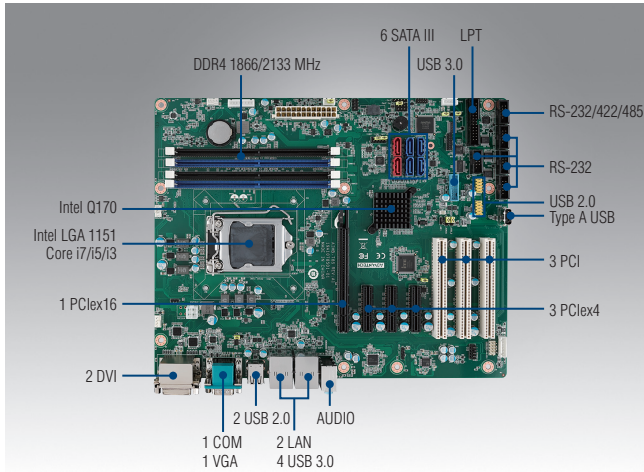


AIMB-785

LGA1151 6th/7th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® ATX with Triple Display, DDR4, SATA III



Features

- Supports Intel® 6th/7th Core™ i7/i5/i3/Pentium®/Celeron® processor with Q170 chipset
- Four DIMM sockets support up to 64 GB DDR4 1866/2133
- Supports triple display VGA/2 DVI-D and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, USB 3.0
- Supports Intel vPro, AMT 11.0 & TPM technologies

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

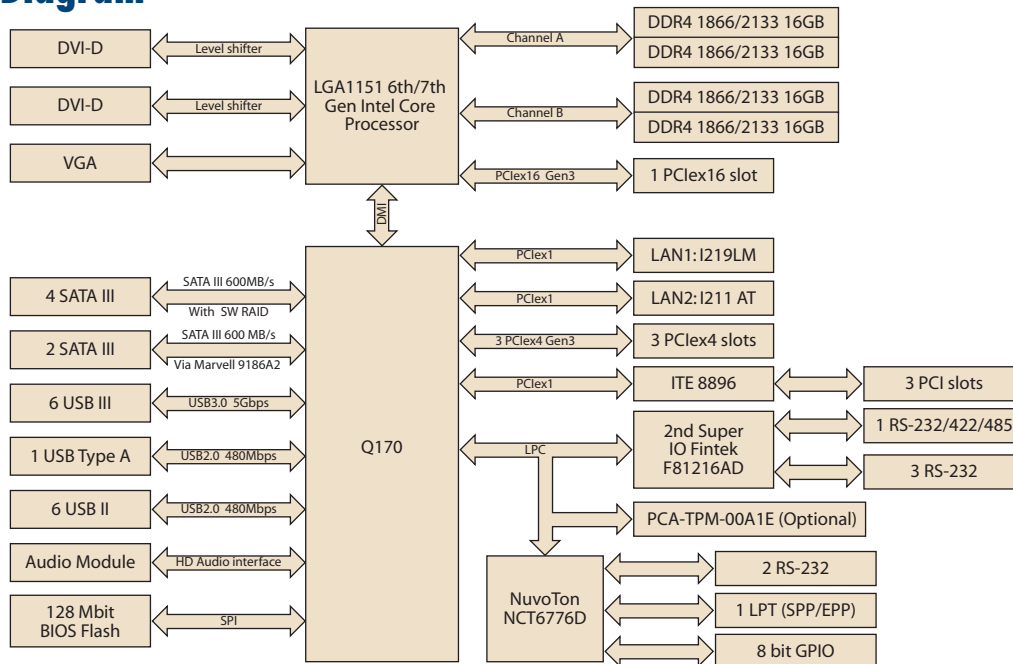
Note 2: Intel 7th generation processors only support Windows 10 (64-bit).

