3 PCIe x 1 abd 2 PCI expansion |
| AIMB-R431F-21A1E | 2U riser card with 1 PCIe x 16 + 2 PCIe x 1 expansion |
| AIMB-R43PF-21A1E | 2U riser card with 1 PCIe x16 + 2 PCI slots expansion |

Packing List

| Part Number | Description | Quantity |
|--------------------|---|----------|
| 1700003194 | Serial ATA HDD data cable | 2 |
| 17AD14GS0000083V04 | DB 9P/M to IDC 10P cable 600mm | 2 |
| 17AD14GS1400013V04 | 4 in 1 COM cable 500mm (IDE 40-pin 2.0mm) | 2 |
| 19Z0001028T000 | I/O port bracket | 1 |

I/O View



Optional Accessories

| Part Number | Description |
|--------------------|---|
| 1960053207N001 | LGA1150 CPU cooler for CPU TDP 65W, 92.9 (W) x 92.9 (L) x 46 (H) mm |
| 1960060732N001 | LGA1150 CPU cooler for CPU TDP 45W, 80 (W) x 80 (L) x 32.2 (H) mm |
| 1700000447 | 1-to-4 serial ports cable kit, 45cm |
| 1701400181 | 1-to-4 serial ports cable kit, 18cm |
| 17AD14GS1400013V04 | 4 in 1 COM cable 500mm (IDE 40-pin 2.0mm) |

Note: Purchasing AIMB-503's proprietary CPU cooler from Advantech is a must; other brands of CPU coolers are NOT compatible with AIMB-503.

Embedded OS/API

| OS/API | Description |
|--------------|-------------|
| WES7 | TBD |
| Software API | TBD |