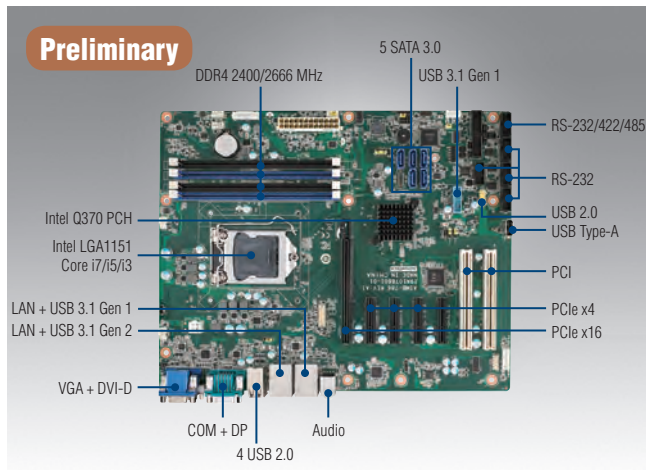


AIMB-786

LGA1151 8th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® ATX with Triple Display, DDR4, USB 3.1, SATA 3.0



Features

- Intel® 8th generation Core™ i7/i5/i3/Pentium®/Celeron® processor with Q370 chipset
- Four DIMM sockets up to 64 GB DDR4 2400/2666
- Triple display VGA/DVI-D/DP and dual GbE LAN
- SATA RAID 0, 1, 5, 10, USB 3.1
- Supports Intel vPro, AMT & TPM technologies

Note 1: TPM module is required to enable Intel vPro and TPM technologies.

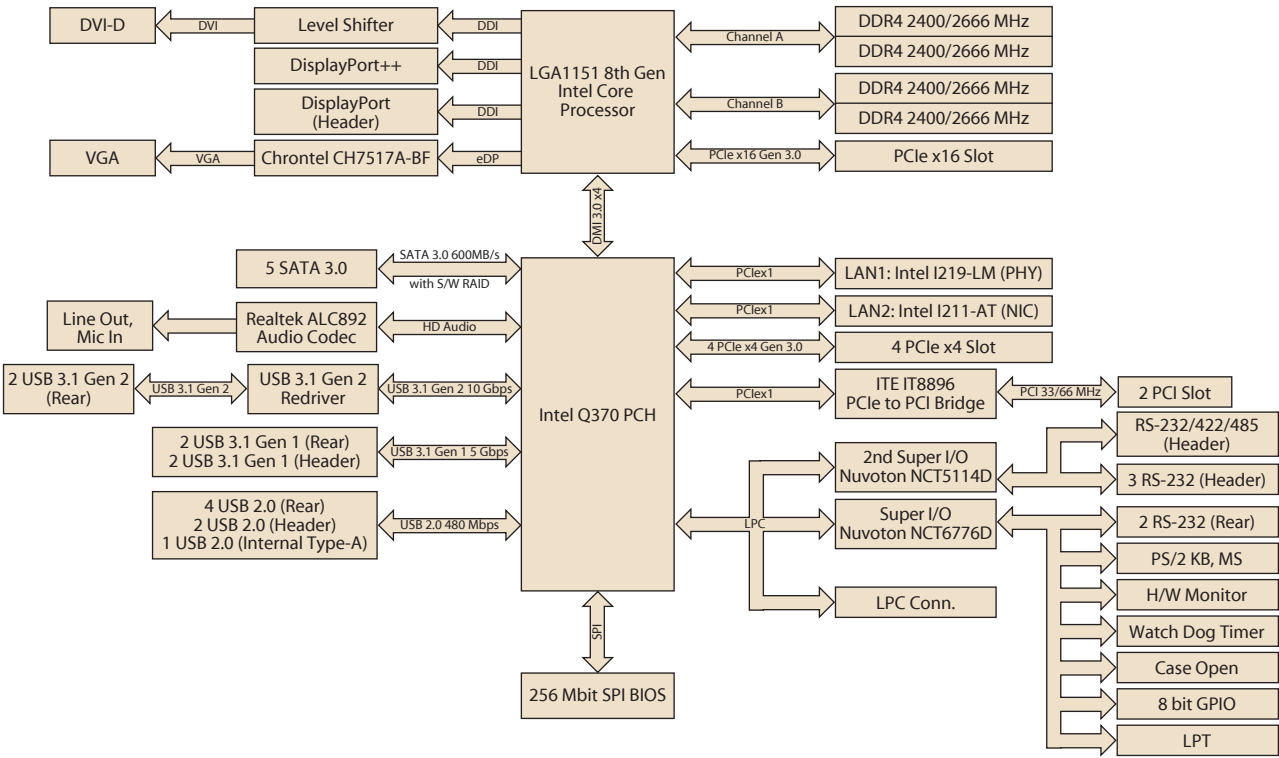
Note 2: Intel 8th generation processors only support Windows 10 (64-bit).

