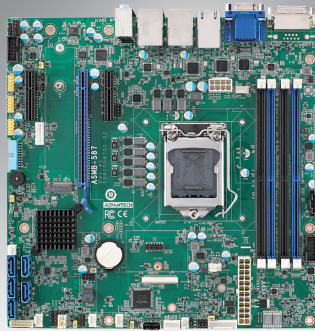


ASMB-587

LGA 1200 Intel® Xeon® W & 10th Gen. Core™ MicroATX Server Board with 4 x DDR4, 3 x PCIe, 4 x USB 3.2, 5 x SATA3, Quad/Dual LANs, and IPMI

Preliminary



Features

- LGA 1200 Intel® Xeon® W and 10th Gen. Core™ i9/i7/i5/i3 processor with W480E chipset
- DDR4 ECC/Non-ECC 2933/2666/2400/2133 MHz UDIMM up to 128GB
- One PCIe x16 and 2 x PCIe x4 slots
- Triple displays - DVI-D, VGA, and HDMI 2.0 ports
- Five SATA 3 ports and four USB 3.2 ports
- One M.2 2280/22110 (SATA / PCIe compatible)

0 ~ 60 °C (32 ~ 140 °F) ambient operating temperature range

Note: Supported OS including Windows 10 (64-bit) and Server 2019 (64-bit) have been validated.

