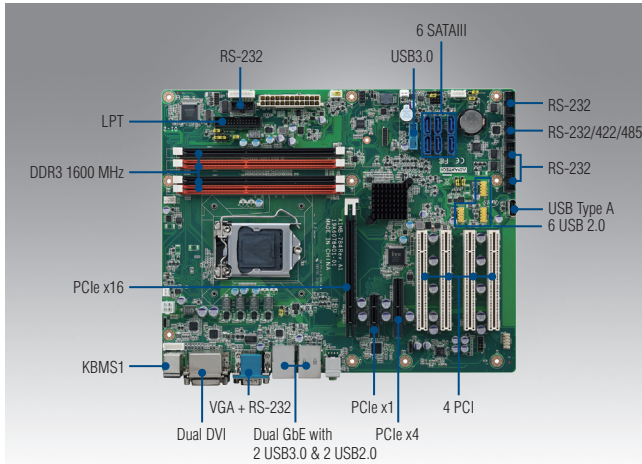


AIMB-784

**LGA1150 4th Generation Intel® Core™
i7/i5/i3/Pentium ATX with DVI/VGA,
DDR3, SATA III**



Features

- 4th generation Intel® Core™ processor-based platform
- Supports Intel® Core™ i7/i5/i3 processor with Q87 chipset
- Four DIMM sockets support up to 32 GB DDR3 1333/1600
- Supports triple display VGA/2 DVI-D and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, USB 3.0
- Supports Intel vPro, iAMT 9.0 & TPM technologies
- Note: PCA-TPM-00A1E module is required to enable Intel vPro and TPM technologies