Quiet Specifications



| | | | | | | | | | | | | |
|--------------------------|------------------------|--|----------|---------|----------|---------|----------|---------|-------------------------------|---------|---------|--|
| Processor System | CPU | i7-8700 | i7-8700T | i5-8500 | i5-8500T | i3-8100 | i3-8100T | G5400 | G5400T | G4900 | G4900T | |
| | Speed | 3.2 GHz | 2.4 GHz | 3.0 GHz | 2.1 GHz | 3.6 GHz | 3.1 GHz | 3.7 GHz | 3.1 GHz | 3.1 GHz | 2.9 GHz | |
| | L3 Cache | 12 MB | 12 MB | 9 MB | 9 MB | 6 MB | 6 MB | 4 MB | 4 MB | 2 MB | 2 MB | |
| | Socket | LGA1151 | | | | | | | | | | |
| | Chipset | Q370 | | | | | | | | | | |
| | BIOS | AMI 256 Mbit SPI | | | | | | | | | | |
| Expansion Slot | PCI | 32-bit/33 MHz, 2 slots | | | | | | | | | | |
| | PCIe x4 (Gen3) | 4 GB/s per direction, 4 slots | | | | | | | | | | |
| | PCIe x16 (Gen3) | 16 GB/s per direction, 1 slot | | | | | | | | | | |
| Memory | Technology | Dual Channel (Non-ECC) DDR4 2400/2666 | | | | | | | | | | |
| | Max. Capacity | 64 GB | | | | | | | | | | |
| | Socket | 4 x 288-pin DIMM | | | | | | | | | | |
| Graphics | Controller | Intel HD Graphics | | | | | | | | | | |
| | VRAM | 1 GB maximum shared memory with 2 GB and above system memory installed | | | | | | | | | | |
| Ethernet | Interface | 10/100/1000 Mbps | | | | | | | | | | |
| | Controller | GbE LAN1: Intel I219-LM, GbE LAN2: Intel I211-AT | | | | | | | | | | |
| | Connector | 2 x RJ-45 | | | | | | | | | | |
| SATA | Max Data Transfer Rate | 600 MB/s | | | | | | | | | | |
| | Channel | 5 | | | | | | | | | | |
| | RAID | 0,1,5,10 | | | | | | | | | | |
| Rear I/O | VGA | 1 (Resolution up to 1920 x 1200 @ 60 Hz) | | | | | | | | | | |
| | DVI-D | 1 (Resolution up to 1920 x 1200 @ 60 Hz) | | | | | | | | | | |
| | DisplayPort | 1 (Resolution up to 4096 x 2304 @ 60 Hz) | | | | | | | | | | |
| | Ethernet | 2 | | | | | | | | | | |
| | USB | 8 (2 x USB 3.1 Gen 2, 2 x USB 3.1 Gen 1, 4 x USB 2.0) | | | | | | | | | | |
| | Audio | 2 (Line-out, Mic-in) | | | | | | | | | | |
| | Serial | 1 (RS-232) | | | | | | | | | | |
| Internal Connectors | PS/2 | - | | | | | | | | | | |
| | USB | 5 (2 x USB 3.1 Gen 1 via header, 2 x USB 2.0 via header, 1 x USB 2.0 Type-A connector) | | | | | | | | | | |
| | Serial | 5 (4 x RS-232, 1 x RS-232/422/485) | | | | | | | | | | |
| | SATA | 5 | | | | | | | | | | |
| | Parallel | 1 | | | | | | | | | | |
| | DisplayPort | 1 | | | | | | | | | | |
| | GPIO | 8-bit | | | | | | | | | | |
| Watchdog Timer | Output | System reset | | | | | | | | | | |
| | Interval | Programmable 1 ~ 255 sec | | | | | | | | | | |
| Power Requirement | Power On | Intel Core i7-8700 3.2 GHz; DDR4 2400 16 GB x 4 | | | | | | | | | | |
| | Voltage | +12V | +5V | +3.3V | +5Vsb | -12V | -5V | | | | | |
| | Current | 3.77A | 1.77A | 2.8A | 0.1A | 0.04A | 0.06A | | | | | |
| Environment | Temperature | Operating | | | | | | | Non-Operating | | | |
| | | 0 ~ 60 °C (32 ~ 140 °F), depends on CPU speed and cooler solution | | | | | | | -40 ~ 85 °C (-40 ~ 185 °F) | | | |
| | Humidity | 40 °C @ 95% RH Non-condensing | | | | | | | 60 °C @ 95% RH Non-condensing | | | |
| Physical Characteristics | Dimensions (L x H) | 304.8 x 244 mm (12" x 9.6") | | | | | | | | | | |

