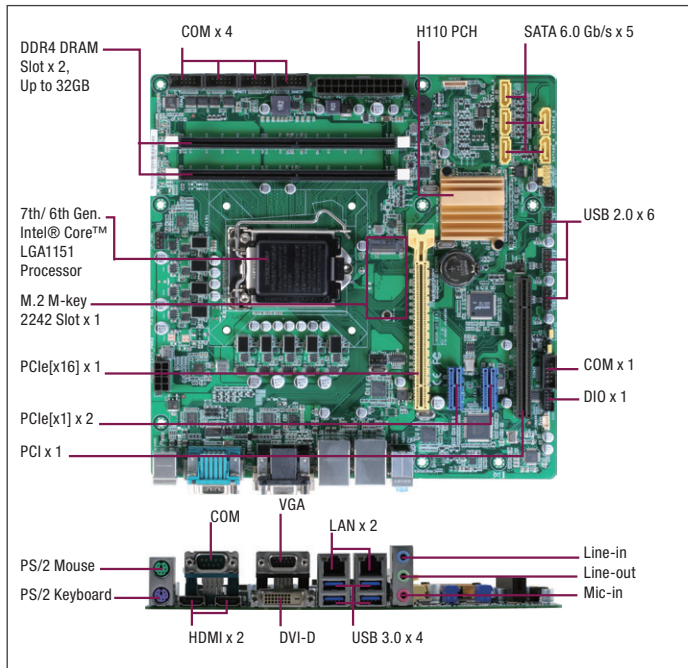


## Micro-ATX -Board



## Features

- 7th/6th Generation Intel® Core™ LGA1151 Processor
- DDR4 DRAM Support, 2400MHz, Max. 32GB
- Two Independent Display: HDMI x 2, VGA x 1, DVI-D x 1
- Dual Intel® Gigabit Ethernet
- M.2 Slot (M key) x 1
- USB 3.0 Port x 4, USB 2.0 Port x 6



### Rear Panel I/O Ports

|             |  |
|-------------|--|
| USB         | USB 3.0 x 4                            |
| Display I/O | HDMI x 2, VGA x 1, DVI-D x 1           |
| Audio I/O   | Line-in, Mic-in, Line-out              |
| LAN I/O     | RJ-45 x 2                              |
| Serial Port | DB-9 COM x 1 (supports RS-232/422/485) |
| PS/2 Port   | Stack Port (Keyboard & Mouse) x 1      |
| Others      | —                                      |

### Internal I/O Connectors

|               |  |
|---------------|--|
| Storage       | SATA 6.0Gb/s x 5, M.2 M key (22 x 42mm) x 1  |
| USB           | USB 2.0 x 6  |
| Display I/O   | —  |
| Audio I/O     | AMP speaker header x 1 (Line-out)  |
| Serial Port   | RS-232 header x 5  |
| PS/2 Port     | —  |
| Parallel Port | —  |
| DIO           | 8-bit x 1 (In/Out programmable)  |
| FAN           | 4-pin CPU Fan x 1, 4-pin Chassis Fan x 2   |
| Others        | Front panel header x 1, Clear CMOS jumper x 1, BIOS flash header (2[x4]P p=1.27mm) x 1, Chassis Intrusion x 1, AT/ATX mode select jumper x 1 |

### OS

|            |   |
|------------|---|
| OS Support | Windows® 7 32/64-bit (not supported when a Kaby Lake processor is used), Windows® 8.1 64-bit (not supported when a Kaby Lake processor is used), Windows® 10 64-bit, Linux Fedora 64bit |
|------------|---|