CE FCC

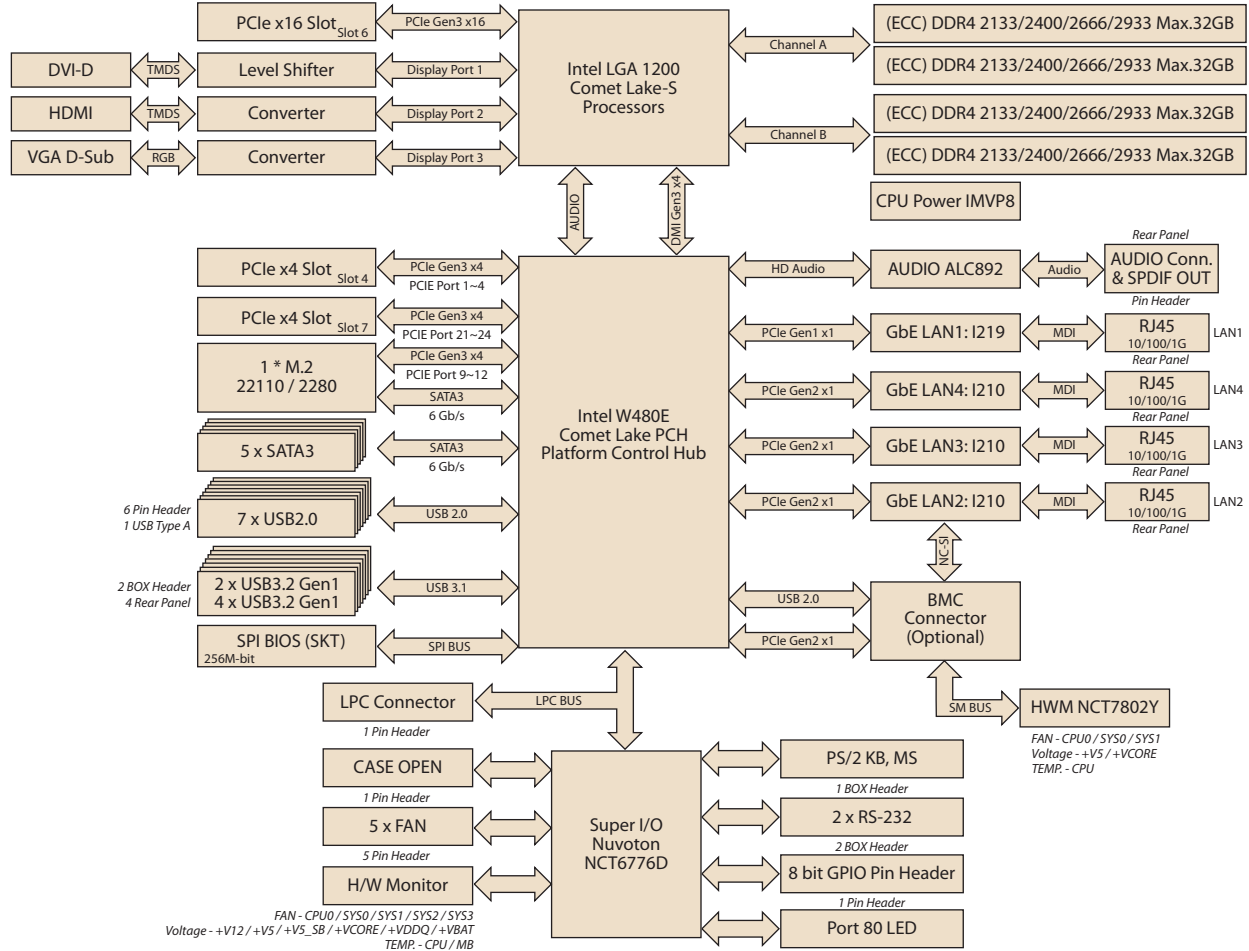
Specifications

| | | |
|--------------------------|--|--|
| Form Factor | | Micro ATX form factor |
| Processor System | Socket | Intel® LGA 1200 |
| | CPU type | Intel® Xeon® W-1270x/W-1290x and 10th Gen. Core™ i3/i5/i7/i9 series processors (TDP up to 125W) |
| Core Logic | Chipset | Intel® W480E chipset |
| Memory | Total slots | 4 (Dual Channel) |
| | Capacity | Maximum 128 GB |
| | Memory type | DDR4 ECC/Non-ECC 2666/2400/2133 MHz UDIMM (288-pin)* |
| | Memory size | 4 GB, 8 GB, 16 GB, 32GB |
| Expansion Slots | Total PCIe slots | 3 |
| | Slot location 1 | - |
| | Slot location 2 | - |
| | Slot location 3 | - |
| | Slot location 4 | PCIe x4 slot (Gen3 x4 link) |
| | Slot location 5 | - |
| | Slot location 6 | PCIe x16 slot (Gen3 x16 link) |
| Graphics | Slot location 7 | PCIe x4 slot (Gen3 x4 link) |
| | Controller | Intel® HD Graphics** |
| Storage | VRAM | 1 GB maximum shared memory with 2 GB and above system memory installed |
| | SATA controller | Intel® W480E: 5 SATA3 6Gb/s Intel Rapid Storage Technology Enterprise (for Windows only) (Supports software RAID 0, 1, 10 & 5) |
| Networking | SAS controller | - |
| | GbE LAN | 1 x Intel® I219LM + 3 x Intel® I210AT |
| Onboard I/O Connector | LPT connector | - |
| | PSU connector | 24-pin SSI power connector + 8-pin SSI 12 V power connector |
| | USB connector | 1 x USB 3.2 Gen 1 (2 ports), 3 x USB 2.0 (6 ports), 1 x USB Type-A |
| | Fan header | 5 x (4-pin) |
| | SMBus | 1 |
| | Chassis intruder | 1 |
| | Front LAN LED | 2 |
| | Serial port header | 2 x (RS-232) |
| | Audio Header | 1 x (ALC 892) |
| | PS/2 KB/Mouse | 1 x (Optional PS/2 KB/Mouse cable and bracket required) |
| Rear I/O Connector | External serial port | - (via COM cable in the package) |
| | External USB port | 4 x (USB 3.2 Gen 2) |
| | VGA port | 1 x (Resolution up to 1920 x 1200 @ 60 Hz) |
| | DVI port | 1 x (Resolution up to 1920 x 1200 @ 60 Hz) |
| | HDMI | 1 x (Resolution up to 4096 x 2160 @ 60 Hz) |
| | RJ-45 | 4 |
| | PS/2 KB/mouse | - |
| Audio | 2 x (Mic-in , Line-out) | |
| Power Requirement | Power On (Xeon E-2176G 3.7GHz DDR4 2400 4G*4) | |
| Environment | Temperature | |
| | Humidity | |
| Watchdog Timer | Output | System reset |
| | Interval | Programmable 1 ~ 255 sec/min |
| Physical Characteristics | Dimensions | Programmable 1 ~ 255 sec/min 244 x 244 mm (9.6 x 9.6 in) |

* ECC will not be supported when paired with Core processors.

** Some Xeon processors have no graphics support. Please check Intel® specification for processor graphics availability.

Block Diagram



Ordering Information

| Part Number | Chipset | Memory | Display | LAN | SATAIII | IPMI |
|-----------------|---------|------------------|--------------------|-----|---------|----------|
| ASMB-587G2-00A1 | W480E | DDR4 ECC/Non-ECC | VGA + DVI-D + HDMI | 2 | 5 | Optional |
| ASMB-587G4-00A1 | W480E | DDR4 ECC/Non-ECC | VGA + DVI-D + HDMI | 4 | 5 | Optional |

Packing List

| Part Number | Description | Quantity |
|----------------|-------------------|----------|
| 2001058610 | Startup manual | x 1 |
| 1700003194 | SATA data cables | x 2 |
| 1700022749-11 | SATA power cables | x 2 |
| 1700001788 | COM1 cable | x 1 |
| 1960088021T001 | I/O shield | x 1 |

Optional Accessories

| Part Number | Description |
|------------------|--|
| TBD | LGA 1200 CPU heatsink for 1U chassis |
| TBD | LGA 1200 CPU cooler for 4U chassis (CPU 125W) |
| 1960067860N001 | LGA 1200 CPU cooler for 2U/4U chassis (CPU 95W) |
| 1960052651N021 | LGA 1200 CPU cooler for 2U/4U chassis (CPU under 80W) |
| 1960088060T001 | 1U I/O shield for ASMB-586/587/786/787 |
| 1700002204 | Dual port USB 2.0 cable (27 cm / 10.6 in) with bracket |
| 1700008461 | Four ports USB 2.0 cable (30.5 cm / 12 in) with bracket |
| 1700020277-01 | Dual port USB 3.0 cable (30 cm / 11.8 in) with bracket |
| 1701090401 | Single port RS-232 cable (40 cm/ 15.7 in) for COM2 connector |
| 1700019268-11 | Cable for onboard KBMS1 connector (35 cm/ 13.7 in) |
| 1960063434N000 | Cable bracket for 1700019268-11 |
| IPMI-1000-00A2E | IPMI 2.0 Module |
| PCA-COM232-00A1E | 4 x ports RS-232 module connect to LPC connector |
| PCA-COM485-00A1E | 4 x ports RS-422/485 module connect to LPC connector |
| PCA-TPM-00B1E | TPM 2.0 Module by LPC |

I/O View



ASMB-587G4-00A1



ASMB-587G2-00A1

Note: Users need to purchase ASMB-587's proprietary CPU cooler from Advantech Other brands' CPU coolers may NOT be compatible with ASMB-587.