



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 USB 3.1, 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

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|--------------------------|---|
| 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 MB997AF: Intel® Q370 PCH MB997EF: Intel® H310 PCH |
| Memory | 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 | MB997AFS-C246/ MB997AFS: 1x PCI-E (x16), 1x PCI-E(x8), 1x PCI-E(x4), 2x PCI-E (x1), 2x PCI MB997EFS: 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: MB997AF-C246/MB997AF: Intel® I219LM GbE PHY MB997EF: Intel® I219V GbE PHY LAN 2: MB997AF-C246: Intel® I210AT GbE MB997AF/ EF: Intel® I211AT or I210AT GbE |
| I/O Chipset | Nuvoton NC T6686D-T |
| Serial Port | 4x RS232, 2x RS232/422/485 |
| USB 2.0 | 2x USB 2.0 via pin header |
| USB 3.X | MB997AF-C246/MB997AF: 4x USB 3.1 Gen2 (10Gbps), 2x USB 3.1 Gen1 (5Gbps), 2x USB 3.1 Gen1 (5Gbps) via box-header MB997EF: 4x USB 3.1 Gen2 (10Gbps) |
| 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 |

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|-----------------------|---|
| Dimensions (L x W) | 305mm x 244mm (12" x 9.6") |
| Power Consumption | Intel® Core™ i7-9700K, 3.6GHz w/ 4x 4GB DDR4-2400 +12V: 12.64A +5V: 1.19A +5VSB: 0.132A +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

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| 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 |

Dimensions and Drawing