## Specifications

| System                   |  |
|--------------------------|--|
| Processor                | 7th/6th Generation Intel® Core™ i7/i5/i3/Pentium®/ Celeron® 14nm LGA1151 Socket Processor                      |
| Chipset                  | Intel® H110  |
| Memory                   | 288-pin DIMM x 2, max. 32GB, DDR4 2400/2133/1867, Dual channel   |
| I/O Chipset              | NCT6791D, F81216HD   |
| Ethernet                 | Intel® I211AT Giga LAN x 2   |
| Audio                    | Realtek® ALC887 (Colay with ALC886)  |
| TPM                      | Nuvoton NPCT650ABBYX TPM2.0 (default : No)   |
| Expansion Slots          | PCIe [x16] x 1, PCIe [x1] (open edge) x 2, PCI x 1, M.2 M key (22 x 42mm) x 1                                  |
| BIOS                     | 128M bit Flash ROM x 1, AMI BIOS   |
| H/W Monitor              | Temperature Monitor on CPU/Chassis, Voltage Monitor on Vcore/5V/3.3V/12V/3VSB/VBAT, Fan Monitor on CPU/Chassis |
| WatchDog Timer           | 1~255 steps by software program  |
| Smart Fan Control        | CPU Fan x 1, Chassis Fan x 2   |
| Wake On LAN/ PXE         | Yes (WOL/PXE)  |
| Power State              | S3, S4, S5   |
| Graphics                 |  |
| Graphics Chipset         | Intel® HD Graphics   |
| Graphics Multi Display   | DVI-D+HDMI, HDMI+HDMI, VGA+HDMI, DVI-D+VGA   |
| VGA                      | Up to 1920 x 1200 @60Hz  |
| DVI                      | Up to 1920 x 1200 @60Hz  |
| HDMI                     | HDMI 1.4 up to 4096 x 2304 @24Hz   |
| Display Port             | —  |
| LVDS                     | —  |
| eDP                      | —  |
| Backlight Control        | —  |
| Environment & Power & ME |  |
| Battery                  | Lithium battery  |
| Power Requirement        | 24-pin ATX connector x 1, 8-pin ATX 12V Power connector x 1  |
| Operation Temperature    | 32°F ~ 140°F (0°C ~ 60°C)  |
| Storage Temperature      | -40°F ~ 185°F (-40°C ~ 85°C)   |
| Operation Humidity       | 0% ~ 90% RH, non-condensing  |
| Certificate              | CE & FCC Class A   |
| Form Factor              | Micro-ATX, 9.6" x 9.6" (244mm x 244mm)   |
| Weight                   | 1.76 lb (0.8 Kg)   |
| MTBF (Hours)             | 245,250  |

## Packing List

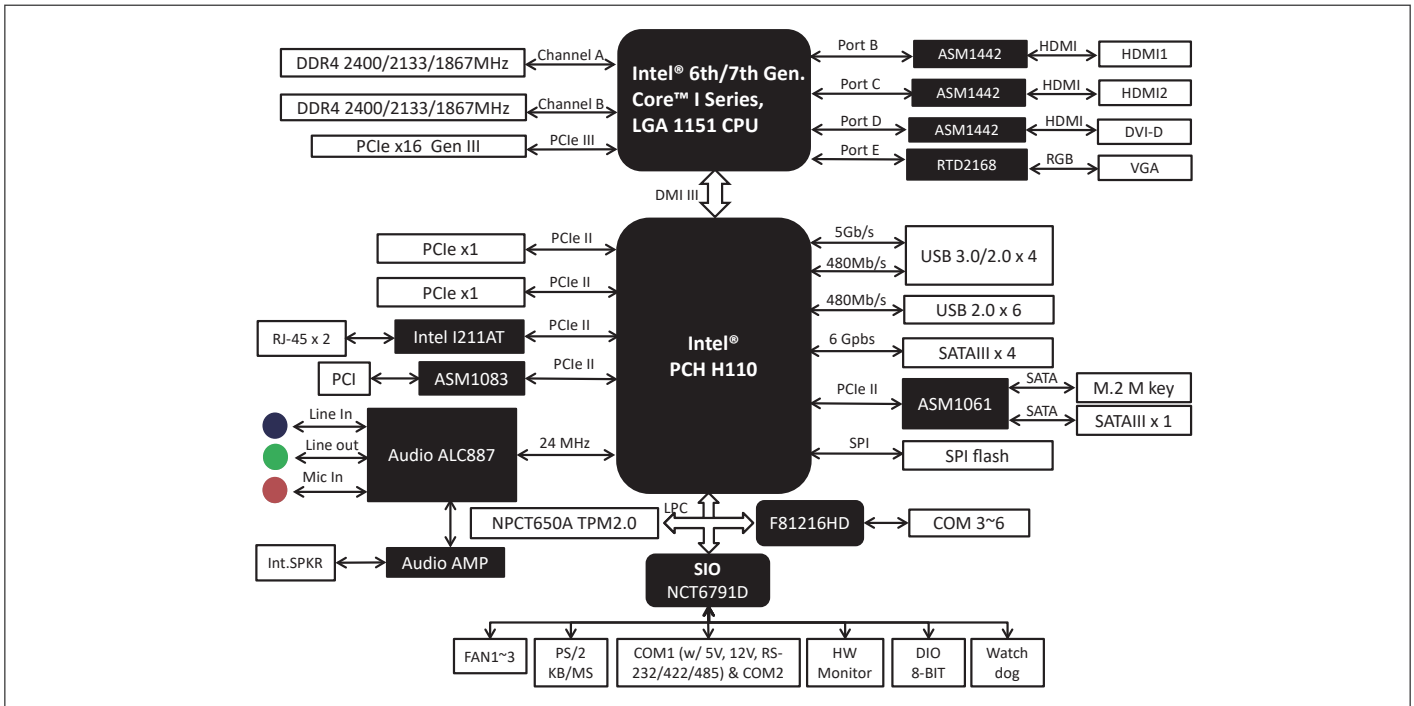
- 14001-00630100  
SATA 6G Cable (7P, 180; 90, 500mm 2 in1)
- 14001-00400100  
COM Port Cable (9P, 260mm, p=2.54mm w/bracket)
- I/O Shield
- Product CD
- IMBM-H110A