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 | 3.4GHz | 2.4GHz | 3.4GHz | 2.7GHz | 3.2GHz | 2.3GHz | 3.9GHz | 3.4GHz | 3.7GHz | 2.7GHz | 3.3GHz | 2.9GHz | 2.8GHz | 2.6GHz | | | | | |
| | L3 Cache | 8MB | 8MB | 8MB | 8MB | 6MB | 6MB | 6MB | 6MB | 3MB | 3MB | 4MB | 4MB | 3MB | 3MB | 2MB | 2MB | | | | | |
| | Socket | LGA1151 | | | | | | | | | | | | | | | | | | | | |
| | Chipset | Q170 | | | | | | | | | | | | | | | | | | | | |
| Expansion Slot | PCI | 32-bit/33 MHz, 3 slots | | | | | | | | | | | | | | | | | | | | |
| | PCIe x4 (Gen3) | 4 GB/s per direction, 3 slots | | | | | | | | | | | | | | | | | | | | |
| | PCIe x16 (Gen3) | 16 GB/s per direction, 1 slot | | | | | | | | | | | | | | | | | | | | |
| Memory | Technology | Dual Channel DDR4 1866/2133 | | | | | | | | | | | | | | | | | | | | |
| | 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 I219LM, GbE LAN2: Intel I211AT | | | | | | | | | | | | | | | | | | | | |
| | Connector | RJ-45 x 2 | | | | | | | | | | | | | | | | | | | | |
| SATA | Max Data Transfer Rate | 600 MB/s | | | | | | | | | | | | | | | | | | | | |
| | Channel | 6 (4 from Intel® Q170 and 2 from Marvell 9186A2) | | | | | | | | | | | | | | | | | | | | |
| | RAID | 0,1,5,10 (4 SATAIII ports from Intel®) | | | | | | | | | | | | | | | | | | | | |
| Rear I/O | VGA | 1 (Up to 1920x1200@60Hz) | | | | | | | | | | | | | | | | | | | | |
| | DVI-D | 2 (Up to 1920x1200@60Hz) | | | | | | | | | | | | | | | | | | | | |
| | Ethernet | 2 | | | | | | | | | | | | | | | | | | | | |
| | USB | 6 (USB3.0 x 4, USB2.0 x 2) | | | | | | | | | | | | | | | | | | | | |
| | Audio | 2 (Mic-in, Line-out) | | | | | | | | | | | | | | | | | | | | |
| | Serial | 1 (RS-232) | | | | | | | | | | | | | | | | | | | | |
| | PS/2 | N/A | | | | | | | | | | | | | | | | | | | | |
| Internal Connectors | USB | 7 (USB 3.0 with wafer box x 2, USB 2.0 with wafer box x 4, USB 2.0 with type A connector x 1) | | | | | | | | | | | | | | | | | | | | |
| | Serial | 5 (4 x RS-232, 1 x RS-232/422/485) | | | | | | | | | | | | | | | | | | | | |
| | SATA | 6 | | | | | | | | | | | | | | | | | | | | |
| | Parallel | 1 (SPP/EPP) | | | | | | | | | | | | | | | | | | | | |
| | Display Port | N/A | | | | | | | | | | | | | | | | | | | | |
| | IrDA | N/A | | | | | | | | | | | | | | | | | | | | |
| | GPIO | 8-bit | | | | | | | | | | | | | | | | | | | | |
| PS/2 KB/Mouse | 1 (Optional PS/2 KB/Mouse Cable is required) | | | | | | | | | | | | | | | | | | | | | |
| Watchdog Timer | Output | System reset | | | | | | | | | | | | | | | | | | | | |
| | Interval | Programmable 1 ~ 255 sec | | | | | | | | | | | | | | | | | | | | |
| Power Requirement | Power On | Intel Core i7-6700 3.4GHz; DDR4 2133 8GB x 4 | | | | | | | | | | | | | | | | | | | | |
| | Voltage | +12V | | | | | +5V | | | | | +3.3V | | | | | +5Vsb | | -12V | | -5V | |
| | Current | 6.78A | | | | | 1.38A | | | | | 1.35A | | | | | 0.12A | | 0.05A | | 0.05A | |
| Environment | Operating | 0 ~ 60 °C (32 ~ 140 °F), depends on CPU speed and cooler solution | | | | | | | | | | | | | | | Non-Operating | | | | | |
| | Temperature | | | | | | | | | | | | | | | | -40 ~ 85 °C (-40 ~ 185 °F) | | | | | |
| 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 3.0 | USB 2.0 | COM | GbE LAN | AMT | SATA III | SW RAID |
|------------------|---------|-----------------------------------|----------------|---------|---------|-----|---------|-----|----------|---------|
| AIMB-785G2-00A1E | Q170 | Non-ECC DDR4 1866/2133 up to 64GB | VGA + dual DVI | 6 | 7 | 6 | 2 | Yes | 6 | Yes |

Note: SATA0 and SATA1(red SATA ports) don't support RAID function.

Packing List

| Part Number | Description | Quantity |
|----------------|------------------|----------|
| 1700003194 | SATA HDD cable | x 2 |
| 1700022749-11 | SATA power cable | x 2 |
| 19Z0000884T000 | I/O port bracket | x 1 |
| 2006078511 | Startup manual | x 1 |
| 2066078502 | Driver CD | x 1 |

I/O View



AIMB-785G2-00A1E

Optional Accessories

| Part Number | Description |
|----------------|--|
| 1700002204 | Dual port USB 2.0 cable (27 cm) with bracket |
| 1700020277-01 | Dual port USB 3.0 Cable with bracket |
| 1960052651N021 | CPU Cooler for 2U, 4U and wallmount chassis |
| 1960049408N001 | CPU cooler for 1U Rackmount chassis |
| 1960069666N101 | IO bracket for 1U chassis |
| 1700020294-01 | Printer port cable kit (42 cm) |
| 1701092300 | COM port cable kit |
| 1700019268-11 | PS/2 KB/Mouse Cable |
| 1960063434N000 | IO Bracket for PS/2 KB/Mouse Cable |
| PCA-TPM-00A1E | TPM module to enable TPM and vPro technologies (for BIOS V1.XX) |
| PCA-TPM-00B1E | TPM2.0 module to enable TPM and vPro technologies (for BIOS V2.XX) |

Note: Purchasing AIMB-785's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-785.

Riser Card

| Part Number | Description |
|------------------|---|
| AIMB-RF10F-01A1E | 1U riser card with 1 PCIe16 expansion |
| AIMB-R4104-01A1E | 1U riser card with 1 PCIe4 expansion |
| AIMB-R430P-03A2E | 2U riser card with 3 PCI expansion |
| AIMB-R431F-21A1E | 2U riser card with 1 PCIe16 & 1 PCIe1 expansion |
| AIMB-R43PF-21A1E | 2U riser card with 1 PCIe16 & 2 PCI expansion |
| AIMB-R4301-03A1E | 2U riser card with 1 PCIe1 expansion |

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