



Features

- 7th/6th Gen Intel® Core™ i7/i5/i3/ Pentium® / Celeron® QC/DC processors, up to 4.0GHz
- 4x DDR4 DIMM, Max. 64GB, ECC compatible
- Intel® processor integrated graphics supports DVI-D, HDMI and DisplayPort
- Dual Intel® Gigabit LAN
- 4x USB 2.0, 10x USB 3.0, 6x COM, 6x SATAIII
- 1x PCI-E(x16), 1x PCI-E(x8) [(x4) Link], 1x PCI-E(x4) [(x1) Link], 1x PCI-E(x1), 3x PCI
- 1x Mini PCI-E
- Watchdog timer, Digital I/O, iAMT(11.0), TPM(1.2), vPro, iSMART

Specifications

CPU	LGA1151 for 7th/6th Gen Intel® Core™ i7/i5/i3/ Pentium® / Celeron® QC/ DC processors, up to 4.0GHz
System Memory	4x DDR4 DIMM, Max. 64GB (supports ECC by CPU SKUs)
System Chipset	Intel® Q170 PCH
BIOS	AMI
Watchdog Timer	256 levels
SSD	N/A
H/W Monitor	Yes
Expansion Slots	1x PCI-E(x16), 1x PCI-E(x8), 1x PCI-E(x4), 1x PCI-E(x1), 3x PCI, 1x Mini PCI-E
VGA Controller	7th/6th Gen Intel® Core™ i7/i5/i3/ Pentium®/ Celeron® QC/ DC processors integrated
VGA Memory	Max. Shared memory – 1024MB
Display Interface	Supports DVI-D, HDMI and DisplayPort
LAN Controller	MB990VF: Intel® I219LM Gigabit LAN PHY Intel® I211AT PCI-E Gigabit LAN (as 2nd LAN)
LAN Connector	RJ-45 on board
I/O Chipset	Fintek F81866AD-I 5x RS232, 1x RS232/422/485 (jumperless selection)
USB	10x USB 3.0 - 6 ports on board - 4 ports via pin-header 4x USB 2.0 via pin-header
Serial ATA	6x SATA III
Audio	Intel® Q170 PCH built-in HD audio + Realtek ALC892 codec
Others	Digital I/O (4-in/4-out), RAID, TPM(1.2), iAMT(11.0), iSMART
Dimensions	305mm x 244mm (12" x 9.6")
Max. Power Requirement	Intel® Core™ i7-6700 3.4GHz w/ 4x 4GB DDR4-2133 +12V: 7.12A ; +5V: 1.99A; +5VSB: 0.15A; +3.3V: 0.43A
Operating Temperature	0°C~60°C (32°F~140°F)
Storage Temperature	-20°C~80°C (-4°F~176°F)
Relative Humidity	10% ~ 90% (non-condensing)

Ordering Information

MB990VF-A	LGA1151 Q170 ATX motherboard w/ DVI-D, HDMI, DisplayPort, dual Gigabit LAN, RAID, iAMT (11.0), TPM (1.2), vPro, iSMART
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Dimensions and Drawing

