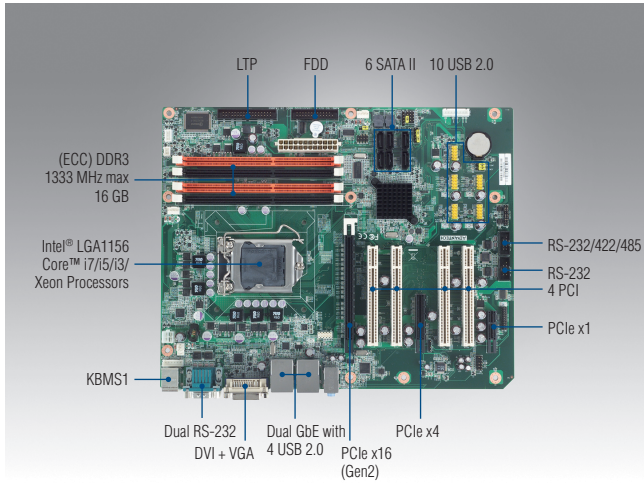


AIMB-780

LGA1156 Intel® Core™ i7/i5/i3/Pentium®/Xeon®
ATX with DVI/VGA, 4 COM, Dual LAN, DDR3



CE FCC

Features

- Supports Intel® Core™ i7/i5/i3/Pentium®/Xeon® processor with Q57/3450 chipset
- Four DIMM sockets support up to 16 GB DDR3 800/1066/1333
- Supports dual display VGA and DVI and dual GbE LAN
- Supports SATA RAID 0, 1, 5, 10, AMT6.0, TPM1.2 (optional)
- Supports embedded software APIs and utilities

Software APIs:



Utilities:

