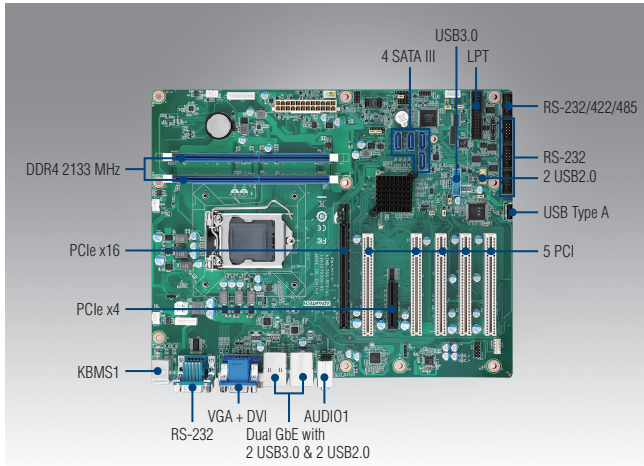


AIMB-705

LGA1151 6th/7th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® ATX with DVI/VGA, DDR4, SATA III, USB 3.0 & 6 COMs



Features

- Intel® 6th/7th generation Core™ i7/i5/i3/Pentium®/Celeron® processor
- Dual channel (Non-ECC) DDR4 1866/2133 up to 32GB
- Supports VGA and DVI display
- Supports SATA3.0, USB3.0, dual GbEs
- Supports 5 RS-232 and 1 RS-232/422/485 serial ports
- 1 PCIe x16 (Gen3) and 1 PCIe x4 (Gen2), and 5 PCI expansion slots

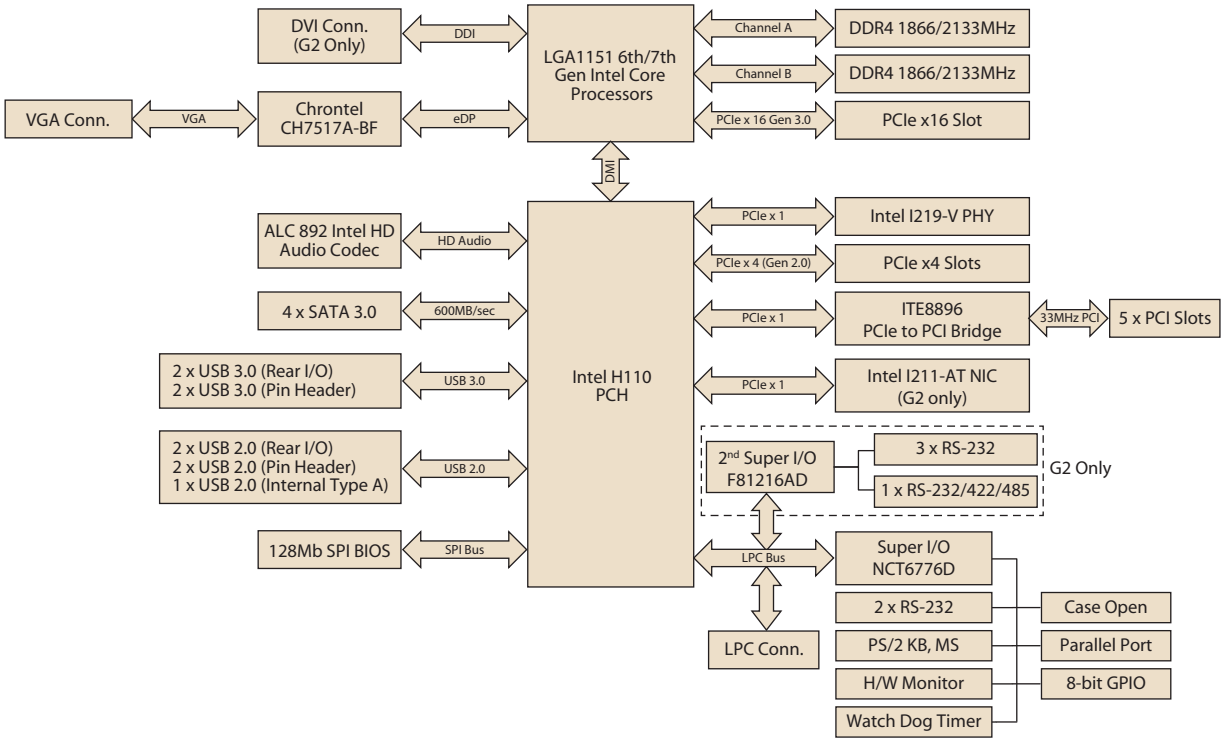
Note: Intel 7th generation processors only support Windows 10 (64-bit).