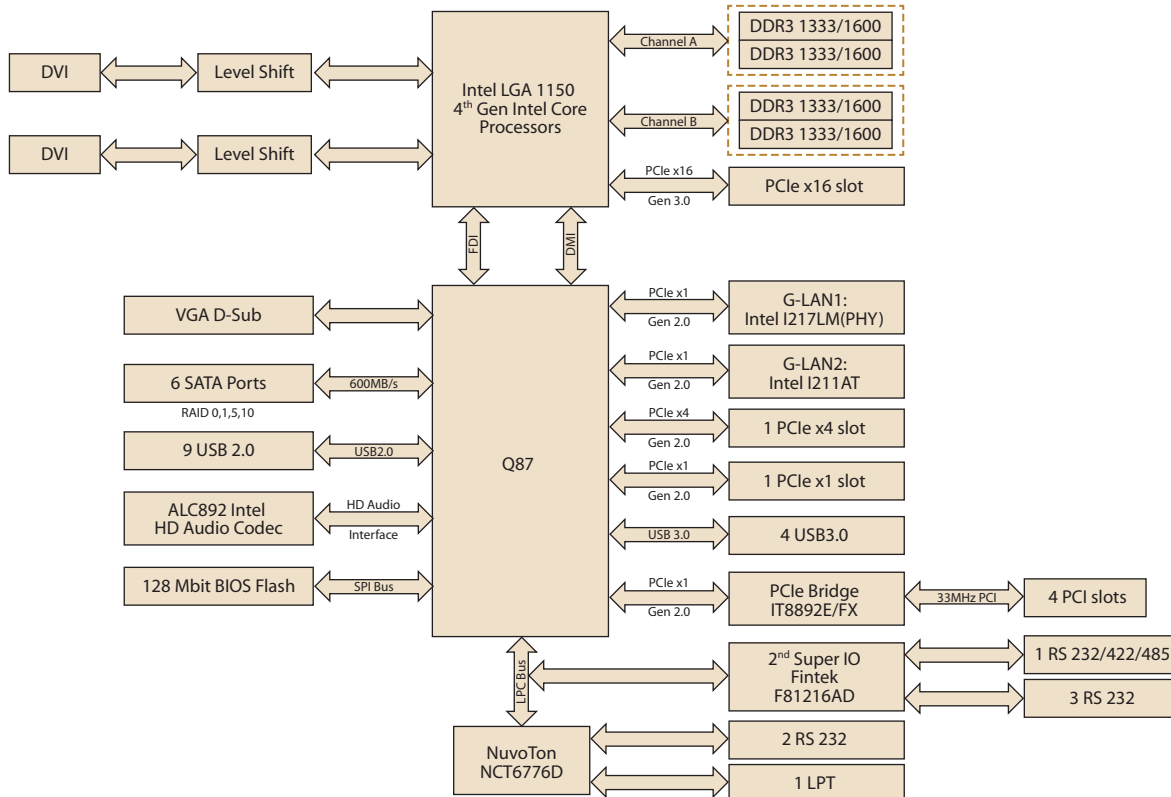
Quiet

Specifications

CE FCC

| | | | | | | | | | | | | | | | | | |
|--------------------------|------------------------|--|-------|-------|--------|-------|-------|-------|--------|------|-------|---------------|--------|---------|---------|---------|---------|
| Processor System | CPU | i7- | i7- | i7- | i7- | i5- | i5- | i5- | i5- | i3- | i3- | i3- | i3- | G3420 | G3320TE | G1820 | G1820TE |
| | Speed | 4790S | 4790T | 4770S | 4770TE | 4590S | 4590T | 4570S | 4570TE | 4360 | 4350T | 4330 | 4330TE | 3.2 GHz | 2.3 GHz | 2.7 GHz | 2.2 GHz |
| | L3 Cache | 8MB | 8MB | 8MB | 8MB | 6MB | 6MB | 6MB | 6MB | 4MB | 4MB | 4MB | 4MB | 3MB | 3MB | 2MB | 2MB |
| | Socket | LGA1150 | | | | | | | | | | | | | | | |
| | Chipset | Q87 | | | | | | | | | | | | | | | |
| | BIOS | AMI 128 Mbit SPI | | | | | | | | | | | | | | | |
| Expansion Slot | PCI | 32-bit/33 MHz, 4 slots | | | | | | | | | | | | | | | |
| | PCIe x 1 (Gen2) | 500 MB/s per direction, 1 slot | | | | | | | | | | | | | | | |
| | PCIe x 4 (Gen2) | 2.0 GB/s per direction, 1 slot | | | | | | | | | | | | | | | |
| | PCIe x16 (Gen3) | 16 GB/s per direction, 1 slot | | | | | | | | | | | | | | | |
| Memory | Technology | Dual Channel DDR3 1333/1600 | | | | | | | | | | | | | | | |
| | Max. Capacity | 32 GB | | | | | | | | | | | | | | | |
| | Socket | 4 x 240-pin DIMM | | | | | | | | | | | | | | | |
| Graphics | Controller | Intel HD Graphics (Depends on processor) | | | | | | | | | | | | | | | |
| | VRAM | 1 GB maximum shared memory with 2 GB and above system memory installed | | | | | | | | | | | | | | | |
| Ethernet | Interface | 10/100/1000 Mbps | | | | | | | | | | | | | | | |
| | Controller | GbE LAN1: Intel I217LM, GbE LAN2: Intel I211AT | | | | | | | | | | | | | | | |
| | Connector | RJ-45 x 2 | | | | | | | | | | | | | | | |
| SATA | Max Data Transfer Rate | 600 MB/s | | | | | | | | | | | | | | | |
| | Channel | 6 | | | | | | | | | | | | | | | |
| Rear I/O | VGA | 1 | | | | | | | | | | | | | | | |
| | DVI | 2 | | | | | | | | | | | | | | | |
| | Ethernet | 2 (GbE) | | | | | | | | | | | | | | | |
| | USB | 4 (Two USB 3.0) | | | | | | | | | | | | | | | |
| | Audio | 2 (Mic-in, Line-out) | | | | | | | | | | | | | | | |
| | Serial | 1 (RS-232) | | | | | | | | | | | | | | | |
| | PS/2 | 2 (1 x keyboard and 1 x mouse) | | | | | | | | | | | | | | | |
| Internal Connectors | USB | 9 (Two USB 3.0) | | | | | | | | | | | | | | | |
| | Serial | 5 (4 x RS-232, 1x RS-232/422/485 with auto-flow control) | | | | | | | | | | | | | | | |
| | SATA | 6 | | | | | | | | | | | | | | | |
| | Parallel | 1 | | | | | | | | | | | | | | | |
| | Display Port | - | | | | | | | | | | | | | | | |
| | IrDA | - | | | | | | | | | | | | | | | |
| | GPIO | - | | | | | | | | | | | | | | | |
| Watchdog Timer | Output | System reset | | | | | | | | | | | | | | | |
| | Interval | Programmable 1 ~ 255 sec | | | | | | | | | | | | | | | |
| Power Requirement | Power On | Intel Core i7-4790S processor; DDR3 8GB x4 | | | | | | | | | | | | | | | |
| | | 3.3V | | | 5V | | | 12V | | | 5VSB | | | -12V | | | |
| | | 1.060 | | | 1.554 | | | 4.922 | | | 0.048 | | | 0.044 | | | |
| 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 | 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-784G2-00A1E | Q87 | Non-ECC DDR3 | VGA + dual DVI | 4 | 9 | 6 | 2 | Yes | 6 | Yes |

Packing List

| Part Number | Description | Quantity |
|----------------|------------------|----------|
| 1700003194 | SATA HDD cable | x 2 |
| 1700022749-11 | SATA power cable | x 1 |
| 19Z0000454T000 | I/O port bracket | x 1 |
| 2006078410 | Startup manual | x 1 |
| 2066078401 | Driver CD | x 1 |

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 |
| 1960047669N001 | CPU cooler for 4U and wallmount chassis |
| 1960047831N001 | CPU cooler for 2U and wallmount chassis |
| 1960049408N001 | CPU passive heatsink for 1U chassis |
| 1960069682N001 | I/O port bracket for 1U chassis |
| 1700020294-01 | Printer port cable kit (42 cm) |
| 1701092300 | COM port cable kit |
| PCA-TPM-00A1E | TPM module to enable TPM and vPro technologies |

Note: Purchasing AIMB-784's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-784.

I/O View



AIMB-784G2-00A1E

Riser Card

| Part Number | Description |
|------------------|---|
| AIMB-RF10F-01A1E | 1U riser card with 1 PCIe x 16 expansion |
| AIMB-R43PF-21A1E | 2U riser card with 1 PCIe x16 & 2 PCI expansion |