## Optional Accessories

- 1709100330  
USB 2.0 cable (9P, 330MM, p=2.54mm, w/bracket)
- 170910020K  
USB 2.0 cable (9P, 330MM, p=2.54mm, w/o bracket)
- 175921156B  
CPU Cooler (2-Ball, Push-pin Type)
- 1759200172  
CPU Cooler (2-Ball, Screw with Retention Plate)

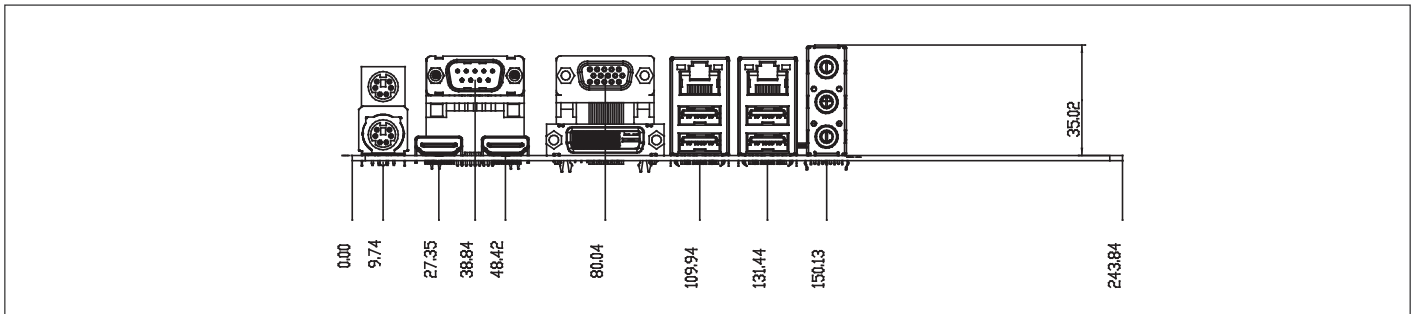
## Micro-ATX -Board

### Block Diagram



### Dimension

Unit: mm



### Ordering Information

| Part Number    | CPU            | RAM       | Fan/Fanless | Display                      | Storage                         | LVDS | LAN     | USB                       | RS-232 | RS-232/422/485 | Expansion Slot                          | Power | TPM | Temp.                    |
|----------------|----------------|-----------|-------------|------------------------------|---------------------------------|------|---------|---------------------------|--------|----------------|---|-------|-----|--------------------------|
| IMBM-H110A-A10 | LGA1151 socket | DDR4 2400 | Fan         | HDMI x 2, VGA x 1, DVI-D x 1 | M.2 M key 2242 x 1<br>SATA3 x 5 | —    | GbE x 2 | USB3.0 x 4,<br>USB2.0 x 6 | 5      | 1              | PCIe[x16] x 1,<br>PCIe[x1] x 2, PCI x 1 | ATX   | —   | 32°F~140°F<br>(0°C~60°C) |