Quiet Specifications

CE FCC

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|------------------------|--|--------------|---------|-----------|---------|----------|---------|-----------|----------|-----------|---------|-----------|---------|---------|---------|---------|--|--|-------|--|--|-------|--|--|-------|
| Processor System | CPU | i7-7700 | i7-7700T | i7-6700 | i7-6700TE | i5-7500 | i5-7500T | i5-6500 | i5-6500TE | i3-7101E | i3-7101TE | i3-6100 | i3-6100TE | G4400 | G4400TE | G3900 | G3900TE | | | | | | | | | |
| | Speed | 3.6GHz | 2.9GHz | 3.4 GHz | 2.4 GHz | 3.4GHz | 2.7GHz | 3.2 GHz | 2.3 GHz | 3.9GHz | 3.4GHz | 3.7 GHz | 2.7 GHz | 3.3 GHz | 2.9 GHz | 2.8 GHz | 2.6 GHz | | | | | | | | | |
| | Cache | 8MB | 8MB | 8 MB | 8 MB | 6MB | 6MB | 6 MB | 6 MB | 3MB | 3MB | 4 MB | 4 MB | 3 MB | 3 MB | 2 MB | 2 MB | | | | | | | | | |
| | Socket | LGA 1151 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Chipset | Intel H110 | | | | | | | | | | | | | | | | | | | | | | | | |
| | BIOS | AMI 128Mbit SPI Flash | | | | | | | | | | | | | | | | | | | | | | | | |
| Expansion Slot | PCI | 32-bit/33 MHz, 5 slots | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCIe x4 (Gen2) | 2 GB/s per direction, 1 slot | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCIe x16 (Gen3) | 16 GB/s per direction, 1 slot | | | | | | | | | | | | | | | | | | | | | | | | |
| Memory | Technology | Dual Channel(Non-ECC) DDR4 1866/2133 MHz | | | | | | | | | | | | | | | | | | | | | | | | |
| | Max Capacity | 32 GB (16 GB per DIMM) | | | | | | | | | | | | | | | | | | | | | | | | |
| | Sockets | DDR4 288-pin DIMM x2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Graphics | Controller | Chipset integrated Intel HD Graphics | | | | | | | | | | | | | | | | | | | | | | | | |
| | VRAM | Shared system memory is subject to OS | | | | | | | | | | | | | | | | | | | | | | | | |
| Ethernet | Interface | 10/100/1000 Mbps | | | | | | | | | | | | | | | | | | | | | | | | |
| | Controller | GbE LAN1: Intel I219-V, GbE LAN2: Intel I211-AT | | | | | | | | | | | | | | | | | | | | | | | | |
| | Connector | RJ-45 x2 | | | | | | | | | | | | | | | | | | | | | | | | |
| SATA | Max Data Transfer Rate | 600 MB/s | | | | | | | | | | | | | | | | | | | | | | | | |
| | Channel | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Rear I/O | VGA | 1 (Resolution up to 1920 x 1200 @ 60Hz) | | | | | | | | | | | | | | | | | | | | | | | | |
| | DVI | 1 for G2 version (Resolution up to 1920 x 1200 @ 60Hz) | | | | | | | | | | | | | | | | | | | | | | | | |
| | Ethernet | 2 for G2 version; 1 for VG version | | | | | | | | | | | | | | | | | | | | | | | | |
| | USB | 4 (USB3.0 x2, USB2.0 x2) | | | | | | | | | | | | | | | | | | | | | | | | |
| | Audio | Line-out, Mic-in | | | | | | | | | | | | | | | | | | | | | | | | |
| | Serial | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | PS/2 | 2 (1 x keyboard and 1 x mouse) | | | | | | | | | | | | | | | | | | | | | | | | |
| Internal Connectors | USB | 1 (Type A); 2 (USB2.0, Pin-header); 2 (USB3.0, Box-header) | | | | | | | | | | | | | | | | | | | | | | | | |
| | Serial | 4 for G2 version (3 x RS-232, box-header; 1 x RS-232/422/485 with auto-flow control, box-header) | | | | | | | | | | | | | | | | | | | | | | | | |
| | Parallel | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | GPIO | 8 bits | | | | | | | | | | | | | | | | | | | | | | | | |
| | Watchdog Timer | Output | System reset | | | | | | | | | | | | | | | | | | | | | | | |
| Power Requirement | Interval | Programmable 1 - 255 sec | | | | | | | | | | | | | | | | | | | | | | | | |
| | Test Environment | Intel Core i7-6700 3.4GHz; DDR4 2133 8GB x 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Voltage | 3.3V | | | | | | 5V | | | | | | 12V | | | | | | 5Vsb | | | -5V | | | -12V |
| Environment | Current | 0.49A | | | | | | 3.13A | | | | | | 7.88A | | | | | | 0.08A | | | 0.07A | | | 0.07A |
| | Operating | Non-Operating | | | | | | | | | | | | | | | | | | | | | | | | |
| | Temperature | 0 ~ 60 °C (32 ~ 140 °F), depends on CPU speed and cooler solution | | | | | | | | | | | | | | | | | | | | | | | | |
| Physical Characteristics | Humidity | 40 °C @ 95% RH Non-condensing | | | | | | | | | | | | | | | | | | | | | | | | |
| | Dimensions (L x H) | 304.8 x 244 mm (12" x 9.6") | | | | | | | | | | | | | | | | | | | | | | | | |

