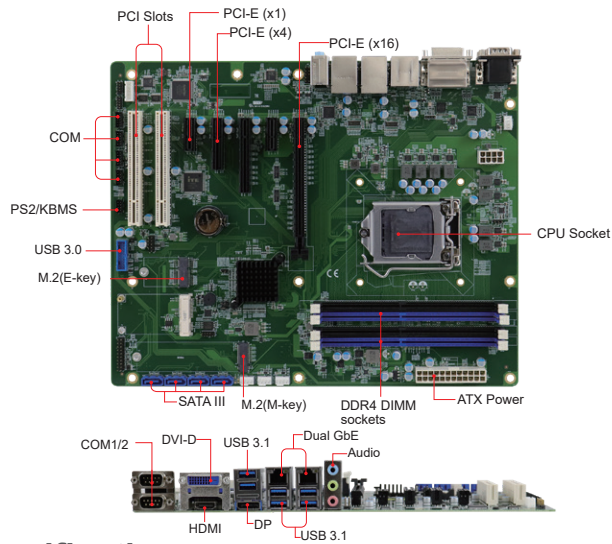


# MB997

## ATX Motherboard

9th Gen Intel® Xeon® E / Core™ i7/i5/i3  
with Intel® C246/Q370/H310 PCH



### Features

- 9th Gen Intel® Xeon® E/ Core™ i7/i5/i3 processors
- 4x DDR4 DIMM, Max.128GB
- Intel® processor integrated graphics supports HDMI(2.0a), DVI-D, and DisplayPort
- Dual Intel® Gigabit LAN
- 6x USB3.1, 2x USB 2.0, 4x SATA 3.0, 6x COM
- 1x PCI-E(x16), 1x PCI-E(x8)(Gen3.0), 1x PCI-E(x4), 2x PCI-E(x1), 2x PCI
- Watchdog timer, Digital I/O, iAMT (11.6), TPM(2.0), iSMART (4.0)

### Specifications

|                          |   |
|--------------------------|---|
| CPU Socket               | LGA1151   |
| CPU                      | 9th Gen Intel® Xeon® E/ Core™ i7/i5/i3 HC/QC/DC processors, up to 5.0GHz  |
| PCH                      | MB997AF-C246: Intel® C246 PCH<br>MB997AF: Intel® Q370 PCH<br>MB997EF: Intel® H310 PCH   |
| Memory Types             | 4x DDR4-2666 / 2400 MHz, Max. 128GB (Supports ECC by CPU SKUs)  |
| BIOS                     | AMI   |
| Watchdog Timer           | 256 levels  |
| H/W Monitor              | Yes   |
| Storage Device Interface | NVMe  |
| Expansion Slots          | MB997AF-C246/ MB997AF: 1x PCI-E (x16), 1x PCI-E(x8), 1x PCI-E(x4), 2x PCI-E (x1), 2x PCI<br>MB997EF: 1x PCI-E (x16), 2x PCI-E (x1), 2x PCI                            |
| Mini Type Slots          | 1x MiniPCI-E, 1x M.2 (M-Key, type:M2280), 1x M.2 (E-Key, type: E2230)   |
| Graphics Controller      | 9th Gen Intel® Core™ i7/i5/i3 processors integrated   |
| Video Output             | 1x HDMI2.0a, 1x DVI-D, 1x DisplayPort (1.2)(DP++)   |
| Ethernet                 | LAN 1:<br>MB997AF-C246/MB997AF: Intel® I219LM GbE PHY<br>MB997EF: Intel® I219V GbE PHY<br>LAN 2:<br>MB997AF-C246: Intel® I210AT GbE<br>MB997AF/ EF: Intel® I211AT GbE |
| I/O Chip                 | Nuvoton NC T6686D-T   |
| Serial Port              | 4x RS232, 2x RS232/422/485  |
| USB 2.0                  | 2x USB2.0 via pin header  |
| USB 3.0/ 3.1             | MB997AF-C246/MB997AF: 4x USB3.1 Gen2 (10Gpbs), 2x USB3.1 Gen1 (5Gpbs), 2x USB3.1 Gen1 (5Gpbs) via box-header<br>MB997EF: 4x USB3.1 Gen2 (10Gpbs)                      |
| Serial ATA               | 4x SATA 3.0   |
| Audio                    | Intel® CNL PCH-H built-in HD audio + Realtek ALC888S codec  |
| TPM                      | TPM (2.0)   |
| Others                   | Digital I/O(4-in/4-out), iAMT (11.6), RAID, iSMART (4.0), EuP/ErP   |

|                       |   |
|-----------------------|---|
| Dimensions (L x W)    | 305mm x 244mm (12" x 9.6")  |
| Power Consumption     | Intel® Core™ i7-9700K, 3.6GHz<br>w/ 4x 4GB DDR4-2400<br>+12V: 12.64A<br>+5V: 1.19A<br>+5VSB: 0.132A<br>+3.3V: 0.88A |
| Operating Temperature | 0°C~60°C ( 32°F~140°F)  |
| Storage Temperature   | -20°C~80°C (-4°F~176°F)   |
| Relative Humidity     | 95% (non-condensing @60°C)  |

### Ordering Information

|               |  |
|---------------|--|
| MB997AFS-C246 | LGA1151 C246 ATX Motherboard w/ HDMI, DisplayPort, DVI-D, dual Gigabit LAN, RAID, iAMT (11.6), TPM (2.0), iSMART (4.0) |
| MB997AFS      | LGA1151 Q370 ATX Motherboard w/ HDMI, DisplayPort, DVI-D, dual Gigabit LAN, RAID, iAMT (11.6), TPM (2.0), iSMART (4.0) |
| MB997EFS      | LGA1151 H310 ATX Motherboard w/ HDMI, DisplayPort, DVI-D, dual Gigabit LAN, TPM (2.0), EuP/ErP                         |

\*(S) means with Realtek ALC888S codec

### Dimensions and Drawing