Block Diagram



Ordering Information

| Part Number | Chipset | Memory | Display | USB 3.1 Gen 2 | USB 3.1 Gen 1 | USB 2.0 | COM | GbE LAN | AMT | SATA 3.0 | SW RAID |
|-----------------|---------|-----------------------------------|------------------|---------------|---------------|---------|-----|---------|-----|----------|---------|
| AIMB-786G2-00A1 | Q370 | Non-ECC DDR4 2400/2666 up to 64GB | VGA + DVI-D + DP | 2 | 4 | 7 | 6 | 2 | Yes | 5 | Yes |

Packing List

| Part Number | Description | Quantity |
|----------------|------------------|----------|
| 1700003194 | SATA HDD cable | x 2 |
| 1700022749-11 | SATA power cable | x 2 |
| 1960086615T001 | I/O port bracket | x 1 |
| 2001078610 | Startup manual | x 1 |

Note: Driver CD is not provided. Please visit Advantech support website for driver download.

I/O View



AIMB-786G2-00A1

Optional Accessories

| Part Number | Description |
|----------------|---|
| 1700002204 | 2-port USB 2.0 cable w/ BKT(27 cm) |
| 1700028292-01 | 2-port USB 3.0 cable w/ BKT(30 cm) |
| 1960052651N021 | CPU cooler for 2U, 4U and wallmount chassis |
| 1700020294-01 | Printer port cable kit (42 cm) |
| 1701092300 | Dual COM port cable(28.5 cm) |
| 1700019268-11 | PS/2 KB/Mouse cable |
| 1960063434N000 | IO bracket for PS/2 KB/Mouse cable |
| PCA-TPM-00B1E | TPM2.0 module to enable TPM and vPro technologies |

Note: Purchasing AIMB-786's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-786.

Riser Card

| Part Number | Description |
|------------------|---|
| AIMB-R430P-03A2E | 2U riser card with 3 PCI expansion |
| AIMB-R431F-21A1E | 2U riser card with 1 PCIe x16 & 1 PCIe x1 expansion |
| AIMB-R43PF-21A1E | 2U riser card with 1 PCIe x16 & 2 PCI expansion |
| AIMB-R4301-03A1E | 2U riser card with 1 PCIe x1 expansion |

Note: AIMB-786 is not compatible with 1U chassis.