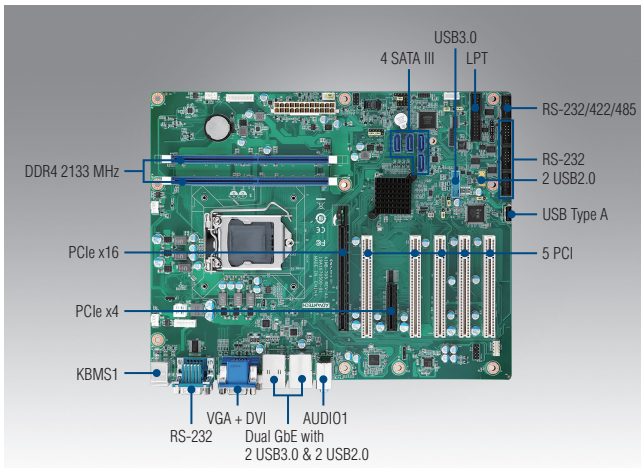


# AIMB-705

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



## Features

- Intel 6th generation Core i7/i5/i3/pentium processor
- Dual channel (Non-ECC) DDR4 1866/2133 up to 32GB
- Support VGA and DVI display
- Support SATA3.0, USB3.0, dual GbEs
- Support 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

Quiet

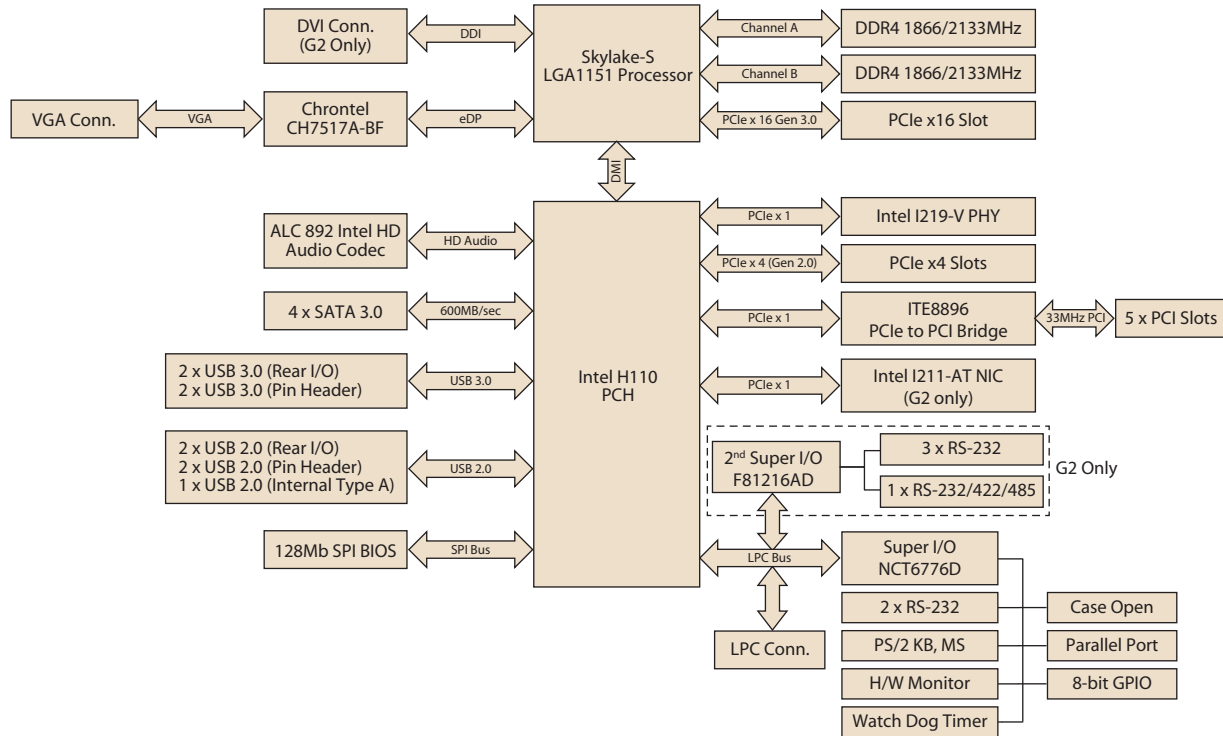
## Specifications

CE FCC

|                          |                        |                                                            |           |         |           |         |                               |         |         |         |         |
|--------------------------|------------------------|------------------------------------------------------------|-----------|---------|-----------|---------|-------------------------------|---------|---------|---------|---------|
| Processor System         | CPU                    | i7-6700                                                    | i7-6700TE | i5-6500 | i5-6500TE | i3-6100 | i3-6100TE                     | G4400   | G4400TE | G3900   | G3900TE |
|                          | Speed                  | 3.4 GHz                                                    | 2.4 GHz   | 3.2 GHz | 2.3 GHz   | 3.7 GHz | 2.7 GHz                       | 3.3 GHz | 2.9 GHz | 2.8 GHz | 2.6 GHz |
|                          | Cache                  | 8 MB                                                       | 8 MB      | 6 MB    | 6 MB      | 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                 | 1 (RS-232/422/485, Box-header); 3 (RS-232, Box-header)     |           |         |           |         |                               |         |         |         |         |
|                          | Parallel               | 1                                                          |           |         |           |         |                               |         |         |         |         |
|                          | GPIO                   | 8 bits                                                     |           |         |           |         |                               |         |         |         |         |
| Watchdog Timer           | Output                 | System reset                                               |           |         |           |         |                               |         |         |         |         |
|                          | Interval               | Programmable 1 - 255 sec                                   |           |         |           |         |                               |         |         |         |         |
| Power Requirement        | Test Environment       | Intel Core Intel i7-6700 @ 3.4 GHz; DDR4 8 G x 2           |           |         |           |         |                               |         |         |         |         |
|                          | Voltage                | 3.3V                                                       | 5V        |         |           | 12V     | 5Vsb                          |         |         |         |         |
|                          | Current                | 0.49A                                                      | 3.13A     |         |           | 7.88A   | 0.08A                         |         |         |         |         |
| Environment              |                        | Operating                                                  |           |         |           |         | Non-Operating                 |         |         |         |         |
|                          | Temperature            | 0 ~ 60° C (32 ~ 140° F)                                    |           |         |           |         | -40 ~ 85° C (-40 ~ 185° F)    |         |         |         |         |
|                          | Humidity               | 40° C @ 85% RH Non-condensing                              |           |         |           |         | 60° C @ 95% RH Non-condensing |         |         |         |         |
| Physical Characteristics | Dimensions             | 304.8 x 244 mm (12" x 9.6")                                |           |         |           |         |                               |         |         |         |         |

## AIMB-705

### 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       |
| -              | Startup manual   | x1       |
| -              | Driver CD        | x1       |

### I/O View



AIMB-705G2-00A1E



AIMB-705VG-00A1E

### Optional Accessories

| Part Number      | Description                                  |
|------------------|----------------------------------------------|
| 1701090401       | Single COM cable(40 cm)                      |
| 1701092300       | Dual COM cable(28.5 cm)                      |
| 1700020294-01    | Printer port cable kit(42 cm)                |
| 1700020277-01    | 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                    |
| PCA-COM232-00A1E | 4-port RS-232 LPC module                     |
| PCA-TPM-00A1E    | TPM Module                                   |

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 x 16 and 2 PCI slots |