Block Diagram



Ordering Information

| Part Number | Chipset | Memory | Display | USB 3.0 | USB 2.0 | COM | GbE LAN | AMT | SATA | SW RAID | Intelligent System Module Support |
|------------------|---------|---------|-----------|---------|---------|-----|---------|-----|------|---------|-----------------------------------|
| AIMB-705G2-00A1E | H110 | Non-ECC | VGA + DVI | 4 | 5 | 6 | 2 | No | 4 | No | No |
| AIMB-705VG-00A1E | H110 | Non-ECC | VGA | 4 | 5 | 2 | 1 | No | 4 | No | No |

Packing List

| Part Number | Description | Quantity |
|----------------|------------------|----------|
| 1700003194 | SATA HDD cable | x2 |
| 1700022749-11 | SATA power cable | x1 |
| 1960050472T000 | I/O port bracket | x1 |
| 2001070511 | Startup manual | x1 |
| 2061070501 | Driver CD | x1 |

I/O View



AIMB-705G2-00A1E



AIMB-705VG-00A1E

Optional Accessories

| Part Number | Description |
|------------------|--|
| 1701090401 | Single COM port cable(40 cm) |
| 1701092300 | Dual COM port cable(28.5 cm) |
| 1700020294-01 | Printer port cable kit(42 cm) |
| 1700028292-01 | 2-port USB 3.0 cable w/ BKT(30 cm) |
| 1700002204 | 2-port USB 2.0 cable w/ BKT(27 cm) |
| 1960052651N021 | CPU cooler for 2U, 4U, and wallmount chassis |
| 1960049408N001 | CPU cooler for 1U chassis |
| 1960055954T000 | IO bracket for 1U chassis |
| PCA-COM232-00A1E | 4-port RS-232 LPC module |
| PCA-TPM-00A1E | TPM module (for BIOS V1.XX) |
| PCA-TPM-00B1E | TPM2.0 module (for BIOS V2.XX) |

Note: Purchasing AIMB-705's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-705.

Riser Card

| Part Number | Description |
|------------------|--|
| AIMB-RP10P-01A1E | 1U riser card providing 1 PCI slot |
| AIMB-RP30P-03A1E | 2U riser card providing 3 PCI slots |
| AIMB-RP3PF-21A1E | 2U riser card providing 1 PCIe x16 and 2 PCI slots |