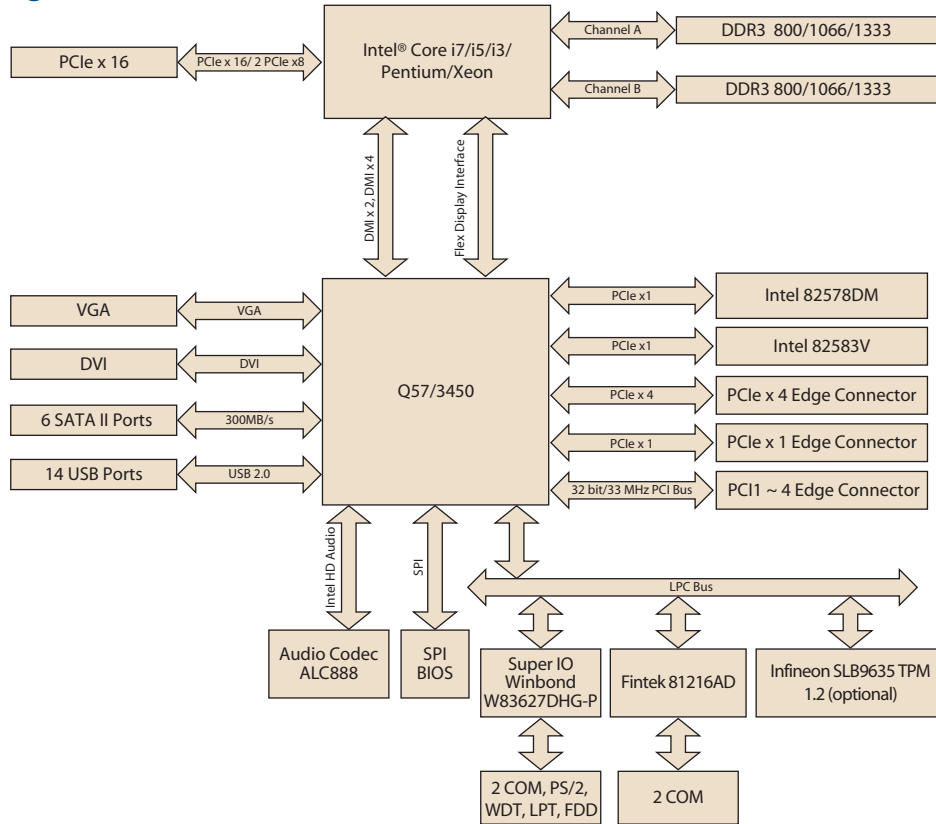


Note: eSOS needs ODM BIOS available by request

Specifications

| | | | | | | | |
|--------------------------|------------------------|---|-------------|-------------|-------------|----------------------------|---------------|
| Processor System | CPU | Xeon 34xx | Core i7 8xx | Core i5 7xx | Core i5 6xx | Core i3 5xx | Pentium G69xx |
| | Core Number | 4 | 4 | 4 | 2 | 2 | 2 |
| | Speed | 2.93 GHz | 2.93 GHz | 2.66 GHz | 3.3 GHz | 3.06 GHz | 2.8 GHz |
| | Integrated Graphics | - | - | - | Yes | Yes | Yes |
| | L3 Cache | 8 MB | 8 MB | 8 MB | 4 MB | 4 MB | 3 MB |
| | Support Model | WG2 | QG2 | QG2 | WG2/QG2 | WG2/QG2 | WG2/QG2 |
| | Socket | LGA1156 | | | | | |
| | Chipset | Q57 for QG2 version; 3450 for WG2 version (WG2 only supports Xeon 34xx, Core i5 6xx, Core i3 5xx, and Pentium G69XX CPUs) | | | | | |
| Expansion Slot | BIOS | AMI 64 Mbit SPI | | | | | |
| | PCI | 32-bit/33 MHz, 4 slots | | | | | |
| | PCIe x1 | 250 MB/s per direction, 1 slot | | | | | |
| | PCIe x4 | 1.0 GB/s per direction, 1 slot | | | | | |
| Memory | PCIe x16 (Gen2) | 8 GB/s per direction, 1 slot | | | | | |
| | Technology | Dual Channel DDR3 800/1066/1333 (Only WG2 SKU supports ECC memory) | | | | | |
| | Max. Capacity | 16 GB | | | | | |
| Graphics | Socket | 4 x 240-pin DIMM | | | | | |
| | Controller | Intel HD Graphics (Only the Core i5 6xx, Core i3 and Pentium CPUs with dual core are embedded with integrated graphics) | | | | | |
| Ethernet | VRAM | 1 GB maximum shared memory with 2 GB and above system memory installed | | | | | |
| | Interface | 10/100/1000 Mbps | | | | | |
| | Controller | GbE LAN1: Intel 82578DM, GbE LAN2: Intel 82583V | | | | | |
| SATA | Connector | RJ-45 x 2 | | | | | |
| | Max Data Transfer Rate | 300 MB/s | | | | | |
| Rear I/O | Channel | 6 | | | | | |
| | VGA | 1 | | | | | |
| | DVI | 1 | | | | | |
| | Ethernet | 2 | | | | | |
| | USB | 4 (USB 2.0 compliant) | | | | | |
| | Audio | 2 (Mic-in, Line-out) | | | | | |
| | Serial | 2 (RS-232) | | | | | |
| Internal Connectors | PS/2 | 2 (1 x keyboard and 1 x mouse) | | | | | |
| | USB | 10 (USB 2.0 compliant) | | | | | |
| | Serial | 2 (1 x RS-232, 1 x RS-232/422/485 for auto-flow control support) | | | | | |
| | SATA | 6 | | | | | |
| | FDD | 1 | | | | | |
| | Parallel | 1 | | | | | |
| Watchdog Timer | IrDA | 1 | | | | | |
| | Output | System reset | | | | | |
| Power Requirement | Interval | Programmable 1 ~ 255 sec/min | | | | | |
| | Power On | Intel Core i5-660 processor; DDR3 2 GB x 4 | | | | | |
| | | 5 V | 3.3 V | 12 V | 5 Vsb | -12 V | |
| Environment | | 4.23 A | 0.96 A | 3.93 A | 1.18 A | 0.01A | |
| | Operating | | | | | Non-Operating | |
| Physical Characteristics | Temperature | 0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution | | | | -40 ~ 85° C (-40 ~ 185° F) | |
| | Dimensions | 304.8 x 244 mm (12" x 9.6") | | | | | |

Board Diagram



Ordering Information

| Part Number | Chipset | Memory | USB | COM | GbE LAN | TPM |
|-------------------|---------|--------------|-----|-----|---------|----------|
| AIMB-780QG2-00A1E | Q57 | Non-ECC | 14 | 4 | 2 | Optional |
| AIMB-780WG2-00A1E | 3450 | ECC/ Non-ECC | 14 | 4 | 2 | Optional |

Riser Card

| Part Number | Description |
|------------------|---|
| AIMB-RP10P-01A1E | 1U riser card with 1 PCI expansion |
| AIMB-RP30P-03A1E | 2U riser card with 3 PCI expansion |
| AIMB-RP3PF-21A1E | 2U riser card with 1PCIe x16 & 2 PCI slot expansion |
| AIMB-RP3P8-12A1E | 2U riser card with 2PCIe x8 & 1 PCI slot expansion (only for WG2 Sku) |

Note: AIMB-RP3P8-12A1E is not compatible with ACP-2010MB chassis.

Bracket View



AIMB-780QG2-00A1E
AIMB-780WG2-00A1E

Packing List

| Part Number | Description | Quantity |
|----------------|--------------------|----------|
| 1700003194 | SATA HDD cable | x 2 |
| 1703150102 | SATA power cable | x 2 |
| 1701092300 | COM port cable kit | x 1 |
| 1960019193T000 | I/O port bracket | x 1 |
| 2002078010 | Startup manual | x 1 |
| 2062078000 | Driver CD | x 1 |

Optional Accessories

| Part Number | Description |
|----------------|---|
| 1700002204 | Dual port USB cable (27 cm) with bracket |
| 1960047669N001 | LGA1156 CPU cooler for 4U and wallmount chassis |
| 1960047831N001 | LGA1156 CPU cooler for 2U and wallmount chassis |
| 1960049408N001 | LGA1156 CPU cooler for 1U and wallmount chassis |
| 1700008809 | Printer port cable kit |

Note: Purchasing AIMB-780's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-780. 1960049408N001 supports up to Core i5-660 processor.